Impact of Care Practices on the Food Security and Nutritional Status of Ethnic Minority Children With Work-Away Parents in Rural China

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Impact of Care Practices on the Food Security and Nutritional Status of Ethnic Minority Children
With Work-Away Parents in Rural China

Yiqi Zhu

A dissertation presented to
The Graduate School
of Washington University in
partial fulfillment of the
requirements for the degree
of Doctor of Philosophy

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Yiqi Zhu

*Washington University in St. Louis*

*August 2021*
ABSTRACT OF THE DISSERTATION

Impact of Care Practices on the Food Security and Nutritional Status of Ethnic Minority Children With Work-Away Parents in Rural China

by

Yiqi Zhu

Doctor of Philosophy in Social Work
Washington University in St. Louis, 2021

Professor Carolyn Lesorogol, Chair

Background and significance: Zero Hunger as the second Sustainable Development Goal builds crucial foundation to achieve other sustainable development goals and is a key approach to the Social Work Grand Challenges. In China, there is a huge gap between in nutritional well-being between urban and rural children. Among all the rural Children, ethnic minority children often live in the poverty-stricken regions have parents work away in urban regions. Their nutritional well-being is understudied. Improve the well-being of ethnic minorities children with work-away parents and closing the nutrition gaps of the rural and urban become the key for China to further achieve SDGs.

Methods: This dissertation utilized mixed methods to provide an in-depth understanding of environmental factors and care systems around ethnic minority children with work-away parents in resource-poor regions. I started with a focused ethnography using participatory tools and then employed a positive deviance approach to conduct case studies on children who displayed positive behaviors in the community to explore the strategies families with work-away parents could use to strengthen the food security and well-being of children in resource-poor
regions. Qualitative data were input into NVivo to conduct thematic analysis. Binary analyses were conducted on the difference of dietary diversity and frequency scores of children of different demographic factors.

Results: This study shows that the harsh natural condition, remote geographic location, and, most importantly, the Hukou policies that bind people to this challenging land are the foremost factors that have made upland F township a food insecure zone. Migration is the key strategy families use to accumulate sufficient wealth to eventually move out of food insecure zones and out of poverty. Grandparents utilized all the resources available in the upland regions and saved money for their families. Depending on the family’s socioeconomic status and social network, parents tried to increase the dietary diversity of children through earning extra income and designating adults to purchase food for their families in remote regions. Food-related parenting skills, such as controlling snack intake through controlling pocket money, exposed children to healthier snacks are also crucial in forming the children’s healthy dietary behaviors.

Implications and conclusions. To further improve the well-being of marginalized ethnic minority children, the foremost action is to correct unjust migration policies and programs and to support family union and mobility. In the process of achieving large political and economic transformations, distant parenting support programs and old age care should be provided to the families with work-away parents and nutritional programs should be further strengthened in the schools in resource-poor regions.
Chapter 1. Introduction

Zero Hunger as the second Sustainable Development Goal (SDG) builds a crucial foundation to achieve other SDGs and is a key approach to the Social Work Grand Challenges. In 2020, over 700 million people, 9.9% of world population, are still suffering from hunger (FAO/International Fund for Agricultural Development/WFP, 2021). China, the world’s most populous country, plays a unique role in reducing global hunger. Although the rates of stunting and underweight in China are going down every year, the rates in rural regions were still as high as 20% in 2015, 2 to 3 times higher than in urban areas (Ministry of Foreign Affairs, 2015).

Among all the rural children, ethnic minority children, defined as children of non-Han population, account for 11% of total children population, but more than 70% of them live in rural regions, and 62.6% of them live in poverty-stricken rural regions and have parents working away in urban regions (UNICEF, 2015). Those children face unique challenges in parental care in addition to lack of resources to support their nutritional well-being. Improving the well-being of ethnic minority children with work-away parents and closing the nutrition gaps between rural and urban areas are key for China to further achieve the SDGs.

Even though being an ethnic minority and living in resource poor regions are often described as risks for nutritional well-being of children, few studies have exclusively focused on the ethnic minority children with work-away parents. Most of the existing studies have focused on the comparison of the nutritional and health status of children with and without work-away parents in rural China emphasizing the problems of families with work-away parents. Those comparisons tend to create stereotypes and stigma. Children with work-away parents are often portrayed as having health and mental health issues. Lack of the direct parental care and the risks of kinship care are often described as the reasons for their poor outcomes.
Care is a crucial condition in achieving nutritional well-being as described in the UNICEF conceptual framework of undernutrition (1990). Ethnic minority children with work-away parents have unique challenges in the care they receive in addition to living in resource poor regions. However, most of the quantitative studies are not able to provide a detailed picture of the actual care practice experienced by these children. Gaining a comprehensive understanding of the lives of ethnic minority children in poverty-stricken regions is the first step to destigmatizing these children and exploring potentially effective strategies for improving their nutritional well-being.

To fill the gap in research on the nutritional well-being of ethnic minority children, this dissertation utilized mixed methods to provide an in-depth understanding of environmental factors and care systems affecting ethnic minority children with work-away parents in a resource poor region. To destigmatize this group of children and families, and advocate for effective strategies to strengthen their well-being, this dissertation employed the positive deviance approach (Herington & Fliert, 2018) to select case studies of the children who display positive behaviors in the community despite the challenging circumstances they face.

Aim 1: Investigate the care system (communities, distant parents, kinship caregivers) surrounding children with work-away parents and the macro-, mezzo-, and micro-factors that affect the food security and overall well-being of children.

Aim 2: Identify specific distant parenting practices, direct caretakers’ practices, and environmental factors that shape the dietary behaviors of children with work-away parents.

Aim 3: Examine the relationships between care systems (distant and residential), dietary behaviors, and nutritional outcomes of children.
Background and Significance

The health disparities between rural and urban children, especially the gravity of undernutrition among ethnic minority children with work-away parents living in mountainous regions is alarming. However, though ethnic minority status is often described as a risk factor for poverty, and poor health and educational outcomes (Bi et al., 2019; Dong et. al, 2018; Hipgrave et. al.), few studies have been conducted on the nutritional well-being of these children. Shi et al (2019), the only study which focused on the nutrition of ethnic minority children with work-away parents in China in the last 10 years, found that children with work-away parents had worse dietary diversity compared to children who live with parents, though the work-away parents might bring more income to the families. The result of this study was similar to most of the quantitative studies using secondary nationally representative data to compare the nutritional status, health outcomes and educational outcomes between children with work-away parents and children live with parents ( Li, Liu, & Zang 2015; Zhang, 2015; De Brauw & Mu, 2011; Zhou et al. 2014).

Most of the quantitative studies used cross-sectional data to compare the well-being of children with and without work-away parents, but such comparisons alone cannot reveal the mechanisms underlying the associations between parental migration and the well-being of children. Among the studies which focused on the pathway of the impact of parental migration on children, remittances and shifting of family structures are the most frequently discussed. Most of the studies on remittances showed that they increased per capita consumption of households and were mainly used in building and renovating housing (Démurger & Li, 2013; Hu, 2012; Snyder & Chern, 2008; Zhu, Wu, Peng, & Sheng, 2014). Some of the studies even presented striking findings that remittance-recipient households allocated a smaller portion of
their budget to the education of their children than the non-recipient families (Demurger and Wang 2016; Lu, 2012).

In addition to the change of time-use patterns, the direct caregivers, grandparents, were often found to lack sufficient modern nutritional knowledge, attitude, and skills in securing the nutritional needs of children compared to the parents. For example, Tan et al. (2010) used a self-designed questionnaire to measure nutrition KAP such as paying attention to nutritional value when preparing food for children, and the rate of correct behaviors such as feeding children breakfast and milk every day. Tan et al. concluded that compared with parental caregivers, non-parental caregivers (mainly grandparents) have lower rates in all the items on the questionnaire. Tan et al. did not indicate in their survey whether they have involved local participation in the survey design process. Therefore, the answers to the survey might not fully reflect direct caregivers’ understanding of food and feeding practices.

Zhang et al. (2015) conducted a qualitative study and had a slightly different finding. Although grandparents might not have enough scientific knowledge about nutrition, parents might have different nutrition ideas but not necessarily better ones. They interviewed both parents and grandparents in rural China. They found that grandparents in rural China were more concerned about whether children had enough food and wanted to feed children more starchy food because they experienced the Great Famine. On the contrary, parents, especially those parents who are migrant workers, are more concerned about food safety and want to feed their children more animal source food such as milk, eggs, and meat. The differences in the survey were not rooted in parents paying more attention to nutrition but the social status signaling of different foods. This study revealed that KAP is impacted by broader historical, cultural, and
economic contexts and researchers should assess the socioeconomic and environment factors surrounding diet before evaluating the KAP of care practices.

**Current Programs in Rural China**

To improve the well-being of families in rural China, the Chinese government launched the Target Poverty Alleviation (TPA) programs in 2013 and the NIPRCES to improve the nutritional well-being of children in the rural region. These two programs increased access to nutritious food for families in the resource-poor regions.

TPA consists of various programs aiming at lifting the people living below the poverty line above it by the end of 2020 (Liu et al., 2017). TPA programs are different from the historical poverty alleviation strategies by targeting individual families and households and introducing targeted strategies to each family (Wang et al., 2017; Li et al., 2015; Zhou et al., 2018; Liu et al., 2018). Different villages implemented different programs according to specific needs. Although the overall strategies have not been evaluated, the few studies which were published on the individual program such as e-commerce, tourism entrepreneurs, and rural resettlement, all found significant economic gains for rural households (Guo, Zhou, & Liu 2019; Naminse & Zhang, 2018; Huang et al., 2020).

To further improve the dietary intake of rural students, the central government started NIPRCES in 2011, which gave 4 yuan (0.65¢) per student per day to subsidize their school lunch. The entire cost of this new program is 16 billion CNY ($2.5 billion) annually. In addition, to improve the school environment to provide safe school lunches, the Central Government invested about 30 billion CNY ($4.8 billion) to build or improve school kitchens. NIPRCES covered more than 23 million students from 699 pilot counties in 2012.
The 2017 flagship report conducted by the China Development Research Foundation monitored the operations and nutritional outcomes of over 9200 schools with 3.83 million children in 100 counties in 13 provinces in China. The report showed that 52% of the schools provided lunch that meets the national requirement in energy, protein, fat, and at least two micronutrients; the rate of undernutrition decreased from 18.5% in 2012 to 15.4% in 2016, while overweight and obesity increased from 4.6% in 2012 to 15.5% in 2016. The same reports also showed that over 40% of elementary schools and over 60% of students consume sugary soft drinks at least once a day. The report indicated that rural China is encountering the dual burden of malnutrition, and the dietary behaviors of the school-aged children might be a factor behind the increased rates of obesity and overweight.

In contrast with the national report showing overwhelming positive outcomes, the Rural Education Action Program of Stanford University (REAP), the most recent nongovernmental efforts to evaluate the program, showed some adverse outcomes. They conducted a before-after cohort comparison among the schools in Shaanxi, Gansu, Qinghai, and Ningxia province. They found the percentage of children below the WHO standard height increased from 72% in 2010–2011 to 82% in 2015, and the rate of anemia risen from 19% to 25% in schools with the national school lunch programs. It is hard to explain why REAP reports showed different outcomes compared with the national report. Still, it is reasonable to suppose that the program has not achieved the same outcomes in different regions.

Providing financial supports and increasing access to the nutrition is the first step to improve the well-being of the children in resource poor region. However, nutritional well-being is not only related to the availability of resources but also the accessibility and the dietary behaviors of children.
Gaps in Current Studies of Children With Work-Away Parents

The nutritional well-being of ethnic minority children in remote rural regions is understudied. I have only found one empirical paper published on this topic within the last 10 years. Among the studies focused on the children and their families with work-way parents, most of the studies are quantitative and tend to compare the well-being of children with and without work-way parents without deeper discussion on the mechanism behind the phenomenon.

When parents migrate, children’s care system changes. However, few studies have comprehensively described the care system around children with work-away parents. Researchers often adopt the assumption that the nuclear family is the norm and see separation as a risk factor. The myth of the beauty of nuclear families has existed in many disciplines (Thelen, 2015) and physical separation of the parents and children does not necessarily lead to lack of care and supervision from parents to children. In fact, most rural families rarely resemble the nuclear family model and community and kinship care have been the key caring models in many rural communities around the world (Yan, 2011; Abdullah, Cudjeo & Chiu, 2020).

Although the current Target Poverty Alleviation Programs and the NIPRCES increased the resources of rural families, how rural families used the resources given by the programs and the effects of those programs on the well-being of rural children have not yet been fully studied. With the alarming signs that the double burden of malnutrition is spreading in rural China, it is crucial to focus on formation of dietary behaviors, and environmental factors and care systems surrounding children with work-away parents.

Framework and Theories

To address the gaps identified in the current research, I reviewed the theories on the determinants of nutritional status, the relationship between parenting and the formation of dietary
behaviors, and residential parenting and intergenerational parenting. These theories provide building blocks of the framework of this dissertation study.

**Definition of Food Security**

FAO (1996) identified food security as a condition in which “all people at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preference for an active and healthy life.” This definition of food security covers both quantity and quality of food and make food security a basis for the nutritional well-being of children. Globally, children who face undernutrition often live in the resource poor region suffering food insecurity from all three aspects (FAO/International Fund for Agricultural Development/World Food Program 2021). Other than not being able to purchase food (affordability), children of ethnic minorities or indigenous groups often grow up in the remote regions with poor natural conditions for farming, and far from the market (The World Bank, 2020).

Currently, few studies have comprehensively assessed the availability, affordability, and accessibility of food among ethnic minority families in remote rural regions. Although some studies showed the increased remittance sent by the work-away parents might have potential to increase the dietary diversity of the families in rural region, sending remittance is only associated with the affordability (Shi et al., 2019; Demurger & Wang, 2016; Zhu & Luo, 2018). It might be possible that even though families with work-away parents might have increased income, access to diverse food is still a challenge due to their geographic locations.

**UNICEF Framework**

UNICEF (1990) developed the most frequently used framework for analyzing the causes of undernutrition. It not only provides a comprehensive framework to discuss factors affecting
the nutritional well-being of children but also an important approach that sees hunger not merely as lack of food but also as the ability to control resources.

The UNICEF framework, as shown in the Appendix A, groups the causes of child undernutrition into three interrelated layers: basic causes including political, socioeconomic, and household factors that affect the accessibility, availability and affordability of food. The underlying factors cover the household level which includes household food security, feeding practices and home environment. This dissertation focuses on the underlying causes of undernutrition of school-aged children. I will also include the discussion of historical oppression, current socioeconomic context, and the current policies. The choices each family makes regarding food and nutrition is partially determined by those macro-level factors.

One of the crucial philosophies behind this multisector framework is that nutrition is a basic human right. As Sen (1989) described, hunger and malnutrition are not the results of inadequate food production but the breakdown of a person's entitlements. The key to Sen's philosophy on entitlements can be generalized into "command over commodities." His capability approach emphasizes the importance of the ability of individual human beings to control resources. Therefore, in UNICEF's framework, nutrition is the outcome of a complex biological and social process. The way to achieve nutrition as a basic human right is to ensure everyone has access to and control over resources to fulfill the "food," "health," and "care" conditions (Jonsson, 1996).

Currently, most of the nutritional interventions in developing countries focus on nutrition supplementation as a strategy to fulfill food conditions. However, school-aged children have autonomy in choosing their food. Even though many school-based nutritional programs provide them with sufficient nutritious food, they might not choose to eat it. For example, the United
States have both school lunch and breakfast programs, but students often do not like the healthy choices provided by school meal programs, instead opting for the ala carte foods or vending machines. The consumption of snacks and soft drinks are one of the leading causes of the high rates of obesity in the US (Fox, Gordon, Nogales, & Wilson, 2008). In developing countries like India, Kaur et al. (2013) found that over 24% of children in low-income families have signs of diabetes that might result from unhealthy food choices. To further improve the nutritional well-being of children, we should also take into consideration children’s dietary behaviors. Therefore, in addition to focusing on the availability of food in children’s environment, this dissertation also explores the formation of children’s dietary behaviors.

**Proposed Framework and Overviews**

The study's conceptual framework is presented in Figure 1. It is based on the UNICEF framework including the macro (socioeconomic factors), mezzo (institutions such as families and schools), and micro (individual behaviors) level factors affecting nutritional and overall well-being of children of minority groups in the remote resource poor regions. In addition, this study focuses on extending the current studies of children with work-away parents, to identify the promotive factors and strategies used by the families and communities that lead to the positive development of children. This study has three major aims:

Aim 1: Investigate the care system (communities, distant parents, kinship caregivers) surrounding children with work-away parents and the socioeconomic factors which affected the care arrangement.

The scope of aim 1 is identified as the content in the green square. As stated in the previous section, the family care systems of families with work-away parents have not been fully explored. As the first step of this study, I conducted focused ethnography using rapid appraisal
tools to depict the macro level factors (chapter 3; natural environment, geographic location, and historical factors), mezzo level factors (Chapter 5, 6 and 7; families, schools and communities) and the micro-level factors (Chapter 4; children’s dietary behavior and daily activities) and how those factors work together to affect the children’s nutritional and overall well-being.

Aim 2: Identify specific nonresidential parenting practices, direct caretakers' practices, and home environmental factors that shape the dietary behaviors of children with work-away parents.

The scope of aim 2 is identified as the content in the yellow square. After gaining a general picture of children’s life, case studies were selected using the positive deviance approach to identify the strategies used by caregivers to enhance the nutritional well-being of children and to cope with the challenges facing families living in resource poor areas.

The case studies are a central part of this dissertation. Chapter 5 introduces the cases and, Chapters 6 and 7 describe the lives of the case study children. Chapters 8 and 9 focus on the grandparents’ strategies for surviving and thriving in mountain regions. Chapters 10 and 11 explain the strategies used by parents to enhance the nutritional well-being of children.

Aim 3: Examine the relationships between care systems (nonresidential and residential), dietary behaviors, and children's nutritional outcomes.

The description of the relationship between the care system and the dietary behaviors is included as part of the case study. The strategies used were developed into a scale that was tested using confirmatory factorial analysis. Parenting strategies, along with the factors that impact the dietary behaviors and nutritional outcomes of children, were tested through a multilevel regression model. The results of the quantitative data analysis will be reported in publications, and are not included here.
Figure 1

The Proposed Framework
Chapter 2. Methods

This dissertation aims to destigmatize ethnic minority children with work-away parents and to identify the strategies used by parents and grandparents to strengthen their well-being. To achieve these goals, this study used sequential exploratory mixed methods design as shown in Figure 1, suspending previous assumptions about children with work-away parents and aiming for a comprehensive understanding of these children’s lives. I started with the focused ethnography on the environmental factors that are associated with nutritional well-being of children. Then I used positive deviance approach to identify the cases that challenge the stereotypes of children with work-away parents and to identify the strategies their parents and grandparents use which can be adopted by other families in the similar situation.

I conducted my research in F township, which was recommended by my local research partner: Teach for China (TFC). The selection criteria I discussed with local partner is to identify a remote resourced poor area where there are elementary schools and children with work-away parents. F township is an impoverished township, which was defined as a township where 60% of people have an annual income lower than the national poverty line ¥2300 ($350). TFC serves the five elementary schools in F township which are located deep in the mountain and 90% of the children in those five schools have work-away parents. F township is composed of two minority ethnic groups: Zhuang and Yao. Although minority identity was not part of selection criteria for the dissertation study, remote rural mountain regions where most of the children have work-away parents are often the areas with high rates of minority populations.

I stayed in the F township for 6 months from February 2019 to July 2019.

\[1\] Pseudonyms are used for all townships, villages, and people to preserve anonymity.
Focused Ethnography and Participatory Rural Appraisal Tools

Focused ethnography is a pragmatic form of ethnography that is often used to study a specific social phenomenon, and the data generation process targets defined research questions (Wall, 2014; Higgenbottom, 2013; Greenhalgh et al., 2011). It is a popular method in healthcare to explore the participant's behaviors and interpretations of reality (Goodson & Vassr, 2011). Compared with traditional ethnography, which requires prolonged field study, focused ethnography generates data within a shorter period of time.

Upon negotiating with local government officials, I was allowed to stay in the field for six months. It was not sufficient to conduct a full ethnography of the local culture, societies, and communities. I chose to focus on the food security and dietary intake of children. I heavily relied on local experts to supply information on the farming, food traditions, and cultures of the communities without directly observing those phenomena. I devoted my efforts to exploring the factors associated with the dietary intake and care practices surrounding children.
Focused ethnography tends to rely on limited small number of informants, often experts, which might limit people's voices. To avoid this limitation and learn from the local people, participatory rural appraisal tools were used to gain general understanding of the food environments in each village, dietary intake of families, and the nutritional knowledge, attitudes, and practices. Because the participants of my study were children, grandparents, and distant parents of minority groups, the tools were adjusted according to their ages and cultural background.

**Food Diary and Anthropometrics.**

Seven days food record was used to gain a children's concurrent weekly food intake pattern. As an individual nutritional assessment method, a qualitative food diary is frequently used to study beliefs, perceptions, and dietary behaviors. Since all the participants are children, it would not be reasonable to ask them to measure the amount of food they ate at home. Therefore, the seven days record was qualitative. Children wrote down the names of each food item they consumed. The qualitative weekly food record cannot tell whether children had sufficient nutritional intake, but only the number of different types of food and each food item's frequency within that week.
I designed the weekly food diary table (figure 2) based on the observations of local food habits. During weekdays, children have three meals each day, and they also ate snacks during lunch break and when school was over. I explicitly added snacks to the table after lunch, before dinner, and after dinner to avoid students underreporting or forget to report their snack consumption because they knew that snacks were unhealthy (Larson et al., 2016). I also added some colorful decorations to the table to raise their interest on filling it out.

To introduce this method, I met the students in two 40 min sessions. In the first session, I did a group informed consent. I told students that I had two roles in the schools. First, I was part of the organization that sent teachers to local schools to improve their academic performance. They could ask me any school-related questions as they wish. My second role is as a Ph.D. student from Brown School at Washington University, and I am conducting my research on their food intake.

The first session's content focused on understanding healthy body image. We talked about concepts of underweight, overweight, and obesity. After the first session, students were
invited to document their food intake for a week. I told students that their participation was voluntary. It was not part of their homework. However, I suggested that the food diary might help them discover why they cannot achieve their desired height and weight. The second session was on the nutrients within the food. I provided a postcard of my school as an incentive to finish the food diary. Many students told me after the first session that their parents have never measured them. Therefore, I offered to measure them if they wished to be measured during the class break or when I visited them at home.

**Food Listings and Sorting**

Free listing is a powerful tool to present participants' mental picture of a cultural domain, and sorting activities can indicate a cultural consensus on the knowledge of each item in relation to other items (Bernard, 2010; Doreian, 2004). I used these two activities in the focused group to quickly generate the essential food items that are important to the children. I first asked students to list as many food items as they can think of in 5 minutes. Then I asked them to work as a group to put the food items they listed into different categories. During this exercise, I probed into how they categorized food. I also asked them whether they agreed or disagreed with their group mates and their opinions on a particular food. At the end of the activities, I asked them to rank the food according to 1) the frequency eaten, 2) their most favorite to least favorite, and 3) the healthiest to the least healthy according to their understanding. This activity presented students' views of food, food preferences, and daily food habits.

**Food Decision Matrix Scoring.**

In this study, I used matrix scoring during the interview with work away parents and the parents living in the village to explore the factors they consider when preparing food for children and what they wished could be done differently. I first interviewed them about the food items
they served at home or wanted to serve at home. Then I asked why they serve food and why they wish to serve food. I wrote down the reason in the first row of the matrix and assigned a score according to the priority mentioned by parents. The factors they gave top priority got a highest score of three. Then the following factors each get a score of 2 and 1.

**Interview and Observation With Grandparents**

The positive deviance approach is emerging as a method in social and health fields to identify potential solutions to complex social problems (Herington & Fliert 2018). Instead of focusing on the problematic behaviors which led to the undesired behaviors, positive deviance focuses on the formation of the desired behaviors in the suboptimal environment by identifying and studying cases where more positive outcomes have been achieved despite environmental and other constraints (Herington & Fliert 2018). Some health and nutritional interventions have adopted this strategy to advocate for the desired change through learning from the peers in the community who display the positive behaviors. (Hendrickson, et al. 2002, Marsh, et al. 2004 Pascale, Sternin, and Sternin, 2010).

This dissertation used the positive deviance approach for two main purposes. The first is to destigmatize the children and families by focusing on their resilience and strengths rather than only problems and pathologies. Second is to identify the strategies families and communities use to improve the nutritional and overall well-being of children. Through analyzing the positive deviant cases, I explored how those families did better than the average and if other families in the communities can adopt the same strategies.

**Participants**

The fieldwork of this study was conducted in the schools of Teach for China (TFC). Staying in the field requires personal relationships, which gave me few choices of the township.
Due to the uneven development of public services, few non-profit organizations or universities have established long-term relationships with elementary schools in impoverished townships. Luckily, I have worked with TFC, the only non-profit organization in China sending teachers regularly to the impoverished counties in China. They helped me establish connections with five schools in F township.

My initial visit was in the summer of 2017, and I visited again in the summer of 2018. The two pre-dissertation trips helped me establish rapport with the principals in the five elementary schools. In 2019, principal B at the May elementary school welcomed me to conduct fieldwork, provided me with a place to stay, and became my first key informant other than TFC fellow teachers. With his support, I met my other key informant, Teacher Lu, who was a local teacher and community leader. I stayed in F town from February 2019 to July 2019.

During my six-month field stay, I first conducted ethnographic observations and utilized the rural participatory appraisal tools to gain a general understanding of the communities, their food strategies and overall nutritional status of children. In the five schools, I conducted food diary activities and focused group discussions. I randomly chose a class from fourth to sixth grade as our participants because younger students could not write the names of a lot of food items yet.

Before the second section of nutrition class, I also conducted a focused group with food listing activities. I asked students to volunteer themselves to the focused group discussion during the first nutrition class. I was able to form two focused groups (one for the girls, one for the boys) in each school. The focused group question was around students' food knowledge and preferences, dietary behaviors, and school lunch. The focused group guideline and interview guideline can be seen in the appendix.
Case Selections

Seven positive deviant cases were selected following the preliminary research. All seven cases were from school E, where my key informants taught. The first four cases were selected based on the better dietary diversity and frequency scores than the average children in the communities. The other three cases were recommended by local teachers based on their above average academic performance. All the seven children displayed positive behaviors that challenge the stereotypes of the “left-behind” children.

I conducted at least ten home visits to each of the seven cases from March to July. I often visited them once a week to help with homework. With rapport being built, I was able to gain detailed information on the care system surrounding those children and reached out to their work-away parents through phones or when they came home. 55 other families which I met during the field study who were willing to be interviewed were also included in the case study as subcases. The subcases were used to triangulate with the findings from the positive deviant cases.

Data Collection and Analysis Plan

Most of the data collected during the six-month field study was qualitative data, which includes field observation notes, interview transcripts and notes, and focused group notes and pictures. The notes and the pictures were uploaded into NVivo, a qualitative software program, for thematic analysis. I first organized the qualitative data according to the research questions. Then I conducted line by line coding to identify the concepts and themes mentioned in the interviews and field notes, and, finally, I combined similar items into categories. Member checking with mentors and peers was conducted during the coding process to ensure quality of coding.
I generated the dietary diversity and frequency of consumption of each category of food from the food diary, which are the vital measures for children’s nutritional intake. Dietary diversity is defined as the number of food groups consumed over a given period of time, and more diverse diets are often correlated with better nutritional intake (Swindale & Bilinshky, 2006). There is not a standard dietary diversity score for school-aged children. Most dietary diversity scores such as Household Dietary Diversity Score by FAO (Kennedy, Ballard, & Dop, 2011) and the Minimum Dietary Diversity (WHO, 2008) are for children from 6–23-month-old based on 24-hour recall, and the food categories they use are not suitable for the local food traditions in F township.

The dietary diversity score in this dissertation is based on the weekly food diary, because I wanted to examine the difference in diets between the home meals and school meals and between the weekday and weekend. I count how many different groups of food children eat during a week. I categorized the food children listed in the diary into the eight main food groups consumed locally: starch, meat, fish, vegetable, fruit, dairy products, egg, and soybeans. I used the food categories in the China Family Panel Study (Xie and Hu, 2015), and the China Nutrition and Health Study (Popkin, Du, Zhai & Zhang, 2010) as references and worked with local experts to categorize food. Dietary frequency is defined as the how often children eat certain food (Shim, Oh, & Kim, 2009). Dietary frequency is often used in the epidemiologic study to access the lifestyle related risks and used in development study as a proxy measure for caloric intake (FAO, 2018). Based on the food diary, I counted the frequency of consumption of each food group children listed on their food diary.

Height and weight were collected to gain a general picture of the nutritional status of children in the field. I collected data from the children who were willing to be measured. I used
the scales available in the schools to measure the height and weight of students. Each child was measured twice by me and a local informant twice. Then we compared the measurements. If the difference was within 0.5 cm and 0.5 kg, we took average of the two. Otherwise, we re-measured the children.

The anthropometric indicators were used to construct height for age z scores (HAZ) and body mass index (BMI) using WHO AnthroPlus, a software developed by WHO referencing for children aged 5–19. The cutoff points for undernutrition, stunting, overweight, and obesity followed the WHO growth references, 2015.

**Human Subject Treatment**

The study was approved by the Washington University in St. Louis Institutional Review Board. Community consent was gained before the field study started. I discussed the study with community leaders and the local informants and gained their approval. Informed consent was given before each interview. All participants were informed that their participation was voluntary, and they could freely choose not to answer questions or stop the interview at any time. To protect the confidentiality of interviewees and their schools, no personal or school identifiers were written on the notes. We recorded only the general information about the interviewees and focus group participants: age, gender, grade level, whether boarding at school or not for the students, and years of experience working in the school for the teachers. For minor participants, caregivers’ consent was obtained before they participated in this study.
Chapter 3. Food Security in F Township in Upland South China

F township has all the most frequently mentioned factors associated with poverty and food insecurity in the literature: it is a minority township, located in an upland area with frequent drought or flood, most of the working-age people work as migrant workers in the urban regions while the older adults and children were still in the villages. Even though numerous studies explain how those factors were associated with food insecurity and poverty, few studies discussed how those factors were the consequences of the historical oppression of this population.

In this chapter, I present information on the geography, socioeconomic development, nutrition transition and the food strategies in F township. This background information reflects the historical oppression faced by upland people and the strategies people used to live outside the state’s control. With the further expansion of state power and modernization, they were further marginalized.

Upland Space and Current Poverty

F township is located on the border between Vietnam and China, in an area called the “Southeast Asian Massif” (Michaud, 1997) or the “Zomia” (Van Schendel, 2002; Scott, 2009) region. The zomia covers 70,000 square kilometers of mountainous terrain predominantly inhabited by ethnic minority populations from China, India, Burma, Thailand, and Vietnam. The high mountains in this region provided a physical barrier that deterred conquest by state power.

F township is a Yao autonomous township, though Yao people only make up about 30% of its population, and the rest are Zhuang, Han, Tong, and Aolao ethnicities. Yao people are the minority among the minority, and their villages are often located in the deepest mountain regions with least resources compared with other ethnic groups. F township is located in G province, a
“Zhuang” autonomous province where “Zhuang” is the largest minority group. Han, the majority group in China is still the majority in G province. Ethnic minority groups in China are often associated with poverty, and studies often ascribe the causes of poverty to their geographic locations, natural conditions, and their lifestyle choices (Cao, et al., 2016; Gustafsson & Shi, 2003).

**History**

The current locations of Yao, Zhuang, and Han people are a result of the numerous ethnic conflicts that happened in the Southeast Asian region. Yao people spread in Vietnam and China, though categorized into one group, they speak various dialects. The Yao in the F township are called “Bunu（布努）”, and their language is close to the Miao and Hmong in Vietnam. Miao, Hmong and Yao used to live in the central part of China. The historical ethnic conflicts between the Han and Miao, Yao and Hmong can be traced back to the Ming Dynasty (1502-1644) (Weins, 1967). With the expansion of the dominant power, similar conflicts happened again in the Qing dynasty which was dominated by Manchu people (1735-1873) (Jenks, 1994). Yao and Miao people who claimed indigenous identity in central China, after being defeated in the wars against the dominant Han (Ming dynasty) and Manchu (Qing Dynasty) powers, finally retreated into the deep mountain area, away from the dominant power. During my field study, one of the Yao people said to me about their history, “my ancestor told us that our Yao tribe used to be a Han tribe, but our ancestors did not want to be involved in the war against other people. Thus, they led us into the mountain to stay away from the war, and we began to call ourselves Yao to distinguish us from the tribes around us.”

Zhuang people claim to be the indigenous people in the G province. Their languages are closer to the Thai people. They tried to establish an independent kingdom in Song dynasty and
were defeated by the Han. They tried again in Ming dynasty against both Han and the Yao (Miao) people who were driven away by the Ming dynasty. They tried again in Qing dynasty, even during the Kuomingtang governance in 1930s, until finally joining the communist army leadership against the Japanese invaders (Zheng, 2005; Huang, Zhang and Huang, 1988). On the same issues regarding their history, Zhuang people often said that it was because Yao people lost the battle with them, so they are forced to move deep into the mountains.

Regardless of whether Yao people were forced to live deep in the mountains or went of their own accord, their current location resulted from historical ethnic conflicts. Those ethnic conflicts, or the wishes to stay away from conflicts, lead people to the area where state/dominant power could not reach in the past due to barriers of mountains.

**Geographical Location.**

F township is an impoverished national township located 40 minutes away by car from T county, which was 2 hours away from the G province’s capital by fast speed train. There is a public bus connecting the center of T county to the center of the F township 2, which operates every half hour. If I missed that bus, I had to find a pick-up truck. I have taken the trucks a couple of times with TFC teachers, and their carrying capacity was amazing. Once, the five-person pick-up truck had ten passengers in it.
Rolling mountains were in the southwestern part of F townships, while the northeast sides are the plains. The center of the F township, which is called “Xiang” (乡 town), is situated in the plains, and the villages are located in the mountains. After I arrived in the town, I hired a motorcycle or a pick-up truck to drive me to the villages in the mountains. There was not public transportation within F township; local people often rely on hitchhiking. Local drivers understood this situation and often asked for a small amount of the reimbursement such as 5 yuan ($0.50) per person one way. Older passengers sometimes get a free ride. Riding with local drivers or giving a free ride to local people was often an interesting experience. Those drivers were either the businesspeople from the county or the town who transport products to the lower land or the villagers who could afford a car. I learned the local traditions, knowledge, and life strategies through chatting with them when riding with them.

Even though the entire F township is considered a mountain region, different ethnicities’ locations are not random. Han people often live in the town, which is more urban compared to the villages. In the rural villages, Yao people often live deeper in the mountains than Zhuang
people. There is a saying in the region “The Yao live at the head of the mountain, the Zhuang at the head of the river, and Han at the head of the streets (Kaup, 2000. p 45)”.

**Natural Conditions.**

F township is sub-tropical with warm weather and abundant rain, but it also has a karst landscape where there are high mountains with numerous caves, which makes soil on the surface very thin and hardly able to hold water. In F township, 21 administrative villages are governing over 200 natural sub-villages (zirancun, 自然村)3, which is called tun(屯). The township government is in the town where a beautiful river, LX River, runs by. The availability of surface and underground water is associated the economic level of a village. Most sub-villages along the LX river are much more prosperous, while the sub-villages which do not have surface water are often among the poorest ones. Those villages had to rely on the rainwater to supply their daily needs. In those villages without surface water, there were often large water tanks built alongside the house.

Water directly determines the farming conditions of a village. Those villages with sufficient water can grow cash crops like mango trees, which are F township’s main farm product. However, only three administrative villages are in the plains in the northeast part of F town. Those villages are Han and Zhuang villages. Among the villages which are close to the plains, there are still creeks and underground water. These villages can grow small scale rice, sugar cane, and mulberry trees. Most of those villages were Zhuang villages. The villages which are much deeper in the mountain, and much higher on the hill, were Yao villages. Their farming

3 Natural sub-village is called “tun”（屯）in the region, which was not an administrative division, but a natural gathering of families which often share the same last name. Then the neighboring sub villages were gathered together under one administrative village level government.
conditions were the poorest due to lack of water and limited farming land. Corn is the main crop in those villages, grown not for sale but for self-consumption and for livestock.

Corn is the main crop in those villages, and corns are not for sale but self-consumption and for livestock.

**Food Strategies**

Just as “minority” carries negative connotations such as “backward, or “not yet assimilated,” minority people’s living strategies, especially their food strategies such as foraging, and hunting are often considered as “backward” or the reasons for their poverty. However, upland food strategies are essential for people who wanted to stay away from state dominance, enabling them to survive in the upland environment and thrive through exchange with people in lowland regions (Scott, 1998).

Lower land people are the crop cultivators. Scott (1998) called these ruling party people “padi field” people. In contrast to upland land’s lives that he characterizes as “free,” “flexible,” and “less organized,” the life of the people under the ruling party is often highly organized with a strict hierarchy. Scott (1998) called the ruling party in South Asian regions “padi” field people because rice has been the tax crop during feudal dynasties period of history4. To better control people, the ruling government often made all the farmland into rice padi to collect tax and ensure its food supply Interestingly, in F town, most of the big Han villages and Zhuang villages grow rice, while the small Yao villages grow corn. The food strategies overlapped and coincided with the ethnicity and political power.

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4 Agriculture tax had a long history in China. During the feudal dynasties, rice was the basis for agricultural tax. After the establishment of People Republic of China, the agricultural tax covered more agricultural products. The agricultural tax was abolished in 2006 (Gruo et al, 2007).
Even though upland and padi field lives sound distinct, people have shifted continuously between the two lives with the changing of the environment. Yao and Zhuang people who live in F town have used both food strategies, though some families might lean towards one strategy more than the other. Lower land agricultural and livestock provide relatively stable sources of carbohydrates and protein, while the upper land strategies such as the foraging and hunting are sources of micronutrients and the extra protein. In this study, understanding these two strategies are crucial for understanding the traditional diets of people and how modernization marginalizes the traditional diets, and in turn makes people malnourished in the nutritional transition process.

**Upland Food Strategies.**

Upland food strategies consist of three parts: foraging for wild vegetables and fruits, hunting for wild animals and cultivating upland crops which can survive the harsh environment, be preserved in the heat and have dense nutritional values.

**Foraging.**

Foraging is a common way to procure vegetables. Due to the hot and humid weather and lack of surface water in many villages, growing leafy vegetables is not easy in F township. Therefore, villagers primarily rely on foraging to obtain leafy vegetables. They eat three main types daily: Bingyang, Ai and Jingqiancao.

Bingyang were the most frequently eaten wild vegetation. I have seen it in almost all the families I have visited. Bingyang can be found after the rain or early in the morning in damp places. I went with local teachers to a tun (subvillage) that was well-known for finding bingyang because there was a pig farm there, and the soil is richer than other places due to the waste from the local pig farm. Although there were quite a few bingyang there, not all the bingyang were tasty. We had to find the young seedlings. The older the bingyang grows, the more bitter it gets.
The way to cook bingyang was simple: sautee it first and then add water. Bingyang was believed to have a detoxification function.

**Figure 5**

*Bingyang*

The second vegetable is called ai. Older adults like eating it with corn rice soup. Ai grows wild on the cracks of stones on the mountains, along the mountain roads, and in the valleys. It populates in the spring and becomes more and more bitter in the summer. Most villages have ai as long as they are not located in the arid hills. Older adults believe that ai can warm the stomach.

**Figure 6**

*Ai*
The third type was called jinqiancao. It is used in Chinese herbal medicine, and local people see it as vegetable and medicine at the same time. They often add it to chicken soup. They believed that chicken is “hot,” while jinqiancao is “cool.” Eating jinqiancao along with the chicken soup helps balance the internal environment of the human body. Jinqiancao was rarely eaten by itself because it is bitter and local people believe it is slightly poisonous.

Figure 7

Jinqiancao

These wild vegetables are documented in traditional Chinese herbal medicine and are rich in micronutrients. During the time when herbal medicine was popular, upland herbs were considered precious ingredients. Nowadays older Yao people still want to be treated by traditional doctors, though they send their children to see the modern doctors in the town.

Other than wild vegetables, wild fruits are also foraged as snacks. Finding seasonal fruits was a fun activity for children. Ten years ago, some villagers with access to creeks and springs began to grow mulberry trees. Mulberry tree leaves are used to feed silkworms. Although the types of mulberry trees they grew have big leaves but small fruits, children still found it fun to eat mulberries during the spring. Summer was the best time for wild fruits. One can discover wild plums and mangoes in different villages. Those fruits are usually smaller and sourer than the ones selling in the market but more refreshing.
In addition to leafy vegetables and fruits, older adults also forage or grow root vegetables and tubers such as sweet potatoes and yam. Roots and tubers are an important source of micronutrients. Grandparents often said they went out to dig sweet potatoes, and some of them told me that their ancestors planted those sweet potatoes and yams. Roots and tubers are very hardy. They can survive on marginal pieces of land with a high altitude. Tuber crops are very easy to store underground and can be dug out whenever needed. For example, when sweet potatoes ripen, one does not have to dig all of them out at once. They can be preserved underground for about 2 years. If they are not taken out, they could easily grow again and produce more roots years after. Therefore, it is no wonder that grandparents rarely consider that the sweet potatoes are grown by them, but they just go to dig them up as they needed.

**Hunting.**

Hunting in the past was one of the few ways to acquire animal source food for upland people. Upland people could make surplus income by selling the game they hunted to the lowland people. Today, local people sometimes set up traps in the forest to catch small animals such as mice, snakes, and birds. I have only seen two occasions of people getting wild animals during my field study: one time was a giant mountain mouse; the other time was a snake. I was told that these animals were “found,” not intentionally caught. The people who caught them were going to eat them with corn wine as a special treat. They said, “This wild meat tastes good and are good stuff. In the past, it was worth a lot of money when they were sold in the market.” Rarely do people eat wild animals after they start raising livestock, and wild animals are not commonly found in the area, because the hills around the village have been converted into farmland.
**Upland Crops.**

The upland people supplemented foraging with cultivation, which provides a more stable food source. The staple food in this region is corn, which came to China from South America and formed the foundation of the prosperity of the tribes in South China. Corn has advantages of rapid maturity and relatively high caloric yield for the labor compared to roots and tubers (Diamond, 1995), but also has nutritional disadvantages such as high phytate content that interferes with nutrient absorption (Kumar et al., 2010). Corn is not only the main staple food for humans but also a key feed for pigs. Therefore, the spread of corn farming also enabled pig husbandry.

The key protein in the grandparents’ generation came from beans. Beans are a typical highland crop globally due to their low maintenance and ability to survive on marginal land. I have seen different types of beans grown on the side of roads and in backyards. Processed bean products like Toufu and Toufu strips are also popular local food items.

These days, grandparents grow pumpkin leaves along with corn. Pumpkin shares the key characteristics of upland crops: hardy and easy to preserve. They were frequently seen along the side of the road, in between the maize fields, in the backyard, and surrounding the house. Pumpkin plants that grow in F town do not have large and tasty fruits, so the actual pumpkins are given to pigs while leaves and flowers are used as leafy vegetables. Pumpkin plants keep growing leaves for the entire summer. After the big leaves are picked, new leaves grow overnight and mature in two or three days. In the summer, pumpkin leaves are a consistent source of greens.
Padi Production

In contrast to the upland food strategies which are characterized by mobility, hardiness and ease of access and preservation, the key characteristic of padi production is stability, organization and high yield per unit labor. Compared with the upland strategies, padi production focuses on one or two types of food that are most suitable to the region, have fixed terms for maturity, and can be taken care of using organized labor.

Rice.

Rice, widely recognized as the crop with the highest calories per acre, is the foundational agricultural product of southern China. Historically, rice was used as the base for tax. After the state took over the upland regions, converting farmland to the rice padi was always part of the follow up actions. Therefore, rice padi was often associated with the formal institutions of state power (O’Connor, 1995).

Rarely do people see rice padi in the mountain regions not only because rice cannot survive the harsh upland environment but also because historically, the expansion of state power was often blocked by the mountain. In F township, I have seen rice grown in three large valleys close to the township, and most of them were Zhuang residences.

Livestock Husbandry.

In contrast to upland hunting, padi farmers raise domestic livestock for animal protein. Due to the long growth period of different livestock, animal protein was rare in traditional diets, reserved for special festivals or special guests. This tradition has been maintained till now, though the overall meat consumption has increased.
The growth period of pigs is at least a year from birth. Therefore, pigs were only slaughtered during the major feast days: Chinese New Year, Qingming 5, Duanwu 6, and the Middle Autumn Festivals 7 which are the four most important festivals originated among the Han; and Sanyuesan 8 and Bunu festival 9, originated among the Zhuang and Yao. Even though those traditional festivals have ethnic origins, all the people in the regions celebrate them.

Slaughtering pigs used to be a very important event in the villages and involved in large-scale ancestry rites. Each village shares a common ancestor, and each family in the village sends one or two men who were often the father or the firstborn son to gather in ancestry halls, burn incense and conduct the ancestor worship before they start slaughtering the pigs. Chickens and sheep are also slaughtered during major feast days. The number of the animals is an important symbol to demonstrate the importance of the festival: the number three demonstrates the most important festival. In those important festivals, most of the villages will organize village dinners where all the villagers come together to the common areas of the villages to dine together.

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5 Qingmin (清明节) is on April 4th according to Gregorian Calendar. It is a day that Han people get together to have ancestry rites.
6 Duanwu (端午节) is on May 5th on the Lunar Calendar, which is often in June on Gregorian Calendar. It is a day that Han people eat rice dumpling as a way to remember a famous politician in the history.
7 Middle autumn festival (中秋节) is on August 15 on the lunar calendar, which is often in the September on Gregorian Calendar. Moon become full on that day, so all the family members get together and become “full”.
8 Sanyuesan (三月三) is one of the traditional names of Qingming. On the lunar calendar, Qingming is supposed to be on March 3rd. However, Qingming now is a national holiday, so it is celebrated on the April 4th on Gregorian calendar. Yao and Zhuang people still have their sanyuesan as an extension of Qingming. In G province, they have three more days of holidays for Qingming due to Sanyuesan than people in other provinces. Yao and Zhuang people have their own customs and stories about sanyuesan. For example, they eat sticky rice with five colors on Sanyuesan. Yao people say that they do it because of a story: a goddess was married to a common man, and she was punished by her father in heaven. She was locked by her father under earth and her door was guarded by two demons. To send food to her, her son had to color the sticky rice to avoid being discovered by the two demons who guarded the door. Another story is that a son lived with his widowed mom who were disabled and could not go to work with him. The son left a bowl of rice to his mother every day before he went to work, but he soon discovered that the rice was often eaten by monkeys. Thus, he began to color the rice using different herbs. Then the monkey did not steal rice anymore from his mother. The common factors of both stories are that rice with five colors was used as a way to disguise the food and as a way to show respect to the mothers. Respecting ancestors is the common value shared by both Han, Yao and Zhuang. Disguising rice reflected the living conditions of minorities in contrast to the majorities: they have to color their rice in order to preserve their food from outside force.
9 Bunu is a traditional festival celebrated by Yao and Zhuang as harvest festival. It is traditionally on May 29th on lunar calendar, but locally they celebrated in September. The origin of the festival is that there were two mountains somewhere in the G province. One looked like a woman and the other looked like a man. These two mountains moved closer and closer to each other until one day they got married and had three daughters, the oldest was the ancestor of Han, the second was Zhuang, and the third was Yao. They worked very hard even during the years of disasters. They gave their harvests to their parents on that day to thank their parents. Since Bunu festival is a harvest festival, the local tradition is that all the villages bring their best products to show at the market. At night, there are village dinner and singing and dancing to celebrate harvest.
Aside from their ritual significance, pigs are valued for many other reasons. People say that there is a treasure in every part of pig: the meat is delicious, the offal and blood are nutritious (often reserved for those who need nutrition the most like pregnant women and the sick), and the skin can be made into cooking oil.

The maturation period for chickens is about 5 to 6 months from hatching, so in addition to the major festivals, chicken is also used for guests. Every time the local teacher invited me for dinner, they slaughtered a chicken for me. After they killed the chicken, they often offered it to their ancestor first by putting the chicken in front of their ancestor’s memorial tablet, which is often set in the center of the living room and burned three incenses. Local people are very proud of their chickens. They said that those chickens are raised on corn and never had any antibiotics. Lamb is reserved for high-ranking guests. The few times I ate lamb was when we were with village leaders and government officials.

These days, the government also began to encourage local villagers to raise cattle, but cattle have rarely been a part of farming people’s diet, because culturally they respect cattle as working animals. The local cattle people raised are mainly for sale. Other than cattle, some villages close to the river or with more water sources also raise ducks, mainly for sale.

**Transition of Diets**

The upland and padi food strategies co-exist in F town and mutually support each other. F town’s natural condition is not suitable for large-scale farming, so only the villages in the northwest plain are able to produce rice and more commercial products. The other areas have to rely on the uphill crops and foraging. Although these strategies have sustained diets over time in F town, with the expansion of the state to the mountains and spread of modernization, more and more families have begun to rely on purchasing food.
Historical Changes to Farming Strategies

It is hard to find the official records of the changing of agricultural production and food habits in F town, so the source of the information came from the interviews with local people. According to the grandparents, their lives were very simple during their childhood: they foraged, grew corn, and raised animals. They experienced war during their childhood, because the location of F town was on the border between China and Vietnam. It was about 1950 when F town became peaceful and stable. During their youth, hunting was common. Although foraging and hunting were considered backward food practices by the majority, foraging and hunting provided them with a comfortable life.

The Hukou policy started in 1950s along with collective farming. Hukou is a population control policy that requires all the people register with the government where they are born. In 1958, the government started to stop farmers freely moving from rural regions to urban regions and farmers had to work on the collective farm in their residential village from 1958-1978 (Chan, 2009). Private businesses almost disappeared during the collective farming period, when the government controlled all the sales and purchases. Hukou and collective farming bound all the upland people to the land, making them into farmers and depriving them of their mobility. Most of the older adults (60 years and older) experienced collective farming during their entire adulthood, and some of the parent’s generations (aged 40 and above) experienced this during their childhood. Both older adults and parents’ generation consider the collective farming period as a very hard time in their life. During the collective farming period, the main farming task was to grow corn. All the mountains surrounding the villages were made into cornfields. All family members were required to work on the cornfields from sunrise to sunset. Corn was distributed according to the number of people in each family. According to a local villager, “The amount
we got was just enough to survive,” and they still tried to forage during their free time to improve their diets, but they did not have enough free time because they had to participate in the collective farming work all their waking hours each day.

The collective farming period ended in 1966. Between 1966 to 1976, life was slightly better because the villagers had more freedom. State control gradually loosened, and land was divided and given to each family. Upland people were able to resume foraging and hunting. However, people said that farming on the hills is hard, and they cannot survive on farming alone. With the spread of farming and associated modernization, most forestland was converted to farmland making it difficult to find wild plants and animals.

In 1978, China implemented the Open and Reform Policy, and internal migration was allowed to supply labor to factories in the cities. The current parents’ generation began to move to the cities to seek work. Many villagers believe that working in the city is the way to change their lives. They often pointed to the empty buildings in the villages and said, “these buildings belonged to the first generation of the people who worked in the city. They have already purchased their house in the city and started their good lives there.”

The population of all the villages is gradually reducing as well as the farming land. Now only a quarter of the hills around the villages are cornfields. In some villages, only the valleys have cornfields. The mountains are gradually being reforested. Although the cornfields have been reduced, families are still able to have corn for every meal and feed livestock.

Now F township is experiencing a new round of the nutrition transition. More and more families are eating food purchased from markets. Meat has become part of daily meals, while consumption of plant-based proteins such as beans, wild vegetables, yam and tubers is gradually reducing
Increased Food Costs

Changing from self-sustained food strategies to purchasing food inevitably increases the food cost. In addition, food sold in the villages is 20% more expensive than in the town, and food sold in the town is 20% more expensive than in the county seat because of the transportation cost. Modern food distribution cost is associated with the mega market supply chains originating in large urban centers (Reardon et al., 2003). The further food is transported the higher the cost.

Table 1

Food Items and Their Cost in Upland and Modern Diets

<table>
<thead>
<tr>
<th>Food items</th>
<th>Upland Diet</th>
<th>Source</th>
<th>Frequency</th>
<th>Modern Diet</th>
<th>Price (yuan/kg)</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cereals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corn</td>
<td>Self-produced</td>
<td>Daily</td>
<td>Rice</td>
<td>15</td>
<td>Daily</td>
<td></td>
</tr>
<tr>
<td>Vitamin A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rich</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vegetables</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sweet</td>
<td>Foraged/grown</td>
<td>Weekly</td>
<td>Carrots</td>
<td>2.5</td>
<td>Rarely</td>
<td></td>
</tr>
<tr>
<td>potatoes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roots and</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tubers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Dark Green</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>leafy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vegetables</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Various</td>
<td>Foraged</td>
<td>Daily</td>
<td>Spinach</td>
<td>5</td>
<td>Rarely</td>
<td></td>
</tr>
<tr>
<td>herbs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vegetables</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Vitamin-</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>rich fruits</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other fruits</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wild fruits</td>
<td>Foraged/grown</td>
<td>Seasonal</td>
<td>Apples etc.</td>
<td>6–10</td>
<td>Rarely</td>
<td></td>
</tr>
<tr>
<td>Pig offal</td>
<td>Self-produced</td>
<td>Seasonal</td>
<td>Orange NA</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pigs</td>
<td>Self-produced</td>
<td>Seasonal</td>
<td>Pork</td>
<td>9.5–12</td>
<td>Daily</td>
<td></td>
</tr>
<tr>
<td>Chicken</td>
<td>Self-produced</td>
<td>Seasonal</td>
<td>Eggs</td>
<td>0.6–0.7 each 18/kg</td>
<td>Rarely</td>
<td></td>
</tr>
<tr>
<td>Flesh meat</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eggs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fish</td>
<td>Caught/traded</td>
<td>Rarely</td>
<td>Eggs</td>
<td>0.6–0.7 each 18/kg</td>
<td>Rarely</td>
<td></td>
</tr>
<tr>
<td>Legumes,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>nuts, and</td>
<td>Self-produced</td>
<td>Weekly</td>
<td></td>
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<tr>
<td>seeds</td>
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</tbody>
</table>
Table 1 summarizes food items based on the 12 food categories used by FAO (2011) to measure household dietary diversity. The more categories of food a family has, the better the dietary diversity. The first three columns list the food items eaten by a family if they use upland food strategies. Families that use the upland food strategies can cover all the essential categories, though fruits and animal protein are seasonal, and can be supplemented through wild herbs and plant-based protein (beans and peas). The next column shows the price of the food if people from F township had to buy from market. In order to cover four categories of food (rice, meat, vegetable, and oil) as basic food diversity by FAO, a family has to spend at least 20 yuan (3.5 dollar) a day, not including diverse vegetables or meats. Due to the increased cost of food, the frequency of eating each type of the food is reduced. About 30% of the families that I visited in upland F township were not able to afford meat and vegetables at each meal.

In addition to decreased diversity of food due to the increased cost, the consumption of snacks is increasing, especially among children. The reasons for increased snack consumption will be discussed in more detail in the following chapter, but here I want to raise readers’
attention to the price of the snacks. The snacks compared with other food might not provide any nutritional value or health benefits, and sometimes can even be harmful, but the price of each snack is very low, only 0.5 jiao ($ 0.06). In contrast, a healthy snack like an apple cost about 3 yuan ($ 0.50) in the region.

Increasing spending on food does not necessarily lead to the increased food diversity or nutritional intake. The changing of the diets in the F town echoes the global nutritional change: increased animal-sourced food, cheap caloric sweeteners, and processed foods. Those changes are often associated with the rise of obesity in the developed regions (Popkin, Adair, & Ng, 2012; Zhai, et al, 2009). However, the dual burden of over and under-nutrition can co-exist within a country and even within a household. Although obesity is not an issue yet in F township because it has not totally abandoned labor-intense farming activities, the low price of processed food and the high cost of whole food make the rates of undernutrition in the region persistently high.

Outmigration

The main income source of families in the area is from the work-away parents since farming in F town rarely provides surplus beyond the basic needs. More than 90% of the children in F town have both parents working away. The closest place parents work is in the township, where they can find some day labor jobs which pay about 50 - 100 yuan ($5-$15 ) a day. The most popular working places were Hainan province which is across the inner sea from G province, and Guangdong province, which is a neighboring province. Hainan, in the past ten years, had a thriving housing market. Most parents go to Hainan to be construction workers. Construction workers labor more than 10 hours a day, especially when the projects are urgent. The construction workers earn about 5000-7000 yuan a month. Guangdong province is where the
big factories supplying the globe are located. All the world-famous brands have at least one factory in Guangdong. Parents go to Guangdong to be factory workers. Depending on their education level, skills, and work experiences, they can earn between 3000-7000 yuan a month. The majority of the factories offer free meals and housing, but factory workers often have to work from 8 a.m. to 8 p.m., and overtime is common.

Even though working in the factories brings more income to the families at home, the spending of the families in rural regions is also increasing. Housing and education are the two major areas of spending. Studies found that most remittances sent by work-away parents are spent on the housing (Démurger & Li, 2013; Wen & Lin, 2012; Zhu, Wu, Peng, & Sheng, 2009), and then on education and food for children. In my field observation, I found that parents’ investment in housing renovation is not only because housing was considered the “face” of a family, which demonstrates the family’s social status, but governments in the recent years also give subsidies to renovate housing. The old-style houses which people used to live in were made of wood, without windows, and often did not have piped water or sanitation facilities. Improving houses is a foundation to improve many other aspects of lives. House renovation often costs parents three to four years’ income. They tried to do that before children go to middle school. The only middle school of F township is in the center of the township, which is far from home. Studying in middle school is another large expense for families due to the transportation cost and other school-related spending.

Access to Market

Other than the parents’ income which directly determines how much food a family can purchase, purchasing food itself is a big challenge in F town. There is only one market in the middle of the township where local farmers sell their produce in the morning. Few people who
live in the mountains come to market daily to purchase food. Market days are held three days a month in F township. The whole main street is full of vendors from different places. These three days were often the days grandparents take grandchildren to go to the market to purchase something as a special treat.

To get to town in the morning, grandparents wake up early to walk to the main road to hitchhike with a car or a motorcycle driving by. Most of the sub-villages are in different valleys scattered among the rolling mountains, while the main road is located on the hill. It often takes grandparents more than a half-hour to reach the main road. After they arrive on the main road, they wait for about 10-20 minutes for a car or motorcycle willing to take them to the town. Early morning is the only time when most cars and motorcycles go out of the villages. When they come back, grandparents also have to find a car or motorcycle to take them back to their sub-villages. If the sub-villages are too remote where cars or motorcycles are not willing to go, grandparents either have to pay extra money, or they have to walk back from the location where the drivers drop them.

There are also traveling salespersons transporting food from the center of F township to sell food to each sub-village on tricycles or motorcycles, but they did not have fixed schedules, and the food they sell is 20% more expensive than that sold in the market in the center of F township. Nobody knows when and where they would show up during weekdays. Their presence depends on their orders and their feelings on that day. They won’t show up during the rainy day or when it was too hot or too cold, though normally they won’t miss the weekend business. The only way to ensure that those salespersons can show up and have the food one wants is to preorder food from them using the WeChat app or calling them. This requires one to have a
smartphone connecting to the internet. Many grandparents in F town either do not have a cell phone or do not know how to use them.

This chapter presented a brief background of the lives of people in F township, a minority town located in an impoverished remote mountain region. Although being minorities living in remote mountains is often considered a risk factor for food insecurity, those factors reflect historical oppressions. Upland subsistence food strategies reflect a history of conflict with the state and efforts to retreat from overwhelming state power. Foraging, hunting and small-scale cultivation have enabled people in this region to survive and even thrive, historically.

In recent decades, state-led development strategies are transforming rural agricultural production leading to changes in food strategies, diet and livelihoods. Since the establishment of Hukou policy, ethnic minority people’s living spaces are more restricted. They lost freedom of migration, which has been a key strategy in China for those seeking better opportunities. More recently, rising modernization in F township has contributed to a transition from consuming mostly self-produced food to growing reliance on the market. The reduced food availability and accessibility in the transition present different challenges to different families, which will be discussed in depth in the following chapters.
Chapter 4. Nutritional Well-Being of Children in Upland F Town.

Chapter 3 describes the background of F township and the evolution of subsistence strategies, farming, and diet. Due to the historical conflicts, the locations where different groups of people live were not random but reflect history, changing power dynamics and state policies including, most recently, modernization and growing reliance on income from labor migration and access to food markets.

Chapter 4 presents the current nutritional status of children in the regions, their daily food intake, and their nutritional knowledge, attitude, and practices. Data were collected from five elementary schools in the study area. The five schools are scattered in the villages deep in the mountain surrounded the township. Although the actual distance to the town is between 10 km (7 mile) to 15 km, it took me 20 minutes by car or motorcycle to reach the closest school A, while 40 minutes to one hour to reach the rest of the schools due to difficulty in driving on the mountain roads.

Due to rapid urbanization and migration out of the region, the size of the schools is shrinking every year. The smallest school I visited had 86 students, while the largest had about 290. The faculty numbers were also small; the smallest school had five teachers while the largest had 15 (See details about the schools in Table 1.) In each school, I conducted a food diary activity with one class of students from grade four to six and two focused groups with students.

Table 1. The Demographic Information of the Five Schools between 2016-2018
Table 2

The Demographic Information of the Five Schools

<table>
<thead>
<tr>
<th>Schools</th>
<th>Distance to town</th>
<th>Student population</th>
<th>Age range</th>
<th>Boarders</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>11.6 km (7.2 mile) 20 min</td>
<td>198–180</td>
<td>5–12</td>
<td>70</td>
</tr>
<tr>
<td>B</td>
<td>13.9 km (8.6 mile) 45 min</td>
<td>86–62</td>
<td>5–14</td>
<td>20</td>
</tr>
<tr>
<td>C</td>
<td>6.5 km (4 mile) 30 min</td>
<td>158–140</td>
<td>5–13</td>
<td>30</td>
</tr>
<tr>
<td>D</td>
<td>8.7 km (5.4 mile) 40 min</td>
<td>150–132</td>
<td>5–14</td>
<td>0</td>
</tr>
<tr>
<td>E</td>
<td>15.6 km (10 mile) 45 min</td>
<td>290–286</td>
<td>5–12</td>
<td>20</td>
</tr>
</tbody>
</table>


Prevalence of Stunting and Underweight

Height and weight are important data to measure the nutritional status of children, but nongovernmental personnel are not allowed to measure the height and weight of students in China. Due to these restrictions, I was not able to collect a random sample to estimate the nutritional status of children in the study region. Instead, I weighed and measured students who allowed me to do so.

During the first nutrition class, I talked to the students about the World Health Organization (WHO) growth standards. By getting details of their height and weight, they could see if they were within the normal range. To my surprise, a lot of students told me during the class that they did not know their weight and height, and neither their parents nor teachers had measured their height or weight recently. I took this opportunity to ask them if they would like to know their height and weight and told them that I could measure them. In each school, about 10 students voluntarily came to the office after class to be weighed and measured, as described in the methods section above. Overall, I was able to collect the height and weight from 42 students from five classes, a total of 210 students who participated in my nutrition class. Half of them were females and their age ranged from 9 years old to 12 years old covering the fourth grade to the sixth grade.
**Height and Weight of Students**

Using the WHO Child Growth References STATA Package, the height for age z score (HAZ) ranged between -4.51 and -0.34, with an average of -2.25. According to the WHO growth standard, the HAZ below 2 standard deviations of the average is considered stunted. The HAZ score indicated that more than half of the students measured were stunted.

**Figure 8.**

*HAZ Score Distribution*

Note. n = 42.

The BMI-for-age score (BMIZ) ranged from -5.57 to 1.7, with an average of -1.12 (SD=1.87) (Figure 10). BMIZ below two standard deviations below the average is considered underweight. Among my sample, the majority of the students were between one standard deviation and two standard deviations below the average BMI. Although they were not considered underweight, their average weights were lighter than the WHO reference for their age. Five students (12%) were two standard deviations below the average, which was considered as underweight.
The BMI-for-age score (BMIZ) ranged from -5.57 to 1.7, with an average of -1.12 (SD=1.87) (Figure 3). BMIZ below 2 standard deviations below the average is considered underweight. Among my sample, the majority of the students were between 1 standard deviation and 2 standard deviations below the average BMI. Although they were not considered underweight, their average weights were lighter than the WHO reference of their age. Five students (12%) were two standard deviations below the average, which was considered as underweight.

**Body Image**

Although the anthropometrics indicated the prevalence of stunting and underweight among students, students have a different opinion about their own height and weight, especially the weight. Children of similar grades often have similar heights, though all of them might be below the WHO reference, they did not care as much about their height as they cared for their

---

**Figure 9**

*The Histogram of BMI for Age Z Score*

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below -3 SD</td>
<td>2</td>
</tr>
<tr>
<td>Below -2 SD</td>
<td>2</td>
</tr>
<tr>
<td>Between -2 SD to -1 SD</td>
<td>16</td>
</tr>
<tr>
<td>Between -1 SD to 0</td>
<td>21</td>
</tr>
</tbody>
</table>

Note. $n = 42$. 
weight. Only a few students who were obviously below the average height of their classmates felt unhappy with their height and wanted to know how to grow taller.

People are not shy about discussing issues related to weight in this region. People from adults to children made comments on people’s body shape regularly. For adults, when I ate with them or ate at students’ homes, people would often show hospitality by feeding people more food, and they would say, “eat more, you look very thin. Please eat more.”

While adults, especially the seniors, would encourage guests to eat more by telling guests that they looked thin, children often liked to make fun of others being fat. Two TFC teachers and I were about the average weight, though we looked heavier compared to the local teachers. Students often made fun of us. Those students who had a good relationship with their teachers, often asked me why I looked so fat. In the beginning, it took me a while to think of a good answer. The other two teachers told them that it was because they were too thin. They should eat a little bit more. Then those students said, “no, no, we like to be thin.” I had encountered similar conversations more than 10 times with various students during my stay.

Many studies say that girls seem to be more concerned about ideal weight (Kennedy, et al., 2010). However, in my study, I received comments on my weight from both girls and boys in the school, and being thin was a popular preference among the majority of the students regardless of gender. During the Children’s Day performance, I helped to order costumes for a short skit performed by a group of sixth-grade boys. This group of boys were taller than the average pupils of their grade in the school, but the average size costumes of their age were still too big for some of them, so I had to take them in using pins. I said that those costumes were too big because they were a little too thin. Then two of the boys said, “No, no it was because those
people are too fat.” One of the boys even said, “City people like you guys are often much bigger than us. We look much better.”

These two examples are just a glimpse of the opinions of body image among the students. During the process of weighing and measuring them, some students came to me in a group, then later they would compare each other’s weight and height, and the one who weighed the most often felt sad and swore that she or he would do something to reduce their weight.

“I will go running tomorrow to reduce weight.”

“I will not eat meat for lunch.”

Then I asked them where they got the ideas of “losing weight” and “beautiful”. The girls openly told me about their favorite popular stars saying that all the beautiful TV stars were thin, and they wanted to look like them. Boys did not say much about the popular stars, but they agreed that thinner was good and good people were often thin. Later, I realized that in the cell phone games that they played daily, the good figures were often the good-looking slim ones, while the bad figures were often the fat and not so good-looking ones

Social comparison theories help explain the experience and discussion I had with the children on body image. Children’s body image ideals mainly came from two sources. The first is the average weight of people around them. The majority of the children who live in the region have below-average weight when compared to the children of the same age. As data show, undernutrition rates in rural China are 3 to 4 times higher than in urban China. The average weight in rural regions is below the average of the WHO standard. Since the majority of the people around them might have lower weight, when comparing with people around them, children do not see being underweight as a problem.
As many recent studies showed, the preference to being thin is becoming a global trend, and some scholars also point out that being thin and meek has also been a feminine ideal in China (Jackson & Chen, 2008; Jung & Forbes, 2007; Leung, Lam, & Sze, 2001). Although studies have claimed that larger body shapes stood for affluence and longevity in China (Demarest & Allen, 2000; Fitzgibbon, Blackman & Avellone, 2000; Cachelin, Rebeck, Chung, & Pelayo, 2002), those traditional images were only praised among the grandparents’ generation in F town.

In addition, normalizing underweight is enhanced by the influence of media. Those actresses that students like often have a so-called model body shape. For example, one actress that the students liked the most is of my age, 164 cm in height but only 44.6 kg in weight, and her BMI is only 12.1. Globally, celebrities and media tend to hold up the standard of unrealistic thinness as beauty. Through comparing with celebrities or even cartoon figures in their cell phone games, children also want to be thinner than the standard weight. Besides, in China, the celebrity also sends wrong information on the way to control weight. A lot of celebrities make advertisements for snacks. Some students do not think that snacks are associated with gaining weight. Students who claim that they want to lose weight chose to give up meat, not snacks. This might further worsen the children’s nutritional intake.

Studies have been done on the negative impact of social media on body image satisfaction, anxieties, and eating disorders among urban children and young adults in China (Ren., et al, 2018; Xu, et al, 2010; Xie, 2006). However, few studies have been done in rural regions. I have observed that two children did not eat meat because they want to lose weight. Although the negative impact of the unhealthy body image may not be that common among
elementary schoolers, I did hear a lot of cases among the middle schoolers who were the sisters of the children in my study who were experiencing more anxiety about their body image.

**Food Diary**

A one-week qualitative food diary was used to gain a general understanding of the children’s eating habits and dietary intake. During the first nutrition class, children were assigned this afterschool activity voluntarily. I asked them to write down the name of the food item they ate at each meal and the name of the snacks they ate each day for a week, and in the next nutrition class, I would use their diaries to help them recognize the essential nutrients in each food item they eat. Most of the children complied with the requirement. 200 diaries were given out to the students from five schools and 151 were returned and 131 of them were completed. The demographic information of the students can be seen in the table 3.

**Table 3**

*Student Demographic Information*

<table>
<thead>
<tr>
<th>School</th>
<th>Grades</th>
<th>Gender</th>
<th>Number of boarders</th>
<th>Diary completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>5</td>
<td>Male</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>B</td>
<td>4</td>
<td>Male</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>C</td>
<td>5</td>
<td>Male</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>D</td>
<td>4</td>
<td>Male</td>
<td>0</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female</td>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td>E</td>
<td>6</td>
<td>Male</td>
<td>2</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female</td>
<td>3</td>
<td>17</td>
</tr>
</tbody>
</table>

*Note.* Data from only students who turned in their food diary.

I analyzed the food diary in two parts: the first was to count the dietary diversity scores by adding the number of food categories children have written in their diary to form a dietary diversity score; and the dietary frequency score, which is to count the frequency of consumption of different types of food. Then I conducted a binary analysis to check whether there is a
difference in dietary diversity scores and dietary frequency scores between genders, grades,, and whether a student boards at school.

**Dietary Diversity and Dietary Frequency**

I counted the categories of food children had during the week to form the weekly dietary diversity scores for each child. Children’s weekly dietary diversity scores ranged from 2 to 8 types with a mean score of 4.8 (SD=1.04), which indicated that most of the students were able to eat more than 4 different types covering the starch, meat, and vegetable groups within a week. However, not all the students were able to have the meat and vegetable for lunch and dinner every day. Figure 1 shows the frequency of food intake according to the eight food categories within in a week. The mean frequency for meat consumption was 10.40 and for vegetables were 9.38, which suggests that most students were not able to have one vegetable dish and one meat dish for both meals daily. The consumption of all the other categories was close to minimal. The detail of the frequency of consumption of each category of food can be seen in table 4.

**Table 4**

*Weekly Dietary Frequency*

<table>
<thead>
<tr>
<th>Category</th>
<th>M</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starch</td>
<td>19.31</td>
<td>2.18</td>
<td>14–29</td>
</tr>
<tr>
<td>Meat</td>
<td>10.40</td>
<td>3.37</td>
<td>0–16</td>
</tr>
<tr>
<td>Vegetable</td>
<td>9.38</td>
<td>3.79</td>
<td>0–19</td>
</tr>
<tr>
<td>Soybeans</td>
<td>2.01</td>
<td>1.99</td>
<td>0–8</td>
</tr>
<tr>
<td>Fish</td>
<td>0.36</td>
<td>0.72</td>
<td>0–4</td>
</tr>
<tr>
<td>Egg</td>
<td>1.04</td>
<td>1.66</td>
<td>0–10</td>
</tr>
<tr>
<td>Dairy products</td>
<td>0.53</td>
<td>1.53</td>
<td>0–12</td>
</tr>
<tr>
<td>Fruits</td>
<td>0.51</td>
<td>1.13</td>
<td>0–5</td>
</tr>
</tbody>
</table>

In contrast to the limited number of food items students recorded in the food diary, they wrote the names of more than 100 different names of snacks. Most could be categorized as follows: spicy strip, candies, puffed foods, and sweet drinks. The frequency of consumption of
snacks was also high compared to the consumption of food at meals; on average children consumed 12.65 (SD=7.21) snack items during a week.

Figure 10

*Number of Food Items Eaten in One Week*

![Box plot](image)

*Note.* Box plot, self-report by diary.

**Factors Associated With Dietary Diversity and Frequency**

Based on the 131 food diaries with sufficient information, I conducted a binary analysis between dietary diversity scores and dietary frequency scores with demographic factors: grade, gender, and whether a student is a boarder or not. I generated the data of how students’ families acquire food and whether a student has migrant worker parents through interviews, home visits, and data from teachers. I also conducted a binary analysis of the dietary diversity and frequency scores with these two factors. The significance was only found between the food frequency scores and the main ways of acquiring food for a student’s family, and whether a student is a boarder. All the other factors were not significantly associated with either dietary diversity scores or dietary frequency scores of any category.
School meals had better diet diversity and food item frequency compared to the family meals. Almost all the schools were able to provide a meat and vegetable dish for every lunch, but the types of meat and vegetables varied according to the size of the school. Schools A and E had large student populations, so they were able to provide two types of meat and five types of vegetables every week, while the rest were able to provide only pork and three types of vegetables. In contrast, only 27% of families were able to provide one meat dish and one vegetable dish for every meal at home; 14.5% of families were able to provide only a vegetable dish with staple food, such as rice or corn rice, at home or a meat dish with staple food. Due to the better dietary diversity and frequency of the school meals, the binary analysis showed that boarders had significantly higher consumption of meat (M= 11.6 SD=0.51) and vegetables (M=11.84 SD=0.51) compared to day students who on average consumed meat 10.02 (SD=0.37) times and vegetables 8.42 (SD=0.08) times during the week (t=2.38 P<0.01 for meat, and t=4.02, t<0.000 for vegetable).

The statistical significance was found on the association between the ways of acquiring food and the dietary diversity and frequency in a one-way test. Students whose families mainly rely on the “self-produced” food only have one meat item: pork and one or two items: wild vegetables and pumpkin leaves. They rarely eat fish, eggs, and fruits. In addition, the source of this produce is not stable. On the food diary, those children cannot have one meat dish and one vegetable dish at every family meal.

On the contrary, the students whose family relies on “purchasing” food, majority of them still only eat one type of meat: pork, but their vegetable intake is more diverse: cabbage, carrots, cucumbers, and kale etc. The source of purchasing food is more stable and most of those children are able to have one meat dish and one vegetable dish. Only the few privileged families which
have stable non-farming income and have means to go to market are able to afford fish on a regular basis. The only exception is a small group of children in school B whose parents or grandparents are fishermen, since the school B is close to a river. Sometimes there may be multiple meat dishes and vegetable dishes for family meals.

**Nonsignificant Findings**

The food diary did not reveal statistically significant differences between the dietary diversity and food frequency between different living arrangements, nor between different grades and genders. These findings were different from many previous studies but echo my observations in the field.

Among the 131 students participated in the food diary activities, only 3 of them had both parents at home, and 13 of them had one parent working-away and all the rest had both parents working away. Due to the accessibility of the food in remote mountain villages, many families have similar food items for all the meals. Only a few privileged families whose parents were teachers or government officials could enjoy more diverse diets on a daily basis. Among the families with work-away parents, their dietary diversity and frequency varied due to the difference in socioeconomic status and many other factors which will be explored in-depth in the case studies. This nonsignificance might be due to lack of sufficient data but might also imply a complex picture of food security of different families, which cannot be captured fully based on their living arrangements.

The gender difference was a frequently mentioned factor in food security, it would be too naive not to observe the gender dynamic in food security in rural China. The statistical nonsignificance in the dietary diversity and frequency score does not mean that there was not a difference in actual dietary consumption between boys and girls. The case study will reveal a
more detailed picture of gender dynamics in the impoverished region from families, communities, and policy perspectives.

**Snack and Sweet Drinks Consumption**

In contrast to the low frequency in consumption of diverse food items, the frequency of the snacks and sweet drinks was much higher. Students in the region consume an average of 12 (Sd=7.24) items of snacks or sweet drinks per week, ranging from 0 to 30. This number indicates that a majority of the students consumed at least 1 item of snacks per day. In addition to the frequency of snack consumption, the types or the names of snacks students listed on the food diary were enormous compared to the other food items listed. Overall, they wrote over 100 names of snacks on the food diary, while they only mentioned 6 different names of vegetables, and 4 different names of meat.

Compared with the barriers to purchasing vegetables and meat that grandparents face, every school has at least two convenience stores selling snacks next to the school gates and every student knows where to get their favorite snacks. The snack is only 0.5 to 1 yuan ($0.05-$0.5) per item, much more affordable than other food items. Every morning, during the lunch break and after school, all the convenience stores have lines of students buying snacks.

**Taste and Packing of Snacks.**

Children wrote over 100 different names of the snacks and sweet drinks, and all those items are made from similar ingredients: processed sugar, fried flour dough, and artificial colors and flavors. Those artificial colors and flavors can create flavors of milk, vegetables, and fruits which children were not able to frequently have in their daily lives.

Figure 12 shows two “chocolate” snacks, but they are not made from milk and cocoa powder, rather water with artificial flavors, cocoa butter replacer (formulated from hydrogenated
and fractionated vegetable fats), and sugar. Other examples are “fried cucumber”, and “mango slices”, both are made from flour and artificial flavors without cucumber or mangoes.

**Figure 12**

*Chocolate Sold in Convenience Stores Outside Schools*

Looking closer at the chocolate from the local convenience store, its packaging imitates the famous chocolate brand Dove, a well-known brand that advertises on television to attract children. The price of the snacks of the brand-name is not affordable. The imitation versions sold in the local convenience stores provide the children an opportunity to afford the feeling of those famous brands and their favorite stars. A group of students during my home visit offered me a spicy strip and told me that their favorite star makes advertisements for that spicy strip, which includes saying that the spicy strip was his best childhood memory.

**The Difference in Snack Consumption**

Among the 131 students who completed the food diary, significance was found between the snack consumption between the residential students and the day students ($t=2.07, p<0.05$) and between students in lower grades (Grade 4) and in higher grades (Grades 5 and 6). Day students consumed an average of 14.15 ($SD=1.07$) items per week while residential students consumed 10.52 ($SD=1.28$) per week. Students in lower grades consumed significantly more snacks ($M=13.59, SD=1.17$) compared to the students in higher grades ($M=11.08, SD=0.82$).
One of the reasons for that lower level of consumption might be a majority of the higher-grade students in my sample are taught by the TFC teachers. They recently started a program to teach children how to save their pocket money, which resulted in higher graders eating fewer snacks than lower graders. Another factor might be that younger children tend to get more pocket money from adults, especially during Chinese New Year. The food diary was conducted in March, a month after Chinese New Year. Quite a few students still had red envelope pocket money to spend on their snacks. Those two factors are discussed in more detail in the case study chapter. There were no significant differences between genders.

**Children’s Food Knowledge, Attitude, and Practices**

I recruited about 10 student volunteers during the first nutrition class and was able to form two focus groups, one for girls, and one for boys in each school, and overall, I had 46 participants. Information on the participants of the focus group can be seen in Table 5.

**Table 5**

*Demographic Information of Focus Group Participants*

<table>
<thead>
<tr>
<th>School</th>
<th>Group</th>
<th>Number of Students</th>
<th>Gender</th>
<th>Grades</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>4</td>
<td>Male</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>4</td>
<td>Female</td>
<td>5</td>
</tr>
<tr>
<td>B</td>
<td>1</td>
<td>5</td>
<td>Male</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>5</td>
<td>Female</td>
<td>4</td>
</tr>
<tr>
<td>C</td>
<td>1</td>
<td>4</td>
<td>Male</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>4</td>
<td>Female</td>
<td>5</td>
</tr>
<tr>
<td>D</td>
<td>1</td>
<td>5</td>
<td>Male</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>5</td>
<td>Female</td>
<td>4</td>
</tr>
<tr>
<td>E</td>
<td>1</td>
<td>5</td>
<td>Male</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>5</td>
<td>Female</td>
<td>6</td>
</tr>
</tbody>
</table>

**Listing**

A food listing activity was used to explore children’s mental pictures of food and set a background for the discussion of their knowledge and attitudes about food. The first step of the
food listing is that each student has about 5 minutes to write as many food items as they can think of. The results of this step echo most of the findings from the food diary. Overall, they listed six different starch dishes, four different meat dishes, eight different vegetable dishes, two soybean dishes, and 16 different types of snacks. One major difference between the food listing and food diary is that although children ate few fruits according to their food diary, they listed 13 different types of fruit. The frequency of the listed fruits mentioned was similar to the snack frequency.

The second step of the food listing activity was to ask children to group the food they listed on the small pieces of paper together as a group. They could group them however they liked. Figure 12 shows the results of grouping from two groups. The rest of the results can be seen in the Appendix. Almost all the children grouped the food they listed as Picture 1 in Figure 2: snacks and fruits were the two major groups, and the third group was daily food, which included meat, vegetables, rice, and noodles. Compared with the snacks and fruits groups, the daily food group was often the smallest. One male student group in School B showed a very different picture. He mentioned quite a few different kinds of fish and shrimp. School B is the only school located close to rivers, and teachers later told me that the boys who participated in my study happened to be the sons of fishermen.

Picture 2 in Figure 12 shows another very interesting group by School D fifth grade male students. Similar to the other group, they have large snack groups, and they grouped fruits as part of the snacks that they eat. I asked them why they put fruits with other snacks. One of the students said, “Fruits are kind of like snacks, we do not eat them as food.” This answer surprised me. Then I began to pay attention to what they put in the snack groups, I found that in the other groups some students also put milk, bread, and even rice noodles and bread in the snacks group.
The reason they did so was similar to the fifth-grade boys in School D who said that they did not eat those foods often. Some other students also mentioned that those items are like special treats for them.

This discussion brought up students’ understanding of what constituted snacks. The English dictionary defines snacks as a small portion of food eaten between meals, and Chinese dictionaries define snacks as all the food eaten outside the three main meals. There is no uniform understanding about what counts or does not count as snacks. Although only two groups put fruits in the same group as other snacks, and the students all agreed that fruits for them are like snacks and so not part of daily food.

**Figure 12**

*Two Pictures From Students’ Grouping Pictures*

a. School D fourth grade female group  
   b. School C fifth grade male group

The third food listing activity was discussing the children’s food preferences. I first asked the children to write down three favorite food items, three least favorite items, three items they think are unhealthy, and three that they consider healthy. Among all the groups, the students’ favorite food centered on two types: snacks were one of the top-rated favorite items though they did not get the top rating in any of the focus groups, with top-rated items being fruits. The least
favorite foods were centered on fatty meats and wild vegetables. Most students wrote that lean
meat and different types of vegetables and eggs were healthy. Students noted snacks as
unhealthy, and spicy strips were the most frequently mentioned, followed by candies and crispy
noodles (Figure 13).

Figure 13

Students’ Opinions About Food

Note. \( N=46 \).

For favorite food, the top categories were fruits and all different types of snacks. The
reasons they loved that food are uniform: All of them mentioned *haochi* (好吃/delicious/yummy). Almost all the students loved the sweet taste and considered sweet tastes as
*haochi*. Interestingly, none of the students listed spicy strips as their favorite snack items, though
I often saw them eating it.

As for fruits, one of the girls from School B said, “I like the pears because they are
crispy, sweet, and a little bit sour. It is very refreshing.” Then I asked how often she could eat it.
She said, “Only when my father came back home, he will buy for me.” A boy from School C
mentioned that watermelon was their favorite fruit, “We only get a chance to eat watermelons
when my grandmother goes to the market, my brothers and I fight to eat it. We can eat the entire watermelon within a second.” The majority of the discussion on their love for fruits centered on the rarity of fruits in their lives and how tasty fruits are for them. Compared to the snacks they eat daily, fruits are as tasty as sweet snacks, but they do not have a lot of chances to eat them.

Other than the top two most frequently mentioned favorite foods, the students had a wide range of other favorite foods that are associated with where they live and the socioeconomic background of their families. For example, the female student group in School E is from a rich Zhuang village: their favorite food items are the dishes from restaurants, which the majority of the other focused group did not even mention in their food lists. Two groups consisted of students from families of lower-income villages (School A and School C), their favorite food items were juantongfen (卷筒粉 rice noodle), which is a special treat for them when parents took them to the market and the vegetables and lean meat bought from the markets, which were slightly different from other groups.

“Every time my uncle goes to town, he will buy juantongfen for us. We really love it. I hope that he will go again this weekend.” Juantongfen is a local specialty sold in the town. It is made from rice flour with pickles and soy sauce as a dressing. Local people eat them for breakfast if they live in the town, or just as “snacks”.

The students’ favorite food can be generalized into two characteristics: one is the haochi, the other is the rarity in having them. Therefore, I thought about listing their favorite food according to their tastes to figure out what kind of tastes students think is haochi. Figure 10 showed that the majority of their favorite food have the taste of sweet, and a little bit sour. Compared to the singular taste of school lunch, which was just salty or bland, snacks obviously
have more flavor. As for rarity, candies, fruits, and even the rice noodles that they got from market are considered as special treats. Because they are “special” and “rare” children love them.

**Figure 14**

*The Taste Profile of Students*

![Pie chart showing the taste preferences of students.]

For the food that the students dislike, the top two categories were meat and vegetables, and their dislike concentrated on certain types of meat and vegetables. Among meat, “fat meat” was mentioned most frequently, goat meat as second, and duck and chicken were the next on the list.

The reasons that they dislike fatty meat were centered on its tastes, textures, and feeling it brought to them.

“Fat meat tasted weird.”

“Fat meat made me feel nauseous.’

“It is just not tasty.”

“Sometimes it is too soft, and sometimes it can be really hard to chew.”

Children did not like lamb, duck, and chicken meat because of the strong smell. They do not eat lamb regularly, while chicken and duck are sometimes exchanged for minced pork in the school lunch. Two fourth grade girls from School D also mentioned the quality of the chicken
they had for school lunch: “When we sometimes have chicken at school, the chicken meat has so many bones in it, that it is very hard to eat.” As for the vegetables, the items they frequently mentioned were “bitter squash,” which is bitter, as the name indicates, and most students do not like bitter taste. Only one fifth grader girl in School D showed a different opinion, “My dad cooked bitter squash really well. Even though it is bitter, it is refreshing and crisp. I like it.” When she said that, other girls just shook their heads.

After asking about their food preferences, I asked them about their knowledge of nutritious food. The top three categories were vegetables, meat, and eggs, followed by staple food, fruits, and milk. Interestingly, none of the students mentioned any seafood or soybean items.

Among the vegetables, most students wrote cabbage and carrots. Two of them (Grade 5 and Grade 6 in School A and School E) said, “Carrots were good for the eye”, which was taught in the science class. Many students could only generally mention that parents or teachers said that vegetables were good for them.

As for the meat items, many of the students mentioned that pork is nutritious. “Grandmother says that meat will make me stout, so she always asks me to eat more meat (School C Male Group).” Another student mentioned, “Meat is good for health, so my grandparents make sure that we have it every day” (School B Female).

Although every group has one or two students who mentioned eggs as nutritious food, only a group of six graders from relatively high-income families agreed that eggs were good (School E), while the rest of the focused groups had quite a few disagreements on the functions of eggs. Those who believed eggs were good said that eggs could make children smart, and they were good. Others said, “Eggs were for breeding chicken, not for human beings.”
“Eggs can make you feel hot.” (School E Male Group)

“I only heard from grandparents that eggs were for pregnant women.” (School A female)

The disagreement on the function of eggs is discussed later during the case study. However, the focus group with students reveals some controversial opinions about eggs in these villages. Milk is another interesting item. Three girls (School E) and one boy (School B) in the high-income group and four students in the middle-income group (School C and A) mentioned this item. Among the 46 students participating in the focus groups, only about four of them had drunk milk before, but none of them disagreed with the fact that milk is nutritious and the few reasons that they believed it is nutritious was because of the advertisement that they saw.

Among the less nutritious food items, all the students listed snacks and among the snacks, spicy strips held the top place, followed by different types of candies. Students listed numerous reasons that why they should not eat spicy strips.

“They were made in little factories, really dirty (School A Group 1).”

“They would melt your belly if you ate too much (School B Group 2).”

“They did not have any nutrients in them (School C Group 2).”

“They would make your stomachache (School E, Group 1).”

Almost all the schools had nutrition education on the potential harm spicy strips can do to students and based on the focus group students were well-aware of all these facts. However, when I asked the students, “Do you like it, and will you eat it again?’ Only a few girls replied, “I had not eaten them for a while.” The rest of them just laughed.

School Lunch

During the discussion of the children’s food preferences, we also discussed their attitude towards school lunch. We asked students whether they liked the school lunch, and most said it
was “Ok.” Students did not have opinions about what they liked about the school meals. They expressed “school lunch is OK”, “We got used to them”, “Just so so”, and “I do not have any feelings about it.” Three boarders from Schools A, B, and E shared similar opinions. “If we do not eat it, we have nothing else to eat. So we have to eat it.” We also asked students to compare family and school meals. About half said that family meals are better, while half said the school meals are equal. The reasons why some students liked family food better were mainly associated with taste. “My grandpa is a great cook, he cooks delicious food” (School B group 1), “Family food is more delicious” (School C Group 2), and “I love my mother’s cooking.” One of the students put it in a very poetic way, “Family food is full of the taste of love” (School E group 2).

When we asked about what they disliked about the school meals, students gave specific reasons for certain food items such as fat meat, duck, and chicken that have been mentioned in the previous paragraph.

This chapter presented the results of anthropometric data, food diary, and focused groups, which demonstrated the current nutritional status and food habits of students in the study community. However, the sample was not random and was small. Thus, the data I collected did not and was not intended to represent the nutritional status of average children in F township, but rather to provide some insights into dietary practices and views among this population. Even with these limitations, based on the data from food diaries and interviews, it appears that many families in the study community face food security issues due to constraints on availability, affordability and accessibility. With the support of the school lunch, most of the children have starch, meat and fresh vegetables for lunch, but the food items eaten at home are much less diverse because a majority of the families in upland F township still rely on self-produced food.
Children’s consumption of snacks is also affected by the availability, accessibility, and affordability. In the food listing activities, children showed that they love fruits, and they know that the fruits are healthy, but they were not able to have them regularly. On the contrary, every school is surrounded by convenience stores selling cheap, unhealthy snacks. The frequency of snack consumption among children is much higher than their consumption of all the other food items, except the meat, vegetables, and rice provided by the school. Interestingly, all the children recognize that snacking is bad for health, and regular food items provided during the meals are good for health. In spite of this knowledge, students continue to consume high amounts of snacks, not because they do not know the harm of the snacks, but because they cannot resist the taste of snacks.

This chapter presents a general picture of nutritional status and issues among the upland students. Parental migration status and gender were two factors often found as significant determinants of undernutrition in the literature were not significantly associated with dietary diversity, or frequency in meat or vegetable consumption in the food diary. In the following case studies, I will talk more about the complexity of the migration issues among upland families and the gendered nature of vulnerability and daily life in the communities.
Chapter 5. Positive Deviance Cases

Chapter 4 presents an overall picture of nutritional status and dietary intake of children in the study community. Although height-for-age z scores and BMI-for-age z scores revealed problems of stunting and undernutrition in this community, it was clear from observations and discussions with teachers that some children were doing better than other children. Because over 90% of the families in the regions are families with work-away parents, understanding why some children perform better than the average in their dietary intake, academic performance, or just overall well-being will help scholars and practitioners to better understand successful strategies used by families to take care of the children when parents work-away. This is the premise for a “positive deviance” approach in which the experiences of those individuals or households that have better outcomes are examined closely to understand the factors leading to the more positive outcomes. That is, “positive deviance” aims to understand why some children and families deviate from the norm in a positive direction. Analysis of those cases that display such positive behaviors and experience positive outcomes may help practitioners to identify strategies to better support families in similar situations. Therefore, I decided to focus some of my analysis on cases of children who were deviating from the norm in a positive way—the more successful cases.

Identifying positive cases was challenging. Few families have significantly better dietary intake than others, and those families have similar characteristics: being boarders, having already accumulated a certain level of wealth, or having parents and grandparents with higher-than-average education levels in their villages. Only about 5% of the families in F Town fit in this category. The first four cases belong to this category (Ai and Lian, Yun, Ting, and Dong). “Improved education level” and “accumulated wealth” reflect gains achieved over generations. Therefore, those cases might not provide strategies that other families can adopt immediately. If I
had just followed these types of successful cases, I might have missed crucial challenges and barriers families commonly face.

Therefore, I decided to expand my definition of “doing better” from a higher-than-average dietary intake to “doing well” based on challenging the stereotypes of “left-behind children” including the following aspects: have better than average educational outcomes, or demonstrate resilience and positive personality traits described in positive youth development theories such as having a sense of self-worth, or having sympathy and empathy for others (Lerner, 2007). Teachers were able to recommend some students for me to include based on this idea. The other three positive cases (Tian, Hua and Xiang, and Mei) might not do better in their nutritional well-being, but still challenge the stereotypes of “left-behind children” perpetuated by the media or some of the scholarship. My whole field experience revealed to me that none of the children were truly “left-behind” by their parents, and none of their problems were the consequence of their parent’s working away, but the consequence of policy, shifting of cultures, and the struggle to survive as historically oppressed groups in resource poor regions. Table 6 provides the general information of the seven positive deviant cases.

**Table 6**

*General Information on the Seven Positive Deviance Cases*

<table>
<thead>
<tr>
<th></th>
<th>Age</th>
<th>Gender</th>
<th>Living arrangement</th>
<th>Boarders</th>
<th>Academic performance</th>
<th>Income level</th>
<th>Weekly diet diversity</th>
<th>Weekly snack intake</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>13</td>
<td>F</td>
<td>Grandparents and fathers</td>
<td>Yes</td>
<td>Excellent</td>
<td>Low</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>9</td>
<td>F</td>
<td>Grandmother</td>
<td>Yes</td>
<td>Excellent</td>
<td>Medium</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>3</td>
<td>11</td>
<td>F</td>
<td>Grandmother</td>
<td>Yes</td>
<td>Challenging</td>
<td>High</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>4</td>
<td>13</td>
<td>F</td>
<td>Grandmother</td>
<td>No</td>
<td>Challenging</td>
<td>High</td>
<td>6</td>
<td>10</td>
</tr>
</tbody>
</table>
In this chapter, I discuss these seven cases including their geographic locations, family wealth, and family income, and the seven unique families I followed during the six months of field study. In addition to these seven cases, I visited 55 other families in F Township. Some of those families are the neighbors and schoolmates of the seven main cases. The interviews with those families are used as subcases to compare with the main cases. The results of those interviews are presented along with the main cases in the following chapters.

**Geographic Locations of the Seven Families**

Case study methodology requires prolonged observation of the case families. All these seven main cases come from School E. School E is in ML Village, but its students come from three administrative villages: ML, BL, and LY. ML and LY are Yao villages, and BL is a Zhuang village. The farthest sub-village School E covers is 30 minutes driving distance or two hours walking distance. The reason I chose all my cases from School E was because that school was able to receive me as guest and provide me a place to stay, so I was able to observe boarders’ life in schools and conduct regular visits to the students in the neighboring town.

Among the seven cases, Yun was the only one living in the BL administrative village, and it is not surprising that Yun’s family had the highest income and wealth. Yun’s Tun (sub-village) is about 10 minutes driving and 30 minutes walking distance to School E. The rest of the six families all live in different Yao tun of ML administrative village. Dong lived with his...
relative in a teacher’s home in a ML sub village, which is only 15 minutes by foot from school. The second close case is Tian, which was 30 minutes on foot. Hua and Xiang lived in a tun which was 40 minutes on foot. More than half of students in their tun were boarders, but Hua and Xiang were not. The remaining three cases (Ai and Lian, Ting, Mei) lived more than 40 minutes’ walk away. They were boarders.

Among all the other families in ML administrative village, some tuns have geographic advantages. Ting’s tun was the village that is closest to the main road and has plenty of water. Their village is able to grow rice. However, Ting’s tun is a relatively new village, a result of the Chinese government’s “moving out of poverty policy”. Historically, the Chinese government moved people from the mountains to villages slightly outside mountains to give them better quality land. Their family does not do a lot of farm work either.

The four tuns in which Tian, Ai and Lian, Hua and Xiang, and Mei lived had worse farming conditions compared with the two tuns mentioned above. These villages were only able to grow corn. Among these four families, Mei’s was the only family not to do farm work anymore because all her grandparents passed away and her parents worked away. The grandparents of the other three families worked very hard every day in their cornfields, growing the crop for their own consumption and for feeding livestock.

The distance of the families to school was supposed to be a main factor determining whether a student could board. However, in reality, only “good” and “well-off” students are able to board in school. To board at school, each student needed to pay ¥ 500 ($50) in advance to the school for breakfast, dinner, and a reserved bed, though 500 yuan would be reimbursed at the end of the semester to families living below the poverty line. Families like Hua’s and Xiang’s were not able to pay the 500 yuan in advance, so though they lived far from school they could
not board. In addition, the number of beds in the school was limited, which principals often used as an excuse to reject students who did not behave well.

For day students, the distance to school determined how early they needed to get up and how much energy and time they needed to spend to walk to school. Hua and Xiang had to get up at 6 a.m. to give themselves enough time to eat breakfast. If they wanted to sleep in, they had to miss breakfast in order to get to school on time. It is a 40-minute walk each way. Boarders only have to make this trip once a week. The hardest day is Monday. Ai and Lian, and Mei had to get up at 5 a.m. to start to walk to school, 90 minutes away. Though Ting boarded and lived about two hours walking distance away, her parents paid teachers to let her stay overnight at a nearby teachers’ house on Sunday nights. Thus, she did not have to get up early.

From the description of the geographic location of the cases’ homes, Yun’s family, which lived in a valley with good farming condition, had accumulated sufficient wealth to stop farming. Her tun was also close to school, and the parents in their village also paid for a driver to take all the children from their village to school. The families living in villages with poor natural conditions continued to engage in hard farm work to sustain themselves. Their villages were also located far from schools. Even though this was the situation of the seven cases I chose, I also found similar situations among the 55 families I interviewed—the background of each family can be seen in the Appendix D. Families located in the villages who do not have a large piece of land and sufficient water still have to farm to sustain themselves, and their villages were often located far from schools. Quite a few of them were not able to send their children to board, whereas those families located in tuns with better conditions were often close to school and did not have to farm to sustain themselves.

**Family Income and Wealth**
The family economic situation is a crucial factor associated with food security and the well-being of children. Data on economic status was hard to obtain during my field study. The income of the families in F town remained a mystery. When I asked grandparents for the annual income of the family at the beginning of the field study, they often said that they had no income. Later, I began to learn that majority of the families in F Township did not have stable income. Very few parents working away from home were able to send money back home on a regular basis. They often sent money home as needed and brought money they saved back home during Chinese New Year.

Using income to measure the socioeconomic situation of the families was not possible because most had not received any money yet at the beginning of year when I was there. I turned to other data, specifically the tangible assets of the families. In discussions with my informants, I learned that the tangible wealth information I collected matched the wealth ranking they provided. In reality, as the informants said, it was easy to figure out the wealth of a family by looking at their houses and the wealth of the villages by looking at the houses in the villages.

BL is the richest village among the three School E covers. Figure 15 shows the houses in BL, the majority of which are made of brick with plaster on the outside walls. Yun’s house was under renovation during my field stay. Her family lives in a three-story house. Her father decided to repaint the exterior wall and add tiling to the interior walls during this new round of renovations.
Figure 15

*Houses in BL Village*

Except for Hua and Xiang, all the other cases live in the types of houses shown in Figure 18. Most Yao villages have the houses like this, which are built of bricks, but the exterior walls are not plastered. They are often barn houses in which people live on the second floor whereas livestock are housed on the first floor. All six Yao families keep chickens, but only Hua and Xiang’s family still raise pigs.
The majority of houses in Yao villages are recently built with the support of government subsidies. Among the six Yao families, Ai and Lian, Hua and Xiang, and Mei are considered “impoverished families” according to local government standards. There is a big metal board outside their house to show the subsidies they received from the government last year. Villagers have conflicted feeling towards being “impoverished families”: at one hand, the impoverished families are given the largest amount of the subsidies and policy support under Target Poverty Alleviation Program, at the other hand, being “poor” is embarrassing in the village. All three impoverished families received the basic income allowance from government last year, which is ¥4100 ($580) per person for older adults who do not have ability to work. In addition, they also
received about ¥450 ($65) for the disasters they experienced last year, and ¥500 ($70) to farm the land. Ai and Lian and Mei received education subsides of about ¥1000 per person.

As for houses, according to informants, each impoverished family received about ¥15,000 ($2100) yuan to renovate their houses, though the overall renovation of a house from an old-style wooden house to brick house in F town costs about ¥30,000 ($4200) to ¥40,000 ($5700) yuan. Therefore, even though the five Yao families were able to live in a brick house now, Ai and Lian’s and Mei’s families still did not have windows installed.

Renovated houses not only have a better exterior appearance, based on government requirements, each house has a separate kitchen area with a clean water tap, improved bathroom with flush toilet, and a sewer pipe connected to the village’s sewage built by the government. Most of the families in upland F Township still use straw and wood as cooking fuel. Having a separate kitchen area helps diffuse the smoke.

Hua and Xiang’s family was one of the few in ML village who had not started renovating their house. They lived in a wooden house with a thatch roof. Their house is a barn house with pigs on the first floor and their living quarters on the second floor. Their living conditions were the most challenging of the seven cases. The old wooden house was not stable. When they walked on the floor, it shook. Wooden houses also do not have any windows so it is very dark inside the house. In addition, older houses do not have sewer pipes installed, so they did not have inside plumbing or bathrooms, only a hole in the floor that drains the sewage to the pig barn on the first floor. They do not have separate kitchen areas either, so every time they cook, the entire wooden house fills with smoke.
In addition to housing, electric appliances and transportation signal wealth in these communities. The first electric appliance a family buys is often a refrigerator, the second is a rice cooker, and the third is a television. Currently the majority of families in F Township have these three basic electric appliances. The families with better economic situations will buy a washing machine and an electric water heater for the shower, or they will buy a motorcycle. Among the seven cases, Yun’s family is the only one with all those electric appliances, and her father also has a car. Ting’s family has the three basic electric appliances, and her father has a pickup truck. Tian’s family has the three basic appliances, and their father has a motorcycle. Dong lives with his relatives who have all the basic electric appliance and a motorcycle. The rest of the families only have the three basic appliances. Hua and Xiang’s family does not have a TV, but they watch TV at their aunt’s house next door.

Based on these family assets, I was able to figure out the general wealth of my cases and the other 60 families I visited. Table 2 shows family assets and economic conditions of the six
cases, and the other 60 families’ assets and economic conditions are shown in the Appendix.

Information on Dong’s family is not included because his parents had already moved out of their village and purchased an apartment in Guangdong, one of the first-tier cities in China. He just temporarily lived with his teacher/relatives in F Township. His family economic situation was the best among all the cases.

**Table 7**

*Ranking of Economic Conditions of the Seven Families*

<table>
<thead>
<tr>
<th>Rank</th>
<th>Family</th>
<th>Housing conditions</th>
<th>Electric appliances and transportation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dong</td>
<td>His own family is in Guangzhou. Teachers’ home is made</td>
<td>Motorcycle Refrigerator, TV, Washing machine</td>
</tr>
<tr>
<td></td>
<td></td>
<td>of brick with all the windows installed</td>
<td>Water heaters</td>
</tr>
<tr>
<td>2</td>
<td>Yun</td>
<td>Three floors brick house with all the windows installed</td>
<td>Car Refrigerator, TV, Washing machine Water heaters</td>
</tr>
<tr>
<td>3</td>
<td>Ting</td>
<td>Two floors brick house with all the windows installed</td>
<td>Car Refrigerator, TV, Washing machine</td>
</tr>
<tr>
<td>4</td>
<td>Tian</td>
<td>Two floors brick house with all the windows installed</td>
<td>Motorcycle Refrigerator, TV, Washing machine</td>
</tr>
<tr>
<td>5</td>
<td>Ai and Lian</td>
<td>Two floors brick house with half of the windows installed</td>
<td>Refrigerator, TV</td>
</tr>
<tr>
<td>6</td>
<td>Mei</td>
<td>Two floors brick house with no windows</td>
<td>Refrigerator, TV</td>
</tr>
<tr>
<td>7</td>
<td>Hua and Xiang</td>
<td>Wooden house with no windows</td>
<td>Refrigerator</td>
</tr>
</tbody>
</table>

The socioeconomic condition of the families is a key factor determining the nutritional and overall well-being of children. Among the seven cases, Dong and Yun belong to the high-income group, their dietary diversity score and frequency of meat and vegetable intake are also
among the highest. However, among the families whose income is below the poverty line, Ai and Lain’s dietary diversity is also above average. If considering the overall well-being of these children such as academic performance and positive youth development traits, these children are doing better than economic factors alone would predict.

**The Living Arrangement of the Seven Families**

The seven families have different geographic locations and socioeconomic conditions, but they face many similar struggles due to the natural conditions in upland regions, past and current political environments and policy, and the modernization of the rural regions. Facing those challenges, the families have different strategies supporting the well-being of their children and overcoming social and economic barriers to lift themselves out of poverty and achieve better lives. Before discussing the challenges and strategies, I introduce the seven families and members and provide a brief overview of the reasons I chose these cases and the lessons these cases reveal.

**Ai and Lian**

Ai and Lian were two of the most popular girls in School E. Especially the younger sister, Ai; all her teachers love her because she likes to say sweet things to everyone. In the morning, Lian often ran to me and gave me a morning hug and praised my clothing; in the evenings, before sleep, she said good night to the teacher on duty.

Their names reveal that they come from a loving family because both *Ai* and *Lian* mean “Love” in Chinese. Lian was in second grade and Ai in sixth. Even though second grade was too young for a student to board, Lian’s older sisters and two older cousins were boarders, so the school allowed her to stay at school and share a bed with her sister. Students of both grades made fun of Ai and Lain for being “overweight,” though in fact they were within the normal range.
Ai and Lian lived with their grandparents and father. Their father is homebound because of a health reason. They grew 2 mu\(^{10}\) of corn and raised 20 chickens. As noted above, their house was a traditional barn house with livestock on the first floor and residence on the second floor. Their quarters feature a small square table in the center of the room and a TV. This room is considered their living room. On the living room wall hung many reward certificates for both girls.

Even though they lived in poverty and Lian knew that they were *pinkun hu* (贫 困 户, “impoverished family”), Ai and Lian’s bedroom was still full of toys and was the only room with windows installed. They were the only students during my whole field study who were voluntarily willing to show me their bedrooms during my first home visit with my informant Jiang. Lian dragged us by the hand to their bedroom on the second floor and numbered all the toys she got from her mother. Ai was a little bit jealous, claiming that their mother only bought toys for her younger sister, whereas Lian said, “Mother said that you need to study hard!” We all laughed. Looking around their bedroom, there was a tidy desk with a lamp, which was the designated place for them to study. Other than their bedroom, all the other rooms in the house were equipped only with simple furniture, and the renovation of rooms on the second floor where their father lived was not finished.

Ai and Lian’s case reveals that loving relationships with parents cannot be stopped by distance. The love from their mother and the entire family enabled these two girls develop their potential and become excellent students.

\(^{10}\) 1 mu= 666.67 square meter and 797.33 square foot.
Ting and Yan

Similar to Ai and Lian, Yan and Ting were also sisters, both boarded at school, and both were the top students in their class. Yan was in sixth grade, and Ting was in fourth grade. Although they were sisters, they lived in different dorms. Compared with Ai and Lian, they were much shyer and more introverted. After they became familiar with me, we grew into very good friends. Ting wanted me to teach her English during the evening study time. Yan and Ting came from a family known to value education in the village. Principals in School E remembered their older sister well—she was already in the best high school in region.

Yan and Ting lived with their grandmother in a village about a 2 hour walk from school. Their village sent at least one adult to pick up the children from school on Friday and bring all the children back together. Their father owned a factory in the county, and both parents lived in the factory. Although his factory is about 1 hour driving distance from home, their parents were only able to come home once or twice a month because they also worked weekends.

Their house was as similar to Ai and Lian’s, except windows were installed in every room and they were not considered pinkun hu. Their grandmother raised chickens and ducks and had a small piece of land for a household food garden. It was not because they did not own a big piece of land, but grandmother did not have enough energy to work on family land anymore. They lent some of their land to relatives.

Their bedroom was much simpler than Ai and Lian’s, just a table for homework and a bed for sleeping, and both were tidy and well-organized. They only stayed at home for two nights, Friday and Saturday. They had to walk to school Sunday afternoon before sunset and stayed with teachers who lived close to school for Sunday night.
Similar to Ai and Lian, this case also reveals strategies distant parents use to care for their children. However, compared with Ai and Lian, only their grandmother lives with Ting and Yan. Their case also reveals the challenges seniors face in taking care of their grandchildren in resource poor regions, even when the parents have sufficient income to support family spending.

**Dong and His Friends**

Dong was another student who was often made fun of for being “overweight.” He was 1 SD above the standard weight of his age, which did not classify him as overweight. He was one of the tallest and strongest boys in his class. Therefore, his classroom teacher always asked him to help clean the classroom. He was also the most popular boy on campus, though his academic performance was challenging in the sixth grade. He told me frankly that I could ask him to do anything, and he would do it for me except homework.

Dong represented one of the most privileged groups of children who have lives close to the average living standard of urban children. He used to live in Guangzhou with his parents until he reached sixth grade. Other than Dong, three other relatives’ children stay with him during weekend. All the children had excellent academic performance except Dong. All these children’s parents have stable jobs and have purchased homes in the city. The only thing missing for them to become urban citizen is the Hukou. Therefore, instead of being “left-behind,” they are sent back. To ensure they still have a comfortable life and a person to supervise their schoolwork, their parents chose to have them live with their teachers or relatives, whose home is close to the school.

Dong stayed with the local principal, Mr. Ban. In the village, working as a teacher was a privileged job because it earns a stable income, social security, and a pension. The only other job that is stable and has all these social benefits is that of village government officials. Therefore,
Ban’s family was wealthy compared with other families who have to work-away to earn stable income. Not surprisingly, Ban’s house also has more electric appliances and furniture. He himself had a motorcycle and he told me through cell phone last month that he just bought a car. He was also among the few families in the village to use liquefied gas to cook, though later he went back to the wood and straw because it is too inconvenient to buy a gas cylinder from town every weekend.

Principal Ban has two children of his own. His house and his mother’s house are next to each other in the village, which is only 15 minutes away walking. His mother also grows vegetables on a small piece of land around her house for leisure time activities and raises chickens. He and his wife work as teachers. They buy almost all the food they eat at home from the market. Their own children and those children who live with them were among the few who ate eggs and fruits on a regular basis. Principal Ban’s family situation reveals the advantages of living in a household with adults with high education levels, stable jobs, and skills and energy to take care of children in rural regions.

**Tian**

Tian was a fourth-grade girl living with her grandmother in a tun a 30-minute walk away from school. I chose her as case towards the latter half of my field study when I found the majority of the excellent students were boarders and I wanted to include a day student whose academic performance was above the average. Tian was recommended by her teacher as an excellent student, but her nutritional outcomes and dietary intake were average.

Tian’s family house is a fully renovated two-floor brick house with all the windows installed. Tian’s mother and father work in off jobs in the capital of G province, so they were able to come back home to visit once a month. Tian’s grandmother farmed a 1 mu cornfield and took
care Tian and her cousins. Tian’s cousin who was also her classmate lived next door. Every night during the week, the grandmother has to cook for four children. During the weekend, Tian and her cousin’s older sisters who are middle schoolers come back from schools. Then the grandmother will cook for six children.

Tian’s case like Ting and Yan’s case revealed the challenges of grandparents taking care of grandchildren. The difference these two cases is that Ting and Yan were boarders who only stayed at home during weekend, whereas Tian was day students who came home every day. Tian’s family was also bigger than Ting’s, so her grandmother has to cook for all of them on a daily basis. Her case illustrates the challenges grandparents face managing a big household and the strategies work-away parents uses to share the burden and increase the nutritional intake of their children.

**Hua and Xiang**

Hua was a tall sixth grader. Her name means “flower.” It is a very typical girl’s name in rural China. The majority of girls’ names in rural China often have characters meaning flower, fragrance, or beautiful. Hua’s younger sister Xiang is a fourth grader in School E, though her height makes her look younger, by possibly as much as two years.

Hua and Xiang lived with their maternal grandfather in a wooden house that has not been renovated. Their paternal grandmother and parents work away in Guangdong province. They also had another three younger brothers who liv with their mother in Guangdong. Their grandfather supported the living expenses of these two girls through farming and foraging. Their grandfather cultivated the largest piece of land compared with other grandparents in the cases, raised chickens and pigs for home consumption, and raised two cows to be sold.
From outside, Hua and Xiang seem to fit the stigmatizing stereotypes of “left-behind” children: living in poverty, introverted and shy, poor academic performance, and required to help their grandfather do household chores and farm work. Hua was recommended by her teacher to me as an above average student, though her sister Xiang has a lot of challenges in academic performance. Her teacher was often amazed at her performance and sweet personality. Hua’s dietary intake is below average—her home diet often lacks meat or vegetables—but the poverty has not impacted her academic performance. Compared with her sister or any other person from the same situation, she is a positive-deviation case. After coming to know her and her family, I found that the challenges her family faced was not the result of work-away parents but many other complicated social and economic factors. Their case makes plain the vulnerability of girlhood in a typical upland family and how the current policy design works against those families.

**Yun**

Yun was the only case that I personally chose and partially against the views of my informants. Some senior teachers in May elementary school gave me a strange look after I told them that I would like to visit Yun. Yun caught my attention for two main reasons: she seemed come from a wealthy family because she was the only girl in the school who was able to wear clean, new, and fashionable clothes every day; however, she was also so shy and lonely. During lunchtime, she often sat alone by herself.

The first home visit really validated my first impression. Her family was the one of the richest in a rich village in the Bali region. Their three-story brick house with cement plaster covering the exterior was very rare in the region. From March to May, they worked on upgrading the interior design. They added marble floors in every room and freshly painted the walls. Theirs
was one of the few kitchens with a gas stove, though her grandmother still used the old-style straw-and-wood stove. In addition, they had all the modern electric appliances in the house: fridge, washing machine, and hot water heaters.

Yun lived with her grandmother in this big house. She had her own room, clean and tidy, with a big fan on the roof and nice, large windows. She had a clean desk to study at. Her parents owned a factory in the county and her father came back home twice a week. Thus, according to the standard definition, she did not count as a “left-behind child.” However, she met all the stereotypes of children with work-away parents: lonely, shy, sensitive, and academically challenged. She was tall but thin. Ironically, she was from the family with the highest income and best assets.

Similarly, as in Ting’s case, her case shows the challenges grandparents have when taking care of their grandchildren, even when the family has sufficient resources. In addition, her case also demonstrated a lot of underlying problems, which are the root causes of the vulnerability of being girl and growing up in an upland rural region, which are often disguised by the superficial factor of being “left-behind.”

**Mei**

Similar to Hua, Mei was recommended by a teacher because she was above average according to her situation. Mei was also one of the tallest students in School E, though her academic performance was average. She was also a boarder, but on weekends, she lived alone with her older sisters. Children with work-away parents living alone by themselves was rare in rural China and rarely mentioned in the literature because the government has policy in place to ensure that every child with work-away parents is taken care of by a relative. Therefore, on paper, Mei lived with her relatives, who came and visited her during weekends. In my whole
study, she was the only case I saw where children truly lived by themselves. However, in my 60 cases, there was another five children living alone in their own house, though next to their grandparents.

Her living arrangement was the most challenging one. Living alone had affected the physical and mental health of her and her sisters. Letting them live alone by themselves is a hard choice made by her parents. After their grandparents passed away, their parents still had to earn money to support their family. Her case illustrates the key roles grandparents play in the care of children and ensuring that parents can work away without worrying about their children. Without grandparents, the situation would have been much harder for both parents and children.

Mei’s sister was called a “shehuijie” (社会姐, social woman). She was only a middle schooler, but her dress and behaviors were like an adult who had been in society for very long time. Her academic performance was challenging, and she was thinking about dropping out. She did no homework during the time I stayed in the field. She spent most of her time on her cell phone during weekends. Mei had to cook and do all the household chores for herself and her sister. Compared with her sister, although Mei also had a cell phone she did not spend that much time on it. Her academic performance was above average, and she finished all her homework. The reason Mei could do better than her sister was largely because the support she received from her teacher and because Mei has learned to utilize school and government resources to support her own development.

Identifying Mei as a deviant case based on her challenging situation might romanticize her actual situation. The importance of this case is not how Mei’s parents or she herself found a strategy to support herself but how it reveals the issues in the school system and local government in supporting children like Mei and her sister. In addition, many issues, such as
Internet addiction, that were prevalent in urban regions were likewise among rural children. The ideology and design of cell phone applications took advantage of the vulnerability of children. These issues have not raised sufficient attention in rural regions, and teachers and parents do not have sufficient tools to deal with these “modern” problems.

**Framework of Case Analysis**

The cases I selected are positive deviant based on the criteria that the children have better nutritional outcomes or have positive development traits according to their situations. I also take into consideration the living arrangement and socioeconomic conditions of families. The seven cases cover most of the common living arrangements of children with work-away parents: in school (Ai and Lian, Dong, and Mei), with one parent (Ai and Lian), with grandparents (Ai and Lain, Ting, Tian, Huang and Xiang, and Yun), with relatives (Dong), and alone (Mei). The socioeconomic status of the cases covered the spectrum, from “impoverished household” (Ai and Lian, Mei, Hua and Xiang), average (Qiang and Tian, Yan and Ting), and wealthy (Dong and Yun). Even though I tried to choose cases from different living arrangements and socioeconomic strata, I do not intend to present them as representative of all the children living in the upland F Township. The goal of the case study was to reveal the shared challenges in food security encountered by families living in upland F Township, the strategies families are using to deal with the challenges, and the vulnerability of each unique family in the context of current socioeconomic development of China.

In Chapters 6–11, through analyzing these seven cases and 60 subcases, I discuss the factors that affect the food security and nutritional well-being of children at the macro-, mezzo-, and micro-levels. The framework in Figure 18, which is discussed in Chapter 1, summarized the factors discussed in the literature that affect the well-being of children with work-away parents.
Parents, direct caregivers (parents or relatives), and schools are the three key players in children’s lives, thus the results of case analysis are also presented based on these three factors. Chapter 6 discusses the life of these children in the school and the current school programs and policies to support their nutritional well-being. Chapter 7 discusses the life of children in the community. Chapter 8 details the crucial roles of grandparents in taking care of children and their challenges. Chapter 9 and 10 discuss the work-away parents and their decision-making process of working away and taking care of children.

**Figure 18**

*Framework for the Case Study and Preview of the Following Chapters*
Chapter 6. Life of Children in School E

This chapter presents the children’s life during the week in school, especially nutrition related activities of the seven families. The nutritional activities have two main parts: food-related activities such as food preparation and mealtime activities, and daily activities that include both physical labor and physical exercises.

During the week, school age children spend most of their active time in school. The daytime activities of both boarders and day students are similar because most of their activities are centered around their school schedule. Nighttime activities are different because boarders stay at schools, whereas daytime students go back home. Through the comparing these seven cases, this chapter explains why boarders have done better in nutrition-related activities and further explores other factors associated with dietary intake and activities.

Globally, schools in rural regions are frequently used as a platform in their communities to implement health and nutritional programs because of their central locations in the communities and their accessibility to families in the communities. However, the capacity of schools in rural regions to undertake those tasks has rarely been discussed. In F township, schools and teachers undertook administrative tasks to implement programs and policies, some of which were directly associated with the nutritional well-being of children such as school lunch programs, whereas others were associated with children’s family such as targeted poverty alleviation programs. Therefore, this chapter includes observations and discussion of the implementation of those programs and policies on the school level and how these programs affect the families of my seven main cases.
School Life

Life in School E has a fixed schedule (see Table 8). The morning period starts at 7:30 a.m. Every morning, students perform guangbocao (广播操 radio calisthenics) first thing, followed by four 40-minute classes with 10-minute breaks in between. The morning period ends at 11:20. The afternoon period starts at 2:30 p.m. and ends at 4:30 p.m. with three classes from Monday to Thursday, and Friday afternoon starts at 2:00 p.m. with only three classes and ends at 3:30. Every day, students have Chinese literature, math, and English as the main subjects. Twice a week, students have physical education and art class. Boarders who live in school get up at 6:30 a.m. and go to bed at 10:00 p.m.

Table 8

The Schedule of the School E

<table>
<thead>
<tr>
<th>Time</th>
<th>Day students</th>
<th>Boarders</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:30 a.m.</td>
<td>Arrive schools</td>
<td>Get up and have breakfast</td>
</tr>
<tr>
<td>7:00 a.m.</td>
<td>School gates open</td>
<td></td>
</tr>
<tr>
<td>7:20 a.m.</td>
<td>Morning cleaning</td>
<td></td>
</tr>
<tr>
<td>7:30 a.m-8:00 a.m.</td>
<td>Morning reading class</td>
<td></td>
</tr>
<tr>
<td>8:00–8:20</td>
<td>Guangbocao (广播操 Radio calisthenics)</td>
<td></td>
</tr>
<tr>
<td>8:30–11:30</td>
<td>Class</td>
<td></td>
</tr>
<tr>
<td>11:30–1:00 p.m.</td>
<td>Lunch time and break</td>
<td></td>
</tr>
<tr>
<td>1:00–2:30 p.m.</td>
<td>Nap time</td>
<td></td>
</tr>
<tr>
<td>2:30–4:30 p.m.</td>
<td>Class</td>
<td>Afternoon break and dinner</td>
</tr>
<tr>
<td>4:30–6:00</td>
<td>Go back home.</td>
<td></td>
</tr>
<tr>
<td>6:30–8:30</td>
<td>Doing homework and help</td>
<td>Evening Study</td>
</tr>
<tr>
<td>8:30–9:00</td>
<td>with household chorus.</td>
<td>Evening routines</td>
</tr>
<tr>
<td>9:00 p.m.</td>
<td></td>
<td>Sleep</td>
</tr>
</tbody>
</table>

---

11 Guangbocao (广播操 radio calisthenics) is part of the education curriculum to ensure that children do some exercise with the limited space each school has. In China, almost all the schools during the mandatory education period have Guangbocao every day. Students follow the music to move different parts of their bodies. It is about 5 minutes long. In School E, students also ran another 5 minutes after Guangbocao.
The Roads Connecting School and Home

School E is located in a valley between three different mountains and covered three administrative villages. As described in the previous chapter, the seven cases of my study lived in seven different tuns (subvillages) of two different administrative village. Travel between home and school is the first daily activity for students.

The difficulties of roads in upland F township are not measured by distance, but by how many hills a student has to climb. Even though the distance to school of Ting, who lived farthest away is only 6 km (3.78 mile), it took her and her sister two hours to walk to school, because they had to walk up and down one major mountain. Luckily, they only had to make this trip once a week. The hardest case among the three was Hua and Xiang. Their family lived in a tun in a valley 2.4 km (1.5 mile) away from school. Their tun was in a valley in the north part of the school district. Every day, they have to climb a hill to come to school, which was a 30 to 40 minute walk each way. I walked with them three times, and my Apple Health App showed that the hill they climbed was approximately the high as 4.5 floors (approximate 13.5 meter or 45 feet)\textsuperscript{12}. The same applied to Tian’s case, her tun is only 1 km away from school but located on a valley in high steep hill next to the school, which made the 1 km road a 30-minute climb. Since they live close by, they even went back home during the lunch break. Thus, they climb the hills 4 times a day.

The long travel distance between the school in an upland region is a common issue among the students. More and more children face this issue due to recent consolidations of elementary schools. Due to the reduced number of students in rural region, the government

\textsuperscript{12} Apple Health application is not an accurate measure for the altitude of the hills which children climb every day. It only gives a approximate measure. 1 floor= 3 meter or 10 feet. 4.5 floors approximately equal to 13.5 meters or 45 feet high.
began to consolidate schools. The three administrative villages that School E covered each used to have an elementary school, but the other two schools were consolidated into School E in the past two years. Thus, students in these two villages had to walk a longer distance to come to School E.

The longest trip I heard that a student had to make to school was three hours in School A. Most of the students who live more than half hour away from school are boarders, or some villages hired a driver to drive the students to schools. Yun and Mei’s villages hired drivers to drive them to and from school. Mei was a boarder. Their *tun* and another *tun* along No. 4 state road (the only road that connects School E to the town) together hired a driver to transport about 20 students to school on Monday and back home on Friday. Each family paid the driver 50 yuan. The driver drove a minivan, which was only supposed to hold eight people, but overload is common in rural regions. The same applied to Yun’s village, but Yun’s village Bali is rich. Thus, their village hired two drivers with two SUVs to come and pick up students on a daily basis. The drivers charged them 200 yuan per semester. The two SUVs were also overloaded. One SUV was only supposed to hold five people, but often had about 10 students inside.

Ai and Lian and Ting’s tuns also hired drivers, but these two families did not pay the drivers because they could not afford it and they lived about an hour’s walk away. Their *tun* was along the road, and at the same altitude of school, thus they did not have to climb hills. They only needed to make the trip once a week, so they did not think the road was that hard. Ting’s parents had other considerations. Theirs was often the first village, so the driver often arrived 6 a.m. Monday morning. Their parents do not want them to get up that early on Monday, so they decided to let them walk to school Sunday afternoon and stay with a teacher who is their relative and lives next to school.
Among all my cases, Dong’s was the luckiest. He lived with Principal Ban during the weekend. Principal Ban’s tun was only 15 minutes away from the school and, most importantly, on the same altitude. Dong did not have to climb any hills to come to school. Table 9 summarizes the road between the schools and homes for all seven cases. The trips between home and school take a lot of energy because they involved long walks and climbing hills. Though most of the boarders lived far; they only had to make the trip once a week. The daytime students had to make the long trip every day if they could not hire a driver. In addition, day students had to take the time needed to go to school every day into consideration. Hua and Xiang often had to get up at 6 a.m. to have breakfast and then go to school. If they slept in, they might have to miss breakfast to go to school on time. The same applied to boarders on Mondays; not being able to have breakfast on Monday was common among the boarders. Regardless of whether they walked or rode in cars, they all had to get up early. The most extreme case I heard of was one boarder in School A who had to get up at 4 a.m. to walk about three hours to come to school.

Table 9

Transportation Between Home and School

<table>
<thead>
<tr>
<th>Boarders</th>
<th>Income</th>
<th>Distance</th>
<th>Climbing Height</th>
<th>Frequency</th>
<th>Transportation</th>
<th>Duration</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ai and Lian</td>
<td>Low</td>
<td>2.6 km (1.6 mile)</td>
<td>6 m (20 feet)</td>
<td>1/week</td>
<td>Walk</td>
<td>1 hour</td>
<td>0</td>
</tr>
<tr>
<td>Ting</td>
<td>Medium</td>
<td>6 km (3.78 mile)</td>
<td>48 m (16 feet)</td>
<td>1/week</td>
<td>Walk</td>
<td>2 hours</td>
<td>0</td>
</tr>
<tr>
<td>Dong</td>
<td>Very high</td>
<td>1.2 km (0.75 mile)</td>
<td>0</td>
<td>1/week</td>
<td>Walk</td>
<td>15 min.</td>
<td>0</td>
</tr>
<tr>
<td>Mei</td>
<td>Low</td>
<td>2.8 km (1.74 mile)</td>
<td>9 m (30 feet)</td>
<td>1/week</td>
<td>Car</td>
<td>10 min.</td>
<td>¥50 ($8.5)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Day Students</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yun</td>
<td>High</td>
<td>3.9 km (2.4 mile)</td>
<td>9 m (30 feet)</td>
<td>Daily</td>
<td>Car</td>
<td>15 min.</td>
<td>¥200 ($35)</td>
</tr>
<tr>
<td>Huang and Xiang</td>
<td>Low</td>
<td>2.4 km (1.5 mile)</td>
<td>13.5 m (45 feet)</td>
<td>Daily</td>
<td>Walk</td>
<td>30 min.</td>
<td>0</td>
</tr>
<tr>
<td>Tian</td>
<td>Medium</td>
<td>1 km (0.62 mile)</td>
<td>12 m (40 feet)</td>
<td>2/day</td>
<td>Walk</td>
<td>30 min.</td>
<td>0</td>
</tr>
</tbody>
</table>
School Meals

To achieve the UN Sustainable Development Goal and to improve the nutritional well-being of children in rural China, the Chinese government started the Nutrition Improvement Program for Rural Compulsory Education Students (NIPRCES) in 2007, which provides free lunch to the rural children living in impoverished townships. NIPRCES has been implemented in the region since 2011. To support the operation of the free school meals, the central government also funded standard kitchens and dining halls and upgraded water sources for rural schools that implemented the NIPRCES program. However, schools had to pay for their own cooks.

NIPRCES subsidized schools 4 yuan for each student, so the funding each school received depends on the number of students. Schools in F township all had to buy food from a designated provider chosen by the upper-level government through a bidding process. School E was one of the best schools in the region in terms of the quality of school meals. Among the five schools, School E was one of the two able to provide two different types of meat and five different types of vegetables during the week. Due to the small size of their student bodies, the rest of the three schools were only able to provide one type of meat, which was always minced pork meat, and two to three different vegetables.

In School E, lunch started at 11:30 a.m. Students stayed in lines to go to the kitchen area to get their meal and eat in the dining hall. Normally, lower grades went earlier than the higher grades. Students had to bring their own spoons to eat at school, and the schools provided bowls. In the kitchens, there was typically a glass window separating students from the teachers who served the meal. On the glass window, there was a small hole where students gave the staff the bowl and teachers gave them a scoop of rice, a scoop of vegetable and a scoop of meat. Then they took their bowl to the dining hall to eat.
The general attitude of the students towards school lunch has been discussed in Chapter 3. Overall, students do not dislike school meals, but dislike some food items provided by schools due to their quality. One of the students mentioned that the chicken meat provided by the school often had bones. The reasons for the quality of the food were associated with the school lunch funding, the price of the food, and the way the food was sold. Due to the remoteness of schools in upland area, the food items sold to the school is 25% more expensive than the items sold in markets in town. The pork portions sold to the school were ham, which should be lean with a low percentage of fat. However, the hams sold to school have lean meat, fat, and skin together. The meat cost 9.6 yuan per half kilogram. School E often purchased 32.5 kg pork meat. School E cooks were aware that students do not like fat meat so they would cut the skin and fat off and used them to make lard. After the skin and fat are trimmed, about 30 kg of meat remains to be used in food.

Compared with pork, chicken is more expensive at 16 yuan per half kilogram, including bones, which make up 30% of a chicken, so the same amount of chicken does not result in the same amount of meat. Every week when chicken is served, at least 1/3 of the students complained that their chicken does not have a lot of actual meat. Once, Ai came to me and said, “I did not have meat today, I got a large bone.”

I discussed this issue with one of the local teachers. He said, “We found exactly the same things. The quality of the ingredients provided to us is so hard to control. I often feel those providers give us the worst items they have.” I then asked them whether they have reported those issues to upper-level government officials. He said, “We did it numerous times, but those providers will only improve the quality for a while after we complain. Then they will change back to normal again.” then I said, “Why cannot government change to another provider?” He
said, “Who wants to do business with schools deep in mountain? It takes so much time and profit is so minimal.”

In addition to the quality of school meals, students also complained about the taste (see Chapter 2). Teachers openly admit that taste is not their first concern for the school lunch. Principals of School E said, “We have 280 students, but we are only able to afford two cooks. They have to spend entire morning preparing meals for all the students. The only things we care about is to ensure that food is cooked. As long as food is safe, then we have already achieved this difficult task.”

Two of the TFC teachers—LC and ZZ—have served as school lunch managers in School B in 2018 and 2019. They gave me more insights into the difficulties of managing the programs. In addition to the funding and staffing issues mentioned above, they said the most difficult thing was red lines of “safety” and “the ambiguity of bureaucracy.”

TFC teachers as outsiders are often more willing to challenge the status quo. When LC was asked to be the program manager, he was determined to improve the diversity of school meals. Then he received a list of food he could order from the designated provider chosen by the upper-level government. He found that the items on the list were very limited, so he asked his principal whether they could ask the providers for other items. The principal suggested he ask upper-level government. LC was brave enough to ask and was told, “You can order whatever the items you want from provider, but just make sure that those items are ‘safe’.” Then I asked LC what that meant?

LC said, “It means that you can order whatever you like, but if something happened, it is you who will take responsibility.” LC did try to add some new vegetable items to School B’s lunch menu, but he said that he kept receiving “reminders” from the principal that he has to be
cautious. Later, ZZ carried on LC’s job and became the school lunch manger in School B. ZZ received training from school lunch programs. In addition to a lot of theoretical lecturing on nutritional knowledge, the little practical knowledge he received was the current way of cooking school meals: sautéing all food and adding salt was the fastest and safest way to prepare meals. He said that all the cooks working in the school were taught to prepare school meals this way. The foremost requirement is to make sure food is fully cooked. Both LC and ZZ reached the conclusion that school principals do not want to do more and possibly cause more trouble. With limited capacity and support, “doing less or doing the basic is the safest way.”

Only school lunch is free to students. Boarders who stayed in the schools had to pay for breakfast and dinner, which was 500 yuan per semester. Through targeted poverty alleviation program, students from impoverished families got their money back at the end of the semester. Dinner was often the same as lunch. Breakfast had two options: minced meat rice soup and minced meat rice noodle soup. Boarders said that they liked rice noodle more than the rice soup, because rice noodle is tastier. And they ate too much rice and liked a change of taste.

Convenience Stores Around Schools.

At all the five schools in upland F township, there were at least three convenience stores outside. Outside School E, four convenience stores sold snacks, as described in Chapter 3. Those convenience stores were operated by local villagers in their own houses. Every day before school started, during lunch breaks, and after school all four convenience stores were full of the students.

In the morning, especially Mondays, some students might not have enough time to eat breakfast. They buy bread, small pancakes, or other types of the snacks considered to be breakfast foods from the convenience stores. Although schools provided boarders with breakfast,
many boarders also bought snacks in the morning. Dong said, “Snacks increased the flavors of meals.” Every morning, after school started at 7:30 the ground outside the school gate was full of the packaging of the snacks. The first things students do after school started was to clean school: sweeping the floor. Sixth graders took charge in sweeping the ground around schools. They often collected more than two giant buckets of colorful snacks package.

Lunch time was another opportunity for children to purchase snacks. School E opens the school gate at 12:30 p.m. after all the students finish school lunch. Between 12:30 to 1:00 p.m. was the period of time when all the students went outside of school ground to purchase snacks. As discussed in Chapter 2, the majority of students who purchase snacks did not do so because they were still hungry, but as Hua said, “School lunch only has one taste, after eating snacks, I feel that I have more taste in my mouth.”

After school is another time when students purchase snacks and eat on the way. The number of snack items a student purchase was associated with the amount of pocket money they got. The majority of the items sold in convenient stores cost 0.5-1 yuan. The local unsaid agreement among grandparents and parents is to give daytime student 2 yuan a day (which means they can purchase one to two items a day). Boarders get 5 yuan to 10 yuan a week, which was about 1 yuan to 2 yuan a day. Principal Ban said, “All the parents these days give their children pocket money. Children feel shame to come to school without pocket money. They will force their grandparents to give them. The poorest poor even try give their children 0.5 yuan, just to make sure that they do not feel shame.” Chapter 4 discusses children’s snack behaviors, but it is important to point out again the accessibility of convenience stores and snacks to children.
Lunch Break

The school gate closed again at 1:00 p.m. Between 1:00 and 2:30 p.m. was the hottest time of day. The southern part of China has the cultural habit of napping. Boarders were required to go back to dorm to rest, though the majority just played in dorm or did homework in the school. Teachers in School E were supposed to ensure that students took rests in the dorms, but teachers only ensured that students were in the dorm or in the school under the supervision of other teachers (students who did not go back to dorm to rest needed a signature from a teacher). Day students were required to go home to rest, but not everybody was able to go back home. Those who lived more than half hour away often played around school and hung out in the convenience stores.

Among the seven cases, Xiang and her sister Hu, as well as Yun were day students. None of them were able to go back home during lunch breaks. Xiang and Yun were taught by TFC teachers, who were willing to provide extra supervision for their noon break. Hua and Yun, though not boarders, were able to stay in school doing their homework. Making daytime students stay in school during the lunch break was against rules of School E, because School E did not want to take extra responsibility for students’ safety in a period that was not their responsibility. As my informant Jiang said, “The majority of teachers here believed that doing less is better than doing more, because it causes less trouble (多一事不如少一事).” Xiang, was fourth grader whose teacher did not want to take extra responsibility. She had to wander outside the school between 1:00 and 2:30 and play with her classmates under strong sunlight.

Those who went back home did not really take lunch time nap because the time was not sufficient for them to take a break. Those who lived close to school often went home to watch TV. Tian said, “I went back to watch TV at home, sometimes, grandmother prepares for us some
extra food. My mother calls me to make sure that we are home. Mother said coming back home is much safer than wandering outside schools.” Among my 31 subcases of School E, only five of them were able to go back home during lunch time, and they all watched TV at home during their lunch break. The rest of the children just hung out outside the school gates. They often ran around, chased one another, or sometimes went to the house of a classmate who lived close by to watch TV.

**Evening at School.**

School E ended at 4:30 p.m. Boarders stayed at school, and dinner started at 5:00 p.m., so 5:00 to 6:30 p.m. was their free time. Then evening learning started at 6:30 and ended at 8:00. The majority of the students other than sixth graders needed less than an hour to finish their homework. The teacher on duty often showed them movies after they finished their homework. 8:30-9:00 was also their free time. Boarders had to clean their clothes. The weather is often hot in the region, so taking shower every day is a necessity. Schools have shower rooms. Other than doing personal hygiene, boarders took every minute they had to have fun: running around the playground, playing basketball, and just playing catch and chasing games. At 9:00 they were required to go to bed, but teachers often remained on duty to remind them at least three times between 9:00 and 10 p.m. to be quiet and sleep to finally make every one of them go to sleep.

**Physical Exercises in the School E**

In rural China, doing exercise is an exotic idea. I still remembered that when I first came to the field I felt that the air is so clean, so I decided to do my morning running. I could never forget how local people looked at me. Some of the teachers made fun of me saying that if I had too much energy to consume, I could help them clean the office or do the farm work for them during weekend. Maybe because of these attitudes, although School E has *Guangbocao* (广播操
Radio calisthenics) and physical education class as part of the curriculum in my 2017 and 2018 visits, only TFC teachers forced their students to do Guangbocao and provide serious PE education. Local teachers just let students do whatever they like during these two periods. The majority of students, especially girls, just chatted during Guangbocao time.

In 2019, the central government enacted a new national policy called junhenjiaoyu (均衡教育 balanced education), which required every school to provide “comprehensive education.” Thus, schools had to take PE and art education seriously. School E was lucky; due to its large student size, the upper-level government assigned them a new teacher specializing in PE. During my stay in 2019, School E students got a chance to learn some serious PE activities, such as playing basketball and soccer. School B’s student size was small, so they did not get a new PE teacher. In order to provide balanced education, the limited number of teachers have to teach more classes. In their schools, each teacher has to teach at least three classes, one or two main subjects from Chinese literature, Math, and English, and one or two minor or secondary course such as science, PE or art education.

**Evening Activities of Daytime Students**

Compared with the fixed schedule boarders have, after daytime students arrived home, they had more unsupervised time within which they needed to do their homework, help with household chores, and conduct their own daily routines. How much housework they needed to help out depended on the adult laborers a family has, the number and the genders of the younger siblings, and the degree to which their family still relies on farming.

**Yun**

When Yun got the SUV hired by her village, she did not have to do any household chores because her family did not rely on farming, she did not have to care for younger siblings, and she
had all the modern electric appliances to make household chores easier. When she arrived home, she did not have to do any household work, but immediately began to do her homework. Although her academic performance was not good, she took homework seriously. She had her own fully furnished and nice bedroom on the second floor, but she typically sat at a little table in the kitchen because she liked to sit where she could see her grandmother to keep her company.

She lived with her grandmother, and her grandmother grew vegetables around the house to keep herself occupied. She did not need Yun’s help working the land. Every weekday when I visited her, her grandmother often asked me whether I was hungry and insisted that we should eat before we started homework. Her grandmother asked Yun to turn on the rice cooker, which she had already stocked with washed rice. Then she took some already sliced meat from the refrigerator and went outside to light her stove using wood and straw. Although they had a gas stove indoors, her grandmother did not know how to use it.

The supper items her grandmother cooked were often very simple: lean meat with some vegetables. Yun only ate lean meat. At the beginning of the week, she would eat at least 10–15 pieces of meat at dinner. By the end of the week, when the lean meat was over, her grandmother often tried her best to pick lean meat for Yun while leaving the fat meat to herself. Once or twice a week, Yun’s father came back home. He was a good cook. He often cooked at least six different dishes to treat all their relatives in the village and bought extra for the grandmother and Yun during the week.

After finishing the meal and homework, Yun sometimes went outside to find her friend in the village or just watch TV at home. She did not have to wash her clothes nor boil water for
shower. They had a washing machine and a hot water heater to do the job. Yun helped her grandmother to operate those modern electric appliances.

**Tian**

Tian’s grandmother still worked on their own mu of land, but Tian has two uncles living close by, so she was not expected to help grandmother tend the land. However, she had one younger brother who was in kindergarten. She picked her younger brother up from the kindergarten affiliated with School E and they walked home together.

Tian’s grandmother was in charge of cooking. The supper items they had were similar to the supper served in Yun’s family, but the difference was Tian had one younger brother and two girl cousins—one was her classmate and the other one was a sixth grader. The grandmother cooked one meat dish, two vegetable dishes—one purchased and one foraged. If Tian was not fast enough to pick the lean meat from the table, it was quickly taken by the other children. As the youngest and the only boy at table, Tian’s brother was fed by his grandmother, who made sure that he had enough meat to eat.

After dinner, Tian and her two cousins needed to help their grandmother clean the table and dishes. Tian was expected to wash her own clothes manually. They had a washing machine, but for some reason they did not believe that big washing machine could do a good job in washing daily clothes, especially underwear. Thus, the big washing machine was only used to wash the heavy clothes. The grandmother would wash the younger brothers’ clothes, but Tian had to do her own. Tian’s mother called her 3 times a day to make sure that they arrived home during lunchtime and before dinner and finished their homework before bedtime.
Hua and Xiang

Hua and Xiang’s grandfather still farms 2 mu of land independently. They did not have relatives living close by. They lived with their maternal grandfather (which was not common in rural China, as is explained in the following chapters), and their grandfather always thought it was a great unfortunate thing for him that he was not able to have a son. He had three daughters, and all were married.

Hua and Xiang were sisters, but not on good terms during my time with them. They had different groups of friends and they walked back home separately. They fought about many things, the majority of which concerned household chores. The first chore Hua had when she arrived home was to feed the pigs. Hua used a giant scooper that was twice the length of her arm to transfer the pig feed from a pot on the stove to two buckets. Then she carried them downstairs. I offered to help, but she refused, “The pig barn is too dirty. You should not go.”

As Hua was doing her household chores, Xiang was supposed to cook and clean her own clothes. However, Xiang really wanted to go out to play with friends. She would try to sneak out. During the day I was there, she had to cook. Cooking with rice cooker seemed not difficult for her, but watching the process still made me quite worried for her safety. The rice cooker was put on the table much higher than her. She had to stand up on a little chair to be able to reach the cooking bowl. Then she had to add rice and spring water to the bowl, which the village channeled from the mountain to a pool in the center of the village. Each household used a pipe to channel water from the pool to their house. There was a big water tank almost the same height as Xiang next to the stove in their house to store water. Xiang also had to stand on a chair to scoop water from the tank to the rice bowl. Hua said that Xiang behaved much better when I visited them; when I was not at their home, Xiang would not come back home until dinner.
The time when Hua and Xiang’s grandpa returned home depended on when he finished his work. The majority of the time he returned around 6 or 7 p.m. He took charge of cooking dinner, normally a meat dish and a dish with wild vegetables. I had dinner at their home once a week. From March to April, they still had fresh meat. Beginning in May, they only had cured meat.

Hua and Xiang were not picky eaters, but they still had preferences for fresh lean meat. During the beginning of March when meat was ample, they ate plenty of it. Later when only fat meat and salted meat were available, they only ate one or two pieces during dinner.

After the meal, Hua had homework to do because she was in sixth grade, whereas Xiang often went out to find friends. After homework, Hua washed her clothes, boiled water for showering, and then took a bucket shower and went to bed. Xiang came back home late and often felt too tired to wash her clothes. Xiang had more new clothes than Hua, whereas Hua often wore the clothes that had been worn by her mother or aunty. There was an old recliner by the entrance door of their house, where Xiang dropped all her stuff. Due to the dim lighting in the house, I did not discover this recliner and Xiang’s dirty clothes until a month into my visits. Then I suggested Xiang should wash her clothes because summer had arrived, and it would be too unhygienic not to wash her clothes on a daily basis.

Xiang said, “My older sister never helped me. Even after I washed my clothes, I cannot hang them outside. The lines for hanging clothes were too high for me.”

Hua replied, “Really? You have not washed your clothes for months, please do not expect that I do everything for you.”

Xiang, “You see, she never helped me.”

I guessed those kinds of arguments might have happened many times when I was not there. However, under my supervision. Xiang finally began to wash a month’s accumulation of
clothes by hand. I have to admit that washing clothes was a tough job for a girl like her. The bucket of water was too heavy, and to wash clothes they needed to change bucket of water at least three times. No wonder Xiang did not want to do it.

**Summary**

This chapter presents student life in upland F township. Table 9 summarizes the seven cases’ school week life, from which it is not hard to find that boarders have stable school meals and did not have to worry about intrahousehold distribution of food. They also had more supervised time and did more physical exercise. On the contrary, for day students, depending on the family’s socioeconomic conditions and number of siblings they had at home, their dietary intake was affected by intrahousehold distribution. They also had to do more physical labor such as household chorus, raising livestock and sometimes even farming work. Many do not have adults supervision when they arrive home because the adults are working late in the fields. That kind of unsupervised time can carry a lot of risks, which is discussed more in the following chapters.

Girls tend to have smaller shares of food and more shares of household chores, which is a worldwide phenomenon (UNICEF. 2019). Gender inequality is more complex in real life than it might seem. For example, in Tian’s case, her younger brother had better dietary intake and did not have to do any household chores because he was the youngest child at home. Youngest siblings, such as in Hua and Xiang’s case, often did fewer household chores and the older one was expected to do more, because Chinese traditional culture promoted the virtues of “loving youth.” However, the issue I found was often the younger sibling was a boy. Among the 58 families I visit, 52 families had more than one child, and in 26 families’ the youngest children was boy, and in only three families was the youngest child a girl. In addition, the families whose
youngest child was a boy often had more than two children. Tian was lucky that her parents got a boy right after her. One of my families I visited had five girls and the sixth one was the boy. The large number of children add extra economic burden to parents and care burden to the grandparents and older girl siblings. In addition, the girls grow up in the large families with the younger boy siblings are more likely to be neglected. Although those cases are becoming fewer and fewer after the villages became more open to the outside world, the desire for boys is still prevalent in the rural regions.

That the youngest sibling was often a boy was not random. Rural China has never seriously implemented the One Child Policy; instead, it implemented the 1.5 Child Policy, which meant that a family could have a second child if the first was a girl. However, some families do not register girls until they got a boy. In remote rural regions, as long as the children are not registered, nobody even knows those girls exist. Shi and Kennedy (2016) found that the unbalanced gender ratio at birth of 113.62 boys/100 girls in China is due to delayed registration or unreported girls. However, those girls were not missing in real life, just on paper. Not having registration still caused lot of trouble for those girls, which is discussed more in the following chapters.

School did play a crucial role in ensuring the dietary diversity and the potential to provide quality supervision for children with work-away parents. However, the amount of work an elementary school could do in the rural region was largely restricted by its capacity. When the upper-level government does not give incentives or sufficient support for them, the majority of schools have the attitude of “doing less is better than doing more” and “safety is the most important thing.” Due to this kind of attitude, many programs that are designed to benefit all
rural children end up only benefiting a small group of children and cannot fully achieve their potential.

The school lunch program could not achieve its full potential due to lack of support or “the ambiguity of the bureaucracy” as said one TFC teacher put it. On paper, NIPRCES requires school to provide diverse food to students, whereas in reality, the providers only offer a very limited food items list. If teachers purchase any food outside the lists, it is the school’s responsibility, not the government’s, to ensure the safety of students. No schools wanted to take those risks, so they just followed the rules and provided limited items of food to students. Lunch break was another good example. Schools knew that many students could not go back home to take a nap. However, to avoid taking responsibility for daytime students (which could allow the majority of teachers to take a nap), they just let daytime students wander outside the school gates. Students wandering outside the school gate and eating snacks sometimes gave schools excuse to shift blame. One TFC teacher told me that once a group of students got sick after eating school lunch, but because it happened after lunch break (not immediately after school lunch), the principals of School E told the upper-level government and children’s parents, it was because they ate unclean snacks, not because of school lunch.

Although I criticized schools’ attitude of achieving the minimum but not the maximum in the community, I also had to admit the schools have limited capacity, which is often overstretched in rural villages. Other than not having sufficient funding, staff, and training to implement the school lunch programs and other social programs and policies, teachers in rural schools were expected to do many things that were outside their responsibilities. For example, all the teachers in School E undertook the tasks of “targeted poverty alleviation,” which involved endless paperwork. I heard that twice a year before the inspection, teachers had to go to the
township government, which was located in town, to do paperwork overnight. During daily life, teachers also took charge fixing the water pipes, and desks and chairs in the school. As one teacher said, “When the water pipes are leaking if we call the government people to come, it will take them at least a week. If we can do it, we will just do it on our own.”

Schools are an institution that is supposed to be equal for every child, but in reality, they cannot provide every child with the same quality of care and education, even within the same school. Grandparents, parents, and children themselves have to advocate for themselves to gain attentions. The dynamic of family and school relationship is also a key factor to support the overall well-being of children, which is discussed more in the following chapter.
Chapter 7. Weekend Life: Villages in Modernization

Chapter 6 described children's weekday life centering around the school. Chapter 7 discusses children's weekend life in the family and community. The weekend life of children involves a lot of unsupervised time because grandparents have to work while parents are not at home. Due to the reduced farming work in F township, only a few children have to help grandparents work in the field and many have a lot of unsupervised leisure time on their own. The community in traditional society plays a role in keeping an eye on children, and children can easily find their friends around. However, due to outmigration, this kind of traditional society is changing.

F township is undergoing modernization at a rapid speed. In 2017, when I first visited F township, the road which connected the county to the town was a narrow two-way lane. During the rainy season in summer, there was always a chance of flood. The road connecting the town to the rest of the towns was a muddy road with many potholes, especially after rain. In 2019, the road was improved to a wide, two-way state road, and the road connecting the town to different towns (sub-villages) also was also upgraded and paved.

In addition to the road improvements, the supply of electricity and water became more stable. The only time I experienced the electricity outage was after a thunderstorm in summer, but it was recovered within two hours. Water supply was still an issue in about 10% of villages that lacked good natural water sources. However, in the villages where schools are located, the water supply was relatively stable. During my study, I only experienced the water cut once due to the broken water pipes (which were fixed the next day by local teachers). Internet coverage also increased in the past two years. All the schools have stable 4G, which will soon be 5G internet, and internet was extending to each tun (sub-village) in the valley in turn.
Those changes brought convenience to the families and increased their connection to the outside world. The stable electricity supports use of various electronic appliances in each family. Television is almost universal in the village. The richest families in the villages even began to purchase computers and install air conditioners. The coverage of the internet in the last two years also led to the increased ownership of cell phones. The cell phone is a double-edged sword for children. On the one hand, it gives them another channel to connect to the outside world. On the other hand, the design of certain applications and the changing of children's socialization can lead to cell phone overuse, even indulgence.

The seven case studies show different way of life in the villages. The well-being of these children is associated with how they use their leisure time during the weekend. Modernization brings convenience and advancement to some of the families while increasing risks to others. The comparison and contrast of the seven cases and subcases in this chapter will preview the issues and strategies of grandparenting, parenting, and children's resilience in the following chapters.

**Farming Work and Household Chores**

**Hua and Xiang**

Among my seven main cases, only Hua and Xiang had serious farm work duty during the weekend. Their work was to herd their bull and sometimes help their grandfather plow the field. I went to herd the bull with them once. They only had one bull, which was for sale. The local government encourages people to raise bulls by subsidizing them at 5000 RMB per bull. It takes about a year to a year and half for a bull to mature from calf to a sellable size. Brokers come and purchase bulls from individual families and take them to market. After the subsidy, farmers can earn about 7000 from raising the bull.
Herding cows is difficult because there is not a lot of grass surrounding the tun. Villagers will feel really angry if the cows accidentally eat their corn. Therefore, to find a place for their bull to graze, Hua and Xiang had to take it to a hill surrounding their tun where there is wild grass. They also had to make sure the bull did not eat anything along the way. It was early in the morning, about 8 a.m., and Hua put the muzzle on the bull and dragged it outside the door. Xiang carried the whip to help. They pulled the bull along to make sure that he did not stop at other people’s cornfields. After crossing the cornfield, they arrived at the foot of the hills. Villagers have built stairs at the lower part of the hills, but these disappear halfway up. Then they had to climb the muddy, slippery hill leading the bull. It was hard for me, but Hua and Xiang seemed to be used to it. They grabbed onto grass and tree trunks to avoid slipping. Hua had to climb the hill while pulling the bull. Although the bull had four feet, the steep hill was not easy for it either. I was really worried for Xiang, who walked behind the bull, that it might slip and fall on her.

Their grandpa was watching us from the balcony of the house. He gestured to them to pull the bull to the right place. He changed his gesture a couple of times, which made Hua confused. But eventually, they saw Grandpa gave them approval. Then they left the bull there and walked down the hill. The entire herding trip took about two hours. It was on a sunny day. Although grandpa was the only worker at home at this moment and their family also had to rely on produce from their field to feed the cows, chickens, and pigs, their grandpa only let the two girls help with the lightest work. He himself did the rest of the heavy work. Every week, Hua and Xiang helped him with the farm work for about a halfday. The rest of the time, they were on their own. They often watched TV at their aunt’s new house next to their grandpa’s old wooden house. Their aunt worked in the factories in a city and left the empty house for them to use.
Gender Labor Division

Farming work is rarely expected from girls if there are boys at home. In traditional farming society, the division of labor was that men work outside whereas women took care of the household. However, after parents work away, it became a division between grandparents and children. The results were often that the grandparents do the majority of outdoor farm work with older boys, whereas the girls took care of household chores and the younger siblings.

Tian had to look after her younger brother when her grandmother worked on the farm. Taking care of the young siblings mainly means keeping an eye on them to make sure that they were not in danger. Sometimes, the older siblings had to help feed the younger ones breakfast and lunch when the grandparents were working in the field. "Looking after the younger sibling" in a lot of situations was just older sibling and younger sibling watching TV together at home. The three weekends I visited Tian, she was either watching TV with her younger siblings or playing with her cousin. The common popular outdoor games among elementary school-aged girls were rubber band jumping and kicking the shuttlecock. Their activities were often within their tun and they rarely went elsewhere.

As for the boys or the girls in the families who did not have enough adult labor (such as Hua and Xiang), these children helped with farming work on a weekly basis. But the work they were assigned was often the lightest and the easiest tasks. For example, if a family still grew corn, the only part of the work they would give to the children was digging hole on the ground using hoes. As one boy (Subcase 3) said, “They often worried that we would harm the plants. They would not let us touch the corn plants after they grew.” His grandfather said, “I do not expect them to do a lot of work, but they need to learn to do a little work if they cannot go outside to work. At least that they can grow their own food.”
Compared with farming, herding the livestock (cows and sheep) was slightly easier, and most grandparents or parents only assigned those work to children during the day when the weather is good. On a rainy day, adults do all the outdoor work themselves. In addition, most grandparents would not let farm work disturb the children’s school schedule; none of the children worked in the fields or herded livestock during weekdays. During the weekend, some TFC teachers would like to give children extra class. Grandparents would let children go to school. Hua went to school sometimes on Saturday to attend weekend classes. Then her grandfather did all the work himself.

Among the rest of the cases, except for Ai and Lian’s family, none relied on farming to survive, but seniors maintain the farm as leisure time activities. Dong helped Principal Ban’s mother with farm work because he did not want to do homework and felt bored with watching TV all day. Ting and her sister were only required to help during summer break, not weekends. Yun wanted to help the grandmother as a way to spend more time with her.

Age Labor Division

Compared with the elementary schoolers, middle schoolers often undertook more household chores because they were considered as “grown-up.” Many would join their parents in the city to work if they could not get good scores to enter senior high schools. Therefore, parents also thought they should assign the middle schoolers more tasks to train them to be adults.

Purchasing food and cooking were often the tasks assigned to middle schoolers when they came back home from middle school in the town during the weekend. There was only one middle school in the F township, which was located in the town. Having a middle schooler older sibling is beneficial to a family in terms of increasing the dietary diversity during the weekend, because they could buy food from the market in the town and take it back home. Every Friday,
Tian’s sister would buy fruits for Tian and their younger brothers from the market because their mother told her to do so. Then for Tian, she could eat more fruits during the weekend. “My sister would buy fruits for me. She is better than our parents because she will give us equal share for both of us, while when parents buy, they would often buy extra for the younger brother while giving my sister a smaller share and me.” Even though not all the middle schoolers’ parents had enough money to give them to buy fruits, many buy vegetables and meat from the market on Friday. Between the vegetable and meat, if they do not have money for both, they would first buy meat because there were wild vegetables at home.

Not all middle schoolers are willing to take responsibility for their younger siblings. During my home visits during the weekend, six households (Subcases 5, 22, 24, 25, 44, 49) did not live with grandparents but live close to grandparents. Two households only had one or two meals a day. Subcase 4 was a family with four children, three of whom were girls, and the youngest was a boy. When I went into the house at 2 p.m., they were all sleeping and had not had any meals yet. The sister did not want to get up and cook for the youngest but was playing on her cell phone on her own. Another household had an older middle school brother and a younger elementary school sister, and they lived next to their grandmother. The brother bought meat from the market every weekend but did not like cooking. He and his younger sister had a couple of negotiations and finally reached the agreement that they would share the cooking duty. Half of the year he cooked, and the other half his sister cooked.

If the family does not have middle schoolers to help with cooking, grandparents have to do all the cooking themselves. Grandparents have to finish all the farm work first then come back home to cook, which was often late in the afternoon. Most of the cases who live with the
grandparents, often have lunch very late during weekend such as 2 p.m. or 3 p.m. or sometime just skip lunch. Few families during the weekend were able to get three meals a day.

The Virtual World

A Weekend Scene From a Hill

Walking by Mei’s village, there was always a unique scene: a group of middle schoolers sitting on the hills with their heads bowed over their cell phone screens. Around those kids were a group of much younger children, watching the older children playing cell phone games. They had to sit on the hills playing cell phone because there was no cell phone reception in the valley. Among them sat Mei’s sister. No matter when I came by their village during the weekend, these middle schoolers were always there. Even on rainy days, they were there playing on the cell phones under umbrellas. They did not even go back home for lunch. They would only leave their spots on the hills when it is getting dark.

Both of Mei’s parents decided to work away this year and left Mei and her sister alone at home. Mei and her sister spent their weekdays in school and came back only during the weekend. Mei often said to me, “I am so busy during the weekend, I have to cook, wash clothes, clean the house, and so many other things, but my sister only plays cell phone and leaves all the work to me.”

I felt that Mei’s situation is a challenging one among all the cases because all her weekend time is unsupervised. She and her sister were supposed to be supervised by their aunt, but she has to work on her farm and could only come to visit them once every other week. She or her son (Mei’s cousin) would bring some food to them and sometimes cook a meal for them. When their aunt or cousin did not come, they were on their own. Mei’s sister did not want to play the role of an older sister, and she did not want to eat at home, because the food cooked by
her and her sister was not tasty. Mei cooked for herself. Her aunt brought food and left the meat in the refrigerator, and she just cooked the meat and added some salt. Once a semester, the government official assigned to her family by the “target poverty alleviation program” visited them. The last time, the government official brought her three dozen eggs. She added those eggs to their weekend meals, and those eggs lasted about 2 months.

**The Negative Impact of Cell Phones in Children’s Life**

Albeit Mei’s village was unique in terms of the groups of teenagers playing on cell phones on the hills, indulging in the cell phone or TV was prevalent in the region. Electricity and Internet were subsidized in rural regions, and some villagers could access both for free. Among my seven main cases, Mei is the only one who had a smartphone. Ting, Tian, and Yun used “unsmart” phones (feature phones), which was also called “senior’s cell phones” in rural China because those cell phone can only make phone calls and text and cannot access the Internet. The rest did not have a phone. The reason they did not have smartphones was not because their parents cannot afford them. Media parenting is discussed further in Chapter 10.

Among my 55 subcases families, 23 children had smartphones. Going to bed after 11 p.m. during the weekend was common among the children of those families. The most extreme cases were playing cell phone overnight. On average, these children spent about 8 hours during the weekend on cell phones. Among 23 families, they lived next to or with grandparents. Grandparents call them to eat, so they at least eat one to two meals a day. A boy from Subcase 6 said, “If I do not stop playing cell phone to eat, my grandpa will keep asking me. Then he will be angry. The worst case was that he would let my father know. If my father knows, then my cell phones will be confiscated.”
As for the sleep, among my cases, only one tun deep in the mountain was fully covered by a 4G cell phone signal. The children who stayed up the whole night playing cell phone were from that tun. The majority of the children had to go to the high place such as on the top of the hills or on roof tops to find the signal to play cell phone. No grandparents will let their children stay outside overnight. They make sure they come back home and sleep. In that tun where 4G signal is fully covered, children can play cell phone in their rooms without being discovered by their grandparents.

**Cell Phone Games**

Smart phone/cell phone/Internet addiction is a new phenomenon. The diagnosis standard has not been established in DSM-5. An increased number of studies have been done on cell phone use behaviors among adolescents, though few have been done in rural youth. Studies found that boys are more likely to be addicted to cell phone games, whereas girls are more likely to be addicted to social media (De-Sola Gutierrez, 2016). Similar to the literature, I observed the majority of male students using their cell phones to play games. The most popular games among Chinese youth now are Juediqiusheng (绝地求生. Player Unknown’s Battlegrounds) and Wangzherongyao (王者荣耀, Honor of King). Both games are group games in which players form teams and fight against each other using different weapons to win the battle. Students played those games but also used them as a social platform; a way to connect with friends who they can’t see in person on the weekends. The boy from Subcase 27 said, “We cannot play with each other during the weekend. We play on cell phone.”

Quite a lot of studies have been done the addictive nature of video games. The main reasons can be generalized into three aspects: the rewards system of cell phone games stimulate the pathways in the brain and suppresses people’s perception of time, the graphics and sound
effect systems in the game provide excitement to the brain, and social games lead children to establish their self-esteem around the positive affirmation from their contribution to their teams in the games (Balakrishnan & Griffiths, 2018; Elliott et al., 2012). These three layers of design of games make players strongly adherent to these products and lose sense of time and real-life problems. These addictive elements work on adults as well as children. I have heard that some teachers forget to teach their classes because of playing games.

**Online Video Application Douyin and “Shehuiren”**

Playing games is just one type of cell phone use. Children also use their cell phones to do online shopping and watch and make videos. The Chinese version of Tiktok, Douyin, was really popular among the children I visited. Quite a few girls criticized my out-of-date fashion tastes, because I did not know what is popular now. Those students who tried to follow fashion on Douyin were often called “Shehuiren” (社会人, people from society) by younger children or more conservative villagers. If you remember, Mei’s sister was one of those examples. “Shehuiren” had negative connotations, because when children say that somebody is “shehuiren,” they imply that they will leave school soon, or they have lost their innocence, or they know too much about the dark side of society. Shehuiren were considered negative influences, and parents want their children to stay away from them.

MM (subcase 55) and JJ (subcase 37) in Principal Ban's class were examples of what children called "society sisters." They did not eat meat during the school lunch and always want to lose weight. They wore very "fashionable" clothes in school: oversized T-shirts over very short shorts. On the children's day performance, these two girls organized a group dance with another two girls. Their performances were called off by the leaders from the upper-level government because they thought their dancing was inappropriate and cannot represent the
positive spirit of students. They cried and begged all the teachers they knew to give them the opportunity to dance in front of the school.

MM came to me and begged me for help and said, "We learned this dance so hard from Douyin for almost two months now. Our dream is to become Wanghong (网红，Popular internet star). We want to perform this dance, and we can post it on our Douyin channel. Then we will be famous. When that time comes, we will treat you to big meals." Finally, after they kept begging, Principal Ban agreed, but their performance was held at the end of the show, after the government officials left. When they performed, the younger children felt shame for them, because they thought their dance was not appropriate, while some older children admired them, and others felt confused. Principal Ban shook his head and said, "I do not even know what is in the mind of those children these days."

**Earning and Shopping Online.**

Although MM and JJ were not from an impoverished family, I did not believe that their grandparents or parents would buy those fashionable clothes for them. After making acquaintance with them, they made fun of me for being "out of fashion" and for not knowing that there were internet applications that could earn me money. JJ took out her cell phone and got into an application called "Qutoutiao" (趣头条 The Funny Headlines). One could earn money by watching short videos in this application: 5 cents ($0.006) for 5 minutes. Then I asked them how much their fashionable oversized jacket cost and how long it took them to earn that jacket. MM said about a week: they spent hours on the application—from 4-10 or 11 p.m. after school and from 8 a.m. to 10 or 11 p.m. each weekend.

My informant and I downloaded this application later and tried it ourselves. The content of those videos were really disturbing in terms of promoting shortcuts for success such as how to
marry a rich man, the fastest way to earn money, how not to work to earn money and many
advertisements for all different types of products. In addition, in order to earn 20 yuan ($3.5),
one needs to spend 4000 min watching short videos in that app, which is 66 hours! Among the
59 families I visited, earning through the online application was mentioned by at least five other
sixth grade girls (subcases 1, 12, 13, 22 and 41).

The Positive Side of Cell phones

The widespread use of cellphones and internet coverage in remote upland regions brought
a lot of new issues, but it also gave children a window to see the outside world. The boy in
subcase 42 who always organized weekend group hangouts using cell phone games, was also
one of the few children in School E who knew the name of the current American president, his
policies towards China and many other political issues and scientific facts. I asked him where he
got his knowledge from and he said, "from the cell phone, I read all the news. Cellphone news
taught me more than what school taught me."

In addition to that, cellphones are an important platform for parents to maintain contact
with children and send money to the family. Mei's mother felt sad about the cell phone behaviors
of her daughter, but the cell phone was the only way she can "see" how they are doing at home,
"The older sister said that all her classmates used the smartphone. She wanted to chat with them
etc. After she told us so many times, we decided to buy her one. The smartphone is more
convenient. In addition to calling her, we can transfer money to them through WeChat."

School as Haven

Although children help with the household chores and farm work, children still have a lot
of unsupervised time. As we seen in the previous description, most of children spent their free
time watching TV, and some older children have begun to be indulgenced in cell phone.
Unsupervised time during the weekend is risky for children. Some teachers at school E decide to take extra responsibilities for children during the weekend, even though the after school curriculum is discouraged by principals.

Jiang and Hu were the two TFC teachers, and they happened to teach Mei, Hua, and Ai in 2019. The extra school curriculum they provided includes doing homework, and painting, hiking and many other group activities. Those teachers even provide lunch as an incentive for children to come to school during weekend. The lunch they provide is always noodles with eggs and vegetables, which were simply because they used their own salary to cover the cost, but children really love their food.

Ai, Mei and Hua and another 10 students came to school on Saturday and Sunday. Ai sometimes even took her younger sister Lian with her. Mei said, “Coming to school is the happiest time. I have friends to play with. If I cannot come to school during the weekend, I feel really lonely and have nothing else to do. My sister is play cell phone, but I do not like playing cell phone. Nobody is on the cell phone to chat with me.” Teachers one reason she loves the school, “Teacher Jiang and Hu both are very nice to us. They cook for us and organize group activities for us. I love them so much.”

Hua also likes spending time at school, “I do not have to do household chores when I come to school during the weekend. What teachers cook is very delicious. In addition, I learn many new things every weekend. I want to study hard and one day I can see those new things with my own eye.”

Villages in Transition
Ai and Lian

Ai and Lian were the happiest girls among all my cases. They were from a big family. In their house, they have both grandparents, and their father lived with them. Their grandfather worked on the farm, their grandmother took charge of household chores, and their father took charge of cooking. They were not expected to do any household chores, just help the adults when they feel like it. Next to their house lived their grandparents from their mother’s side and their two cousins, who were also their schoolmates. All their leisure time was around play.

When I told Ai that I would like to visit them on Sunday, Ai told me not to come too early because both liked sleeping in. When I arrived at about 11 a.m. in the morning, they had just got up and ate the breakfast prepared by grandmother. Their grandmother bought them soymilk that day from the vegetable guy on the bicycle. They drank the soymilk and ate leftover rice and vegetables. They asked me whether I can walk with them to find Mei, who lived about 15 minutes away. I agreed and they got permission from grandmother. Their two cousins, JD and CF also joined us.

One the way to Mei’s tun I asked them what they do during the weekend. “We usually watch TV at home or at our cousin’s home. When the weather is good, we go outside to play in the field.” Then Lian showed me her favorite play spot on the way, which is a slope full of soft grass. They use the slope as a slide. They climbed up the hill and slid down the hill. Watching them doing that one after another just reminded me of my own childhood and made me feel that they were real kids and having lives as children, as opposed to the other cases that made me feel that they are shouldering a lot of burdens beyond their ages.

After we arrived at Mei’s tun, Mei’s sister was already there sitting on the hill, immersing herself in the cell phones, along with five other middle schoolers. JD and CF immediately went
to sit by the middle schoolers on the hill to watch them playing cell phone games. JD and CF do not have their own smartphones yet, so coming to Mei’s village was a chance for them to enjoy watching games.

A few elementary school girls in the tun saw us and came to join us. We decided to play the Chinese rubber band jumping. After we played for an hour or two, some students’ grandparents gestured us to go to their house to have food. Ai used local dialects to tell them that we were not hungry, and we would go back home to have lunch, and that their grandparents had already cooked food.

“The Village Was a Big Family”

Inviting people for a meal is local hospitality. Every time when I stepped into a house, sometimes even came by a house, the grandparents often gestured me to have a meal with them. When my informant and I conducted a home visit, the head of the household always invited us for a meal, and if we informed them ahead, they would even cook a chicken for us. Therefore, to not to increase the burden of the families when I conducted home visit, I had to remind students, again and again, to tell their grandparents that I won't stay for meal, because I need to go to other students' house, or if I stay, I have to remind them again and again I do not like eating chicken, so please do not cook chicken for me.

The same apply for the children in the village. Tuns are centralized places extended families live together. In each tun lived the people who had the same last name. The traditional way of welcoming guests in rural China is to feed people. Every time I stepped into a house, the first thing the head of the household would ask me is to eat or stay for meals. When I ate at a student’s home, other children from the tun would also join us. The head of the household never said no but would happily bring out the utensils and give them a bowl of rice to join at the table.
The family environment of uphill F township is also a reason for some work-away parents to leave their children at home. Ting’s father said,

I could take Ting and Yan (Ting’s older sister) with me to my factory in the town, but I worked from 7 a.m. to 8 p.m. in the factory. Factory does not have a good environment, and if they stayed at our apartment in the town, they will still be alone and have to cook for themselves. Leave them with their grandmother at least there are somebody keep an eye on them. They live in a tun with all our relatives. I do not have to worry about whether you have food to eat. As long as they go to any household in our tun they will be fed.

Other than providing food, the extended family relationship in the village also demonstrated how the community provides group supervision to children. One example was that some students liked to hide from teachers when we visit them during weekend. When we arrived house, we would find nobody was in the house, though the door of the house was open. However, we do not have to worry about not being able to find these children; the villagers working in the field, as long as they recognize my informants as their teachers, would tell us where the children were hiding and helped us to find them.

“The Village Is Becoming Quiet”

After 2 hours of playing, Ai and Lian began to feel hungry, so we began to head back to their own tun. On the way back, Ai suddenly said, “I am so happy today. We have not seen so many people playing for a very long time.” I was surprised that what I saw that day was not a norm in village anymore, I asked, “Children are not coming out these days to play during the weekend?”

“No, a lot of them were just staying at home watching TV.” Ai said.
“Why they do not want to come out?” I asked.

“I do not know. But we are not allowed to come to other villages that often either, because adults say that these days there were many bad people.” Ai replied.

“The bad guys from outside who come to traffic the children.” Lian added.

“Are there some children disappeared you know?” I asked.

“Not that we know of, but there are a lot of similar news from TV and cell phone,” Ai said.

Worrying about the “bad people” from outside seems to be a trend in the area. I heard quite a few times that children said that their parents do not encourage them to go out, especially outside their tun, because there are too many bad people these days. Once I was invited to a birthday party and some girls wanted to join and asked me to pick them up. However, the day before the birthday party, they called me saying, “We called our parents and they said no. They said it was not safe to go outside our villages.” One of fourth grade boys who always played weekend online cell phone games said, “Cell phones are the best ways for us to maintain contact during the break, especially summer break. We were not allowed to get out of our homes that often because of safety concerns from our parents. Then we could only play online games together through cell phones.”

Before I left Ai on that Sunday, Ai and Lian brought me to the roof of their house. Their two cousins were also with us. One cousin said, “I remember when I was a kid. There were a lot of children in the village. We often came out and played basketball in the playground. Then, more and more children began to leave villages. Now, especially during the summer break the villages were so quiet, many children went to city to see their parents.”

Ai said, “Yes, these days, villages are too quiet.”
Summary

This chapter describes children’s’ weekend life. How much farm work and household chores a child needs to do depends on two key factors: the socioeconomic situation of families and how many adults a family has. The middle and upper middle economic level cases in my study, Ting, Dong, and Yun, did not have to do any farm work, unless they themselves wanted to do it. Ai and Lian’s family have three adults and they were not expected to do any work either. Hua and Xiang only had their grandfather with them, so they had to help him with the farm work and share the household chores. Mei and her sister did not have any adults living with them, so they had to do all the household chores themselves.

Even though children have to do some farm work and household chores, they still have a lot of leisure time, and that time is often unsupervised. During the weekend, homework only took about two hours, which was often done at night when most children cannot go outside to play. During the daytime, though, most children would prefer to play outside, but due to the safety concerns from parents, lack of supervision, or the responsibility of taking care of younger siblings, more and more children are spending leisure time on sedentary activities such as watching TV and playing on cell phones. In extreme cases of cell phone addiction, some children forget to eat and sleep, especially for those children who lived independently from grandparents.

In addition to the possibility of addiction, cell phone games and applications often deliver the message of instant gratification, and shortcuts to success. Being thin (beautiful) is one shortcut to success and not eating, or not eating normal food, is the way to get there. Such messages may also dissuade children from investing in education. MM and YY were examples of young children who want to be successful thorough taking the shortcuts like becoming Wanghong, an Internet star.
Parental outmigration reduced farming work and increased sedentary time seem to be three separate issues, but they were interconnected with each other. The villages used to be a big family, and some villages are still able to carry on this tradition, but rapid outmigration and reduced number of rural residents inevitably leads to changing social organization in rural villages. My informants have told me about the increased crime rates in the villages. Children and their parents voiced concerns about safety and wished children to stay close to home. Those are the phenomenon frequently mentioned in the social disorganization theories. When residential stability is broken due to weak local economy and outmigration, the traditional social network was gradually dissolved along with the traditional social value (Tunnell, 2006). When the traditional values are eroded and new ones are promoted through TV and cell phone games, the younger generation is more drawn to a life different from their parents, and beyond the control of grandparents.

During this transition time, it seems that school is the stable institute in the villages providing a safe space for children to learn and social. Mei, Hua, and Ai’s teachers were willing to organize afterschool curriculums for them even facing the discouraged from principals. The active involvement in the school activities reduced Mei and Hua’s unsupervised time and strengthen their connection with teachers. This is a key reason why Mei did not use cell phone as often as her sister and has strong passion in learning.
Chapter 8. Surviving in the Rocky Mountain

The previous two chapters described children’s lives in their schools and communities. Both chapters reveal the strength of the schools and communities in taking care of the nutritional well-being and overall well-being of children and the issues of schools in taking care of children without direct parental care and the risks of children in the communities which are undergoing dramatic change.

Many studies argue that grandparents do not have sufficient knowledge and capability to provide children with nutritious food or to effectively supervise children’s education (Tan, 2010; Wen & Lin, 2012; Ye & Lu, 2011; Zhou et al., 2015). The majority of those studies measured grandparents’ knowledge and capability from the lenses of modern nutrition and formal education. Grandparents, however, have lived in the villages for their entire lives and they have their own views about the world and deep attachments to the land and cultures. Their beliefs and practices differ from those recently promoted in China by modernization and urban living. Modern nutritional knowledge has never been part of traditional Chinese food culture so it is no wonder that the majority of grandparents do not raise children based on modern food science. Their own understanding of food, though it has rarely been well studied, is connected to Chinese traditional herbal medicine. Food is not just about nutrition, but also an attitude towards life and a reflection of culture. Through these grandparents’ lenses of understanding food, I learned some long-forgotten values of traditional society.

In this chapter, I discuss the life of grandparents and how they support families through working diligently and caring for their grandchildren. Their dedication enables parents to work in the urban regions without worries, to accumulate family wealth, and ensure the next generation has a better life than this generation.
Working Hard for the Next Generation

Before I go into grandparents’ attitude towards food and caring for children, I first want to talk about some stories from field study which grandparents impressed me with their attitudes towards life. Grandparents often called the place where they lived “rocky mountain” to indicate their land does not have enough soil to grow food and their hard life in general. Their living conditions are challenging, so they often have to work harder and utilize all the resources they can to survive. They work for their whole life without stopping and hope that the next generation can go out of this piece of land to have a better life.

“Work Makes Me Feel Alive”

Most grandparents, regardless of health and age, work from sunrise to sunset seven days a week. I heard the expression, “Work makes me feel alive.” from at least three or four grandparents. The grandparents I visited were between 60 to 70 years old and being able to work in the field is not about socioeconomic gains for them but rather evidence of still being alive.

Yun’s grandmother, who lived in one of the wealthiest houses in the village, still worked in the field every day. “I told her many times that she did not have to farm anymore. We have money. But she never listens.” says Yun’s father. One rainy day, when I visited Yun, Yun wanted to stop her grandmother from working outside. Yun’s grandmother had got up much earlier than Yun. Yun found her in the field and tried to ask her to go back home, but they ended up working together for an hour or two then came back home together for breakfast.

Once I got a ride in an SUV driven by a successful businessman in the region. He drove from the county to visit his father in the village. He dressed in a very nice suit while his father dressed in the local working clothes. If he did not say that the man was his father, I would not have guessed. He told us his entire life journey of working in different cities in China to
accumulate experiences and wealth. After he started his own family, he decided to settle down in his home county. He stopped his car along a cornfield in a village. I saw his father picking up his shovel from the trunk of the SUV, directly going to the field, and start working. The successful businessman said, “My dad did not want to go with me to big cities. He even refused to live in our big apartment in the county. He said there is fresher air and more freedom here. I am lucky that I got some business here, so I could visit him more often.”

“Use Everything and Do Not Waste”

Every afternoon, I saw older adults carrying twigs on their shoulder on their way home. The twigs were used as cooking fuel. Even though wood and straws are not considered as clean cooking fuel and will lead to numerous respiratory issues, they were still the most popular cooking fuel in the remote villages. Keeping using the twigs and straw as cooking fuel was not just because liquid gas was not that accessible in the upland F township (one can only get liquid gas in the town), it was also because villagers in F township wanted to utilize everything to their maximal usage.

Principal Ban’s families were among the first few who started to use liquefied gas in the village, but he gave up after 3 months. He said, “Not mentioning liquid gas was not that convenient because I had to get a new can from the town every other week, but how are we going to deal with the twigs in our farmland? My mother still collects the twigs and straw every day from our field. We still have to burn them; then why shouldn’t we burn them as our cooking fuels?”

Similar issues happened with Yun’s family and Teacher Lu’s family. Both were well and had liquefied gas can at home. When Yun’s father came home, he used liquified gas to cook, whereas Yun’s grandmother still prefers to cook outside using the traditional stove burning wood
and twigs. Teacher Lu used both. When he had straw and twigs from the field, he would cook outside using traditional stove. When he did not, he cooked inside using liquefied gas.

The cooking fuel is just one example of “treasuring everything.” Grandparents do not like to throw things away, even trash. In Hua and Xiang’s household, they collected all different types of trash next to the stove. Grandpa used twigs, leaves, woods, straws, and even snack packaging as cooking fuel. The issue is that organic waste such as straw and twigs is able to generate fire. Though they generate smoke, they rarely have strong smell. However, burning the plastic emits smoke and chemical smell and does not generate a lot of heat. Hua and Xiang did not have a separate kitchen, when plastic burned the in the stove, the smell and smoke was hard to bear.

In the majority tuns in F township, there was no centralized place to deal with trash. People have to deal with the household trash themselves. Most households actually have little trash other than children’s plastic snack packages. The food waste often became the feed for livestock, and wood and straw are used as burning fuel. Only the plastic things were a headache for people here. As teacher Lu said, “That plastic stuff is annoying. Smell really bad when I burn them. I won’t use them as cooking fuel, they do not generate fire, and also make me cough.”

Stay Behind for the Next Generation

I remembered the first time I visited the Ai and Lian’s home. In their maternal grandparents’ house, the grandparents showed us a video taken during the Chinese New Year. All their children from around the China came back to this remote town to visit. At beginning, they were addressed in western style suites and modern clothes. They took a picture together.

Grandmother said, “The oldest one now is Guangzhou, he already got an apartment there. The second one was in the Shaanxi, working in a factory. They all lived a good life.” When the
grandparents talk about their children who had migrated away for work, they felt so proud, because all their children lived a good life. However, when the video kept going on with very emotional music and their children, especially their daughters, changed to the traditional Yao clothes on the second day of Chinese New Year and danced the traditional dance, grandparents’ facial expressions changed, and they sighed and said, “they only came back for Chinese New Year, they all lived apart now.” I said that you could go to live with them in the city to enjoy good lives now.” Both grandparents shook their heads and said, “We get used to here, as long as they are good. We feel happy for them.”

The same sentiments have been expressed by the Tian’s grandmother. She asked me where I am from, whether I have got married. Then she commented,

City must have flat land. Why do you come to the mountain place? The life in the mountain area is so harsh. No good land for enough food. All my children are going out now. We are so thankful that your young teachers can come to teach our children, but please do not stay here. Life here is too harsh. Go home soon.

The life in upland F township is hard, and grandparents do believe and perceive that children’s outmigration is a better choice. The majority of grandparents do not want to move out with children. They will only go when their children ask for help, during the other time, they would prefer to work the land at home. There were many reasons why they did not want to move to city with their children. For now, it was because that they had to take care of their grandchildren. However, even after their grandchildren grew up and moved to the city, many chose to stay behind. Yun’s grandmother is one. After my field stay, Yun got reunified with her parents, but her grandmother still chose to stay in F township. During my field stay, Yun used to tell me that her grandmother did not like city life and city people did not like her grandmother either. Yun
said, “When we go to county to see my parents. Grandmother cannot go outside, because she did not know how to get around. At home, she did not know how to turn on TV, and how to use the gas stove. She felt really bored. She wanted to go home.”

**Grandparents and Food**

The previous section used three examples to show the life philosophy of seniors in the upland F township. In order to survive on this piece of land, they work hard and utilize all the resources they could. The same attitude is applied to the way they perceive and prepare food. When they take care of their grandchildren, they wish to give all the best to the next generation. “**Whatever Is Edible Is Good for Body.**”

Nutrition when translating into Chinese is *yinyang* (营养), of which the original meaning is “seeking life” (Chinese Dictionary *cite). There was not a word called *yinyang* in Yao nor Zhuang’s dialects. When I interviewed grandparents, how to translate “nutrition” was a great challenge. Later, we changed the question to “what food is good for body.” Most grandparents told me “whatever is edible is good for body.” The answer was confusing at beginning, but I gradually understand that grandparents believed that different food has different function, and we have to eat them to achieve different function of body. In addition, grandparents always maximize the usage and do not want to waste any food.

**Pigs Utilization**

The local people’s way of processing and using the entire pigs demonstrates the attitude of maximizing the usage of every food. Pigs are only slaughtered during major feast days. All the parts of the pig are used: meat, offal, and blood for food, and pig skin are for extra oil. Local people rarely buy oil but use pork lard for cooking oil.
A pig cannot be consumed all at once after it is slaughtered. In order to maximize the usage pig meat, prior to refrigerators, people would cure the meat. The cured meat could last for at least half a year. These days, the majority of families have refrigerators. Other than Chinese New Year, few families would slaughter a pig on other feast days. The majority of families preserve the meat from the Chinese New Year in refrigerators and make cured meat as a snack which was eaten with different types of homemade wines.

Few families still solely rely on self-produced meat for entire year. Hua and Xiang’s family were one of few. They worked very hard to raise four pigs for a year. In the Chinese New Year, they would sell two and consume one themselves. The frozen meat can last them for about one month, then they have to rely on the cured meat. Luckily, every season there would be a feast day in the village where the entire village would slaughter one pig to share with all villagers. They often got two or three kilograms of pork and offal from the feast day, which could last them for two weeks.

Although young children only love the fresh lean meat, grandparents believe all the parts of the pig have unique functions. The majority of grandparents would encourage children to eat as much meat as they can, because meat is key for children to grow. “You should eat more meat, because you need to grow more meat on yourself” is a typical sentence that I heard grandparents tell children during meals. As for other parts of pig, Xiang and Hua’s grandfather, and Tian’s grandmother said that, pig blood and offal are good for the blood. They encouraged their children to have some, though their children often only tried a tiny little bit. The grandparents in my main cases love eating cured meat when they drank homemade corn wine. The salty flavor of cured meat has a special fragrance and is a special enjoyment for grandparents.
“We Have Vegetables at Home, Why Do We Need to Buy Them?”

Buying vegetables is not in the mind of the majority of grandparents, especially during summer when there are plenty of pumpkin leaves. The grandparents would add pumpkin stem and leaves to every meal, either sauté them or just add them to the soup. I asked my seven main cases how often their grandparents would buy vegetable for them. Other than Principal Ban’s family, all the other families said that their grandparents would not buy vegetables. Ting further told me that, “My grandmother said we have vegetables at home, why we have to buy them?” Other than they have vegetable at home, Ai said, “Grandmother always worries that vegetables purchased from market has pesticide, so she would just cook whatever the vegetable we have.”

Upland F township people have a special sentiment towards their own products and a love and hate feeling towards the products from outside. As for the vegetables they foraged and they grew, they often talked about their different functions. The function of consuming wild vegetables daily has been generalized in the first chapter. There were many other local wild vegetables that are not consumed that often, and grandparents told me that they have “medical value.” When I got sick during my field stay, one grandparent living close to school gave me a special type of herb asking me to drink with the tea. During my visit, I have also seen people use some herbs to relieve leg pains. As for the vegetable purchased from the market, they are always worried that they had too much pesticide, and the same applied to the meat and chicken from outside. They often said, “Our products are naturally produced, while the food from the urban area is polluted.”

**Rice and Corn**

Rice and corn were the two main starch foods consumed in the region. Grandparents often eat corn rice soup, and children eat more rice. Compared with rice, corn is more accessible
in the region and was the only starch for upland region in the past very long time. Corn as an imported crop from South America was the key reason for the upland South Asia region to be populous (Haeger, 1978; Scott, 2009) and to be able to have livestock.

Almost all the families who still farm grow corn, and it was the staple for people and the livestock. Grandparents dried the corn kernels and grind them into corn flour. Every house I entered had a big pot of corn rice soup. Corn soup takes a long time to cook, but after it is cooked it only takes a few minutes to warm. Once in a while, grandparents will spend half day to cook corn soup, mixing the flour with water and cook for about 2 hours. They have to mix them consistently during these 2 hours to achieve a certain level of thickness. After the soup is cooked, they bring the corn soup with them to the field every day. As a local senior told me, “I drink the corn soup like water when I have to work in the field. It is very hydrating.”

Corn soup is becoming less popular, especially for the families who can afford rice now. One of reasons is that the preparation time for corn soup is much longer than rice. Preparing rice is easier and can be done with the electronic rice cooker. Children were always the ones who prepared the rice. Other than that, quite a few grandparents found compared with the parent generation, who often eat corn, their grandchildren seem to grow faster and stronger when eating rice. Now the majority of upland families try to offer rice to children, though the grandparents’ generation still eats corn soup.

*Chicken and Eggs*

During my field study, I found that almost all the families raise chickens, but few children were able to have eggs on a daily basis. As the results from the focus group discussions in Chapter 4 showed, children had different opinions about chicken. Another surprise was that
neighborhood convenience stores sold eggs, but all the eggs sold there were from the town, not from local families.

During one home visit, I decided to cook tomato egg soup with Hua at her home. Cooking on the traditional stove took a very long time. Hua and Xiang helped me to start fire, which took about 15 minutes. Luckily, their grandfather came back home early, and took the cooking tasks over. He added another two eggs into the soup, and said, “Tomato eggs soup is really good. I hope that we can eat more often.” During the meal, I asked grandpa why they have chickens, but they do not have eggs often. He said, “Our chicken do not produce that many eggs. When they produce eggs, I have to check whether the eggs are the ones will produce chicken. There were not a lot of eggs left each year.”

Later, I asked the same questions to other older adults during my visit. I found out that the majority of chickens in the village only started to lay eggs after they were 5 or 6 months old, and the frequency of their laying is uncertain. Some seniors said that their hens produce eggs about every week, some said every other week. None said that their hens were able to produce one egg a day as I read in the books. Teacher Lu, who had over 70 chickens, told me that he has never seen any one of his hens lay one egg a day. He said that I must be joking. Although his hens do not produce one egg a day, he still has quite a few eggs. He often gave free eggs to the neighbors who had children and gave eggs to me. The eggs laid by local chickens were much smaller than the ones bought from market. He did not eat eggs himself, he said, “I am getting too many eggs. Eating eggs makes me feel too hot.” “Feeling too hot” was a frequent excuse used by the grandparents when they gave chicken or eggs to their children, and do not eat them themselves.
The reason why local hens do not produce a lot of eggs I guessed might be due to the fact the type of chickens they raised were not bred specifically to produce eggs. If they started to breed new chicks or buy chicks after Chinese New Year, it would take at least 5 months for chicken to start producing eggs. The chickens were mainly fed on the corn, and the natural growth period for those chicken is much slower than commercial chicken. Like Hua and Xiang’s grandparents said, he had to check whether the eggs were fertilized or not before he decided whether to cook them. Last, a grown chicken was worth much more money and had more function than the eggs. Then during major feast day or when they have important guests, they often slaughter chicken. Therefore, a family might start with 20 chickens at the end of Chinese New Year and have five chicken after a year.

There might be a lot of reasons why what I read in the book is not the reality in upland F township. However, one thing for certain is that eggs are not a common produce in upland F township even though all the families have chickens. When eggs are not common, they are reserved for those who need them most. One parent (Subcase 50) who stayed in the village said, “When we were little, we heard that eggs were for those pregnant women. In very rare occasions, we have eggs. Now these days, the situations are getting better, I give eggs to my children.” Yun was able to eat eggs every other day for the breakfast, because they had over 10 chickens, and she was the only child at home. Yun specifically said that, “Grandmother add an egg in the noodle for me, she did not have it.”

“Sweet Is OK, Unless You Get a Toothache”

Children love eating snacks. I often see them eat snacks when their grandparents pick them up. Rarely did grandparents stop them or give any comments. When children sometimes go
out to have fun, grandparents also give them some money to buy some snacks. It seems that grandparents at least do not stop children from eating snacks.

There are different types of snacks, but the majority of grandparents call all the snacks “Tang” (糖 Candy). The candies for grandparents represent feast, happiness, and is a special treat. I remember at the beginning of March when I conducted home visit some families still have candies left over from the Chinese New Year. The grandparents would take those candies out and gave them to us. When we leave, they would give us a handful of candies and asked us to take them. Giving gifts to the visitor is local hospitality. In the summer, however, those grandparents did not have candy anymore, so they start to give us pumpkin stems and leaves.

Compared with the daily food, snacks are a special treat for children and grandparents feel okay for this special treat and rarely had issue with children’s snack eating behavior. I explicitly asked the grandparents of my main cases about snacks. Tian’s grandmother said, “if those snacks are OK to eat, then they should be OK.” Ting’s grandmother also did not have special opinion toward snacks, “Children like them. It is OK.” The only grandparent who stopped children from eating candies was Lian’s grandmother, but she only took two of the three candies away from her and left one in her hand. Ai translated to me, “Grandmother said Lian has toothache, and she is changing her tooth, so she should not have too many candies.”

In grandparents’ view, as long as they are edible, food items are good for body. Candies, and other sweet stuff are special treats in grandparents’ opinions. They would like to treat their children and make them happy. The only things that will stop them from treating their children were the negative consequence they observed, such as children having toothache from eating too many candies or having stomachache after eating too many spicy strips. However, not all the children get negative consequence after eating snacks, so rarely did grandparents stop them.
Not knowing the negative consequence of snacks was not just an issue among the
grandparent generation; the parent generation also can make the same mistakes. One
governmental official whose daughter studied in School E (Subcase 50) told me that she made
mistakes when raising her daughter. She ran a small convenience store outside school. She said,

In the past, I did not know that my children would eat so many candies and spicy strips.
They often just grabbed whatever I had in the store and eat them. Later I found that my
girl started to have toothache and my boy sometime did want to eat dinner. Then I found
that they ate too many candies, and spicy strips. I told them not to eat that much, but it
was useless. They still ate them when I did not pay attention. Thus, I stop selling those
stuff in my store. Now they are slightly better.

Eating snacks on a regular basis is a new phenomenon in the village, and grandparents do
not know what kind of consequences it will lead to. When they observe the bad consequences,
they would stop children from eating too much. However, as for now, few children have severe
consequences which grandparents can observe, thus grandparents still give children candies as
special treat and as a way to show their love

**Grandparents and Grandchildren**

The grandparent generation lived through hard times. They worked out a set of strategies
to utilize the resources and food to their maximal usage. Although the socioeconomic conditions
of families in upland townships are improving, grandparents maintain those habits and try to
offer more to their grandchildren.

None of the grandparents in my study have openly expressed how much they love their
grandchildren. When they talked about their grandchildren, they would often say that their
grandchildren were really good children. They often helped them with household chorus.
Although sometimes they were naughty, overall, they were good children. Grandparents rarely expressed their love verbally. In field observations, I rarely saw talks between grandparents and grandchildren, but the love and care grandparents gave to grandchildren shows in their actions.

Going to Market for Children

Food choices are limited in the upland F township. Occasionally, grandparents go to market to buy food as special treat for children to show their love for children. The frequency of grandparents go to market largely depends on their work load, their physical ability, and the means of transport they have access to.

Ai and Lian was among one of the happiest families in the villages. The grandparents from both sides were healthy and were able to farm on a daily basis. In addition to not needing to do any household chores, their grandfather has a tricycle, which he took to the market every other week. Riding a tricycle with two children took at least one hour to reach the market. One weekend, I met them when they came back from market, and their grandfather had bought a giant watermelon to share among Ai and Lian and their two cousins. The two cousins were boys and were not at home at that time, so the grandparents saved half of the watermelon for them. Two other children from the village saw there was a watermelon, and they also came and ate it. The watermelon was finished within fifteen minutes. Their grandparents and father did not eat any piece of the watermelon.

Going to market was much harder for Hua and Xiang’s grandpa, because he was lame due to an old injury, and he did not have any transportation. He only went to the market when there was something urgently needed. During my whole field stay, he only went to market once. Hua and Xiang’s mother sent 500 yuan to him, because their youngest brother was sick in the city and was not able to recover for two weeks. Their mother believed it might be due to some
evil spirit at home harming the brother, so their mother wanted the grandfather to hire a Shengong (神公, a man with spiritual power) to do a ritual to drive the spirit away.

To prepare for the ritual, grandpa went to market to buy some things. When Hua, Xiang and I went back to their house after school, he had not come back home. We waited and waited, and the two girls began to feel hungry. I suggested they call their grandfather using neighbor’s cell phone. After multiple tries because of the weak reception in the village, Hua finally reached their grandpa. Grandpa said, “I am on my way.” It took him another hour to arrive home. Hua was waiting him by the door with the torchlight in her hand. With the dim light, we saw grandpa limping along the narrow roads in the village with a fish in his hand. Grandpa smiled and said, “I missed the bus, I had to wait for another one. That one came so late. The sky almost got dark”. Later, I learned that for him to go to market, he left their house at 7 a.m. in the morning, walked about an hour to a neighboring village where there was bus to go to the town. The bus was once every hour, and it took another hour to arrive the town. Overall, it was a two-hour trip each way. When he came back, he had to do the same. The girls were happy to see him safely back and they had fish that night.

Although some families had access to transportation, most of the grandparents in upland F township had to hitch a ride, walk to the neighboring village, or walk to the neighboring town to access the market. These trips to the market were primarily for the grandchildren’s needs, showing the level of care and commitment grandparents have for their grandchildren.

Caring for Education of Grandchildren

The majority of the grandparents in my study had not graduated from elementary school. Among my seven main cases, only Hua and Xiang’s grandpa has middle school education and had been a teacher in an elementary school before. The local teachers often complained that
children in rural China lack supervision because grandparents do not have ability to educate them and do not care about education because they themselves do not have education. Most of the grandparents do admit that they do not have sufficient education to teach their children, but they still try their best to support their grandchildren’s study.

Hua, though from the one of the lowest income families, has above average academic performance. When she was in lower grades, her grandpa helped her with her math. Her grandpa said, “her homework now is becoming harder and harder. I do not know how to do and how to help. I feel thankful that her teacher really teaches her well. I just hope that she can study well and then she does not have to live a life as hard as her mom.” In addition to helping with homework, Hua’s grandpa has never missed any parents-teacher meeting. School E hosted parent-teacher meetings once a year at the beginning of spring semester right after the Chinese New Year when the majority of the parents had not left for work. A majority of the children have their parents to go to meeting, but Hua and Xiang had grandpa go to the meeting.

Hua and Xiang’s grandfather is their only supporter now. Their biological mother got divorced from their biological father, because their mother did not give birth to a boy. Their mother remarried and gave birth to three boys in the past five years. Their mother’s and even grandmother’s attention have been concentrated on the three young boys aged from 1 to 4.

Not all the grandparents can help children with the homework. For other grandparents, they often tried to do majority of the household chores and farm work and to ensure that children have time to finish their homework and fully participate in the activities organized by school. When some TFC teachers organized extra curriculum during weekend, they got support from the grandparents. Many grandparents were willing to take on extra work to send children to school.
Ai and Lian, Yun, and Hua all participated in the weekend activities. Yun’s grandmother walked with her to school during the day when she needed to study and came to pick her up afterwards.

It is impossible for all the children to always obey rules. When children become naughty, grandparents would point out their problems and most of the children would listen to their grandparents. However, a majority of the grandparents needed to work in the field, they cannot keep an eye on their children all the time. I have not found that the grandparents were able to successfully stop children from watching excessive TV or playing excessive cellphone. Teachers often ascribed not being able to effectively monitor children’s behaviors to grandparents’ spoiling children. However, like not knowing the potential negative effects of eating candies, quite a few grandparents in upland F township did not know how to operate the TV or cell phone. The children are the ones who helped grandparents to watch their favorite programs, and use cell phone to contact parents, or sometimes even manage the money transfer through cell phone.

Once, a boy HH (subcase 41) in Yun’s village had some behavioral issues at school, often fighting with other students. I visited his house with Yun, since his older sister was Yun’s classmate. Their grandparents work very hard to cover all the work. I rarely see them have a rest. From morning to evening, both grandparents work hard in the fields. Neither HH nor his sister were expected to do any work. HH spent majority of his time watching TV while his sister, played on her cell phone in her own room.

HH’s classroom teacher made complaints to their grandparents a couple times and called the grandparents to school. After the third time, the teacher called HH’s grandparents to school, HH’s grandpa suggested that the teacher have dinner at their house. HH’s grandparents invited all the teachers who teach HH to their home to eat. I was among them. HH’s grandparents killed
two chickens and prepared a huge meal for the teachers. During the dinner, other than asking teachers to eat more, he did not talk a lot. At the end of the meal, HH’s grandfather said (translated by local teacher afterwards), “we really did not know how to educate him. Their parents are busy, and we are busy. The majority of the time, they are on their own. I understand that HH has caused a lot of trouble for you. We are sorry for that. But please help him. He is not a bad kid. And please come more often to our house to eat.”

HH’s example showed that it is a fact that grandparents lack the ability or scientific method to educate children, especially after children have some behavioral issues. They feel that school and teachers are the ones they can rely on. To ensure that their children get attention to the school, or are taken care of by the teachers, they tried to do what they can to please teachers. Inviting the teachers for meals happens often after grandparents know that their children are causing trouble. Some grandparents who have high expectation of their children’s education would invite teachers more often or gave teacher gifts. My informants, the two TFC teachers teaching in School E, often received little gifts from students’ grandparents: vegetables, and wild fruits.

“When I Grow Up, Grandmother Will Pass Away”

Among all my cases, Yun, though sensitive and introverted, often openly expressing her love for her grandmother. She would try her best to stop grandmother from working in the rain. When grandmother drank corn wine, she would stop her from drinking the second one. “Drinking too much will cause stomachache, you should not”. When she saw grandmother carry heavy loads, she would run for help. One night, after dinner we helped grandmother to clean the bowls and then we took a walk outside, and she suddenly cried. I asked her what happened, and
she said, “I realized that when I grow up my grandmother would die. She is the only one who loves me in the world. If she is gone, I will be alone in the world.”

Yun’s strong attachment to her grandmother may be explained by the fact that she is not the biological daughter of her father. Her birthparents live next door and she calls them uncle and aunty. Due to the one child policy and poverty, her biological parents wanted a boy and did not want to pay a fine for having more than one child. Being neglected by the biological parents, and not able to move immediately to the city to live with adopted parents, her grandmother now is Yun’s strong support.

Even though Yun is a special case having a stronger bond with her grandparents than her own parents, all grandparents play a crucial role in taking care of the basic needs of children, and with the support of grandparents, parents can work in the factory without worries. Without the support of grandparents, children’s lives would have been much harder. Mei’s grandparents passed away when she was young. Her parents cannot go out to work at the same time when Mei and her sister were young. Now they must go out to work to earn extra money to cover the increased spending as both Mei and her sister were going to middle school. During the weekend, Mei said, “I am so scared when sleeping alone at home during weekend, I have to leave the lights on.” Mei’s mother also expressed, “I felt really worried about them, so I purchased cell phones for both of them just to make sure that I can reach them on time.”

**Summary**

This chapter discussed the strategies grandparents take to survive and take care of their grandchildren. To survive the harsh environment, the grandparents work hard and try to utilize all the resources they have access to. The same strategy applies to their usage of food. As they said, “whatever is edible is good for health” and different food has different function. In the ideal
scenario, they would offer all the diverse foods available to their grandchildren, especially the
good ones. However, due to socioeconomic situation and the limited access to diverse foods in
the region, the food items they can offer are limited. Even among the limited items, they give
children the best: lean meat, and the products from the market whenever they can go.

Grandparents’ expectation for next generations is often generalized into one sentence:
have a better life than their generation. Facing the new era, they lacked the modern methods and
strategies to deal with the new problems. For children’s education, they have to rely on teachers
to teach and care for their children. They understand the importance of the roles of teachers and
used culturally specific practices such as giving teachers gifts and inviting teachers for meals to
express their appreciation and encourage teachers to treat their grandchildren well. They
slaughtered chickens for teachers’ visits, indicating that they see teachers as honorable guests.
Grandparents’ sacrifices make it possible for parents to work in the urban areas and to
accumulate wealth to further improve the lives of the third generation. Without grandparents, it
would be much harder for parents to work in the city, and children would suffer more from
loneliness, lack of supervision and physical and mental health risks.
Chapter 9. Parental Outmigration

Chapter 8 describes the grandparents’ contributions to the families to ensure the food security and well-being of grandchildren. Chapters 9 and 10 focus on the strategies taken by the parents to enhance the food security and improve nutritional and overall well-being of children. The first strategy of the parent generation is mobility out of the mountains. As described above, F township is not very suitable for farming due to its infertile land and harsh natural conditions. Historically, Yao people and Zhuang people moved to this region due to the war and ethnic conflicts. However, after the introduction of the Hukou policy, Yao people and Zhuang people became fixed to the infertile land and doing business with lowland people was also suspended, making life even more difficult.

After the restriction on moving was lifted after 1978, the current parent generation began to seek a better life in the city, and many parents want to bring their entire family to the city to live a better life. However, due to the Hukou policy, the social service and welfare one can receive is attached to the birthplace. Thus, moving out of the food insecurity zone is a long journey full of hurdles. My seven cases are all on this journey. Two cases (Dong and Yun) have almost succeeded, whereas the rest of the cases were at different stages, facing different challenges. This chapter tells the stories of parental migration of my seven main cases and some subcases and details the hurdles they face on family reunification in the urban areas.

The Chinese government began to realize that certain areas cannot sustain the basic living people there and had different relocation programs in different periods. Most recent program under the “target poverty alleviation” is to move rural people to urban area and make them urban citizens. This policy is controversial in quite a few aspects from my observations. In addition to
the individual stories, I will also discuss the pros and cons of implementing this new program based on my observation, interviews with government officials and literature search.

“Living in the Land Does Not Provide”

Before I start talking about the outmigration journey, I wanted to share three stories of parents who stayed in the village during my field world. These stories provide the evidence from an opposite angle to demonstrate that migration is a key strategy for people living in the food insecure zoon to improve their lives.

“Working in City Is as Tiring as Farming, But at Least More Stable”

Xiu (Subcase 20) was one of the few happy students with both parents at home. However, it does not mean that she did not have to do household chores at all. She lived in the same village as Hua and Xiang and, similar to them, after she came back from school the first thing she had to do before her parents came back from the fields were feeding chickens, cooking rice and heating water. Then, her parents would come back home and cook vegetables and meat for her, the same kind of meals as Hua and Xiang.

I asked the Xiu what the difference was between living with parents and without parents since her parents just came back to live with her for this year to take care of their own health issues. She said, “When I was little and they were at home, they would wake up early and cook the breakfast for me. Otherwise, I had to do it myself. But it might not be the case this time, because both of their health was not good now.”

Xiu’s mom invited me for dinner once. I explicitly told her that not to kill a chicken for me for dinner, but she still added two other dishes: tofu and the cabbage purchased from market. Yan later told me, “They rarely eat vegetables bought from the market.”
During the dinner, Xiu’s father said, “If it were not for the health reason, we would like to work in the factories outside. The factory work is more stable and reliable than the farming, though both were very hard work.” The mother added,

But it is good since she is a sixth grader now. She will go to middle school. At least, we can make sure everything is OK this year. But the middle school will cost more, we will have to work harder next year. She is our last child, after her, we do not have to worry. We can just work in the cities to earn money now. Just want her to study harder, then she did not have to live a hard life as us.

Xiu has one older brother who is in high school now. According to Xiu’s parents, the brother’s study was OK. They had hope that he would go to some vocational school and learn a skill to support himself. Xiu’s parents started to work away since she was 6 years old. She lived with her grandmother from father side when her parents were away. Both parents were workers on the assembly lines. This year was the first time in a very long time both of her parents stayed at home with her. Their parents wanted to finish renovating their house this year.

Xiu’s mother said,

Working on the assembly lines was tiring. We had to stand there for eight or nine hours a day with little break. During the busy time, we had to work extra hours. However, working extra hours will bring extra income. Not like farming, we rarely knew exactly how much we will get at the end of the year.

Working on farm is also very tiring. We now still must work from 7 to 5 or 6 p.m. every day to grow the corn. The two mu [0.33 acre] land of corn was only enough for us to consume and raise some chickens. This year, we did not expect any major income. We
are living on the saving this year. We just wanted to make sure we finished renovating
the house and the girl graduate and go to middle school.”

From the conversation with Xiu’s parents, I learned that farming in F township brings
little income and is unstable compared with the work in the factory. Farming does not bring
income seem to be a common theme in the field. Every time when I asked grandparents whether
they get any income from farming. Grandparents would just tell me, “Farming only gives enough
food.” In addition, F township is a place with different natural disasters: lack of water supply is
common for quite a few villages during the dry season, and flood is common during the raining
season in the region, which sometimes submerged the village roads connecting to the state
highway. During that flooding time, maintaining the family food supplies would be a challenge.
Therefore, comparing with instability and low profit farming work, parents would prefer to work
in the factories, which can at least provide stable income.

“I Am Here Just for My Children.”

Xiu’s parents represent the working-class people in the upland F township and the
majority of working-class adults (between 18 to 55) are working away in the city. Staying in the
village was often due to health reason or work-related injury. Factories in the urban areas only
wanted strong and healthy people.

Teachers and government officials represent the high-income class in the village. They
lived a stable life because the government paid them a salary and farming for them was extra
income. Having both incomes made their life much more comfortable compared with working
class people. No teachers had food security issues, and all their children were free to eat
whatever they liked whenever they liked. However, their stay in the village was temporary and
they planned to move away.
Principal Ban as my informant provided me a lot of valuable information about people’s lives in upland F township. He has two children: one older boy and one younger girl studying in F township. He shared with me his plan of moving family out to the county:

Both of my children are staying in School E now. Although school E is a village school, I have confidence in our education quality. I also believe that my own teaching skills are much better than those irresponsible teachers in central elementary school. They have more than 50 children per class. How much attention can my children get? We have already got an apartment in the county. I am just waiting for my children to graduate to middle school. Then we will all move to the county. Meanwhile, I will work hard to be qualified as a premium class\textsuperscript{13} teacher. The good thing is that now state gives more rewards for teachers working in the rural regions.

Most teachers in the area had already purchased an apartment in the county. Many of them went to the county to live an urban life during weekend. Their few reasons for still staying in the rural villages were their children, and their jobs. Teachers are paid better than common assembly line workers and have pensions. Because they cannot easily move their Hukou to urban regions, and their children must study in school E, they chose to stay at village during weekdays. However, as Principal Ban said, their stay is temporary, eventually they will move to county after their children graduate and begin to study in the middle schools which are in the county.

\textsuperscript{13} Chinese public-school system has certifications to award their skills. The certification has four different levels: middle, high, premium, and academician. The certifications are associated with their level of salary and pensions. The higher the level a teacher gets, the higher the salary and pension. The number of teachers who can get certification is limited each year.
I only want my children to go to university. All the universities are in the cities, and all the good opportunities are in the city. Eventually, they must go out of the rural areas to go to cities to explore new life. Farming in F township belongs to the past.

“The Ideal Life”

Among all my interviews, Teacher Lu was the only one who told me that he would stay in upland F township for the rest of his life. He was older than Principal Ban, and he had two or three more years until retirement. He is between the grandparent and parent generation. He described the F township’s life as “his ideal life.”

First, he was a Zhuang village leader living in BL. BL compared with the all the Yao villages has much better natural conditions: large plains, sufficient water, and close to highway. His family grew mulberries in the spring, and sugar cane in the summer and fall. He also raised about 75 chickens and silkworms. Majority of his farming products are for sale and brought him considerable amount of income each year.

As a teacher who has got the premium level certification, his salary is among the highest and his pension will also be among the highest. He was one of the few teachers who had already purchased a car. During his leisure time, he and his wife often traveled to different tourist attractions, which was rare among rural people. He has two children, one older girl who worked at bank and younger boy worked as a firefighter; both were very successful and had stable jobs and homes in the county. He said,

My children always want me to live with them in the city. I do not like that at all. Here is so good. Cool in the summer and I do not need air conditioners at all. The food is much healthier. The air is much cleaner than the city. I am really enjoying my freedom here.
Even though teacher Lu enjoys all the good things BL village can offer, he later (after my field work) gradually began to live in the city with his children more often because he cannot work in the field for very long time. His daughter gave birth to a lovely granddaughter. He rented his land out to other villagers to farm and decided to spend his retirement with his daughter in the county.

These three stories provide three major reasons of moving out of upland F township: first, the majority of villages in upland F township can hardly sustain the basic living of a family. If a family wants to get of out of poverty and accumulate wealth, working in the urban region is the best option. Second, even for the government officials and teachers who have sufficient income to live a good life in F township, they know that what villages can offer is limited. Third, even for people who enjoyed the rural life like Teacher Lu, the public services in rural regions still need improvement. When someone has health issues or needs to visit a hospital on a regular basis, staying in the urban region is more convenient.

**The Journey of Outmigration**

To pursue a better life, parents started their journey working in the factories and using their earnings to invest in their children. They hoped that their children could study well if they had talent, or at least work on a better job than them. They hoped that through wealth accumulation, they could eventually get out of poverty and live in a better place. However, on this difficult journey getting an urban Hukou remains a serious obstacle. This is becoming the last and for some families the forever hurdle preventing them from getting out.
Starting Point: Working in the Factories

Hua and Xiang’s mother, Ai and Lian’s mother, and Mei’s parents were assembly line workers. Factory work and construction are two main entry-level jobs in the city characterized by long hours, instability, and few benefits.

Most workers have to work from 8 a.m. to 8 p.m. with few breaks, six or even seven days a week. During the busy seasons, working overtime is also normal. Some factories only give workers half day on Sunday.

During the good years, workers remain in the same job for an entire year, but during a bad year, they might not even able to work at the same place for entire year. These days the government requires employers to provide social insurance for workers (including pension, unemployment insurance, health insurance, work-related injury insurance and maternity insurance), but some factories only buy the health insurance and work-related injury insurance. Pension relate to the province where one works so even if a migrant worker receives a pension, they are not able to access it after they retire if they were not able to live in the city anymore.

The wage for an assembly worker is about ¥18–20 an hour, or ¥3000–4000 a month. The advantage of single parent worker is that they can live in the dormitory offered by the factory. Then they do not have to rent apartment. Ai and Lian’s mother lived in the women’s dormitory provided by her factory which manufacturing the lights. She did not have to pay for rent or food. If both parents work in the city and want to live together, they must rent an apartment, which cost about ¥2000 a month. It is affordable if both parents work, and the rent only costs them one third of their total salary. Both of Mei’s parents work in the city and they can still save about ¥2000 a month. The average yearly saving for entry level factory workers was between ¥10,000
to 20,000 a year ($1500–$3000), which was a considerable amount for a rural family (personal conversation).

Hua and Xiang’s parents were one of the few cases who were not able to save from work in the factories. They had three young boys and only one parent can go out to work. The factory prefers female workers on the assembly lines, so both Hu and Xiang’s mother and grandmother found jobs in the factories, and their father looked after their children. Although both mother and grandmother worked at factories, due to the large expense of three boys, they were not able to save money. Hua and Xiang’s mother wanted Hua to come to city during the summer break to take care of the three boys, and then the grandmother, mother and father could all work in the factory.

**Middle Point: Having a Stable Job and Settle in the City.**

Assembly line workers can start accumulating savings to help their families have better living conditions back in the villages such as newer houses and more electrical appliances and to invest in children’s education (middle school and onwards). Among my seven main cases, Dong, Yun and Ting’s parents were able to purchase apartments in the cities and Tian’s parents have stable jobs in the city now and are working towards that goal. To purchase an apartment and settle down in the cities require a different level of skill.

Dong’s parents own a pig processing factory, Ting’s father was an owner of a wood processing factory, and Yun’s father owns a car repair shop. When asking about how they achieved success, they mentioned luck (机遇), meeting the right person at the right place and getting opportunities. However, when digging deeper, education played a crucial role.

Ting’s father was a top student in his elementary school at his time. Principal Ban said that Ting’s father was his schoolmate many years ago, and he was a good student, though he was
not able to continue to the middle school due to family financial situation. He went to work in a factory, he told me, “I was one of the few workers who was literate at that time, so I was soon promoted to the manager position. Later I began to accumulate experiences and eventually started my own businesses.”

Being a driver has always been a good job in the village and a key requirements is being able to read the road signs and addresses. Both Yun’s father and Dong’s father started as truck drivers, and one decided to learn the skills to fix cars leading to starting his car repair business while the other decided to run a factory to process and deliver food.

As for Tian’s parents, they were among the few in F township who got high school degrees. The father ran his own business in the capital of G province and the mother worked as an administrator in the off. They were working towards the goal of purchasing an apartment in the city.

Even though these parents were successful and have more income compared with the parents working on the assembly line, they continued to work hard. Dong often went to the city during the summer break to be with his parents. He told me, “Even I went to the city, they did not have time for me. They woke up every day at 4 a.m. to process pigs. After they processed the pigs, they had to deliver those pigs to the different restaurants. When I visited them, I was still alone in our apartment and watching TV.”

Ting and her sister said the same things. After so many years of working in the county, their parents still had not find time to show their children around in the county. Every time they visited them for a short time, they could just take half daybreak and had a meal with them. The rest of the time, they were in their factory working.
Tian and Yun’s mother situation were slightly better. Tian’s mother worked in off and had a fixed schedule. She was able to get work on time every night. Yun’s mother took care of household chores whereas Yun’s father ran the business. They had more free time compared with other parents. However, their fathers were still busy.

**The Hukou Policy and “Send back” Children**

The income earned through working in factories ensures that families in rural China live beyond mere survival. Having certain skills, level of education and opportunities might lead a family to afford an apartment in the city and begin to settle down in a city. However, to truly become an urban citizen, one needs to change their Hukou from rural to urban. This is the obstacle the families I interviewed were not able to overcome. Without an urban Hukou, their children had to be sent back to rural areas for school.

Among the seven cases, Dong and two of his classmates (Subcase 21) who also resided with Principal Ban were not “left-behind” children but “sent-back” children. They came back just this year for sixth grade and middle school. Even though Dong’s father has already purchased a big apartment in Guangzhou, one of the most developed cities in China, and run a very successful pig factory, they still could not get a Hukou in Guangzhou. Thus, schools in Guangzhou were not obliged to accept Dong, especially if his academic performance was not good. No school was willing to take him because his low performance might impact the overall evaluation of the schools at the sixth grade so the school where he studied till fifth grade suggested sending him back to the school where his Hukou was registered.

A similar situation also happened with Yun, whose academic performance was also challenging. Yun’s family had already moved to the county, and her father ran a very successful business in the county. However, because Yun’s Hukou was not registered in the county, no
school was willing to accept her. To help her improve the academic performance, Yun’s parents have asked all the teachers they knew to teach her during the summer break. Her parents also asked me to help her with her academic performance. However, Yun could not reach the minimal standard county schools required. Their parents now only wished that she could graduate from elementary school soon, and they were willing to pay to let her attend a middle school in the county.

Academic performance was not the only barrier for children from rural region to study in an urban region. Xue and Chen (Subcases 21), who lived with Dong at Principal Ban’s home, were excellent students and their parents had purchased an apartment in a big city. But they still had to come back for sixth grade. Their parents said that they heard that children without an urban Hukou would not get an equal chances to compete for the same level middle schools in the Guangzhou. They could only study in the worst middle school in Guangzhou if they did not have an urban Hukou. In addition, because children had to go back to where their Hukou registered to participate in Zhongkao (entrance exam to go to high school), it was better for them to get familiar with the exam system in their hometown and then participate in Zhongkao where their Hukou was registered.

Among the 59 families I interviewed, another three families (Subcase 41, 42, 44) have also “sent back children.” These three families send their children back around 3rd and 4th grade. As a parent (Subcase 44) said, “I did not want to leave them here, but we really did not have the money, nor social relationship to let them study in the city. Sending a child to urban school is so complicated and so expensive. If we got more stable business, we would bring them here with us.”

Relocation Programs
The Chinese government has always been aware that people in certain region cannot support themselves through farming, but the government has not allowed people to freely move since the establishment of Hukou system in 1958 (Wu & Treiman, 2010). The Hukou policy first divided Chinese citizens into two categories: farmers and nonfarmers. Farmers were allowed to have land, whereas nonfarmers were not. Further, a Hukou binds people to the place where their parents are registered. Even if children are born in the city, their Hukou is registered at the place where one parent is registered.

In the history of F township, after collective farming ended in 1978 and farmers have to rely on their own land’s produce to survival, local government has moved the minority villages that were located in the hills without sufficient farming land to valley areas where there was farming land. As noted by local teachers, quite a few villages now located in the valley, were moved from the hills. Some villages have been entirely moved to another county.

At the beginning, many of the local people who did not want to move, because they were worried that they would not get good land in a new place. They just did not trust government. Those who were brave chose to move now were living a much better life. The first round of relocation gave most people in F township pieces of land to support their living and transferred the minority groups which relied on foraging to mainly relying on farming.

After implementing the Target Poverty Alleviation Program, T county, where F township is located, started another round of relocation in 2016, which aimed to move at least 16,600 people who lived in the mountains to county areas and to help them find jobs in the county. This relocation plan aims to make the farmers into urban workers, though they would still own their land in the mountain. After they move out of the mountains, government will try to find a way to
utilize their land, either to consolidate them into a collective farm operated by a company or reforest the land. Farmers will get a share of profits from the future plan of government.

The few published studies on this new program, such as Rogers et al. (2019) and Liu, Xu & Li, 2018), did find some short-term gains in reducing vulnerability of the families who chose to relocate but also raised new issues and conflicts. In addition, Liu et al. found that the most vulnerable families choose not to move regardless of the amount of subsidies and incentives.

Among my 55 families, about a third had gotten a 120 square meter apartment in the county with governmental support. The local government also gives each family a small piece of land in the relocation community so that seniors can still farm if they want to in the urban area. The local government also tries to ensure that residents from the same villages move to the same relocation community. However, Principal Ban said,

It is still different. During the weekend when we live in our apartment in the county, everybody closed their doors. If you want to meet neighbors, you have to knock on the door. Not like in the village, everyone leaves their door open, you can talk to your neighbor whenever you like.

The apartments are subsidized with the family’s payment depending on their economic status. An impoverished family pays about ¥100 ($15) per square meter, which summed up to 10,000 ($1500) whereas a nonimpoverished family pays about 300 per square meter, about ¥30,000 ($4500) per apartment. Although that amount of money sound not sound like much to those able to afford it, it is still a large amount to those who cannot afford.

Principal Ban said,
I cannot believe that some people do not want to catch this opportunity, the apartments are so cheap, and they are in the county. Their price might be raised in the future. If I am allowed to buy two. I will.

Among my main cases, Ai and Lian’s family were allocated one apartment in the city, but their mother has not earned enough to pay for the apartment. Ai said, “Government will only give us the key after my mom paid the money.” Their mother said,

It will take a while, now Ai is going to middle school. The cost will increase, if both Ai and Lian are going to study in the county schools, there will be many other costs: food, transportation, many other studying related cost. I hope we can move in a year or two, but we need to calculate the cost.

For those who got these apartments, they had not moved to the county yet because their children still study in school E. Their apartments and urban community were built on the outer edge of the county, and the government has not built any supporting facilities such as schools, markets or hospitals. There are also few jobs available in these new settlement areas and most people would prefer to migrate to bigger cities with more job opportunities.

Moving to urban areas may improve access to food markets and other public services and opportunities. However, cost of living will increase dramatically. In addition, the Yao language and culture may not be maintained in the towns and cities. The younger generation was already unable to speak their own dialect, sing their own folk songs, and dance their folk dances, or carry on the traditional knowledge of herbal medicine and food wisdom. Although government made efforts to make music teachers teach folk songs and dance, those efforts were superficial.

**Summary**
This chapter discusses the reason that migration is a strategy that the parent generation has used to improve the food security and family well-being. Even for those who are food secure and have a comfortable life in upland F township, they want to move out for more opportunities and many are working on it. Out migration is a difficult, multigenerational process full of hard work and drudgery. Some parents were able to settle in the city, but Hukou remains the final and invincible barrier for family unification.

Due to all those difficulties associated with Hukou, some children are sent back by their parents to study in upland F township. The so called “left-behind” children are created by this unjust policy and unequal urban rural development.

The Chinese government is using relocation to move villagers from the mountains to the towns and cities, which involves major life transformations and vital expenses for families even with high levels of subsidy. Many seniors did not want to move to urban areas. And if T county cannot offer sufficient jobs, parents will continue to go to other places to seek work. Without the supports of land, grandparents, and community, what kind of new problems and risks will children face?
Chapter 10. Distant Parenting, Cross-Distance Love

Chapter 9 describes how migration is key to family wealth accumulation, food security and eventually moving out of the food insecurity zone. Although parents are physically distant from families back home, parents play crucial roles in increasing the dietary diversity of families, controlling the snack intake of children, supervising children’s study, and maintaining close relationship with schools.

Parents have moved out of the villages and seen the wider world. They have tried new and different foods and their views of food have changed. They often have money to offer more food choices to children. I interviewed parents (10 in person and four by phone) and used matrix scoring to discuss about parents’ expectations for their children’s diet, the factors they take into consideration when they buy and prepare food for children, and the strategies they use to influence their children’s dietary intakes.

I found that although parents work away in the city, they are the ones who play a major role in supervising children, especially for the “modern” problems such as controlling children’s media time and Internet usage. Most parents maintain frequent contact with their families, teachers, and school to ensure the well-being of their children. Parenting and love travel across distance, though still facing challenges of distance and their own tough working schedule.

**Food and Cooking**

Grandparents have lived through the much harder time than the parent generation and the majority experienced food shortages. The grandparents’ attitude toward food is to maximize the function of each food and try to eat all the food available. The life of the parent generation changed after they went to factory to work, though they also have experienced hardship during their youth. When they considered food, they have more dimensions. One key difference
between the parent generation and grandparent generation is that the parents value “cooking skills” as a major aspect when they prepare food for children. Thus, the discussion with parents on the food is not just about food, but also about food preparation.

Factors Parents Take Into Consideration When Preparing Food

I used the food matrix scoring with 14 parents. Among my seven cases, I interviewed principal Ban who is the parents of my subcases, and direct caretaker of my main case Dong. I also interviewed Ai and Lian’s father, Yun’s father, Tian’s mother and Ting’s father in person and Mei and Hua and Xiang’s mother through phone. Among my subcases, I was able to reach five parents who stayed in the villages (Subcase 20, 45, 50, 51) and the other one parent during their visits to the village (44). Those parents were from the families with different socioeconomic status and their frequency to visit home was also different. The basic information of those parents along with the factors and priority of the factors they took into consideration when they purchased and prepared food for children are generalized into Table 10.

Table 10

Factors Parents Consider When Preparing Food

<table>
<thead>
<tr>
<th>Principal Ban</th>
<th>Case Number</th>
<th>Income</th>
<th>Frequency of home visit</th>
<th>Children’s preferences</th>
<th>Cooking</th>
<th>Accessibility</th>
<th>Diversity</th>
<th>Affordability</th>
<th>Nutrition value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZZ’ mother</td>
<td>Main case</td>
<td>High</td>
<td>Stay at home</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Subcase 56</td>
<td>High</td>
<td>Stay at home</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| LL’ Mother    | Subcase 50 | High   | Stay at home            | 3                      | 2       | 3             | 1         |              |                |
| Yun’s father  | Main case  | High   | Once-twice a week       | 3                      | 3       | 3             |           |              |                |
|               | Subcase 50 | High   | Stay at home            | 3                      | 2       | 3             |           |              |                |
| Ting’s father | Main case  | Middle | Once or twice a month   | 2                      | 3       | 3             |           |              |                |
| Tian’s mother | Main case  | Middle | Once or twice every half year | 1                    | 3       | 2             |           |              |                |
|               | Subcase 45 | Middle | Stay at home            | 2                      | 3       |              |           |              | 1              |
| CC’s mother   | Subcase 44 | Middle | Once or twice every half year | 3                    | 3       | 2             |           |              |                |
| XY’s Father   | Subcase 31 | Middle | Stay at home            | 3                      | 3       | 2             |           |              |                |
| WW’s mother   | Main case  | Low    | Stay at home            | 2                      | 2       | 3             |           |              |                |
| Ai and Lian’  | Main case  | Low    | Stay at home            | 2                      | 2       | 3             |           |              |                |
| father        |             |        |                         |                        |         |               |           |              |                |
The 14 parents mentioned six different factors when I asked them how they decide what to buy for children. The high-income families and whose parents stayed at home and took charge in daily food preparation often first mentioned about children’s preferences and “diversity.” ZZ’s mother sais,

I bought majority of food during weekend when our family goes to county to live in our apartment in the county. I take my children to the market and ask them to pick what they like. These days, if I buy something they do not like, they won’t eat.

In addition to children’s preferences, they also tried to balance meat and vegetables, and try to buy different types of vegetable and meat if possible. LL’s mother said,

My children love eating meat, but I will encourage them to eat more vegetables. Thus, if they pick meat, I will also buy some vegetables. They eat a lot of cabbages at school during the week, I will try to buy tomatoes, carrots and some other type of vegetables.

Accessibility is associated with the diversity. For Yun’s father who did not live with families but was to visit on a regular basis and bring food, he often tried to bring what they cannot buy in the village, “Vegetables are hard to purchase in the village, so I often buy vegetable to home. They can buy meat, but sometimes, I will buy some just in case.”

Even though most high-income families can afford whatever food children like, Principal Ban said,
My children these days are really picky. They often wanted me to take them to the restaurants, because they said that I do not cook well. I also want to prepare a lot of different food for them, but some food I really do not know how to cook well. I cook eggs pretty well, so I often cook eggs for them. I do not know how to cook pork well, I only know one way of cooking pork, so they do not like the pork I cooked.

On the contrary, Yun’s father is a good cook, every time when he visited home, he would cook five to six different dishes to invite their relatives in the village to eat together. His cooking skills have been recognized by the entire village. Yun also ate more meat and vegetable than the weekday when her grandmother cooks.

Compared with the “food freedom” high-income families have, middle-income families have to take more consideration about the accessibility. For CC and WW’s parents who live in the village, their consideration is about what they can buy in the village, make plans to buy at the market during weekend or ask friends and relatives for help to buy once in a while. CC’s mother said, “Food here is very simple, there is just that much thing I can buy. I will try to catch the meat person and the vegetable person when they are here and buy food for my children.” Other parents try to bring what children like when they visit. For example, XY’s father and mother take turns to visit them during the days they think are important for them, such as their birthday. During my field study, XY’s mother came back for XY’s younger brother’s birthday and XY’s father came back for XY’s birthday. Both bought three different types of fruits, three different vegetables, and cakes for their birthdays.

For the low-income families, their major considerations are affordability and accessibility. For the parents who stayed at home with children, their meals are similar to
families who have parents working-away: wild vegetable, meat, rice or corn. Many tried to purchase diverse food for their children, but they have to take price into consideration.

I would like to buy more carrots for my children, I heard it is good for the eyes. She is sixth grader now and has to study so much. However, the carrots sold by the vegetable man on in the village are so expensive. I only buy carrots when I go to county or when I know some relatives or villagers visit the county.

Mei’s mother said, “My children mainly eat in the school. During the weekend, it really depends on their aunty. I gave them 50 yuan [$5] a month when I got salary to buy food for my children.” For Hua and Xiang’s mother who really does not have a lot of savings because she has three other children to take care of in the city, she said, “It is really depends on their grandpa. They eat what their grandpa cooks.”

Though an impoverished family, Ai and Lian’s father is good at cooking. He said, “Even though we do not have a lot of food here. I tried to make every food item tasty, then my girls will eat more.”

Among my interviewees, only three mothers mentioned that a certain food item is good for health or nutritious. The items they mentioned are carrots, tomatoes, and eggs. When I further inquire about why they think those items are good for health or what else they think are good for health, LL’s mother said, “These days news from TV said this is good and that is good, I was not able to follow. And that information is often confusing. Some say eggs are good, other say that eating too many eggs is not good. I cannot follow news. I just follow what I know.” CC’s mother said, “I do not think there is some food that is particularly bad, I will just try to provide different food.” YT’s parents said, “In the past we did not have chance to eat a lot of different types of
food, I think giving children different food is good. Always eating one thing must lead to lack of something else.”

Overall, compared with the grandparents who tried to utilize all they can eat in the village, parents pay more attention to diversity, children’s preferences, and tastes. Most parents felt that food choices in upland F township were too limited, and they want to bring more different types of food to children. The reasons why they wanted to bring diversity food to children is actually similar to grandparents’ understanding of food, “every food has its function.” Therefore, diverse food brings diverse good things to body. However, even though parents try hard to bring diverse food to children, they were still bound by the family socioeconomic condition and accessibility of food. Only the few privileged families have achieved the “food freedom” to buy whatever food whenever they like.

**Expectations of Children’s Food Intake and Body Image**

In contrast to most grandparents who want children to eat more, and gain more weight, most parents wanted their children not to be picky about food, eat more diverse food, and become healthy. In addition, all the parents said that they wanted their children to eat less snacks.

Among the 14 parents I interviewed, only two parents mentioned that they were worried that their children were underweight. LL’s mother said,

My daughter used to eat too many snacks which was part of my mistakes. She is much thinner compared to her younger brother. During the time when she ate a lot of snacks, she also got sick very often. After I stop her, she is getting better. I think she needs to eat more meat and also vegetable. The most important thing is that she should not be so picky.
Yun’s father also worried about Yun’s health, “Yun is too thin. Compared with other kids of her age, she is too thin. I tried to make different food just to make sure she can eat more.”

The other parents have not particularly mentioned about their children’s weight and height. I mentioned to two parents whose children’s weights were below the average that “it seems that a lot of children here look smaller than other children. What do you think?” Xiu’s mother said, “It is normal, I was smaller when I was little. Look at me, I think I am a little bit too heavy now. I must eat too much during Chinese New Year. Xiu is like me. I think she is OK. She is pretty healthy. Rarely does she get cold or fever.” CC’s mother said the similar things, “Girls in our area tend to look smaller, but as long as they are healthy, they should be fine.”

Those interviews showed that most parents had opinions similar to their children that being thin is normal in the region because the majority of children are thin. As long as their children do not often get sick, they are not worried about their children. Similarly, I found among my main cases, only Principal Ban, and Ai and Lian’s mother has measured their children’s height and weight when she came back for Chinese New Year. Among my subcases, only two families have measured the height and weight of their children, and these two families are also the ones whose parents would buy milk for children, and their children have knowledge of protein and vitamins. The rest of the parents relied on the observations and comparison to assess the health status of children. When their children are among the average, they do not worry about their health.

Parents’ Cooking

When asking children about whose cooking they liked the best, among my main cases, all said that they would prefer parents’ cooking and among my subcases, 57 out of the 59 also preferred their parents’ cooking to their grandparents’. I ate dinner at Ai and Lian’s house twice.
It surprised me that the same ingredient can have such different tastes through different ways of cooking. The dinner at Ai and Lian’s house is the same as most households in upland township: pork and wild vegetables. Ai and Lian did not eat wild vegetables a lot, but they were able to eat all the pork cooked by their father, including the lean meat and the fat meat part. The difference between their fat meat and the fat meat in majority of households is that their dad figured out a way to make fat meat crisp and have amazing fragrance. Their father explained the key to cook pork was to separate the fat and lean parts, and the fat piece should be sautéed longer, and the lean piece should be steamed to maintain its juice.

He also said,

Their grandparents are busy with farming work: herding sheep, growing corn every day, so they are just able to cook simple food in simple way. They do not have a lot of time nor energy to take care of the children. When I am at home, I can help cook and take care of children.

The same expression has been said by my Subcase 44, XY’s father when he came back for XY’s birthday. He cooked a lot of different dishes for his two children. Interestingly, he cooked bitter squash for children, but both children loved the bitter squash and finished the entire plates. The father said,

“The old generation have lived through a hard life, so they did not think a lot about the taste. The most important thing is that they do not want to waste. Our children are different. They will only eat what they think is tasty, especially now they have some choices now. To make children eat more food, you have to make it tasty.”
He also explained about the wild vegetable, “Children do not like wild vegetable partially is because wild vegetable is bitter, but also because the senior does not know how to make it taste. If you cook with meat or make it crispier. Children will eat some of it.”

In my field experience, I felt that cooking is an important factor for children’s food intake. Compared with the senior generation, or even their parents’ generation, children are more sensitive to the texture and taste of food. They would prefer diverse tastes and textures as well food prepared in different method or using different dressing.

From the interviews with the parents, I also found two reasons why grandparents’ think less about the taste of food. The first is the grandparents are busy, and they cannot do too much after they finish their whole day of working. The second is that grandparents focus more on whether there is food than how it tastes because they lived through hardship. I would add a third reason from my observation: it is not easy to use old style stove to cook dishes: old style stove can only make food cooked, but hard to control the fire and heat to create different textures of food.

**Figure 19**

*The Cooking Stove Used in Upland F Township*

Figure 19a pictures the old-style stove the grandparents use to cook. Parents tend to use the new style electronic stove (Figure 19b). I tried to use traditional stove to cook dishes for children twice. The first time was to make soup at Hua and Xiang’s home, and the second time
was to make a sweet pork steak at Ting’s home. First, lighting the stove and heating up took at least half an hour during a dry day. During the rain, lighting the stove is much harder because the straw and wood will be wet. Old style of stove is also big and heavy, so it is not very easy to move the pot. If I want the stove to be hotter to fry food, I have to manually blow more air into stove. If I want the stove to have less heat to have small fire, I have to manually remove the straw out of stove. Cooking one dish takes about an hour from lighting fire to putting off fire. Therefore, it is hard to imagine that grandparents have the time or energy to cook multiple dishes with diverse tastes after a whole day of work in the field. Normally, most grandparents just cooked a big bowl of meat first. Then they put wild vegetables in, with meat or after meat. Then they added a little bit salt and food was ready.

The Strategies to Increase Food Diversity

Parents used three strategies to influence children’s dietary intake: give money to children to purchase food; bring food when they visit home or ask relatives to bring buy food from the township.

Money From Nonfarm Work

The foremost factor that allowed a family to have diverse food is the money earned from nonfarming work. Like ZY’s father said, “Farming here is just enough for food. If you want to eat well, or get something else, you have to work on nonfarming jobs.” Hua and Xiang is the only family that solely rely on farming for food. They had the least food diversity among all the cases. During my whole field stay, Hua and Xiang’s family meals were always pork and wild vegetables. They were able to have fresh pork for a month (Feb to March) from the pigs slaughtered during Chinese New Year. Then they have 2 kg of pork from the Qingming for two weeks. After they finished the fresh pork, they had to eat cured pork for about two weeks until
their mother told them there were some frozen meat left in their stepfather’s house. Then Hua walked two hours to get that meat which lasted them until June when their mother finally came back.

Although Ai and Lian’s mother was able to save about 10,000 in 2018, they needed this amount of money to finish renovating their house, and maybe save more to purchase a subsidized apartment in the county. To increase the dietary diversity and improve life in general, their father participated in local nonfarming jobs such as building water tanks and road construction. Those temporary jobs paid about ¥50–100 a day which he used to purchase extra food from market.

The other five cases all had money earned by their work-away parents that was used to increase their dietary diversity. Yun, Ting, and Dong’s parents and direct caretakers bought food to them on a regular basis. Tian’s mother gave money to her middle school sister to buy extra food to bring home every weekend. Mei’s mother relies on her aunt.

**Purchasing Food**

Relying on middle schoolers to purchase food is risky. Not all middle schoolers knew the importance of balanced diets. Some used that money to buy extra snacks. For example, Qing was Tian’s cousin and lived next door to Tian. Qing’s parents gave her ¥100 a week, but she often spent that money on snacks such as cake and bread. Qing was supposed to eat with Tian at their home, but during weekends, Qing often did not want to eat what Tian’s grandmother cooked and just lived on the snacks purchased by their sisters.

Parents also relied on their extended social network who travel between the county and village to buy food. Like YT’s father (Subcase 1) said, “I often asked my friend who is a driver to buy food for us from county, especially the carrots and tomatoes. The carrots sold in the supermarket in the county only cost 2.5 per half kilo, but the carrots sold in the village cost 4
yuan per half kilo in the village.” However, asking friends and relatives really depends on availability of other people. For those without transportation who have to rely on others to purchase food for them, the chances for them to access diverse food vary from once a week to once a month.

**Controlling Snack Intake**

Compared to grandparents, most parents know some potential harm snacks can cause children, though the majority are not from nutrition perspectives. They tried to control the amount of snacks children eat by controlling the amount pocket money they gave to children, and suggested children buy “good snacks.”

**“Buy Good Snacks”**

When asking about the harms of snacks, the majority of parents point to the quality of snacks sold in the village and the potential health issues it might bring to their children. Parents worried about toothache caused by the candies, and stomachache caused by the spicy strips and that children might not eat normal food anymore if they eat too many snacks. However, they often say that those health issues result from eating “too much” snacks.

XY’s father said, “I worked in the snack factory before, the quality of snacks is very low. Every time I think about those snacks, I think about the dirty environment and cheap material those factories used. Thus, I often suggest my children buy some good quality snacks. I also tried to bring home soymilk from city to them as snack. The quality of the stuff I bought in the supermarket in the city is more trustworthy.”

Yun’s father noted, “I bought snacks from county to home. The quality of food bought from big supermarket is better. The quality of the snacks they bought here is really problematic.”
To buy children good quality snacks, requires that parents have to earn more. In order for parents to send good quality snacks home, they either have to visit home on a regular basis or ship the snacks to home. However, both strategies have its challenges. For those who can afford snacks, they had to rely on the delivery services if they cannot visit home. However, the delivery services have only arrived the town, but not arrived the village yet. It also relies on middle schoolers to take those things back home. Middle schoolers often ride motorcycles home or walk long distance between the closest bus stop and home. It is hard for them to take heavy stuff with them.

In addition, buying snacks from convenience stores for children is not just about having a snack, but also about their relationship with friends. Like one parent said, “It is hard to totally stop children from buying snacks from convenience stores. All their friends are doing that. I am not with them. If I criticize them too much, they won’t listen to me anymore.” Though parents know that snacks are bad, they still give children some pocket money to purchase them.

“I Won’t Give Them That Much Money for Snacks”

Ting’s father was well-known for his high expectations for their children. Ting’s oldest sister was studying in the best high school in the county now. Ting’s second older sister was one of the best sixth graders in Principal Ban’s class and Ting was a top fourth grader. Ting’s father took strict measure over the distraction in their lives. They did not have TV or cell phones. As for snacks, their father said,

Everybody knows that children love snacks, the more you give them, the more they will eat. They lived in the school. School provides food. When they come back home, I have bought them food at home. They did not need that much money. I only gave them 5 yuan each. They could buy some snacks, but not too much.
For ¥5, Ting and her sister would spend half their money on snacks on Sunday when they arrived at school and the other half on Friday when they left school. Normally they did not buy snacks during weekdays unless it was too hot. They would buy ice cream. I asked them whether they would like to have more money, they said, “The more the merrier, and we can buy more snacks.”

Dong’s father is very rich, and he gave him a quite a lot of pocket money, but he gave the money to principal Ban and asked him to control Dong’s spending. Principal Ban would only give him the pocket money on Friday when he behaved well. If he did not finish homework or acted out in the school, he would not get his pocket money on Friday.

Most children spent all their money on snacks. Therefore, it seems local parents have reached an agreement that they would give their children about ¥2 per day. As Subcase 45’s mother said, “Children all love snacks. If I do not give her any pocket money, she would feel left out by her friends. I asked other parents, most of the parents give children 2 yuan. Since I can afford it, I do the same.”

**Media Parenting**

Compared with grandparents, the parents play a more crucial role in controlling children’s screen time, especially cell phone usage. The parents are the ones who decided whether to buy a cell phone for children. Although most parents were aware possible harm of cell phone use through their own experiences, they admit it is difficult to control their children’s cell phone use. Most parents of my main cases choose not to give their children a smart phone. For those parents who have to use cell phones to maintain contact with children, they choose to give children feature phone. For those parents who have already given children smart phone, they had to control it through taking the cell phone away.
“If I Give You a Cell Phone, You Are Over”

Ting said to me, “I so much want a cell phone, but my father said that if I have a cell phone, we are over.” Ting’s father said, “Cell phone is a big distraction. I myself cannot control, not mentioning giving to the children and why do they need a cell phone? When they are at school, I can call teachers. When they are at home, I can call relatives staying next door to find them.”

“Cell phone is addictive and should be taken away from children” is a view shared by a lot of parents. Even principal Ban admitted that sometimes he could stop playing cell phone games till late at night. He only allowed his son to use a cell phone for 1–2 hours during weekend under his supervision. As for Dong and other students who lived with him, he told their parents not to buy them cell phones. As classroom teachers, he strongly discouraged any parents from giving a smart phone to the students in his class. He successfully convinced at least two boarders’ parents to take their cell phone back from children,

These two children behaved so well before they have cell phone. Their parents got some money during Chinese New Year and bought them two cell phones. Then this semester, they stopped doing homework. I called their parents immediately. Now, without cell phone, their performance went up again.

As I discuss in the previous chapter, the only reason that Mei’s parents bought Mei and her sister cell phone was because none were at home with them. It happened with two of the other families who live in separate household as parents and their parents do not only use cell phone to maintain contact with them, but also use it as way to send them money. Those children do use cell phone for the entire day without stopping. When asked about the cell phone addiction of Mei’s sister, Mei’s mother said,
I really do not know what we can do. We are busy with the work to earn money to support them, and their grandparents passed away early. These children have to rely on themselves. The importance for us is to know they are safe at home, the other things we cannot care that much.

“My Uncle Came and Took My Cell Phone Last Week.”

It seems that the only way that parents can stop children from playing on the cell phone is to take it away, or at least use the threat of taking their cell phone away as part of the rules to regulate children’s cell phone usage. It is often the task of a person of the parent generation from another household. I heard that children were able to beg their grandparents to get their cell phone back or find out whether the grandparents hid their cell phone.

The boy I mentioned in Chapter 5 who knew a lot of information beyond his age had a very strict father. He feared his father. He was one of the few children in his class who had a cell phone but was still able to finish assignments on time and his academic performance was above the average. He said, “My dad is scary, if he knows that the cell phone has affected my study, he will punish me severely. He would take my cell phone away.”

Even though he was worried about his father taking away his cell phone, he still takes risks of playing cell phone as much as he can. I often saw him online playing videos on Douyin. Midway through the semester, I heard his classroom teachers begin to complain about his sliding academic performance. I was wondering whether his parents would find out and take some measures.

Towards the end of May, he did not show up on the game again. I asked him what happened. He said that his cell phone was confiscated by his uncle. His father asked his uncle to
come and take his cell phone away until the end of the semester. “I have to study hard now, otherwise, I will never be able to get my cell phone back again.”

**Communication With the Children and School**

From the discussion above, one can already see that the majority of work-away parents maintain close communication with families back home. The majority of parents wanted to maintain contact with their children as frequently as they can, though parents have different challenges due to their working schedules.

**Call Families on a Regular Basis.**

Among my seven cases, Yun’s parents and Ting’s parents were able to visit each other on a regular basis. The other cases had to rely on phone calls to maintain contact. Tian is a top student in fourth grade. Her mother cared about her study called her three times a day. The first phone call was at lunch break to make sure that they arrived home. The second phone call was after school to ensure that they arrived home safely. The third phone call was after dinner to ask them whether they ate at home, whether they have finished homework and how is their life in general. Their mother also maintained frequent contact with the classroom teacher and often called teachers after every exam to ask how she could better support her children academically. She never missed a teacher parent meeting.

The reason Tian’s mother could call so frequently was because she has a regular nine to five job with lunch break. It is not the case for the majority of parents working in factories. Hua and Xiang’s mother faced extra challenges in affording the cell phone cost. Jiang, the classroom teacher of Hua and Xiang said that she was never able to reach their mother because her cell phone is always off or she owed money. Hua and Xiang, though they have their mother’s number, rarely call her, “My mother said that she was really busy. If we do not have important
thing. We do not call her; she will call us when she has time.” During my 6-month field study, Hua and Xiang’s mother called them at least every other week. The only interview I had with her was through phone calls. She spoke very fast on the phone. I understood that she was worried about running out of money on her phone.

**Connecting With Children Through Schools**

Ai and Lian’s mother worked as assembly line worker, but she knew every achievement her two girls get at school. Ai and Lian do not have cell phones, but they have a very good relationship with teachers. All the teachers in school E love these two girls, not because they are the relatives of any teacher, but because both are good students and Lian is very sweet. She always says sweet things to teachers and other seniors in the communities. Teachers say that their mother educated them well. I have not seen their mother in person, but I have often seen and heard different messages sent by their mother to classroom teachers.

Once Ai asked me to use my cell phone to call their mother because she got a top score in an exam and wanted to show her mother. I lent her my cell phone, but she was not able to reach her mom. Then she suggested I send a picture of her exam to her mother, which I did. About 12 a.m. I received a message from their mother, “I worked too late, and they must sleep now. Please let them know that I love them a lot. I will call them again when I have time.” Three days later, I saw them using their classroom teacher’s phone happily chatting with their mother and later they told me, “I saw my mother was very tired today, I will study hard, and then she wouldn’t have to work so late every day.”

Dong did not do well in the school academically. His father told me, I know he did not do well in the study, and not everybody can study well. My hope for him is that he can learn something and not cause trouble. His mother and I only have
elementary school education. We knew some characters, that is. We let him live with our relative who is teacher is to hope that he can learn something.

In order for their boy not to cause trouble and learn something, they let Dong live with principal Ban during weekend. Principal Ban said, “Dong is OK, just naughty. His learning outcome is below sixth grade. You cannot expect him to do six grade homework. I just assign him some paragraphs to copy and as his parents said, let him at least learn something at school and not to waste time.”

Principal Ban also talked about his opinions of education quality in the urban area, noting, “A lot of people said that learning in the urban school is better than rural schools. It really depends. Dong was with his parents in Guangzhou for the first 5 years and did not learn anything. When a student is in an urban school, but does not have Hukou, teachers won’t pay same attention to you unless you are really smart. When you do not do well, they will let you leave.”

Other than low academic performance, he is a healthy and warm-hearted child. He often helped other students and teachers to clean the school or do some other manual labor. During weekend, he chose to help principal Ban’s mother grow vegetables, and learn cooking from her. He told me his dream is to become a cook.

Dong, Ai, and Lian are boarders. Most boarders and their parents maintain very close relationship with teachers. Boarders live in schools with the young teachers. Younger teachers compared often have more energy to engage with students. Living in the school creates more opportunities for teachers and students to build close relationships. In addition, boarders are not allowed to bring cell phones to the school. Therefore, much communication between boarders and their parents are through teachers’ cell phone. When parents work late but and cannot call
children directly, they would text teachers. Jiang’s cell phone was often full messages from parents. Those messages were very simple: remind children to wear more clothes during the season change, ask about their children’s performances after exams, and thank teachers for their care for children.

Summary

This chapter focuses on parents’ understanding of food and their strategies to strengthen the food security of children. The parents’ understanding of food carries on grandparents’ understanding that every food has its unique function for the health. Parents want to increase the diverse intake. However, in order to increase the food choices, a family first needed to have sufficient income from nonfarm work outside F township. Second they had to have some people other than the seniors to buy food for the children back home.

Parents are worried about the quality of the snacks sold in the village and potential harm snacks can cause due to low quality. They tried to regulate children’s snack intake by limiting the amount of pocket money they gave to children, and sometime, tried to buy children better quality of snacks.

The majority parents chose not to buy cell phone to children or take cell phone away when they discover that their children cannot control the cell phone. However, for families like Mei who do need cell phone to maintain contact with parents, rarely do they have effective methods in controlling the cell phone usage of children. Parents do play a more active role communicating with teachers and children regarding the study of children. However, the majority parents are still not able to supervise their children’s study directly or have ability to teach their children. Like the grandparents, they also have to ask for help from teachers. Their frequent contact with children, and teachers were parents’ way to actively participate in the
children’s school lives remotely. I believe the majority of parents want to communicate with children and teachers as often as possible, but the frequency of their communications is bound by their working schedule.
Chapter 11. Discussion, Implication, and Conclusion

Discussion

This dissertation focuses on the macro-, mezzo-, and microlevel factors associated with food security and overall well-being of children with work-away parents and the strategies parents and direct caregivers use to strengthen the well-being of children. The findings of this dissertation are generalized in Figure 20.

Figure 20

The Findings of the Dissertation Study

Findings for Aim 1.

The first aim of this study is to investigate the care system surrounding the children with work-away parents and the socioeconomic factors affecting the care arrangement. The findings of this study revealed complex factors at multiple levels that are associated with the nutritional and overall well-being of children. On the macrolevel, the harsh natural condition and remote
geographic location and most importantly, the Hukou policies that bound people to this challenging land are the foremost factors that led to the concentration of poverty and made upland F township a food insecure zone. The upland region was not suitable for large scale farming. Before the Hukou policy, upland people lived a life with high mobility, which allowed them to forage and hunt and exchange upland produce with lower land people to gain surplus. However, the Hukou policy bound the upland people to their infertile land and made them farmers. The current living conditions of upland people reflects the historical oppression minority peoples experienced in China and the harm of Hukou policy.

Due to limitation of natural conditions for farming, many in the parent generation migrated to work in the urban regions to earn income to meet family needs. Remittances are used for renovating houses, children’s education, and purchasing additional food. Poverty drives migration and migration creates the potential for families to accumulate sufficient wealth to eventually move out of food insecure zones and out of poverty.

School is a crucial institution in the upland F township offering education and other social services and school lunch as a public subsidized program can offer more stable and diverse food items than the meals offered by the majority of local families. As a governmental program, it faces challenges of supply and management. First, a few local food providers think school lunch is profitable because of the long transportation distance and different regulations. Schools might not have a lot of high-quality providers to choose from. In the operation process, those food providers might reduce food quality when the food price is increasing, or they just want to make extra profit. As the local teacher said, school lunch material is often worse than what they can purchase from the market. Second, the disincentive from upper government and the policy of food safety makes local teachers and principals prioritize food safety over diversity.
or nutrition. Due to the high pressure from the upper-level government, teachers and principals prefer to take less risk. This partially explains the fact that limited food items are provided in school lunch, and all the food items are cooked in the same way. Third, school lunch is not attractive to students, but the snacks are attractive, and distracting children from healthy food.

Children at school-age do not only need diverse food, but also like the diverse taste of food. The daily food provided by schools and the families has limited tastes. Children often seek sweet, sour and spicy tastes through snacks, because those tastes are not offered in their meals. The most accessible snacks for children are the unhealthy low quality processed food sold outside the schools. Fruits and other higher quality snacks are only sold in town, and not all the families can afford them on a regular basis. The food environment surround schools and in the villages is also a risk for children’ nutritional well-being.

**Findings for Aim 2**

The second aim of the study is to identify specific distant parenting practices and kinship care practices that shape the dietary behaviors of children with work-away parents. Utilizing the positive deviance cases, I explored the strategies used by distant parents and the direct caregivers in the positive deviance cases to enhance the food security of children. The four deviance cases (Dong, Yun, Tian, and Ting) which can have better nutritional outcomes than the average children were due to that their families have made more progress on the process of out-migration and have more resources to invest in the nutritional and overall well-being of children. The rest of the three cases were the impoverished families (Ai and Lian, Hua, and Mei). Although they did not have beyond average family wealth, their parents and kinship caregivers still tried their best to give what they can offer to improve their overall well-being. In Hua and Mei’s case, they
actively engaged in the school activities and build strong relationship with their teachers. Through the encouragement by their teachers, they build up their own resilience.

Among all the positive deviance cases, grandparent staying at home and taking care of children, which allows parents to work away without worry. All most all the grandparents in my field study improved the well-being of their grandchildren through maximizing the use of all existant resources and give the best they can find to children. As for my positive deviance cases, all these grandparents were healthy and were able to take care of most of the farm work and household chores, which save the cost for the families, and allow children to have enough time to study and participate in the school activates.

The food strategies of the grandparent generation can provide sufficient nutrition if children eat all the food offered by the grandparents. However, with the encroachment of modernization, children often do not like the taste of wild vegetables and want to eat food purchased from the market and snacks.

The parent generation saw the change of diets. Parents with higher income can provide a more diverse diet for their children. Among my positive deviance cases, Dong, Yun and Ting were the families with sufficient wealth to achieve “food freedom.” They have the access and resources to afford diverse diets. Their dietary diversity was among the highest. In other cases, parents must rely on middle school-aged children or other adults to purchase and bring food back home, which is not as stable compared with these three cases. However, even in those difficult situations, Ai and Lian’s father, though not rich, tried to different way to make limited food items tastier for Ai and Lian. Thus, though Ai and Lian were from impoverished families, their HAZ scores and BMIAZs were above the average.
Monitoring children’s snack intake is the responsibilities of parents. Parents often controlled the snacks intake of children through controlling the amount of pocket money they gave to children. However, they also admit that they have to give in to children’s peer pressure. They cannot stop children from eating snacks, but can only control the amount they have. The positive dieviated cases demonstrated the strong parental wills and smart strategies in controlling snacks intake for children. Ting’s father used the “strong will” strategy by giving children below-average pocket money. As high income families, Yun and Tian’s families tried to buy “better snacks” for their children. Dong’s father relied on the teachers’ authority in controlling pocket money. In other cases, parents also worked out an agreement among themselves on how much pocket money they gave to children to ensure that children no

Other than the food intake, unsupervised time also impose risks to children’s dietary behaviors and in turn lead to the problem of missing meals, missing sleep, and many other physical and emotional issues. The majority of the unsupervised time children spent watching TV. Due to the outmigration and reduced population in the rural villages, there were not a lot of children to play with in the communities, and parents also feel that it is not that safe for children to go out, especially to go out of their own subvillages.

The children in the positive deviance cases had less unsupervised time. Four out of the seven cases were boarders. Living in the school largely reduced the unsupervised time and improve the stability of the children’s lives. For the rest of the three cases, Tian’s mother have the resources to call her 3 times a day to give distant supervision. Hua and Yun have strong attation with grandparents and want to work with grandparents in the fields. During the weekend, Hua Yun and Mei spent at least one day at schools participating in the activities organized by their teachers. Schools provide them a safe environment to social and resources to learn and their
connections with teachers strengthen their resiliense. Among all my postive dieviated cases and other cases whose children behave well in the school, parents did not only maintain frequently contact with children, but also with teachers and schools and were fully aware what is happening in their children’s lives, though from a distance.

Comparing the TV, the increased ownship of cell phone consittue more risks to children without sufficient supervision because cell phone applications are designed to get users addicted. Six out of seven the children in my postive deviance cases had not been smart phone owner yet and their parents did not have intention to buy them one soon. They think deprivation of access is the best way to aviod problem. Mei as the only smart phone owner in my postive deviance case study seem also understand the harm of cell phone. She centered her life around school activities. She gave her cell phone to teacher during week day, and at weekend when she was at school. This provides evidence again on the curcial role of school in the rural villages in providing children a safe place to social, a stable platform to access nutrition and health programs in addition to the roles of educating children.

Limitations

The findings of this study described the lives of ethnic minority children with work-away parents living in a poverty stricken region, which challenged the stereotypes and stigma of the “left-behind” children. The positive deviance cases suggested strategies that families in similar situations can adopt to improve the nutritional and general well-being of children.

This dissertation solely focused on the F township. The findings from the seven main cases and the 55 subcases cannot be generalized to all the children in the region or in China as a whole. The quantitative data only reflected the nutritional status of a sub-set of the participants in this study, and cannot be generalized to larger populattions. In addition, although the study
participants are from ethnic minority groups, the study did not aim for or constitute a full historical or cultural examination of ethnic minority status per se. There is certainly scope for a deeper analysis of how that status has affected well-being of the people in this region over time.

**Implications**

The findings of this dissertation study challenge the conventional understanding that the risks of children with work-away parents come from the physical absence of parents. I used the positive deviance cases to demonstrate the strategies kinship caregivers and parents use to strengthen the nutritional and overall well-being of children. Some of those strategies can also be adopted by other families with work-away parents. To further improve the life of ethnic minority children who live in vulnerable communities, programs and policies are needed to support families in transition, smooth the transition period, preserve ethnic knowledge, and protect minority rights in the developmental process.

**Supporting Families With Work-Away Parents**

*Supporting Grandparents’ Health and Rural Pension*

Grandparents’ health makes it possible for parents to work-away and is the key to the well-being of children with work-away parents whose grandparents provide their primary care. However, currently China does not provide sufficient programs to support the health of older adults in rural regions. Almost all the grandparents in my study work in the field from sunrise to sunset and work till they cannot work anymore. Although they say that it was because they felt alive when they are working, they would not have income if they did not farm. The old age care and pension system in rural China started in 1998, monthly pensions in rural regions coverage of older adults’ healthcare costs are still minimal (Zhou, Zhu & Ma, 2021). Other than the providing social security on the policy level, rural health and transportation infrastructure are
also risk factors for older adults’ health. Hospitals are located only in towns and counties. Public transportation is not accessible to most upland villages. Improving healthcare for older adults in rural China is urgently needed.

**Parenting Support for Distant Parents**

The challenges for work-away parents is to maintain contact with children and the teachers are the time availability of parents. All work-away parents in this study wanted to maintain contact with children, but their ability to do so was limited by their untraditional working schedule. Most parents working on the assembly line work overtime. This study showed that frequent contact with the children and teachers is crucial for the healthy grow of children. However, fair working schedules and fair wages are the basic enabling factors for parents to take care of children.

Parenting skills are a broad topic. In this dissertation, I found children who have better nutritional outcomes often have parents who not only send money back home but also have designated adults to purchase food on a regular basis. Those positive deviant parents also set and enforce limits on pocket money and screen time. Even though they are away from home, they have adopted some distance strategies to keep children in check. Positive deviance cases have better than average income or education levels. The socioeconomic factors take longer time to improve, but the strategies they used to supervise their children can be adopted by other work-away parents.

**Comprehensive Assessments for Children at Risk**

This dissertation demonstrates that most children with work-away parents are not “left behind.” However, children like Hua, Mei, and Yun do need targeted support because they have their own unique risks. Among my 55 subcases, five had one parent who had left them or
deserted them and three cases had parents who passed away or lost the ability to care for them because of health issues. Such risks are often conflated with “left-behind” status, and such children do not get sufficient support to deal with that trauma. Therefore, a comprehensive assessment for all children in rural China is another important step to destigmatize children with work-away parents and identify children who are truly in need. Instead of working on policies to support “left-behind children,” we should work out various programs to meet the needs of all children in rural China.

*School as the Key Platform of Health and Nutrition Programs*

Schools play key roles in taking care of children, especially when their grandparents are busy and parents are working away. School-aged children spend the majority of their active time in school. In addition, because remote rural villages are undergoing disorganization due to massive out migration, schools are the few places able to provide a safe environment for children to socialize with each other and a stable platform to provide health and nutritional programs. Although school lunches still need improvement, school lunches provide more diverse and stable meals to children compared to family food. My dissertation also showed that children who are doing well like spending the majority of their time in the school, even during the weekend, their teachers were willing to take up the responsibilities to fill their unsupervised time.

If the role of school is so central to the life of children, especially those without direct parental care, local governments should give more support to local schools and teachers, have incentives in place to encourage teachers, not dissuade teachers from providing children with afterschool curriculums, and explore more resources to improve the quality of school lunch.
**Smoothing the Transition Process: Hukou Policy Reform**

F township is undergoing a transition, more than just providing programs to support children’s daily nutritional needs, changing policies to smooth the transition process is vital for the long-term well-being of children and the development of local communities. This dissertation includes many examples of how Hukou policy separates children from their parents. Hukou policy was designed to prioritize the development of urban regions in China. The long-term effects of Hukou have enlarged the rural–urban development gaps and concentrated poverty and food insecure zones (Wu & Treiman, 2010).

Hukou has undergone reform recently. In 2014, the Chinese government canceled the categories of farmers and nonfarmers and allowed farmers to freely move to the county where their village is located (State Council of China, 2014). This change makes the “move out of poverty” program possible. However, to further improve the well-being of all the people, rather than having the freedom to move within a county people should have the right to live and pursue happiness wherever they like. In the near term, reform of the Hukou policy should reduce the separation of parents and children and allow children to live, study, and take exams in the cities where their parents work.

**The Rights of Participation in Development Process for Diverse Ethnic Groups**

Even with the Hukou policy reform and the Target Poverty Alleviation Programs, more ethnic minority families are moving out of food insecure zones and living in county towns to be close to the market and modern life. However, few development programs are bottom up and initiated by ordinary people. Although the government is working hard to attract investment to create more local job opportunities outside the large metro areas, it is more important to empower people to mobilize local resources to develop their own communities.
Ethnic minorities have been marginalized in the development process, which is the root cause of poverty. In order not to further marginalize them in the development process, they should have a voice in the decision-making process. For example, if a local government found it difficult to attract jobs, then they should listen to ideas from the community. For example, some villagers shared with me that they believed in the potential of their free range, corn-fed chickens, and crossbred pigs. Yao embroideries are unique to the region. Then they should be given the opportunities to start business. Governments can assist such villagers in developing their business, not develop business for them.

**Implications for Future Research**

The undernutrition of children in F township results from accessibility, availability, and affordability issues in relation to market food, whereas traditional food knowledge is being forgotten and not appreciated in the modernization process. Currently, when public health professionals talk about nutrition interventions, the focus is often on nutrients but not on food itself or food environments. However, food is not just a source of nutrients but also an important part of culture. The way people prepare food can enhance or reduce nutritional value of certain ingredients and encourage or dissuade people from consuming certain ingredients. The food consumption is an important aspect for a person to cultivate lifelong healthy habits. Therefore, I propose future nutritional studies should go beyond nutrients and take a holistic approach to focus on the interaction between the human and natural environments.

As for families with work-away parents, most parenting and kinship care interventions use the nuclear family as the norm, which might not be suitable for multigenerational families or ones with distant or work-away parents. This study was an attempt to identify the parenting
strategies work-away parents can use to enhance the well-being of children. However, more studies are needed to support children living in diverse family structures with various caregivers.

**Conclusion**

This dissertation focused on ethnic minority children living in upland F township with work-away parents. The results of this study are unique to children in upland F township, but their struggles echo the situations faced by most marginalized communities around the world.

This dissertation used positive deviance case study method to explore the strategies used by distant parents and kinship caregivers to enhance the nutritional and overall well-being of children. The grandparent generation maximized the resources available to them to survive and thrive in the upland environment, whereas the parent generation tried to work hard and accumulate wealth to bring their families out of food insecure zones. Both parents and grandparents tried to give the best lives they can to their children.

To further improve the well-being of marginalized ethnic minority children, the most important thing is to correct the unjust policies and programs and support family union and mobility instead. In the process of achieving those large political and economic transformations, sufficient support for these marginalized communities on the macro-, mezzo-, and microlevels and for schools in rural regions is important, particularly as schools are one of the few stable institutions key to the well-being of children.
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Appendix

Appendix A
Figure 1. UNICEF conceptual framework of the determinants of child undernutrition.

Appendix B

Focus Group Questions with Students.

1. Informed consent and expectations
   a. We are conducting a study to understand their food preferences.
   b. Participatory is voluntary.
   c. What is said in the group will be kept within the group. We will not share what is said in the group on an individual basis. We will only write about the general opinions of children.
   d. There is no right and wrong answer. We would like to hear honest opinions.

2. Food listing Activates: now you have five minutes, on a small piece of paper, could you write three food items you eat on a regular basis, three food items you like the most, three food items you dislike the most, three food items you think they are healthy, and three food items you think are unhealthy. (The instructions are also written on the blackboard to remind students)

3. Discussing school lunch.

   Today we are here talking about your preferences for food. Shall we start with school lunch? How do you like school lunch? What do you like about school lunch? What do you dislike about school lunch?
   Which one do you like more? School lunch or family meals?
   What changes would you like to see in school lunch?

4. Discussing about food preferences, after checking the food items student wrote on the paper.
I see that X of you write X as your favorite of food, could you tell us more about it?

I see that X of you write X as healthy food, why do you think so? Where have you learned this knowledge?

I see that X of you write X as unhealthy food, could you tell us more about it?

5. Thank students for sharing their opinions.

Appendix C. The Results of Food Listing Activity.
<table>
<thead>
<tr>
<th>Group</th>
<th>Snacks</th>
<th>Drinks</th>
<th>Fruits</th>
<th>Plant</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>School D Fourth Grade Female Group</strong></td>
<td>Daily</td>
<td>Not frequently</td>
<td>Daily</td>
<td>fruits</td>
<td>Not frequently</td>
</tr>
<tr>
<td><strong>School D Fourth Grade Male Group</strong></td>
<td>Daily food</td>
<td>Not frequently</td>
<td>Daily food</td>
<td>fruits</td>
<td>Not frequently</td>
</tr>
<tr>
<td><strong>School A Fifth Grade Female Group</strong></td>
<td>Vegetable</td>
<td>Daily</td>
<td>Daily</td>
<td>fruits</td>
<td>Frequently</td>
</tr>
</tbody>
</table>
School E Sixth Grade Male

Snack

fruits

Daily
Appendix D. The Demographic Information of the Sub-cases

<table>
<thead>
<tr>
<th>Gender</th>
<th>Grade</th>
<th>Boarding</th>
<th>Living Arrangement</th>
<th>Academic Performances</th>
<th>House Type</th>
<th>With Windows</th>
<th>electrical appliance</th>
<th>Internet at home</th>
<th>Livestock</th>
<th>Cell phone</th>
<th>Family members Interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 F</td>
<td>6</td>
<td>no</td>
<td>Live with mother, Father is migrant workers</td>
<td>Excellent</td>
<td>brick</td>
<td>half</td>
<td>TV, rice cooker, fridge</td>
<td>yes</td>
<td>Chicken, sheep</td>
<td>yes</td>
<td>Mother</td>
</tr>
<tr>
<td>2 M</td>
<td>6</td>
<td>no</td>
<td>Live with grandparents</td>
<td>Excellent</td>
<td>brick</td>
<td>half</td>
<td>TV, rice cooker</td>
<td>no</td>
<td>Chicken, sheep</td>
<td>yes</td>
<td>grandmothers, grandfather</td>
</tr>
<tr>
<td>3 M</td>
<td>6</td>
<td>no</td>
<td>Live with grandfather</td>
<td>Excellent</td>
<td>wood</td>
<td>half</td>
<td>TV, rice cooker,</td>
<td>yes</td>
<td>sheep</td>
<td>yes</td>
<td>grandmother, father</td>
</tr>
<tr>
<td>4 F</td>
<td>6</td>
<td>no</td>
<td>Live with grandparents</td>
<td>pass</td>
<td>wood</td>
<td>half</td>
<td>TV, rice cooker</td>
<td>yes</td>
<td>sheep</td>
<td>yes</td>
<td>grandmother, father</td>
</tr>
<tr>
<td>5 M</td>
<td>6</td>
<td>no</td>
<td>Live with sisters</td>
<td>no pass</td>
<td>brick</td>
<td>half</td>
<td>TV, rice cooker</td>
<td>yes</td>
<td>No</td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td>6 M</td>
<td>6</td>
<td>no</td>
<td>Live with grandfather</td>
<td>excellent</td>
<td>brick</td>
<td>half</td>
<td>TV, rice cooker</td>
<td>yes</td>
<td>Chicken</td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td>7 M</td>
<td>6</td>
<td>no</td>
<td>Live with parents</td>
<td>no pass</td>
<td>brick</td>
<td>half</td>
<td>TV, rice cooker, fridge</td>
<td>yes</td>
<td>Chicken</td>
<td>yes</td>
<td>Mother</td>
</tr>
<tr>
<td>F</td>
<td>6</td>
<td>no</td>
<td></td>
<td>pass</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 F</td>
<td>4</td>
<td>no</td>
<td>Live with mother</td>
<td>pass</td>
<td>brick</td>
<td>half</td>
<td>TV, rice cooker</td>
<td>no</td>
<td>Chicken, sheep, pigs, duck</td>
<td>no</td>
<td>Mother</td>
</tr>
<tr>
<td>9 M</td>
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| 45 | F | 6 | no | Have an older sister and a younger brother  
Live with Mother  
Father work away | pass | brick | full | TV, rice cooker, fridge washing machine | no | chicken cow sheep duck | yes | Mother |
| 46 | F | 6 | yes | Live with teacher  
Both parents work away | excellent | brick | full | TV, rice cooker, fridge | no | no | no |
| 47 | M | 6 | Yes | Live with teacher  
Both parents work away | Excellent | Brick | Full | TV, rice cooker, fridge | no | no | No |
| 48 | F | 6 | Yes | Have a younger sister  
Live with father and grandfather  
Mother left | Excellent | Brick | Full | TV, rice cooker, fridge | No | No | No | Father  
Grandfather |
| 49 | M | 6 | Yes | Have an older sister, a younger brother and a younger sister  
Live alone, grandparents live next door  
Both parents work away | pass | Brick | Full | TV, rice cooker, fridge | No | No | Yes | Older sister |
| 50 | F | 4 | No | Have one older sister and one younger brother  
Live with both parents | No pass | Brick | Full | TV, rice cooker, fridge washing machine | Yes | Chicken | No | Both parents |
| 51 | F | 4 | No | Have one older sister  
Both parents work away | pass | Brick | Full | TV, rice cooker, fridge | No | Chicken | No |
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