

Social Equity in Public Transit

A decision guide for practitioners and policymakers

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A photograph showing the interior of a crowded bus. In the center, a woman wearing a red long-sleeved shirt is standing and holding onto the overhead handrails with both arms. She has a grey backpack on her back. To her left, a woman with dark hair pulled back is looking down. In the foreground on the right, another woman is looking towards the left. The bus is filled with other passengers, and the windows show a blurred outdoor scene. A black text box is overlaid on the right side of the image.

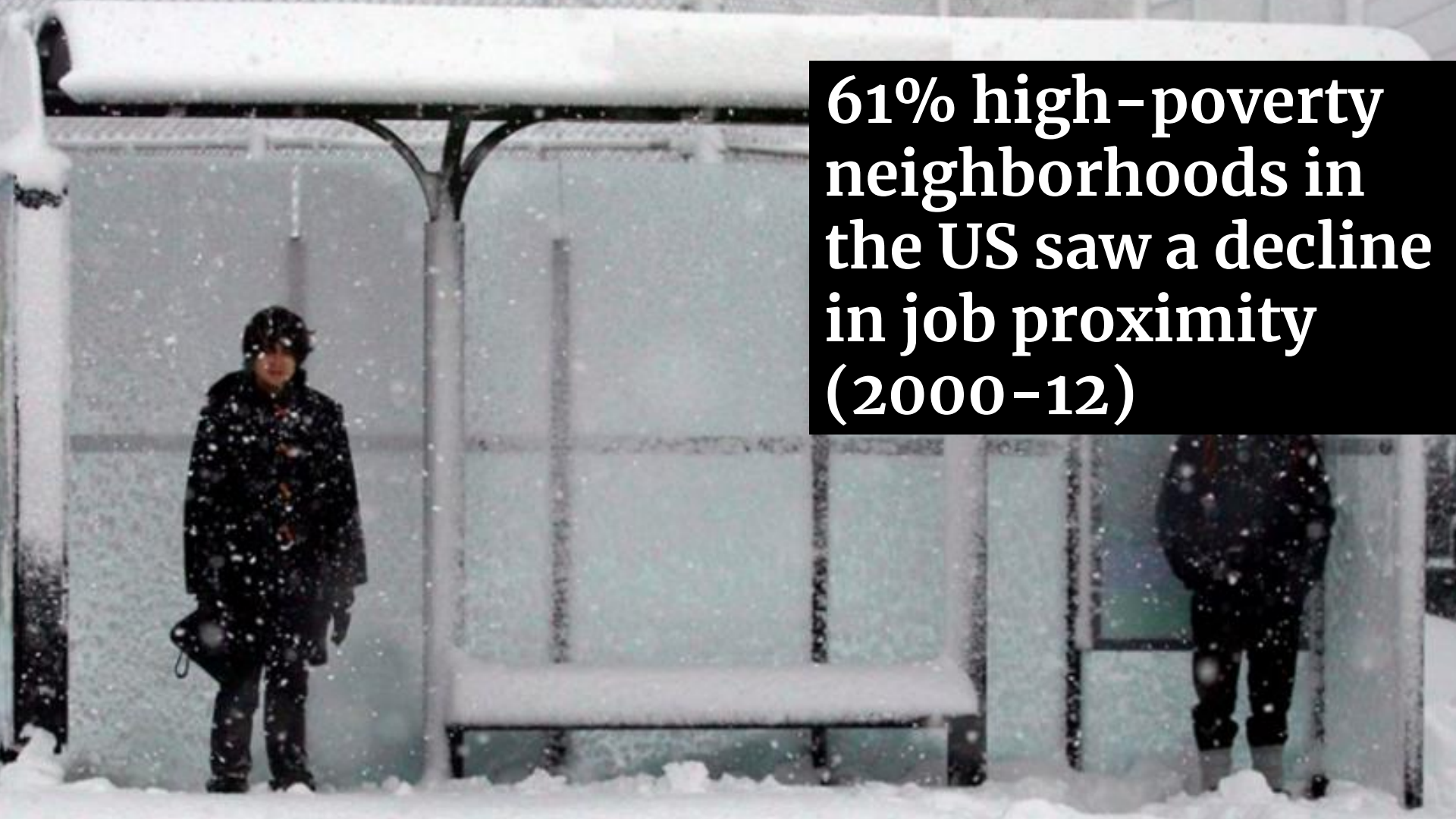
60 % of women are physically harassed on transport systems in Latin America



**In San Diego,
drivers can access
up to 30 times more
jobs than transit
riders**

A high-angle, wide shot of a massive traffic jam in Jakarta, Indonesia. The road is completely filled with a variety of vehicles, including cars, motorcycles, and a large bus. The sheer density of the traffic is overwhelming, with vehicles packed closely together in multiple lanes. The scene is captured in bright daylight, highlighting the chaotic and congested nature of the city's transportation. A semi-transparent black box with white text is overlaid on the right side of the image.

**70% of Jakarta's air
pollution comes
from vehicles**

A photograph of a person standing in a snowy bus stop during a heavy snowfall. The person is wearing a dark, heavy winter coat and a hat. The bus stop has a bench and a shelter with a curved roof. The ground is covered in snow, and snowflakes are falling heavily around the person. The background is a blurred view of a street or parking lot.

61% high-poverty neighborhoods in the US saw a decline in job proximity (2000-12)

Equity considerations are unavoidable in the context of public transit



How can we plan public transit that improves social equity?

Scope of Research

- Metropolitan Public Transit Systems
- Global coverage
- Study equity dimensions
- Aimed for planners/decision makers



Transmilenio: Bogotá, Colombia

Agenda

1. What is equity and why does it matter?
2. How can we account for equity?
 - a. Economic Inclusion
 - i. User Fees
 - ii. Employment
 - iii. Land Value and Gentrification
 - b. Gender
 - c. Safety
 - d. Accessibility
3. Recommendations

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What is equity?



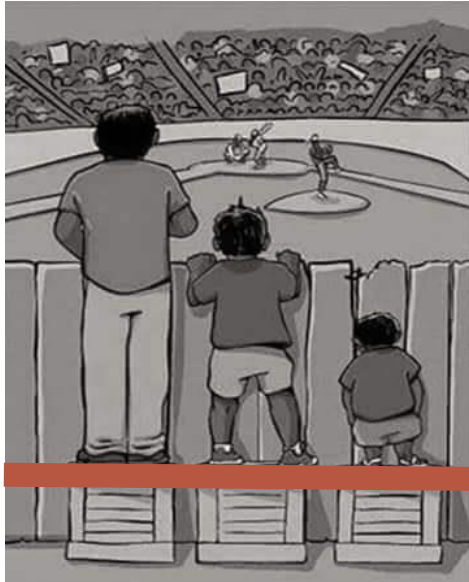
What is equity?

The fair distribution of transportation costs and benefits among current and future members of society.

Horizontal equity

Vertical equity

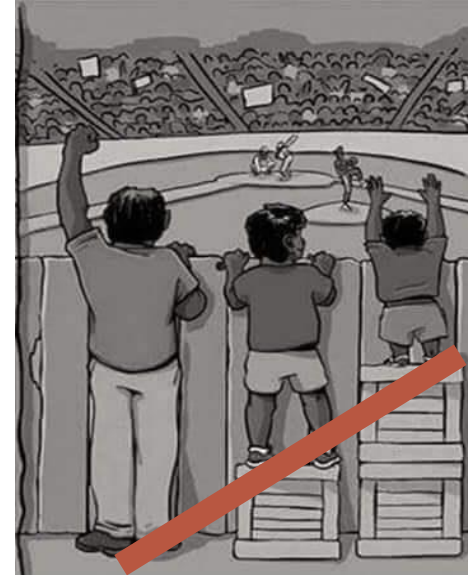
Equal treatment of all
(assumed equals)



VS

A large red double-headed arrow pointing left and right, positioned below the text 'VS'.

Equal outcome for all
(reducing inequities)



Why do we miss equity considerations?

- Planning favours motorized transport

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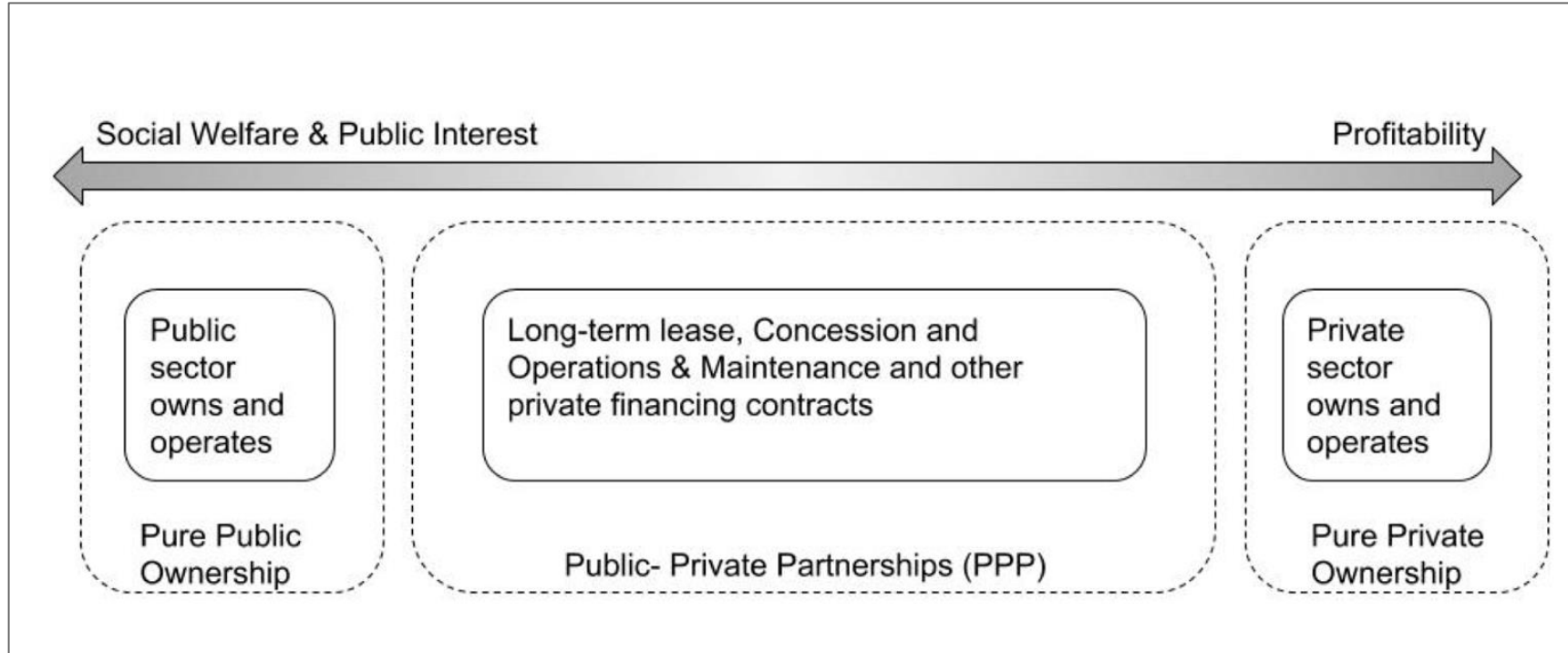
- Planning favours motorized transport
- Underrepresentation of vulnerable groups' needs
- Non-diverse profile of planners
- Appraisal focuses on quantifiable factors

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- Appraisal focuses on quantifiable factors
- **FUNDING**



Private sector involvement risks accentuating social inequities



Why can PPPs fail to deliver social equity?

What we know

Common reasons for failure (examples):

- Poor public sector capacity
- Inappropriate PPP and sector framework
- Unrealistic revenue and cost estimation

What we should do

- Strong legislation
- Setting guidelines for PPP programs, procurements, projects and contracts
- Transparency and public participation
- Developing a firm monitoring framework

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2. **How can we account for equity?**
 - a. **Economic Inclusion**
 - i. **User Fees**
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 - iii. **Land Value and Gentrification**
 - b. **Gender**
 - c. **Safety**
 - d. **Accessibility**
3. Recommendations

Economic Inclusion: User Fees

What we know

1. High user fees can reduce or block access to transit
2. Key sub-group: Low-income
3. Setting user fees:
 - a. No affordability benchmark
 - b. Suppressed demand

What we should do

- Set an affordability benchmark
- Conduct baseline affordability assessment
 - By income group
- Represent the needs of non-users
 - Barriers to access

Economic Inclusion: Employment

What we know

1. Access to jobs depends on public transit
 - a. Affordability
 - b. Routes/destinations
2. Jobs and people are unevenly distributed.
3. Sub-group characteristics:
 - a. Transit-dependent
 - b. Multiple jobs/ short-term jobs
 - c. Intersection of vulnerabilities
4. Integrated city planning matters

What we should do

- Spatial mapping of income groups and jobs by sector/skill
- Routes should connect vulnerable groups to appropriate jobs
- Integrated transit and city development

Land Value and Gentrification

What we know

1. Public transit increases land value
2. Land value changes depend on:
 - a. Distance from transit station
 - b. Preference for public transit
 - c. System quality
 - d. Micro-contexts
3. Land use is both endogenous and exogenous to public transit
4. Gentrification effects are varied
5. Integrated city planning matters

What we should do

- Spatial mapping of land value changes
- Mapping impact channels for land value changes
- Integrated transit and city development



Skytrain, Vancouver

Gender

What we know

1. Women have different transit needs
 - a. Sexual Division of Labour
 - b. Safety concerns
 - c. Suppressed demand
2. Ineffective redressal mechanisms
3. Women-only transit spaces work
4. No attention to other gender minorities

What we should do

- Estimate suppressed demand
 - Qualitative surveys
- Transit destinations
- Improving safety:
 - Women-only transit spaces
 - Female staff
 - Responding to harassment/violence
 - Gender sensitivity training
 - Non-traditional genders

Safety

What we know

1. Regular incidents:
 - a. Violent attacks
 - b. Robbery
 - c. Assaults
 - d. Other crimes
2. Safety levels are unevenly distributed
3. Safety concerns can discourage use

What we should do

- Conduct spatial analysis to identify unsafe zones in existing system
- Staff training and presence of staff
- Implement public awareness campaign to encourage users to join forces against perpetrators

Accessibility / Universal Access

What we know

1. Problem: Differential levels of accessibility for different groups
 - a. Network accessibility
 - b. User accessibility
2. Depends on:
 - a. System performance
 - b. Network design
3. Despite identifying 'accessibility' as a key concept, only few cities use accessibility metrics to evaluate transport systems

What we should do

- Identify groups with low access
- Ensure that network and system design provide access to vulnerable groups
- Use spatial mapping to estimate first and last mile improvements
- Increase the range of destinations to suit all users
- Legal design requirements

Gaps in the current approach

1. Failure to conduct preliminary needs assessments based on socio-economic sub-group

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Result: Inequitable transit design

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Our Recommendation: An Equity Checklist

Checklist: Preliminary assessment

Question	Methods
Have the relevant vulnerable subgroups been identified?	<ul style="list-style-type: none">● Measure existing transit inequities (Baseline), or/and● Conduct a micro-level analysis of social inequities, or/and● A macro-level analysis (Country / Region)
Have the equity goals of the project been identified?	<ul style="list-style-type: none">● Do the equity goals match the wider social inequities of the region?● Plan metrics for an equity impact evaluation● Determine mechanism to collect data on defined metrics
Have all stakeholders been consulted/represented?	<ul style="list-style-type: none">● Create profile of decision makers and determine adequate representation of each group● Have all stakeholders been consulted?● Have barriers to access been addressed by consulting non-users?

Checklist: Gender

Question	Methods
Has latent demand of non-users been measured?	<ul style="list-style-type: none">● Conduct a micro-level analysis of non-user characteristics● Identify social and safety barriers that prevent usage
Do transit destinations serve women's and other gender minorities' transit needs?	<ul style="list-style-type: none">● Identify current and future location of industries that mostly employ women and other gender minorities● Determine current and future location services accessed by women and other gender minorities (school, health care service)● Examine if men and women use transportation differently. Does the system design prioritize one group's interest over the other?
Are there safe spaces for all gender?	<ul style="list-style-type: none">● Establish safe spaces for vulnerable groups● Plan gender safety training for public transit staff● Is there a mechanism to record complaints and report incidents?

Key Recommendations

- 1. Baseline to assess inequities**
 - a. Rapid Social Assessment**
 - b. Regional social inequities**
 - c. Vulnerable groups**



Key Recommendations

1. Baseline to assess inequities
 - a. Rapid Social Assessment
 - b. Macro-social inequities
 - c. Vulnerable groups
2. **Identifying relevant stakeholders**
 - a. **Identifying impact channels**



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1. Baseline to assess inequities
 - a. Rapid Social Assessment
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2. Identifying relevant stakeholders
 - a. Identifying impact channels
3. **Consider all transit options**



Key Recommendations

1. Baseline to assess inequities
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 - b. Macro-social inequities
 - c. Vulnerable groups
2. Identifying relevant stakeholders
 - a. Identifying impact channels
3. Consider all transit options
- 4. Plan for Impact Evaluations**



Overall takeaways

1. Use the equity checklist as part of the project appraisal
2. Determine whether impacts are 'equity improving' for each indicator
3. Have mandated minimum equitable design requirements
4. Accounting for trade-offs:
 - a. Minimum requirements for projects
 - b. Maximum Red Flag Approach



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