

Tibor Tatay – Katalin Bándy

Analysis of the Economic Impact of Mass Immigration in the Light of German Data

SUMMARY: Many welcomed the mass immigration of 2015 from an economic approach in Germany. Immigrants were seen as the solution to the German labor shortage and the potential to improve the expected deterioration of public finances as a result of demographic trends. As German integration policy has become a kind of standard in the European Union, we have examined the economic consequences of mass immigration. Looking at the German intergenerational balance sheet, immigration appears to improve the sustainability of public finances if a high proportion of immigrants obtain the same qualifications as the autochthonous German population. Also, access to the labor market will only be achieved if the right level of qualification is obtained. Empirical evidences show that the qualification level of even the second- and third-generation immigrants does not reach that of the native Germans. Unemployment among them is above the German average. The actual data indicate that negative scenarios are likely to take place for newcomers, i.e. they probably will not meet the requirements of the German labor market and will not improve the long-term sustainability of German public finances.¹

KEYWORDS: Public Finance, Budget, Migration, Intergenerational Balance Sheet

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With the first major wave of immigration in the 21st century large numbers of migrants arrived in Europe, most of them in Germany in 2015. Both *'Merkel's narrative'* and many of the economic players welcomed the immigrants with joy and optimism. The overwhelming majority of refugees were young men of working age who looked motivated and believed they would soon be absorbed and integrated into the German labor market. Executives of major corporations have made

statements that refugees will lay the foundation for the 'new deal' of the German economy (Frankfurter Allgemeine Zeitung, 2015). Over the past three years, according to German statistics, more than one and a half million refugees have arrived (registered) to Germany. The German government has recorded seven hundred thousand rejected applications by summer 2018, and is nearly as many the estimated number of those who are out of sight of the German authorities, but who may reside in the country. Alongside the principle of solidarity and the quota system, the German policy of inclusion has become a kind of 'EU

E-mail address: tatay@sze.hu

standard', this is the reason why in this study we want to examine the costs that immigration generates and the economic benefits it can lead to. In this paper, we intend to examine the demographic situation in Germany and the labor force that the German economy would need based on the current qualified labor structure in Germany. We would like to evaluate how this demand can be met by those from the Middle East and Africa. Given that the structure of education and training of those arriving from the 'sending countries' is far below the German economic expectations, it is also important to look into the costs of their training and retraining. We would like to evaluate whether the available data is likely to indicate that immigrants entering Germany within uncontrolled conditions can reach the level of education of German natives. The field of our study is the German economy, hence it serves as a model for studies based on numbers and may be useful for drawing economic conclusions. Comparing the available statistics of recent years with the framework of model calculations of German researchers, we evaluate the chances of possible outcomes.

THE GERMAN DEMOGRAPHY AND ITS IMPACT ON THE ECONOMY

German statistics record exact figures on the country's demographics since 1900. During the years of the two World Wars and since 1972, deaths have been consistently higher than births. Fertility rates have dropped significantly over a hundred years from 4.93 percent in the early 1900s to 1.59 percent in 2016. Germany is not an exception in this regard as aging is common across the European continent. Germany's ageing society shows a 'classic' pyramid structure of the growing population at the beginning of the 20th century, but the changes of the

past decades have significantly altered this age pyramid to provide, as projected, the shape of an urn, also known as the onion, by 2050. This structure is narrow at the bottom, expanding upwards, meaning a decline in the young generation and an increase in the elderly. The rising proportion of older people is even complemented by the high average of life expectancy at birth, which is common in developed countries. The economic and social well-being as well as the easy access to quality health care are the reasons for this. As a result the proportion of 32 persons of retirement age (over 67) for a 100 of working age (aged between 20-64) in 2005 will reach 49 to 51 persons by 2030 and 56 to 63 persons by 2050. In addition to the aging of the autochthonous population, a decline in number can also be predicted. The trackline that is not taking into account immigration is predicting a decline in the German population of around 4.5 million by 2030 (Bonin, 2016).

Demographic change has many implications for the economy. An absolute change in the number of people of working age means a reduction in the available workforce. Changes in the ratio of active to inactive population affect the revenue and expenditure of public finances. According to some views in Germany, the replacement of the active population could be addressed through the migration channel. Migration can mitigate the effects of unfavorable demographic dynamics of the native population, given that immigrants are mostly young and have a higher fertility rate than the German host society.

The KfW Bankengruppe (2013) has studied the relationship between demography and the economy with forewarning intentions. Their study highlights that the greatest risk lies in the lack of young talents. They recommend moving qualified and educated workers to Germany, looking for talent abroad. After a 2013 study Deutsche Bank director *David*

Folkerts-Landau said in 2015 that one million immigrants was the best thing that could have happened to Germany. He admitted that immigration costs money, but that human capital is the most important source of the economy, moreover, investing in it comes with high returns. Funds used up on the integration and training of immigrants is money well spent that returns in a few years (Focus, 2015).

The cost-benefit analysis of immigration is a very sensitive issue in Germany (also). Most of these endeavors are interpreted by Western European mainstream politics as something that has been degraded to profit calculation. After all, isn't it unworthy to analyze the costs to the state of a disabled person, a socially disadvantaged person or a refugee?

In our analysis, we do not intend to discuss the actual rate of refugees admitted to fulfill international treaties and settle humanitarian issues. We are not examining the burden of this put on German shoulders. The purpose of our study is to assess the potential benefits of economic migration based on the scenarios and data that have become available in recent years.

THE PRO IMMIGRATION ECONOMIC ARGUMENTS

Economic integration is a condition to social integration. Economic integration basically means integration into the labor market. In Germany, many companies offer jobs and training to immigrants. The state is behind these efforts by implementing supporting measures, and with this system of subsidies along with the information policy encouraging the employment of immigrants, it is seeking to strengthen the commitment of the companies. According to data provided by the KOFA Project (2018), which presents the

professional disciplines integrating refugees and the *iw Medien* (2018) over 400,000 German companies have been employing immigrants since 2015.

Figures from the German Institute for Economic Research (*iwkoeln.de*) show that the flood of immigrants was a great deal to the German economy. The GDP of the German economy grew by 1.9 percent in 2017, of which 0.3 percent was 'due' to the immigrants on whom the state spent more than EUR 20 billion, which, in the light of the budget surplus of EUR 19.2 billion, seems not to be a real sacrifice. The construction industry had the largest share of the cake, with 4.3 percent more home constructed in 2017 than in the previous year. Domestic consumption growth has increased at both the household and the community levels (2 to 2.5 percent), which is a significant result, given that the economic growth of Germany has traditionally been driven rather by exports. There is a significant labor shortage in key areas such as mechanical engineering, health care, and education, which is why it is important to organize training and that the immigrants start to work as soon as possible (Fichner et al., 2017).

It should be noted that developments and investments that can be linked to immigrants generate economic growth, and even in the case of public spending on other areas, of course, from a statistical point of view, would obviously result in economic over-performance.

The state would address structural labor shortages and maintain the German pension system by integrating immigrants into the labor market. Assuming the hypothesis that all immigrants are able and willing to integrate into the German labor market, the Ministry of Labor estimates that 400 000 workers a year are needed. It is worth examining further the possible long-term effects of immigration on the public finances in Germany.

POSSIBLE LONG-TERM EFFECTS OF IMMIGRATION ON GERMAN PUBLIC FINANCES

Bonin's (2016) study looked at the potential gains of immigration, its impact on the primary balance of public finances. The study evaluates together the integration costs and the expected benefits after integration. The methodology of the study is based on the intergenerational balance sheet.

The applied intergenerational balance sheet has been developed to appraise the long-term budgetary impact of social policy (Bahnsen, Manthei, Raffelhüschen, 2018). The gist of the intergenerational balance sheet is to forecast the long-term general government revenue, expenditure and consequently, the budget balance. A summary of the present value of the balances shows the implicit deficits or surpluses of current economic policy frameworks for the future generations taking into account expected demographic trends. The balance sheet shows whether the budget is sustainable, and also to what extent and distribution the current economic policy framework burthens future generations. (Auerbach, Gokhale, Kotlikoff, 1991; 1992; 1994) Studies of similar approach have been made regarding pensions and health insurance in Hungary, for example by *Szűle* (2013) and *Giday* (2012).

Bonin's (2016) study considered various scenarios for assessing the impact of immigration on public finances. Therefore, calculations have been made on the basis of how income flows between present and future generations, how much each individual contributes to the budget, and how much they use from it. To study the effects of immigration, a baseline was first set up that didn't take into account immigration. The baseline used data from 2014 as the study estimated the effects of mass immigration of 2015. The average tax

payments and contributions per person were calculated based on 2014 data. The factual figures showed the sum of expenses relative to health, pension, social, educational and other expenditures. The primary balance of the state budget, excluding interest payable on government debt, showed a surplus in 2014. However, the study estimated that this balance is likely to continue to deteriorate due to the aging of the population alongside the unchanged economic policy framework. As the population ages, the state's tax and contribution revenues are declining, while health, pension and social spending continue to grow. According to calculations, the primary balance of German public finances could turn into a deficit by 2029. When forecasting the budget balances until 2020, calculated at a discount rate of 3 percent, the sum of their present values was negative for 2014. According to the intergenerational balance sheet established the implicit deficit was 142.5 percent of the German GDP in 2014 (Bonin, 2016, p. 6).

The study then counted 1 million immigrants for 2015, noting that further immigration figures could be uncertain. Initial data showed that 69 percent of immigrants were male, 30 percent under the age of 18, and 70 percent under 30. This age structure was much more favorable from a labor market perspective than the one of the local population, since the proportion of habitants under the age of 18 was only 16 percent in Germany and merely one-third under the age of 30 at the end of 2014. Immigrants are thus expected to be most active on the labor market by the mid-2030s. The largest number of immigrants will be between the ages of 20 and 64 in 2015. These age groups contribute financially the most to public finances and put the least burden on the expenditure side. Due to the composition of the age group, most of them retire only after 2060. One million immigrants, for most of

them are in active age, would raise by about 1.3 person the rate of active people per 100 people above the age of 65.

The economic benefits of integration depend on the length of time that integration takes, the costs involved, and the qualifications and skills that immigrants acquire during the integration process. From this perspective, the above cited study considered several scenarios: from the perspective of the duration of the integration, a 10-year optimistic and a 20-year less favorable version were developed. The study also considers the costs of integration in two scenarios: either EUR 13 000 or EUR 20 000 per year shall be spent on an immigrant. The calculations also included variants applicable to different levels of education later achieved.

The study estimates that the costs of integration include German language training, vocational training and other costs related to integration. The annual costs decrease linearly with time over the integration period. When the integration period runs out the public expenditures per immigrant would be equal to the amount spent on the resident population.

In the best-case scenario, immigrants should achieve the average qualification level and work performance of the resident population in order to provide the German public finances with the same amount of payments as the native population. Of course, this would also mean that, on the expenditure side, they would not put a greater burden on the budget than the resident population. Given a ten-year integration period, this would be expected for 2025 for immigrants settled down in 2015. Assuming a longer integration time, this date will be postponed. A longer period of integration also means that they will achieve a contribution equivalent to that of the native population at a later age, and the time they are expected to work will be shorter. If the average qualification of immigrants reaches that of the

non-immigrant population, depending on the length of the integration, the balance of the budget in Germany would be improved by 2025 or 2030. When the first generation of immigrants of 2015 retires in 2060 the budget balance will be worsened compared to a situation without immigration.

The scores of the intergenerational balance sheet are particularly sensitive to the qualifications acquired by immigrants. The study considers the acquisition of appropriate qualifications as the basis for labor market integration. Although, labor market integration is crucial to the 'fiscal performance' of immigrants, i.e. their ability to supply the German public finances through their contributions. If they do not reach the average level of qualification of the resident population, even assuming they are employed, they will not make as much contribution to the budget as the average German worker.

The calculations for the different scenarios are summarized in *Table 1*.

The positive values in the table represent the extra burden, in euros, that every native German would have to bear each year if a given situation were to materialize. Negative values indicate a decrease in the annual burden on the German native population.

In his 2016 study Borin assumed that full economic integration would be achieved with immigrants reaching the average qualification level of the German population. However, Table 1 also envisages possible figures for less favorable outputs. It can be seen that, at a lower integration cost of EUR 13 000, assuming a ten-year integration period, at least 60 percent of the immigrants would have to reach the average qualification level of the German population to make a positive contribution to the German public finances in the intergenerational balance sheet. If immigrants reach the German average qualification level in a lesser number only, meaning that they

**ESTIMATED ANNUAL EXTRA BURDEN FOR A GERMAN CITIZEN CALCULATED
ON THE INTERGENERATIONAL BALANCE SHEET UNDER THE DIFFERENT SCENARIOS
OF IMMIGRANT INTEGRATION IN THE CASE OF ONE MILLION IMMIGRANTS
ARRIVING IN 2015**

	Integration cost of EUR 13 000	Integration cost of EUR 20 000
Proportion (%) of professional qualification acquired	For a ten-year integration period Extra burden (in EUR)	
0	52	62
20	34	44
40	16	26
60	-2	8
80	-20	-10
100	-39	-28
Proportion (%) of professional qualification acquired	For a twenty-year integration period Extra burden (in EUR)	
0	67	86
20	50	70
40	34	53
60	17	37
80	0	20
100	-16	3

Source: Borin (2014, 2016)

do not reach the average German level of qualification for all immigrants, they represent an additional burden for German taxpayers compared to a scenario without immigration. At higher integration costs of EUR 20 000 and a longer integration period of 20 years, however, immigrants have a positive impact on the intergenerational balance only if a higher rate of the qualification level is achieved. With the combination of the two less favorable scenarios, such as the integration cost of EUR 20 000 and the 20-year integration period, the positive economic impact of immigration

is no longer guaranteed even if the average educational level of immigrants subsequently reaches the average level of qualification of the autochthonous German population.

The critical approach towards 'Willkommenspolitik' appears in the calculations of leading researchers (Raffelhüschen 2017; 2018) who argue that this policy does not serve the German economy in the long run, rather imposes additional costs on the budget without the possibility of a return. Taking into account a lifetime cost analysis, immigrants who are not or hardly (periodically) integrated

into the German labor market represent a total cost of up to EUR 450 000 for the public finances. The costs of provisions, vocational training, language training, and social care for the uneducated or low-skilled people is impossible to estimate and can generate higher expenditures than anticipated. It cannot be assumed that all immigrants will be integrated into the labor market as full productive workers. Inadequate qualification only makes it difficult or even impossible to undertake a career, leaving masses 'in the captivity' of the social welfare. These costs need to be repeatedly financed by the means of tax raisings.

In the light of facts of the past few years, one can ask which scenario is likely to fulfill the trends.

GERMAN GOVERNMENT SPENDING ON IMMIGRANTS

The costs of immigration are essentially determined by the law. German social law stipulates the types of benefits and allowances that various persons are entitled to. In the context of Article 20 (1) of the Fundamental Law, Article 1 (1) requires the legislator to guarantee to every person an adequate standard of living. This fundamental right applies to both Germans and foreigners (Grundgesetz).

Foreigners who stay temporary by law in Germany are entitled to benefits under the Act on benefits afforded to asylum seekers (Asylbewerberleistungsgesetz, AsylbLG).

Those who are subject to the asylum procedure [§ 1 (1) and Articles 1 and 2 of the AsylbLG], their spouses, partners or minor children are entitled to benefits without themselves fulfilling the above conditions (Section 1/6 of the AsylbLG). Provided that the person entitled to benefits resides at the initial place of reception in accordance with section 44 of the AsylbLG, benefits in kind

are provided for his needs for food, housing, heating, clothing, health and consumer goods [§ 3 (1) first sentence of the AsylbLG]).

Furthermore, the sentences 5 to 8 of Paragraph 3 (1) of the AsylbLG stipulate that in addition to the necessary needs, benefits are provided by the initial reception facilities to meet the personal needs of daily life. These should be covered by benefits in kind where possible within the limits of reasonable administrative costs. Where benefits in kind are not possible at reasonable administrative costs, services shall be rendered in the form of vouchers or other similar non-cash settlements, or even cash benefits may also be provided. In the case all necessary personal needs are covered by cash benefits for example, the amount payable is EUR 135 per month for a single beneficiary. After six months or after leaving the accommodation for refugees benefits are paid in cash (§ 3 of the AsylbLG).

After a 15-month stay in Germany, the beneficiaries are entitled to social benefits under Paragraph 2 (1) of the AsylbLG in accordance with the Social Act, Book 12 of the Sozialgesetzbuch (SGB XII). It is true that notwithstanding the analogue application of the SGB XII, these persons were not classified as entitled to social assistance but as a group of beneficiaries under the Asylum Act (AsylbLG). After 15 months, immigrants become eligible for full health care.

Expenditures determined under the asylum legislation represented and represent as a whole the following costs to the German federal budget today:

As of 2016, costs have not decreased but increased. Earlier plans had forecasted expenditure decline already for 2018. Plans include EUR 21.4 billion for 2018. *Figure 1* shows that the estimated cost is EUR 22.9 billion for 2019. In a previous estimate only EUR 17.1 billion had been committed for planned expenditure for 2019 (Boockmann-Klee-Scheu; 2018).

Figure 1

**SPENDING BY THE GERMAN FEDERAL GOVERNMENT ON REFUGEES FOR 2016–2019
(FIGURES IN EURO BILLION)**



Source: Wissenschaftliche Dienste Deutscher Bundestag (2018) and Self-edited (<https://de.statista.com/statistik/daten/studie/665598/umfrage/kosten-des-bundes-in-deutschland-durch-die-fluechtlingskrise/>) based on DEStatista

As related data are of uncertain nature, we will not address the costs increase in security and criminal affairs, which may be related to mass immigration and consequently would also put a burden on public finances.

It is also worth mentioning that the native population spends most of its income domestically increasing the revenue of the German state through sales taxes and excise duties. Single male immigrants, on the other hand, transfer money from their available funds to support families who have stayed at home. Their spending in Germany are reduced by these amounts, thus generating less income from their available funds in favor of the German state through sales taxes and consumption taxes than the local population.

**STATE OF MIGRATION IN GERMANY
AND THE SITUATION OF THE
IMMIGRANTS IN THE ECONOMY**

23.6 percent of the German population had a migration background in 2017. This percentage includes immigrants and 'multi-generational' descendants of German nationality who are of foreign origin. The majority of them are of Turkish descent, accounting for 17.4 percent of the total population with migrant background. According to published data, newly arrived refugees came in the first place from Syria, accounting for 40 percent of the asylum seekers between 2014 and 2018. A total of 5.8 percent of asylum seekers came from Afghanistan and Iraq. Significant numbers of immigrants from

Albania and Kosovo were registered (between 11-15 percent). Citizens of Sudan, Eritrea, Somalia since 2017, and Nigeria since 2018 have been seeking asylum, but most continue to come from Syria (Statista, Das Statistik-Portal,). Our study doesn't intend to analyze intra-European immigration. (See Figure 2)

More than 1 700 000 people have requested asylum in Germany according to data including the year 2018. 700 000 of these asylum seekers were Syrians.

Most of the communities with a migrant background in Germany are Muslims, as are the newcomers, consequently it seems unavoidable mentioning in our writing the social factors, which provide a decisive picture of immigrants. 13.4 percent of the citizens

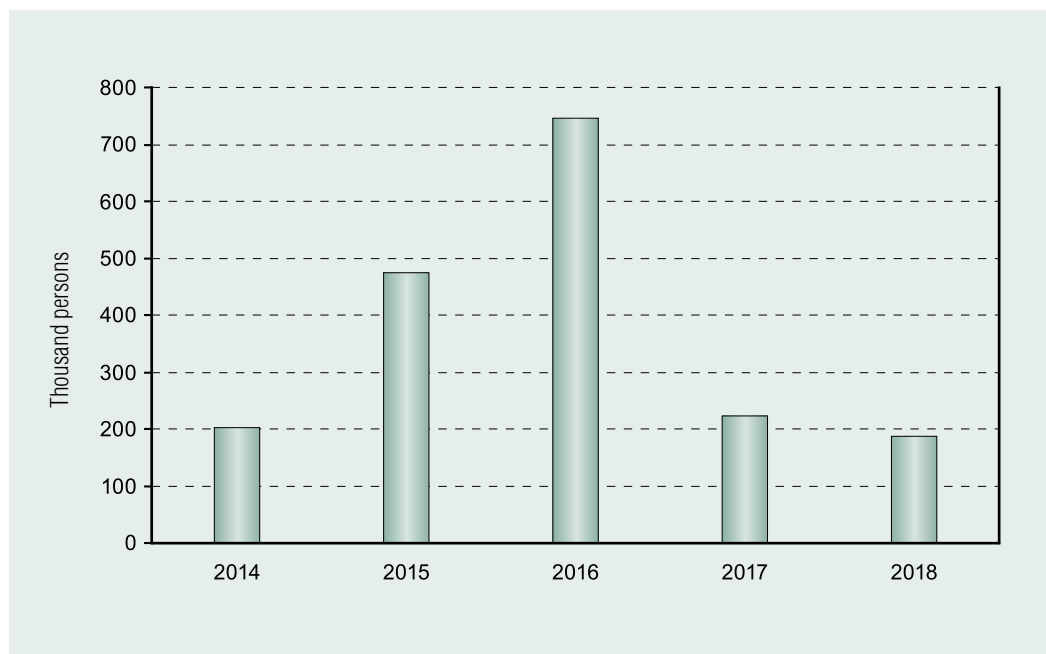
with a migration background already living in Germany have no elementary education and 38.4 percent have no vocational qualifications. The same proportions for the non-immigrant population are only 1.7 percent (no elementary education) and 14.5 percent (no vocational qualifications).

Germany's unemployment rate was 5.7 percent for 2017, with Muslims facing the highest unemployment pressure on the labor market. 55 percent of Lebanese, 46 percent of Iraqis, 37.5 percent of Afghans, and 37 percent of Iranians were unemployed. The largest Turkish community had an unemployment rate of 21.5 percent.

The 43.1 percent of the unemployed in Germany have an immigrant background,

Figure 2

NUMBER OF ASYLUM APPLICATIONS FILED IN GERMANY BETWEEN 2014 AND 2018



Source: <https://de.statista.com/statistik/daten/studie/76095/umfrage/asylantraege-ingesamt-in-deutschland-seit-1995/> own collection and editing based on the source

49.5 percent in the western provinces, but there are provinces such as Hessen where this rate amounts to 57.7 percent (destatis, 2017).

The situation of immigrant women is quite different from that of the European native population. Adhering to the Islamic religion requires a significantly different lifestyle for women than we are used to in Europe today. The main task of women is to preserve their virtue being at the basis of the honor of the family, keep an absolute obedience to their father and later to their husbands, moreover to fulfill their duty to give birth to a child, preferably a son. This religious message as well as the conventions tend to limit women's opportunities for social engagement. Along these lines, it is not a priority for families to educate girls, and often their parents take them out of school prematurely and prepare them for their primary duty of serving the family as faithful Muslim wives and mothers. Women from traditional Islamic families remain on a low education level or are unable to acquire professional qualifications. They have limited labor market prospects and, taking their family expectations into account, their involvement in employment is not scaled to serve economic recovery. Even before the mass immigration happened in 2015, Sarrazin (2012) demonstrated that in European ('multi-generational') Muslim communities, women's education as well as their labor market integration is below average, but their dependence on the social welfare systems is higher than the average, i.e. higher than that of women of the host society or other non-Muslim social groups.

Knowing the situation of the multi-generational Muslim population living already in Germany it is important to consider the data presented as it highlights the rather uncertain integration of the newcomers into the labor market.

QUALIFICATIONS OF THE IMMIGRANTS

According to figures from the German Federal Office for Migration and Refugees the volume of immigration should help to reduce labor shortages. If we look at the data of the German Statistical Office (Statistisches Bundesamt), we can see that figures on immigration in Germany are elevated. Despite these numbers, being aware of the fact that the number of job vacancies is still depressing the German economy, the question shall be raised to know where that crucial part of immigrants fit for work is?

Since the labor market can be expected to absorb the qualified immigrants speaking German, the rest of the immigrants in high number pop up in the welfare system despite the structural labor shortage this economy produces.

Educational data on immigrants arriving in 2015, 2016 and 2017 reported on a voluntary basis have been recorded by the Federal Office for Migration and Refugees (BAMF 2016; 2017; 2018).

The largest proportion of immigrants reported attending high school as the highest level of their education.

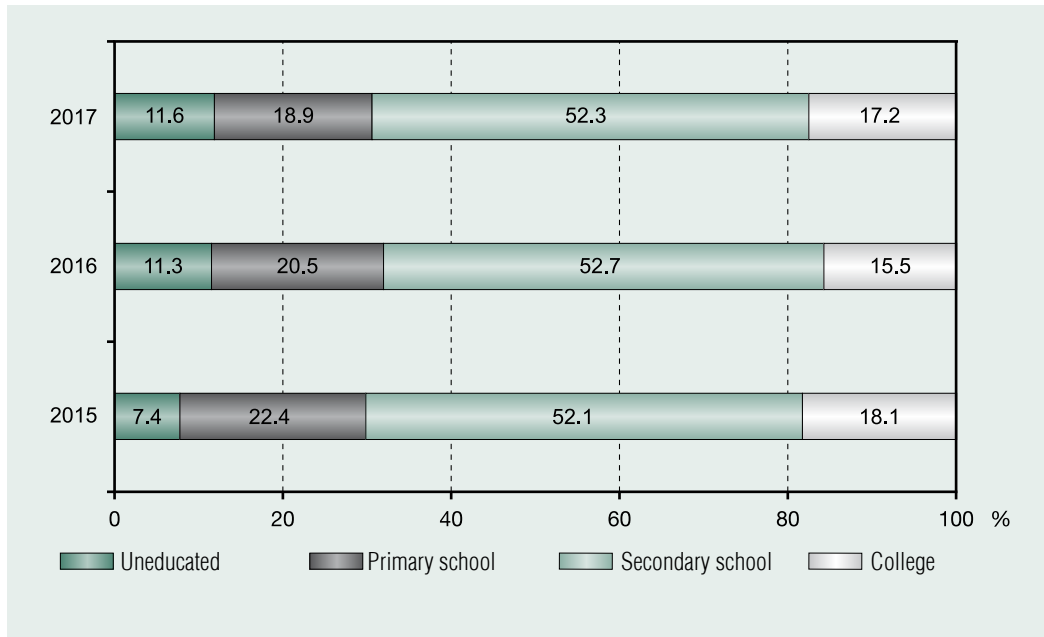
For the data in *Figure 3*, it should be noted that the initial question of self-assessed report was not about the highest education level obtained by the asylum seeker, rather about the highest education which he or she attended, moreover, it was recorded without any proofs of degree or qualification.

By comparison, the education level of the young German native population is shown in *Figure 4*.

BAMF also addressed the issue of the most recent job at home. In each of the three years concerned, most have designated the craft industry as their most recent field of work: 12.8 percent of the immigrants in 2015, 9.7 percent in 2016 and 7.4 percent in 2017.

Figure 3

HIGHEST EDUCATION OF ASYLUM SEEKERS REPORTED ON A VOLUNTARY BASIS ARRIVING BETWEEN 2015 AND 2017



Source: Own editing based on BAMF (2016; 2017; 2018)

However, the highest numbers were those who declared themselves as housewives, retired or follow studies. The latter also includes postgraduate students. 37 percent of the respondents declared themselves in the category in 2015, while 27.9 percent in 2016, and 21.5 percent in 2017. The distribution of declared school attendance in that category is shown in *Figure 5*, broken down by women and men.

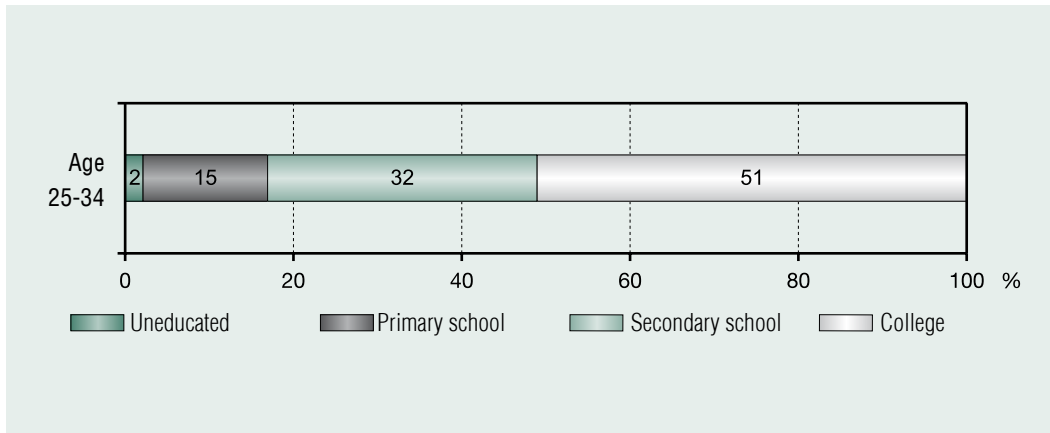
A larger proportion of immigrants without qualifications are women. This is probably due to the patriarchal establishment of the sending societies, where the role of women is limited to serve the household and the family, and raising children as mentioned above.

BAMF data also includes language skills, which shows that one in three immigrants speaks some level of English, with just under 2

percent of all arrivals German. The knowledge of languages is the first condition for entering the labor market. For this reason, it is worth mentioning briefly the BAMF integration courses, as German language training being an integral part of it. Integration courses provide immigrants with opportunities to learn from a wide range of classes from the German culture and traditions to basic skills such as writing and reading. The BAMF core courses are composed of 700 hours, which can be supplemented, but an integral part of the course is the 600-hour language course that ends with an exam. The knowledge of the language as a first step for entering the labor market is testified by data already since 2015. BAMF disclosed that nearly 340 000 people attended an integration course for the first time in 2016. However, only 133 050

Figure 4

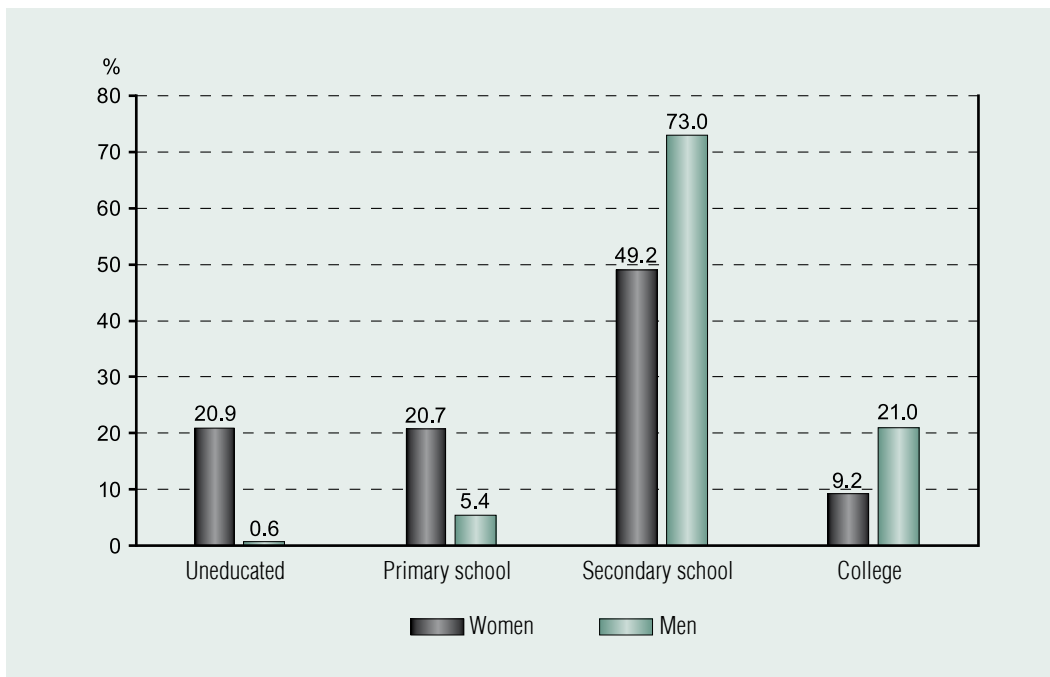
LEVEL OF EDUCATION OF GERMANS BETWEEN THE AGE 25-34 WITHOUT MIGRATION BACKGROUND IN PERCENTAGE IN 2017



Source: Statistisches Bundesamt 2018

Figure 5

DISTRIBUTION OF THE PARTICIPATION OF ADULT IMMIGRANTS IN SCHOOL EDUCATION, REPORTED ON A VOLUNTARY BASIS, BY COMBINED CATEGORY OF HOUSEKEEPING, PENSIONER, STUDENT, BROKEN DOWN INTO WOMEN AND MEN IN 2017



Source: Own editing based on BAMF data of 2018

participants successfully completed it during this period. This represents only the 39 percent of students enrolled in the course. Many left the course prematurely, which includes 600 hours of German language training, or even if they attended the classes, they did not take the final exam.

The 2017 and 2018 data (Statista, Das Statistik-Portal, b, c) are thus more favorable in relation to successful exams, but the number of participants is much lower. 292 000 people benefited from integration training in 2017, and only 202 000 in 2018. 60 percent of the participants (176 000) completed the course in 2017, the number of successful candidates dropped in 2018 with only 55 percent passing an appraisable exam (108 500).

The data shows that immigrants' educational level is far below the German average. This fact cannot be explained by the relatively young age of immigrants. Their vocational training would start at or after the time when the native population has completed education. Data on the educational level of second- and third-generation immigrants is alarming suggesting a negative outcome of the expected professional qualifications of newcomers. The picture is further gloomed by the decreasing attendance of the language training courses and the rate of success at the exams that doesn't meet expectations.

SUMMARY EVALUATION

The mass immigration of 2015 contributed to generally positive expectations in German economic circles. Germany's labor market has traditionally attracted large numbers of foreign workers in the past. Many economic experts and politicians have welcomed immigrants from outside Europe as a new resource. Given the demographic trends of the autochthonous population in Germany, immigration was

considered necessary to supply the economy with workforce to insure economic growth and the sustainability of public finances. However, positive effects can only materialize if the conditions are met. These conditions are the rapid economic integration and the adaptation to the labor market of non-European immigrants. An extended economic integration has a higher cost for German public finances, hence for German taxpayers. If the average level of education of immigrants is below that of the resident population, then their 'fiscal performance' will not be at the expected level, i.e. it will not ensure the balance of the public finances rather worsen it. According to the calculations detailed in Table 1, given the 10-year integration period, at a yearly integration cost of EUR 13 000, at least 60 percent of immigrants should reach the average educational level of the autochthonous German population.

The numbers in Figure 1 show that, contrary to the assumptions in the intergenerational balance sheet prescribed by Bonin (2016), public spending on immigrants has not decreased in recent years, nonetheless masses comparable to 2015 are not arriving in Germany. That being the case it can be concluded that a scenario of a low costs rapid integration cannot be expected. The recorded values show the persistence of high costs.

Comparing the numbers in Figure 3 and Figure 4 for 2017, while 11.6 percent of immigrants were uneducated, the proportion of young uneducated Germans was only 2 percent. Compared to the 17.2 percent of immigrants having college education, the proportion of young Germans actually attending higher education reached 51 percent. In terms of training time and costs, we believe that immigrants are unlikely to reach the average educational level of native German residents within 10 years.

Past experiences of immigrants of non-

European origin, as well as factual data on their situation, also suggest a negative economic scenario. Based on data concerning those arriving in the waves of mass immigration may render negative calculations a reality.

Comparing the frameworks of the intergenerational balance sheet prescribed by Bonin (2016) with the actual data of recent

years, it can be concluded that those coming from outside Europe can only be partially integrated into the German economy, consequently they will not solve the problems concerning the future financing of burdens of the public finances emerging from the demographic issues of the autochthonous German population.

NOTE

¹ The present study was partly executed under the project entitled 'Internationalisation, initiatives to establish a new source of researchers and graduates, and development of knowledge and tech-

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