

Goldfarb, Yael; Neuman, Shoshana

**Working Paper**

## Enhancing Employability by Responding to Work Motives: Lessons from a Field Experiment among Israeli Ultra- Religious Women

IZA Discussion Papers, No. 12921

**Provided in Cooperation with:**

IZA – Institute of Labor Economics

*Suggested Citation:* Goldfarb, Yael; Neuman, Shoshana (2020) : Enhancing Employability by Responding to Work Motives: Lessons from a Field Experiment among Israeli Ultra-Religious Women, IZA Discussion Papers, No. 12921, Institute of Labor Economics (IZA), Bonn

This Version is available at:

<https://hdl.handle.net/10419/215317>

**Standard-Nutzungsbedingungen:**

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

**Terms of use:**

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*

DISCUSSION PAPER SERIES

IZA DP No. 12921

**Enhancing Employability by Responding  
to Work Motives: Lessons from a Field  
Experiment among Israeli Ultra-Religious  
Women**

Yael Goldfarb  
Shoshana Neuman

JANUARY 2020

## DISCUSSION PAPER SERIES

IZA DP No. 12921

# Enhancing Employability by Responding to Work Motives: Lessons from a Field Experiment among Israeli Ultra-Religious Women

**Yael Goldfarb**

*University of Haifa and The Loewenstein Institute*

**Shoshana Neuman**

*Ashkelon Academic College and IZA*

JANUARY 2020

Any opinions expressed in this paper are those of the author(s) and not those of IZA. Research published in this series may include views on policy, but IZA takes no institutional policy positions. The IZA research network is committed to the IZA Guiding Principles of Research Integrity.

The IZA Institute of Labor Economics is an independent economic research institute that conducts research in labor economics and offers evidence-based policy advice on labor market issues. Supported by the Deutsche Post Foundation, IZA runs the world's largest network of economists, whose research aims to provide answers to the global labor market challenges of our time. Our key objective is to build bridges between academic research, policymakers and society.

IZA Discussion Papers often represent preliminary work and are circulated to encourage discussion. Citation of such a paper should account for its provisional character. A revised version may be available directly from the author.

ISSN: 2365-9793

**IZA – Institute of Labor Economics**

Schaumburg-Lippe-Straße 5–9  
53113 Bonn, Germany

Phone: +49-228-3894-0  
Email: [publications@iza.org](mailto:publications@iza.org)

[www.iza.org](http://www.iza.org)

## ABSTRACT

---

# Enhancing Employability by Responding to Work Motives: Lessons from a Field Experiment among Israeli Ultra-Religious Women

Low employability among specific populations (e.g., religious/traditional women, the elderly, disabled workers, immigrants) has unfavorable consequences on the: unemployed individual, society, and the state economy. The latter include: poverty, a heavy toll on welfare budgets, diminished growth, and an increase in the “dependency ratio”. We suggest a rather novel policy (borrowed from the field of Career Psychology) that could lead to successful integration into the labor market of low-employability populations: the design of tailor-made training programs that respond to work motives; coupled with a working environment that caters to special needs/restrictions; and complemented with counseling and monitoring. The suggested strategy was illustrated and investigated using a case study of Israeli ultra-religious women, who exhibit lower employment rates than other Israeli women. The motives behind their occupational choices were explored based on data collected by a field experiment. Factor Analysis was then employed to sort out the motives behind their occupational choices, and regression analysis was used to associate job satisfaction with work motivation. Policy implications were suggested based on the findings. There is already some evidence on the successful outcomes of the proposed strategy.

**JEL Classification:** D13, D91, I38, J08, J24, Z12

**Keywords:** low-employability, ultra-Orthodox/religious (Haredi), Israel, occupation, motives, job satisfaction, old-age dependency-ratio

**Corresponding author:**

Shoshana Neuman  
Faculty of Economics  
Ashkelon Academic College  
Ben Tzvi 12  
Ashkelon 78211  
Israel

E-mail: shoshananeuman@gmail.com

# **Enhancing Employability by Responding to Work Motives: Lessons from a Field Experiment among Israeli Ultra-Religious Women**

## **1. Introduction and motivation**

Growing shares of populations with low attachment to the labor market are of special concern, due to major effects on the labor market, on public budgets, and on "old-age dependency-ratios". These low-employability populations include: the elderly, disabled workers, immigrants and populations that face social/cultural/religious restrictions of joining the labor market. Policies should be targeted at the improvement of labor skills and employability of these groups.

We are suggesting that in order to enhance employability of populations with low attachment to the labor market, it is important to examine carefully their specific work motives, in order to design training and employment schemes that will respond to those motives. This should be supplemented by a working environment that caters to special needs/restrictions; and complemented with counseling and monitoring. Employment opportunities that satisfy work motives and needs are expected to boost employability and also increase job satisfaction. Obviously, each group has its particular set of work motives and requirements, which need to be explored using field experiments within this group.<sup>1</sup> Awareness of work motives and needs will then lead to the adjustment of existing employment schemes and of working environments, so that they will match the work motives and work limitations of the group under discussion. The study of work motives is based on theoretical models and on empirical experience, presented in the Career Psychology scientific literature, and will be presented in one of the next sections.<sup>2</sup>

---

<sup>1</sup>Interestingly, it appears that the three winners of the 2019 Nobel Prize in Economics (Michael Kremer, Abhijit Banerjee, and Esther Duflo; announced by the Swedish Academy on 15.10.2019), used a similar approach to fight poverty: They used field experiments that expose the motives that shape the behavior of the poor. By responding to these motives (in the fields of health, education, employment) behavior can be changed, and the well-being of the poor can be elevated.

<sup>2</sup>The economic literature discusses policies intended to increase labor-force-participation-rates: schooling and training oriented at labor-market skills; better home-to-work transportation; increased and more equal pay; cheaper and better day-care and schooling facilities (for workers' children); and more family-friendly work environment (for parents). We aspire to offer a more basic and rather different approach, which can obviously be supplemented by all of the above.

In the study presented in this paper we used a field experiment that explored work motives within one specific group with low attachment to the labor force, namely - ultra-Orthodox/religious (Haredi) Israeli women. It presents a unique attempt of improving labor skills and employment of this group, by exploring the motives behind their occupational choices, and consequently offering training for new tracks that satisfy their work motives and limitations.

A similar strategy could and should be applied in order to improve labor skills and employability of other groups, such as the elderly, disabled individuals, immigrants, and persons who tend not to join the labor market due to religious restrictions on employment (e.g., Moslem religious women, traditional women in Asia and Africa). Moreover, as the Israeli field experiment was conducted in the early 2010s, and as there are already some indications that responding to work motives resulted in an increase in employment and in job satisfaction - lessons from the Israeli case can be applied to other low-employability populations.

Given the growing shares of some of the low-employability groups noted above (in particular the elderly and immigrants), and the severe personal and macro-economic consequences of low employment rates – it is crucial to look for tools and strategies to enhance their employability, and consequently also their well-being and life satisfaction.

Some stylized facts about the most common low-employability groups follow.

- (i) *The elderly*: Ageing is one of the greatest social and economic challenges of the 21<sup>st</sup> century. The ageing process is especially advanced in Europe and in Northern America, where more than one in five people was aged 60 or over in 2015. But it is growing rapidly in the other regions as well. By 2030, older persons are expected to account for more than 25 percent of the populations in Europe and Northern America, 20 percent in Oceania, 17 percent in Asia, Latin America and the Caribbean, and 6 percent in Africa. In 2050, 44 percent of the world's population will live in relatively aged countries, with at least 20 percent of the population aged 60 and over (UN, 2015a). The immediate cause of population ageing is fertility decline.<sup>3</sup> However, improved longevity contributes as well. Worldwide, 60 percent of women and 52

---

<sup>3</sup> In the majority of European countries Total Fertility Rates (TFR) are now way below the "replacement level" (2.1 children per household). For instance: Spain (1.32 in 2010-2015, down from 2.85 in 1970-1975), Portugal (1.28 in 2010-2015, down from 2.83 in 1970-1975), Italy (1.43, down from 2.32), and Poland (1.37, down from 2.23) (United Nations, 2015b).

percent of men, born in 2000-2005, are expected to survive to their 80<sup>th</sup> birthdays, compared to less than 40 percent of the women and men born in 1950-1955 (United Nations, 2015a). The ageing process, and in particular the growing share of retired individuals, will place a heavy financial burden on society through financed pensions, health, and long-term care systems. It also follows that the "old-age dependency-ratios" that relate to the number of retirement-age individuals (who have low prospects to work in the labor market), divided by the number of working-age individuals, are expected to increase dramatically.<sup>4</sup> An increasing ratio means that workers need to provide for a rising non-working population. OECD projections indicate that the old-age dependency-ratio is expected to increase considerably in many countries, reflecting diminishing fertility rates (that affect the denominator) and increasing longevity (that affects the numerator). In 2015 there were 28 individuals aged 65 and over for every 100 persons of working age (ages of 20 to 64), on average across all OECD countries.<sup>5</sup> It is expected to double in 2050 – an OECD average of 53 (OECD, 2017).<sup>6</sup> The increase in "old-age dependency-ratios" almost immediately translates into a decrease in tax contributions accompanied by an increase in welfare benefits, leading to growing deficits in government budgets. It is therefore crucial to keep more of the elderly in employment in the labor market. In fact, labor force participation is an important mediating factor between demographics and the social expenditure burden. Increasing employment of the elderly should therefore be a challenge and remedy for some of the economic consequences of ageing outlined above. The design of training and employment modes that fit the elderly, and respond to their work motives and needs, will obviously help to increase employability.

- (ii) *Immigrants*: Another major demographic phenomenon, that has major effects on the labor market, is related to immigration. In 2019, the number of international migrants worldwide has reached nearly 272 million, an increase of 51 million since 2010.

---

<sup>4</sup>Two alternative measures of dependency-ratios are used in the literature: (a) age dependency-ratios; and (b) old-age dependency-ratios. Both use the same denominator: the number of working-age individuals (15 years, to retirement age, which is usually 65). The numerator is however different. In "age dependency-ratios" the numerator relates to children (aged 0-15) *plus* individuals above retirement age. While in "old-age dependency-ratios", children (aged 0-to-15) are excluded from the numerator that includes only retirement-age individuals. Old-age dependency-ratios are probably the more relevant measures for policy implications, as the elderly pose major public costs, in particular on the pension and health-care systems.

<sup>5</sup>Ranging between a ratio of 11, in Mexico, to a maximum of 46 in Japan (OECD, 2017).

<sup>6</sup>A ratio of over 70 in Japan, South Korea, Spain, Portugal, Italy and Greece (OECD, 2017).

Currently, international migrants comprise 3.5 percent of the global population, compared to 2.8 percent in the year 2000. Europe hosts the largest number of migrants (82 million), followed by North America (59 million), and Northern Africa and Western Asia (49 million, in each region). In 2019, two thirds of international migrants were living in just 20 countries. The largest number of migrants (51 million) resided in the United States of America, equal to about 19 percent of the world's total migrant population. Germany and Saudi Arabia hosted the second and third largest numbers of migrants worldwide (about 13 million each), followed by the Russian Federation (12 million), and the United Kingdom (10 million). A significant share of recent migrants (arriving after 2014), are refugees fleeing from war zones.

Migrants tend to be younger than the receiving populations - in 2018, about 14 percent of the global migrant population were under the age of 20, and 74 percent were at the working-age (ages of 20 and 64) (United Nations, 2019). The younger age of immigrants partially compensates for the constant ageing of the native populations. This age effect, coupled with the higher fertility rates (compared to natives) are leading to decreases in the formal "old-age dependency-ratios" (everything else being equal).<sup>7</sup> On the other hand, immigrants tend to have lower attachment to the labor force (e.g., higher non-employment rates; more part-time positions), due to slow adjustment into the local labor markets, and (mainly in the case of refugees) due to social and mental adjustment problems (see for instance, Georgiadou et. al., 2018). In the case of religious female Moslem immigrants, there are also restrictions on female labor-force-participation. Efforts to improve labor market attachment should be directed at immigrants in general and at immigrant (Moslem) women, in particular. A careful study of their work motives, and their needs – could lead to better and more satisfactory integration in the local labor markets.

- (iii) *Disabled individuals:* A disabled worker is a person whose capabilities are limited in the performance of certain tasks. Disabilities could be physical or mental. The United Nations presents an estimate of one billion persons with disabilities worldwide (United Nations, 2018). Disabled women suffer from a double disadvantage – due to

---

<sup>7</sup>An inherent assumption behind the definition of the "old-age dependency-ratio" (defined above) is that working-age populations have high employment rates and therefore contribute to production and taxes that provide for the consumption and welfare payments directed to the elderly. This is not necessarily the case if some working-age sub-populations are only marginally attached to the labor market.



disability and also gender. In Israel, in 2018, 13 percent of men and 15 percent of women reported some kind of disability. Disability increases significantly with age: within the age group of 75+, it amounts to 44.4 and 60.8 percent, for men and women respectively, compared to respective figures of 6.4 – for the two genders - within the age group of 20-44 (Media release, by the CBS, on 1.12.19 - the "International Day for Rights of Individuals with a Disability"). Disability results in much lower labor-force-participation-rates compared to the general population, lower wages, and consequently – a disadvantaged economic status. An illustration for the inferior status of disabled individuals, based on Israeli data: in 2008<sup>8</sup> – only about five percent of disabled female workers, and about 20 percent of disabled male workers had a monthly income around the country average (of about 10,000 Shekel), or above. Consequently – only about two percent of females and three percent of males were 'very satisfied' with their economic status (compared to more than 10 percent of the general population) (Appendix Figures A2 and A3).

There is awareness and formal commitment that "we must all find new approaches and tools to work for and with persons with disabilities" (United Nations, 2018, page 3). However, despite the strong commitment expressed by the international community, persons with disabilities continue to face significant challenges to their full inclusion and participation in society. These include: negative attitudes, stigma and discrimination, and lack of accessibility in physical and virtual environments (United Nations, 2018). In line with our proposed agenda of responding to work motives – we would add that by catering to the work motives of disabled persons – we can increase their employment prospects, empower them, and lead positive changes in their work satisfaction and in their lives.

- (iv) *Low-employability groups of women:* In Israel, employment rates are particularly low among Israeli Moslem Arab women, and among ultra-religious (men and) women. Considering the working-age (25-64) groups, it was found that in 2018, the employment rate of Israeli Arab women was about 40 percent. The respective figure for Haredi women was 72 percent. There was a trend of increase in employment rates

---

<sup>8</sup> Based on the 2008 Social Survey, Module Social Mobility, conducted by Israel central Bureau of Statistics (CBS); The Ministry of Industry, Trade and Labor (2010); and Neuman (2014). Regular Labor Force Surveys (conducted by the CBS, four times a year) do not include questions on disabilities of respondents.

of Moslem women (it nearly doubled, up from about 20 percent in 1995), and of Haredi women (from 50 percent in 1995, an increase of 22 percentage points over two decades).<sup>9</sup> However, these two groups of women are still under-employed compared to an employment rate of 82 percent among Israeli non-Haredi women (Fuchs and Weiss, 2018). The standard explanation is that employment rates of Arab Moslem women are low due to religious restrictions on female employment and also due to transportation difficulties and limited access to child-care facilities. Employment patterns within the Haredi population will be discussed later.

Another example of women with low attachment to the labor force relates to religious Moslem women worldwide. In a recent study, Fischer and Pastore (2015), using data of the World Values Survey (WVS), for more than 80 countries worldwide (for 1981-2013), found that married Moslem women keep abstaining from employment across all regions and age groups. See also, Pastore and Tenaglia (2013) for similar arguments. Traditional women in Asia and Africa refrain from work due to various restrictions and limitations (Hanmer and Dahan, 2015; The World Bank, 2018; Sioson and Chul, 2019; Taghizadeh-Hesary, Yoshino and Fukudah, 2019). Responding to work motives of these groups of women and adjusting the work environment to their restrictions and needs, could increase dramatically their labor-force-participation. There are already some indications that a driving factor behind the increase in employment of Israeli Haredi women was the design of training schemes that responded to their work motives.

In this paper we present a case study that was conducted among Ultra-Orthodox (Haredi) Israeli women, in order to illustrate our proposed novel strategy - responding to work motives, coupled with the creation of an appropriate work environment, and supplemented with counseling and monitoring. The analysis is based on data collected by a field study conducted in 2010-2011, which used interviews with ultra-Orthodox *seminar* (6-year religious high-school) graduates to fill out a comprehensive questionnaire, related to study and work. The sample included graduates of two tracks of study: The conservative Teachers track, and the novel Practical Engineering

---

<sup>9</sup> Interestingly, employment rates of Israeli Haredi men are much lower than those of Haredi women (47 percent and 72 percent, respectively, in 2018), and dramatically lower than those of non-Haredi men (close to 90 percent, in 2018) (Fuchs and Weiss, 2018).

track. The comparison of motives that drive graduates of the two tracks, adds more insight into the motivational track. The incentives and preferences behind the occupational choices were first investigated. The work motives can then be used for the design of training schemes and occupational tracks that are in line with the exposed work motives. The whole novel process – of training and integration into the job market, based on work motives and preferences – needs to be accompanied by counseling and monitoring.

The paper is structured as follows: The next section describes the setting of the ultra-Orthodox group within the demographically stratified Israeli population and labor market; the third section discusses the potential motives behind occupational choice, followed by an empirical study of Haredi women in the fourth chapter, and a discussion of the findings in section 5; the last section offers concluding remarks and policy implications.

## **2. The ultra-Orthodox population in the demographically stratified Israeli population**

The ultra-Orthodox (Haredi) group is a distinct group within the Israeli population, with a special set of norms, culture and life-style. Even on the background of the stratified Israeli population, it stands out as a very exclusive group. Work motives are (apparently) embedded in the life-style, norms, beliefs, and culture of the group under discussion. It is therefore essential to relate to the place and nature of the ultra-Orthodox group, within the Israeli population.

### *2.1 Demographic and economic stratification in the Israeli society*

The Israeli population is stratified on several levels: The first level is along lines of nationality and/or religion: between Israeli Jews and Israeli Arabs. In April 2018, the Israeli population of 8.842 million was composed of a majority of 6.589 million Jews (74.5 percent of the population), 1.849 million Arabs (20.9 percent), and 404 thousand (4.6 percent) "others" (non-Arab Christians, other religions, and Israelis who claim to have no religion) (Israel, Central Bureau of Statistics – CBS, Annual Statistical Abstract, 2019).

The Jewish population is internally stratified along two lines: ethnicity and religiosity. The two major ethnicities are defined by country of origin<sup>10</sup>: Easterners (Sepharadi Jews) who originate

---

<sup>10</sup> The survey question relates to country of birth of the respondent and of his father. Ethnicity is defined by country of origin. An individual is labeled as Easterner, if he was born in Asia/Africa/Middle-East, or he was born in Israel and his father was born in one of these countries. The group of Westerners is composed of individuals who were

from Asian/African/Middle-Eastern countries, and Westerners (Ashkenazi Jews) whose origins are in European/American countries. In the late-1980s, after the disintegration of the former USSR, about 1 million of Russian Jews have immigrated to the State of Israel (within 4-5 years). At the end of 2017, 38.3 percent of Jews were second-generation Israeli born (the individual and his father were born in Israel), 25.7 percent had an Eastern origin, and 36 percent had a Western origin (Central Bureau of Statistics – CBS, 2019).

Another type of stratification, within the Jewish population, is defined by level of religiosity. The main division is between ultra-Orthodox Jews, referred to as Haredi individuals (12 percent of the Jewish population in 2019; Malach and Cahaner, 2019)<sup>11</sup> and other (non-Haredi) Jewish individuals.

Interestingly, Israel ranks first in a ranking of “Cultural Globalization” (Raab et al., 2008). The ethnic and religious stratification probably granted her this first place.

The ethnic/religious sub-groups are highly segregated: Data from the CBS 2009 Social Survey (Module: Religiosity and Family) indicate that more than 60 percent marry within their religious group. The figures of religiously homogenous marriages are extremely high among the ultra-Orthodox (95 percent). There is rare intermarriage between Jews and Arabs. High residential segregation between the various groups and separate educational systems further exacerbate segregation, separation and stratification. Labor markets are also relatively segregated, in particular between Arabs and Jews.

Differential birth-rates within the various groups<sup>12</sup> result in different age distributions and will lead to future changes in the relative shares: The groups of the ultra-Orthodox and of Moslem Arabs are expected to have significant relative growth. Projections for 2030, based on the reasonable assumption of some decrease in birth-rates within all ethnic/religious groups, yield

---

born in Europe/America, and Israeli-born whose father was born in Europe/America. If both the respondent and his father were born in Israel, we cannot define an ethnic origin and this group is labeled as: second-generation Israelis.

<sup>11</sup> The definition and determination of ultra-Orthodox (Haredi) Jews is somewhat problematic, as CBS Labor Force Surveys do not classify individuals by their level of religiosity. Ultra-Orthodox Jews are usually defined using the question on “last institution of study”. Male respondents, who report that *yeshiva* (an institution for the advanced study of Jewish religious texts) is their last place of study are labeled as ultra-Orthodox. A similar approach is used also for the classification of ultra-Orthodox women. In some of the CBS Annual Social Surveys there is a direct question on religiosity (“how would you define your level of religiosity?”). The 2009 Social Survey was devoted to “Religiosity and Family” and includes questions on various aspects of religion and religiosity.

<sup>12</sup> In 2012, the Total fertility Rate (TFR) was about 7 for Haredi women, and about 4 within the Moslem population - compared to 3.1 for the general Israeli population (Weinreb, Chernichovsky and Brill, 2018).

estimates of 44 percent growth of the total Israeli population that is unevenly distributed between the sub-populations. Major deviations from the overall population growth are expected among: the ultra-Orthodox (growth of 134 percent), Moslem Arabs (growth of 65 percent) and secular Jews (a low growth-rate of 20 percent, against an over-all growth-rate of 44 percent) (Ben-Moshe, 2012). Under the assumption of stability of current fertility rates, the projections indicate higher growth rates of the ultra-Orthodox and the Arab-Moslem groups (153 percent, and 72.7 percent, on the background of 49.5 percent growth of the total Israeli population) (Ben-Moshe, 2012). A very recent study (Malach and Cahaner, 2019), offers the projection of the doubling of the numbers of the Haredi population every 16 years (if current growth rates are maintained).<sup>13</sup> These forecasted demographic changes have major implications for the Israeli society and economy: higher non-employment rates, coupled with large families in the Arab and Haredi sector, are expected to lead to intensified poverty<sup>14</sup>, diminished growth, rising welfare budgets, and higher dependency-ratios. In a recent interview, the (former) Chancellor of the Bank of Israel, Karnit Flug, warned of the heavy toll that is the result of the two demographic parallel trends of: (i) growing shares of the Haredi and Arab populations that evidence low labor-market-attachment, and (ii) aging of the Israeli population. She suggested that the consequences will be significant decreases in labor productivity, and an annual decrease of 1.3 percent of the GDP growth rate. She also indicated that vocational education and training of the two low-employability populations could remedy these harmful outcomes (Ynet, 2015). It follows that is essential and urgent to increase labor-force-participation-rates within the ultra-Orthodox and female Arab populations, using a novel/out-of-the-box strategy. In this study we propose to follow and respond to their special work motives.

## *2.2 Family and occupation within the Haredi community in Israel*

In order to better understand labor-market behavior and occupational choice of Haredi women it is necessary to review the cultural/religious characteristics of this ultra-religious group: Men are expected to be fully devoted to the study of Torah (and of other religious texts) in religious institutions (*yeshiva*), as a mean of achieving fulfillment on a personal-psychological and

---

<sup>13</sup> An examination of the change in the share of the Haredi population over the past 35 years (1980 to 2015) reveals an increase from 4 percent in 1980, to 11.2 percent in 2015. The share of the Arab population increased from 16.0 percent in 1980 to 20.8 percent in 2015. At the same time-period, the share of the non-Haredi Jewish population decreased from 80.0 percent to 68.0 percent (Kasir (Kaliner), 2019).

<sup>14</sup> Poverty rates are already very high among the Haredi and Arab populations. In 2017, 48.6 percent of Haredi households and 50.3 percent of Arab households were under the poverty line. The parallel figure for non-Haredi Jews was 8.3 percent (Kasir (Kaliner), 2019).

personal-religious level (Friedman, 1978). This unique structure was made possible through a process of change in the attitude towards women's education and employment. In religious Jewish communities, women were expected to undergo their maturation and learning process inside the family and were denied formal education. An evolutionary process of change in women's education started with the establishment of "Beit Ya'akov" schools in Europe (beginning of the 20<sup>th</sup> century), and later on in Israel. In the mid-1950s women who graduated "Beit Ya'akov" became an influencing force in shaping the Haredi society (Friedman, 1988). Since it became clear that it is not possible for married men to be dedicated to religious studies if the wives do not work in order to provide financial means for the family, women were encouraged to work. Moreover, women in the Haredi society believe that by freeing the husband from labor and allowing him to devote himself to the study of Torah, the spiritual reward (in this world and in the after-life world) is equally divided between them. This process has led the Haredi community to be a "community of (male) scholars" in which the males study and the females work and provide financial support (Friedman, 1988). Today, in the standard route for the young Haredi girl, upon completion of the elementary "Beit-Ya'akov" schools, girls move on to study in Haredi high-schools and higher-education institutes (*seminars*) (Lupu, 2003). The *seminars* include four years of high-school (strictly adjusted to the religious norms and life-style), and two additional years of professional education (mainly the profession of teachers).

Over the years, most women in the Haredi society worked in the education sector, as teachers in preschools, elementary schools and high-schools (*seminars*) of Haredi girls.<sup>15</sup> For instance, in 2011, more than 60 percent of working Haredi working women (in the prime working age of 35-54), were employed in the education sector (Regev, 2013). This type of occupation matched their needs, both from an ideological perspective (the mother/woman being an agent of education and culture) and a practical one (working within the community, is adjusted to their values and way of life, and is also convenient for raising their own children). Disparities between the growth-rates of Haredi female teachers and pupils, led to over-supply of teachers (Regev, 2013). As a result, in 2019, the share of Haredi women employed in the education sector dropped to 43.8 percent. The proportion of Haredi women employed in the education sector is still much higher

---

<sup>15</sup> Female Haredi preschool teachers teach both boys and girls, as Haredi men do not work as preschool teachers. In elementary schools and high schools women teach only girls and men teach boys.

compared the respective proportion of 19.0 percent within the non-Haredi Jewish female population (Kasir (Kaliner), 2019).

The lower and disadvantaged participation in the labor market is the result of: education that is less suitable for the labor market (see Appendix Figure A1); high birth-rates – more than double compared to birth-rates within the general Jewish population; and various sociological/religious/cultural barriers (Berman, 2000).

Indeed, efforts of increasing labor opportunities have been targeted at Haredi population groups and made this unique group a focus of interest and public policy (Neuman, 2014). A central policy tool was the development of alternative educational opportunities for the female *seminar* (high-school) students in addition to the existing teachers' tracks. It started in 2004, when several government agencies supported a private initiative, and established a curriculum for a "Practical Engineering - PE" track in Haredi seminars. "Practical Engineering" is a professional degree granted by technical colleges in Israel, upon completion of a curriculum that combines theoretical syllabi with practical training. The PE study track constitutes an intermediate level of training between engineers and technicians, and is approved by the National Institute of Technological Training of the Ministry of the Economy (Horowitz and Sagi, 2013). The PE track offered to *seminar* female students was based on collaboration between several government agencies and also with potential employers who were willing to create a work environment customized to the religious/cultural needs of Haredi female workers. Employers agreed to comply with these restrictions due to a shortage in practical engineers in the Israeli labor market. Some were also motivated by ideological aspects and by the national urgent need to absorb Haredi workers into the labor market. Four sub-fields of study were offered: computer software, computer graphics, architecture, and industrial management. The classes of these new fields are inside the *seminars*, integrating religious studies with professional courses. The studies are approved and monitored by Rabbis and educational principals, who are also searching for employment opportunities after graduation, which fit the Haredi religious needs and lifestyle. Evaluation projects assessed various employee/employer aspects of the new vocational tracks, pointing to a successful and satisfactory application of these innovative programs (Goldfarb, 2011 and 2014). However, the designers of these new training tracks did not consider work motives of Haredi women – accounting for those motives could further improve the design and implementation, and have the value added of more job satisfaction and female empowerment.

The efforts to improve the socio-economic status of the Haredi population were supplemented by growing research on various features and perspectives of the Haredi society: Gottlieb (2007) addressed the causes for poverty in the community, and offered long-term procedures for its reduction. He emphasized the need for an increase in LFPRs of the women, in order to compensate for the low participation of men and to decrease poverty rates; Lupo (2003) reviewed new fields of vocational training and of academic studies in the Haredi society, and marked 1996 as a year of significant change in the positive attitude to acquiring a professional education; Dahan (2004) conducted a qualitative evaluation analysis of an experimental program at the Hebrew University to train orthodox women as social-workers. The findings pointed out special innovative strategies for training Haredi women students such as an extra role of cultural mediator, staffed by a Rabbi who is also a trained therapist. It also showed the shift in attitudes, from skepticism to a positive evaluation of the outcomes of this new program.

A prerequisite for the design of successful training tracks, and for the attraction of Haredi women to these new tracks, is awareness of the motives behind occupational choice of this group of women. Responding to their motives, preferences and needs will consequently lead to intensified participation in the labor force, and also to more job satisfaction.

### **3 Motives behind occupational choice**

The Organizational Psychology literature documents several types of motives that drive occupational choice: (i) the perception of "calling"; (ii) intrinsic motives; and (iii) extrinsic motives. These types of motivation, followed by hypotheses related to their relevance for Haredi women, are discussed below.

#### *3.1 The perception of "calling" and its role in occupational choice of Haredi women*

One of the work motives that is discussed in the literature is a response to some kind of "calling". The idea of work as a "call" or summon is centuries old, and is also embedded in the word "vocation" (The word comes from the Latin word "*vocātiō*" which means call or summon). Today the concept of "calling" is used in a non-religious context, but the idea of an external summon (that can imply the form of a higher power monitoring the individual) is still an inherent part of the construct. The definition of the concept of "calling" in relation to vocation has been debated in recent years (Hagmaier and Abele, 2012; Duffy and Dik, 2013; Wrzesniewski, 2012). There is



a general distinction between "modern" and "neoclassical" definitions. The former focuses on an inner drive and call for self-fulfillment, while the later emphasizes a sense of destiny or social duty (Duffy and Dik, 2013). Dik and Duffy (2009) document three main components of the concept of calling in the work domain: the feeling of being summoned by an external force (a super-power, god, society, a legacy, etc.); the association of work with a sense of purpose in life, meaning that through work the individual can express her/his ideas and morals; and a pro-social orientation being carried out through work, by using the career to help others or do good. Dik and Duffy (2009) further suggest that the sense of calling can be described along a spectrum, as opposed to something that you either have or you don't. The need to explore the construct of calling in diverse populations has been emphasized (Duffy and Dick, 2013), in order to substantiate its relevance within different cultures and societies. While a growing amount of research in recent years has focused on the concept of "calling" (e.g., Dik, Sargent and Steger, 2008; Elangoven, Pinder, and McLean, 2010; Hunter, Dik, and Banning, 2010), empirical studies are scarce (Duffy and Dik, 2013).

In this study we explore the relevance of "calling" behind occupational choice within the ultra-Orthodox (Haredi) group of Israeli women. It is plausible that the construct of "calling" is dominant in a religious ultra-Orthodox society. In fact, the word "calling" was originally used in a religious context (Wrzesniewski et al., 1997). All three components documented by Dik and Duffy (2009) seem to be present: fulfilling god's will is a basic component that affects all spheres of life, including the work domain of females; workers express through work their role and purpose of working to enable the spouse to stay away from work and study Torah; and work is driven by a pro-social motive of contribution to family and society. It follows that our study is in line with the "neoclassical" definition of calling, emphasizing a sense of destiny and pro-social norms, rather than personal self-fulfillment (Duffy and Dik, 2013). Dik and Duffy (2009) also suggest that individuals in collectivist cultures, such as the Haredi community, may be more oriented to the pro-social elements of the constructs than those from individualistic cultures. In such cultures the sense of calling may be viewed as the normative ideal.

This leads to our 1<sup>st</sup> and 2<sup>nd</sup> hypotheses:

**Hypothesis 1:** *Haredi women are responding to a "calling" concept when they prepare for work and when they participate in the labor force;*

**Hypothesis 2:** *The “calling” motive is more significant for teachers than for PEs, given the special role of teachers in shaping the personality of their students and their pro-social role.*

### *3.2 Intrinsic versus extrinsic work motivation in the Haredi population*

While it is plausible that Haredi women follow some kind of religious/social “calling”, there are most probably also other motives that drive their occupational behavior. Our rich data set facilitates the exploration of a variety of probable motives, which will be studied along with the core “calling” motive.

Work motives can be clustered into two categories: (i) intrinsic motivations – that are related to engagement in work primarily for its own sake, because the work itself is satisfying (Amabile *et al.*, 1994; Gagne and Deci, 2005) and/or gives the individual the opportunity to express personal interests, in particular, an aspiration for self-fulfillment and self-definition in the world of work (Super, 1970; Blustein, 2006); and (ii) extrinsic motivations – that are related to receiving something apart from the work itself, such as a reward or recognition from others. The literature reports that workers motivated primarily by intrinsic needs have been found to be more autonomous and reported higher levels of work performance and adaptation, compared to workers driven primarily by extrinsic motives (Baard, 2002).

What is the type of motivation that is driving work of Haredi women? Women in the Haredi community are encouraged to work in order to support their family and thereby allow their husbands to dedicate themselves to religious studies, while work per-se does not carry any value (Caplan, 2007). It therefore follows that the motivation can be seen as primarily extrinsic, being embedded in the spiritual and family spheres of life, and only weakly correlated with work roles. If intrinsic motives are also at work, they are expected to be more meaningful for the PE students. This could also stem from a selection bias: The young women who chose to study PE represent a group of pioneers who chose an innovative and uncommon path. Making the uncommon choice could suggest that they were looking for self-fulfillment and felt a need to express themselves in the work arena (an intrinsic motive). Shea-van Fossen and Vredenburg (2014) found a positive relationship between a proactive personality and career orientation, a connection that supports the assumption that young women who chose the uncommon PE track will express higher intrinsic motives. On the other hand, girls who preferred the teachers’ track, follow the conservative path, probably because parts of them don’t have the drive for change and for a more fulfilling career.

We therefore arrive at our 3<sup>rd</sup> and 4<sup>th</sup> Hypotheses:

**Hypothesis 3:** *Extrinsic motives will be significantly more dominant than intrinsic motives for students of both tracks: PEs and teachers.*

**Hypothesis 4:** *Intrinsic motives behind occupational choice will play a more significant role within the group of PEs than within the Teachers' group.*

Adding the role of "calling" as a driving force behind occupational choice of Haredi women- the set of individual motives investigated in this research, can be classified in relation to three principal types of motives: intrinsic, extrinsic and calling.

### *3.3 Job satisfaction*

Optimally, a worker should be satisfied with his job. A cross examination of work motives vis-a-vis job satisfaction could shed light on the inter-relationship between these two angle of work. In particular: Is job satisfaction affected by the intensity of work motives? Are workers with higher scores on the work motives, also reporting more job satisfaction? Naturally, the intrinsic motives are expected to exhibit a stronger correlation with job satisfaction. While job satisfaction is important for its own sake, it could also lead to better performance and intensified productivity.

We therefore arrive at our 5<sup>th</sup> hypothesis:

**Hypothesis 5:** *The scores of intrinsic motives will be positively correlated with scores of job satisfaction (in particular among PEs who are believed to have higher valuations of intrinsic motives).*

## **4 Field study of work motives and job satisfaction among Haredi women**

### *4.1 Participants and the questionnaire*

The study presented in this paper is based on data collected by a field study conducted in 2010-2011, which used telephone interviews with high-school (*seminar*) graduates to fill out a comprehensive questionnaire, related to study and work. A sample of high-schools (*seminars*), that had both the Practical Engineering (PE) Track as well as the Teachers' Track, was first chosen. Graduates of each of these two tracks, who began their first year of study between 2005 and 2008, were then randomly sampled in each seminar. The final sample is composed of 512

women. 278 are graduates of the Practical Engineering Track, and 234 women are graduates of the Teachers' Track, who studied in the same seminars at the same time.

Subjects were first asked to share socio-economic background details about: average monthly income for the last three months of work, marital status, number of children, number of siblings, education and work status of parents, level of income in their family of origin.

The core section of the questionnaire listed 13 potential motives that may influence vocational choice. Subjects were asked to rate each of these 13 items, on a scale of 1-5, according to the degree in which it influenced their vocational choice (1- the item did not influence the decision at all, and 5- the item strongly influenced the decision).

Nine items were taken from Pieser's questionnaire (Pieser, 1984), and can be divided to intrinsic (the first four), and extrinsic motives (that can be sub-divided into: job conditions and societal effects):

- interesting training for the profession
- interesting job/profession
- challenge in work
- expression of abilities
- income
- job stability
- favorable job conditions
- social status
- in line with expectations of the family and/or society

The next item in the questionnaire relates to the distinctive structure of the Haredi society, in which the wife works in order to provide for her family, so that the husband can devote himself to the study of Torah.

- "a desire to enable my husband to study Torah"

The last three items are closely related to the feeling of “calling”. As a standard scale for assessing “calling” has not yet been developed during the time of the survey, items were phrased based on Dik and Duffy's (2009) conceptualization:

- "a desire to fulfill god's will"
- "a sense of destiny and purpose in life"
- "a desire to contribute to society"

The first of these three items refers to the feeling of being summoned by an external force, the second relates to the sense of purpose in life, and the third to pro-social behavior (these three factors are labeled by Dik and Duffy, 2009, as components of the "calling" motive).

The questionnaire included also questions related to work satisfaction – general satisfaction, and satisfaction from more specific aspects of work: professional elements, interpersonal work relations, and work conditions. While job satisfaction is important for its own sake, it is also plausible that more satisfied workers perform better on the job and are more productive.

## *4.2 Results*

### *4.2.1 Socio-economic background information:*

The background information provided by the respondents indicates that: The age range of the respondents is 21-25 (average age is 22.6). Over 60 percent have more than 6 siblings (the percentage of 6+ siblings is significantly larger within the group of Teachers). The parental occupational data indicate that male full engagement in studying Torah is not new and is not restricted to young males – more than half (51.1 percent) of the fathers of the sampled graduates are not employed and are fully engaged in the study of Torah at an institution for religious studies. Only about one third (36.4 percent) of fathers are full-time employees, and the rest are part-time employees or self-employed. The socio-economic background within the family of origin seems to be somewhat more favorable in the families of PE graduates: a higher percentage of employed mothers and higher family income.

### *4.2.2 Descriptive statistics – scores and rankings of the 13 work motives:*

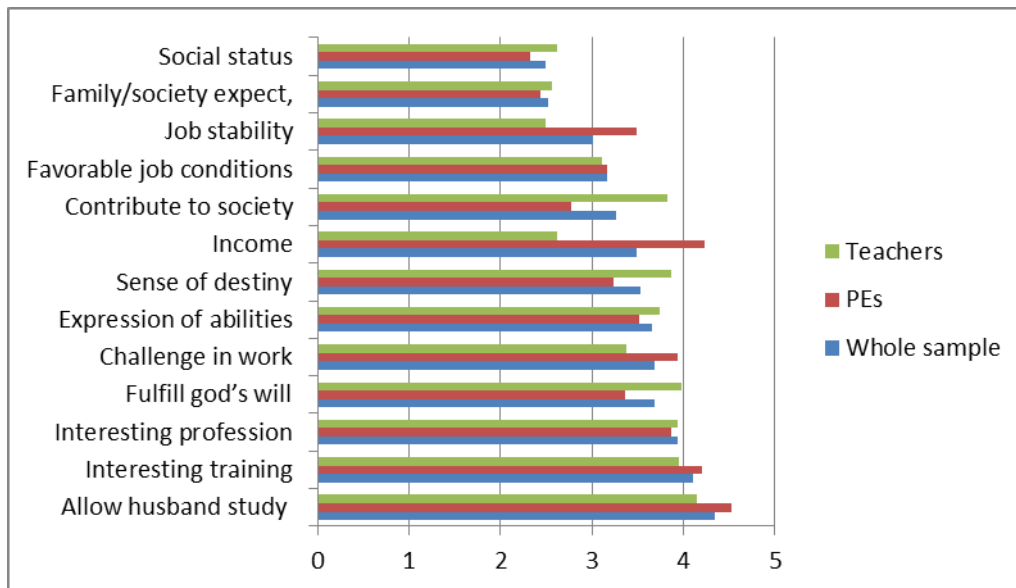
For a first approximation of the importance of the 13 potential motives, averages of the responses have been calculated. Table 1 presents the averages (along with their rankings), for the whole sample and also separately for PEs and Teachers (Ts). Figure 2 adds a graphical presentation of the average grades.

**Table 1:** Average grades and ranks (in parentheses), for the 13 work motives

(1)	(2)	(3)	(4)	sig. of difference between PE and T
Definition of motive	whole sample	PEs	Teachers (Ts)	
<b>Allow husband study</b>	4.34 (1)	4.52 (1)	4.15 (1)	***
<b>Interesting training</b>	4.11 (2)	4.20 (3)	3.95 (3)	**
<b>Interesting profession</b>	3.93 (3)	3.87 (5)	3.94 (4)	not sig.
<b>Fulfill god's will</b>	3.68 (4)	3.36 (8)	3.98 (2)	***
<b>Challenge in work</b>	3.68 (5)	3.94 (4)	3.37 (8)	***
<b>Expression of abilities</b>	3.65 (6)	3.51 (6)	3.74 (7)	not sig.
<b>Sense of destiny</b>	3.53 (7)	3.24 (9)	3.86 (5)	***
<b>Income</b>	3.49 (8)	4.23 (2)	2.62 (10)	***
<b>Contribute to society</b>	3.26 (9)	2.78 (11)	3.82 (6)	***
<b>Favorable job conditions</b>	3.15 (10)	3.16 (10)	3.11 (9)	not sig.
<b>Job stability</b>	3.01 (11)	3.49 (7)	2.50 (13)	***
<b>Family/society expect.</b>	2.52 (12)	2.44 (12)	2.57 (12)	not sig.
<b>Social status</b>	2.49 (13)	2.33 (13)	2.62 (11)	**

**Notes:** The range of answers is 1-5 (1-“not important at all”; 5- “highly important”); the sample sizes are somewhat different for the different items, due to missing values; \*\*\* denotes significance at the 1% significance level, \*\* - at the 5% level

**Figure 2:** Average grades of the 13 work motives (each motive ranges between 1-to-5)



Starting from the whole sample: Not surprisingly, the motive that ranks 1<sup>st</sup> relates to the desire to enable the husband to dedicate himself to the study of Torah (average of 4.34, in a range of 1-5). This motive (which in the factor analysis presented later on, is found linked to the concept of "calling") is the most dominant motive. Quite unexpected are the high rankings of two intrinsic motives that rank 2<sup>nd</sup> and 3<sup>rd</sup>, not very far from the first motive. They are: "interesting training" (average of 4.11) and "interesting job/profession" (average of 3.93). These two come before the (expectedly) significant "calling" motive to "fulfill god's will". The two motives that rank last, with an average of less than three are: "family/society expectations" (2.52); and "social status" (2.49). Considering the whole sample, earned income does not play a pivotal role and has a middle rank (ranks 8<sup>th</sup>, with an average of 3.49).

A decomposition of the sample by track of training is presented in columns (3) and (4). Average grades for the 13 motives and their ranks within the sub-samples are presented separately for PEs and for Teachers (columns (3) and (4)), along with the significance level of the difference (last column). As is evident from columns (3) and (4), the averages and rankings vary by field of training.

In general, Teachers tend to ‘tone-down’ the grades given to work motives, indicating that motives might play a diminished role behind their occupational choice, maybe because teaching is the ‘default’ conservative occupation for Haredi women.

The same core motive of: "freeing the husband from labor to allow him to study Torah", ranks 1<sup>st</sup> in the two groups. Within the sub-sample of Teachers it is the only item that averages above 4 (4.15). This element is the most powerful drive behind labor force participation of all Haredi women in our sample. The other three components of the “calling” motive are ranked significantly higher by the Teachers (ranked 2<sup>nd</sup>, 5<sup>th</sup> and 6<sup>th</sup> for Teachers, compared to 8<sup>th</sup>, 9<sup>th</sup> and 11<sup>th</sup>, for PEs), indicating a more significant role for the “calling” motive among Teachers.

The most pronounced difference relates to the importance of income, which ranks 2<sup>nd</sup> for PEs and only 10<sup>th</sup> for Teachers. This indicates that the (higher) wages received by PEs, compared to Teachers, play a pivotal role behind the choice of the PE track.

In parallel to what was found within the whole sample - intrinsic motives (e.g., “interesting training” and “interesting profession”) play an important role also within each of the two sub-samples.

The differences (by track) in average grades are significant at the 1% level for seven of the motives. For two items they are significant at the 5% level, and differences are insignificant (at a significance level of 5% or less) for the rest four motives.

To conclude: descriptive measures lend a first approximation for the dominance of the “calling” motive behind occupational performance of both PEs and Teachers. However, it seems to be more pronounced within the Teachers group. Intrinsic motives also play an important role in the two groups of female workers.

#### *4.2.3 Factor Analysis for the identification and scoring of the principal factors driving occupational choice:*

In an attempt to classify the various motives and identify more sharply the three types of motives (“intrinsic”, “extrinsic” and “calling”), a Varimax Rotation Factor Analysis was conducted. Table 2 presents the Factor Analysis results for the whole sample.



**Table 2:** Factor Analysis of the 13 work motives: clusters and factor loadings

	<b>Factor 1: Intrinsic motives</b>	<b>Factor 2: Calling motives</b>	<b>Factor 3: Extrinsic motives: job conditions</b>	<b>Factor 4: Extrinsic motives: societal effects</b>
<b>Item content</b>				
<b>Interesting training</b>	0.71	-	-	-
<b>Interesting profession</b>	0.70	-	-	-
<b>Challenge in work</b>	0.60	-	-	-
<b>Expression of abilities</b>	0.59	-	-	-
<b>Fulfill god's will</b>	-	0.74	-	-
<b>Contribute to society</b>	-	0.66	-	-
<b>Sense of destiny</b>	-	0.61	-	-
<b>Allow husband study</b>	-	0.51	-	-
<b>Income</b>	-	-	0.67	-
<b>Job stability</b>	-	-	0.71	-
<b>Favorable job conditions</b>	-	-	-	-
<b>Family/social expectations</b>	-	-	-	0.67
<b>Social status</b>	-	-	-	0.56
<b>Average score of factor</b>	3.84(0.94)	3.70(1.1)	3.25(1.2)	2.50(1.2)
<b>Explained variance (%)</b>	15.01	13.61	10.17	7.91
<b>Reliability level (<math>\alpha</math>)</b>	0.78	0.75	0.61	0.58

**Notes:** The sample size used for the Factor Analysis is 450 women who graded all 13 incentives; Factor loadings <0.5 are suppressed; Standard deviations of scores – in parentheses

Four principal factors involved in vocational choice are identified. The four factors are closely related to the types of motives defined in our study: An intrinsic factor, a calling factor, and an extrinsic factor which is sub-divided into: extrinsic motives that relate to work conditions, and social extrinsic motives. Interestingly, the four motives that are believed to relate to a “calling” concept (following the conceptualization of Dik and Duffy, 2009), are indeed components of the same factor (column (3)). The intrinsic factor, which includes four motivational components, ranks 1<sup>st</sup> in terms of all relevant parameters: average score, explained variance and reliability level (score=3.84; explained variance=15.01%;  $\alpha$ =0.78), even above the “calling” factor that ranks 2<sup>nd</sup> (score=3.70; explained variance of 13.61%;  $\alpha$ = 0.75). Interestingly, the four motives that are believed to relate to a “calling” concept (following the conceptualization of Dik and Duffy, 2009), are indeed components of the same factor ("calling" Factor 2). Though the motive of "freeing the husband to study Torah" (that is one of the components of the composite "calling" factor) ranked 1<sup>st</sup> in the list of the 13 individual motives (Table 1 and Figure 1), when composite factors are derived – the "intrinsic" factor precedes the "calling" factor. This means that the 3 remaining "calling" components are less dominant (compared to "intrinsic" components). The two extrinsic sub-factors (job conditions; effect on society), each with two components – rank 3<sup>rd</sup>, and 4<sup>th</sup> (respective average scores of 3.25 and 2.50; respective explained variances 10.17% and 7.91%;  $\alpha$ =0.61 and 0.58, respectively).

While Table 1 already provided some preliminary suggestions of the role of the “calling” and intrinsic motives within each sub-sample, a sharper and more accurate distinction (by track of study) can be provided by employing the decomposition into principal factors analysis presented in Table 2, in order to calculate and compare the average composite grades of the intrinsic/extrinsic/calling factors within the separate sub-samples of PEs and Teachers.

**Table 3:** Average factor scores (SD in parentheses), by type of training, and t-tests for differences between scores of PEs and Ts

<b>Factor</b>	<b>Intrinsic</b>	<b>Calling</b>	<b>Extrinsic (job conditions)</b>	<b>Extrinsic (societal effects )</b>
<b>PEs</b>	3.92 (0.84)	3.48 (0.99)	3.83 (0.83)	2.41 (1.14)
<b>Teachers</b>	3.75 (1.05)	3.97 (1.13)	2.56 (1.11)	2.61 (1.19)
<b>t-statistic for differences between PEs and Teachers</b>	2.04	5.25	14.43	1.88
<b>p value</b>	0.04	0.000	0.000	0.06

As is evident from Table 3, average scores of the “calling” factor are significantly higher within the Teachers’ group, while averages of the "intrinsic" factor are significantly larger for the PEs group.

#### *4.2.4 Job satisfaction:*

An interesting question is whether intensified "intrinsic" and "calling" motives also lead to more work satisfaction,<sup>16</sup> i.e., if women who exhibit higher scores of these two significant work motives also report higher work satisfaction. A positive response magnifies the benefit of training tracks which exhibit such an association. Regression analysis is employed in order to answer this question. The dependent variable is general work satisfaction (a scale of 1-5). The independent variables include the respondents' scores of the intrinsic motive and calling motives. In order to arrive at net effects of the work motives, socio-economic background variables were controlled for. They include dummy variables for: work in the field of training (=1, if employed in an occupation that is different from the one trained for); number of siblings (=1, if >6); income in the family of origin (=1, if higher than average); and mother's education (=1, if mother's years of schooling >12). Regressions were run for PE and T graduates separately. The regression model of

<sup>16</sup> In the statistical analysis of job satisfaction we relate only to the these two types of motivation that are more powerful in shaping occupational choice

Teachers turned out to be insignificant (R-Squared=0.042, p=0.232), indicating that teachers' work satisfaction is not affected by work motives and/or by socio-economic background variables. The regression results for the PE graduates are presented in Table 4.

**Table 4:** Determinants of work satisfaction (1-5), OLS regression, PE sample

Variables	Coefficients (t-statistics)
<b>Does not work as PE</b>	-0.377 (-3.689)***
<b>Has more than 6 siblings</b>	0.275 (2.845) ***
<b>Income of family of origin – higher than average</b>	0.217 (2.093) **
<b>Mother has more than 12 years of schooling</b>	0.365 (2.068) **
<b>Intrinsic motive (average of intrinsic components)</b>	0.213 (2.969) ***
<b>Calling motive (average of calling components)</b>	0.099 (1.975) *
Sample Size 129	
R-squared 0.374	

**Notes:** \* significant at 0.10; \*\* significant at 0.05; \*\*\*significant at 0.01

The PE graduates are significantly affected by socio-economic variables: women who originate from a wealthier than average family, have an educated mother and have more than 6 siblings express more work satisfaction. Obviously, those who are not employed as PEs (although they were trained as PEs), report less work satisfaction. Turning to our motive variables: being affected by a calling work motive affects job satisfaction only marginally. However, more pronounced intrinsic motives of the respondent, lead to increased job satisfaction: an increase of one unit in the intrinsic motive (on a scale of 1-5) leads to an average increase of 0.213 units in job satisfaction (scale of 1-5).

#### 4.2.5 Hypotheses testing:

Combining all our findings points to statistical significant support for **Hypothesis 1:** *Haredi women are responding to a “calling” concept when they prepare for work and when they participate in the labor market*; for **Hypothesis 2:** *The “calling” motive is more significant for teachers than for PEs* (t=5.25, significance level <0.01); and for **Hypothesis 4:** *Intrinsic motives*

*behind occupational choice play a more significant role within the group of PEs than within the Teachers' group* ( $t=2.04$ , significance level=0.04).

In order to test **Hypothesis 3**, that *expects extrinsic motives to be more dominant than intrinsic motives (for the whole sample)*, two t-tests for paired-samples were conducted, comparing intrinsic motives (clustered by factor analysis) with each of the extrinsic motivation sub-factors: "job conditions", and "effect on society" (based on the results of Table 2). Results show a significant difference between the scores of the intrinsic factor and the extrinsic factor related to job conditions,  $t = 10.23$ ,  $p < 0.001$ , but in the opposite direction: Contrary to the hypothesis, the score of the intrinsic motivation factor ( $M = 3.84$ ,  $SD = 0.94$ ) is significantly higher than the score of the factor of extrinsic motives relating to "job conditions" ( $M = 3.25$ ,  $SD = 1.16$ ). Results also show a significant difference between the respective scores of the factors of intrinsic motives and extrinsic motives related to "effects on society",  $t = 22.45$ ,  $p < 0.001$ . Here too, the opposite direction is evidenced: the score of the intrinsic motives' factor ( $M = 3.84$ ,  $SD = 0.94$ ) is significantly higher than the parallel score of the factor composed of extrinsic motives related to effect on society ( $M = 2.5$ ,  $SD = 1.16$ ). Hypothesis 3 is therefore rejected, and our findings propose a more dominant "intrinsic motivation", in shaping the motives behind occupational choice of the Haredi women in our sample.

The findings reported in Table 4 lend support to **Hypothesis 5**: *The scores of intrinsic motives will be positively correlated with scores of job satisfaction (in particular among PEs who are believed to have higher valuations of intrinsic motives)*.

## **5 Discussion**

The current research set out to shed light on motives that lead Haredi young women in choosing their work path. On the background of the very special nature of the community of Haredi individuals, who rate the goal of the study of Torah (by the males) high above any other life objective, it is not surprising that the motive that is ranked highest by both groups of women is the "desire to enable the husband to study Torah" (by taking on employment responsibilities and providing for the financial needs of the family; Ringel, 2007). This motive, along with "a desire to fulfill god's will", "a feeling of purpose", and "a desire to contribute to society" (3 items phrased in line with the conceptualization of the "calling" motive by Dik and Duffy, 2009) are linked to the sense of "calling" and compose a principal factor within the set of 13 motives

presented to the respondents. This finding supports the assumption that the strength of religious commitment in certain cultures can result in "calling" being a widespread norm (Dik and Duffy, 2009). The linkage between the motive of enabling the husband to study Torah and the sense of calling is interesting and requires further exploration. While calling is a personal wish to do good, the ability to support the study of Torah can be fulfilled only through the actions of the spouse. While in the general society married women facilitate their spouse's career by taking the role of wife and mother, in the case of the Haredi society women also take the role of providers and see the male as their representative in spiritual practice.

It is also not surprising that the sense of "calling" is more dominant within the Teachers' sub-sample. The Haredi community assigns special ideological importance to the profession of teaching, which entails the mission of educating the next generation and in particular, passing on the value of studying Torah (Caplan, 2007). The special role of the female teachers is mirrored by the higher rated item of "a desire to contribute to society" (ranked 6<sup>th</sup> by Teachers and 11<sup>th</sup> by PEs). In the case of Teachers, 'society' overlaps with the students they teach and coach. The results show that the sense of calling is indeed part of the wide set of motives in both groups, but is significantly more pronounced in the group of teachers.

Much less expected is the finding that intrinsic motives play a significant role in shaping Haredi women's occupational choices. Religious/spiritual leaders of the Haredi society preach that work (in particular in a profession other than teaching) does not have any value of its own. It is a necessity that cannot be avoided, in order to facilitate the study of Torah by the husband (Caplan, 2007). This is however not what our respondents are telling us. They seem to value highly intrinsic motives, like self-fulfillment and an interesting job. It appears that what is aired publicly is not what is valued personally – intrinsic motives compose the most important principal factor, and Haredi employees do express personal interests in the world of labor. It is important to note that the two do not necessarily contradict. The values of providing for your family and having a meaningful job, can coexist. The important role of intrinsic motives is more pronounced within the sub-sample of PE's. The consequent policy implications are clear: the designers of training tracks for Haredi women should be particularly responsive to intrinsic elements.

## 6 Concluding remarks and policy implications

1. The study presented in this paper is one of the first few analytical studies that look into occupational choices of individuals within the distinct Haredi community, using the same methodological/statistical tools used by career psychologists to study more 'common' societies/groups. Apparently, this application proves successful and leads to the unraveling of both expected ("calling") and much less expected ("intrinsic") motives.
2. The results of our study have important policy implications in terms of labor market training and counseling. The findings of the important role of intrinsic motives in attracting Haredi women, suggest that new vocational programs which cater to their (intrinsic) work motives should be designed and offered. First steps in this direction have already been taken, offering new/unconventional tracks of: accountancy, practical engineering, social work, interior design, computer science, economics, and more - which were designed specifically for this sector. Additionally, career guidance services were also developed and offered: an innovative training course has trained Haredi women with a degree in educational counseling for the role of vocational counselors working in *seminars*. The implications of the research presented in this paper are already applied, and expressed in counseling sessions (Goldfarb, 2014).
3. While the new training tracks, already offered to Haredi women (such as the Practical Engineering track), were not based on a systematic study of work motivations, they do respond to motives that seem to be desirable by the women (e.g., intrinsic motives). More awareness and responsiveness to work motivation of Haredi women could lead to the careful design (or revision) of tracks that will cater more closely to work motivation, leading to more job satisfaction and female empowerment.
4. There is already some preliminary evidence that could indicate the success (in terms of labor market integration) of occupational policies that cater to work motives (even if not through a systematic process of examination of work motives). The employment rate of Haredi women increased dramatically within one decade and accelerated in recent years: Relating to the working ages of 25-64, it was 50.5 percent in 2005, climbed up to 65.1 percent in 2010, to 68 percent in 2013, and further accelerated to 74.9 percent at the end of the 3<sup>rd</sup> quarter of 2015- a spectacular rise of 48 percent during the decade of 2005-2015. Even more dramatic is the rise of more than 10

percent in the two last years – 2013-to-2015 (Ministry of Industry, Trade and Employment, various publications and media releases). More recent data (collected for the Finance Committee of the Israeli Parliament, by the Knesset's Center for Research and Information) shows some minor additional improvement in the employment rates of working age Haredi women - to 75.5 percent in 2018 (Eizencot, 2018).<sup>17</sup> Obviously, it is not possible to isolate the effect of the revision in occupational policy on the rise in employment. However, we believe that it is safe to say, that at least part of the change is due to the changes in policy noted above. Moreover, a fine-tuning of training schemes, based on work motives, is believed to further increase employment rates, and more importantly – increase job satisfaction and women's empowerment.

5. Another driving force behind the increase in Haredi female employment rates (noted above) could be the significant decrease in child allowances that was enacted in 2003. However, the most dramatic changes are evidenced only about a decade later (in 2013), after the implementation of the new occupational policies, pointing to the more significant role of the new occupational training policy.
6. These new job opportunities were believed to also lead to an increase in wages. However, Haredi women are still disadvantaged in the labor market and their average monthly income is significantly lower compared to income of non-Haredi Jewish women. While Haredi women are entering the labor force in large numbers, and pave their way into new sectors of employment (such as high-tech sectors), their wages are significantly lower compared to wages of non-Haredi Jewish women: Figures for 2019 show that the average monthly salary (for women at the ages of 25-64) are 7,197 shekel for Haredi women, compared to 10,082 shekel for the general female working force – a gap of 40 percent. A major part of the salary differential can be explained by differences in working hours (weekly average of 28.6 hours for Haredi women, compared to 35.9 for non-Haredi Jewish women). Indeed – if figures of hourly wages are compared, the difference shrinks to 7 percent - respective hourly wages of 57.6

---

<sup>17</sup> The recent figures are way above the target set by the Israeli government – an employment rate of 63.0 percent in 2020 (Eizencot, 2018).



and 61.9 (Kasir (Kaliner), 2019).<sup>18</sup> The positive news are that wage differentials are decreasing constantly (Eizencot, 2018). The closing of the wage gap is most probably also due to the new training/employment schemes that cater to work motives and to employment restrictions.

7. We focus in this study on women, who are the main providers in the Haredi community.<sup>19</sup> Efforts are recently made to also try and attract more Haredi men to the labor market, by offering them new training tracks and work opportunities. Unlike women who study also general studies in high-schools (and are exempted from the study of Torah), men study only Torah at the *yeshiva*. Occupational tracks can therefore not be part of their curricula at the *yeshiva* and new venues need to be established. Unraveling motives for male occupational choice is therefore crucial and needs to be examined in order to develop and implement successful training tracks. Career counseling seems to be even more crucial for men, who have no background of general studies and who are obliged to switch from total commitment for the study of Torah, to commitment to the job and labor market. Counselors who belong to the Haredi community have an obvious counseling advantage.
8. Higher employment rates of Haredi women and men are also believed to have favorable implications on social tensions between the Haredi and non-Haredi populations. The tension stems from the fact the Haredi population contributes very little to taxes, and gets an un- proportional share of welfare and transfer payments. A study by Regev (2014) that is analyzing data of the 2011 Survey of Household Expenditures, indicates that the respective average monthly compulsory payments<sup>20</sup> of non-Haredi versus Haredi households are: 1,721 vs. 226 shekel – for direct taxes (660 percent more); 619 vs. 171 shekel for National Insurance Institute fees (3.5 times more); 616 vs. 308 shekel for the health insurance tax (double) (Regev, 2014, Figure 11, page 40). On the other hand, a Haredi household receives on average benefits and

---

<sup>18</sup>Two other potential reasons for the wage disparities are: (1) inferior human capital of Haredi women (compared to the general population) – as most Haredi women studied and were trained at the religious *seminars*, and not in the better-quality academic institutes; and (2) employment restrictions, e.g., working places for women only.

<sup>19</sup> In 2018, the employment rate of Haredi men (at the working age of 25-64), was 50.7 percent, compared to an employment rate of 75.9 percent of Haredi women, and an employment rate of 87.6 percent for non-Haredi Jewish men (Kasir (Kaliner), 2019).

<sup>20</sup> Household monthly compulsory payments in Israel are comprised of: income tax, National Insurance Institute (NII) payments, and healthcare insurance tax.

transfer payments of 3,256 shekel, compared to 1,964 received by a non-Haredi household (Regev, 2014, Figure 5, page 28). Obviously an increased attachment of the Haredi population to the labor force will change dramatically this uneven balance and will also lower significantly the government's budget deficit.

9. A similar approach of responding to work motives and to work restrictions can be used for other 'non-common' population groups. Either, other religious/traditional female groups (e.g., Moslem Israeli-Arabs, Moslem females worldwide, traditional/religious women in Asia and Africa), or other groups with low attachment to the labor force (e.g., disabled individuals, the elderly, recent immigrants). The study of motives behind occupational choice is essential in order to design occupational tracks that will satisfy the motives, preferences and limitations of potential workers who currently have limited labor-force attachment.
10. Increased participation in the labor force of populations that are currently only marginally attached to the labor market will have major positive macro outcomes, in terms of: increased economic growth; reduced poverty within the low-employability populations; a lower burden on welfare budgets; and more favorable "old-age dependency-ratios".

## References

Amabile, T.M., Hill, K.G., Hennessey, B.A. and Tighe, E.M. (1994), "The Work Preference Inventory: Assessing Intrinsic and Extrinsic Motivational Orientations", *Journal of Personality and Social Psychology*, 66 (5): 950-967.

Baard, P.P. (2002), "Intrinsic Need Satisfaction in Organizations: A Motivational Basis of Success in For-Profit and Not-for-Profit Settings". In: Deci, E.L. and Ryan, R.M. (eds.), *Handbook of Self-Determination Research* (page 255). University of Rochester Press.

Ben-David, D. and Bleikh, H. (2013), "Poverty and Inequality over Time in Israel and the OECD". In: Ben-David, D. (ed.), *A Report on the State of the Nation: Society, Economy and Policy, 2013*(pp. 17-72). Jerusalem: The Taub Center for Social Studies in Israel.

Ben-Moshe, E. (2012), *Changes in the Structure and Composition of the Israeli Population in the Coming Twenty Years, by cultural/Religious segment, and its Implications for the Labor Force*. Jerusalem: Ministry of Industry, Trade and Labor: Administration of Planning, Research and Economics (in Hebrew).

Berman, E. (2000), "Sect, Subsidy, and Sacrifice: An Economist's View of Ultra-Orthodox Jews", *The quarterly Journal of Economics*, 115 (5): 905-953.

Blustein, D.L. (2006), *The Psychology of Working: A New Perspective for Career Development, Counseling, and Public Policy*. New Jersey: Lawrence Elbaum Associates inc.

Caplan, K. (2007), *Internal Popular Discourse in Israeli Haredi Society*. Jerusalem: The Zalman Shazar Center for Jewish History (in Hebrew).

Dahan, N. (2004), *Inter-Cultural Encounter: An Experimental Training Program for Social Workers for Haredi Women*. Jerusalem: Hebrew University, School of Social Work and Social Welfare, Ph.D. Thesis (in Hebrew).

Dik, B.J. and Duffy, R.D. (2009), "Calling and Vocation at Work: Definitions and Prospects for Research and Practice", *The Counseling Psychologist*, 37: 424-250.

Dik, B.J., Sargent, A.M., and Steger, M.F. (2008), "Career Development Striving: Assessing Goals and Motivation in Career Decision Making and Planning", *Journal of Career Development* 35: 23-41.

Duffy, R.D. and Dik, B.J. (2013), "Research on Calling: What Have we Learned so Far and Where are we Going?" *Journal of Vocational Behavior*, 83: 428-436.

Eizencot, M. (2018), "Employment of the Haredi Sector: Government National Targets and data for Recent Years". *Center for Research and Information, The Israeli Knesset*. Report prepared for the Finance Committee of the Knesset.

Elangoven, A.R., Pinder, C.C. and McLean, M. (2010), "Calling and Organizational Behavior", *Journal of Vocational Behavior*, 76: 428-440.

Fischer, J.A.V. and Pastore, F. (2015), *Tempora Mutantour, Nos et Mutamur in Illis: Religion and Female Employment over Time*, Bonn: IZA DP No. 9244.

Friedman, M. (1978), *Back to the Grandmother: The New Ultra-Orthodox Woman* (pp. 21-26). Jerusalem: The Jerusalem Institute for Israel Studies.

Friedman, M. (1988), *The Haredi Women*. Jerusalem: The Jerusalem Institute for Israel Studies.

Fuchs, H. and Weiss, A. (1918), "Israel's Labor Market: An Overview". In: Weiss A. (ed.), *State of the Nation Report, 2018* (pp. 85-104). Jerusalem: The Taub Center for Social Policy Studies in Israel.

Gagne, M. and Deci, E.L. (2005), "Self-Determination Theory and Work Motivation", *Journal of Organizational Behavior*, 26: 331-362.

Georgiadou, E., Zabidat, A., Schmitt, G.M. and Erim, Y. (2018), "Prevalence of Mental Distress in Syrian Refugees with Residence Permission in Germany: A Registry-Based Study", *Frontiers in Psychiatry*, Vol. 9, article 393.

Goldfarb, Y. (2011), *Alternative Training Modes in Girls' Schools of the Haredi Population: The 'Chen' program*. The Ministry of Industry, Trade and Labor: Administration of Planning, Research and Economics (in Hebrew).

Goldfarb, Y. (2014), *Evaluation of the "Chen" Program: Vocational Counseling in Seminars for Haredi Women*. The Ministry of Industry, Trade and Labor: Administration of Planning, Research and Economics (in Hebrew).

Gottlieb, D. (2007), *Poverty and Labor Market Behavior in the Ultra-Orthodox Population in Israel*. Jerusalem: Van Leer Jerusalem Institute.

Hagmaier, T. and Abele, A.E. (2012), "The Multi-Dimensionality of Calling: Conceptualization, Measurement and a Bicultural Perspective", *Journal of Vocational Behavior*, 81: 39–51.

Hanmer, N. and Dahan, M. (2015), "Identification for Development: Its Potential for Empowering Women and Girls", *Voices, The World Bank*.

Horowitz, N. and Sagi, K. (2013), *Practical Engineering Policy in Israel, in the Context of the New Labor Market*. The Ministry of Industry, Trade and Employment: Administration of Planning, Research and Economics (in Hebrew).

Hunter, I., Dik, B.J. and Banning, J.H. (2010), "College Students' Perceptions of Calling in Work and Life: A Qualitative Analysis", *Journal of Vocational Behavior*, 76: 178-186.

Israel, Central Bureau of Statistics (CBS), *Annual Statistical Abstract*, various issues.

Israel, Central Bureau of Statistics (CBS) (2008), *Census of Population*.

Israel, Central Bureau of Statistics (CBS), *Labor Force Survey*, various issues.

Israel, Central Bureau of Statistics (CBS) (2002), *Social Survey, Module: Pensions and Retirement Savings*.

Israel, Central Bureau of Statistics (CBS) (2008), *Social Survey, Module: Social Mobility*.

Israel, Central Bureau of Statistics (CBS) (2009), *Social Survey, Module: Religiosity and Family in Israel*.

Israel, Central Bureau of Statistics (CBS) (2013), *Social Survey, Module: Welfare*.

Israel, Central Bureau of Statistics (CBS) (2019). Media release, on 1.12.19 - the "International Day for Rights of Individuals with a Disability".

Kasir (Kaliner), N. (2019), *Haredi Employment*. Jerusalem: The Haredi Institute for Public Affairs.

Lupu, J. (2003), *A shift in Haredi Society: Vocational Training and Academic Studies*. Jerusalem: The Floersheimer Institute for Policy Studies (in Hebrew).

Malach, G. and Cahaner, L. (2019), *2019 Statistical Report on the Ultra-Orthodox Society in Israel*. The Israel Democracy Institute.

Ministry of Industry, Trade and Labor (2010), *Populations of: Israeli Arabs, Haredi Workers, Disabled Workers, and Immigrants – Characteristics of Employment, Health and Satisfaction: Data of the 2002 and 2008 Social Surveys* (in Hebrew).

Ministry of Industry, Trade and Labor, various press releases.

Neuman, S. (2014), *Job Quality in Segmented Labour Markets: The Israeli Case*. International Labor Office (ILO) project on: "Country Case Studies on Labour Market Segmentation", ILO Discussion Paper No. 55.

OECD (2017), "Old-age Dependency Ratios". In: *Pensions at a Glance 2017. OECD and G20 Indicators*. OECD Publishing, Paris.

DOI: [https://doi.org/10.1787/pension\\_glance-2017-22-en](https://doi.org/10.1787/pension_glance-2017-22-en)

Pastore, F. and Tenaglia S. (2013), "Ora et non Labora? A Test of the Impact of Religion on Female Labor Supply", Bonn: IZA DP No. 7356.

Pieser, C. (1984), *The Relationship between Information and Interests in the Same Vocational Fields: Its Nature and Relevance to Vocational Choice and Success*. Haifa: University of Haifa, Department of Psychology, Ph.D. Thesis.

Raab, M., Ruland, M., Schonberger, B., Blossfeld, H.P., Hofacker, D., Buchholz, S. and Schmelzer, P. (2008), "GlobalIndex – A Sociological Approach to Globalization Measurement", *International Sociology*, 23(4): 596-631.

Regev, E. (2013), "Education and Employment in the Haredi Sector". In: Ben-David, D. (ed.), *A Report on the State of the Nation: Society, Economy and Policy, 2013* (pp. 119-162). Jerusalem: The Taub Center for Social Studies in Israel.

Regev, E. (2014), "Making Ends Meet – Household Income, Expenditures and Savings in Israel". In: Ben-David, D. (ed.), *Report on the State of the Nation: Society, Economy and Policy, 2014* (pp. 19-90). Jerusalem: The Taub Center for Social Studies in Israel.

Ringel, S. (2007), "Identity and Gender Roles of Orthodox Jewish Women: Implications for Social Work Practice", *Smith Studies in Social Work*, 77(2/3): 25-44.

Shea-van Fossen R.J. and Vredenburg D.J. (2014), "Exploring Differences in Work's Meaning: An Investigation of Individual Attributes Associated with Work Orientations", *Journal of Behavioral and Applied Management*, 15(2):101-120.

Sioson, E.P. and Chul, K. (2019), "Closing the Gender Gap in Financial Inclusion through Fintech", *Asian Development Bank Institute, DP No. 2019-3*.

Super, D.E. (1970), *Work Values Manual*. Boston MA: Houghton Mifflin.

Taghizadeh-Hesary, F., Yoshino N. and Fakuda. L. (2019), "Gender and Corporate Success: An Empirical Analysis of Gender-Based Corporate Performance on a Sample of Asian Small and Medium-Sized Enterprises", *Asian Development Bank Institute Working Paper Series, WP No. 937*.

The World Bank (2018), *Global Gender Gap and Economic Participation and Opportunity*.

United Nations, Department of Economic and Social Affairs/Population Division (2015a), *World Population Ageing 2015*.

United Nations, Department of Economic and Social Affairs/Population Division (2015b), *World Fertility Report 2015*.

United Nations (2018), *Report on Disability and Sustainable Development Goals*.

United Nations, Department of Economic and Social Affairs/Population Division (2019), *International Migrant Stock 2019*.

Weinreb, A., Chernichovsky, D. and Brill, A. (2018), "Israel's Exceptional Fertility". In: Weiss A. (ed.) *State of the Nation Report, 2018* (pp. 271-312). Jerusalem: The Taub Center for Social Policy Studies in Israel.

Wrzesniewski, A., McCauley, C., Rozin, P. and Schwartz, B. (1997), "Jobs, Careers, and Callings: People's Relations to their Work", *Journal of Research in Personality*, 31: 21–33.

Wrzesniewski, A. (2012), "Callings". In: Cameron, K. and Spreitzer, G. (Eds.), *Oxford handbook of positive organizational scholarship* (pp. 45–54). New York: Oxford University Press.

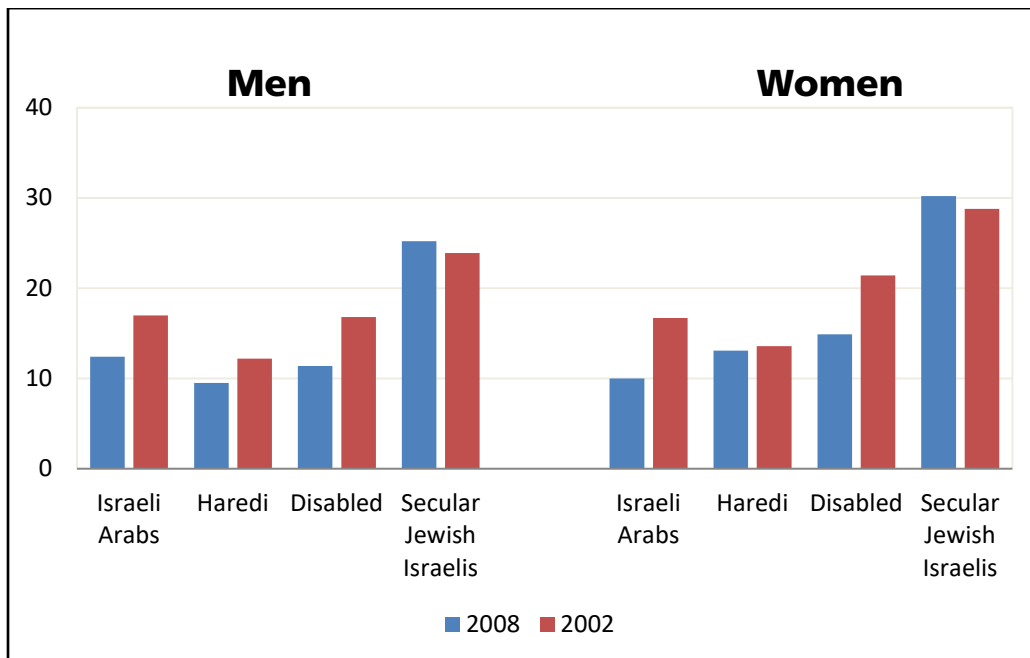
Ynet (Israeli newspaper) (2015), "Flug: An Increase in the Shares of Haredi and Arab Populations will Result in Diminished Growth" (4.1.2015 – in Hebrew).

## Appendix A

*Education, wages and satisfaction among low-employability sub-populations, compared to Israeli natives:*

Figure A1 presents the percentages of individuals with an academic education, within the three groups of Israeli-Arabs, Haredi and disabled individuals, compared to the reference group of secular native Jewish Israelis. Low-employability is indeed highly correlated with lower percentages of academic education

**FigureA1:** Percentages of individuals who have an academic education, 2008 and 2002



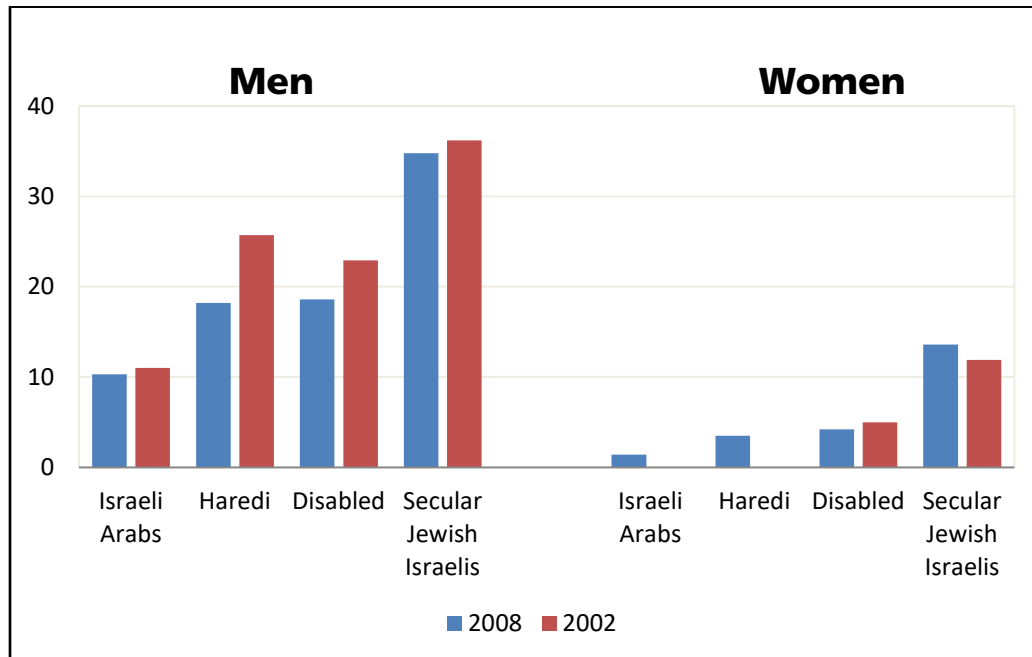
**Sources:** Israel, Central Bureau of Statistics - Social Survey, 2002 and 2008. In: Ministry of Industry, Trade and Labor, "Populations of Israeli Arabs, Haredi Workers, Disabled Workers, and Immigrants – Characteristics of Employment, Health and Satisfaction", 2010. See also in Neuman (2014)

**Notes:** Israeli-Arabs include Moslems, Christians and Druze; disabled workers are workers who reported a severe or a very severe health problem; the immigrants' group is composed of immigrants who arrived in the country after 1995

Figure A2 displays the percentages of working individuals who earn a monthly income of above 10,000 shekel (the average monthly income is around 9,000 shekel). The inferiority of women's situation is evident: negligible shares of women who belong to the four weaker sub-populations benefit from high income. Even within the reference group of native Jewish women, the shares are much lower compared to native Jewish men. The subordination of women in terms of income cannot be explained by differences in education (Figure A1). There is however some increase (between 2002 and 2008) in the share of women with high incomes, against a decrease in the share of men. The shares of workers with high incomes decreased (between 2008 and 2002) also

within the groups of male disadvantaged workers, with the exception of new immigrants. These records could indicate deterioration in the economic status of disadvantaged secondary labor market workers, and on the other hand, successful absorption of male immigrants in the local labor market.

**Figure A2:** Percentages of working individuals who earn a monthly income of above 10,000 shekel, 2008 and 2002



**Sources:** Israel, Central Bureau of Statistics - Social Survey, 2002 and 2008. In: Ministry of Industry, Trade and Labor, "Populations of Israeli Arabs, Haredi Workers, Disabled Workers, and Immigrants – Characteristics of Employment, Health and Satisfaction", 2010. See also Neuman (2014)

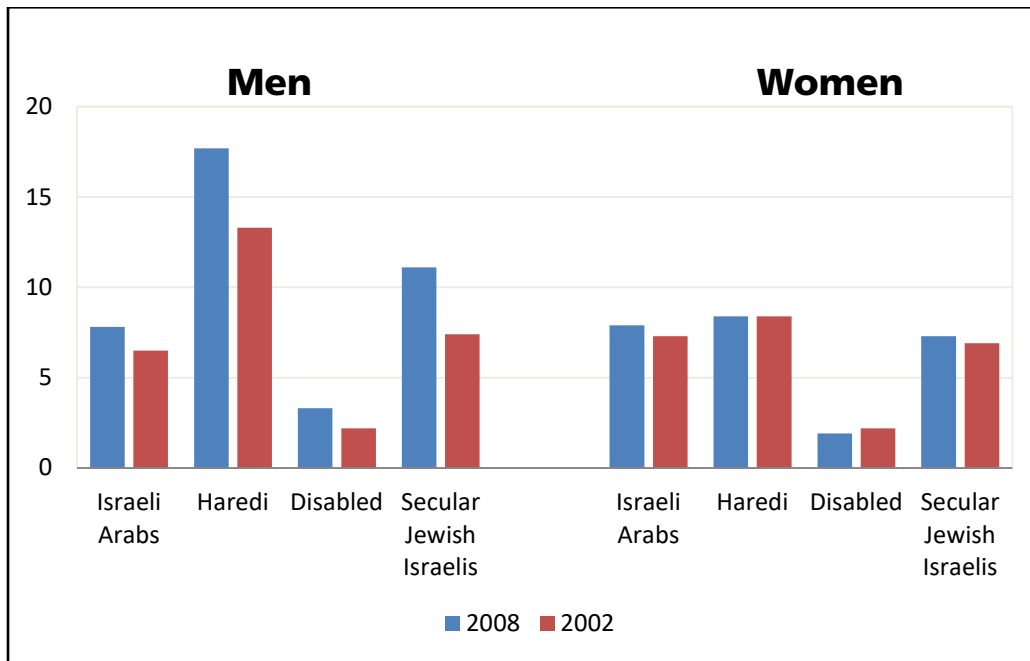
**Notes:** Israeli-Arabs include Moslems, Christians and Druze; disabled workers are workers who reported a severe or a very severe health problem; the immigrants' group is composed of immigrants who arrived in the country after 1995

Questions on satisfaction from labor income, the economic status (in general) and the health status were also included in the 2002/2008 Social Surveys. As an illustration, Figure A3 displays the percentages of individuals who are 'very satisfied' with their economic status, within the five groups, in 2008 and 2002, for men and women separately. The most striking figure is the high satisfaction level of Haredi individuals (in particular men) and also Israeli-Arab women, although these two groups have the lowest objective economic status. These figures reassure that life satisfaction and well-being are only marginally related to income and to other objective economic determinants. Culture, perceptions and attitudes are most probably more important factors behind



satisfaction. At the other end, disabled individuals and new immigrants report low levels of satisfaction with their economic status, probably, due to unfulfilled expectations.

**Figure A3:** Percentages of individuals who are 'very satisfied' with their economic status, 2008 and 2002



**Sources:** Israel, Central Bureau of Statistics - Social Survey, 2002 and 2008. In: Ministry of Industry, Trade and Labor, "Populations of Israeli Arabs, Haredi Workers, Disabled Workers, and Immigrants – Characteristics of Employment, Health and Satisfaction", 2010. See also Neuman (2014)

**Notes:** Israeli-Arabs include Moslems, Christians and Druze; disabled workers are workers who reported a severe or a very severe health problem; the immigrants' group is composed of immigrants who arrived in the country after 1995