



# The fallacy of perfect regulatory controls: Lessons from database surveillance of migration in West Germany from the 1950s to the 1970s

Elisabeth Badenhoop 

Department of Ethics, Law and Politics, Max Planck Institute for the Study of Religious and Ethnic Diversity, Göttingen, Germany

## Abstract

Surveillance studies have long argued that electronic databases are designed to maximize state surveillance as a “super-panopticon” or “surveillant assemblage.” But how are databases being implemented in practice, and do they actually enhance control? This article addresses these questions by examining the case of the German Central Foreigners Register (*Ausländerzentralregister* [AZR]). Established in 1953, the AZR was one of the first databases on migrants in the western liberal world, and remains a pillar of Germany’s migration control system today. By analyzing internal ministerial records from the 1950s to the 1970s – the time when this database was introduced, expanded, and automatized while still relatively free from legal or public constraints – this article examines whether, or how, databases enhance state control. I argue that the AZR did not provide the “perfect surveillance” it was intended to deliver; rather, it produced major bureaucratic and political challenges and a series of malfunctions. This case study confirms that database surveillance, such as the German AZR in the 1970s and European databases today, depends on three basic conditions: shared expectations regarding data usages, cooperation in data supply, and capacities of data storage and maintenance. Moreover, databases serve the additional symbolic function of reassuring the self-imagination of sovereign, modern state power.

**Keywords:** database, failure, migration control, state surveillance, West Germany.

## 1. Introduction

Following the “summer of migration” in 2015, EU member states at the southern Schengen border were criticized for delays in taking and processing fingerprints of newly arriving asylum seekers (Trauner 2016). This left the EU database Eurodac out of date and incomplete, and thus prone to producing faulty search results when consulted by northern member states, a situation which facilitated clandestine entry and long-term irregular residence (Bossong 2018). This example raises the question of how effective database surveillance actually is.

Databases are core elements in various contemporary surveillance theories ranging from the “super-panopticon” (Poster 1990, 1996) to the “surveillant assemblage” (Haggerty & Ericson 2000). In the policy area of migration, databases such as Eurodac are deemed to greatly enhance state surveillance (Broeders 2007, 2011). But how effective is database surveillance in practice? Existing studies have tended to focus on database design, while little is known about their implementation. The anthropological, historical and science and technology studies (STS)-inspired surveillance literature suggested to focus the debate on data practices. The empirical role of databases in state surveillance has not yet been sufficiently explored.

This article addresses that gap and contributes to theory-building on database surveillance by examining the creation and implementation of the German Central Foreigners Register (*Ausländerzentralregister* [AZR]), one of the first and largest migration databases of modern liberal states. This database stores detailed personal data on all migrants who apply for a visa, residence, or work permit in Germany, and has grown to contain about 26 million records today. Introduced in 1953 and switched to electronic data processing in 1967 in West Germany in the global context of the Cold War, the volume, usage, and access of this database were not fully regulated by law

Correspondence: Elisabeth Badenhoop, Department of Ethics, Law and Politics, Max Planck Institute for the Study of Religious and Ethnic Diversity, Hermann-Föge-Weg 11, 37073 Göttingen, Germany. Email: badenhoop@mmg.mpg.de

Accepted for publication 5 October 2020.

until 1994. In drawing on archival records from the 1950s to the 1970s, the AZR thus lends itself as an ideal test case to examine whether, and if so, under which conditions, databases enhance state surveillance.

This article begins by critically discussing existing conceptualizations of database surveillance as “superpanopticon” and “surveillant assemblage.” The next part identifies three factors of database effectiveness: shared expectations, cooperation, and capacity. The section concludes by discussing the German AZR as a pioneer database and presenting the archival research methods used. The following section explains the context of migration control in 1950s West Germany, and reconstructs the reasons for the AZR’s introduction in 1953. It then presents a systematic overview of the register’s intended functions, which were designed to enable “perfect surveillance” of migrants. These policy intentions are then contrasted with a series of challenges and malfunctions in practice drawn from the archival records throughout the 1950s to the 1970s. I argue that modern migration databases show features of both the “superpanopticon” and the “surveillant assemblage” concepts, but neither of these analytical approaches sufficiently captures both design and implementation. I conclude by observing similarities between the German AZR in the 1970s and EU databases today. More significantly from a political sociological perspective, the AZR may not have been a very efficient database, but it has been highly effective in contributing to the self-imagination of a sovereign state.

## 2. Theorizing database surveillance

### 2.1. Superpanopticon and surveillant assemblage

How can database surveillance be meaningfully conceptualized? The literature on surveillance has long been dominated by the concept of the “panopticon” referring to a prison designed by Jeremy Bentham in 1791 that Michel Foucault used to illustrate his theory of the knowledge/power complex: a special arrangement of light and blinded windows provides one official in a central tower with a constant view of the real-time activities of all prisoners in their cells (Foucault 1995). Anticipating that they may be watched, without knowing whether they are actually being watched, the panopticon induces prisoners to check their actions and discipline themselves at all times. The effectiveness of panoptic surveillance thus lies in the *potentiality* of being watched. The panopticon represents a hierarchical form of surveillance and one-way exercise of power whereby a few central state agents can see over a number of surveillance objects who cannot see their surveillers. The panopticon came to epitomize how power works in the modern world, even though it is a historical and highly specific example that was never implemented. Meanwhile, the panopticon has been criticized for its limited temporal and spatial focus that does not adequately describe the ubiquity of electronic surveillance in contemporary societies (e.g. Lyon 1993). The more recent literature produced spinoff concepts to adapt and improve the panopticon, as well as alternative concepts to overcome and replace the panopticon.

On the one side of the debate, the panopticon inspired a series of postpanoptic concepts such as the “superpanopticon” proposed by Mark Poster (1990; 1996). Re-reading and developing Foucault’s writings further, Poster argues that the introduction of institutional and commercial electronic file-keeping in computerized databases has extended the scope of surveillance over space and time by maximizing population monitoring across state territories, in the present and past (Poster 1990, p. 91). The superpanopticon represents another hierarchical form of surveillance, and retains the element of individuals’ participation in their surveillance as they voluntarily or involuntarily supply personal data when filling out forms, placing an online order etc. Surveillance in the superpanopticon operates in two ways. First, the possibility of authorities keeping comprehensive databases may create an awareness and self-censure among the population regardless of knowing whether one’s file exists and what is in there, a threat and fear that was efficiently mobilized by socialist states (Los 2006). In this case, the database exercised power as long as sufficient people believed in its existence. Second, and more importantly, the *actuality* of authorities keeping a record of one’s personal information, activities, and locations, and these data being available to institutions when needed gives them the power to identify, locate, and retrieve individuals through fast searches (Caplan 2013, p. 227). This enhanced surveillance capacity of the superpanopticon creates a lure that the database “will provide ‘all information in all places at all times’” (Poster 1990, p. 95) and this is why the superpanopticon is believed to be even more efficient than the panopticon.

Other contributions to the debate have suggested to abandon the over-used Foucauldian concept of the panopticon from surveillance studies and to replace it with alternative concepts of surveillance as “rhizome” or

“assemblage” (Haggerty & Ericson 2000; Haggerty 2006). Drawing on the works of Deleuze and Guattari (1987), Haggerty and Ericson proposed a radical decentralization of surveillance theories: surveillance operates in contemporary societies through multiple practices, sites, and actors, in various directions and within globalized networks. This approach adopts a broader understanding of technologies than the superpanopticon, including not only written data files stored in state computer databases but also other connected mobile devices such as cameras or ankle bracelets sending information to databases. The metaphor of the rhizomatic plant – growing horizontally rather than vertically, in multiple directions – is able to capture the spatial expansion of surveillance sites, for example the widespread installation of closed-circuit television (CCTV) cameras in public spaces in the UK. The concept of the “surveillant assemblage” allows to examine the multiplication of surveillance agents including both public and private operators. This, Haggerty and Ericson argue, has a “leveling effect on hierarchies” (Haggerty & Ericson 2000, p. 614) as power relations become complicated when anyone may be subject as well as object of surveillance (watching and being watched) in the age of television and social media. Unlike the panopticon and superpanopticon, the surveillant assemblage (or rhizomatic surveillance) is able to account for ambivalent effects of surveillance including resistance or reversal and the bottom-up scrutiny of powerful elites (Haggerty & Ericson 2000, p. 617).

The two concepts discussed above, superpanopticon and surveillant assemblage, differ in their definition of agency and the state (one central top-down agent versus multiple, horizontal state and nonstate actors). However, they share the assumption that surveillance has expanded over the past decades through advanced technologies and increased data volume. Both approaches consider the electronic database as a crucial element of contemporary surveillance and this argument has been reinforced in the migration and security studies literature. For example, Dennis Broeders argued that the three major migration databases established by the European Union during the 1990s and 2000s (the Schengen Information System, the Visa Information System, and Eurodac) have created new digital borders and “a formidable tool for the surveillance of irregular migrants in Europe” (Broeders 2007, p. 71; 2011). However, while Broeders meticulously reconstructed the rhetoric, features, and funding of these three European databases, he acknowledged that the official reports he studied and the number of “hits” and “no hits” published in official reports do not indicate “whether the network of databases actually [...] works” (Broeders 2007, p. 88). This highlights a major gap in the debate, which has tended to focus on policy design, assuming that databases work as intended. While the superpanopticon and surveillant assemblage both presuppose the existence of databases, these theoretical concepts have not yet been applied to rigorous empirical analysis of concrete databases. This neglect of surveillance practices has been addressed by the growing body of historical, anthropological and STS-inspired surveillance literature that shifted the focus of the debate to the enactment of surveillance.

## 2.2. Three conditions of database effectiveness

I identify three conditions in the interdisciplinary literature on national identification, information systems, and technology, that enhance (or inhibit) the setup and functioning of database surveillance: shared expectations regarding data usages, cooperation in data supply, and capacities of data storage and maintenance.

First, the functioning of a database depends on the shared expectations of designers, maintainers, and users of databases regarding the purposes and usages of a database including who has access to the data. A state database may be created for clearly defined reasons such as administrative efficiency, but it may be perceived by users as a means of surveillance attracting the interest and influence of a range of actors in the public and private sectors. Indeed, corporate entities competing for contracts play a “major role” in the global diffusion of national identity card systems (Lyon & Bennett 2008, p. 11). The information systems literature and sociology of organizations demonstrated that the introduction of large-scale new information technologies within organizations is likely to cause ambivalent effects, conflict and even failure if user assumptions and interpretations are not shared (Orlikowski & Gash 1994). For example, the rolling out of a new software in a multinational consulting firm may be justified by directors and technicians as easing internal communication processes but consultants who shall use the software may perceive it as a means of control (Orlikowski & Gash 1994). Moreover, anthropological research examined the everyday maintenance work of surveillance systems and found that surveillance workers significantly shape the outcome of surveillance policies. For example, the individual perceptions and stereotypes

by CCTV operators in the UK influence the decisions on how to position cameras and which groups to focus on, thereby perpetuating structural inequalities such as racism and classism and the social sorting effects of surveillance (Smith 2012).

Second, the bureaucratic cooperation of data suppliers, and their willingness to share, withhold, or modify data, significantly enhance or inhibit the creation and maintenance of a state database. The more recent surveillance literature inspired by STS emphasized the social constructedness of data and its performative power, and anthropological research pointed to the importance of examining the local enactment and situatedness of data practices. In the area of public health, for example, patients with cardiac telemonitoring devices are not passive objects of surveillance but actively participate in the “coconstruction of users and technology,” exercising agency as they appropriate and modify the data generated and shared by their device by choosing when to switch it on and which information to forward to the medical center (Dubbed 2006). The factor of cooperation in data supply is especially relevant in multi-level governance systems and “federalism [...] can be significant hurdles” (Lyon & Bennett 2008, p. 16). The policy area of international migration typically involves multiple political actors with different interests. For example, the introduction of new EU border control technologies sparked controversial political negotiations (Sontowski 2018) and the production of migration statistics in Europe entails struggles over influence, cost-sharing, and policy agendas in producing knowledge and non-knowledge (Scheel *et al.* 2019). Indeed, the policy area of irregular migration is likely to generate a lack of political willingness to gather data on a population that is hardly possible to monitor (Boswell & Badenhoop 2020). Moreover, where comprehensive migration databases are in place, they can produce severe malfunctionings as one faulty search hit may force a regular migrant to contest the identity of an irregular migrant that the database mistakenly assigned to them (Glouftisios & Scheel 2020).

Third, the effectiveness of a database depends on the state capacities and administrative infrastructure of handling large amounts and flows of data. From a historical perspective, the paper-based population registers and identification techniques are state attempts at “seeing” (Scott 1998), “embracing” (Torpey 2000), or “grasping” (Caplan 2013) their populations, but these attempts are limited by material infrastructure and human staff capacity. The project of modern statecraft and state surveillance is not necessarily “incessant and ill-intentioned” (Caplan & Torpey 2001, p. 7) and has indeed been described as “a history mainly of failure” (About *et al.* 2013, p. 1). Even the extreme historical example of population surveillance in the Nazi regime demonstrated a gap between intention and outcome. While the Nazi regime’s racial classification and identification of Jewish Germans was “highly efficacious,” their plans for more extensive general population registers were “never completed” because of competing interests, other priorities, and limited resources (Caplan 2013, p. 227). While historical surveillance systems relied on paper cards, resources required for contemporary electronic databases would include server capacity, digital storage space, and connection speed.

To summarize, the database is assumed to be a key element significantly enhancing control capacities in contemporary surveillance theories. Yet the superpanopticon and surveillant assemblage concepts both risk overemphasis of technology and structural determinism in their neglect of the actual implementation of specific databases. This article addresses that gap by analyzing the set-up and functioning of one of the first migration databases in contemporary liberal societies. In so doing, this analysis contributes to surveillance theory-building and to the growing body of the anthropological, historical, and STS-inspired surveillance literature.

### 2.3. A pioneer case: The German Central Foreigners Register

The creation of the Central Foreigners Register (*Ausländerzentralregister* [AZR]) in West Germany in 1953 is an excellent example of a state database that was designed to facilitate perfect state control of migrants and that emerged out of a network of multiple forces within the German federal state structure and an international network of post-World War II actors. Compared to other cases, for example the UK where systematic data collection emerged during the late 19th and early 20th centuries to centralize welfare and warfare (Higgs 2004), the German case is widely considered as one of the most “extreme” examples of state surveillance (Lyon 2001, p. 110). It is characterized by extensive general population registration, originating in 19th century police states and continuing in Nazi Germany (Caplan 2013). Elements of this legacy are still present today, such as the duty of all citizens and non-citizens in Germany to register their residence with the local authorities. State surveillance in Germany

is usually associated with the Nazi regime (1933–1945) and the Socialist regime in East Germany (1949–1990), while comparatively less attention has been dedicated to state surveillance in West Germany, which in 1953 introduced one of the first comprehensive databases on migrants in the western liberal world. Initially a paper-based index card system, the AZR was switched to electronic data processing in 1967 and is still used today. It stores detailed personal information on all migrants who apply for a visa, residence, or work permit in Germany. This central reference index is consulted prior to any permit being granted, extended, or rejected. The AZR is thus a key governmental technique in the everyday regularization and irregularization of migrants in Germany. Today it contains approximately 26 million records, accessible to over 14,000 authorities and agencies – in short, it is considered the “central pillar” of the German migration control system (Bundesverwaltungsamt n.d.).

If the policy literature points to a lack of implementation of migration control, this is usually explained as a result of liberal constraints (Hollifield cited in: Czaika & de Haas 2013, p. 487); however, such constraints are not present in the case examined here. Indeed, for many years the legal foundation of the AZR database consisted of one sentence<sup>1</sup> as well as ministerial decrees and administrative guidelines that were not publicly available (Heyder 1994, p. 153). Ethical concerns about personal data protection only gained traction in 1983 when the German Federal Constitutional Court’s census verdict (*Volkszählungsurteil*) highlighted the inadequate legal foundation of data collection practices (e.g. through the AZR) which eventually led to legislation in 1994 (*Ausländerzentralregistergesetz* [AZRG], 1994) (Heyder 1994, p. 153). This law for the first time specifically and comprehensively regulated the volume, usage, and accessibility of the AZR database. In other words, the creation of this register was relatively free from public constraints.

Moreover, its creation also took place in the global context of the Cold War, where heightened security concerns were particularly acute in West Germany due to its geopolitical location next to the Iron Curtain and foreign state governments took an interest in the international migration movements across Germany. When and where, if not in this case, would we expect the state to try to build a “superpanopticon”? Examining the early years of the AZR in which it was set up and operated relatively free from public constraints can help to examine whether and how databases effectively enhance surveillance and therefore test a core assumption of both the “superpanopticon” and “surveillant assemblage” theoretical concepts.

Methodologically, focusing the present analysis on the period of the 1950s–1970s makes it possible to gain unique insights into the internal administrative deliberations that are usually hidden from public scrutiny and difficult to access for social scientists, since the official records up to the 1980s are publicly accessible in the Federal Archive in Koblenz. This research emerges from a major project funded by the Economic and Social Research Council (UK).<sup>2</sup> The present article draws on archival records from the German Federal Interior Ministry stored in the Federal Archive in Koblenz, specifically six files identified through a keyword search of the archive catalogue containing more than 970 pages of letters, notes and communications regarding the AZR. The documents give insights into the national, local, and international levels of government, as they include correspondence between the federal and *Länder* Interior Ministries, municipal Foreigners Authorities, other departments, as well as foreign state governments from around 1951 to 1981. These documents were coded using thematic analysis in order to understand why and how the West German administration built the AZR in terms of the rationalities that guided officials to opt for the database approach, what they hoped the database might achieve, how they implemented the database, what obstacles they encountered, and how efficient they thought the AZR was. While these data do not reveal the migrants’ perspective, this analysis for the first time allows insights into the state perspective, that is the bureaucrats who designed and operated the AZR.

### 3. Why create a database? Multi-level governance and migration control in 1950s West Germany

The AZR was built on the existing decentralized system of registration and surveillance, but also in response to international pressure. The origins of the Central Foreigners Register go back to West Germany’s postwar transition phase from a state under tutelage by the Allied Forces toward becoming a sovereign nation-state capable of migration control, as the Federal Republic of Germany (FRG). After 1945, Europe witnessed large-scale population movements, and Germany in particular was a “hub” of people on the move: about one million German emigrants left for the USA, Canada, Australia, the UK, France, and Belgium (Steinert 1992, p. 386), while over four million German prisoners of war, 4.7 million German refugees and displaced persons, as well as 1.8 million

refugees from the German Democratic Republic and foreign workers immigrated to the FRG (Bade 1992, p. 393). Movements through Germany's western zones were controlled by the Combined Travel Board, an agency of the US, UK, and French Allied High Commission, which handed over this competence (*Passhoheit*) to the German authorities in 1951 (Huber & Unger 1982, p. 127–128). The Adenauer government subsequently reinstated two regulations from the previous Nazi regime<sup>3</sup>: the Foreigners Police Statutory Order (*Ausländerpolizeiverordnung* [APVO], 1938) originally from 1938 made a foreigner's lawful residence and work in Germany subject to a permit (Huber & Unger 1982, p. 128), and the Statutory Order on Foreign Employees (*Verordnung über ausländische Arbeitnehmer* [AuslVO]) originally from 1933 additionally required non-German employees to hold a work permit, and German employers to hold a foreigner recruitment permit (Dohse 1981, pp. 142–143). Moreover, the 1952 Passport Act (*Gesetz über das Paßwesen* 1952) required migrants to hold a visa (*Sichtvermerk*) in order to enter and leave Germany, although this requirement was subsequently lifted for many western states via bilateral agreements (Dohse 1981, pp. 142–143).

Migration control in 1950s West Germany was thus characterized by a high degree of regulation through a multiple permit system that rendered migrants' rights to enter, live, and work there subject to specific, separate permits. At the same time, the enforcement of this control regime was decentralized, and highly discretionary. Foreigners Police Authorities at the local level (*Kreisverwaltungsebene*) of the interior administration were in charge of granting (or rejecting) residence and work permits.<sup>4</sup> While these authorities effectively had the power to regularize or irregularize migrants, they were themselves governed by rather vague regulations. For example, they should assess whether the candidate "proves worthy of the hospitality granted" to them<sup>5</sup> and they could reject a migrant's residence permit application on numerous grounds including if they deemed the candidate's "behavior to jeopardize public affairs."<sup>6</sup>

Unsurprisingly, this decentral and discretionary system led to a rather diverse implementation in practice much to the concern of the Allied Forces. In a letter to the Federal Ministry of the Interior dated 11 February 1952, the US Director General of the Combined Travel Board complained about the German authorities' inconsistent management of migration control noting that "the methods of registering foreigners and of marking residence permits in travel documents vary not only between the *Länder* but also sometimes within a *Land*."<sup>7</sup> From the Allied Forces' point of view, this "generous" migration management created "security risks" as it allowed "foreigners [to] take residence and move freely across the federal territory without the knowledge or surveillance of the authorities in charge," potentially leading to a situation where "it is well possible for a foreigner to register somewhere first and to then move to somewhere else where he is unknown." In other words, the concern was that by moving *within* Germany, migrants could effectively withdraw themselves from the tight surveillance regime. The Allied Forces made clear that migration control "is only effective" if ensured by "a central registration" and requested that the German authorities "centralize all incoming information" through a "central register." The Allied Forces' representative pointed out that the German government had committed itself to do so as part of the handover negotiations in November 1951, and attached a copy of the protocol to that effect. Subsequently, the Federal Interior Minister appointed a Register Authority<sup>8</sup> and requested a copy or the original of all existing Foreigners Registers kept by the *Länder* in order to merge them to create the "Central Foreigners Register" (AZR).<sup>9</sup>

While the existing surveillance infrastructure of local registers thus facilitated the construction of the AZR, the introduction of a nationwide register on foreigners in Germany was a precondition for the handover of migration control competence. The international Allied Forces insisted that this central register be created because they were concerned that the decentralized migration management in the German federal state system was insufficient. How, and with which features, was the AZR designed to enhance migration control? The following analysis of the official rhetoric and formal goals associated with the AZR at first sight seems to point to the "superpanopticon" end of the spectrum.

#### 4. "Perfect surveillance at all times": The intended functions of the AZR

The AZR's overarching goal was to enhance the state surveillance of migration, via three distinct operational uses. The AZR's first step was to provide local Foreigners Authorities with a constant, reliable overview of the migrant population by centralizing the records gathered by local Foreigners Authorities and making this knowledge available to all of them. Much in the same way as the existing local and *Länder* registers were kept to provide the

authorities with a “perfect surveillance at all times”<sup>10</sup> of all foreigners entering, resident and leaving the local authority, the Central Foreigners Register was designed to provide this overview at the federal level, across the entire federal republic. From the point of view of the federal interior administration, “[i]t is in the security interest of our federal republic to constantly be able to control all foreign residents across the republic.”<sup>11</sup> The main purpose of the AZR was therefore to “provide information” (*Auskunftserteilung*) about all registered foreigners to the federal and *Länder* authorities as well as to foreign authorities within the FRG and abroad, as the Federal Interior Ministry explained to the *Länder* Interior Ministries.<sup>12</sup> In order to ensure that the database remained “exhaustive” and “up-to-date,” the Federal Interior Ministry requested that local Foreigners Authorities continuously and immediately notify the Register Authority about any changes in personal circumstances and decisions taken, by sending update cards (*Veränderungsanzeigen*).<sup>13</sup> The Ministry further requested that Foreigners Authorities “absolutely” check the AZR to establish whether “existing knowledge” may be “relevant” “before taking any decision” on all residence permits.<sup>14</sup>

Second, the AZR had a “blacklist” function. From its inception, the Register was connected to other branches of the administration; it contained a comprehensive blacklist (*Vormerkliste*) “drawing on the records and knowledge” from the federal security and intelligence services (*Bundeskriminalamt* [BKA], *Zollkriminalinstitut*, *Bundesamt für Verfassungsschutz* [BfV]).<sup>15</sup> The “blacklist” function was intended to facilitate differentiated searches for specific groups of undesired migrants, such as political dissidents and tax evaders. Given the emerging global context of the Cold War and West Germany’s geopolitical position with its eastern border directly forming part of the Iron Curtain, the AZR facilitated the political surveillance of foreign political activists in an effort to prevent them from entering and settling. To this end, all German embassies were instructed by a circular decree to supplement the German “blacklist” (*deutsche Vormerkliste*) with persons who should be denied entry due to “severe security concerns.”<sup>16</sup> While this initiative also targeted “right-wing extremists,” it was mainly an attempt to “include leading foreign functionaries and activists of the Communist Party” into the AZR.<sup>17</sup> The AZR also facilitated the fiscal surveillance of migrants. Local finance and customs authorities agreed to consult the AZR when searching for foreigners, and to notify the Register about any concerns regarding foreigners’ tax payments (without giving details on the amounts involved).<sup>18</sup> This information feed from the finance authorities was directly relevant for the Foreigner Authorities, who could issue residence bans in cases of tax violations (APVO §5 (1)d). In this way, the AZR could be used to help to identify and exclude migrant tax evaders.

Third, the AZR was designed to provide the German authorities with a statistical overview of all migrants, including ethnic German and non-German refugees. As a signatory state to the 1951 United Nations Refugee Convention, the FRG committed itself under article 35 to provide statistical reports about the situation of refugees in Germany to the United Nations High Commissioner for Refugees. The Commissioner requested statistical reports “about all foreigners” in Germany, and made it clear that the statistics should *equally* consider German and non-German refugees, including their total count, nationality, religion, age, and gender.<sup>19</sup> Civil servants inside the Federal Interior Ministry agreed that the AZR was “the only means to collect reliable statistical data about foreigners in the republic.”<sup>20</sup> Subsequently, a new column was added on the index card template to register the legal status of “stateless foreigner” (*heimatloser Ausländer*) and “foreign refugee” (*ausländischer Flüchtling*), to capture the non-German refugee population.<sup>21</sup>

So far, the design and intention of the AZR confirms the “superpanopticon” concept according to which databases are built to maximize state surveillance. However, my analysis of archival records in the next part suggests that the implementation of this database was inhibited by diverging expectations, insufficient data supply, and limited state capacities throughout the 1950s, 1960s, and 1970s.

## 5. Of backlogs and duplicate files: Power struggles in a network of forces

### 5.1. Political negotiations and administrative struggles in a multi-level system

The introduction of the AZR at the request of the Allied international forces initiated a power struggle within the federal nation-state between the different levels of government. The Federal Interior Minister’s call in 1953 for all *Länder* Interior Ministers to submit their *Länder* registers (either a copy or the original) so that they could be merged to create a central register was not followed swiftly. Some *Länder* resisted the creation of a central register as a loss of competences, while for others the AZR represented a welcome opportunity to discharge themselves of

an administrative inconvenience. North Rhine Westphalia (NRW), for example, was keen to submit its entire register sooner rather than later. NRW had been ordered by the British occupying forces to introduce a central register in 1948, but did not consider it very useful: their register was hardly consulted, its “expenditure out of proportion to its means.”<sup>22</sup> NRW therefore repeatedly asked the Federal Interior Ministry if and when a Central Foreigners Register would be introduced at the federal level, and when the Register Authority would come to pick up the NRW register,<sup>23</sup> and also attempted to persuade other *Länder* to submit their registers, arguing that “a central register only makes sense if kept at the federal level, only then is [effective] surveillance possible.”<sup>24</sup> Some of these *Länder* were reluctant and preferred to retain their own Foreigners Registers. West Berlin, for example, wanted to continue assisting the information requests which their register regularly received from the Allied Forces, and pointed out that they even lacked the necessary paper to copy its 20,000 index cards.<sup>25</sup> Similarly, Lower Saxony did not want to “give up” its register, and explained it was “hardly possible” to manually copy its entire register of 51,000 cards.<sup>26</sup> It also emerged that not every *Land* kept a central register, the small city state of Bremen being an example.<sup>27</sup>

As indicated by the responses from West Berlin and Lower Saxony, the establishment of the AZR suffered not only from a lack of political willingness, but also from limited state capacity. At a time when databases were still paper-based and consisted of handwritten or typed index cards, merging all the *Länder* registers into a central register at the federal level represented a major bureaucratic challenge, even in a highly bureaucratized state such as the FRG. From its beginning, the implementation of the AZR suffered from an insufficient infrastructure, and shortages in material resources and human workforce at both the *Länder* and federal levels of the state administration. The federal Register Authority lacked sufficient storage space to accommodate the data volume of the AZR until a new basement room was ready.<sup>28</sup> A new template card had to be designed that fitted into the card-index cabinets,<sup>29</sup> and the volume of paper data soon became too large to handle so that the Register Authority had to delete index cards rather than archiving them for five years.<sup>30</sup>

Neither was the AZR an efficient search tool. The existing *Länder* registers that made up the Central Register were typically organized by nationalities, with individual index cards displaying an individual’s nationality on an indent key at the top edge of the card. This way of organization was not fit for answering the local Foreigners Authorities’ standard requests regarding whether the register contained any intelligence suggesting to reject an application for a residence or work permit. In November and December 1953, the Register Authority therefore reorganized the AZR from nationality to alphabetical order.<sup>31</sup> During this time, the Register was out of order and unable to answer any information requests. However, alphabetical order created new challenges including the frequency of names and different spellings resulting in haphazardly different register speeds: while some requests were answered relatively swiftly, certain letter groups could still take up to three months in 1963 – 10 years after the AZR’s introduction.<sup>32</sup>

The AZR was under-staffed and under-funded in its early years. Twenty five civil servants were initially appointed to work for the Register Authority; however, 49 members of staff were actually working on it, which “completely exhausted” the staff capacity of the Federal Office of Administration, and despite reinforcement of the team, the working conditions for staff remained “entirely unsatisfactory.”<sup>33</sup> Even though the number of staff increased to about 80 in 1966, the Register Authority continued to experience “lengthy delays” in answering information requests, and struggled with a growing backlog.<sup>34</sup> The Interior Minister of NRW remarked in 1962 that it was “unacceptable” that a private towel company promptly received work permits for its employees after sending the required number of prepaid envelopes to return the documents, while others were kept waiting for months.<sup>35</sup>

These issues significantly delayed the build-up and hindered the functioning of the Central Foreigners Register. Initially envisaged as taking three months, the AZR was eventually considered “for the most part completed” after three years, in 1956.<sup>36</sup> However, the archival records suggest that the register was actually still not complete even in 1970.<sup>37</sup> While the Register Authority struggled to manage the internal political and administrative challenges discussed above, they were also overwhelmed by an influx of external information and access requests by a range of public and private actors.

## 5.2. Attempts at appropriation: A national database in the global Cold War

Even though the AZR was not yet able to provide the hoped-for constant and “perfect surveillance” of migrants in Germany, the database effectively produced the fallacy of the perfect gaze, and its knowledge was sought from its inception. An internal evaluation exercise from 1957 showed that the number of information requests (*Auskunftsdienst*) had increased exponentially from 1,228 on average per week in 1955 to 10,674 in 1957, while the number of unprocessed update cards (*Veränderungsanzeigen*) from the local Foreigners Authorities had grown even more steeply, from 1,669 to 50,517.<sup>38</sup> As the Register Authority piled up a steadily growing backlog of unanswered requests, it was lagging even further behind in keeping the Register up to date. The archival records reveal that these information requests were not only being made by local Foreigners Authorities as routine checks before granting permits, but also by a number of foreign states and nonstate actors seeking to perform political, economic, and religious surveillance of migrants.

Foreign states requested data for various political reasons, such as to track emigrant “communists” they believed wished to approach the Iron Curtain by cutting through West Germany, or to empower citizens abroad in the emerging process of European integration. For example, the Brazilian embassy in 1953 sent a list of named “followers of the communist ideology,” requesting to monitor them and to notify the embassy of any border crossings by them “in the past or future.”<sup>39</sup> On the other hand, the Danish embassy requested information in order to enable their citizens living abroad to vote in the upcoming first direct European Parliament elections in 1979.<sup>40</sup>

Private companies and employers also contacted the AZR, to track foreign workers or to place targeted advertising for migrants as consumers of foreign products in the West German market society. In 1958, a Bavarian company asked for the current addresses of Yugoslavian, Italian, and Hungarian workers who had “moved away without notification” in order to facilitate the search for these runaway employees.<sup>41</sup> In 1979, a Colombian company requested details on Colombians in West Germany to “satisfy their needs and supply them with Colombian products they cannot easily get on the European markets,” and to “give them periodical information about social, cultural and political events of our country.”<sup>42</sup>

Religious leaders and institutions approached the AZR to improve the delivery and planning of pastoral care of Christian migrants. In 1960, the Chaplain for Slovenians in the Ruhr area asked for permission to access the register “solely for pastoral purposes, the addresses will never be politically or otherwise abused!”<sup>43</sup> Later, in 1979, the German Protestant Church requested the number of Hungarian residents by region in order to assess the need for pastor vacancies among this community.<sup>44</sup>

Such requests were not necessarily motivated by the existence of the AZR; indeed, one letter suggests that even professional lawyers working in the FRG did not know of the existence of such a register.<sup>45</sup> It is unclear how knowledge of the AZR’s existence spread, but the point is that the existence of a central database *nurtured the aspiration* of having a comprehensive overview of all foreign residents in the FRG. The AZR placed the Federal Interior Ministry in a position of power to share its knowledge selectively, by granting or rejecting information requests. Indeed, the responses from the Federal Interior Ministry to the above-mentioned requests varied. While the Brazilian quest for “communists” was promptly assisted and prioritized,<sup>46</sup> the Danish embassy’s voting registration request was rejected on grounds of “data protection.”<sup>47</sup> The Bavarian company searching for its runaway employees was told that the AZR does not provide data to private individuals<sup>48</sup>; however, the Colombian company’s marketing request was partially granted.<sup>49</sup> The two religiously motivated requests were both granted, since the data was “solely for pastoral purposes” and “data abuse is impossible,” the Ministry believed.<sup>50</sup> In this sense, the AZR both facilitated and hindered the potential political, commercial, and religious surveillance of migrants in West Germany, albeit inconsistently.

Indeed, the archival records indicate that the interior administration was internally divided over the intended purpose and priorities of the AZR. From the perspective of the federal security and intelligence services (BKA, BfV) the AZR should be expanded to include biometric data such as “ethnicity” and “fingerprints,” suggestions which the Federal Interior Ministry considered undesirable and “unenforceable” for “political reasons” in 1970.<sup>51</sup>

The federal government was more concerned with asserting its still relatively recently regained national sovereignty, and with confirming the superiority of the West in the global context of the Cold War, as one incident in a Kiel shipyard in 1961 demonstrated. A company there sought to hire specialist engineers to build a whaling factory ship, and the Schleswig Holstein *Land* wished to support one of the biggest local employers; however, civil

servants inside the Federal Interior Ministry were unwilling to clear these residence and work permit requests as they were afraid of “numerous Soviet engineers wandering around uncontrolled across the Republic,” and considered this case as a “Soviet test of the federal government’s assertiveness vis-à-vis a *Land* or large industrial company.”<sup>52</sup>

By contrast, the *Länder* governments’ main concern was that the AZR should become more efficient and faster, and they therefore suggested its automation. Long backlogs had led to frustration among migrants waiting to receive authorization, among employers waiting to hire migrant workers, among the foreign embassies they turned to for support, and among the local Foreigners Authorities waiting for clearance from the Register Authority before granting any permit. Bavaria criticized the register’s turnaround times of up to four months as “intolerable,” and pointed to the risk that many migrants would not stay and wait but may instead move away during that time.<sup>53</sup> Bavaria therefore recommended “switching the AZR to using electronic data processing machines” as early as 1963.<sup>54</sup> The use of computer technology to ensure faster, more efficient modes of governance was compatible with the self-image of the western modern state. In 1967, the AZR was eventually one of the first administrative registers in Germany to be automated (Mühlbauer 1995). The switch to electronic data processing was intended to speed up register activity, and to enable the Federal Interior Ministry to produce migration statistics for the whole country. Ironically, the technological reforms and their underlying belief in modernization ultimately inhibited the effectiveness of the database and produced further malfunctions.

### 5.3. Unintended side effects: Skewed statistics and inadvertent regularization

The archival records suggest that the AZR produced an inaccurate representation of migrants in Germany as it failed to accurately count and locate registered migrants. First, it was unable to deliver an accurate statistical *count* of the migrant population. As statistics in Germany were traditionally produced by statistical bureaus at the *Länder* level before 1934 and after 1949 (Desrosières 1998, p. 179), the invention of the Central Foreigners Register provided an opportunity to compile a statistical count of all migrant residents across the FRG for the first time. The switch to electronic data processing should enable migration statistics to be compiled at the federal level from 1967 onwards. However, the statistics produced by the AZR diverged from the *Länder* statistics as the AZR both lacked data and contained duplicate files (*Doppelmeldungen*) still in 1970,<sup>55</sup> so that the Federal Interior Minister reluctantly had to ask the *Länder* to continue to produce the migration statistics. One issue was that the AZR struggled with poor data quality. For example, the Register Authority complained about receiving faulty update cards that were not machine-readable because they had been completed “hastily and illegibly.”<sup>56</sup> They also received incomplete update cards with AZR numbers that the Register Authority had never “authorized,” and that were three digits short of the 12 digit AZR number, with the effect that the Register Authority could not identify these foreigners.<sup>57</sup> Another issue was a complete lack of data flow from some local authorities. Munich, for example, stopped sending update cards (*Veränderungsanzeigen*) entirely in 1972,<sup>58</sup> leading to a significant gap in the federal migration statistics as official reports had to provide an overall count of foreign residents in the FRG “without the city of Munich.”<sup>59</sup>

Second, the compromised register produced an inaccurate *map* of foreign residents across Germany. As the AZR was not kept up-to-date, it was unable to accurately locate and trace individual migrants and their movements and settlement in municipalities across the country. During a regular maintenance exercise, it emerged that the register still located migrants in municipalities where they no longer lived. For example, 121 Greek nationals who according to the AZR lived in the Bavarian town of Dachau had moved to Munich.<sup>60</sup> Since Munich had failed to request the files pertaining to these migrants from the Dachau Foreigners Authorities, and had also omitted to send update cards to the AZR, the Register Authority believed these Greek nationals to be in Dachau. This was not an isolated situation, as other authorities also notified the Register Authority about similar cases.<sup>61</sup>

The archival data shows that officials in the Federal Interior Administration were highly concerned about these issues. The Register Authority was acutely aware of the “corruption” of the AZR’s files, and its impact on the register’s monitoring function.<sup>62</sup> Officials warned that under these circumstances the AZR could “not ensure the correct surveillance of foreigners” (*die ordnungsgemäße Ausländerüberwachung nicht gewährleiste(n)*).<sup>63</sup> They knew that as long as the register was prone to providing false or no information, it facilitated the inadvertent legalization of irregular migrants. One such case was reported by the local Foreigner Authorities of Freiburg im

Breisgau, who had granted a residence permit to an Indian national in 1975 after their routine check with the AZR produced no information adverse to the application.<sup>64</sup> It later emerged that contrary to the application statement, the applicant had previously been living in Munich, but the Munich authorities had failed to notify the AZR. Regardless of whether this individual was granted a permit lawfully or not, this example highlighted the system's weakness: the effectiveness of the AZR database depended on the cooperation of the local Foreigners Authorities via a constant supply of data.

For the federal administration, the lack of data flow from Munich represented a major problem, and “significantly compromised the meaningfulness (*Aussagefähigkeit*) of the Register.”<sup>65</sup> This was particularly problematic because Munich was considered the main gateway to Germany for migrants from the South, counting the highest number of migrants among all West German cities, with an estimate of 225,000 foreign residents in the 1970s.<sup>66</sup> This inadvertent regularization profoundly shook the belief in the German approach to robust surveillance through a comprehensive central database which, contrary to the US system, for example, is built on the belief that inadvertent regularization is highly unlikely and therefore not normally an issue (Vogel 2001, p. 329).

The data flow between Munich and the AZR was inhibited for large parts of the 1970s, and it is unclear precisely when the data flow between Munich and the AZR was fully restored.<sup>67</sup> The archival records suggest that the reason why Munich first stopped sending updates was that, as the first local Foreigners Authority, Munich was preoccupied with switching its file system to electronic data processing, and this process took more time than expected. Ironically, the belief in modernization and technological progress at the local level impeded the overall effectiveness of the central register.

## 6. Discussion and conclusion: Similarities of database surveillance in the 1970s and today

This article has analyzed the construction and implementation of the German Central Foreigners Register (AZR), one of the first, and longest running, administrative databases on migrants in the western liberal world. It critically discussed existing conceptualizations of database surveillance as “superpanopticon” (Poster 1990, 1996) and “surveillant assemblage” (Haggerty & Ericson 2000) and identified three main factors of database effectiveness from the anthropological, historical and STS-inspired surveillance literature: shared expectations regarding data usages, cooperation in data supply, and capacities of data storage. By drawing on archival records from the period of the 1950s–1970s, the AZR provided the ideal case with which to test the core assumption in surveillance theories that databases enhance state surveillance.

I have argued that the AZR resembles the “superpanopticon” in its design and the “surveillant assemblage” in its practice, but neither concept fully describes both design and operation of database surveillance. At first sight, the analysis of the Register's *intended* functions suggested that the AZR is a classic example of a “superpanopticon”: a central register designed to identify and locate all migrants in West Germany, to enable specific searches for undesired migrants such as “communists,” and to produce a comprehensive statistical overview of the migrant population. However, as the analysis of the archival records revealed, the *implementation* of the AZR can be more meaningfully described as a “surveillant assemblage” or “rhizomatic surveillance” because its enactment involved multiple, decentral users and local sites that complicated the power hierarchy of the central surveillance state and the migrant surveillance objects. In this sense, the AZR is no exception to the general failure of public policy when a “gap” exists between policy intentions and outcomes (c.f. Pülzl & Treib 2006; Czaika & de Haas 2013).

What does “failure” mean in this context and how is it assessed? Database effectiveness or failure in this analysis was measured against the political ambitions and hopes, and implicitly also against the fears of some of its critics (Verband der Initiativgruppen in der Ausländerarbeit 1990). To be sure, the introduction of a central register certainly enhanced surveillance insofar as it centralized information and made it easier to access and use on a larger scale in terms of data volume and users. In this sense, the central AZR database offered a more effective tool for migration control and surveillance than the previous registers maintained at the *Länder* and local levels of government, and the German database approach may be more efficient compared to other countries with a less advanced surveillance infrastructure. The AZR may have functioned well from the perspective of migrants caught in the net of surveillance, while the administration's internal communication is likely to discuss problems from the perspective of state bureaucrats and only a fraction of ministerial files are being archived. However, the flaws

examined here were so repeated and persistent throughout the 1950s-1970s that it would be misleading to expect a database to function according to its blueprint. “Failure” in this qualitative analysis of archival records was ascertained not against a quantitative threshold but against the administration’s internal goals: during large parts of the 1950s to the 1970s, the AZR was an unfinished central database; its consultation delayed rather than accelerated the local administration of migrants’ residence permits, and it failed to provide comprehensive migration statistics at the federal level.

This suggests that in practice, databases do *not* necessarily enhance surveillance. If an out-of-date database may facilitate the inadvertent regularization of individual migrants, as this analysis of the AZR demonstrated, it can hardly be described as a “formidable tool” of state surveillance (Broeders 2007, 2011). Critical security and migration studies risk over-emphasizing the design and technology of databases, and need to focus more on their actual implementation and enforcement. The historical, anthropological and STS-inspired surveillance literature suggests that failure is an integral part of any large scale surveillance technology with many end-users. From this perspective, a database such as the AZR that is hosted in one central location in Cologne, but depends on the constant data feed of hundreds of local Foreigners Authorities and that is being consulted by over 14,000 agencies is predestined to malfunction. Moreover, technological progress may actually hinder the effectiveness of database surveillance as demonstrated by the case of the AZR; for example, the switch to electronic data processing in 1967 further compromised and slowed down the register. The present analysis confirms that the effectiveness of a database depends above all on shared expectations, administrative cooperation and state capacity.

What can we learn from this historical analysis of a specific national database about database surveillance more generally today? First, the German database had significant transnational ramifications. In creating the AZR, Germany pioneered the database approach to migration control in post-1945 Europe. It reportedly pushed for the establishment of EU migration databases during the 1990s (Broeders 2007, p. 82; 2011, p. 60). The AZR is likely to have served as a template for contemporary EU databases. Just as the legacy of sub-national registers facilitated the creation of the AZR, the existence of national databases paved the way for the introduction of more expansive supranational databases at the EU level. Understanding the creation of the AZR helps us to contextualize contemporary supranational surveillance policies and to comprehend one important element of their specific national legacies.

Second, there are striking similarities of migration monitoring in the past and present. In 2015, Germany became again a hub of people on the move with an estimated flow of one million refugees arriving from Syria, staying or moving on. Migrants’ entry, stay, and work are still subject to a highly regulated permit system in Germany and are being administered mainly by the local Foreigners Authorities. The AZR remains in use today and represents a relatively small database compared to the three major EU databases: Eurodac, schengen information system (SIS II), and visa information system (VIS) are now co-located in a bullet-proof building in Strasbourg and managed by a special agency called eu-LISA (European Agency for the operational management of large-scale IT systems in the area of freedom, security, and justice). A “European Search Portal” (ESP) is currently being set up to make these separate databases “interoperable,” that is, allowing enhanced search functions across all three of them to a range of actors, including Frontex. The ESP also has a “smart” sorting function: It is designed to facilitate the free movement of EU citizens and frequent travellers across Europe while identifying those considered a security threat. These supranational contemporary databases have reached a new level in data volume and quality such as biometric data. For example, compared to the AZR’s approximately 26 million records, VIS alone stored almost 65 million visa applications, some 64 million facial images, and roughly 57 million fingerprint sets at the end of 2018 (Badenhoop 2020).

The establishment of centralized databases at the EU level certainly enhanced migration monitoring insofar as it centralized an even larger data volume that is accessible to even more users. However, it would be misleading to think that enhanced databases enable perfect state control of migrants. Technology may be more advanced today but the effectiveness of database surveillance still depends on the same basic issues as in the 1970s: shared expectations, cooperation, and state capacity. This can be illustrated by three current examples.

First, consider the example from the article’s introduction, that EU Member States at the southern Schengen border may have little interest in taking fingerprints of asylum seekers as long as the Dublin Regulation requires asylum applications to be submitted in the Member State of first arrival without there being a system of redistributing the share of asylum seekers across the EU. Second, there are continuing issues in relation to the

functioning of the AZR such as problems with data access and flow arising from software difficulties and divergent migration statistics due to duplicates and out-of-date files (Pross 2017). Third, in 2015, Munich was again a central gateway for refugees arriving on the Balkan route and the German authorities were completely overwhelmed and incapable of registering all new arrivals. Despite comprehensive computerization and international connectivity of the European databases, data supply and data reliability continue to be the weak points of the system nowadays.

That being said, this article's analysis also revealed something that the migration literature has missed because of its normative focus on surveillance. Apart from exerting actual control, the database in general – and the AZR in particular – seems to fulfill the additional symbolic function of reasserting the sovereign agency of the modern state, both to internal and external audiences. From a political sociological perspective, the AZR may not have been a very efficient database, but it *was* highly effective in producing a certain self-image of (West) Germany as a “rationalized,” sovereign nation-state (Miller 1994, p. 4). The archival records show that public officials were highly anxious that the AZR *should be working*. In this sense, the database functions like a “ritual of verification” (Power 1999). Similar to auditing practices, the AZR is “aspirational rather than descriptive,” and “rarely functions according to official blueprint” (Power 1999, pp. 8–9). Rather, it provided a “framing” and a certain “style” of migration control from which the FRG “emerge[d] as [a] legitimate [...] efficient” state power (Power 1999, pp. 8–9) among the international league of western capitalist states in the post-1945 era.

Migration databases are created in the context of heightened security concerns. The AZR is an early example of a hybrid database combining existing national and juxtaposed international norms of migration control and surveillance. During the period of the 1950s–1970s there was little regulation in the global context of the Cold War. Given its geopolitical location, the (West) German Register was used to facilitate the international monitoring of “communists” approaching or crossing the Iron Curtain, as the Brazilian example demonstrated. The AZR provided a means of reassurance in times of international tensions, as it was created at the Western Allied Forces' request and soothed German public officials' anxieties about a “Soviet test” of West German self-assertion. Today, the storage and usage of personal data is more strictly regulated, for example by the EU General Data Protection Regulation enforced in 2018, and the number of users, operators, and suppliers of EU databases has multiplied. This article suggests that contemporary surveillance, security and migration scholars and policymakers could learn a lesson from the past. The German case shows that the database approach to migration control nurtures external expectations as well as self-expectations that the state should be able to monitor migrants. However, it remains highly questionable whether the state's ambition to grasp increasingly mobile populations can ever be achieved through databases as these are enacted by a variety of actors in multi-level governance systems producing complex sociotechnical relations.

The historical analysis of the construction and implementation of state monitoring techniques can contribute to a better understanding of contemporary surveillance practices by providing a more holistic comprehension of long-term processes of societal, political and bureaucratic transformation through the centralization and digitalization of population control. Shifting the focus of attention to the historical context allows us to critically examine the socio-technical construction of databases by particular actors and forces, in a particular place at a particular moment in time, rather than assuming them as new or given.

## Acknowledgments

This publication is part of a major comparative research project entitled “Seeing Illegal Immigrants: State Monitoring and Political Rationality” led by Professor Christina Boswell at the University of Edinburgh and funded by the UK Economic and Social Research Council (award no.: ES/N011171/1), 2016–2018. Earlier drafts of this article were presented at the Council for European Studies' annual conference 2017, University of Glasgow, and at the Catholic Academy's annual conference “Illegality” 2018, Berlin. For their very useful comments, I would like to thank the four anonymous reviewers, Christina Boswell, Emile Chabal, Sara Casella Colombeau, Derek Denman, Jennifer Elrick, Andrew Geddes, Carolyn Moser, Stefan Schlegel, Mike Slaven, Dita Vogel, and René Wolfsteller.

## Endnotes

- <sup>1</sup> “Das Bundesverwaltungsamt führt das Ausländerzentralregister, das der Erfassung von im Bundesgebiet wohnhaften Ausländern dient.” §6 des Gesetzes über die Errichtung eines Bundesverwaltungsamts, 28 December 1959 (cited in Verband der Initiativgruppen in der Ausländerarbeit 1990, p. 14).
- <sup>2</sup> Project reference: ES/N011171/1.
- <sup>3</sup> The restoration of regulations from the Nazi regime was possible because of the legal principle of the “continued applicability of pre-existing law” stipulated by article 123 (1) of the Basic Law, according to which “Law in force before the Bundestag first convenes shall remain in force insofar as it does not conflict with this Basic Law.” (translation by C. Tomuschat and D.P. Currie in: [https://www.gesetze-im-internet.de/englisch\\_gg/englisch\\_gg.html#p0748](https://www.gesetze-im-internet.de/englisch_gg/englisch_gg.html#p0748)) (see Dohse 1981, p. 140).
- <sup>4</sup> In 1959/1960, local work offices took over the enforcement of work permits (Huber & Unger 1982, p. 132).
- <sup>5</sup> “Der Aufenthalt im Reichsgebiet wird Ausländern erlaubt, die nach ihrer Persönlichkeit und dem Zweck ihres Aufenthalts im Reichsgebiet die Gewähr dafür bieten, dass sie der ihnen gewährten Gastfreundschaft würdig sind.” (§1 APVO).
- <sup>6</sup> “Ein Aufenthaltsverbot kann insbesondere gegen den Ausländer erlassen werden, a) dessen Verhalten geeignet ist, wichtige Belange des Reiches oder der Volksgemeinschaft zu gefährden; ...” (§5 (1) APVO).
- <sup>7</sup> B 106/47418. Presumably the original letter was written in English, but the copy of this letter viewed in the archive was a German translation. All translations from German sources into English in this article were made by the author, unless otherwise specified.
- <sup>8</sup> The Register Authority was previously the Bureau for Residence Permits (*Büro für Aufenthaltsgenehmigungen, BfA*) in charge between 1953 and 1955, followed by what became the Federal Administration Office, that is the *Bundesstelle für Verwaltungsangelegenheiten (BfV)*, from 1955 to 1959, and the *Bundesverwaltungsamt (BVA)* from 1959 onwards (Verband der Initiativgruppen in der Ausländerarbeit 1990, p. 4). In 2004, the Federal Office for Migration and Refugees (*Bundesamt für Migration und Flüchtlinge, BAMF*) became the official Register Authority, but the BVA remains in charge of technical maintenance.
- <sup>9</sup> Bundesministerium des Innern (BMI) to all Interior Ministers and Senators of the Länder, 28 July 1953, B 106/47418.
- <sup>10</sup> “Die Ausländerkartei ist so zu führen, daß sie jederzeit über die sich im Kreise aufhaltenden bzw. über die zu- und abwandernden Ausländer eine einwandfreie Übersicht bietet.“ (Innenminister NRW 29.2.1952 Anordnung zur Durchführung der APVO an alle Polizeibehörden p.5, B 106/47418).
- <sup>11</sup> BfA to BMI, 18 March 1954 (B 106/47419).
- <sup>12</sup> BMI to all Interior Ministers and Senators of the Länder, 25 July 1953 (B 106/47418).
- <sup>13</sup> BMI to all Interior Ministers and Senators of the Länder, 25 July 1953 (B 106/47418).
- <sup>14</sup> BMI internal communication, 2 December 1953 (B 106/47418).
- <sup>15</sup> BMI to Hesse Interior Minister, 7 February 1954 (B 106/47418).
- <sup>16</sup> Circular decree (RdErl) 502-524-03/I-21422/54 of 27 August 1954 (B 106/47418). This folder contains only the responses, not the original decree.
- <sup>17</sup> BMI Referat IV A 2 to Referat I B 3, 18 January 1955 (B 106/47418).
- <sup>18</sup> Protocol of the meeting of the Heads of Tax Divisions of the Länder, 1 and 2 June 1954 in Bonn (B 106/47418).
- <sup>19</sup> Die Vereinten Nationen Amt des Hohen Flüchtlingskommissars Bonner Zweigstelle an Bundesminister für Vertriebene (Übersetzung), 16 October 1951 (B 106/53340).
- <sup>20</sup> BMI Referat I B 3 to Referat I C 6: “Die Auszählung des Ausländerzentralregisters bietet die einzige Möglichkeit, die Ausländer im Bundesgebiet zuverlässig statistisch zu erfassen.” 24 August 1956 (B 106/53340).
- <sup>21</sup> BMI to SBA, 1 September 1955 (B 106/53340).
- <sup>22</sup> NRW Interior Minister to BMI, 7 November 1952 (B 106/47418).
- <sup>23</sup> NRW Interior Minister to BMI, 7 November 1952 (B 106/47418); NRW IM to BMI, 8 January 1953; NRW IM to BMI, 6 March 1953 (B 106/47418).
- <sup>24</sup> NRW Interior Minister to Hesse Interior Minister, 7 August 1953 (B 106/47418).
- <sup>25</sup> Berlin Interior Senator to BMI, 3 October 1953 (B 106/47418).
- <sup>26</sup> Lower Saxon Interior Minister to BMI, 28 September 1953 (B 106/47418).
- <sup>27</sup> Bremen Interior Senator to BMI, 10 August 1953 (B 106/47418).
- <sup>28</sup> BfA to BMI on 5 November 1952 (B 106/47418).

- <sup>29</sup> BfA to BMI on 5 November 1952 (B 106/47418).
- <sup>30</sup> BMI Referat Z 6 to Referat I B 3, 2 November 1962 (B 106/60286).
- <sup>31</sup> BfA to BMI, 29 January 1954 (B 106/47418).
- <sup>32</sup> BMI to BVA, 12 July 1963 (B 106/60286).
- <sup>33</sup> BMI Organisationsreferat Z 6 to Referat I B 3, 12 June 1962 (B 106/60286).
- <sup>34</sup> BMI to BVA and Statistisches Bundesamt (SBA), 18 August 1966 (B 106/53340).
- <sup>35</sup> NRW Interior Minister to BMI, 21 May 1962 (B106/60286).
- <sup>36</sup> In the letter of 28 July 1953 analyzed above, the BMI had asked to receive the *Länder* registers within three months (B 106/47418). On 6 July 1956 they considered the Register “for the most part completed” (B 106/53340).
- <sup>37</sup> SBA to BMI, 24 March 1970 (B 106/53340).
- <sup>38</sup> BfV Geschäftslage beim Ausländerzentralregister (ohne Reisendenkartei und Vormerkliste), Anlage zum Bericht vom 23.9.1957 (B 106/47418).
- <sup>39</sup> AA to BMI, 14 November 1953 (B 106/47418).
- <sup>40</sup> Danish Embassy to AA, 1 August 1977 (B 106/69002).
- <sup>41</sup> HR to AA and BMAS, 15 November 1958 (B 106/47418).
- <sup>42</sup> Turbo Europa Ltd. to BMI, 6 March 1979 (B 106/69002).
- <sup>43</sup> Seelsorger der Slovenen im Ruhrgebiet to BMI, 15 March 1960 (B 106/47418).
- <sup>44</sup> Evangelische Kirche Deutschland Kirchenkanzlei to BVA, 6 September 1979 (B 106/69002).
- <sup>45</sup> Hamburger Rechtsanwälte to AA, 19 August 1959 (B 106/47418).
- <sup>46</sup> BMI to AA, 22 December 1953 (B 106/47418).
- <sup>47</sup> BMI to AA, 19 August 1977 (B 106/69002).
- <sup>48</sup> BMI to H.R., 2 December 1958 (B 106/47418).
- <sup>49</sup> BMI to Turbo Europa, 26 March 1979 (B 106/69002).
- <sup>50</sup> BMI to Interior Minister of North Rhine Westphalia, 19 March 1960 (B 106/47418); handwritten note dated 18 September attached to letter by Protestant Church (B 106/69002).
- <sup>51</sup> BMI Z I 6 Vermerk, 2 June 1970 (B 106/45881). Nowadays, the AZR includes biometric data such as photographs and fingerprints, as well as voluntary information on religion.
- <sup>52</sup> BMI internal note, 8 November 1961 (B 106/60286).
- <sup>53</sup> Bavarian Interior Ministry to BMI, 23 April 1963 (B 106/60286).
- <sup>54</sup> Bavarian Interior Ministry to BMI, 23 April 1963 (B 106/60286).
- <sup>55</sup> SBA to BMI, 24 March 1970 (B 106/53340).
- <sup>56</sup> BVA to BMI, 23 February 1973 (B 106/69002).
- <sup>57</sup> BVA to BMI, 23 February 1973 (B 106/69002).
- <sup>58</sup> BVA to BMI, 31 January 1973 (B 106/69002).
- <sup>59</sup> Gesamtzahl der Ausländer in der Bundesrepublik Deutschland, 15 January 1975 (B 106/53340).
- <sup>60</sup> Landratsamt Dachau to Government of Oberbayern, 17 December 1973 (B 106/69002).
- <sup>61</sup> BVA to BMI, 16 January 1974 (B 106/69002).
- <sup>62</sup> BVA to BMI, 16 January 1974 (B 106/69002).
- <sup>63</sup> BVA to Ausländeramt München, 9 February 1976 (B 106/69002).
- <sup>64</sup> Stadt Freiburg im Breisgau Amt für Öffentliche Ordnung- und Polizeibehörde an BVA, 4 November 1975 (B 106/69002).
- <sup>65</sup> BMI to Bavarian Interior Ministry, 19 March 1973 (B 106/69002).
- <sup>66</sup> BVA to BMI, 4 April 1976 (B 106/69002).
- <sup>67</sup> In 1978, only 70 percent of the data transfer was restored via magnetic tape (BVA to BMI, 9 September 1978 [B 106/69002]).

## References

- About I, Brown J, Lonergan G (2013) Introduction. In: About I, Brown J, Lonergan G (eds) *Identification and Registration Practices in Transnational Perspective: People, Papers and Practices*, pp. 1–13. Palgrave Macmillan, Basingstoke.
- Ausländerpolizeiverordnung (APVO) originally from 1938, reinstated 1952.
- Ausländerzentralregistergesetz (AZRG), 1994.
- Bade KJ (1992) Einheimische Ausländer: “Gastarbeiter” – Dauergäste – Einwanderer. In: Bade KJ (ed) *Deutsche im Ausland, Fremde in Deutschland: Migration in Geschichte und Gegenwart*, pp. 393–401. C.H. Beck, München.
- Badenhoop E (2020) Contextualising Frontex: A Long-Term Perspective on Database Monitoring of Migrants. *VerfassungsBlog*, 4 Feb. [Last accessed 3 Oct 2020.] Available from URL: <https://doi.org/10.17176/20200204-225813-0>; <https://verfassungsblog.de/contextualising-frontex-a-long-term-perspective-on-database-monitoring-of-migrants/>
- Bosson R (2018) *Intelligente Grenzen und interoperable Datenbanken für die innere Sicherheit der EU*. SWP-Studie 2018/S 04. Stiftung Wissenschaft und Politik, Berlin.
- Boswell C, Badenhoop E (2020) “What Isn’t in the Files, Isn’t in the World”: Understanding State Ignorance of Irregular Migration in Germany and the United Kingdom. *Governance*, 1–18. <https://doi.org/10.1111/gove.12499>.
- Broeders D (2007) The New Digital Borders of Europe: EU Databases and the Surveillance of Irregular Migrants. *International Sociology* 22(1), 71–92.
- Broeders D (2011) A European “Border” Surveillance System under Construction. In: Dijstelbloem H, Meijer A (eds) *Migration and the New Technological Borders of Europe*, pp. 40–67. Palgrave Macmillan, London.
- Bundesverwaltungsamt. n.d. *Ausländerzentralregister*. [Last accessed 28 Sept 2019.] Available from URL: [https://www.bva.bund.de/DE/Das-BVA/Aufgaben/A/Auslaenderzentralregister/azr\\_node.html](https://www.bva.bund.de/DE/Das-BVA/Aufgaben/A/Auslaenderzentralregister/azr_node.html)
- Caplan J (2013) “Ausweis Bitte!” Identity and Identification in Nazi Germany. In: About I, Brown J, Lonergan G (eds) *Identification and Registration Practices in Transnational Perspective: People, Papers and Practices*, pp. 224–242. Palgrave Macmillan, Basingstoke.
- Caplan J, Torpey J (2001) Introduction. In: Caplan J, Torpey J (eds) *Documenting Individual Identity: The Development of State Practices in the Modern World*, pp. 1–12. Princeton University Press, Princeton, NJ.
- Czaika M, de Haas H (2013) The Effectiveness of Immigration Policies. *Population and Development Review* 39(3), 487–508.
- Deleuze G, Guattari F (1987). *A Thousand Plateaus. Capitalism and Schizophrenia*. Minneapolis: University of Minnesota Press.
- Desrosières A (1998) *The Politics of Large Numbers: A History of Statistical Reasoning*. Harvard University Press, London.
- Dohse K (1981) *Ausländische Arbeiter und Bürgerlicher Staat: Genese und Funktion von Staatlicher Ausländerpolitik und Ausländerrecht: Vom Kaiserreich bis zur Bundesrepublik Deutschland*. Hain, Königstein.
- Dubbeld L (2006) Telemonitoring of Cardiac Patients: User-Centred Research as Input for Surveillance Theories. In: Lyon D (ed) *Theorizing Surveillance: The Panopticon and Beyond*, pp. 182–205. Willan Publishing, Cullompton.
- Foucault M (1995) *Discipline and Punish: The Birth of the Prison*. Vintage Books, New York.
- Glouftsiou G, Scheel S (2020) An Inquiry into the Digitisation of Border and Migration Management: Performativity, Contestation and Heterogeneous Engineering. *Third World Quarterly*, 1–18. <https://doi.org/10.1080/01436597.2020.1807929>.
- Gesetz über das Paßwesen, 1952.
- Gesetz über die Errichtung eines Bundesverwaltungsamts, 1959.
- Haggerty KD (2006) Tear down the Walls: On Demolishing the Panopticon. In: Lyon D (ed) *Theorizing Surveillance: The Panopticon and Beyond*, pp. 23–45. Willan Publishing, Cullompton.
- Haggerty KD, Ericson RV (2000) The Surveillant Assemblage. *British Journal of Sociology* 51(4), 605–622.
- Heyder U (1994) Zum Gesetz über das Ausländerzentralregister. *Zeitschrift für Ausländerrecht und Ausländerpolitik* 4, 153–157.
- Higgs E (2004) *The Information State in England. The Central Collection of Information on Citizens Since 1500*. Palgrave Macmillan, Basingstoke.
- Huber B, Unger K (1982) Politische und rechtliche Determinanten der Ausländerbeschäftigung in der Bundesrepublik Deutschland. In: Hoffmann-Nowotny HJ, Hondrich KO (eds) *Ausländer in der Bundesrepublik Deutschland und in der Schweiz: Segregation und Integration; eine vergleichende Untersuchung*, pp. 124–194. Campus, Frankfurt.
- Los M (2006) Looking into the Future: Surveillance, Globalization and the Totalitarian Potential. In: Lyon D (ed) *Theorizing Surveillance: The Panopticon and Beyond*, pp. 69–94. Willan Publishing, Cullompton.
- Lyon D (1993) An Electronic Panopticon? A Sociological Critique of Surveillance Theory. *The Sociological Review* 41(4), 653–678.
- Lyon D (2001) *Surveillance Society: Monitoring Everyday Life*. Open University Press, Buckingham.
- Lyon D, Bennett CJ (2008) Playing the ID Card. Understanding the Significance of Identity Card Systems. In: Bennett CJ, Lyon D (eds) *Playing the Identity Card: Surveillance, Security and Identification in Global Perspective*, pp. 3–21. Routledge, Abingdon.
- Miller P (1994) Accounting as Social and Institutional Practice: An Introduction. In: Hopwood AG, Miller P (eds) *Accounting as Social and Institutional Practice*, pp. 1–39. Cambridge University Press, Cambridge.
- Mühlbauer H (1995) *Kontinuitäten und Brüche in der Entwicklung des deutschen Einwohnermeldewesens: Historisch-juristische Untersuchung am Beispiel Berlins*. Lang, Frankfurt.
- Orlikowski WJ, Gash DC (1994) Technological Frames: Making Sense of Information Technology in Organizations. *ACM Transactions on Information Systems* 12(2), 174–207.
- Poster M (1990) *The Mode of Information: Post-Structuralism and Social Context*. University of Chicago Press, Chicago, IL.
- Poster M (1996) *The Second Media Age*. Polity Press, Cambridge.
- Power M (1999) *The Audit Society. Rituals of Verification*. Oxford University Press, Oxford.

- Pross J (2017) Ausländerzentralregister: Leben Wirklich Zehn Millionen Ausländer in Deutschland? *Mediendienst Integration*, 19 Jul. [Last accessed 28 Sept 2019.] Available from URL: <http://mediendienst-integration.de/artikel/statistik-auslaenderzentralregister-wie-viele-auslaender-leben-in-deutschland.html>
- Pülzl H, Treib O (2006) Implementing Public Policy. In: Fischer F, Miller GJ, Sidney MS (eds) *Handbook of Public Policy Analysis. Theory, Politics, and Methods*, pp. 89–108. Routledge, London.
- Scott J (1998) *Seeing like a State: How Certain Schemes to Improve the Human Condition Have Failed*. Yale University Press, New Haven, CT.
- Scheel S, Ruppert E, Ustek-Spilda F (2019) Enacting Migration through Data Practices. *Environment and Planning D: Society and Space* 37(4), 579–588.
- Smith GJD (2012) Surveillance work(ers). In: Ball K, Haggerty KD, Lyon D (eds) *Routledge Handbook of Surveillance Studies*, pp. 107–116. Routledge, London.
- Sontowski S (2018) Speed, Timing and Duration: Contested Temporalities, Techno-Political Controversies and the Emergence of the EU's Smart Border. *Journal of Ethnic and Migration Studies* 44(16), 2730–2746.
- Steinert JD (1992) Drehscheibe Westdeutschland: Wanderungspolitik im Nachkriegsjahrzehnt. In: Bade KJ (ed) *Deutsche im Ausland, Fremde in Deutschland: Migration in Geschichte und Gegenwart*, pp. 386–392. C.H. Beck, München.
- Torpey J (2000) *The Invention of the Passport: Surveillance, Citizenship and the State*. Cambridge University Press, Cambridge.
- Trauner F (2016) Asylum Policy: The EU's "Crises" and the Looming Policy Regime Failure. *Journal of European Integration* 38(3), 311–325.
- Verordnung über ausländische Arbeitnehmer (AuslVO) originally from 1933, reinstated 1951.
- VIA (Verband der Initiativgruppen in der Ausländerarbeit) (1990) *Verdatung von Ausländern: Ausländerzentralregister, Schengener Abkommen, Ausländergesetz*. VIA, Bonn.
- Vogel D (2001) Identifying Unauthorized Foreign Workers in the German Labour Market. In: Caplan J, Torpey J (eds) *Documenting Individual Identity: The Development of State Practices in the Modern World*, pp. 328–344. Princeton University Press, Princeton, NJ.