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Social Inequality and Data Sciences: the case of Germany

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1. Introduction

No doubt, the Covid-19 pandemic reminded us how much modern societies depend on the provision of scientific data — not just for the healthcare system but for all areas of public policy-making. We witnessed how difficult it was for decision-makers across the globe to make uncertain decisions without sufficient evidence. As frequently noted, the lack of scientific data was particularly a problem for the most disadvantaged members of our societies. As a recent EU report (EU 2021:11) concluded: „The Covid-19 pandemic has shown a significant impact on equality all over the globe: those already most at risk of discrimination and inequality (people with protected categories such as older people, persons with disabilities, members of ethnic minorities) were and are at far greater risk of falling ill or dying from the virus. Yet, in most EU countries, officially available health statistics on Covid-19 could not be (fully) disaggregated, in particular by racial or ethnic origin. This had a detrimental effect on the effectiveness of protective measures to curb the spread of the virus."

This paper will focus on Germany, as the largest European economy, where the lack of health and population data was particularly evident during the pandemic. For example, it was reported that German scientists including the prestigious public health institute (Robert Koch Institut) had to rely on British pandemic health data as German data was frequently not available (Fokus 2021) [2]. A much publicized example was Lower Saxony's attempt to reach

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[2] See also: https://www.mdr.de/nachrichten/deutschland/politik/corona-expertenrat-forderungen-herbst-100.html and https://www.mdr.de/nachrichten/deutschland/panorama/corona-kritik-fehlende-daten-102.html#britische

out to their elderly residents to get vaccinated. As local health authorities do not have information on the age of their registered citizens they used postal address books to send letters to addresses of inhabitants with old-fashioned sounding first names ("Roswitha" or "Heinrich") in the hope that those people might be of an older generation.

This paper explores the extent to which the lack of data on protected categories is also present in the labour market and discusses possible explanations. In particular, I investigate the status of data infrastructure with regard to Germany's ability to address social inequalities in the labour market in a systematic and effective manner. I emphasize that data availability, though not sufficient, is a necessary condition for policy effectiveness, in particular in the area of social equality. I find evidence that the collection and analysis of population data in Germany with regard to protected categories is frequently insufficient and might reveal a deeper, structural problem of German data sciences.

Secondly, I argue that it is not just a delay in modernizing and digitalizing its public administration, but that it also reflects a deeper, underlying, uneasy relationship between scientific knowledge production and German public discourse and its political class.

I will discuss possible explanations for this uneasy relationship looking at Germany's past: a legacy of ethical and privacy concerns, a longstanding focus on collectivism and corporatism rather than individual rights, and a scientific preference for hermeneutics and qualitative rather than quantitative social sciences. Specifically, I explore Germany's data management with regard to two protected categories – gender and ethnicity - in the labour market. The findings will be compared to Great Britain as it provides not only a benchmark in Europe regarding its efficient and extensive scientific data collection, but Britain[3] is also top ranked in Europe with regard to its public awareness, political commitment and progress of

[3] In the following I use statistics on the United Kingdom.

equality, diversity and inclusion (EDI). This is not to deny that more work needs to be done,[4] but comparatively Britain is positioned well. The MIPEX (Migrant Integration Policy Index) 2020 praises Britain with regard to its anti-discrimination measures as "benefiting from some of the strongest equality legislation and bodies amongst all 68 MIPEX countries".[5] Similarly, the gender equalities index of EIGE (European Institute for Gender Equality) ranks Britain repeatedly above Germany. The 2020 index (data from 2018 including Britain) ranked Germany 12th (below the EU average rank 10th) and Britain 6th. Not much changed over the years. Ten years earlier (2010) Britain also ranked 6th whereby Germany ranked 11th. In the latest 2022 index (data from 2020) Germany is still ranked 11th (Britain being excluded).

The paper proceeds with an overview of the data infrastructure with regard to protected categories in both countries (2). I then discuss data availability regarding the two protected categories in the labour market and compare those to the actual equality progress in both countries (3). I conclude by providing some thoughts as to why Germany is lagging behind (4).

Note that this paper is an explorative, interdisciplinary essay. It combines various literatures on EDI, data management and social science knowledge production and epistemologies. Comparative studies across these fields of research, in particular for the latter two, are rare. More comparative work is needed if we want to better understand country variations in data sciences as well as in its social justice progress.

2. Managing data of protected categories

The rise of modern information technologies and big data advances poured additional fuel into the longstanding public debate across established democracies about the benefits and risks of

[4] See Commission of Race and Ethnic Disparities: The Report, March 2021 (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/974507/20210331_-_CRED_Report_-_FINAL_-_Web_Accessible.pdf). Or Casey's Review 2023 of the MET police (https://www.met.police.uk/SysSiteAssets/media/downloads/met/about-us/baroness-casey-review/update-march-2023/baroness-casey-review-march-2023.pdf).

[5] https://www.mipex.eu

collecting data of citizens and their legally protected categories (gender, age, ethnicity, religion, disability, sexual orientation). Public data on personal characteristics are, without doubt, a double-edged sword: Information can be abused to increase discrimination and biases against individuals or groups of people sharing similar characteristics (e.g. racial profiling by the police). On the other hand, without such information progressive policy-making to combat discrimination inevitably remains arbitrary and renders evidence-based measures for particularly disadvantaged groups (such as targets for disabled employees being hired) difficult to implement.

Over the years one can witness a transformation in the EDI literature and among practitioners regarding the utilization of sensitive data on protected categories. During the 1980s and 90s it was an accepted approach to combat discrimination by being "neutral", by having "no knowledge", for example by being "colour or gender or age blind" when hiring people. One prominent example was the policy to have curtain auditions for musicians being hired by orchestras so that their gender or ethnicity could not be revealed (Fasang 2006). Yet, although "blind" practices such as curtain auditions can still be useful in certain circumstances, recent research has demonstrated that colour blindness may actually perpetuate existing racial inequities (Apfelbaum et al. 2012; Bonilla-Silva 2003; Knowles et al. 2009)[6]. It has been argued that "colour blindness" is in fact a „racial ideology that posits the best way to end discrimination is by treating individuals as equally as possible, without regard to race, culture, or ethnicity" (Williams 2011). It thereby suggests that racism does not exist so long as one ignores it: „I don't see color. I just see people" (Fitchburg State University 2022) and ignores the underlying racial disparities and inequities perpetuated within a racist society (Asare 2017; Camp Kupugani 2020). Thus, when race-related problems arise, colourblindness

[6] https://www.nytimes.com/2020/07/16/arts/music/blind-auditions-orchestras-race.html

tends to individualize conflicts and shortcomings, rather than providing an awareness of the larger structural picture with macro-aggressions, stereotypes and unconscious biases (Bonvilla-Silva 2017; Burke 2019; Wingfield 2012). The collection and utilisation of data on protected categories are therefore widely acknowledged as a necessary precondition and indispensable for the assessment of the enforcement and success of anti-discrimination policies. The motto today is: "the more data the better". As the anti-discrimination activist Kamaliza (2020) concludes: "data is power. It has been used as a weapon of discrimination for far too long, but in the right hands, it can also be the fighting sword that slashes social inequity and racial injustice." The EU (2020:15) agrees. "Accurate and comparable data is essential in enabling policy-makers and the public to assess the scale and nature of discrimination suffered and for designing, adapting, monitoring and evaluating policies". "Where it is known that a certain category of persons is, or might be, discriminated against, it is the national authorities' duty to collect data to assess the extent of the problem" (EU 2004a). And "the gathering and analysis of such data (with due safeguards for privacy and against other abuses) is indispensable to the formulation of rational policy" (EU 2004b). Thus, the collection of reliable data at European and national level is an essential prerequisite for effective EDI action. Yet, with regard to racial and ethnic data not many EU states have codified this into their law (EU 2017:6). Compared to data on other grounds of discrimination, such as sex, disability and age, ethnic data are relatively scarce. As a result, many surveys focus on the perception of ethnic discrimination or use proxies such as citizenship or country of birth. „Data collection by ethnicity is a controversial issue in several EU Member States, due to historical, cultural and linguistic reasons"

(EU 2022:17)[7]. „Three notable exceptions, Finland, Ireland and the UK, place a duty of equality data collection on public bodies as part of their equality planning." For example, the UK Equality Act (2010) includes a duty to collect data on protected categories in order to monitor progress. Both the „Office of National Statistics" and the „UK equality body" promote data collection on racial and ethnic minorities – for instance by making the data collection methods available to the public.[8] The UK also fulfills the core principles advocated by the UN (2017)[9]. In particular, it states that citizenship should not be used to measure data on ethnic minorities; questions on religion and language should not be taken as yielding proper ethnic data; multiple choices of ethnic origin should be permitted; and mixed couples should be given the opportunity to determine the ethnic origin of their children. These principles are not practiced in other countries such as Germany where data on racial and ethnic origins are not collected directly and if at all on the basis of proxies such as *migration background* (country of origin). Following the introduction of the new German citizenship law (2000), the old *foreigner – "German" divide* did not reflect the composition of the German population and the numbers produced were not useful for administrative planning. In 2005 new categories (*migration background* and *migration experience)* were introduced as well as additional proxy categories such as *birth place of parents, language spoken at home or non-German language of origin* to mark but not to name ethnicity (EU Agency for Fundamental Rights, 2010:12). Other surveys

[7] See also: https://www.theguardian.com/world/2020/jun/16/france-and-germany-urged-to-rethink-reluctance-to-gather-ethnicity-data

[8] see the UK Office of National Statistics` guidance on the collection of equality data on ethnicity:http://www.ons.gov.uk/ons/guide-method/measuring-equality/equality/index.html.) In the UK, the Equality and Human Rights Commission has issued detailed guidance on equality data, and specifically on how its collection relates to data protection considerations

[9] These are (ibid.:36): self-identification, voluntary response (individual right to opt in to data collection), anonymous data collection, informed consent as to the purpose of the data collection, community consultation throughout the process, commencing with the naming of categories and identification of ethnic origin question sets and ending with the involvement of community representatives in the analysis and dissemination of the data.

rely on *family names* to identify ethnicity. *Religion and belief* were used for the first time in the German Census 2011 to identify Muslims (but not later on). Categories have been generally developed without any consultation or participation of minority groups.[10] A good example is the recent Census 2022 on population and housing. It includes a question on gender, age, citizenship (German, foreign or both) and status of marriage. Nothing on disability, on ethnicity or migration background. In contrast the UK Census 2021 on the same themes (population and housing) hosts a very comprehensive set of questions on personal characteristics. The difference could not be more dramatic. Britain includes the following variables: gender, age, marriage, disability (mental and physical with details about how much care you needed), ethnic groups in detail (incl. Roma, Irish travellers and Gypsies)[11], country of birth, migration arrival year, passport from which countries, main language, how well do you speak English. In addition, people were asked to answer (voluntarily) questions on your religion, sexual orientation and gender identity. Why not in Germany?

A related topic is the national infrastructure of statistical data collection and analysis, which differs significantly across both countries. Britain presents a centralized, integrated and transparent system of collecting and analysing population data of relevance for governmental policy making. Britain also boosts a "Government Analysis Function", a publicly accessible, cross-governmental network of currently 17.000 governmental employees (2021) involved in the generation and dissemination of analysis to support governmental decision-making, following clearly communicated

[10] In 2010 the German Federal Anti-discrimination Agency (ADS) commissioned a feasibility study and organised an expert meeting on Standardised Data Collection creating evidence of discrimination. Nothing much has happened since then. The ADS is one of the few German state organisations that openly talks about the need to have data on ethnicity and on their discrimination experiences.

[11] These terminologies are officially used in the British Census.

standards which set expectations for the planning and undertaking of statistical governmental analysis[12]. There is no equivalent to be found in Germany, where the official data infrastructure is mostly decentralized (a central "Statistisches Bundesamt" and independent statistical agencies in all 16 *Länder*). A recent publication of the German government "Data Strategy of the Federal German Republic" (Bundesregierung 2021:49) admits that there is still no integrated, encompassing data information system or centralized data pool of all local, regional and federal administrations in Germany. There exists no official list or overview of all data collecting agencies across the country and what data they collect, neither for the ministries nor for the public administration agencies. An automatic data sharing between local, regional and federal levels does not exist. There is also no public information on how many civil servants actually work in the area of statistical and data management in the German public administration.

3. Labour market data on protected categories

In the following I compare data availability and empirical findings on two protected categories: gender and ethnicity/migration with regard to major labour market indicators: (1) gender pay gap and gender share on company boards; and (2) ethnic labour market participation and ethnic pay gap.

3.1.1. Gender pay gap

Annual data on the national gender pay gap are available in both countries. For years the gap has been larger in Germany than in Britain. In fact, the gender pay gap in Germany is one of the highest and most persistent in the EU. In the last three years (2020, 2021, 2022) the

[12] https://gss.civilservice.gov.uk/analysis-function-2-2/

pay gap was constant at 18% in Germany (unadjusted, monthly)[13][14] compared to 14,9% in Britain in 2020 and 2022 (destatis.de). In 2021 the British gap went slightly up to 15.1% (according to ONS due to Covid). According to Eurostat (2021) both countries were above the EU average pay gap of 13% in 2020, with Germany situated at the bottom part of all European countries (just above Estonia and the Czech Republic).

As well known a large part of the gender pay gap can be explained by occupational segregation, thus women are more likely to be located in lower paying occupations and part-time jobs (Colebrook et al. 2018; Manning and Petrongolo 2008). Computing the pay gap controlling for working times is therefore critical. In Britain we find such data. For example, the British gender pay gap in 2020 for full-time jobs was 7% (a drastic decrease from 9.0% in 2019) and for part-time jobs -2.9%, in other words part-time females were better paid than their male counterparts. In 2021 (due to Covid) the gap increased slightly to 7.9% for full-timers and -2.7% for part-timers. In 2022 the full-time gap was 8.3% and the part-time gap -2.8% (ons.gov.uk).

In Germany a study using 2016 data (Bundesamt für Statistik 2018) revealed a gender pay gap among part-timers of 15.6% (less than the overall gender pay gap of 21% in 2016).[15] Just in a few occupations the part-time pay gap was negative in favor of women (e.g. in transportation -4.4%; in tourism -2.7%). Note that significantly more women in Germany work part-time compared to Britain (49,6% part-time women in 2020 in Germany compared to 38% in Britain with part-time numbers in Germany continuously increasing (DIW 2019).

If one controls for part-time and profession the British gender pay gap nearly completely disappears (Böheim et al. 2013:884). Also, for age groups under 40 years, the

[13] The IAB (https://iab.de/dossier/?id=263775) calculates an even higher hourly (unadjusted) pay gap in Germany for 2021 of 22%.
[14] West Germany tends to have a larger gap than East Germany. In 2022 the western gap was 19% and the eastern gap 7%. See also Minkus et al. (2020)
[15] https://www.adzuna.de/blog/in-diesen-branchen-lohnt-sich-teilzeit-fuer-frauen/

gender pay gap for full-time employees is close to zero (ONS 2019).[16] Whereas in Germany a recent study found that the gender pay gap shrank from 18% to 6% if you control not just for part-time and profession but also for industrial sector, human capital indicators (such as education), and job description (including leadership and qualification) (Bundesministerium für Familie, Frauen, Senioren und Jugend 2020). [17] Thus, even with many control variables the gap is still existent in Germany.

2017 Germany introduced a law to enhance pay equality by supporting wage transparency between males and females (not for other protected categories) by allowing female employees in companies with more than 200 employees to request their employers for information on equivalent male earnings.[18] This only works if the company employs at least six male employees conducting equivalent work (which is legally defined). The company is then asked to provide the median monthly pay of these six employees.[19] Should the female employee receive less money the law does not automatically require the company to adjust her wage. She would then still need to bring the company to court. Thus, ultimately the law aims at helping female employees to make a legal case against their employer. Five years later this law has not yet produced any significant improvements. It has been criticized for not being effective (Thüsing 2017). The Ministry for Women et al. (BMFSFJ 2019) initiated an external evaluation two years after the introduction of the law and found that just 4% of female employees used the law (in firms with more than 200 employees). The current Ampel government (SPD, Greens, FDP) (2021) vowed to have complete gender equality by 2030. They want to do that by strengthening the existing law allowing third parties, such as trade unions, to ask for pay information on behalf of a female employee (Koalitionsvertrag

[16]https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/bulletins/genderpaygapintheuk/2019

[17] More specifically for the 2014 pay gap (22%): it reduces to 5.8% if one controls for employment hours (0.42), education and experience (0.13), occupation and sector (1.33), management and skill level (0.94), and other factors (0.46). 1.16 remains unexplained.

[18] "The Transparency in Wage Structures Act" (Gesetz zur Förderung der Entgelttransparenz)

[19] The median pay can be problematic in that some of the males might earn more but other men less than the woman.

2021:114). The current law also requests larger firms ("Kapitalgesellschaften" with more than 500 employees) to publish a statement ("Bericht zur Gleichstellung und Entgeltgleichheit") each 3-5 years on their measures to improve gender equality and pay equality and its consequences, or if they have not implemented any measures a statement why not. They also need to publish the numbers of their female and male full and part-time employees (but curiously enough not the gender pay gap). The published reports are on average short (1-2 pages).[20] According to the evaluation report (BMFSFJ 2019) only 44% of firms submitted their required report. There is no study, I am aware of, analysing the content of these publications. The reports are also not listed on the Ministries' website. In contrast, Britain's strategy builds on obtaining as much data and transparency as possible. The Office of National Statistics (ONS) has a longitudinal, large-scale data collection on various aspects of the gender pay gap. This is fostered by the Gender Pay Gap legislation 2017 (developed by the Government Equalities Office) which requires all (private and public) organisations in Britain with 250 or more employees to annually publish their overall mean and median gender pay gaps. In addition, they can add a written statement.[21] In other words, rather than providing female employees with the individual right to receive information on the wage of their male counterparts as in Germany and providing data on full- and part-time female and male employees British employers are asked to publish their overall annual pay gap. That might not directly help the individual female employee, but it forces organisations to trace the pay gap on an annual basis, which creates data transparency for the company, for the workforce and the wider public, which ultimately might create social pressure on the firms to reduce the gap. An interesting research question is to what extent the British law might provide a stronger

[20] e.g. Lufthansa report: https://www.lufthansagroup.com/en/verantwortung/soziale-verantwortung/vielfalt-und-chancengleichheit/bericht-zur-gleichstellung-und-zur-entgeltgleichheit.html or Audi report 2017: https://www.audi.com/content/dam/gbp2/company/investor-relations/reports-and-news/interim-reports/2017/Entgeltbericht_als_Anlage_zum_Lagebericht_2017.pdf.

[21] https://www.gov.uk/government/collections/gender-pay-gap-reporting

motivation for employers to implement an action plan to reduce the gap than the indirect threat that an individual female employee might sue them.

As an additional benefit, the British law facilitates employers' EDI actions by providing them with annual data. Thus, the British approach is to enhance pay data transparency and is building on public pressures to motivate employers to act. The government also lists the company reports on their website, again enhancing transparency and allowing to compare these reports. Many large employers provide annual gender pay gap reports (e.g. Bristol Meyers Squibb 2022, Jaguar 2022).[22] Studies show this governmental policy seems to work.[23] There is also a requirement for ONS to produce a nationwide annual report on the gender pay gap. In Germany no such requirement exists, nor are there any annual reports on gender (or any other) pay gap required of the German national statistical office. Just for the annual worldwide "equal pay day" the national gender pay gap is made public. There are also many British but hardly any German national statistics available on sub-topics, such as the gender pay gap across occupational sectors, such as the educational or medical sector. Both are interesting sectors as many women work there, the professional qualifications are tightly regulated and are mostly in the public sector where collective bargaining in both countries is still relatively strong and should lead to more pay equality. A pay gap under these "favourable" conditions would indicate the existence of more structural problems. And the data show exactly that. In Germany I found a recent survey on the gender pay gap in the medical profession, revealing a 30% (unadjusted) pay gap among doctors in 2020 (Keller 2021). This is based on a survey conducted by an online platform (Medscape) asking a sample of medical doctors about their wages (700 doctors replied). The survey is not representative and raises questions about its reliability (no information is provided about survey design, sampling and statistical methods). Moreover, the pay gap is based on subjective reporting rather than actual wage information, so the findings

[22] https://gender-pay-gap.service.gov.uk
[23] https://blogs.lse.ac.uk/businessreview/2021/03/29/uk-gender-pay-gap-reporting-a-crude-but-effective-policy/

need to be taken cautiously. Still, the apparent gap is significant and higher than the 18% national gender pay gap in Germany in 2020.

In Britain the DHSC (Department of Health and Social Care 2020) recently commissioned an independent academic review, which found the non-adjusted, representative gender pay gap for hospital doctors to be 24.4% in 2020 and the adjusted gap 18.9% (based on a comparison of full-time equivalent mean pay), thus significantly lower than in Germany. According to the review, the pay gap is mostly due to the under-representation of women in the highest paid medical positions, grades and specialties. However, even after adjusting for age, seniority and a range of other factors, a gender pay gap remains. The adjusted gap for female GPs was 15.3% and for female clinical academics 11.9%. More detailed: in the NHS, the 'Agenda for Change' was introduced in 2004 to re-grade most medical jobs on a more consistent, gender conscious basis. Appleby (2019) reported that „while the pay gap for the 88% of NHS staff covered by the Agenda for Change national pay system is now 3.9% in favour of women, for the remaining 12% of staff (mainly doctors and senior managers) the gap is still 47% in favour of men". In Germany there is discussion (and current strike waves) on raising working conditions and pay for doctors and care-takers but nothing has yet been agreed. With regard to the educational sector the picture is similar. Detailed statistics exist in Britain but not in Germany. For university professors I found a single German study in 2018 whereby female W3 professors (W3 equals lower grade UK full professors) earned around 960,- € less per month (brutto) than their male counterparts.[24] Unfortunately, no percentages or more information was published. W3 professorial monthly salaries are around 7500,- € (depending on the "Land" (regional state) with Bavarian universities paying most). This would indicate an average pay gap of around 12.8%. Note, that in most academic fields the professorial salary in Germany is still decided by public sector collective bargaining

[24] https://www.forschung-und-lehre.de/karriere/bis-zu-1500-euro-differenz-bei-tatsaechlicher-besoldung-2397

agreements whereby in Britain market-driven individual negotiations are on the rise. Finding a gender gap of such magnitude in the German context is therefore quite remarkable.

To my knowledge there are also no state or university specific pay reports available. In contrast Britain boosts a vast amount of national and university specific data.[25] Overall, for full-time full professors the unadjusted national gender pay gap was 27% in 2018. And for all academic staff in British universities the gap was 11.1% in 2017 (Advance HE 2018:231). There are also various studies conducted by individual universities. For example, LSE‘s EDI Taskforce, which I chaired at the time, found that – after controlling for research productivity (measured by REF submissions), age and length of tenure at the LSE – the gender pay gap for full professors was still 11% in 2016. Note, that overall the percentage of female academics is still low in both countries though more women work as academic staff in the UK (47%) than in Germany (40%) in 2020 (HESA data 2021, gesis/CEWS data 2021). Among full professors (W3 professors in Germany) the female share was 22% in Germany and 28% in the UK (2020).[26]

3.1.2. Gender and supervisory boards

The second measure is the share of women on supervisory boards which - similar to the pay gap - receives high media attention and therefore should induce data collection and research, in particular in Germany, as it became a major, politically contested topic under the Merkel government. After years of unsuccessful recommendations to the private industry the government under Merkel finally introduced a legal requirement in 2015 to increase the number of women on those boards. Yet, the law is widely regarded as a weak compromise, highly bureaucratic and complicated. Still, it produced some encouraging results. The law (“Erstes

[25] https://www.ucea.ac.uk/library/infographics/gender-pay/
[26] https://www.gesis.org/cews/cews-home/zielgruppen/hochschulen

Führungspositionen Gesetz 2015") asks large firms with more than 2000 employees (following "paritätische Mitbestimmung") and which are stock-market registered (currently 106 firms), to have at least 30% of their supervisory board filled with women. This produced indeed some increases and in 2021 the female percentage in the DAX (30 firms) was 35.9% (data source: Fidar's women-on-board index 2021). However, 24 of the remaining 66 firms still have no woman on board. And in the 80 DAX firms, which do not fall under the law, the percentage was 24.5%. The law also required firms, which are stock-market registered or required to have co-determination ("mitbestimmungspflichtig") (approx. 2800 firms, BDI estimate) in 2015 to set a female target to be reached by 2017. How many of these firms have produced a target, to what extent this was ambitious and not window-dressing, and how many succeeded in meeting their targets in 2017, is unknown. The updated law in 2021 ("Zweites Führungspositionen Gesetz") focuses on the executive board and requires those 106 firms (firms with more than 2000 employees and stock market registered) to have at least one female manager on their executive board if they have more than 3 executive board members and if they hire new members. These are currently approx. only 66 firms and the female share was 14.1% in 2021 (Fidar 2021). For the 30 DAX firms the share is 17.4% (since 2015 this number doubled). The law has been criticized for being rather weak as it covers a very small amount of firms and sets modest requirements. For example, an executive board of a large firm with 10 board members, one of them a woman, meets the legal requirements but its gender quota of 10% remains low. More research is necessary to what extent and under what conditions such quotas can work effectively (see Deloitte 2021), in particular since most European countries have quotas and the European commission president von der Leyen is hoping to introduce a European-wide female quota of 40% for stock-market registered firms.

In Britain no quotas exist, possibly because there is already a strong public awareness and public pressure for private firms to improve the diversity of their management. Studies

have argued that such a voluntary "blaming and shaming" approach can work in Britain (Bevan and Wilson 2013). There is indeed evidence that it seems to work: the executive boards of FTSE 100 firms revealed 39.1% female directors in 2021 (this number doubled during the last five years and tripled during the last 10 years (up from 12.5% in 2011). For the FTSE 250 it was 36.8%, and for FTSE 350 37.6%. In other words, women now hold more than a third of roles in the boardrooms of Britain's top 350 companies. This impressive development has been accompanied by regular large-scale reports which boosts transparency, data information and public awareness. Regular governmental sponsored reviews were launched in 2016 encouraging British companies to promote more women to their boards and into senior leadership positions. For example, the authoritative Hampton-Alexander review has achieved its target of 33% of board positions at FTSE 100 and FTSE 250 firms being held by women by the end of 2020 (Guardian 2021). The benchmark has now been increased to 40% to be achieved by 2025 (FTSE Women Leaders Review 2022). A question for further research would be why such a voluntary approach seems to work in Britain but did not work in Germany.

In sum, regarding the gender pay gap and the female company board share one finds significant political efforts in both countries to improve gender equality. However, data availability and empirical analysis are more limited in Germany compared to Britain and in terms of the actual equality progress Britain consistently fares better. This is in line with the still valid conclusion of the EU FEMM report on Germany (2015:8): "Compared to other EU member states, Germany's performance in achieving gender equality is mediocre. … Women are underrepresented in decision-making, both in the political and economic area. In economic decision-making, women are widely underrepresented" (ibid.:5).

3.2.1. Ethnic and migrant labour market participation

There are even larger cross-country differences regarding the collection of ethnic and migrant data. Overall, the share of foreign-born people living in both countries are similar with Germany being on top: the share of foreign-born of the total British population was 14.4% in 2021 (Migration Observatory 2021). Among those 9% were foreign citizens without a British passport.[27] In Germany the share of foreign-born migrants for 2021 was 16.7% (BAMF statistics 2021, own calculations). In Germany, "migrants" made 27.2% ("migrants" in Germany are defined as persons which are foreign-born like in Britain but also citizens born in Germany with at least one foreign-born parent) and 12.7% were foreign citizens without a German passport in 2021 (www.destatis.de).

In terms of the countries of origin the largest group of migrants in Britain came from India, Poland and Pakistan (Migration Observatory 2021). In Germany most migrants came from Turkey, the states of former Yugoslavia, and Poland (bpb.de 2020). In terms of religion, the Pew Research Center (2021) estimates a slightly higher amount of Muslims living in Germany (6.9%) than in Britain (6.1%) in 2020. No official German data are available. In Britain the official percentage of Muslims was calculated in 2018 with 5.2% (ONS 2018).

With regard to the labour market participation for ethnicities or migrants: The employment rate (employed and self-employed) was 75.8% and the unemployment rate 3.8% and the economic inactivity rate (excluding employed, self-employed and registered unemployed) 21.1% (ONS stats, 16-64 years old, Dec22-Feb23). With regard to EU nationals living in Britain approximately 83.6% were employed in 2021, compared with 75.7% for British nationals and 71.3% for people outside the EU and Britain (Migration Observatory 2021). In other words, EU nationals have a higher employment rate than locals. There is also official government data on the ethnic employment rates which were 78% for whites and 66% for

[27] British statistics take the country of birth into account but not of their parents.

minority ethnic groups in 2019.[28] The gap declined by 5% during 2004 and 2019[29]. The Pakistani/Bangladeshi ethnic group had the lowest employment rate with 56% in 2019.

The Migration Observatory (2021) also produces intersectional statistics on British employment and unemployment rates by country of birth and gender. For example, the 2020 employment rate was higher for migrant men than British born men with 83% compared to 78% (for women it was lower with 69% for migrant women and 72% for British women). Most country-of-origin groups had higher employment rates than British-born men, except for men born in East and Southeast Asia (75%), and in MENA (Middle East and North Africa) and Central Asia (69%).

Last but not least, the ethnic unemployment rate for 2021 was 3.5% for whites and 7.7% for all other ethnic groups, with Pakistani being at the bottom with 10.2% and Bangladeshi with 9.4%. The unemployment rates for EU nationals in Britain tend to be lower than those of British nationals. For 2021 (Q3, not seasonally adjusted) it was 3.8% for EU nationals (who were hit hardest by the Covid pandemic) compared to 4% for British born citizens. [30] They were higher for non-EU nationals 6.8% and for asylum-seekers 14% (Migration Observatory 2021). Finally, EU nationals are less likely to be unemployment for longer periods (= more than a year): in 2020 21% of British and non-EU nationals were unemployed for more than a year compared to only 16% of EU nationals (Migration Observatory 2021).

In contrast, Germany does not produce data on labour market integration indicators for ethnic minorities, but data on foreign workers and their countries of origin . A large variety of regular reports on migration and integration exist (e.g. „Integrationsmonitor der Länder Bericht“, „Bericht der Integrationsbeauftragten“, „Migrationsmonitor der Bundesagentur für

[28] www.ethnicity-facts-figures-service.gov.uk

[29] More recent data is temporarily unavailable as ONS reweights the data to account for the effects of population change and Covid implications for the labour market. https://researchbriefings.files.parliament.uk/documents/SN06385/SN06385.pdf

[30] In 2018 the difference was larger with an unemployment rate of 3.3% for EU nationals compared to 3.9% for British nationals: https://www.pesnetwork.eu/2020/02/16/eu-united-kingdom/

Arbeit“, „IAB regional reports“). The official labour market statistics (Bundesagentur für Arbeit) lists German nationals, EU nationals, non-EU foreigners, all foreigners, and persons from eight asylum-seeking countries (Afghanistan, Eritrea, Iran, Iraq, Nigeria, Pakistan, Somalia, Syria; meaning that all migrants from these countries are included not just asylum-seekers) and data of migrant numbers from single countries (from more than 200 countries of this world incl. rather small countries such as Nauru or Kiribati), although more meaningful percentages are not calculated. The awkward use of these eight asylum-seeking nations is due to the fact that Germany is unable to statistically distinguish economic and political migrants (asylum seekers) among their “foreign” workforce. It also means that workers, who are seeking asylum from other than those eight countries, cannot be included, nor can workers be differentiated who originate from these eight countries but are not asylum seeking (e.g. the Nigerian IT expert who migrates for economic reasons). Moreover, studies are sometimes difficult to compare as various data definitions and statistics are used.[31]

The employment rate (“Beschäftigtenquote”: in contrast to Britain this rate includes employed persons but not self-employed) in Germany was 68.6% for all citizens (compared to 75.8% in Britain, see above), 53.3% for foreign citizens, 19.1% for Ukrainians, 40.4% from the asylum-seeker countries, and 60.7% from EU-27 countries in March 2022 (IAB data 2022).

The unemployment rate at the same time (March 2022) was 6.1% for all and 12.5% for foreign citizens. More specifically: 7.9% for EU-27 nationals, 30.2% from asylum-seeker countries and 11.2% for Ukrainians.[32] Unfortunately the IAB data did not include an unemployment figure for German nationals. For 2020 there are micro-census data[33] including German nationals which show that the unemployment rates were higher for all foreigners

[31] For example the labour force agency (Bundesagentur für Arbeit) only provides employment and unemployment figures for german and foreign employees but not for employees with a migration background so cannot for example observe labour market integration successes of second generation migrants. In contrast the statistical national office (Statistisches Bundesamt, destatis based on microcensus) collects data on the economic activity (but not employment) of German and foreign nationals, as well as migrants.

[32] https://doku.iab.de/arbeitsmarktdaten/Zuwanderungsmonitor_2207.pdf

[33] https://mediendienst-integration.de/integration/arbeitsmarkt.html#c715

(including EU nationals) compared to German nationals: 5.6% for German nationals, 9.4% for EU nationals, 19.4% for non-EU nationals, 14.9% for all foreigners, 37% for asylum-seekers and 17% for Turkish nationals.

For the economic activity rate ("Erwerbstätigenquote" including employed, self-employed and people working without pay for family firms or for a social year, 15-74 year olds) we find data including German nationals: 67.9% for all citizens, 68.7% for German nationals, 73.5% for EU-27 nationals and 55.8% for non-EU nationals (2nd quarter 2022, destatis.de).[34]

Overall, the labour market data in Germany for foreign citizens or "persons with migration background" are often scattered: different surveys use different data sources and either focus on employment or economic activity rates, frequently statistical reports publish the overall employment numbers rather than percentages, and not always are group classifications used such as EU nationals, non-EU nationals et al.. Moreover, employment rates are different defined in Britain and Germany, for example Germany not including self-employed in their "Beschäftigtenquote". International comparisons are hereby not facilitated.

On the basis of the above discussed data (employment, economic activity and unemployment rates) one can still conclude that EU as well as non-EU migrants are generally more successfully integrated in the British labour market than in Germany: employment rates are higher and unemployment rates lower for EU and non-EU migrants in Britain compared to Germany (also Frege 2020). This is coincidentally also true for the recent Ukrainian refugees in both labour markets: Only 19.1% of Ukrainian refugees are employed in Germany compared to 42% in Britain (ONS stats, 08/2022).

Surely the language barrier for many migrants is higher in Germany than in Britain and therefore a potential explanation. It could also mean that Britain is more successful attracting

[34] https://www.destatis.de/DE/Themen/Arbeit/Arbeitsmarkt/Erwerbstaetigkeit/Tabellen/ilo-quartal-geschlecht-staatsang.html#fussnote-1-630478

higher skilled EU as well as non-EU nationals than Germany, that it restricts the entrance of political refugees, and that Germany is less successful integrating migrants into their labour market, for example due to bureaucratic obstacles in not allowing refugees to work or in recognizing foreign degrees et al.. It could also mean that migrants are more exposed to discrimination in the German labour market compared to Britain (Frege 2020).

Unfortunately, no intersectional data are available from the German labour market agency for ethnicities making it more difficult to support evidence-based policies to help eliminate ethnic/racist labour market discrimination. Even the recent report on labour market conditions of women and men by the labour market agency ("Die Arbeitsmarktsituation für Frauen und Männern 2020", Bundesagentur für Arbeit, Juli 2021) does not provide intersectional ethnic/migrant data (on migrant women for example). The national statistical office (destatis.de) does produce participation and unemployment figures for women (see above) but not intersectional ethnic/migrant data, thus for example for female Turkish nationals.

Furthermore, there is British but not German data on ethnicity or migrant participation rates across industrial sectors. For example, in the British health sector 44.4% of the NHS workforce are from ethnic minority backgrounds, 14.6% are foreigners (e.g. 22% of medical doctors are non-EU nationals, 8.7% are EU nationals in 2021).[35] Germany publishes total employment figures of countries of origin for various sectors or professions but not for ethnic minorities (destatis.de), nor do they provide any percentages which is remarkable. Yet, the independent economic institute IW (2020) estimated 9.8% of foreigners in the care sector and 8.4% for hospital staff in 2019.

Finally, in terms of underlying governmental policies there has been an increasing interest by the British government since the late 1980s to proactively combat race and ethnic discrimination in the labour market. One example is the "The Race at Work" campaign,

[35] https://commonslibrary.parliament.uk/research-briefings/cbp-7783/)

established by HRH The Prince of Wales in 1995, with the support of key business leaders. Most British companies subscribe to the conviction that ethnic discrimination is bad for business, that it decreases employees' morale and productivity and that an ethnically diverse workplace is a competitive advantage. For example, the lobby organization, "Business in the Community" (BITC), is committed to „empowering employers to tap into this economic potential by accelerating change for ethnically diverse employees". They highlight that ethnic equality in Britain will potentially bring a £24 billion per year boost to the economy, thus 1.3 % GDP (which translates into £481 million a week). The BITC national survey also found that in 2018 84% of British employers had a senior Race Champion; 41% had explicit targets to increase the racial diversity of their boards and executive teams. 63% monitored data on pay and ethnicity and 31% published their ethnicity pay gap. 97% had a clear zero-tolerance policy on racial harassment and bullying and 45% additionally commissioned a review into bullying and harassment in the workplace. 50% ensured that performance objectives of their board and senior team include explicit actions on race. Additionally, in 2018 BITC introduced the "Race at Work Charter", which the CIPD also recommends companies to sign. By 2021 681 companies had signed the Charter.[36] These are impressive numbers. Still, more needs to be done: only 1 in 16 people at senior levels in the private and public sector are from an ethnic minority background in 2021.[37]

In terms of governmental or company policies nothing similar exists in Germany, despite the fact that the share of migrants is higher than in Britain (see above). There are various governmental programs in Germany such as the federal program "Living Democracy" ("Demokratie leben!") of the Ministry for Family et al. (BMFSFJ), established in 2015, which sponsors various anti-discriminatory initiatives, in particular in the workplace „which is regarded as a major place for social integration and participation in democracy" (p. 2). There

[36] https://www.cipd.co.uk/Images/race-charter-guide-feb-22_tcm18-92339.pdf
[37] BITC's Race at Work 2021 Scorecard Report

are also various local projects such as the initiative by the city of Cottbus in Brandenburg supporting the labour market integration for migrants.[38] Its focus is on helping migrants to find work, to provide German language courses as well as swim courses for women. It is difficult to control the success of such initiatives as they do not yield quantitatively measurable goals and benchmarks. Moreover, neither are local initiatives centrally organized or at least listed (there is no yearly list published of all public funded initiatives at federal or regional level), nor are there regular control studies or reviews evaluating the progress and effectiveness of those initiatives.

3.2.2 Ethnic/ migrant pay gap

It is a well-known fact that on average migrants tend to earn less – in particular in the early years of their migration - than nationals, in particular in advanced economies. Studies show that even controlling for education, labour market experience and labour market characteristics the gap remains significant. A recent ILO report (Amo-Agyei 2020:85) concludes that "on average about 10% of the weighted migrant pay gap (controlling for education, labour market experiences and gender) of approximately 12.6 % (based on average hourly wages) in the sample of high-income countries remains unexplained by observed labour market characteristics. The report (ibid.:85) concludes the existence of "discriminatory practices against migrant workers, including non-compliance with the principle of "equal pay for work of equal value". For Britain the factor-weighted migrant pay gap was 7.6% in 2019 (controlling for education, labour market experience, gender; based on monthly earnings) compared to an overall EU gap of 11.7%. The monthly median pay gap (not factor weighted) was 9.8% for Britain. Not surprisingly, given the weak data basis in Germany, the ILO report - covering 49 countries - excluded Germany. In Britain there is a large amount of data

[38] https://www.cottbus.de/.files/storage/file/462bbd1e-2c89-4f7e-87fd-d0a2b927ca6b/20200513_VaC_Flyer_NEU_v2.1.pdf

generation and analysis in particular on the ethnicity (rather than migrant) pay gap on the basis of governmental reports as well as independent scientific research (Bryne et al. 2020). ONS statistics provide detailed information regarding various ethnic categories in the labour market on an annual basis.[39] Most of the minority ethnic groups continue to earn less than White British employees but, in 2019, those in the Chinese, White Irish, White and Asian, and Indian ethnic groups all earned higher hourly pay rates than White British employees. For example, in 2019 the pay gap was 6,9% for Blacks, 15.5% for Pakistani, but -21.5% for Chinese and -15.5% for Indians. The overall pay gap between white vs all other ethnicities (with regard to the median hourly pay) was 2.3% in 2019.[40] And between 2012 and 2021 it went from 5.1% to -1.6%. meaning that for the first time since 2012 the ethnic pay gap disappeared, resp. turned negative! (but not controlling for highly skilled European or Asian workers et al.). [41]

Still, this obscures differences among minorities with Chinese people earning nearly 47% more than white British but white and black African people (incl. mixed race) earn on average almost 16% less than white British. And if one controls for personal and work-related characteristics white British still earn on average more than people from most ethnic groups (PWC ethnic pay report 2021).

As mentioned above BITC, CIPD and other interested parties (e.g. PWC) currently lobby for the government to mandate ethnic pay gap reports from private companies and for the government to publish yearly national data (similar to the gender pay gap see above). However, many large companies already do this voluntarily on an annual basis. In a recent PWC survey (2020) over 60% of their surveyed (100) largest companies report the ethnicity gap voluntarily. Moreover, according to PWC the number of senior leaders as executive

[39] https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/articles/ethnicitypaygapsingreatbritain/2019

[40] ONS provides annual national data until 2019 as they are currently updating its statistical measures.

[41] Based on statistics of the consultancy firm PWC which continued the current ONS measurement and produced data for 2020 in England and Wales (not Scotland): https://www.strategyand.pwc.com/uk/en/reports/ethnicity-pay-gap-report.pdf

sponsors officially promoting EDI has increased from 32% in 2015 to 44% in 2021 (see McGregor-Smith Report 2021). There is also official data on regional differences across Britain with London (with the highest share of citizens with ethnic diversity) revealing the highest median ethnic pay gap of 23,8% in 2020.[42]

Germany does not produce national statistics on the ethnic pay gap, respectively pay gap between German and migrants or foreign nationals. It is telling that the ILO report (Amo-Agyei 2020: Fn4) explicitly excludes Germany in its analysis because of data unavailability. I also did not find any company in Germany voluntarily publishing numbers of their ethnic or foreign employees nor a migrant pay gap.

An IMF working paper (Beyer 2016) using GSOEP panel data of 2013 found an unadjusted hourly wage gap between natives and migrants in Germany of 15.3% (women 17.9%, men 13.3%) and even controlling for education a gap remains: for the highest level of education the gap was 17% (ibid.:14, fig. 6). The data do not distinguish between EU and non-EU migrants. The gap is significantly higher whether compared to the factor-weighted or raw migrant pay gap in Britain (see above 7.6% in 2019: ILO report 2020).

In 2019, on the official request of the right-wing AfD party, the German labour agency was asked to provide a pay report, which has unfortunately not been officially published as such, but some main results were published in newspapers (e.g. Leubacher 2019). That a right-wing party demands information indicates how much this topic is falsely ignored by policy-makers and the mainstream German society and made into a taboo topic to be exploited by extreme parties. No one is helped by pretending there is no ethnic or migrant discrimination in Germany's labour market, just because there is no published data. One explanation could be that policy-makers wrongly assume that German trade unions and collective bargaining coverage are sufficiently strong to prevent discriminatory wage penalties. More likely is that

[42] www.employeebenefits.co.uk

policy-makers do not want to produce potentially negative news regarding migrants integration progress, which is a contested political topic in Germany.

The AfD request revealed for 2017 (Leubacher 2019, data source: Bundesanstalt für Arbeit) an overall pay gap of 25.23% (unadjusted, own calculations) between full-time employees with German nationality and full-time employees with foreign nationalities (thus EU and non EU nationals; white and other ethnicities; economic migrants and political refugees) (3294,- € brutto vs 2463,- brutto average monthly (median) salary). If one singles out refugees (from the main asylum seekers countries) within the "foreign nationals" group, one finds an average monthly salary of just 1839,-€, which results in an unadjusted refugee pay gap of 44% compared to German workers (own calculations). The study also reported that unskilled German workers ("Helfer") earned 2313,-€ compared to 1918,-€ for unskilled foreign workers (economic migrant and asylum seekers) revealing a pay gap of 17%, and a gap of 29% regarding asylum seekers only (earning 1647,-€). With regard to skilled workers the pay gap between equally skilled German and foreign workers (incl. EU and non-EU nationals) was 17% and the pay gap was 35% between skilled German citizens and skilled asylum seeking workers. Regarding higher skilled workers (supervisors, "Meister", technicians) Germans earned on average 4223,-€ and foreigners (economic migrants and asylum seekers) 4000,-€ and asylum seekers alone 2691,-€. Even among the highest skilled employees (with academic degrees) there remains a significant difference with German nationals earning 5333,-€ monthly, foreigners 4960,-€ and asylum seekers 4394,-€.

A more recent study by an independent research institute (IWD 2021) looked at different countries of origin. Overall, they found an average monthly salary for German workers of 3541,- € and for foreign workers of 2638,-€ in 2020, translating into a pay gap of 25.5% (unadjusted, my calculation). In particular, the average salary was low regarding workers with Romanian origins (2157,-€), from middle and southern Africa (without northern

Africa) (2150,-€), or from Bulgaria (2072,-€). Yet, as in Britain migrants from specific countries can earn significantly more than the average German worker. For example, Indian workers earn on average 4800,- € and Austrians 4700,- € (per month) in Germany (IWD 2021). In sum, the overall German-foreign pay gap of around 25% (based on the AfD requested pay report and IWD 2021) is much higher compared to the British migrant pay gap of 9.8% (unadjusted) or 7.6% (adjusted) (2019, ILO report 2020). As the data do not come from the same source a comparison must be taken with caution, still the gap between Germany and Britain is large enough to safely conclude that migrants in Germany generally seem to face a significantly higher pay penalty than in Britain. It reveals a worryingly high degree of inequality in the German labour market raising questions such as to what skill levels migrants bring entering the German labour market compared to migrants entering Britain; what foreign educational degrees are accepted in Germany; how well and how quickly migrants are integrated in the German educational system and the labour market, and if and what measures are taken to attract certain kinds of migrants and to help the advancement of their skills (Frege 2020). The gap could also indicate more discriminatory practices in the German labour market. Overall, the numbers clearly show a more successful labour market integration for migrants and ethnic minorities in Britain than for migrants in Germany. Kogan (2006) highlights the higher flexibility of the British labour market in integrating migrants and Guetto (2018) points to Britain's more selective migration policies favouring highly skilled workers (also Frege 2020). More research and data are needed, for example longitudinal and comparative studies of migrant career development and implications for the pay gap over time as well as sector specific studies (see also Storm 2022). For example, a promising IAB study (Lehmer and Ludsteck 2013) followed a sample of migrant men entering the German labour market obtaining a full-time job in 2000. They find a decline of the wage gap over time from 36% in 2000 to 28% in 2008 (full-time native versus foreign men entering the labour market in 2000).

Finally, cross-country differences are also visible regarding the data infrastructure and integration successes with regard to school graduates respectively university entrees. Not surprisingly more is known about ethnic performance in the school and higher education sector in Britain than in Germany. No systematic data are collected on the final school degrees of children with a migration background/ ethnicity in Germany.[43] However, there is a recent survey of the statistical office which compares children with a German passport (this can include children with a migration background and having German nationality) and with a foreign passport living in Germany and found that only 14% of the foreign children obtained the Abitur (A levels) in 2020 compared to 35% children with a German nationality. And 14.7% of children with a foreign passport did not manage to obtain any school degree compared to only 5.1% of children with German nationality (Statistisches Bundesamt 2022, Fachserie 11, Tab. 6.2). I could not find more specific data on school successes from different countries of origin. Data on migration or ethnicity are also not generally collected by universities or educational government bodies.[44] We know that in 2022 around 20% of all students in German universities and polytechnics had a foreign nationality, out of these around 12% were international students and 8% students who have lived in Germany, obtained a German school degree but have no German nationality.[45]

Britain collects a massive amount of data on ethnic performance in the education sector and fosters many programs to improve access and performance of minority students and staff (e.g. “Race Equality Charter”, “widening participation”). Nothing equivalent exists in Germanies universities. Alone for the higher education sector the following ethnicity

[43] There is annual data by de.statis on how many people with and without migration background have a final school degree or no degree. However the data do not provide much information as only raw numbers not percentages are provided, nor are there exact data on the type of degrees (Abitur et al.). In 2020 883.000 persons without a migration background had no school degree compared to 2.020.000 persons with a migration background (Statistisches Bundesamt 2022:table 8, or picture 3 which shows colourful blocks but no concrete figures).

[44] It comes to no surprise that while German universities have a legally required representative for women issues (“Frauenbeauftragte”) but not for migrants. Several universities have however expanded their gender office into a wider EDI office (eg. Goethe university in Frankfurt).

[45] https://mediendienst-integration.de/integration/hochschule.html

information is annually available: entry rates, first year entrants onto undergraduate studies, first year entrants onto postgraduate studies, undergraduate degree results, people starting at higher education with high, medium and low entry tariffs. For example, in 2021 from British state schools 33.3% of white pupils entered university, 72.1% of Chinese, 54.9% of Asians and 48.6% of Blacks. Such data are available for every year since 2006. Overall, in the 2020/21 academic year 74.2% of first year undergraduate and postgraduates were white, 11.6% Asian, and 7.9% Black. Data on students with migration backgrounds are more rare but an interesting OECD study (2016) found evidence that in Britain (different to most other OECD countries) people with a migration background are relatively more successful entering university than locals. Thus, 58% of young people with foreign born parents in Britain entered higher education compared to only 46% with British born parents.[46] There are also data on international students. In the Covid year 2021 still 22% of the British student population were international students (significantly more than in Germany: 12%), out of these 25% from the EU and 75% from abroad.[47]

3.2.3 Ethnic share on company boards

There are increasing public demands in Britain for introducing ethnic minority targets on company boards. For example, the Parker Review (2017) recommended at least one BAME member on FTSE-100 boards by 2021 (and by 2024 on FTSE-350 boards). The latest Parker review (2022) evaluated the five-year national progress since its first review and found 89 FTSE-100 companies and 128 FTSE-250 companies having minority ethnic representation on their company boards as of end of 2021. Another five FTSE-100 appointments have been announced since then and an additional three companies were at an advanced stage in the

[46] https://www.theguardian.com/education/2016/sep/15/children-immigrants-higher-education-england-oecd-study
[47] ethnicity-facts-figures.service.gov.uk

recruitment process. Overall, in 2021 61% of all company boards in Britain had at least one ethnic minority director. 11% of all board members were ethnic minorities and 34% were foreign nationals (the largest share from the USA).[48] In contrast, as far as I know, there is no official target, research or data on the ethnic/migrant diversity in German senior management. A survey on board members' foreign nationality in 2019 conducted by a consultancy firm found a similar share as in Britain: 35% of board members of DAX executive boards were foreign (as in Britain the largest share being managers from the USA).[49] But no data exist on board members from a migration family background (second generation et al.) or an ethnic minority.

In sum, with regard to labour market data on ethnicities and migration and the integration progress the discrepancy between both countries is even stronger than with regard to gender. As mentioned before, this can be interpreted as an indicator of how much the German public and its political class remain ignorant about the benefits of ethnic diversity as well as the existence of ethnic and racial discrimination. Although Germany now officially declares itself a migration country (after years of political debates) and boosts an impressive track record in welcoming refugees in its society, its political, business and intellectual elites are still predominantly white, male and without migration background. Just compare the current progressive but essentially white and German "Ampel" government (Social Democrats, Greens and Liberals) with the ethnically highly diverse Tory government under prime ministers Truss and Sunak (himself a second generation migrant). The German government includes a single minister who has a second generation (Turkish) migration background (for the first time in German history). Germany is far from becoming a truly multi-cultural society. Discrimination

[48] see: https://www.spencerstuart.com/research-and-insight/uk-board-index/diversity
[49] (Simon Kucher & Partners: https://www.welt.de/finanzen/article196556677/Dax-Konzerne-Auslaenderanteil-in-Vorstaenden-so-hoch-wie-noch-nie.html).

and inequality remain a daily reality for ethnic minorities in Germany (Amnesty 2022; Nguyen 2014). It is also evident that German business has not yet seen the necessity to significantly embrace the potential economic benefits of an ethnically diverse workforce (despite general mission statements supporting diversity[50]). For example, the ECRI (EU commission against racism and intolerance) report (2020:10) regrets that „the Confederation of German Employers' Associations has only calculated the costs that the introduction of the German anti-discrimination legislation has incurred (BDA 2018), but that it has not put any figure on its positive effects.“ According to the diversity report 2020 of the German NGO “Charta für Vielfalt” only a third of German companies are estimated to be committed to EDI whereas in Britain more than two third of companies are committed (69% of British companies have taken a strategic approach to EDI according to a recent survey of HR managers by Workday in 2020).[51] Finally , the generally weak data availability regarding migrants reveals the disinterest or reluctance to install an integrated public data management system, which would allow, for example, to exchange and merge data from the data collection on registered foreigners living in Germany (“Ausländerzentralregister“) with the labour market statistics of the federal labour agency (“Bundesagentur für Arbeit”). As the federal office for migrants (BAMF) declared already in 2018 (Tangelmann et al. 2018:1) “because of the lack of merging these data sets it is not possible to provide a detailed list of foreign labour market participation and unemployment rates.” Similarly, the ECRI concludes in its 2020 report that “Germany’s National Action Plan for Integration does not contain indicators to measure progress and the process for its revision remains slow“ (p.8).

[50] For example, many large companies have signed a diversity charta (“Charta of Vielfalt”), a voluntary initiative supported by the government (patron is the chancellor of Germany) which asks its signature companies to encourage diversity (gender, sexual identity, ethnicity, disability, religion, age et al.) in their organisations, but without any minimal requirements or regular evaluations. Note: the charta is currently governed by a board of white German women and men, thus lacking any visible ethnic diversity.

[51] https://www.peoplemanagement.co.uk/article/1747270/third-businesses-do-not-have-inclusion-diversity-strategy-survey-finds

4. Explanations and Conclusion

In sum, my overview of the data availability and management with regard to two protected categories in the labour market revealed a significant information gap in Germany compared to Britain. The additional review of the status of gender and ethnicity equality also confirmed overwhelmingly that Germany - despite its traditionally stronger collective labour market institutions and regulations - seems much less successful providing equal treatment and opportunities for their employees with protected categories than the more liberal British labour market. Surely the lack of data cannot be the only reason for the comparatively weaker equality success rates in Germany. But there cannot be any doubt that data availability does play a significant role in the understanding of Germany's weaker equality success. Data availability is without doubt a necessary condition for efficient, reliable, evidence-based policy-making. It can also reduce policy-makers' uncertainty in decision making and encourage more research. This does not only hold true in the area of EDI and social justice but with regard to any policy area (such as the public health system[52]).

Why is it then that Germany is so visibly lagging behind in the EDI data sciences? No doubt past governments did and do not lack an awareness of the necessity to embrace diversity and to support citizens with protected categories. As we have discussed earlier many laws have been passed and many projects have been financed. But , as we have seen with regard to our two case studies, the measures were often not sufficient and evidence-based strategies were often not implemented because empirical evidence was missing. In the remaining part I want to offer three hypotheses as to why Germany is lagging behind. I argue that there are historically rooted, cultural legacies which have contributed to the resistance towards data sciences and in particular to population data management. Thus, the ignorance or reluctance of

[52] E.g. the current German health minister Lauterbach who argues that Germany is critically lagging behind other countries in the collection and availability of patient health data which discourages clinical research as well as challenges effective patient care. See his new legislative proposal https://www.bundesgesundheitsministerium.de/presse/interviews/interview/fas-030324-elektronische-patientenakte.html

Germany's policy-makers towards enabling and supporting evidence-based decision-making regarding EDI has deeper historical roots. I highlight three major path dependencies or legacies of cultural norms rooted in the 19th century: (a) corporatism (b) privacy and the state, and (c) social science traditions.

(a) Corporatism

From a comparative perspective one explanation for Germany's general reluctance would be that there is less political awareness on identity-based individual labour rights than in Anglophone countries, partly because corporatism and collective rights in the labour market have traditionally been strong. Germany remains a core model of 'Coordinated Market Economies' (Hall and Soskice 2001). And Germany still pursues many features of a conservative welfare state model as described by Esping-Andersen (1990:40): "Germany's tradition of corporatism and its longstanding conservative welfare state, with its roots in the 19th century, ultimately aims at social integration, the preservation of state authority and the (Bismarckian) battle against socialism. There is a legacy of an 'etatist conservatism' which sees in (collective) social rights the solution to the 'social question' and is motivated by an equally strong opposition to individualism and liberalism" (ibid.:40). I argue that Esping-Andersen's characterization still remains broadly true today. Germany traditionally focuses less in advancing individual social justice issues for their citizens with protected categories and instead engages more in supporting collective actors. These features stand in contrast to Britain's more liberal, laissez-faire political economic tradition with its welfare system focusing mainly on means-tested social assistance, and its traditional legislative emphasis on individual rather than collective rights.

(b) Privacy and the state

A second legacy is Germany's particular focus on privacy and the state. As well known, across Europe standards for privacy and data protection are comparatively high. In Germany

or France, for example, the concept of privacy and citizen's right of personality was defined as a constitutional norm already in the 1970s, though it took not long for the US to follow and implement their own Privacy Act in 1974 (Lengwiler 2004:6). In 1995 the EU established a set of directives and minimum standards on data protection which became to be seen as a global benchmark. Privacy is regarded as an essential precondition of pluralistic democracies. Yet, the literature notes a difference between continental European and Anglophone countries. According to Finkin (2013:22) countries rooted in a civil law tradition (continental European countries), have tended to take a more systematic and protective approach to privacy than Anglophone countries. And within the EU no other country stands more for data protection than Germany (dotmagazine.online 2017). Germany's data protection and privacy laws are the strongest in the world and polls regularly reveal a strong support among German citizens for data protection (Morey et al. 2015)[53]. The classic explanation for Germany's exposed focus on data privacy is no doubt its history of two authoritarian political systems, in which the surveillance of its citizens played a fundamental part of control, manipulation and oppression: the Nazi regime and the German Democratic Republic. It is - as the legal scholar Finkin (2013:31) argues - "in reaction to the Nazi period that the German judiciary (finally) created the general right of personality abstracted from the post-war constitution's commitment to Enlightment values and applied as legal norms that permeate even private contracts". According to the historian Wolfgang Schmale these totalitarian experiences lead to fears in the public that personal data will be misused by state authorities.[54] Unsurprisingly German law requires a data protection officer for each firm with more than 20 employees. In Britain such a post is only required for public bodies. For example, privacy concerns regarding "big data"

[53] Unsurprisingly, the Special Eurobarometer on citizen's knowledge and attitudes towards science and technology (2021) showed that 51% of British would (regularly and occasionally) provide personal data for scientific research compared to only 21% Germans.

[54] https://www.goethe.de/ins/uy/de/kul/fok/tab/20591737.html. (See for example the widely expressed worry about the potential misuse in the collection of data on foreigners living in Germany (https://freiheitsrechte.org/home/wp-content/uploads/2022/01/Studie_Auslaenderzentralregister.pdf).

regularly provoke fierce public debates. A typical example is the book by sociologist Steffen Mau (2017) “Das metrische Wir” which critically analyses the quantification of our social lives. Or the book by the Green politician, Jan Philipp Albrecht, in 2014 titled „Take your fingers away from our data” („Finger weg von unseren Daten!“). He concludes that there cannot be complete equality in societies without the effective protection of data. My paper, in contrast, argues that too much privacy in fact can hinder equality and justice.

There are debates to what extent such emphasis on privacy is solely due to the German authoritarian experiences, or whether it has not also longer-standing philosophical and legal traditions rooted in the 19th century. Whitman (2004), for example, makes a convincing argument that historically the protection of privacy and of human dignity in Germany was not a simple reaction to the 20th century dictatorships, but that its concern on privacy goes back to the 19th century notion of dignity, requiring state intervention (and not the absence of the state) to secure those rights. He regards the German law of privacy therefore as “deriving from a concept of dignity, human worth, that is deeply rooted in “honor” (Ehre)”, a concept with a unique cultural connotation in Germany. The Anglophone idea of individual liberty in contrast is based on a Lockean notion of private property and freedom of contract (Finkin ibid.:32, FN 100). It differs from Germany in that it sees liberty from the state as being the foundation of privacy (Snyder 2018:206) and thus does not so much rely on the state to secure those rights in contrast to Germany which relies more on the state. In other words, the underlying assumption is that Germany followed a different path compared to Anglophone developments (which mainly focus on protecting the individual from the state). Simply put, Germany did not completely follow the French Enlightenment or British philosophical thoughts during that time but developed more critical views of Enlightenment while fostering instead Romantic idealism. Lepenies (2006) describes this with the German tendency “to place Romanticism against the French Enlightenment, community against society, culture against civilization, the inner being

against the intellect and rationality, and privacy being the retreat of the individual from society". "The inner realm tempts to oppose the political sphere, and is often used to legitimize the retreat from politics which staying in the safe house of the private sphere". Similarly, Dyson (1980:151) concludes that "19th century German culture was opposed both to French civilization, with its rationalism and democratic and egalitarian spirit, and to the "traders' spirit" and political economy of Britain (and the US) with its potential egoism and acquisitiveness." This debate on Germany's special path ("Sonderweg") is still ongoing among historians (Kocka 1982). For our purposes it is sufficient to emphasize that Germany's focus on privacy might not just be a result of its 20th century history - as frequently assumed - but indeed might have longer-standing philosophical and legal traditions, which shaped cultural norms and habits for a long time, and are more difficult to transform. This might therefore help explain the peculiar reluctance of German policy-makers to advance its data sciences, in particular regarding protected categories.

(c) Social science traditions

Last but not least one also needs to acknowledge the social science traditions in Germany. Social sciences are widely regarded as social constructs embedded in specific historical contexts and shaped by national cultures, state traditions and philosophies (Levine 1995:100). As I have discussed elsewhere (Frege 2007:120) German social sciences have traditionally been leaning towards heuristic methodologies and qualitative research methods rather than an emphasis on empiricism and quantitative methods rooted in the natural sciences. Two major social science traditions, developed in Germany during the 19th Century, still shape German social sciences. Both are related to the philosophical ideas of Romantic idealism: Hermeneutics and Marxism. Hermeneutics developed out of a humanistic criticism on French and British style empiricism, opposing natural sciences and its methods to impact social sciences and ultimately go back to Kant (Ringer 1969:90). In a nutshell, Hermeneutics stands

for the subordination of empirical description to interpretation, which cannot be reduced to mere empirical observation (Frege ibid.:126; Delanty 1997:40). Social sciences should "understand" (Max Weber's notion of "Verstehen") rather than be instrumental and problem-oriented (Frege ibid.:177). In other words, Hermeneutics argues that the structure of social reality is too complex for observation to provide us with a realistic representation. Thus, many German scholars during that time tended to be rather sceptical towards French Enlightenment and its evolving empiricism and saw their Humanism as opposing natural sciences. Marxism is the second major scientific tradition shaping German social sciences (Levine 1995) and is again deeply embedded in the German Idealist philosophy (Hegel in particular). Marxism incorporated various German, French and British philosophical traditions, but there cannot be any doubt that Marx had a more lasting impact on German than on British or US social sciences (Levine 1995). In a nutshell, Marxism rejects the common presupposition of both Hermeneutics and Positivism . It stands against pure scientism as well as against interpretation and elevated "critique" to the center of the aims of social sciences (Frege ibid.:126). The normative foundation of critique cannot be derived from science but from the political commitment to emancipation and social change (Delanty 1997:61). Thus, in contrast to Positivism, Marxism sees science not as standing outside of society (as an objective observer) but as an integral part of society. These trajectories help to explain why German social sciences have been described as driven towards theoretical discourses rather than empirical work and within the latter preferring qualitative methodologies, such as contextually rich case studies, rather than quantitative data analysis (Frege 2007). These legacies can still be observed in many social science disciplines.[55]

This contrasts the scientific traditions in Britain (or the USA) where the concept of

[55] For example, the 39th congress of the German society of Sociology (Deutsche Gesellschaft für Soziologie) (2018, publication 2019: "Komplexe Dynamiken globaler und lokaler Entwicklung") included more than 250 contributions, out of these approx. only four were of quantitative nature. This does not deny that in recent years German social sciences have in general made progress in adapting to American and British style research standards.

scientific research and education can be closely linked to the philosophical tradition of Positivism. Positivism, originating in the French Enlightenment and related to empiricism and pragmatism, became the dominant institutionalized form that social sciences took in Britain. British social sciences essentially go back to Hobbes, the founder of the utilitarian tradition and methodological individualism, which have marked British social sciences since then (Frege 2007:131). Evidence-based empirical research is the explicit norm in many universities such as the LSE. In short, the backbone of British social sciences stemmed from efforts to imitate the metric precision of the natural sciences. The different scientific legacies in both countries might therefore add a structural explanation for the different approaches to data science in the two countries and in particular the institutional lethargy in Germany to invest in the data infrastructure. It is telling that the current German health minister, Karl Lauterbach (SPD), a professor of epistemology, recently published a book on the missing incorporation of scientific knowledge in the political debate in Germany. He observes a general reluctance among the German public to acknowledge scientific knowledge and to incorporate scientists in the political decision-making process (2022:43). Interestingly, this scepticism against science and technology can also be found in recent population surveys. A 2021 Special Eurobarometer (516) on "citizens' knowledge and attitudes towards science and technology" reveals stark contrasts between the more science friendly and trusting British and the more sceptical German responses.[56]

To conclude: I offered three potential path dependencies rooted in the 19th century to be taken into account when explaining why Germany lags behind in their EDI data

[56] For example, evaluating whether the impact of science and technology on society is positive 96% of British respondents (strongly) agreed compared to only 88% of German respondents. And whether they want to learn more about scientific developments 63% of British respondents (strongly) agreed compared to only 47% of German respondents. The British were also more optimistic that science and technology can sort out any problem (36% (strongly) agreed compared to 21% Germans) and thought that it makes our lives healthier (63% (strongly) agreed compared to 45% Germans). More British also agreed that there should be no limit to what science is allowed to investigate (43% (strongly) agree compared to 25% Germans). More British also thought that scientists are intelligent (97% of British (strongly) agreed versus 88% Germans) and honest (81% agreed versus 46% Germans). Finally, significantly more British agreed that scientists know what is good for people (53% compared to 28% Germans).

management: a longstanding legacy of collectivism and corporatism rather than individualism and identity-based rights; an over-protective take on privacy (worrying of the state collecting data on citizens' personal lives but at the same time relying on the state to help to protect privacy), and last but not least social scientific legacies favouring theoretical rather than empirical work and qualitative rather than quantitative methodologies. These legacies might help to explain the longstanding institutional lethargy for collecting, centralizing and analysing data on protected categories , and why, despite Germany being committed to equality and social justice, its policies do not generally tend to solicit comparatively strong measurable goals and outcomes for protected categories. Paradoxically, as I have attempted to show, Germany's strong emphasis on privacy makes it more difficult for the state to effectively combat social injustice. In fact, it is telling that a country such as Britain which traditionally relies on a less interventionist, more laissez faire (welfare) state seems not just more dedicated but also more effective in improving social justice for its citizens than Germany despite its traditionally more interventionist welfare state and social democratic value system. Britain's openness to evidence-based policy-making in the public sector helps. I suspect that in the past Germany's public administration did not yet have to encounter the need for budget driven administrative cost-benefit public sector reviews and reforms, which in the USA or Britain in the last few decades enhanced the development of evidence-based policy-making (EBP). As studies have shown "the expansion of data infrastructure is a necessary condition for developing and effectively implementing EBPs" (Yingling and Mallinson 2020:581). On a positive note, the need for EBPs and more and better data management has increasingly been noticed by various German institutions (Bach 2019; Menzel 2020; Leopoldina 2019). First steps can be witnessed. For example, in 2014 a (publically funded) Leibniz Institute on evidence-based political consultancy ("Zentrum für evidenzbasierte Politikberatung") was created. The institute acknowledges that systematic scientific evaluations of policies are widely under-developed in

Germany and that an evidence and fact based public discussion is often not conducted in Germany.[57] Hopefully, the experiences of the pandemic as well as the current economic recession and tighter public budgets might offer a much needed incentive for Germany to catch up on the concept of EBP. Clearly, Germany will need to significantly step up its efforts and overcome its resistance to building a more comprehensive and centralized population data infrastructure and invest in evidence-based policy-making if it wishes to truly advance a more just and equal society for its minorities.

[57] https://www.iwh-halle.de/en/research/projects/establishing-evidence-based-evaluation-methods-for-subsidy-programmes-in-germany-eva-kult/

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