

# Introduction



Statistics: 1. the science of the natural and political constitution of a state; 2. a book in which this science is taught.

—Johann Christoph Adelung, *Grammatisch-kritisches Wörterbuch der Hochdeutschen Mundart* (Leipzig, 1801), 4:304.

About statistics as an independent science there abound the most diverse opinions; indeed, there are quite a few, who utterly deny any scientific character of it. The confusion is limitless, it encompasses even the basic notions on which the scientific status of (statistics) is built. There is disagreement about the field, disagreement about the task and disagreement about the method of statistics.

—Joseph Hain, *Handbuch der Statistik des Österreichischen Kaiserstaates* Part 1., Vol. 1 (Vienna: Tendler & Compagnie, 1852), 1.

The integration of heterogeneous territories and populations posed a major challenge to modern European state formation. The process required measuring, delimiting, and exploring these territories and controlling them by means of administrative, legal, and educational structures. All over the world, the state had many facets: it was both an organization of control and a resource to mobilize manpower and finance. At the same time, the state was also “an idea,” an expression of an aspiration for territorial sovereignty, whether in the name of a supreme ruler, territorial elites, or the people.<sup>1</sup> The organization and the idea of the modern state was based on empirical knowledge about space: its geographic and topographic characteristics, boundaries, population, natural resources, economic production, educational and welfare institutions, and the legal and administrative system. Knowledge about these diverse realms constituted the domain of an academic discipline that emerged in the early eighteenth-century German universities. Its name was *Statistik* or *Staatenkunde*, which translates into English as “statistics.” However, eighteenth-century German academic statistics differed from our understanding of statistics, which is based on large, mostly numerical data sets. It was also different from the mathematical

forerunners of modern statistics, developing in England under the name of political arithmetic or probability calculus. *Statistik* was a comparative and encyclopedic science of individual states; it provided standardized descriptions of their territories, governments, populations, economies, and administration. The descriptions were published in a book format, and by bringing the material together, it was possible to study the structural similarities between different states. It was the transformation of this discipline in the first half of the nineteenth century and its amalgamation with other knowledge fields—such as political arithmetic, probability calculus, and various forms of bureaucratic knowledge—which led to establishment of statistics as an administrative science, also used today.<sup>2</sup>

This book traces the transformation of this descriptive or academic statistics following its introduction as a university discipline in Habsburg legal education in the 1770s until major disciplinary changes and its ensuing eclipse in the 1880s.<sup>3</sup> It starts from the observation that practices of statistics were not confined to academia but were subsequently published in various institutional and social contexts throughout the lands of the monarchy. While research on the history of modern statistics has focused on its origins and theoretical anchorage in German academia and its radical transformation after the Napoleonic Wars into a numerical administrative science, my book has been triggered by a different story. The evidence suggests that the encyclopedic science of the state had a much longer life in the Habsburg lands, until the 1880s. Given that the discipline was supposedly theoretically defunct by the mid-nineteenth century, what explains its longevity in the Habsburg monarchy? The book claims that state descriptions did not simply convey public data about the state but made the Habsburg composite state legible to a broad audience by making its diverse regions comparable and commensurable. State descriptions helped their readers think about the space of the monarchy not only as a juxtaposition of territories but as a corresponding, contiguous space. Studying the history of statistics as a scholarly practice allows insight into contemporary ideas of Habsburg statehood.

The history of descriptive or academic statistics has so far been studied predominantly as an introductory chapter of administrative statistics and political economy, or the history of how nationalist movements used statistical data to justify their claims to specific territories in the nineteenth century.<sup>4</sup> But given the uninterrupted use of this discipline as a knowledge practice by the broader scholarly public of the Habsburg monarchy for nearly a century, this book focuses on the idea as well as the practical and conceptual knowledge of the state that it conveyed to its readers. What were the characteristics of this knowledge? How did statistics represent the composite Habsburg state? Who were its practitioners? Where and how were descriptive statistical books written? What kind of information did

they gather and create, and what were their scientific and political premises? Did the knowledge delivered by state descriptions contribute to the integration of the Habsburg territories?

The book consequently focuses on the historical analysis of practices of statistics as an academic discipline, a descriptive science of the state in the Habsburg monarchy. Its form was different from later administrative statistics, collected by governmental offices and the statistical bureaus from 1800 onward. Contemporaries referred to both practices as *Statistik*, and in order to prevent misunderstandings, the book will translate its early scholarly form as academic or descriptive statistics, while the other form will be called administrative statistics. Descriptive statistics defined the state by means of both quantifiable parameters and qualitative descriptions, comprising definitions of political rule and its material and human resources; the central, local, and intermediate levels of administration and legislation; the social and economic sphere; and geography. This state was led in an impersonal manner, based on empirical, verifiable, and rational methods of governance that, in theory, offered themselves to public scrutiny.<sup>5</sup>

This book inquires into the practical and scholarly factors that allowed descriptive statistics to thrive in the lands of the Habsburg monarchy before and after the creation of the Austrian statistical bureau in 1829. This parallel career of descriptive statistics and statistical bureaus deserves more attention: academic statistics was a field of public knowledge, while statistical offices set up in Europe in the first half of the century initially collected numerical and other kind of information solely for the internal use of the state bureaucracy. This book is therefore also an attempt at a more pluralistic view of the historiography of statistics.

As the following sections and chapters will show, the descriptions provided by academic statistics were not neutral—by documenting the strength and weaknesses of a state at a certain historical moment, the aim was to make governance more efficient. Its normative perspective made it into a tool for increasing the fiscal and military power of the state, yet we still know little about the uses of this tool in the Habsburg lands. The book consequently seeks to contribute to the cultural history of modern Habsburg state formation, the irregular structure of which has continued to intrigue historians up to the present day.<sup>6</sup>

The book's thesis is that descriptions of the Habsburg state contributed to a shared epistemology of statehood while enabling the public articulation of various and even conflicting views on administrative and political facts, from the relative population density of various regions to their economic strength, from the tasks and legitimacy of the central government to the power of regional elites, and from the qualitative and quantitative characteristics of the "nations" inhabiting the regions of the monarchy to

the topography of these spaces. This shared epistemology contributed to a vision of the composite state as a united legal space with comparable and compatible administrative units. This state was, of course, an empirical construct, framed by a common classificatory scheme at the basis of state descriptions.<sup>7</sup> The unitary vision of descriptive statistics helped its readers navigate a world that until the institutionalization of the liberal legal order in the Austro-Hungarian dual monarchy in 1867 and even beyond was determined by enormous social and legal diversity.

My book thus inquires into the functioning, relevance, and production of descriptive statistics as an intellectual toolkit of the composite Habsburg state in the period following the educational reforms of Empress Maria Theresa (1717–1780) and her son, Joseph II (1741–1790). It claims that statistics had this potential since its empirical definition of the state was comprehensible to the broader public in all the lands of the monarchy. The book charts its production and lifetime as well as its use in various institutional and geographic contexts well into the second half of the nineteenth century on both sides of the Leitha river and in a comparative European context. The following two sections of the introduction address the two main historiographical traditions to which descriptive statistics belongs: the sciences of the state and administrative statistics. It also indicates the double ties of early statistics to scholarship and science on the one hand and to administrative practice on the other. The third section engages with the history of modern state-building and approaches to the nature of the Habsburg composite state in the European and global context.

By the end of the eighteenth century, the emerging bureaucratic state was chipping away at the autonomies of traditional provincial self-governments. State descriptions recorded this transformation and were used as the basis for further political reforms. We have a general notion about the ethos and educational background of Habsburg state bureaucrats, about their approximate concepts of the state, and this book contributes to a more detailed assessment of their empirical knowledge of the complex topic of the state.<sup>8</sup> Since a large part of descriptive statistics served the education of future public officials, while another significant body of state descriptions was penned by them while in office,<sup>9</sup> this book is also a contribution to a deeper understanding of their intellectual horizons and political subjectivities.

### **From Universities to Reading Societies: Spaces of Descriptive Statistical Knowledge**

The university discipline of statistics generated knowledge about the state as a historical and empirical phenomenon. Together with other disciplines,

it was part of the novel German sciences of the state that sought to inform modern administrative policies with regard to the specific sociolegal order, governance, and historical development of various different polities.<sup>10</sup> The other disciplines that were to provide “methodical” and “empirical” knowledge about the science of ruling included natural law, cameralist political economy, state prudence (*Staatsklugheit*), the study of administration (*Policiey*), state law, and the history of particular states.

Gottfried Achenwall (1719–1772), professor at the University of Göttingen, established statistics as an empirical science of the state.<sup>11</sup> His textbooks served as the methodological basis for the Habsburg legal curriculum until the 1830s. Similar to the German states, the sciences of the state were introduced into the legal training of Habsburg universities by the reformed university curriculum (1752–1754) initiated during the reign of Maria Theresa. This was the time when legal training became a prerequisite for entry to public service.<sup>12</sup> The curriculum assigned five professors to the law faculty at the University of Vienna, of which two chairs were dedicated to the sciences of the state, including statistics. The first course in statistics at the University of Vienna was established by Joseph Aloys von Leporini in 1768/69.<sup>13</sup>

Academic statistics was rooted in the Enlightenment philosophy of improvement, but it also absorbed earlier reason of state literature together with newer teachings such as those conveyed by the treatise *Anti-Machiavel* by the Prussian king Frederick II, according to which empirical knowledge about the strength and weaknesses of a state led to efficient administration and fostered the public good.<sup>14</sup> Its encyclopedic rendering of the material, social, and legal setup of a polity made it essential for the teaching of state law both in the Holy Roman Empire and the Habsburg monarchy. In the second half of the eighteenth century, statistical knowledge was not only part of the university curricula but also played an important role in the private education of Prussian and Austrian statesmen, including the future emperor Joseph II.<sup>15</sup>

Descriptive statistics was a university discipline that facilitated the comparative study of states with regard to their relative “strength.”<sup>16</sup> The latter was either material and quantifiable or immaterial and describable, comprising the virtues necessary for governing. The structure followed a predefined taxonomy. As the following chapters will show, behind the seemingly neutral enlisting, cataloging, and numerical or qualitative rendering of statistical facts—that is, empirically proven interpreted data—each author was discernible according to his scholarly and political affinities (in the period under scrutiny, statistics was pursued only by men). But the core of the practice consisted in the definition, collection, and empirical rendering of statistical facts. The authors of statistical handbooks and manuals were

often self-conscious about the precision of their descriptions and pondered about the reliability of their accounts, creating networks of communication and data exchange spanning across and even beyond the regions they described.<sup>17</sup>

The encyclopedic scope of descriptive statistics meant that it was not only a discipline but also a broader knowledge field that conveyed empirical information from a variety of university disciplines and other, extracurricular domains of scholarly knowledge. State law, the sciences of the state, geography, ethnography, and sociology claim it as part of their historical genealogies. German legal historical scholarship has long dealt with the contribution of academic statistics to the shaping of modern public law, while in Austria research on this topic has been much more recent.<sup>18</sup> The development of legal knowledge in the framework of academic statistics is not the subject of this monograph but rather the general empirical approach to the material constitution of statehood, as addressed by the sciences of the state and later modern administrative statistics. The disciplinary historiography locates it in the context of the German sciences of the state and the emergence of the reformed German universities of the eighteenth century: first Halle, then, later, Göttingen.<sup>19</sup> In both cases, it was the “governmentalization of the university” that contributed to the emancipation of the secular fields of knowledge, including cameralist economy, administrative and legal disciplines, the history of states and statistics.<sup>20</sup> The Austrian legal historian Martin Schennach argues that the career of descriptive statistics is inseparable from Habsburg state-building, manifested in the legal and administrative steps toward the integration of the lands of the composite monarchy that began with the reign of Maria Theresa in 1740.<sup>21</sup>

Studies on the overlap between descriptive statistics, geography, and topography indicate how important the representation of space as a closely bounded territory was for the shaping of the discipline in the last decades of the eighteenth century.<sup>22</sup> This is visible in the early theoretical works by the German gymnasium professor Anton Friedrich Büsching (1724–1793) and the Göttingen professors Johann Christoph Gatterer (1727–1799) and August Ludwig Schlözer (1735–1809), whose methods were later emulated in France, the Italian states, the Netherlands, Scandinavia, Russia, and the Habsburg universities (see also the statistical analysis of frequently quoted authors in chapter 2).<sup>23</sup> The emerging topographic-statistical offices in the German states and France of the late eighteenth to early nineteenth centuries also produced topographic descriptions of administrative territories (crownlands, districts, localities). The contemporary overlap between geography and descriptive statistics was so strong that, as chapter 3 will show, authors of statistical handbooks in the Habsburg territories regarded state descriptions and geography as mutually complementary fields.<sup>24</sup>

The institutionalization of descriptive statistics in the Habsburg provincial universities corresponded to the consolidation of the state bureaucracy as an institution independent of the church, the estate-based local administration, and the military. State descriptions were produced in all the Habsburg lands for students of law, many of them future bureaucrats, who also read them while in office. As the following chapters will show, creating knowledge about the state was not confined to higher education.

As well as the Habsburg universities in Vienna, Innsbruck, Lemberg, Pest, and Prague, and the Italian universities of Pavia and Padua, academic statistics was also taught in legal and professional academies, Protestant colleges, and Catholic lycées. From around the last decade of the eighteenth century, learned journals increasingly brought statistical information to a broader educated readership, and statistical-topographic gazetteers and handbooks were written by clerks, military, and administrative personnel and independent authors writing for the market. In the 1840s, as public debates about Habsburg political reforms were permitted, these works were used as repositories of factual knowledge about their scientific object, the state. A historical analysis of descriptive statistics reveals a social practice that transcended the realm of education and even the bureaus. This practice was characterized by different means of information-gathering and formats than its academic counterpart.

Complicating the analysis is the uneven dynamics of the lands of the composite monarchy, which by the mid-nineteenth century had produced a dual-state settlement, characterized by diverging strategies in political administration, nation-building, and economic integration. Statistics described the central, local, and intermediate levels of the administration; the social and geographic sphere; the rudiments of the legal system; and the economy. As state descriptions were usually completed by a single author and mostly about one particular province of the monarchy, the exception being select members of the university elite who wrote about the entire polity, these works were continually rewritten to register changes accumulated over time. As a result, the tedious data sets combine into historical sediments of publicly available knowledge about the composite state, the intellectual sources, variations, and geographic distribution of which provide valuable insights into how public servants and authors in diverse social contexts construed their state in comparison to what they wished to see in the period from the failed reforms of Emperor Joseph II to the creation of the Austro-Hungarian dualist state.

As a widely traveled bureaucrat, Vienna-born Joseph Rohrer (1769–1828) was in many ways a typical author of Habsburg descriptive statistics. Rohrer's family originated in Moravia. He attended Gymnasium in Innsbruck and then started a career in public administration in Vorarlberg

before transferring to Vienna in 1796 and later to Lemberg in Galicia in 1800.<sup>25</sup> Eight years later, he was teaching administrative science and statistics at the Lyceum, later University of Lemberg (in 1816), a position he held until his retirement in 1827.

Like many similar authors, Rohrer mostly published travel literature and ethnographic descriptions of various Austrian lands. However, he also wrote a statistical description of the entire monarchy, which he probably used when teaching his university course.<sup>26</sup> This latter publication was unusual, as the writing of all-encompassing works and not just about one province was the duty and privilege of the professoriate of the Viennese university and a few select members of the military, the topic of chapters 2 and 3. Rohrer's explanation of his own motives was also unusual for an academic in that he claimed to have personally visited all the provinces he described. Moreover, he appealed to patriotic love and appreciation, which was supposedly only able to grow out of precise knowledge of the fatherland.<sup>27</sup> The language of patriotic love was not typical to the academic treatises on statistics written by university professors but was more often to be found in the learned journals where Rohrer had frequently published.<sup>28</sup>

Indeed, descriptive statistics was practiced in variegated intellectual environments in all the Habsburg lands and provinces. Statistical handbooks of a particular province were mostly written by professors in higher education, teaching in the respective crownland but also by private and public administrators and interested intellectuals.<sup>29</sup> But they could be compiled in the private libraries of former military and administrative personnel, as well as the first public libraries of reading societies and aristocratic mentors, who helped the authors span networks of information exchange with administrative offices and members of the church. The spatial turn—which has explored the impact of social, geographic, topographic, and material dimensions of knowledge formation—offers a differentiated perspective on the effect of different geographic and social contexts on the practice of descriptive statistics<sup>30</sup> and has laid the foundation upon which the contribution of descriptive statistics to the epistemology of the state in the Habsburg spaces and places can be analyzed.<sup>31</sup> This approach helps differentiate the institutional and social contexts in which handbooks about the state were produced and allows us to inquire into the impact of these locales on knowledge production.

Historians of geography have been particularly active contributors to the spatial turn in the history of sciences, highlighting the epistemological shifts through cartographic explorations of the globe. They have contributed to our heightened sense of the impact of specific social and geographic configurations on the production of knowledge and its local character before it transformed into more universal and shared systems and norms of



information.<sup>32</sup> The spatial turn is also useful for establishing the central, territorial, and local scales of statistical knowledge production. The book therefore traces the biography of an Enlightenment academic discipline as a social practice in its various contexts, looking at its uses and its changing forms over time and space.

This study comparatively analyzes the production and use of descriptive statistics in various lands of the composite Habsburg monarchy. How did regionally and centrally placed authors perceive the state, including the size, political integration, and social composition of the regions? Was there any difference between professors of the discipline in Vienna and freelance practitioners in the provinces? In order to do justice to the heterogeneity of the Habsburg polity, the study selected representative case studies from four lands located in the three separate administrative regions of the monarchy, governed by distinct Court Chancelleries: Lower Austria, Styria, Hungary and Transylvania. The analysis took into consideration sites of higher education as well as locales of the broader scholarly public. The production of statistical knowledge in the provinces has been compared to similar activity in the metropolitan heart, Vienna, which hosted the central and most prestigious university of the monarchy.<sup>33</sup> However, the analysis did not take any hierarchy of the educational or administrative system for granted, but followed the production of theoretical knowledge and statistical information in various locales and its circulation and incorporation in the broader descriptive statistical literature. Chapters 2 and 3 deal with this question in more detail.

The book does not explicitly address the Czech lands, Galicia and Bucovina, or the Italian regions. The reasons are partly practical: similarly detailed microstudies and comparative analyses as those conducted in the selected places of knowledge production would have required an additional decade of work to the one invested in the study so far. More important is another argument of a theoretical kind: my considerations about the theory and methods of descriptive statistics, inspired by the excellent work of Silvana Patriarca on Italy and the analyses of Morgane Labbè on the epistemology of descriptive statistics in relation to maps, are considered as being valid for all the Habsburg lands.

The difference between statistics written by university professors and nonacademics was not only one of emotions. Authors from the latter sphere, especially after the loosening of censorship or in works published abroad, were also more vocal about their political opinions, as the case studies presented in chapter 4 will show. Further significant differences had to be reckoned with when investigating patronage and local enthusiasm for statistics in the well-integrated, economically well-off Austrian crownlands and the much more aloof and economically lesser developed regions, like

the Hungarian kingdom, tax-exempt until 1848, and Transylvania. Even in the latter two cases significant differences could be registered in the first half of the nineteenth century, based on language and the position of the authors in the educational, administrative, and military system. These differences in the regional practices are significant and certainly merit further comparative research in the Czech lands, Galicia, the Italian regions, and Dalmatia.

My goal is to demonstrate that by adopting the language and facts of statistics, even the most context-specific political claims came to be legitimated by reference to statistical facts by the mid-nineteenth century, regardless of the political field they targeted and from which crownland or kingdom they emerged. This is also the core argument of chapter 4, which focuses on specific political disputes between Austrian and Hungarian experts and statesmen from the 1840s to the 1850s. Underlying these debates was a general classificatory structure and statistical data that shaped the gaze of the practitioners. The finer regional adaptations of the theoretical basis of descriptive statistics can be tested in further regional and local studies, and the hope exists that the book will generate more research on these matters.

### **Descriptive versus Administrative Statistics**

According to the classical narrative, encyclopedic state descriptions were the forerunner of modern quantitative statistics. The Napoleonic Wars and the rise of modern quantitative statistics in the practice of statistical bureaus, the first of which was founded in France in 1800, exposed the epistemological and methodological shortcomings of the encyclopedic method and allegedly ushered in the decline of the discipline. Accordingly, it was modern numerical administrative statistics, connected with the historical development of the modern state bureaucracy and its administrative routines, that marked the onset of the “statistical age” in the late eighteenth and early nineteenth centuries.<sup>34</sup> The latter has been associated with large numbers, population surveys, and cartographic measurements serving policy planning and state intervention.<sup>35</sup> There has been a great deal of research into the scientific underpinnings of this process and on the role of governmental and independent agents in shaping the statistical vision of the state. The rediscovery of the topic in science studies led to a more nuanced understanding of the loci and modalities of data management as well as the social, institutional, and material embeddedness of these processes.<sup>36</sup>

Most statistical histories begin with the early to mid-nineteenth century, when numerical information became institutionalized as an increas-

ingly standardized administrative tool across the world. Considerably less research has turned to the earlier periods, which the historiography of modern administrative statistics labels the “proto-statistical” era. Acknowledging the diverse epistemological origins of modern administrative statistics, the literature distinguishes between the “data”-driven activities of public administration and academic statistics ostensibly operating without numerical data but registering the particularities of premodern societies. While the former has increasingly been valued as scientifically progressive, the earlier descriptive statistics has come to be interpreted as the outdated expression of conservative provincial elites, pitched against the modern managerial functions of administrative centers.<sup>37</sup> The only exception to this dichotomic view of statistics is found in the work of cultural historians, which has demonstrated how the mid-nineteenth-century movements for national unification in Italy and Germany employed state descriptions in public debates on politics and the economy.<sup>38</sup> These studies demonstrated the capacity of descriptive statistics to map, compare, and unite on paper territories populated by the same linguistic constituency but separated by contemporary political borders.

The dichotomic perspective on progressive/numerical and conservative/descriptive statistics resulted from a bias toward the history of big data. In this respect, another discipline of the sciences of the state, cameralism, has received a more sophisticated treatment.<sup>39</sup> Descriptive statistics in contrast has increasingly appeared as having little practical relevance and even less to say about a world increasingly dominated by numbers.<sup>40</sup> In the eyes of later historians, its alleged fixation on the individual and particularistic character of premodern society made it epistemologically unfit to play a role in the emergence and theoretical foundation of modern statistical practices around 1800. There has thus been a growing disconnect between the image of administrative statistics as a relevant state tool and that of descriptive statistics as an increasingly conservative and useless pursuit. The common intellectual, disciplinary, and political roots of the academic and the administrative fields, which was still prominent ten to fifteen years ago, have more recently tended to fade into the academic unconscious.<sup>41</sup>

The historiographical traditions of descriptive and administrative statistics overlap in what they perceive as the early nineteenth-century decline of the former as an encyclopedic form of knowledge about the state and its replacement by modern numerical administrative statistics. This narrative tells the history of an academic discipline that had its origins in the seventeenth-century Italian city states, matured in the German Enlightenment academic circles of the eighteenth century into an early “statistics without numbers,” and entered a crisis with the ascent of modern natural

sciences and large numbers.<sup>42</sup> Numerical data entered the discipline thanks to the adaptation of political arithmetic, that is, figures expressing natality, mortality, and the ratio of marriages.<sup>43</sup> State descriptions also adopted the ratio calculus between approximations of the territorial extent of the state and the number of inhabitants, an early calculation of population density.<sup>44</sup> By 1807, the statistical handbooks were using tabulated data.<sup>45</sup>

According to the established historical narrative, the Napoleonic Wars ushered in a time of crisis and transformation. This is when the first theoretical reflections on the quality of data in descriptive statistics became articulated around 1800. The Göttingen university professor August Ludwig Schlözer, probably the best-known contemporary representative of the academic discipline, pondered the risks of producing insufficient, inaccurate, unreliable, irrelevant, and even false statistical knowledge by relying on unverifiable administrative sources or on data obtained via questionnaires.<sup>46</sup> But Schlözer is also valued for his deeper political and practical insights. He saw the publication of empirical information about the state as an important means for improving administrative policies and highlighted the use of statistical knowledge in political counseling. The importance of this insight will be discussed in chapter 4, on the use of state descriptions in the political debates of the 1840s and 1850s. Schlözer also played an important role in the journey of descriptive statistics across the North Sea to Scotland, even if more recent research has relativized his centrality in comparison to his Göttingen peers, particularly Johann Christoph Gatterer.<sup>47</sup>

Regarding Central Europe, the historical literature is undoubtedly biased toward the University of Göttingen,<sup>48</sup> the most influential institution for the theoretical development of the discipline in Europe during the late eighteenth century and home of the first noted European epistemological polemics on statistics (known as the *Statistikerstreit*) in the first decade of the nineteenth century. Initiated by professors of the Georg-August University, the debate supposedly signaled the beginning of the end of the discipline. The Göttingen professor August Ferdinand Lueder (1760–1819) cast doubt on the reliability of the discipline as an accurate source of knowledge or forecasting. Academic statistics allegedly lost its scientific relevance with the ascent of the modern natural sciences, but also because of the geopolitical earthquake accompanying Napoleon's European conquests—as a method, it was too slow to keep up with the rapid territorial changes. The convulsions of the German states during Napoleon's reign made the world unpredictable, something that the authors of statistical handbooks struggled to deal with.<sup>49</sup> But Lueder also attacked numerical statistical methods, which in his opinion reduced the complexity of statistics as a science of the state to a mere materialist conception of the social realm. The danger, according to Lueder, was that such methods would leave out unmeasurable

dimensions of the state, a charge that contemporary German professors increasingly raised against mathematical approaches as practiced by the emerging statistical bureaus.

Some historians have claimed that descriptive statistics disappeared from the university curriculum after the Napoleonic Wars,<sup>50</sup> despite contradictory evidence demonstrating the resilience and adaptability of the discipline to meet the demands of administrative transformation in the successor states of the Holy Roman Empire. In fact, academic statistics continued to feature in the university curricula in the Netherlands and in Habsburg and German academia.<sup>51</sup> The historian David Lindenfeld saw a parallel development between the entrenchment of the sciences of state in South Germany (Baden, Württemberg, Bavaria), Austria, and Prussia and the growing power of a central bureaucracy at the expense of the local judicial and police powers of the nobility in the Napoleonic period.<sup>52</sup>

The narrative of the decline of encyclopedic knowledge of the state, which is part of the historical mainstream today, was also voiced by its contemporary practitioners. It began with the post-Napoleonic period, when statistical bureaus were established in several countries in Central Europe. By 1850, political economists recommended replacing this knowledge field altogether with political arithmetic, considered as a mathematically precise and thus verifiable method of analysis.<sup>53</sup> Joseph Hain (1809–1852), ministry secretary at the Austrian Statistical Office, argued along similar lines.<sup>54</sup> By that time, the statistical bureaus had become coveted institutional hubs that had also started publishing their material in the Habsburg monarchy. The publication of statistical data enabled the international exchange between the bureaus, which matured into the International Congresses of Statistics from 1853, sought a convergence of the methods of administrative statistics.<sup>55</sup> This was the period when the narrative of post-Napoleonic decline established itself in the parlance of their staff, and it reverberates in the historical writing today.

In the Habsburg monarchy, the institutionalization of administrative statistics started in 1829 with the foundation of a statistical bureau in Vienna. In 1848, the bureau faced a short-lived competitor from Pest, installed by the Hungarian revolutionary government of Lajos Kossuth. The Hungarian statistical bureau was definitively established by the time of the Austro-Hungarian Compromise of 1867, while the last quarter of the century witnessed the establishment of regional offices in both halves of the dualist state. For nearly a half-century after 1829, descriptive statistics and the statistical bureau(s) coexisted in the monarchy. Possible entanglements between these two knowledge practices have not yet been explored, except a study on the function of state descriptions in Hungary as the scholarly basis of legal codification in the 1840s.<sup>56</sup>

Contemporary criticism did not change the fact that encyclopedic statistics continued to be published even by members of the Austrian statistical bureau, including by the aforementioned Joseph Hain. How can this cognitive dissonance be explained? This monograph embarks on the thoughtful observation by Theodore M. Porter that quantification as a method came at the expense of richer and more profound knowledge of the subject in the age of modern bureaucracies, which was not accepted easily. But the book also seeks the reasons for its continuation as a discipline in the nature of the composite Habsburg state and its central bureaucracy, which struggled to control the provinces. It tells the history of a statistical practice between pure description and pure numbers, between theory and applied bureaucratic knowledge. It narrates the history of a knowledge field that coexisted with and characterized a specific state form, the composite Habsburg monarchy. Encyclopedic statistics aimed at commensurability and a degree of standardization of the components of the state at the same time as it was committed to the exhaustive rendering of the varieties of the monarchy's lands. The book will portray it as a composite field of knowledge that coexisted with the composite state.

Here, the practice of encyclopedic statistics survived the crisis brought to the encyclopedic order of knowledge and coexisted with numerical administrative statistics for many decades. By the mid-nineteenth century, the field had increasingly perfected its descriptive methods and absorbed administrative data. The book thus tells the history of the coexistence, mutual influence, and conflict of these distinct knowledge practices in higher learning as well as the Austrian and Hungarian statistical bureaus. The backdrop of this dynamic was another entanglement between Habsburg and German, particularly Prussian, academic and bureaucratic training. A broader canvas for my theme since the 1850s is the international exchange during the Statistical Congresses (1853–1876). The book discusses their combined effect on statistical practices as a socially negotiated process in which the political and economic exigencies of the state and the individual dispositions of the practitioners played an equal role.<sup>57</sup>

State descriptions defined a given political territory in terms of its geography, climate, ethnography, and history, as well as its economic and military resources and the administrative structure and the legal system. Such descriptions addressed and empirically defined a host of new themes that were created by the sciences of the state (e.g., the relation of the numerical size of the population to territory, categories from the field of agriculture, land revenues, criminality rates, welfare institutions). In this sense, they defined the statistical objects, to use statistical historian Alain Desrosières's term.<sup>58</sup> They shaped the public vocabulary about the state from the late eighteenth century. In contrast, contemporary English accounts of

tax-relevant data (political arithmetic), in circulation since the eighteenth century, focused on a few crucial demographic and economically relevant topics, presented in tabulated numerical form.<sup>59</sup> The state-managed statistical bureaus working with large numbers and specialized issues did not immediately supplant descriptive statistics and its encompassing and encyclopedic grasp on the polity. Nor did they compensate for the civic appeal of this encyclopedic form of knowledge that made the abstract notion of the state comprehensible by dissecting and translating it into empirically perceptible and comparable units.

## Statistical Knowledge and the Habsburg State

My book takes the history of statistics as a starting point while investigating the mutual relationship between knowledge and processes of state-building in Europe since the late eighteenth century. The idea of statehood coevolved with the modern European fiscal-military states at the end of the Thirty Years' War (1618–1648), while the military conflicts of the late eighteenth and early nineteenth centuries (e.g., the Seven Years' War [1756–1763], the Napoleonic campaigns [1779–1815]) were further driving impulses in making state administrations effective and mobilizing economic resources and manpower. The eighteenth century marked a new phase of the governmentalization of the state in Europe, that is, the building of an administrative system based on knowledge, information, and inspection of the lands, which prioritized the managerial virtues of the prince and the rational, scientific practices of the bureaucracy.<sup>60</sup>

The late eighteenth century witnessed the spread of the modern state in Europe and North America. Whether its expansion beyond the continent can be described as a diffusion of a model or the result of autochthonous developments in other world regions is still open to question. By that time, the Mughal Empire, the Tokugawa regime in Japan, and North African polities had developed systems of revenue and territorial control upon which European colonial governments could build their institutional structures. Global historians have also pointed out that forms of colonial state control, such as a professionalized civil service and its techniques of government, could develop in a colonial context before being reimported to the continent at a later date, as in the case of British India. These recognitions significantly modify the earlier typology of states, developed in a narrower European comparative context.<sup>61</sup>

After the Seven Years' War and the American Revolution, central governments aimed to wrest territorial control from regional elites and rulers, a power struggle largely attributed to the financial crisis caused by the global-

ization of warfare. Whether based on so-called absolutist rule or the North American democratic system, the state placed the inhabitants of its territory on an equal footing, thus disregarding social bonds and the hierarchies between them and intending to tie them radially to its government. It did so by intervening in the system of rights and administration, through the organization of education and military service. The Napoleonic state epitomized these principles and policies in Europe, where equality under the law was enhanced through new law codes and a strongly centralized government with recruited bureaucrats, who received specialist training in institutions under state control. Napoleon's conquests propelled French revolutionary legislation to much of Western Europe, particularly to the western provinces of the Holy Roman Empire and northern Italy, where the scattered territories were forged into larger territorial units. The Napoleonic Wars sparked political reforms to strengthen the state against French domination in Prussia and Russia and fostered national and democratic sentiments in many continental states. The territorial system of the Habsburg monarchy was directly affected by the Napoleonic conquest and defeat. Losing some of its Western European possessions (such as the Austrian Netherlands) and gaining Lombardy and Lombardy-Venetia as well as Dalmatia and smaller territories at the end of the wars, its regional and social structure changed significantly, which posed new tasks for the central government, beginning with the necessity of measuring the new and old provinces and finding appropriate ways to integrate them into the larger polity. These differed from region to region: the central government not only left the administrative organization of the Italian provinces intact but looked at its infrastructure as a potential model for other, economically less developed regions.

During the decades before and after 1800, governments invested in military resources, which grew steadily until the Napoleonic Wars and expanded during the era of industrialization and technological innovation after the 1850s. (Even in Britain, the British Dominions, and the United States, where the state was decentralized, its power to extract money and finance war was significant.) The emerging fiscal-military states were keen on domestic resource extraction as well, which meant the bordering and control of their territories and land and population surveys. Napoleonic France was a vanguard of increasingly centrally directed mapping and head-counting projects, as well as the home of the first centralized statistical office covering the entire country.

On a Foucauldian note, James C. Scott perceived these central administrative surveys (his example was German early modern forestry) as developing a myopic vision of the social world, "rationalizing and standardizing what was a social hieroglyph into a legible and administratively more convenient format."<sup>62</sup> According to Scott, statistics and cameralist descrip-



tions were among the first modern tools used to enhance the agency of the state-machine, to “give its categories the force of law,” thanks to which society and the environment were subject to refashioning and exploitation in subsequent centuries, unless hindered by a powerful civil society.<sup>63</sup>

Eighteenth-century statistics and cameralist science were also mentioned elsewhere as the science of state efficiency, albeit without the social pessimism of Foucault.<sup>64</sup> More recent scholarship has explored the role of “administrative” and “state-relevant sciences” in the emergence of the centralizing, interventionist state that came to replace the early modern composite polities. These studies insisted that, on the entire European continent, cameralism, statistics, political economy, and so on were the “utensils of the state” and its bureaucracy that were used to shape its subjects’ lives into a legally more homogeneous mold.<sup>65</sup>

Fiscal historical approaches to the Habsburg monarchy and France<sup>66</sup> show that the military conflicts starting from the Seven Years’ War until the Napoleonic campaigns were the driving impulse in making state administrations effective and mobilizing economic resources and manpower. Indeed, the prolonged wars of the eighteenth century seriously tested the resilience of states. The adaptation to the military race enabled a “decisive ‘breakthrough’ in the centralization and concentration of power, a development accompanied and underpinned by a revolution in political thinking which prioritized sovereignty and whose agent was the state, which needed appropriately educated (literate) agents.”<sup>67</sup> While colonial empires disposed of raw material, and captive markets could borrow and raise taxes, the Habsburg monarchy could not—its society was less commercialized and its economy less advanced. Yet here the men could serve as conscript soldiers, while grain and animals were taken to feed and transport the army; these internal human and physical resources constituted a large basis of the state’s revenue.<sup>68</sup>

These approaches to the scientific basis of the emerging centralized state mark an inspiring start for the inquiry but should be taken with a grain of salt. Studies on European state formation have underlined the negotiated character of territoriality during the eighteenth and early nineteenth century and demonstrated that the supposedly “utilitarian states,” including Prussia and revolutionary France, were more wishful thinking than a factual reality before Napoleon’s rule.<sup>69</sup> The Prussian state, a model and rival of the Habsburg monarchy, apparently even showed respect for local conventions and tradition in governance,<sup>70</sup> and the estates played a substantial role in the administration of the German territories.<sup>71</sup> On the other hand, supposedly absolutism-abhorring and liberal England possessed robust interventionist power and was able to mobilize huge resources for its colonial trade and warfare.<sup>72</sup>

Meanwhile, the nature of the Habsburg state has generated considerable scholarly debate, which has been fruitful in the search for concepts and models that do justice to its particular features. If the monarchy was previously looked upon as a relic of the premodern, dynastic past, contested by modern, centrifugal national movements, today's heirs of John H. Elliott have developed much more sympathetic approaches to its qualities.<sup>73</sup> Without doubt, novel research on state formation encouraged more diverse and comparative approaches to the Habsburg monarchy, now regarded as a political formation in its own right.<sup>74</sup> However, the irregular nature of the multinational compound, which inspires comparisons with transnational alliances such as the European Union,<sup>75</sup> has invited divergent conceptualizations. One of the established traditions, particularly popular in US academia, adopts the term "empire" to address the hierarchical relationship between metropolitan Vienna and the provinces.<sup>76</sup> Another tradition, stronger in Central Europe, considers it as a deficiently integrated composite state until its end in World War I, one in which the central government initiated by the imperial court was met by strong competences and at places by the resistance of regional elites.<sup>77</sup> In that vein, this monograph addresses the Habsburg monarchy not as an empire but as an insufficiently integrated composite state.

Due to its almost accidental territorial growth before the eighteenth century, the Habsburg polity was characterized by an irregular style of rule in which the emperor had more power to intervene in the affairs of some of its component lands than others. Since the Thirty Years' War, this "government through bargaining" meant imperial rule in negotiation with loyal territorial elites. The integration of the monarchy, which was pursued with greater vigor during the reign of Maria Theresa, manifested itself in the control of certain spheres of the public administration in the hereditary lands, with local administration and jurisdiction being left to the competence of the nobility. More recent research has insisted on the uneven dynamics of the Habsburg conglomerate's integration, notwithstanding some of its monarchs' centralizing efforts. To quote Petr Mat'a's spirited characterization of the process, regional integration occurred at various speeds and extents.<sup>78</sup> This administrative asymmetry between the loosely versus more tightly integrated parts of the empire became increasingly visible by the mid-eighteenth century, as the administrative control of the Austrian and Bohemian lands was more enhanced in contradistinction to the kingdom of Hungary, where the centralization of power remained much more limited.<sup>79</sup> Mat'a calls attention to the continuation of these asymmetries well into the nineteenth century and regards the consolidation of the dualist state structure in 1867, a logical outcome of uneven state-building, as the most characteristic feature of Habsburg political integration.<sup>80</sup>

This more recent perspective has shifted the focus to the lands and the role of intermediary powers in negotiating political and infrastructural power.<sup>81</sup> If earlier research saw the governing center and the Enlightened rulers as the motors of state integration, rationalization, and economic streamlining, the active role of the estates and other regional players has increasingly been recognized as also having had a constructive role in the process. This was the conclusion of William D. Godsey on the political and economic competence of the Lower Austrian estates during and after the post-Josephist decade. Godsey emphasizes their right to raise and allocate taxes and resources and describes them as a socially and administratively forward-looking stratum that became a reliable partner of the central authorities that had a say in the running of the monarchy.<sup>82</sup> These findings reinforce a more complex model of European state-building in the eighteenth and nineteenth centuries based on negotiation, rather than confrontation, between central and intermediary powerholders. Accordingly, the role of the latter in state-building policies now appears more diverse and nuanced than previously assumed.

While scholars tend to see the emerging central state as one based on resource extraction and establishing territorial authority, they also consider its potentially beneficial contribution to its subjects, namely the provisioning of public goods and enabling political participation on a broad social basis.<sup>83</sup> An exploration of the scientific-scholarly dimensions of the Habsburg state is consequently long overdue. Moreover, if, as histories of the discipline have claimed, education in the sciences of the state had been part of the agenda of the Habsburg rulers and the central government since the late eighteenth century, then it is important to know more about how this teaching was received, produced, and consumed in the diverse regions of the monarchy.

Although an imbalance in a previously nationally divided historiographical heritage of the monarchy is felt until the present, more recent research on the monarchy has started closing the gap on the broader theme of the present book: the role of knowledge in the process of Habsburg state formation.<sup>84</sup> The vision of a more complex dynamic of state-building does not negate the fact that the chief motor of the integration of the Habsburg conglomerate was warfare and the related resource extraction. This intensified during the reign of Maria Theresa and Joseph II. For a short period, Joseph's *aggiornamento* turned a now centrally ruled polity into a vanguard of modernization. His reform absolutism breached the compromise for rule with the estates and led to the construction of an administrative system based on knowledge, information, and inspection of the lands. This was the task of a steadily growing state bureaucracy, aided by the military forces. Educated along the precepts of the sciences of state, these two pillars of the

state started to carry out comprehensive centrally organized population surveys in the 1750s, followed by land surveys a decade later.<sup>85</sup> Accumulating empirical knowledge about all provinces and lands went hand in hand with a new, “scientific” vision of the state that legitimized monarchical rule through natural law and contract, as well as the rationality of its operations, rather than their rightfulness.<sup>86</sup> At the University of Vienna, the sciences of state cast the polity as impersonal and rational, guided by utilitarian and materialistic ends, and promoted safety and the “convenience” of the political subjects and a notion of freedom to act according to the law. This view characterized the contemporary sciences of state in all the Habsburg universities.<sup>87</sup>

The institutionalization of descriptive statistics in higher education was designed for the education of reform-oriented, bureaucratic, and knowledge-based governance from the late eighteenth century onward. Well-trained bureaucrats were to gather knowledge about the economic and sociocultural resources of political power in the administrative offices of the nascent central government. Indeed, the growth of military cartography and cadaster surveys that began with Maria Theresa and became professionalized during the reign of Francis II (1768–1835), the information from the censuses and population counts through the eighteenth and nineteenth centuries, which were all potential empirical sources of descriptive statistics, were produced by individuals trained in the modern sciences of the state.

Historians of the nineteenth century see the dynamics of state-building in the Habsburg lands as defined by the interventionist attempts of the central administration in combination with the opposite demand for constitutionalism and political representation of the regions.<sup>88</sup> The system built by Emperor Francis II/I sought to continue the state-building that began during the reign of his predecessors. It let the administration expand into the *Kreise* of the Austrian lands, without fully curtailing their administrative competence. The process of building the administrative infrastructure in the provinces, in the counties, and finally at the local level continued after the suppression of the revolution of 1848. It had different dynamics in Austria (the lands governed by the Bohemian-Austrian Chancellery) and the two other administrative regions, Hungary with Croatia and Transylvania. During the bureaucratic absolutism of the 1850s, public administration also came to include the local level and became accessible to social strata below the traditional elites.<sup>89</sup> The social opening corresponded with the professionalization of administrative statistics and the start of its standardization in the framework of the International Statistical Congresses. Curiously, this phase also coincides with a peak in the steadily growing publication of descriptive statistics from the 1790s.

Was knowledge about the state purported by descriptive statistics a tool for territorial control from above, as suggested by Scott? I address this question by taking into consideration the production of state descriptions in milieus outside academia, to which the statistical analysis of works in chapter 2 offers a more detailed quantitative source analysis. The analysis addresses central themes of the history of state-relevant knowledge. These involve the modalities of acquisition and use of administrative information in state descriptions. Another theme is the representation of the state and its administrative structure, the definition of the historic lands as units of a centrally governed whole. The geographic description of the space and its boundaries, the ethnographic description of the population as one of the sources of the strength of the state, the records of the legal customs and genealogies of provincial elites represented the state in terms of the rights and privileges of the central ruler and its subjects on a given territory.

The analysis addresses topical themes in the practices of Habsburg descriptive statistics. Chapter 1 is about forms of statistics linked to different social and institutional locales in the decades around 1800 and especially during the Napoleonic Wars. It places the topic in the context of the Habsburg monarchy via the perspective of two key practitioners, Anton von Baldacci, an insider of the most exclusive circles of the Habsburg administration during the Napoleonic Wars and director of the first Austrian statistical bureau, and Joseph Marx Liechtenstern, the foremost private cartographer and geographer of his time. Their statistical practices and institutional backgrounds exemplify the divergent and conflicting political finalities of notions of statistics in the composite state around 1800. The chapter invites the reader to explore the differences between them as illustrative of the political and scientific finalities of a putatively numerical (and secret) administrative statistics used in the state administration, in contrast to public descriptive statistics.<sup>90</sup> A separate section discusses statistics as a discipline of the German sciences of the state, its spatial and modular vision of the state. It also introduces the pluri-disciplinary structure of encyclopedic statistics, which operated with comparisons and classifications in order to render the territory, inhabitants, and legal-administrative structure of the state. Finally, the chapter takes stock of the heterogeneous statistical methods of contemporary European and colonial administrations, where the use of numbers and descriptions together facilitated a comparative and comprehensive account of space.

How was descriptive statistics practiced in the Habsburg provinces? Chapter 2 focuses on the new institutional context in which statistics was transplanted. It continues to discuss the disciplinary configuration of descriptive statistics and explores its resilience as well as the changes in its

encyclopedic structure in the Habsburg educational system during the first half of the nineteenth century. The chapter highlights the specificities of the knowledge field and its practices in higher education and in the secondary schools. A separate section shows how the empirical material gathered about the state was formatted in a multiscale way that focused simultaneously on the local and regional levels, which could be assembled into a synthetic representation of the entire monarchy. Assembling both descriptive and numerical information at several scales was possible by using the same system of categories in all the lands and regions of the monarchy. Classification facilitated the comparison of relevant data and characteristics of the individual lands and across the political borders of physical geographical and social entities. The use of quantifiable methods enhanced the comparative gaze of descriptive statistics, which was most visible in its creation of a national nomenclature. The last section explores the ability of statistical authors to access relevant information and the problems of accuracy and precision in rendering empirical demographic and administrative data and the ways in which these circulated regionally and beyond. A case study of the economically peripheral yet geopolitically relevant province of Transylvania, which earned Baldacci's scorn for resisting governmental exploration, serves as a test case for studying the capillaries of information circulation in the composite Habsburg spaces during the first half of the nineteenth century.

Chapter 3 continues the survey of the forms of descriptive statistics outside the university. It explores the production and circulation of knowledge at a regional level while asking about the regimes of patronage in contrast to the central government. Indeed, the practice leads out into the scholarly public, whose authors included bureaucrats, former military personnel, and freelance writers. Statistical handbooks were written on commission and were therefore often an economic enterprise. This distinguished them from the academic textbooks written for teaching. Some of the authors, like Liechtenstern, were only writing for the market. Other statistical scholars, who lived entirely from their production, made their appearance in the larger cities from 1800 onward. The earliest center for this market was Vienna, which witnessed the first great market successes of private and corporate cartography. By the 1830s, other contenders, like the emerging Hungarian cultural capital Pest, also followed suit. Who were their authors, and what was their social and occupational background? Who were their readers in the first half of the nineteenth century? The chapter also outlines the commonalities and mutual insufficiencies of descriptive statistics and the emerging administrative statistics.

Chapter 4 examines the use of descriptive statistics by the scholarly and political publics in the decades preceding and following 1848. By the

1840s, the discipline had become visible in the expanding scholarly public sphere. As a result of the debates on social and economic reform during the Austrian Age of Reform and the revolutionary decade, statistical data entered treatises and press articles about social and economic reforms, fairer forms of taxation as part of a modern fiscal policy, the cultural system, the legal-judicial order, and the relationship between the provinces in the polity. Sometimes they transgressed the scope of the individual lands and addressed the composite structure of the monarchy. The focus of the chapter is on the relevance of empirical and theoretical knowledge about the state in deliberations on reform. The chapter also demonstrates the effect of political changes, highlighted by the theme of nationality, on the methodological configuration of the discipline. In addition to charting the various ways matters of the state were addressed via descriptive statistics, the chapter also inquires into the contribution of this empirical and public knowledge to the question of the territorial administration of the state before and after 1848.

Finally, chapter 5 addresses the challenges posed by the internationalization and professionalization of administrative statistics via the International Congresses of Statistics from the 1850s until the 1870s. The Austrian statistical bureau was eager to adopt the recommendations of the congresses with regard to administrative statistics. Did state descriptions still have a place in the educational system and among the scholarly public?

The Austro-Hungarian Compromise sealed the division of the monarchy into its Trans- and Cisleithanian parts in May 1867. The new territorial regime also entailed the institutional division of administrative statistics: a statistical bureau in Pest-Buda was installed immediately with competence for the Lands of the Hungarian Crown. In 1875, yet another separate Croatian Statistical Office was founded in Zagreb, under the supervision of the Hungarian bureau. The chapter inquires into the relation between the statistical practices after the institutional and political split and investigates the impact of the new territorial and political configuration of the dual monarchy on the shaping of statistical knowledge.

## Notes

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20. For Halle, see Rüdiger, *Staatslehre*, 43.
21. Schennach, *Austria Inventa*, 18–23.
22. For the historiographic tradition that sees the entanglement of descriptive statistics and geography as a sign of the disciplinary deficiency of statistics, see Róbert Horváth, *A magyar leíró statisztikai irány fejlődése* [The development of Hungarian descriptive statistics] (Budapest: KSH, 1966); Ferenc Fodor, *A magyar földrajztudomány története* [The history of geography in Hungary as a scientific discipline], ed. Zoltán Dövényi (Budapest: Magyar Tudományos Akadémia, 2006); for a reinterpretation of the relation between the two knowledge fields, see Gerhard Lutz, "Geographie und Statistik im 18. Jahrhundert: Zu Neugliederung und Inhalten von 'Fächern' im Bereich der historischen Wissenschaften," in *Statistik und Staatsbeschreibung in der Neuzeit: Vornehmlich im 16.–18. Jh.*, ed. Mohammed H. Rassem and Justin Stagl (Paderborn: Schöningh, 1980), 249–63; Hanno Beck, "Geographie und Statistik," in Rassem and Stagl, *Statistik und Staatsbeschreibung*, 269–76; Perrot and Woolf, *State and Statistics in France*; Stuart J. Woolf, "Statistics and the

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23. Peter Hoffmann, *Anton Friedrich Büsching (1724–1793): Ein Leben im Zeitalter der Aufklärung* (Berlin: Berlin-Verlag Spitz, 2000); Bodnár-Király, *Államleírás*, 136.
  24. Cf. Bodnár-Király, *Államleírás*, 144.
  25. "Joseph Rohrer und die Tiroler," in *Dachverband für Heimatpflege und Heimatschutz in Tirol*, ed. Joseph Rohrer, Über die Tiroler: Faksimiledruck der 1796 erschienenen Ausgabe (Bozen: Athesia, 1985). On Rohrer, see Ritchie Robertson, "Joseph Rohrer and the Bureaucratic Enlightenment," in *The Austrian Enlightenment and Its Aftermath*, ed. Ritchie Robertson and Edward Timms (Edinburgh: Edinburgh University Press, 1991), 22–42.
  26. Joseph Rohrer, *Statistik des österreichischen Kaiserthums*, vols. 1–4 (Vienna: Friedrich Volke, 1827).
  27. Rohrer, "Introduction," *Statistik des österreichischen Kaiserthums*, 1:iii–xiv, vii–viii.
  28. "Rohrer, Joseph," *Allgemeine Deutsche Biographie* 29 (1889), 64–68, <https://www.deutsche-biographie.de/pnd119527138.html#adbcontent> (accessed 2 December 2022); cf. Borbála Zsuzsanna Török, *Exploring Transylvania: Geographies of Knowledge and Entangled Histories of a Multiethnic Province, 1790 – 1914* (Leiden: Brill, 2015).
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89. For the controversial features of this opening, see Becker, "Der Staat," 322–24.
90. Desrosières, *Politics of Large Numbers*; Horváth, *A magyar leíró statisztikai irány*; Bonß, *Einübung*; Hacking, *Taming of Chance*; Behrisch, *Glückseligkeit*.