

Research Proposal for the Japanese Award for Outstanding Research on Development  
**Category: (1) Pro-market Reform and the Poor**

Proposed by:

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**Pro-market Reform in Transport: Introduction of Privately Operated Buses in  
Ankara and Its Impact on the Urban Poor**

**Abstract**

Transport policy can be an effective tool in poverty reduction. Previous research has shown that providing poor neighborhoods with safe public transport services that are low cost and have high service quality can enhance the integration of the neighborhood and its inhabitants with the entire city, including its job centers, schools, and health services. While the strong link between public transport and poverty is evident, it is often overlooked especially when formulating pro-market policies for the operation of public transport systems. Introducing competition in the public transport sector through privatization and deregulation generally results in more cost-effective operation of transit systems; however, some side effects, such as the deterioration of services in low-income neighborhoods and the increased cost of an overall journey, may have severe effects on the livelihood of the urban poor. This research aims to highlight such potential effects of pro-market reform in public transport, analyzing the case of Turkey with particular emphasis on Ankara, the capital city. In assessing the impact of the introduction of privately operated buses,

the main hypothesis of the research is that the pro-market reform in public transport in Turkish metropolitan cities adversely affected the livelihood of the urban poor, as a result of the way the reform was formulated and administered. While testing this hypothesis, the research aims to reveal whether the introduction of privately operated buses in Ankara decreased the livelihood of the urban poor (because of lack of regulation on routes to be served and increases in journey costs); and whether the exclusion of privately operated buses from the integrated fare scheme (because private buses could not be regulated to participate in the new fare scheme) hindered the expected benefits of the urban rail investments for the poor since a system- and city-wide fare integration could not be achieved. It is believed that the research findings will be valuable inputs for improving the public transport industry and perhaps introducing a more sound policy of privatization and deregulation in Turkey. Furthermore, it is anticipated that the research will help improve our understanding of the links between urban transport and poverty, and of the crucial aspects that a sound public transport policy should address in order to reduce poverty.

## **1. Introduction**

### ***1.1. Urban Transport and Poverty***

There is a strong link between urban transport and poverty. The physical layout of the transport network, as well as the cost of travel, quality of service, and level of personal security may have a profound impact on the degree of exclusion of the poor in physical, economic and social terms. The state of transport in poor neighborhoods of cities have a significant effect on the level of accessibility to jobs, economic resources, education, and health and other social services.

The physical layout of the network may play an important role in excluding or integrating the urban poor with other urban areas and society as a whole. Physical accessibility determines levels of integration with the entire city, and in particular with areas with job opportunities and other economic resources. Better access to markets creates economic opportunities for the poor to sell their labor and products (Gannon et al. 2001). The physical attributes of the network directly influence journey

lengths and time spent in traveling to work; hence in areas with poor network connections journey lengths may be as important as to determine whether or not the inhabitants of the area are able to work regularly in the city (see the study of Schwela and Zali 1999).

In addition to the physical existence of a transport connection, the cost of transport also affects the level of integration with society and the ability to access jobs. Poor people make fewer trips per capita than do the non-poor (Godard and Diaz Olvera 2000; World Bank 2002) because transport cost is more significant as a proportion of the total household expenditures for the poor than it is for those above the poverty line. Not being able to pay for public transport may mean that the poor will have to opt for jobs that are within walking distance. Affordable fares, on the other hand, would increase the job market available to the poor.

Level of service in urban transport is also important, and particularly crucial for the poor. The trend of increasing car ownership and use affects efficiency of public transport systems. Because of decreased public transport ridership and consequently decreased revenues, frequencies and other service quality features may deteriorate in public transport, which may result in poor service levels overall. However, deterioration of public transport quality has the most dramatic impact on the urban poor, which have extremely limited access to private modes of transport.

Safety is another public transport feature affecting the urban poor. Women, children and the elderly, in particular, are more vulnerable, as their trip-making patterns are affected radically by changes in conditions of safety in transport. If public transport modes are regarded to be socially unsafe (due to urban crime problems), women and the elderly are more likely to give up their jobs, while children might be forced to give up education (World Bank 2002). In both cases, economic improvement of the households is likely to be hindered in the short and long term.

Considering the above relationships between the various aspects of urban transport and the livelihood of the poor, it is possible to suggest that transport policy can be used as an effective tool in poverty reduction. Providing poor neighborhoods with safe public transport services that are low cost and have high service quality can

enhance the integration of the neighborhood and its inhabitants with the entire city, including its job centers, schools, and health services. On the other hand, ensuring affordable tickets on public transport may result in low operating revenue; and providing a safe and high quality service level may result in high operating expenses. Both cases may require heavy subsidies. While the transport sector in most industrialized countries as well as developing countries moves towards market-led operating systems with policies for privatization or deregulation of public transport services, attaining these objectives remains a complex one. This issue is discussed further below.

### ***1.2. Pro-market reform in urban transport: privatization, deregulation and the poor***

There is an increasing trend in both the industrialized and the developing world to move to market-led operating systems in public transport. The benefits, in terms of increased economic efficiency in spite of certain reductions in overall ridership, of the bus deregulation in England for example, are well documented (see Beesley and Glaister 1985; Mackie et al. 1995; White 1995). In other Western European countries too, privatization and the introduction of competitive tendering resulted in increased economic efficiency for the public transport operators, also allowing higher service frequencies to be maintained within constrained budgets (World Bank 2002).

On the other hand, introducing competition in the public transport sector through privatization and deregulation may have unwanted effects on the urban poor. It has been generally observed that public transport fares per journey decrease following a pro-market reform in public transport; however, overall travel cost per person (in both monetary and time terms) may increase if the integration in routes and in fares is lost following the reform. Previous research has shown that large infrastructure projects, such as metro investments, most of which are justified on the grounds that they would help economically improve living conditions for the poor, would not have any benefits for such economically distressed areas unless integrated and through fare formulas are adapted (Godard and Diaz Olvera 2000). In privatized and deregulated public transport operations, on the other hand, it is not always easy to introduce through tickets, reduced tickets, or even travelcards because such policies will be

likely to result in revenue loss and an uncertainty regarding the division of revenues from such integrated fares, which effects the profitability of the operators.

Another unwanted effect of privatization and deregulation may be an increase in fare levels or a decrease in service quality on low-demand routes as a result of loss of cross-subsidies on such routes (Gannon et al. 2001; World Bank 2002). Public transport services that operate in low-income neighborhoods, where mobility levels are lower and hence number of journeys fewer, may not be able to recover their operating costs through their fare revenues. Without subsidies, the solution will be either to abandon the service entirely or to increase profitability by increasing fares or reducing the level and quality of service, both of which are very likely to affect the livelihood of the poor.

As a result, the introduction of a competitive regime in public transport needs to be carefully monitored and administered in order to minimize unwanted effects on the poor. A poorly administered pro-market reform in public transport may result in significant increases in travel costs, deterioration of service levels and perhaps the loss of unprofitable but socially desirable services.

## **2. Research proposal: Introduction of Privately Operated Buses in Ankara and Its Impact on the Urban Poor**

In the mid-1980s, a pro-market reform took place in Turkey in various fields, one of which was in public transport. The public transport industry was not privatized, nor deregulated completely; however, legal arrangements were made to allow private bus operators to enter the market. The reform had three main objectives: to help meet the demand for public transport in metropolitan cities, for which the resources of the public sector was insufficient; to reduce the burden on the public sector; and to encourage more cost-effective ways of transporting people than would be in a public monopoly.

Competitive tendering was made, and private buses were allowed to operate in metropolitan cities alongside public operators, which also continued providing the

service. No obligations were imposed as regards to the routes to be covered; it was presumed that where there was demand there would also be supply. Hence, the market economy would result in the most efficient way of service distribution in the city. Regulations were imposed on ticket fare levels: local authorities, which were also the operators of publicly operated bus services, determined fare levels for all public transport services. On the other hand, the local authority did not impose any regulations regarding concessionary fares for the elderly on privately operated buses, or any obligation for these buses to participate in integrated fare schemes, such as through fares and daily, monthly, annual, or seasonal travelcards.

So far, no comprehensive research has been carried out to monitor and assess the performance of the privately operated buses and the success of the reform. Analyses made by the Municipality of Greater Ankara pointed out some operational problems that were embedded in the way the tendering took place. The prediction regarding the “market economy demand-supply balance” was indeed true: private bus operators preferred the high-demand corridors, creating significant congestion on these routes. As a result, publicly operated services had to be reorganized in order to provide additional service to low-demand corridors, which are in low income neighborhoods with lower levels of motorized mobility. On the other hand, limited public resources and the general political trend towards market-led operating systems resulted in lower subsidies for publicly operated buses, which affected the service levels and frequency in these areas. No research has been undertaken regarding how the livelihood and economic capacity of the inhabitants of these “low demand corridors” were affected by the decrease in subsidies and the deterioration of service frequencies. Nor have there been any research looking into the impact of loss of concessionary fares on the travel patterns of the elderly, and any changes that might be expected in employment levels due to this.

While the privately and publicly operated bus system continued in Ankara, two new urban rail systems were opened in the late 1990s: a metro and a light rail system, parts of which serve some of the most economically distressed communities in Ankara. The rail systems were built and are currently operated by the Municipality of Greater Ankara, which also launched an integrated fare system in 2000 for the first time in the city. The system is actually a through-fare scheme, which provides the trip makers

with the opportunity to make one interchange for free. In other words, two trips can be made with one ticket provided that the passenger starts the second journey within 40 minutes of the start of the first. No obligations are imposed on direction of travel; hence it is possible to make the second trip for the return journey. Unfortunately, only the rail systems and publicly operated buses participate in the integrated fare scheme. Privately operated buses and paratransit minibuses are not forced to, nor are they willing to, participate in the scheme. The exclusion of these operators from the integrated scheme has two consequences: passengers either pay again boarding on a privately operated bus (hence they can not benefit from the new fare scheme); or they wait for publicly operated buses and refuse to use privately operated ones, which in turn means that service levels and frequencies decrease for them because they only take the publicly operated buses, which are fewer in number compared to privately operated ones. It is anticipated that this partial integration limits the success of the new fare system, reduces ridership on privately operated buses, affects the performance of the urban rail systems, and results in the deterioration of service levels system-wide. However, no research has been undertaken to show how the exclusion of privately operated bus companies from the integrated fare system affected public transport service levels and the potential benefits that the urban poor would be able to draw from the metro and light rail investments.

This research aims to highlight these two issues. First, it aims to reveal how the urban poor are affected from the introduction of privately operated buses in public transport. Assessments will be made to reveal how journey lengths, service quality, and cost of a complete journey (including transfers between and within modes) were affected, and whether these were significant changes affecting the poor people's access to jobs, schools, healthcare centers, and friends and family. Secondly, the impact of the metro and the light rail system on economically depressed areas will be evaluated, focusing on the impacts on accessibility (rather than impacts on land values which is beyond the scope of this study). The underlying objective will be to find out the extent to which the exclusion of privately operated buses from the through-fare system hindered the positive impact expected from the urban rail systems. Once again, the research will aim to reveal poor people's travel patterns, changes in these patterns after the metro, and possible differences that could be expected had the fare integration been achieved for the entire public transport operators.

The selection of Ankara as the main case study is due to the fact that the city has a more extensive metro and light rail system compared to other metropolitan areas, and parts of these systems have stations at the most economically depressed neighborhoods of the city. So, the Ankara case will incorporate an additional dimension to the research by making it possible to assess how the way the privatization in public transport is formulated and administered affects the urban poor, in particular the benefits for the poor that may be expected from an urban rail investment.

Such a research will help evaluate the nature of pro-market reform in public transport in Turkish metropolitan cities, with special emphasis on Ankara. Only vague assessments of the experience have been made up to date. No research has been undertaken regarding the impact on the poor. While the research findings will be valuable inputs for improving the public transport industry and perhaps introducing a more sound policy of privatization and deregulation in Turkey, from a more general perspective it will help improve our understanding of the links between urban transport and poverty, and of the crucial aspects that a sound public transport policy should address in order to reduce poverty, particularly under market-led operating environments.

### **3. Hypotheses**

The main hypothesis of this research is that the pro-market reform in public transport in Turkish metropolitan cities adversely affected the urban poor, as a result of the way the reform was formulated and administered. Competitive tendering without any regulations on routes to be operated resulted in deterioration of public transport services in low-demand but socially desirable routes that serve economically depressed neighborhoods. In addition, lack of ticketing regulation, and hence the loss of concessionary fares, resulted in increased travel costs for the elderly in poor families. Furthermore, lack of any regulation to introduce system-wide fare integration, resulted in the exclusion of privately operated buses from the integrated



fare scheme, which in return hindered benefits that could be achieved from the urban rail investment in poor neighborhoods.

Within this main hypothesis, two sub-hypotheses can be defined:

- That the introduction of privately operated buses in Ankara decreased the livelihood of the urban poor by reducing the overall physical accessibility for the poor, and resulting in a reduction in service levels and an increase in total journey costs;
- That the exclusion of privately operated buses from the integrated fare scheme hindered the expected benefits of the urban rail investments for the poor, because a system- and city-wide fare integration could not be achieved.

How these hypotheses will be tested is highlighted further in the following sections that describe the analytical framework of the proposed research and its methodology.

#### **4. Objectives of the study and analytical framework**

The main objective of this research is to assess the impact of the introduction of privately operated buses in Ankara on the livelihood of the urban poor.

Under this main objective two main themes will take place. The first is the direct impact of the privately operated buses on the poor. The second is the indirect impact of this policy on the poor: it is anticipated that difficulties of city-wide fare integration, which was a consequence of the poor formulation and administration of this pro-market reform, limited the benefits for the poor that could be achieved from a major urban transport investment, such as the metro and the light rail.

Within this context, the analysis will be carried out under these two main areas of research.

The first part of the analysis will be designed so as to find out the effects of privately operated buses on the poor. For this purpose, answers to the following research questions will be sought for:

- Did the introduction of privately operated buses change the physical layout of the public transport service network? If so, how were the poor neighborhoods affected by this?
- Did the introduction of privately operated buses change public transport service levels (i.e. frequency, reliability, punctuality, journey length and duration, safety) for the poor?
- Did the introduction of privately operated buses change the cost of a complete journey (from origin to destination, with as many transfers as required) for the poor?
- Do the changes in any of the above aspects of public transport affect employment patterns of the poor? If so, how are the male employees affected; how are the female employees affected; and how are the elderly employees affected?
- Do the changes in any of the above aspects of public transport affect the education of the children of the poor?
- Do the changes in any of the above aspects of public transport affect the poor people's access to health services?
- Do the changes in any of the above aspects of public transport affect the poor people's patterns and frequencies of shopping for food?
- Do the changes in any of the above aspects of public transport affect the poor people's patterns and frequencies of leisure trips (particularly to see friends and family)?

The second part of the analysis will try to find whether the metro and the light rail investments in low-income neighborhoods benefited the urban poor, or whether the expected benefits remained low due to the limited level of fare integration with other modes. As described in more detail in the methodology section below, the hypothesis regarding this segment of the research will be tested by the application of 'stated preference techniques,' which will help to assess the current state of public transport and compare it with the ideal case where full integration is achieved (people will be asked how their travel patterns would change as a result of the metro were it fully

integrated in fares with the privately operated buses). Research questions to be answered in this section of the study will be as follows:

- Did the introduction of the metro and the light rail system contribute to the overall accessibility of the low-income neighborhoods? (It is possible that accessibility for the poor decreased after the new rail systems replaced buses, because with bus systems it is generally possible to make a single trip from origin to destination, whereas the introduction of metros generally result in new trip making patterns that require transfers within a single journey.)
  - Is the poor level of fare integration a significant factor affecting the accessibility provided by the urban rail system?
  - If the fares were fully integrated across all public transport modes, would the existence of the urban rail system in poor neighborhoods become more important?
- Did the introduction of the metro and the light rail system change public transport service levels (i.e. frequency, reliability, punctuality, journey length and duration, safety) for the poor?
  - Is the poor level of fare integration a significant factor affecting service levels (by increasing waiting times at stops for publicly operated buses)?
  - If the fares were fully integrated across all public transport modes, how would this affect the service levels of public transport; would the rail systems be used more by the poor; would the livelihood of the urban poor be enhanced?
- Did the introduction of the metro and the light rail system change the cost of a complete journey (from origin to destination, with as many transfers as required) for the poor?
  - Is the poor level of fare integration a significant factor affecting the journey costs?
  - If the fares were fully integrated across all public transport modes, how would this affect journey costs; would the rail systems be used more by the poor; would the livelihood of the urban poor be enhanced?
- Did the introduction of the metro and the light rail system affect the employment patterns of the poor? How were the male employees affected;

how were the female employees affected; and how were the elderly employees affected?

- If the fares were fully integrated across all public transport modes, would the effects on employment patterns be different? How?
- Did the opening of the metro and the light rail system affect the education of the children of the poor?
  - If the fares were fully integrated across all public transport modes, would the effects on education patterns be different? How?
- Did the opening of the metro and the light rail system affect the poor people's access to health services?
  - If the fares were fully integrated across all public transport modes, would the effects on access to health services be different? How?
- Did the opening of the metro and the light rail system affect poor people's patterns and frequencies of shopping for food?
  - If the fares were fully integrated across all public transport modes, would the effects on food shopping trips be different? How?
- Did the opening of the metro and the light rail system affect the poor people's patterns and frequencies of leisure trips?
  - If the fares were fully integrated across all public transport modes, would the effects on leisure trips be different? How?

It is believed that the above analysis will provide a comprehensive assessment of the impacts of privately operated buses on public transport in Ankara, with special emphasis on the effects on the poor. As stated above, this assessment is the main objective of the research. In addition to this objective, it is also aimed to evaluate the particular nature of the privatization experience in public transport in Turkey.

Hence, a final objective of the study will be to highlight problems within the current state and administration of the privately operated buses in Turkish metropolitan cities and to provide recommendations regarding ways of improving the current system and introducing a more sound policy for pro-market reform in public transport, which incorporates a special focus on poverty reduction.

## 5. Research Methodology

The methodology of the research will be predominantly based on *before and after* analyses.

Firstly, the state of the public transport network in Ankara, its service levels and cost structure *before and after* the introduction of the privately operated buses will be analyzed and compared. How the accessibility, service levels and costs of public transport changed after the introduction of privately-operated buses will be identified through a historical review of the public transport service provision since the early 1980s. Based on this review, the effects of such changes on the poor need to be analyzed. For this purpose, household surveys will be conducted. Samples will be chosen among the most economically depressed neighborhoods of Ankara, and questionnaires will be applied. The survey will try to identify the present level of livelihood (access to jobs, schools, health services, friends and family) of these poor households, and the role that the present state of public transport provision and hence the privately operated buses play in these levels of livelihood. It is important to recognize the limitations imposed upon the proposed research project, and to account for the ways in which such limitations inform the methodological framework and the design of the survey. Two such limitations may be identified. First, the pro-market reform was undertaken in the early 1980s, the effects of which, however, were not investigated. Hence, no “before” studies are available. The second limitation, also a consequence of the first, is that collecting personal information extending over 20 years period of time would not be preferable due to possible misinterpretations both by the interviewer and the interviewee. Therefore, the household surveys will be more focused on the present situation in poor neighborhoods than on the situation before the pro-market reform. As a result, research questionnaires will be organized in such a way that will make it possible to assess the *current* livelihood of the samples in relation to the *present* state of public transport provision. In addition, the questionnaires will enable assumptions to be made on how the livelihood would be affected had the physical layout, cost structures, and service levels been as they were before the pro-market reform. (This will require using stated-preference techniques in the questionnaires as described in detail below.)

Secondly, the impact of the new metro and light rail systems will be assessed through *before and after* studies. The livelihood of the poor households along the new rail lines will be assessed: the research will highlight how these people's level of accessibility to jobs, schools, health services, etc. were before the urban rail systems and how these changed following the opening of these systems. Rail impact is a wide area of research, and it is important to limit this research so as not to retreat from the main focus of this segment of the study, which is to observe whether the partial fare integration due to privately operated buses hindered the positive impacts expected from the rail systems. Hence, *any positive impacts of the metro on land and property values, for example, will be eliminated*. To be able to do this, the sample will be chosen from those who do not own a property (whether this is squatter housing or not). Evidence from previous research has shown that any economic benefits of metro investments on poor locations are captured by those who own properties. Those who live in poor neighborhoods without owning any property will be the main focus of the research. It is also important to recognize that if the metro has positive economic impacts on land values, these people who live in rented housing are affected adversely as a result of increases in rents. Hence, such affects of the metro on the livelihood of these people also needs to be eliminated. Livelihood will be analyzed only in terms of the physical improvement, quality and cost of accessibility to jobs, schools, and other services and facilities. In order to eliminate the above impacts of the urban rail systems, test cases may be used to facilitate a '*with metro and without metro*' comparison.

The main *method of data collection* will be *interviews* with poor households. Fully structured *questionnaires* will be prepared to highlight the impact of privately operated buses on public transport modes that serve poor neighborhoods, including the metro. Following the two segments of the research, two different questionnaires will be designed and applied. The first will be regarding the direct impact of the privately operated buses on the urban poor; and the second will be regarding the indirect impacts by affecting the level of fare integration for the urban rail systems, which, according to the main hypotheses of the research, could better enhance the livelihood of the poor if a system-wide full fare integration were to be achieved.

The two surveys described above are *household surveys*. They will be conducted at the poor neighborhoods. A certain number of them will be conducted with the heads of the households, who are often male. A certain number will be conducted with females in these neighborhoods. It is also believed that a *transport survey* would be beneficial for attaining the objectives of the research. A survey made with the passengers at privately operated buses, publicly operated buses, and urban rail systems may help to define the user profiles of each system, and highlight reasons that may exist for certain groups not using certain modes.

As a result three surveys will be made: two household, and one transport survey. The surveys will aim to gather statistically reasonable data in order to answer the main research questions listed in the previous section. The questionnaires will be designed to find answers to these research questions, which will not be listed here again to avoid repetition.

A final point about the method of data collection regards the technique to be used for the design and application of the questionnaires. In both household surveys, *stated-preference techniques* will be used. Stated-preference technique, which is relatively new in the field of transport research, helps to highlight how people may act differently under different scenarios. This new development in transport research techniques fits particularly well within this study, because it helps test both hypotheses. For the first part of the study (the first hypothesis), the questionnaires will include stated-preference techniques, which will help reveal how people's travel, employment, education, shopping, and recreational patterns would be affected had the physical layout, cost structure, and service levels of public transport been different (that is at levels that would be expected under public provision of *all* services, allowing also cross-subsidies). These techniques will also be facilitated in the second part of the research, which suggests that if the privately operated buses were also included in the fare integration scheme, the impact of the urban rail systems on the accessibility and hence the livelihood of low-income areas would be more positive. The only way to test the accuracy of this proposition is to ask the urban poor how their travel patterns and preferences would change under the scenario of full fare integration. It is anticipated that stated-preference technique will be facilitated in both household surveys as well as the transport (passenger) survey.

## **6. Research output and policy relevance**

This research will provide a comprehensive evaluation of impacts on the urban poor of the pro-market reform in public transport in Turkey. The main output will be an assessment of performance of public transport in economically depressed areas of Ankara; the effects of privately operated buses on this performance; and the effects of this level of performance on the livelihood of the urban poor.

In particular, the research will reveal:

- How the introduction of privately operated buses affected the physical layout, service quality, and cost of public transport in Ankara;
  - How these changes affected and continue to affect the livelihood of the urban poor in Ankara;
- How the exclusion of privately operated buses from the integrated fare system affected the performance of the urban rail systems and expected benefits for the urban poor in Ankara;
  - How the livelihood of the urban poor living at close proximity to urban rail stations in Ankara would be affected had the fare integration scheme been system-wide.

While highlighting the above issues regarding various possible impacts of privately operated buses in Ankara, the research will facilitate a more general evaluation of the pro-market reform in public transport in Turkey, with particular emphasis on the way it was designed and administered. The assessment of the reform's impact on the urban poor will help to highlight the failings of the reform, and show important aspects of the reform that need to be redesigned.

As a result, by providing a thorough criticism of the way the pro-market reform in public transport in Turkey was formulated and administered, the research will conclude with recommendations on how to design a more effective privatization or deregulation policy in public transport that will not only improve the performance of public transport services but also address the needs and problems of the urban poor.



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## **8. Information about the researcher**

The proposed research will be carried out by Assistant Professor Dr Ela Babalik Sutcliffe. Ms Babalik Sutcliffe holds a Bachelors Degree in City Planning, which she was awarded completing the undergraduate course of the Middle East Technical University in 1994. After her undergraduate study, she started to work as a research and teaching assistant in the Department of City and Regional Planning, Middle East Technical University. While working as a research and teaching assistant, she also

studied the MSc degree in Local Governments and Urban Policy Planning, and was awarded the degree in 1996. In same year, Ms Babalik Sutcliffe was awarded with a PhD scholarship funded by the Higher Education Council of Turkey. Using this scholarship, she studied PhD in Transport Planning at the Centre for Transport Studies (CTS), University College London, UK. During her 4-year study in London, she carried out her PhD research, which was on the performance of new generation urban rail systems, and also worked in her last year as part-time research staff in Imperial College's Railway Technology Strategy Centre, focusing mainly on the evaluation of passenger surveys and questionnaires made for assessing the performance of railway services in Spain, Italy and Germany. Completing her PhD study successfully in October 2000, Ms Babalik Sutcliffe, returned to work as a teaching staff at the Department of City and Regional Planning, Middle East Technical University, Ankara, Turkey, where she is currently working. She teaches 'Transportation Planning' and 'Transportation Policy' classes; contributes among other scholars to the third year planning studio, and PhD thesis writing seminar classes. She also carries out administrative duties in the university. Since 2001, she has been acting as the representative of the university in the Provincial Traffic Commission of Ankara. In 2002, she was elected by the members of the Department of City and Regional Planning to be the representative of the Department in the Association of European Schools of Planning (AESOP). Since the beginning of 2003, she has been working as the vice chairperson in the Department of City and Regional Planning.

*(A more detailed CV is also attached).*

The proposed topic of research falls between the two main areas of transportation planning and policy, and local government policy and strategies for reducing poverty. The researcher has experience in both areas. Prior to her studying in the transport field, she carried out a research based in Middle East Technical University about local government restructuring, and in particular policies of financial restructuring, which addressed issues of contracting-out, privatization and deregulation of public services. As for her studies in the transport field, her research so far included the performance evaluation of new-generation urban rail systems; a critique of local government restructuring which hinders coordination between urban and transport planning; a critique of European Union policies regarding the operation of Trans-European

Transport Networks; and an assessment of urban transport policies in Ankara with a special emphasis on car ownership and use. Currently she is involved in a research regarding road policies in urban Ankara, and their effects on traffic growth as well as on the expected success of the new metro and light rail system in the city.

Having been involved in such researches as local government financial restructuring, privatization and deregulation of publicly delivered services, public transportation planning, urban rail system planning and impact assessment, and an assessment of transport policies in the city of Ankara, Ms Babalik Sutcliffe feels she is capable of undertaking a research on pro-market reform in public transport and its impact on the urban poor, with a view to help improve the restructuring of local government services through various policies including privatization, deregulation, or contracting out.

## **9. Research Institution**

The proposed research will be undertaken by Assistant Professor Ela Babalik Sutcliffe, who is based in the Department of City and Regional Planning, at the Middle East Technical University, Ankara, Turkey. The Middle East Technical University is one of the oldest; the most established and acclaimed universities in Turkey. It is the first university in Turkey that launched itself as an international school with the main language of instruction being English.

The Department of City and Regional Planning at METU is the oldest planning school in Turkey. The department is particularly highly praised for being able to combine both a high quality of teaching the profession of urban planning and a high quality as well as quantity of research being carried out by its staff. More information on the university and the department can be obtained from its website: <http://www.metu.edu.tr>

The research proposed will be carried out by one of the teaching and research staff of the Department of City and Regional Planning. However, it is not the institution that

proposes this research. Ms Babalik Sutcliffe will carry out the research, and will take the whole responsibility for outputs and any interpretations to be made.

## **10. Budget**

The main expenditure of the proposed research will be the preparation, application, and processing of the questionnaires. It is planned to have the questionnaires implemented by professional survey companies. Based on experiences in previous research carried out in the Department of City and Regional Planning, METU, it is anticipated that conducting the questionnaires and processing the data by a professional company will cost between 10,000 and 15,000 US Dollars per survey, depending on the length of the questionnaire and size of the sample.

As described earlier, three questionnaires are planned to be conducted. The first will be the household survey at randomly selected poor neighborhoods in the city without any metro access. Effects of the introduction of the privately operated buses on travel patterns and livelihood of the urban poor will be highlighted with this survey. It is targeted to include a sample of 250 households in this survey. The second household survey will be made at poor neighborhoods that are at close proximity to the new metro or light rail stations. Effects of poor fare integration on the potential benefits of the metro and the livelihood of the urban poor will be highlighted. Two separate surveys covering “with metro” and “without metro” cases (the latter being the test case) may be required at this stage; nevertheless, it is anticipated that this will not require a bigger sample size: a sample of 250 households is targeted on the whole. The third will be the public transport survey, which will be conducted with the passengers of privately operated buses, publicly operated buses, and urban rail systems. It will aim to help define the user profiles of each system, and highlight reasons that may exist for certain groups not using certain modes. It is planned to cover samples of 100 passengers for each mode; hence, 300 passengers will be interviewed at this stage. In summary, the size of the samples amount to 250 for each household survey, and 300 for the transport passenger survey. Considering the given sizes of the sample and the comprehensive nature of the questionnaires to be conducted, it is anticipated that each survey will amount to 15,000 US Dollars.

Upon completion of the three surveys, a detailed analysis will be made using the produced data. Expenses anticipated at this final stage include purchase of statistical analysis related software programs, such as SPSS; and proof reading of the final reports of the study by professional English-language editors.

To summarize, the budget is anticipated to be as follows:

SURVEY 1 (household survey – private bus related)	US\$ 15,000
SURVEY 2 (household survey – metro/fare integration)	US\$ 15,000
SURVEY 3 (transport survey – transit passengers)	US\$ 15,000
Other (relevant software, proof reading)	US\$ 5,000
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TOTAL	US\$ 50,000

No other funding sources exist for the proposed research.

## **CV**

### **ELA BABALIK SUTCLIFFE**

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### **PERSONAL INFORMATION**

Date of birth: 24.05.1972

Place of birth: Ankara, Turkey

Nationality: Turkish

## **EDUCATION**

- Sept 1996 – Sept 2000: PhD Research in Urban Transport Planning  
University College London  
Centre for Transport Studies  
London, U.K.  
Funded by the scholarship of the Higher Education Council, Turkey.
- Sept 1994 – Sept 1996: MSc in Local Governments and Urban Policy Planning  
Middle East Technical University, Ankara, Turkey  
Graduate School of Social Sciences
- Sept 1990 – June 1994: Undergraduate study in City and Regional Planning  
Department of City and Regional Planning  
Middle East Technical University, Ankara, Turkey
- Sept 1983 – June 1990: Secondary and high school education  
T.E.D. Ankara College, Ankara, Turkey

## **CAREER**

- Mar 2003 – Today: Assistant Professor and Vice Chairperson  
Department of City and Regional Planning  
Middle East Technical University, Ankara, Turkey
- Dec 2002 – Mar 2003: Assistant Professor  
Department of City and Regional Planning  
Middle East Technical University, Ankara, Turkey
- May 2002 – Today Acting as the Representative of Middle East Technical University in the Association of European Schools of Planning (AESOP)
- Dec 2001 – Today: Acting as the Representative of Middle East Technical University in Ankara Province Traffic Commission
- Dec 2001 – Dec 2002: Instructor  
Department of City and Regional Planning  
Middle East Technical University, Ankara, Turkey
- Nov 1995 – Dec 2001: Research Assistant and Teaching Assistant  
Department of City and Regional Planning  
Middle East Technical University, Ankara, Turkey

Apr 2000 – Oct 2000:            Research Fellow  
Railway Technology Strategy Centre  
Department of Civil Engineering  
Imperial College, UK

## RESEARCH EXPERIENCE

- Currently working on short- and long-term impacts of road policies in Ankara, with a special focus on traffic growth, pedestrian safety, and public transport performance.
- (1996 – 2000) During PhD study in **Centre for Transport Studies, UCL London**, conducted an in-depth performance analysis of 11 urban rail systems from the US (*Atlanta Metro, Baltimore Metro, Baltimore LRT, Los Angeles Metro, Los Angeles LRT, Miami Metrorail, Portland MAX, St Louis MetroLink, Sacramento LRT, San Diego Trolley, and San Jose LRT*); 3 urban rail systems from the UK (*Manchester Metrolink, Sheffield Supertram, and Tyne and Wear Metro*); 2 urban rail systems from Canada (*Vancouver SkyTrain and Calgary C-Train*); and 1 urban rail system from France (*Rouen Tramway*).
- (April – October 2000) Worked as a part-time research fellow at **Railway Technology Strategy Centre, Imperial College London**, in the consultancy project “*National Rail Benchmarking (RailBench)*” which analysed the current structure of national railways in Germany, Italy and Spain, and proposed strategies for financial growth and improvement.

## COURSES THOUGHT

- Urban Transportation Planning
- Third Year City Planning Studio
- PhD Thesis Writing Seminar

Starting from the 2003-2004 academic year:

- Urban Transportation: System Planning and Design
- Transport Policy



## SCHOLARSHIP / AWARDS / CERTIFICATES

- Awarded Second Prize in the Research Medal Competition under the category ‘Infrastructure and Development’, held by the Global Development Network (GDN) in Rio de Janeiro, Brazil, December 9-12, 2001, with a report summarising my PhD research.
- Awarded Brian Large Travel Bursary in 1997 by the Brian Large Trust, which gave the award to be used for travel expenses for North American case studies to be studied to enhance the quality and merits of the PhD research, which was carried out at the Centre for Transport Studies, University College London, UK.
- Awarded a Research Scholarship by the Higher Education Council (YOK) of Turkey in year 1996, to be used for PhD research abroad. The scholarship has been used between 1996 and 2000 for PhD research in University College London, Centre for Transport Studies.

## PUBLICATIONS

- Urban rail systems: analysis of the factors behind success. *Transport Reviews* **22** (4) 415-447. (2002)
- New urban rail systems: a policy-based technique to make them more successful. *Journal of Transport Geography* **11** (2) 151-165. (2003) (with R. L. Mackett).
- Transport Policies of the European Union: implications and policy conflicts. Proceedings of the 10<sup>th</sup> National Regional Science / Regional Planning Congress, held in Istanbul, Turkey, October 2002. (*Turkish*)
- Conflicts in EU policies of Trans-European Transport and their implications for candidate countries. Proceedings of the International Symposium ‘Transportation Infrastructure in South-East Europe Countries’, held in Sarajevo, Bosnia and Herzegovina, April 2002.
- Enhancing the success of light rail systems. *The Transport Economist*, **28**, 1-16 (2001) (with R. L. Mackett).
- Urban rail systems: overestimated success or underdeveloped policy-making? Proceedings of the 32<sup>nd</sup> Annual UTSG (Universities Transport Study Group) Conference held in Liverpool, UK, January 2000.

- Policies for improving the performance of new generation urban rail systems. Proceedings of the 4<sup>th</sup> Transportation Congress, held in Denizli, Turkey, June 1998. (*Turkish*)
- A comparative study on local government finance (three volumes). Published research results (with M. Akkar, E. Alarslan, A. Aras, G. Hafizogulları, E. Ocak, and N. Sevim), 1995.

#### **UNPUBLISHED ACADEMIC WORK**

- Urban rail systems: a planning framework to increase their success. Thesis submitted to the University of London for the degree of PhD. (2000)
- Urban transportation policies in Ankara with special emphasis on the issue of car ownership and car use. Thesis submitted to the Middle East Technical University for the degree of MSc. (1996)

#### **CONFERENCES**

- Paper presented at the 10<sup>th</sup> National Regional Science / Regional Planning Congress, held in Istanbul, Turkey, in October 17-18, 2002.
- Paper presented at the AESOP 2002 Conference under the 13<sup>th</sup> Track ‘Land Use and Infrastructure Development’, held in Volos, Greece, in July 10-14, 2002.
- Paper presented at the Conference ‘Transportation Infrastructure in South-East Europe Countries’, held in Sarajevo, Bosnia and Herzegovina, April 11-12, 2002.
- Paper presented at the GDN 2001 Conference ‘Blending Local and Global Knowledge’, held in Rio de Janeiro, Brazil, December 9-12, 2001. (*The paper was also awarded Second Prize in the Research Medal Competition under the category ‘Infrastructure and Development’.*)
- Paper prepared jointly with Prof. R. L. Mackett (presented by R. L. Mackett) at the 9<sup>th</sup> World Conference on Transport Research (WCTR), held in Seoul, South Korea, July 2001.
- Paper presented at the 32<sup>nd</sup> Annual Universities Transport Study Group (UTSG) Conference, held in Liverpool, UK, January 2000.

- Paper presented jointly with Prof. Roger Mackett at the 8<sup>th</sup> World Conference on Transport Research (WCTR), held in Antwerp, Belgium, July 1998.
- Paper presented at the 4<sup>th</sup> Transportation Congress, held in Denizli, Turkey, June 1998.