Talent migration governance and the COVID-19 pandemic: Comparing Germany and Singapore

Lucie Cerna

Associate Fellow, Centre for Liberal Arts and Social Sciences, Nanyang Technological University (NTU), Singapore
lucie.cerna@jesus.oxon.org
ORCID: https://orcid.org/0000-0001-5970-6006

Meng-Hsuan Chou

Associate Professor and Provost's Chair in Public Policy and Global Affairs, School of Social Sciences, Nanyang Technological University (NTU), Singapore
Hsuan@ntu.edu.sg, Hsuan@cantab.net
ORCID: https://orcid.org/0000-0001-8138-236X

Abstract

We compare Germany and Singapore to see how their approaches towards talent migration governance have evolved in the last decade and whether and how the COVID-19 pandemic has affected these developments. Building on the Highly-Skilled Immigration Index (HSII) (Cerna & Chou, 2014), our discussions show Germany becoming very welcoming of high-skilled labor migrants, and Singapore becoming increasingly selective in which labor migrants it admits into the City State. Our findings reveal that the COVID-19 pandemic has not changed the direction of policies in Germany and Singapore, but it has affected talent migration rates.

Keywords: COVID-19, Germany, Highly-skilled, Migration, Singapore, Talent

Word Count: 9117 words

1. Introduction: Changing talent migration governance?

"Talent" is integral to the Fourth Industrial Revolution and open recruitment around the world has become the norm (Schwab, 2016; Fink & Gentile, 2019). By recruiting skilled and talented professionals from abroad, key economic and knowledge institutions are able to retain a lead in international competitions to innovate. At the same time, economic downturns, rising populism, and the evolving COVID-19 pandemic have generated tremendous tensions between inward-looking policies, which focus on improving citizens' skillsets and livelihood, and those seeking to bring in an increasingly fluidly defined "essential" workers for key performing sectors. To what extent have these developments affected governance in the global competition for talent? And what do these changes tell us about the evolution of talent migration governance around the world? To address these questions, we compare Germany and Singapore; policymakers in both countries actively seek to assure investors that there is a ready pool of talented workers by having liberal talent migration policies in place. Using Cerna and Chou's (2014) Highly-Skilled Immigration Index (HSII), which reviewed these countries' talent migration policy in 2012, we update their analysis to parse out where Germany and Singapore stand in 2021, particularly in light of the COVID-19 pandemic.

Our study contributes to the growing literature on talent migration governance in the following ways. First, analytically, the study shows how governments of advanced economies attempt to address tensions between liberalizing and restricting talent migration policies by carefully leveraging benefits and rights differentiation. In so doing, governments seek to simultaneously respond to the often conflicting interests of employers, who want foreign workers to fulfil labor needs, and domestic (high-skilled) workers, who want governments to ensure their continual employability in a changing world. Our findings revealed that this balance is difficult to strike.

Second, methodologically, the study adds to the emerging literature on building indices to measure the openness or restrictiveness of labor immigration policies, particularly high-skilled ones (Cerna, 2016; Filindra & Goodman, 2019). Third, empirically, the study differs from earlier work by depicting observed changes in practice by measuring the openness of talent migration policies in Germany and Singapore in 2012 and in 2021. In so doing, we highlight how examining developments—such as access to housing, education for children—of non-migration sectors is essential for better grasping the many factors that high-skilled migrants consider in their mobility decisions. Fourth, the study contributes to emergent research on the COVID-19 pandemic's impact on migration, which has thus far focused on low-skilled migration and the notion of "essential work."

This article is organized as follows. We begin by introducing Cerna and Chou's (2014) Highly-Skilled Immigration Index, describing in detail how points are assigned to measuring talent migration policies and the conceptual foundation for their work. Next, we elaborate our research design and case selection. By adopting a comparative case study design, we are able to consider how talent migration policies in Germany and Singapore have evolved since Cerna and Chou's (2014) assessment, and examine whether and how the COVID-19 pandemic has contributed to these developments. Our findings are presented in the section that follows. Overall, we observe that Germany remains open and increasingly so to skilled migration while Singapore has become more selective of the high-skilled migrants it admits, and the privileges granted. The COVID-19 pandemic has not affected the direction of policy pathways on which Germany and Singapore have embarked since Cerna and Chou's assessment, but it has affected the overall talent migration rates. Our findings on Singapore support the contradictions concerning high-skilled migrants: they too are vulnerable to the effects of changing political dynamics in countries that were previously welcoming (cf., "precarious talents" in Zhan &

Zhou, 2020). We conclude by reflecting on how talent migration governance has evolved, and the pandemic's impact on talent migration governance.

2. Conceptualizing and measuring immigration policies: Highly-Skilled Immigration Index (HSII)

Assessing outcomes has been central to evidence-based policymaking. For migration scholars, early attempts to measure immigration policies have revolved around categorizing the relative openness and restrictiveness of immigration policies (Timmer & Williamson, 1998; Facchini & Mayda, 2009). As data became more readily available, migration scholars have turned towards creating indices and databases for assessing immigration policies. For instance, focusing on skill levels, Ruhs (2011) developed an index to measure the openness of a hundred labor immigration programmes for admitting migrant labor. In her work, Cerna (2008; 2016) constructed an index for assessing high-skilled policies in 20 OECD countries. Beine et al. (2018) created the International Migration Policy and Law Analysis database to include character and stringency of different immigration policies for nine countries. The team behind the Immigration Policies in Comparison database covered all major fields and dimensions of immigration policies for 33 OECD countries (Bjerre et al., 2015; Helbling et al., 2017). Scholarly interests in indices remain strong (see Filindra & Goodman, 2019; special issue in *Policy Studies Journal* 2019) and our study contributes to this literature.

It is important to emphasize that limitations of indices exist such as methodological and analytical problems that may restrict their applicability (see critiques in Bjerre et al., 2015, 2019; Filindra, 2019; Sharpe, 2004). For example, while indices can be parsimonious, they may be counterproductive to producing insight and knowledge if users are unaware of

conceptual assumptions and methodological choices made during index-building (Bjerre et al. 2015). Another limitation is that aggregating several indicators into one index may obscure which indicators drive change (Sharpe, 2003). In addition, different aggregation functions can lead to different results regarding the country ranking (Bjerre, Romer & Zobel, 2019). While these general limitations also apply to our use of the HSII, we attempt to address them by clearly stating our conceptual departure point and methodology following Cerna and Chou's (2014) approach. Research transparency enables replicability and future scholarly efforts to improve the use of indices in social science research.

To measure the openness of national talent migration policies and admission mechanism via a ranking system, we build on Cerna and Chou's (2014) HSII which takes the conceptualization of index-building from Cerna (2008; developed further in 2016). This is part of broader work on comparing HSI policies across countries and over time. Cerna (2008; 2016) follows three stages of index-building, namely (1) conceptualization, (2) measurement, and (3) aggregation (Bjerre et al., 2015). She situates the HSII within a political-economy framework where different coalitions between sectors of high-skilled labor, low-skilled labor, and capital are examined, which lead to more open or restrictive HSI policies. Within the HSII, admission policies can be designed to match the interest of different groups: businesses, native workers, or immigrants. For instance, more restrictive policies might offer protection for native workers, but they could decrease countries' ability to attract a large number of high-skilled immigrants, which is the main interest of capital. In a limited way, the HSII tries to consider the interests of all three groups by examining the admission mechanisms of high-skilled immigrants, the protection of native workers, and the benefits offered to immigrants upon entry (Cerna, 2008; 2016: 78).

Cerna and Chou (2014) created the HSII to compare German and Singaporean high-skilled immigration policies. For them, the degree of HSI competitiveness between countries depends on how liberalized their immigration policies are and the restrictiveness of admission controls. They assigned three categories to assess admissions mechanisms (i.e., numerical caps, labor market tests, and labor protection), and three categories for work permit rights (employer portability, spouse's work rights, and permanent residence rights). While admission mechanisms are designed to match labor supply with demand in high-skilled sectors, work permit rights measure the extent of entitlements given to migrants. They argue for including work permit rights because policymakers believe these rights would enhance the attractiveness of their countries for the world's "best-and-brightest."

Cerna and Chou's (2014) HSII assigns points along a scale, ranging from 3 (=highly restrictive), 2 (=moderately restrictive), 1 (=minimally restrictive) to 0 (=highly open). Points in the HSII operate on an equal weighting principle, which means that any two policy changes in a particular country that have an equal effect on the openness of policies have an equal effect on the index. For example, one point change in "numerical caps" has the same effect on the overall scores as one point change in "spouse's work rights." All policies are ranked on the same criteria. The individual points for the six categories are then added and converted into an index, where the most restrictive country receives a value of 100. The higher the overall score, the more restrictive they considered the country. Table 1 shows how points are attributed.

[Table 1 about here]

Reviewing these two countries' talent migration policy in 2012, Cerna and Chou found that that they applied different strategies to attract talent from abroad by adjusting provisions such

as setting/removing quotas, stipulating labor market tests as conditions for entry, restricting/liberalizing spouse's access to work, or, in the case of Germany, tapping into the regional dimension (European Union—EU Blue Card). Based on the constructed HSII in 2012, Singapore on the whole was more open than Germany, but restrictions were anticipated. Nonetheless, examining the index scores for Germany's and Singapore's skilled and high-skilled immigration schemes, Germany's *highly-qualified person program* ranked as the most liberal. To what extent have developments since affected their standing? In the next two sections, we introduce our research design and discuss our main findings.

3. Research design and case selection: Germany and Singapore

Our research design is comparative case studies. Comparisons are important if we are to identify the main explanatory variables to any particular social-political phenomenon. We compare Germany and Singapore because they constitute gateways into Europe and Asia, respectively, for companies seeking to establish their presence. The World Bank (2020) scored Singapore as the second top country globally for "doing business," and Germany thirteenth among the OECD high income group. According to the World Economic Forum's (2019) Global Competitiveness Index, Singapore was ranked first and Germany seventh. The Kearney (2021) Foreign Direct Investment Confidence Index placed Germany third and Singapore sixteenth. As countries friendly to "doing business" and wanting to bring in foreign direct investment, Germany and Singapore have also introduced skilled labor migration policies to attract foreign talents. Below, we briefly describe the population, political, and policy contexts that have shaped German and Singaporean talent migration governance in recent decades. In so doing, we outline the policy pathways on which they have followed.

3.1 Germany: Welcoming talent from abroad but still in (very) limited numbers

With a population of 83 million (Statistisches Bundesamt, 2021), Germany has reluctantly become a country of immigration. In 2019, about 16% of the population was foreign-born, an increase from 12.5% in 2000 (OECD, 2021). As Table 2 shows, most immigrants have come from other EU countries. The number of non-EU labor immigrants remains low, but has been increasing since 2015 (65% increase from 2015 to 2019) (BMI/BAMF, 2020).

[Table 2 about here]

The country has long experienced limited labor immigration. During 1950s-1960s, it recruited guest workers from southern Europe and Turkey. After the first oil crisis in 1973, the government imposed a labor recruitment ban, which remained in place despite some liberalizations in the 1990s. While there was no official policy to recruit labor immigrants, the government began dealing with increasing immigrant number entering the country for family reunification (Bommes, 2010; Joppke, 1999; Oezcan, 2004; Thränhardt, 1998). Major policy changes occurred in the 2000s to facilitate labor immigration, especially high-skilled workers due to severe skills shortages (*Fachkräftemangel*) (Cerna, 2016). In 2000, the government introduced the IT Green Card, designed to address increasing shortages in the information technology sector, but the policy was conservative: it only allowed for 10,000 workers and was strictly limited to five years, with difficult family reunification and work permit procedures (Greifenstein, 2001). At the end of 2004, the IT Green Card was discontinued to make way for a broader immigration system through the 2005 Immigration Act, which liberalized (high-skilled) labor migration after several attempts to do so.

Pressured by continuing shortages, employers and unions again lobbied the government for further liberalization in the second half of the 2000s. As a result, another shift towards a more open high-skilled immigration policy occurred in 2009 through the Labor Migration Control Act. This Act facilitated the admission of high-skilled immigrants through a decreased salary threshold from about €86,400 to €63,600 per year (Cerna, 2016). Politically, there was general consensus that the German population is aging, and the country has been suffering from increasing skills shortages in science, technology, engineering, mathematics, and healthcare sectors. In 2011, 43% of all vacancies were posted in shortage occupations; this percentage increased to 79% of all open vacancies in 2018 (KOFA, 2019).

Throughout the 2010s, the government implemented new strategies and immigration acts to address growing skills shortages. The 2011 Skilled Labor Concept sought to increase the supply of skilled workers by activating the domestic labor force, improving immigrants' labor market integration, and establishing a positive list of shortage occupations (OECD, 2012). The Federal Ministry of Labor and Social Affairs (2012) reported positive progress, but challenges remained. Consequently, Germany adopted another package of migration-related laws in 2019. The Skilled Workers Immigration Act (*Fachkräfteeinwanderungsgesetz*) opened the labor market to skilled non-EU migrants with vocational training, previously limited to those with academic qualifications (OECD, 2020). The 2019 Act introduced easier procedures for non-EU nationals to gain employment in Germany (e.g., allowing them to be in the country for up to six months to seek work), even in jobs that could be filled by Germans or EU nationals.

How effective are the different immigration acts in recruiting high-skilled immigrants from outside of Europe? The proportion of immigrants with academic qualifications increased between 2005 and 2010 from 31% to 47%, but has been decreasing since 2011, reaching 34%

in 2018 (Seibert & Wapler, 2020). The number of permits granted to high-skilled immigrants not previously residing in Germany decreased from 370 permits in 2011 to 29 permits in 2019 (BMI/BAMF, 2020). This considerable decrease could be explained by the comparative ease for non-EU workers to obtain an EU Blue Card, which Germany incorporated into the 2012 Residence Act, versus a German work permit. Germany issued 2,584 EU Blue Cards in 2012, and 28,585 in 2019, or about 78% of all cards issued in Europe that year (Eurostat, 2021). At the same time, in 2018 around 60% of Blue Cards in Germany were granted to those already residing in the country and not to new immigrants (BAMF, 2019).

3.2 Singapore: Reconciling the world's "talent capital" with creating a "Singaporean Core"

With a total population of 5.45 million (Prime Minister's Office, Singapore, 2021, p. 4) and few natural resources, "talent" has always been at the core of Singapore's strategy to remain globally competitive. Speaking in 2007, the late Mr Lee Kuan Yew called the race to attract talent the "final contest" between nations (quoted in Yeoh & Lai, 2008, p. 238). The Singapore story is also an immigration story. In recent decade, Singapore's overall population has been about 62% Singaporeans, 10% Permanent Residents (PRs), and 28% foreigners (see Table 3). The composition of Singapore's resident population (citizens + PRs) consists of 74.2% Chinese (C), 13.7% Malays (M), 8.9% Indians (I), and 3.2% Others (O) (Department of Statistics Singapore, 2021, p. 4). This CMIO breakdown guides various policies in Singapore, including housing. Despite COVID-19 pandemic's impact, Singapore still has a very high proportion of foreigners in comparison to major immigration countries. For instance, the US, which has the most immigrants in the world (44.8 million in 2018), the proportion of immigrants is about 13.7% of the total population (Budiman, 2020).

[Table 3 about here]

Singapore's work pass system differentiates between foreign *talents* (mid- and high-skilled) and foreign *labor* or *workers* (low-skilled) (Yeoh & Lin, 2012). Holding "work permits," foreign workers are those in sectors such as domestic work (maids), construction, marine shipyard and process, and manufacturing. Foreign workers are strictly regulated; they have no family reunification rights and are not allowed to marry a Singaporean citizen or PR without approval from the Ministry of Manpower, and they do not have access to become PRs (Yang et al., 2017). Mid-skilled foreign talents possess "S Passes," and high-skilled foreign talents are issued "Employment Passes" (EP). Foreign talents are comparatively less regulated, with family reunification rights and access to become PRs (ibid). The Employment of Foreign Manpower Act (EFMA) sets out the work pass regulations for hiring non-Singaporeans, with high-skilled migrants entering Singapore through the EP or Entrepreneur Pass (EntrePass) routes.

Singapore has one of the most stable political systems in the world. Since its founding in 1965, the People's Action Party (PAP) has been the governing party and it has consistently and deliberately designed immigration policies as part of the national population policy, the backbone of Singapore's economic growth plans (Singh, 2014). Between 2005 and 2009, however, Singapore experienced a dramatic transformation in population composition when many immigrants were admitted into the country: the non-resident population increased from 797,948 to 1,253,700, or 18% of the total population to 25% (Singh, 2014; Yang et al., 2017; Prime Minister's Office, Singapore, 2010). Experiencing job competition, Singaporeans questioned the government's "open door policy" towards immigration (Nasir & Turner, 2014; Singh, 2014).

Rising anti-immigrant sentiments became most visible in 2013 when the government launched the White Paper on Population, proposing to increase Singapore's population to 6.5-6.9 million in 2030, with 3.6-3.8 million being citizens (55%), 0.6 million PRs (8.7%), and 2.3-2.5 million non-residents (36.3%) (Strategy Group Singapore, 2013). The Population White Paper led to a series of unprecedented protests. Opposition parties coalesced around policy positions that advocated caution, and a rethink of PAP's immigration approach (Singh, 2014). In response, the government introduced measures for building and upskilling a "Singaporean Core" (e.g., Fair Consideration Framework in 2103/2014, SkillsFuture in 2015, increasing university places for Singaporeans in 2020 and 2021), restricting access to work passes, and differentiating rights and benefits (between Singaporeans and PRs, between PRs and foreigners, and between foreign talents and foreign workers).

To sum up, developments in Germany and Singapore in recent decade suggest that their strategies have diverged, each country following policy pathways established more than a decade ago. Responding to continual skills shortages, Germany has further liberalized its high-skilled labor migration regime by granting access to non-EU workers with vocational training. Responding to increasing anti-immigrant sentiments, Singapore has focused on its domestic workers, prioritizing their skills training and employability in the labor market, through a clear rights and benefits differentiation approach.

In the next section, we examine the extent to which these changes in strategy have altered their HSII ranking. We do so in two ways. First, we analyze *admission mechanisms* for talent migration using the three indicators sets out by the HSII: numerical caps, labor market tests, and labor protection. Second, we compare *work permit rights* for talent migrants following the

three HSII indicators: employer portability, spouse's work rights, and permanent residency rights.

4. Comparing Germany and Singapore's talent migration governance

4.1 Germany: Simplifying and liberalizing work permits

Throughout the last decade, Germany's government liberalized its (high-)skilled immigration policies and implemented EU-level labor immigration policies. At the time of their assessment in 2012, Cerna and Chou (2014) identified three distinct routes to enter Germany as high-skilled migrants: as qualified professionals (Article 18a), as highly-qualified persons (Article 19), or as EU Blue Card holders (Article 19a). The routes differed in terms of salary threshold, labor market test, permanent residency, with those routes for highly-qualified persons and EU Blue Card holders being more open than the route for qualified professional. In 2021, there were only two routes: one for qualified professionals, and one for EU Blue Card holders[1] (BAMF 2021a). Table 4 summarizes the findings for Germany and Singapore from Cerna and Chou (2014) and our assessment, which we discuss in detail below.

[Table 4 about here]

For admissions mechanism, we examine whether policy changes or new practices were introduced to *numerical cap*, *labor market test*, and *labor protection*. According to Cerna and Chou (2014, pp. 135-136), Germany's talent migration regime in 2012 had a fairly liberal

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[1] There is also a permit for IT specialists with practical occupational experience (Federal Government, 2021c), but we leave it out for the following analysis since we focus on the main routes to Germany. It is also unclear how many of these permits have been issued so far.

admissions mechanism, scoring 0 in numerical cap, 2.33 in labor market test, and 1.67 in labor protection. Since then, admission mechanisms became even more liberal mostly due to implications from the 2019 Skilled Immigration Act and the revised Residence Act.

In 2021, the two labor permits (qualified professional and EU Blue Card) still did not have a *numerical cap* (0 points). For the qualified professional permit, if the applicant possessed a labor market contract or specific job offer, no further *labor market test* was conducted (0 points). However, the Federal Employment Agency still checked the employment conditions. A foreigner with a university degree or completed vocational training can also search for work in Germany for six months, and the title allowed the person to work up to 10 hours per week on a trial basis (Federal Government 2021a). For EU Blue Card, Germany did not apply a labor market test (0 points) (European Commission, 2019).

Some *labor market protection* applied to qualified professional applicants. Despite no salary threshold or labor market test, protections existed. The Federal Employment Agency checked whether the potential worker would be employed on equal terms as a German employee. The employee also had to have a comparable recognized university degree or completed vocational training (Federal Government, 2021a). For first time permits for workers above 45 years with academic qualifications or vocational training, a minimum salary threshold of at least 55% of the German pension fund contribution ceiling needed to be demonstrated (unless applicant had own pension fund) (1.5 points).

EU Blue Card applicants needed to evidence a minimum salary threshold of at least two-thirds of the German pension fund contribution ceiling—€56,800 per year in 2021 (2 points). For those in occupational fields of mathematics, computer science, the natural sciences,

engineering and human medicine, the annual earnings threshold was lowered to €44,304 per year (BAMF, 2021b). The employment must match the qualifications.

Looking at work permit rights, Cerna and Chou (2014, pp. 141-143) also found Germany to have an open talent migration regime in place in 2012; they assigned 1.67 points to *employer portability*, 0.33 points to *spouse's work rights,* and 0.33 points to *permanent residency rights*. In our analyses, we found that work permit rights for qualified professionals and EU Blue Card holders became more liberal.

When we examined *employer portability*, it was still rather strict for qualified professions in 2021. A change of employer was possible, but the worker had to apply for a new permit (3 points). For the EU Blue Card, in the first two years the holder may change employer if it was approved by the federal labor authority (European Commission, 2019). After two years, the Blue Card holder may change employer without prior authorization, and only had to notify the authorities (2 points). The work permit was valid only for a specific job and in the district in which it was issued (with the possibility of a regional extension), unlimited for specialists exempted from Federal Labor Agency approval.

Turning to *spouse's work rights*, we examined first the qualified professionals permit. There were some conditions for spouse's visa or residence permit, which then provided labor market access (1 point). One requirement was that the spouse had to speak basic German. This did not apply to highly-qualified holders of permanent residence permits, researchers, and nationals from the following countries: Australia, Canada, Israel, Japan, Republic of Korea, New Zealand, United States, or the United Kingdom. For EU Blue Card holders, spouses were

allowed to work from the start, and no approval was needed (0 points) (Federal Government, 2021d).

The Skilled Immigration Act also made provisions for a *permanent residence* permit to be issued for an indefinite period after four years of residence (1 point), a decrease from 5 years (Federal Government, 2021a). For EU Blue Card holders, permanent residency was possible after 33 months if they had made the compulsory or voluntary contribution to the German social pension fund during this period, and can make themselves understood in basic German (0 points). The duration was decreased to 21 months if holders can demonstrate a good knowledge of German (BAMF, 2021b).

The outbreak of the COVID-19 pandemic in early 2020 coincided with the implementation of the 2019 Skilled Immigration Act. Unlike the case of Singapore as we discuss next, we did not observe noticeable changes in Germany's high-skilled migration policies in response to COVID-19. What we did find are similar effects of COVID on border-crossing: like many countries around the world, the COVID-19 pandemic made entry into Germany more difficult due to the travel restrictions and prolonged processing times for work permits (Federal Government, 2021b). Therefore, the numbers of skilled immigrants coming to Germany were lower than planned. According to the German Federal Statistical Office, net immigration to Germany was only 209,000 in 2020, and an estimate of 400,000 new immigrant workers were said to be needed annually to fill the labor gap (Cave & Schuetze, 2021). What we may conclude at this stage is that the COVID-19 pandemic affected migratory *flows* to Germany and not its policies because it needs immigrants: a recent study estimated that Germany will lose some five million workers in the coming fifteen years (Grömling et al., 2021).

4.2 Singapore: Calibrating talent migration regime one change at a time

The Singapore government simplified the work pass system for high-skilled migrants throughout the last decade. In their assessment in 2012, Cerna and Chou (2014) identified four distinct routes to enter Singapore as a high-skilled migrant: as a professional through one of the three categories of Employment Passes (EP: P1, P2, and Q1), or as an entrepreneur through the EntrePass[2]. The three EP categories were distinguished by the monthly salary threshold that passholders must achieve in order to be eligible (Cerna & Chou, 2014, p. 137). As of 2021, the EP categories had been combined, with age/experience and increased salary thresholds as the main determinants for eligibility: the *minimum qualifying salaries* for new applicants (under 40-years old) are S$4500-S$5000, and double for those "in their 40s" (S$9000-$10000) (Ministry of Manpower, Singapore, 2021a). This was again increased in February 2022: starting September 2022, the minimum qualifying salaries for EP applicants had to be S$5000-S$5500 (Yang, 2022).

For admissions mechanism, we examined whether policy changes or new practices were introduced to *numerical cap*, *labor market test*, and *labor protection*. According to Cerna and Chou (2014, pp. 136-140), Singapore's talent migration regime in 2012 had a liberal admissions mechanism, scoring on average 0 in numerical cap and labor market test, and 1.5 in labor protection (see Table 4). In 2021, the situation had changed in Singapore due to the government consistently implementing a clear approach differentiating the rights and benefits to which Singaporeans, PRs, and foreigners were granted access. In response to growing citizen concerns over job competition from foreigners, the government introduced the Fair

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[2] We exclude EntrePass in our analyses because this is not the main route through which most high-skilled migrants enter Singapore, and the statistics for the numbers of EntrePass issued are not publicly available.

Consideration Framework (FCF) in 2013, requiring all companies to comply with a set of standards to ensure fair employment and a transparent labor market (Ministry of Manpower, Singapore, 2021b).

In 2021, we can see that the FCF is part of a broader movement in Singapore to improve employment processes (Tafep, 2017). It introduced a job advertising requirement for all companies submitting EP applications: the vacancy must be posted on MyCareersFuture for a minimum of 28 (previously 14) consecutive days and all Singaporean applicants must be considered fairly and thoroughly before employers were allowed to submit EP applications for the same post (Ministry of Manpower, Singapore, 2021c). The FCF gave detailed guidelines on how companies can avoid appearing to discriminate against Singaporeans. For instance, concerning nationality, the guidelines state that the advertisement can include the phrase "Only Singaporeans" while phrases such as "EP…Holders preferred/welcome/only" and "Work passes will be applied for successful candidates" should be avoided (Tafep, 2021).

In 2021, we observed that the FCF has implications for Singapore's admissions mechanism of high-skilled migrants. To start, the FCF set out a *labor market test* for Singapore's talent migration regime (3 points). While employers were expected to show how they complied with the FCF guidelines, the government had tasked the Tripartite Alliance for Fair and Progressive Employment Practices (Tafep) to monitor compliance and maintain a FCF Watchlist of employers suspected to have discriminatory hiring practices (Ministry of Manpower, Singapore, 2021b). During 2019-2021, Tafep handled about 170 discrimination cases (based on nationality) per year (Tan, 2021). In January 2020, the Ministry of Manpower increased the administrative penalties (work pass debarment) from six to twelve months, and up to 24 months

for more egregious cases; additional penalties included 2-years imprisonment of key personnel, S$20000 fine, or both (Ministry of Manpower, Singapore, 2021b).

In 2021, we perceived the FCF as an instrument for enhancing *labor protection* for Singaporeans (2 points). For instance, it stipulated the timeframe of the advertisement: a minimum of 28 days and a closing date of less than three months. What this meant in practice was that an employer wishing to hire an EP holder may only submit an EP application within the period of 28 days to three months of the original posting, and only after the employer demonstrated that no Singaporeans accepted the offer or were suitable. In addition, the minimum qualifying monthly salaries for EP holders meant that employers may need to pay more for hiring high-skilled migrants and thus were incentivized to hire Singaporeans. While the Singapore government had yet to impose a *numerical cap* on the number of high-skilled migrants the City State would admit, this did not mean that no restrictions were in place (1 point). For instance, employers with a "higher percentage" of foreign workers than their industry peers or those being or have been the subject of complaints were placed on the FCF Watchlist, triggering Tafep to review their hiring practices. Some companies were only removed from this list after they demonstrated "strong commitment to improve their hiring practices" (Kamil, 2020).

Turning to work permit rights, Cerna and Chou (2014, pp. 141-143) found Singapore to have an open talent migration regime in place in 2012; they assigned on average 1 point to *spouse's work rights*, 0 points to *permanent residency rights*, and 2 points to *employer portability* (see Table 4). In our analyses in 2021, we found that work permit rights for EP holders in Singapore became more restrictive. It is in this area that we observed the strongest direct and indirect impact of the COVID-19 pandemic on talent migration regime in Singapore. Concerning

spouses, the Ministry of Manpower increased the minimum monthly salary threshold (from S$4000 to S$6000) that EP holders must meet in order to apply for Dependent's Passes (DP) for their legally married spouse and unmarried children younger than 21-years. Since November 2020, EP holders entering Singapore "as an overseas ICT under WTO GATS or an applicable FTA" were not allowed to apply for DPs (Ministry of Manpower, Singapore, 2021d). These EP holders had no family reunification rights and by implication their spouses have no access to work under the DP scheme (3 points). For spouses admitted, as of May 2021, all DP holders wishing to work in Singapore must obtain their own work passes (2 points) (Ministry of Manpower, Singapore, 2021d). Previously, DP holders were allowed to work if the government issued a Letter of Consent to their employers, a much simpler process. The average for *spouse's rights* of these two groups of EPs is 2.5 points.

"As a foreigner," according to the Immigration & Checkpoints Authority, "you may be eligible to apply for permanent residence if you are a Holder of an Employment Pass" (ICA, 2021). The policy remained largely unchanged on paper, but our analyses in 2021 also considered the *practice* of obtaining permanent residency and its implications for rising cost of living in Singapore. After closing its "open door policy" to immigration after 2009, there was a dramatic change in scale of new permanent residents in Singapore: "from 79,167 in 2008 to 29,265 in 2010" (Zhan & Zhou, 2020, p. 1659). In 2020, Singapore granted permanent residence to 27,470 migrants from more than 550,000 eligible migrants (Prime Minister's Office, Singapore, 2021, p. 18). According to Zhan and Zhou (2020), applying for PR in Singapore was a fraught and uncertain process, with some foreign talents failing to secure PR after multiple attempts. Concerning *permanency rights*, not obtaining PR status translated to loss in real wages given the rights differentiation approach the Singapore government practices (2 points). This is exemplified by access to housing. In Singapore, 80% of the residents lived in

affordable government housing commonly referred to as HDBs, ownership accessible only to citizens and PRs. While employers of high-skilled migrants often subsidized housing costs, these subsidies had time limits. When subsidies expired, the costs of living in Singapore became rather prohibitive (cf., Chou, 2021). This had been brought into sharper relief by the COVID-19 pandemic. In December 2021, due to limited admissions of foreign workers in the construction sector, the government increased the buyer's stamp duty foreigners must pay when buying their first property in Singapore: from 20% to 30%; no changes were introduced for Singaporeans (0%) and PRs (5%).

In Singapore in 2021, EP holders could only work for their employers, who submitted applications for EP renewals (3 points). We assigned 3 points to *employer portability* due to the restrictions introduced during the pandemic. During the COVID-19 pandemic, like many countries around the world, Singapore introduced strict border controls and "safe management measures" to protect its citizens and workers in its territory, with employers playing important roles. For employers of EP holders, they assisted with the pre-approval required for the exit and re-entry of EP holders (ICA, 2021b). As of February 2022, COVID-19 vaccination was mandatory for all new work pass applicants. The overall caution the Singapore government embraced meant that in practice many high-skilled non-residents had not left the country since the start of the pandemic due to the uncertainty of re-entry, or had left the City State permanently.

5. Discussion and conclusion

Our comparisons of Singapore and Germany's talent migration regimes in 2021 revealed their divergent policy pathways. From an admissions mechanism and work permit rights

perspective, the Singapore talent migration regime became rather restrictive. We observed that a higher salary threshold for migrants seeking entry to Singapore as high-skilled had been introduced, dependents of foreign talents wanting to work must apply for their own work permits, and family reunification privileges for some high-skilled migrants were revoked. By contrast, Germany's talent migration regime became comparatively more liberal for attracting a higher number of high-skilled immigrants. Indeed, we saw that the high-skilled migration pathway into Germany was no longer limited to those holding academic qualifications: those with vocational training were welcomed, too. Figure 1 shows the index of averages of coded high-skilled immigrant programs (from Table 4) in Germany and Singapore, where the most restrictive country received the score of 100. In this case, it was Singapore in the year 2021. The figure shows that Singapore became more restrictive in the last decade, whereas Germany became even more open towards high-skilled immigrants.

[Figure 1 about here]

In this concluding section, we discuss and reflect on the growing differences between our two country cases, and what the pandemic means for high-skilled migration governance.

How do we account for the observed differences between Singapore and Germany? To address this question, we need to situate these developments in the broader context of changing talent migration regimes in these two countries. In Singapore's case, when the government closed its "open door policy" to high-skilled migration after 2009 in response to citizen discontent, a new policy pathway was created. The launch of the Population White Paper in 2011, public protests against the White Paper, and the resulting new measures (upskilling and prioritizing Singaporeans in the labor market) are all catalysts driving Singapore further along its new talent

migration pathway. What characterizes post-2010 talent migration policy developments in Singapore are their implementation of the differentiation approach, between Singaporeans and permanent residents, between permanent residents and migrant labor, and between foreign talent and foreign workers. The pandemic can thus be seen as a context where the differentiation approach has been brought further to life, as the Singapore government worked diligently to reassure Singaporeans with differentiated policies and practices that elevate them in society and in the labor market. At the 2021 National Day Rally, Prime Minister Lee Hsien Loong announced that the Tafep guidelines will become law and the EP criteria will be further tightened, signaling that Singapore's talent migration regime will become even more selective in the coming years (Ho, 2021; Zhang, 2021).

In Germany's case, it shifted from a country known to have no official policy towards labor immigrants for several decades to one of the most liberal in Europe towards (high-) skilled immigrants (Cerna, 2016). Due to high labor shortages in high-skilled sectors, Germany liberalized its immigration policy more and more since early 2000s. In fact, when the EU Blue Card was initially proposed and discussed among EU member countries, Germany was opposed, citing high unemployment and sovereignty issues (Cerna, 2014). It preferred to focus on its national high-skilled immigration policy. However, since the numbers of high-skilled immigrants remained disappointingly low, Germany turned towards the EU Blue Card, which was considered easier to sell politically as a decision imposed from above (Cerna, 2018). The adoption of the EU Blue Card paved the way for even more liberal high-skilled migration policies in Germany. The Blue Card permit is now seen as preferable to the national high-skilled immigrant scheme due to its higher visibility and greater flexibility (Cerna, 2018). The COVID-19 pandemic has not changed policies towards high-skilled immigrants: as Germany

still needs to attract many high-skilled workers due to considerable labor shortages, but has not been able to do so; it can afford to be liberal towards high-skilled immigrants.

What does the pandemic mean for talent migration governance? Most of the existing literature about COVID-19 and migration have revolved around how changes in the rate of migratory flows challenge scholars and policymakers alike to reflect on the meaning of "essential work" and its role in system resilience (Anderson et al., 2020; Fernández-Reino et al., 2020). This literature, however, focusses on low- or mid-skilled migration and offers few insights into the pandemic impact on high-skilled migration. Our findings confirm that the pandemic has also affected the *rate of flow* of talent migrants into Germany and Singapore. In both countries, there have been multiple delays in processing work permit applications during lockdowns and when new COVID-19 variants entered local communities.

What is perhaps our most interesting finding is how the pandemic *has not changed* the policy pathways on which Germany and Singapore have already embarked when Cerna and Chou (2014) carried out their analysis in 2012. Indeed, the COVID-19 pandemic has provided the context for Singapore to sharpen its rights differentiation approach, and for Germany to acknowledge its need for migrants with diverse skillsets. This points to the importance of social, economic, and political institutions in ensuring the "stickiness" of policy decisions made decades ago. Future research could look into whether the *direction* of talent migratory flows evolve post-pandemic. We know that as the pandemic unfolded, many high-skilled migrants have considered and reconsidered their migration choices amidst pandemic uncertainties and increased differentiation in benefits and rights between themselves and citizens in destination countries. The extent to which recent talent migration policy decisions may or may not affect this migration decision-making process remains to be seen, but it is important to note that high-

skilled migrants have options, and they too are selective of their destination countries: whether

it is the current country, a new one, or home.

Acknowledgement

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Table 1: Highly-Skilled Immigration Index (HSII)

	3 points	2 points	1 point	0 points
Numerical caps	Admission numbers are fixed and small numbers permitted	Numbers are fixed but generous	Government is able to periodically adjust numbers	No caps at all
Labor market tests	Strong test of the labor market, i.e., no available workers from a pre-determined labor pool	Employers need only assert good faith that they have conducted rigorous review of all applicants	Government awards points for skills, or applicants are streamlined through pre-determined shortage occupations	No test at all
Labor protection	Stringent requirements on wage-setting and other protections such as no lay-off provisions in place for native workers	Formal protections of native workers on the labor market exists (foreign workers could apply, but native workers prioritized)	Some protections of native workers on the labor market exists (foreign workers may have an equal opportunity in getting hired)	No immigrant-specific legal protection other than existing labor law
Employer portability	Foreign worker can work only for the original employer and in one place	Foreign worker can work for another employer if new employer applies for and obtains authorization (time constraints vary)	Foreign worker can work for any employer, but only in sector authorized	Foreign worker is authorized to work for any employer in any sector, or to be self-employed
Spouse's work rights	Spouse is not permitted to accompany worker, other dependents, or to work	Spouse is permitted to accompany worker as a dependent, but is allowed to work only after obtaining own work visa	Spouse is permitted to accompany worker as a dependent, and is allowed to work on a dependent/spouse visa	Spouse is permitted to accompany worker as a dependent, and has unlimited working rights
Permanent residency rights	Temporary migrant is prohibited from transitioning to any permanent status	Transitions to permanent residency difficult, with unclear or demanding pathways (need to demonstrate long residency period)	Transitions to permanent residency are relatively possible with clear pathways (short residency period required)	Permanent residency and transition to naturalized citizenship within short time frame (<3 years)

Source: Authors' addition and compilation from Cerna and Chou (2014).

Table 2: Germany's breakdown by most important immigration groups

	2015	2016	2017	2018	2019
EU immigrants	846,039	796,522	777,750	792,796	748,994
Asylum-seekers	441,899	722,370	198,317	161,931	142,509
Family immigrants	82,440	105,551	114,861	97,129	96,633
International students	99,087	101,294	104,940	109,995	110,974
Labor immigrants	38,836	50,964	60,882	60,857	64,219

Source: BMI/BAMF 2020, Statistisches Bundesamt.

Table 3: Singapore's population breakdown (in '000 and %)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Total	5312.4	5399.2	5469.7	5535	5607.3	5612.3	5638.7	5703.6	5685.8	5453.6
Citizens	3285.1	3313.5	3343	3375	3408.9	3439.2	3471.9	3500.9	3523.2	3498.2
Permanent Residents	533.1	531.2	527.7	527.7	524.6	526.6	522.3	525.3	521	488.7
Non-Res.	1494.2	1554.4	1599	1632.3	1673.7	1646.5	1644.4	1677.4	1641.6	1466.7
Work Permit	46%	46%	46%	45%	44%	42%	41%	41%	41%^	39%^
Dependents	15%	15%	15%	16%	16%	17%	17%	17%	17%	18%
FDWs	13%	13%	13%	13%	14%	14%	15%	15%	15%	16%
EPs	12%	11%	11%	11%	11%	12%	11%	11%	12%	11%
S Pass	9%	10%	10%	11%	11%	11%	12%	12%	12%	11%
Students	6%	5%	5%	4%	4%	4%	4%	4%	4%	4%

Notes: individual figures for categories of non-resident are always given in percentages.

Non-Res. = Non-Residents; EP = Employment Pass; FDW = Foreign Domestic Workers; Dependents category include dependents of citizens, Permanent Residents, and Work Pass Holders.

^the 2020 and 2021 reports provide two percentages for Work Permit Holders, divided into those working in 'Construction, Marine Shipyard and Process (CMP)' (20% for 2020 and 2021), and those in non-CMP sectors such as 'Services, Manufacturing' (21% for 2020, and 19% for 2021).

Sources: Authors' compilation from *Population in Brief* (2012-2021), Prime Minister's Office, Singapore.

Table 4: HSII Ranking of Germany and Singapore (2012 and 2021 compared)

		Germany							Singapore						
		Cerna and Chou (2014)				2021 Assessment			Cerna and Chou (2014)					2021 Assessment	
HSII categories	Pass categories	Article 18	Article 19	EU Blue Card	Average in 2012	Qualified professional	EU Blue Card	Average in 2021	P1	P2	Q1	EntrePass	Average 2012	EP	Average 2021
Admission mechanisms	Numerical limit	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	Labor market test	3	2	2	2.33	0	0	0	0	0	0	0	0	3	3
	Labor protection	2	1	2	1.67	1.5	2	1.75	2	2	1	1	1.5	2	2
Work permit rights	Employer portability	3	0	2	1.67	3	2	2.5	2	2	2	2	2	3	3
	Spouse's work rights	1	0	0	0.33	1	0	0.5	1	1	1	1	1	2.5	2.5
	Permanency rights	1	0	0	0.33	1	0	0.5	0	0	0	0	0	2	2
	Total	**10**	**3**	**6**	**6.33**	**6.5**	**4**	**5.25**	**5**	**5**	**4**	**4**	**4.5**	**13.5**	**13.5**

Sources: Cerna and Chou (2014); authors' addition and compilation.