

“User-friendly” presentation of statistics

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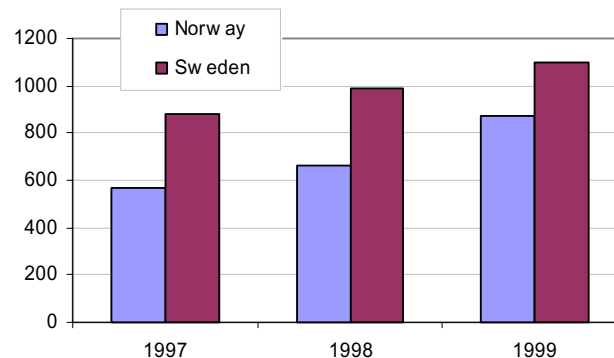
What is statistics?

Statistics is to compare numbers:

Like this:

	1997:	1998:	1999:
Norway	566	663	876
Sweden	879	987	1 098

... like this:



... or like this: "The relative increase was greater in Norway than in Sweden...."

Who are the users?

- **Experts**
- **Government org.**
- **Non-governmental org.**
- **Business**
- **Media**
- **Teachers/ students**
- **The general public**

User-friendliness
is most important
for this group

Non-experts

User-friendliness is relevant to all aspects of dissemination

- **Tables/numbers**
- **Graphs/maps**
- **Analysis/text**

User-friendly tables (1)

- **KISS: Keep It Small and Simple:** For popular presentations, tables should be small and simple (larger reference tables can be put in an appendix)
- **Focus on a few indicators/variables at a time**
- **Present relative numbers (percentages, rates, etc.) when appropriate**
- **Make sure that percentages are computed in the "right" direction**

User-friendly tables (2)

- **Simplify titles in tables (and graphs):**
- **Not: Distribution of households by type of household.**
- **Instead: Household types**
- **Instead of "...by gender (or by sex)" write: "men and women/males and females"**
- **Not: Movimento Geral de Crimes Segundo Tipos de Crime**
- **But: Tipos de Crime**

User-friendly tables (3)

Example:

Quadro 4.7 Operatividade dos Crimes em Geral, Segundo Província. M

Província	Crimes Conhecidos	Crimes Esclarecidos	Crimes Não Esclarecidos	% Esclarecidos	% Não Esclarecidos
País (Total)	36313	26975	9338	74	26
Niassa	1492	1153	339	77	23
Cabo Delgado	1405	1135	270	81	19
Nampula	3154	2664	490	84	16
Zambézia	2980	2734	246	92	8
Tete	2308	1953	355	85	15
Manica	1216	1087	129	89	11
Sofala	4070	3396	674	83	17
Inhambane	2645	2004	641	76	24
Gaza	1979	1596	383	81	19
Maputo Província	3743	2809	934	75	25
Maputo Cidade	11321	6444	4877	57	43

Fonte: Comando Geral da Polícia (PRM)

User-friendly tables (4)

Example:

**Quadro 4.7. Operatividade dos Crimes
em Geral, Segundo Província. 2000**

Província	Crimes Conhecidos	% Esclarecidos
País (Total)	36,313	74
Niassa	1,492	77
Cabo Delgado	1,405	81
Nampula	3,154	84
Zambézia	2,980	92
Tete	2,308	85
Manica	1,216	89
Sofala	4,070	83
Inhambane	2,645	76
Gaza	1,979	81
Maputo Província	3,743	75
Maputo Cidade	11,321	57

Fonte: Comando Geral da Polícia (PRM)

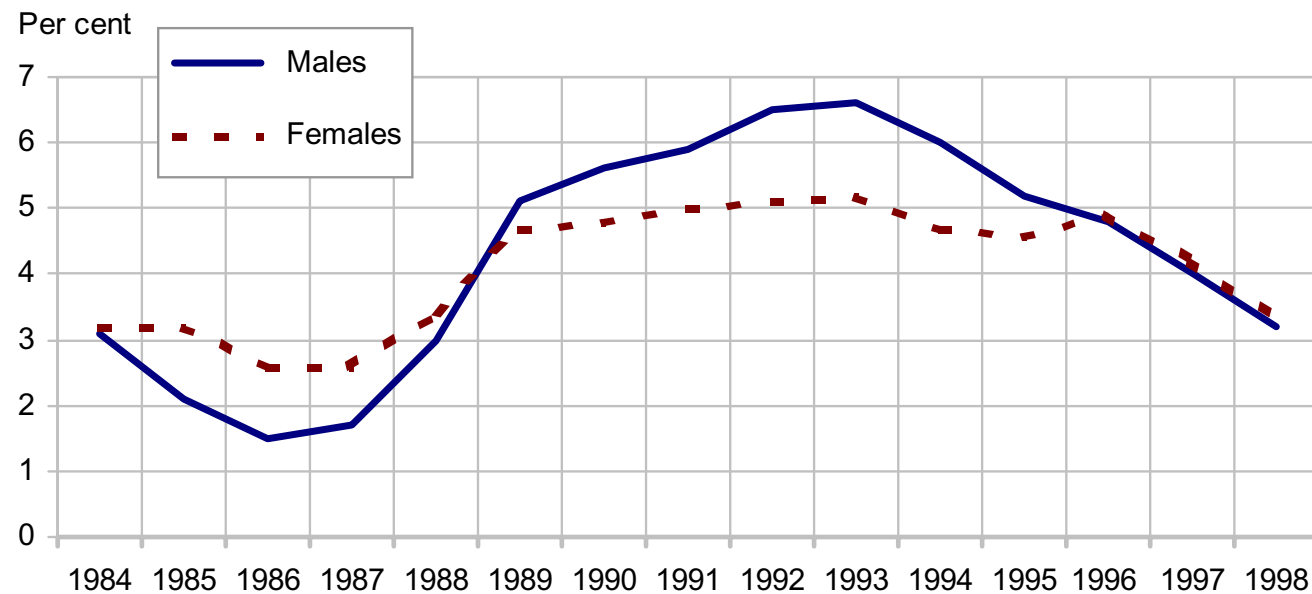
User-friendly graphs (1)

- **Why use graphs?**
- **Graphs give a quick, general, intuitive, visual, impression of:**
 - **distributions**
 - **trends and developments**
 - **differences between groups**
 - **relationships between variables**

User-friendly graphs (2)

Example:

Unemployed males and females in per cent of the labour force															
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Males	3,1	2,1	1,5	1,7	3	5,1	5,6	5,9	6,5	6,6	6,0	5,2	4,8	4,0	3,2
Females	3,2	3,2	2,6	2,6	3,4	4,7	4,8	5	5,1	5,2	4,7	4,6	4,9	4,2	3,3



User-friendly graphs (3)

- **Graphs are pedagogical, because they are easier to remember**
- **Graphs are "eye catchers"**
- **Graphs encourage comparison of trends and analysis of differences and relationships**
- **In addition, graphs compress data; they have high data density**

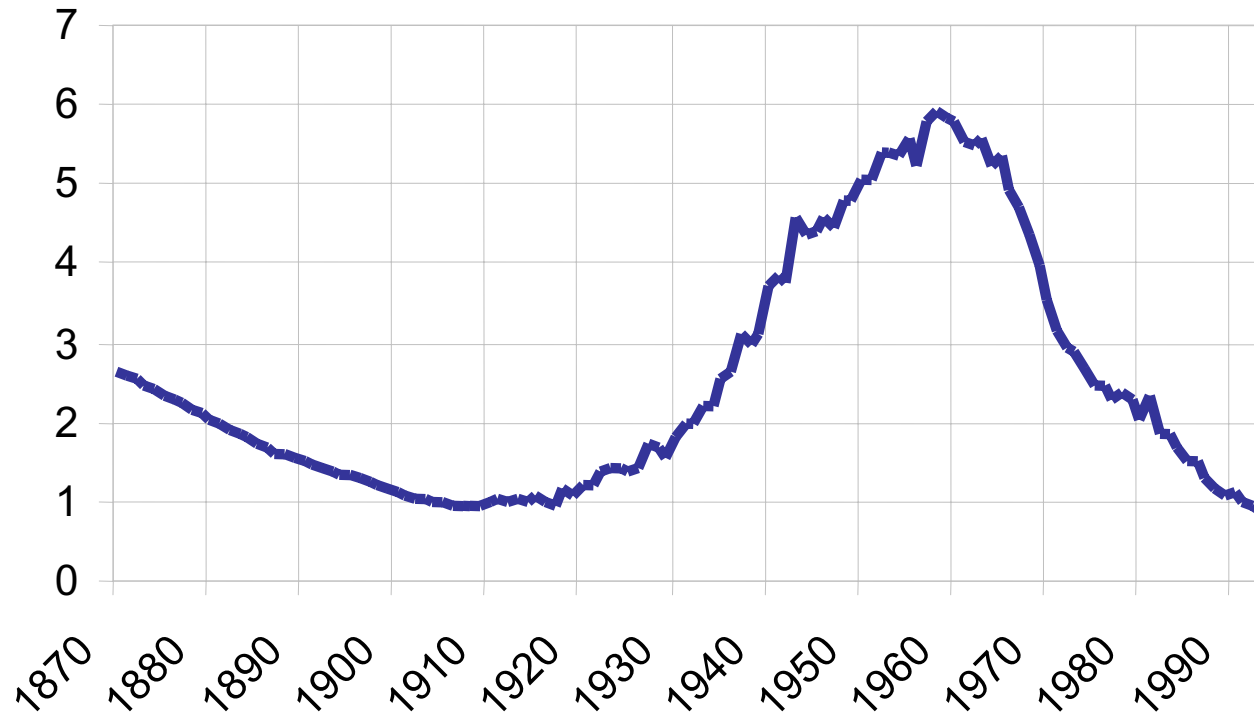
User-friendly graphs (4)

Example:

Per cent girls given the first name *Anne* each year

Year:	Pct.:	Year:	Pct.:	Year:	Pct.:	Year:	Pct.:	Year:	Pct.:	Year:	Pct.:
1870	2,65	1891	1,47	1912	0,99	1933	2,22	1954	5,35	1975	2,48
1871	2,59	1892	1,43	1913	1,03	1934	2,21	1955	5,57	1976	2,45
1872	2,53	1893	1,39	1914	0,98	1935	2,54	1956	5,25	1977	2,27
1873	2,47	1894	1,35	1915	1,09	1936	2,65	1957	5,80	1978	2,38
1874	2,41	1895	1,32	1916	1,00	1937	3,13	1958	5,91	1979	2,30
1875	2,35	1896	1,28	1917	0,95	1938	2,97	1959	5,83	1980	2,02
1876	2,29	1897	1,24	1918	1,17	1939	3,12	1960	5,81	1981	2,33
1877	2,23	1898	1,20	1919	1,09	1940	3,70	1961	5,55	1982	1,87
1878	2,17	1899	1,16	1920	1,23	1941	3,85	1962	5,50	1983	1,87
1879	2,11	1900	1,13	1921	1,22	1942	3,75	1963	5,58	1984	1,69
1880	2,05	1901	1,09	1922	1,39	1943	4,59	1964	5,22	1985	1,51
1881	1,98	1902	1,05	1923	1,42	1944	4,35	1965	5,37	1986	1,51
1882	1,92	1903	1,03	1924	1,41	1945	4,39	1966	4,94	1987	1,30
1883	1,86	1904	1,01	1925	1,39	1946	4,59	1967	4,73	1988	1,18
1884	1,80	1905	0,98	1926	1,41	1947	4,46	1968	4,36	1989	1,09
1885	1,74	1906	0,96	1927	1,74	1948	4,78	1969	3,99	1990	1,14
1886	1,68	1907	0,94	1928	1,68	1949	4,80	1970	3,53	1991	0,99
1887	1,62	1908	0,94	1929	1,57	1950	5,07	1971	3,16	1992	0,97
1888	1,58	1909	0,94	1930	1,80	1951	5,05	1972	2,92	1993	0,88
1889	1,54	1910	0,98	1931	2,00	1952	5,38	1973	2,88		
1890	1,51	1911	1,02	1932	1,98	1953	5,42	1974	2,66		

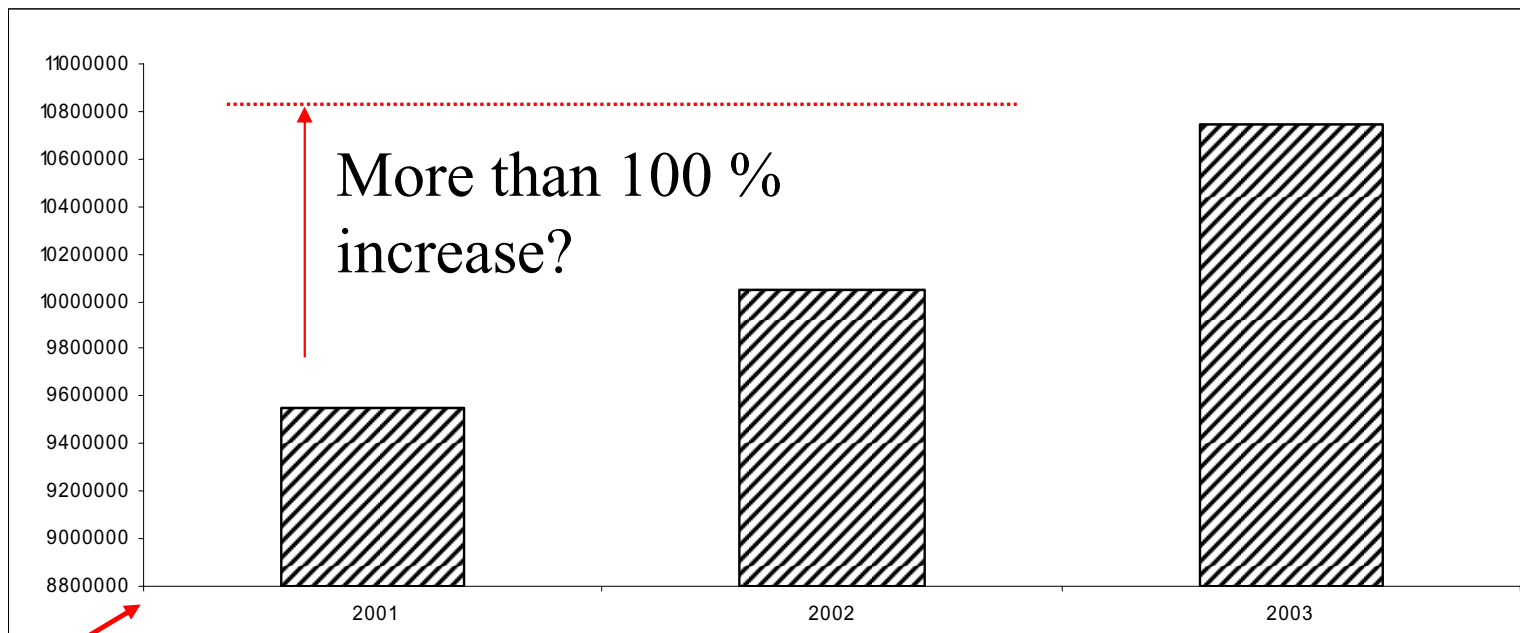
User-friendly graphs (5)



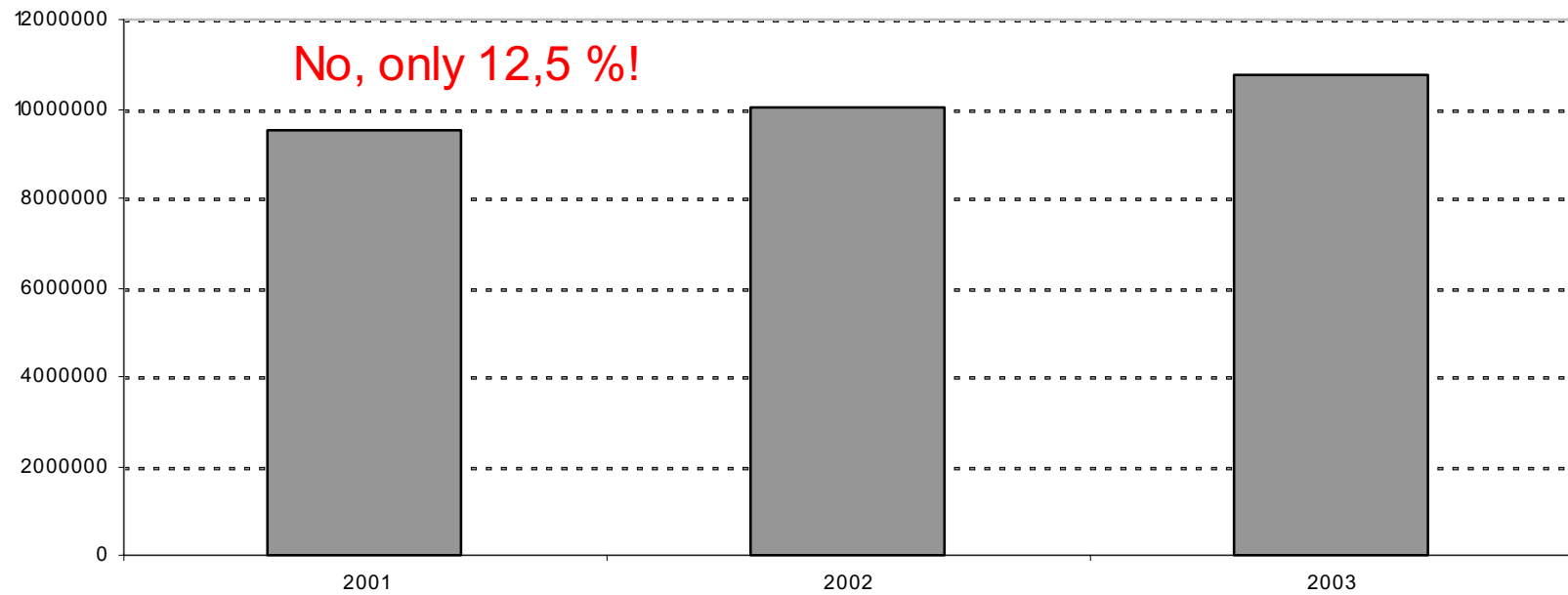
Charts speak directly to the eye!

User-friendly graphs (6)

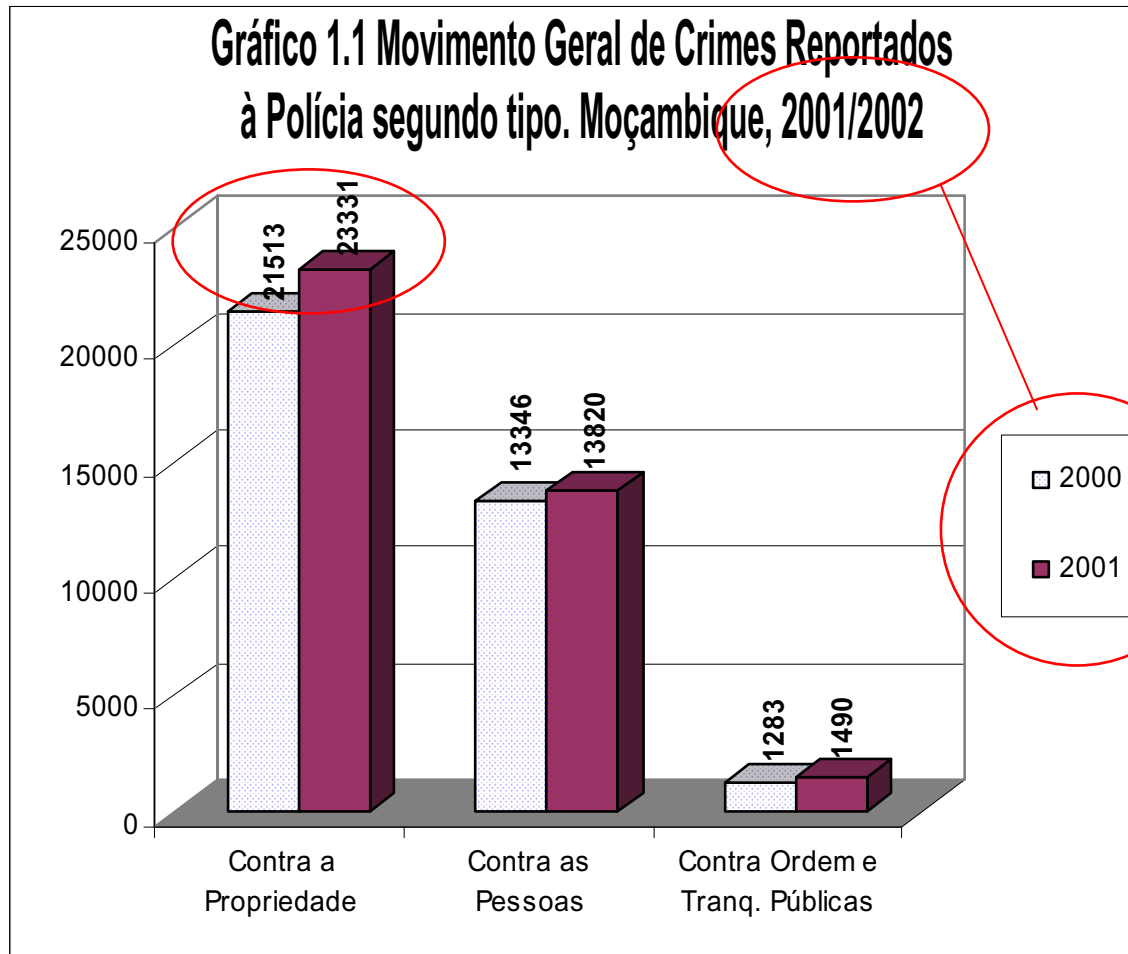
Don't omit 0 on the value axis:



User-friendly graphs (7)

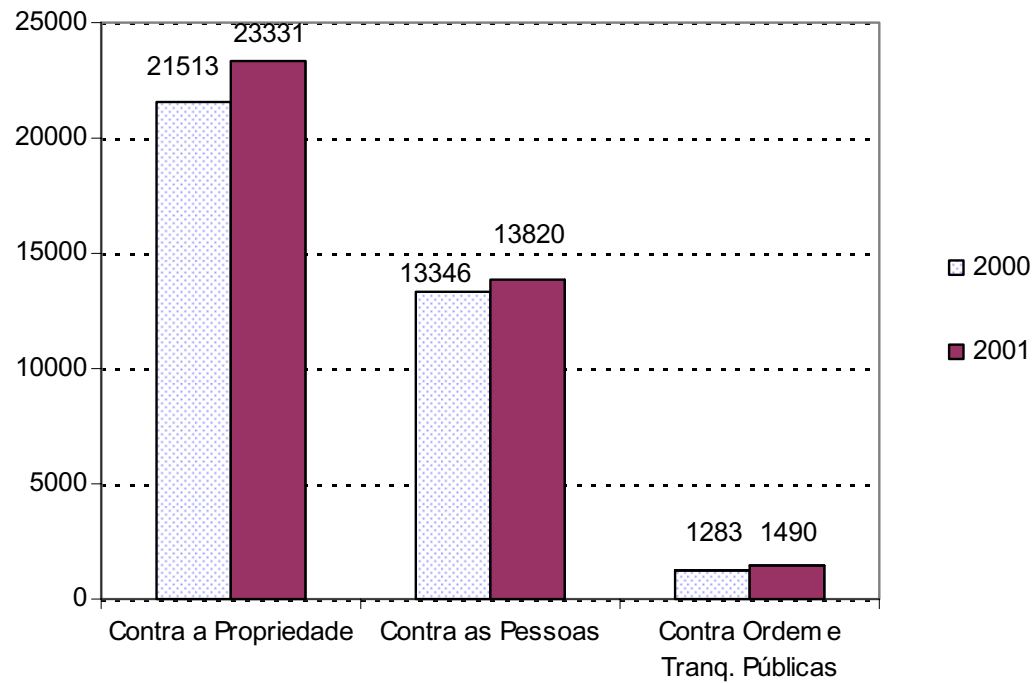


User-friendly graphs (8)



User-friendly graphs (9)

**Gráfico 1.1: Crimes Reportados à Polícia segundo tipo.
2000 - 2001**



Analysis (1)

Why analysis?

- **In a complex society, where social, economic, demographic and cultural phenomena interact, readers need to be guided through the numerical jungle: “What does the numbers really mean”?**
- **Unlike experts, the informed users and the general public need and want explanations, interpretations and comments**

Analysis (2)

- **“Analysis” forces the statistician to look closer at the data: concepts, definitions, measurements, sampling, etc.**
- **“Analysis” therefore provides a necessary feedback into the statistical production process and helps raise the quality of statistics, by uncovering errors and deficiencies in the statistics**

Analysis (3)

What is analysis?

- **Basically, analysis implies *breakdown* and *comparison*:**
 - **comparison over time**
 - **between groups**
 - **or both**
- **To tell the story behind the figures**

Analysis (4)

”User-friendly analysis is:

- **To select (between all the possible) numbers**
- **To make the comparison of numbers as easy, meaningful and informative as possible**
- **To point out: What is important**
- **To point out differences, trends and tendencies**
- **In short: To explain what the numbers really mean?**

Analysis (5)

Three main types of "analysis":

Popular presentation:	Thematic analysis:	In-depth analysis/research:
Descriptive	“Interpretation”	“Explanation”
Brochure, briefs	“Social reports” (Women & Men)	Research report

Analysis (6)

- Here again, KISS is relevant
- Start with the conclusions/most important points
- Try not to repeat all the figures in the tables
- Use a "telling" title:
 - Not: "Results from the Labour Force Survey"
 - But: "More women working"