

Proposed Method of Using Existing Survey Results to Assess People with Mobility Difficulties

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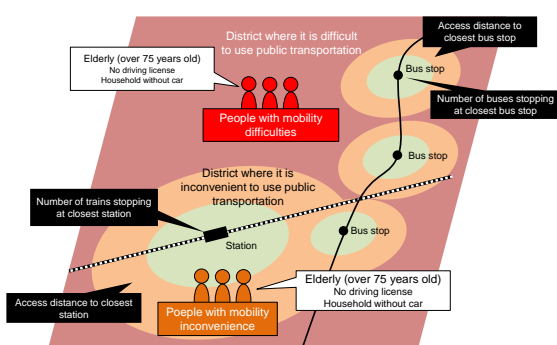
1. Introduction

It is predicted that in Japan, the future decline of public transportation services and the increase in the population of elderly people who will not be able to drive easily, mainly in regional cities, will cause severe challenges to people who must move to lead their daily lives. This research proposed a method of identifying and assessing people with mobility difficulties (or inconvenience), based on the state of daily movement as revealed by past surveys.

2. Concept of people with mobility difficulties (or inconvenience)

The concept of people with mobility difficulties and people with mobility inconvenience considers public transportation (railways and buses) and automobile usage environments, and specifically, as shown in Figure 1, defines people who live in regions where it is difficult (or inconvenient) to use public transportation and whose ability to use an automobile on a daily basis is restricted as people with mobility difficulties and people with mobility inconvenience respectively. Regions where public transportation is difficult to use are regions where the nearest railway station or bus stop is so far away, daily use is impossible, and inconvenient regions are regions where the nearest railway station or bus stop is far away so daily use of them is unpleasant (residents do not feel like using them) or regions where there is a nearby station, but so few trains serve the station that daily use of the station is unpleasant.

Figure 1 Definition of concept of people with mobility difficulties (or inconvenience)



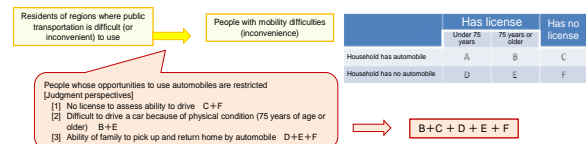
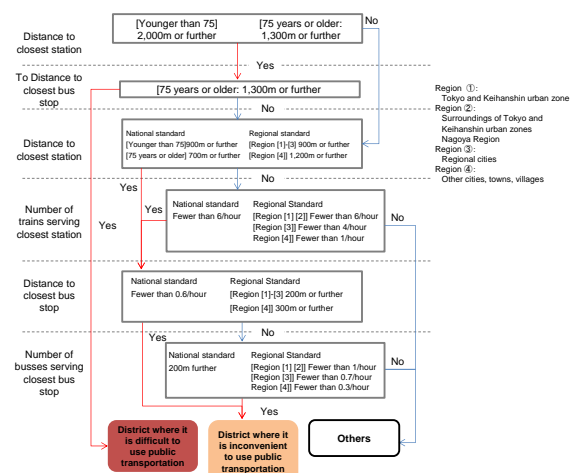
3. Identifying regions where public transportation is difficult (or inconvenient) to use

The division has judged regions where it is difficult (or inconvenient) to use public transportation based on person trip (PT) survey data and the results of analysis of its relationship with the public transportation usage environment (distance, number of trains) (Fig. 2). The concept governing the analysis is judging the distance where, if the distance is longer than a specified distance (limit distance), almost no trips are taken using this transportation method in this region (difficulty: 95 percentile, inconvenience: 80 percentile). Persons with mobility difficulty (inconvenience) were identified as persons living in a region where it is difficult (inconvenient) to use public transportation and whose opportunities to drive an automobile are restricted.

4. Future challenges

Regarding set values and setting conditions etc., because they are set as tentative values by analyzing

Figure 2 Procedure for identifying people with mobility difficulties (or inconvenience)



existing materials, it is necessary to improve precision and explanatory power according to the increase of future survey data.