

An Analysis on the Basic Public Service Equalization with the View of Utility-oriented Urban and Rural Residents

——The Case of Nanjing City

基本公共服务均等化的城乡居民效用视角分析
——以南京市为例

朱凯 Zhu Kai

东南大学 建筑学院

School of Architecture, Southeast University

E-mail: zhukai5@yahoo.com.cn

This paper selects the perspective of urban and rural residents as a starting point to make the research of basic public service equalization:
选取城乡居民这一视角作为基本公共服务均等化研究的出发点

● Compare the difference of the "propensity to consume" and the amount disparity of consumption expenditure between urban and rural residents concerning kinds of basic public services

比较城乡居民对各类基本公共服务的“消费倾向”差异、消费支出中用于基本公共服务支出的收入数额差距

● Start the explanations of ways of basic public services compensation

对基本公共服务补偿途径的解析

● Investigate the resulting series of "Tragedy of public goods" and "Non - economic phenomena" issues

对一系列诸如“公共用地悲剧”和“不经济现象”等问题进行探讨

● Explain the promoting equalization process of basic public services, orienting the improvement of resident effectiveness.

阐释以提高居民效用为导向的基本公共服务均等化推进过程



Contents 目录

- 1. The Content Overview**
研究内容概述
- 2. Consumption Comparison of Basic Public Service between Urban and Rural Residents in Nanjing**
南京市城乡居民“消费”基本公共服务情况比较
- 3. Two Compensation Ways for Basic Public Services under the Principle of Equalization**
“均等化”原则下的基本公共服务补偿途径
- 4. Analysis of Supply Problems in Basic Public Services under the Compensation Ways**
现有补偿途径存在的基本公共服务（设施）供给问题剖析
- 5. Interpretation of the Implementation of the Equalization of Basic Public Services Aimed at Improving the Residents' utilities.**
以提高居民效用为导向的基本公共服务均等化推进过程阐释
- 6. The Conclusions**
结语



An Analysis on the Basic Public Service Equalization with the
View of Utility-oriented Urban and Rural Residents

基本公共服务均等化的城乡居民效用视角分析

1. The Content Overview

研究内容概述

1. The Content Overview 研究内容概述

It is necessary to study the effectiveness of the residents' use of basic public services, meanwhile, the evaluation of the effectiveness is of high value and more intuitive when inspecting the effectiveness of basic public services' equalization.

城乡居民作为基本公共服务的享用者，其使用基本公共服务的效用的研究颇有其必要性，同时，居民的效用评价对于基本公共服务均等化成效的考量具有很高的参照性，也更为直观。

The items usually refer to education, health care, housing support, social security, public safety, cultural, sports, etc.

涉及教育、医疗卫生、住房保障、社会保障、公共安全、文化体育等方面

The subject of this paper is the supply of basic public services from the perspective of effectiveness and it is focused on the supply route to meet life needs, possible scenarios during consumption of basic public services and how to improve effectiveness by meeting residents' needs for basic public services.

本文关注的问题是立足于居民效用视角考虑的基本公共服务供给情况，侧重于对基本公共服务这一整体在满足居民生活所需的过程中的补给途径、居民“消费”基本公共服务时可能出现的情况以及如何通过满足居民对于基本公共服务的需求来提高居民效用等内容的阐释。



1. The Content Overview 研究内容概述

A learner in studying experiences of leading regions and a pioneer for other China cities which are backward in achieving the equalization of basic public services

南京市在借鉴国内外基本公共服务均等化先行地区经验的学习者角色，和自身作为国内部分基本公共服务均等化推进缓慢的城市看齐的先行者角色。

Table 1 The comparison of government expenditure on different items of the basic public services per person between Shanghai and Nanjing[1]

| | | Education | | | Social security and employment | | | Health care |
|------------------------------|---------------------------------|-----------|------|------|--------------------------------|------|------|-------------|
| | | 2006 | 2007 | 2008 | 2006 | 2007 | 2008 | 2008 |
| Per capita level of Shanghai | Resident population | 1.35 | 1.58 | 1.79 | 1.00 | 1.53 | 1.84 | — |
| | Household registered population | 1.81 | 2.17 | 2.47 | 1.35 | 2.10 | 2.54 | — |
| Per capita level of Nanjing | Resident population | — | — | 0.79 | — | — | 0.43 | 0.28 |
| | Household registered population | — | — | 0.97 | — | — | 0.52 | 0.34 |

All of the data are the ratios of per capita level on social security and employment of Resident Population in Shanghai.

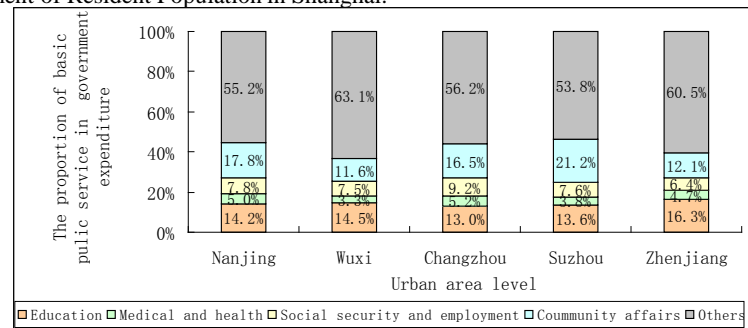
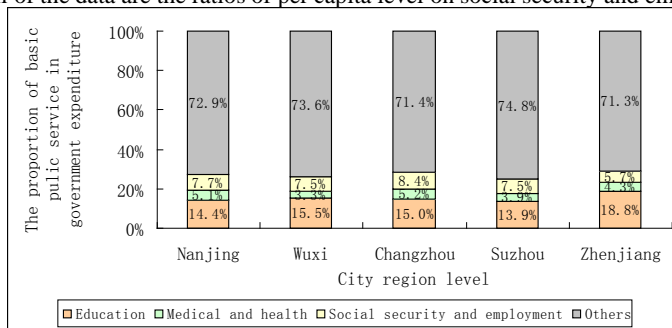


Figure 1 The proportion comparison of government expenditure on different items of the basic public services in Southern Jiangsu (2008)

Data Source: Shanghai Statistical Yearbook (2007-2009), Nanjing Statistical Yearbook 2009, Jiangsu Statistical Yearbook (2009)

2. Consumption Comparison of Basic Public Service between Urban and Rural Residents in Nanjing

南京市城乡居民“消费”基本公共服务情况比较

An Analysis on the Basic Public Service Equalization with the View of Utility-oriented Urban and Rural Residents

基本公共服务均等化的城乡居民效用视角分析

2.

Consumption Comparison of Basic Public Service between Urban and Rural Residents in Nanjing 南京市城乡居民“消费”基本公共服务情况比较

2.1 Disparity of consumption propensity on basic public services of urban and rural residents 城乡居民消费支出中基本公共服务“消费”倾向的差异

Table 2 The comparison results of consumption expenditure per capita on different items between urban and rural residents in Nanjing city

| Relative index of rural residents' consumption expenditure per capita | Result | Relative index of urban residents' consumption expenditure per capita |
|---|--------|---|
| Food | >↓ | Food |
| Clothing | < | Clothing |
| Living | >↑ | Living |
| Household equipment and services | < | Household equipment and services |
| Health care | < | Health care |
| Transportation and communication | < | Transportation and communication |
| Education, culture and entertainment services | <> | Education, culture and entertainment services |
| Others | < | Others |



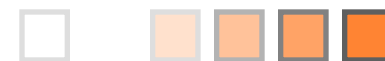
2.

Consumption Comparison of Basic Public Service between Urban and Rural Residents in Nanjing 南京市城乡居民“消费”基本公共服务情况比较

2.2 Amount disparity of consumption expenditure on basic public services of urban and rural residents 城乡居民“消费”基本公共服务的数额差异

Table 3 The ratios of rural resident expenditure to urban resident expenditure on different items in Nanjing (2006-2008)

| | 2006 | 2007 | 2008 |
|---|-------|-------|-------|
| Total consumption | 0.451 | 0.465 | 0.465 |
| Food | 0.513 | 0.493 | 0.483 |
| Clothing | 0.370 | 0.425 | 0.412 |
| Living | 0.592 | 0.767 | 0.783 |
| Household equipment and services | 0.389 | 0.498 | 0.374 |
| Health care | 0.424 | 0.418 | 0.446 |
| Transportation and communication | 0.421 | 0.430 | 0.497 |
| Education, culture and entertainment services | 0.311 | 0.269 | 0.268 |
| Others | 0.267 | 0.318 | 0.234 |



3. Two Compensation Ways for Basic Public Services under the Principle of Equalization

“均等化”原则下的基本公共服务补偿途径

An Analysis on the Basic Public Service Equalization with the View of Utility-oriented Urban and Rural Residents

基本公共服务均等化的城乡居民效用视角分析

3.

Two Compensation Ways for Basic Public Services under the Principle of Equalization “均等化”原则下的基本公共服务补偿途径

In the view of the reality that the supply of basic public services in rural areas is relatively insufficient, we can consider two ways of compensation.

针对农村居民基本公共服务供给相对弱势的现实，补偿的途径分为两种。

One is to enhance the residents' consumption capacity for public services, and the most direct method is to grant subsidies to the residents.

一种途径提高农村居民“消费”基本公共服务的支出能力，最为直接方式就是资金的补贴。

The other way is to increase the supply of public services that rural residents need so as to reduce the cost in the consumption of basic public services.

另一种途径则是增加满足农村居民需要的基本公共服务补给，降低农村居民消费基本公共服务的成本。



3.

Two Compensation Ways for Basic Public Services under the Principle of Equalization “均等化”原则下的基本公共服务补偿途径

We divide the factors that affect the residents' utilities into two groups—consumption factors (C) and non-consumption factors (A). At the same time, the consumption factors (C) are defined as comprising basic public service consumption factors (x) and non basic public service consumption factors (y). Then we have the following expression of the residents' utilities:

将影响居民效用的因素分为消费支出因素（C）和非消费支出因素(A)，同时消费支出因素本身又可以被界定为基本公共服务因素(x)和非基本公共服务(y)因素，从而形成如下居民效用的表达关系式：

$$U = f(A, x, y) \quad \textcircled{1}$$

If we study the residents' utilities from the perspective of basic public services, we can assume that the non-consumption factors (A) are fixed, then the Expression ① is transformed into:

若从基本公共服务视角探讨居民效用，则可以假定非消费支出因素A为定值，则此时式①就可以转化为：

$$U = \varphi(x, y) \quad \textcircled{2}$$



3.

Two Compensation Ways for Basic Public Services under the Principle of Equalization “均等化” 原则下的基本公共服务补偿途径

According to the characteristics of the utility function curve and the consumption demand curve, we can show the changes of the two curves respectively in the situation of the two compensation ways.

根据效用函数曲线的特点以及消费需求曲线的特点，可以将补偿途径一和补偿途径二的效用曲线和消费曲线变动情况进行示意。

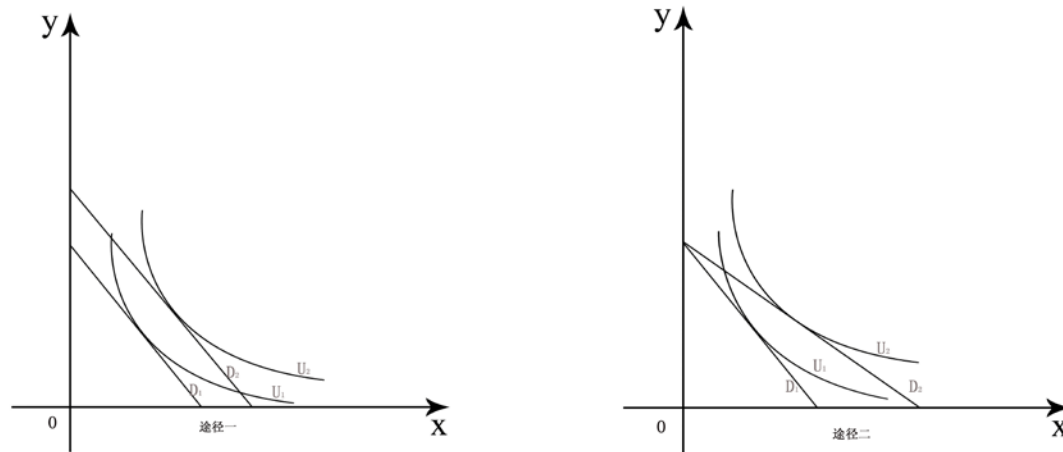
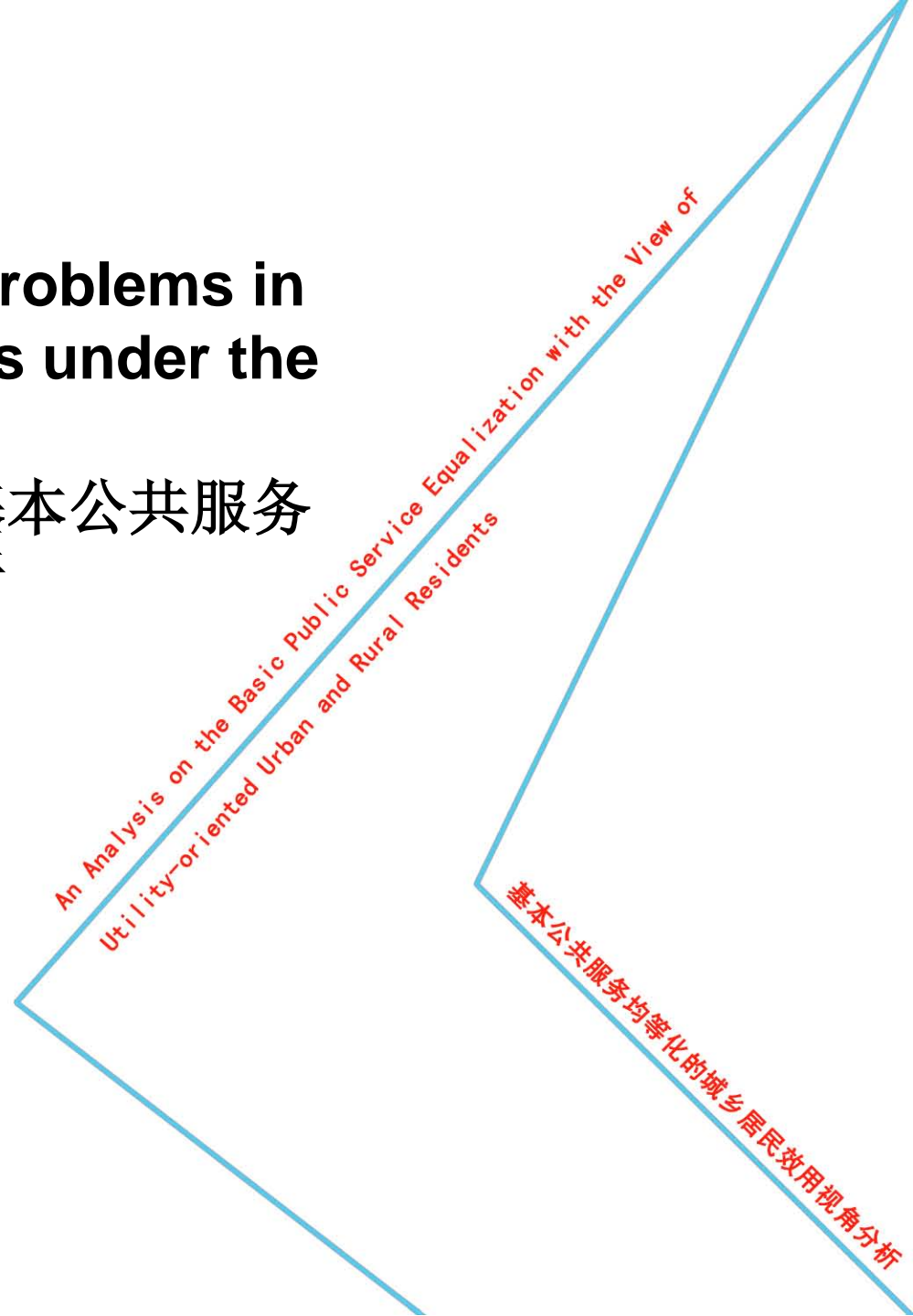


Figure 2 The changes of utility function curve and the consumption demand curve in way 1 and way 2



4. Analysis of Supply Problems in Basic Public Services under the Compensation Ways

现有补偿途径存在的基本公共服务（设施）供给问题剖析



4.

Analysis of Supply Problems in Basic Public Services under the Compensation Ways 现有补偿途径存在的基本公共服务（设施）供给问题剖析

4.1 The state of unused basic public services (facilities) - “Non-economic phenomena” 基本公共服务（设施）的闲置——“公共产品不经济”

First, the “non-economic” phenomenon in using basic public services does not mean the oversupply of themselves and there is no necessarily causal relationship between these two. 首先，基本公共服务使用的不经济现象并不意味着其本身处于供大于求的状态，二者之间并不是必然的因果关系。

Second, supposing that it is not the problem of quality, an inappropriate provided place or time of basic public services (facilities) is also likely to cause non-economic phenomenon as well as the habits of local people and so on.

其次，若不是基本公共服务质量的差异问题，则其原因可以是基本公共服务（设施）供给的地点或时间存在问题，亦可以是受到当地居民自身习惯等因素的影响等。

Finally, if it is the problem of quality, the government needs to decide whether to revoke or cancel the basic public services according to specific demanders.

最后，若基本公共服务的质量本身存在差异，则需要根据具体的基本公共服务对象，来决定是否予以撤销或取消。



Figure 3 Village of Xiahuimiao in Nanjing



Figure 4 Village of Sangyuanpu in Nanjing



4.

Analysis of Supply Problems in Basic Public Services under the Compensation Ways 现有补偿途径存在的基本公共服务（设施）供给问题剖析

4.2 The excessive use of basic public services—"Tragedy of public goods" 基本公共服务设施的过度使用——“公共用地悲剧”

“Tragedy of public goods” is also the prevailing phenomenon in the current supply of basic public services. In the real situation, the “public goods” generally have two characteristics. One is the communal property of the items themselves, and the other is that the items are in the short supply.

“公共用地悲剧”的现象也是目前基本公共服务供给过程中较为普遍的现象，在实际过程中，对于所研究的“公共用地”而言，一般具有两个特点：一是物品自身的公共属性；二是物品处于供不应求的状态，在需求不足的情况下，就意味着基本公共服务资源的剩余问题，不可能会出现过度使用而导致的较差的效果，或是公共物品被消耗殆尽的现象。

To resolve this problem, we should consider both the aspects of supply and deployment of basic public services (facilities).

这一问题的解决则需要考虑“优质”基本公共服务（设施）的供给和调配两个方面内容。



Figure 5 The scene of Nanjing Children's Hospital

Source:http://news.xinhuanet.com/photo/2008-12/29/content_10576637_5.htm^[3]



An Analysis on the Basic Public Service Equalization with the
View of Utility-oriented Urban and Rural Residents
基本公共服务均等化的城乡居民效用视角分析

5. Interpretation of the Implementation of the Equalization of Basic Public Services Aimed at Improving the Residents' utilities.

以提高居民效用为导向的基本公共服务均等化推进过程阐释

5.

Interpretation of the Implementation of the Equalization of Basic Public Services Aimed at Improving the Residents' utilities.

以提高居民效用为导向的基本公共服务均等化推进过程阐释

Under the premise of unchanged propensities to consume of all the services, the current consumption of basic public services determines the substitution relationship between Way 1 and Way 2 in the process of equalization and satisfaction of the residents' utilities. This conclusion can be illustrated in the changes of demand curves in Figure 6 and Figure 7.

在居民的各类消费倾向不变的前提下，现时期居民对基本公共服务的“消费”量决定了途径一和途径二在实现基本公共服务均等化目标、满足居民效用时的替代关系，该结论可以从对两种补偿途径的比较分析中得到阐释。

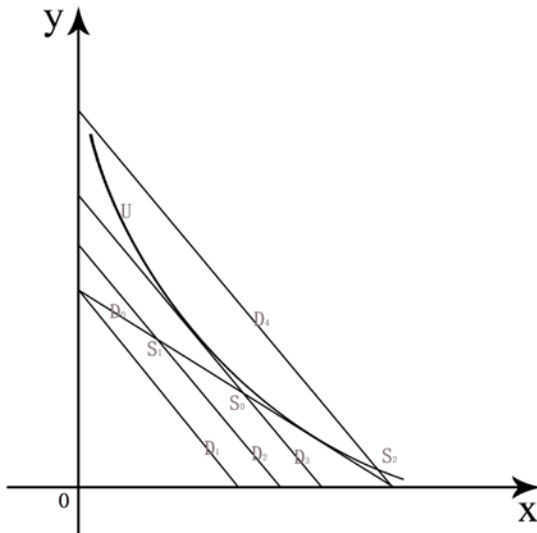


Figure 6 The changes of way 1 benchmarking against way 2

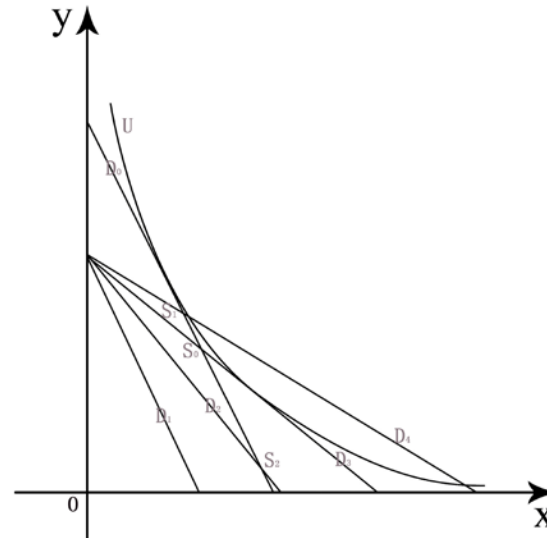


Figure 7 The changes of way 2 benchmarking against way 1



5.

Interpretation of the Implementation of the Equalization of Basic Public Services Aimed at Improving the Residents' utilities.

以提高居民效用为导向的基本公共服务均等化推进过程阐释

The two ways have something in common, which is that they both require finding a demand curve equal with D_0 , and what affects the finding of this curve is the residents' demand in basic public services. If we transform the changes of curves in the two processes into guidelines for the supply of basic public services, we can describe the following two extremities. In the areas where the supplies of basic public services are seriously in short, without considering the time cost in providing such services, the best choice is to increase the supply of services and reduce rural residents' cost in consuming basic public services. In the areas where the supplies of basic public services are relatively adequate, the best choice is to, step by step, enhance the consumption capacity of rural residents.

二者亦有着共同之处，即都需要寻找与 D_0 等效的一条需求曲线，而且影响这条曲线寻找的则是居民对基本公共服务的需求量。若将曲线的变化过程转化为指导基本公共服务供给的方案，不妨将其极端化进行阐述：在基本公共服务极度稀缺的地区，抛开基本公共服务（设施）提供的时间成本，增加满足农村居民需要的基本公共服务补给，降低农村居民“消费”基本公共服务成本是最佳选择，而在基本公共服务相对较为宽裕的地方通过有步骤地提高农村居民“消费”基本公共服务的支出能力则是最佳选择。



5.

Interpretation of the Implementation of the Equalization of Basic Public Services Aimed at Improving the Residents' utilities.

以提高居民效用为导向的基本公共服务均等化推进过程阐释

The analysis of these two processes further clarifies the situations after initial choice of compensation ways in implementing the equalization of basic public services, and then the choices of compensation ways often go with each other. In the real process of realizing the equalization of basic public services between rural and urban residents, the two ways are parallel to each other and used interactively. The implementation of a certain way is supplemented. (The complementary way is shown in Figure 8 and Figure 9).

以上两种过程的分析进一步明确了在推进基本公共服务均等化过程中的初始途径选择情况，而之后这两种途径的选择往往是相互搭配的，在实际推进城乡居民基本公共服务均等化目标实现的过程中，两种途径是并行和交互使用的，一个种途径的执行会伴随另一途径的补充（二者的互补方式如图8和图9所示）。

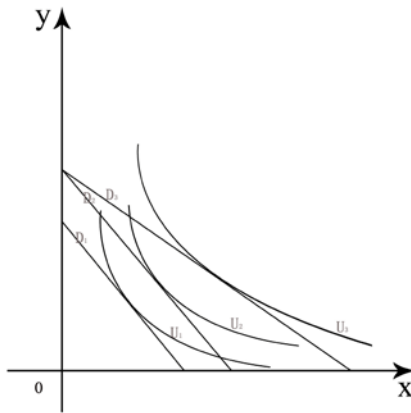


Figure8 The situation of "way 2 after way 1"

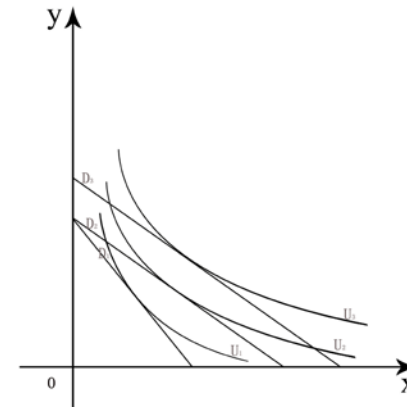


Figure9 The situation of "way 1 after way 2"



5.

Interpretation of the Implementation of the Equalization of Basic Public Services Aimed at Improving the Residents' utilities.

以提高居民效用为导向的基本公共服务均等化推进过程阐释

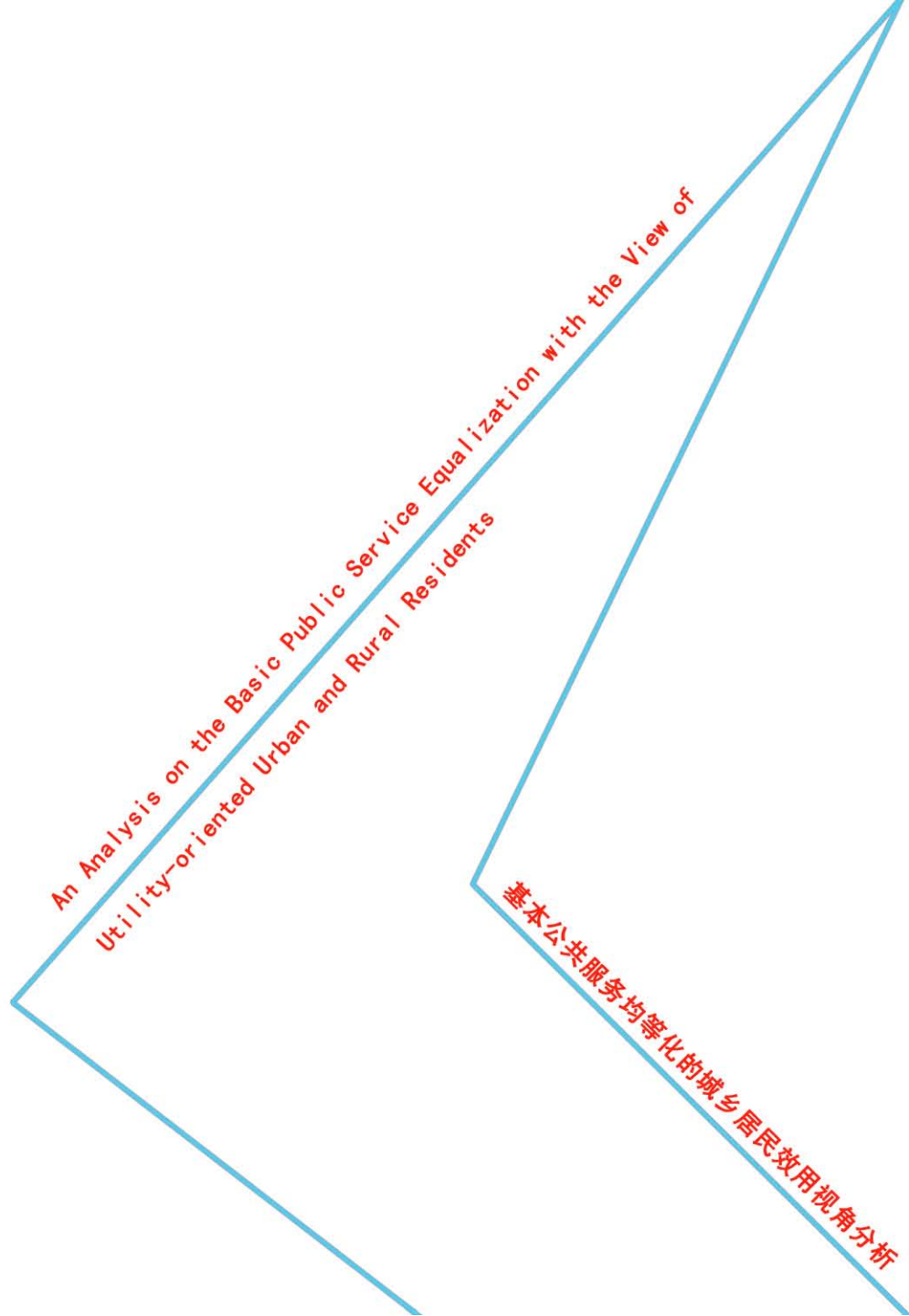
So, we can summarize the process of implementing the equalization of basic public services as follows: after the vibrating period when narrowing consumption gap in basic public services between rural and urban residents, we should rely on the following-up construction of the supporting infrastructure, orderly implementation of financial subsidies, the safeguarding of relevant mechanisms and the dealing with certain problems so as to maintain the consistency of urban and rural residents' consumption in basic public services. Also, we should extend the spillover effects in the process of the equalization to other aspects of the residents' lives and consumptions to realize the equalization of utilities of urban and rural residents and thus fundamentally achieving coordinated development in urban and rural area.

可以将基本公共服务推进的过程概括为：在度过缩小城乡居民“消费”基本公共服务差距的震荡期后，依托基本公共服务设施逐步跟进以及资金补贴的有序提高、相关机制的保障和问题的处理，在基本公共服务使用方面逐步保持城乡居民的一致性，并将基本公共服务均等化积极的外溢效应延伸至人们的生活和消费等其他方面，最终实现城乡居民效用的均等化，从根本上实现城乡统筹发展。



6. The Conclusions

结语



An Analysis on the Basic Public Service Equalization with the View of
Utility-oriented Urban and Rural Residents

基本公共服务均等化的城乡居民效用视角分析

6. The Conclusions 结语

From the perspective of urban and rural residents' utility, the paper finds out that owing to the differences and disparities of basic public services in the quality and layouts, the realization of equalization requires both the relative adequacy of basic public services supply and the rationality of mechanism design.

在城乡居民效用这一研究视角下，城市基本公共服务质量及其分布的差异性使得均等化目标实现的过程中既要保障基本公共服务供给的相对充分性，又需要强调机制设计的合理性。

Furthermore, the research suggests that supplies in amount and subsidies in capital are two effective ways to guarantee the use of basic public services and prevent the intensified conflict between supply and demand. Besides, on determining approaches of compensation for rural residents we should concern ourselves with various types of issues deriving from the basic public services supply, and analyze specifically the self-attributes of the study area, such as economic level, consumption habits, etc., so as to discover the most effective way of compensation for basic public services and of operating mechanism to facilitate the equalization of basic public services.

数量的补给和资金的补贴是保障基本公共服务消费、防止基本公共服务供需矛盾愈演愈烈的有效途径，同时，在确定的对农村居民补偿途径的过程中亦要关注基本公共服务供给的各类派生问题，并需要对所研究区域的自身属性，如经济发展水平，居民消费习惯等问题进行特定的解析，进而选取最为有效的基本公共服务补偿方式和运作机制，推动实现基本公共服务的均等化。



Acknowledgements

致谢

Honestly thank my adviser Wang Xing-ping, professor from the Architecture Department of Southeast University, and Karen R Polenske, professor of Regional Political Economy and Planning in Massachusetts Institute of Technology, for the suggestions and guidance to this paper.

Thank you for your attention!

基本公共服务均等化的城乡居民效用视角分析

An Analysis on the Basic Public Service Equalization with the View
of Utility-oriented Urban and Rural Residents

