



RESEARCH ARTICLE

Crunching Numbers in Ming Times: What Population Censuses Can Tell about Chinese Migration towards the South

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Scholars have increasingly studied the integration of China's southern and southwestern regions into the Ming and Qing empires, focusing on the incorporation of non-Chinese peoples within these distant empires. While Chinese migration to southern regions predated the fourteenth century, scholars argue that the period following has seen significant population growth attributed to increased migration. This paper evaluates historical census data and estimated growth rates to analyze population dynamics in these regions. The author highlights discrepancies in historical census data derived from different methodologies, particularly contrasting the data sets of *Mingshulu*, *Mingshi*, and *Da-Ming huidian* with local comprehensive gazetteers and *Huangyu kao*. The examination of two case studies, Guizhou and Guangxi, reveals that the data sets exhibit logical trends when kept separate; however, convergence leads to confusion, obscuring the historical narrative. Additionally, the investigation of three test cases – Guangdong, Huguang, and Jiangxi – does not robustly back the data set theory but still contributes valuable perspectives on interpreting population figures. Critical findings advocate for consideration of post-1393 data, which suggest some regions experienced negative growth or minimal increases, contradicting the prevailing assumption of uniform, solid population growth across all southern provinces during the Ming era. Thus, the paper argues for a more nuanced understanding of historical population trends in these areas, emphasizing the necessity of acknowledging decreases identified in historical sources when assessing their demographics during Ming times.

近年來，學者們對明清時期中國南方和西南地區的整合過程表現出了濃厚的興趣。他們特別關注的是，明清政府是如何將非漢族人納入帝國版圖的。自 14 世紀起，由於漢族人口大量向南方遷移，南方和西南地區的人口出現了顯著增長。本文比較了不同來源的歷史人口普查資料，發現不同資料集的普查方法存在差異。通過案例研究和資料分析，本文認為，不能忽視 1393 年後的人口資料，因為明代南方和西南地區的人口增長假設過於籠統，歷史資料中的人口減少記錄也不容忽視。

Keywords: Ming dynasty, southwestern regions, census data, migration, settler colonialism

關鍵詞： 明朝，西南地區，人口調查，遷徙，定居者殖民主義

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To begin with numbers: why they matter¹

In recent years, the study of China's south and southwest has gained momentum. Scholars have been particularly interested to understand processes of integration of local non-Chinese² inhabitants into the respective empire in Ming (1368–1644) and Qing (1636/1644–1912) times (for example, Dai 2009; Herman 1997, 2007, 2018; Hostetler 2001; Scott 2009; Shin 2006; Teng 1998, 2004; Weinstein 2014; Ye 2019). So far, they have researched today's provinces Yunnan, Guizhou, Guangxi, and Sichuan, as well as the island of Taiwan; other similar regions in the south and southwest, that is, regions inhabited by larger numbers of non-Chinese people that had not been firmly integrated into the central administrative system by Ming times such as Guangdong, Fujian, and Hainan have not (yet) been studied in detail.

A particular focus is on the non-Chinese 'fringe' of these provinces, to use the term Michael Hechter (1975) applied to the Celtic regions of the British Isles. The 'south-west fringe', as I will call the region hereafter, is of course a fringe only from a sino-centric perspective. It lies on and beyond the southern and southwestern frontiers of the Chinese heartland or 'central plain' (*zhongyuan* 中原), having been inhabited by diverse (non-Chinese) peoples for a long time. Maybe it is easiest to describe these peoples by the Sino-Tibetan (Tibetan, Burmish, Loloish), Hmong-Mien (also Miao-Yao), Kra-Dai, and Austroasiatic languages they used to speak and often continue to speak today. In Ming times, many scholars argue, the south-west fringe became an increasingly compelling destination for Chinese settlers, a development which continued throughout the Qing and afterwards. The mentioned research often focuses on how indigenous, mostly tribally organised societies that tended to be smaller face-to-face communities, rather than larger "imagined communities" (Anderson 2006, 6), interacted with later-coming (Han) Chinese migrants. The Chinese settlers typically originated from the Chinese heartland along the Yellow River and were subjects of the more or less centralised imperial administration, an administration structured to rule large groups of people compared to smaller systems of chiefdoms typical for non-Chinese groups on the south-west fringe.

What most of the publications about these regions' histories of integration in Ming and Qing times share is the assumption that the number of Chinese farmers, accompanied by the state

¹ I particularly thank E. S. for her help with the map, M. D. for his help with the figures, and my two anonymous reviewers for their valuable suggestions and critique. Any errors of course remain mine.

² Please note that 'Chinese' and 'non-Chinese' are not used as ethnonyms in a modern sense here. Moreover, the term 'non-Chinese peoples' can only be auxiliary as it refers to a wide range of diverse cultural groups. I generally use it here for peoples within the Ming and Qing empires or in close proximity who are not considered 'Chinese' (*Han* 漢, *Hua* 華) by the central government, usually from a (pseudo-)culturalist perspective. The term 'non-Han' (*fei Han* 非漢) is a modern invention and is typically used for non-Chinese dynasties ruling over Chinese-inhabited territories such as the Qing and for so-called ethnic minorities (*shaoshu minzu* 少數民族) in the People's Republic of China today. Although in academic literature, both 'non-Han' and 'ethnic minorities' are sometimes used (anachronistically) for historical cases as well, I find that it is misleading to use the terms for imperial times.

in the form of army units and officials, who migrated towards the south-west fringe increased to an unprecedented degree in Ming times and that this migration wave, which continued throughout Ming and Qing times, had diverse deep impacts on the lives, identities, and existences of indigenous non-Chinese populations. Often, terms like ‘colonisation’, ‘settler colonialism’, ‘colonial administration’, etc. are used to describe the Ming and Qing approaches to integrating the south-west fringe (Herman 2018; Hostetler 2001; Teng 2004; Ye 2019). These terms refer to the administrative integration of the south-west fringe into the respective Chinese and Manchu state by its officials as well as the mainly Chinese settlers, their way of land cultivation and settled farming, and the Chinese Confucian (Ruist) culture they brought with them.

Numbers play an important role in the argument for Ming and Qing colonialisms, because strategies to integrate the south-west fringe into the empire have been interpreted as being similar to, or the same as, European (settler) colonialism, mainly due to a steep increase of population there.³ This is said to have been the consequence of a population increase in the central provinces, which, it is argued, caused migration waves towards the south-west fringe. The population developments of the Ming and Qing empires are seen as similar in this respect, that is, a steady increase is assumed for all provinces and throughout all centuries during which the two dynasties reigned.

Here, I focus on the population numbers of the Ming empire, as they present a case distinct from developments in Qing times. Regarding population developments on the south-west fringe in Ming times, John E. Herman (2007, 13), for example, claims that there was a “significant influx of Han immigrants in the sixteenth century” in the south, particularly in Guizhou. Leo K. Shin (2006, 44) similarly writes that “most historians would agree that the population in Guangxi—just as that of Ming China as a whole—had increased over time”. Both base their assumptions on claims made by scholars who analyse the development of population numbers (Marks 1998, 87–100; Heijdra 1998, 436–39; see also Cao 2024, 123–124; Ge 1991, 198–281). They often assume an immense and steady increase of the Ming empire’s population in general and of Chinese migrants and settlers on the south-west fringe, and this theory has become fairly commonly accepted by Ming historians (for example, Brook 1998, 27–28).

This acceptance seems surprising in view of the fact that “direct evidence is difficult to come by” (Shin 2006, 44) for such steady population increase everywhere in the Ming empire. In fact, as we will see below, the official Ming census data paint a picture quite different from this view, indicating population decreases in the southern and southwestern provinces. In this paper, I argue that the data presented in Ming sources in turn must have repercussions on

³ Arguments regarding the question of whether the Ming was a colonial empire also in other aspects, such as Chinese versions of a *mission civilisatrice*, the strategy of “changing local chieftains into regular officials” (*gaitu guiliu* 改土歸流) to integrate non-Chinese communities into the central administration, etc., will only be touched on in passing. For more on this, see Schneider (2020), where I discuss the question of Qing colonialism. Many of my arguments are also valid for Ming times.

arguments about Ming strategies of integration of the south-west fringe, as they do not unconditionally support the assumption of large-scale Chinese migration and increasing population numbers there. Using previous studies of Ming census data, I revisit Ming population numbers, where and how they are presented in historical sources, how they have been used to make historical arguments about the Ming's ruling strategies on the south-west fringe, and finally how we can indeed use them. I then compare them to data presented by scholars who use calculations based on estimated growth rates in addition to selected historical data, or even instead of it. This brings me to conclude that population numbers found in official and other Ming sources that do not support a steady population increase everywhere in the empire cannot merely be thrust aside but must be taken into consideration when making claims about Ming strategies of rulership on the south-west fringe.

Numbers to begin with: the censuses of 1381 and 1391/1393

The problem of evidence for Ming population data is related to several factors. One important point is that many scholars do not find official Ming censuses reliable and usually assume quite substantial under-registration from the start, particularly of women and children, which only got worse over the years (Cao 2000, 39; Heijdra 1998, 436–437). Since Ho Ping-ti presented his ground-breaking analysis in *Studies on the Population in China, 1368–1953* in 1959, many scholars have followed his suggestion that only the first two censuses conducted under the Hongwu emperor Ming Taizu (1328–1398, reign 1368–1398) in 1381 and in 1393 (which was a revision of the 1391 census) are more or less reliable and that those conducted afterwards follow methods so different from those used before that they cannot be accepted at face value (Cao Shuji 2000, 2; Heijdra 1998, 437–438; Ge 1991, 229; Durand 1960, 233–234; Ho 1959, 4, 9–16).⁴ However, even in the cases of the first two censuses, some scholars have suggested estimating higher population numbers than the ones given (Cao 2024, 123; Heijdra 1998, 437–438; Ho 1959, 9).

The data from the official censuses⁵ of the whole Ming empire as given in the *Mingshilu* 明實錄 (Veritable Records of the Ming) (*Ming Taizu shilu*, vol. 2, 140:8) for 1381 is 59,873,305 persons or 'mouths' (*kou* 口).⁶ For 1391, the general population census was 56,774,561

⁴ As Cao Shuji (2000, 6) points out, Chinese scholars became aware of Ho Ping-ti's study only in the 1980s, but since then have largely accepted and used his findings.

⁵ In my understanding of official census data I follow Cao Shuji's concept of "official historical records" (官方文献的记载), that is, centrally issued records as contained in comprehensive sources such as the *Mingshilu* versus "material in local gazetteers" (地方志中的资料) (Cao Shuji 2000, 15).

⁶ If the numbers for the individual provinces are added, the result is 59,473,305, which points to a calculation (or writing) error (Sprenkel 1953, 293, 296).

(*Ming Taizu shilu*, vol. 2, 214:261).⁷ The 1391 census was later adjusted, as the Ming court did not believe that three million people had just disappeared, and in 1393, a revised number of 60,545,812 was given, to be found in the *Da-Ming huidian* 大明會典 (Collected Statutes of the Great Ming, 1587) (19:1a) and the *Houhu zhi*⁸ 後湖志 (Annals of Houhu Lake) (2:4b; see also Cao Shuji 2000, 5; Ho 1959, 10). Although scholars argue that the numbers' quality declined particularly post-1393, most do not accept the data for 1381 and 1393 without adjustments either. The estimations for the population in the Ming empire in the late fourteenth century range from 65+ million (Ho 1959, 22), over 75 million (Brook 1998, 28), to 85 million (Heijdra 1998, 440).

Starting with different sets of numbers, scholars then come to equally different conclusions as to the further population development. Most of them do not take any post-1393 official census data into account but apply percentages of probable population increase per year which they further qualify for different periods. For example, Heijdra (1998, 438) assumes increase in all Ming provinces and suggests equal growth rates for three distinct time periods; from 1380 to 1500 either 0.6, 0.5, or 0.4 percent p.a.; from 1500 to 1600 either 0.5, 0.4, or 0.3 percent p.a.; and from 1600 to 1650 either 0.4, 0.3, or 0.2 percent p.a. Heijdra and other scholars thus base their calculations on the assumption that population numbers increased exponentially in the whole empire. Their calculations inevitably assume much steeper increases and higher numbers of population than those given in the official Ming sources. The numbers given in the *Mingshi* 明史 (Official History of the Ming, 1739) only go as far as the year 1578. For that year, the *Mingshi* lists 62,791,056 persons for the whole empire. The last official census data we have for Ming times comes from the *Mingshilu* (*Ming Xizong shilu*, vol. 24, 4:57, 17:229; vol. 25, 42:568, 66:158, 79:335) which indicates a population of only 51,655,459 in 1620–1626⁹ (see also Liang 1980, 198–199). In contrast to those two official numbers, scholars' conclusions as to the population development range from 150 or 175 million people in 1600 (Brook 1998, 162) to 230 or 290 million at the end of the Ming (Heijdra 1998, 440).

Census data have always been closely related to tax systems, and in fact, one purpose of Ming censuses was probably to create data for tax and corvée registers that were as complete as possible (Liu 2021, 36–39; Sprenkel 1953, 326).¹⁰ After all, the Ming empire derived much

⁷ As is the case for the year 1381, adding the numbers for the individual provinces, the result is slightly different, 56,874,561 (Sprenkel 1953, 293, 296).

⁸ The *Houhu zhi* is a collection of documents including household and tax data. First compiled and privately published in 1514 by scholar-official Zhao Guan 趙官 (zi Weixian 惟賢, 1479–?), the compilation was continued by others until 1620 (Zhang 2008, 152).

⁹ The population numbers given for 1621, 1623, 1625, and 1626 respectively are identical with that for 1620.

¹⁰ For comprehensive tables listing Ming population, farmland, and tax data for the whole empire from historical sources, see Liang Fangzhong 1980, 185–199. Liang (1980, 16) argues that the Ming census' purpose was really only to count people and create a basic document of population numbers and thus differed from tax and corvée registers. Ho (1959, 3–4), on the other hand, writes that the registers used for labour services and land-tax handbooks were based on the census and therefore

of its financial and political vigour from its fiscal power even though individual taxation was not high. As tax and census were so closely related, changes in the tax system also caused changes in the census registration. It goes beyond the scope of this paper to give a full picture of Ming tax history, and it suffices to give a brief outline. Until mid-Ming, taxes and corvée were based on ‘households’ (*hu* 戶), which were the basic tax units registered in the so-called ‘Yellow Registers’¹¹ (*huangce* 黃冊) (Cao 2000, 57–58). These registers reflected a new system of ‘village organisation’ (*lijia* 裡甲, also *lijia* 里甲) that had been established in 1381. Before, households had to fulfil their labour service individually. Now, each village of 110 households was collectively responsible to fulfil its obligation of corvée, the households taking turns. The first census in 1381 somewhat codified household and village registrations, and the court was eager not to change them further (Cao 2000, 468–470; Heijdra 1998, 428–430; Wei 1961; Ho 1959, 3–4).¹² At the same time, the census became increasingly focused on taxpayers, that is, men above sixteen *sui* (fourteen or fifteen years of age). Boys tended to be registered when they became ten *sui* (eight or nine years of age) to ensure that they would be properly registered for tax purposes later (Cao 2000, 59). Women and girls, who were not taxed in general, as well as boys below ten *sui*, often were not registered properly (Ho 1959, 12–13, see also Lee 1982, 714–715). Cao Shuji (2000, 39–43; see also Ho 1959, 12) gives a couple of examples of obvious under-registration of women which indicate a quota for late Ming censuses of roughly two men to every registered woman.

The assumption of erroneous post-1393 data, most prominently voiced by Ho (1959, 3–23), is based on the claim that large parts of the population were not registered, most importantly women and children, but also non-Chinese peoples ruled by *tusi* 土司 (‘local chieftains’) on the south-west fringe as well as garrison populations. A second point is usually not mentioned, which is the discrepancy between the last Ming census data and the first Qing census data. However, it goes beyond the scope of this paper to analyse Qing census data, which cannot straightforwardly be compared to the Ming data, and I focus on the relevance of the first claim of under-registration for the argument that Chinese migration to the south-west fringe increased in Ming times.

To begin with, under-registration of non-Chinese peoples, which was certainly prevalent, makes no difference as to the argument regarding migration. After all, they were the people who are supposed to have been driven up into the mountains by Chinese migrants. Moreover, as non-Chinese peoples had not been registered from the start, their population development cannot be accounted for by calculations based on estimated growth rates that take early Ming

indicates that tax and corvée were important motivations for counting the entire population.

¹¹ The Yellow Registers as such are lost. Some related materials are contained in *Houhu zhi* 2-3 (see also Zhang 2008; Wei 1961).

¹² Although legal restrictions on changing one’s household registration due to migration remained strict until the mid-fifteenth century, practical policies were less so, and in 1439, ‘attachment registers’ (*fuji* 附籍) became the legal basis to re-register migrants (Zhang 2017, 141).

data as their starting point either (Cao 2000, 44). Thus, we cannot make any assumptions as to their population development at any point during the Ming. James Lee (1982, 715–716) nevertheless suggests calculating numbers of *tusi*-ruled people based on extrapolation. According to his research, one-third of Yunnan's territory and at least one-half of Guizhou's was under the rule of chieftains, and the population there had not been counted by Ming officials. In order to come up with an estimation, Lee (1982, 714–715) assumes that the numbers of inhabitants per land unit in the *tusi*-areas would be the same as in the areas ruled directly by the Ming, which in turn enables him to project a population number much higher than the official data.¹³ However, this approach is highly doubtful, as many tribes' ways of life followed strategies of non-intensive farming, hunting, and collecting. Consequently, we can assume a much lower number of inhabitants per land unit than in the intensively farmed regions under direct Ming rule (Burger & Fristoe 2018, 1138).

The argument as to the under-registration of women and children can be moderated at least to a certain degree. The Ming government had a great interest in registering as many tax-relevant persons as possible. Thus, even if the numbers for the southern and southwestern provinces or for any province do not reflect the actual population but only tax-paying male persons above the age of ten *sui*, the census data nevertheless show us tendencies of population development, which is what I am mainly interested in here.

Finally, official population censuses usually did indeed not include the inhabitants of military garrisons, that is soldiers, their families, and civilians who were under the direct control of the garrison (Cao 2000, 45). This issue plays a part on all the Ming empire's fringes, particularly so in Guizhou, and I will come back to it later.

One important change in the Ming tax system needs to be mentioned, the introduction of the so-called 'single whip assessment tax' (*yitiaobian fa* 一條鞭法).¹⁴ It began to be applied from the beginning of the fifteenth century onward but was implemented everywhere only in 1581. Most scholars think that this mainly affected the registration of households and not so much that of individuals. Herman (2007, 134), however, argues that the process of registering the new population on the south-west fringe and elsewhere in the empire accelerated due to the new tax. Corvée taxes were now to be paid in cash, and tax calculation was no longer based on individual taxpayers, but on arable land (Dai 2001, 35; Cao 2000, 469). If Herman is correct in assuming that the tax reform entailed an increase of population registration, then the argument that the Ming census data are incorrect due to substantial under-registration becomes less valid at least for post-1581 times.

¹³ The numbers' logic is unclear. Lee refers to sources we know like the *Huangyu kao* and diverse local gazetteers, but also to unknown ones, but does not explain which number stems from which source.

¹⁴ When the tax was first introduced as part of a comprehensive tax reform, it was called "reformed single entry system" (*yitiaobianfa* 一條變法), which was later replaced by the homophone "single whip assessment tax" (Huang 1988, 525).

The integration of and the migration to the south-west fringe

Until late imperial times, the south-west fringe was mainly inhabited by diverse non-Chinese peoples. Chinese settlers had ceased to be newcomers there long before Ming times, however. Particularly from Jin (266–420) and Tang (607–918) times onwards, migrants from ‘central provinces’ moved towards the frontier regions of their respective empires. Durand (1960, 233) assumes that these were poor families with “little or no land”. However, Wu Songdi (1997, 203) rather thinks that most settlers did not leave their homeplace of their own free will, but “were kidnapped, taken as prisoners of war, or exiled” (被擄掠, 被俘, 被流放) (see also Zhang 2017, 141). In general, wars and uprisings caused migration waves, mostly towards the south-west fringe, for example, after the ‘Disaster of Yongjia’ (311), the An Lushan rebellion (755–763), and the Jingkang incident (1127) (Wu 1997, 232). Other reasons were several cold periods from the late tenth century onwards as well as droughts and the frequent changes of the Yellow River’s course (Wu, Ge, and Cao 1997, 17–18; Cao 1997, 18–19). In Song (960–1279) and Yuan (1279–1368) times, the main causes of southward migration, moreover, were wars with and conquests by non-Chinese peoples and dynasties in the north (Wu 1997, 246–275). Since then, the stream of incoming migrants has rarely let up. Most of them were farmers, and they settled down in fertile riverbeds, valleys, and plains on the south-west fringe, thus pushing this fringe further away from central China.

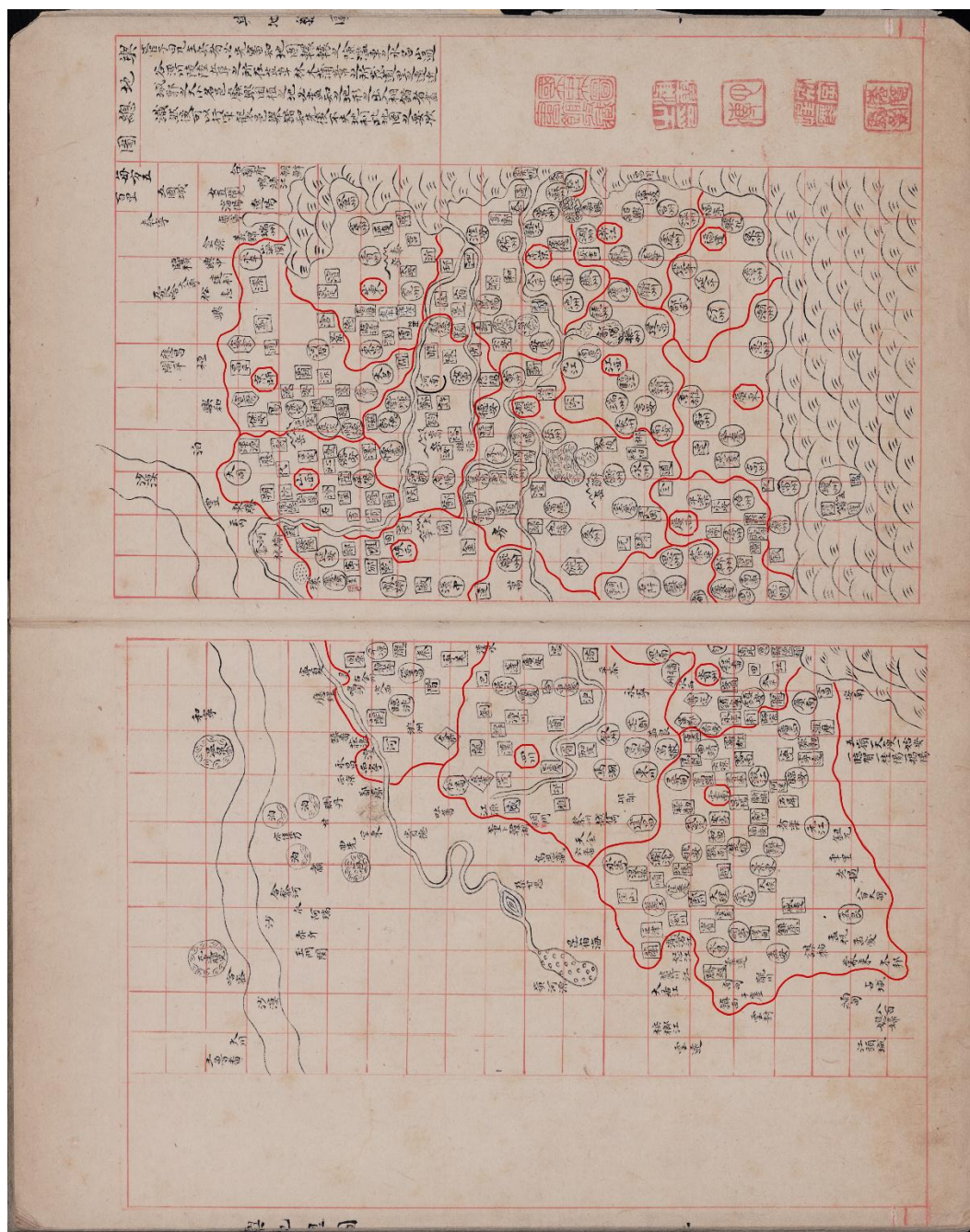
According to James C. Scott (2009, ix), some of the southern regions belong to what he calls ‘Zomia’, that is, “all the lands at altitudes above roughly three hundred metres all the way from the Central Highlands of Vietnam to northeastern India traversing five Southeast Asian nations [...] and four provinces of China (Yunnan, Guizhou, Guangxi, and parts of Sichuan)”. Scott claims that the regions of Zomia are inhabited by “runaway, fugitive, maroon communities who have [...] been fleeing the oppressions of state-making projects in the valleys”. Many peoples, particularly those whose identities have been negated in the “civilizational discourse about the ‘barbarian’, the ‘raw’”, sought to avoid being governed by large states. Such large states were usually dominated by identity groups that thought of themselves as civilised, and of those fleeing subjection as “ungoverned, not-yet-incorporated” (Scott 2009, x–xi). The latter, so Scott suggests, fled from valleys and lowlands to hills and mountains, rivers and sea, in order to avoid corvée, slavery, taxes, conscription, war, etc. Therefore, such peoples “are not pre- anything. In fact, they are better understood as post-irrigated rice, post-sedentary, postsubject, and perhaps even postliterate” (Scott 2009, 337). Ming (and Qing) state expansions towards the south-west fringe thus can be interpreted as part of a large global process of state-formation by turning peripheries into administered space, an understanding shared by Arif Dirlik (2011, 293–294), who refers to Ming and Qing conquests as “defensive expansionism”.

Scott’s argument is partly contradicted by the traditions of the Nuosu people. In particular, the elite families of the Nuosu claim to have lived in the mountains for a long time, major reasons for this being the constant danger of floods in the river valleys and plains and the fact

that the mountains present better security against invaders (Hein & Zhao 2016). This might well be the case also for other mountain-dwelling peoples on the south-west fringe, who thereby did not seek to escape from state-making projects and were not expelled from the valleys and plains by incoming migrants but had lived in the mountainous regions before the arrival of the latter.

The Mongol Yuan dynasty was the first northern empire that firmly integrated the south-west fringe when they conquered and defeated the powerful Dali, or Dablit, kingdom (937–1253), ruled by the Duan, or Duainb dynasty, as it was called in their own Bai, or Baip, language. The Yuan khans integrated the Dablit territories into their empire by making the Duainb kings their vassals and their kingdom a province. They called it Yunnan (lit. south of the clouds). The Yunnan province of the Yuan period was much larger than today's Yunnan, including the northern part of today's Myanmar and parts of today's Guizhou. The Yuan also established another huge province on the south-west fringe, Huguang 湖廣, in today's southern Hubei, Hunan, Guizhou, Guangxi, western Guangdong, and Hainan. To integrate the diverse non-Chinese (and non-Mongol) peoples that were often organised in tribal structures, the Yuan introduced the 'local chieftain' (*tusi* 土司) system, bestowing Yuan titles on southern and southwestern chieftains. After the Ming had defeated the Yuan in the late fourteenth century, much of the Yuan's Inner and north Asian territories remained under the rule of the Northern Yuan (1368–1635). However, the Ming regarded the former Yuan provinces on the south-west fringe as a part of the Central State (*zhongguo* 中國), and established three new provinces, Guizhou, Guangxi, and Guangdong, by cutting larger regions off Yunnan and Huguang (see Map 1). Moreover, the Ming administration took over control by adapting the Yuan's *tusi* system (Shin 2006, 56–105; Weinstein 2014, 42–45).

In general, the Ming state accompanied (Chinese) settlers institutionally and militarily. Troops were established in self-supporting 'agro-colonies' (*tuntian* 屯田), and the military thus actively engaged in land cultivation and clearing (Shin 2006, 36–40). Soldiers protected civilian settlers from non-Chinese natives whose land the newcomers often took and used for their needs (Weinstein 2014, 56–57). Institutionally, the state tried to integrate all settlers, civilian as well as military, into the state's tax administration. In fact, the Hongwu emperor thought that state revenue could most effectively be increased by supporting the establishment of new agrarian and thus taxable settlements in the southern and southwestern provinces. This, however, did not work out as planned for most of Ming times; provinces such as Guizhou and Yunnan continued to need subsidies from neighbouring provinces until nearly the end of the Ming Dynasty (Herman 2007, 137–139, 234; see also Shin 2006, 34, 109–110).



Map 1. “Yudi zongtu” 輿地總圖 (Complete Map of the Country), unknown author, ?1550–1560, 1b–2a, provincial borders and names highlighted¹⁵

¹⁵ Provinces’ names are circled in red, provincial borders are drawn in red, which I have further highlighted for clarification. Please note that the name Henan is not bordered in red in the original which is probably a mistake. Here it is half-bordered in black to highlight it while revealing the missing circle.

In mid-Ming times, military suppression of local chiefdoms, their inclusion into the centralised administration, and cultivation of their land was often legitimised by referring to a certain duty of the court to support a process of cultivation among the non-Chinese peoples on the south-west fringe—a ‘kingly transformation’ (*wanghua* 王化) resembling the European concept of a *mission civilisatrice* (Zhang 2012, 5–6; Shin 2006, 57, 94). “Chinese patterns of land tenure, agricultural techniques, political and legal institutions, and a Confucian education” were considered the main ingredients of such a strategy of civilising others (Herman 2007, 137; see also Shin 2006, 71–72). However, although “the attitude of the late Imperial (Ming and Qing) state toward its peripheral people can be characterized as a civilising project” (Harrell 1995, 18), Herman (2007, 15) claims that this project was mainly a rhetorical tool. Military actions to expel natives and make fertile lands available for new settlers remained the most important practice. Consequently, the hierarchical differentiation between superior Chinese self and inferior non-Chinese other was maintained quite strictly on the south-west fringe (Shin 2006, 137, 149, 159–165; Wang 2018, 61). For example, in Guizhou the proclaimed strategy of peaceful integration by a civilising mission and by ‘transforming [hereditary] chiefdoms into [circulating] offices’ (*gaitu guiliu* 改土歸流), that is, integrating local chiefdoms into the Ming official system as non-hereditary posts, was not reflected in actual political and cultural practices, as, for example, access to Confucian schools and consequently to imperial examinations and political offices remained limited for non-Chinese people (Weinstein 2014, 58–60; Herman 2007, 14). At the same time, the *gaitu guiliu* strategy was usually not applied, and most chieftains ruled for life.

The Ming emperors’ reasons for such strategies of integration on the south-west fringe were based on practical-political considerations which were embedded into a sino-centric conceptualisation of the world. The administration of the southern and southwestern regions became increasingly centralised in Ming times, supporting Chinese farmer migrants, accompanied by merchants, craftsmen, scholar-officials, and soldiers. As we will see below, Ming censuses indicate that migration affected mainly provinces at the western borders of the empire, Shaanxi, Sichuan, and Yunnan, and less the southern provinces of Guizhou, Guangxi, Guangdong, Fujian, Huguang, and Jiangxi. Indeed, scholars found that the direction of Chinese migration completely reversed in Ming times. Whereas until late Yuan times the main waves were always from the north towards the south, the direction changed with the “great migration of the Hongwu period” (洪武大移民), the “largest migration movement in Chinese history” (中國歷史最大規模的移民運動), when people migrated from the southwest towards the west and north (Cao 1997, 470–471, 524; Cao 1990, 37; see also Sprenkel 1953, 305). However, the administrative and military advance of the Ming state seems to have affected all provinces in the southwest and south, probably supported by the hope that all would yield tax income over time.

Until Yuan times, as stated above, Chinese migrants moved preferably towards the south and not towards the north. In the south, soil and geographical and climatic conditions were more favourable for farming, especially extensive wet rice farming. Several harvests could be

reaped per year, particularly in the subtropical south. In the north beyond the Great Wall, on the other hand, lived powerful polities who defended their land more effectively than the non-Chinese peoples on the south-west fringe—and of course quite regularly invaded China proper, the Great Wall offering only mediocre protection (Cao 1997, 524). Liaodong in the Manchurian plains, which offers suitable conditions for farming, was an exception: Chinese settlers did try their luck there during Liao and Jin times, before the Mongolian conquest stopped northward migration almost entirely (Wu, Ge, and Cao 1997, 121–122; Wu 1997, 230).

Back to numbers

As mentioned above, strategies of the Ming (and Qing) empire to put the south-west fringe under firmer and more centralised control have been described as colonial. Colonialism is mainly understood as settler colonialism, because part and parcel of such an argument for a colonial enterprise are the numbers of Chinese settlers who moved into the regions on the south-west fringe. Scholars refer to an increase of population numbers in the southern and southwestern provinces to argue for waves of Chinese settlers arriving there, outnumbering and finally driving non-Chinese indigenous peoples up the mountains and into less fertile and more sparsely populated areas (Herman 2007; Hostetler 2001; Scott 2009; Shin 2006; Teng 2004; Ye 2019).

More than seventy years ago, Otto Berkelbach van der Sprenkel (1953) (hereafter Sprenkel), then a historian of China at the School of Oriental and African Studies, published an article about Ming census data. His conclusions differ from claims of steady population increase in all Ming provinces and rather detect diversified developments in different regions of the empire (see also Cao 1990). Sprenkel (1953, 289) based his studies on official census data from the *Mingshilu*,¹⁶ the *Da-Ming huidian*, the *Huangyu kao* 皇輿考 (Investigation of the Imperial Domain),¹⁷ and the *Mingshi*. Regarding migratory movements, Sprenkel (1953, 308) explains that “[f]rom the beginning of the 12th century the foreign dynasties of the North, the Liao, Chin, and Yüan, had exerted a continual southward pressure upon the Han Chinese”. However, with the victory of the Ming, this pressure was over, and consequently, “[t]he Ming period [...] seems to have witnessed a strong reaction against these compressive conditions on the part of the over-populated south.” Therefore, “the current of internal migration has been entirely reversed and is now mainly running from south to north”. In the late fourteenth

¹⁶ For a detailed introduction to and complete listing of the census data as given in the *Mingshilu* see Sprenkel 1953, 292–298.

¹⁷ The *Huangyu kao* was compiled by scholar-official Zhang Tianfu 張天復 (1513–1573, *jīnshi* 1547); the foreword is dated to 1557. It was a supplement to the *Da-Ming yitongzhi* 大明一統志 (General Gazetteer of the Great Ming, 1461), which was compiled by scholar-official Li Xian 李賢 (1408–1466) and does not contain population data.

century, after the Yuan had withdrawn, the populations of the northern regions around Beijing¹⁸ and the provinces of Shandong, Shanxi, Henan, and Shaanxi (see Map 1) increased by “over 60 per cent” through the arrival of migrants from the central and southern provinces (Sprenkel 1953, 305). Sprenkel’s interpretation of the official census data, supported by Cao Shuji (1997, 524), thus undermines the claim of extensive migration waves towards the south-west fringe in Ming times.

Ho Ping-ti (1959, 136), whose *Studies on the Population of China, 1368–1912* continues to be an important reference for population development (Cao 2000, 1–4; Wu 2000, 4), supports the argument that census data show the effects of a wave of northward migration into “the low plain region of north China and the Huai River area”. The Ming government systematically supported this northward “great migration of the Hongwu period” (Cao 1997, 470–471). Sprenkel argues that the migrants did not come from just any of the southern and southwestern provinces. Based on the census data, he differentiates between two groups of provinces: firstly, provinces where population numbers increased, and, secondly, provinces that experienced loss of population and from where the migrants must have come. Sprenkel’s first group, provinces with growing populations, are five northern provinces and regions (“Group I A”) and the three provinces in the empire’s west and southwest (“Group I B”): Shaanxi, Sichuan, and Yunnan (see Map 1). Comparing data from 1393 and 1578 (without taking developments in between into account), Yunnan saw the most drastic increase of 470 percent, Sichuan of 112 percent, and Shaanxi of 94 percent (Sprenkel 1953, 305–306; see also Ho 1959, 137). Sprenkel’s second group, provinces with shrinking population, consists of six provinces in the south and southeast: Zhejiang, Guangxi, Guangdong, Fujian, Huguang, and Jiangxi. Again, Sprenkel (1953, 306) compares data for 1393 and 1578. In Huguang (–6 percent), the numbers did not change too much. In the remaining five provinces, however, the populations decreased quite substantially, according to official census data (Fujian –56 percent, Zhejiang –51 percent, Jiangxi –35 percent, Guangdong¹⁹ –32 percent, and Guangxi –20 percent).²⁰ Sprenkel (1953, 305) notes that “the loss of population by South China (12 millions, excluding Nanking) was almost exactly balanced by the gain of North China (9 millions) and the West and South (3 millions)”, a view that is also supported by Cao Shuji (1997, 524). This contrasts with Ho’s (1959, 136–137) claim that the northward migrants came from central provinces.

¹⁸ Then called Beiping. It was elevated to the status of ‘northern capital’ (*Beijing* 北京) in 1403, and then to the ‘metropolitan region’ (*jingshi* 京師) in 1421. As Map 1 dates from the sixteenth century, it is labelled ‘metropolitan region’ there.

¹⁹ The *Mingshi* (75.1133) gives 5,040,655 as the population number of Guangdong for 1587. This must be a writing error. The *Da-Ming huidian* (19.14a), which otherwise uses the same numbers as the *Mingshi*, gives the more plausible number 2,040,655 (see also Sprenkel 1953, 301, 304–305).

²⁰ Guizhou is not part of this group because we have population data only from 1413, after the great northward migration wave was over. However, it probably belongs to Sprenkel’s second group of provinces with populations that shrank over the whole course of the Ming. Guizhou is positioned just between the two groups on the southern coast (see Map 1).

Map 1 above illustrates the provinces of the Ming empire in the mid-sixteenth century. It shows that Shaanxi, Sichuan, and Yunnan, that is, Sprenkel's group I B where the substantial migratory influx happened according to official census data in the *Mingshilu* (see Liang 1980, 204, table 69 where the relevant data are listed), were the three largest provinces of the empire. Sprenkel's second group, the six provinces where population numbers decreased or stagnated according to official census data (Liang 1980, 204, table 69; see also 205–206, table 70), are grouped together along the southern coastline and in the southern hinterland.

In contrast to Sprenkel, Ho (1959, 11) expresses doubt regarding the reliability of the official Ming census data. He mainly blames under-registration which had already begun in 1391, when the population numbers began to reflect mainly fiscal population numbers. Ho (1959, 9) suggests that under-registration was particularly acute in the south due to its non-Chinese inhabitants.

“Parts of Szechwan, Kwangsi, and Kwangtung had substantial aboriginal populations which constituted the majority in Yunnan and Kweichow. In Yunnan and Kweichow, [...] the law of 1381 provided that no Yellow Registers were to be compiled in areas ruled by tribal chieftains [*tusi*].”

Ho thus assumes that real population numbers must have been much higher from the start and that they increased to a larger degree than the official data suggest. He carefully concludes that “the national population [of the early Ming empire] probably exceeded 65,000,000 to an unknown degree” (Ho 1959, 22), without however presenting an estimate of how many inhabitants the Ming empire had by either 1368 or 1644. Ho's assumption is shared by many scholars, though their estimates vary on how much official census data and actual population numbers differ (see above and Zhang 1998, 98–99). Still, the thesis that the population of the Ming empire must have increased to a (much) higher degree than the census data indicates is used as an important argument for Ming settler colonialism on the south-west fringe.

To show what official census data are available and what we can learn from it in comparison to estimations based on assumed growth rates, I introduce two case studies on Guizhou and Guangxi, which have been the focus of two studies that use the concept of colonialism to describe Ming integration of the south-west fringe (Herman 2007; Shin 2006). I compare the different sets of population numbers available for Guizhou and Guangxi to understand if they can be used to argue for a population increase in these regions and perhaps in the south in general. In order to put my findings to the test, I furthermore introduce three brief test cases of Guangdong, Huguang, and Jiangxi, which like Guangxi are part of Sprenkel's second group of provinces with shrinking population numbers.

Case study I: Guizhou

In *Amid the Clouds and Mist: China's Colonization of Guizhou, 1200–1700*, John E. Herman (2007) focuses on the history of Guizhou and presents a very comprehensive analysis of this understudied region. Although census data are not his main interest, he does present some numbers regarding population developments in Guizhou, mainly to support his claim that waves of Chinese settlers facilitated “China’s colonization of the southwest” (Herman 2007, 1). Herman (2007, 132–134, 247–248) exclusively uses data from different editions of the *Guizhou tongzhi* 貴州通志 (Comprehensive Gazetteer of Guizhou). He is aware of the critique of official Ming census data and assumes that local gazetteers are more trustworthy sources. Indeed, some numbers presented in the gazetteers differ extremely from those in the *Mingshi* and the *Da-Ming huidian* though not, as we shall see, from those in the *Huangyu kao*.

<i>Year</i>	<i>Persons</i>	<i>Source</i>
1491	258,693	<i>Mingshi</i> , 46:1198; <i>Da-Ming huidian</i> , 19:8a
[1502=1491]	[258,693]	<i>Guizhou tongzhi</i> (1987[1502]) [H]
1555	261,859 (military) + 250,420 (civilian) = 512,289	<i>Guizhou tongzhi</i> (1522–1567) ²¹ , 3:47b; <i>Qianji</i> (1573–1620), 9:9a–9b; <i>Guizhou tongzhi</i> (1597), 1:2b [H]
[1557=1555]	[512,289]	<i>Huangyu kao</i> , 1:22a
1578	290,972	<i>Mingshi</i> , 46:1198; <i>Da-Ming huidian</i> , 19:14b
1597	184,601 (military) + 325,374 (civilian) = 509,975 ²²	<i>Qianji</i> (1573–1620), 9:9b; <i>Guizhou tongzhi</i> (1597), 1:2b [H]
1602	528,781 ²³ 324,989 (civilian) + 9,678 (3 new <i>zhou</i>) + 9,513 (Miao) = 344,180	<i>Guizhou tongzhi</i> (1741) [H] <i>Qianji</i> (1573–1620), 9:10a ²⁴

Table 1. Population numbers in Guizhou, data set A highlighted in grey, data set B in orange²⁵

²¹ The compiler states that the data are “from an old gazetteer” (舊志) without date.

²² In *Guizhou tongzhi* (1597), the last two digits are transposed (509,957), however, as 509,975 is the correct sum from the military and civilian population, the number from *Qianji* must be the correct one.

²³ This is the sum of 344,180 (incl. in 1602) + 184,601 (mil. in 1597).

²⁴ The compiler states that the data are “from the revised Yellow Registers” (大造黃冊). The Yellow Registers which are now lost were revised every decade. The most recent one would have been from 1600 (see Wei 1961, 107n3).

²⁵ The data from the *Guizhou tongzhi* editions from 1987 [1502], 1555, and 1741 are quoted from Herman 2006, 132–134,

Comparing only the numbers given in certain editions of the *Guizhou tongzhi*, Herman assumes that the population in Guizhou nearly doubled between 1502 and 1555. He does not take data of other years into account. I argue, however, that to understand these numbers and their relation to each other, one needs to take into account the character of the different sources as well as the question of who was actually counted. Even if they all seem to come from similar sources and seem to count the same people, for example editions of the *Guizhou tongzhi*, one cannot just compare any number with any other. A couple of notes are important. Firstly, Guizhou was not organised as a province until 1413, and so we do not have data for it from earlier censuses, most importantly the first Ming census in 1381. Secondly, the number the *Guizhou tongzhi* (1987[1502]) gives for 1502 indeed refers to the 1491 census. Thirdly, the population number given in the *Huangyu kao* (1557) without a specific date is the same several *Guizhou tongzhi* editions give for 1555. Here, this is of no consequence as the difference is only two years. As we will see in the other cases, however, the data presented in the *Huangyu kao* seems to be randomly taken from previous censuses without dates and thus is ultimately not helpful.

<i>Year</i>	<i>Persons</i>	<i>Source</i>
1491	258,693	<i>Mingshi</i> , 46:1198; <i>Da-Ming huidian</i> , 19:8a; [<i>Guizhou tongzhi</i> (1987[1502])]
1555	250,420 (civilian)	<i>Guizhou tongzhi</i> (1522–1567), 3:47b; <i>Qianji</i> (1573–1620), 9:9a–9b; <i>Guizhou tongzhi</i> (1597), 1:2b
1578	290,972	<i>Mingshi</i> , 46:1198; <i>Da-Ming huidian</i> , 19:14b
1597	325,374 (civilian)	<i>Qianji</i> (1573–1620), 9:9b; <i>Guizhou tongzhi</i> (1597), 1:2b
1602	334,667 (civilian + new <i>zhou</i>)	<i>Qianji</i> (1573–1620), 9:10a

Table 2. Population numbers in Guizhou according to data set A

When we look at the second column of Table 1, it becomes clear that we cannot just arbitrarily compare the numbers from all sources. We find sharp swings, both upwards and downwards. They cannot be explained by an extreme influx of migrants, who then must have

247–248; see also see Sprenkel 1953, 301.

abandoned Guizhou after 1555, only to return after 1578. Instead, I suggest that the numbers represent two individual sets of data, each of which follows its own more reasonable curve. This way, the data seem to follow their own respective logic in two different groups of sources whose compilers used distinct data sets. Data set A, presented in Table 2 below, originates from official sources. Both the *Mingshi* and the *Da-Ming huidian* exclusively use these numbers. They also appear in several gazetteers.

Data set B, presented in Table 3 below, can be found in the later *Guizhou tongzhi* editions and the *Huangyu kao*.

<i>Year</i>	<i>Persons</i>	<i>Source</i>
1555	512,289 (military + civilian)	<i>Guizhou tongzhi</i> (1522–1567) ²⁶ , 3:47b; <i>Qianji</i> (1573–1620), 9:9a–9b; <i>Guizhou tongzhi</i> (1597), 1:2b; [<i>Huangyu kao</i> , 1:22a]
1597	509,975 (military + civilian)	<i>Qianji</i> (1573–1620), 9:9b; <i>Guizhou tongzhi</i> (1597), 1:2b
1602	528,781 (military + civilian [incl.])	<i>Guizhou tongzhi</i> (1741)

Table 3. Population numbers in Guizhou according to data set B

The data of both sets (together with the data for Guangxi) are presented as a plot in Figure 1 in the appendix. The filled and empty orange triangles present data sets A and B respectively. According to data set A, the population overall increased between 1491 and 1602. Data set B shows a very low decrease between ca. 1555 and 1597, and an increase between 1597 and 1602.

The main difference between the two data sets is that data set A gives only the population number of tax-paying civilians (*min* 民) (in one case including 9,513 Miao people), whereas data set B includes both civilians and military (*jun* 軍) subjects. Only the gazetteers, which often also give the sum of both subject groups, indicate the differentiation. The official sources, on the other hand, list only the civilians without explaining that this is what they do. The population increase indicated in data set A is in fact evened out if the garrison population is added, because the latter decreased over the same period. Whether the garrison population left Guizhou or stayed but changed their status to civilians remains unclear.

²⁶ The compiler states that the data are “from an old gazetteer” (舊志) without providing a date.

Although the two sets differ greatly from each other regarding absolute numbers, they show similar trends: an increase in population numbers over the course of the recorded time, but much slower than Herman assumes. It has become clear that the problem with Herman's approach is that the numbers he uses for arguing that the Guizhou population nearly doubled between 1502 and 1555 stem from two different data sets and follow different logics.

Cao Shuji (1997, 313–316) assumes that the number of military and their entourage was particularly high in Guizhou. Already in the Hongwu era, altogether 127 garrisons (*wei* 衛) staffed with c. 142,000 non-local soldiers were established in Guizhou. Cao (1997, 315) estimates that each soldier was accompanied by c. two dependents, which would mean that in early Ming times, c. 420,000 garrison people moved to Guizhou (see also Wu 1997, 206). Given the official numbers of military for later times, Cao's number might be too high. However, he is probably correct in indicating a decrease of military population being countered by an increase in civilians over the course of the Ming. We can therefore assume that there was no steep population increase in Guizhou. It seems more sensible to assume that the data presented for 1491 in the *Mingshi* and the *Da-Ming huidian* can be placed in relation to the data only for the civilian population in the gazetteers.

Case study II: Guangxi

Although the second case of Guangxi confirms the argument of two data sets, the reason for their different trajectories remains unclear, thus differing from the case of Guizhou. Leo K. Shin (2006, 40), trying to understand the population census data of Guangxi province, suggests not taking the “official statistics [...] at face value”, as they indicate that the “registered population [of Guangxi] had also declined sharply over the course of the Ming period”, which he does not accept. However, looking at the numbers for Guangxi, my thesis of two data sets is substantiated. Table 4 below follows the same logic as Table 1 above; data used by Shin is marked by [S] in the third column.

<i>Year</i>	<i>Persons</i>	<i>Source</i>
1381	1,463,139	<i>Mingshilu</i> , vol. 2, 140:9
[1391]	[1,392,248]	<i>Mingshilu</i> , vol. 2, 214:261
1393	1,482,671	<i>Mingshi</i> , 45:1149; <i>Da-Ming huidian</i> , 19:3a; <i>Houhu zhi</i> , 2:5a ²⁷

²⁷ Please note that the number in the *Houhu zhi* is 1,482,672 instead of 1,482,671.

		<i>Guangxi tongzhi</i> (1599); <i>Guangxi tongzhi</i> (1782), 30:2a [S]
1491	1,676,274 ²⁸	<i>Mingshi</i> , 45:1149; <i>Da-Ming huidian</i> , 19:7b–8a
		<i>Guangxi tongzhi</i> (1531), 18:1a
1522	1,054,752	<i>Guangxi tongzhi</i> (1599); <i>Guangxi tongzhi</i> (1531), 18:1b [S]
[1557=1522]	[1,054,767]	<i>Huangyu kao</i> , 1:21a
1578	1,186,179	<i>Mingshi</i> , 45:1149; <i>Da-Ming huidian</i> , 19:14a ²⁹ ; <i>Guangxi tongzhi</i> (1782), 30:2a
1594	807,219	<i>Guangxi tongzhi</i> (1599) [S]

Table 4. Population numbers in Guangxi, data set A highlighted in grey, data set B in orange³⁰

The result is similar to the Guizhou numbers even if not as profound. If all numbers are compared, we see larger swings upwards and downwards. However, if we disentangle two data sets based on what we learned from the Guizhou case, the developments are more moderate. Data set A presented in Table 5 below includes data from the *Mingshi*³¹, the *Da-Ming huidian*, and the *Mingshilu*. As in the case of Guizhou, some editions of the *Guangxi tongzhi* refer to these official numbers, too, but then seem to use different data sets.

<i>Year</i>	<i>Persons</i>	<i>Source</i>
1381	1,463,139	<i>Mingshilu</i> , vol.2, 140:9
1393	1,482,671	<i>Mingshi</i> , 45:1149; <i>Da-Ming huidian</i> , 19:3a; <i>Houhu zhi</i> , 2:5a
		<i>Guangxi tongzhi</i> (1599); <i>Guangxi tongzhi</i> (1782), 2a
1491	1,676,274	<i>Mingshi</i> , 45:1149; <i>Da-Ming huidian</i> , 19:7b–8a

²⁸ *Guangxi tongzhi* (1531 ed., 18.1a) gives this number for both 1368 and 1381. This must be a mistake.

²⁹ Qing editions of *Guangxi tongzhi* ([1782], 30.2b–3a; [1801], 85.1b) refer to this number, too. Also, the other numbers they refer to all stem from the *Mingshi* and not from Ming editions of local gazetteers. The reason might be that the editors of Qing local gazetteers considered the data in the *Mingshi* to be more reliable.

³⁰ The data from *Guangxi tongzhi* (1599) is quoted from Shin 2006, 41; see also Sprenkel 1953, 297, 301.

³¹ I omit the data for 1391 which was found to be faulty by the Ming government and revised in 1393 (see above).

Guangxi tongzhi (1531), 18:1a

1578	1,186,179	<i>Mingshi</i> , 45:1149; <i>Da-Ming huidian</i> , 19:14a; <i>Guangxi tongzhi</i> (1782), 2a
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Table 5. Population numbers in Guangxi according to data set A

As a result, the numbers in data set A show a more moderate population development over the Ming period, at least until the late fifteenth century: a slight decrease between 1381 and 1391, and an increase between 1391 and 1491. The only outlier is a somewhat steeper decrease between 1491 and 1578. The census data for 1578 seem more in line with data set B, however, based on the logic introduced above, this number must be part of data set A. Moreover, if we now look at data set B, it actually indicates a similar decrease in the sixteenth century.

Data set B, presented in Table 6 below, can be found in the later *Guangxi tongzhi* editions and the *Huangyu kao*. Data for earlier times are not available for this data set, and it thus refers only to population developments in the sixteenth century.

<i>Year</i>	<i>Persons</i>	<i>Source</i>
1522	1,054,752	<i>Guangxi tongzhi</i> (1599); <i>Guangxi tongzhi</i> (1531), 18:1b; [<i>Huangyu kao</i> , 1:21a]
1594	807,219	<i>Guangxi tongzhi</i> (1599)

Table 6. Population numbers in Guangxi according to data set B

Again, the data of both sets are presented as a plot (together with the data for Guizhou) in Figure 1 in the appendix. The filled and empty blue circles present data sets A and B respectively. As in the case of Guizhou, the numbers presented in the later *Guangxi tongzhi* and the *Huangyu kao* are more similar to each other than to those in the *Mingshi* and the other sources of data set A. As mentioned in case of Guizhou, the data in the *Huangyu kao* (1557) are the same as given for 1522 in the two *Guangxi tongzhi* (1531, 1599). Data set B indicates a decrease between 1522 and 1594 which is substantial for only 72 years. However, a very similar development is indicated in data set A, where we saw a decrease in a similar period from 1491 to 1578. As in the case of Guizhou, the two sets referring to Guangxi differ from each other regarding absolute numbers but show similar trends, namely a decrease in population numbers in Guangxi in both statistics over the course of the sixteenth century.

However, there are differences between the two cases presented here. The differences between the two data sets are less pronounced in the case of Guangxi than they are in the case of Guizhou. Moreover, the data sets cannot be driven by the same logic, that is, data set A referring to civilians only, and data set B counting both civilians and garrison people, because the numbers in data set A are higher than those in data set B in the case of Guangxi. Moreover, unlike in the case of Guizhou, no Guangxi gazetteer mentions differentiated numbers for civilians and military. Generally, the number of garrisons in Guangxi was much lower than in Guizhou. By late Hongwu times, there were only six garrisons (compared to 127 in Guizhou). Cao Shuji (1997, 317) assumes that only 35,000 soldiers and 65,000 dependents or altogether 100,000 military people were stationed in Guangxi in the late fourteenth century, in contrast to c. 420,000 in Guizhou (Cao 1997, 206, 315). (Cao does not suggest numbers for later times.) These numbers were maybe not significant enough to be listed separately from civilian census data.

Another possibility could be that data sets A and B for Guangxi include or exclude native populations. This is not indicated in the Guangxi-related sources themselves, but is a deduction from the fact that one Guizhou-related gazetteer, *Qianji*, gives a number for Miao people for one year, 1602. The compilers state that the data came from the Yellow Registers (*Qianji* 9:9b–10a). If the Yellow Registers, which are unfortunately lost, generally counted native populations, then these data would have been available for compilers of official sources represented in data set A and might have been included without mentioning this. However, in the case of Guizhou, official sources counted rather fewer people than the gazetteers, so this possibility seems unlikely. Anyway, at present the reasons for the difference between the two Guangxi data sets cannot be explained satisfactorily.

Three test cases: Guangdong, Huguang, and Jiangxi

To verify whether my conclusion of two data sets is correct, I introduce three more cases of provinces on the south-west fringe, Guangdong, Huguang, and Jiangxi. Like Guangxi, these three provinces belong to Sprenkel's second group of Ming provinces whose population numbers decreased if one compares data for the late fourteenth and the late sixteenth century. As in the cases of Guangxi and Guizhou, the population data stem from official sources as well as gazetteers.³² In the following, for each relevant province, there is a table with all the population data that I could access and then two tables with data sets A and B. Moreover, the data for all three provinces are presented as plots in Figure 2 in the appendix. The filled

³² Please note that not all gazetteers contain population data or useful data.

and empty symbols present data sets A and B respectively for Guangdong (blue circles), Huguang (orange triangles), and Jiangxi (green squares).

Test case I: Guangdong

<i>Year</i>	<i>Persons</i>	<i>Source</i>
1381	3,171,950	<i>Mingshilu</i> , vol. 2, 140:9
[1391]	[2,581,719]	<i>Mingshilu</i> , vol. 2, 214:261
1393	3,007,932	<i>Mingshi</i> , 75:1133; <i>Da-Ming huidian</i> , 19:3a; <i>Houhu zhi</i> , 2:6a
1491	1,817,384	<i>Mingshi</i> , 75:1133; <i>Da-Ming huidian</i> , 19:7b
		<i>Guangdong tongzhi</i> (1602), 7:36b; <i>Guangdong tongzhi</i> (1675), 9:3a
[1502=1491]	[1,817,384]	<i>Guangdong tongzhi</i> (1675), 9:3a
1531	2,020,119	<i>Guangdong tongzhi</i> (1522–1567), 22:16b
[1535=1531]	[2,020,019] ³³	<i>Guangdong tongzhi</i> (1602), 7:36b
[1536=1531]	[2,020,019]	<i>Guangdong tongzhi</i> (1675), 9:3b
1552	2,067,175	<i>Guangdong tongzhi</i> (1675), 9:3b
1557	1,978,022	<i>Huangyu kao</i> , 1:20b
1578	2,040,655	[<i>Mingshi</i> , 75:1133] ³⁴ ; <i>Da-Ming huidian</i> , 19:14a
		<i>Guangdong tongzhi</i> (1602), 7:37a; <i>Guangdong tongzhi</i> (1675), 9:3b
1591	2,060,581	<i>Guangdong tongzhi</i> (1602), 7:37a
[1592=1591]	[2,060,581] ³⁵	<i>Guangdong tongzhi</i> (1675), 9:3b

Table 7. Population numbers in Guangdong, data set A highlighted in grey, data set B in orange

³³ Please note that the number differs from the previous one, 2,020,019 instead of 2,020,119, which is most probably a writing or copying mistake.

³⁴ The *Mingshi* mistakenly gives 5,040,655 instead of 2,040,655.

³⁵ In *Kangxi Guangdong tongzhi* (9:3b–4a), the sum is divided into 730,993 women and 1,319,588 men. The sum, however, is only 2,050,581, and 10,000 must be missing somewhere.

<i>Year</i>	<i>Persons</i>	<i>Source</i>
1381	3,171,950	<i>Mingshilu</i> , vol. 2, 140:9
1393	3,007,932	<i>Mingshi</i> , 75:1133; <i>Da-Ming huidian</i> , 19:3a; <i>Houhu zhi</i> , 2:6a
1491	1,817,384	<i>Mingshi</i> , 75:1133; <i>Da-Ming huidian</i> , 19:7b <i>Guangdong tongzhi</i> (1602), 7:36b; <i>Guangdong tongzhi</i> (1675), 9:3b
1578	2,040,655	<i>Mingshi</i> , 75:1133; <i>Da-Ming huidian</i> , 19:14a <i>Guangdong tongzhi</i> (1602), 7:37a; <i>Guangdong tongzhi</i> (1675), 9:3b

Table 8. Population numbers in Guangdong according to data set A

<i>Year</i>	<i>Persons</i>	<i>Source</i>
1531	2,020,119	<i>Guangdong tongzhi</i> (1522–1567), 22:16b; [<i>Guangdong tongzhi</i> (1602), 7:36b; <i>Guangdong tongzhi</i> (1675), 9:3b]
1552	2,067,175	<i>Guangdong tongzhi</i> (1675), 9:3b
1557	1,978,022	<i>Huangyu kao</i> , 1:20b
1591	2,060,581	<i>Guangdong tongzhi</i> (1602), 7:37a; [<i>Guangdong tongzhi</i> (1675), 9:3b]

Table 9. Population numbers in Guangdong according to data set B

Differing from the cases of Guizhou and Guangxi, the population development in Guangdong as given in different types of sources (Table 7 and Figure 2) lacks larger outliers and thus seems more consistent. The only exception is a sharp decrease between 1393 and 1491, which is contained only in data set A (Table 8) and not resolved by divided data sets, because data set B only provides data from the sixteenth century onwards (Table 9). Given the period of nearly one century, this decrease could be a continuation of the decrease appearing between 1381 and 1393.

For the remainder of the Ming period, the population of Guangdong does not change much in either of the data sets, while the absolute numbers are very similar. Data set B (Table 9)

seems a more self-contained unit with smaller increases and decreases; however, this is relativised by the fact that it covers only sixty years.³⁶

Test case II: Huguang

<i>Year</i>	<i>Persons</i>	<i>Source</i>
1381	4,593,070	<i>Mingshilu</i> , 140:9
[1391]	[4,091,905]	<i>Mingshilu</i> , vol. 2, 214:261
1393	4,702,660	<i>Mingshi</i> , 75:1072; <i>Da-Ming huidian</i> , 19:1b; <i>Houhu zhi</i> , 2:5a–b <i>Huguang tongzhi</i> (1684a), 21:2b; <i>Huguang tongzhi</i> (1684b), 11:2b/252; <i>Huguang tongzhi</i> (1782), 17:11b
1472	4,173,385	<i>Huguang tongzhi</i> (1684a), 21:2b; <i>Huguang tongzhi</i> (1684b), 11:2b/252; <i>Huguang tongzhi</i> (1782), 17:11b
1491	3,781,714	<i>Mingshi</i> , 75:1072; <i>Da-Ming huidian</i> , 19:6b; <i>Huguang tongzhi</i> (1684b), 11:2b/252
[1502=1491]	[3,781,714]	<i>Huguang tongzhi</i> (1684a), 21:2b; <i>Huguang tongzhi</i> (1782), 17:11b
[1512=1393]	[4,702,660]	<i>Huguang tongzhi</i> (1684a), 21:2b; <i>Huguang tongzhi</i> (1684b), 11:2b/252; <i>Huguang tongzhi</i> (1782), 17:11b
1557	4,335,590	<i>Huangyu kao</i> , 1:18b–19a
1562	4,464,851	<i>Huguang tongzhi</i> (1684a), 21:2b; <i>Huguang tongzhi</i> (1684b), 11:2b/252; <i>Huguang tongzhi</i> (1782), 17:11b
[1572=1578]	[4,398,785] ³⁷	<i>Huguang tongzhi</i> (1684b), 11:2b/252
1578	4,398,785	<i>Mingshi</i> , 75:1072; <i>Da-Ming huidian</i> , 19:13a <i>Huguang tongzhi</i> (1684a), 21:2b ³⁸ ; <i>Huguang tongzhi</i> (1782), 17:11b

Table 10. Population numbers in Huguang, data set A highlighted in grey, data set B in orange

³⁶ Although I decided to leave it in the table, the data presented in *Huangyu kao* need to be questioned. Unlike in the Guizhou and Guangxi cases, it does not appear in any other source (at least those I could access), and thus it remains unclear what year it refers to.

³⁷ In this case, the earlier date given in a *Huguang tongzhi* (1684b) from Qing times is probably mistaken given the fact that the number is accounted for in official Ming sources.

³⁸ Instead of Wanli 6, the date Longqing 6 is given. This must be a mistake.

<i>Year</i>	<i>Persons</i>	<i>Source</i>
1381	4,593,070	<i>Mingshilu</i> , 140:9
1393	4,702,660	<i>Mingshi</i> , 75:1072; <i>Da-Ming huidian</i> , 19:1b; <i>Houhu zhi</i> , 2:5a–b <i>Huguang tongzhi</i> (1684a), 21:2b; <i>Huguang tongzhi</i> (1684b), 11:2b/252; <i>Huguang tongzhi</i> (1782), 17:11b; [<i>Huguang tongzhi</i> (1684a), 21:2b]
1491	3,781,714	<i>Mingshi</i> , 75:1072; <i>Da-Ming huidian</i> , 19:6b; <i>Huguang tongzhi</i> (1684b), 11:2b/252; [<i>Huguang tongzhi</i> (1684a), 21:2b; <i>Huguang tongzhi</i> (1782), 17:11b]
1578	4,398,785	<i>Mingshi</i> , 75:1072; <i>Da-Ming huidian</i> , 19:13a <i>Huguang tongzhi</i> (1684a), 21:2b; <i>Huguang tongzhi</i> (1782), 17:11b; [<i>Huguang tongzhi</i> (1684b), 11:2b/252]

Table 11. Population numbers in Huguang according to data set A

<i>Year</i>	<i>Persons</i>	<i>Source</i>
1472	4,173,385	<i>Huguang tongzhi</i> (1684a), 21:2b; <i>Huguang tongzhi</i> (1684b), 11:2b/252; <i>Huguang tongzhi</i> (1782), 17:11b
1557	4,335,590	<i>Huangyu kao</i> , 1:18b–19a
1562	4,464,851	<i>Huguang tongzhi</i> (1684a), 21:2b; <i>Huguang tongzhi</i> (1684b), 11:2b/252; <i>Huguang tongzhi</i> (1782), 17:11b

Table 12. Population numbers in Huguang according to data set B

Unfortunately, I could access only Qing editions of *Huguang tongzhi*. However, apart from copying the official data for 1381, 1393, and 1578, all three gazetteers list additional data for years not contained in the official sources. They are thus of use here. The compiler of the 1782 edition obviously copied from the 1684a and 1684b editions, revising only one mix-up of reign periods (see footnote 38), but overlooking two other mistakes. Firstly, two editions indicate that the population number 3,781,714 refers to the year 1502. However, this is probably a mistake as it is identical with the official census data for 1491. As this is a difference of a mere eleven years, though, it has no major implications. However, the second mistake is more profound. All three gazetteers claim that the population number 4,702,660 refers to

the year 1512; however, this is the official number for 1393. Therefore, I decided to take it out of the equation—and with it the sharpest upward swing (Table 10).

Although in the case of Huguang the differences between data sets A and B are not as clear as in the cases of Guizhou and Guangxi regarding absolute numbers, both data sets show similar trends, at least for the time between the late fifteenth and late sixteenth centuries (Figure 2). Data set A (Table 11) indicates a moderate population increase between 1491 and 1578; data set B (Table 12) also shows an increase in the similar time period between 1472 and 1562. Regarding the time before 1472, only data set A contains data, and no comparison is possible.

Test case III: Jiangxi

<i>Year</i>	<i>Persons</i>	<i>Source</i>
1381	8,982,481	<i>Mingshilu</i> , 140:9; <i>Jiangxi tongzhi</i> (1881), 47:4a
[1391]	[8,105,610]	<i>Mingshilu</i> , vol. 2, 214:261
1393	8,982,482	<i>Mingshi</i> , 75:1053; <i>Da-Ming huidian</i> , 19:1b; <i>Houhu zhi</i> , 2:5a ³⁹
1368–1398	7,925,185	<i>Jiangxi tongzhi</i> (1522), 1:10a
1488–1505	6,514,833	<i>Jiangxi tongzhi</i> (1522), 1:10a; <i>Jiangxi tongzhi</i> (1732), 23:18a–b
1491	6,549,800	<i>Mingshi</i> , 75:1053; <i>Da-Ming huidian</i> , 19:6b; <i>Jiangxi tongzhi</i> (1881), 47:4a
1522	6,396,581	<i>Jiangxi tongzhi</i> (1522), 1:10a–b
[1557=1368–1398]	[7,925,185]	<i>Huangyu kao</i> , 1:18a–b
1582	5,859,026	<i>Mingshi</i> , 75:1053; <i>Da-Ming huidian</i> , 19:13a; <i>Jiangxi tongzhi</i> (1881), 47:4a

Table 13. Population numbers in Jiangxi, data set A highlighted in grey, data set B in orange

³⁹ Please note that the number in the *Houhu zhi* is 8,982,481 instead of 8,982,482.

<i>Year</i>	<i>Persons</i>	<i>Source</i>
1381	8,982,481	<i>Mingshilu</i> , 140:9; <i>Jiangxi tongzhi</i> (1881), 47:4a
1393	8,982,482	<i>Mingshi</i> , 75:1053; <i>Da-Ming huidian</i> , 19:1b; <i>Houhu zhi</i> , 2:5a
1491	6,549,800	<i>Mingshi</i> , 75:1053; <i>Da-Ming huidian</i> , 19:6b; <i>Jiangxi tongzhi</i> (1881), 47:4a
1582	5,859,026	<i>Mingshi</i> , 75:1053; <i>Da-Ming huidian</i> , 19:13a; <i>Jiangxi tongzhi</i> (1881), 47:4a

Table 14. Population numbers in Jiangxi according to data set A

<i>Year</i>	<i>Persons</i>	<i>Source</i>
1368–1398	7,925,185	<i>Jiangxi tongzhi</i> (1522), 1:10a; [<i>Huangyu kao</i> , 1:18a–b]
1488–1505	6,514,833	<i>Jiangxi tongzhi</i> (1522), 1:10a; <i>Jiangxi tongzhi</i> (1732), 23:18a–b
1522	6,396,581	<i>Jiangxi tongzhi</i> (1522), 1:10a–b

Table 15. Population numbers in Jiangxi according to data set B

Two problems with the Jiangxi data need to be outlined. Firstly, the official data for the years 1381 and 1393 give nearly identical numbers for both years. This could indicate that one of the numbers is wrong. Secondly, the data for Jiangxi in the *Huangyu kao* are of no use. The *Huangyu kao* indicates 7,925,185 persons, which is the number the *Jiangxi tongzhi* (1522) gives for the Hongwu era (1368–1398). Because this number already appears in 1522, it has to refer to a pre-1522 census, maybe indeed to the Hongwu era as stated in the gazetteer, but it can definitely not be from as late as 1557 when the *Huangyu kao* was compiled. As we have seen before, the *Huangyu kao* generally does not provide dates for the data it uses and is therefore unreliable. I decided to follow the *Jiangxi tongzhi* (1522). Consequently, the development curve in data set B mirrors that in data set A: a decrease of population numbers in both cases. Again, the absolute numbers are very similar in both data sets.

To briefly conclude, the three test cases do not offer clear confirmation of the theory of two data sets. The case of Guangdong is not conclusive, firstly, because the two data sets contain

very similar absolute numbers, and secondly, because of a lack of gazetteer data, which at present covers only sixty years (Table 9). Regarding Huguang, the numbers of the two data sets are not very dissimilar, but they are also not alike. Both indicate a slow population increase for roughly one century between the late fifteenth and late sixteenth centuries (Table 11 and 12 and Figure 2). The case of Jiangxi resembles that of Guangdong in that the absolute numbers are very similar. By using two data sets, both show a population decrease over the first two (data set A) or one and a half centuries (data set B) despite different absolute numbers (Table 14 and 15 and Figure 2).

Calculations based on estimated growth rates

Disbelieving the population census data as given in the *Guangxi tongzhi* (1599), Shin (2006, 40) claims that a stark population increase happened in Guangxi. In fact, as we have seen, the data in both data sets indicate quite the reverse development, with a decline (Tables 5 and 6). To support his claim that the population of Guangxi did not decrease, but increased substantially, Shin, however, refers to the calculations by Robert Marks and Martin Heijdra which are based on estimated growth rates. Both scholars use the data from the 1381 and 1393 censuses and then calculate probable population developments, assuming the same exponential growth rates for certain time periods in all provinces and ignoring post-1393 census data.

Marks (1998, 87n3) assumes a growth rate of 0.3 percent p.a. for 1391–1542 and of 0.4 percent p.a. for 1542–1640.⁴⁰ For Guangxi, this would mean a population of c. 3,250,000 in 1640. The census data for the late sixteenth century are much smaller than the figure projected by Marks, data set A indicating 1,476,692 for 1578 (Table 5), and data set B indicating 807,219 for 1594 (Table 6).

Heijdra, too, uses the census data from 1381 and 1393 as a basis for his calculations. However, claiming that under-registration must have been a major factor even then, he assumes a greater de facto population from the start. Instead of 60 million inhabitants of the whole empire that the census data count for the late fourteenth century, Heijdra (1998, 440) suggests a population of 8.5 million: 60 million registered individuals, 10 million under-registered women and children, 5 million under-registered men in the north, and 10 million under-registered men in Sichuan, the coastal provinces and “the outer tiers of provinces”. Like Marks, Heijdra (1998, 438) assumes a steady and similar population increase everywhere and suggests three sets of growth rates, high, middle, and “implausibly low” for three time periods. Let us just consider the high and the middle ones: 1380–1500: 0.6 (high) or 0.5 (middle) percent p.a.; 1500–1600: 0.5 or 0.4 percent p.a.; 1600–1650: 0.4 or 0.3 percent

⁴⁰ Marks does not further explain why he chooses 1542 as a watershed.

p.a.⁴¹ Heijdra (1998, 437) bases his assumptions about Ming population developments on data from “a few prefectures and counties where relatively reliable data seem to exist”. He reveals that “the selection of so-called ‘reliable’ counties is my own to begin with” (Heijdra 1998, 437n52), and though he does not explain in detail why those data are more reliable than others, he implies that there must have been similar conditions of “economic vigour along the coast and in Chiang-nan” which he then applies to the whole Ming empire. Most of the prefectures and counties Heijdra (1998, 437) selects as case studies are situated in today’s Shandong and Henan, some in Hebei and Jiangsu. Hebei was part of the northern ‘metropolitan region’ (*jīngshì* 京師). Apart from Jiangsu, then part of the ‘southern metropolitan [region]’ (*Nanjing* 南京) (Map 1), all of Heijdra’s case studies are situated in the north of the Ming empire and belong to group I A of provinces identified by Sprenkel (1953, 305), where population increased.⁴² Heijdra does not refer to data from a prefecture or county in the southern or southwestern provinces where census data imply population decrease. However, Heijdra (1998, 440) simply assumes a similar population development in all Ming provinces, and concludes that by 1600, Guangxi for example must have had a population of 5,136,000 (middle growth rate) or even 6,476,000 (higher growth rate). Also for the other southern and southwestern provinces, Heijdra presents much higher population numbers than those we find in the historical sources, which, as we have seen, rather indicate population decreases (see Tables 1–15 and Figures 1 and 2).

Thus, the numbers calculated by both Marks and Heijdra differ profoundly from the census data in the sources of both data sets. Like Ho (1959, 137), though he did not venture to present estimated population numbers, both assume a steady and profound population growth for all provinces throughout the Ming period. Contradicting the historical data, Ho, Herman, Shin, Heijdra, and Marks thus also disagree with the conclusion of a north- and westward migration movement in Ming times as shown by Cao Shuji and also earlier by Sprenkel (Cao 2010; Cao 1997, 470–471, 524; Cao 1990, 37; Sprenkel 1953, 305).

The assumption that even the first Ming census of 1381 gives too low a number is contradicted by John Durand (1960, 233), who thought it reasonable to assume that “the population should have decreased considerably during the fourteenth century in view of the incessant fighting and bitter hardships which marked the last phase of Mongol rule, and especially the pandemic of bubonic plague”. Durand (1960, 233) moreover wrote that there “is little concrete evidence to support this view” of a steady increase of the Ming empire’s population as brought forward by Ho (1959, 137). Still, he assumes that “[i]n all likelihood the population of China increased during the period of Ming rule, but the amount of the increase is indeterminate” (Durand 1960, 234). However, assumptions based on the fact that we have no evidence are ultimately not helpful as they can be used to make a contrary case, as Marks

⁴¹ Heijdra does not further explain why he chooses 1500 and 1600 as watersheds.

⁴² According to Sprenkel (1953, 306), population in the southern metropolitan region to which Jiangsu belonged, remained more or less the same throughout Ming times.

(1998, 87n3) for example does, writing that “there is nothing in the historical record to suggest that the rate of growth [of Guangdong and Guangxi] slowed around 1600; indeed, there is no reason to think that the population of Guangdong and Guangxi provinces did not keep increasing right up to 1644”.

In view of calculations based on estimated growth rates as presented by Marks and Heijdra, Kent G. Deng criticises “attempts to linearise the growth curve for the Chinese population” in general. He doubts that “datum manipulation” for the sake of linearisation is a valid method for population calculation, stating that “linearisation is still a fantasy” and “an exception, not the rule” (Deng 2003, 6). Therefore, Deng’s suggestion is not to use an “approach of reconstructing demographic data by estimation and guesstimation”, but to surmise “that the Chinese official figures for both the landowners and the households were as accurate as they could be for a premodern society. They should be acceptable by modern readers” (Deng 2003, 25). Taking Deng’s argument into account, even if we assume that the state “decided not to register everybody at all times”, particularly after 1393, we cannot just thrust aside post-1393 census data as generally unreliable and assume a linearised population development everywhere in the empire. Thus, we must also not thrust aside the suggestions of a general trend of migration from Sprenkel’s second group of provinces in the south towards western and northern provinces, rather than a major southward migration. After all, that is what the numbers in fact indicate.

Conclusion

How do population numbers influence what we think about Chinese migration towards the south? Firstly, we need to address the claim that all post-1393 census data or even all Ming census data are unreliable. This assumption constitutes the basis for all those arguing for an immense population increase everywhere in the Ming empire and therefore also in the southern and southwestern provinces irrespective of the historical data. This in turn is one of the main bases for scholars who argue that already the Ming empire integrated the south-west fringe in a way comparable to European colonial approaches, particularly to settler colonialisms.

The case studies of Guizhou and Guangxi show that population numbers and their logics differ from source to source and from province to province, and that a straightforward comparison of existing census data is not possible. Data can only be compared if the logic behind its acquisition is similar. This comes to the fore most clearly in the case of Guizhou, where official sources refer only to civilians (data set A), whereas gazetteers include numbers of civilians as well as military subjects and usually also provide the sum of both (data set B) (see Figure 1). However, also in the case of Guangxi, the difference between numbers in official sources and in gazetteers suggests that they used different logics, although it is still unclear

what kind of acquisition differences are reflected in the different population numbers of data sets A and B (see Figure 1).

The three test cases of Guangdong, Huguang, and Jiangxi do not clearly confirm the thesis of data sets, as the data for them in both official sources and gazetteers seem to be more aligned (see Figure 2). However, the test cases reveal that the logic of the collection and use of population data differs profoundly from province to province, and that a simple comparison is not possible.

The numbers for all five provinces moreover show that the theory of a north- and westward “great migration of the Hongwu period” as well as later migrations in the same direction, as suggested by Cao Shuji (2010; 1997, 470–471) and Sprenkel (1953, 305), is supported by census data presented in both official sources and gazetteers. The numbers indicate that the main trend was not a migratory movement from northern and central Chinese provinces towards the south: on the contrary, migration in the opposite direction seems to have been much more common. This migration was extensive in the first decades of the Ming dynasty and then slowed down somewhat.

Even if under-registration was an issue in Ming census data, we can assume that the census data indicate trends. If the numbers increased, the population as such grew, at least that part living in similar conditions as Chinese men above ten *sui* who were taxpayers and thus most reliably counted; and if their numbers decreased, so probably did the population in general. Now, the tendencies indicated by historical census data are, in Guangxi and Jiangxi, steady population decreases; in Guangdong and Huguang, decreases until 1491 and then moderate increases: moreover, population numbers in the late sixteenth century remain lower than in the late fourteenth century. For Guizhou, only post-1491 data are available; however, given its close proximity to and its climatic-geographical and cultural-historical similarity with Guangxi, it is probable that there, too, the population decreased before 1491. From then on, we see a slow increase. What we do not see are stark population increases in these five southern and southwestern provinces over the course of the Ming dynasty.

This suggestion is supported by David G. Atwill, who focuses on Yunnan in Qing times but also refers to pre-Qing population composition and developments in Yunnan. Although Yunnan is indeed one of the three southwestern provinces where census data indicate a population increase, Atwill (2005, 26) still claims that “the myth of early Han demographic dominance” in Yunnan is incorrect, and that even there, non-Chinese people were the majority until well into the nineteenth century. He argues that until then, the impact of Chinese migrants on tribal non-Chinese peoples “was less than has long been assumed” (Atwill 2005, 26). Atwill sees a continued administrative division between *Han* 漢 (Chinese), *Hui* 回 (Muslims), and *Yi* 夷/彝 (tribal people) which indicates that by then newcomers had still not merged with the indigenous people. What is relevant here is the explanation Atwill gives for this. He argues that before mid-Qing times, migrants moved mainly to urban centres and had not (yet) settled in larger numbers in fertile lands outside urban centres. It was only after 1800

that the central government began to enforce its legal code also in the far south, that Chinese cultural influences began to be felt to a larger degree among non-Chinese peoples, and that the government tried to turn non-Chinese people, both tribal and Chinese Muslims, into “law-abiding subjects of China by instilling basic Confucian values” (Atwill 2005, 26–27). When referring to a domination, let alone colonisation, of the non-Chinese peoples in Yunnan, Atwill (2005, 29) suggests making a spatial differentiation between, on the one hand, cities and urbanised prefectures, where Chinese newcomers came to be the largest and dominant group, and on the other hand less urbanised areas and particularly mountainous regions, where Chinese migrants were outnumbered by tribal people until late Qing times (see also Lee 1982, 732–737, maps 3–8). This also coincides with William Skinner’s (1977, 213–214 [maps 1 and 2]) well-known theory of nine “physiographic macroregions” into which he divided China proper. This theory is based on the idea that the development of cities is “a critical element in regional development”. Thus, the macroregions cluster around a “system of cities” (Skinner 1977, 211). Developed for the mid-nineteenth century, Skinner’s theory cannot be applied to Ming times without reservation. What is interesting regarding the issue discussed here, however, is that the population density continued to be much higher in the macroregions of North China and the Lower Yangtze, whereas it was particularly low in the Yun-Kwei (Yunnan and Guizhou) and Lingnan (Guangdong, Guangxi, Hunan, and Jiangxi) macroregions (Skinner 1977, 213).

Where does this leave the thesis of a Ming colonisation of the south-west fringe if ‘hard’ numbers turn out to be rather ‘soft’ arguments? The argument of Chinese settler colonialism on the south-west fringe in Ming times seems intriguing. However, as we have seen, this is not further substantiated by census data. Therefore, if the argument of considerable waves of Chinese settlers who expelled non-Chinese tribal people from the land that they then cultivated in order to farm it (and to pay taxes) cannot be further substantiated for Ming times, we need to question how far Chinese farming settlers were already in Ming times indeed part of a state-led project to integrate the south-west fringe and whether the Ming state did indeed pursue a colonial project in its southern and southwestern provinces.

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Appendix

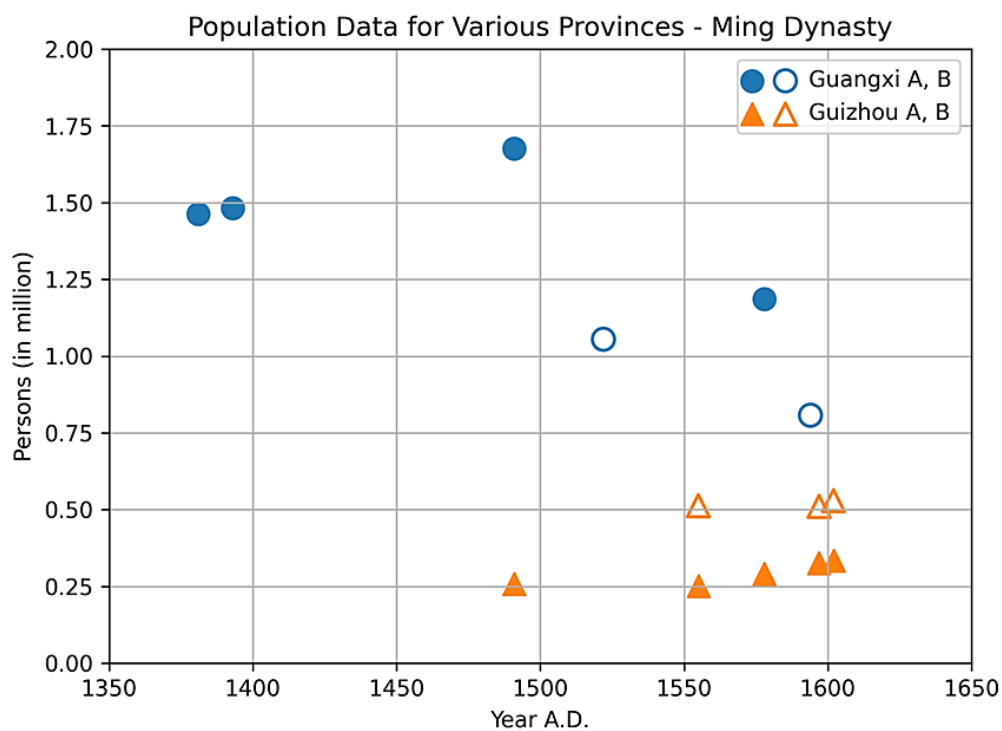


Figure 1. Population Data for Guangxi and Guizhou, Ming Dynasty, as found in different data sets A and B (see also Tables 1–6)

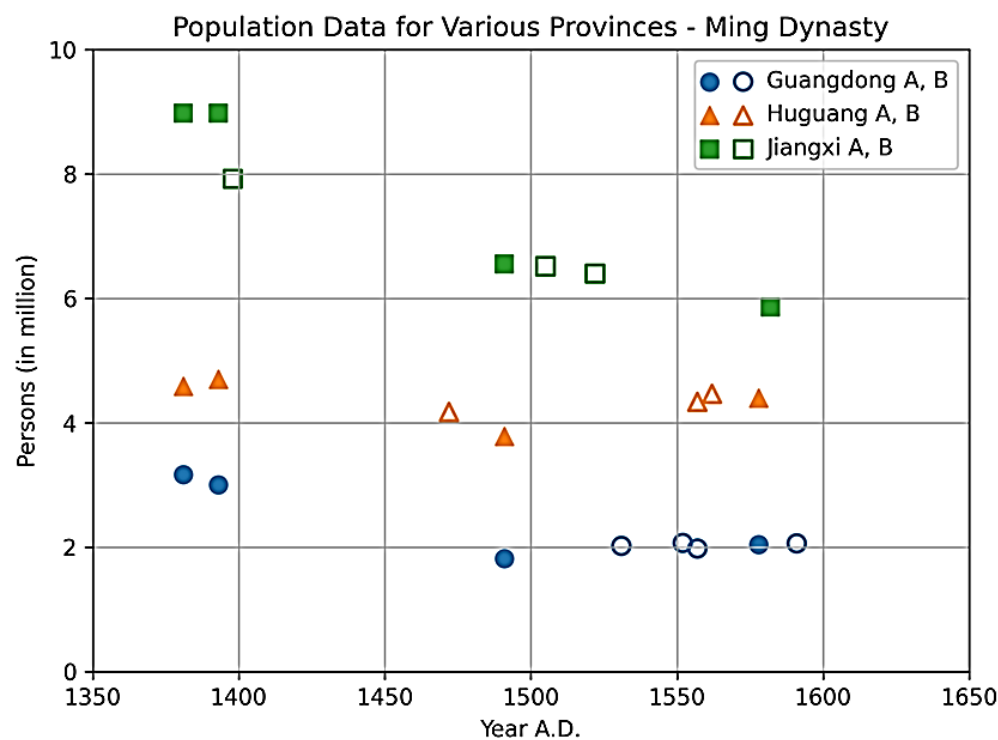


Figure 2. Population Data for Guangdong, Huguang, and Jiangxi, Ming Dynasty, as found in different data sets A and B (see also Tables 7–15)