

# Electric Vehicles

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# Equity

- SOCIAL EQUITY represents the systematic process of assessing and quantifying the **fairness and justice** in the distribution of resources, opportunities, and outcomes within a society or a specific system.
- Equality treats everyone the same, while equity acknowledges that individuals and groups start from different places and may require differentiated support to achieve comparable results.
- This concept is deeply rooted in ensuring that **policies, programs, and practices do not disproportionately burden or benefit** any particular group, especially those historically marginalized or disadvantaged.

# Equity

- For instance, providing the same level of funding to two schools in vastly different socioeconomic neighborhoods may perpetuate inequity if one school requires significantly more resources to address pre-existing disadvantages.
- Justice, in this context, is a broader concept that encompasses equity but also includes legal and moral dimensions of fairness and rightness.

# Importance of Measuring Equity

- Why is [MEASURING SOCIAL EQUITY](#) important?
- The IMPORT lies in its capacity to guide and evaluate efforts towards creating a more just and inclusive society.
- Without measurement, we lack the capacity to understand the extent of existing inequalities, the impact of policies intended to address them, or whether progress is genuinely being made.
- **INTERPRETATION of social equity data allows organizations and governments** to identify areas where disparities are most pronounced, to target interventions effectively, and to hold themselves accountable for promoting fairer outcomes.

# Equity and reliability of public electric vehicle charging stations in the United States

- Equitable coverage and reliable operation of electric vehicle charging stations (EVCSs) are crucial for a just transition to a carbon-free future.
- Analysis in [1] finds out -disadvantaged communities (DACs) have 64% fewer public EVCSs per capita than non-DACs in USA.
- Additionally, EVCS users in DACs and urban areas experience significantly more reliability issues compared to those in non-DACs and rural areas, primarily related to hardware and technical failures.

# Pigou-Dalton principle

The Pigou-Dalton principle, also known as the Dalton transfer principle, is a fundamental concept in welfare economics that guides the assessment of income distribution changes.

It states that a "regressive transfer," where income is moved from a poorer individual to a richer individual, should decrease social welfare, while the reverse, a "progressive transfer," should increase it.

# Equity Measures

- Ginni Index
- Energy Burden
- Rawlsian welfare

# Reference

- Equity and reliability of public electric vehicle charging stations in the United States –Nature Communication
- Inequitable access to EV charging infrastructure –The Electricity Journal