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PUBLIC TRANSPORT FARES IN LATIN AMERICAN CITIES: SYSTEMS, VALUES AND PROBLEMS

Although public transport has undergone a series of changes over the last few decades, fares are still strongly affecting the budget of low-income families. This is despite the fact that, with very few exceptions, public transport fares are one of the few prices still fixed by the government authorities.

The introduction of integrated networks made up of trunk lines and feeder services is not guaranteed to reduce the cost for users. It would be possible to reduce fares if free transport provided by the authorities to various groups of citizens were financed by the authorities themselves, and not by other groups of passengers.

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The cost of urban transport. With a few exceptions, buses (and their various local appellations) remain the most widely used form of personal motorized transport in Latin American cities, and the money paid in fares represents a significant proportion of many family budgets. Using a typical minimum salary of US\$ 100 to pay an average of three tickets a day, Monday to Saturday, means that the members of a family living off that salary spend around 20% of their budget on urban public transport. The operational costs of buses are also impressive: US\$ 30 billion per year, as much as the cost of maritime freight for the region's imports.

Reforms over the last few decades and reasons for their implementation. Traditionally, public transport in the region's cities has been run by small-scale operators grouped into cooperative or other types of association to operate one or more lines. This form of management arose spontaneously in the 1920s in cities such as Buenos Aires and Mexico, where owners of hire vehicles joined together to offer public transport services on routes with sufficient demand. After what was effectively deregulation in the early stages, fares were eventually fixed by local or national authorities that also monitored - albeit less stringently - frequency of service, available fleet, vehicles' technical condition, driver working hours, etc. There were rarely formal concessions and, once established, the groups they came to consider that they owned the lines they operated, and this

was rarely disputed by the authorities. Although in Argentina, the associations themselves imposed considerable discipline on the operation of bus lines, the independent interests of each operator predominated in most other countries, with unfortunate consequences for the operational and economic efficiency of bus lines. During the 1970s and 1980s, many cities such as La Paz, Lima, Mexico City, Quito and Santiago had services that were operated by municipal or State entities, in addition to those provided by private operators. The most notable exception to this was Brazil, where services were mainly provided by formal and well-structured private enterprises, in addition to public sector entities.

Public entities had high cost structures, partly because of their inefficiencies and partly because they complied more with laws (social and others) than private associations. The costs and inefficiencies of private associations were also excessive since they failed to implement potential economies of scale, and individual operator interests prevailed over their collective interests. The costs of inefficiencies was inflated by the impact of growing traffic congestion that brought down vehicle and driver efficiency and, in São Paulo, increased costs by 16% according to the estimates of the National Public Transport Association (ANTP). In many cases, services received subsidies, a significant proportion of which was used to cover inefficiencies rather than to lower fares or improve service.

In response to this unfortunate situation, authorities have spent the last 30 years promoting various transformations in the way public transport is managed in many cities in the region. These include:

- Privatizing most of the operator entities that were part of the State sector;
- Reducing operator subsidies and implementing measures aimed at reducing operational inefficiencies;
- Experiments with a fairly complete economic deregulation of public transport systems, which have tended to be temporary in large cities and more permanent in smaller ones;
- Making use of modern ticketing technology.

The few attempts to further corporatize operator associations have been fairly unsuccessful. Instead, attention was focused on replacing traditional operators with new enterprises.

The objectives of reform included:

- Transforming public transport into a viable alternative to private transport at a time of increasing car ownership;
- Improving the quality of public transport for captive users;
- Reducing the burden of public transport in government budgets;
- Reducing external costs (accidents, pollution, etc.).

Fare systems. In almost all main cities, public transport fares are exceptions to the rule of free market pricing, which is a cornerstone of the economic model applied in recent decades. Out of all the capital cities, Lima is the only one where fares are freely set by operators, although enterprises

in Santiago also have limited freedom to set fares when bidding for routes.

In most cities, a flat bus fare is charged although in some places, such as Mexico and Buenos Aires, the fare depends on the distance travelled. The longer the routes and the larger the city, the less appropriate are flat fares. Fares on suburban lines often vary according to distance travelled.

At various times, several cities have created different levels of public transport with varying levels of quality and fares, always for the same reasons. Sometimes the aim is to provide a basic service for citizens with the lowest income, like in Quito, where a ticket on the cheapest services operated by buses over 10 years old costs 25% less than on special services. Some cities offer higher quality services to people with higher incomes, such as Rio de Janeiro, where buses with air conditioning charge a slightly higher fare. Sometimes the fare is related to the age of the vehicle, like in Bogotá, where fare differentiation is taken to the extreme with seven categories of bus, each with its own day and night fares. However, the night fare of high-category buses is only 30% more expensive than the day fare of the cheapest ones.

Integrated fares. In 1974, Curitiba was the first of a growing number of cities to introduce public transport networks consisting of trunk lines that normally operate on exclusive bus lanes and that are integrated with feeder lines both physically and in terms of fares. The system is usually based around access-controlled terminals that enable passengers to change buses without buying another ticket. Such terminals are characteristic of the bus system in Quito and Bogotá. Since 1974, however, new ticketing technology has made these terminals partly obsolete, as is the case in São Paulo.

The fare system of the municipality of São Paulo is based on units of time (rather than bus line or distance travelled), with free changes of buses allowed within two hours of boarding the first vehicle. Until mid-May 2004, passenger had to change in terminals, whereas new technology (rechargeable electronic card and card readers in buses) means that this restriction no longer applies. The new single electronic ticket is compatible with the national transport voucher system in which the public transport of low-income workers is subsidized partly by the companies where they work and partly by taxpayers.

Effects of fares on family spending. Urban bus fares still represent a significant cost for low-income families (see table 1 comparing the situation in 1988 and 2004 in selected cities). The percentage of the family budget represented by fares only decreased significantly in La Paz, where fares in 1988 may have been temporarily high due to the economic stabilization programme imposed at the beginning of the 1980s, and in Santiago, where the deregulation process caused a gradual rise in fares during the 1980s.

In some cities, fares were artificially low in 1988 as a result of being fixed at levels that were unsustainable in the long term for political reasons, as in Lima, or because of subsidies, like in Mexico. In more recent years, authorities have tended to set fares more on the basis of technical than political considerations. Although subsidies are less popular owing to changes in economic models and disenchantment with their effectiveness, they have not been eliminated and in some cases, such as Buenos Aires, new ones have appeared.

In theory at least, integrated networks offer the possibility of reducing fares thanks to: vehicle size being better adapted to the demand on each route; greater productivity of buses and drivers on

trunk lines separated from traffic congestion; and increased corporatization. Although the fare on integrated networks is the same or higher than conventional services in Bogotá or Quito, the fact that passengers can change buses for free means that a door-to-door journey is effectively cheaper on the integrated networks. Integrated networks increase the number of changes, which is not preferred by passengers but which may be compensated by a shorter journey time or lower fare.

TABLE 1: EFFECT OF THE COST OF PUBLIC TRANSPORT ON THE BUDGET OF LOW-INCOME FAMILIES IN SELECTED CITIES, 1988 AND 2004

City	75 tickets per month as % of minimum salary, 1988	75 tickets per month (40 on integrated networks) as % of minimum salary, 2004
São Paulo (municipality)	15%	25%
La Paz	50%	20%*
Santiago	42%	23%
Lima	14%	18%*
Mexico City	3%	16%
Bogotá	9%	20%* (normal) 13% (Transmilenio)
Quito	8%	10% (cheapest) 8% (trolley, Ecovía)
Buenos Aires	12%	17%

Note: * Approximate value (fares vary).

Sources: (i) *The impacts of subsidies, regulation and different forms of ownership on the service quality and operational efficiency of urban bus systems in Latin America*, ECLAC, 1992; (ii) information from contributors listed at the end of the bulletin; (iii) *Social Panorama of Latin America, 2002-2003*, ECLAC, 2004 and; (iv) http://www.fsa.ulaval.ca/rdip/cal/lectures/aff_actualites/argentina_eleva_salario_mi.htm.

The adoption of integrated networks has undoubtedly benefited users of public transport in Bogotá and Quito, cities with special features that are atypical of Latin American cities in general. For instance, Bogotá's population density of 210 people per hectare is very high, and the long and narrow layout of Quito, although similar to some cities, is still not representative. In other situations, it is not clear whether integrated networks composed of trunk and feeder routes would benefit users of public transport. The TranSantiago system proposed for the Chilean capital, which has a more or less circular typography and less than half the population density of Bogotá, could even increase the average fare between origin and destination.

The problem of passengers who travel for free. In some cities, the relatively high price of tickets in relation to the income of users of public transport generates potential for direct negotiations between the driver/bus conductor and the passenger, who may be charged a lower fare. This informal practice is especially common in low-income suburbs at the extreme ends of lines that have flat fares. In Santiago, it is estimated that as many as 30% of passengers travel in this way.

Furthermore, in many cities, various categories of passengers are formally exempt from paying fare or granted the right to travel for lower-than-standard fares. The percentage of passengers travelling free of charge can reach surprising proportions in cities like Rio de Janeiro, where the figure is almost 40%, compared with 10% to 12% for Brazilian cities in general. Depending on the country, those entitled to travel free of charge include students, retired people, police officers, war veterans and postal delivery workers. The main problem with such concessions is that the cost is not borne by municipal or national authorities, but by other passengers who pay higher fares to compensate for the subsidy. There are probably even cases in which the passengers who effectively finance the subsidy are worse off financially than the fellow passengers they are subsidizing. In countries in other parts of the world, such as the United Kingdom, certain categories of citizens are entitled to travel free or pay reduced fares but the income difference of the operator is compensated by the relevant authority.

Ticket fares in various cities. The present FAL Bulletin was produced in response to requests for information on ticket fares in the region's cities. Contributions were made by several of the most distinguished experts on urban transport in Latin America, including: Rogério Belda, Pedro Szasz, Pedro Machado and Nelson El Hage (Brazil), Gerhard Menckhoff and Pierre Graftieaux (World Bank), Cesar Arias and David Briggs (Ecuador), Julio César Chavez and Blanca Guerrero (Peru), Rosa Virginia Ocaña (Venezuela), Juan Terra (Uruguay), Luis Rosales (Mexico), Irma Chaparro (Colombia), Darling Rojas (Nicaragua) and Mario Vacca and Danny Thomas (Argentina). The information received is available through the ECLAC Transport Unit.
