

# UNSD-DFID PROJECT ON SDG MONITORING

User-friendly presentation of statistics



# Communicating statistics involves three key questions

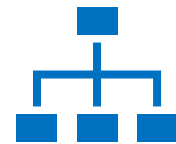
Who is the target **audience**?

- Media? lay person? Senior management? Experts?
- Why do they need the information? How do they want it?



What is the **context** in which you are communicating?

- Formal/Informal
- Internet/physical publication



What **message** do you want to communicate? What is the narrative/story?

- Important to find meaning in numbers. Numbers don't exist in a vacuum
- Data support the story
- Structure the output accordingly
- Remember the Fundamental Principles of Official Statistics



# Good and bad practices when communicating with a general audience

What would you consider good and bad practices when it comes to presenting statistics? Specify for:

- Graphs
- Tables
- Descriptive or explanatory text

## Statistics is:

- to compare numbers (and to make the numbers comparable)

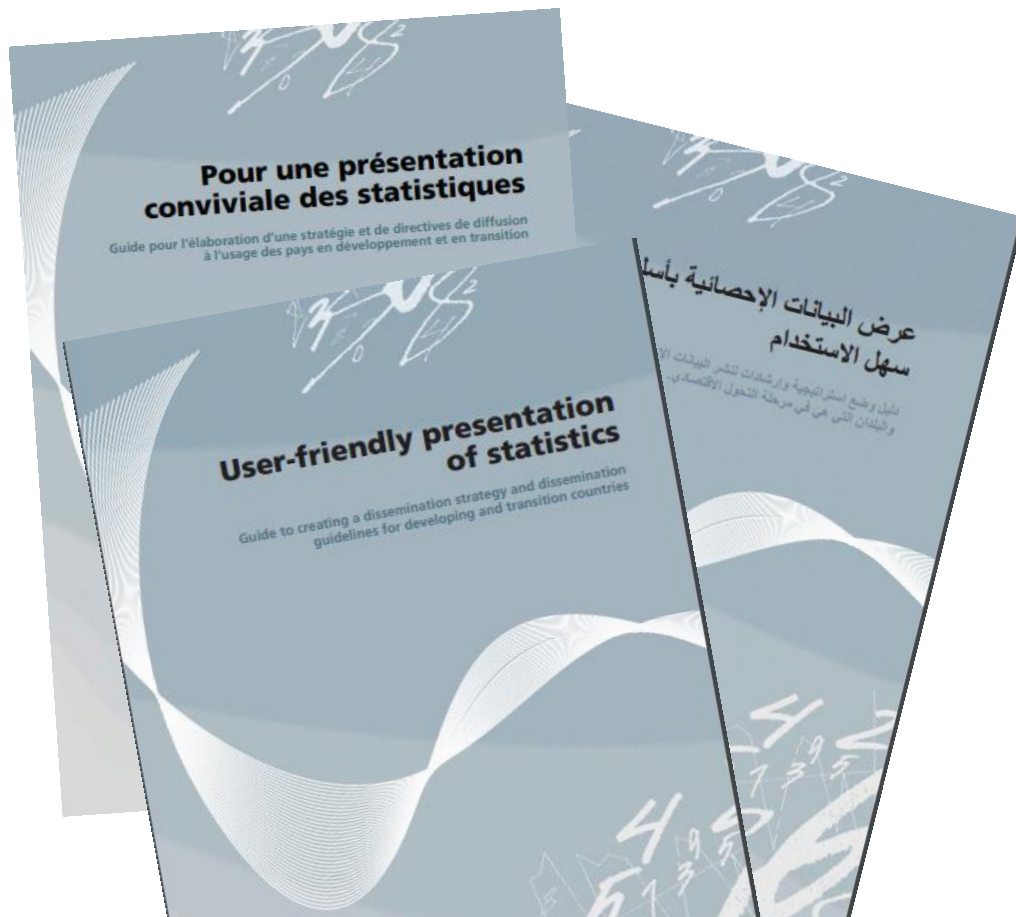
## User-friendliness is:

- to present the numbers in a way that encourages and enables the users to make comparisons

# General motto: **KISS!**

- **Keep It Short and Simple!**
- This applies to:
  - **Tables**
  - **Graphs**
  - **Titles**
  - **Text**

# Useful resources:



<https://www.ssb.no/en/omssb/samarbeid/internasjonalt-utviklingsamarbeid/a-handbook-on-dissemination-of-statistics>



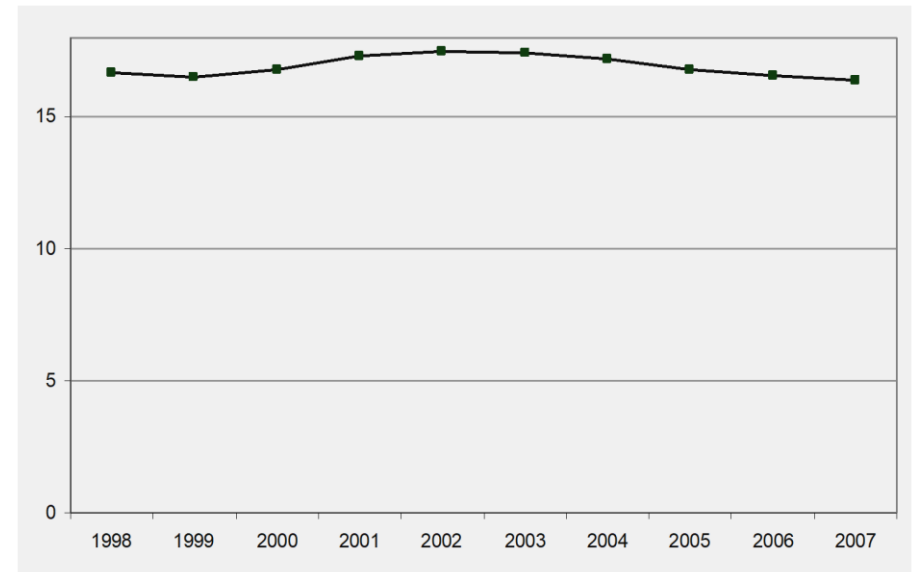
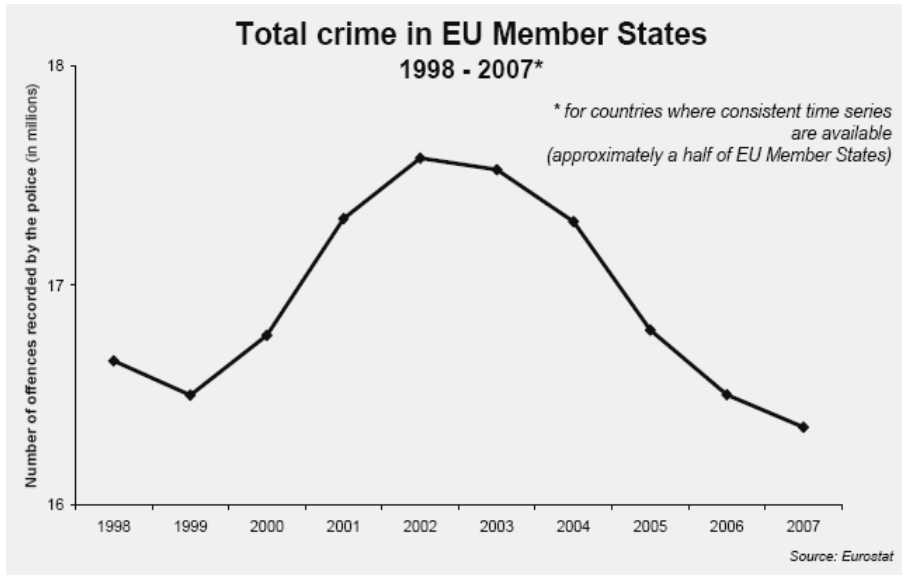
<https://www.unece.org/stats/documents/writing/>



## Graphs



# How to lie with graphs



The data behind are the same, but the y-axis starts at different points.

In general, it is recommended to start at 0.

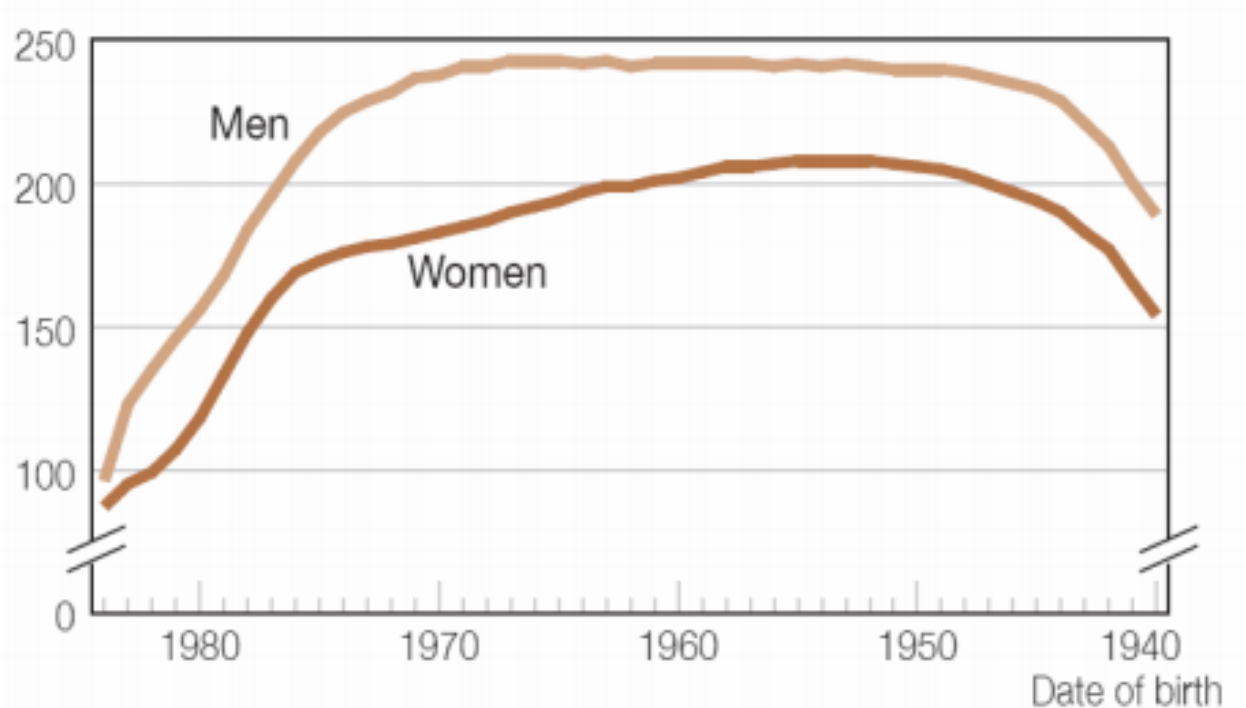




**GOOD EXAMPLE** of a chart with a y-axis not starting at zero

**Pensionable income for persons aged 20-64 in Sweden, 2004**

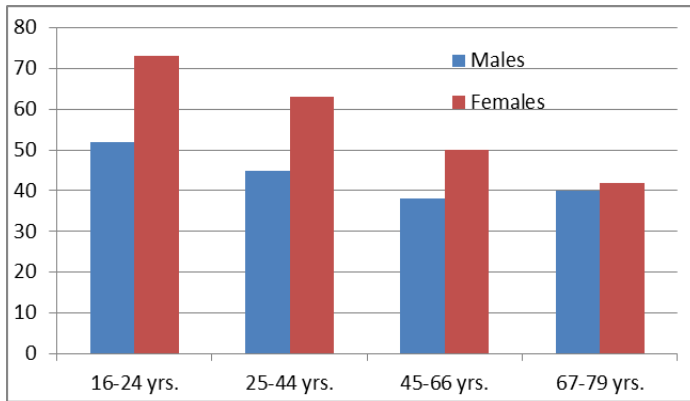
Average income in thousands Swedish Krona



Source: Statistics Sweden (2006), *Women and Men in Sweden: Facts and figures 2006*<sup>8</sup>.

Source: [http://www.unece.org/fileadmin/DAM/stats/documents/writing/MDM\\_Part2\\_English.pdf](http://www.unece.org/fileadmin/DAM/stats/documents/writing/MDM_Part2_English.pdf)

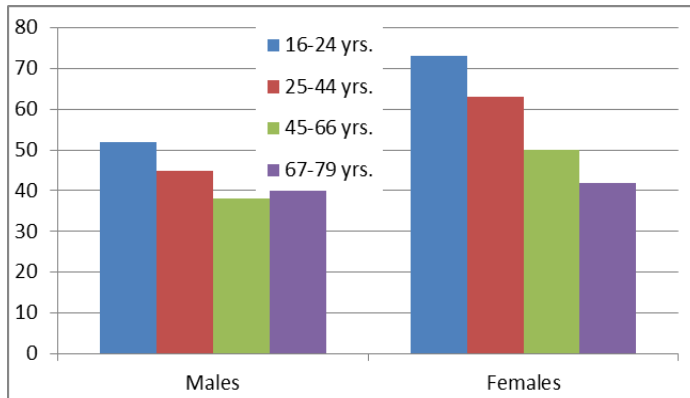
# Grouped bar charts:



Two (or more) categories

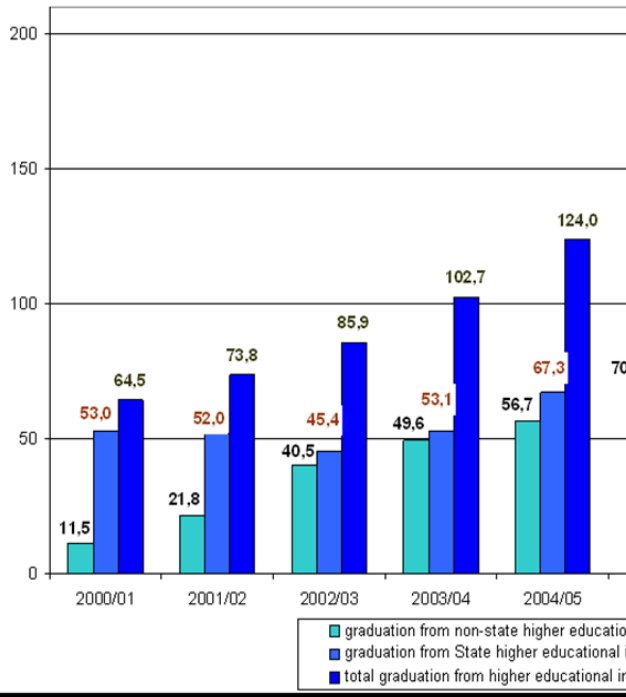
Example: *Percent using a library last year. Males and females in various age groups*

With two categories, we have two ways of grouping, inviting to different comparison

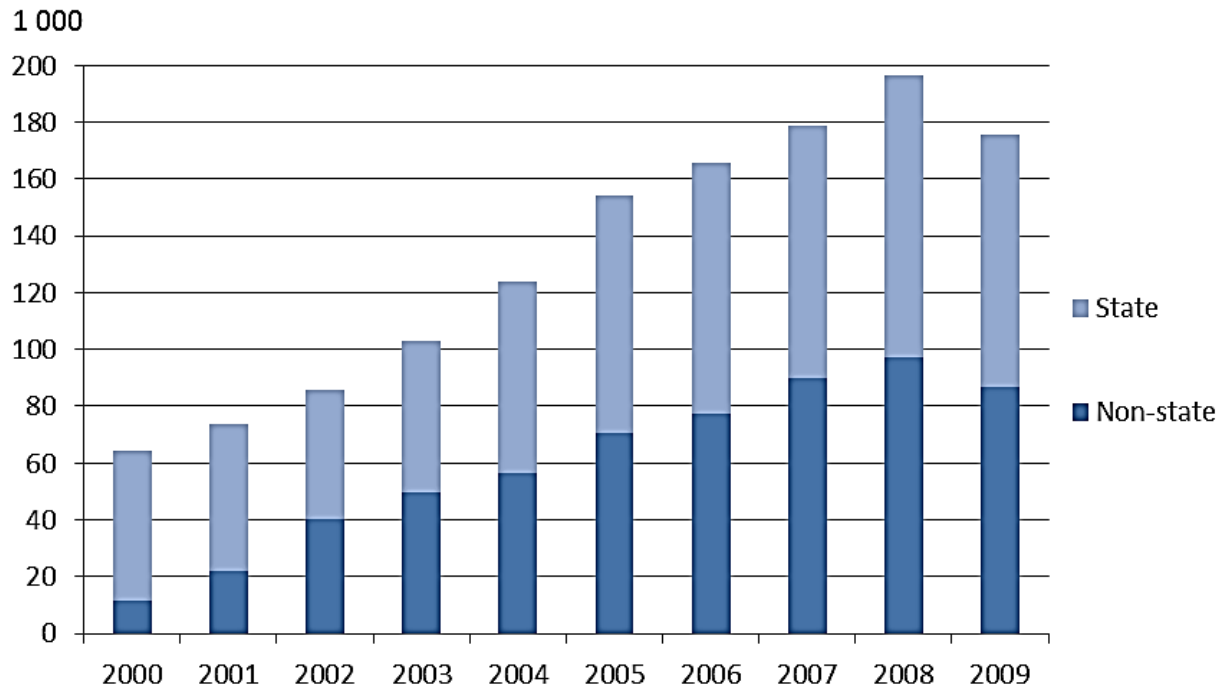


# Stacked bar charts

Graduation from higher educational institutions



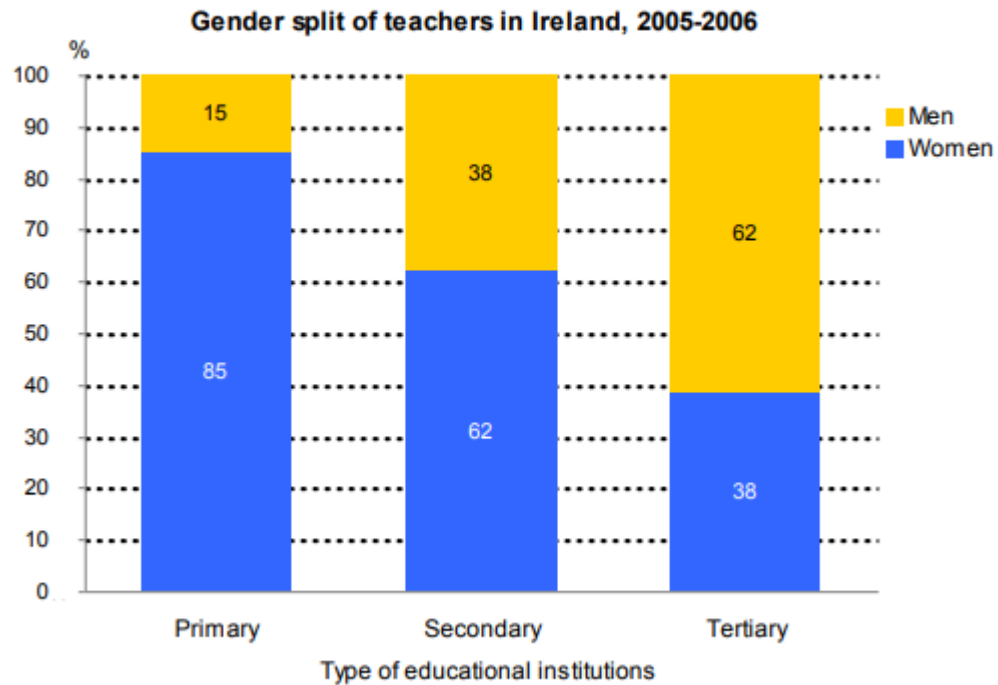
Graduation from state and non-state higher educational institutions



Show total frequency and how the total is divided into different components

# Stacked bar charts

**GOOD EXAMPLE** of a stacked bar chart



Source: UNECE Statistical Database

Source: [http://www.unece.org/fileadmin/DAM/stats/documents/writing/MDM\\_Part2\\_English.pdf](http://www.unece.org/fileadmin/DAM/stats/documents/writing/MDM_Part2_English.pdf)

Easy to read

Easy to compare

Ordered by size from smallest to largest



## Line charts:

Most often used for time series

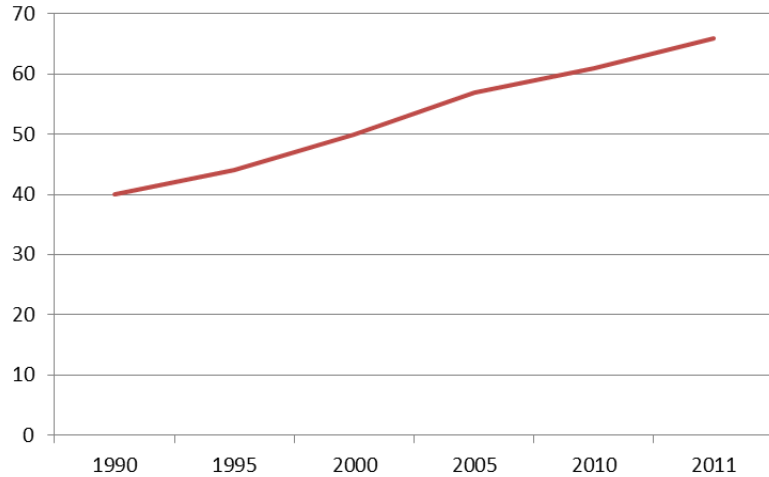
= years, quarters, months, weeks, days, hours  
and minutes + age

What is a time “series”? Minimum = 4 data points?  
Up to 4, use vertical bar chart

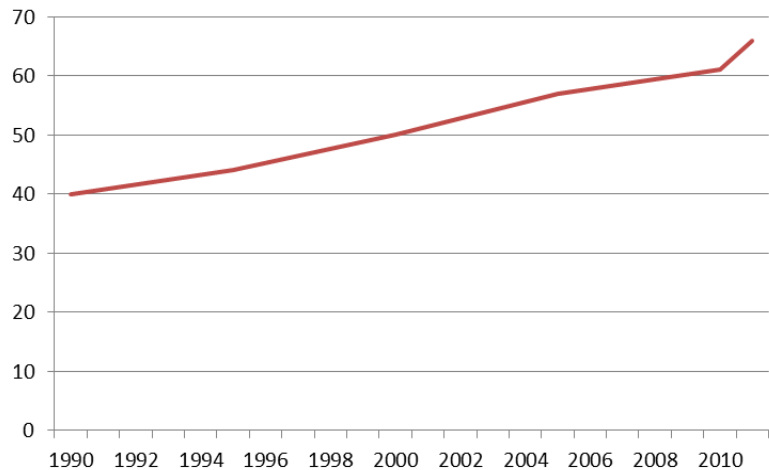
The longer series, the better?!



# Standard line charts



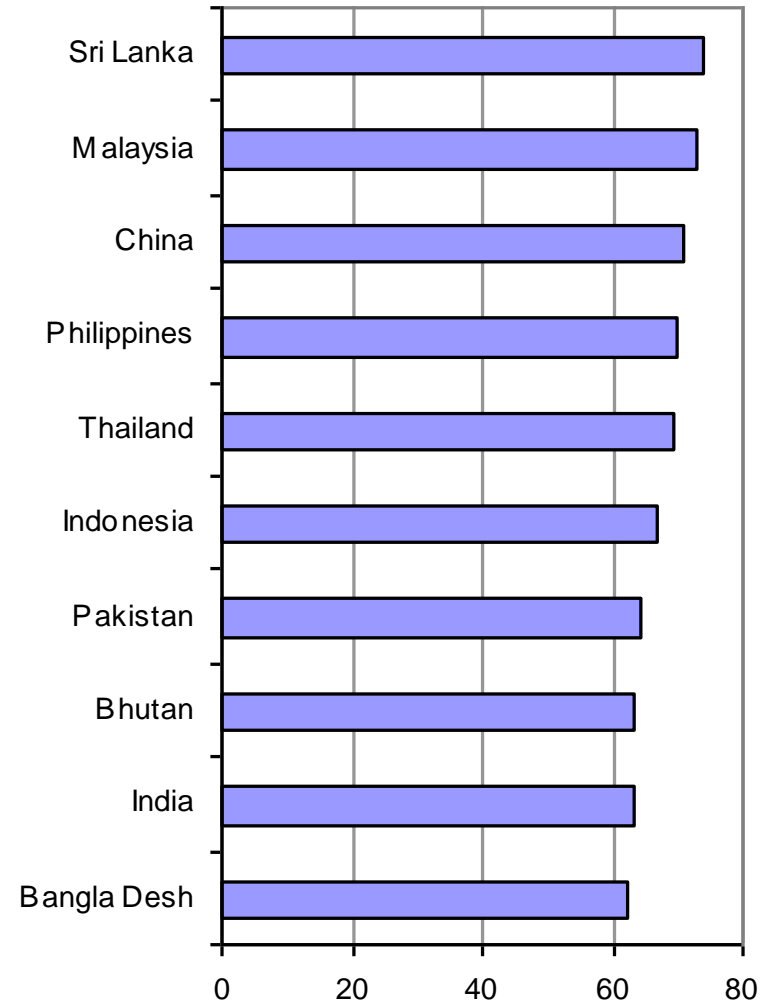
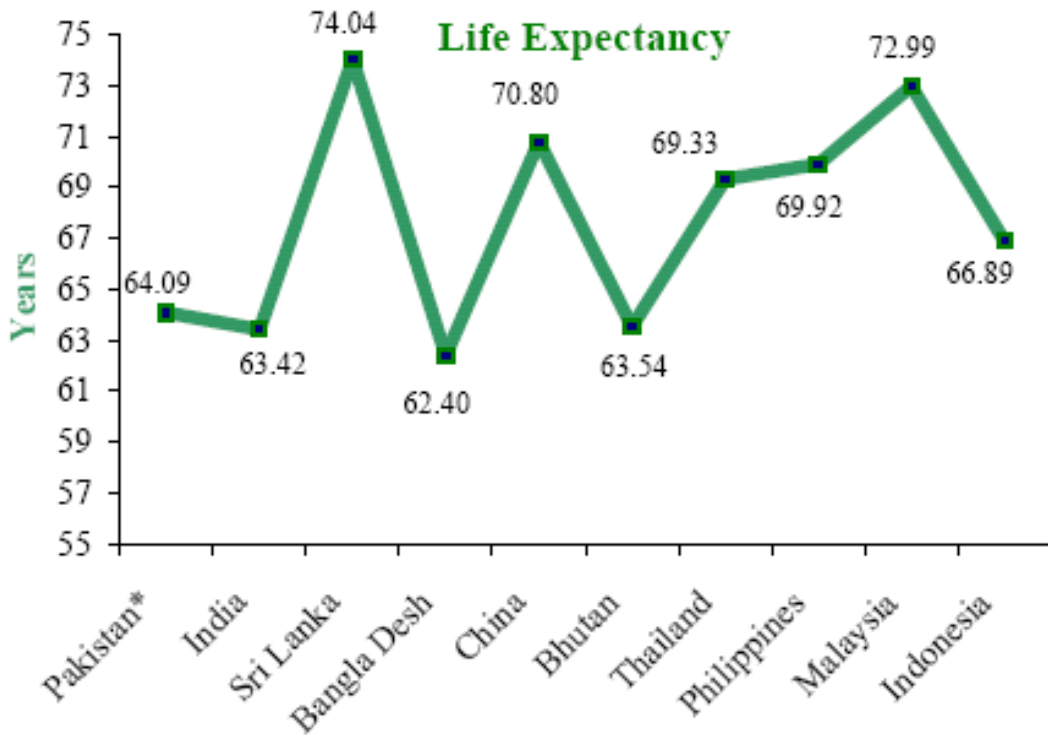
“A time series” requires at least 4? data points (if not: use bar chart)



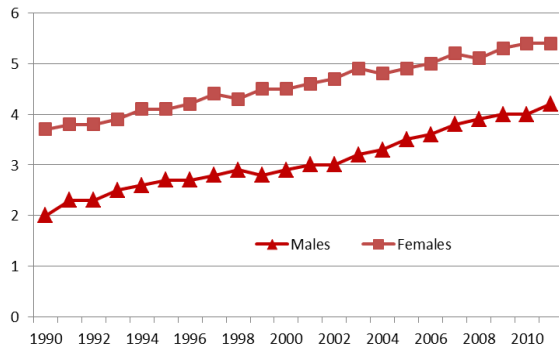
Be careful when the data points are not evenly spaced; like 1990, 1995, 2000, 2005, 2010 and 2011



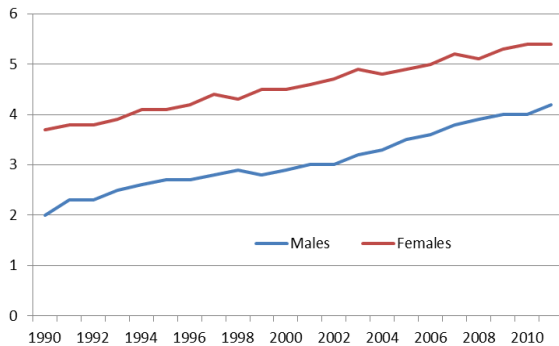
Line graphs should **never** be used to illustrate differences between group, for instance countries



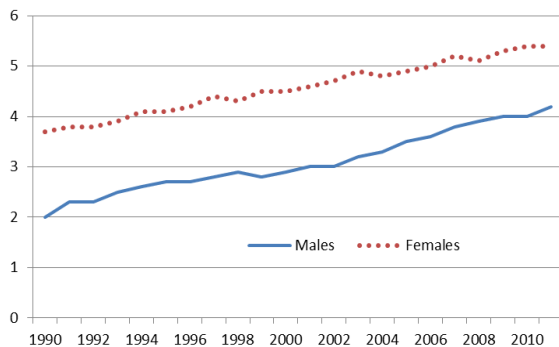
# Line charts: Symbols?



Indicators or symbols (■ ▽) are often used to differentiate between series, but these symbols overload the chart



It is better to use different colours ...



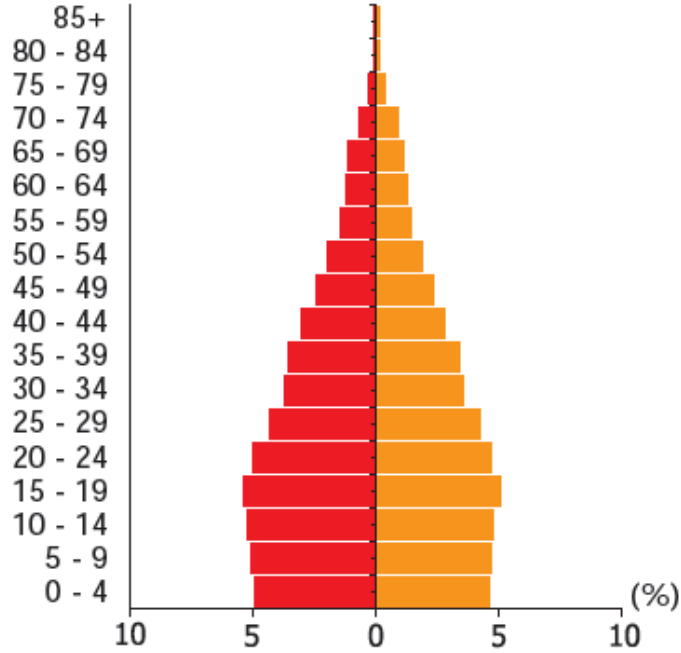
... and/or line styles



### 3.2 Nüfus piramidi - Population pyramid

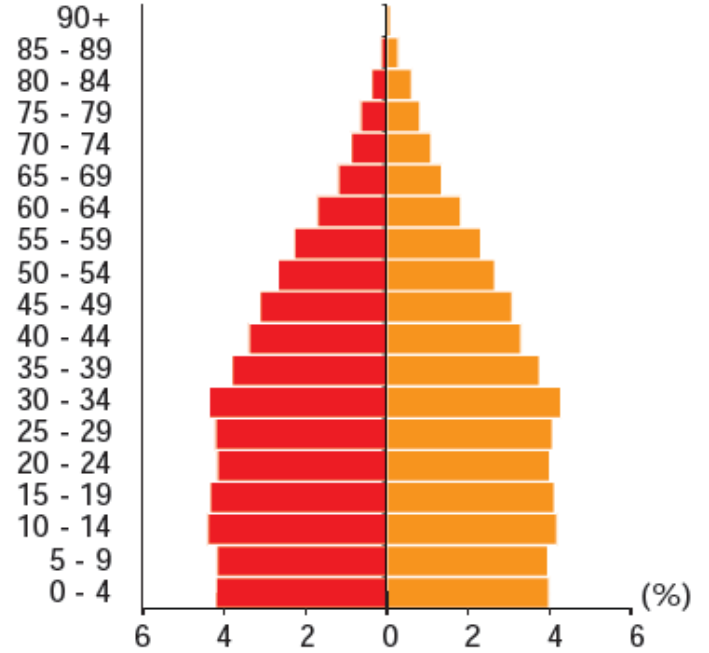
Yaş grubu  
Age group

2000



Yaş grubu  
Age group

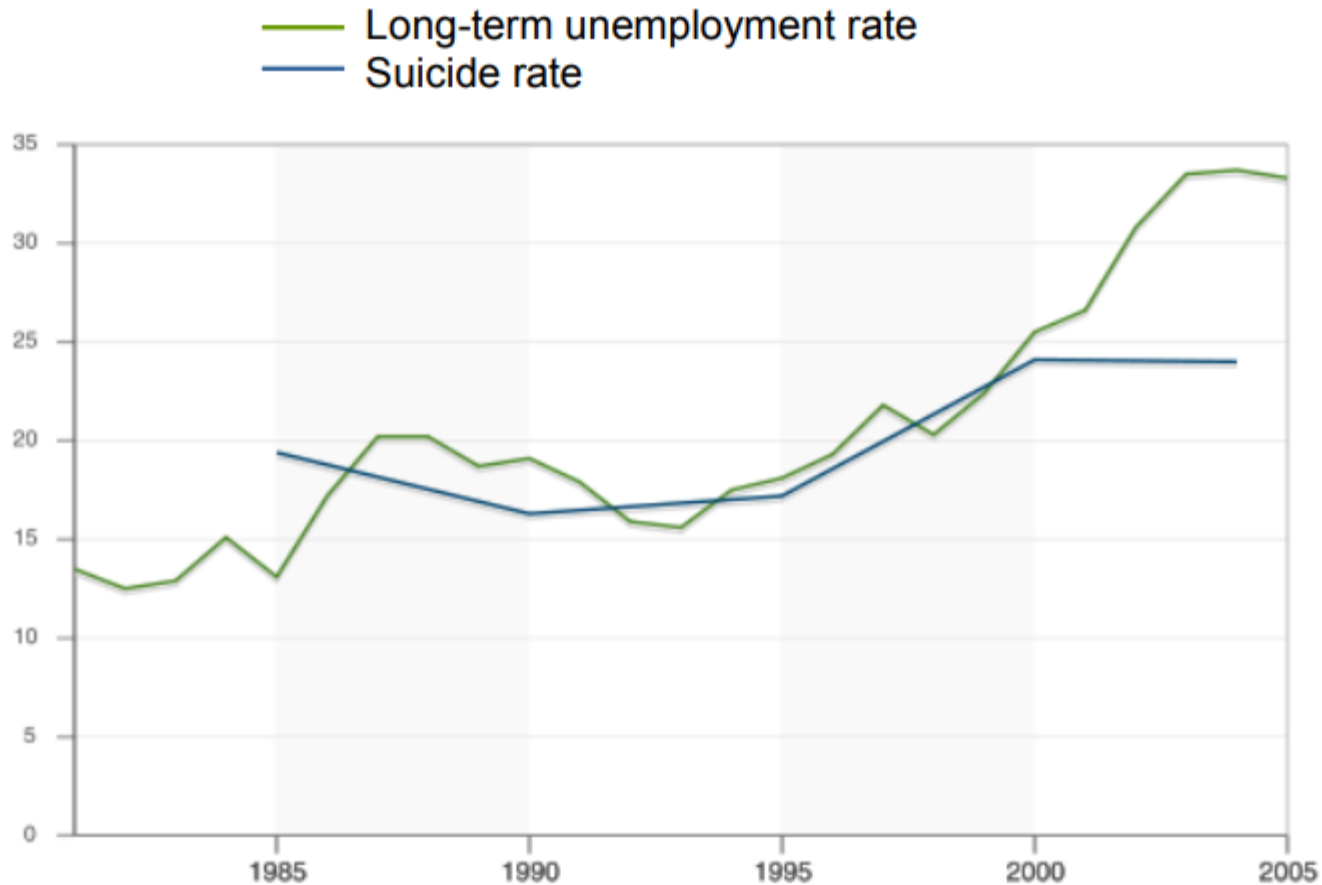
2012



Erkek - Males Kadın - Females

TÜİK, Türkiye İstatistik Yıllığı, 2012  
TurkStat, Turkey's Statistical Yearbook, 2012

## Suicide and long-term unemployment in Japan



Is this a good presentation?

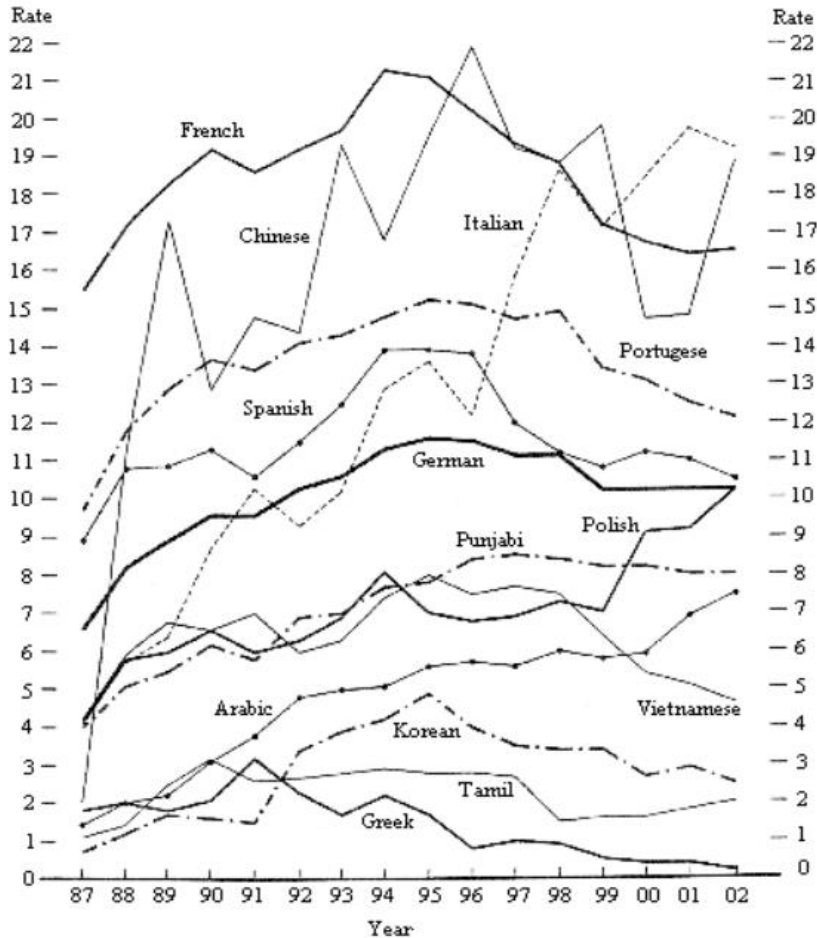
Be careful to not mislead



# Line charts are not always appropriate

## BAD EXAMPLE of a line chart

Number of students taking English as a second language at West High School, by first language spoken, 1987 to 2002



Source: Statistics Canada, *Learning Resources: Using graphs*<sup>5</sup>.

- Line charts are not useful, if they
  - Have very dispersed values
  - Have too few values
  - Have too many values
  - Show little or no variation

Source: [http://www.unece.org/fileadmin/DAM/stats/documents/writing/MDM\\_Part2\\_English.pdf](http://www.unece.org/fileadmin/DAM/stats/documents/writing/MDM_Part2_English.pdf)

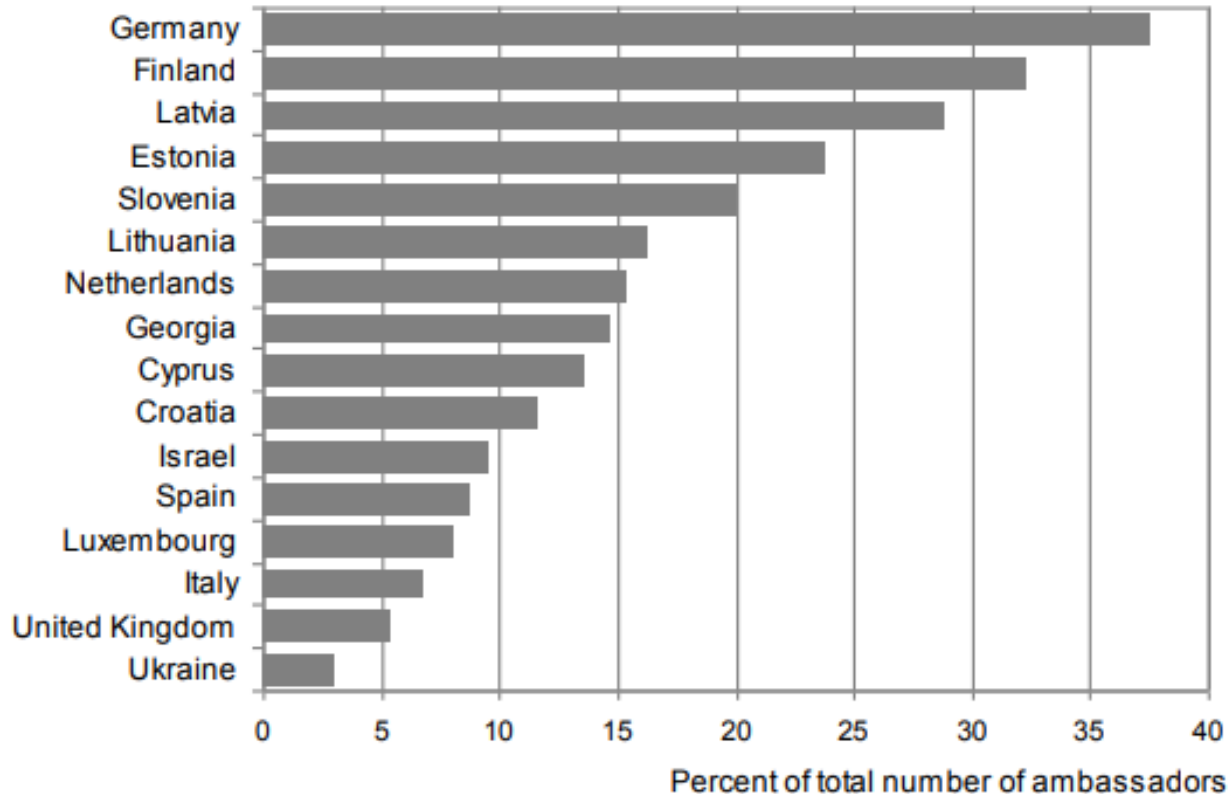


# Bar charts

Some examples

## GOOD EXAMPLE of a bar chart

Female ambassadors in 2006



Source: UNECE Statistical Database

Source: [http://www.unece.org/fileadmin/DAM/stats/documents/writing/MDM\\_Part2\\_English.pdf](http://www.unece.org/fileadmin/DAM/stats/documents/writing/MDM_Part2_English.pdf)

Easy to read

Easy to compare

Ordered by size from smallest to largest



# Graphs

## Good practice

- Title includes **what**, **where** and **when** (e.g. date or time period)
- Specify source
- Keep the presentation simple
- Make sure there is a clear message
- Choose the appropriate graph for the data and message
- Consider using maps where relevant
- Assess correlation and causality

## Bad practice

- Don't use borders, shading and too much colour
- Don't over complicate the graphs
- Don't use labels in a way that is distorting the reception of the graph
- Start y-axis from 0
- Don't use different scales when presenting two graphs for comparison





## Tables and charts



### Total population in selected African countries

	1995	2005
Angola	12279700	15941400
Eritrea	3097300	4401400
Kenya	27225900	34255700
Madagascar	13945500	18605900
Malawi	10110500	12883000
Mozambique	15853700	19792300
South Africa	41894000	47431800
Uganda	20893300	28816200
Zambia	9559400	11668500

### Total population in selected African countries

	1995	2005
Angola	12,279,700	15,941,400
Eritrea	3,097,300	4,401,400
Kenya	27,225,900	34,255,700
Madagascar	13,945,500	18,605,900
Malawi	10,110,500	12,883,000
Mozambique	15,853,700	19,792,300
South Africa	41,894,000	47,431,800
Uganda	20,893,300	28,816,200
Zambia	9,559,400	11,668,500

### Total population in selected African countries. Millions

	1995	2005
Angola	12.3	15.9
Eritrea	3.1	4.4
Kenya	27.2	34.3
Madagascar	13.9	18.6
Malawi	10.1	12.9
Mozambique	15.9	19.8
South Africa	41.9	47.4
Uganda	20.9	28.8
Zambia	9.6	11.7

### Total population in selected African countries. Millions

	1995	2005	% growth
South Africa	41.9	47.4	13.2
Kenya	27.2	34.3	25.8
Uganda	20.9	28.8	37.9
Mozambique	15.9	19.8	24.8
Madagascar	13.9	18.6	33.4
Angola	12.3	15.9	29.8
Malawi	10.1	12.9	27.4
Zambia	9.6	11.7	22.1
Eritrea	3.1	4.4	42.1



# Columns and rows

## Labour resources

(thsd. persons)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Number of able-bodied population in working age	3859,9	3915,8	3946,3	3970,5	4009,3	4068,0	4128,0	4182,8	4284,1	4412,2	4530,8	4736,0	4740,6	4767,1	4865,1	5304,0	5444,1	5569,6	5681,2	5773,3	5875,7	5974,6
Persons older of working age occupied in economy	143,0	144,8	174,5	153,6	141,3	149,5	140,3	142,8	142,2	142,5												
Teenages occupied in economy	11,6	12,4	12,5	11,2	10,6	10,3	10,3	10,4	11,5	12,0												
Total	4014,5	4073,0	4133,3	4135,3	4161,2	4227,8	4278,6	4336,0	4437,8	4566,7	4685,8	4890,5	4896,2	4923,0	5021,2	5421,3	5568,5	5701,6	5816,8	5915,7	6015,0	6101,2

	Number of able-bodied population in working age	Persons older of working age occupied in economy	Teenages occupied in economy	Total
1990	3 859,9	143,0	11,6	4 014,5
1991	3 915,8	144,8	12,4	4 073,0
1992	3 946,3	174,5	12,5	4 133,3
1993	3 970,5	153,6	11,2	4 135,3
1994	4 009,3	141,3	10,6	4 161,2
1995	4 068,0	149,5	10,3	4 227,8
1996	4 128,0	140,3	10,3	4 278,6
1997	4 182,8	142,8	10,4	4 336,0
1998	4 284,1	142,2	11,5	4 437,8
1999	4 412,2	142,5	12,0	4 566,7
2000	4 530,8	142,8	12,2	4 685,8
2001	4 736,0	142,2	12,3	4 890,5
2002	4 740,6	142,6	13,0	4 896,2
2003	4 767,1	142,7	13,2	4 923,0
2004	4 865,1	142,8	13,3	5 021,2
2005	5 304,0	103,8	13,5	5 421,3
2006	5 444,1	110,6	13,8	5 568,5
2007	5 569,6	118,9	13,1	5 701,6
2008	5 681,2	125,5	10,1	5 816,8
2009	5 773,3	133,9	8,5	5 915,7
2010	5 875,7	133,1	6,2	6 015,0
2011	5 974,6	126,6	-	6 101,2



# Columns and rows

**Number of Medical Doctors**

2005		2006		2007		2008		2009	
Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
14 352	5 959	14 040	6 515	13 693	6 258	13 973	6 280	13 787	6 822

	2005	2006	2007	2008	2009
Women	14 352	14 040	13 693	13 973	13 787
Men	5 959	6 515	6 258	6 280	6 822

# Columns and rows

4.19 Cinsiyete göre serbest zaman kullanım aktiviteleri, 2006  
Time spent on "free time" activities by sex, 2006

Cinsiyet - Sex	Saat (Hours)
<b>Toplam - Total</b>	
Toplam aktivite - Total activities	5.23
TV ve video - TV and video	2.05
Sosyalleşme - Socializing	1.22
Okuma - Reading	0.18
Spor - Sports	0.12
Hobiler ve oyunlar - Hobbies and games	0.23
Gönüllü yardım işleri - Volunteer work and help	0.00
Diğer aktiviteler - Other activities	0.70
<b>Erkek - Male</b>	
Toplam aktivite - Total activities	5.38
TV ve video - TV and video	2.13
Sosyalleşme - Socializing	1.12
Okuma - Reading	0.20
Spor - Sports	0.17
Hobiler ve oyunlar - Hobbies and games	0.40
Gönüllü yardım işleri - Volunteer work and help	0.00
Diğer aktiviteler - Other activities	0.73
<b>Kadın - Female</b>	
Toplam aktivite - Total activities	5.10
TV ve video - TV and video	1.97
Sosyalleşme - Socializing	1.30
Okuma - Reading	0.15
Spor - Sports	0.07
Hobiler ve oyunlar - Hobbies and games	0.08
Gönüllü yardım işleri - Volunteer work and help	0.00
Diğer aktiviteler - Other activities	0.67

Kaynak: Zaman Kullanımı Anketi

Source : Time Use Survey

	Total	Male	Female
<b>Toplam aktivite - Total activities</b>	<b>5.23</b>	<b>5.38</b>	<b>5.10</b>
<b>TV ve video - TV and video</b>	<b>2.05</b>	<b>2.13</b>	<b>1.97</b>
<b>Sosyalleşme - Socializing</b>	<b>1.22</b>	<b>1.12</b>	<b>1.30</b>
<b>Okuma - Reading</b>	<b>0.18</b>	<b>0.20</b>	<b>0.15</b>
<b>Spor - Sports</b>	<b>0.12</b>	<b>0.17</b>	<b>0.07</b>
<b>Hobiler ve oyunlar - Hobbies and games</b>	<b>0.23</b>	<b>0.40</b>	<b>0.08</b>
<b>Gönüllü yardım işleri - Volunteer work and help</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Diğer aktiviteler - Other activities</b>	<b>0.70</b>	<b>0.73</b>	<b>0.67</b>

# Tables with absolute *and* relative numbers

## 3.16 Okuryazarlık ve cinsiyete göre nüfus, 2008-2011

Population by literacy and sex, 2008-2011

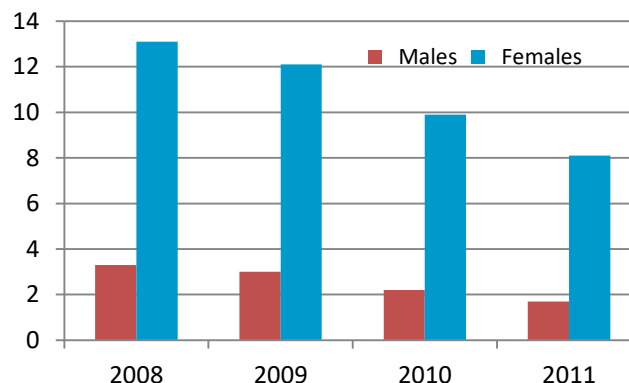
[6 ve daha yukarı yaştaki nüfus - Population 6 years of age over]

Okuryazarlık - Literacy	2008	2009	2010	2011
<b>Toplam - Total</b>				
<b>Okuma yazma bilmeyen - Illiterate</b>	4 930 012	4 672 257	3 825 644	3 171 270
(%)	8.22	7.53	6.04	4.87
<b>Okuma yazma bilen - Literate</b>	55 061 785	57 344 379	59 525 746	61 889 739
(%)	91.78	92.47	93.96	95.13
<b>Erkek - Males</b>				
<b>Okuma yazma bilmeyen - Illiterate</b>	986 790	915 054	700 400	553 704
(%)	3.30	2.96	2.21	1.70
<b>Okuma yazma bilen - Literate</b>	28 873 257	30 039 678	30 983 102	32 013 033
(%)	96.70	97.04	97.79	98.30
<b>Kadın - Females</b>				
<b>Okuma yazma bilmeyen - Illiterate</b>	3 943 222	3 757 203	3 125 244	2 617 566
(%)	13.09	12.10	9.87	8.06
<b>Okuma yazma bilen - Literate</b>	26 188 528	27 304 701	28 542 644	29 876 706
(%)	86.91	87.90	90.13	91.94

### Percentage illiterate

	2008	2009	2010	2011
<b>Total</b>	8.2	7.5	6.0	4.9
Males	3.3	3.0	2.2	1.7
Females	13.1	12.1	9.9	8.1

	2008	2009	2010	2011
<b>Total</b>	<i>Number</i>			
Illiterate	4 930 012	4 672 257	3 825 644	3 171 270
Literate	55 061 785	57 344 379	59 525 746	61 889 739
<b>Males</b>				
Illiterate	986 790	915 054	700 400	553 704
Literate	28 873 257	30 039 678	30 983 102	32 013 033
<b>Females</b>				
Illiterate	3 943 222	3 757 203	3 125 244	2 617 566
Literate	26 188 528	27 304 701	28 542 644	29 876 706
<b>Total</b>	<i>Per cent</i>			
Illiterate	8.2	7.5	6.0	4.9
Literate	91.8	92.5	94.0	95.1
<b>Males</b>				
Illiterate	3.3	3.0	2.2	1.7
Literate	96.7	97.0	97.8	98.3
<b>Females</b>				
Illiterate	13.1	12.1	9.9	8.1
Literate	86.9	87.9	90.1	91.9



## Absolute and relative numbers

### 4.5 Evlilik süresine göre boşanmalar, 2008-2012

Divorces by duration of marriage, 2008-2012

Evlilik süresi (yıl) Duration of marriage (year)	2008		2009		2010		2011		2012	
		(%)		(%)		(%)		(%)		(%)
<b>Toplam - Total</b>	99 663	100.00	114 162	100.00	118 568	100.00	120 117	100.00	123 325	100.00
-1	3 910	3.92	4 020	3.52	3 967	3.35	4 274	3.56	4 080	3.31
1	9 672	9.70	10 439	9.14	10 559	8.91	10 881	9.06	11 075	8.98
2	8 136	8.16	9 174	8.04	9 295	7.84	9 287	7.73	9 245	7.49
3	7 252	7.28	8 095	7.09	8 634	7.28	8 742	7.28	8 866	7.19
4	6 681	6.70	7 379	6.46	7 821	6.60	8 044	6.70	8 185	6.64
5	5 577	5.60	6 696	5.87	7 001	5.90	7 089	5.90	7 426	6.02
6-10	21 335	21.41	23 879	20.92	24 940	21.03	24 756	20.61	26 144	21.20
11-15	13 863	13.91	16 628	14.57	17 528	14.78	17 772	14.79	18 225	14.78
16+	22 997	23.08	27 426	24.02	28 433	23.98	28 949	24.10	29 772	24.14
<b>Bilinmeyen - Unknown</b>	240	0.24	426	0.37	390	0.33	323	0.27	307	0.25

	2 008	2009	2 010	2011	2 012	2 008	2009	2 010	2011	2 012
	No.					%				
<b>Toplam - Total</b>	<b>99 663</b>	<b>114 162</b>	<b>118 568</b>	<b>120 117</b>	<b>123 325</b>	<b>100,0</b>	<b>100,0</b>	<b>100,0</b>	<b>100,0</b>	<b>100,0</b>
-1	3 910	4 020	3 967	4 274	4 080	3,9	3,5	3,4	3,6	3,3
1	9 672	10 439	10 559	10 881	11 075	9,7	9,1	8,9	9,1	9,0
2	8 136	9 174	9 295	9 287	9 245	8,2	8,0	7,8	7,7	7,5
3	7 252	8 095	8 634	8 742	8 866	7,3	7,1	7,3	7,3	7,2
4	6 681	7 379	7 821	8 044	8 185	6,7	6,5	6,6	6,7	6,6
5	5 577	6 696	7 001	7 089	7 426	5,6	5,9	5,9	5,9	6,0
6-10	21 335	23 879	24 940	24 756	26 144	21,4	20,9	21,0	20,6	21,2
11-15	13 863	16 628	17 528	17 772	18 225	13,9	14,6	14,8	14,8	14,8
16+	22 997	27 426	28 433	28 949	29 772	23,1	24,0	24,0	24,1	24,1
<b>Bilinmeyen - Unknown</b>	240	426	390	323	307	0,2	0,4	0,3	0,3	0,3

# Percentages in tables: Two ways of comparing

**Number of teachers in primary and secondary schools.  
Men and women**

	Men	Women	Total
Primary schools	19 334	46 042	65 376
Secondary schools	14 491	12 127	26 618
<b>Total</b>	<b>33 825</b>	<b>58 169</b>	<b>91 994</b>

**Gender specific distribution**

**Gender distribution**

**Teachers in primary and secondary schools.  
Men and women. Per cent**

	Men	Women	Total
Primary schools	57,2	79,2	71,1
Secondary schools	42,8	20,8	28,9
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

**Teachers in primary and secondary schools.  
Men and women. Per cent**

	Men	Women	Total
Primary schools	29.6	70.4	100.0
Secondary schools	54.4	45.6	100.0
<b>Total</b>	<b>36.8</b>	<b>63.2</b>	<b>100.0</b>

15.6 Markalara gore otomobil sayisi, 2008-2012

Number of cars by trademark, 2008-2012

	2008	2009	2010	2011	2012
<b>Toplam - Total</b>	6 796 629	7 093 964	7 544 871	8 113 111	8 648 875
Alfa Romeo	11 083	11 322	11 886	12 815	13 802
Anadol	10 034	9 650	9 344	8 827	8 560
Audi	48 249	54 757	64 780	77 051	91 620
BMW	92 005	98 069	108 656	124 920	141 087
Chevrolet	44 744	54 443	70 505	93 294	113 391
Citroen	61 995	68 519	79 385	93 725	108 752
Dacia	30 865	36 393	48 281	65 989	92 416
Daihatsu	12 046	12 843	13 192	13 360	13 341
Dodge	2 358	2 604	2 653	2 600	2 547
Fiat	529 666	555 312	594 437	651 837	698 299
Ford	411 255	439 694	486 724	545 222	591 092
Honda	171 722	187 579	202 708	217 701	232 585
Hyundai	278 845	330 581	382 696	427 632	469 459
Isuzu	1 377	1 300	1 076	931	801
Kia	52 975	57 893	66 574	76 032	87 613
Lada	95 667	95 466	95 203	94 829	94 559
Landrover	24 425	26 097	28 265	30 291	32 620

	2008	2009	2010	2011	2012
<b>Toplam - Total</b>	<b>6 796 629</b>	<b>7 093 964</b>	<b>7 544 871</b>	<b>8 113 111</b>	<b>8 648 875</b>
Renault	1 792 933	1 831 504	1 896 922	1 984 801	2 052 457
Murat (Tofa)	1 241 487	1 222 985	1 213 976	1 205 804	1 198 066
Fiat	529 666	555 312	594 437	651 837	698 299
Opel	464 722	485 159	520 249	570 545	619 573
Ford	411 255	439 694	486 724	545 222	591 092
Volkswagen	322 228	348 729	387 439	441 221	507 921
Hyundai	278 845	330 581	382 696	427 632	469 459
Toyota	325 013	348 607	383 016	420 720	452 291
Peugeot	181 492	194 166	211 443	227 433	240 566
Honda	171 722	187 579	202 708	217 701	232 585
Mercedes	151 338	159 685	170 085	182 303	194 676
BMW	92 005	98 069	108 656	124 920	141 087
Skoda	93 466	96 244	101 825	109 056	118 545
Chevrolet	44 744	54 443	70 505	93 294	113 391
Nissan	59 449	64 606	74 545	92 291	110 601
Citroen	61 995	68 519	79 385	93 725	108 752
Lada	95 667	95 466	95 203	94 829	94 559
Dacia	30 865	36 393	48 281	65 989	92 416
Audi	48 249	54 757	64 780	77 051	91 620
Kia	52 975	57 893	66 574	76 032	87 613
Seat	45 590	48 154	52 972	58 954	64 657
Mazda	43 515	45 657	47 744	49 342	49 835

Instead of using alphabetical order, sort by value – from highest to lowest (latest year)

# Why use tables/charts

- They are very helpful in demonstrating
  - **Comparison**: which item is bigger or smaller
  - **Changes over time**: how have things changed?
  - How are things **distributed**?
  - Are two things linked or **correlated**?
  - How does one item **compare to the total**?



# Tables

## Good practice

- Align numbers on the decimal point
- Be consistent in how many decimal places are shown
- Title includes **what, where)** and **when**
- Choose absolute/relative numbers based on relevance to the topic

## Bad practice

- Don't make a small table spread across the page – columns should only be wide as needed to show the data
- Don't use borders around every cell or heavy shading that will distract from the data





**Descriptives/explanatory text**



## Death rates per 1000 people in country X by year and region

	National	Urban	Rural
2015	5.5	4.8	5.8
2014	6.5	6.0	6.9
2013	6.9	6.6	7.3

### Higher death rates in the rural areas

The death rates are 1 percentage point higher in rural areas than in the urban areas. This trend has not changed substantially over the years

### Highest mortality reduction in the cities

While there has been a reduction in the death rates overall, the most substantial fall has happened in the urban areas of the country. Important reasons for this are...

In 2015, the death rates at the national level were 5.5 per 1,000 people, 4.8 per 1,000 in urban areas, and 5.8 in rural areas.

The death rates at national level were 6.9 per 1,000 people in 2013 and fell to 5.5 in 2015.



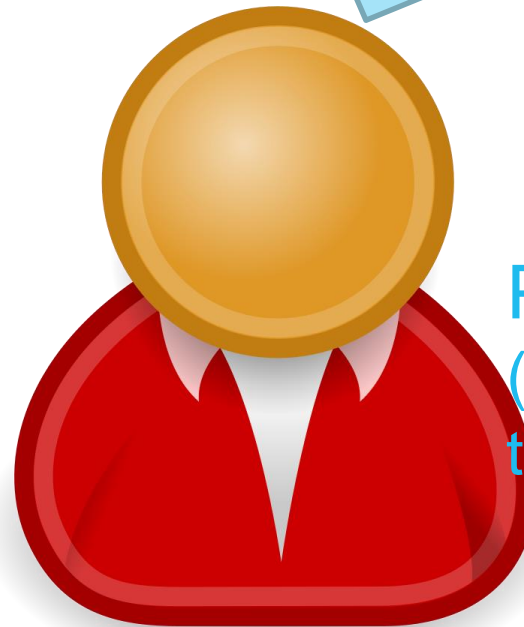
# Absolute vs relative measures

«24 000 more children were vaccinated last year»

«The rate of children vaccinated has decreased by 5 percentage points»



Politician A (representing the Government)



Politician B (representing the opposition)



# Percentages and percentage points:

The rate of employment for males is by 24 percent higher than the one for females (71 percent against 47 percent).

$$71/47\% = 51 \text{ per cent}$$

$$71 - 47 = 24 \text{ percentage points}$$

# Decimals

Table 2. Number of visitors (resident and not resident) and nights of stay for 2008 - 2011

Period	Number of visitors		Nights of stay	
	Resident	Non resident	Resident	Non resident
2008	19.678	24.616	22.602	46.910
2009	52.631	36.318	54.876	76.042
2010	44.662	34.382	45.123	76.394
2011	42.044	30.349	44.757	65.584

Table 2 shows the number of visitors – resident and non resident as well as nights of stay for resident and non resident visitors during 2008-2011. In 2011 the number of resident visitors has decreased to 5.86% compared with 2010 and night of stay of resident visitors were reduced to 0.81%. Number of non resident visitors has decreased by 11.73% and nights of stay are reduced to 14.15%.

Hotel Statistics Q4 2011, Statistical Agency of Kosovo

## One decimal is enough!



# Decimals

## 13.47 %?

- Never use two decimals when reporting percentages
- When reporting percentages from censuses, registers, etc., use one decimal
- When reporting percentages from surveys, use no decimal (unless the sample is very large: LF survey)
- One exception: Population growth: 0.76%



# Some tips on writing about numbers to a general audience

- Present the **most important facts first!**
  - Readers lose interest quickly
  - Consider an inverted pyramid—most important facts first, followed by subsidiary points in decreasing importance.
  - Executive summary
  - Include a leading paragraph that summarizes key points at the beginning of the document.

## **GOOD EXAMPLE** of a lead paragraph:

Net profits of non-financial companies in the Netherlands amounted to 19 billion euros in the second quarter of 2008. This is the lowest level for three years. Profits were 11 percent lower than in the second quarter of 2007. The drop in net profits is the result of two main factors: higher interest costs - the companies paid more net interest - and lower profits of foreign subsidiaries.

Source: Statistics Netherlands

Source: [http://www.unece.org/fileadmin/DAM/stats/documents/writing/MDM\\_Part2\\_English.pdf](http://www.unece.org/fileadmin/DAM/stats/documents/writing/MDM_Part2_English.pdf)

**Complex methodologies and details can be presented in the annex/references**



# Writing about numbers to a general audience

- Keep it short and simple (KISS)
- Clear and simple messages are NOT the same as “dumbing down”. Plain language conveys a clear and concise message. It is used with the reader in mind and with the right tone of voice.
- Avoid jargon when possible

## **Some tips for clear writing:**

- Use short sentences;
- Aim for one idea per sentence;
- Break up long sentences;
- Start each paragraph with the most important message;
- Keep paragraphs short;
- Keep your writing crisp.





## Descriptive/explanatory text

DO

- Make it interesting by linking the data to national policies, goals and issues that people understand
- Use headings and bulleted lists to make it easy to scan long sections of text
- Make the headlines (titles) and first paragraph about the main findings so it draws the reader in
- Keep sentences and paragraphs short
- Use everyday language
- Include definitions / explanation of complex concepts
- Include clear references to described tables or charts and
- Be careful when describing the relative changes of variables expressed as a percentage – percentage vs. percentage point

DON'T

- Don't 'table read' by just writing what is already shown in a table—draw out the main findings instead
- Don't use technical jargon



# In general

- Make sure graphs and tables stand alone, meaning they have enough metadata and information to make sense if they were copied and pasted into another document
- KISS: Keep it short and simple
- Present data from different angles and analyse information presented in the explanatory text
- Test on friends and family members
  - do they understand it, do they find it interesting?



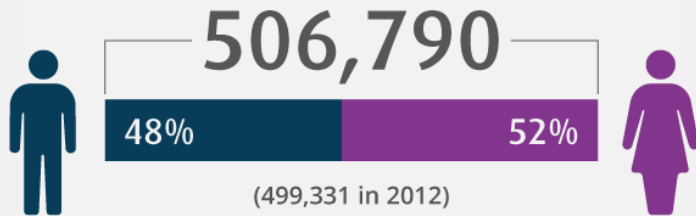
**Something easily accessible  
to gain attention?**



# Deaths in England & Wales, 2013

The latest ONS data shows statistics on deaths registered in England and Wales in 2013, including numbers of deaths, death rates and figures on causes of death.

## NUMBER OF DEATHS REGISTERED



The number of deaths registered has increased 1.5% since 2012. This is the first time since 2008 that registrations have exceeded 0.5 million.

## AGE-STANDARDISED MORTALITY RATES (ASMR)



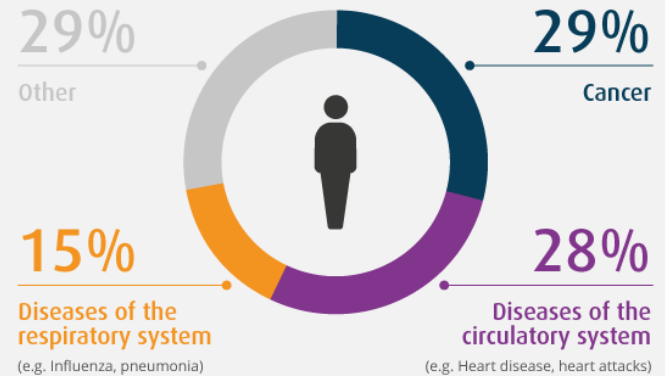
The long term decline in mortality rates has continued. The male ASMR has decreased every year since 2001 whereas the female ASMR has fluctuated with a few rises, the most recent being in 2012.

## INFANT MORTALITY RATES



In 2013 there were 2,767 infant deaths (under 1 year of age) registered in England and Wales, a decrease from 3,040 in 2012. Between 1983 and 2013 the infant mortality rate fell by 60%.

## MOST COMMON BROAD CAUSES OF DEATH



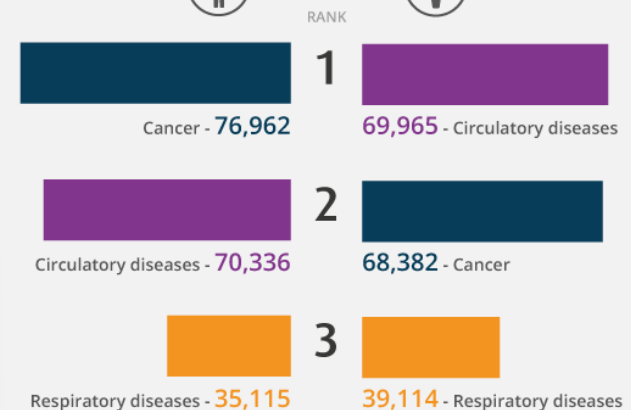
(Note: percentages shown above do not sum to 100% due to rounding.)

In 2013, cancer was the most common broad cause of death (29% of all deaths registered) followed by circulatory diseases, such as heart disease and strokes (28%). For males, cancer was the most common broad cause of death while for females it was circulatory diseases.

### MALES



### FEMALES



# Population, 1 April 2015

# 5 177 000

No. of persons registered as resident in Norway

No. of persons per 1-year age groups

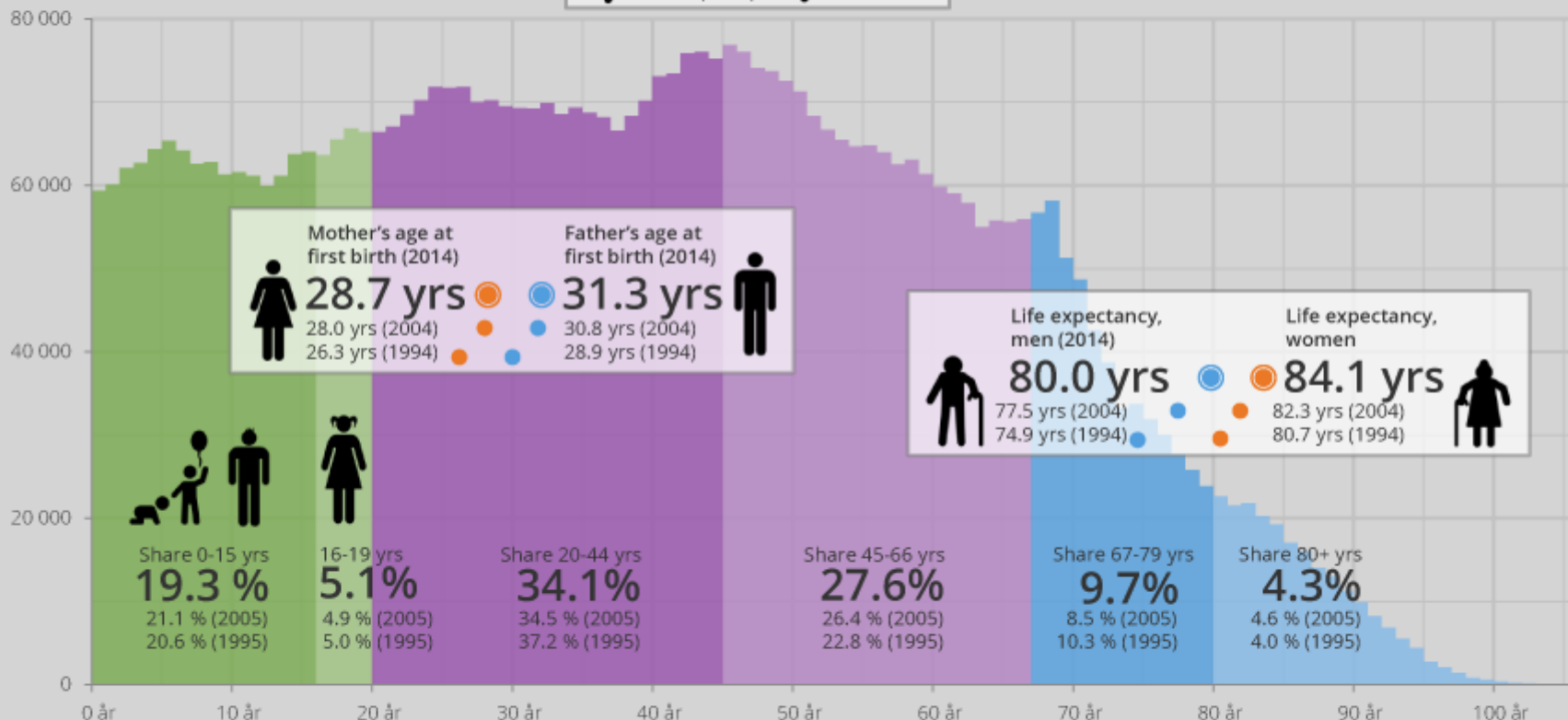
**+ 56 746**  
Population growth last year (2014)

Births + 59 084  
- Deaths - 40 394  
**= Excess of births + 18 690**

## Total fertility rate



Immigration + 70 030  
- Emigration - 31 875  
**= Net immigration + 38 155**



Mother's age at first birth (2014) **28.7 yrs**  
28.0 yrs (2004)  
26.3 yrs (1994)

Father's age at first birth (2014) **31.3 yrs**  
30.8 yrs (2004)  
28.9 yrs (1994)

Life expectancy, men (2014) **80.0 yrs**  
77.5 yrs (2004)  
74.9 yrs (1994)

Life expectancy, women (2014) **84.1 yrs**  
82.3 yrs (2004)  
80.7 yrs (1994)

Marriages contracted (2014) **22 887**  
22 354 (2004)  
19 866 (1994)

Same-sex marriages contracted (2014) **269**  
192 (2004)  
133 (1994)

Divorces (2014) **9 556**  
11 045 (2004)  
10 795 (1994)

## Women in the education system of Kazakhstan, 2013, %



# Which chart should I use?

**It depends!**

**A good practice is to experiment with different types and see which one is most appropriate to convey the message**



**Thank you for your attention!**