Labor Market Outcomes of Middle Eastern and North African Immigrant Women in Germany

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In 2003, foreign-born individuals comprised approximately 12.9% of the population in Germany and 11.9% in the U.S. (OECD 2007). 18.6% of the population in Germany has some sort of immigrant background, i.e. foreign-born or with foreign-born parents. About half of those with an immigrant background - 6.6 million - are women. Most immigrant women in Germany followed their husbands or fathers as dependents, arrived as refugees, or have an ethnic German background. Due to severe labor shortages in the 1950s and 1960s, the Federal Republic of Germany signed guest worker agreements with several countries, thereby laying the grounds for the family reunification that took place from the mid-70s onwards. While other countries increasingly sought to fill the labor shortages with native women, Germany adhered to the traditional breadwinner model, characterizing a woman's role in society by the three Ks: *Kinder, Kirche, Küche* (children, church, and kitchen).

Today, gender inequalities in the labor market persist. Although the labor force participation rate of prime-age (aged 25-54) German women resembled that of U.S. women in 2001, it is about ten percentage points below the rate of their Scandinavian peers (Jaumotte 2003). Among OECD countries, only Korea and Japan display a higher gender wage gap than Germany (OECD 2005).[1] In most fields, women do not hold key positions, and their occupational pattern is skewed towards jobs that entail lower rewards. How do immigrant women fare in these conditions? To date, relatively little is known on immigrant women's economic activity in Germany. In contrast to the U.S., where a sizable body of literature on immigrant women's integration into the economy has evolved (e.g. Cobb-Clark 1993; Duleep and Sanders 1993; Schoeni 1998a, 1998b), empirical evidence in Germany has primarily focused on immigrant men (e.g. Kogan 2004, 2007; Velling 1995). This paper aims to fill a substantial gap in the literature by studying the labor market outcomes of immigrant women in Germany. We focus on a particular group of immigrants: women from the Middle East (Iraq, Turkey and Iran) and North Africa (Morocco and other North African countries). In contrast to previous studies that only relied on respondent's citizenship to construct a measure of immigrant status, our data allows us to distinguishing immigrants based on their citizenship *and* their country of origin. We are thus able to compare two generations of immigrant women in Germany.

Our second aim is to contribute to the existing evidence on the education-employment paradox of Arab and Iranian women. Previous research on the economic activity of immigrant women in the U.S. finds that differences in human capital and family structure do not adequately account for the heterogeneity in women's employment patterns across ethnic groups (Read and Cohen 2007; Read and Oselin 2008). In particular, Arab and Iranian women deviate from standard theoretical explanations by combining high levels of educational attainment with relatively low rates of employment (Read 2004). Our study distinguishes between five immigrant groups from Middle Eastern and North African countries and contrasts the experiences of women from Iraq, Morocco and North Africa, as representatives of the Arab case, with the experience of Turkish and Iranian women. These immigrant

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[1] In Germany, the median earnings of male full-time employees are about 24% higher than those of women.

women share similar cultural value pattern and stem from societies with traditional "patriarchal gender systems" (Offenhauser 2005).

As a group, the educational attainment of women from the Middle Eastern and North African countries studied in this paper is relatively low. Less than 5 % hold a tertiary degree, and more than 77% have no degree or a school degree (equivalent to a high school degree in the U.S.) as their highest educational credential. However, there is considerable heterogeneity among the groups. Only 2 % of Turkish and 3 % of Moroccan women, in contrast to 27 % of Iranian and 20 % of Iraqi women possess a tertiary degree. The latter two groups even surpass the German rate: about 13 % of native German women hold a tertiary degree. The labor force participation rates of women from Iraq (31%), Morocco (43%), Turkey (47%), North Africa (52%) and Iran (55%) are below those of most other immigrant groups in Germany, and considerably lower than among German women (73%). This is not true for immigrant men, who display similar labor force participation rates (above 80%) than their native peers (87%).

Theory and expectations

In the standard labor supply model, a woman chooses to work if the market wage rate is greater than her reservation wage. The reservation wage reflects individual's taste, for example the value assigned to home production, such as caring for children. Although participation differences are likely to vary between groups defined by age, sex, race, ethnicity, etc., there may well be differences in tastes within any group for which we cannot control (Becker 1965; Ben-Porath 1973; Reimers 1985). The case of Arab American women forgoing labor market opportunities to fulfill family responsibilities (Read and Oselin 2008) can be interpreted as such a difference in taste. Generally, education strengthens the attachment of women to the labor market, by increasing potential earnings.

The five immigrant groups studied in this paper differ in several aspects. Their immigration pattern and motives for migrating differ, especially between the Turkish group and the rest. However, the Turkish group is not homogeneous. While many respondents are first and second generation immigrants, a considerable fraction of respondents are Kurdish refugees. We also expect differences among the generations. In contrast to the second generation, the first generation may experience disadvantages in the labor market due to a lack of resources, such as foreign educational credentials and work experience and insufficient language proficiency (Heath and Cheung 2007). We expect the family structure to be a main difference between German and immigrant women from the Middle East and North Africa. Immigrant women can be expected to have a higher reservation wage because they are more likely to be married and to have more children than German women. Among male immigrants, empirical evidence suggests a positive effect of time spent in the host country, which suggests some degree of assimilation (Chiswick 1978). Whether this is true for immigrant women from the Middle East and North Africa in Germany remains an empirical question to be answered in this study.

Data and research methodology

Data for this study come from the 2005 German micro census scientific use file. The German micro census is an annual survey of 1% of households in Germany. The scientific use file consists of a 70% subsample. The advantage of this data set is its large sample size and information on a range of labor market outcomes, educational attainment, and household composition. Also, it includes a sufficiently

large number of immigrants and immigrant children to allow for separate analyses by immigrant subgroup. In contrast to previous years of the micro census, the 2005 data allows for a more precise definition of immigrant status based on nationality and (parents') country of origin. The sample consists of women aged 20-59. We distinguish between native Germans and five immigrant groups from the Middle East and North Africa: Iraq, Iran, Turkey, Morocco and North Africa.

We estimate logit regression models to analyze ethnic differences in women's labor force participation, avoidance of unemployment and occupational status. Independent variables include *educational attainment*, coded as (1) less than a school degree; (2) school degree; (3) vocational degree; and (4) tertiary degree. *Family status* is captured with a dummy variable indicating the marital status of the respondent, and with a set of dummy variables indicating the number of children under the age of fifteen in the household (none, one, two, three or more). We approximate immigrants' degree of *assimilation* by including a variable that captures the time a respondent has been living in Germany as of 2005. We distinguish between immigrants who have been in Germany for more than eleven years, between six and ten years, less than five years, and the second generation. The second generation includes respondents born in Germany as well as those immigrated before the age of five. As a second indicator of assimilation, we include information on whether a respondent holds the German citizenship. Additional variables include a dummy indicating whether the respondent lives in the regions of the former Federal Republic of Germany, as well as age and age squared.

Earnings are modelled using standard OLS regression techniques on the natural logarithm of gross hourly wages. Firms' sector of activity and type of ownership (private vs. public) will be included in the earnings' equations in addition to the variables mentioned above.

Preliminary findings - descriptive
The descriptive evidence based on the micro census indicates substantial lower labor force participation rates of immigrant women from Middle Eastern and North African countries compared to German women in the age range 20 to 59. Iraqi women display the lowest rates (28.7%), followed by women from Morocco (45.4), Turkey (50.0%), North Africa (50.3%), and Iran (55.4%). The labor force participation rate of Iraqi women is less than half the German rate (78.8%). In addition to low labor force participation rates, immigrant women from the Middle East and Northern Africa suffer high unemployment rates and poor occupational standing. About 9% of German labor force participants are unemployed. The figure is substantial higher for Iraqi women (50%), North Africans and Iranians (33%) and comparably low for Turks (22%). 64% of employed German women work in a profession of high status, in comparison to 58% of Iranians, 32% of Moroccans, 25% of Iraqis, 23% of Turks and 18% of North Africans.

Taken together, the descriptive evidence based on the three sets of explanatory variables – educational attainment, family status and assimilation – points towards the diverse backgrounds of the five immigrant groups. Iranians stand out as highly educated, with a high proportion having spent a considerable time in Germany, and a high proportion with similar family arrangements to that of Germans. Immigrant women with a Turkish background, on the other hand, are at the other end of the education spectrum and display a family status less conducive to labor force participation. However, a plurality of this group is either born in Germany or has grown up there. Iraqi women display a bimodal educational distribution, little exposure to Germany, and large families. On most measures, Moroccan and North African women appear closest to Turkish women.

Preliminary findings – logistic regression models

First, we try to explain the lower participation rates of each immigrant group compared to native German woman, by estimating the odds of participation in a model that includes native Germans and all five immigrant groups. The preliminary findings indicate that differences in human capital and family structure explain most of the gap between German women and immigrant women from Turkey, Morocco and North Africa. In contrast, these standard explanations insufficiently explain the participation gap of Iranian and Iraqi women.

Second, we analyze the extent to which educational attainment, family characteristics and degree of assimilation affect women's labor force participation and whether they account for the variation observed within each immigrant group. For this, we estimate the odds of participation for each group separately. For the five immigrant groups we proceed in three steps and include each set of indicators consecutively, always controlling for age, age squared and living in the regions of former Eastern Germany. Preliminary logit estimation results confirm the expected association between educational attainment, family status and labor force participation among German women (educational attainment increases the odds of participation, while being married and having more children are associated with a decrease). In the full model, human capital has the expected effect for Turkish women: holding a tertiary degree increases their likelihood of labor force participation compared to those women who have no educational credential or who only have a school degree. Similarly, Iranian and North African women holding a tertiary degree have a higher likelihood of participating in the labor market than women with no educational credential. In contrast to the results for Germans and Turks, however, possessing a tertiary degree does not increase the likelihood of participating in the labor market compared to having a school degree for Iranian and North African women. Human capital does not contribute to explain the variation in Moroccan women's participation rates. For them, being married and having more than three children is the greatest predictor of variations in participation. Iraqi women show a different pattern: In contrast to the other groups, within group variations are not explained by marriage. Being married has no statistically significant effect on participation. Preliminary results also indicate that Iraqi women holding a vocational degree have a higher probability to participate in the labor market in contrast to women holding a tertiary degree, which is not true for women having no or only a school degree. This could be interpreted in the following way: Iraqi women with the intention to participate in the labor market acquire a vocational degree instead of tertiary education.

The next models estimate the probability of avoiding unemployment amongst the labor force participants and the probability of attaining a high status job among the employed. Essentially, we find that higher educational attainment protects German and Turkish women from unemployment, and to lesser extent also Iranian women. This is not the case for the other immigrant groups. Education increases the probability of obtaining a high status job for German, Turkish, Moroccan and North African women, but not for Iraqi and Iranian women. These preliminary findings indicate that immigrant women from the Middle East and North Africa are a heterogeneous group, with standard human capital explanations holding for some groups' labor market outcomes, but not for others.

References available upon request