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## **Unequal Access to Doctoral Training in Germany and the United States: Comparing Defining Parameters.**

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### Describing the Issues

This paper comparatively examines how access to doctoral training is constrained by historical, legal and social parameters in Germany and the US. The topic contains apparent paradoxes in that there seem to be great similarities between the tertiary systems of the two countries, yet the values, attitudes and modes of action among social groups differ radically in supporting or constraining broad inclusion. The dilemma posed in structuring such a discussion has already been raised by Kendall Thomas in his 1999 article comparing affirmative action in both countries. In some sense this is a continuation of his analysis (Thomas, 1998-99). This paper further discusses the lack of precise knowledge owing to the ambiguity of definition about who has unequal access and the compounding of misunderstanding by imprecise data on population groups within each society. This lack of precision is also found in the data on doctoral education—different forms of imprecision in each country, but with the same effect of obstructing accurate knowledge of who actually is enrolled in a doctoral program. Doctoral programs themselves present a substantial barrier to diversifying their own populations given their organization into elite self-referential communities resembling tribes and the power of professors to select students who potentially fit this community. Despite formidable obstacles, legal, social, economic, the US has developed thousands of programs at every level of education to improve the academic development of the disadvantaged so that they might eventually attend college and enter a doctoral program. Although contested such programs have enough support within American society to be sustained. The character of such programs could not be replicated in Germany, but the concepts behind them could certainly be incorporated into German educational institutions—if the will was there.

At present nearly 80% of those earning Ph.D.s in the US and Germany have parents holding bachelors, advanced degrees, or certification such as *Staatsexamen* or *Diplom* (SED, 2013; BMBF, 2013). Few defined as “minority” in either country are in this group with substantial confusion about who is a “minority” and how groups are referenced. Clarifying the terms used in this paper and what they mean begins the effort to locate the sources of confusion.

The US census uses the term “race” to categorize all groups from “whites of European background” to “Native American/Indian” (US Census, Community Study, 2013). Yet the term “race” is biologically unfounded and carries with it overwhelming negative associations. For historical good reasons it is not used in Germany. In the US “under-represented” is the term of choice for students, in federal and state documents the term “underrepresented minority (URM)” is used. On campus terms such as “ethnic affinity group” or “ethnicity” are popular. In Germany other terms are used such as “new Germans,” Germans with an immigrant background but still associated with *Gastarbeiter*, *Ausländer*, *Migranten*, *Zuwanderer*, and finally *ethnische Minderheiten* (Geissler, 2008). For the US I use the term underrepresented minority (URM) to refer to different groups determined by ethnicity, gender, and economic status. Germany is much more complicated, so where possible I will use URM-immigrant background, URM-new Germans, or ethnic minority.

#### Introduction: The Nature and Organization of Doctoral Education.

The difficulties in diversifying doctoral education lie fundamentally with the nature of doctoral education itself. It always has been an exclusive activity open to those whose prior academic achievement qualifies them for the demands of the program—*das Leistungsmodell*. At the same time, it is thought that about half of those who begin a doctoral program drop out in both the US and Germany (Bok, 2013; CGS, 2009; Jaksztat, et al. 2012). We do not have a clear picture why this is so or if this percentage is accurate given the unreliability of the data. There is an essential clash of concept between an achievement model of access and that of a model of representation of all population groups in relation to the proportion in the national population. Interestingly, the DDR had such a *Proporz-Modell* anchored in the concept of education as a civil right (*Bildung als Bürgerrecht*) (Geissler, 2008, 274). And while it might appear that the US in this respect operated more like the DDR during the height of the “affirmative action” era (discussed below) during the late 1970s and 1980s proportionality was not achieved and it is in no way clear that those who did enter doctoral programs under such a program were less qualified or held to less stringent standards as is often assumed (MacLachlan, 2006). The only time in the US that large numbers of the working class (but not men of colour) entered college and later doctoral programs was after World War II through a unique tool of social engineering, the G.I. Bill. This federal program offered stipends and other forms of financial and social support to veterans going to college to avoid a massive unemployment crisis and train a new middle class (Katznelson, 2005). After Sputnik was launched in 1957, the effect of the G.I. Bill interacted with the vast expansion of higher education led by the federal government as the US entered a kind of intellectual arms race with the USSR. Money from state and federal programs poured into colleges and

universities to develop or upgrade facilities and supported the growth of new colleges and universities. This is temporally and structurally parallel to the period of *Bildungsexpansion* in Germany.

In the US College earned doctorates grew from 33,041 in 1972 granted by 267 institutions to 51,008 in 2012 granted by 418 (SED, 2013, table 2). Overall university enrollment in 2013 is 19.9 million. In Germany 26,981 doctorates were awarded in 2011, with 44.9% going to women, 15.1% to *Ausländer*. Doctorates are awarded through a variety of means—in universities (102), in conjunction with Technical Universities (Universities of Applied Sciences), but not *Fachhochschule* (technical colleges), and with external research organizations such as the *Max-Planck-Gesellschaft*, or as a result of accumulated professional experience. Programs can be “structured” as in Excellence departments, or relatively loose following the traditional mode with many “hybrid” forms. According to an estimate of the *Statistisches Bundesamt* in Wintersemester 2010/11 200,400 individuals were working for a doctorate, 2.5 times the number from the 1970s (Hornbostel & Tesch, 2014). Overall there are 2,502,000 studying in all types of tertiary institutions in 2012/13, up from 1,713,000 in 1990/91 when the former DDR institutions were included for the first time. Prior to that in the Länder (states) of West Germany there were only 422,000 enrolled in 1970/71, jumping to a 1,036,000 in 1980/81 (BMBF, 2013).

While the growth in student numbers and new campuses were roughly parallel, the way the US federal government expanded college enrolment in the 1970s was through a large number of new programs. These offered financial aid, student support programs, grants, and fellowships, some earmarked for special groups, many targeted toward disadvantaged youth from uneducated and usually poor families. White women were the largest group to take advantage of these followed by white men. Some colleges adopted an open admissions policy so that a student could enter with or even without a high school diploma. Institutions took on the task of remediation as needed. This policy often gave bright students an opportunity to enter the postsecondary pipeline they might never have had. While this was taking place, it should not be forgotten that a large incentive for men to enrol in college and doctoral programs in these years was to avoid being drafted into the Vietnam War. Demography was also a factor as it was in Germany as the college age cohort of 18-24 year olds grew substantially in this period. The combination of factors promoted what Martin Trow called massification of higher education.

Despite the many reasons for the relatively steady growth in doctoral enrolments, the overall attractiveness of earning a Ph.D. for US citizens, particularly white men, has not been growing. Growth in numbers comes from international students and increases in Hispanic and Asian students. There is great competition to enter one of the top research universities where the

likelihood of getting a tenure track job after the Ph.D. is high. The top 20 in terms of ranking and number of Ph.D.s conferred also tend to hire new faculty from one another (Oprisko, 2013). Earning a Ph.D. at many institutions is expensive, Ph.D. student debt is growing rapidly; time to degree is long—from 5-7 years or more, and employment with the degree in hand can be highly uncertain. Doctoral students are still largely trained to be professors (excluding medicine and law in Germany), yet the number of professorial positions is limited and only a small percentage of Ph.D.s land a tenure track position in the US, or a permanent academic position in Germany. In addition, in the US the attrition rate from doctoral programs can vary from 30% to 80% with a possible average similar to the around 50% hypothesized in Germany (Lovitts, 2001; Bok, 2013, CGS, 2009). Even if a doctoral student in either country has employment in the department during his or her time in the program, the salary is low, real earnings are deferred as is starting a family and entering consumer society. All of this, if known to URM applicants, is far from enticing, especially if pursuing a degree is considered a vehicle into the middle class.

In Germany the achievement model is still firmly in place. Despite significant variation in formal structural organization between the two countries, their doctoral programs share a similar concept of the internal process of training. Functionally the doctoral process socializes individuals into modes of thought and activity characteristic of a particular discipline, imparting its values and behaviours which eventually enables the student to assume the role of the professor. The focus is not only on training in sophisticated research, but on shaping or socializing the student to become a member of a specialized discipline, conceived as an academic tribe set apart from other disciplinary tribes. Language is an essential element in this process: broad language skills on entering a program and the acquisition of the particular specialized language of a discipline. (Becker & Trowler, 2001). This tends to be more successful with students who begin their program with, as Bourdieu has formulated it, developed human and educational capital who come from educated middle class backgrounds. What can complicate the process for those students not from the mainstream is language proficiency and that they may have their own set of values and concepts at odds with those prevailing in the doctoral department. URMs in the US and URMs-immigrant background in Germany can feel uncomfortable at best, completely marginalized at worst, because they cannot see themselves as ever being members of the majority community (Scutturo, 2014; Castellanos, 2003; Bargel 2007). The problem is defined by another of Bourdieu's useful constructs which interacts with "cultural capital," "habitus." As part of the socialization process the student is expected to internalize skills, specialized behaviours and attitudes, or acquire the "habitus" of a scholar in a particular field which will be expressed in a discipline specific language of analysis and argumentation (and sometimes even dress) (Trowler, *ibid.*). The assumption in this formulation

is that the student will become a professor. That is far from a warranted expectation in the present, yet few graduate programs either adequately train students for all of the responsibilities of a professor—teaching in particular—let alone for other kinds of professional employment. So the utility of the concept “habitus” remains to define the outcome of the doctoral socialization process.

Beginning doctoral education is often intimidating for any new student who wonders whether he or she is really capable of mastering the material and environment. For some students from URM backgrounds of any kind it can feel like landing on another planet (Howard-Hamilton et al., 2009). A partial explanation is the rhetoric of “excellence” expressed by professors who generally seem to believe they are in that category—and often are. This is itself derived from both the highly specialized nature of their work and a kind of suggested sense of the sacred implicitly held as curators and creators of knowledge. Viewed in this way doctoral students may not only be apprentices, possibly even acolytes. Tradition also has an important role in shaping the structure of a discipline as modern departments still invoke the “greats” in their field who laid the intellectual basis for modern scholarship and established its traditions.

With some variation in the post WW II period doctorate attainment has largely been by majority white men. Mostly until the 20<sup>th</sup> century the entire organization and governance of the academic world in Anglo-Saxon and European universities has been the prerogative of men, men who were few in number and part of the social, economic and politic elite of their countries. Traditionally too, the transfer of knowledge to those wishing to acquire it is in an often authoritarian relationship still expressed in German as the *Doktorvater*. If the process had once been a kind of gentlemanly activity in which not too much was demanded of the candidate, now in the leading Ph.D. producing universities it is a highly rigorous activity requiring innovative dissertation research and publication before the receipt of the degree (Finkelstein et al., 1998). These rising expectations add to the overall stress and is characterized as “thesis creep.”

The research university is the superstructure which supports professorial doctoral roles and is synonymous with graduate professors. But like many evolved historical organizations, it is run on nested hierarchies in which academic status plays a big part as does collegiality. Moreover, professors largely exist in their own social world and commonly entered doctoral education themselves with the armour of privilege which enabled them to acquire the habitus of the academic—language, system of inquiry, manners, demeanour, exercise of authority. At the same time no doctoral programs are exactly alike, although many share close similarities in the organization of the program, the academic standard expected from their students and the prestige of the faculty. Similarities arise from sharing the same discipline in a similar type of institution. In the US some programs emphasize training future teaching faculty, others training “cutting

edge” researchers with much in the middle. The same is true in Germany where there are long established and distinguished institutions and departments and relatively new *Graduiertenkollegs* (begun in 1985) and Excellence *Fachgruppen* and Universities. Formal program structure—or lack of it—determines the kind of doctorate the student will pursue. Structured programs as in *Graduiertenkollegs* or Excellence departments usually put students through a collaborative research projects with supportive professional development activities. Students are expected to finish in three years and would have entered with a Master’s degree. Only 10% of German doctoral students are in this kind of program (Hornbostel, 2014). More commonly students will affiliate with a *Lehrstuhl*, a research institute headed by a professor where the student becomes an employee. In the US many doctoral students work through their period of study as teaching assistants or within laboratories and are paid by university funds, faculty grants, outside fellowships, etc., but are still officially students. In both countries such employment is both a form of cheap labour as well as training. Similarly, variance between and among institutions and departments are still generated by the idiosyncrasies of the graduate faculty. In addition to the observable differentiation of faculty and program, department organization in both countries draws on a tradition of elitism, the authority of the professor, and subjective beliefs in the stewardship of knowledge and knowledge production with some tendrils of sacredness. Professorial authority and power in the first instance is local, deriving particularly from the doctoral department. Selection criteria and evaluation of applicant credentials occur in the US through faculty committees, in Germany either by individual professors presiding over a *Lehrstuhl* or committees of professors in Excellence doctoral programs. Both system enable self-replication of the professorial auditors. Individual professors continue to hold great power over their students through the program period and poor relations between them can alienate students to such an extent that they leave the program (Lovitts, 2001).

Certainly part of the dissatisfaction with doctoral training arises from this unequal power relationship. However, increasingly significant issues arise around mixed messages about the purpose of doctoral training. The options are endless—as a form of training for certain kinds of employment, knowledge preservation and production, as a means of equipping the best minds for solving scientific, social, and economic problems, to shape future generations with methods of inquiry and evaluation—among other tasks (Bok, 2013, Finkelstein, 1998). Such training is rarely discussed as a means of social mobility with the exception of the decades of the “Affirmative Action Era.” By way of contrast the university generally has been explicitly discussed as an agent of social mobility, “levelling the playing field” through education and employment credentials, “Aufstieg durch Bildung” in Germany (BMBF, 2013). The purpose of the university nonetheless remains hotly contested at the moment. As a vehicle for social

mobility the increased push in both countries for ever larger numbers of students to enrol at the bachelors level implies such a function.

### Data Concerns

As we have seen, the available data informs us that three quarters of doctoral recipients in both countries come from well-educated families, both male and female. The US data is reliable up to point since in almost every university, students earning a Ph.D. are required to fill out a survey documenting the demographic, economic and social background of the recipients. Data on enrolment in doctoral programs is equally reliable because of the way in which doctoral granting institutions collect this information and report it to the National Science Foundation and the 5 other federal agencies which authorize and pay for this data collection (SED, 2013). The lack of reliability arises with respect to whom is included in each ethnic/racial group, an issue discussed below. In Germany the data situation is poor with universities not necessarily knowing how many students it has who are actively pursuing a doctorate and no national or state data base (Kühne, 2013). While this is in the process of being corrected by the very recent *Hochschulstatistikgesetz*, there is a long way to go (von Bülow, 2014). Moreover, once members of groups, who were denied citizenship through three generations, acquired citizenship through the new law of 2000, people with *Immigranten Hintergrund* disappear into the general German population (Woellert, 2014; Sippel, 2009). The *Bundesministerium für Bildung und Forschung* collects extensive data on students available in reports and their data portal and supports analyses by other organizations (BMBF, 2013). One is the student survey of doctoral students and Ph.D. attainment conducted by the University of Konstanz every year since the early 1980s with a focus on inequality (Bargel, 2009, Ramm, 2014). Another is conducted in conjunction with the *Deutsche Studentenwerk* by the *HIS-Institut für Hochschulforschung* on the economic and social situation of students (Middendorf, 2013). The *Konsortium Bundesbericht Wissenschaftlicher Nachwuchs* of multiple research centres pulls together information from many sources to comprehensively review data and research on doctoral education (KBWN, 2013). Despite all this extensive work, it still cannot be said with complete confidence how many URM enrol in a Ph.D. program and earn a degree in Germany.

### Explanation of Data in the United States

Doctoral recipient data problems reflect the absence of accurate comprehensive data for the population as a whole especially who is counted within groups. One example among many is those in the US who call themselves “black.” If descended from slaves they are very often of mixed race and often have lived isolated from white mainstream society. Because of the

profound racism of the later post-Civil War era and the pseudo legal categorization of all whose physical appearance suggested “African,” individuals with “one drop” of African blood were categorized at the time as “Negro.” This so-called standard has been internalized by the people so classified and sustained through segregation in post-WW II American society. Also included in the current US census category “black” are immigrants from Africa and the Caribbean and their children. Therefore the culture within the “black” category is heterogeneous. Many native populations are still affected by the conditions of their history and associated with poverty and crime. They continue to be discriminated against and have lower levels of educational achievement. Immigrant blacks, however, are more likely to be high achievers, and more likely to be pursuing tertiary education (Anderson, 2011).

This can be seen in the extent of underrepresentation in earned doctorates. The most recent count of doctorate recipients conducted for the *Survey of Earned Doctorates (SED)* for 2012 shows substantial inequalities by “race, ethnicity, and citizenship.” Out of a total of 51,008 doctorates, 32,927 were awarded to **US citizens or permanent residents** distributed as follows (Fiegener, 2014, Table 19):

	Total	American Indian	Asian	Black	Hispanic	White	Other
Numbers	32,927	102	2,980	2,079	2,141	24,209	1,416
Percent	100%	.3 %	9%	6.3%	6.5%	73.5%	4.3%

By contrast the percentage of these groups in the entire population is very different as these data from the US Census 2010 shows (US Census Bureau, 2014):

Percent	100%	1.2 %	5.3%	13.2%	17.1%	62.6%	0.2%
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Not only are whites and Asians over-represented in relation to their percentage of the population, more than 75% have at least one parent holding a bachelor’s degree and half of these have at least one parent with an advanced degree. By contrast around half of the black, Hispanic, Native American and Pacific Islander have no parents holding a bachelor’s degree (SED, 2014 6). The pattern has been changing over the last forty years with parents increasingly coming from educated backgrounds. In 1975 44% of all doctorate recipients reported neither parent had attained beyond a high school diploma and 19% reported that one parent had an advanced degree (SED 2005). In 2012 43% of doctorate recipients report at least one parent with an advanced degree while the proportion with only a high school diploma or less had fallen to 19% (SED 2014). A major problem with these data, however, is the extent to which it masks characteristics



of recipients particularly in relation to ethnicity. The most extreme example in 1990 was that 59.2% of Asian Ph.D.s were naturalized, 7.6% of blacks (SED 1991 p. 29). The issue is the one mentioned above: new immigrants/permanent residents are blended into the domestic US population. The true progress of domestic populations is consequently unknown. Another data issue is that few people indicate on the census or university forms that they are “more than one race.” Cultural identity appears far more significant than the race/ethnicity of ancestors. At the same time, the number of children in the US public schools who are white has dropped to 49.8% in 2014 (Snyder & Dillow, 2014, table 203-50).

### US Historical Background

The history of the US from its inception has shaped the issues of the present with respect to conceptualizing under-represented status. The US began life as a nation in 1776 with approximately 400,000 black slaves (20% of the total population). The catastrophic Civil War (1861-65) legally emancipated blacks in 1863, codified in the 13<sup>th</sup> amendment to the constitution (1865 abolishing slavery). Equal rights (“equal protection clause”) were enacted by the 14<sup>th</sup> amendment in 1868, the 15<sup>th</sup> amendment in 1869 upholding the right to vote. Notwithstanding, after a short period of the exercise of some civil rights, the 17 slave holding states passed laws barring blacks from participation in most civil life. Former slaves generally were also economically marginalized, brutalized, and sometimes hung over perceived slights to whites. Most public schools and colleges were not accessible so black schools were created within the segregated black communities with little funding and few trained teachers. During the Civil War Congress passed the Morrill Land Grant Act in 1862 which provided the economic basis for the development of public universities in the states, universities such as Michigan, Illinois and California, but also Mississippi, Louisiana, and Florida. Part of their charter required serving all the citizens of their states in the mechanical and liberal arts. But no blacks could attend in the 17 slave holding states. This eventually led to the creation the Land Grant Act of 1890 which created a system of separate colleges for blacks—inferior places, underfunded and struggling, although a few private black colleges had very high standards. Within US society blacks continued to be segregated, discriminated against and largely impoverished through the middle of the 20<sup>th</sup> century. In white majority consciousness, blacks were the only “minority” and were the target of the legislation of the so called “Civil Rights Era” which began with the Supreme Court ruling in 1954 that segregation in education was inherently unequal and that blacks should be integrated into all white public schools and colleges. Resistance was ferocious, often brutal. More legislation followed such as the Voting Rights Act in 1964 and the Higher Education Act of 1965 which outlawed discrimination in higher education. This was followed by the

amendments to the latter in 1972 which created educational “Affirmative Action” programs funded by the federal government along with scholarships, grants and other programs for poor students to enable them to attend college. In the process a new category of academic employee came into existence: the academic advisor or student affairs officer who provides academic assistance and guidance for students, taking over a former faculty function and expanding it into “professional development” and academic achievement programs.

“Affirmative Action” is a very complicated and legalistic concept too large to be extensively dealt with here. The idea first emerged in the Kennedy administration in 1961 to ensure that government contractors did not discriminate on the basis of race in employment. The concept evolved through affirmative action in labour law to apply to education. The intent and the various government organizations created to enforce this intent, such as the Equal Employment Opportunity Commission, was to redress past discrimination on the basis of race, religion, national origin and sex. Although equal rights as a citizen had been guaranteed on the basis of the 15<sup>th</sup> amendment, equal access to employment, public facilities, education and particularly tertiary education had been effectively denied in discriminatory practice throughout the South and reinforced by the ruling of the Supreme Court in 1896 in *Plessy vs Ferguson*. This judgment upheld the segregation of blacks from whites in every aspect of civil society ruling that separate was in fact equal. Hence the inclusion of affirmative action within the drive to obtain civil rights for the excluded in the 1960s. The image capturing the intensity of white opposition is Governor Wallace barring access of black students to the University of Alabama with his body in 1963. The federal government and federal troops enforced integration.

The impact of affirmative action on the growth in enrolment of women and students of colour, not just blacks has been critical in reshaping modern American society, yet is far from a complete transformation. In education Affirmative Action is still federal law. It has been weakened by individual states passing anti-affirmative action laws, but these are restricted to activities in the public sector. Private colleges and universities along with private foundations and corporations actively engage in affirmative action in undergraduate admissions and graduate incentives. In the public sector, however, the more successful such policies were in expanding the presence of URM students, the greater the opposition to these policies. The original concept was to take positive action to redress the social and economic disadvantage created by unequal access to employment and education. “Under-represented” was formulated by the Supreme Court to satisfy a legalistic requirement for redress of all forms of disadvantage. In some employment environments this took the temporary form of quotas for either people of colour or women. In education quotas were less extensive, although in another Supreme Court case, *Bakke vs the University of California Davis*, flexible quotas were in place. Suffice it to say that to this moment

there is no general understanding about what is legally acceptable for positive actions to address disadvantage. Most of the better known lawsuits shaping higher education policies concern employment and admission to law and medical schools. Doctoral programs may have sought out under-represented students qualified for admission to apply to their program and, where legal, offered fellowships and other inducements. Doctoral programs still do. The fundamental issue, however, is that US programs are achievement based and there was and is no point in admitting students who will fail.

When these laws were passed consciousness among whites had been raised about the situation of blacks who were numerous, well organized, highly articulate, and powerful advocates for their own cause. The 1960s, however, was a time of multiple powerful social movements worldwide calling for the end of imperialism—particularly in the US to end the Vietnam War, for universal human rights, for the fair and equal treatment of women. Other ethnic groups such as Mexican Americans and Native Americans also made themselves more broadly visible by staging their own protests and social movements against their current oppression and past exploitation. They were added to the categories included in “Affirmative Action.” Since this time in the 1970s almost every ethnic group has also claimed inclusion. Legally all citizens and permanent residents have equal rights. Who belongs to a particular category has been reified by the US Census which tries to capture “national identity, race, and ethnicity” within the census. The categories are established by the Government Accounting Office and used throughout the federal government. No group is defined legally as a “minority,” but in education the low numbers of blacks, Mexican Americans and Native Americans generated the term “under-represented” as a commonly used descriptor.

### German Data Issues

In Germany the various groups which have little access to doctoral education are if anything even more difficult to untangle than in the US, particularly because the concept of minority or underrepresented in relation to tertiary education as in the US sense does not exist. The term “diversity” refers to diverse types of tertiary institutions. In Germany the only focus is on the lower numbers of women in higher education. At the same time because of an aversion to using racial/ethnic categories for classifying groups, the way people are counted in the national census adds to the obscurity of identity. The Berlin Institute used the *Mikrozensus* 2010 to create an overview of the demographic characteristics of each migrant group (Woellert, 2014). As we have seen, altogether these groups make up 19% of the total German population of around 80 million. None of the groups are simple to classify: The largest group (5% of total German population) is *Aussiedler*, people of German heritage scattered through Eastern Europe and the Soviet Union

whose ancestors were invited by various rulers, including Catherine the Great, to develop trade and industry, to fight or to farm; or were driven east by war (Geissler, 2014). Not that many of the original in-migrants to Germany speak German that well even though they all have German citizenship. The next largest group is the multiple generations of Turkish descent (4% of the population) who originally came in the 1960s as guest workers, stayed, married and grew in number. This is the group which is a major focus of integration efforts and which feels itself most isolated and discriminated against. All from this group born in Germany were considered foreigners (*Ausländer*) until 2000 when a new, but still restrictive citizenship law was passed. That meant that if enrolled at a university prior to 2000 they would be invisible, subsumed under the same category which included exchange students. The next largest group of migrants (3% of population) is from the other 27 European Union countries, followed by those from the former Yugoslavia (2%), the far East, the near East, and Africa, each group 1% of total population (Woellert, 2014). Altogether the migrant groups have much larger populations under 15 years of age than native Germans, populations which need access to education and success within it to integrate effectively into German society. However, more recent migrants often arrive with academic qualifications and join the professional workforce, although not necessarily at the level their credentials would qualify them for. Another group which is completely absent from the discussion about education and URM membership is that of German blacks (*Afrodeutsche*). Unless an individual had one German parent, he or she could not become a German citizen until the law of 2000 was passed. This population is estimated to be between 300,000 and 500,000, but small as this group is in the whole, the visibility of its members also make them subject to discrimination and prejudice (Flippo, 2007, Berger, 2012).

The disadvantage of belonging to one of the URM-*Migrantenhintergrund* groups shows up early in schooling where there is a sharp divide between them and German children with the consequence that “educational deficits are the central source of integration problems such as unemployment, marginality or criminality” (Geissler, 2014, 299 own translation). The various deficits in writing and mathematics measured in the PISA tests are naturally also reflected in university admission. The limitations are not just a function of URM-*Migrant* status, however, but of social class with Germany, compared with OECD countries, having the most rigid pre-determination of secondary school success and university access by father’s occupation (BMBF, 2013; Bild 45 2007).

It is not possible to create a table on URMs earning doctorates in Germany similar to the one for the US because of the very confusing nature of these data. Issues relate to different measurement forms: *Hochschulereife* as a measurement of what would be high school graduates with sufficient achievement to enter university, discussing entering university students without

until recently specifying which program—BA, MA, old programs leading to doctorate; not separating doctorates from other terminal university qualifications. It is possible, though, to know exactly which doctoral students are studying in which fields by gender and foreign student status, time to degree in semesters and all the essential aspects of doctoral training including survey data about satisfaction with mentoring, doctoral program, etc. Since 2005 it has been permissible to collect data on persons asking about their immigrant/cultural background. So there are various extrapolations which suggest at least the percentage of German URM who might be in doctoral programs.

One measure is comparing the pre-tertiary qualifications of young *Ausländer* in the 20-30 year cohorts with Germans at different time points as Reiner Geissler has done. In his compilation 32% of Germans qualify for university admissions, 13 % for *Fachhochschule* in 2011, compared with 14% and 9% respectively for *Ausländer*. Class and URM-migrant status are not interchangeable, but the percentages entering university classified by profession of the father is striking: Children of *Beamte* were 53% of the entering cohort in 2000, up from 33% in 1980, *Angestellte* were 41% and 22% respectively—both descriptions of the middle and upper middle class. Geissler argues that the cumulative disadvantages accruing to URM-M means that they were only 17% of all those studying in *Hochschulen*—both universities and technical universities which do not confer doctorates—in 2008 (Geissler, 2014) . In the meantime the percentage of pupils finishing various forms of high school who are qualified for further study has climbed to 55% in 2011 compared with 45% in 2008 (Statistisches Bundesamt, 2013). None of this brings us closer to knowing who is actually in a doctoral program, but does suggest how elite university attendance has become as well as how complex the data situation is.

### German Historical Background

In comparison to the US the relevant period for this discussion is brief since World War II stands as a kind of caesura in Germany, but the past ineluctably affected the post-war period by shaping the new constitution, eschewing race as a means of classifying populations, and yet sustaining the idea that German citizenship had to be transmitted through the blood of an ancestor. Likewise, despite a massive exchange of populations in the post-War chaos, there was an unwillingness to recognize migrant populations as belonging to the nation. The solution to the problem as migrant groups grew in number was to deny them citizenship, making members unlikely to integrate even if their native cultures were supportive of integration. To this day, despite one fifth of the population coming from other countries, there is a tendency to balk at the idea of Germany as a land of immigration.

The legal basis for the new order in Germany dates from the founding (*Gründerzeit*) of the Federal Republic (BRD). The constitution or Basic Law (*Grundgesetz*) of 1949 spoke of many rights, including the equal treatment of all German citizens and a specific paragraph on the equal treatment of men and women. There were few in the BRD at that time who were members of national, religious, or ethnic “minority” groups other than German, but in the post war chaos around 8 million of the around 12 million expellees from former German areas settled in the BRD. Through a series of treaties from the mid-1950s on, mostly single men arrived as “guest workers” first from Italy, then Spain, Greece, Turkey and other countries. By the 1970s the largest group was Turkish with a total of nearly 4 million, 6.4 % of the German population, but lacking German citizenship (Sippel, 2009). Today as noted, the non-native population is nearly 20% of the total and includes groups radically divergent from one another, but the majority now hold German citizenship. This is far more than a data problem. While there are various laws and the “National Integration Plan” of 2007 “it does not reflect any real acceptance of, or approach to difference and cultural heterogeneity” (Queens University, 2012).

### Significance of the Issues

URMs are more likely to come from poor families and neighbourhoods, have parents with low levels of education, and be more often excluded from well-paying employment than members of majority groups. Without respect to arguments about social justice, the material inequalities lived by URMs keep many of them at the margins of society and often at great cost to both societies. Real economic and social integration require their inclusion in all aspects of life. Their miniscule representation in doctoral programs ensures that leadership and professional roles, not to mention social status, can also be elusive. As Michael Ramm emphasizes, the highly educated elite are responsible for creating the values within the social system which these legitimize (2014). For URMs a major impact of such a position is that they become role models for others in their group and their presence in the middle class works to change the negative stereotypes so often held by the majority. Changing the current patterns in access and participation in postsecondary education is tremendously complicated, however, and reaches into every corner of society and every stage of life. Since doctoral education with its own traditions and perspective is the pinnacle of the system, change is very difficult.

From the 1960s on with the passage of the first Higher Education Act in 1965 the US developed a vast range of programs intended to make college entrance possible by among other things bringing up the high school graduation rate. Without these programs doctoral education would have been undiversified. The US Department of Education as well as state and local educational jurisdictions created and ran many “academic achievement” programs, some

remedial, some for the advanced pupil. A fundamental characteristic of all of these and later programs is that the great majority arise out of groups large and small as well as individuals who saw a need in the schools or in colleges and set about meeting that need. Without lapsing into mythology, there is a genuine culture of private initiative in the US to try to solve almost any problem, rather than await government action as in the German legalistic context. Parent's organizations, churches, local and national foundations, teachers, professors, the actors span the spectrum of US society and institutions. A theme is not only to educate children and youth, but to bring their English language skills up to competency. The US also is a land of immigrants and although English is the official language, there are several other major languages used and a total of 381 spoken languages officially categorized by the US Census (Ryan, 2013). Home country cultures are tolerated and even celebrated as part society as a whole (although that does not protect groups from prejudice). Voter registration and ballots are available in several major languages and translators are available in government agencies.

The many national funding agencies such as the National Science Foundation (NSF) or the National Institutes of Health (NIH) took the lead at the bachelors and doctoral level in creating programs which provided funding for study, intensive academic and research training enabling universities to expand their doctoral programs and support more women and URM's. Most programs are created and operated by university faculty in response to requests for proposals or on their own initiative. University professors create, teach in, and evaluate programs at all levels of education placing an emphasis within these programs on enabling members of underrepresented groups to qualify for eventual doctoral training. A large number of foundations and non-profit organizations engage in similar activities. In Germany federal and state organizations create many different kinds of educational programs with an emphasis on "Aufstieg durch Bildung," but it seems very much from the top down from my perspective. Doctoral innovations funded by the DFG have been effective and suggestive of new trends in doctoral training, but the funding for the "Excellence" part of these programs expires in 2017. This and other agencies such as the *Studentenwerke* which distribute financial aid (*Bafög*) critical to URM tertiary participation depend on state or federal ministries, the *Wissenschaftsrat* and the *Rektorenkonferenz* for their direction.

Complicating the eventual integration of non-mainstream, non-white groups into postsecondary education is the depth of racism. The impact of beliefs about the inferiority of such groups is to promote forms of segregation within schools, for bright children from such groups to be more harshly judged, more severely punished in school and all too often not given the encouragement and support critical for the development of intellectual self-confidence. In conjunction with the frequent poverty of members of such groups and an implicit housing policy

which segregates them from white majority populations, but particularly from good mainstream schools, young people can have a very difficult time learning. Teacher attitudes, likely lack of educated parents, living in impoverished environments affected by violence, promotes an overall situation inimical to learning. Racial profiling, operation of negative stereotypes and the ongoing exercise of implicit bias toward these young people tends to make them believe that they are not capable and do not belong in school or society.

The central point in the discussion about increasing access to doctoral education is that it is too late to wait until the beginning of graduate school. It is not at all too farfetched to argue that accessing doctoral education begins with prenatal care (Alzer & Currie, 2014). Healthy infants brought up in secure, comfortable environments by parents with some post-high school education are far more likely to do better in school, aspire to college and literally profit from the “education premium” to earn a much better income than those without these advantages. Paradoxically the US and Germany have among the highest “education premium” of the developed nations (Autor, 2014). In the US the discussion about racial disparities in education, health and employment are perhaps now more prominent than ever before now that income disparities are the focus. There are similar discussions in Germany with the economically marginal more likely to come from URM-*Migranten* backgrounds (Geissler, 2014). At the same time more young people are attending college at the bachelors level as they are in Germany. In the US the data are misleading because the absolute numbers of URM bachelor graduates are rising rather rapidly, but so too has been the size of the college going cohort, so the percentage earning degrees belong to URM groups is not rising very much (MacLachlan, 2012).

It also could be argued that the students are in themselves not “the problem,” but their professors who overwhelming come from privileged backgrounds in both countries (Kühne, 2014; US Department of Education, 2010). It is not just an issue of class standing or comfortably exercising the habitus of the professor, but a set of dysfunctional attitudes which include an implicit belief that students who are smart enough will figure out what to do to succeed in the doctoral program without the department making expectations explicit (Lovetts, 2007). Truly mentoring students is an acquired skill, many professors are not very good at it. The example of the extensive doctoral student mentoring training program at the Swedish Karolinska Institute for all doctoral faculty demonstrates how much faculty can and need to learn to facilitate student success (Masiello, 2014). Part of this training includes developing some sensitivity to the cultural background of students and understanding different styles of communication.

This may be all the more challenging in light of a new study on graduate faculty bias by Katherine Milkman, M. Akinola and D. Chugh (2014). They sent emails of interest in a professor’s Ph.D. program to 6,500 professors at 259 institutions using names which would



indicate gender and ethnicity. Professors were more responsive to white males than any other category with those earning high salaries and at private universities showing the most bias. Eighty percent of white males received a response compared with 62% of women and URM combined. White males still earn the majority of Ph.D.s, so a selection bias can be inferred. At the same time, there is a reluctance to accept personal biases as a basis for behaviour.

### Summary

A study such as this raises a great many issues which directly affect how parameters of doctoral inclusion are established, but are not easily analysed or solved. Among these are: 1. The data do not allow us to know for sure who earns a doctorate because it obscures the presence of URM groups whether defined culturally or in terms of class or both. 2. It is not firmly known who actually completes a doctorate once enrolled in the program. 3. We do know that the majority of parents of those earning Ph.D.s are educated to highly educated and the trend is increasing in both countries. 4. There remains a fundamental dissonance between professors' disciplinary and academic cultures and those from URM groups. 5. Students from all groups can feel marginalized in doctoral programs, but women and URMs tend to experience this more. 6. While rarely explicitly acknowledged in the white mainstream university, racism, stereotypes, prejudice and especially "implicit bias" are significant in doctoral student selection and (non-)socialization and/or success.

### Conclusion

In the end the US and Germany are in some respects very different societies with a very different system of values. It seems peculiar that there are so many similarities in doctoral programs in both countries in terms of organization and participation, yet the paths of entry to such programs differ so much. The various parameters limiting access of URMs in doctoral education are very difficult to change because of their essential structure and requirements. The paradox remains that Germany and the US now have similar populations earning doctorates—majority children of middle class educated parents—while the approach to broaden access to include every kind of URM varies substantially. The difference in approach seems to rest on different ideas of who belongs to the nation: the US accepts that it is largely one of immigrants with a historical obligation to improve educational access to the disadvantaged, even if the process is slow and contested. Germany has difficulty accepting this premise and seem to practice politics of exclusion through its legal system and its continued requirement that to be German one must speak German. Lower economic status and class also plays a large role in limiting tertiary access in both countries, but in the US a culture of amelioration has developed, even if very far from

perfect. In Germany there is not much of a culture of amelioration and schools do not see it as within their purview to provide German as a second language, or intensive remediation. Within the US many different approaches have been developed to improve the academic achievement of pupils and students, much of it resting on private initiative and volunteers as well as paid professionals and formal programs. Many of these approaches have been very successful and the ideas behind them could be employed in many environments. These ideas will not help much in Germany if there is no desire to broaden who participates fully in civil society.

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