



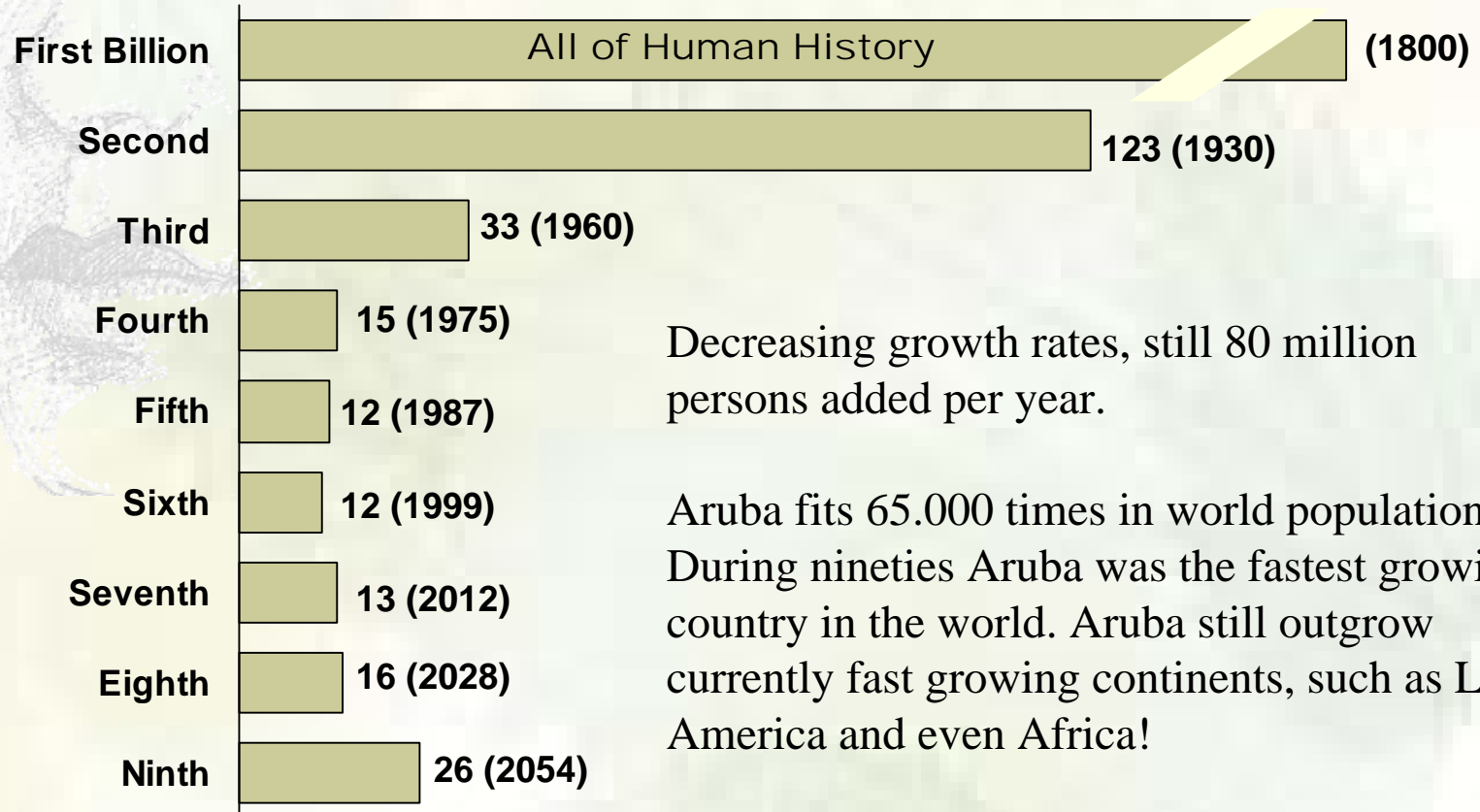
Aruba's dynamic population



Presentation 8 September 2007,
Martijn Balkestein

World Population Growth, in Billions

Number of years to add each billion (year)

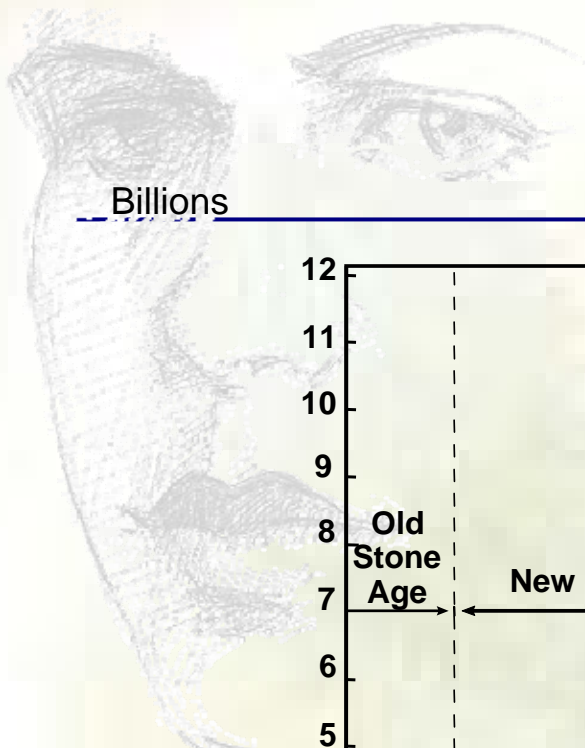


Decreasing growth rates, still 80 million persons added per year.

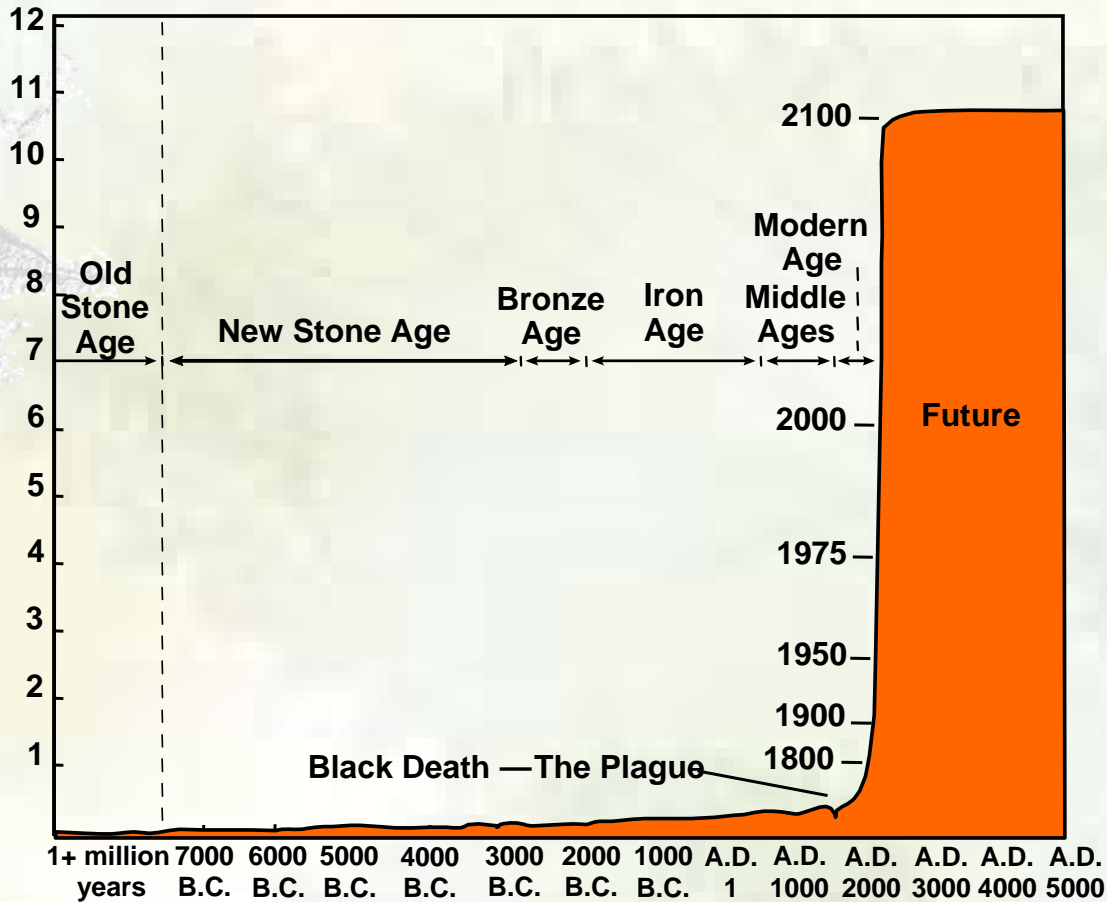
Aruba fits 65.000 times in world population
During nineties Aruba was the fastest growing country in the world. Aruba still outgrow currently fast growing continents, such as Latin America and even Africa!

Sources: First and second billion: Population Reference Bureau. Third through ninth billion: United Nations, *World Population in 2300* (medium scenario), 2003.

World Population Growth Through History



Billions



Average annual rate of population change, by development group and major area

Development group or major area	Average annual rate of change (percent)		
	1950-1955	2000-2005	2045-2050
World	1.81	1.21	0.38
More developed regions	1.20	0.30	-0.10
Less Developed regions	2.09	1.43	0.45
Least developed countries	1.97	2.40	1.30
Other less developed countries	2.10	1.27	0.22
Africa	2.21	2.18	1.21
Asia	1.96	1.21	0.19
Europe	0.99	0.00	-0.37
Latin America and the Caribbean	2.65	1.42	0.22
North America	1.71	0.97	0.38
Oceania	2.15	1.32	0.45

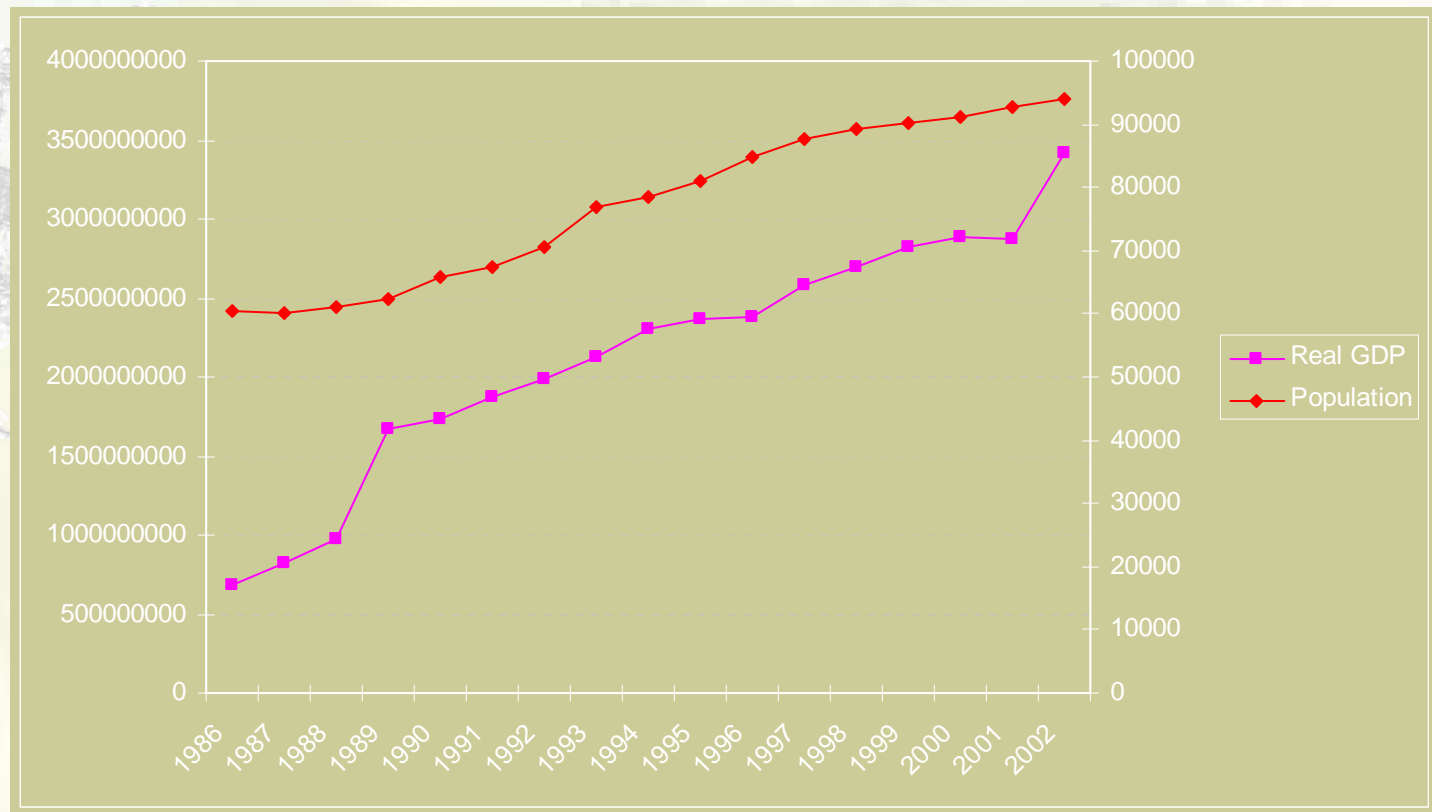
Economic Growth & Population growth, Aruba: 2000 - 2006



	2000	2001	2002	2003	2004	2005	2006
Growth of the population (in %)	1.0	1.8	1.4	2.4	3.0	3.1	1.3
GDP growth (in %) Nominal	7.9	2.1	0.7	5.2	6.1	5.8	5.2
GDP growth (in %) Real	3.7	-0.7	-2.5	1.5	3.5	2.3	2.5
GDP per capita (nominal)							
In Afl.	36,721	36,987	36,662	37,854	39,106	40,157	41,328
In US\$	20,514	20,663	20,482	21,147	21,847	22,434	23,088
GDP per capita (nominal) Percentage change	6.8	0.7	-0.9	3.3	3.3	2.7	2.9
GDP per capita (real)							
In Afl.	31,865	31,196	29,932	29,829	30,064	29,852	29,948
In US\$	17,802	17,428	16,722	16,664	16,796	16,677	16,731
GDP per capita (real) Percentage change	2.7	-2.1	-4.1	-0.3	0.8	-0.7	0.3

Figures for 2006 are estimates

Economic and population growth

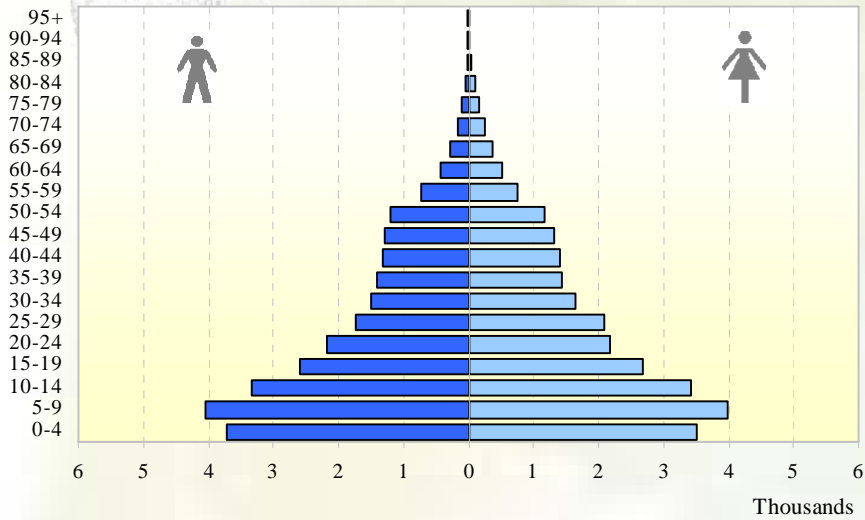


The evolution of the population of Aruba (thousands)

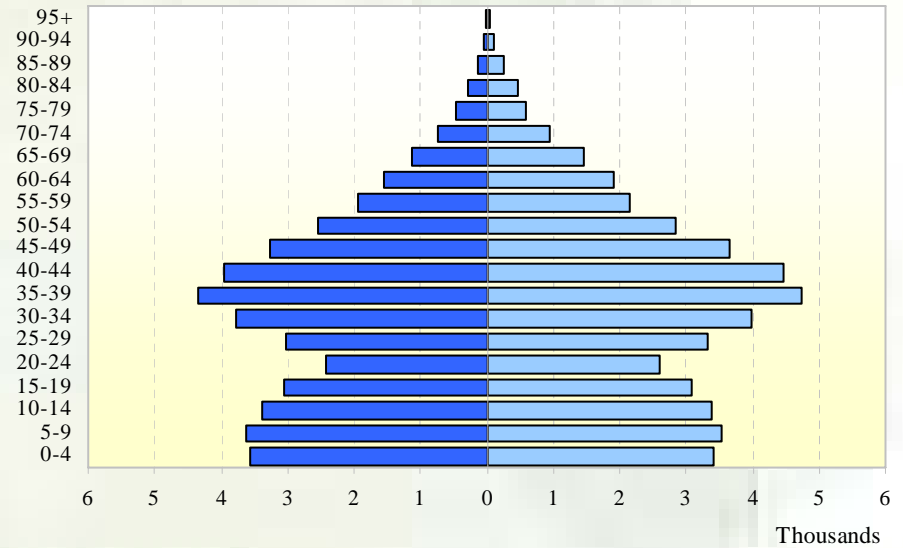


Population 1960 and 2000

C1960



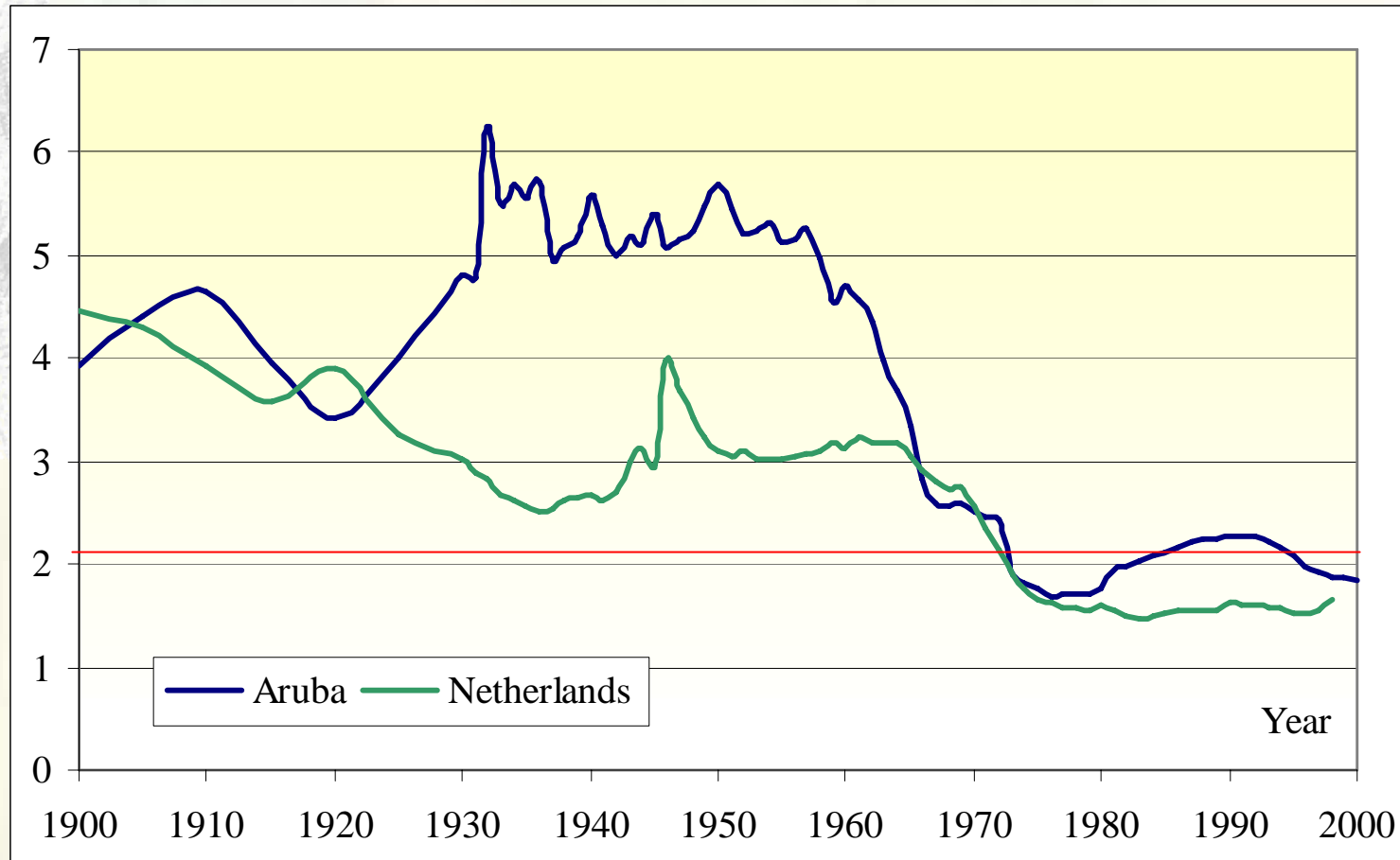
C2k



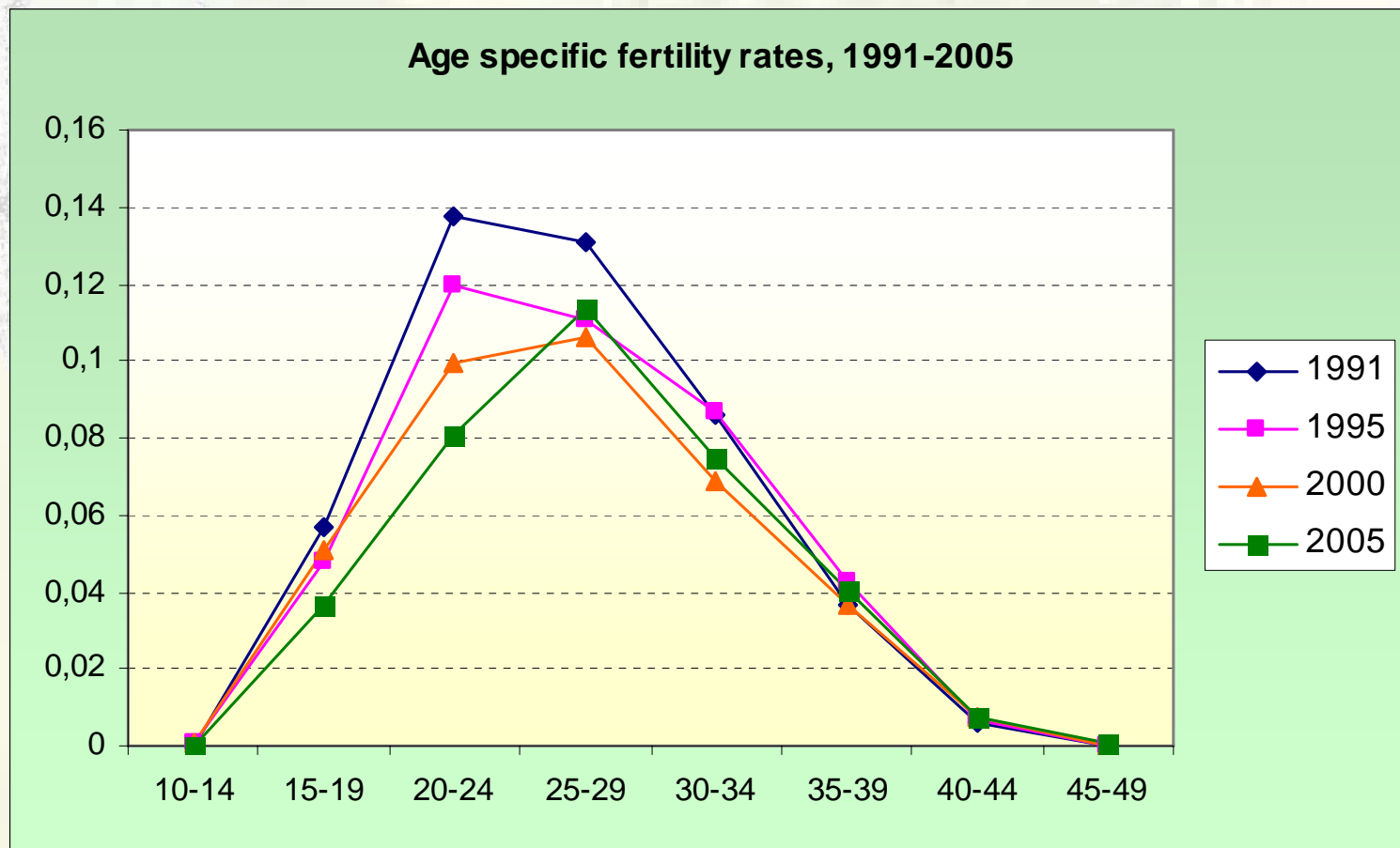
Future

?

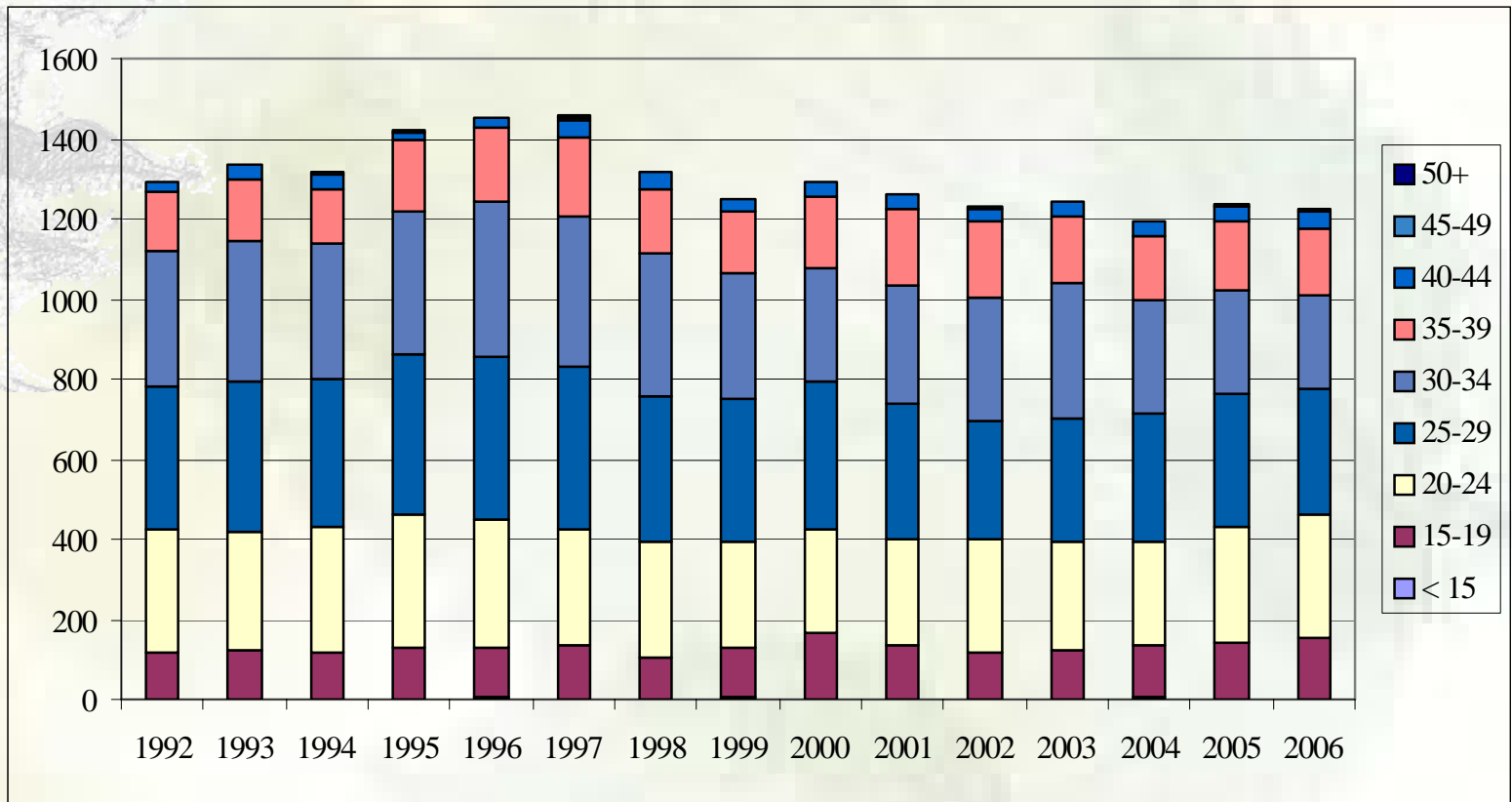
The course of the Total Fertility Rate between 1900 and 1980, Aruba - Netherlands



Age specific fertility rates, '91; '95; '00; '05



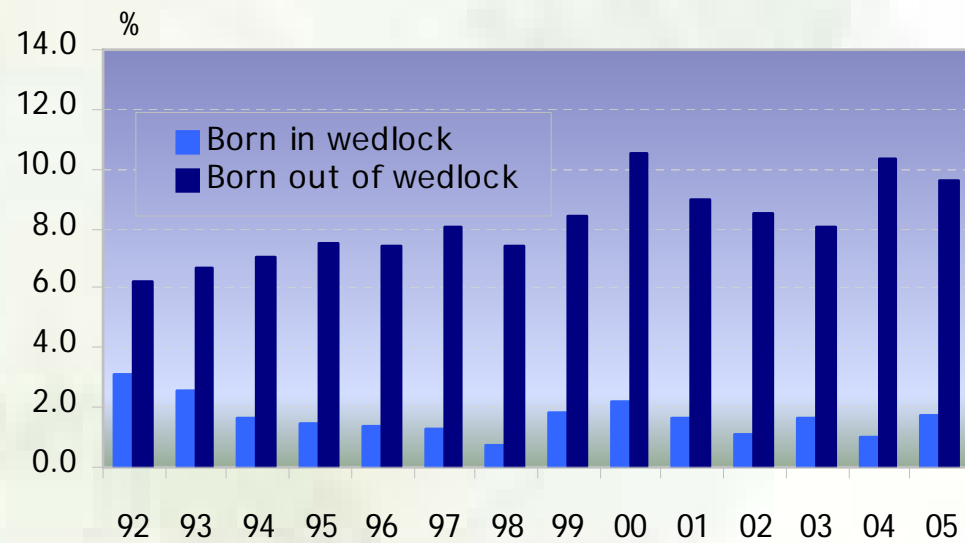
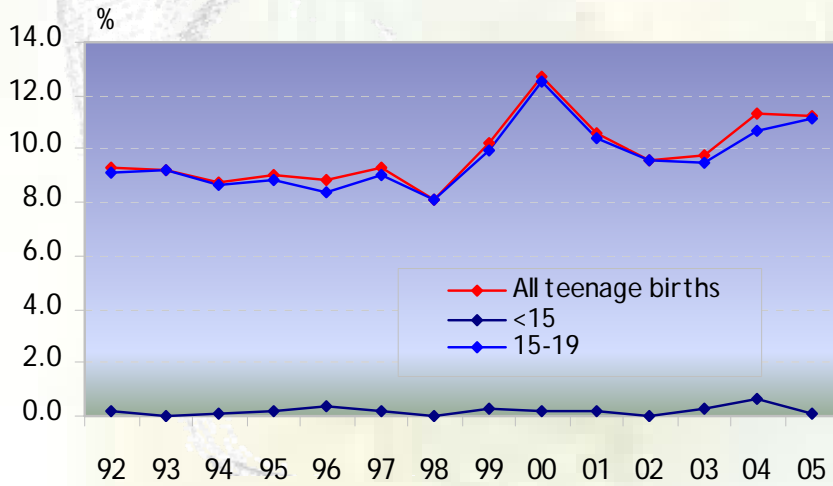
Number of births by age of the mother



Teenage pregnancy

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total	120	123	115	128	128	135	107	128	164	134	118	121	135	139	155
< 15	2	0	1	2	6	3	0	4	2	2	0	3	8	1	2
15-19	118	123	114	126	122	132	107	124	162	132	118	118	127	138	72
<i>Legitimate</i>	40	34	22	21	20	18	10	23	28	21	13	20	12	21	7
<i>Illegitimate</i>	80	89	93	107	108	117	97	105	136	113	105	100	123	118	67
	120	123	115	128	128	135	107	128	164	134	118	121	135	139	155
% total births															
All	9.3	9.2	8.7	9.0	8.8	9.3	8.1	10.2	12.7	10.6	9.6	9.7	11.3	11.3	12.7
< 15	0.2	0.0	0.1	0.1	0.4	0.2	0.0	0.3	0.2	0.2	0.0	0.2	0.7	0.1	0.2
15-19	9.1	9.2	8.7	8.9	8.4	9.1	8.1	9.9	12.5	10.5	9.6	9.5	10.6	11.2	5.9
illegitimate	6.2	6.7	7.1	7.5	7.4	8.0	7.4	8.4	10.5	8.9	8.6	8.0	10.3	9.6	5.5
legitimate	3.1	2.5	1.7	1.5	1.4	1.2	0.8	1.8	2.2	1.7	1.1	1.6	1.0	1.7	0.6

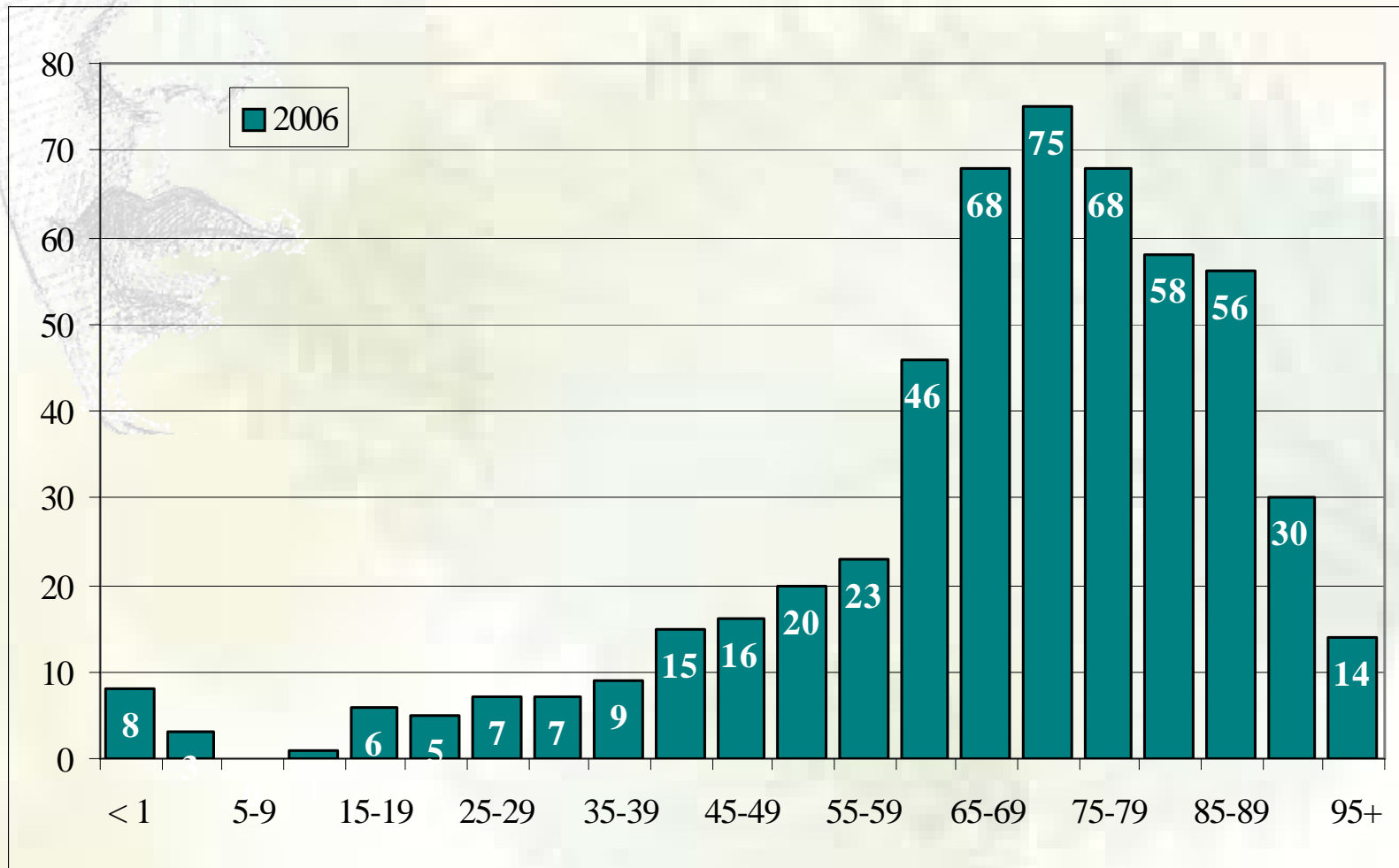
Teenage pregnancy



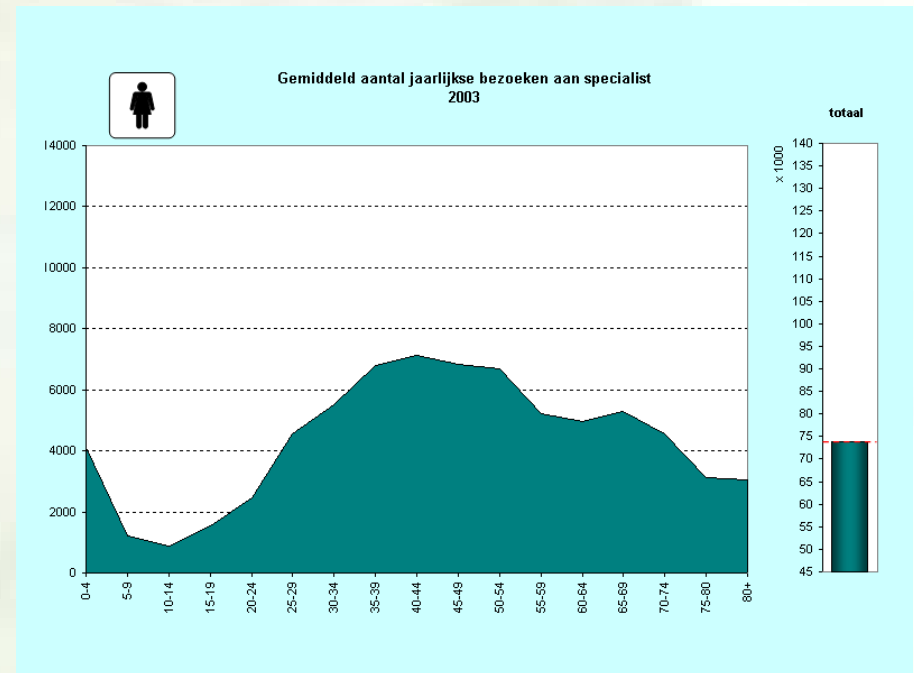
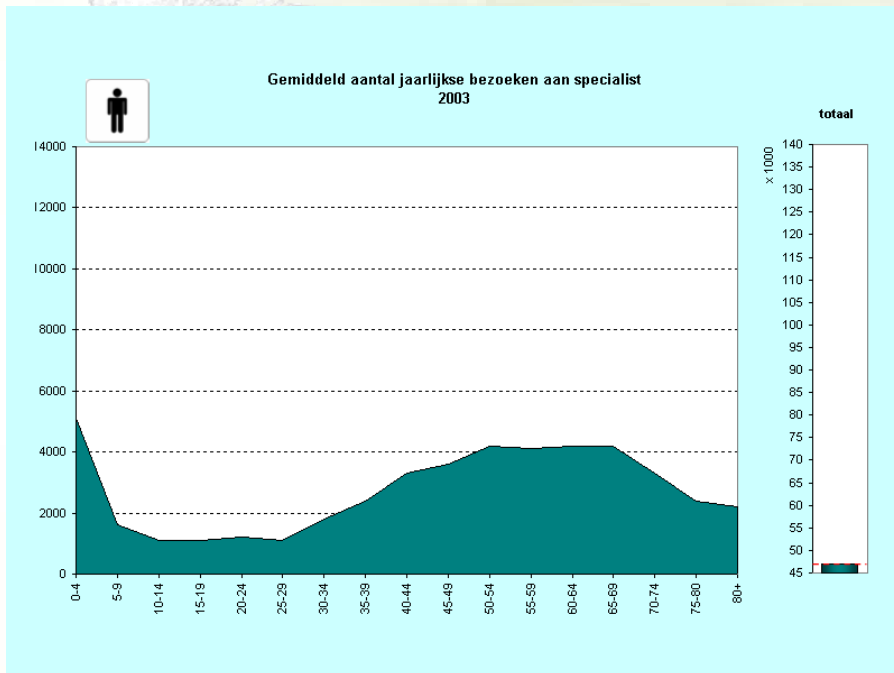
Crude birth rates and death rates for different selected countries

Country	Crude birth rate 2005	Crude death rate 2005	Natural growth rate 2005
Aruba	12.2	5.1	7.1
Australia	12.3	7.4	4.9
Austria	8.8	9.7	-0.9
Belgium	10.5	10.2	0.3
France	12.2	9.1	3.1
Germany	8.3	10.6	-2.3
Greece	9.7	10.2	-0.5
Israel	18.2	6.2	12
Italy	8.9	10.3	-1.4
Japan	9.5	9	0.5
Mauritius	15.6	6.8	8.8
Netherlands	11.1	8.7	2.4
New Zealand	13.9	7.5	6.4
Norway	11.7	9.5	2.2
Panama	22	5.3	16.7
Portugal	10.8	10.4	0.4
Switzerland	9.8	8.5	1.3
United Kingdom	10.8	10.2	0.6
United States	14.1	8.2	5.9

Absolute number of deceased persons by age-category

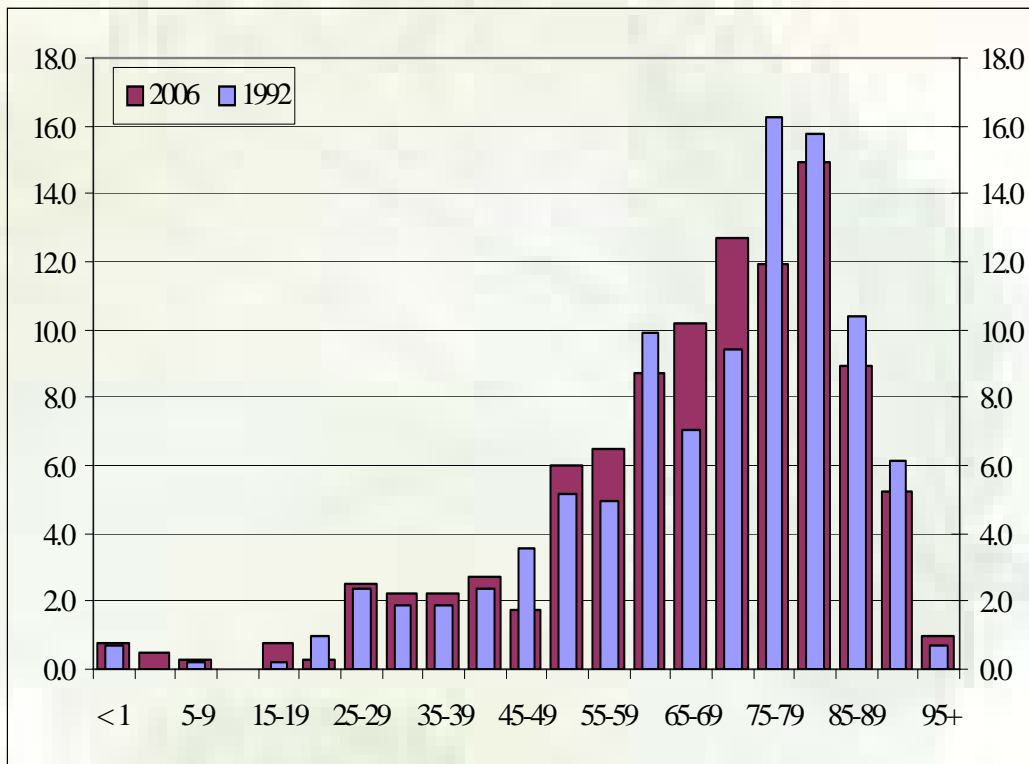


Toename gemiddeld aantal jaarlijkse bezoeken aan de specialist

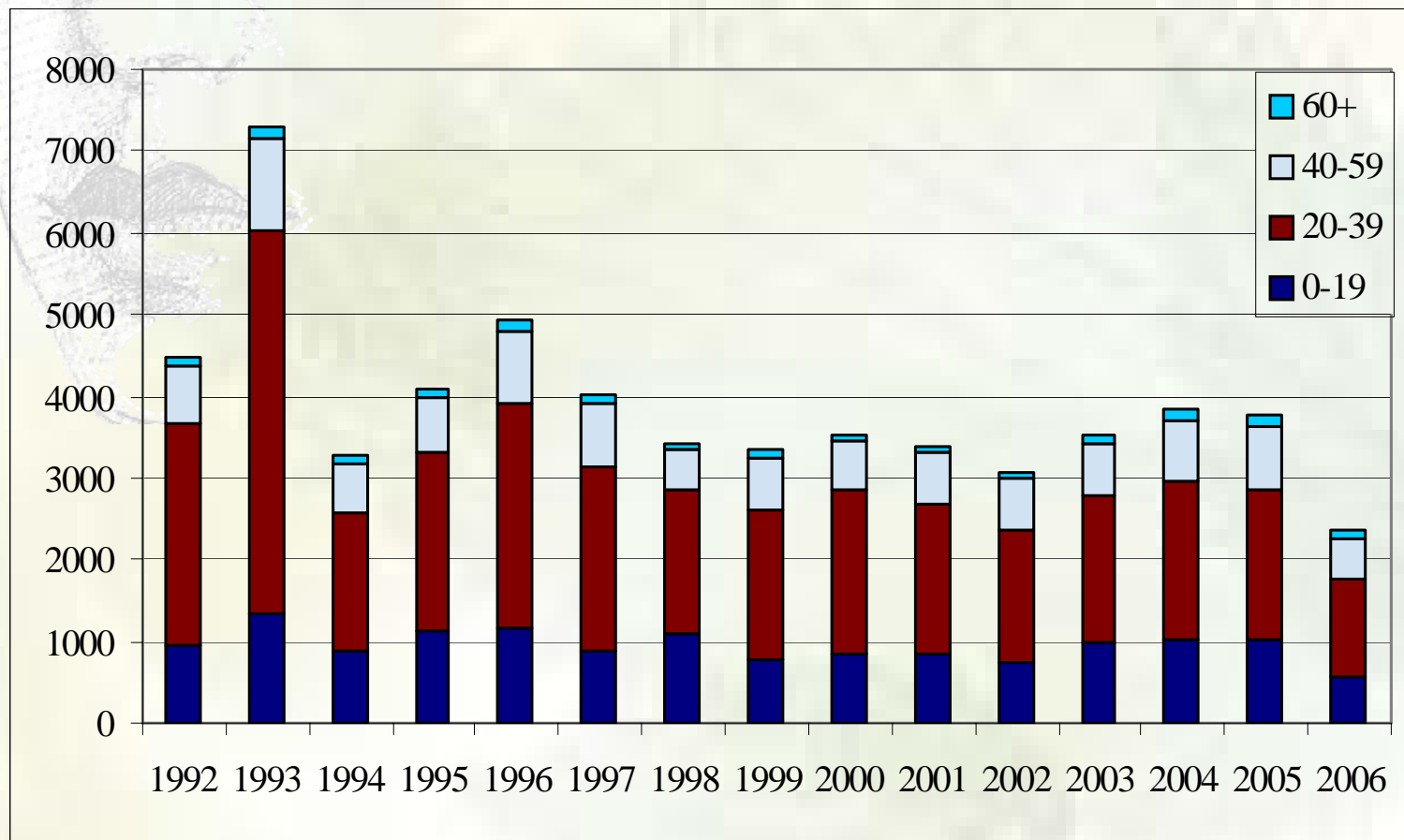


Persons past away by age category 1992 - 2006

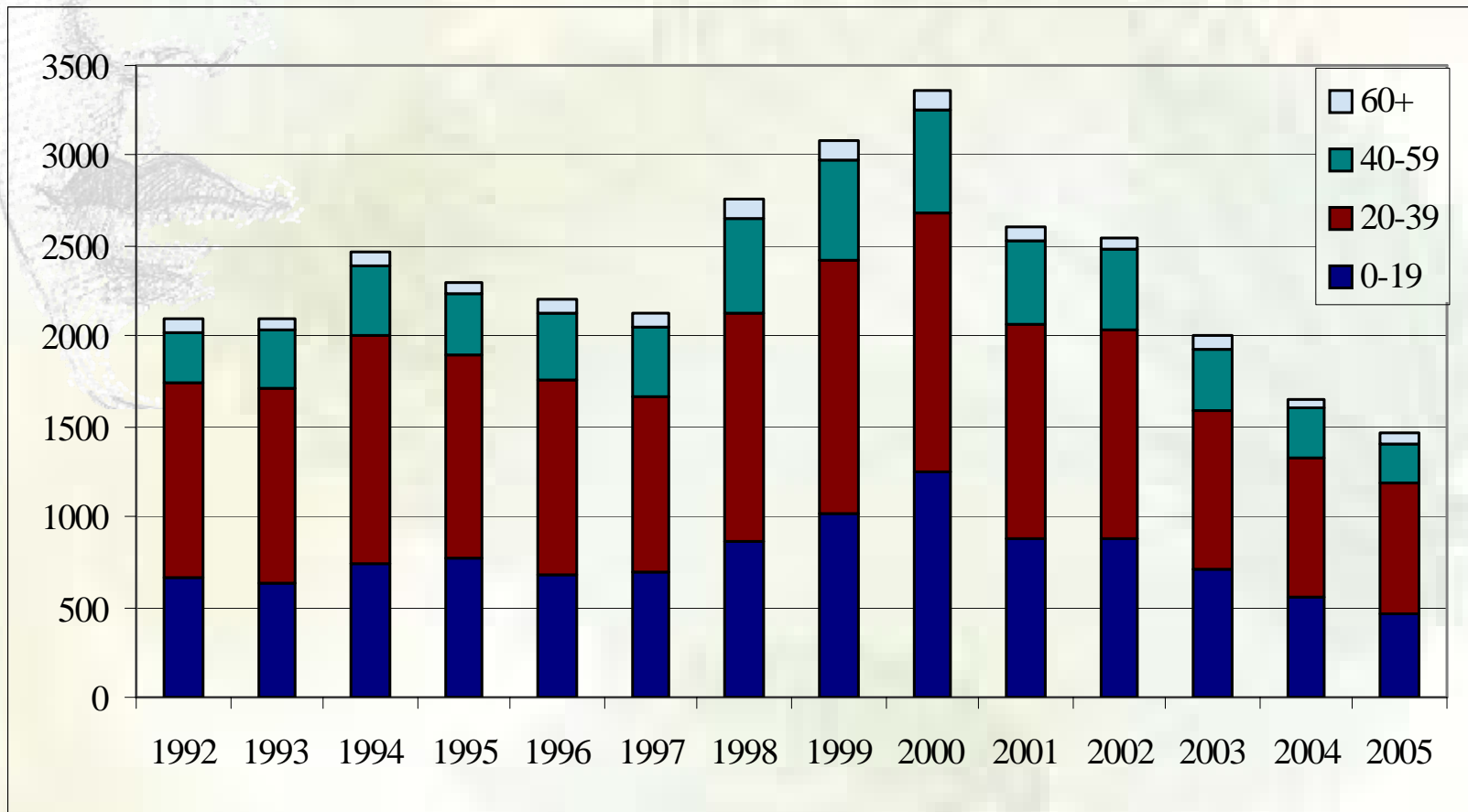
	1992	2006	1992	2006
< 1	3	8	0.7	0.7
1-4	0	3	0.0	0.5
5-9	1	0	0.2	0.2
10-14	0	1	0.0	0.0
15-19	1	6	0.2	0.7
20-24	4	5	0.9	0.2
25-29	10	7	2.4	2.5
30-34	8	7	1.9	2.2
35-39	8	9	1.9	2.2
40-44	10	15	2.4	2.7
45-49	15	16	3.5	1.7
50-54	22	20	5.2	6.0
55-59	21	23	5.0	6.5
60-64	42	46	9.9	8.7
65-69	30	68	7.1	10.2
70-74	40	75	9.4	12.7
75-79	69	68	16.3	11.9
80-84	67	58	15.8	14.9
85-89	44	56	10.4	9.0
90-94	26	30	6.1	5.2
95+	3	14	0.7	1.0
	424	535	100.0	100.0



Immigration by age-category



Emigration by age-category

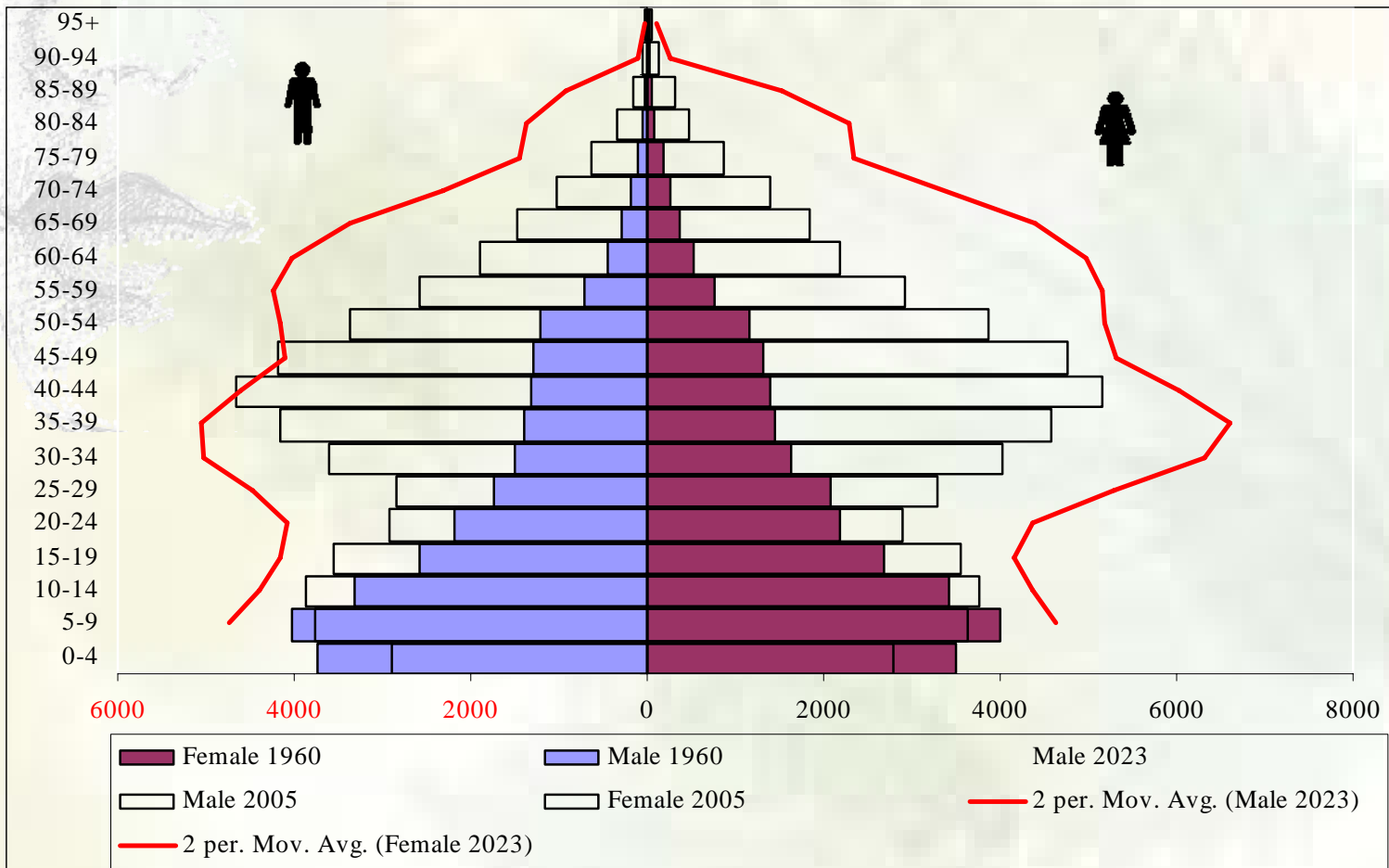


Natural growth & Net migration

KEY DEMOGRAPHIC INDICATORS

	Unit	2000	2001	2002	2003	2004	2005
Total population		91,064	92,676	93,945	96,207	99,109	102,149
Crude Birth rate (CBR)	p/ 1000	14.3	13.8	13.2	13.1	12.2	12.3
<i>The total number of live births in a certain year per 1,000 mid-year population</i>							
Crude Death rate (CDR)	p/ 1000	5.9	4.7	5.3	5.3	5.1	4.7
<i>The total number of deaths in a certain year per 1,000 mid-year population</i>							
Natural growth rate population	p/ 1000	8.4	9.0	7.9	7.8	7.1	7.5
<i>The rate at which the population is in- or decreasing due to a surplus (or deficit) of births over deaths, expressed as a percentage of the base population.</i>							
Emigration rate	p/ 1000	37.1	28.3	27.3	21.0	16.9	14.6
<i>The number of emigrants departing per 1,000 population</i>							
Immigration rate	p/ 1000	39.0	36.9	33.0	37.0	39.5	37.3
<i>The number of immigrants arriving per 1,000 population</i>							
Net migration rate	p/ 1000	1.8	8.5	5.7	16.0	22.6	22.7
<i>The net effect of immigration and emigration on the population, expressed as an in- or decrease per 1,000 population</i>							
Growth rate population	p/ 1000	10.3	17.6	13.6	23.8	29.7	30.2
<i>The rate at which the population is in- or decreasing due to natural increase and net migration, expressed as a percentage of the base population.</i>							
Corresponding doubling time		68.0	39.5	51.0	29.1	23.3	23.0
<i>Number of years it would take a country to double its population, given the current growth rate remains constant.</i>							

Population change: 1960; 2005; 2023



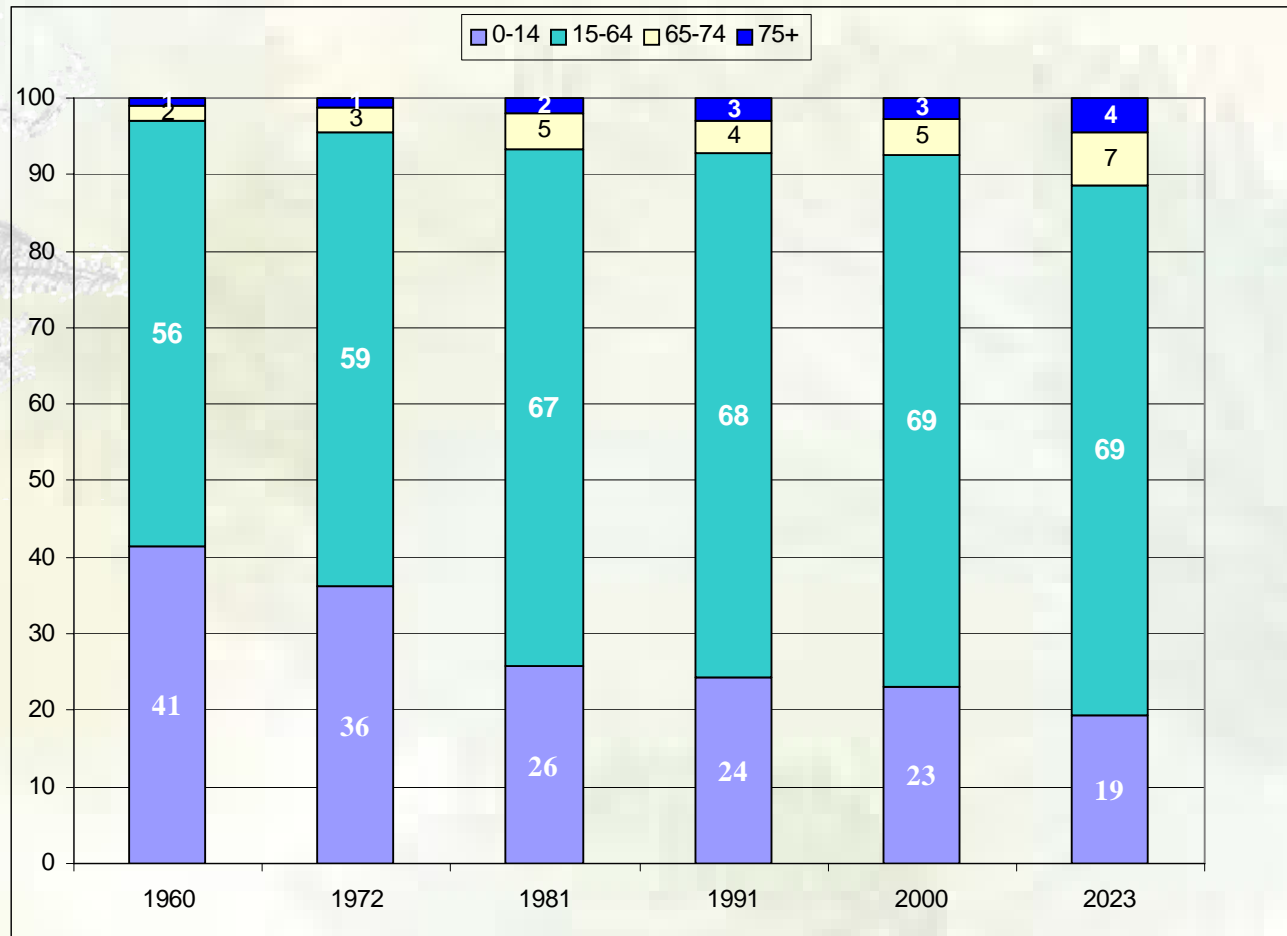
Tools to measure population change:

- Mean age
- Dependency ratio
- Women of childbearing age
- Sex ratio
- Child/women ratio
- Population density

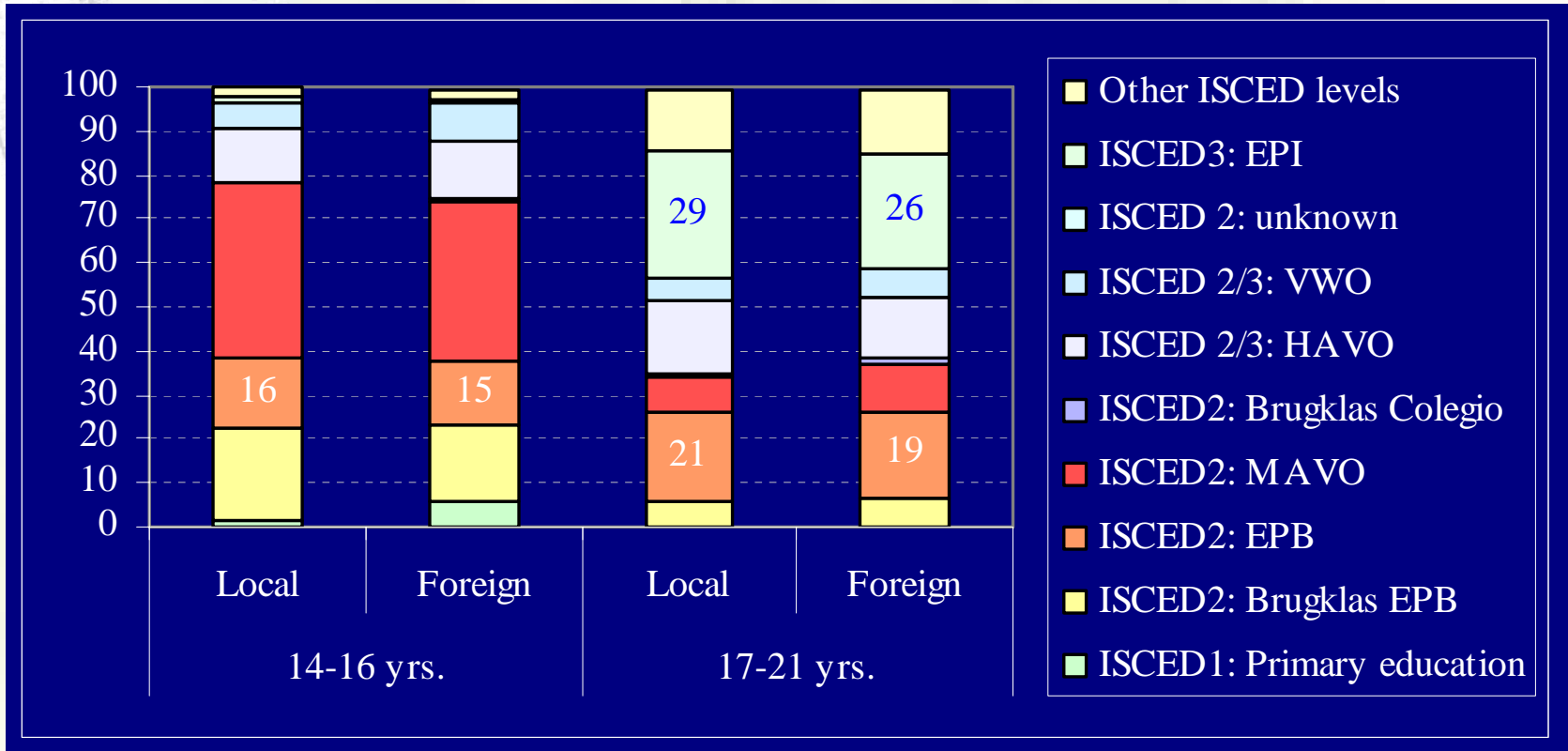
Consequences of population change for...

- Educational system
 - Number of schools
 - Number of foreign born children
 - Internal efficiency
- Shortage of labor on labor force
 - Higher net migration-rates
 - Integration (problems?)
 - Stability of wages in danger
 - Policy-issues (LTU, AZV, AOV,...)
- Ageing
 - Growing need for elderly-care
 - Sustainability of pension funds
 - Health issues
 - Changing consumption patterns

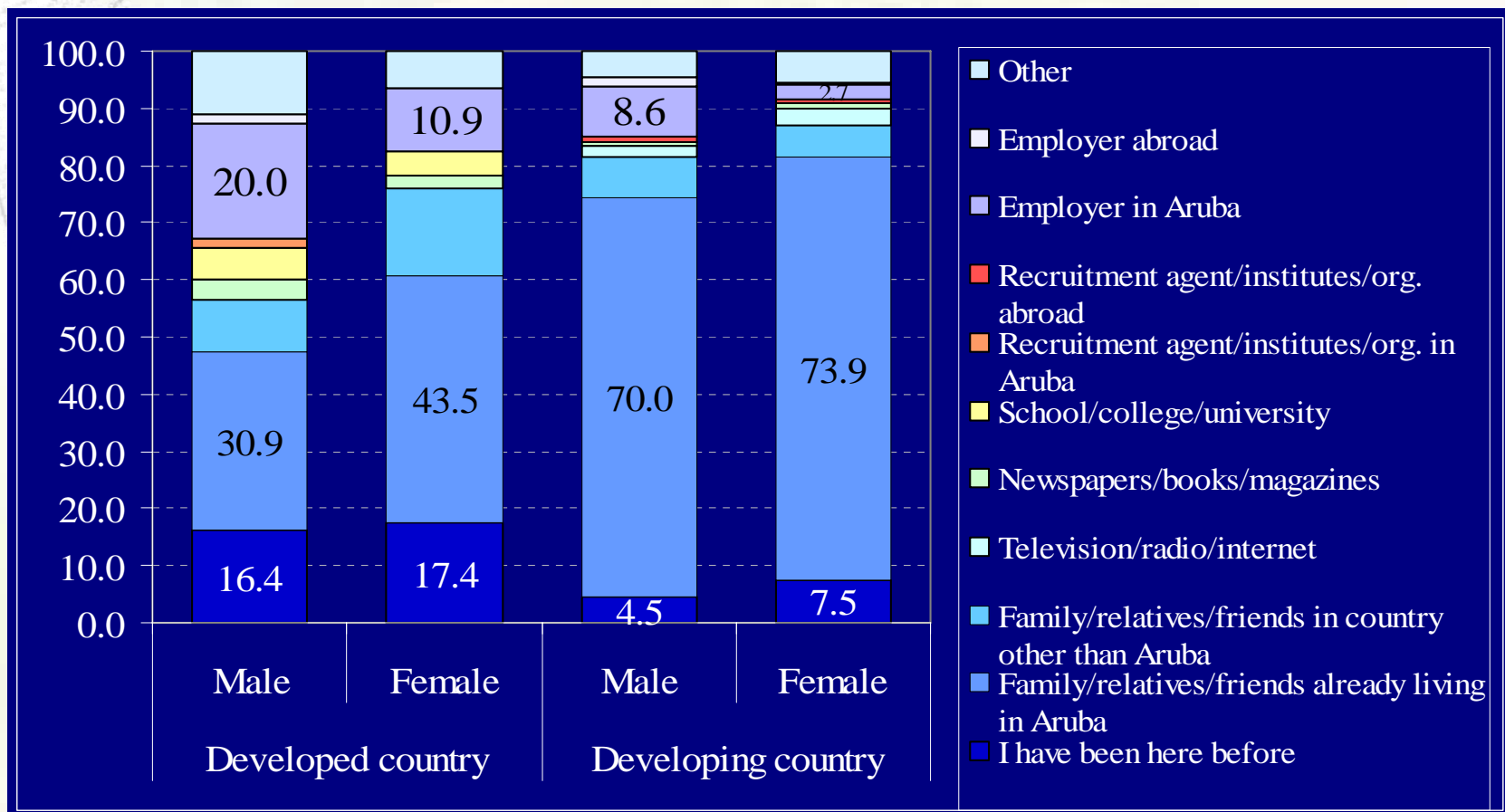
Changing population structure



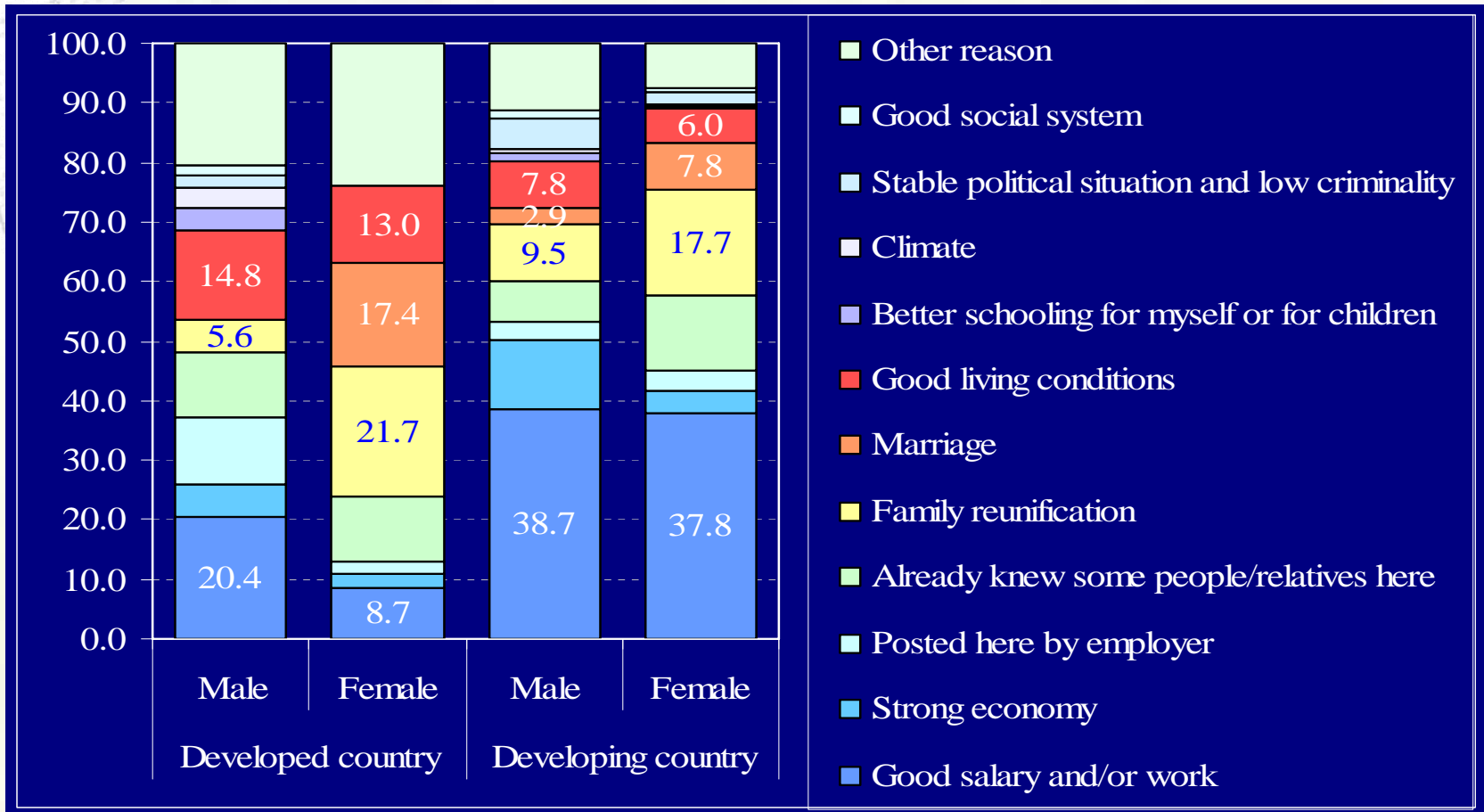
Total school-attending foreign-born population by age and school type



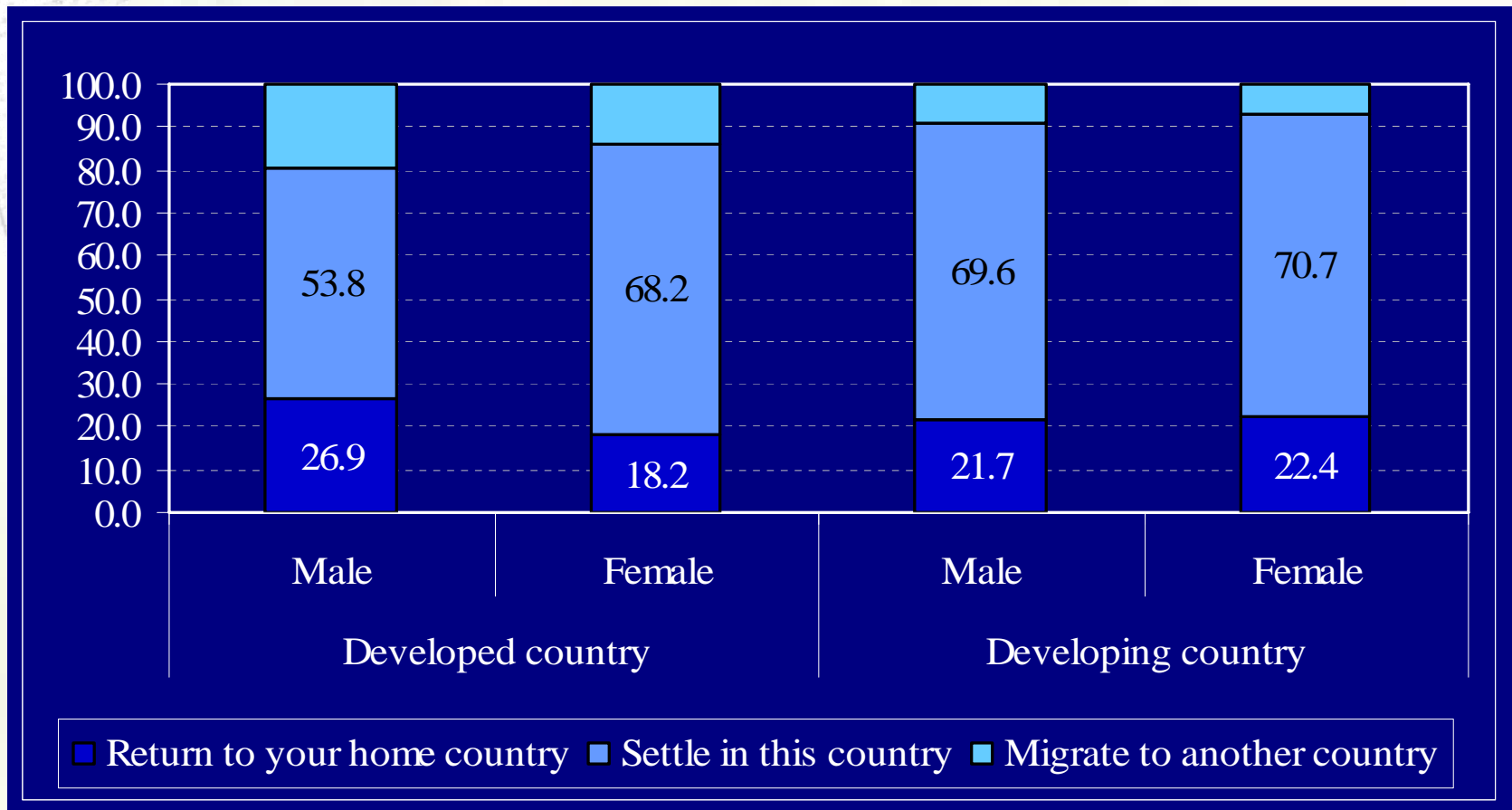
Way migrants got information about Aruba before arrival by sex and type of country.



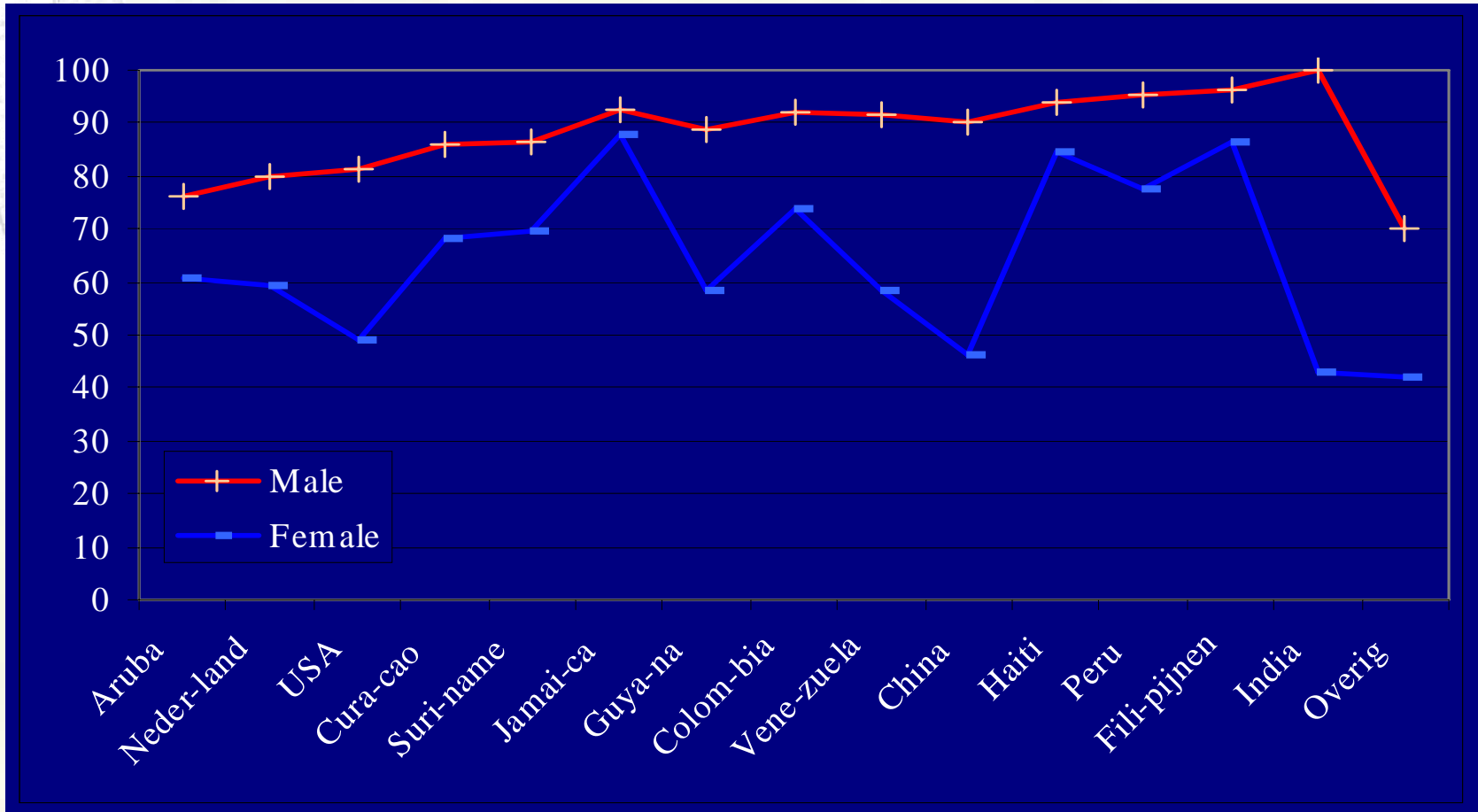
Reason why migrants came to Aruba by sex and type of country of birth



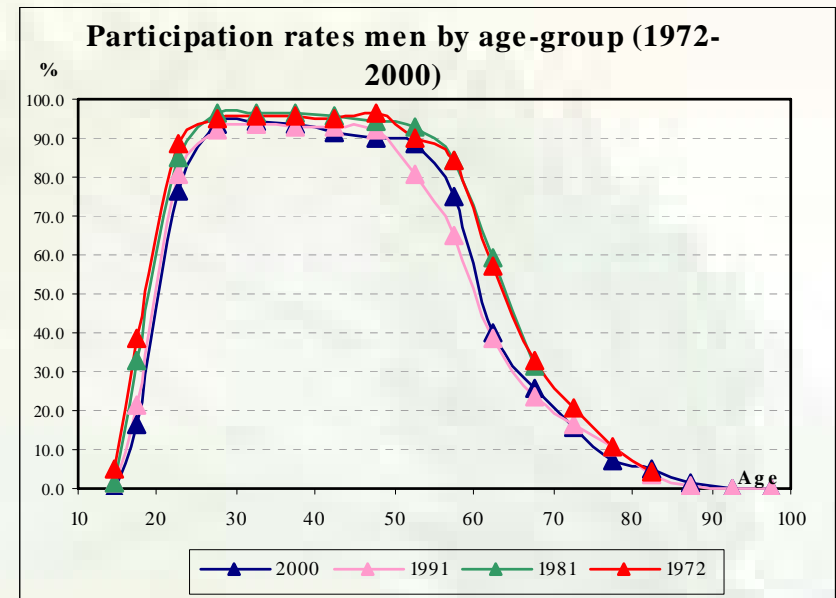
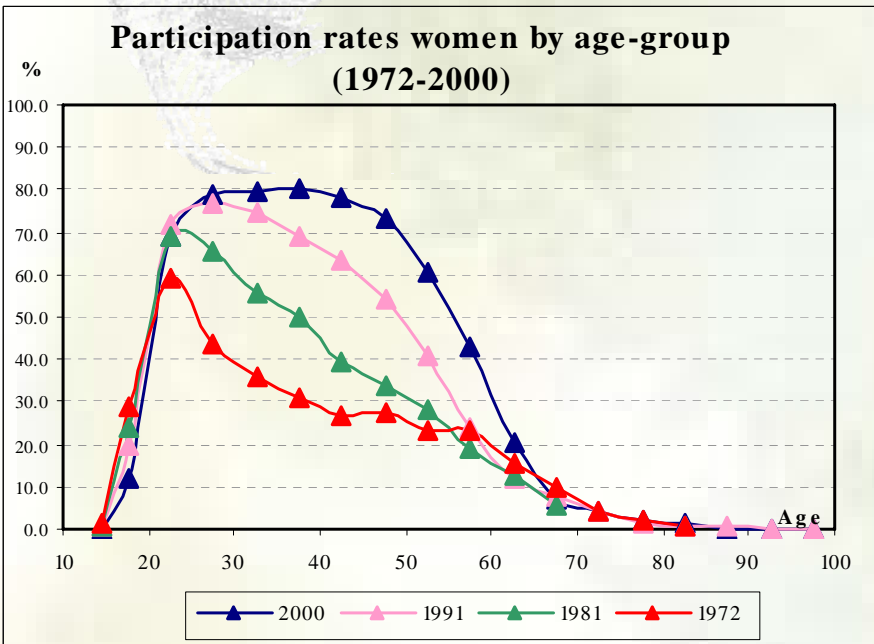
Intention to stay on Aruba of migrants by type of country of birth and sex



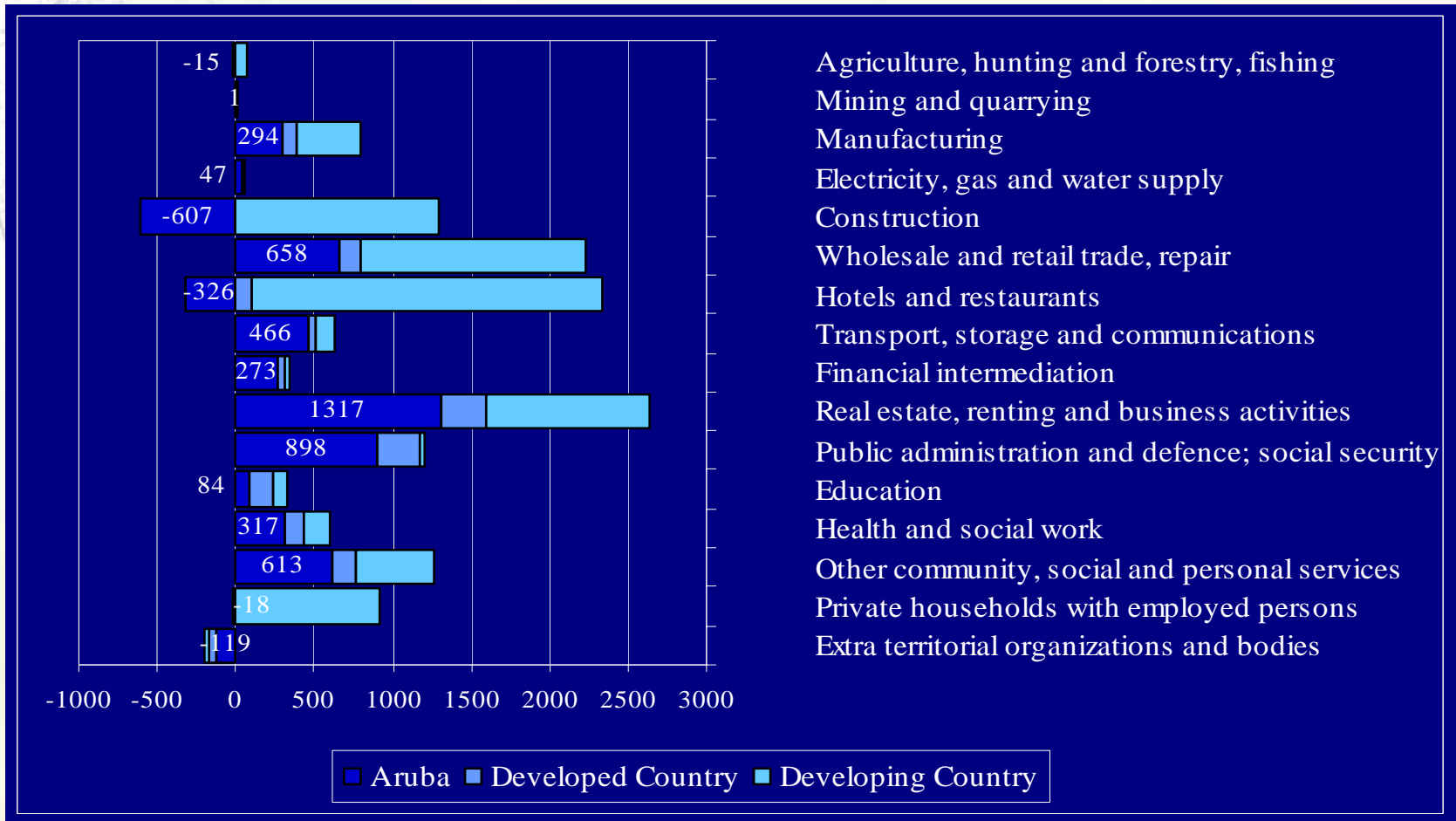
Participation rates for males and females, selected countries



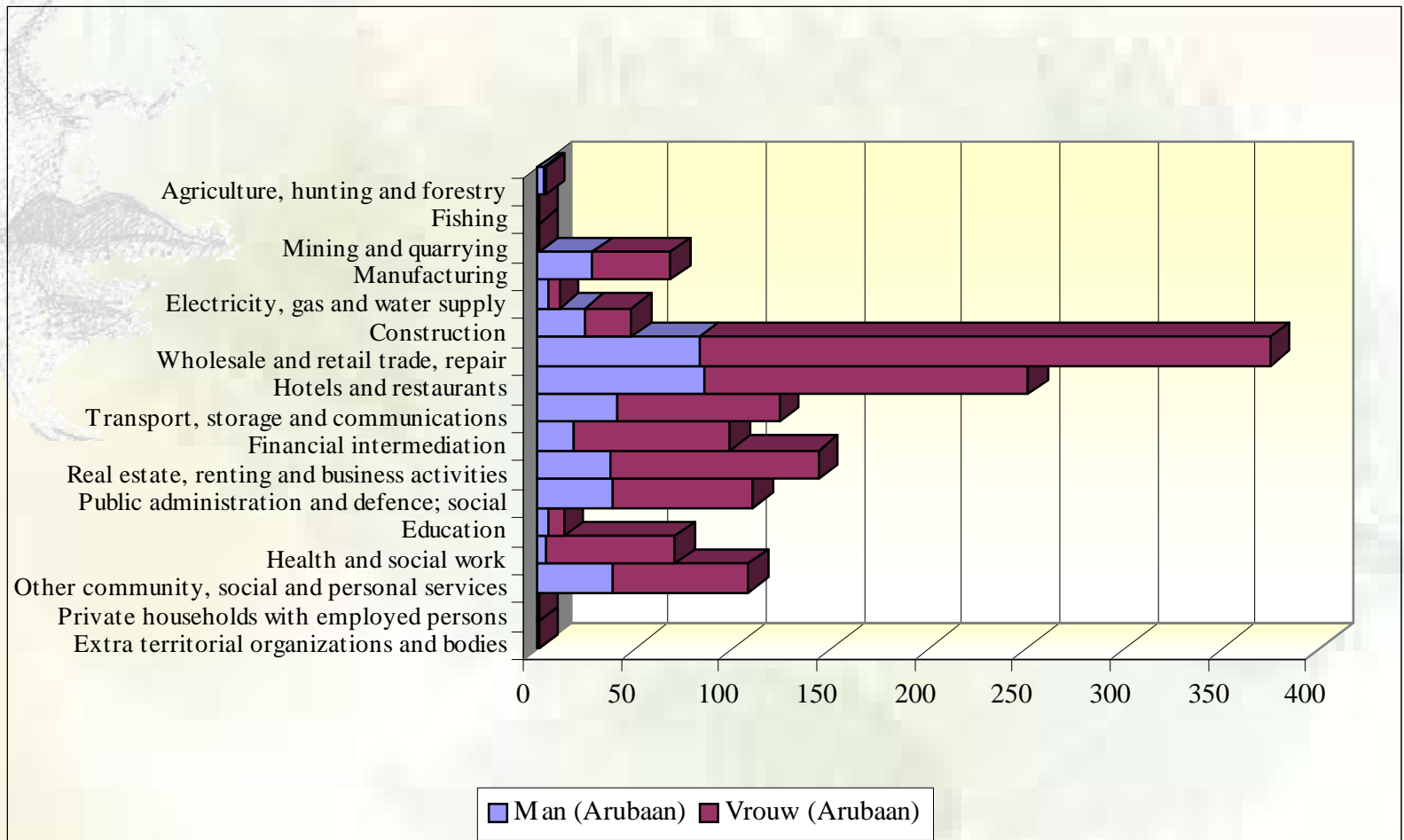
Participation rates, women and men, '72-'00



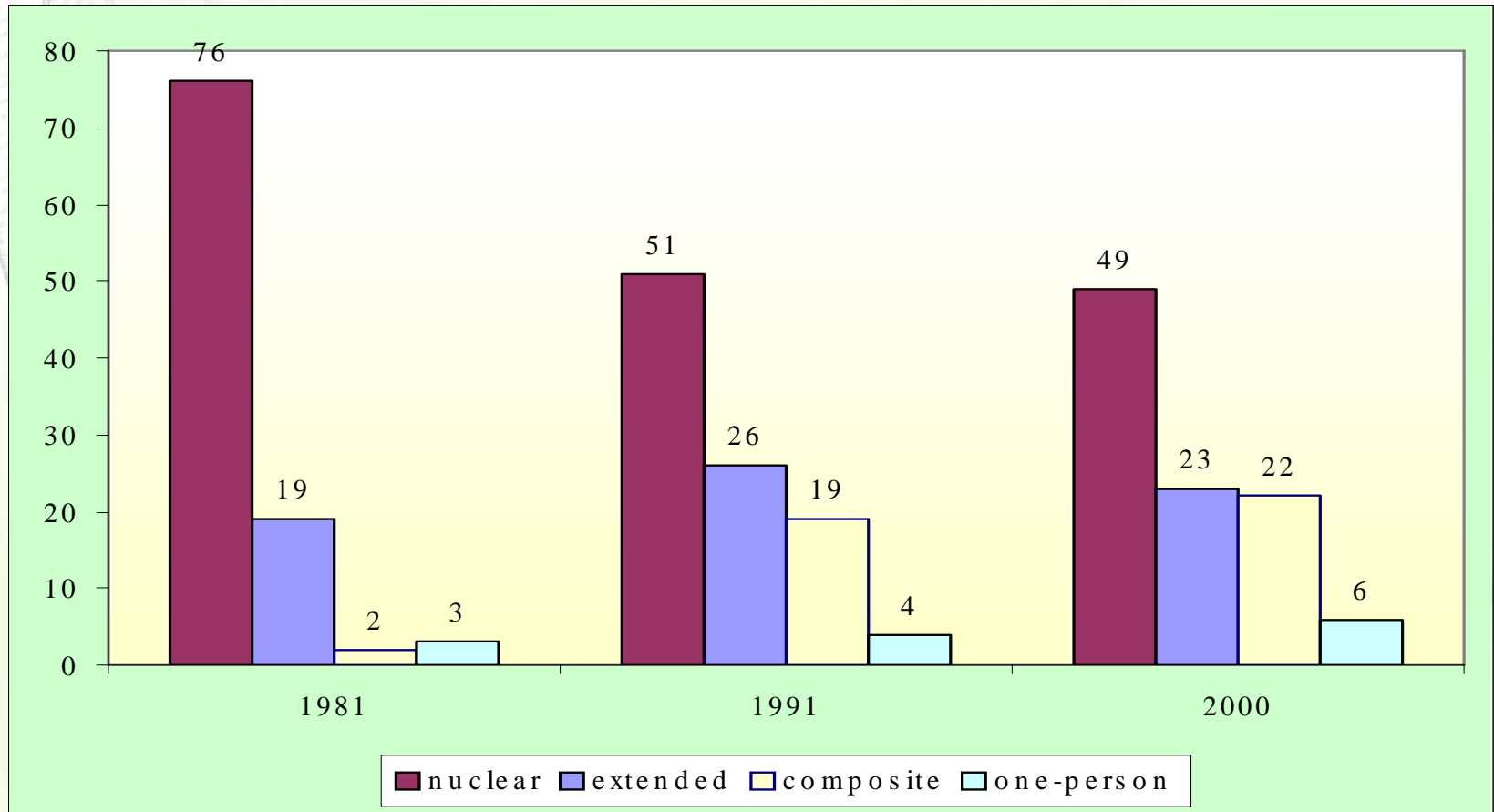
Labor developments by industrial sector, and type of country of birth



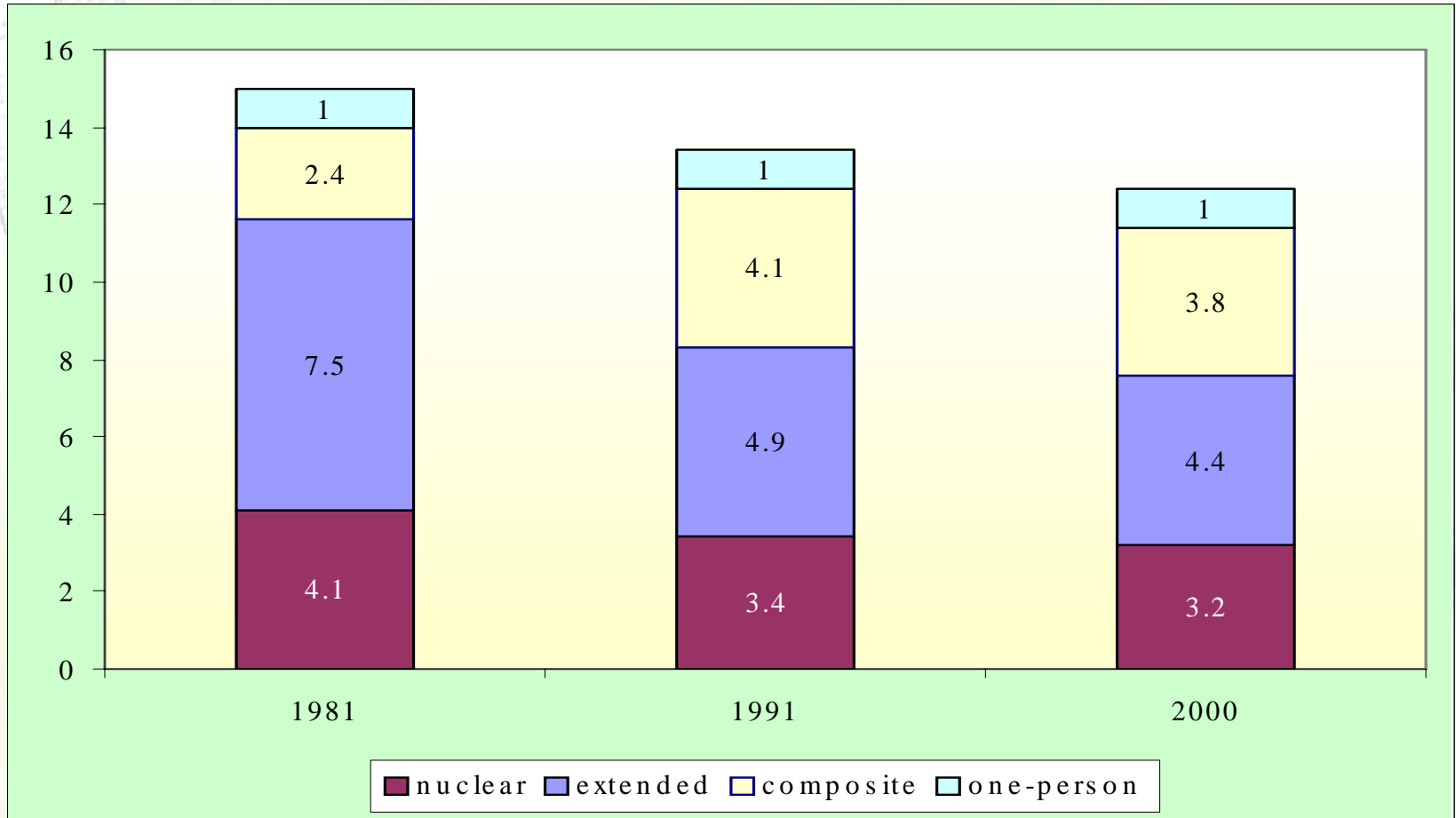
Working population, born on Aruba, with tourism oriented education, by industrial branch



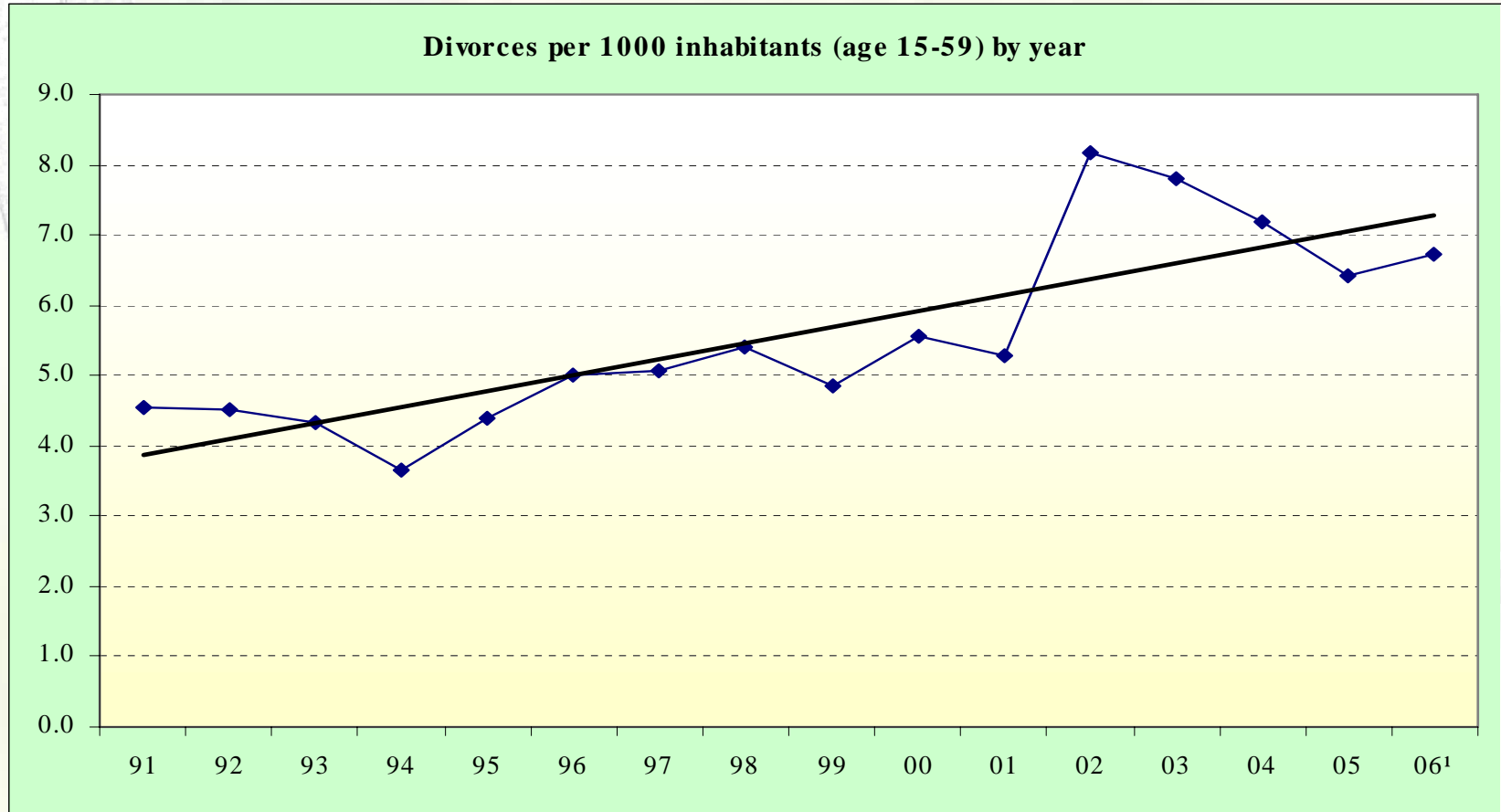
Type of households for 1981; 1991 and 2000



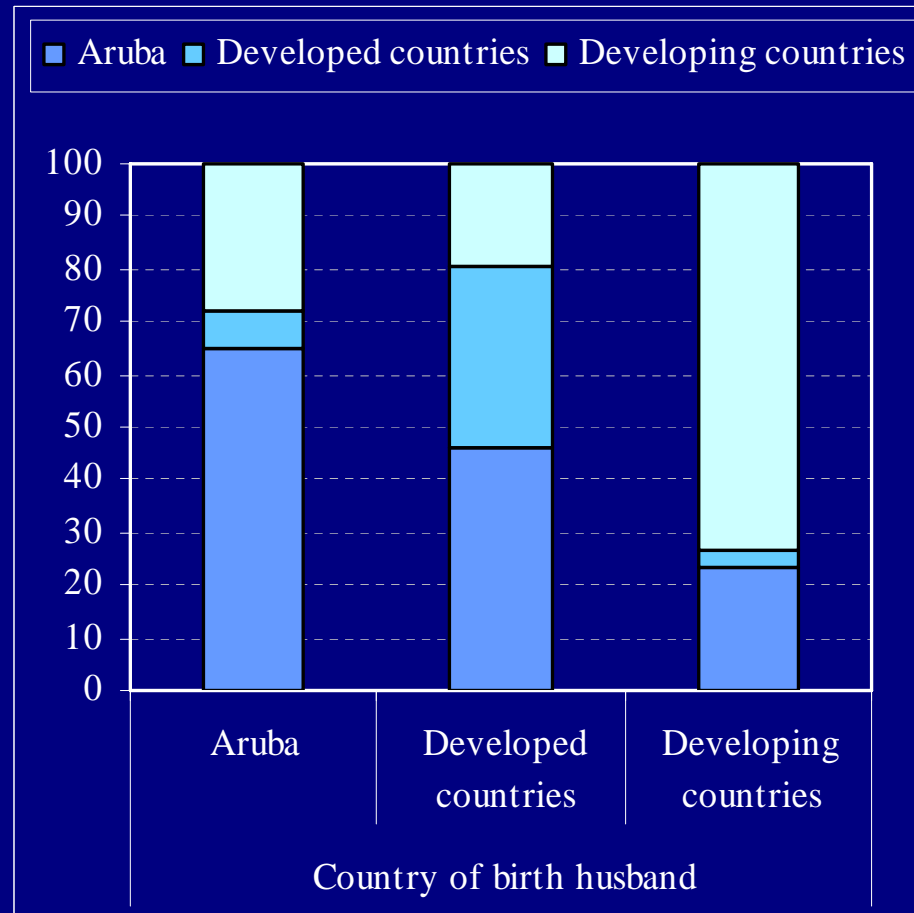
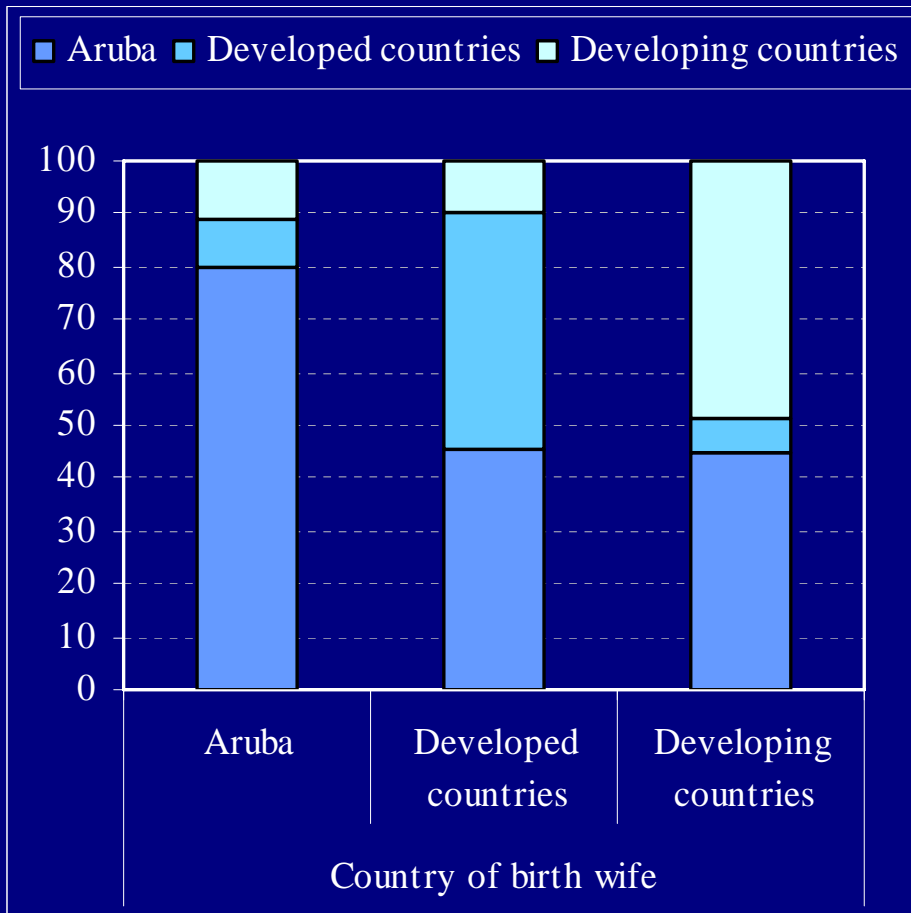
Average number of persons by type of household, 1981; 1991; 2000



Number of divorces per 1000 inhabitants (age 15-59) per year



Married population by place of birth of partner by type of country of birth.



Sustainability of social contributions (AZV and AOV)

- Break even point AZV around Afl. 3.650. Meaning that 27,56% of the employees are solidair with 72,44% of the employees.
- Break even point AOV around Afl. 3.200. Meaning that 32.83% of the employees are solidair with 67.17% of the contribution-payers.
- Break even point AOV for women is higher (they live on average 4,3 year longer. Their BEP is around Afl. 3.600, meaning that 79,25 of all employed women are paying an insufficient contribution in comparison of the their average return from the AOV.

Growth of occupational groups

<i>Major Occupational group</i>	Male		Female		Total	
	Abs.	Growth %	Abs.	Growth %	Abs.	Growth %
Armed forces	10	8.4	0	0.0	10	8.4
Legislators, senior officials, and managers	776	47.4	675	100.2	1451	62.8
Professionals	594	70.1	625	130.1	1218	91.8
Technicians and associate professionals	982	63.1	935	79.9	1917	70.3
Clerks	295	14.3	1523	40.0	1819	30.9
Service workers and shop and market sales workers	986	38.1	1562	51.8	2548	45.5
Skilled agricultural and fishery workers	63	27.5	15	85.3	77	31.5
Craft and related trades workers	1004	26.4	132	70.7	1136	28.5
Plant and machines operators and assemblers	489	32.9	85	212.4	574	37.6
Elementary occupations	494	20.7	1473	50.1	1968	36.9
Unknown	-28	-25.2	9	18.4	-19	-11.9
Total	5665	33.7	7034	56.8	12699	43.5

Source: Central Bureau of Statistics, Census 2000

Total expansion in the hotel-sector, (Hotel-rooms and time-share)



Totalen	Stand begin 2007	2,007	2,008	2,009	2010+	Totale geplande uitbreiding	Totaal bestaand & gepland
Hotels	4,512	558	120	760	1,382	2,820	7,241
Timeshare	2,957	328	712	150	0	1,190	4,147
Totals	7,469	886	832	910	1,382	4,010	11,388

Employee/room-ratio in Aruba

- Hyatt Regency, Radisson, Wyndham: 1.2 employees per room
- Bucuti, Manchebo, The Mill: 0.9 employees per room

	2000	2001	2002	2003	2004	2005	2006
Total employees in hotels & timshare	5,772	5,723	5,442	5,235	5,395	5,673	5,607
Total employees in tourism industry	15,941	15,584	15,121	15,299	15,662	16,387	16,215
Not tourism related	20,899	20,189	20,158	21,054	21,307	21,884	23,216
	36,840	35,773	35,279	36,353	36,969	38,271	39,431
Total number of hotelrooms	6,980	7,004	6,831	6,912	7,226	7,039	7,156
Employee / Room ratio (working in hotel/timeshare)	0.83	0.82	0.80	0.76	0.75	0.81	0.78
Employee / Room ratio (working in tourism sector)	2.28	2.23	2.21	2.21	2.17	2.33	2.27

Projected number of persons employed in the tourism industry



	2000	2001	2002	2003	2004	2005
	Year	Year	Year	Year	Year	Year
Employed population						
Employed in hotel & timeshare (factor 0.82)	5,772	5,723	5,442	5,235	5,395	5,673
Employed in hotelindustry (factor 2.28)	15,941	15,584	15,121	15,299	15,662	16,387
Not tourism related	23,605	24,853	26,311	27,352	28,344	28,836
Labor Force*	45,318	46,160	46,874	47,886	49,401	50,896
% of total Population	50.0	50.2	50.2	50.4	50.6	50.6
	2006	2007	2008	2009	2010	
	Year	Year	Year	Year	Year	
Employed population						
Employed in hotel & timeshare (factor 0.82)	5,868	6,125	6,851	7,533	8,667	
Employed in hotelindustry (factor 2.28)	16,316	17,029	19,049	20,946	24,097	
Not tourism related	30,427					
Labor Force*	52,611	52,702	58,954	64,825	64,825	
% of total Population	50.3	50.3	50.3	50.3	50.3	



Challenges

- To deal with the labor shortage
 - Raise labor productivity
 - Raise participation rates
 - Activate non-active locals
 - Gradually (instead of simultaneously) raise the number of rooms
 - Contact and attract locals (studying abroad)
- Integration of foreigners in our community
- State of health of the (ageing) population
- Sustainability of social funds