

Impact of migration on the German labour market – challenges and opportunities of using the German Labour Force Survey (GLFS) for analysis

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1 Introduction

Net immigration in 2015 was the highest in the history of the Federal Republic of Germany, rising from 0.55 million people in 2014 to 1.14 million in 2015. While in previous years the majority of immigrants came from eastern and southern European countries, the number of migrants from non-European countries, mainly refugees, increased in 2015. The increased number of migrants may have an impact on the labour market situation and at the same time goes along with a number of methodological challenges.

Labour Force Survey (LFS) data are a key source for analysing the impact of the increased migration on the German labour market. The LFS offers the possibility to observe the changes of the immigration figures concerning the employment and unemployment in time series. Does the absolute figures of employed and unemployed persons increase or decrease in time of rising migration? Does the employment/unemployment rate change?

A basic prerequisite of such an analysis is that an unbiased coverage of the immigrants, especially the refugees can be achieved in the LFS. In view of this, the following questions relating to the recording of immigrants raise: Does the LFS covers the whole immigration to Germany in the last 2 years? Are any groups of immigrants under or over reported? Do specific problems in collecting data on immigrants exist?

The following text discusses the possible effect of these aspects. The first part gives attention to the methodological challenges of the GLFS in collecting data on immigrants. The second part describes the results of the GLFS on employment and unemployment of immigrants and compares them with the intercensal population updates and the un-/employment statistics register of the Federal Employment Agency to value the results of the GLFS. The potential methodological effects will be considered in the interpretation of the results.

2 Methodological challenges of the GLFS

2.1 Potential problems in collecting data of immigrants

Corresponding to the methodology of the LFS all persons should be considered in the sampling frame. This includes the German population as well as the immigrant population with persons recently immigrated. Especially the “newcomers” are a group which is problematic in the field. The recording of these persons is often very difficult due to different aspects.

The newly immigrated persons often stay at places that are not identified as residential buildings when sampling and therefore do not belong to the sampling unit. Due to this they do not have the chance to be covered. This may be a sports hall of a school or an abandoned house where newcomers are firstly accommodated.

However, in collective accommodations for recently immigrated persons, which *are* part of the sampling unit, it is also difficult to ask them. In the first time after their arrival the “newcomers” change their place of residence several times and were not anymore available when the interview should be carried out. In the end language problems of the immigrants complicate the realisation of an interview. Unfortunately, the GLFS is only available in German language.

2.2 Potential effects of the extrapolation

The extrapolation of the GLFS is based on benchmarks of the intercensal population updates (IPS). Therefore the recent immigration should be considered appropriately in the benchmarks of the extrapolation. In view of the fact that there are no benchmarks of the IPS available for the reference year 2016 yet, the benchmarks have to be estimated. The estimation is based on the existing results of the IPS and assumptions about the migration movements which were derived from the migration movements of the years 2014 and 2015.

Therefore the recently immigrated persons are considered in the benchmarks provided by the IPS. But recently immigrated persons are under reported in the GLFS (see chapter 2.1). So, the extrapolation is based on a GLFS-sample which includes disproportionately high figures of “non-refugees” – persons who did not recently immigrate to Germany. This group of foreigners have a slightly different structure (potentially more employed persons) than the recently immigrated persons. It can be assumed that the employment of foreigners in total may be over reported in the GLFS, due to the greater presence of “non-refugees” in the sample.

2.3 Potential effects of the new sampling frame

In 2016 the sampling frame has been renewed on the basis of the census of 2011. As a result of this, more households were recorded, because the residential buildings are covered more correctly in the sampling frame than in the years before. For example, housing estates, which were not covered before 2011, are now part of the sampling frame. It can be assumed that the population of these “new households” is systematically biased (more young German families with children, more employed persons). Due to that, effects of the sampling frame are expected.

3 Results of the German LFS in comparison with other sources

In this analysis immigrants are defined as follows: Immigrants are persons who do not have a German citizenship, namely foreigners. In this case citizenship is used as a proxy for immigration. According to this, foreigners who came to Germany sometime before, now having a German citizenship, do not belong to the analysed immigration population. However, it is likely that this part of immigrants does not cover the population of interest, namely the refugees of 2015 and 2016 but rather immigrants which came to Germany a long time ago.

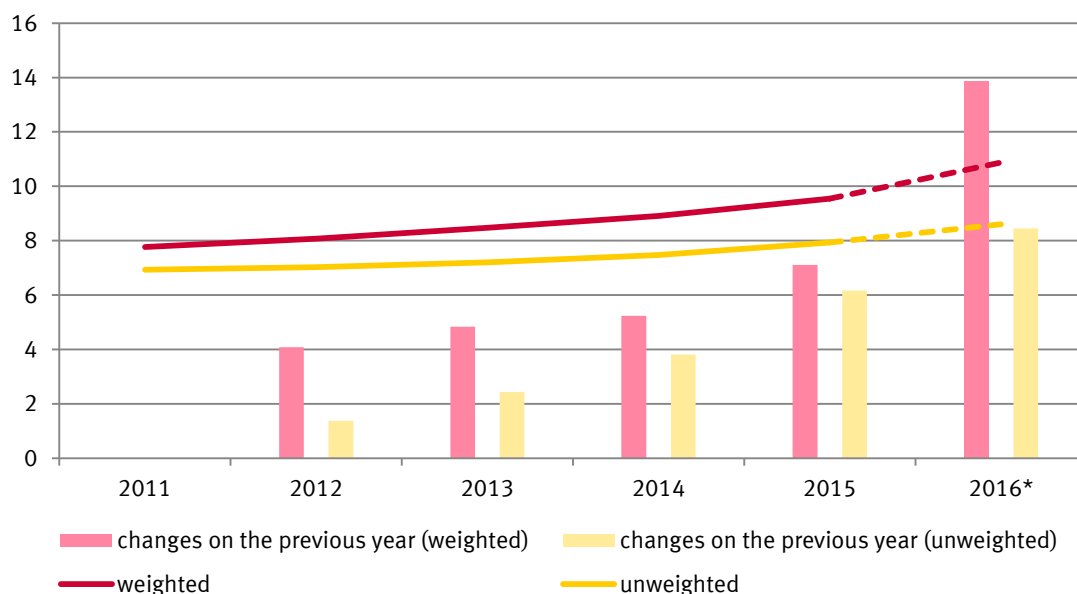
At this point it should be underlined that the results of the GLFS for the reference year 2016 are based on estimated benchmarks. The results of the GLFS for 2016 in this presentation are *no* official final results. The estimation is subject to uncertainties.

3.1 Immigration population in the GLFS vs. intercensal population updates

In 2011, a total of 6.2 million foreigners lived in Germany. This figure rose to 7.8 million in 2015. In the last year the figure of foreigners increased up to 9.0 million. But the growth of foreigners living in Germany in 2016 is over reported. The new sampling frame of the GLFS causes higher population figures in general because more households were covered than the years before. Of course, this applies to the German population as well.

The effect of the new sampling frame in 2016 can be turned off by looking at the development of the share of foreigners in the total population in time series. But the results are the same: the percentage of foreigners rose from 2011 to 2015 and in 2016 again the proportion of the foreigners increased more strongly than in the years before (see figure 1, red line). How can it be explained? As mentioned above, it might be assumed that the foreigners are over-subscribed in the extrapolation. Therefore it seems helpful to compare the weighted and unweighted results.

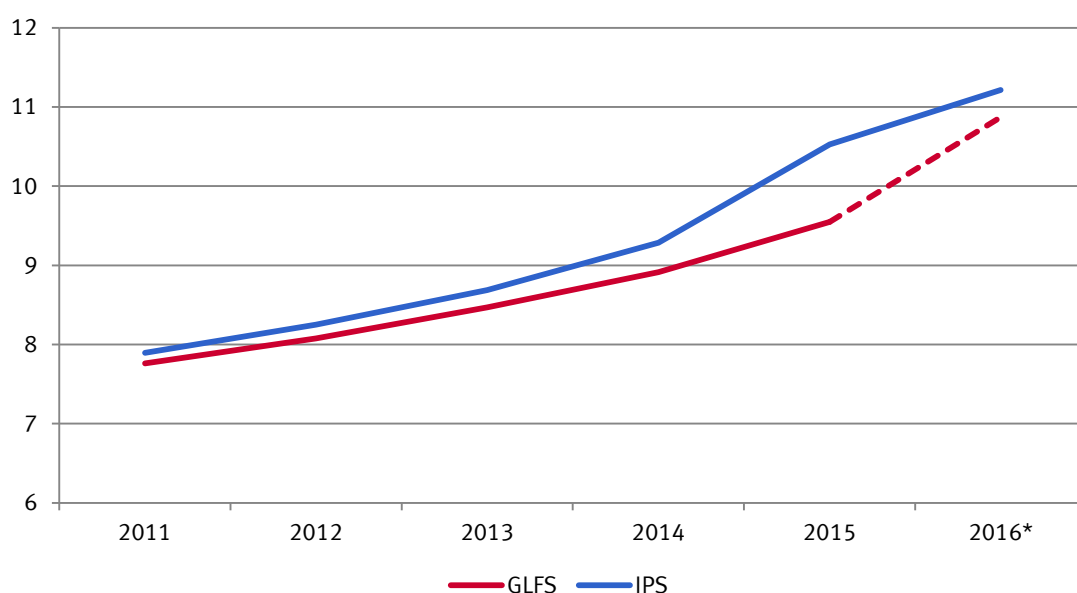
Figure 1. Share of foreigners in total population and changes on the previous year, weighted vs unweighted results of the GLFS 2011 to 2016, in %



*The results of 2016 are no official results.

As shown in the two graphs in figure 1 the weighted and the unweighted share of foreigners in all population continuously rose in time series. But the increase of the weighted percentage in 2016 is much stronger than in the unweighted results. The bars illustrate the change in comparison with the previous year and show more distinctly the difference between the weighted and the unweighted results. The increase of the weighted share of foreigners is always slightly stronger than the unweighted percentage. But the difference between weighted and unweighted results remained almost constant on the same level in the years 2011 to 2015. In 2016, the growth of the weighted share compared with the previous year is nearly twice the number of the unweighted share. This fact may be explained by the effects of extrapolation describes in chapter 2.2. The foreign population (or rather the foreign population in employment) may be over-reported in the extrapolation of the year 2016. But it is difficult to validate the results due to the fact that the benchmarks for the extrapolation of the GLFS are based on an estimation of the population.

Figure 2. Share of foreigners in total population in the GLFS vs. IPS, 2011 to 2016 in %



*The results of 2016 are no official results.

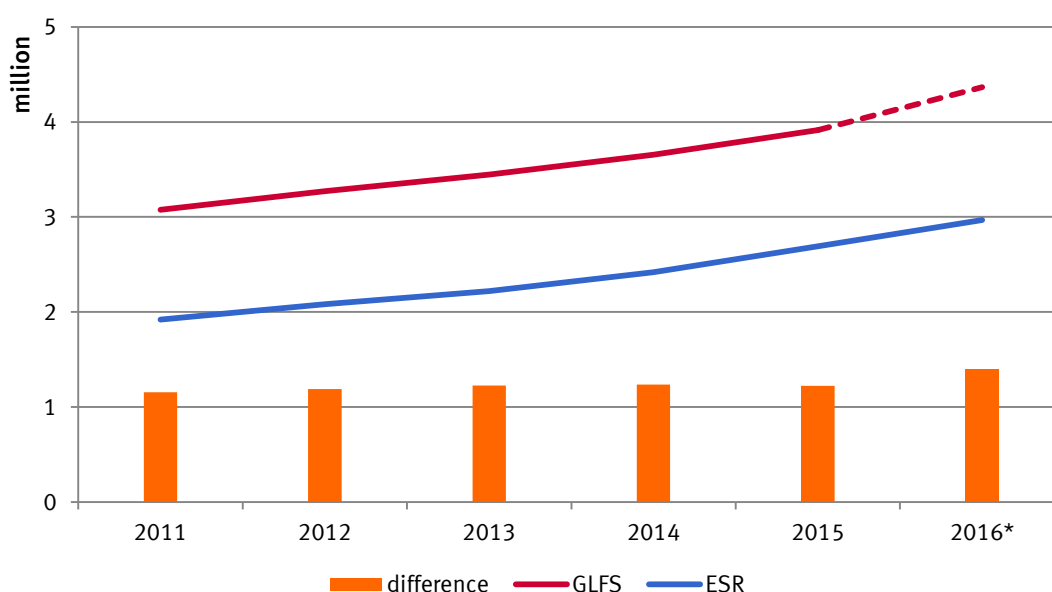
Comparing the results of the GLFS with them of the IPS it can be noticed that the share of foreigners in all population is quite similar in both data sets for the years 2011 until 2014 (see figure 2). In 2015 the share of foreigners in the IPS grew faster than the GLFS. Therefore the persons immigrated in this year were even better recorded in the IPS. In 2016, the contrary development can be observed: the share of foreigners in the GLFS increased stronger than in the IPS but did not reach the level of it. It can be summarised that not all of the immigrants of the last two years were covered in the GLFS. Additionally, main parts of the immigrants of 2015 only appear in the data of 2016. This may be influenced by the fact that persons living in private households are better reached than persons living in collective accommodations where they were placed right after their arrival.

3.2 Employment of immigrants in the GLFS vs. Employment statistics register

The employment statistics register (ESR) of the Federal Employment Agency is based, as the name suggests, on register data. It includes all employees subject to social insurance contributions. In the following chapter, the foreign employees subject to social insurance will be compared with the employed foreigners of the GLFS including self-employed, family workers and public officials. Therefore the figures of the GLFS are much bigger than them of the ESR because the considered employment population of the GLFS is greater.

As shown in figure 3 the figure of the foreign employees subject to social insurance increased as well as the employed foreigners in the GLFS. Comparing the difference of these two data sources over the years, no bigger variance could be perceived until 2016. In this year the figure of the employed foreigners in the GLFS rose slightly more than in the ESR.

Figure 3. Employed foreigners in the GLFS vs. ESR, 2011 to 2016 in million



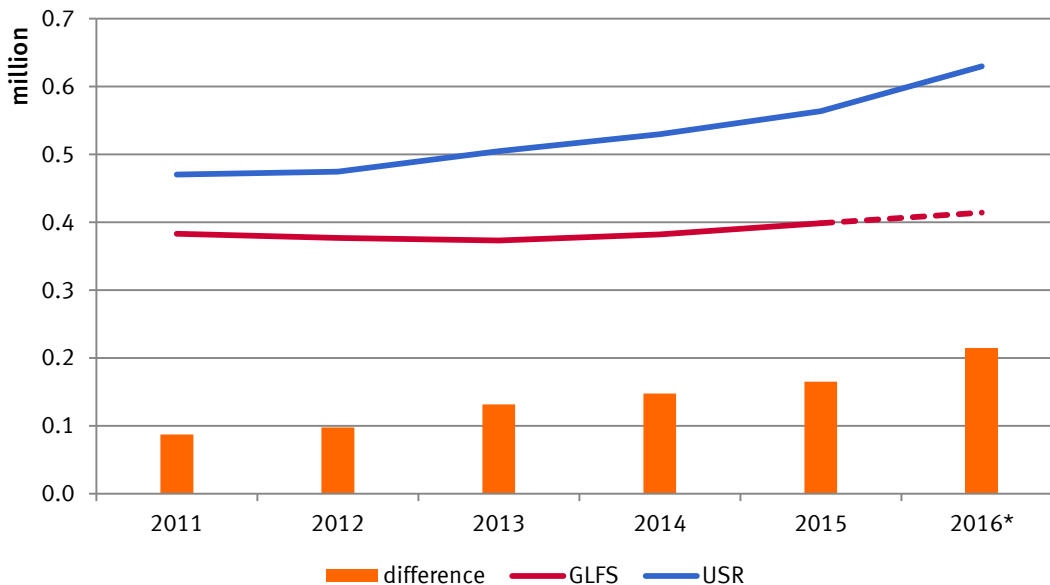
*The results of 2016 are no official results.

The reason for this seems to be the over-reporting of the employed foreigners in the GLFS, as already mentioned with regard to the population in chapter 3.1: the weighted figures grew much stronger in this time period than the unweighted ones. The problems in collecting data on recently immigrated persons results in under-reporting of them and over-reporting of the other immigrants (not recently immigrated) within the group of foreigners. Therefore the disproportionately high recording of „non-refugees“ having a slightly different structure (potentially more employed persons) lead to an over-reporting of the employment of foreigners in total in the GLFS. The assumption that the figure of foreign persons *in employment* may be over reported in 2016 seems to be correct, because the difference between the weighted and the unweighted results of employed foreigners are much bigger than the difference of the whole foreign population.

3.3 Unemployment of immigrants in the GLFS & Unemployment statistics register

In addition to the ESR the Federal Employment Agency publishes register data on unemployment (USR). In the following chapter the unemployment results of the USR and the GLFS will be compared. It has to be considered that the concept of unemployed persons of the Federal Employment Agency and the GLFS differ (Federal Statistical Office 2017). The two different concepts cause the difference concerning the level of unemployment of the two data sets.

Figure 4. Unemployed foreigners in the GLFS vs. USR, 2011 to 2016 in million



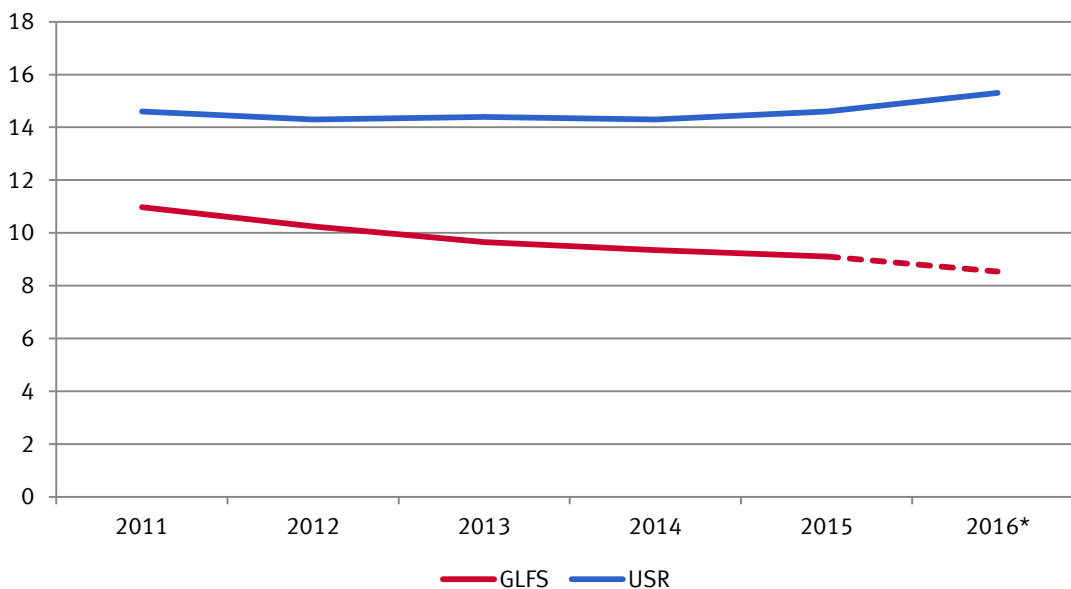
*The results of 2016 are no official results.

As shown in the figure 4 the figure of unemployed foreigners in the GLFS did not really change from 2011 until 2014 and amounted round about 380,000. In 2015 the number of unemployed foreigners increased slightly and crossed the 400,000 in 2016. In comparison to that, the figure of unemployed foreigners of the USR raised continuously, also in 2011 to 2014. Therefore the difference between the unemployment figures of the GLFS and the USR increased over the time. It becomes apparent that the GLFS may not cover the unemployed foreigners in total, especially in 2016 when the number of unemployed foreigners in the USR grew obviously.

What may be the reason? It might be expected that the coverage of unemployed foreigners may be more challenging than the coverage of the employed foreigners. It may be assumed that language problems, which make it difficult to conduct the interview, play a bigger role in the context of unemployment. Furthermore it may be possible that the increase of the figure of the unemployed foreigners will only be visible with delay in 2017. In 2016 the number of foreign inactives grew higher-than-average (+16%). Possibly the unemployed foreigners are covered as inactives.

It might be supposed that the unemployed foreigners would be under reported in 2016, because the figures are based on a group of foreigners which includes disproportionately high figures of „non-refugees“ having a slightly different structure (potentially less unemployed persons in comparison to the recently immigrated persons). But the assumption could not be verified. The weighted results also differ much more compared to the previous year than the unweighted results.

Figure 5. Unemployed rate of foreigners in the GLFS vs. USR, 2011 to 2016 in %



*The results of 2016 are no official results.

Looking at the unemployment rate there are contrary developments in the GLFS and the USR, especially in 2016 (see figure5). While the unemployment rate of the USR remained constant in 2011 until 2014 and raised the following two years the rate of the GLFS decreased continuously. Firstly this could be explained by the fact that the growth of the unemployment figures in the GLFS was much more lower than in the USR. The employment rate is calculated by the figure of unemployed divided by the figures of employed and unemployed in total. So a rising number of employed foreigners, as mentioned in the previous chapter, automatically results in a lower unemployment rate.

In summary it can be seen, that the figure of unemployed foreigners seems to be under reported in the GLFS. Therefore the results differ from the USR of the Federal Employment Agency.

4 Conclusion

As shown in the analysis, the foreign population rose continuously. This increase was strengthened in 2016. But comparing the GLFS with the IPS it becomes apparent that not all of the immigrants of the last two years were covered in the GLFS, especially recently immigrated persons may be under reported. Additionally, main parts of the immigrants of 2015 only appear with delay in the data of 2016.

The employed foreigners as a part of the whole foreign population rose between 2011 and 2016 as well. But the strengthened increase in 2016 seems to be over reported due to a combined effect of the recording and the extrapolation. The problems in collecting data on recently immigrated persons result in under-reporting of them and over-reporting of the other immigrants (not recently immigrated) within the group of foreigners. Therefore the disproportionately high figures of „non-refugees“ having a slightly different structure (potentially more employed persons) lead to an over-reporting of the employment of foreigners in total in the GLFS. This aspect is already visible in the results of the whole population.

Comparing the unemployment figures of foreigners of the GLFS with the USR it becomes apparent that the GLFS may not cover the unemployed foreigners in total. It might be expected that the coverage of unemployed foreigners may be more challenging than the coverage of the employed foreigners. Furthermore it may be possible that the increase of the figure of the unemployed foreigners will only be visible with delay in 2017. The decreasing unemployment rate is a result of the increasing employment figures as a part of the denominator of the unemployment rate.

It should be mentioned that the reasons and explications for the results of the GLFS concerning the impact of migration on the German labour market are complex. The reasons given in this paper do not make demands to be completely. They are only a part of it. But it should provide an indication of problems recording foreigners and of consequences of the methodological challenges in the GLFS.

References

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