LIVELIHOOD STRATEGIES IN CHINA: LESSONS LEARNED FROM TAIYUAN

by

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THESIS ABSTRACT

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Studies of urban China often deploy top-down analyses and focus on tier-1 cities such as Beijing and Shanghai. This thesis contributes to a diversifying literature by using a bottom-up analysis to compare the livelihood strategies of peri-urban residents in Taiyuan, a tier-2 city, to those in tier-1 and other lower-tiered cities. The empirical findings elucidate a similar spectrum of livelihood strategies, but unlike tier-1 and some lower-tiered cities, there was an absence of renting to migrant workers in peri-urban Taiyuan. Additionally, social infrastructure, social reproduction, and socio-spatial practices, often overlooked in studies of Chinese livelihoods, are central to understanding livelihood strategies people in peri-urban Taiyuan. Lastly, this thesis suggests that similar comparative studies can produce sharper insights into how processes of urbanization are not bound to specific territories: Chinese and global urban studies are connected through analogous urbanization processes, while also having unique circumstances.

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CHAPTER 1: INTRODUCTION

In order to understand the livelihoods of urban residents in China, it is important to analyze how people and communities make certain economic and social decisions to improve their lives. The resulting livelihood strategies are intimately linked with urbanization processes that are changing individuals' political-economic and socio-spatial circumstances. Chinese urban studies research published in English has often focused on tier-1 and coastal cities that are well-known in the West as hubs of economic growth: Guangzhou, Nanjing, Chongqing, Beijing, Shenzhen, and Shanghai. But China's central government introduced the National New-type Urbanization Plan in 2014, which is designed in part to shift migration and urbanization to lower-tiered cities (Li et al., 2016). Chinese urban studies researchers must adapt in response to the central government's goal of urbanizing lower-tiered cities but have done so minimally. Therefore, to address this limitation, I conducted field work in Taiyuan, a tier-2 city. Specifically, I sought to discover (1) what the livelihood strategies of peri-urban residents in Taiyuan are, as well as (2) how those strategies compare to those in prominent Chinese cities.

Peri-urban spaces are the focal point in this thesis because both the transformation of infrastructure and buildings and the effects of urbanization on small communities and individuals are more visible than in urban centers. Peri-urban space is not purely defined by its spatial proximity to urban centers. Rather, it can be defined as the following:

> All rural residents are simultaneously subject to certain urban institutions, such as the commodities market or the state administrative hierarchy, and excluded from others, such as the land market or state-sponsored welfare. This peri-urban

> condition produces substantial precarity, but also forms the basis of residents' strategies for ensuring stability and security. (Smith, 2014, p. 373)

As such, peri-urban spaces are where people live within a blend of urban and rural institutions. As a result of this definition, villages, spaces on the outskirts of cities, and urban villages can all be considered peri-urban spaces in China: their economy, land rights, citizenship designation, and/or culture create a blend of urban and rural norms.

As a researcher, I saw the changing landscape, which reflected Jinyuan's old and new economy. The changing landscape helped me to contextualize the livelihood strategies described to me in my interviews. Jinyuan is a peri-urban district in Taiyuan. In this thesis, I subsumed livelihood strategies into three broad categories: (1) formal economic activities, (2) informal economic activities, and (3) social infrastructure, social reproduction, and socio-spatial practices. This categorization does not conform to previous germane work (Bebbington, 1999; Scoones, 1998; Tian et al., 2016). It possesses, however, similar aspects of that extant research by considering what resources (natural, financial, human, social, cultural) are available for people to use to improve their lives and what strategies people employ that utilize these resources (Scoones, 1998; Bebbington, 1999).

Drawing on empirical data derived from my research, this thesis will augment understanding of the relationship between urbanization processes and livelihood strategies in two ways. First, as mentioned before, relative to burgeoning and large urban areas, lower-tiered and inland cities have received less attention in Chinese urban studies. Understanding the relationship between urbanization and people's livelihood strategies in under-researched, less urbanized parts of China may problematize normative framings of

Chinese urban studies. Second, my research emphasizes features of livelihood strategies that appear non-economic: social infrastructure, social reproduction, and socio-spatial practices. These aspects of livelihood strategies are not commonly emphasized in existing studies.

Chapter 2 discusses pertinent theoretical literatures. This thesis draws upon comparative urbanism, livelihood strategies, social reproduction, social infrastructure, and moral economy literatures to frame its understanding of livelihood strategies in the peri-urban spaces of China. First, this thesis justifies adopting Robinson's (2016) comparative urbanism framework. Next, it emphasizes the importance of social infrastructure, social reproduction, and socio-spatial practices within livelihood strategies frameworks. Finally, this thesis asserts that comparative urbanism and livelihood strategies complement each other and are useful for comparing Chinese cities. Chapters 3 and 4 integrate these two frameworks to compare Taiyuan, tier-1 cities, and other lower-tiered cities.

Chapter 3 first surveys the recent history of urbanization in China and the common lenses that scholars of Chinese urban studies have used to frame research. Subsequently, I draw on extant work and Statista's economic data for Chinese cities to identify similarities and differences in the livelihood strategies of people living in peri-urban spaces of tier-1 and lower-tiered cities (Huang et al., 2017; Lin and Gaubatz, 2017; Tynen, 2019; Tian et al., 2016).

Following this discussion of resident and migrant worker livelihood strategies in the peri-urban areas of tier-1 and lower-tiered cities, Chapter 4 analyzes the data from one month of field work that I conducted in Taiyuan. While there, I researched the peri-

urban district of Jinyuan. My findings are based on interviews with residents residing in that district. Interviews were undertaken to enhance understanding of how their livelihood strategies compare to those of residents in tier-1 and other lower-tiered cities, such as Xi'an, Suzhou, and Wenzhou (Qian and Xue, 2017; Lin and Gaubatz, 2017; Verdini, 2014).

The literature review of peri-urban spaces in tier-1 and lower-tier cities brings some patterns regarding peoples' livelihood strategies to the surface. Many peri-urban and urban village residents in tier-1 cities rent to migrant workers (Hsing, 2010; Wu, 2016b). Those migrant workers then primarily work within the dominant economic sector in tier-1 cities—the service sector (Beijing Municipal Bureau of Statistics, 2020; Lin and Gaubatz, 2017; Shanghai Municipal Statistics Bureau, 2019). Peri-urban residents in lower-tiered cities rely upon a wider mixture of livelihood strategies, rather than the prevalence of renting to migrant workers found in tier-1 cities (Tian et al., 2016; Wilmsen, 2018).[1]

This thesis, in chapter 4, shows that similar to other lower-tiered cities, Taiyuan's peri-urban residents use a diverse set of livelihood strategies. But this thesis moves beyond many existing studies by showing how social infrastructure plays an important role in supporting resident livelihoods (c.f., Huang et al., 2017; Wilmsen, 2018; Tian et al., 2016; Ong, 2014).

In chapter 5, I argue that the wider implications of this research are applicable not only for Chinese urban studies, but also for global urban studies. Tynen (2019, p. 173),

[1] However, this does not hold true for all lower-tiered citied. Wenzhou, a tier-2 city, is an example of peri-urban residents renting to migrant workers. Migrant works comprise a significant portion of Wenzhou's population (Lin and Gaubatz, 2017).

drawing upon Degen (2017), He et al. (2017), and Meyer (2009) as positive examples, asserts that "many of the currently existing studies on urban China neglect a holistic and grounded understanding of social and cultural life in the city." Inspired partly by her work, I argue that the comparison conducted in chapters 3 and 4 between Taiyuan, tier-1 cities, and some lower-tiered cities will contribute to a more holistic understanding of Chinese urbanization by connecting the individuals' livelihood strategies with social infrastructure, social reproduction, and socio-spatial practices.

The importance of the foregoing three practices is not absent from, but often is not emphasized in, the livelihood strategies literature in China. Not only will Chinese urban studies benefit, but the kinds of comparisons made in this study could conceivably bring Chinese and global urban studies together. In a recent special issue of *Urban Studies*, scholars debated whether Chinese urban studies can contribute to global urban studies. For instance, Jonas (2020) argued that Chinese urban studies can, but Hamnett (2020) disagreed. This disagreement is essentially based on how one views the degree to which Chinese urbanization after the creation of the People's Republic of China in 1949 is unique vis-a-vis urbanization in other countries (Jonas, 2020; Hamnett, 2020). Other scholars concur with Jonas (2020). For instance, Smith et al. (2019), who cite Leitner and Sheppard (2016), Robinson (2014), and Roy (2009), use a feminist and post-colonial perspective by attempting to extend the field of community development and planning, which has traditionally been characterized by global northern perspectives (p. 260). Similarly, He and Qian (2017), citing McFarlane (2011), Robinson (2011b), and Roy (2009, 2011), believe that Chinese urban studies can benefit by integrating the critical urban frameworks that Smith mentions as well. Agreeing with scholars such as Jonas

(2020), Smith et al. (2019), and He and Qian (2017), I draw on comparative urbanism (Robinson, 2016) by arguing that livelihoods frameworks—especially those emphasizing social infrastructure, social reproduction, and socio-spatial practices—can serve as important models for conducting comparisons between urbanization in China and around the world.

CHAPTER II: LIVELIHOOD STRATEGIES: A COMPARATIVE URBANISM PERSPECTIVE

Introduction

Within the field of urban studies, there is a range of available frameworks and perspectives for researching urban spaces. These include planetary urbanization (Brenner and Schmid, 2015), provincializing urbanism (Sheppard et al., 2013), and comparative urbanism (Robinson, 2016). Each framework provides a slightly different perspective and methodology for conducting urban studies research. It was essential, for this research, to utilize a framework that seeks to expand the limits of comparison within urban studies research

Planetary urbanization, commonly associated with Neil Brenner and Christian Schmid, frames urbanization as planetary in nature (Brenner and Schmid, 2015). Urbanization itself is characterized as capitalist urbanization (Brenner, 2018). Although helpful for understanding the various ways capitalism is closely associated with urbanization globally, planetary urbanization is not helpful because it does not provide the tools for conducting a comparison between tier-1 and lower-tiered cities in China, especially in terms of lacking methodological direction.

A *provincializing urbanism* framework seemingly accords with what is needed for understanding livelihood strategies in China and beyond. Sheppard et al. (2013), drawing on Werner (2012), defined provincializing urbanism as "identifying and empowering new loci of enunciation from which to speak back against, thereby contesting, mainstream global urbanism" (p. 895) Provincializing urbanism can be contrasted with planetary urbanization because the latter centers on the various structures of capitalism in its examination of urbanization (Brenner, 2018). By focusing its analysis of urbanization on

capitalism, planetary urbanization is similar to mainstream global urbanism, which is broadly characterized by viewing capitalism and liberal democracy as answers to inequality in the Global South. It does so by framing an analysis of urbanization through the lens of capitalism (Sheppard et al., 2013, p. 894). It is mainstream global urbanism that provincializing urbanism problematizes. The provincializing urbanism framework's main contribution to critical urban studies is championing understudied perspectives. Although that is valuable and necessary, it is bereft of a programmatic methodological framework for generating urban studies research in understudied areas.

Robinson's (2016) *comparative urbanism* framework proposes various methods for conducting research. Consequently, I adopted her perspective of embracing understudied cities and generating new urban studies knowledge by comparing these neglected areas to prevalent sites of urban studies research. Taiyuan, an underresearched city in China, will be compared to tier-1 and other lower-tiered cities to generate augmented insights into livelihood strategies.

The first section of this chapter discusses comparative urbanism and how it affects a researcher's perspective about conducting urban studies research. The second section describes livelihood strategies. A variety of fields, from peasant studies to urban studies, have used livelihoods frameworks (e.g., Bebbington, 1999; Tian et al., 2016). By focusing on the various economic and social strategies people use when seeking to improve their lives, a livelihoods framework is a valuable comparator when studying different cities: it enhances understandings of the effects of urbanization on a smaller scale—the scale of individuals and communities. The concluding section of this chapter briefly introduces the argument that will be expatiated on in chapter 5—utilizing both

comparative urbanism and livelihoods frameworks is one way urban studies researchers can overcome the divide between Chinese and global urban studies.

2.1. Urban Studies in China and Beyond: Using Comparative Urbanism

Robinson (2016), seemingly the leading advocate for comparative urbanism, avers that Anglo-American ideas have dominated urban studies (Robinson, 2016). Robinson (2016, p. 5), citing Ward (2010) and Robinson (2011a), argues that scholars should analyze "specific elements or processes in cities, or the circulations and connections which shape cities, thus rendering urban experiences comparable across a much wider range of contexts." This argument impelled me to compare livelihood strategies and urbanization processes in Taiyuan to other cities in China.

Robinson (2016, p. 8) draws from Marxist political-economic epistemology and concurs with Marx (1993 [1939]) by rejecting totalities that study "all instances of a particular phenomenon [that] could be seen to form a part of a lateral totality (cutting across time and space) of that phenomenon or concept (such as labour)." Rather, she believes that urban studies should examine cities through their unique combinations of relationships, processes, and histories (Robinson, 2016). Researchers embracing this perspective are more open to new urban sites which can contribute new perspectives to knowledge derived from well-studied research sites. At the forefront of Robinson's comparative urbanism framework is a desire to view all cities, and the historical processes that produce them, as equal research sites contributing to urban studies (Robinson, 2016).

Scholars using a comparative urbanism framework can diversify knowledge of urban areas in China because Chinese urban studies has mostly been informed by detailed

analyses of tier-1 cities and coastal areas (e.g., Hsing 2010; Inverardi-Ferri 2018; Smith, 2014; Wu 2016b). Instead, a comparative urbanism framework suggests researching lower-tiered cities, as well as tier-1 cities, to promote a more nuanced understanding of urbanization in China.

Comparative urbanism additionally contributes to the conversation within Chinese urban studies that asks whether Chinese urban studies scholars can bring their research into conversation with scholars researching other parts of the globe. Hamnett (2020) and Jonas (2020) have explored this issue. Hamnett (2020) asserts that Chinese urban studies could be used to compare and contrast processes and phenomena across different areas globally. However, he concludes that "Chinese urbanisation and processes are so different from both western and other developing country experiences that it is difficult to subsume them" (p. 697). Jonas (2020, p. 707) also believes that urban processes in China can be compared to non-Chinese cities, but he does not have the same doubt as Hamnett: "China's urban development processes are neither exclusively unique nor fundamentally resistant to theorisation. They are in this respect essentially comparable and thus highly amendable to theoretically informed generalization." Jonas (2020), as Robinson (2016), proposes comparing similar processes across different cities to produce increased generalizable understanding. An argument central to this thesis, per Jonas's interpretation of Chinese urbanization, is that Chinese and global urban studies can contribute to each other when using *processes* as the mode of comparison.

Livelihood strategies are affected by both current and historical processes. The strategies people use, as will be shown in chapters 3 and 4, are a result of macro-level policies, cultural norms, and individual choices. How these various aspects interact with

each other in different cities can be understood as a process by which to augment understanding urbanization in different cities. Therefore, I argue, in chapter 5, that analyzing livelihood strategies in different cities can serve as a mode of comparison between cities in and outside of China.

2.2 Conceptualizing a Livelihoods Framework

This thesis uses a livelihoods framework to analyze urbanization in China, a framework usually used for researching rural areas (Huang et al., 2017; Tian et al., 2016; Wilmsen, 2018). A livelihoods framework examines how people and groups at different scales utilize available resources (Scoones, 1998). Scoones (1998, p. 3) defines a livelihoods framework as consisting of four elements:

> [The] ***context*** (of policy setting, politics, history, agroecology and socio-economic conditions), what combination of ***livelihood resources*** (different types of 'capital') result in the ability to follow what combination of ***livelihood strategies*** (agricultural intensification/extensification, livelihood diversification and migration) with what ***outcomes***" (emphasis in original). (p. 3)

Each element (context, livelihood resources, and livelihood strategies) is unique to an individual or group. Therefore, it is important to understand the contexts that affect a person's ability to employ certain strategies.

The livelihood strategies a person chooses are not static and must contend with changing contexts. Scoones (1998, p. 5), drawing on Chambers and Conway (1992), states that the Institute of Development Studies defines a livelihood as sustainable if "it can cope with and recover from stresses and shocks, maintain or enhance its capabilities and assets, while not undermining the natural resource base." The research context they

are referring to is an agrarian setting, but it is clearly applicable to peri-urban spaces. In peri-urban spaces, stresses and shocks can additionally come in the form of economic policy changes, alterations to people's social lives, and modifications to their access to housing and infrastructure.

The livelihoods framework I apply examines the context of peri-urban residents, with a focus on how that context impacts the individual's and community's ability to use certain resources, such as vegetables. The resources that form the foundation of livelihood strategies are categorized into five forms of capital: natural, financial, human, social, and cultural (Bebbington, 1999; Scoones, 1998). Scoones (1998) limits his analysis of capital to natural, financial, human, and social; alternatively, Bebbington (1999), uses the term "produced capital" instead of "financial capital," but the two are virtually comparable. Scoones (1998, pp. 7-8) defines natural capital as environmental resources and services; financial capital as financial assets, infrastructure, and production equipment; human capital as skills, knowledge, and good health; and social capital as "the social resources (networks, social claims, social relations, affiliations, associations) upon which people draw when pursuing different livelihood strategies requiring coordinated actions."

Bebbington's also includes cultural capital as a livelihood resource, an often overlooked feature of livelihoods analyses in Chinese urban studies. Justifying inclusion of this resource, Bebbington (1994), drawing on Kleymeyer (1994) asserts the following:

> Beyond being simply meaningful, such practices are, however, also enabling and empowering. They enable forms of action and resistance that the other four types of capital would not, alone, make possible. They can

> also be the basis for the maintenance and enhancement of each of the other types of capital. (p. 2034)

Similarly, Kleymeyer (1994) connects cultural practices to development and economics. His discussion of the relationship between cultural expression and development are notable in two ways. The first is how cultural practices strengthen community identities. He (Kleymeyer, 1994, p. 19) states that "[w]ithout a sense of community, individuals retreat into their families or themselves, to the detriment of collaborative efforts at survival or betterment." The second is that cultural expression and local forms of economic production can "promote group solidarity and pride" (pp. 26-27). Both strategies, which involve the community at-large, for improving people's lives and feelings of solidarity are essential for understanding livelihood strategies but tend to be overlooked in Chinese urban studies literature.

Socio-spatial practices that create strong bonds within the community are important because they can be understood as part of social reproduction. For example, Frederiksen (2015) espouses that libraries have a role in social reproduction, as they provide an important example for linking public spaces with social reproduction. Drawing on Katz (2011), she (2015) presents the political-economic characteristics of social reproduction:

> The political-economic aspect of social reproduction involves the acquisition and circulation of work knowledge and skills, and the learning required to maintain and reinforce categories of difference and the cultural practices that naturalize the social organization of reproductive labor. (p. 142)

Nonetheless, Frederiksen (2015), using Bakker and Gill (2003), Bakker and Silvey (2008), Eldholm, Harris, and Young (1977), broadened social reproduction beyond the strict political-economic interpretation to include "the work of care, socialization, and the fulfillment of human needs that stem from basic survival and human biological reproduction" (p. 143). Moreover, she proposes that libraries indeed give access to knowledge that is vital to provide employees with requisite job knowledge, but they also are a means for showing how social reproduction is tied to the use of space. The socio-spatial practices in China (e.g., the descriptions in my interviews of exercising in groups in the morning and playing majiang in each other's homes) are forms of social reproduction. Such socio-spatial practices create strong social bonds that are tied to livelihood strategies, as will be demonstrated in chapters 3 and 4.

Frederiksen (2015) does not use the concept of social infrastructure, but social infrastructure is related to how social reproduction and socio-spatial activities are embedded in the peri-urban space of Taiyuan. The concept of social infrastructure was developed by Klinenberg (2018), who argues that social infrastructure is important for the well-being of individuals and communities. He (p. 5) differentiates between social capital and social infrastructure:

> "Social infrastructure is not 'social capital' —a concept commonly used to measure people's relationships and interpersonal networks—but the physical conditions that determine whether social capital develops."

Broadly, infrastructure often is characterized as the roads, bridges, and sewer systems that allow cities, for example, to operate and potentially flourish (Klinenberg, 2018). However, *social* infrastructure is different. Many aspects can be included in social

infrastructure, from libraries and sidewalks to community organizations (Ibid., p. 16). Social infrastructure, according to Klinenberg (2018, p. 20-21), is vital for communities to thrive because without it the social ties, or "social and civic life" are damaged. Latham and Layton (2019, p. 8), utilizing Klinenberg's (2018) concept of social infrastructure, connect social infrastructure to Amin's (2008) concept of social surplus:

> The social connections and socialities that are built and maintained through accessing social infrastructure have real material benefits and consequences; they generate a "social surplus"—encouraging trust, civility, encounter, and common purpose. (p. 8)

They demonstrate how the social aspects of livelihood strategies discussed in this thesis—such as trust and common purpose—that are less emphasized in livelihood strategies literature are embedded within social infrastructure.

When people make economic choices based on their cultural values and social bonds, they are playing a role in a moral economy. Millar (2015, p. 8), drawing on Thompson (1971), defines a moral economy as "an economy organized not by the model of a natural, self-regulating, free market but by a set of customary duties, rights, and practices of different classes in relation to one another." As will be discussed in chapter 4, the peri-urban economy in Taiyuan, partly fits Millar's outline of a moral economy, especially within informal economic strategies. The informal economy, within which the moral economy is a part of, is defined by the Organisation for Economic Co-operation and Development (OECD) as "all economic activities by workers and economic units that are – in law or in practice – not covered or insufficiently covered by formal arrangements" (OECD/ILO, 2019, p. 155). The moral economy, which is not a formal

arrangement, in Jinyuan is partly maintained by the combination of socio-spatial practices, social reproduction, and social infrastructure.

Socio-spatial practices that are a part of the social reproduction of the community where I conducted my research, such as daily morning exercises, create strong social bonds between neighbors. Those socio-spatial practices involve neighbors in spaces of social infrastructure. Social bonds that are created through shared socio-spatial activities underly the moral economy of the community which relies on the social bonds that can be used as social capital. The moral economy in the peri-urban space of Taiyuan responds to gaps in peoples' livelihood strategies, such as when vegetables used for subsistence are not ripe. In Chinese urban studies, scholars analyzing the social conditions of individuals and communities tend not to emphasize the importance of social infrastructure, social reproduction, and the socio-spatial practices embedded within them. As will be discussed subsequently in more detail, they are vital for understanding people's lives in urban contexts.

Conclusion

Urban studies discussions regarding the definition of urban spaces and those spaces' location remain unsettled. Ultimately, this research gap affords an opportunity to undertake new ways of conducting urbanization research (Robinson, 2016). Accordingly, I aim to contribute to Chinese urban studies literature by studying the livelihood strategies in the peri-urban space of Taiyuan. A livelihoods framework that emphasizes the role of social infrastructure, social reproduction, and socio-spatial practices, produces an augmented holistic understanding of the livelihood strategies in tier-1 and lower-tiered

cities. Furthermore, this thesis argues that livelihood strategies, when viewed as a process, can be a comparator between cities.

CHAPTER III: AN EXAMINATION OF LIVELIHOOD STRATEGIES IN CHINESE CITIES

Introduction

China's period of economic reform and growth began in the 1980s. Historically, Chinese urban studies researchers have focused on cities such as Beijing, Shanghai, and Guangzhou, where much of China's economic reform has occurred. However, urbanization and economic development patterns are changing, so researchers must adapt. This chapter will first discuss the recent history of Chinese urbanization. It will then consider lenses Chinese urban studies scholars have used to understand cities; contextualize the history and narratives of Chinese urbanization; map the livelihood strategies of peri-urban residents in both tier-1 cities and lower-tiered cities; and conclude by discussing why Taiyuan is an important case study for understanding the broader context of Chinese urbanization and livelihood strategies.

3.1 Urbanization in China

3.1.1 The History of Chinese Urbanization

Demarcating the beginning of Chinese urbanization is difficult, but chapter 3 (as well as 4) will concentrate on the post-1978 economic reform period. Policies from China's 1949-1978 communist era, however, continue to affect Chinese cities today. Urban residents were then part of a danwei (单位), or work unit, that gave urban residents access to housing and state welfare benefits. This led urban residents to be "a relatively privileged group in Chinese society," while rural residents had a lower standard of living and less access to state welfare benefits than their urban counterparts (Naughton, 2018, p. 129).

The foregoing phenomenon is commonly understood as the household registration system that began in 1958—referred to as the hukou system both in Chinese and English (Chan, 2014, p. 2). Li et al. (2016, p. 517) argues that the "system, introduced in the 1950s to control population mobility, was designed to differentiate rural and urban citizens according to place of origin." Contextualizing this social stratification is important. It was implemented in the era of China's Big Push industrialization initiative in the 1950s and was meant to "extract low-cost food and fibers from the farmers, while the urban system was used to build industry" (Naughton, 2018, p. 129). This inequality was used to grow China's industrial economy. Even after China started to reform and open its economy after 1978, the hukou system and its effects persisted in different forms.

Although this system of inequality existed in the communist era, its effects became tied to urbanization after 1978, with the advent of rapid urbanization (Naughton, 2018, p. 137). Chen et al. (2018), drawing on such scholars as Long et al. (2009), Ma and Fan (1994), Bai et al. (2011), He and Wu (2009), Lin and Yi (2011), and Wu (1997; 2001), subdivide the history of reform-era Chinese urbanization into two periods: 1979-1995 and 1996-2015. The first era was characterized by rapid urbanization, which the central government did not direct; rather, it was engendered by township village enterprises (TVEs) and other bottom-up mechanisms. The second era of urbanization was typified by local government-led land financing focused on the urbanization of space rather than the well-being of the people who inhabited it (Chen et al. 2018). Regions on the coast benefitted from these urbanization and development processes, as the inland provinces sent millions of migrant workers to these areas.

The number of internal migrants to coastal regions is staggering (Naughton, 2018):

> From 1990 to 2010, 36.4 million people moved to Guangdong Province, and 28 million to the three Lower Yangtze provinces of Shanghai, Jiangsu, and Zhejiang. Together, these two regions attracted about half of all long-distance migrants. (p. 140)

This massive rural-to-urban migration was the reason for approximately 41% of urban growth in China (Naughton, 2018, p. 137). Cities grew largely from this influx of migrants. This contextualizes why cities such as Shanghai, Guangzhou, and Beijing have been sites of urbanization and economic growth, as well as the focus of Chinese urban studies scholars. The map below of China, its provinces, and cities shows where the provinces and cities discussed in this thesis are:

(Figure 1. Map of China, its provinces, and cities [Renamed original title for thesis], CartoGIS Services, 2020, originally licensed under https://creativecommons.org/licenses/by-sa/4.0/.)

3.1.2 China's National New-type Urbanization Plan

These foregoing urbanization and development patterns are changing. In prior decades, millions of migrants left their inland provinces for coastal regions; now, however, "[f]armers in central and western China are finding more opportunities closer to home, both in the growing cities of the interior and small towns near their farms" (Naughton, 2018, p. 140). These shifts in migration patterns are an example of the intended outcomes of the National New-type Urbanization Plan (2014-2020), also referred to as the New Urbanization Plan (Li et. al., 2016). The impetus for the plan came from the Chinese government's hope to use urbanization to combat the slowing of China's economy after the global economic crisis of 2007, while avoiding the lack of access to social services and adequate housing for internal migrants that marred earlier forms of urbanization. The three broad aims of the National New-type Urbanization are: create shared policy goals, emphasize regional urban development, and prioritize sustainable urban development (Li et al., 2016).

One of the New Urbanization Plan's goals is related to migrant workers' efforts to become citizens of the city to which they migrate (Chen et al., 2018). The impact of altering the hukou registration system may well be marked. However, Li et al. (2016) feel that with migration restrictions in place, hukou reforms will not induce dramatic changes. The hukou reforms are dependent, in part, on population size (Li et al., 2016). Cities with populations of 500,000 to one million residents can grant permanent residency with little restriction, but the cities that have been the center of rural-to-urban migration and have large populations (Beijing, Shanghai, and Guangzhou) will maintain a very restricted

permanent residency system (Li et al., 2016). This raises the question of whether the New Urbanization Plan can reduce the inequalities produced by the hukou system. This issue and other economic, social, and political effects of the New Urbanization Plan have been minimally discussed in academic literature (Chen et al., 2019, p. 1).

Chen et al.'s paper research on Anhui, one of the two pilot areas for this new form of urbanization, contributes to understanding of China's New Urbanization Plan. In total, there were two pilot provinces: Anhui and Jiangsu. Anhui offers the Chinese government an opportunity to observe the effects of this new form of urbanization in a region that is still developing, while Jiangsu allows the government to see these new urbanization policies interact with an already developed region (Chen et al., 2019). Chen et al. (2019) propose that findings from the Anhui pilot project can enhance understanding of how such urbanization would occur in areas that are also developing, such as central and western China. Given that these policies will continue to be implemented in regions similar to Anhui, research in lower-tiered cities, such as Taiyuan, will contribute to knowledge about how urbanization patterns are changing in new sites of urbanization.

3.1.3 Common Viewpoints Used to Understand Chinese Cities

Synthesizing a body of literature as extensive as Chinese urban studies is difficult. The four common areas of study in Chinese urban studies, according to He and Qian (2017, p. 829), are the following: the making of global cities in China, the overlap between housing and land development, the spatial and social patterns of poverty, and migrant workers' experiences in relationship to macro urbanization processes in China. Throughout this thesis, literature related to these four themes is discussed.

The common topics focused on within Chinese urban studies are beginning to change. He and Qian (2017, p. 836) believe that emerging areas of research include fragmentation of the uses of space within cities, the rise of China's middle class, and citizens' assertion of their right to a given city. He and Qian, citing McFarlane (2011), Robinson (2011b), and Roy (2009; 2011), contend scholars' shift to studying more of the lived experiences within Chinese cities affords an opportunity to draw on critical urban studies frameworks, such as comparative urbanism, and critical theoretical bodies of literature, including post-colonial and feminist scholarship (He and Qian, 2017, pp. 839, 841).

This thesis contributes to the growing body of literature that prioritizes the lived experiences within Chinese cities. Wu (2016a) and Logan (2018) are examples of this common tension within Chinese urban studies; Wu's categorization of Chinese urban studies contrasts Logan's argument for more bottom-up and varied understanding of the relationship among urbanization, the state, and individuals.

Wu (2016a) avers that China offers a synthesis of two forms of urban development that can be studied by urban studies scholars: neoliberal-led urban development and East Asia state-led development. He (2016a) castigates merely understanding Chinese urban studies through neoliberal development. His analysis of Chinese urban development, citing Tsui and Wang (2004), highlights the tax reform of 1994; as a result of this reform, local government's relied upon income derived from land development sales, which helped to overcome the inability to borrow from the capital market (Wu, 2016a). Though this emphasis on the market could be interpreted as neoliberal development, Wu (2016a) proposes that the market is on one side and the state

in articulating its development goals via the market is on the other; this situation produces a blend of neoliberal and East Asian state-led urban development.

Wu (2016a), drawing on Wu and Phelps (2011), posits that the development of suburbs around Beijing is not a market-driven creation, but rather a production by the state's desire for a Beijing-Tianjin development corridor. He (2016a) shows that Chinese urban studies offers an opportunity to study issues such as the role of the state and market in urban development, marginalization in urban areas, land use patterns, gated communities, and edge cities. Ultimately, Wu (2016a) concedes that there is a supranational process of development, though this process does not efface existing structures, institutions, or cultures. Rather, he sees urbanization as rearticulated through its interaction with localized contexts. Viewing macro-processes as the essence of urbanization while concurrently having localized differences is one way of studying and framing Chinese urban studies. However, it is still a top-down analysis that ignores the bottom-up effects upon Chinese urban development. In contrast to Wu (2016a), Logan (2018) discusses the changing patterns in Chinese urban studies that embrace a bottom-up approach to exploring Chinese cities.

Similar to how He and Qian (2017) describe the common themes within Chinese urban studies, Logan (2018) states that research in Chinese urban studies commonly views urbanization as a top-down, planned coordination of the Chinese central government with the market and thus ignores individual agency (Logan, 2018). He highlights two strands of Chinese urban studies that offer alternate perspectives. The first views China's governance system as multifaceted rather than monolithic. The second perceives "[Chinese citizens] as actively adapting, strategising and manipulating the

conditions of their lives, certainly not in control of their futures but both knowledgeable and active" (Logan, 2018, p. 1376). The centering of individual agency within Chinese urban studies, though overlooked in the past, is an apposite lens through which to study Chinese urbanization.

This thesis aims to understand urbanization in Taiyuan through focusing on the everyday experiences of individuals living through urbanization processes. This discussion thus far has primarily focused on two common perspectives Chinese urban studies scholars use to analyze urbanization: top-down analyses or bottom-up analyses. The analyses of livelihood strategies in sections 3.2 and 3.3 will discuss macro-processes in tier-1 and lower-tiered cities but prioritize the understanding of livelihood strategies in those cities from the bottom-up in order to contribute to this burgeoning perspective in Chinese urban studies.

3.2 Livelihood Strategies in Tier-1 Cities

3.2.1 Formal Economic Livelihood Strategies

A formal livelihoods framework is not commonly used to research urban and peri-urban spaces in China. For this thesis, livelihoods are considered to a combination of formal economic activities, informal economic activities, as well as social infrastructure, social reproduction, and socio-spatial practices (Klinenberg, 2018; Frederiksen, 2015; Zhang et al., 2018). This definition purposefully encapsulates a wide range of potential livelihood strategies. By doing so it allows me to draw on scholars engaging with livelihood strategies but not necessarily using a broader livelihoods framework (Tynen, 2019; Inverardi-Ferri, 2018; Smith, 2014). A wide range of literature that engages with livelihood strategies exists.

To begin to contextualize the formal economies in tier-1 cities, this thesis discusses the economic sectors of those cities. This section compares the economies and employment data, from the data aggregator Statista[2], of tier-1 cities (Beijing, Chongqing, Shanghai, and Tianjin). (This section does not discuss Guangzhou—a tier-1 city—as its data were unavailable on Statista.) Additionally, each city did not have the same amount or type of data available. For example, data was available for the distribution of Chongqing's gross domestic product (GDP) across its economic sectors from 2014 to 2018, but I only have data for the distribution of Beijing's GDP from 2018 and 2019. Employment data was also scarce. Shanghai and Tianjin were the only tier-1 cities with employment data in each sector.

An imperfect, but useful understanding of the economies in tier-1 cities is presented here. Among tier-1 cities, the largest share of their GDP is in the tertiary sector. Statista commonly categorized the economic sectors into agriculture, industry, and services, though for example, Shanghai maintains the commonly used categorization of the primary, secondary, and tertiary sectors. Having the economic sector data broken into primary, secondary, and tertiary would be preferable, but the extant alternatives are still good indicators of how the economy is distributed amongst the different sectors. The percentage of primary/agricultural, secondary/industry, and tertiary/services sectors contributions to each city's GDP is shown in tables 1, 2, and 3 (Beijing Municipal Bureau

[2] Statista is a multi-national company that provides both market and consumer data for its customers. The data consolidated by Statista is available through paid accounts. I accessed the data through my University of Oregon Statista account (Statista, n.d.).

of Statistics, 2020; Chongqing Municipal Statistics Bureau, 2020a; National Bureau of Statistics, 2019a, 2019b, 2019c; Tianjin Municipal Statistics Bureau. 2020a)[3]:

Table 1: Primary/agricultural sector as percentage of GDP

	2011	2012	2013	2014	2015	2016	2017	2018	2019
Beijing	.8%	.8%	.8%	.7%	.6%	.5%	.4%	.4%	.3%
Chongqing				6.9%	6.8%	7%	6.6%	6.8%	6.6%
Shanghai	.7%	.6%	.6%	.5%	.4%	.4%	.4%	.3%	
Tianjin	1.2%	1.1%	1.1%	.99%	.97%	.97%	.91%	.92%	

Table 2: Secondary/industry sector as percentage of GDP

	2011	2012	2013	2014	2015	2016	2017	2018	2019
Beijing	22.6%	22.1%	21.6%	21.3%	19.7%	19.3%	19%	16.5%	16.2%
Chongqing				46.3%	45.6%	44.7%	44.2%	40.9%	40.2%
Shanghai	41.3%	38.9%	36.2%	34.7%	31.8%	29.8%	30.5%	29.8%	
Tianjin	52.9%	52.2%	50.9%	49.7%	47.1%	42.4%	40.9%	40.5%	

[3] In this thesis, if the percentages were already provided I did not round the percentages, but I rounded for percentages that were not already provided. As a result, some percentages within certain categorizations do not add up perfectly to 100 percent.

Table 3: Tertiary/service sector as percentage of GDP

	2011	2012	2013	2014	2015	2016	2017	2018	2019
Beijing	76.6%	77.1%	77.6%	78%	79.7%	80.2%	80.6%	83.1%	83.5%
Chongqing				46.8%	47.6%	48.3%	49.2%	52.3%	53.2%
Shanghai	58%	60.5%	63.2%	64.8%	67.8%	69.8%	69.2%	69.9%	
Tianjin	45.9%	46.7%	48.1%	49.3%	51.9%	56.6%	58.2%	58.6%	

A tier-1 city's GDP is distributed differently depending on which city is examined, though the tertiary/services and the secondary/industry are a significant proportion of all of these cities' total GDP. Chongqing's GDP from 2014 to 2019 was distributed across the industry and service sectors more evenly than was Beijing's or Shanghai's (Beijing Municipal Bureau of Statistics, 2020; Chongqing Municipal Statistics Bureau, 2020a; National Bureau of Statistics, 2019a, 2019b, 2019c). In 2014, the percentage of Chongqing's GDP in the services sector was 46.8% and in the industry sector 46.3%. In 2018, its services sector accounted for 53.2% of GDP, while the industry sector was 40.2%. Chongqing does have a slightly higher percentage of GDP in the primary/agricultural sector compared to Shanghai's and Beijing's. Tianjin's economy is similar to Chongqing's: it has a more even breakdown between the agricultural and industry sectors. However, between 2011 and 2018 the metrics between the industry and service sectors flipped. In 2011, the industry sector comprised 52.9% of GDP; in 2018, though, it was 40.5%. These values can be compared to the services sector—45.9%% of GDP in 2011 and 58.6% of GDP in 2018 (Tianjin Municipal Statistics Bureau, 2020a).

Clearly, all tier-1 cities rely heavily on the services as their largest economic sectors, though Chongqing's service and industry sectors are relatively similar.

In addition to the GDP being predominantly generated by the tertiary and industrial sectors in tier-1 cities, those sectors are also the biggest employers in Tianjin and Shanghai. Table 4 shows what percentage the workers in Shanghai's (Shanghai Municipal Statistics Bureau, 2019) primary, secondary, and tertiary sectors; Table 5 displays Tianjin's (Tianjin Municipal Statistics Bureau, 2020b) workforce within the agricultural, industry, and service sectors. Although the employment data do not encompass all tier-1 cities, they do infer a possible pattern regarding where people are employed in such cities: their primary, secondary, and tertiary sectors are similarly ranked.

Table 4: Percentage of the workforce in Shanghai's economic sectors

	2018
Primary	2.9%
Secondary	30.7%
Tertiary	66.3%

Table 5: Percentage of the workforce in Tianjin's economic sectors

	2018
Agricultural	6.7%
Industry	31.8%
Service	61.5%

A specific example of a formal livelihood strategy not found in the data is that of a strategy at the community level. Hsing's (2010) analysis of the Shuping Village in Guangzhou, and Guangzhou more broadly, acutely illustrates the transformation of Shuping Village into a shareholding company, or what Hsing describes as a "shareholding cooperative system" (p. 132). According to Hsing (2010, p. 133), shareholding cooperative systems are a product of the unique history of shared communal land in China, as well as the fragmented opening of the economy at the village level. Shareholding cooperative systems arose when households began to have their own plots of land. As Hsing (2010, p. 132) notes: "In the 1990s, migrant workers and entrepreneurs continued to pour into the delta, looking for places to build factories and to live." However, as the industrial economies began to grow, villagers, having rented individual plots of land to migrant workers and entrepreneurs, decided to create shareholding cooperative systems. They pooled their land into these arrangements and received dividends from the new collective instead of individually receiving rental payments from those migrant workers and entrepreneurs leasing their land (Hsing, 2010, p. 133). The benefits of this alternative was "that the centralized management of collective assets helped to achieve economies of scale and improve distribution between well-endowed and poorly endowed associations" (Hsing, 2010, p. 135). Not only do shareholding companies in villages "oversee local affairs on behalf of the city government," but they also provide welfare through their distribution of medical care and cash dividends (Hsing, 2010, p. 136).

The last formal livelihood strategy to be discussed is compensation received from the government for moving from a village or peri-urban space into an urban space. This is

a common phenomenon in China. Jiang et al. (2018) found that compensation for resettlement in the peri-urban space of Shanghai where they conducted their field research could be monetary or a combination of monetary and access to subsidized housing. However, Wilmsen's (2018) discussion of compensation in a lower-tiered city shows that compensation given to resettled residents, in her case study, was not sufficient: "There was a significant level of dissatisfaction with their compensation and an overwhelming feeling of having lost out" (Jiang et al., 2018, p. 3213). This was for a variety of reasons, but one discussed is the lack of money left over after all the necessary expenses that occur when moving, which is coupled with a lack of job opportunities.

3.2.2 Informal Economic Livelihood Strategies

Four types of informal economic activities (or strategies) will be discussed: renting of rooms to migrant workers, illegal or informal township development, economic diversification, and mutual support networks. Hsing's (2010) analysis of urban development in China in the 1990s and 2000s will initially be used to guide this discussion.

Both Hsing (2010) and Zhao and Zhang (2016) analyzed the role of illegal or informal development. Renting to migrant workers is a common strategy in which peri-urban villagers earn a living, especially in tier-1 cities. Per Hsing (2010):

> By 1993, as the nationwide construction fever peaked and a growing number of migrants poured into Guangzhou and Shenzhen, villager-land-lords rebuilt their houses up to five or six stories high, violating building codes that set the maximum at three stories or 80 m in height. (pp. 127-128)

The number of migrant workers moving to cities such as Guangzhou is massive. It has allowed for the "villager-land-lords" (as Hsing refers to them) to rely upon renting space in their homes as a source of income (Hsing, 2010, pp. 127-128). Wu's (2016b) study of urban villages in three tier-1 cities reveals the proportion of migrants to residents living in the urban villages he studies. His (2016b, p. 857) data suggest that, of the villagers he surveyed from urban villages in Beijing, Shanghai, and Guangzhou, the percentage of the heads of household respondents who were migrants was respectively 86.5%, 79.7%, and 72.2%, respectively. These metrics imply that a large portion of the population in these urban villages consisted of migrant workers who are renting housing.

Although the preceding offers an example of an informal livelihood strategy employed by individuals, larger political units can also use informal methods of development. In fact, 75 percent of developments have been observed to be illegal and a result of "unauthorized occupation of farmland" (Hsing, 2010, p. 159; Xu, 2004, p. 141). The illegality stems from "township government leaders, village collaborators, and developers] us[ing] farmland for construction by going through neither the formal procedural for ownership transfer from the collective to the state, nor through the approval process of farmland conversion for non-farm uses" (Hsing, 2010, p. 160). This illegal development that villages undertake "provide[s] for their [villagers'] own livelihoods, compensating for the lack of the welfare from the state government in the context of the dual rural-urban social security system" (Zhao and Zhang, 2016, p. 257). This milieu highlights how living in the peri-urban space produces precarity for rural residents owing to a lack of access to state welfare programs. Smith (2014, p. 371)

defines China's peri-urban space with reference to the parlousness engendered by living in that space:

> This peri-urban condition produced substantial precarity, as residents were integrated into exploitative urban institutions beyond their control, including state planning, political patronage, and market competition. Formal state welfare, far from offering greater stability, was seen as unreliable and exploitative, compromised by the very political and economic institutions that engendered residents' precarity. (p. 371)

Zhao and Zhang (2016) posit that township governments are addressing this precarity. Indeed, they (2016, pp. 257, 272) note that ownership governments "share the same goals as rural villages," and are more focused on "social stability and the quality of life in rural areas."

In addition to renting rooms to migrant workers and undertaking illegal township development, mutual support networks and economic diversification also serve an important purpose in residents' livelihood strategies. Smith (2014) analyzed the relationship between these informal strategies and China's formal state welfare. He critiques China's dibao (低保), or subsistence allowance. The dibao welfare system is meant to support individuals with the lowest standards of living; however, access to it is tied to one's household registration. This situation leads indigent residents in the peri-urban space to pursue such informal strategies as mutual support networks and economic diversification (Smith, 2014).

Mutual support networks have value in withstanding crises (Smith, 2014). One of the two mutual support networks that Smith (2014) describes is informal housing

construction (e.g., adding rooms to one's home or building). It is used to adapt to potential familial crises or to pursue business opportunities. For instance, Smith (2014) describes how one family built a three-story home, thus affording all family members to live in the same single structure simultaneously in their own living space. Per Smith (2014), living under one roof fosters development and maintenance of close relationships that are central to those individuals' mutual support networks.

A second mutual support network is a community support network that relies on "the spatial infrastructure for networks of mutual support beyond the family" that is used to attend to fellow community members (Smith, 2014, p. 376). For example, one of Smith's participants "felt comfortable allowing his learning-disabled daughter to wander unsupervised around the village, counting on neighbors and friends to intervene if she encountered trouble." Such social networks help individuals overcome potential hardships, which are overlooked when the government forcibly moves residents into multi-story apartment buildings.

Similar to mutual support networks, economic diversification is an informal strategy that Smith (2014) describes that relies on relationships with others. Economic diversification and mutual support networks are a response to different potential hardships (Smith, 2014):

> In addition to coping with risk through *ex post* consumption smoothing based on mutual support networks, Hailong residents also pursued *ex ante* risk mitigation strategies designed to smooth income through economic diversification. (p. 377)

In his research, economic diversification was frequently achieved by placing investments in different locations. People would often utilize family members' migration to spread

their economic investments into different locations. Indeed, Smith (2014, p. 379) notes that these informal strategies are not undertaken in isolation of each other:

> Residents were thus proactively engaging with markets in order to diversify income at precisely the same time that they were maintaining networks of mutual support in order to smooth consumption. (p. 379)

Although their research was not in a predominantly urban or peri-urban space in a tier-1 city, Tian et al. (2016), discussed this same issue, as well as its implications for future urbanization plans:

> [China needs to] adapt its development policy to promote healthy rural-urban development dynamics throughout the course of urbanization…focusing only on one (any) factor is not likely effective and may produce unintended consequences due to the interactions of a variety of factors that contribute to the overall two-sector dynamics. (p. 585)

This foregoing issue raised by Smith (2014) and Tian et al. (2016) is particularly important to consider, as it suggests how individuals can create a successful livelihood strategy by having diverse sources of income.

3.2.3 Social infrastructure, Social Reproduction, and Socio-Spatial Practices

Social infrastructure and the socio-spatial practices embedded within it are less emphasized foci in livelihood strategies literature. This section discusses social infrastructure and socio-spatial activities from the work of Inverardi-Ferri (2018) on waste recyclers in Beijing. His context was Dongxiaokou, formerly one of the largest waste recycling markets in Beijing. However, the spread of urbanization has caused that

neighborhood to change. In his analysis, Inverardi-Ferri (2018) describes the use of mobility both between formal and informal labor, and in and around space:

> Some mobilities occur in the physical space of the city (and the countryside), others happen in the invisible space of the market. Workers consciously move between different employments as a way to improve their material lives, dropping out of waged labour to enter less constraining forms of work. (p. 2)

Furthermore, citing Qian (2015), Ideho and Taipale (2017), and Ferguson (1999), Inverardi-Ferri (2018, p. 3) mentions that mobility as a livelihood strategy is not only a strategy for material means but also "exists in connection with everyday practices and livelihood strategies that are not engrained in capitalist relations."

Mobility typically occurs every day; it also exists in relationship to both capitalist and non-capitalist modes of production. Inverardi-Ferri (2018, p. 4), citing D'Andrea (2007, p. 27)), states that "their [migrants'] movements are always embedded in social networks dictated by rules of reciprocity and solidarity that support their mode of living." Drawing upon Zhang (2001), he characterizes these social networks as resulting from sharing a place of origin or being family members with someone. The use of shared space in Dongxiaokou hints at the role of social infrastructure in Inverardi-Ferri's (2018) analysis of mobility as a livelihood strategy.

Notably, Inverardi-Ferri (2018) notes that Dongxiaokou is heavily influenced by the Henan culture (i.e., its dialect, people, and food). He avers that this collective social identity is neither static nor immovable, as it has moved around Beijing. Because Dongxiaokou's collective mobility is not place bound, it does not perfectly accord with Klinenberg's (2018) concept of social infrastructure which imagines social infrastructure

as bounded. However, Frederiksen (2015) posits that the spatial dynamics of social reproduction can change.

The Henan collective social identity and its role in social reproduction of the community are tied to spaces and forms of social infrastructure. Inverardi-Ferri's (2018) description of the role that Henan restaurants and bus lines served in the community is related to social infrastructure. Specifically, those restaurants are easy to find, and bus lines connect communities in Henan directly to the waste market that is defined, in part, by the Henan identity. Though this community is mobile, it is embedded within certain forms of social infrastructure that allows the community to socially reproduce themselves. This phenomenon highlights that, even in cities such as Beijing—more likely defined by their well-developed service and industrial economies—social infrastructure and their embedded socio-spatial practices are important for understanding the livelihood strategies of communities.

3.3 Livelihood Strategies in Lower-Tiered Cities

This thesis's second research question addresses how the livelihood strategies in the peri-urban space of Taiyuan relate to the livelihood strategies in tier-1 cities. To enhance contextualization of how unique the livelihood strategies are in Taiyuan's peri-urban space as compared to other lower-tiered cities, the thesis explores the livelihood strategies in lower-tiered cities. This section on livelihood strategies, following the same categorization of livelihood strategies in the previous section, discusses the formal economic livelihood strategies, the informal economic livelihood strategies, and the role of social infrastructure, social reproduction, and socio-spatial practices.

3.3.1 Formal Economic Livelihood Strategies

To begin the analysis of formal economic livelihood strategies in lower-tiered cities, this thesis describes Tian et al.'s (2016) analysis of livelihood strategies in Jiangxi province. Their research contributes to filling this gap in China studies while also focusing on an underresearched site of urbanization. It uses a livelihood strategies framework to analyze the array of jobs that residents of rural and peri-urban spaces undertake as urbanization alters their communities. Although most of the residents they researched were predominantly in rural areas, some had higher incomes and lived near urban centers. Tian et al. (2016, p. 578) note that in China "research on how these social, economic, institutional, and geographic factors interact to affect the development of rural livelihoods is relatively lacking." Tian et al. (2016, p. 578) are seemingly researching a partly peri-urban space, though they describe the livelihoods as predominantly rural. This is because they assert villagers close to urban centers have access to opportunities with "high-return[s]" (pp. 581-582).

Drawing on Ellis (1998), Bebbington (1999), Ulrich et al. (2012), Diniz et al. (2013), Lerner et al. (2013), Tian et al.'s (2016, p. 579) "[l]ivelihood framework takes households as basic analysis units to study the well-being of a household" by discussing households well-being's relationship to Bebbington's (1999) five types of capital (1999). Additionally, they write: "Chinese rural households each have a set of feasible livelihood options and allocate their labor according to the relative returns of these options in a way that increases total income" (Tian et al., 2015, 2016, p.579; Tian, 2011). They reveal that individuals achieving the highest incomes owned their own businesses or large-agricultural land farms or were families that had formally educated migrant workers.

Additionally, the proximity of villagers to urban areas was an important determinant for having successful livelihoods (Tian et al., 2016):

> [B]eing near urban centers [that] facilitates the development of successful diversified livelihoods through combining vegetable cultivation, livestock production, and near-home nonfarm work. (p. 583)

Although their analysis captures much of what constitutes successful rural and peri-urban livelihoods, they focus almost exclusively on income accumulation, possibly overlooking informal economic strategies and the impacts of social infrastructure and embedded socio-spatial practices. As has been discussed in section 3.2.3, livelihood strategies are related to much more than income accumulation (e.g. Inverardi-Ferri (2018) places importance upon social ties in the success of Dongxiaokou surviving as it moves around Beijing).

Similarly, Qian and Xue (2017) analyze the effects of small-town urbanization in Xi'an. They show that in contrast to tier-1 cities' peri-urban and urban village residents that rent to migrant workers, some peri-urban residents in Xi'an still rely a lot on farming. This diverges from a study in Shenzhen where many former farmers rented to migrant workers (c.f., Wang et al., 2009). In the Xi'an case, 25.5% of residents still worked in agriculture in town G, 18.4% in town J, and 50.6% in town Z (Qian and Xue, 2017, p. 155). (Towns G, J, and Z were pseudonyms for towns they researched in Xi'an.) Qian and Xue (2017) believe that a large portion of the populations that they studied still rely on agriculture, because residents in lower-tiered cities, unlike those in and around megacities, can still access areas where agriculture still occurs. This is an important

distinction between urbanization occurring in tier-1 cities and in lower-tiered cities, such as Xi'an.

In another analysis of the effects of resettlement from rural-to-urban settings in lower-tiered cities or surrounding areas, Wilmsen (2018) examines the effects of the Three Gorges Dam on the resettlement of communities in Hubei province. Unlike many rural-to-urban residents in Xi'an who rely on farming, rural-to-urban residents in the areas she discusses in Hubei Province relied on manual labor. This concerns Wilmsen (2018, pp. 359-360), because data collected in 2003 after resettlement showed rural-to-urban and urban-to-urban residents were dependent on manual labor at similar rates: 59.2% for rural-to-urban residents and 46.5% for urban-to-urban residents. However, by 2011, 40.6% of rural-to-urban residents were still working in manual labor, while only 10.6% of urban-to-urban residents were employed likewise. Similar to Wang et al.'s (2009) study of Shenzhen, Wilmsen (2018) believes that education is the crucial difference between jobs accessible to rural-to-urban residents and those available to urban-to-urban residents.

Verdini's (2014, p. 425) examination of the social costs in Suzhou's peri-urban space reveals the diverse ways that people make a living; 18.2% work in the primary sector, 48.5% in the secondary sector, and 33.3% in the tertiary sector. What differentiates Verdini's study from the livelihood strategies analyses (both in tier-1 and lower-tiered cities) is his discussion of home-based enterprises. While cultural capital commonly characterizes socio-spatial practices and their embeddedness in social infrastructure in this thesis' use of it, Verdini (2014) connects cultural capital and the formal economy in the form of embroidery, a home-based enterprise. 21% of workers

worked in home-based enterprises, which Verdini (2014, p. 426) categorized as a subsector of the secondary sector. Verdini (2014) commented on the relationship between urbanization and the potential loss of a local economic activity, such as home-based embroidery. The role of cultural capital in the formal economy is not mentioned in chapter 4's discussion of Taiyuan's livelihood strategies, but it is an important facet of livelihood strategies to consider given place specific forms of cultural capital exist everywhere. The different livelihood strategies outlined in this section (Tian et al., 2016; Qian and Xue, 2017; Wilmsen, 2018; Verdini, 2014) reveal that there are dissimilarities between formal jobs obtainable to residents in megacities and lower-tiered cities, but there are also distinctions between and within lower-tiered cities.

Another cost of urbanization in the peri-urban spaces is the potential for sub-standard compensation for residents who are resettled in the peri-urban spaces. This is seen in both tier-1 cities (Jiang, et al., 2018) and in lower-tiered cities (Wilmsen, 2018). In Wilmsen's (2018) case study notes that rural-to-urban households earned more in compensation that both rural-to-rural and urban-to-urban resettled households. But, this larger amount of compensation did not lead to beneficial results, especially amongst the rural-to-urban households earning the least amount of compensation. Wilmsen (2018) writes:

> These households required more compensation than they received in order to adapt to their new environments. Put differently, even over the long term, the disadvantages of under-compensation were not fully offset by the benefits of living in an urban environment (e.g. greater access to jobs, higher levels of state subsidies). Thus, the compensation formulae should be re-evaluated if rural-to-

urban resettlement is to be favored over land-based compensation in the future. (pp. 357-358)

The last dynamic that is unique to some provinces with lower-tiered cities is the phenomenon of returning migrants to their home provinces from the cities on the coast. Xu et al. (2017) researched the circumstances surrounding return migration from Shenzhen to Henan, a province in central China. Their case study pertained to Zhumadian in Henan. Citing *Henan Daily* (2014), the researchers (Xu et al., 2017, p. 122) stated that they chose Zhumadian because in two years the percentage of rural laborers migrating to other cities had been 72%, but only two years later the percentage of rural laborers migrating to other cities had decreased to 50%. Xu et al. (2017), referring to Zhang (2014), mention that migration from cities such as Shenzhen was resulting from industries moving from the coast to inland provinces. In addition to economic opportunities, Zhumadian had undergone hukou reforms that have encouraged resettlement. The main economic opportunities available to returnees were either factory jobs or establishing their own businesses. Zhumadian is an example of the importance of paying attention to differences between lower-tiered cities. Residents in inland provinces that have been known for sending migrant workers to the coast may use slightly different livelihood strategies than provinces that have not been sending many migrant workers to the coastal cities. Provinces such as Henan, and specifically in this case Zhumadian, are examples of the potential future of urbanization patterns in China (Xu et al., 2017).

3.3.2 Informal Economic Livelihood Strategies

A prevalent informal economic livelihood strategy that residents in tier-1 cities tend to rely on clearly is renting to migrant workers. However, do lower-tiered peri-urban residents depend on renting to migrant workers in the same way residents do in tier-1

cities? Lin and Gaubatz (2017) analyze how migrant workers in Wenzhou use space; citing Venn (2006), they comment that research on migrant workers' lives has mostly focused on their living situations rather than on other aspects of their lives. In addressing this lacuna, Lin and Gaubatz aver that they enhance understanding of the relationship between Wenzhou's economic development and its urbanization built upon migrant workers' coming to the city. Migrant workers comprise 35% of Wenzhou's population. Furthermore, when dividing Wenzhou into its districts, migrant workers "constitute a demographic majority in all three of the city's districts." (1020). Similar to the argument of this thesis that urban studies research in China has been mostly focused on tier-1 cities, Lin and Gaubatz (2017) argue that work on migrant workers has mostly focused on megacities. A notable difference—already described section 2.2 on informal economic strategies in tier-1 cities—between the kinds of labor in which migrant workers engage in Wenzhou—predominantly manufacturing —and in megacities—primarily services . Most of the migrants' housing in Shuangyu, the site of the researchers' analysis in Wenzhou, is provided by residents renting homes to them. Although the livelihood strategies seemingly are more diverse among residents in lower-tiered cities, leasing to migrant workers is still a common informal livelihood strategy among residents in a city such as Wenzhou where a large migrant worker population resides. This informal livelihood strategy, though not prevalent in lower-tiered cities, seems to be a livelihood strategy when the lower-tiered city is home to many migrant workers.

3.3.3 Social infrastructure, Social Reproduction, and Socio-Spatial Practices

The following section discusses literature that analyzes livelihood strategies and prioritizes social infrastructure, social reproduction, and socio-spatial practices, though

not using that exact terminology of social infrastructure and socio-spatial practices, in Nanjing and Zhenjiang. Tynen (2019) discusses how residents in older Nanjing neighborhoods assert their right to the city through social infrastructure and their embedded socio-spatial practices. Her argument, citing Degen (2017), He et al. (2017), and Meyer (2009) as other noteworthy examples, partly inspired my argument for a livelihood strategy analysis that includes social infrastructure, social reproduction, and socio-spatial practices benefitting Chinese urban studies by bringing in "experiences and spatial practices" and "holistic and grounded understanding of social and cultural life in the city," for which Tynen (2019, p. 173) calls.

Tynen's (2019) analyzes the experiences of people in urbanizing China from a holistic perspective. This thesis's fieldwork focused on the peri-urban space in Taiyuan, as Tynen's is on the inner-city residents in the old neighborhoods of Nanjing. The dynamics she discusses are similar to those in this thesis, such as foreseen demolition of homes. Demolitions and "modernization" processes are threatening to destroy the ways that local residents claim their right to the city (Tynen, 2019, pp. 178-179): "The residents build and maintain relationships as a way to socially and culturally construct their neighborhood and assert its value despite the impending demolition."

These relationships are based on several key aspects, including "nonmonetary exchange of services and shared family histories" as well as the importance of individuals' single-story homes (Tynen, 2019, p.179). The uncommodified exchanges include elements of social reproduction. The single-story homes help people share different features of social reproduction. Similar to concerns of Smith's (2014) discussion of informal livelihood strategies in Chongqing, modern apartment buildings threaten the

social lives of closely-knit neighbors (Tynen, 2019). Although Tynen (2019) does not discuss the use of single-story homes as social infrastructure, more traditional Chinese homes can serve as social infrastructure by providing a connection between community members' homes and social reproduction.

Zhang et al. (2018) explore how rural-to-urban residents adapt their use of space and their socio-spatial practices when moving from rural communities to cities. Both Smith (2014) and Tynen's (2018) examination of the importance of social lives in different aspects of their interviewees' lives highlighted the tension between "modernization" efforts and potential material benefits for rural-to-urban residents and the social lives and economic activities that have allowed rural communities to improve their lives. Zhang et al. (2018, p. 1542) aver that in some ways their interviewees were able to recreate their rural socio-spatial practices in their new urban setting: "We show that even under top-down planning, residents are able to continue some forms of traditional life-style and refashion their use of space." They do not draw on the concept of social infrastructure, but their use of social space is similar to Klinenberg's (2018) conceptualization of social infrastructure. Zhang et al. (2018, p. 1544), citing Nasongkhla and Sintusingha (2013), characterize social space as "where social activities, perceptions and constructions are created, contributing significantly to the sense of belonging."

The two main methods rural-to-urban residents use to assert their spatial agency are (1) adapting their social activities from their courtyard-styled homes to public spaces around their apartment buildings and (2) using their homes as a location for businesses that can supplement income loss from moving to the city (Zhang et al., 2018). Ultimately, Zhang et al.'s (2018) goal, influenced by Spivak (1988) and Herndl and Licona's (2007)

conception of agency, was to understand in what ways rural-to-urban residents are reasserting their identities through their use of agency. Residents championing their spatial agency were driven by three factors: "[a] quest for economic well-being, desire to maintain pertinent traditions, and need for social interactions" (Zhang et al., 2018, p. 1557). The researchers argue that these factors were founded upon migrants' habitus, per Bourdieu's (1977, 1989) concept, which can be characterized by the land on which they used to live as being central to their livelihood, old familial traditions, and mutually beneficial relationships with their neighbors, and Bayat's (2007, p. 579) habitus of the disposed, which Zhang et al. (2018) draw upon to integrate habitus and "a loss of control over means of livelihood" (p. 1544).

They also note that close personal relationships could engender economic success, particularly for small businesses in apartment buildings (e.g., erstwhile customers from their village doing business with them now). However, Zhang et al. (2018) do not discuss many linkages between the economic success of rural-to-urban residents, social space, and socio-spatial activities. Arguably, Zhang et al.'s (2018) work augmented understanding about the overlap between rural-to-urban residents' experiences in cities, socio-spatial activities, and their use of spaces. Nonetheless, an analysis that uses a livelihood strategies framework could add to knowledge concerning how socio-spatial practices and social space (social infrastructure, which this thesis uses in its analysis of Taiyuan) improve the livelihoods of residents of the community. What efforts residents who cannot find work or establish a business in their apartment building take to improve their livelihood remains an empirical question.

Similar limitations are found in Wu et al.'s (2019) study of how social relationships are reconstituted once residents are resettled in Suzhou. Citing Hoffreth and Iceland (2011) and Stumpf (2012), the researchers describe the social relationships in rural societies; the relationships tend to be based on kinship, create dependency between those involved in social relationships, and promote a "greater sense of responsibility to others" (p. 270). They also question some of the economic effects that social relationships have on individuals before and after their relocation (e.g., prevalence of inter-dependency in rural areas, reduction in financial inter-dependency subsequent to relocation). However, Wu et al. (2019) do note that relocated people with beneficial economic standing also have an improved social life in terms of seeing relatives. As has been shown in this chapter, the connections between livelihood strategies and social infrastructure, social reproduction, and socio-spatial practices are strong. However, this linkage is examined in greater depth in this thesis than it has been in extant literature (e.g., Wu et al., 2019). Accordingly, this begs following question: What has happened to those who have had their livelihood strategies and social lives damaged through relocation? Although the thesis does not answer this question, it does examine the use of homes as social infrastructure and shared public spaces, where an argument is posited that social infrastructure and socio-spatial practices play a central role in residents' livelihood strategies.

3.4 Jinyuan, Taiyuan: A Valuable Case Study for Understanding Urbanization in China

3.4.1 Rationale for Selection of Taiyuan as a Case Study

Not only was Taiyuan chosen a case study because I have experience living there in the summer of 2012 for six weeks, but it was also chosen in response to urban

scholars' call for studying new sites of urbanization (Robinson, 2016; Sheppard et al., 2013). Smith (2014), describing the informal strategies that peri-urban residents use in Chongqing, avers:

> As China embarks on a 'new form of urbanization,' the nation's leaders would be wise to explore similar alternatives based on the ways in which China's people actually stitch together their lives. (p. 380)

He further claims that the Chinese government should learn from research, such as his, how to improve the equity of urbanization and that the urbanization process should acknowledge the livelihood strategies that people use to support themselves.

A key distinction between Smith (2014) and this thesis pertains to the case cities selected to represent the new sites of Chinese urbanization. He researched Chongqing, a tier-1 provincial-level city in southwest China. However, unlike other tier-1 cities, Chongqing is more inland, and not coastal such as Shanghai and Guangzhou (Hernandez and Bland, 2016). Furthermore, his analysis focused on hukou reform in Chongqing. Hukou reform is occurring in Chongqing; however, under the National New-type Urbanization Plan, cities with populations that exceed 5 million people will have tight restrictions on people's attainment of permanent residency. Therefore, Chongqing, as a result of its municipality's population being roughly 31 million people in 2018, will most likely not experience dramatic hukou reform (Li et al., 2016, p. 526; Chongqing Municipal Statistics Bureau, 2020b). Rather, cities with fewer residents will have the more relaxed hukou policies to stimulate further urbanization (Li et al., 2016; Zhang, 2019). In comparison, Taiyuan has a population below 4 million people (Bureau of Statistics of Shanxi Province, 2019). Therefore, cities such as Taiyuan with reduced

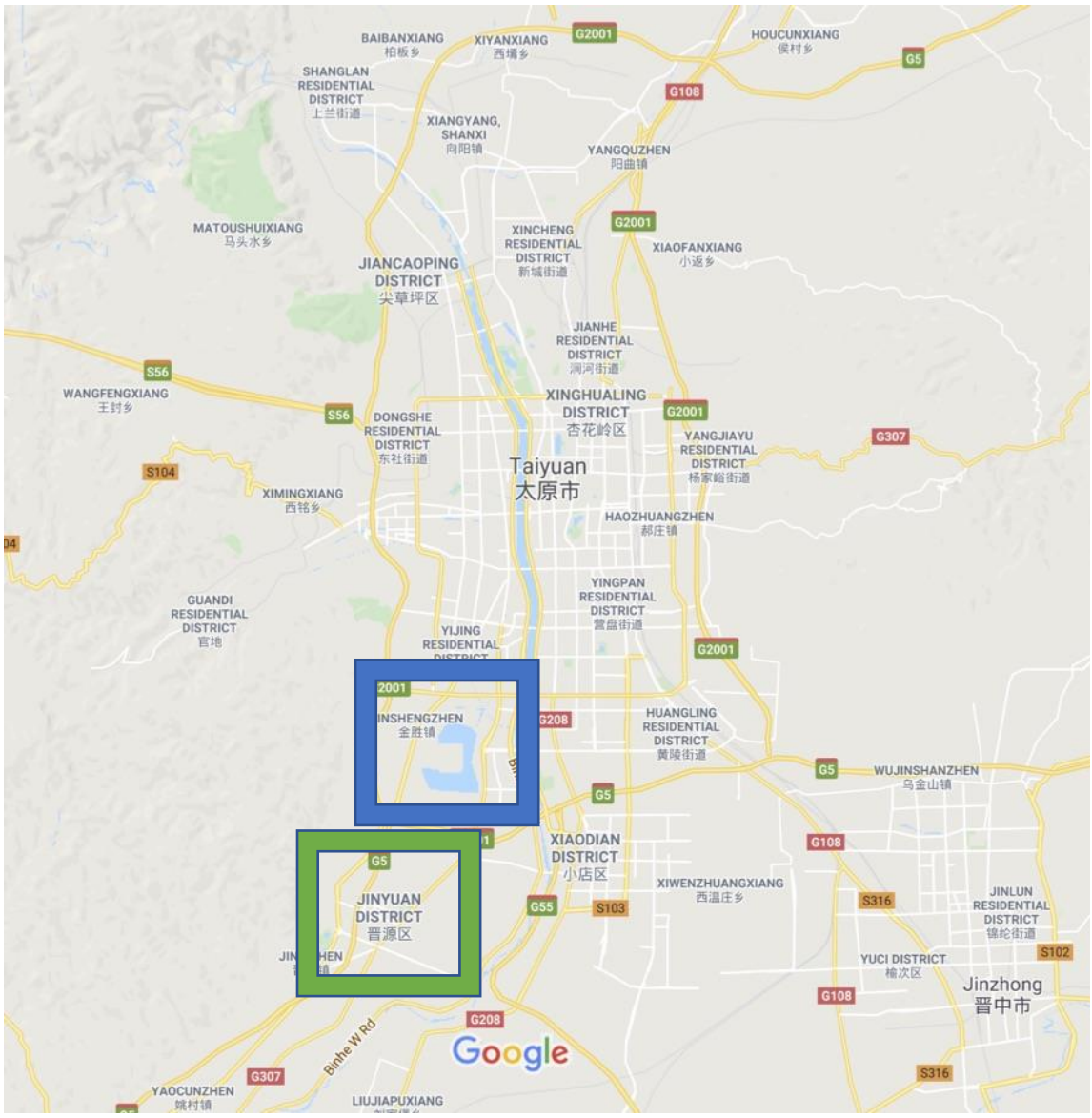
population counts will be more likely to undertake hukou reforms. These foregoing phenomena suggest that future Chinese urban studies research should thus examine cities such as Taiyuan.

In the 2019 urbanization plan published by the National Development and Reform Commission, cities with one to three million residents will remove their restrictions for obtaining hukou (Zhang, 2019). Those with populations between three and five million will relax restrictions on new migrants and remove limits on key population groups, including graduates of universities and vocational colleges (Zhang, 2019). Taiyuan is in the latter category. In addition to hukou reforms, the New Urbanization Plan articulates other goals, such as promoting regional urbanization coordination and prioritizing sustainable urban development (Li et al., 2016). Although Smith's (2014) analysis of welfare and urbanization provides a valuable examination of the local social, political, and economic processes that tie a community together, more empirical work is needed in case sites and urbanization dynamics that will define China's urbanization. Taiyuan provides this context.

However, what part of Taiyuan should be the focus of this thesis initially was unclear. Jinyuan seemed to fit the requirements of being a peri-urban space characterized by hybrid rural-and-urban institutions, economies, and norms (Smith, 2014). Prior to conducting my research, I was unsure about whether Jinyuan would match Smith's (2014) description of hybrid rural-and-urban lives. But upon arrival in Jinyuan, confirmation of its being a peri-urban space became clear. Additionally, its features and policy goals overlap with China's New Urbanization Plan. Below is a map of Taiyuan, in

which Jinyuan District is highlighted by the green square and the blue square encircles Jinyang Lake on the map.

(Figure 2, Map of Taiyuan, Google, n.d.)



Li et al. (2016) emphasize three aspects of the New Urbanization Plan that are worth revisiting: policy goals for cities all over China, an emphasis on regional urbanization or city clusters, and emphasis on sustainable development in cities.

In 2015, a year after the New Urbanization Plan was passed at the national level, Shanxi began hukou registration reforms at the provincial level. The relaxation of the hukou registration system has seen urban populations grow. For instance, per Liu (2019): "Wo sheng chengzhen renkou you 2014 nian de 1192.72 wanren zengjia dao 2018 nian de 1442.5 wanren, leiji zengjia 250.78 wanren [Our province's [Shanxi's] urban population from the year 2014 to 2018 increased from 11,927,200 to 14,435,000 people, in total increasing by 2,507,800 people]." These numbers are not exclusive to Taiyuan; clearly, though, relaxation of hukou policies has led to shifts in the urbanization patterns of Shanxi.

The policy reform provides rural populations easier access to urban hukou and facilitates arrival of skilled workers. Moreover, such policy changes fit the goal of the Chinese central government: shifting migration patterns to lower-tiered cities by encouraging rural migrants and talented individuals to move elsewhere than coastal cities. In addition to hukou reform, Jinyuan is also embracing sustainable urban development, another goal emphasized by the New Urbanization Plan (Li et al., 2016)).

Gao (2018) writes that some of Jinyuan's broad development goals in 2018 included: a New-style Urbanization demonstration area, a global tourism district, and Jinyang Lake. Jinyang Lake area has been an important development project in the district. I was informed that Jinyang Lake used to be the site of a factory. If I had not been aware of this situation, my overlooking the remnants of the old factory that had stood on the edge of this beautiful, modern park would have been easy. This park is an example of the potential Jinyuan has for developing its new cultural tourism and more sustainable economy. There are examples of well-established tourist sites in Jinyuan,

such as Jinci Park, and ones currently being developed, such as Ancient Jinyang City. As discussed, Taiyuan has embraced both the central government's desire to include previously marginalized people into cities and promoted sustainable development. In Taiyuan, I was able to simultaneously research in peri-urban space to better understand which livelihood strategies people use and witness some urbanization patterns indicative of the future of Chinese urbanization.

3.4.2 An Introduction to Taiyuan's Economy

Taiyuan is the provincial capital of Shanxi province in China, and a tier-2 city. From my first trip to Taiyuan in 2012 to my trip in 2019, the differences between Taiyuan and tier-1 cities have begun to lessen. Having spent time in Beijing and Shanghai, the economic diversity, abundance of technology and financial firms, and the cities' scale have set tier-1 cities markedly apart from lower-tiered ones.

Taiyuan's economic data relatively parallels those from tier-1 cities presented in section 3.2.1. In 2010, Taiyuan's economy was similar to Chongqing, meaning that the secondary and tertiary sectors were more evenly distributed than in some other tier-1 cities as Shanghai and Beijing. Below Table 6 compares the change in the distribution of Taiyuan's GDP amongst the primary, secondary, and tertiary sectors:

Table 6: The primary, secondary, and tertiary sectors as a percentage of Taiyuan's GDP

	2010	2013	2014	2015
Primary	1.7%	1.5%	1.5%	1.4%
Secondary	44%	41.7%	39.99%	37.3%
Tertiary	54.3%	56.8%	58.5%	61.3%

In 2010, the primary sector comprised 1.7% of GDP, while the secondary and tertiary sectors constituted 44% and 54.3%, respectively. Following a comparable trajectory as Tianjin's during the 2010s, Taiyuan's service sector as a percentage of GDP has grown, the secondary sector has decreased, and the primary sector has remained roughly the same. In 2015, the primary sector accounted for 1.4% of GDP; the secondary sector, 37.3%; and the tertiary sector, 61.3%. Seemingly, the decline in the secondary sector is a result of a shrinking of the industry sub-sector. From 2013-2014, the industry sub-sector shrank by 2.5% and from 2014-2015 by 1.5%. During those same periods, the building industry grew by 1.1% from 2013-2014 and by 5.99% from 2014-2015 (An, 2016, pp. 472-473).

Employment in Taiyuan reflects the economic priorities of Taiyuan. In 2010, the primary sector employed 13.8% of the workforce; the secondary sector, 32.3%; and the tertiary sector, 53.9%. In 2015, the primary sector comprised 11.3% of the workforce; the secondary sector, 29%; and the tertiary sector, 59.6% (An, 2016, p. 472). (The trend of an increasing number of people working in the tertiary sector is described in chapter 4 in the discussion of livelihood strategies in the peri-urban space of Taiyuan.) Below in Table 7, the employment data in Taiyuan is shown from select years in the 2010s:

Table 7: Percentage of the workforce in Taiyuan's economic sectors

	2010	2013	2014	2015
Primary	13.8%	12.1%	11.3%	11.3%
Secondary	32.3%	33.8%	31.1%	29.1%
Tertiary	53.9%	54.1%	57.6%	59.6%

Within Taiyuan, the specific district on which this research primarily focused was Jinyuan, the southwest district of Taiyuan. In 2011, Jinyuan's distribution of its GDP across economic sectors was not similar to Taiyuan's (An, 2012, p. 366). However, from 2013-2015 relative conversion between the two occurred.

The most noticeable difference occurred between 2013-2015: averaged over the same three years, Jinyuan's primary sector accounted for 7.6% of its GDP compared to Taiyuan's primary sector metric of 1.5% (An, 2014, p. 479; An, 2015, p. 491; An, 2016, pp. 472, 496). Below, Table 8 shows the percent contribution to Jinyuan's GDP from each sector of its economy:

Table 8: The primary, secondary, and tertiary sectors as a percentage of Jinyuan's GDP

	2013	2014	2015
Primary	7.6%	7.7%	7.6%
Secondary	34.2%	36.1%	37.3%
Tertiary	58.2%	56.2%	55.1%

Noticeably, agricultural production dominated Jinyuan's primary sector. On average, between 2013-2015, it accounted for 72.2% of the primary sector (An, 2014, p. 479; An, 2015, p. 491; An, 2016, p. 496). The other large contributor to Jinyuan's primary sector was livestock production. When averaged over 2013-2015, it comprised 18.6% of their primary sector's GDP (An, 2014, 2015, 2016). Agricultural products that are particularly economically beneficial to Jinyuan are grain, corn, milk, and vegetable production (An, 2012. P. 367).

This difference between the primary sector as a percentage of GDP in Taiyuan and Jinyuan is a result of Jinyuan's having a lesser percentage of its GDP in secondary and tertiary sectors, on average between 2013-2015. Taiyuan's secondary sector averaged 39.66% over those three years; its tertiary sector, 58.9% (An, 2016, p. 472). In Jinyuan, though, averaged over 2013-2015, the secondary and tertiary sectors constituted 35.9% and 56.5% of GDP, respectively (An, 2014, p. 479; An, 2015, p. 491; An, 2016, 496).

There are two evident limitations in Jinyuan's economic data. First, the district's economy did not use data from 2012, as there was a glaring mistake and an anomaly. The mistake was that the primary, secondary, and tertiary sectors' values exceeded the recorded GDP of the district (An, 2013, p. 391). The anomaly was that the data revealed livestock production between 2011-2012, a subsector of the primary sector, grew by 5732.95% and then decreased by 97.7% between 2012-2013 (An, 2012, p. 366; An, 2013, 391; An, 2014, p. 479). None of the other years in Jinyuan's economic data had such anomalies. The second weakness was that the employment data in Jinyuan could not be used with confidence: inconsistent categories, or records with this type of data, were extant. As a result, the employment data could not be compared between Taiyuan at-large and Jinyuan.

However, the economic data clearly revealed that the district significantly relies on the tertiary and secondary sectors, but it also has a larger primary sector as a percentage of GDP than Taiyuan as a whole. Additionally, when contextualized with my interviews, residents depend on primary and tertiary sectors for their livelihoods. How much the peri-urban residents in Jinyuan are reliant on the secondary sector is uncertain without employment data. Nonetheless, it does represent a large portion of the GDP of

the district. How the residents I interviewed fit in with these larger economic trends in Jinyuan, and Taiyuan writ large, is discussed in chapter 4.

3.5 Methodology

My case study site is located in the district of Jinyuan in Taiyuan, China. Prior to arriving there, I had minimal preliminary data about the district and/or the city primarily, because most of the English-language urban studies research conducted in China is often focused on tier-1 cities. Given the Chinese government's goal to urbanize lower-tiered cities, Taiyuan represents a useful case study. Prior to arriving in Taiyuan, I conducted preliminary research to decide where within in Taiyuan I would focus my research.

After perusing descriptions of the six districts of Taiyuan, Jinyuan seemed especially appropriate, owing to its proximity to both rural and urban parts of Taiyuan. The focus of this thesis is on the peri-urban spaces of cities, as changes that are occurring in them as a result of urbanization can be identified. In peri-urban spaces, not only can one see the transformation in infrastructure and buildings, but also the mix of the old and new economy, the changes in people's social lives, and the impact of these transformations on peri-urban residents.

Peri-urban space engenders transformations in peoples' spaces, economies, and social lives that seem to be more obscure in urban cores, because of the propensity for high-rise buildings, density of businesses, larger population sizes, and denser populations. In peri-urban space, becoming cognizant of overlooked aspects within Chinese urban studies is possible. He and Qian (2017), citing Hao et al. (2013) and Liu et al. (2015), and Logan (2018) implore scholars of Chinese urban studies to focus on the agency that individuals use when engaging with larger institutions. Logan (2018) asserts that an

increasing number of researchers in Chinese urban studies are challenging the narrative of residents in Chinese cities as being passive and unable to affect their future. This thesis demonstrates that, by not valuing lower-tiered cities and individual experiences, potential nuances and insights may accidentally be ignored.

I attended a two-month immersion Mandarin Chinese program prior to beginning my research. Despite having spent ten years studying Mandarin, the course helped strengthen my ability to speak, read, and write Mandarin. However, despite my conversational Mandarin being sufficient for my residing in China, my command of the precise language needed for conducting field research was lacking. Even having attended the IUP Tsinghua University Mandarin Chinese immersion program and being the most proficient in Mandarin I had ever been, I still relied upon translators for my interviews.

Following my immersion program, I spent a month in Taiyuan from mid-August to early-September of 2019. During my month in Taiyuan, I was able to spend only three days in Nannongcun (a pseudonym for the village where I conducted most of my interviews) in Jinyuan. This was a change from my initial plan, which thus required my modifying my formally intended methodology. Prior to arriving in China, my plan was to spend abundant time in Taiyuan's peri-urban space. I was hopeful that my research would be founded on a non-participant observation methodology. However, upon arrival in Nannongcun, I became aware that use of a non-participant observation methodology was infeasible: this was largely due to my absence of social connections in the village. Consequently, I could only interview the people to whom I was introduced.

In total, I conducted nine interviews: six interviewees in Nannongcun, where the research for this thesis is focused, one professor, and two people from another urban

village in a different part of Taiyuan. Interviews lasted on average between ten minutes to over two hours, though the interview lasting over two hours was the exception. From these semi-structured interviews, I was able to gain an understanding of the economic and social changes resulting from Jinyuan's urbanization and development policies.

I prepared 56 questions for the interviews[4]. There were six demographic questions, 25 about the economic aspects of the interviewees' lives, 22 on their social lives, and two on interviewees' reflections vis-à-vis their own lives and the community's economy subsequent to the changes. While I did not ask each question, the questions guided me in my interviews. The interviewees ranged in age from early-20s to early-70s. The diversity in life experiences gave me insight into how the village has changed over the decades. Furthermore, and more pertinent to my research, it allowed me to see how the effects of urbanization differentially affected people in dissimilar stages of life.

Conceivably, I could have helped my integration in Nannongcun, and potentially interviewed more residents, by being formally sponsored by a Chinese university. While speaking with a student lecturer from a university in Taiyuan, I later learned that to be able to conduct research in China, a formal sponsorship from a Chinese university is essential. This would have allowed me to be more easily accepted into the village. As a Caucasian American male in peri-urban China, I was starkly different. In fact, when I arrived at the offices of the Jinyuan District government and attempted to interview some government officials about urbanization in Jinyuan, they mentioned that I was the first foreigner who had sought to interview them. The people I spoke to seemed excited to talk with me; however, they required approval from city-level government officials. To

[4] Please see the appendix for the questionnaire.

receive the permission to interview officials, not only would I have needed to speak with Taiyuan government officials, but I also would have had to provide them with an official letter from the university.[5]

The limitations that emerged in the research are mostly the result of three issues: an inability to 1) devote sufficient time in the village, 2) spend a long period of time in Taiyuan generally, and 3) interview additional people. Notwithstanding these weaknesses, I did garner enhanced understanding of the livelihood strategies used in Nannongcun. Moreover, based on the results (discussed in chapter 4), further research is needed, as some differences between Taiyuan and tier-1 cities were found. As such, subsequent research can help validate or add further nuance to the claims in this thesis.

The findings drawn from my interview data were a culmination of multiple steps. The first step was to transcribe my interviews. I relied, in part, on a transcriber who did not speak the Shanxi dialect of Mandarin Chinese but was still able to transcribe three interviews for me. Additionally, I had one other individual review some of my translations; ultimately, however, most interpretations of the data are my own and a result of my coding.

The coding process entailed multiple stages, which were all done manually. The first stage was a review of notes and my interviews to identify the most common themes related to my thesis topic. The second stage was collecting quotations and notes to isolate all pertinent examples.

[5] This would have allowed me to not only speak with government officials, but as the professor I interviewed mentioned, I could have also been introduced to the heads of the village and the village at-large where I hoped to conduct research.

In addition to coding my interviews, over the final two weeks I was in Taiyuan, I spent considerable time in Taiyuan's city library seeking potential Chinese sources related to urbanization. Sources that were particularly useful were the Taiyuan Yearbooks from 2011 to 2017. The information and data in the yearbooks offered insights into the economic transformations occurring in Jinyuan and Taiyuan that helped contextualize the interviews and data drawn from coding.

Conclusion

This chapter initially presented the historical and current patterns of urbanization in China. Because a large portion of Chinese urban studies research has occurred in prominent Chinese cities, mostly tier-1, this chapter also discussed the livelihood strategies commonly found in those types of cities, as well as those in lower-tiered cities. This chapter categorized various livelihood strategies as involving formal economic activity, informal economic activity, or socio-spatial practices relationships (often overlapping with acts of social reproduction) with social infrastructure. This analysis revealed that much of China's urban studies literature overlooks social infrastructure and socio-spatial practices embedded within them. In the next chapter, findings from research on peri-urban livelihood strategies in Taiyuan, a tier-2 city, will be presented. It will document the formal and informal economic practices in Nannongcun, as well as social infrastructure and socio-spatial practices, that provide support for the formal and informal livelihood strategies. A comparison will also be made between the livelihood strategies in Taiyuan and those in this chapter to augment understanding how they are similar and different.

CHAPTER IV: LIVELIHOOD STRATEGIES IN TAIYUAN

Introduction

Analyzing more broadly the relationship between urbanization and livelihood strategies is crucial to understand livelihood strategies in Taiyuan and how they compare to the livelihood strategies discussed earlier. Chinese urban studies literature has often focused on topics such as the effects of the hukou system, and historic urbanization and economic development patterns (Chan, 2014; Inverardi-Ferri, 2018; Smith, 2014; Tynen, 2019). These areas of focus are often viewed from top-down perspectives, but these processes also affect individuals' lives and decisions. Livelihood strategies are a combination of decisions that interact directly with urbanization, and in China they are diverse. Common livelihood strategies discussed in Chinese urban studies literature include rental of peri-urban resident landlords' extra rooms (Hsing, 2010), illegal or informal township urbanization development (Hsing, 2010; Zhao and Zhang, 2016), village collective shareholding companies (Hsing, 2010), diversification of agricultural and non-agricultural jobs, and informal strategies (Smith, 2014; Tian et al., 2016; Inverardi-Ferri, 2018).

Formal and informal livelihood strategies do not exist in isolation from each other. Livelihood strategies in the peri-urban space in Taiyuan cannot be understood outside of the relationships that bind people together and the social infrastructure in which these relationships are embedded. The strategies my research uncovered entailed formal economic activities (drivers, salespeople, construction workers, tree planters in the area's afforestation efforts, rental of unused agricultural land, reliance on compensation from the sale of the village's land to the government for infrastructure projects, and

income from retirement insurance), and informal economic activities (exchanging vegetables and other goods, helping with aspects of social reproduction), and reveal how social infrastructure and their embedded socio-spatial practices overcome gaps in residents' livelihood strategies.

This chapter explores how common livelihood strategies in Chinese urban studies literature compare with livelihood strategies identified in Taiyuan. The research questions central to the thesis are the following: 1) what are livelihood strategies in Taiyuan's peri-urban space? and 2) how do the livelihood strategies found in Taiyuan, a tier-2 city, compare to the livelihood strategies found in predominantly tier-1 cities across China? Pursuing answers to these questions leads to answers that enhance understanding of livelihood strategies in and outside of China and to the ongoing question of whether Chinese urban studies can contribute to global urban studies.

4.1 Formal Economic Livelihood Strategies in Jinyuan

The formal economy has been changing over the past decade across China. These changes were discussed in chapter 2. Jinyuan saw its primary sector from 2013-2015, when averaged, represent 7.6% of its yearly GDP; the secondary sector, 35.8%; and the tertiary sector, 56.5% (An, 2014, p. 479; 2015, 491; 2016, p. 496). These trends in Jinyuan's economy were also evidenced in my interviews.

The interviewees' livelihood strategies were changing owing to city- and district-level economic priorities. The interviewees spoke of increased wages in labor, agriculture's continuing importance, provision of monetary compensation because of government conversion of a village's land into infrastructure projects, and the developing cultural and environmental tourism in the district.

When reflecting on the changes occurring in Nannongcun that are making Taiyuan and Jinyuan increasingly similar, Interviewee 6 said, "They [Taiyuan and Jinyuan] have no difference. Especially buying food…the village and the city are the same." For example, the increase in wage labor has been a noticeable transformation in Nannongcun's formal economy. An interviewee mentioned that "now you can earn money, go get a waged job; there are many waged jobs here." The improved economic opportunities for residents led to growth in both urban and rural incomes from 2013-2014 and 2014-2015. Urban income rose 3.2% between 2013 and 2014 and 7.7% from 2014 to 2015. Meanwhile, rural income grew by 10.5% between 2013-2014 and 7.1% from 2014 to 2015 (An, 2014, p, 481; An, 2015, p. 493; An, 2016, p. 498). Augmented rural incomes during recent years is evident based on my interviews with residents of Nannongcun.

Prevalent wage jobs available to the village now include delivery drivers (delivering drinks) or salespeople (selling cars and homes). Unfortunately, I did not get additional information regarding how these delivery drivers complement the wider economy (e.g., for whom they are delivering drinks). The growth in service jobs is reflected in Jinyuan's tertiary sector: as a percentage of their GDP, they rose from 41.3% in 2011 to 55.1% in 2015 (An, 2012, p. 366; 2016, p. 496). As discussed in the previous chapter, specific employment data for Jinyuan District is relatively inaccessible or sparse, so detailing the percentage change in employment in the primary, secondary, and tertiary sectors cannot be contextualized from government data. However, when I asked "do you feel there are job opportunities here?" an interviewee responded that being a kuai di yuan (快递员), or express delivery person, is a popular job, as well as is being a salesperson.

These positions are available not just in the village, but in neighboring areas (e.g., the city center). Interviewee 3 discussed this change: “They [young people] go outside the village for work.…they go outside the town, they will earn money…they will go to the city center or some other downtown.”

The availability of new jobs for Nannongcun residents is coinciding with urbanization, thereby creating tighter links between the village and the city. The increase in the number of roads and bridges is leading to a closer relationship between the village and city and is affecting farms and the availability of farmland. Interviewee 1, in response to being asked if many people are still farmers or are instead starting to become drivers or salespeople, said, “Fewer people are working in the fields because there are fewer fields. The field is becoming the road. The company needs builders to build the road.” According to Interviewee 2, although the fields used for growing crops are being converted for other uses, raising crops remains the most important part of their economy, but mostly it is older residents who farm. To help further contextualize these quotes regarding the changing use of land and ongoing urbanization, Figure 3 shows the encroaching city from Taiyuan’s urban areas into the peri-urban space of Taiyuan, while Figure 4 is an example of crops growing in Jinyuan.

How the loss of land for other uses other than farming and the generational divide between farmers and wage laborers are affecting the agricultural economy is difficult to assess without employment data and the price of goods. However, the loss of agricultural land can be derived from government data. Agricultural land between 2013 and 2014 declined by 6.4% and by 8% between 2014 and 2015.

(Figure 3. Urbanization Encroaching Into Jinyuan, Jinyuan. 2019.)

(Figure 4. Plots of Cropland in Jinyuan, Jinyuan. 2019.)

The biggest change within the broader category of agricultural land was seen in seeded crop land, which includes land used to grow corn, wheat, rice, and soybeans. From 2013 to 2014, the seeded crop land decreased by 8.6% and by 16.4% from 2014 to 2015. This differs dramatically from land used to grow vegetables. (Unfortunately, the Taiyuan yearbooks did not specify which vegetables were grown on this land.) From 2013 to 2014, the land used to grow vegetables fell by 3.1% but grew by 3.6% from 2014 to 2015 (An, 2014, p. 480; An, 2015, p. 492; An, 2016, p. 496-497). Seemingly, then, the agricultural economy surrounding vegetable production is becoming a more important part of the agricultural economy compared to crops that are produced in much less abundance. For example, corn was the predominant cereal crop raised on seeded crop land as measured in tons. When averaged between 2013 and 2015, Jinyuan produced 20,669.4 tons of corn. When averaged over the same period, however, vegetable production easily bested its counterpart: 158,844.2 tons of produce (An, 2014, p. 480; An, 2015, p. 492; An, 2016, p. 497).

Agriculture increases income not just through producing cash crops. In fact, Interviewee 4 said that he rents his vegetable plot to others as a source of income: "This land we rent, one mu is worth 80 kuai during that period of time." ¥80 is roughly equivalent to $11.27, and a mu (亩) is a Chinese unit of area which is equivalent to .165 acres, or 2.5% of a square mile.[6] In Chinese society, as Interviewee 4 mentioned, land plots tend to be much smaller than those in the United States or Canada. He said, "This [renting their vegetable plot] is a source of our income.…we want to rent this land [to

[6] Unfortunately, I did not obtain information about two important factors that would have allowed me to understand in increased detail what percentage of their income came from renting land: the time period that rent is due and how many mu of land they rented.

whom is not specified], as it gives us non-stop money." Though ¥80 is not a large sum, it does serve a purpose other than being a source of income: it affords those renting their land to pursue other jobs. Interviewee 4 confirmed this idea by saying that "I leave to go to a part-time job. I work elsewhere. I have no time to farm."

As stated earlier by Interviewee 1, the agriculture fields are being replaced by new roads. The influx of tertiary sector jobs coincides with the improved infrastructure connections between the village and the urban core. Residents welcome these new infrastructure projects. During my interviews, residents mentioned numerous times that these roads enhance convenience. In addition, those projects provide compensation to the villagers, thus increasing their income.

There have been two road projects in recent years that have given residents monetary compensation. Interviewee 6 said that they received compensation for the first road project but not for the second project. Interviewee 6, however, was unconcerned about not yet receiving the money. Expropriation of land is common in Jinyuan. The district of Jinyuan's section in the 2016 Taiyuan Yearbook mentions that "[the District of Jinyuan] has pushed forward on transforming urban villages; they have demolished 229.98 ten thousand square meters [or 2,299,800 square meters]" (An, 2016, pg. 463). Village residents can still receive compensation money when shares of the village's land is sold. Though Interviewee 6 seemed pleased with her compensation for the first road, Jiang et al. (2018) and Wilmsen's (2018) studies of peri-urban residents' receipt of compensation for their land and assets hints that the expropriation process in China is problematic (as was discussed here in chapter 3).

As Jinyuan continues to expand its cultural and environmental tourism, how individuals and communities will fit into Jinyuan's changing economic patterns is difficult to determine. Interviewee 4 described the expansion of this part of the district's economy: "Here, [Nannongcun] until Jinyang Lake, this large area all belonged to a tourist district." In my interview with Interviewee 4, he mentioned several cultural sites: Jinyang Lake, the ancient city in Jinyang, and the large bridge project (whose nickname is "the internet-famous bridge" near Nannongcun). From my interviews and my experiences visiting several tourist sites, beyond the increase in the number of service jobs, a significant part of the continued growth of Jinyuan's tertiary sector lies in tourism. What Jinyuan's emphasis on the tourist economy means for individuals' and rural communities' livelihoods is an unknown, however, as these projects are relatively recent and ongoing, such as Jinyang Lake park. These different facets of Jinyuan's current and future economy are vital in understanding the livelihood strategies that are used in the area. They must, however, be understood in relation to the informal aspects of Jinyuan's economy as well. Below, I tried to capture the scale of the Jinyang Lake project described by Interviewee 4 in Figure 3.

(Figure 5. Jinyang Lake, Jinyuan. 2019)

The formal economy predominantly spans the secondary and tertiary sectors, as has been described in chapter 3 and here. However, Jinyuan's primary sector, especially agriculture, remains an important part of the economy.The economic changes have been beneficial for the community. Indeed, the material conditions of the village have improved dramatically. Interviewee 6 said, "Now life conditions are very good. The economy is not just this field. Material conditions are getting increasingly better." The economic, social, and infrastructural changes improved their material conditions.

4.2 Informal Economic Practices of Nannongcun

While the foregoing section analyzed the formal economic strategies residents in Taiyuan's peri-urban space use, an analysis of livelihoods, though, must include the informal economy as well. Although the formal economic practices described by interviewees were similar to some of the tier-1 and other lower-tiered cities in chapter 2, the informal livelihood strategies did reveal divergence between how prevalent renting to migrant workers is in cities such as Beijing, Shanghai, and other tier-1 cities, and in Taiyuan.

There are some commonalities between the informal livelihood strategies in both tier-1 and lower-tiered cities discussed earlier and those described to me in Nannongcun. For example, informal livelihood strategies in Nannongcun are not characterized by exchange of money. Instead, informal livelihood strategies are a means of supporting oneself and neighbors through an exchange of goods. (This relates to the concept of the moral economy discussed in chapter 2.) The informal economy in Nannongcun is built on close relationships with community members. Sharing vegetables and other items was

mentioned by multiple interviewees. Interviewee 4, for instance, articulated the following:

> Other people grow vegetables; next to our house, our neighbor grows many vegetables, many other people give to me….vegetables, some stuff, only for especially valuable stuff do you give money.

The moral economy is characterized by both mundane acts, such as the ones noted by Interviewee 4, and its role in helping neighbors in times of hardship. When I asked Interviewee 5 in what ways she and her neighbors help each other, she responded, "We all help, we all help each other.…if the land has little life, we will help. Whoever's family has stuff, they will go help." Such behavior is common in Nannongcun. Sharing food is helpful in a community that still relies on agriculture not only as a source of income, but also as a source for food. Interviewee 5 mentioned that a member of the community would help someone if his/her/their vegetables were not ripe, but his/her/their own produce was.

The sharing of goods is one illustration of the informal economy's providing stability in a community where residents' livelihoods are diverse and not always reliable. The concept of a moral economy is not specific to China, yet the cultural norms surrounding exchanges within its moral economy—as exemplified by the experience in Nannongcun—have particular importance. Protecting one's pride and other people's pride is a large part of how the moral economy operates in Nannongcun. As Interviewee 4 said:

> Our neighbors will not accept money, even if you pay; face-to-face you can only use this method [giving gifts, or items, rather than money]. Other people give

> chicken. Inside your home, you give other people alcohol; the person who gave will receive some alcohol, mutual exchange. The circumstances asking for money are few; wanting to ask for money is a special circumstance.

Highlighting how cultural norms and behavior help regulate the moral economy in Nannongcun is important. The importance of the moral economy relates to the social reproduction of the community, as it helps community members meet their needs—such as having a sufficient food supply—which enables their community to reproduce itself. Social reproduction allows capitalist production to perpetuate itself.

This thesis sheds light on aspects of social reproduction on which Frederiksen (2015, p. 143) focused: "the work of care, socialization, and the fulfillment of human needs that stem from basic survival and human biological reproduction." Activities supporting laborers' ability to contribute to capitalist production, such as cooking and teaching, are within the realm of social reproduction. Interviewee 5 described work she does that would be considered social reproduction: "I clean pots, cook food, wash clothes.…I am a good wife and loving mother [the common idiom xianqi liangmu(贤妻良母)]." An additional example of community members assisting through social reproduction, mentioned to me, was helping to raise children. Similar forms of informal economic practices, both vis-à-vis a moral economy and acts of social reproduction, are discussed by both Smith (2014) and Tynen (2019). The informal livelihood strategies in Nannongcun were different from those observed in research on tier-1 Chinese cities; the difference is most clearly in the absence of community members reliance on renting rooms to migrant workers.

This potential difference is worth noting. As was described in Hsing (2010) and Wu (2016b), renting rooms to migrant workers is common in eastern cities that have been the foundation of China's rapid economic growth. Because of a lack of data, whether renting to migrant workers is uncommon in Nannongcun, or more broadly in Taiyuan, cannot be unequivocally asserted. Conceivably, however, unlike tier-1 Chinese cities that attract millions of migrant workers, renting to migrant workers in Taiyuan is not a livelihood strategy that a majority of residents employ.

My impression gleaned from my interview with Interviewee 5 was that renting to migrant workers was not prevalent. When asked if many people in the village rent their house, she estimated that "out of about 100 households, about 20 households do." Following that, she reduced her estimate to "about 10% of the village's households"—again reflective of a small percentage. When I asked Interviewee 2 if people rented their homes to migrant workers, he responded with an unconvincing affirmative. Without statistics regarding the number of migrant workers living in the village and the attendant number of households renting to migrant workers, concluding that the village is not renting to migrant workers is questionable. However, when I raised this issue and specifically discussed migration patterns in China with Interviewee 7, a student lecturer at a university in Taiyuan, she provided some clarity. She felt that migrant workers will continue to relocate to tier-1 cities because tier-1 cities, like Beijing and Shanghai, are viewed as the hubs of China's economy.

There are well-known neighborhoods in cities such as Beijing where migrant workers live. Inverardi-Ferri's (2018) article on the neighborhood Dongxiaokou is one example of a neighborhood predominantly composed of migrant workers. Seemingly, a

neighborhood such as this would exist in Taiyuan if there were many migrant workers in it. Therefore, I asked the professor months later whether there are well-known neighborhoods in Taiyuan where migrant workers live. She responded that earlier there were some urban villages where many migrant workers resided. However, the city has transformed, so migrant workers dispersed throughout the city, with some even returning to their hometowns. Currently there does not seem to be a neighborhood in Taiyuan that is known as a community where migrant workers live.

A news feature compiled stories about the transformation that has occurred in Taiyuan since 2015. It wrote that in 2015, Taiyuan hoped to raze and modify 85 villages in the city; by 2020, 170 villages (Taiyuan Chengzhongcun Gaizao [Transforming Taiyuan's Urban Villages], n.d.). Accordingly, apparently there was an effort by the Taiyuan government to alter many urban villages, which may have led to the migrant workers' dispersion mentioned by the professor. This phenomenon may explain why renting to migrant workers currently is not a common livelihood strategy among peri-urban residents and why the urban villages were not initially populated by a high percentage of migrant workers.

Additionally, I followed up with a contact in Taiyuan who sought to discern whether anyone knew of a particular part of Taiyuan where migrant workers lived. The informed me that no one knew of such a neighborhood. Given the research on urban villages and migrant workers in tier-1 cities, I believe that the current livelihoods of peri-urban residents do not rely on renting to migrant workers at the same levels as seen in cities such as Beijing Shanghai, and Guangzhou. Whether this would hold true in the period before Taiyuan's effort to demolish and transform villages in the cities is

uncertain. Nonetheless, the question arises about where the migrant workers went, if they are indeed not in Taiyuan. An attendant query pertains to whether the towns and cities in Shanxi that are re-absorbing the migrant workers returning home are urbanizing.

The foregoing informal economic activities show that Nannongcun relies on a moral economy. The exchanges that occur within the moral economy described in my interviews span from sharing vegetables with neighbors to helping one another overcome periods of food insecurity to assisting neighbors with various aspects of their social reproduction. Informal economic activities in Nannongcun coexist alongside the formal economic activities previously described.

4.3 Social Infrastructure, Social Reproduction, and Socio-spatial Practices in Nannongcun

The following section describes how social infrastructure, and embedded socio-spatial practices, play additional and significant roles in the success of livelihood strategies in the community. Social infrastructure and its embedded socio-spatial practices have economic value for the residents I interviewed. There were numerous social activities that would not commonly be classified as either formal or informal economic activities. During my interviews, no one mentioned that the daily social activities they undertook with neighbors were used to improve their economic standing. However, particularly when reviewing informal economic activities, social relationships between community members were clearly essential for their livelihood strategies.

Social relationships between community members are produced through the social lives in their homes, activities such as playing majiang and dancing, helping neighbors with common and important events in their life (e.g., wedding, funeral), and spending time at the “internet-famous bridge.” Residents’ use of social infrastructure is

intimately linked with some social activities. The social infrastructure in the community can both promote and inhibit these socio-spatial practices.

Urbanization is changing the landscape of the village. Formal economic activities described earlier have benefitted from the improved infrastructure connecting the village to Taiyuan's urban core. When I asked Interviewee 2 how he felt about the changes coming from urbanization and why, he responded, "Very good.…because it is convenient." This sentiment was echoed by Interviewee 3, "Life is much better. It is more convenient. The traffic is better." The improved roads and the bridge are welcomed by residents because they have improved the connections between the village and other parts of Taiyuan. Not only has travel been made easier, but the infrastructure projects seem to be contributing to the enhanced material conditions and access to goods. Although there was some difference between the material conditions in the village compared to the urban core, Interviewee 2 was discomfited when I asked him to describe the relationship between the village and Taiyuan. He said that he did not believe that Nannongcun and Taiyuan were separate places. In fact, he averred that "I am in Taiyuan city, so it is more convenient." Clearly there are some positive feelings regarding urbanization, but they are not universal. Interviewees mentioned the benefits of urbanization, but some worried about the effects that the changing landscape would have on their social lives.

The integration of the village into the urban core through infrastructure projects has caused residents to be concerned that their homes will be demolished in the near future. Interviewee 6, when discussing this possibility, said that residents are apprehensive but are not certain when their homes will be demolished. In response to a follow-up question about how interviewees felt that their homes will be demolished,

Interviewee 6 said, “[I] listen to people and guess, because [it’s because] of the bridge.” The bridge, at the time of my research, was close to the village and was near completion. The main structure that connects the opposing banks of the Fenhe river was complete. When I visited the site, the rest of the bridge project was blocked by a temporary brick wall. Residents are worried about moving from their community. Although material conditions are improving, urbanization could have inimical effects on their social lives.

Interviewee 6, who said there are no differences between Nannongcun and the urban center, did, though, subsequently note one significant dissimilarity: “The most important difference is we do not live in apartment buildings; instead we live in single-story homes.” Residents throughout the town almost had the same yellow brick single-story home with large heavy doors that formerly opened into a courtyard. This style of architecture was mentioned more than once as being important to residents. It allowed their social lives to flourish. Later in the interview, Interviewee 6 said, “I am afraid of living in an apartment building.…I cannot talk with all the neighbors.” In a discussion with Interviewee 6 about moving to modern apartment buildings, she mentioned is the importance of having neighbors visiting: ”People arrive in our home and we are together; together we play majiang.” Here is an example of a nearby apartment building with security (e.g. note the security gate at the entrance) in Figure 6, which contrasts the style and lack of visible security seen in more traditional rural homes, seen in Figure 7:

(Figure 6. Peri-urban Apartment Building, Jinyuan. 2019.)

(Figure 7. Rural Home in the Countryside, Jinyuan. 2019.)

In the much broader context of China, homes in less urbanized spaces serve as important pieces of social infrastructure. The residents worry that their homes that have promoted closeness between neighbors will be lost when they move into an urban

landscape. Modern apartment buildings in China, similar to those in the United States, have security systems and are occasionally gated. Interviewee 1 echoed this situation:

> I feel it is inconvenient [living in an apartment building]. I am not sure, but then I think maybe it will be inconvenient to visit friends because now the house is open, and it is convenient to go into, but in the apartment building it is not convenient.

Residents fear that they might lose the close-knit community that is produced, in part, by their single-story, inviting homes. The intimate social relationships that tie this community together were revealed by Interviewee 4:

> Early I thought about going to the city. I don't want to go to an apartment building anymore.…buying an apartment, at that time was cheap, but I didn't want to go; I have many friends.

However, rural-to-urban residents in China do not axiomatically lose their social networks. As discussed in chapter 3, residents in Zhenjiang, unable to use their homes for such social activities such as poker, used communal space around the apartment buildings to maintain their close social relations with long-time community neighbors (Zhang et al., 2018). Interviewee 8, who lived in an urban village elsewhere in Taiyuan, felt their social lives had not changed when she moved into a new apartment from her village.

Not all socio-spatial practices that tie community members together occur within their homes. When visiting China, one of the initial cultural differences that may be noticeable to a foreigner is when community members in large groups in the mornings and evenings are exercising, playing cards, or dancing. This is a common social practice,

and one that is important to those I interviewed. When I asked Interviewee 3 what the most important social activity is, she responded as follows:

> Model show. In the countryside the women have beautiful clothes and show them. It will make them feel happy. [Also,] dancing, playing ping-pong, and the model show…they have a team for drums.

These types of group activities were also discussed by interviewee 4:

> In the early morning, every day we go behind this small building; it has village exercise equipment, and it has ping-pong. In the evening, if it is not too hot, and we cannot fall asleep, we go to the bridge, dance, beat drums, walk. It is very good. In the village, from young to old, [they] say that this life is convenient. Inside the city, it is not convenient, living in one danwei building, we do not have the same warmth.

The public spaces in which these socio-spatial practices occur are critical pieces of the social infrastructure. The shared space where people play ping-pong, for example, promotes social bonds among community members.

Another example again illustrates the strong relationship between social infrastructure and the socio-spatial practices of the residents of Nannongcun. The new "internet-famous bridge" near the village—presumably earning that name from people sharing photos of it on the internet because of its beautiful modern design—simultaneously evokes emotions of excitement and worry. As discussed earlier, residents are concerned that their homes will be demolished fairly soon owing to the encroaching bridge project. Nonetheless, the bridge serves as a source of pride. Interviewee 4 spoke glowingly about the new importance that the "internet-famous" bridge has in the socio-

spatial practices of residents in Nannongcun: “When the evenings are cool, some women will take photos at the bridge…They will smile and take photos.”.

The descriptions of how residents use social infrastructure, and the socio-spatial practices embedded within them, demonstrate how utilization of social infrastructure (in this case homes, bridges, and shared exercise spaces) promotes close attachments within the community. The discussion on the moral economy and social reproduction in section 4.2 on the informal economic practices in Nannongcun illustrates the significance of strong social bonds that allow the community’s livelihoods to flourish. Non-commodified aspects of peoples’ livelihoods (social infrastructure and socio-spatial strategies) are often not emphasized in a livelihood strategy analysis in China to the same degree as the formal wage labor is. However, as has been shown in this chapter’s analysis of livelihood strategies in Jinyuan, they deserve increased recognition in the analyses of livelihoods.

Conclusion

This chapter began by asking two research questions:

1) What are the livelihood strategies employed in Taiyuan?

2) How do the livelihood strategies employed in Taiyuan differ from those found in tier-1 cities in China?

These questions sought to enhance understanding of the livelihood strategies in the peri-urban space of Taiyuan and compare those findings to prevalent livelihood strategies found in Chinese urban studies literature. The answer to the first question is that the livelihood strategies in Nannongcun and Jinyuan are diverse. They are a combination of formal and informal economic practices that are built on the social relationships that create strong bonds between community members. The formal economic activities fall

within the tertiary sector, such as being a delivery driver or a salesperson, and the primary sector, such as agriculture. Informal economic activity in Nannongcun was commonly an extension of the community's formal agricultural economy in the form of their moral economy. Within the moral economy, residents often exchanged goods such as vegetables when their neighbors' vegetables were not ripe, rather than conduct a monetary transaction. The informal economy also included aspects of social reproduction, such as familial work or assistance with childcare among families.

In addition to these economic activities, the social infrastructure and socio-spatial practices are vital to the community's livelihood strategies. Social infrastructure and socio-spatial practices contribute to maintaining close relationships that help community members, especially in sustaining the community's moral economy. The social activities included visiting friends in their homes, playing majiang, participating in ping-pong, dancing, exercising together, and going to the new bridge to socialize. Interviewees repeatedly mentioned the importance that social infrastructure has in their social lives. As these peri-urban areas' physical landscapes change, so might the social lives of community members. Multiple interviewees expressed concern about this prospect. In particular, they worried about their social lives deteriorating as a result of living in modern high-rise buildings.

Ultimately, the answer to the second question (differences between Taiyuan and tier-1 cities) is that the livelihood strategies in Taiyuan, when compared to those documented in more prominent Chinese cities, were found to be similar, but a bit different. For example, the striking dissimilarity is between the proportion of residents in peri-urban and urban village areas in tier-1 cities renting to migrant workers and the

number of peri-urban residents leasing to migrant workers in Taiyuan. Because of these slight differences, they beg the following question: what will urbanization look like in lower-tiered cities as compared to the patterns of urbanization in the well-known coastal cities? The concluding chapter discusses where Chinese urban studies can go from here using a comparative urbanism approach and how it can adapt to the changing patterns of urbanization in China.

CONCLUSION: HOW A COMPARATIVE URBANISM AND LIVELIHOOD STRATEGIES APPROACH CAN CONTRIBUTE TO CHINESE URBAN STUDIES

This concluding chapter will answer the question that brought the discussion of livelihood strategies to a close in chapter 4. Given individuals in tier-1 and lower-tiered cities do employ different livelihoods strategies to some extent and the central government hopes to promote urbanization in lower-tiered cities, researchers must analyze how individuals are faring in underresearched areas of China. To answer how urbanization will occur in lower-tiered compared to tier-1 cities, scholars should draw on Robinson's (2016) comparative urbanism framework discussed in chapter 2. The essence of this framework is that urban studies has been dominated by narratives and theories that have ignored research from underrepresented parts of the world within western academia. An increased understanding of how urbanization is occurring can be revealed through researching cities such as Taiyuan. Cities that are understudied contain historical processes that can all equally be a part of global urban studies (Robinson, 2016). The research herein is particularly relevant for future efforts for two primary reasons. First, the livelihood strategies in Taiyuan, and other lower-tiered cities, are diverse. Second, an important issue is related to how different communities' use of social infrastructure, and their embedded socio-spatial practices, change as a result of urbanization, and how this in turn affects their livelihood strategies.

The livelihood strategies that were discussed in chapter 4 did not differ dramatically from research in other lower-tiered cities (Huang et al., 2017; Wilmsen, 2018). However, there were noticeable differences between tier-1 cities, and Wenzhou, another lower-tiered city (Hsing, 2010; Lin and Gaubatz, 2017; Wu, 2016b). Both tier-1

cities' and Wenzhou's populations consist of a large portion of migrant workers. As noted in the literature, migrant workers tend to live in neighborhoods together where the rent is inexpensive (Lin and Gaubatz, 2017). As a result, many residents residing in their peri-urban or urban villages can rely on renting to migrant workers to make a living (Hsing, 2010; Wu, 2016b). Taiyuan is an example of a city where seemingly a large portion of the population does not rent to migrant workers.

As Wilmsen (2018) mentioned, residents moving from rural-to-urban communities as a result of urbanization fared markedly worse vis-a-vis their material conditions than individuals engaged in urban-to-urban movement. Wilmsen (2018) noted this is probably a function of insufficient formal education, which inhibits rural-to-urban residents from acquiring adequate jobs. More research in Taiyuan, and other lower-tiered cities, where peri-urban residents are not relying on renting to migrant workers is needed. If rural-to-urban residents are struggling in situations where they must compete in an urban job market, and cannot rely on leasing to migrant workers, the question arises regarding how these residents survive and what role do social infrastructure and their embedded socio-spatial practices have in peoples' livelihoods where their livelihoods are precarious.

My research in Nannongcun demonstrates that peri-urban communities, who have yet to be absorbed completely into the urban job market, derive economic benefits from their social infrastructure and socio-spatial practices, which support livelihoods when there are income gaps. Admittedly, social networks are not universally dissolved in urbanized areas, as described by Interviewee 8 who lived in an urban village in another part of Taiyuan. Additionally, Zhang et al. (2018) depict how residents adapted their

social networks to maintain their socio-spatial practices in modern apartment buildings and how some used their new apartment as a home for their small businesses that relied on social networks from their erstwhile village for their customer base. However, there is also research that describes rural-to-urban residents struggling in the city, such as Wilmsen's (2018) analysis of rural-to-urban residents in Hubei province. Future work could focus on enhancing understanding of how rural-to-urban residents' social infrastructure and socio-spatial practices change in the city. Additionally, that research should examine the linkages between rural-to-urban residents' livelihoods and their social infrastructure and embedded socio-spatial practices.

The concept of social infrastructure is an example of how Chinese urban studies can contribute to and be enriched by urban studies elsewhere. As discussed in chapter 2, Chinese urban studies as a body of literature is still grappling with how it can contribute to global urban studies. This thesis' analysis of livelihood strategies in tier-1 and other lower-tiered cities has shown that the experiences within underresearched cities can begin to problematize the frameworks that shape the dominant understandings of urban studies in China. By emphasizing the importance of the co-constitutive relationship between socio-spatial practices and social infrastructure in livelihood strategies, analyses of livelihood strategies in China can be better informed.

Similarly, Chinese urban studies can contribute to urban studies around the globe by centering livelihood strategies as the analysis. Future Chinese urban studies research can be in dialogue with research from other parts of the world that focus on the importance of social infrastructure, social-reproduction, and socio-spatial practices in livelihood strategies. Inspired by a comparative urbanism framework, by centering

processes such as the one described herein, both Chinese and global urban studies can develop augmented understandings of how urbanization operates around the globe, thereby generating knowledge of how urbanization is simultaneously a shared and individualized experience.

APPENDIX

INTERVIEW QUESTIONS

1. **Demographics**:

    1.1 What is your age?
    1.2 How many family members do you have?
    1.3 Do they live in your town?
    1.4 What level of education do you have?
    1.5 Are you originally from this town? If no, where?

2. **Economic questions:**

    2.1 How do you support yourself?
    2.2 How many days a week do you work?
    2.3 How many hours per day do you work?
    2.4 Do a lot of people from your community work here? If not, where?
    2.5 What jobs are available in your community?
    2.6 Do most people work in their own business or enterprise or for another company?
    2.7 If you needed money to support yourself, who would you be able to ask for help?
    2.8 If you could change your community's economy what would you change?
    2.9 Has your income risen in in the past years?
    2.10 How do you see the economy of your area changing?
    2.11 Do you rely on cash or WeChat or another electronic payment service?
    2.12 Have you thought about renting your apartment to migrant worker(s)?
    2.13 Do you rent your house? If so, to who?
    2.14 Is it common for homes to be rented as a way to earn money?
    2.15 What is the value of your land?
    2.16 Have you planned or plan to sell your land?
    2.17 What role do you have in the local economy?
    2.18 What is the most important part of your economy?
    2.19 Do you have multiple jobs?
    2.20 Does your spouse work?
    2.21 Do you support your in-laws?
    2.22 If so, do they look after your children?
    2.23 Are businesses in your community owned by locals?
    2.24 Has there been foreign investment in your community?
    2.25 Do you work with other members of your community?

3. **Social questions:**

    3.1 How many people are in your family?
    3.2 How many of those do you support?
    3.3 What educational opportunities are there?
    3.4 Do many kids in your community go to high school?

3.5 Do many kids in your community go to college?
3.6 Do you have access to social services?
3.7 If so, which social services?
3.8 Do many citizens in your area change their hukou?
3.9 Do many citizens give up their rural hukou for an urban hukou?
3.10 Do you buy your food?
3.11 Do your community members rely on food they grow or the market?
3.12 How often do you spend time with people in your community outside of your family?
3.13 If you could change your relationship with your neighbor's and/or family, how would you?
3.14 Do you think you live in a rural area, city or peri-urban area?
3.15 Do you feel connected to Taiyuan? If so, how are you connected to Taiyuan?
3.16 What communities do you conduct business with?
3.17 Do you consider moving away from your home?
3.18 What role do you have in the local social life?
3.19 What is your daily schedule?
3.20 Has your community become more urban in the last 5, 10, 20 years?
3.21 Do you feel a part of the city or the rural community?
3.22 Why do you live here?
3.23 What is special about your community?
3.24 Are there plans to urbanize your community?

4. Historical questions:

4.1 Has your community's economy changed in the past 5, 10, 20 years? If so, how so?
4.2 How has your individual life changed in the past 5, 10, 20 years? If so, how so?

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