Tariff policies and Universal Service / Universal Access

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Seminar on tariff strategies for competitive environments, ALTTC, Ghaziabad, 20-22 July 1999

Pricing Strategies to achieve Universal Service / Universal Access

- What is Universal Service / Universal Access?
- The “myth” of subsidised access
- Defining affordability
- Pricing strategies
  - ⇒For universal access
  - ⇒For universal service
- Targets for the year 2010

Universal access

- Availability ...
- Accessibility ...
- Affordability ...

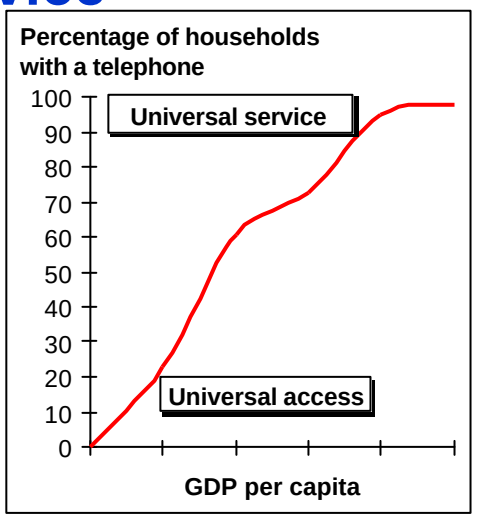
of basic telephone service

"to promote the extension of the benefits of the new telecommunication technologies to all the world's inhabitants"

ITU Constitution, Article 1

Universal access and Universal service

- ***Universal service***: telephone in every home
- ***Universal access***: telephone within reasonable distance for everyone



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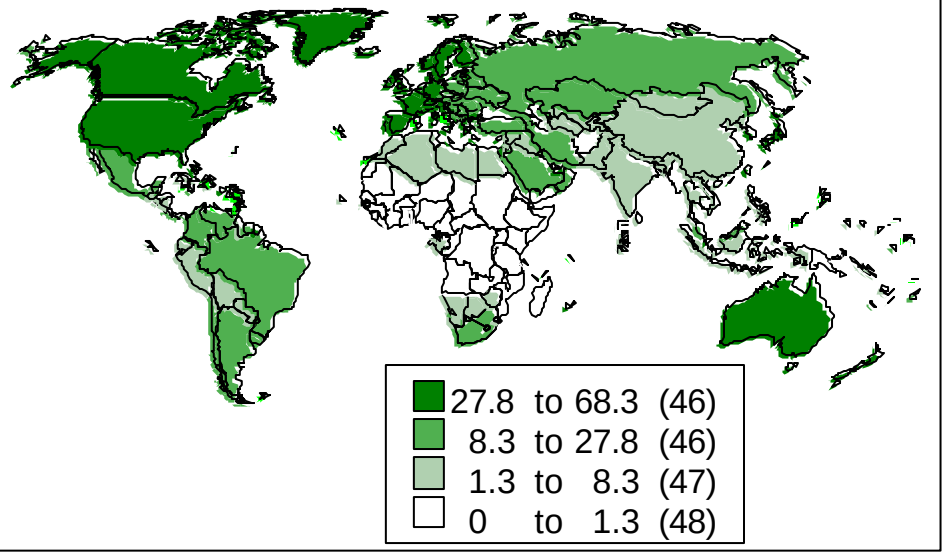
Teledensity disparities



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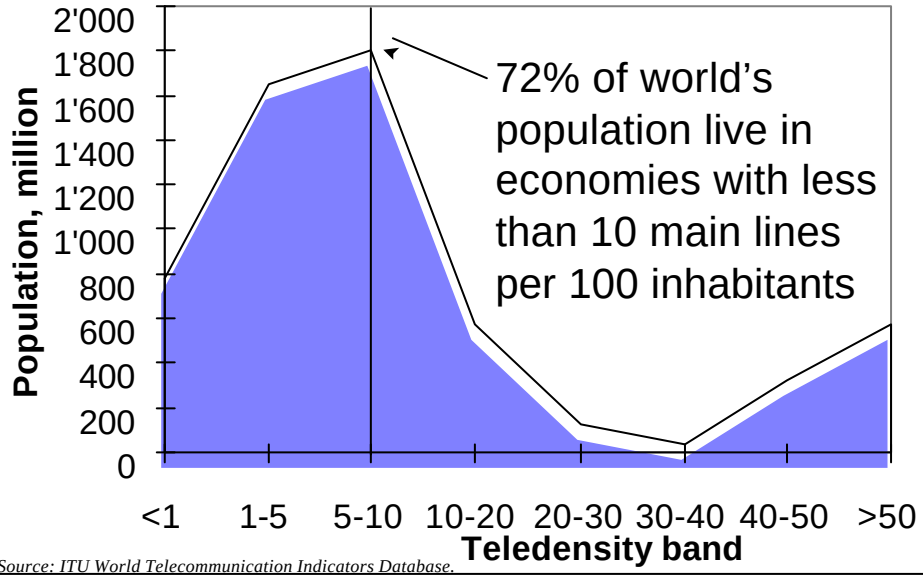
The scale of the problem



Source: ITU World Telecommunication Indicators Database.

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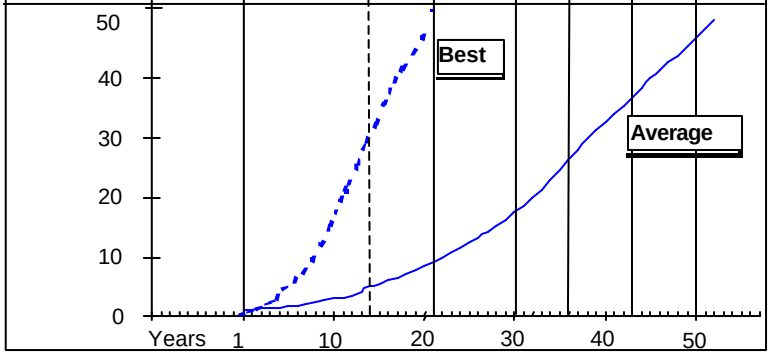
Teledensity transition

No. of countries:	43	37	29	28	22	17	19	25
Tele-density:	<1	1-10	5-10	10-20	20-30	30-40	40-50	>50



Source: ITU World Telecommunication Development Report 1998: Universal Access.

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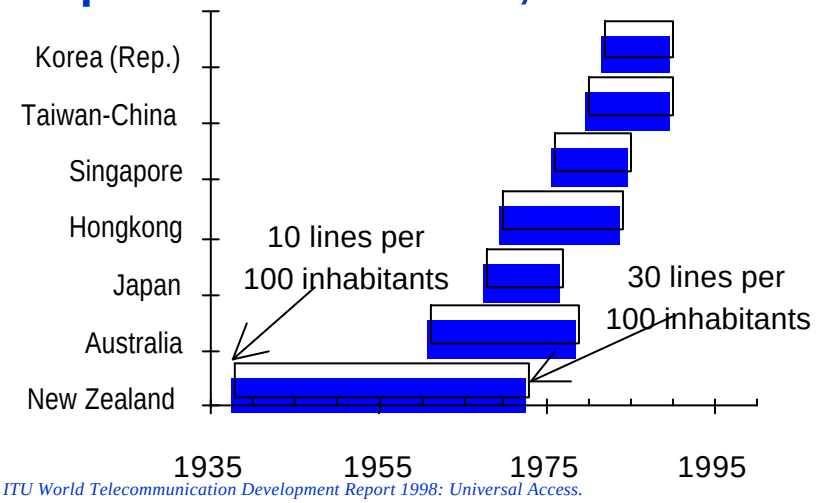
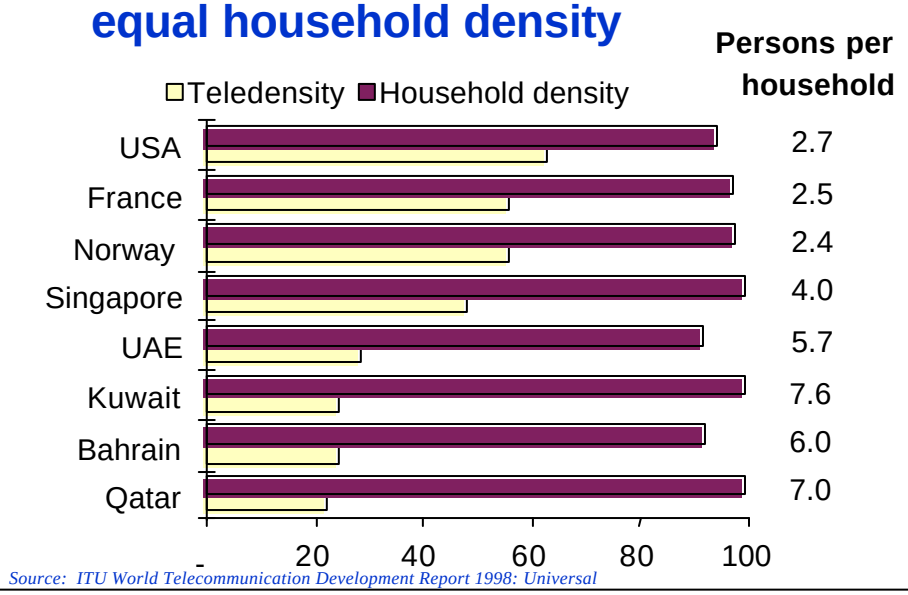
Telecoms transition, from 10 to 30 lines per 100 inhabitants, Asia-Pacific



Source: ITU World Telecommunication Development Report 1998: Universal Access.

Teledensity does not necessarily equal household density



Source: ITU World Telecommunication Development Report 1998: Universal

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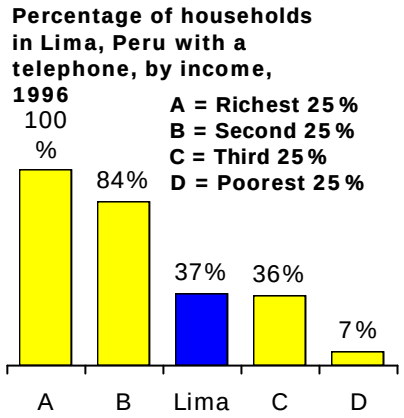
The "myth" of subsidised access

- **It is commonly argued that telephone access should be priced at a low rate so that as many people as possible can afford it**
- **But,**
  - ⇒ **this may result in 'subsidies' from non-telephone users to telephone owners, who are typically business, government and richest 1% of population**
  - ⇒ **if revenues do not cover costs, then the waiting list will grow**

"Socially desirable" pricing

- Rates are kept artificially low
- Affordable price, maybe < break-even
- Initial group of telephone users are clustered in the largest city and are not poor
- May not generate enough revenue for network expansion



Source: OSIPTEL.

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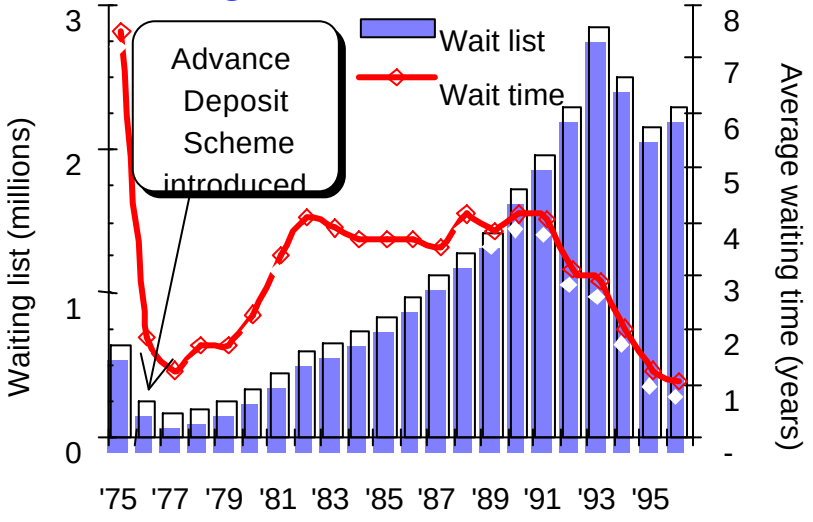
Waiting lists and average waiting times, India, 1975-96



Source: ITU World Telecommunication Development Report 1998: Universal Access.

Defining affordability

- **Relative affordability, e.g., <5 per cent of average family income**
  - ⇒**BUT, initial telephone users are are not necessarily "average**
  - ⇒**In low income countries, costs for network installation may be high, but incomes are low**
- **"Best practice" cost of operating a network**
  - ⇒**Methodology must be refined for residential and business users**
  - ⇒**Costs must be split between one-time & recurring**

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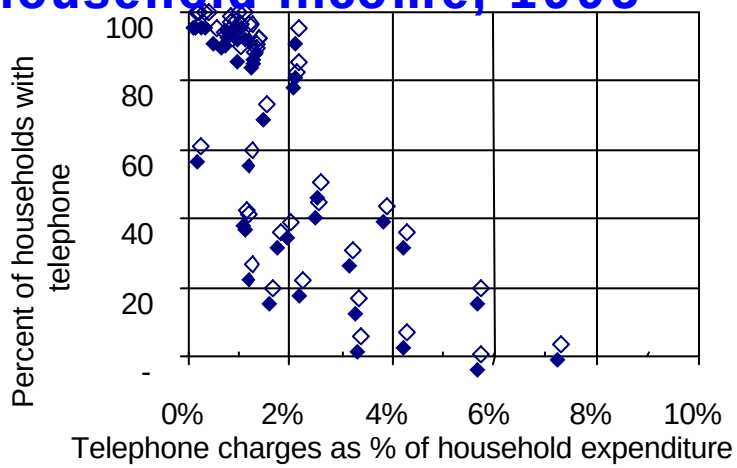
Telephone charges relative to household income, 1995



Note: The annual telephone charges data are a basket based on one tenth of the installation charge, annual subscription in the largest local network, 700 local calls and 130 long-distance calls. Taxes are included.

Source: TU World Telecommunication Development Report 1998: Universal Access.

Methodology for determining average and best practice costs

Establish average operating costs for telephone network	US$ 200 - 400 per subscriber per year
Derive an average tariff	US$ 64 - 122 per year
Determine how many households can afford service	Where 5% of household income > US$ 1'340 - 3'200
Choose a policy for families that cannot afford service	Financial assistance, widespread payphones, etc.

Source: *TU World Telecommunication Development Report 1998: Universal Access.*

Average & best practice residential costs

	Average	Median	Best practice
Annual operating cost per line	380	300	200
Annual subscription[1]	122	96	64
Annual connection fee[2]	39	7	3
Total annual charge for telephone service	160	103	67
Annual income required to afford service[3]	5'432	4'320	3'480

Note: Based on study of 10 operators from different regions and income groups. "Best practice" is the lowest
1. 40% of operating costs discounted by 20 per cent (covered by higher business subscription charge.
2. Actual connection charge, divided by seven. 3. Assuming telephone charges represent 5% of income.

Source: *ITU World Telecommunication Development Report, 1998: Universal Access.*

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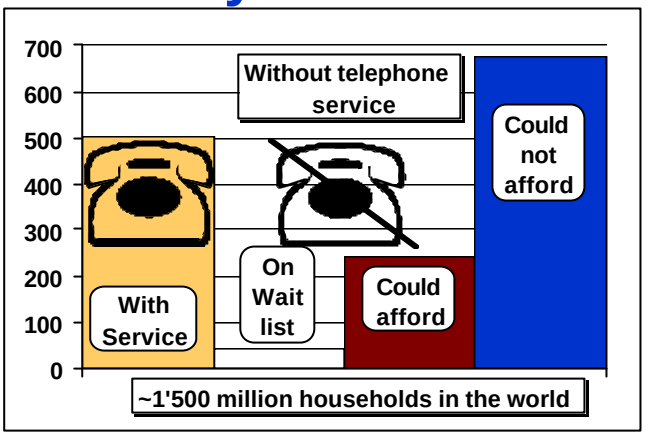
Global measures of Affordability



Source: *ITU World Telecommunication Development Report, 1998: Universal Access.*

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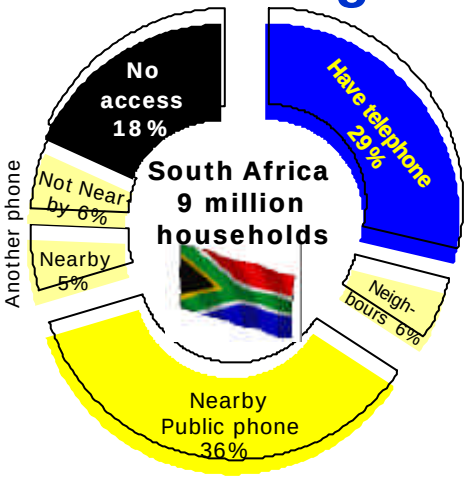
Measuring Accessibility



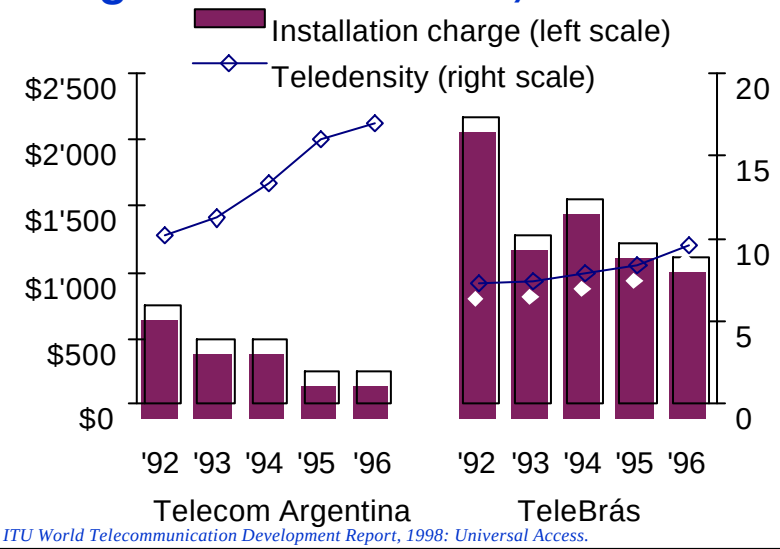
Source: Statistics South Africa. <http://www.statssa.gov.za/>

Teledensity:	10.7
Cellular density:	3.7
Total telephone density:	14.4
Household telephone penetration:	29%
Universal access penetration (% of households with access to telephone):	**82%**

Pricing strategies for extending Universal Access

- Installation charges initially high, but coming down over time
- Residential subscription charges should reflect cost of servicing line (typically US$5-10 per month)
- Set separate charges for residential and business subscribers
- Lower prices for payphone or community telephone access
- Tariff options, e.g., for low-volume users

Installation charges and teledensity in Argentina and Brazil, US$



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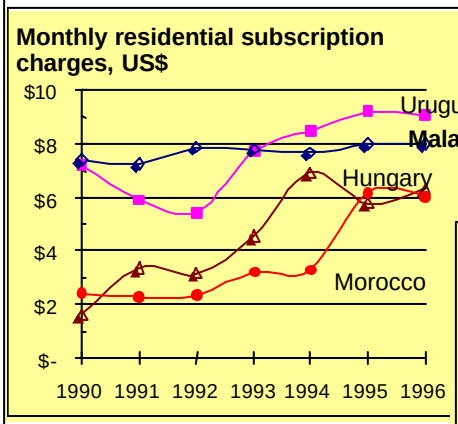
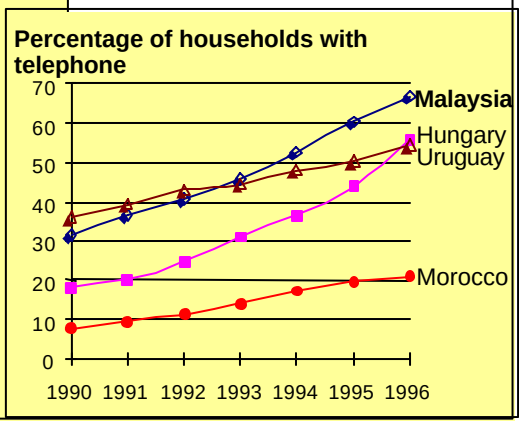


Higher monthly subscription charges ...



... lead to faster growth rates

Source: ITU World Telecommunication Development Report, 1998: Universal Access.

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Demand-side measures for extending Universal Access

- **Tariff cross-subsidies**
  - ⇒Traditional method, but may not benefit those for which it is intended
- **Universal Service Fund**
  - ⇒Targeted assistance for special needs (e.g., rural areas, disabled), but may create administrative burden
- **Direct Financial Assistance to users**
  - ⇒Targeted assistance using non-telecom-specific criteria, but may be difficult to control abuses
- **Community-wide initiatives**
  - ⇒e.g., Payphone in every village, community

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Supply-side measures for extending Universal Access

- **Market liberalisation**
  - ⇒e.g., allowing new suppliers to enter market, liberalising equipment market, giving financial autonomy to PTO, encouraging foreign investment, Build/Transfer/Operate concessions
- **Payphone liberalisation**
  - ⇒e.g., permitting private installation and ownership of payphones, community telephone shops, telecentres
- **Technical solutions**
  - ⇒e.g., Mobile cellular, Wireless Local Loop, GMPCS, combined cable TV/telephony

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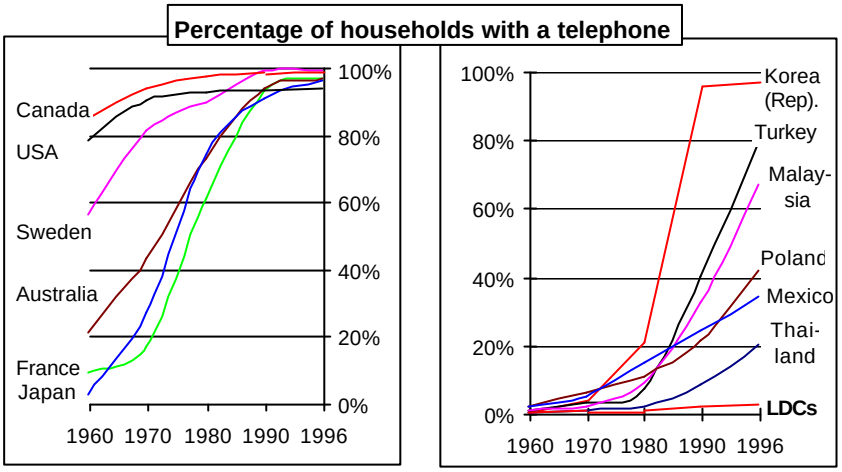
Pricing strategies to achieve Universal Service

- **Targeted tariff options**
  - ⇒e.g., for low-volume users, the elderly, the disabled, foreign migrants
- **Prepaid calling cards**
  - ⇒for fixed-line and mobile networks
- **Support for incoming calls**
  - ⇒e.g., to allow families to receive calls from family members working abroad, for instance through voicemail, email, telecentres, call-turnaround, foreign sales of calling cards etc

Achieving Universal service



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Year 2010 Goals

Goal: Provide reasonable access to telecommunications for all of humanity by the year 2010

	Teledensity		Household telephone penetration		Payphones per 1'000 people	
	1996	2010	1996	2010	1996	2010
WORLD	12.80		34.4		1.55	
Developing	5.07	[illegible]	16.3	>50	0.84	[illegible]
Low income	2.44	[illegible]	8.5	[illegible]	0.57	[illegible]
excluding China	1.22		4.1		0.21	

Source: ITU World Telecommunication Development Report, 1998