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More than Just Travel Time Savings: A Broader Perspective on the Benefits of Transportation Mobility A Literature Review

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Contents

The Dominance of Travel Times

Limitations of Travel Time Measures

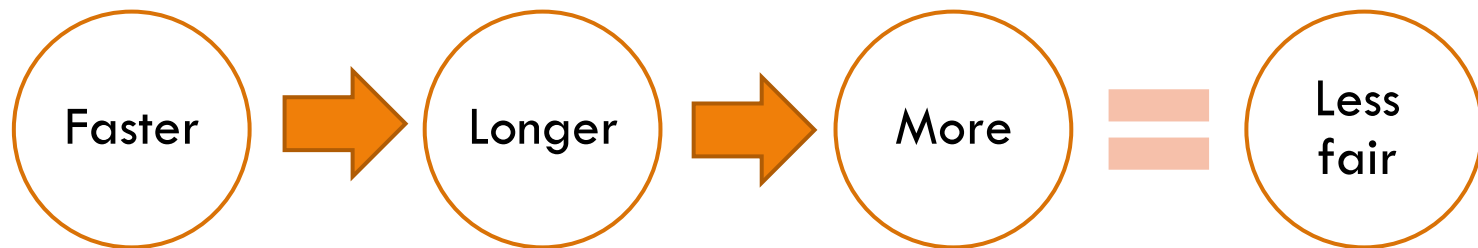
Considering Other Benefits of Travel Experiences

Possible Policy Implications



Objective

- Identify a wider range of travel attributes
 - influence personal travel choices
 - reflect travel benefits
- In addition to travel time and quality of time
 - Reliability, Comfort, Time Density
- Consider alternative paradigms for resource allocation
 - More socially and environmentally sustainable



(Schaeffer & Sclar, 1975)



Dominance of Travel Time Savings

- Driving Policy Objective
 - The need for intervention
 - Key variable in evaluating travel choices
 - Operational issues and level of service measures
- Accounts for a majority of attributable benefits from transport investments (Hensher, 2001)
- Primary variable for accessibility measures (El-Geneidy and Levinson, 2006)



Increased Productivity

Time
Substitution
Underlies The
Value Derived
from Time
Savings

- ❑ Favors commuting and business-related travel purposes
- ❑ Higher values for high income, high mobility travelers
- ❑ Focused on congestion relief
- ❑ Bus passengers consistently have the lowest value of time
- ❑ Precludes “time budget”
- ❑ Accrue value to very small time savings

**43% of the population of Israel
is under 19 or over 70**



Using Stated Preferences to Analyze the Service Quality of Public Transport (Roman, et. al. 2014)

- Travel time is important for users
 - up to 60% of the level of service components are related to travel times.
- However, mostly asked about variables related to cost and time

Analysis of the Service Quality of Public Transport

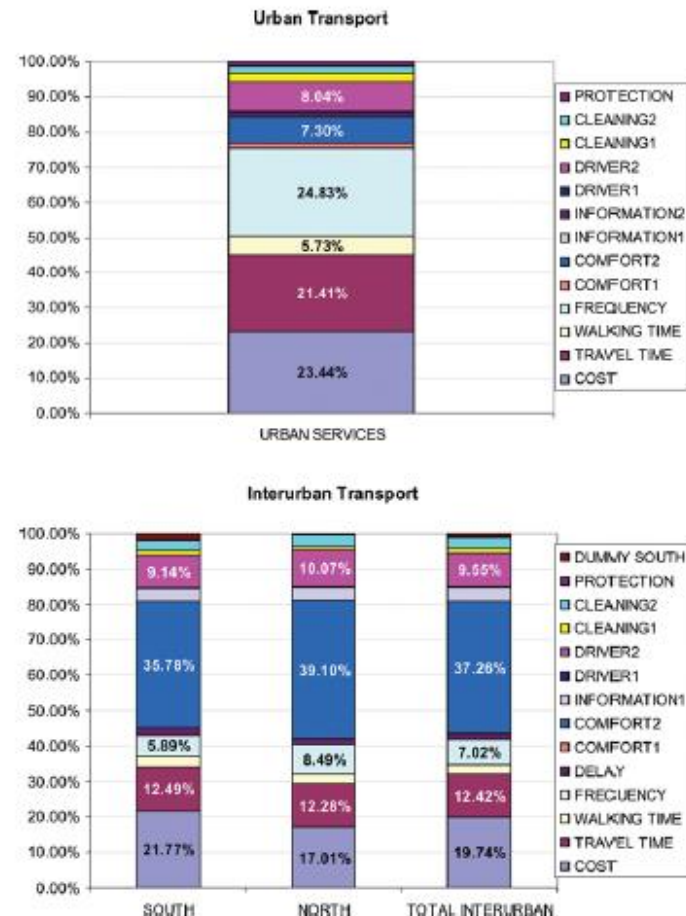
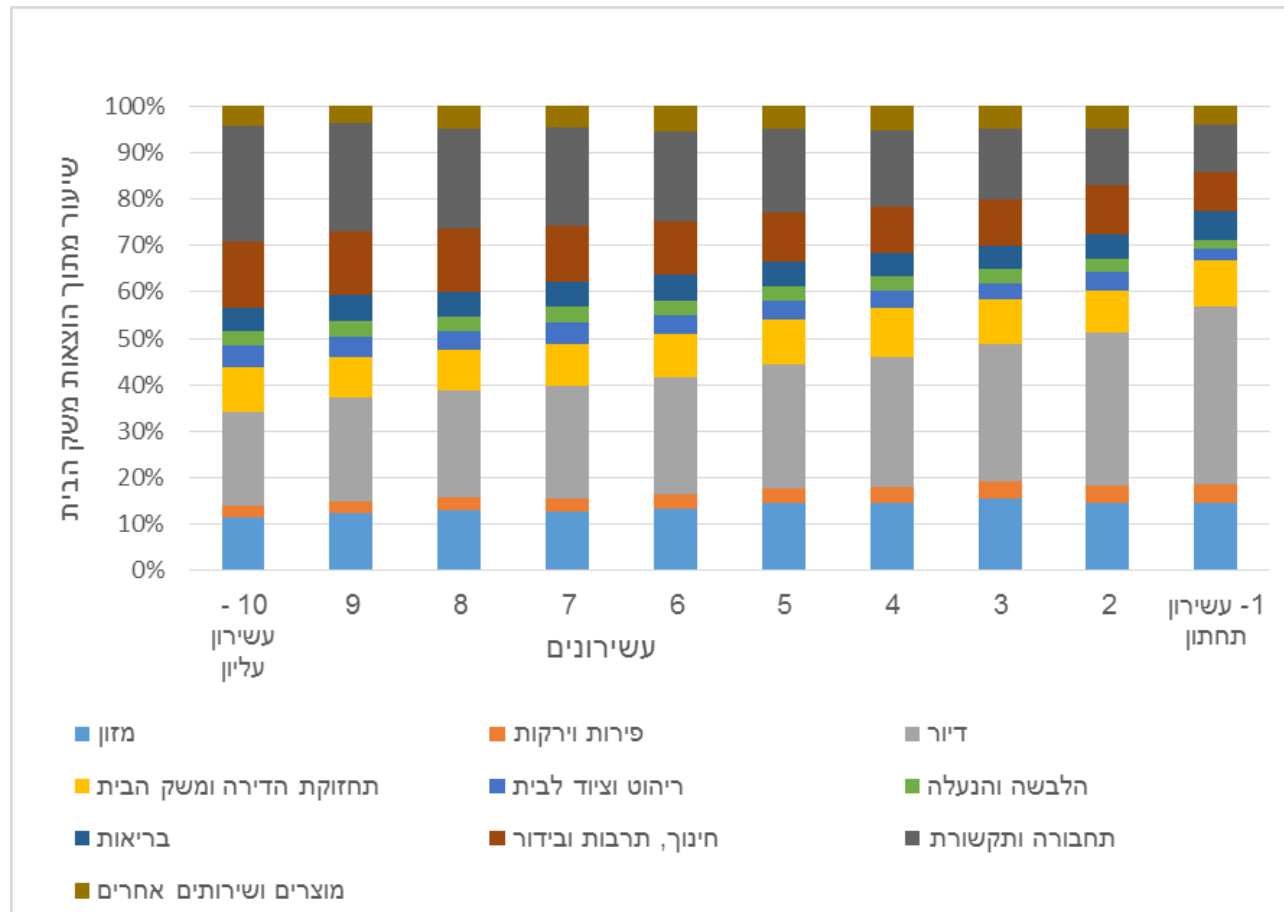


Figure 3. Relative importance of all the dimensions considered in the service quality. (Figure appears in color online.)



Ability to Pay



Spending on Transport

- Wealthiest: ₪6,600
- Poorest: ₪572

Source: Central Bureau of Statistics, 2011. Monthly Household Expenditures



Conflict with other Network Performance Measures

Higher speeds often aggravate other network performance variables

- Safety
- Environmental impacts and social sustainability
- Stimulates more demand
- Excludes other road users
- Aggravates barriers to low mobility travelers (cost, complexity)
- Can reduce viability of other services
 - Local / regional services
 - Off peak
 - Segregated services



Providing Mobility

- Latent travel needs
 - Overt travel versus unmet travel needs (Nordbakke and Scwhanen 2014)
- Accessibility rights
 - Include broader travel purposes
 - i.e. access rights to leisure travel (Hall, 2010)
- Recognize that travel is not just derived demand



Study I: Bus Journey Experiences

- Stradling, et. al. (2007). Passenger Perceptions and the Ideal Bus Journey Experience
- 8 Factors covering 68 items:
 - (1) Services Provided/ Convenience
 - (2) Intrusive Arousal
 - (3) Unsafe
 - (4) Car Preference
 - (5) Cost
 - (6) Self-image
 - (7) Preference for active mode
 - (8) Disability impediments
- Varied most with age and frequency of bus use
 - Frequent users – 2 & 3;
 - Infrequent users - 7
- Most enjoyable: time to relax



Study II – Connected by the Act of Travel

- Jones et. al. (2012). Rethinking Passive Transport: Bus Fare Exemptions and Young People's Wellbeing
- Bus travel benefits:
 - Social inclusion
 - Reduced future bus aversion
 - Civic responsibility
 - Physical activity
 - Socialization
 - Socializing



Study III: Travel is Not Just Transport

- Gustafson, Per (2014). Business Travel from the Traveller's Perspective: Stress, Stimulation and Normalization
 - **Beneficial Experiences**
 - Mobility Capital, personal development, experience, orientations, competencies and skills
 - Respite, novelty, thrill, variety of the travel itself and of destinations
 - Status, distinction, privilege
 - Freedom, independence, choice and flexibility for use of time while travelling
 - Relationship between spatial and social mobility
 - Time density, dependent on a certain level of comfort
 - **Disutility**
 - Stress
 - Health and safety
 - **Barriers**
 - Skills, knowledge, ability



Possible Categories of Traveler Welfare

Access to destinations

- Choice and range of activities from which we can choose
- Activities in which we engage

Mobility / Movement

- Travel as an enjoyable activity
- Independence / autonomy
- Stress reduction

Derivative / Proceeds

- Additional skills and benefits that accrue due to higher mobility: i.e. status, skills, mobility capital, socialization, health



Next Steps

- Look at a fuller range of benefits
 - How can we measure? Can we quantify?
 - Can we identify priorities and rankings?
- Consider other approaches to resource allocation
 - Relative distributions – poverty lines
 - Other progressive allocation
 - Standard / norms
 - Refer to other areas, such as health or education
- Are alternative approaches better?
 - More equitable?
 - Resource efficient?



Thank you