

A METROPOLITAN CASE STUDY
SUBSCRIBER AND TRAFFIC FORECASTING

Appendix 5

Additional Information

Bus main lines per employee

Household size

Calling rates



UNION INTERNATIONALE DES TELECOMMUNICATIONS
INTERNATIONAL TELECOMMUNICATION UNION
UNION INTERNACIONAL DE TELECOMUNICACIONES



BUS mainlines per employee

Two categories of subscriber main lines are included in the figures below : Single line business, and PBX lines (categories 2 and 3).

The figures are given by professional sectors :

Sector I = Agriculture, fishing, forestry;
Sector II = Industry, mining, construction;
Sector III = Finance, trade, tourism, transport;
Sector IV = Education, culture, medical, social.

In Croatia, the following standard figures have been used until now :

Sector I : 0.2 main lines per employee
Sector II : 0.3 main lines per employee
Sector III : 0.45 main lines per employee
Sector IV : 0.45 main lines per employee

According to some international statistics, the following figures are representative :

Sector I : 0.15 main lines per employee
Sector II : 0.30 main lines per employee
Sector III : 0.50 main lines per employee
Sector IV : 0.40 main lines per employee

How are these figures influenced by factors like

- General economical and technological level;
- Degree of industrial automization;
- Tariffs;
etc?

Household size

The following household size development is given by the official statistical bureau :

Year	Persons per household
1985	2.8
1990	2.9
1995	3.0
2000	3.1
2005	3.2

These figures are valid for Croatia, but are said to hold good also for the city of Rijeka.

The table is rather astonishing, since the quite opposite trend is observed and anticipated for the majority of countries.

A decreasing household size is typical for developing countries (if they develop). For already well developed countries, the household size is usually rather stable over time, with some fluctuations around the mean value.

(In Sweden, the average household size is around 2.5 persons)

One explanation could be that the Croatian government plans to stimulate the nativity in the country. In that case, the figures correspond to a policy.

Calling rates

The Rijeka Telecoms Administration performs traffic measurements on groups of subscriber lines with "high traffics". The table below shows the result of such measurements. The methods used to smoothen the raw data and to estimate mean values are, however, not known.

Figures are given per exchange for each category (RES,BUS,PBX,CB).

The administration has estimated some standard mean values for planning from this material :

Residential calling rate : 0.025 erl/line
 Business (single line) : 0.130 erl/line

We note that the statistics are from only four exchange units, and that for one of them only max values are given.

Exchange	Category							
	RES		BUS		PBX		CB	
	max	min	max	min	max	min	max	min
RC Rijeka (3x xxx)	0.036	0.016	0.130	0.075	0.298	0.171	0.729	0.071
RC Susak (44x xxx)	0.010	0.010	0.162	0.147	0.292	0.250	0.332	0.271
RC Kozala (5xx xxx)	0.018	0.017	0.122	0.111	0.304	0.239	0.304	0.239
Local exch CP Rijeka	0.024	*	0.069	*	0.376	*	0.332	*