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Keep the children walking: active school travel in Tirana, Albania

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ABSTRACT

This paper examines how characteristics of the physical and socio-economic environment influence children's school travel mode in Tirana, the capital of Albania. A survey of students aged 11 to 13, revealed that an overwhelming majority walk to school, while bicycling and bus use are minimal. Students who walk to school often do so as part of a larger group of schoolmates, attend schools that are located relatively near their house, are faced with relatively few major road crossings during their journey, and belong to families that are less likely to own a car. Children who are driven to school (only 13.5% of our sample) usually have higher-income families and live farther from the school. Although Tirana's high residential density has some environmental drawbacks, we deem it positive in that its result is that most students live very close to their schools and in close proximity to classmates walking to school. The fine grain pattern of the urban public school network contributes to the short distances between schools and homes. We provide a number of recommendations for the promotion of walking in home-school trips, as well as for the future physical development of the city and the school network.

1. Introduction

The transition countries of Eastern Europe, are experiencing a fast shift from mass transit to automobile travel, with grave consequences in terms of traffic flow, road safety, livability, and environmental quality. In these settings, home-school travel, which represents a substantial share of daily trips, is often overlooked in sustainable mobility discourses. Most of the existing studies on this topic, which are conducted in Western nations, stem from the concern that there is a link between active forms of school travel (walking or biking) and the general health of schoolchildren (van Loon and Frank, 2011). However, home-school travel also has an impact on urban livability. While research on this topic Eastern Europe is virtually non-existent, based on adult travel studies (see Pucher and Buehler, 2005) children school travel here is expected to raise major safety, equality, and environmental quality concerns. In turn, it is evident that the urban form and amenities determine whether students travel actively and autonomously to school (van Loon and Frank, 2011).

The study area of our research is Tirana, the capital of Albania. The purpose of this study, conducted in 2012, is to examine how characteristics of the physical environment influence children's travel mode choice between home and school in relation to socio-economic variables. In the framework of this study, we carried out a travel behavior survey of approximately 500 students in grades 6 through 8 from four schools and found that an overwhelming majority of students (78.9%) walk to and from school. This finding contrasts with a general perception in Tirana, perpetuated by the local media, that a substantial portion of children are driven to school. While Albania's economic development stage may largely explain this outcome, a number of environmental factors may account for it too. For example, compactness is generally found to contribute to the minimization of travel distances (Boussauw et al., 2012). A synopsis of Tirana's recent urban development patterns and mobility issues provides an understanding of the dynamics that lead to such a high portion of students walking to school.

The first two parts of the article provide the study context. They contain a brief discussion of the current trends in transport planning in Eastern Europe, and present an overview of the relevant literature on children's travel, focusing on active school commute prevalence and correlates. (Active travel includes walking and cycling, but the latter is insignificant in Tirana.) The third part of the article describes Tirana's urban setting, with particular focus on spatial structure, mobility, and education provision. The fourth part describes the study design and methodology and presents the results using descriptive statistics, correlation analysis, and

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regression models. The conclusions provide a number of policy recommendations.

As a case study, this article produces concrete, in-depth, context-dependent knowledge rather than "hard" theory (see Flyvbjerg, 2006). While in most studied contexts a majority of children are driven to school (though active modes, especially walking, are increasingly used for the trip home) in Tirana an exceptionally high proportion of children walk to and from school. In view of this fact, the main concern here is an expected shift towards more children travelling by car in the future, as incomes and car ownership grow.

Without data on school travel in other Eastern European capitals, it is impossible to say whether Tirana illustrates the problems of the region as a whole. However, studies on adult travel and land use trends in Eastern Europe point to a rapid increase in car ownership and growing sprawl and suburbanization, amidst a laissez faire policy environment. Hence, children are likely to become more car-dependent as well. Therefore, the same goals and policies that we recommend may be applicable to school travel planning in other Eastern European cities of similar size.

2. Transport issues in post-socialist Eastern Europe

At the end of communism, the urban transport systems of Eastern Europe and Central Asia (the ex-Soviet republics) were overwhelmed by two major developments: (1) the precipitous modal shifts from public transport and non-motorized modes to private automobiles, and (2) the suburbanization of low density housing and commercial activities beyond the built-up area created during communism, which generate additional demand for car travel. In this relatively new "car culture", the car signifies not only a transport mode, but also a powerful status symbol (Suchorzewski, 2005; Pucher and Buehler, 2005; Dimitrov, 2004; Suditu et al., 2010). In terms of modal shift, in Albania the transformation was more extreme than elsewhere because car ownership was prohibited during communism. In terms of land use, by contrast, in Tirana no middle class suburbs developed.

While the dramatic shift from public transport, biking, and walking to the private car generally reflects consumer preference for the convenience, comfort, speed, flexibility, independence, and status of the car, it has generated some serious problems: rising roadway congestion, parking shortages, air pollution, noise, and traffic crashes. The sudden increase in motorization has overwhelmed roadway networks. In addition, speeding and reckless driving are standard, since enforcement of traffic regulations is very lax in some post-socialist countries (Pucher and Buehler, 2005).

The poorer countries in the region (i.e. Western Balkan states) do not have adequate governance structures, funds, and political will to develop integrated and socially and environmentally sustainable transportation systems (see Boussauw, 2012; Nientied, 1998; Andrews, 2005). It is also clear that the attainment of sustainability objectives in transport will require significant social and lifestyle changes, a difficult task in view of the psychological dimension of auto-ownership (the perception of the car as high status mode). The physical proximity to the west and the motivation to join the European Union (which requires compliance with environmental directives) has been an important catalyst for change (Pucher and Buehler, 2005; REC, 2008). However, the track record of transport policy in Western European cities in terms of reducing car use is less than excellent. Moreover, experience has shown that even with Western assistance large scale institutional reform is not likely to occur in Eastern Europe. Often, transport goals need to be modest and incremental (Stead et al., 2008).

3. Children's travel behavior and school commute: a literature review

Children's travel and independent movement as an area of inquiry dates from the 1970s in the U.K. Two seminal works, Ward's "The Child in the City" (1978) and Hillman's et al. "One False Move" (1990), advocated a lobby on behalf of children in transport planning. Their concerns stemmed from the suburbanization trends of that era, which led to intense car use in wealthy peripheries and safety and security problems in deprived urban cores, thus limiting both urban and suburban children's free mobility and access to the city. The 1970s marked the beginning of the evolution from "outdoor" and "walking" children to "indoor" and "chauffeured" children.

In the last decade, studies have multiplied, especially in Western Europe, the UK in particular, and North America (see Hillman, 1999; O'Brien et al., 2000; McDonald, 2005; Mackett, 2012). This reflects growing concerns about health and the environment. Studies have found that compared to previous generations, the travel patterns of children here have changed enormously. Parents are adapting to the modern nature of urban living by confining children to the home or by escorting and/or chauffeuring them in cars. Car travel has become a form of mobile child care, while allowing children out unaccompanied has become a marker of neglectful parenthood. However, car-dependency at an early age may be damaging from an environmental and public health perspective because children's current travel behavior may affect their future travel behavior as adults, while reduced physical activity and exposure to the outdoor environment may affect children's physical and mental health. While the reduction in children's walking and cycling is related to the increase in car ownership, parents' changing attitudes are also due to the fact that the outside world is seen as a hostile, dangerous place where children are likely to be harmed by motor vehicles or adults. Children themselves often mirror their parents' habits and views in regards to travel (Zwerts et al., 2010).

Negative perceptions are mostly justified: road injuries are a reality and the quality of public outdoor spaces, especially in the poorer sections of big cities, has declined. Air, noise, and visual pollution (i.e. traffic and parking), as well as poor urban design, with spaces unfriendly to walking, are widespread outside pedestrianized historic city centers. Other factors, unrelated to the (built) environment, include increased incomes, increased female participation in the workforce, cultural shifts from free play to organized activities, and increased use of personal electronic home entertainment. In some countries, school choice policies that allow children to attend any school within their city, rather than the nearest to home, have contributed to growing car use for children's transport (Mackett, 2012).

Many studies have focused on the school commute of children. Most of them are western-based and cross-sectional (Wong et al., 2011; Lubans et al., 2009; Faulkner et al., 2009; Davison et al., 2008; Sirard and Slater, 2008). Several recent systematic reviews consider the relationship between active school travel, the built environment, and health or fitness correlates. Only one Southeast European study was identified (Loucaides et al., 2010), which was conducted in Cyprus (with adolescents rather than children).

The reviews, as well as the studies themselves, have been primarily motivated by the increasing prevalence of obesity in children and youth, which is found to be in part the result of insufficient physical exercise and excessive car travel, including travel for school trips. The reviews report strong evidence of a positive association between active school travel and other physical activities, but are less unanimous on the assumed link between active school travel and lower body mass index. However,