

Wired and Wireless Telecommunications Services

OUTPUT

PROVISION OF VOICE AND
DATA COMMUNICATIONS
VIA TELEPHONE LINES OR
THROUGH A RADIO
NETWORK

WIRED TELECOM SERVICES

- LOCAL SERVICE
- PUBLIC SWITCHED SERVICE
- PRIVATE LINE SERVICE

LOCAL SERVICE

- BASIC ACCESS TO LOCAL TELEPHONE LINES
- ACCESS TO ADDITIONAL SERVICES PROVIDED BY CENTRAL OFFICE FACILITIES

PUBLIC SWITCHED SERVICE

- LONG DISTANCE OR TOLL SERVICE ROUTED THROUGH A PUBLIC NETWORK
 - SWITCHED ACCESS: ROUTED THROUGH A LOCAL WIRE CENTER
 - SPECIAL ACCESS: ROUTED DIRECTLY FROM THE CUSTOMER TO THE CARRIER

PRIVATE LINE SERVICE

- CALLS ARE ROUTED
THROUGH DEDICATED
CIRCUITS
- CUSTOMER SELECTS
TRANSMISSION SPEED
AND OTHER FEATURES

TYPES OF WIRELESS TELECOM CARRIERS

- TRADITIONAL CELLULAR
- PERSONAL COMMUNICATIONS
SERVICES (PCS)
- ENHANCED SPECIALIZED
MOBILE RADIO

PPI GOAL

- NET TRANSACTION PRICING
- MINIMIZE NEW ITEM BASIS
- INDEXES ARE:
 - ACCURATE
 - LOW VARIABILITY
 - REPRESENTATIVE

QUALITY ADJUSTMENT

- ABILITY TO VALUE
CHANGES IN RATE
CHARACTERISTICS
- ABILITY TO HANDLE
ACCESS CHANGES

PRICING METHODOLOGIES

- BILL METHOD
- RATE METHOD
- UNIT VALUE METHOD

BILL METHOD

- RANDOM SAMPLE BILLS
- HOLDS CALLING
CHARACTERISTICS
CONSTANT
- REPRICE MONTHLY USING
CURRENT RATES

RATE METHOD

- PROBABILITY SAMPLE RATES
- HOLDS BASE PERIOD QUANTITY WEIGHTS CONSTANT
- INCLUDES DISCOUNTING INFORMATION

UNIT VALUE METHOD

- POPULATION FOR
HOMOGENEOUS SERVICE
- HOLDS BASE PERIOD QUANTITY
WEIGHTS CONSTANT
- REPRICE MONTHLY USING
CURRENT PER UNIT CHARGES

CELLULAR SERVICE

UNIT VALUE METHOD

TOLL/LONG
DISTANCE SERVICE

UNIT VALUE METHOD

LOCAL SERVICE

RATE METHOD

DISADVANTAGES BY PRICING METHOD

BILL METHOD

NEW ITEM BIAS
SMALL SAMPLE SIZE

RATE METHOD

CANNOT HANDLE
CALLING AREA
CHANGES

UNIT VALUE
METHOD

INCREASED INDEX
VOLATILITY

INDEX MOVEMENT TOLL AND CELLULAR

- PRICE COMPETITION
- ECONOMIES OF SCALE
- MULTIPLE COMPETING TECHNOLOGIES
- MULTIPLE FCC LICENSES
- NETWORKING
- NICHE PRICING

UNIT VALUE METHOD

BASE PERIOD

CURRENT PERIOD

AVERAGE USAGE **X** AVERAGE REVENUE = PRICE
(PER ACCESS LINE) (PER UNIT)

UNIT VALUE METHOD

<u>CHARGE</u>	<u>AVERAGE USEAGE (BASE)</u>	<u>AVERAGE REVENUE (CURRENT)</u>	<u>WEIGHTED REVENUE</u>
ACCESS LINE	1	20.0000	20.0000
PEAK MINUTES	400	0.0259	10.3600
OFF PEAK MIN.	600	0.0085	5.1000
CALL WAITING	.80	1.8500	1.4800
CALL FORWARDING	.60	2.1500	<u>1.2900</u>
			38.2300

Classification Issues

- Resellers
- Convergence of service lines

Resellers

- NAICS definition requires no network facilities
- Most resellers also have some network facilities
- Cannot be priced in US

Convergence of Service Lines

- Paging Services being absorbed by Cellular Phone Services
- Wired Telephone Services being absorbed by Internet
- Merged billing across companies