

Current Developments of Aruba's Labor Market



Employed	Male	10,626	10,725	15,107	16,828	20,996	21,300	22,498
	Female	3,403	4,719	8,464	12,387	15,032	17,480	19,411
	Total	14,029	15,444	23,571	29,215	38,928	39,216	41,914
Unemployed	Male	1,854	2,040	1,356	1,577	1,175	1,553	1,563
	Female	923	1,175	1,093	1,042	1,293	1,500	1,500
	Total	2,777	3,215	2,449	2,619	2,468	3,053	3,063
Labor Force	Male	12,480	12,765	16,463	18,255	22,071	23,253	24,031
	Female	4,326	5,894	9,557	13,216	16,325	19,480	20,911
	Total	16,806	18,659	26,020	31,471	38,396	42,733	44,942
Non-active	Male	2,179	3,970	4,897	6,394	7,110	9,000	9,000
	Female	11,791	12,242	13,781	12,733	14,485	15,980	15,980
	Total	13,970	16,212	18,678	19,127	21,595	24,980	24,980
Population 15 years and over	Male	3,665	6,735	21,170	24,370	29,222	34,986	36,154
	Female	6,814	11,136	23,137	26,053	30,839	34,986	36,154
	Total	10,479	17,871	44,307	50,423	60,061	69,972	72,308
Total population	Male	26,127	28,411	39,340	32,821	38,663	48,120	50,072
	Female	27,072	29,500	40,972	33,866	39,786	48,120	50,072
	Total	53,199	57,905	80,312	66,687	78,449	96,240	100,144



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PREFACE

In recent years Aruba witnessed a rapid growth of the economy. Although the labor market has adapted to these new economic conditions, the rapid growth of the economy has generated certain problems. Therefore it is necessary to have an insight into the labor market consequences of this growth. Until now, little is known about topics such as participation rates of foreigners, the position of women at the labor market, unemployment, the quality of the labor force, etc.

The current publication is part of a series based on the Fourth Population and Housing Census in Aruba, which was held in October 2000. It provides a detailed insight in the labor dynamics over the last decade. It looks at the employment performance in recent years, employment growth within different economic sectors, changes in employment and unemployment of men and women, and specific labor market topics, such as the labor market implications of ageing.

The realization of this publication was possible thanks to work of Dr. F. Eelens, technical advisor for the Fourth Population and Housing Census, and two staff members working at the department of Research and Study: Mr. drs. M. Balkestein and Mrs. drs. K. Kock-Croes.

With this publication, the Central Bureau of Statistics hopes to provide the policy makers and the community at large, the necessary information to get a clear understanding of the labor market characteristics. With such information it becomes possible for the policy makers to make informed decisions for Aruba's future.

Drs. R.A. Lee

Director of the Central Bureau of Statistics Aruba

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INTRODUCTION

During the last decade important changes have taken place in our community. In the beginning of the nineties Aruba's economy was – according to the Central Bank of Aruba – overheated, and grew on average by a remarkable 9 percent per year. At the end of the millennium, growth of the real GDP has been reduced to a more sustainable level. In the year 2000 the real GDP increased with 3.6 percent in comparison to the GDP of 1999. The provisional estimate of the real GDP for 2002 indicates a decrease of 3.8 percent during the last year. The GDP per capita for 2002 was estimated at Afl. 35,966¹.

Because of the rapid growth of the economy, the local labor market was forced to provide workers at all skill levels for the many vacancies. However, despite a fast growing participation of women in the labor market and increasing employments rates, the local market was not sizable enough to fill all the open positions. This precarious situation resulted in a massive influx of foreign labor. Between January 1987 and September 2002, more or less 59,000 persons migrated (temporary) to Aruba. During the heydays, the immigration rate was as high as 70.69 per thousand. Currently, the immigration rate dropped to 33.74 per thousand, the lowest level in the entire period since 1987.

The high influx of foreign workers has created specific problems. Tensions on the housing market still exist. The yearly number of building permits have almost doubled between 1986 and 2002.² Nevertheless the need for housing still surpasses the existing supply. The government is currently trying to diminish this gap by constructing a large number of subsidized residences. Firm actions have taken place, in order to reduce the number of illegal migrants, but the current situation is not yet satisfactory. The infrastructure and facilities such as roads, water supply, medical service centers, and education is under pressure.

A profound understanding of Aruba's current social-economic and demographic characteristics, facilitates the government to take informed decisions to improve the living conditions in Aruba.

This publication serves two main purposes. The first is to provide a comprehensive report on recent developments in Aruba. Where possible comparisons are made with employment figures obtained from previously held censuses. The second purpose of this report is to look into specific labor market topics and issues, which are of particular policy concern. In these cases new analysis enable us to gain better insights and understanding of what is happening in the labor market so that more effective policies can be developed to improve Aruba's overall employment performance.

Attention is addressed to several important issues: characteristics of new entrants in the labor market, the growing share of women in the labor market and finally the impact of the ageing of Aruba's population and workforce.

These are some of the many important issues to be discussed, not only by policy makers, but also by the community at large. After all, support from the community for certain actions to be taken is necessary to guarantee prosperity for the near future.

¹ National Accounts of Aruba 1995 –2000, Central Bureau of Statistics, Aruba, December 2002; Gross Domestic Product 2001 – 2002, provisional estimates for Aruba, Central Bureau of Statistics, Aruba, December 2002.

²In 1986 the number of construction applications submitted was 721, in 2002 this figure rose to 1433, Department of Public Works.



HIGHLIGHTS OF 'CURRENT DEVELOPMENTS OF ARUBA'S LABOR MARKET'

Employment in Aruba 2000 examines the background of labor developments during the last years and analyses the major features of Aruba's labor market. Where possible, comparisons were made between different census moments, in order to put the rapid changes in perspective. Some main conclusions:

Employment rates still on the rise

The number of employed persons in Aruba is still on the rise. In the year 2000, the employment rate for those between ages 15 – 64, was over 72 percent. This is well above the employment level in Europe (62.1 percent). Employment rates in Aruba for these age groups, are about as high as in the USA and Japan (around 74-75 percent). In 2000, male employment rates in Aruba reached 81.1 percent, compared to 64.5 percent for females. In Europe, the share of men and women in total employment was much lower: 71.5 and 52.5 percent respectively (1999). The labor indicators in the tables below however indicates the situation for the population of 15 years and over.

Keeping older workers in the labor force

The ageing of the Aruba's population is only one of the factors leading to increased dependency. At the moment, almost 4 percent of the employed population consists of persons aged 60 years and over. The 'theoretical' dependency ratio³ has reached 17 percent. However, a different picture emerges when we

ABSOLUTE FIGURES, population of 15 years of age and over

Activity status		1960*	1972	1981	1991	1994	1997	2000
Employed	Male	10,626	10,725	15,107	16,828	20,896	21,736	22,496
	Female	3,403	4,719	8,464	12,384	15,032	17,480	19,418
	Total	14,029	15,444	23,571	29,213	35,928	39,216	41,914
Unemployed	Male	1,854	2,040	1,356	1,057	1,175	1,553	1,563
	Female	923	1,175	1,093	832	1,293	1,582	1,555
	Total	2,777	3,215	2,449	1,889	2,468	3,135	3,118
Labor Force	Male	12,480	12,765	16,463	17,885	22,071	23,289	24,060
	Female	4,326	5,894	9,557	13,216	16,325	19,062	20,973
	Total	16,806	18,659	26,020	31,101	38,396	42,351	45,032
Non-active	Male	2,884	3,970	4,897	6,394	7,110	9,263	8,444
	Female	11,893	12,242	13,780	12,733	14,485	15,924	15,396
	Total	14,777	16,212	18,677	19,127	21,595	25,187	23,840
Population 15 years and over (incl. Pers. Act. Status Unkn.)	Male	15,665	16,735	21,360	24,370	29,222	32,552	32,865
	Female	16,814	18,136	23,337	26,053	30,839	34,986	36,754
	Total	32,479	34,871	44,697	50,423	60,061	67,538	69,619
Total population	Male	26,127	28,401	29,340	32,821	38,663	42,811	43,434
	Female	27,072	29,504	30,972	33,866	39,786	44,909	47,072
	Total	53,199	57,905	60,312	66,687	78,450	87,720	90,506

calculate the effective dependency ratio (i.e. the ratio of all persons of 15 years and over who are not

³ Usual definition: people above retirement age relative to those of working age

employed, to those in employment). The effective dependency ratio is as high as 66 percent. This means that for every three employed persons, two persons are inactive.

Such a high rate has special implications for Aruba's social system. Pensions and social security benefits are directly affected by the high rate of dependency. Also, health and long-term care will have to deal with its effect.

Occupational shifts

The employment growth between 1991 and 2000, is most pronounced in sectors that demand relatively high skilled labor. The increased employment of managers, professionals and technicians since 1991, accounted for 4,786 persons (36 percent). Women have taken just under half of all new additional jobs for managers, professionals and technicians (48.7 percent). During the last decade, Aruba has further changed towards a service-oriented economy. This evolution has caused a change in the structure of its labor market.

GROWTH FIGURES, population of 15 years of age and over

<i>Activity status</i>		1960*	1972	1981	1991	1994	1997	2000
Employed population	Male		0.93	40.86	11.39	24.17	4.02	3.50
	Female		38.67	79.36	46.32	21.38	16.28	11.09
	Total		10.09	52.62	23.93	22.99	9.15	6.88
Unemployed population	Male		10.03	-33.53	-22.08	11.20	32.19	0.66
	Female		27.30	-6.98	-23.88	55.41	22.32	-1.68
	Total		15.77	-23.83	-22.88	30.68	27.02	-0.52
Labor force	Male		2.28	28.97	8.64	23.41	5.52	3.31
	Female		36.25	62.15	38.29	23.52	16.76	10.03
	Total		11.03	39.45	19.53	23.46	10.30	6.33
Inactive population	Male		37.66	23.35	30.57	11.20	30.28	-8.84
	Female		2.93	12.56	-7.60	13.76	9.94	-3.32
	Total		9.71	15.20	2.41	12.91	16.63	-5.35
Population of 15 years and over	Male		6.83	27.64	14.09	19.91	11.40	0.96
	Female		7.86	28.68	11.64	18.37	13.45	5.05
	Total		7.36	28.18	12.81	19.11	12.45	3.08
Total population	Male		8.70	3.31	11.86	17.80	10.73	1.46
	Female		8.98	4.98	9.34	17.48	12.88	4.82
	Total		8.85	4.16	10.57	17.64	11.82	3.18

PARTICIPATION RATES; (UN)EMPLOYMENT RATES, population 15 years of age and over

<i>Activity status</i>		1960*	1972	1981	1991	1994	1997	2000
Participation rate	Male	81.2	76.3	77.1	73.7	75.6	71.5	74.0
	Female	26.7	32.5	41.0	50.9	53.0	54.5	57.7
	Total	53.2	53.5	58.2	61.9	64.0	62.7	65.4
Employment rate	Male	69.2	64.1	70.7	69.3	71.6	66.8	69.2
	Female	21.0	26.0	36.3	47.7	48.8	50.0	53.4
	Total	44.4	44.3	52.7	58.2	59.9	58.1	60.9
Unemployment rate	Male	14.9	16.0	8.2	5.9	5.3	6.7	6.5
	Female	21.3	19.9	11.4	6.3	7.9	8.3	7.4
	Total	16.5	17.2	9.4	6.1	6.4	7.4	6.9

Unemployment

According to the 2000 census, 3118 persons above age 14 were unemployed on Aruba: 1563 men and 1555 women. The unemployment rate stood at 6.9 percent in October 2000. Compared to other countries in the region, Aruba's unemployment is not very high. Unemployment is very high at the youngest age groups. In the age group 15-19 years, 26.8 percent of the economically active population is unemployed. In the age group 20-24 years the unemployment rate is 13.8 percent. After age 30, unemployment stabilizes around 6 percent and declines to around 4.5 percent at retirement age. Up to age 40 women have somewhat higher levels of unemployment than men. After 40 both levels are about the same.

Unemployment rates by age and sex, 1991 -2000

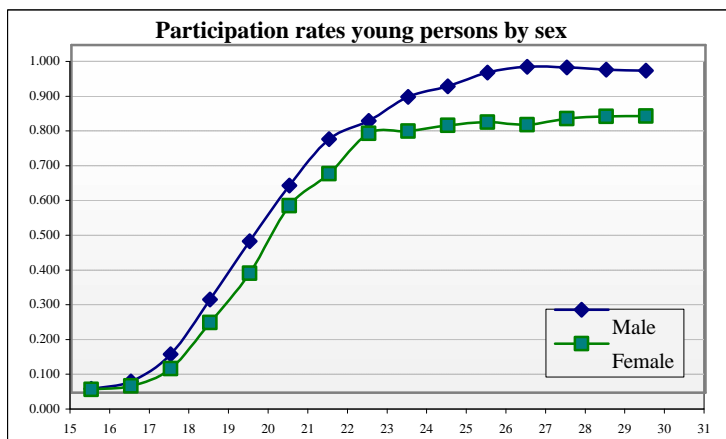
	1991			1994			1997			2000		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
15-19	20.7	10.4	20.1	22.6	62.5	37.2	35.5	54.3	45.0	25.6	28.4	26.8
20-24	10.7	8.6	9.8	6.7	9.0	7.8	12.8	17.0	14.8	13.0	14.5	13.8
25-29	6.8	6.4	6.6	4.8	9.6	7.0	7.1	6.6	6.8	6.5	8.6	7.6
30-34	5.4	6.3	5.8	5.2	6.0	5.5	5.7	8.9	7.1	5.3	6.8	6.0
35-39	4.1	4.8	4.4	5.1	8.4	6.5	6.3	4.7	5.6	4.7	6.6	5.6
40-44	4.0	4.9	4.4	7.3	10.1	8.5	7.4	5.9	6.7	6.3	6.2	6.3
45-49	4.4	6.3	5.2	4.4	2.1	3.4	3.2	6.5	4.5	5.7	5.2	5.4
50-54	3.9	2.7	3.5	3.9	5.9	4.6	3.4	5.0	4.1	5.4	5.1	5.3
55-59	5.0	4.1	4.7	4.0	1.5	3.1	2.6	3.2	2.8	5.0	5.3	5.1
60-64	4.6	4.4	4.6				6.8	6.1	6.6	5.2	3.0	4.4
Total	5.9	6.3	6.2	5.7	8.0	6.4	6.7	8.4	7.4	6.5	7.4	6.9

Source: Population Census 2000

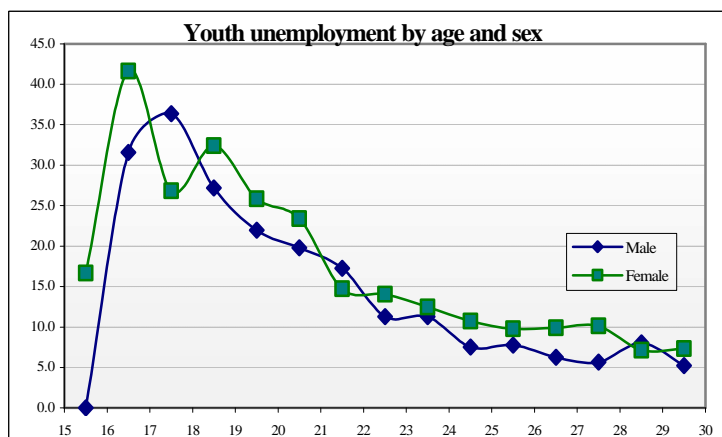
During the last decade unemployment has remained quite stable on Aruba. In 1991, 6.2 percent of the economically active population was out of work. At that moment, Aruba witnessed a great demand for workers in the construction and hotel sector. In 1994, the level of unemployment was about the same as in 1991. By 1997 an increase in the unemployment rate was noticed (7.4 percent). However, in October 2000 unemployment slightly dropped again to its current level of 6.9 percent. Unemployment for women is somewhat higher than for men. Compared to the Labor Force Surveys of 1994 and 1997 female unemployment has slightly come down.

Young people on the labor market

In the 2000 census, 8,475 men in the age group 15-29 were counted against 8,966 women. The discrepancy between the number of men and women is partly due to the fact that more women than men leave the island to study abroad. Among all young men between 15 and 30, 60.6 percent were economically active at the time of the census. For young women the participation rate is somewhat lower (52.9 percent). The mean age at which young men enter the labor market is 20.0 years, against 19.9 years for young women



In 2000, the unemployment rate for young males aged 15-24 was 15.7%; 16.8 percent of all women between ages 15 and 25 were without work. The graph clearly shows the high unemployment among the very young. In the age group 15-19, the unemployment rate is 25.6 percent for men and 28.4 percent for women. However, one has to take into account that the absolute number of unemployed and employed in this age group is relatively small: 858 persons below 20 are



in the labor force, 384 of them are out of work. Despite the limitation of the data, the figures suggest that duration of unemployment is rather small for many unemployed young persons. Fifty percent of all young unemployed persons were without work for less than 4 months for men and 3 months for women.

ISCO-category for workers below and above 30 years of age, by sex.

ISCO-category	Male			Female		
	<30	>=30	Total	<30	>=30	Total
Armed forces	45	89	134	0	0	0
Legislators, senior officials, and managers	221	2,189	2,410	143	1,203	1,346
Professionals	133	1,306	1,440	169	934	1,104
Technicians and associate professionals	425	2,113	2,538	465	1,640	2,105
Clerks	607	1,750	2,357	1,530	3,805	5,335
Service workers and shop and market sales workers	961	2,605	3,566	1,184	3,390	4,575
Skilled agricultural and fishery workers	61	231	292	7	24	32
Craft and related trades workers	959	3,847	4,806	54	265	318
Plant and machines operators and assemblers	338	1,637	1,975	19	106	125
Elementary occupations	828	2,054	2,882	573	3,844	4,417
Total	4,578	17,822	22,399	4,144	15,212	19,356

Source: Population Census Aruba 2000

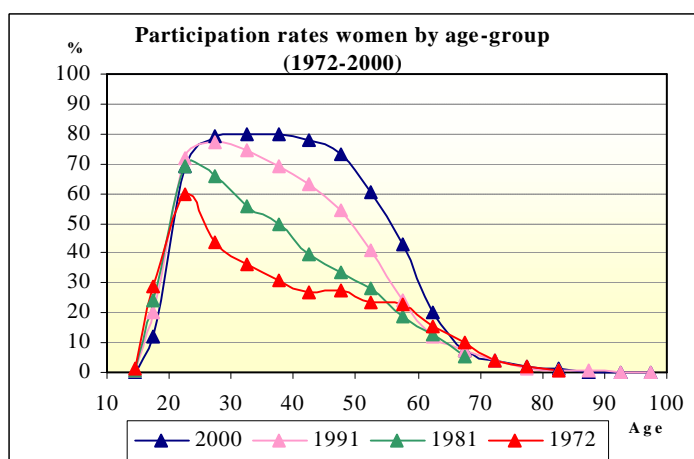
The census was held in October 2000, which is about 3-4 months after the end of the school year. In the census, 250 persons between ages 15 and 30 indicated they were without work because they recently finished school.

Young women are attracted to two main occupational categories: 'clerks' and 'service workers and shop and market sales workers'. More than 65 percent of women under 30 work in one of these two sectors. Somewhat more than 41 percent of young men work as 'craft and related trade workers' or as 'service workers and shop and market sales workers'. Young women are clearly turning away from elementary occupations. On the other hand more and more young men are working in elementary occupations.

Although more young men than women can be found in the category 'legislators, senior officials and managers', the absolute number of young women who work as professionals or associate professionals is higher than the number of young men. In recent years, educational attainment of women was higher than that of men. Our data show that due to their better schooling, women more and more improve their position on the labor market.

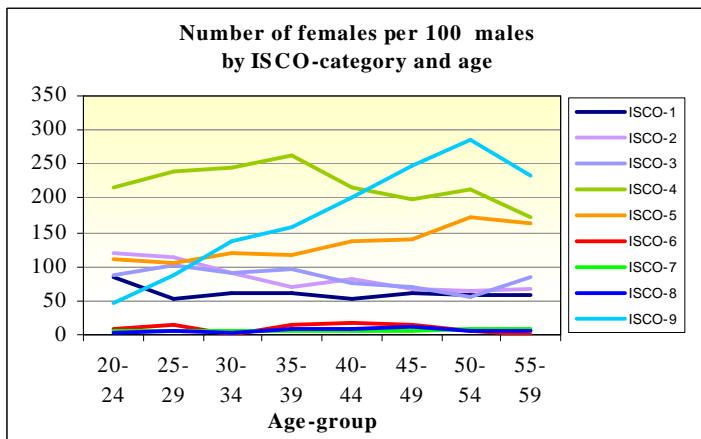
Participation of women rises

During the last decades a silent revolution has taken place in which women have more and more established themselves in a solid position on the labor market. The participation of women in the labor market has increased significantly since the early seventies. Especially middle-aged women now have much higher degrees of participation in the labor force than in the past. In 1972 and 1981,



participation rates for women were highest in the age-category 20 to 25. In 1981, the participation was highest in the age group 25-29, while currently women between ages 30 and 35 are most active on the labor market. In age groups 15-19 and 20-24 participation rates are slightly lower than in 1991. This has probably more to do with the rising level of education of females (where they tend to stay longer in school), than with a reluctance of women to enter the labor market at a younger age.

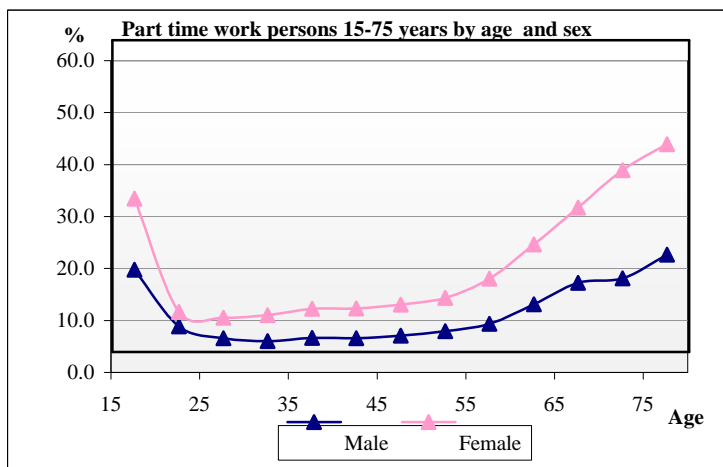
Participation rates for men are particularly high between age 25 and 50. In these age groups more than 90 percent of men are either working or unemployed. Women still have participation rates that are about 15 percent lower than men. The difference between men and women becomes larger at more advanced age groups. In the age group 35-39, men have a participation rate of 93.6 percent and women a rate of 80.1 percent. Between ages 55 and 60 the gap between men and women becomes even larger. Men's participation rate in this age group is 75.3 percent, while the participation of women is only 43.0 percent.



At the level of managers, professionals and technicians, men are still in majority. However, especially for professionals and technicians, the sex ratio below age 30 shows that more women are finding their way into these job categories. There is no doubt this has to do with the fact that more and more women get a higher education. There are more women than men with a university education up to age group 30-34. ISCO-categories 'Clerks' and 'Service workers and shop and market sales workers' are very much female dominated. On the other hand, very few women can be found in the ISCO-categories 'Craft and related trades workers' and 'Plant and machine operators and assemblers'.

The position of women on the higher side of the labor market has improved considerably during the last nine years. In 1991, only 41.2 women per 100 men were active at the senior managerial level. By 2000, the ratio at this level increased to 55.2. Currently, 1,349 women are working at the managerial level against 674 in 1991. Although serious progress has been made, there are on average still two male managers for every female manager. At the professional and associate professional level women are also catching up. The participation of women in these categories increased rapidly in recent years. In 2000, more than 75 women could be found for every 100 men at these levels.

Women experience a slightly higher unemployment rate (7.4 percent) than men. Women born in developing countries have a much higher unemployment rate (10.0 percent) than those born in Aruba or in a developed country (6.0 percent and 5.7 percent).



Little part time work

The average person on Aruba works a total of 42.8 hours a week. Men spend 43.8 hours on the job, while women work 41.5 hours per week. On average, people on Aruba work much longer than their European counterparts within the Kingdom of the Netherlands. The average Dutch worker spends only 31.4 hours per week on the job⁴. Dutch workers spend less time on the job a) because the overall workweek is generally shorter than in Aruba and b) because more people work part-time. In Aruba, the proportion of persons with a part-time job is much smaller than in Europe. Only 6.1 percent of all employed persons in Aruba

⁴ CBS-Nederland (2002), Statistisch Jaarboek 2002, p204.

have part-time work. The number of women with a part-time job is considerably higher than the number of men: 9.1 percent of all working women have a part-time job, against 3.7 percent of all men. The proportion of women working part-time is lowest in the age group 20 to 40. Part-time work is much more prevalent at the very young and at the older age groups. This is somewhat surprising, because one would expect that more women would opt for part-time work at the moment they have small children.

Single mothers

Of all women aged 15 to 45 in the labor force, 18.2 percent are single mothers. Especially in the younger age-categories, single mothers have much higher unemployment rates than other women. At somewhat older ages, the unemployment rates come much closer to those of the other women. In these age groups the proportion of women with small children becomes much smaller. This may be an indication that it is more difficult for single mothers with small children to find the right job where they can combine their role as breadwinner and caretaker.

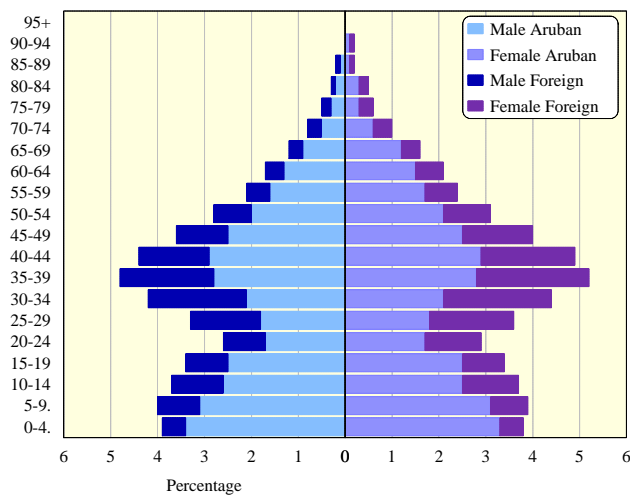
Lower income for women

Comparing salary levels for men and women is not straightforward, largely because of methodological difficulties in separating their effect from other concurrent changes. In this report we use a Multiple Classification Analysis (MCA⁵) to estimate the difference between salary levels of men and women, after controlling for intervening factors and covariates. The overall mean of income on the basis of the census was 2242 Afl. per person. The MCA shows clearly that after we control for intervening factors and covariates men have an income that is considerably higher than women. On the average, men take home about Afl 525 more per month than women.

Dramatic rise in number of foreign workers

At the time of the 1991 census, out of a population of 66,687, 15,910 persons were not born on the island (23.9 percent). In 2000, out of the total 90,506, people living on Aruba, 30,104 (33.9 percent) were not born on the island; the other 59,886 (66.1 percent) were born on Aruba. The immigration of large groups of foreign workers has had some serious effect on the demographic characteristics of the population on Aruba. Currently, the sex ratio among the foreign born population is 81.5, in other words: for every 100 foreign-born women, there are 81.5 foreign-born men on the island. The influx of predominantly young adults has caused large changes in the age structure of the population.

Population Pyramid Native and Foreign Born Population, Aruba 2000.



In 1991, the total labor force consisted of 31,111 persons, of whom 8,097 (26.0 percent) were born overseas. The 2000 census showed that the labor force had increased to 45,037, a growth of no less than 44.7 percent since 1991. The number of persons in the labor force not born on the island increased to 18,447. This means that currently 40.9 percent of the labor force was born outside Aruba. The foreign born labor force increased by 127.8 percent in only nine years. The census counted 41,918 people who had a job, of whom 24,745 were born on Aruba and 17,173 elsewhere.

The participation rate of foreign workers is higher than the rate for native persons, both for males and females. In 2000, the overall participation rate was 65.4 percent for the whole population. Foreign born men have the highest labor force participation: 77.5 percent of all foreign-born men age 15 and above are in the labor force. The participation of foreign born women is about 17 percent lower than that of foreign men.

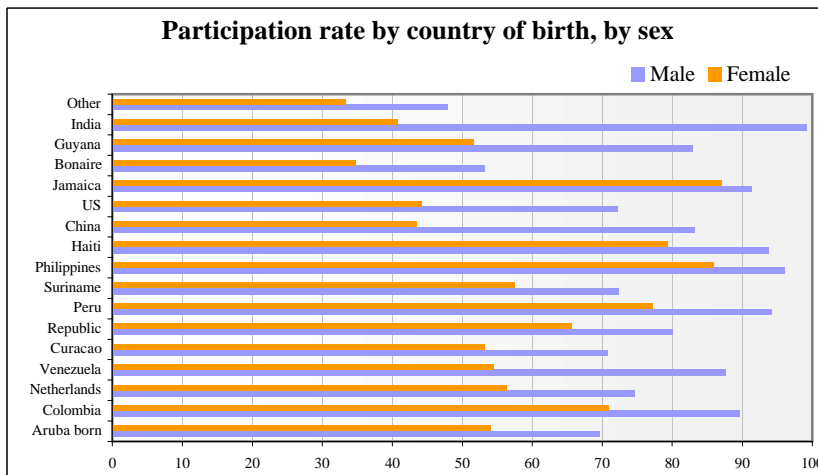
⁵ The Multiple Classification Analysis (MCA) can be seen as a technique to view the net deviation from the grand mean of a variable under study for the various categories of independent variables, while statistically controlling for the intervening effect of other independent variables. The columns with the deviations from the grand mean should be interpreted as the number of hours worked more or less compared with the overall mean. For instance, a value of 0.6 for males, means that males work, on average, 0.6 hours more than the average for the total population, after we controlled for the other variables in the equation.

When differentiating by country of birth, one can observe large differences in participation rates on Aruba. Persons coming from ten different countries of birth have labor force participation above 80 percent. For five countries it is even higher than 90 percent. Men from India score highest: out of 137 Indian who were residing on Aruba at the time of the 2000 census, almost all were economically active, this is either employed or unemployed. Women from Jamaica and the Philippines have the highest participation rates (respectively 87 and 86 percent). This is about 2.5 times higher than for women from Bonaire, the country with the lowest degree of participation. Participation rates for Aruban born men and women are quite low compared to most of the other countries. Next to men from Bonaire, Aruban born men have the lowest participation. Aruban born women occupy somewhat more of a middle position.

The unemployment rate stands at 6.9 percent, both for Aruban and foreign-born persons. Foreign-born men have an unemployment rate of 4.7 percent. Aruban born men score much higher with 7.7 percent. Among women, this trend is the other way around. Aruban born women have an unemployment rate of 6.0 percent, while 9.2 percent of foreign born women are unemployed. Country of birth is closely linked to the level of unemployment. The highest levels of unemployment can be observed among women from Colombia (11.8 percent), the Dominican Republic (11.4 percent), Guyana (15.4 percent), Haiti (11.4 percent), Jamaica (13.6 percent) and Venezuela (12.2 percent). Unemployment for men is higher than 10 percent for workers from the Dominican Republic (10.4 percent) and St. Maarten (14.8 percent). However, in the case of St Maarten only a very small group of male workers born there are working here on the island.

The tourism sector is the main motor of the economy. In the hotel and restaurant sector the majority of employees are foreign-born. At the time of the census 4,436 (58 percent) of the 7,651 people employed in the hotel sector were born outside Aruba, mostly in developing countries. The construction sector is heavily male dominated. A total of 2,045 foreign born workers were active in construction, 57 percent of the total of 3,588 male construction workers. More native than foreign-born persons work in the ‘wholesale and retail trade and repair’ sector (4,471 and 2,641 workers respectively).

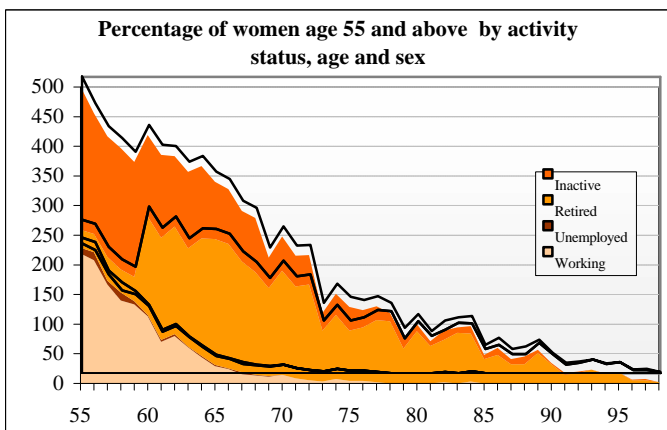
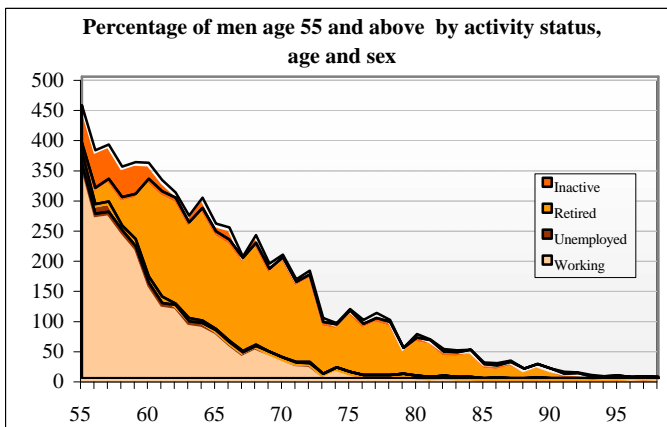
A large proportion of foreign workers – and especially women - can be found in the group of elementary occupations. As expected, the vast majority of these women originate from developing countries. For instance, 1,797 foreign-born women work as housemaids in private homes and 1,402 work as cleaners in offices, hotels or other establishments. Among native women these numbers are respectively 47 and 654. Among men, too, more foreign-born males perform elementary occupations than native men. The proportion of foreign-born staff in the group ‘Legislators, senior officials and managers’ has increased slightly. In 1991, 36.5 percent of persons in this category were born outside Aruba. This percentage has further increased to 38.9. Migrants from developed countries constitute an important part of the workforce in these three categories.



In general, the country of birth of a person largely determines his/her position on the labor market. Both in terms of occupation and branch of industry we see a clear division between the countries of birth of persons. For instance, 71.6 percent of persons born in Haiti and 58.3 percent of persons born in Jamaica have an elementary occupation. Persons originating from the Dominican Republic (46.6 percent) and Colombia (38.8 percent) also have a quite high representation in elementary occupations. Although their absolute number is rather small, persons born in India have the highest proportion in the ‘managers’ category. Many Indians are involved in trade and have their own shops, mainly in the center of Oranjestad. If we look at the three highest ISCO-levels (‘Legislators, senior officials, and managers’, ‘Professionals’ and ‘Technicians and associate professionals’) we see that persons born in the US score highest (74.7 percent for the three categories combined), followed by the Netherlands (61.5 percent) and Surinam (43.7 percent).

Older workers

At age 60, 40.5 percent of men and 27.6 percent of women are still active on the labor market. By age 65, participation has further decreased to 25.5 for men and 9.3 percent for women. It is interesting to see that a significant proportion of men remain economically active at more advanced ages. About 10 percent of men in the age group 70 to 75 are still working. At those ages, less than 5 percent of women are still active.



In 1991, the average age at exit from the labor force was 63.1 years for men and 59.4 years for women. By 2000, the average age at exit was about the same for men (63.3 years) but slightly higher for women (59.7 years).

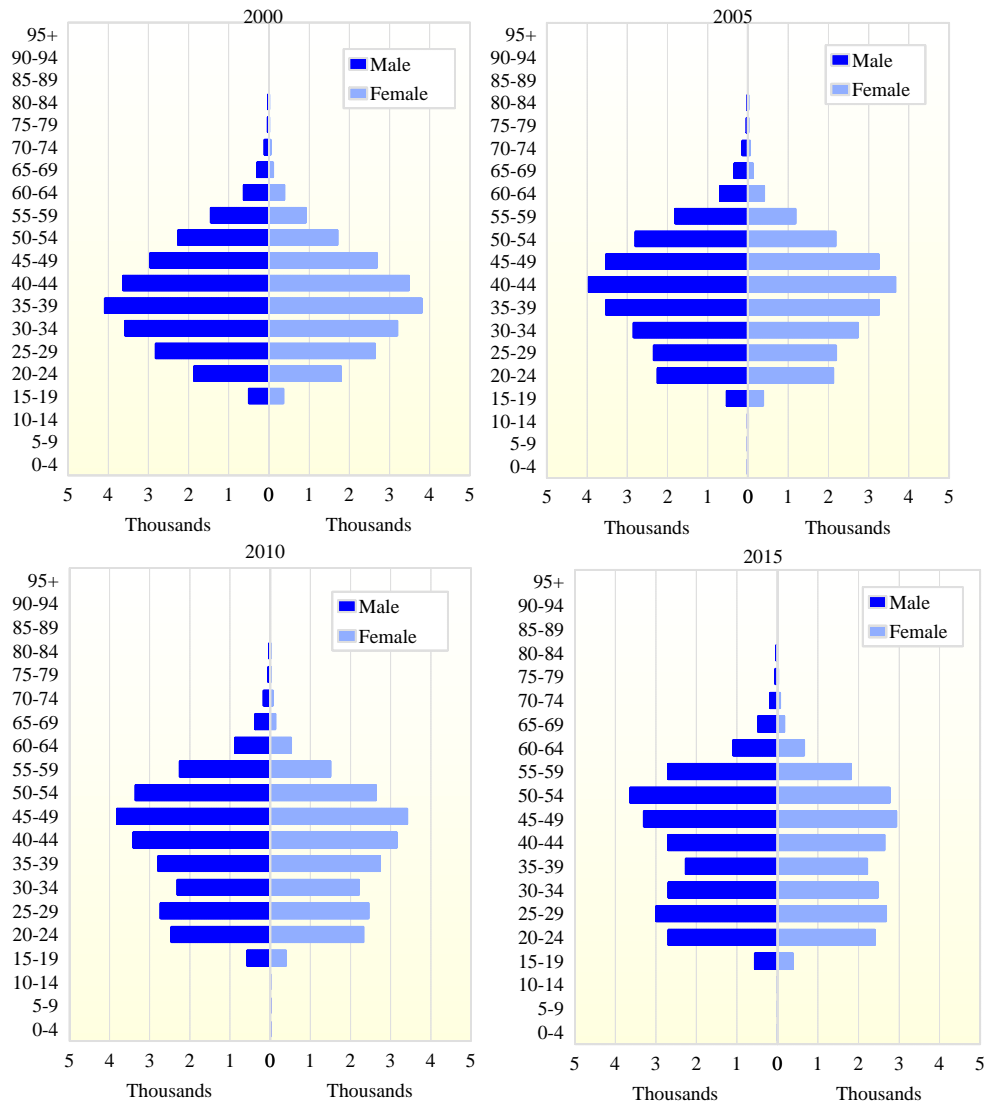
Older persons hold a higher percentage of senior positions in the workforce. Among men who are younger than 55, 10 percent have a position in the category 'Legislators, senior officials and managers'. Older working men hold 16.3 percent of these positions. For women these percentages are respectively 6.7 and 10.5 percent. Older men are less active as 'Service workers and shop and market sales workers' and 'Craft and related trades workers' and are more active as 'Plant and machine operators' than younger men.

Women dominate some occupational categories: clerks, service workers and shop and market sales workers and elementary occupations. Especially in the category of elementary occupations we can find a lot of older women. Among women age 55 and older 31.8 percent work in an elementary occupation, against 22.3 percent of younger women

The population of Aruba, and thus the labor force, is gradually aging. In 1960, only 4.9 percent of the population was over 60 years of age. From 1960 to 1991, the percentage of this age group more than doubled. After 1991, the absolute number of people over 60 continued to grow rapidly, from 6,845 to 10,097, but due to high levels of immigration, their percentage increased only moderately, from 10.3 to 11.2. The medium projection shows that after 2006 the rate of aging will accelerate. Between 2001 and 2005, the percentage of over-60's will increase by 1.2 percent points, between 2005 and 2011 by 2.1 percent points and between 2011 and 2016 by 2.9 percent points. Between 2001 and 2005 another 1,500 persons over 60 will be added to the island's population, and from 2011 to 2015 the number of extra persons aged 60 and over will have more than doubled, to over 3,000.

On the basis of the existing demographic projections a labor force projection was made. The medium projection model was used. The adjacent population pyramids show the projected age-structure of Aruba's work force. The population pyramids clearly show how the age distribution of the labor force will change drastically in the coming years. As more and more younger persons will enter the labor market, the age structure will become bi-modal. More and more persons will be present at the younger and at the older age-categories of the labor force. This may have an implication on the overall productivity and cost of the labor force: younger persons are often less experienced and frequently fill lower positions. Older persons are better paid, or more absent and may generally have lower productivity. The number of active persons in the age-category 30-49 may decrease drastically before 2015. At the time of the 2000 census 27,422 persons were between 30 and 49. If the current demographic trends continue only 21,212 active persons will be present in 2015. Among the persons 50 years of age and older, 7,980 were economically active in 2000. This number will increase to 13,677 in 2015, implying an increase of more than 70 percent. The number of young persons in the labor force will increase from 9,966 to 11,695 in 2015, which is an increase of 17 percent.

Population pyramids of the projected labor force 2000-2015



CHAPTER 1: GENERAL CHARACTERISTICS

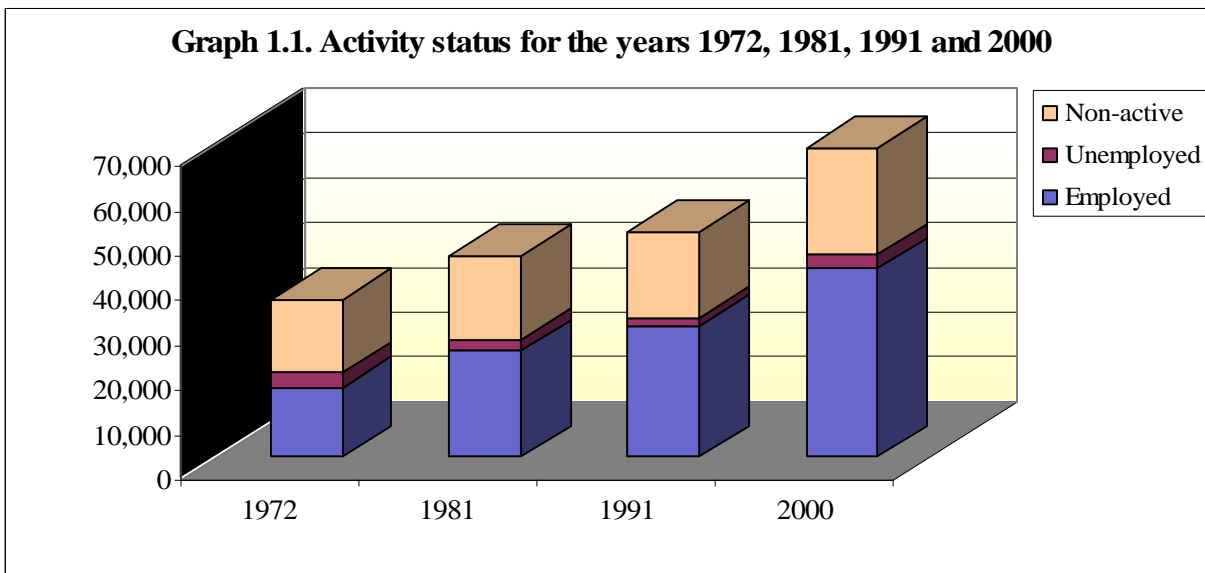
The labor force framework from the ILO classifies the population above age 15⁶ into three mutually exclusive and exhaustive categories: employed, unemployed and not in the labor force. The employed and unemployed together make up the labor force. This concept is used synonymously with 'active population'. The group comprises all persons of either sex who provide the supply of labor for the production of economic goods and services. The third category represents the population currently not active. The exact content of the categories depends on how each category is defined. The census 2000 included also persons of age 14 in the labor force framework. Most of the tables presented in this publication exclude persons younger than 15 years of age. For comparison reasons however, some of the tables take account of them. The definitions used during the census 2000 are presented in annex III.

This chapter examines a set of indicators of the current employment situation on Aruba. Wherever possible a comparison is made with figures from previous censuses to show levels and trends.

1. 1. IMPRESSIVE JOB CREATION DURING THE LAST DECADES

Over the last 40 years, some 27,900 jobs have been created on Aruba⁷. The strong growth of the economy and the expansion of the tourism industry have contributed to the rapid growth of the number of jobs.

The impressive growth of the economy in the early nineties caused an increase of 43 percent in employment over the last 10 years. The number of persons employed in 1991 was almost 5,700 more than at the beginning of the eighties. Measured in absolute terms, the increase in employment was highest during the last decade. In relative terms, the increase in employment was even higher between 1972 and 1981 (45 percent). Table 1.1 provides more details about the evolution of Aruba's labor force during the last four decades.



The absolute number of unemployed persons of 15 years of age and over in the census 2000 is almost the same as the number of unemployed persons in the census 1972: 3,117 and 3,215 respectively. When measured as a percentage of the working age population, however, the share of unemployed persons in the total population dropped significantly from 9 percent to 5 percent (see table 1.1.). The share of non-active persons has also decreased. In 1972, 46 out of a 100 persons above 15 years of age were non-active. This portion has steadily decreased over the years. Currently, 34 out of a 100 persons above 15 years of age are economically inactive.

⁶ The several censuses held in Aruba, used the age of 14 years as specified minimum age.

⁷ According tot the Census-data of 1960, 1972, 1981, 1991 and 2000.

Graph 1.1. clearly shows the absolute growth of the population of 15 years and over, subdivided in active (employed and unemployed) and non-active persons. It also shows the growth of the employed population relative to the unemployed and non-active population.

Table 1.1. Activity status by age for 1972, 1981, 1991 and 2000 (15 years of age and over)

Activity status		1972		1981		1991		2000	
		Abs.	Colum %	Abs.	Colum %	Abs.	Colum %	Abs.	Colum %
Employed	15-24	4,082	36	5,485	43	3,767	42	3,747	34
	25-59	10,593	54	16,908	65	24,472	71	36,579	76
	60+	769	19	1,178	21	887	13	1,551	15
	Total	15,444	44	23,571	53	29,126	58	41,877	60
Unemployed	15-24	1,627	14	1,238	10	514	6	728	7
	25-59	1,452	7	1,133	4	1,328	4	2,326	5
	60+	136	3	0	0	44	1	64	1
	Total	3,215	9	2,371	5	1,886	4	3,117	5
Non-active	15-24	5,581	49	6,171	48	4,581	51	6,586	59
	25-59	7,497	38	8,019	31	8,608	25	8,813	18
	60+	3,134	78	4,565	79	5,888	86	8,427	83
	Total	16,212	46	18,755	42	19,078	38	23,826	34
NR	15-24	0	0	0	0	52	1	92	1
	25-59	0	0	0	0	115	0	293	1
	60+	0	0	0	0	26	0	56	1
	Total	0	0	0	0	193	0	441	1
Total	15-24	11,290	100	12,894	100	8,914	100	11,153	100
	25-59	19,542	100	26,060	100	34,524	100	48,010	100
	60+	4,039	100	5,743	100	6,845	100	10,098	100
	Total	34,871	100	44,697	100	50,283	100	69,261	100

Source: Central Bureau of Statistics, Census 1972, 1981, 1991, 2000

The increase in the labor force after 1960 is much larger than the growth of the working age population. This implies that over the last forty years, there has been a significant increase in labor force participation. During the last four decades, the employed population has grown faster than the total population. For the periods 1960-1972, 1972-1981, 1981-1991 and 1991-2000, Aruba's population grew with respectively 9, 4, 11 and 36 percent. The corresponding numbers for the employed population were much higher: 10, 53, 24 and 43 percent respectively.

As the group of employed persons grew faster than the number of persons belonging to the working age population, one may conclude that Aruba's economy has been successful in creating new jobs for its growing population. Table 1.1 illustrates that the growth of the working age population was mainly caused by an enormous increase of persons aged 25-59.

Table 1.2. Activity status by sex for 1960, 1972, 1981, 1991 and 2000
(14 yrs of age and older)

Activity status		1960		1972		1981		1991		2000	
		Abs.	Colum %	Abs.	Colum %	Abs.	Colum %	Abs.	Colum %	Abs.	Colum %
Employed	Male	10,626	68	11,285	61	15,111	69	16,834	68	22,498	67
	Female	3,403	20	4,961	25	8,466	36	12,385	47	19,420	52
	Total	14,029	43	16,246	42	23,577	51	29,219	57	41,918	59
Unemployed	Male	1,854	12	2,158	12	1,359	6	1,058	4	1,563	5
	Female	923	5	1,240	6	1,095	5	833	3	1,555	4
	Total	2,777	9	3,398	9	2,454	5	1,891	4	3,118	4
Labor Force	Male	12,480	80	13,443	73	16,470	75	17,892	72	24,061	72
	Female	4,326	26	6,201	31	9,561	40	13,218	50	20,975	56
	Total	16,806	52	19,644	51	26,031	57	31,110	61	45,036	63
Non-active	Male	2,884	18	4,931	27	5,472	25	6,847	28	9,107	27
	Female	11,893	71	13,652	68	14,285	60	13,222	50	16,033	43
	Total	14,777	45	18,583	48	19,757	43	20,069	39	25,140	35
Activity status unknown	Male	301	2	108	1	4	0	94	0	364	1
	Female	595	4	167	1	1	0	106	0	387	1
	Total	896	3	275	1	5	0	200	0	751	1
Population 14 years and over	Male	15,665	100	18,482	100	21,946	100	24,833	100	33,533	100
	Female	16,814	100	20,020	100	23,847	100	26,546	100	37,395	100
	Total	32,479	100	38,502	100	45,793	100	51,379	100	70,928	100

Source: Central Bureau of Statistics, Censuses 1960, 1972, 1981, 1991 and 2000

Four decades of job creation have done a lot to raise the participation rate. Table 1.2 shows that in 1960, the number of women employed was 20.2 percent of all women of working age. The different censuses indicate a very impressive and continuous rise in the labor force participation of women. Participation is currently at the same level as in Europe (51.9 percent of women of working age). To put things in perspective, the participation rate of women is still some 15 percent below the rate of men.

WOMEN BOOST THE LABOR FORCE

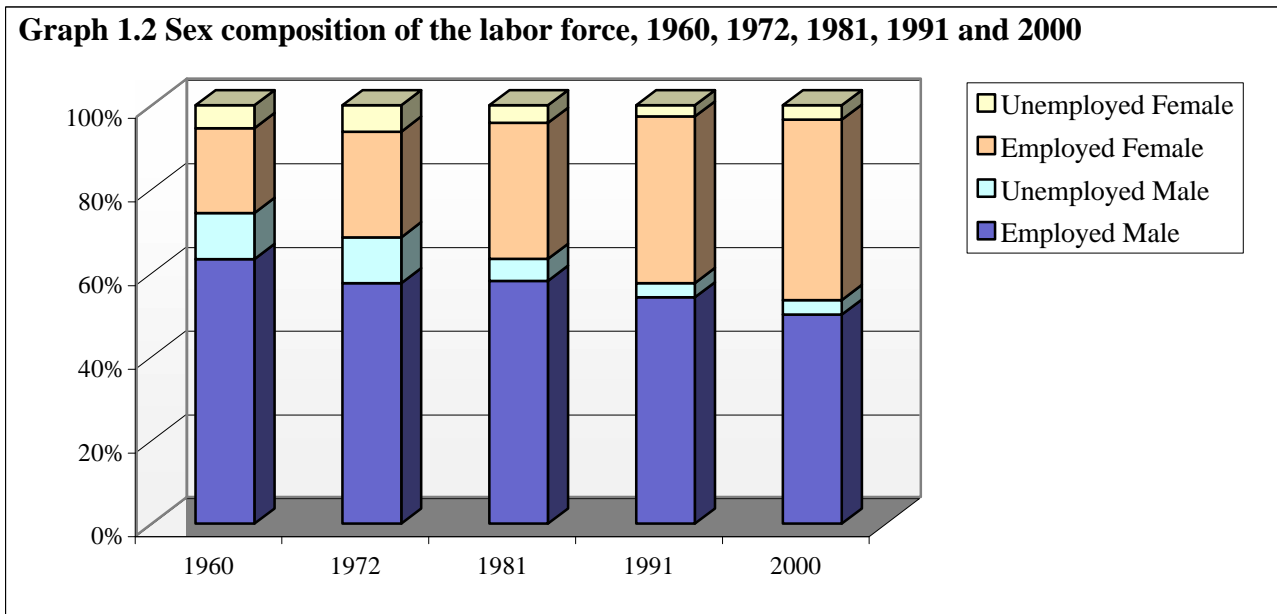
Over the past ten years, women filled 55 percent of the 12,700 net additional jobs. Consequently, the employment gap between men and women narrowed. The proportion of employed women aged 15 to 64 rose from 47.5 percent in 1991, to 51.9 percent in 2000. During the same period, employment for men decreased slightly from 69.0 percent to 68.4 percent. The gap was therefore reduced to 15.6 percent, whereas at the census in 1991 the difference was still 21.5 percent. The reduction in the employment gap was significant for the major occupational groups 'Professionals', 'Legislators, senior officials and managers' and 'Technicians'. The number of females in these occupational categories grew with 130.1 percent, 100.2 percent and 79.9 percent respectively. In all, 4,560 women currently have a high skilled job.

The female participation rate⁸ increased rapidly during the last decades. In 1960, participation was as low as 26.7 percent. Currently, participation of women in the labor force stands at 56.7 percent. This means that almost 57 out of every 100 females above 15 years are either working or looking for work. During the last ten years 7,757 women found a place in the labor force. In 2000, some 21,000 women were economically active.

Currently, 46.6 percent of the labor force consists of women. In 1991, women had a share of 42.5 percent of the labor force. In 1981, 1972 and in 1960 this share was much lower: 36.7, 31.6 and 25.7 percent respectively. Graph 2 sketches the shift in sex composition of the labor force over the years. It is clear that the higher participation of women accounted for most of the growth in the labor force.

⁸ The participation rate is calculated as the number of persons aged 15 years and over, who are either employed or unemployed divided by the total population aged 15 years and over.

Graph 1.2 Sex composition of the labor force, 1960, 1972, 1981, 1991 and 2000



In chapter 3 we will focus on the type of jobs women perform, their presence in certain industrial sectors, the income differences between men and women and the relationship between educational attainment and growing presence of females in highly skilled professions.

GROWING SHARE OF FOREIGN BORN PERSONS IN THE LABOR FORCE

Immigration has always been a driving force of economic- and labor market development on Aruba. Even today, after some years of overheated economic growth, immigration remains important.

From 1987 till mid-2000, a total of 48,698 foreigners established themselves on Aruba. In the first years of the nineties, more than 4,000 foreigners came to Aruba yearly. Their hope was to find a job and create better living conditions for themselves and their families. Most of the immigrants were born in less developed countries, such as Colombia, Venezuela, the Dominican Republic, Jamaica and other Caribbean Islands.

Out of a total of 90,506 persons, 30,103 persons were born outside Aruba. This means that about 33.9 percent of the population residing on Aruba, immigrated at a particular stage during their lifetime. Within the labor force, 17,214 out of a total of 41,918 persons are foreign born, meaning that four out of every ten persons were born elsewhere. Therefore, it is important that we gain insight into the key labor characteristics of foreign-born persons. Table 1.3 shows that currently 41.1 percent of the employed population consists of foreign-born persons. Comparing the census of 1991 with the 2000 census, one can observe that the employment growth is mainly caused by the influx of large groups of foreign laborers. The number of employed foreign-born persons rose with 9,458, enhancing the proportion of employed foreigners with 14.5 percent during the last decade.

One would expect that which such a high demand for labor, unemployment among the local population would be very small. However, this is not the cause. For one reason or the other, unemployment remained at about the same level as in 1991.

Table 1.4 (which excludes persons with an unidentified age) shows the distribution of unemployed persons among different age groups by place of birth. Looking at the absolute and relative distribution of the foreign-born unemployed population, several characteristics catch the eye. The absolute number of unemployed foreigners almost tripled since 1991. Currently, 1,278 foreigners are looking for work.

Table 1.3. Activity status by sex and Aruban and foreign born status, for 1991 and 2000
(Persons 14 yrs and older) relative figures

		1991			2000		
		Aruban	Foreign born	Total	Aruban	Foreign born	Total
Employed	Male	74.9	25.1	100	60.2	39.8	100
	Female	71.5	28.5	100	57.5	42.5	100
	Total	73.5	26.5	100	58.9	41.1	100
Unemployed	Male	82.0	18.0	100	72.0	28.0	100
	Female	67.7	32.3	100	46.0	54.0	100
	Total	75.7	24.3	100	59.0	41.0	100
Labor Force	Male	75.3	24.7	100	60.9	39.1	100
	Female	71.2	28.8	100	56.6	43.3	100
	Total	73.6	26.4	100	58.9	41.1	100
Non-active	Male	76.5	23.5	100	74.1	25.8	100
	Female	71.2	28.8	100	64.9	35.1	100
	Total	73.0	27.0	100	68.2	31.7	100
Activity status unknown	Male	75.6	24.4	100	20.3	11.7	100
	Female	67.6	32.4	100	23.0	20.3	100
	Total	71.4	28.6	100	21.7	16.1	100
Population 14 years and over	Male	75.7	24.3	100	64.1	35.2	100
	Female	71.2	28.8	100	59.8	39.6	100
	Total	73.4	26.6	100	61.8	37.5	100

Source: Central Bureau of Statistics, Census 1991; Census 2000

Table 1.4 Activity status by age and Aruban and Non-Aruban status for 1991 and 2000 (15 yrs and older. Excluding age not reported)

		2000					1991				
		Aruban	Non-Aruban	Unkn.	Total	%	Aruban	Non-Aruban	Unkn.	Total	%
Employed	15-24	2,309	1,438	0	3,747	33.6	2,918	849	-	3,767	42.3
	25-59	21,422	15,156	1	36,579	76.2	18,101	6,370	1	24,472	70.9
	60+	952	597	1	1,551	15.4	389	498	-	887	13.0
	Total	24,683	17,192	2	41,877	60.5	21,408	7,717	1	29,126	57.9
Unemployed	15-24	445	282	0	728	6.5	417	97	-	514	5.8
	25-59	1,360	966	0	2,326	4.8	989	339	-	1,328	3.8
	60+	35	29	0	64	0.6	22	22	-	44	0.6
	Total	1,840	1,278	0	3,117	4.5	1,428	458	-	1,886	3.7
Non-active	15-24	4,768	1,818	0	6,586	59.0	3,658	924	-	4,581	51.4
	25-59	5,719	3,091	2	8,813	18.4	6,557	2,051	-	8,608	24.9
	60+	5,798	2,629	0	8,427	83.5	3,650	2,238	-	5,888	86.0
	Total	16,285	7,538	2	23,826	34.4	13,865	5,212	-	19,078	37.9
Activity status unknown	15-24	32	29	32	92	0.8	33	19	-	52	0.6
	25-59	100	62	131	293	0.6	92	24	-	115	0.3
	60+	24	18	14	56	0.6	16	10	-	26	0.4
	Total	155	109	176	441	0.6	140	53	-	193	0.4
Population 15 yrs and older	15-24	7,554	3,568	32	11,153	100	7,026	1,888	-	8,914	100
	25-59	28,601	19,275	134	48,010	100	25,739	8,784	1	34,524	100
	60+	6,809	3,274	15	10,098	100	4,077	2,768	-	6,845	100
	Total	42,964	26,117	181	69,261	100	36,842	13,440	1	50,283	100

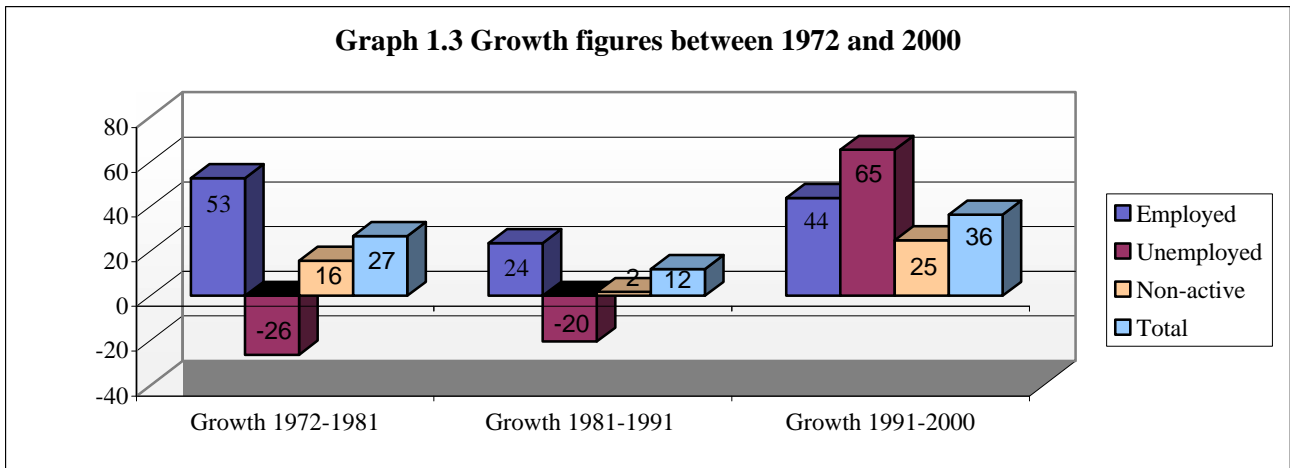
Source: Central Bureau of Statistics, Census 1991, Census 2000

In both censuses only one out of five unemployed foreigners belongs to the youngest age group (15-24 years of age). Unemployment for the local population seems to be a little higher. However, we have to be careful when interpreting these figures. Unemployment is linked to the legal status of a foreign worker. A foreign worker is only allowed to live on Aruba if he/she has a work permit. This work permit is linked to the specific job he/she is holding. Without a permit the foreign worker is not a legal resident. Therefore, foreigners may be reluctant to provide accurate information about their true activity status.

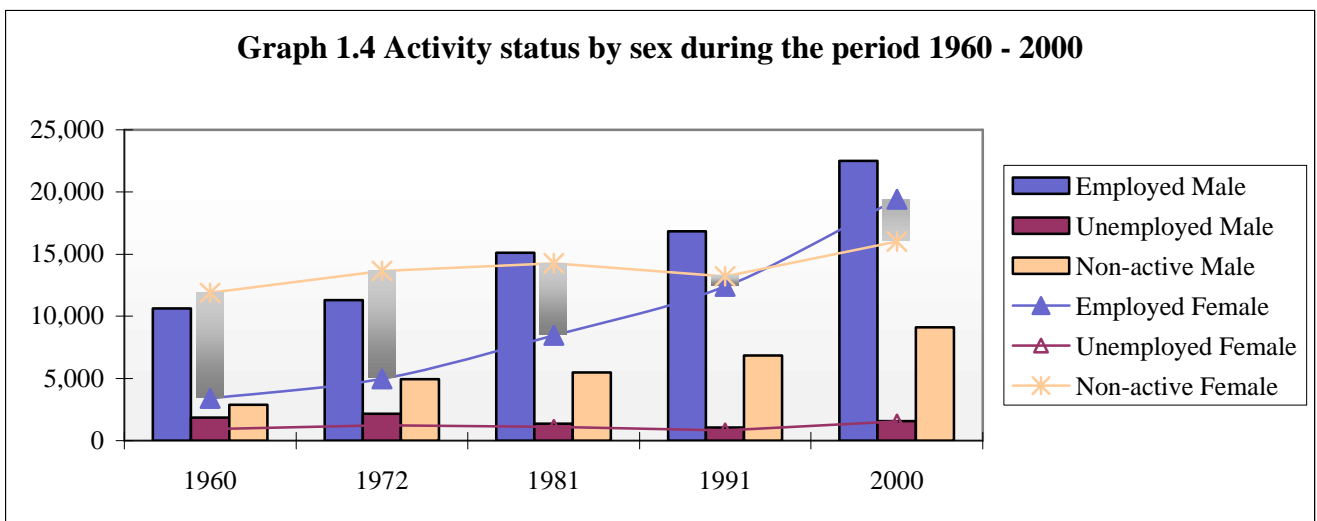
The foreign-born population makes an important contribution to the economy of Aruba. Currently, out of a total number of 26,117 foreigners belonging to the working age population, more than 17,000 are employed. This means that for every 100 foreigners of 15 years and over, 65 are employed. In 1991, this number was much lower. At that time, only 57 percent of foreigners were employed. For locals, the number remained almost the same. In 1991, 58 percent of the working age population was employed, against 57 in 2000.

CHANGING COMPOSITION OF THE LABOR FORCE

Although local females filled a substantial part of the newly created jobs, their numbers could not satisfy the need of the expanding economy. This triggered different waves of immigration. The influx of a large quantity of foreign laborers pushed the participation and employment rates to a very high level. The employment rates for males and females between 15 and 65 years of age in Aruba are currently higher than the rates in the European Union. In the Union, the employment rate for men is about 71.5 percent and 52.5 percent for women. In Aruba, the rate for men and women is respectively 2.7 and 6.7 percent higher.



Graph 1.3 sketches the percentage growth of the employed, unemployed and inactive population. It depicts clearly the high growth of the employed persons relative to the non-active population. It highlights also the slight increase in the number of unemployed persons during the last decade. At the time of the 1991 census, the unemployment rate was 6.1 percent. This number rose with 0.8 percent points to its current level: 6.9. This means that for every 100 employed persons, more than 7 persons are unemployed. Graph 1.4 depicts the impressive increase of employed females. Between 1991 and 2000, the number of employed females surpassed the number of inactive females, rapidly closing the gap between the number of employed men and women.



1.2. PARTICIPATION RATES

The labor force participation rate measures the economic activity of the working age population. It provides an indication of the relative size of the supply of labor available for the production of goods and services. The breakdown of the labor force by age and sex gives a profile of the distribution of the economically active population within a country.

The participation rate is defined as the economically active population divided by the total population of 14 years of age and over. The labor force is the sum of the number of persons employed and unemployed. At the time of the 2000 census, the labor force in Aruba consisted of 45,036 persons 14 years of age and older. Among that group, 41,918 were employed, whereas 3,118 persons were without employment. The participation rate amounted to 64 percent. The table and graph below provide information on the development of the labor force, the participation rate and unemployment rate since the 1960 census.

Table 1.5. Participation- and (un)employment rates for 1960, 1972, 1981, 1991 and 2000 (14 years of age and over)

		1960	1972	1981	1991	2000
<i>Activity status</i>						
Participation rate	Male	81.2	73.2	75.1	72.3	72.5
	Female	26.7	31.2	40.1	50.0	56.7
	Total	53.2	51.4	56.9	60.8	64.2
Employment rate	Male	69.2	61.4	68.9	68.0	67.8
	Female	21.0	25.0	35.5	46.8	52.5
	Total	44.4	42.5	51.5	57.1	59.7
Unemployment rate	Male	14.9	16.1	8.3	5.9	6.5
	Female	21.3	20.0	11.5	6.3	7.4
	Total	16.5	17.3	9.4	6.1	6.9

Source: Central Bureau of Statistics, Census 2000

Adjusting the participation, employment and unemployment rates to compensate for persons with an unknown activity status, showed only a minor difference with the unadjusted figures. For this reason and for the sake of simplicity, the unadjusted figures are used in this report, meaning that persons with unknown activity status were left out of the analysis.

Between 1960 en 2000, the number of men older than 65, who were part of the labor force, rose from 216 to 442 persons. Their share in the total amount of employed persons is still the same (almost 2 percent). The absolute number of female workers above 65 years increased also, although their share dropped from 1.5 percent to 0.76 percent. Internationally, there is a tendency in the opposite direction, i.e. the number of working persons above 65 is declining.

During the period 1972–2000, the participation rates for men declined. Especially in the age group 15-19 and in the group of elderly men (55 years of age and over) participation is lower than before. The participation rate for these groups dropped respectively from 38.6 percent to 16.5 percent for young employed men and from 52.3 percent to 40.3 percent for men aged 55 years and over. In 2000, the overall employment rate (defined as the proportion of the population aged 15 and over at work) rose to 67.8 percent for men and to 52.5 percent for women.

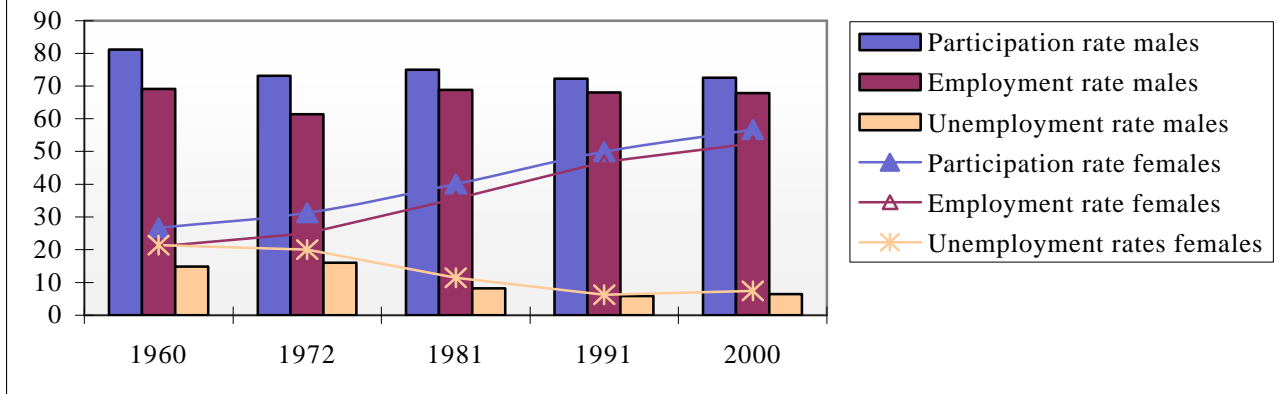
STRONG GROWTH IN PARTICIPATION FOR WOMEN

A large part of the population (64.7 percent) is nowadays participating in the economic process in Aruba. Compared to 1991, female participation increased by 3 percent. This increase in participation can be ascribed mainly to a larger involvement of the female part of the population in the economic activities on the island. In 1991, the participation rate of the female population aged 14 years and over amounted to 50 percent. By 2000, however, this figure had increased with almost 7 percent. Table 1.5 gives a description of the increase over time.

The participation of women on the labor market is relatively high in Aruba. In comparison, the Netherlands registered a female participation rate of 49.8 in the age group 14-64 in 2000. On Aruba, the participation rate for women of the same age group amounted to 63.9 percent in 2000. Another comparison can be obtained from figures from the ILO database. The graph sketches the opposite trends of employment-, and participation rates for men and women. The rates for men are somewhat declining. This decline is most pronounced among older workers and those under 25. The increase in employment and participation rates for women is impressive. The small rise in the employment rate since 1991 (from 59.9 to 60.9) for those age 15 years and over⁹, was caused by a combination of the continuing fall of employment rates for men, and the ongoing increase of the participation of women.

⁹ Sometimes employment- and participation rates are calculated for the population of 14 years and over, resulting obvious in lower rates. For comparison purposes with other countries the population is limited to those of 15 to 64 years, resulting in much higher rates.

**Graph 1.5 Participation- and (un)employment rates
1960, 1972, 1981, 1991 and 2000**



The absolute number of men in the labor force is still increasing, despite the downward trend in male employment rates.

THE EFFECT OF AGE ON LABOR FORCE PARTICIPATION

Only males between ages 25 and 54 come close to full employment, with an employment rate of around 90 percent. The employment rate for women in the same age span was around 75 percent, almost 15 percent lower than for males. Various factors may contribute to the lower employment rate of women. For instance, the lack of part-time jobs may hinder women to participate in the labor market. Moreover, adequate childcare facilities that enable women to combine family responsibilities with the pursuit of a working career can be too expensive, especially for low paid jobs. Furthermore, the nature of available jobs, and the corresponding wages, may not be sufficient to attract women into employment

Table 1.6. Participation rates for males and females 1972 - 2001. (14 years of age and over)

Age group	1972			1981			1991			2000		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
14	5.0	1.6	3.3	1.2	0.8	1.0	1.6	0.4	1.0	0.3	0.3	0.3
15-19	38.6	29.0	33.8	32.6	23.9	28.3	21.4	19.9	20.7	16.5	11.8	14.1
20-24	88.9	59.5	73.7	85.0	69.3	77.3	80.9	71.8	76.4	76.6	68.9	72.6
25-29	94.7	43.5	67.2	96.3	65.7	80.2	92.4	77.1	84.7	93.2	79.0	85.7
30-34	95.7	36.1	64.8	96.2	55.7	74.9	93.4	74.4	83.8	94.6	79.8	87.0
35-39	95.6	30.7	61.2	96.5	49.7	71.5	92.6	69.1	80.4	93.6	80.1	86.5
40-44	94.8	27.0	60.2	95.6	39.3	65.4	93.1	63.3	77.7	91.7	77.8	84.3
45-49	96.8	27.3	63.5	94.6	33.7	62.1	91.8	54.2	72.1	90.3	73.3	81.3
50-54	90.0	23.3	53.4	92.9	27.9	58.7	81.0	41.0	60.0	88.7	60.2	73.7
55-59	84.1	22.9	51.4	84.0	18.8	51.2	64.8	24.0	43.1	75.3	43.0	58.3
60-64	57.1	15.2	35.4	59.1	12.7	31.0	38.7	12.2	24.8	40.1	20.1	29.1
65-69	33.0	9.7	20.6	31.7	5.6	15.9	23.8	7.5	15.3	25.6	7.1	15.2
70-74	20.6	4.0	11.5	-	-	-	16.4	4.3	9.6	15.5	4.1	9.1
75-79	10.5	2.2	5.5	-	-	-	11.0	1.3	5.2	7.2	1.8	4.2
80-84	4.6	0.9	2.2	-	-	-	3.9	0.7	2.0	5.3	1.2	2.7
85-89	19.6	4.4	9.9	-	-	-	1.1	0.5	0.7	1.8	0.0	0.6
90-94	-	-	-	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0
95+	-	-	-	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0
Total	73.2	31.2	51.4	75.1	40.1	56.7	72.3	50.0	60.8	72.5	56.7	64.2

Sources: Population Censuses 1972, 1981, 1991, 2001. (- No data available)

OPENING THE LABOR MARKET TO ALL AGES

Participation rates have fallen for persons below age 25. This reflects the tendency for young people to stay in full-time education as long as possible. The fall in participation in the labor force is almost exactly matched by a rise in participation in education. As training also leads to increased qualification, it should improve their employability in the long run.

As the share of older people in the labor force rises, it is important to maintain an adequate inflow of young people into the labor market. The labor market implications of the ageing of the population are discussed in paragraph 1.5. The low employment rate of workers above 50 is made up of two components: traditionally low employment rates for women in this age group and declining rates for men, especially those over 55. In 1972, many women left the labor force to raise their children. The participation rates of women dropped drastically after reaching age 20-24. This pattern altered between 1981 and 1991. Nowadays, even after reaching age 25, the rates continue to rise until age 35 – 39, when rates are as high as 80.1 percent.

Table 1.7. Participation -, and (un)employment rates for local and foreign born persons, 2000

<i>Participation-, and (un) employment rates</i>		Local	Foreign	Total
Participation rate	Male	68.5	80.0	72.5
	Female	53.3	61.8	56.7
	Total	60.7	69.9	64.2
Employment rate	Male	63.2	76.3	67.8
	Female	50.1	56.1	52.5
	Total	56.5	65.0	59.7
Unemployment rate	Male	7.7	4.7	6.5
	Female	6.0	9.2	7.4
	Total	6.9	6.9	6.9

Source: Central Bureau of Statistics, Census 2000

The high influx of immigrants seems to be reflected in relatively high participation rates and employment rates. Comparing the rates for foreign born and local born persons, one may observe that both the participation rate and the employment rates for foreigners are much higher than the rates for local born persons. The participation rate between the two groups differ 9.2 percent point. The difference for the employment rate is a somewhat less pronounced, but is still 8.6 percent points.

For many men, losing a job after reaching the age of 50 or 55 often means early retirement. This may be because few other jobs are available for them, or only jobs at much lower pay. At the same time, many workers, both men and women, choose voluntarily to take early retirement. This is examined in chapter 5.

THE SIGNIFICANT IMPACT OF FOREIGNERS ON THE LABOR FORCE

The growth of employment during the last decade seems to have benefited a significant proportion of foreigners. The relative high employment rate for foreigners has not been mirrored by a similar convergence in unemployment. The total unemployment rate for both foreigners and locals is about 6.9 percent. A closer look at this figure reveals some differences between men and women. For foreign males, the unemployment rate is 3 percent lower than that of local males. On the other hand, much more foreign women than local women indicated that they were unemployed. Most foreigners immigrated because of economic reasons. The high unemployment rates indicate how successful they are in finding work.

The age structure of the local born and foreign population can affect employment rates. When we take a closer look at the population pyramid for the local- and foreign born population, large differences arise. Local born persons of working age are disproportionately in the older age groups. This in itself might deter job availability for them. In practice, differences in employment rates between local and foreign-born persons tend to affect all age groups.

1.3. EDUCATION PROPELS THE LEVEL OF PARTICIPATION

The employment status of a person largely depends on his education attainment. Persons with a high level of education are more likely to be active in the labor force. The higher the level of education attained, the higher the participation rate.

Only some 41.9 percent of persons with no qualifications beyond basic schooling were economically active in 2000, compared to 85.3 percent of those with more than secondary education (ISCED¹⁰ level 5), and 90.9 percent of those with university education. This means that 58 percent of persons with only basic education were not in the workforce. Many of them are already retired persons. In the following chapters, we will discuss in greater detail the relationship between participation and education levels.

Table 1.8 shows employment ratios for males and females by level of education. The table illustrates clearly the strong relation between the level of education obtained and the employment rate. The level of professional trainings propels the employment rate. In 2000, the number of employed relative tot working-age population (15 years and over) averaged just over 68 percent for men and 52 percent for women. The rate, however, varied from just over 92 percent for employed men with the highest level of education, to only 32 percent for employed females with only primary education, or no education at all.

Those with the highest level of education accounted for only 2.3 percent (944 persons) of the employed population. Those without education, or with no more than primary education, accounted for 5.4 percent of the total employed population.

Table 1.8. Participation rates by level of education (ISCED)

Education	activity status				Total Population	Participation rate
	Employed	Unemployed	Economically inactive	Activity status unknown		
Less than primary/no education	2,247	243	3,449	32	5,970	41.9
Isced cat.1	11,342	1,219	13,697	83	26,341	47.8
Isced cat.2	16,775	1,168	5,398	44	23,385	76.9
Isced cat.3	3,061	185	886	18	4,150	78.6
Isced cat.5	4,305	200	776	15	5,295	85.3
Isced cat.6	3,063	78	528	6	3,675	85.6
Isced cat.7	944	19	97	3	1,063	90.9
Isced cat.9: unknown	182	8	308	554	1,049	38.2
Total	41,918	3,119	25,139	755	70,928	64.2

Source: Central Bureau of Statistics, Census 2000

Table 1.9. Employment rates by level of education and sex

Education	activity status						Employment rate	
	Employed		Unemployed		Economically inactive		Male	Female
	Male	Female	Male	Female	Male	Female		
Less than primary/no education	1,127	1,120	110	132	1,190	2,260	46	32
Isced cat.1	6,223	5,119	671	548	5,172	8,526	52	36
Isced cat.2	9,050	7,725	601	567	1,984	3,415	78	66
Isced cat.3	1,462	1,599	46	139	201	687	86	66
Isced cat.5	2,346	1,959	87	112	235	541	88	75
Isced cat.6	1,591	1,472	39	39	173	355	88	79
Isced cat.7	601	343	7	12	46	50	92	85
Isced cat.9: unknown	100	82	2	6	105	200	48	28
Total	22,498	19,420	1,563	1,555	9,107	16,032	68	52

Source: Central Bureau of Statistics, Census 2000

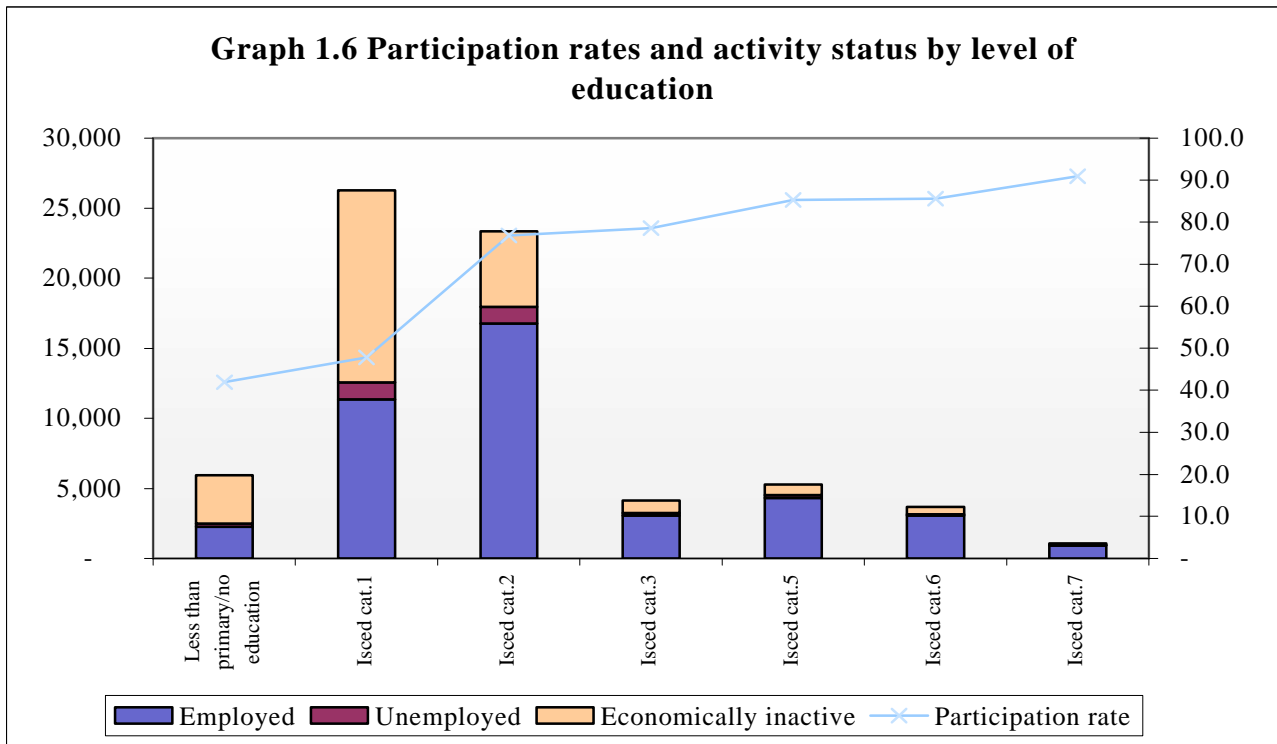


Table 1.10 presents the age-specific employment rates for males and females. The rates for the prime age groups of working men and women (20-54 years) are relatively high compared to those of other countries. The employment rate for women is 52.7 percent; while for women between 25 and 44 years the rates are well above 70 percent.

Table 1.10. Employment rates by age and sex

Age	activity status						Employment rate	
	Employed		Unemployed		Economically inactive		Male	Female
	Male	Female	Male	Female	Male	Female		
10-14	2.1	2.1			660	635	0.3	0.3
15-19	372	256	128	102	2,538	2,686	12.2	8.4
20-24	1,603	1,516	240	257	564	801	66.6	58.9
25-29	2,612	2,386	183	226	203	696	87.1	72.1
30-34	3,363	2,952	190	215	203	803	89.5	74.3
35-39	3,863	3,527	191	248	277	940	89.2	74.8
40-44	3,374	3,245	228	214	326	985	85.9	73.0
45-49	2,762	2,528	167	138	314	973	85.2	69.5
50-54	2,122	1,609	121	86	285	1,119	84.0	57.2
55-59	1,370	867	71	48	474	1,216	71.5	40.7
60-64	591	369	33	12	930	1,511	38.0	19.5
65-69	280.35	94.5	8.4	8.4	841	1,343	24.8	6.5
70-74	111.3	38.85	3.15	0	622	901	15.1	4.1
75-79	33.6	10.5	0	0	433	568	7.2	1.8
80-84	14.7	5.25	0	0	263	445	5.3	1.2
85-89	2.1	0	0	0	118	250	1.8	0.0
90-94	0	0	0	0	43	112	0.0	0.0
95+	0	0	0	0	12	37	0.0	0.0
NR	22.05	14.7	0	1.05	4	11	84.0	56.0
Total	22,498	19,420	1,563	1,555	9,107	16,032	67.8	52.5

Source: Central Bureau of Statistics, Census 2000

¹⁰ International Standard Classification of Education, See for more details Annex I

1.4 STATUS IN EMPLOYMENT

Data were collected about three major employment characteristics of the economically active population. These are: branch of economic activity (industry), occupation and status in employment. With this information one can study the economic and social structure of the economically active population and its changes over time. Section 1.5 will deal with data on occupation, as well as statistics on shifts in economic activity. The status of employment is sketched below.

In 1958, the United Nations Statistical Commission approved the International Classification by Status in Employment (ICSE), which outlined the following categories:

- employer - a person who operates his or her own enterprise, or engages independently in a profession or trade and hires one or more employees. Some countries may wish to distinguish between employers according to the number of persons they employ;
- own-account worker - a person who operates his or her economic enterprise, or engages independently in a profession or trade, and hires no employees;
- employee - a person who works for a public or private employer and receives remuneration in wages, salary, commission, tips, piece rates or pay in kind;
- contributing family worker - usually a person who works without pay in an economic enterprise operated by a related person living in the same household;
- member of producers' cooperatives - a person who is an active member of a producer's cooperative, regardless of the industry in which it is established;
- persons not classified by status - experienced workers whose statuses are unknown or inadequately described and unemployed persons not previously employed, i.e. new entrants to the labor force.

Indicators of status in employment distinguish three important and useful categories of the total employed. These are: (a) wage and salaried workers, or employees; (b) self-employed workers; and (c) contributing family workers (also termed unpaid family workers). For each group we give percentages of the total employed population for both sexes and for male and female separately in order to focus on changes in economic activity. The subcategories of the self-employed group - self-employed workers with employees (i.e. employers) and self-employed workers without employees (i.e. own-account workers) - are also presented.

There are important differences in status in employment between economies from developed and developing countries. Within industrialized economies, the share of wage and salaried workers is as high as 80 - or even 90 percent - of the total employed. The self-employed group typically account for between 10 to 15 percent, while the share of unpaid family workers is as low as 0 to 4 percent¹¹. Transition economies, such as Aruba, have similarly high proportions of wage and salaried workers. In developing economies, the proportions are much smaller for wage and salaried workers - but do have a great variation. For example, Peru had 46 per cent in wage and salaried employment in 1999.

¹¹ Source: Database of the International Labour Organization

Table 1.11. Employed population by sex and employment status

<i>Employment Status</i>	Male		Female		Total	
	Abs.	Colum %	Abs.	Colum %	Abs.	Colum %
Employer	1,130	5.0	449	2.3	1,579	3.8
Small Employer	602	2.7	301	1.6	903	2.2
Own account worker	1,191	5.3	393	2.0	1,583	3.8
Employee with permanent	17,433	77.5	16,369	84.3	33,803	80.6
Employee with temporary	2,036	9.0	1,764	9.1	3,800	9.1
Unpaid family worker	48	0.2	85	0.4	133	0.3
Other (e.g. volunteer)	59	0.3	58	0.3	116	0.3
Total	22,498	100	19,420	100	41,918	100

Source: Central Bureau of Statistics, Census 2000

According to the Census 2000, the proportion of wage and salaried workers in Aruba is as high as 89.7 percent, whereas the proportion of the self-employed is only 9.8 percent. Table 1.11 shows some minor differences between men and women: 86.5 percent of males belong to wage and salaried workers, against 93.4 percent of females. The degree of self-employment explains this discrepancy: for every 100 self-employed men we find only 39 self-employed women.

Table 1.12. Employed population by employment status, gender and sector of employment (absolute figures)

<i>Employment Status</i>	Private sector		Public or subsidized		Government N.V.		Foundation		Local government		Extra-territorial		Not Reported	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Employer	1,129	448											1	1
Small Employer	600	299											2	2
Own account worker	1,185	390											5	3
Empl. permanent job	13,481	12,970	297	584	878	407	266	739	2,366	1,593	102	33	41	40
Empl. temporary job	1,673	1,363	64	121	48	30	29	48	191	191	19	1	12	9
Unpaid family worker	42	79												
Other (e.g. volunteer)	42	30	2	1			8	23	3	2	1			
Total	18,151	15,579	363	706	926	438	303	811	2,560	1,786	122	34	61	56

Source: Central Bureau of Statistics, Census 2000

Care is required in the interpretation of these figures to see changes in self-employment. It may be tempting to regard the growth in the number of self-employed, especially in those with employees, as a proxy for the spread of entrepreneurship. However, there are reasons why this might not be justifiable. In particular, the status of being self-employed may have a lot to do with Aruba's legislative and fiscal system.

The lack of accurate data on business start-ups, or closures, means that there is no real alternative indicator of the growth of new enterprises on Aruba.

Table 1.13. Employed population by employment status, gender and sector of employment (relative figures, table %)

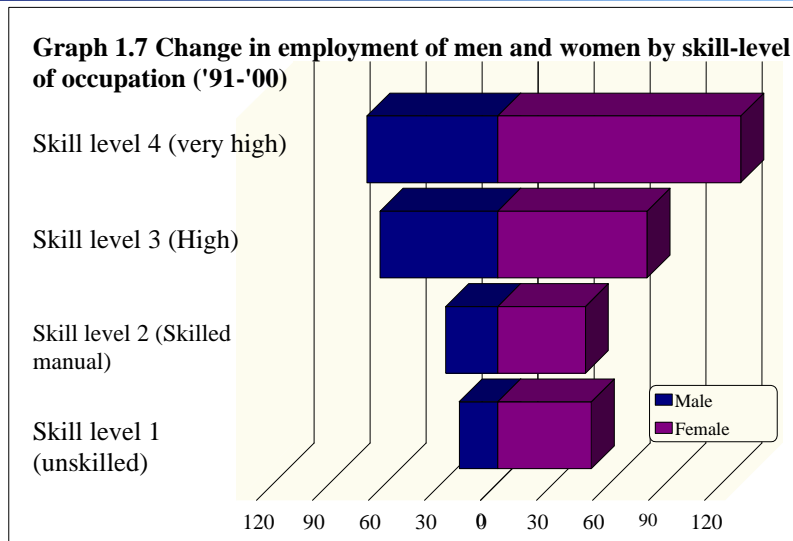
<i>Employment Status</i>	Private sector		Public or subsidized		Government N.V.		Foundation		Local government		Extra-territorial		Not Reported		
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
Employer	2.7	1.1												0.0	0.0
Small Employer	1.4	0.7												0.0	0.0
Own account worker	2.8	0.9												0.0	0.0
Empl.permanent job	32.2	31.0	0.7	1.4	2.1	1.0	0.6	1.8	5.6	3.8	0.2	0.1	0.1	0.1	0.1
Empl.temporary job	4.0	3.3	0.2	0.3	0.1	0.1	0.1	0.1	0.5	0.5	0.0	0.0	0.0	0.0	0.0
Unpaid family worker	0.1	0.2													
Other (e.g. volunteer)	0.1	0.1	0.0	0.0			0.0	0.1	0.0	0.0	0.0				
Total	43.3	37.2	0.9	1.7	2.2	1.0	0.7	1.9	6.1	4.3	0.3	0.1	0.1	0.1	0.1

Source: Central Bureau of Statistics, Census 2000

1.5. EMPLOYMENT BY MAJOR OCCUPATIONAL GROUP

Occupation refers to the kind of work done, for at least four hours, during the week preceding the census by the person employed, irrespective of the industry or the status in employment of this person (International Labor Office, 1990, p. 165). To classify the data on occupation, the International Standard Classification of Occupation (ISCO-88) was used. This framework has been based on two main concepts: the concept of the kind of work performed and the concept of skill. The occupations are grouped together mainly on the basis of the similarity of skills required to fulfill the tasks and duties of the jobs. The first skill level was defined with reference to ISCED category 1, comprising primary education which generally begins at the age of 5,6 or 7 and last about five years (primary education). The second ISCO skill level was defined with reference to ISCED 2 and 3, comprising first and second stages of secondary education, such as the MAVO, HAVO, VWO, ISA, etc. The third ISCO skill level was defined with reference to ISCED category 5, while the fourth ISCO skill level was defined with reference to ISCED categories 6 and 7 (post-secondary education).

<i>Major Occupational group</i>	ISCO Skill level
Armed forces	--
Legislators, senior officials, and managers	--
Professionals	4 th
Technicians and associate professionals	3 rd
Clerks	2 nd
Service workers and shop and market sales workers	2 nd
Skilled agricultural and fishery workers	2 nd
Craft and related trades workers	2 nd
Plant and machines operators and assemblers	2 nd
Elementary occupations	1 st



Persons are classified according to the job they perform. In the context of the census, a job was defined as a set of tasks and duties that are carried out by a person. A more extensive explanation of the systematic classification of the ISCO-system is given in the section ‘Concepts and Definitions’.

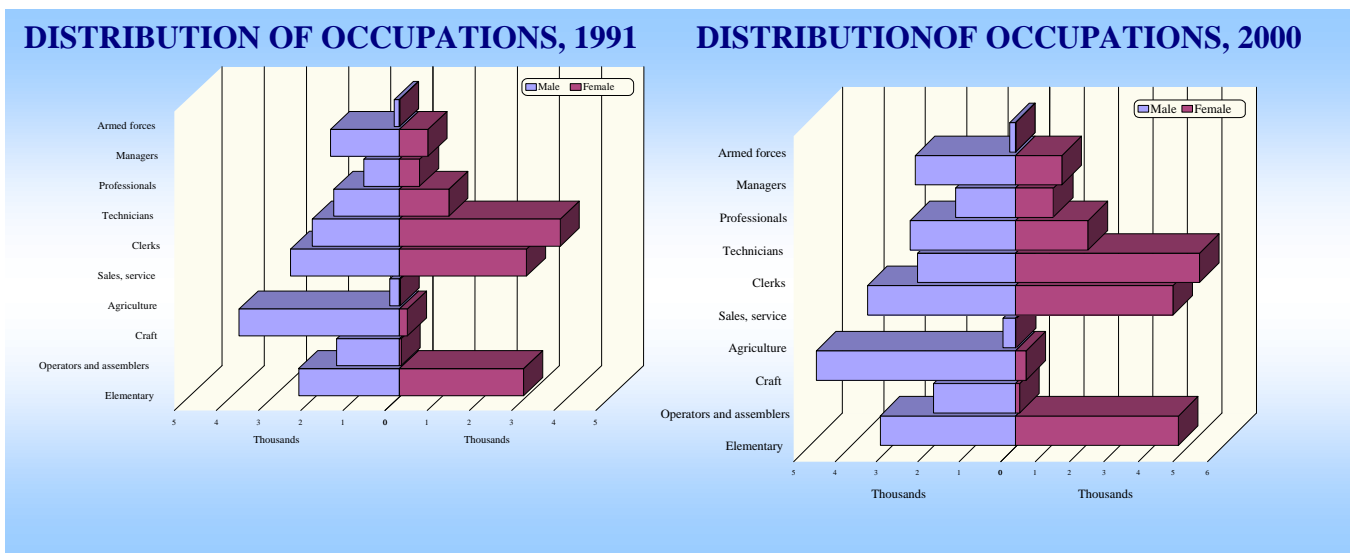
As can be seen from the table above, out of ten major occupational groups, eight have been linked to the four ISCO skill levels. The relationship between occupation and educational skill level is helpful to get a better understanding of the structure and composition of the labor force. Studies on the proportion of the economically active population in different occupations provide information on the occupational structure of the economy.

Aruba employs many more people at the lower skill levels, than people at the higher skill level. About 17 percent (or 7,299 persons) are employed at the lowest skill level. At the second skill level, 55.8 percent (23,393) are employed. Technicians, classified as persons working in skill the higher (level 3), constitute 11 percent of employed persons, and 6 percent (2,545 persons) are working at the highest skill level.

Graph 1.7 depicts a very interesting pattern, indicating the change in employment for men and women for the different skill levels between 1991 and 2000. Higher skill levels are growing at a faster pace than lower skill levels. Much of the rapid growth at the higher levels can be attributed to the increasing importance of women on the labor market. The number of women employed at the highest skill level grew with 130 percent. To put this figure in perspective, the number of men at this level only grew with only 70 percent.

Graph 1.8 and table 1.14 show the relative importance of the different occupational groups. Comparing the figures over time, some interesting changes can be observed. It is important to notice the direction of these shifts.

Graph 1.8 Distribution of occupations by gender, 1991 and 2000



Worldwide, knowledge intensity has become a key dimension in job creation¹². The “knowledge triangle” describes the close relationship between skills and educational levels on one hand and employment on the other. In Aruba, a similar trend seems to occur. Over the last ten years, an important part of job creation took place in the categories of managers, professionals and technicians. These jobs are usually of higher quality and with better career prospects.

Just under a quarter of the working population on Aruba was employed in the highest skilled occupations (managers, professionals and technicians). In the USA, for example, one third of the employed population is working in those sectors. The three main occupational sectors in 2000 were still the same as in 1991, although they shifted positions.

The sector ‘Service workers and shop and market sales workers’ is nowadays the most extensive occupational group. In this sector 8,146 persons out of a total of 41,918 persons are employed (19.4 percent). The sector ‘Clerks’ - which in 1991 was occupying the first place - is now in second place. A sizable group of almost 7,300 persons performs simple and routine tasks, such as selling goods in streets, door keeping, property watching, cleaning, etc. These tasks are grouped together in the major occupational group ‘Elementary occupations’. The number of employees within this occupational group increased with more than 1,968 persons and currently holds the third place.

GROWTH OF THE WORKING POPULATION BY MAJOR OCCUPATIONAL GROUP AND SEX

The growth of jobs demanding high skills is displayed in table 1.14 and the corresponding graph 1.8. The increased employment of managers, professionals and technicians accounted for a growth of 4,586 persons, out of a total growth of 12,699 persons (36.1 percent).

There was also a significant growth of jobs for low skilled elementary occupations (1,968). Women took many of these jobs (1,473). This added 8 percent to total employment between the censuses of 1991 and 2000. The growth in this sector was considerably lower than among the high skilled occupations.

Table 1.14. Growth of the working population between 1991 and 2000, by major occupational group and sex

<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	1,451	62.8
Professionals	594	70.1	625	130.1	1,218	91.8
Technicians and associate professionals	982	63.1	935	79.9	1,917	70.3
Clerks	295	14.3	1,523	40.0	1,819	30.9
Service workers and shop and market sales workers	986	38.1	1,562	51.8	2,548	45.5
Skilled agricultural and fishery workers	63	27.5	15	85.3	77	31.5
Craft and related trades workers	1,004	26.4	132	70.7	1,136	28.5
Plant and machines operators and assemblers	489	32.9	85	212.4	574	37.6
Elementary occupations	494	20.7	1,473	50.1	1,968	36.9
Unknown	-28	-25.2	9	18.4	-19	-11.9
Total	5,665	33.7	7,034	56.8	12,699	43.5

Source: Central Bureau of Statistics, Census 2000

¹² *Employment in Europe 2000, European Commission*

The graph depicts the pattern of employment growth for both men and women. Even though employment growth was considerable among women classified as ‘Plant and machine operators and assemblers’, the size of this group is relatively small. The number of ‘Professional’ females increased with 625 persons, implying an increase of more than 130 percent. The proportion of women working as ‘Legislators, senior officials and managers’ increased from 2.3 percent of the total employed population to 3.2 percent. (See tables 1.15 and 1.16). This implies an increase of 675 females. Since 1991, 935 extra females were employed as technicians, almost equalizing the proportion of male and female technicians and associate professionals (54.7 males against 45.3 females).

EMPLOYMENT BY MAJOR OCCUPATIONAL GROUP AND SEX

Tables 1.15 and 1.16 demonstrate the positive employment development for both men and women in all major occupational groups during the period 1991 – 2000. Graph 1.9. already indicated a much higher growth-rate for females than for males, in all major occupational groups, which eventually increased the proportion of women in the labor force with 3.8 percentage points. For every 100 men employed, there are 86.2 females.

In certain occupational groups, however, the dominance of men is still striking. The occupational groups ‘Craft’ and ‘Operators and assemblers’ are examples of such male-oriented professions. On the other hand,

Table 1.15. Employed population by major occupational group and sex (2000)

Major Occupational group	Male		Female		Total	
	Abs.	Share %	Abs.	Share %	Abs.	Share %
Armed forces	134	0.3	0	0.0	134	0.3
Legislators, senior officials, and managers	2,413	5.8	1,349	3.2	3,762	9.0
Professionals	1,441	3.4	1,105	2.6	2,545	6.1
Technicians and associate professionals	2,539	6.1	2,106	5.0	4,645	11.1
Clerks	2,361	5.6	5,335	12.7	7,697	18.4
Service workers and shop and market sales workers	3,571	8.5	4,575	10.9	8,146	19.4
Skilled agricultural and fishery workers	292	0.7	32	0.1	323	0.8
Craft and related trades workers	4,807	11.5	319	0.8	5,126	12.2
Plant and machines operators and assemblers	1,976	4.7	125	0.3	2,101	5.0
Elementary occupations	2,882	6.9	4,416	10.5	7,299	17.4
Unknown	83	0.2	58	0.1	140	0.3
Total	22,499	53.7	19,420	46.3	41,918	100.0

Source: Central Bureau of Statistics, Census 2000

more women than men can be found in service-oriented jobs.

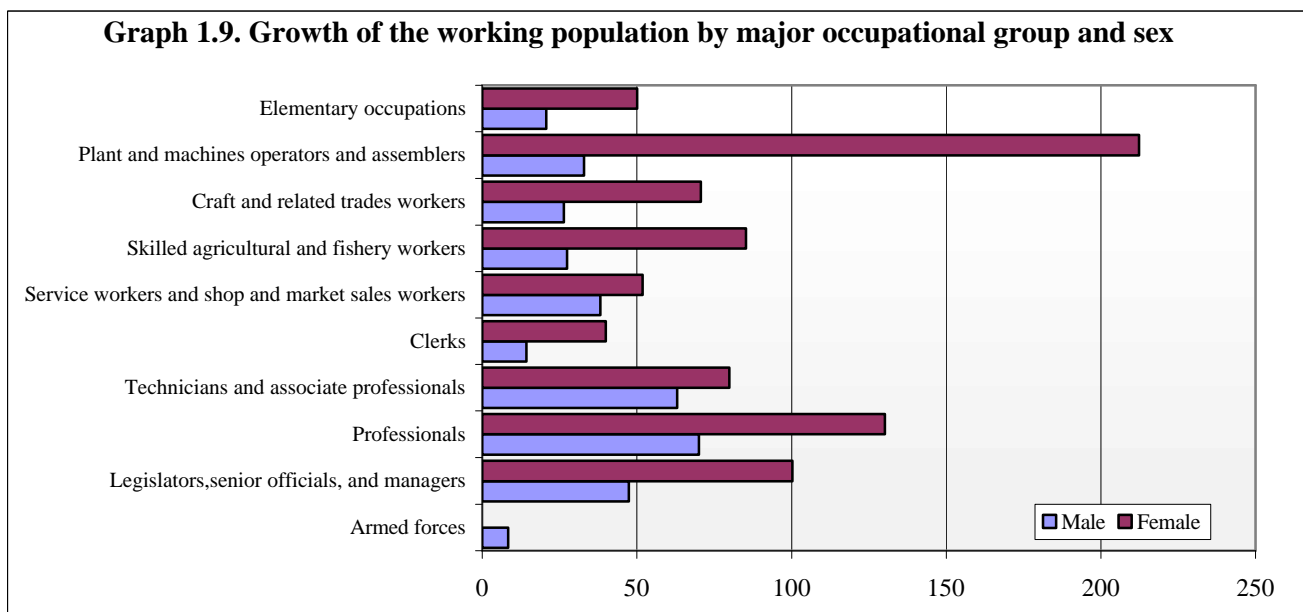


Table 1.16. Employed population by major occupational group and sex (1991)

<i>Major Occupational group</i>	Male		Female		Total	
	Abs.	Share	Abs.	Share	Abs.	Share
Armed forces	124	0.4	0	0.0	124	0.4
Legislators, senior officials, and managers	1,637	5.6	674	2.3	2,311	8.0
Professionals	847	2.9	480	1.7	1,327	4.6
Technicians and associate professionals	1,557	5.4	1,171	4.0	2,728	9.4
Clerks	2,066	7.1	3,812	13.1	5,878	20.2
Service workers and shop and market sales workers	2,585	8.9	3,013	10.4	5,598	19.3
Skilled agricultural and fishery workers	229	0.8	17	0.1	246	0.8
Craft and related trades workers	3,803	13.1	187	0.6	3,990	13.7
Plant and machines operators and assemblers	1,487	5.1	40	0.1	1,527	5.3
Elementary occupations	2,388	8.2	2,943	10.1	5,331	18.3
Unknown						
Total	16,723	57.5	12,337	42.5	29,060	100.0

Source: Central Bureau of Statistics, Census 2000

Table 1.17. Employed population by occupational group and sex

<i>Major Occupational group</i>	Male	Female
	Row %	Row %
Armed forces	100.0	0.0
Managers	64.1	35.9
Professionals	56.6	43.4
Technicians	54.7	45.3
Clerks	30.7	69.3
Sales, service	43.8	56.2
Agriculture	90.3	9.7
Craft	93.8	6.2
Operators and assemblers	94.1	5.9
Elementary	40.8	59.2
Total	53.7	46.3

Source: Central Bureau of Statistics, Census 2000

The ageing of the Aruban population is widely publicized. “Graying” and “dejuvenation” are two key elements in the aging process. It is clear that the ageing of the population has major repercussions for the future labor force. As a result of the drastic fertility decline in the period 1958 till about 1970, coupled with more people living longer, Aruba will in the coming decades be confronted with a rapidly ageing labor force. This trend is set to accelerate in the next 10–15 years, leading to a pronounced increase in the number of people of 65 and over. One of the major challenges for Aruba’s future is to find ways of making full use of older workers and to halt the decline in the participation of those older than 55. (See table 1.6). More about this topic will be discussed in chapter 5.

The ageing of Aruba’s population is only one of the factors leading to increased levels of dependency. To analyze the levels of dependency one can use two measures: the ‘theoretical’ and the effective dependency ratio. The effective dependency ratio consists of all those 15 years and over who are not at work (and therefore not contributing to the funding of the social system) relative to those in employment. The theoretical dependency ratio is calculated as the people above retirement age relative to those of working age. A rather different picture emerges if we calculate the effective dependency ratio and the ‘theoretical’ dependency ratio. Whereas the latter is around 15 percent at present (just under one person aged 65 and over for every six

persons of working age), the effective dependency ratio is already 66 percent (i.e. one person aged 15 and over not working for every 1.5 person employed)¹³.

Within the labor force, the pace of the aging process varies with occupation and industry. In other words, ageing may well be underway in some sectors, whereas it has not even started in others. In this section, we give an overview of the changing age distribution of the working population by industry and by occupation. For the analysis of the industrial sectors and occupations, we use the one-digit level of the 1988 International Standard Industrial Classification (ISIC) and of the 1988 International Standard Classification of Occupations (ISCO – 1988), which were compiled by the International Labour Office (ILO).

Table 1.18. Major occupation by age and sex (Relative figures, Column %)

Major Occupational group	Male			Female		
	15-24	25-64	65+	15-24	25-64	65+
Armed forces	0.9	0.6	0.0			
Legislators, senior officials, and managers	2.6	11.3	19.0	2.7	7.3	14.8
Professionals	1.5	6.9	6.7	2.2	6.0	7.0
Technicians and associate professionals	7.6	11.7	9.3	9.1	11.0	10.6
Clerks	14.9	10.1	8.3	40.3	26.3	15.5
Service workers and shop and market sales workers	22.5	15.2	15.0	33.4	22.6	22.5
Skilled agricultural and fishery workers	1.4	1.3	1.7	0.1	0.2	
Craft and related trades workers	19.8	21.7	13.8	1.2	1.7	1.4
Plant and machines operators and assemblers	7.5	8.7	16.9	0.3	0.7	
Elementary occupations	21.0	12.1	9.0	10.4	23.9	27.5
Unknown	0.3	0.4	0.5	0.2	0.3	0.7
Total	100	100	100	100	100	100

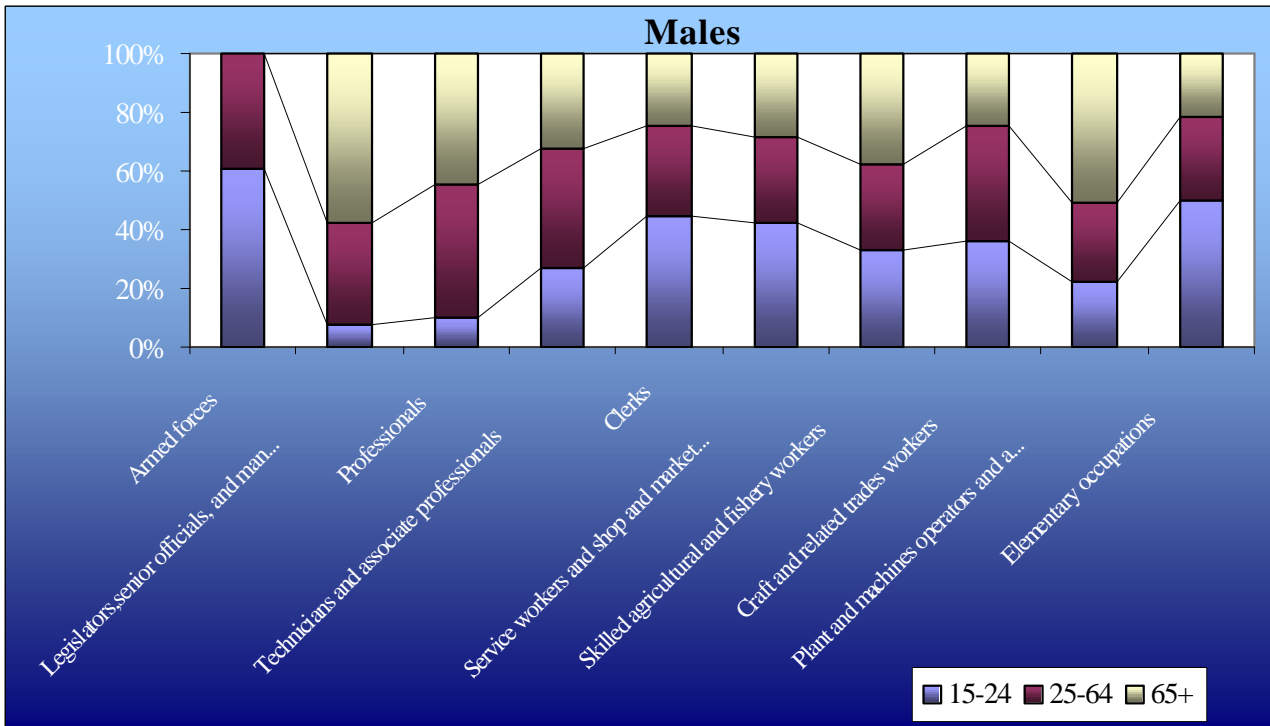
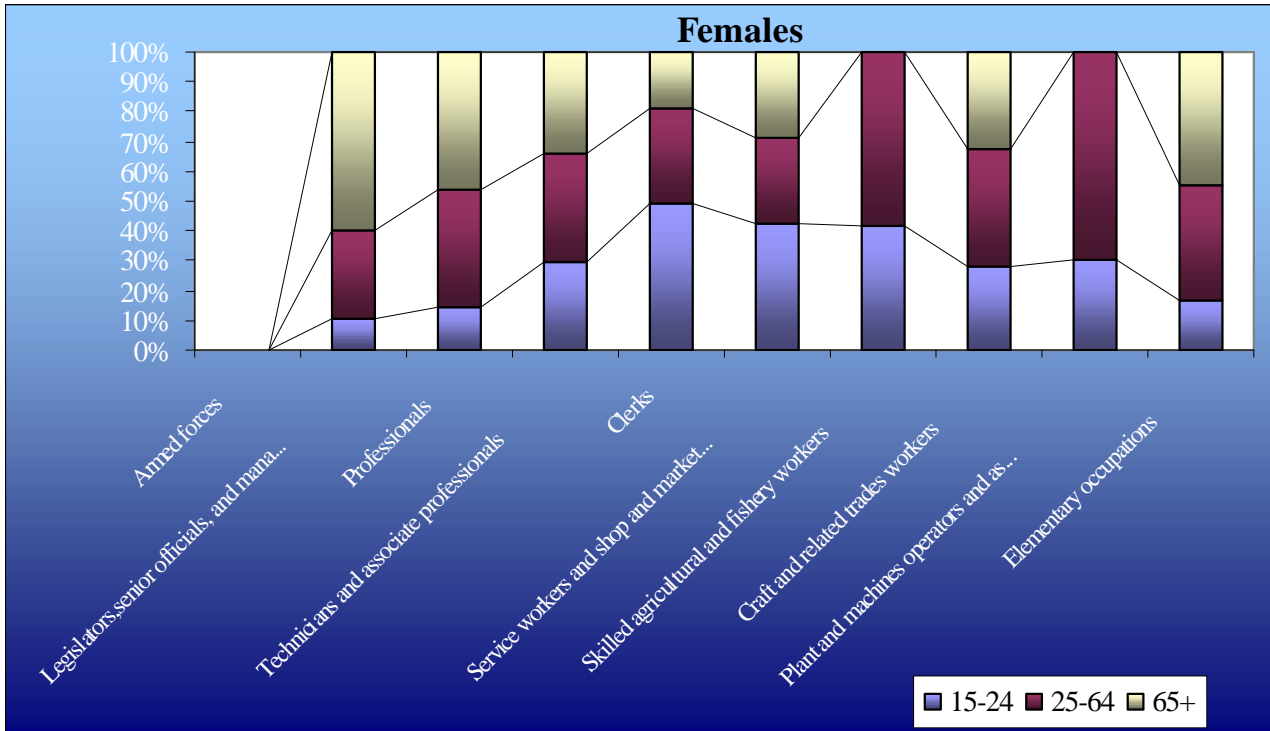
Source: Central Bureau of Statistics, Census 2000

The recent discussion about introducing policies to keep older workers at work needs to take into account the type of jobs they do. In practice, a comparison of the occupational distribution of those aged 65 and over with those in younger age groups show, at least for men, two distinct and opposing features. First, as might be expected, a larger proportion of men and women in older age groups are employed as 'Legislators, senior officials and managers' than those aged 15 to 64. In 2000, around 19 percent of men aged 65 and over were classified in this category as against 11.3 percent of those aged 25 to 64, while for women the figures were 14.8 and 7.3 percent respectively (Table 1.18) and Graphs 1.10 and 1.11).

Secondly, a larger proportion of men and women aged 65 and over, work in unskilled jobs than in the case of the younger age groups. In 2000, 16.9 percent of men aged 65 were employed as 'Plant and machine operators' as opposed to 8.7 percent of those aged 25 to 64 years. For women, the tendency is less pronounced, with 27.5 percent of those aged 65 and over in 'Elementary Occupations' as against 24 percent of women aged 25 to 64.

¹³ Effective Dependency Ratio $\frac{(15\text{yrs and older not at work}) 27,705}{(\text{Employed}) 41,918} = 66\%$ Theoretical Dependency Ratio $\frac{(\text{Persons 60yrs and older}) 10,456}{(\text{Working age population}) 69,619} = 15\%$

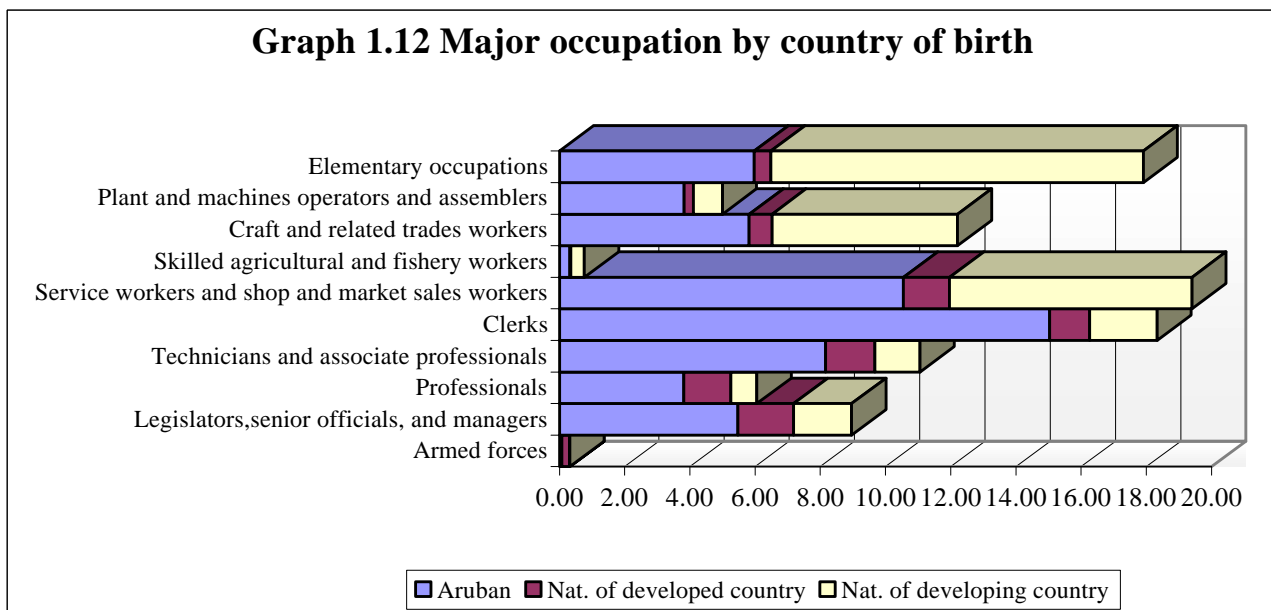
Graphs 10 and 11: Relative distribution of occupational groups by age categories and sex



EMPLOYMENT BY MAJOR OCCUPATIONAL GROUP AND COUNTRY OF BIRTH**Table 1.19. Major occupation by country of birth (relative figures)**

<i>Major Occupational group</i>	Aruban	Nat. of developed country	Nat. of developing country	Total Table %
Armed forces	0.07	0.25	0.01	0.32
Legislators, senior officials, and managers	5.47	1.71	1.78	8.96
Professionals	3.82	1.45	0.80	6.06
Technicians and associate professionals	8.16	1.51	1.39	11.06
Clerks	15.03	1.22	2.07	18.33
Service workers and shop and market sales workers	10.55	1.41	7.43	19.40
Skilled agricultural and fishery workers	0.32	0.03	0.43	0.77
Craft and related trades workers	5.82	0.70	5.68	12.21
Plant and machines operators and assemblers	3.83	0.28	0.89	5.00
Elementary occupations	5.98	0.51	11.42	17.91
Total	59.05	9.06	31.89	100.00

Source: Central Bureau of Statistics, Census 2000



As mentioned in the first paragraph of this chapter, immigration has always been one of the dynamic forces of economic- and labor market developments in Aruba. Forty percent of the working population is foreign born. Graph 1.12 shows the native and foreign-born population by occupational groups. The group of foreigners is divided into persons born in a developed country or developing country. The proportion of persons from a developing country is still the highest among the elementary occupations. Almost 18 percent of the employed population found work in this occupational group, of which almost 12 percent is born in a developing country. Besides to the elementary occupations, many persons from developing countries can be found in the groups “Craft and related trades workers” and “Service workers, shop and market sales workers”. All of these occupations are classified as the second ISCO level, and require only the first stages of secondary education. On the other hand, persons born in a developed country can be found at the other end of the occupational scale. The majority of them are employed as “Legislator, senior official or manager”, “Professionals” or “Technicians”. One quarter of all Professionals is born in a developed country (1.45% against 6.06%). Arubans take position between persons from developed- and developing countries. The proportion of them is to a large extent concentrated around two occupational groups: “Clerks” and “Service workers, shop and market sales workers”.

EMPLOYED POPULATION BY BRANCH OF INDUSTRY AND SEX

Employment data by branch of economic activity form an essential part of the analysis of national production and national income. Studies of the proportion of the economically active population in each branch of the economy give information on the level and trend of industrialization and on the relative movements from one industrial branch to another.

The distribution of economic wealth within the world remains strongly correlated to employment by sector. The wealthier economies, as measured by GDP per capita, are those with the largest share of total employment in services, whereas the poorer economies are largely agriculture-based. In most economies of the world, employment has been shifting from the sectors that produce goods (agriculture and industry) to the service sector. In many industrialized economies, the proportion of total employment within the service sector exceeds 50 percent. Although declining, agricultural employment remains relatively high in the Caribbean economies, while it is very low in the developed (industrialized) economies. The table below provides statistics that clearly support the notion that Caribbean countries are also shifting towards service economies.

Table 1.20. Employed population in the caribbean by dominant sector (1950 - 1990)

Caribbean Type of economy	1950	1960	1970	1980	1990
Econ. active pop.-agriculture	57.2	50.7	42.5	33.9	28.2
Econ. active pop.-industry	16.7	18.2	19.4	21.9	24.3
Econ. active pop.-services	26	31.2	38.1	44.2	47.5

Source: ILO database

The development of the tourist industry in Aruba caused a shift towards a service industry. The latest economic developments point to a strengthening of this trend.

Graph 1.3. shows the employed population on Aruba distributed over the different industrial branches. The graph illustrates the importance of the service sectors on Aruba. These sectors make up 82.3 percent of the total employed population. The agricultural sector constitutes a mere 0.5 percent and the industrial sectors only 16.4 percent.

Aruba's GDP increased from 2,363.7 million florin in 1995 to 3,356.8 million in 2002. During the same time tourism took an important leap forward. Economic development in the past ten years caused the creation of almost 12,700 new jobs. The sector 'Hotels and Restaurants' has the highest share in total employment. This sector employs 18.3 percent of the total employed population. Another industrial branch, almost as important as the tourist sector - at least when measured in number of persons employed - is the sector 'Wholesale and retail trade' (17 percent). Together these two sectors employ 14,763 persons, or more than 35 percent of the total employed population. Many persons are employed in the sectors 'Construction' (3,892), 'Real estate, renting and business activities' (3,722) and 'Public administration and defense' (3,528).

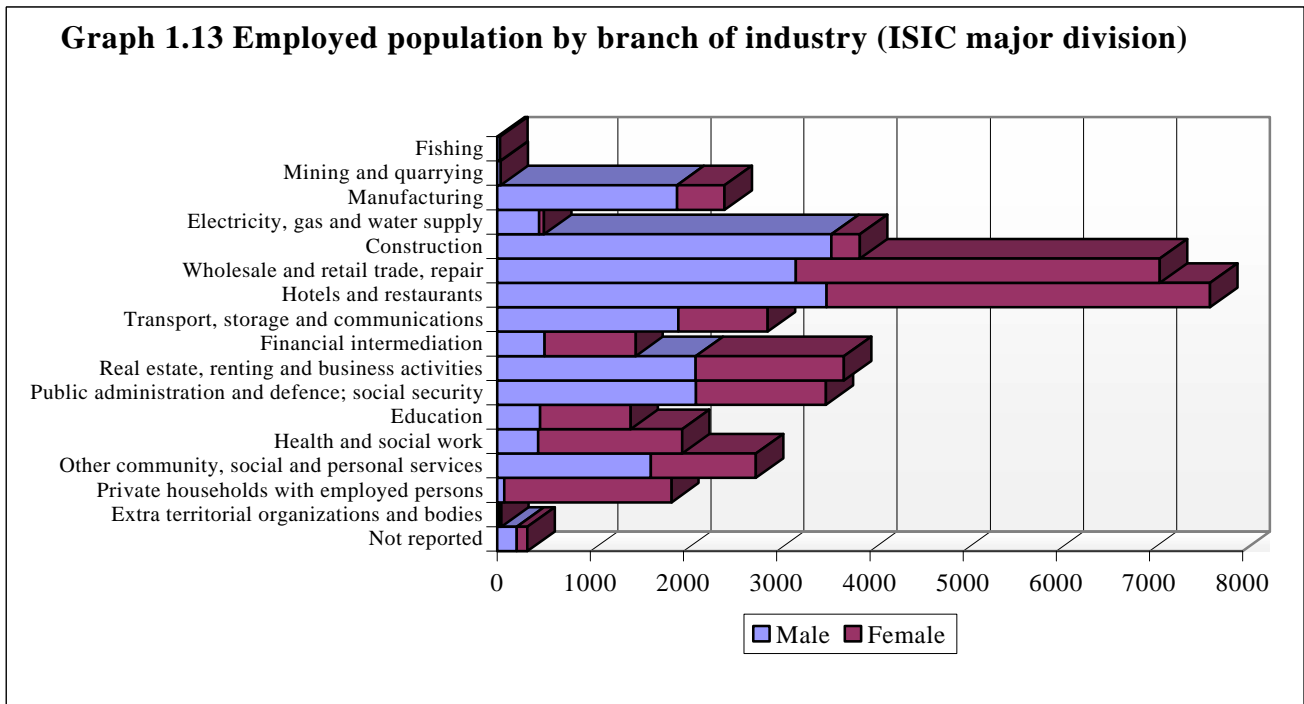


Table 1.21 shows the importance of each of the 17 industrial branches. The classification of industrial sectors used for the census 2000 cannot be compared to the data from the census 1991, because of the changes in the ISIC-classification. Therefore, the data is compared with the Labor Force Survey 1997.

Graph 1.13 portrays the differences in economic activity of employed males and females. The table indicates the distribution of men and women over the various sectors. The female population is mainly employed in the sectors ‘Hotels and Restaurants’, ‘Wholesale and retail trade’ and ‘Private households with employed persons’. More than 5 out of 10 employed females have found their way into these branches. The other 49.5 percent of employed females are scattered over the other industrial sectors.

It comes as no surprise that the industrial sectors ‘Mining and quarrying’, ‘Manufacturing’, ‘Utility services’ and ‘Construction’ are mainly filled with males. The number of women per 100 men in these branches is a mere 0.9, 26.4, 11.4 and 8.4 respectively.

Table 1.21. Employed population by branch of industry (ISIC major division) and sex (2000)

<i>ISIC-category</i>	Male		Female		Total	
	Abs.	Colum %	Abs.	Colum %	Abs.	Colum %
Not reported	209	0.9	116	0.6	324	0.8
Extra territorial organizations and bodies	25	0.1	20	0.1	45	0.1
Private households with employed persons	75	0.3	1,795	9.2	1,870	4.5
Other community, social and personal services	1,652	7.3	1,125	5.8	2,776	6.6
Health and social work	441	2.0	1,545	8.0	1,986	4.7
Education	463	2.1	968	5.0	1,431	3.4
Public administration and defence; social security	2,133	9.5	1,395	7.2	3,528	8.4
Real estate, renting and business activities	2,130	9.5	1,592	8.2	3,722	8.9
Financial intermediation	509	2.3	975	5.0	1,485	3.5
Transport, storage and communications	1,944	8.6	962	5.0	2,905	6.9
Hotels and restaurants	3,535	15.7	4,116	21.2	7,651	18.3
Wholesale and retail trade, repair	3,207	14.3	3,905	20.1	7,112	17.0
Construction	3,588	15.9	305	1.6	3,892	9.3
Electricity, gas and water supply	449	2.0	51	0.3	501	1.2
Manufacturing	1,929	8.6	510	2.6	2,439	5.8
Mining and quarrying	35	0.2	3	0.0	38	0.1
Fishing	33	0.1	1	0.0	34	0.1
Agriculture, hunting and forestry	143	0.6	36	0.2	179	0.4
Total	22,498	100.0	19,420	100.0	41,918	100.0

Source: Central Bureau of Statistics, Census 2000

Although it is advisable to be careful when comparing and interpreting the figures obtained from the Labor Force Survey held in 1997 with the complete population count in 2000, it is safe to conclude that the sectors "Hotels and restaurants", "Construction", "Real estate, renting and business services" and "Private households with employed persons" (domestic help) are still expanding. The sectoral growth is the most pronounced in "Private Households", "Construction", "Real estate" and "Hotels and restaurants", which is related to the growing number of tourist – till 2001 - and the amount of immigrants still entering Aruba (3,386 persons in the year 2001).

Table 1.22. Employed population by branch of industry (ISIC major division) and sexe (2000)

ISIC-category	Agecategories				Total
	15-24	25-64	65+	NR	
Agriculture, hunting and forestry	0.4	0.4	0.9		0.4
Fishing		0.1			0.1
Mining and quarrying		0.1			0.1
Manufacturing	5.2	5.8	13.2	2.9	5.9
Electricity, gas and water supply	0.6	1.3	0.4		1.2
Construction	8.1	9.5	7.0		9.4
Wholesale and retail trade, repair	26.8	16.0	26.0	11.8	17.1
Hotels and restaurants	18.0	18.5	14.8	26.5	18.4
Transport, storage and communications	8.6	6.8	8.1	8.8	7.0
Financial intermediation	3.9	3.6	1.6		3.6
Real estate, renting and business activities	10.4	8.8	12.5	5.9	9.0
Public administration and defence; social security	3.7	9.1	2.2	11.8	8.5
Education	1.3	3.6	4.2	2.9	3.4
Health and social work	3.2	5.0	3.4	2.9	4.8
Other community, social and personal services	7.3	6.6	4.5	8.8	6.7
Private households with employed persons	2.3	4.8	0.9	17.6	4.5
Extra territorial organizations and bodies	0.0	0.1	0.4		0.1
Not reported					
Total	100.0	100.0	100.0	100.0	100.0

Source: Central Bureau of Statistics, Census 2000

During the past decades, the working population has become increasingly concentrated between ages 25 to 55 years. The share of the youngest age group (15-24 years) dropped from 26 percent in 1972 to 8.9 percent in 2000. Among those aged 60+ years and over the percentage fell from 4.9 to 3.7. A similar trend is apparent in most industrialized countries. The youngest and oldest age groups are of particular interest, since both the inflow and the outflow of the labor force largely take place in these two age groups. Further information about young and older workers is given in chapter 2 and chapter 5 of this publication.

The difference in the occupational pattern of employment between older and younger workers is reflected in the distribution of the two groups among industrial sectors. Table 1.22 presents the distribution by industrial category for three broad age groups. The most striking difference is in the proportion employed in manufacturing. Only 5.8 percent of persons aged 25 to 64 worked in manufacturing, against 13.2 percent of persons above age 64. A quarter of the elderly persons (>65 years) are employed in the sector 'wholesale and retail trade. The figure for those aged 25 to 64 is much lower, namely 16 percent

A smaller proportion of those 65 years and over is working in 'Financial intermediation' compared to the youngest group. For every 100 persons between the ages of 15 to 24 working in this sector, only 41 of their elderly counterparts were found. It is also mirrored in a smaller proportion being employed in 'Private households with employed person' (a.o. the domestic helpers) which has been a major source of net job creation in recent years.

1.7. UNEMPLOYMENT

In the census the unemployed comprise all people, 14 years of age and older who, during the week before the census, complied with all three of the following conditions:

Without work: i.e. were not in paid employment or self-employed

Currently available for work, i.e. able to start a new job within two weeks time.

'Seeking work', i.e. had taken specific steps to seek employment or self-employment. The specific steps may include: registration at a public or private employment agency; application to employers; checking at work sites; placing or answering newspaper advertisements; seeking assistance from friends and relatives; looking for land, machinery, or equipment to establish own enterprise; arranging for financial resources; applying for permits and licenses, etc.

This definition closely follows the one recommended by the International Labor Organization (ILO) and has been used in Aruba since the census of 1991. This makes comparisons over time possible.

According to the 2000 census, 3,119 persons above age 14 were unemployed on Aruba: 1,563 men and 1,555 women. The unemployment rate stood at 6.9 percent in October 2000. Compared to other countries in the region Aruba's unemployment is not very high. However, given the amount of persons without work, unemployment is a serious concern for the government.

Table 1.23. Unemployment by age and sex 2000, absolute and percentage rates

	Employed			Unemployed			Unemployment rates		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
15-19	372	256	628	128	102	230	25.6	28.4	26.8
20-24	1,603	1,516	3,120	240	257	498	13.0	14.5	13.8
25-29	2,612	2,386	4,998	183	226	408	6.5	8.6	7.6
30-34	3,363	2,952	6,315	190	215	405	5.3	6.8	6.0
35-39	3,863	3,527	7,390	191	248	439	4.7	6.6	5.6
40-44	3,374	3,245	6,618	228	214	442	6.3	6.2	6.3
45-49	2,762	2,528	5,290	167	138	305	5.7	5.2	5.4
50-54	2,122	1,609	3,731	121	86	207	5.4	5.1	5.3
55-59	1,370	867	2,238	71	48	120	5.0	5.3	5.1
60-64	591	369	960	33	12	44	5.2	3.0	4.4
65-69	280	94	375	8	8	17	2.9	8.2	4.3
70-74	111	39	150	3	0	3	2.8	0.0	2.1
75-79	34	11	44	0	0	0	0.0	0.0	0.0
80-84	15	5	20	0	0	0	0.0	0.0	0.0
85-89	2	0	2	0	0	0	0.0	0.0	0.0
NR	22	15	37	0	1	1	0.0	6.7	2.8
Total	22,496	19,418	41,914	1,563	1,555	3,119	6.5	7.4	6.9

Source: Population Census 2000

Table 1.23 and Graph 1.14 present the unemployment rates by age and sex. Unemployment is very high at the youngest age groups. In the age group 15-19 years, 26.8 percent of the economically active population is unemployed. In the age group 20-24 years, the unemployment rate is 13.8 percent. In the next chapter we will go deeper into the problem of youth unemployment. After age 30, unemployment stabilizes around 6 percent and declines to around 4.5 percent at retirement age. Up to age 40 women have somewhat higher levels of unemployment than men. After 40 both levels are about the same.

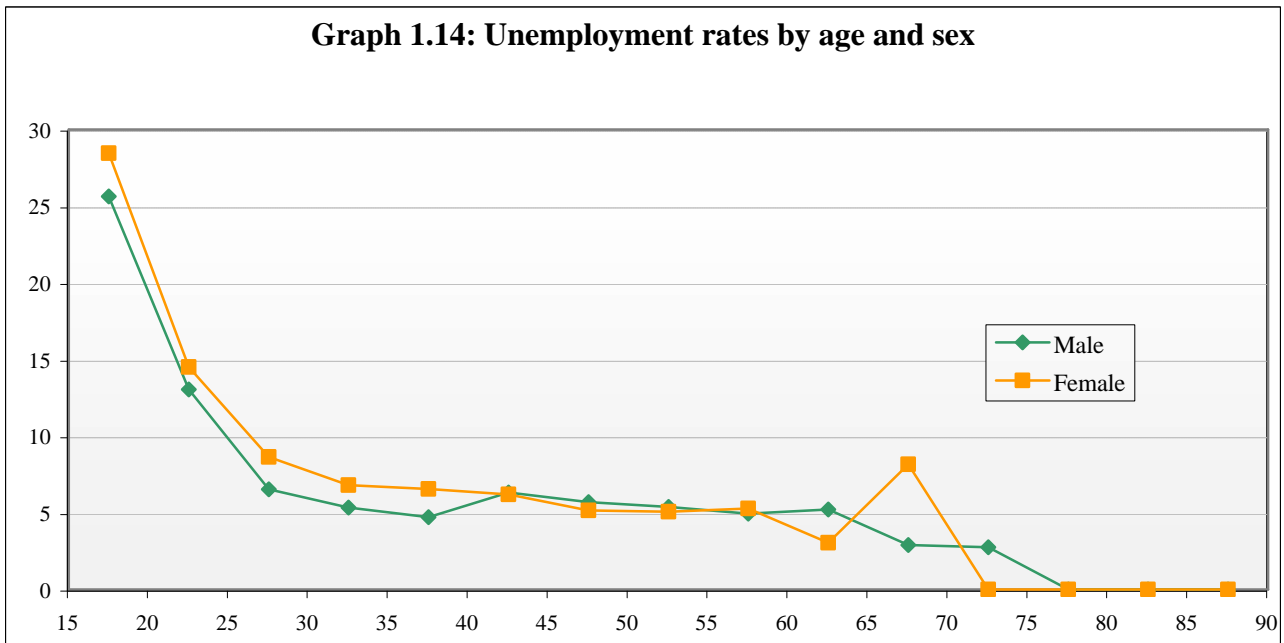
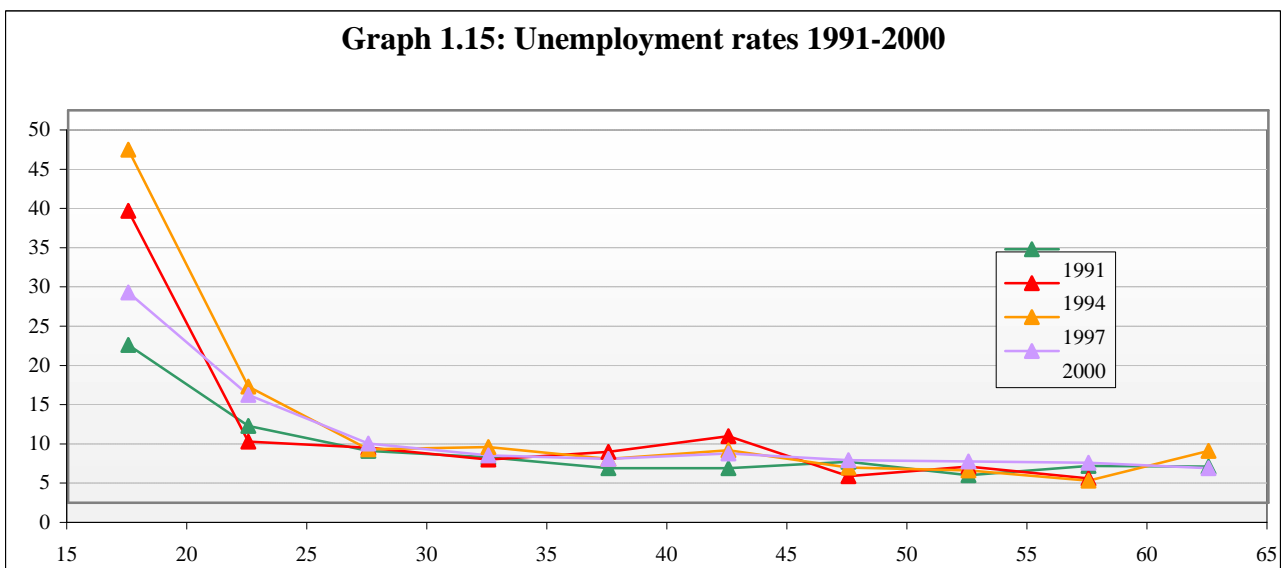


Table 1.24. Unemployment rates by age and sex, 1991 -2000

	1991			1994			1997			2000		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
15-19	20.7	10.4	20.1	22.6	62.5	37.2	35.5	54.3	45.0	25.6	28.4	26.8
20-24	10.7	8.6	9.8	6.7	9.0	7.8	12.8	17.0	14.8	13.0	14.5	13.8
25-29	6.8	6.4	6.6	4.8	9.6	7.0	7.1	6.6	6.8	6.5	8.6	7.6
30-34	5.4	6.3	5.8	5.2	6.0	5.5	5.7	8.9	7.1	5.3	6.8	6.0
35-39	4.1	4.8	4.4	5.1	8.4	6.5	6.3	4.7	5.6	4.7	6.6	5.6
40-44	4.0	4.9	4.4	7.3	10.1	8.5	7.4	5.9	6.7	6.3	6.2	6.3
45-49	4.4	6.3	5.2	4.4	2.1	3.4	3.2	6.5	4.5	5.7	5.2	5.4
50-54	3.9	2.7	3.5	3.9	5.9	4.6	3.4	5.0	4.1	5.4	5.1	5.3
55-59	5.0	4.1	4.7	4.0	1.5	3.1	2.6	3.2	2.8	5.0	5.3	5.1
60-64	4.6	4.4	4.6				6.8	6.1	6.6	5.2	3.0	4.4
Total	5.9	6.3	6.2	5.7	8.0	6.4	6.7	8.4	7.4	6.5	7.4	6.9

Source: Population Census 2000



During the last decade unemployment has remained quite stable on Aruba. In 1991, 6.2 percent of the economically active population was out of work. At that moment, Aruba witnessed a great demand for workers in the construction and hotel sector (see table 1.x2 and graph 1.x2). In 1994, the level of unemployment was about the same as in 1991. By 1997 an increase in the unemployment rate was noticed (7.4 percent). However, in October 2000 unemployment had slightly dropped again to the current level of 6.9 percent. Unemployment for women is somewhat higher than for men. Compared to the Labor Force Surveys of 1994 and 1997 female unemployment has slightly come down. Female unemployment will be analyzed more thoroughly in Chapter 3. Over the period 1991 – 2002 levels of youth unemployment were quite different. Levels were highest in 1997 and 1994 and lowest in 1991. For the other age groups the pattern of unemployment has been more or less unchanged.

Unemployment is unevenly distributed over the island¹⁴. The map on the next page shows the distribution of unemployment by region (see also table 1.25). The map clearly shows that San Nicolas has much higher levels of unemployment than the rest of the island. Especially region 'San Nicolas South' experiences levels of unemployment well over ten percent. The zone with the highest unemployment rate is 'Village': 16.2 percent of its economically active population is out of work. A close second is Zeewijk where unemployment is 15.5 percent. The lowest levels of unemployment are in 'Seroe Colorado' (2.4 percent) and 'Cunucu Abao / Pos Abao' with an unemployment rate of 3.9 percent.

¹⁴ The GAC-2002 was used for the 'Social Atlas'. GAC stands for "Geographical Address Classification Aruba-2002" this system was developed at the Central Bureau of Statistics-Aruba. The GAC-2002 has a hierarchical structure consisting of three levels: region, zone, and street/barrio.

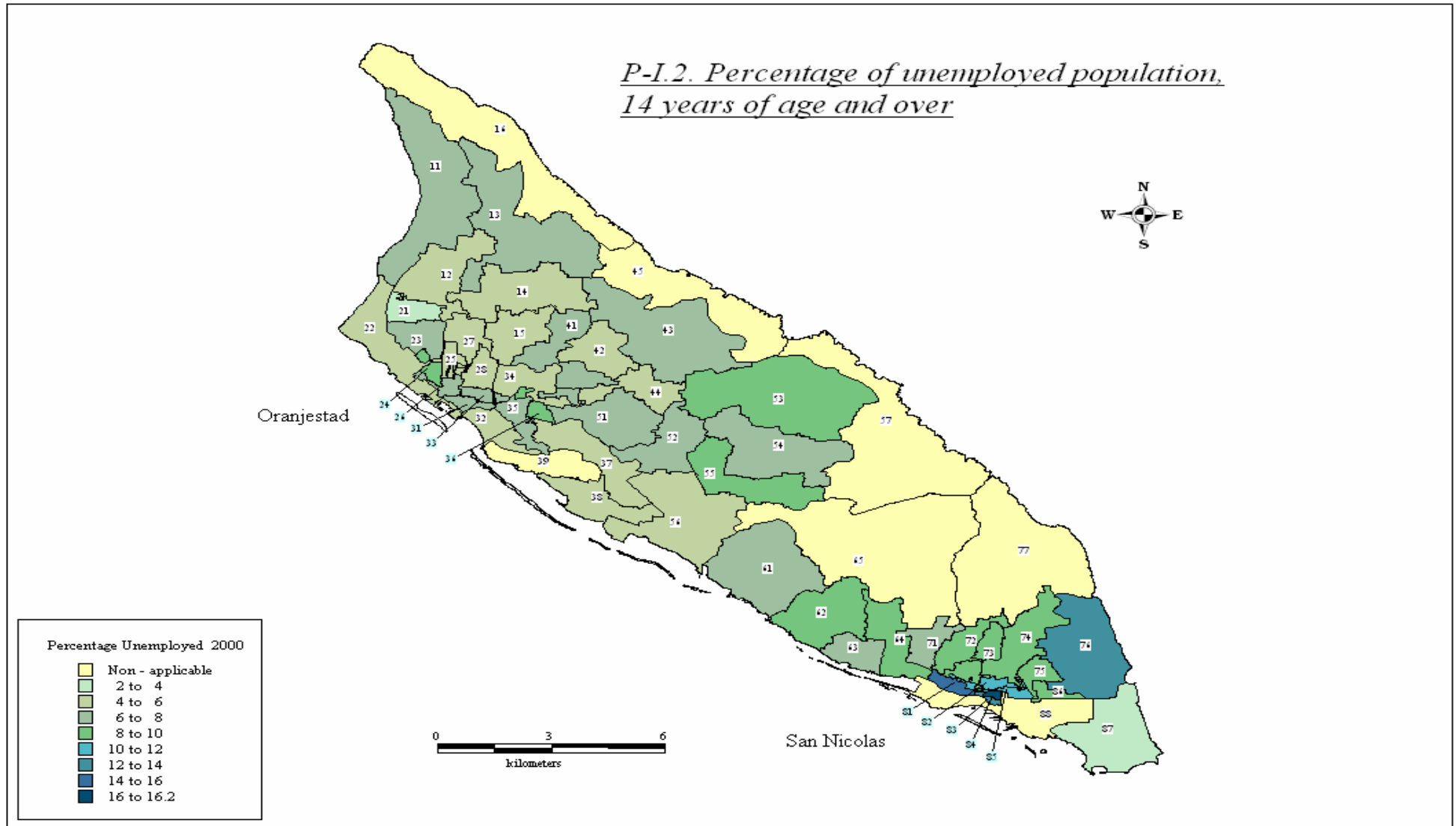


Table 1.25. Unemployment rates by region of residence and sex

	Employed			Unemployed			Unemployment rates		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Palm Beach/Malmok	1,046	917	1,962	69	70	140	6.2	7.1	6.6
Washington	849	730	1,579	39	29	68	4.4	3.9	4.1
Alto Vista	931	735	1,666	79	55	133	7.8	6.9	7.4
Moko/Tanki Flip	876	728	1,603	56	39	94	6.0	5.1	5.6
Tanki Leendert	909	727	1,636	45	45	90	4.7	5.9	5.2
Noord other	-	-	-	-	-	-	-	-	-
Pos Abao/Cunucu Abao	256	213	469	8	11	19	3.2	4.7	3.9
Eagle/Paardenbaai	97	104	201	5	5	11	5.2	4.8	5.0
Madiki Kavel	357	345	702	26	30	57	6.8	8.1	7.5
Madiki/Rancho	456	348	803	35	44	79	7.1	11.3	8.9
Paradijswijk/Santa Helena	457	416	873	24	26	50	5.0	5.9	5.5
Socotoro/Rancho	520	503	1,023	33	43	76	5.9	7.9	6.9
Ponton	506	423	929	24	23	47	4.6	5.2	4.8
Companashi/Solito	548	522	1,070	28	36	64	4.9	6.4	5.6
Nassaustraat	219	181	400	16	16	32	6.7	8.0	7.3
Klip/Mon Plaisir	379	465	844	22	20	42	5.5	4.1	4.7
Sividivi	216	226	442	17	14	30	7.2	5.7	6.4
Seroe Blanco/Cumana	667	582	1,248	20	39	59	2.9	6.3	4.5
Dacota/Potrero	681	635	1,317	46	59	105	6.3	8.5	7.4
Tarabana	477	456	932	53	46	99	9.9	9.2	9.6
Sabana Blanco/Mahuma	649	588	1,237	22	36	58	3.3	5.7	4.5
Simeon Antonio	246	197	443	15	13	27	5.6	6.0	5.8
Shiribana	550	437	987	30	35	65	5.2	7.3	6.2
Paradera	545	460	1,005	34	21	55	5.8	4.4	5.2
Ayo	619	592	1,212	54	32	85	8.0	5.1	6.6
Piedra Plat	520	444	964	27	26	54	5.0	5.6	5.3
Hooiberg	705	645	1,349	45	50	96	6.0	7.3	6.6
Papilon	624	512	1,136	50	39	89	7.5	7.0	7.3
Cashero	480	371	850	40	39	79	7.7	9.5	8.5
Urataca	374	289	663	29	24	54	7.3	7.7	7.5
Macuarima	442	339	781	40	37	77	8.3	9.8	8.9
Balashi/Barcadera	466	333	799	24	25	49	4.9	7.0	5.8
Pos Chiquito	984	859	1,843	67	72	140	6.4	7.8	7.0
Jara/Seroe Alejandro	526	454	980	48	44	92	8.4	8.9	8.6
De Bruynwijk	422	311	733	19	30	49	4.3	8.9	6.3
Cura Cabai	428	337	765	34	39	72	7.3	10.3	8.6
Brasil	547	454	1,001	33	40	72	5.6	8.1	6.8
Rooi Congo	534	502	1,036	40	53	92	6.9	9.5	8.2
Watapana Gezaag	449	338	787	50	33	83	10.1	8.8	9.5
Standard Ville/Rooi Hundo	268	186	454	29	18	47	9.9	8.8	9.4
Kustbatterij	308	331	638	36	30	66	10.4	8.4	9.4
Juana Morto	155	172	328	25	20	45	14.0	10.4	12.1
San Nicolas North other	-	-	-	-	-	-	-	-	-
Zeewijk	169	152	321	29	29	59	14.8	16.2	15.5
Pastoor Hendriksstraat	219	192	412	17	36	53	7.1	15.7	11.3
van de Veen Zeppenfeldstraat	63	48	111	5	11	16	7.7	17.9	12.4
Village	121	108	229	22	22	44	15.4	16.9	16.2
Essoville	260	223	483	26	33	59	9.2	12.8	10.9
Lago/Esso Heights	216	235	452	23	18	41	9.6	7.1	8.3
Seroe Colorado	121	51	172	3	1	4	2.5	2.0	2.4
San Nicolas South other	-	-	-	-	-	-	-	-	-
Total	22,496	19,418	41,914	1,563	1,555	3119	6.5	7.4	6.9

Source: Population Census Aruba 2000.

Table 1.26. Number of unemployed persons by sex, who have worked for 2 weeks during the previous 12 months

	Absolute			Percentage		
	Male	Female	Total	Male	Female	Total
Yes	743	584	1,327	47.5	37.6	42.6
No	814	968	1,782	52.1	62.3	57.2
NR	6	3	9	0.4	0.2	0.3
Total	1,563	1,555	3,118	100.0	100.0	100.0

Source: Population Census Aruba, 2000.

The majority of persons who are unemployed are persons who did not work during the year before the census. Only 42.6 percent of all unemployed had a job during the preceding year (see table 1.26); 1,782 persons on Aruba who did not have any recent work experience are looking for a job. Most of these persons are not very young, only 650 are below age 30. This means that currently a whole group of persons with a somewhat more advanced age, who have no recent working experience, are actively looking for work. Sixty-one percent of unemployed persons above age 30, who have not worked were born on Aruba; 6 percent come from a more developed countries and 33 percent from less developed countries.

Table 1.27. Unemployment rate by status of diploma after primary school.

	Employed			Unemployed			Unemployment rates		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Diploma after primary school									
Not finished primary	193	260	454	13	27	40	6.1	9.5	8.1
No diploma after primary	7,172	6,000	13,171	770	655	1,425	9.7	9.8	9.8
Has diploma after primary	15,123	13,150	28,273	781	873	1,654	4.9	6.2	5.5
NR	8	7	16	0	0	0	0.0	0.0	0.0
Total	22,496	19,418	41,914	1,563	1,555	3,118	6.5	7.4	6.9

Source: Population Census Aruba 2000.

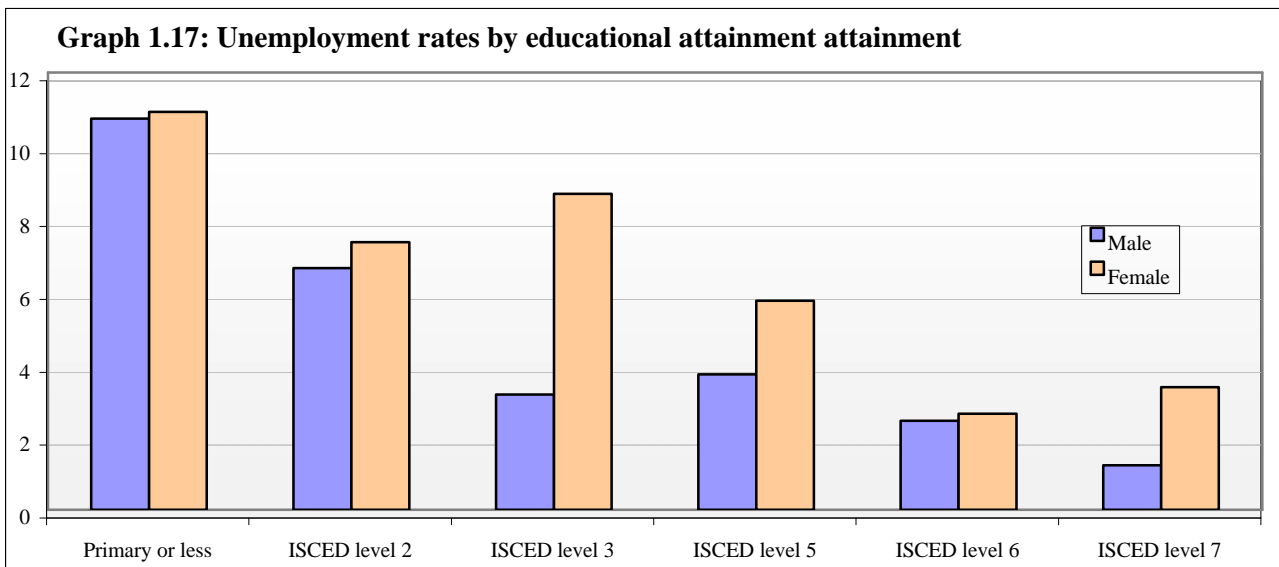
Education is closely linked to a person's employment status. In table 1.27 we show unemployment rates by status of diploma after primary school. We discern three categories: 'not finished primary school', 'no diploma after primary school' and 'has diploma after primary school'. There is almost no difference in the overall unemployment rate for both sexes between those who have not finished primary school and those who have finished but did not have any further diploma. However, we should take into account that less than 500 persons did not finish primary school. Persons who attained a diploma after primary school have lower unemployment rates than those who did not have a diploma. Men with a diploma have an unemployment rate of 4.9 percent, against 9.7 percent among men without a diploma. For women these unemployment rates are respectively 6.2 and 9.8 percent. The higher the level of diploma, the lower a person's chance of being unemployed. Table 1.28 clearly shows that persons with a lower educational attainment have higher unemployment rates¹⁵. For instance persons with primary (or less) education have an unemployment rate that is more than twice as high as those with an ISCED-5, i.e. those with a diploma at the intermediate professional level. Persons with a university degree have very low levels of unemployment. Of all men and women with a university degree respectively 1.2 and 3.4 percent are unemployed.

¹⁵ Only those cases where information about diploma was available were included. Therefore, the totals of this table are not fully consistent with those of the previous table.

Table 1.28. Unemployment rates by educational attainment

Diploma	Employed			Unemployed			Unemployment rates		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Primary or less	7,172	6,000	13,171	770	655	1,425	10.7	10.9	10.8
ISCED level 2	9,050	7,725	16,775	601	567	1,168	6.6	7.3	7.0
ISCED level 3	1,462	1,599	3,061	46	139	185	3.2	8.7	6.0
ISCED level 5	2,346	1,959	4,305	87	112	200	3.7	5.7	4.6
ISCED level 6	1,591	1,472	3,063	39	39	78	2.4	2.6	2.5
ISCED level 7	601	343	944	7	12	19	1.2	3.4	2.0
ISCED level 9	83	59	142	1	4	5	1.3	7.1	3.7
Total	22,303	19,157	41,460	1,551	1,528	3,079	7.0	8.0	7.4

Source: Population Census Aruba 2000.



unemployed. Table 1.28 clearly shows that persons with a lower educational attainment have higher unemployment rates¹⁶. For instance persons with primary (or less) education have an unemployment rate that is more than twice as high as those with an ISCED-5, i.e. those with a diploma at the intermediate professional level. Persons with a university degree have very low levels of unemployment. Of all men and women with a university degree respectively 1.2 and 3.4 percent are unemployed.

¹⁶ Only those cases where information about diploma was available were included. Therefore, the totals of this table or not fully consistent with those of the previous table.

**Table 1.29. Number of unemployed persons by sex and occupational category
(of previous work)**

ISCO-category	Absolute			Percentage		
	Male	Female	Total	Male	Female	Total
Armed forces	1	0	1	0.1	0.0	0.1
Legislators, senior officials, and managers	18	13	30	2.4	2.2	2.3
Professionals	12	8	20	1.6	1.5	1.5
Technicians and associate professionals	34	37	70	4.6	6.4	5.4
Clerks	60	140	200	8.2	24.1	15.2
Service workers and shop and market sales workers	124	172	296	16.9	29.8	22.6
Skilled agricultural and fishery workers	14	0	14	1.9	0.0	1.0
Craft and related trades workers	266	15	280	36.2	2.5	21.4
Plant and machines operators and assemblers	59	1	60	8.0	0.2	4.6
Elementary occupations	147	193	340	20.1	33.4	25.9
Total	733	579	1,311	100.0	100.0	100.0

Source: Population Census Aruba 2000

**Table 1.30. Number of unemployed persons by sex and industrial category
(of previous work)**

ISIC-category	Absolute			Percentage		
	Male	Female	Total	Male	Female	Total
Agriculture, hunting and forestry	9	1	11	1.3	0.2	0.8
Fishing	1	0	1	0.1	0.0	0.1
Mining and quarrying	2	0	2	0.3	0.0	0.2
Manufacturing	66	20	86	9.4	3.5	6.8
Electricity, gas and water supply	2	1	3	0.3	0.2	0.2
Construction	232	16	248	32.9	2.8	19.5
Wholesale and retail trade, repair	110	140	250	15.6	24.7	19.7
Hotels and restaurants	102	164	266	14.5	29.0	20.9
Transport, storage and communications	32	21	53	4.5	3.7	4.1
Financial intermediation	3	14	17	0.4	2.4	1.3
Real estate, renting and business activities	87	55	142	12.4	9.7	11.2
Public administration and defence; social security	12	9	21	1.6	1.7	1.7
Education	0	6	6	0.0	1.1	0.5
Health and social work	3	21	24	0.4	3.7	1.9
Other community, social and personal services	37	37	73	5.2	6.5	5.8
Private households with employed persons	6	61	67	0.9	10.8	5.3
Extra territorial organizations and bodies	0	0	0	0.0	0.0	0.0
Not Reported	28	14	42			
Total	705	565	1,269	100.0	100.0	100.0

Source: Population Census Aruba 2000

To look into the occupational background of persons who are currently out of work, we have constructed tables 1.29 and 1.30. For these tables we only selected unemployed persons who had a job during the year preceding the census. Table 1.30 shows the occupational categories in which these unemployed persons were active in their last job. Among unemployed men, 36.2 percent were previously employed as 'craft and related trades workers' and 20.1 percent were having an elementary occupation. Elementary occupation is the most important category for unemployed women (33.4 percent), closely followed by service and shop workers (29.8 percent) and clerks (24.1 percent).

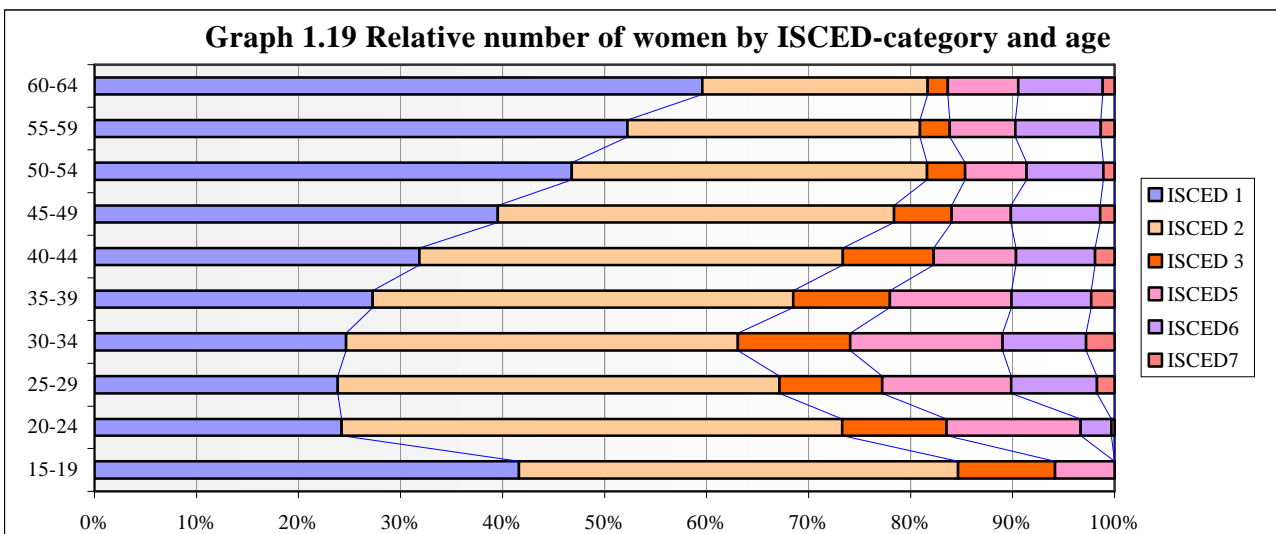
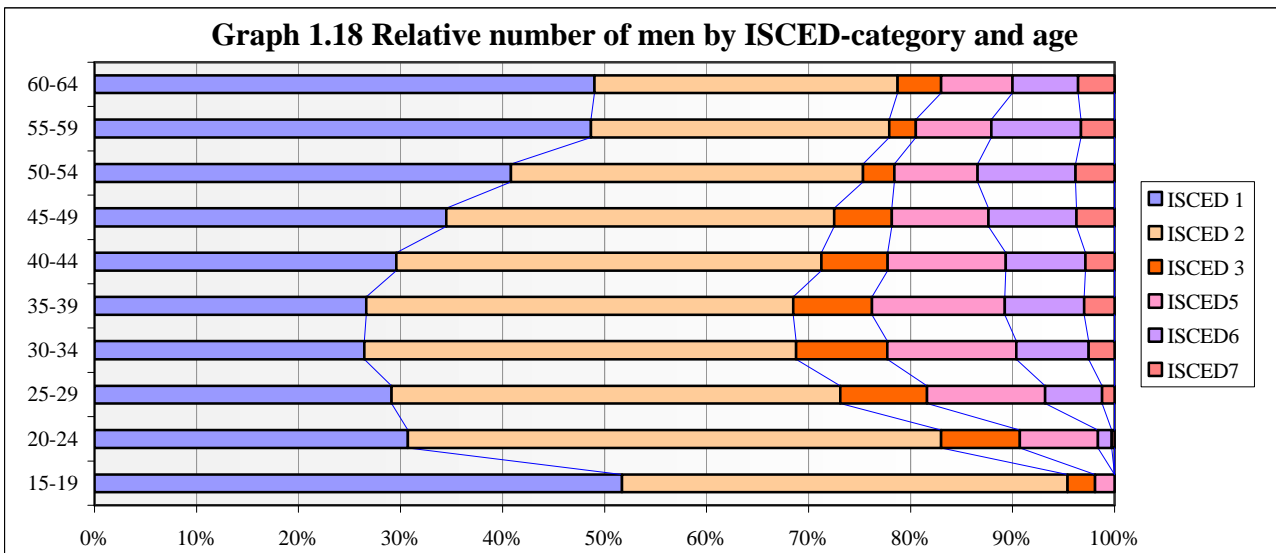
Most unemployed men worked previously in the construction sector (32.9 percent). Many other unemployed men were active in trade, hotels and restaurants and in the real estate, renting and business activities. Most unemployed women had previously worked in hotels and restaurants (29.0 percent) and trade (24.7 percent).

1.8. EMPLOYED POPULATION BY LEVEL OF EDUCATION

In order to be able to make an accurate comparison between the Population Censuses of 1991 and 2000 we restricted our analysis to employed persons who were not attending school¹⁷. We will go deeper into the relationship between educational attainment and being without a job in the section on unemployment. We used the International Standard Classification of Education (ISCED) to classify the educational attainment of Aruba's employed population. In annex I we present a brief explanation of the ISCED-system. There are six main levels of education:

- ISCED-1 primary education or lower;
- ISCED-2 first level of secondary education;
- ISCED-3 second level secondary education;
- ISCED-5 higher education but not university;
- ISCED-6 first university degree;
- ISCED-7 postgraduate university degree;
- ISCED-9 all kinds of education that are not definable by any level.

Graphs 1.18 and 1.19 which are based on tables 1.31a and 1.31b show the number of employed men and women, not attending school, by their educational attainment. We restrict our analysis to those less than 65 years. Age groups 30 to 45 form the bulk of the employed population. A large proportion of employed persons have only a low level of education: 32 percent of employed persons have only primary education or less. Another 40 percent have only the first level of secondary education. Most of them have a diploma of lower professional studies.



¹⁷Regular education that will lead to a recognized certificate

Table 1.31a Number of employed men by ISCED-category and age

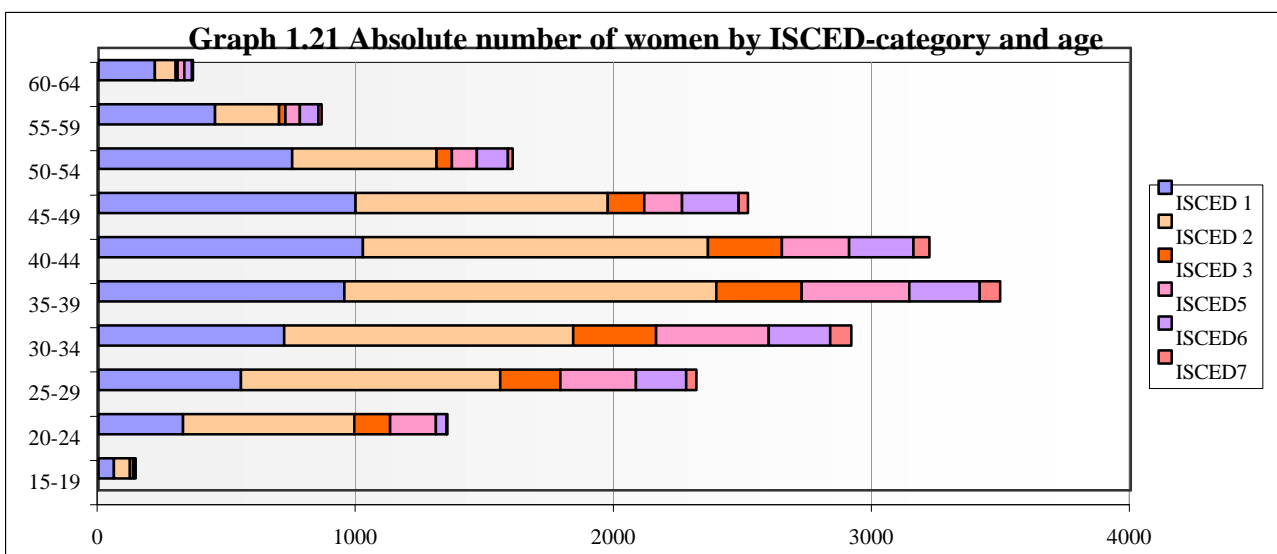
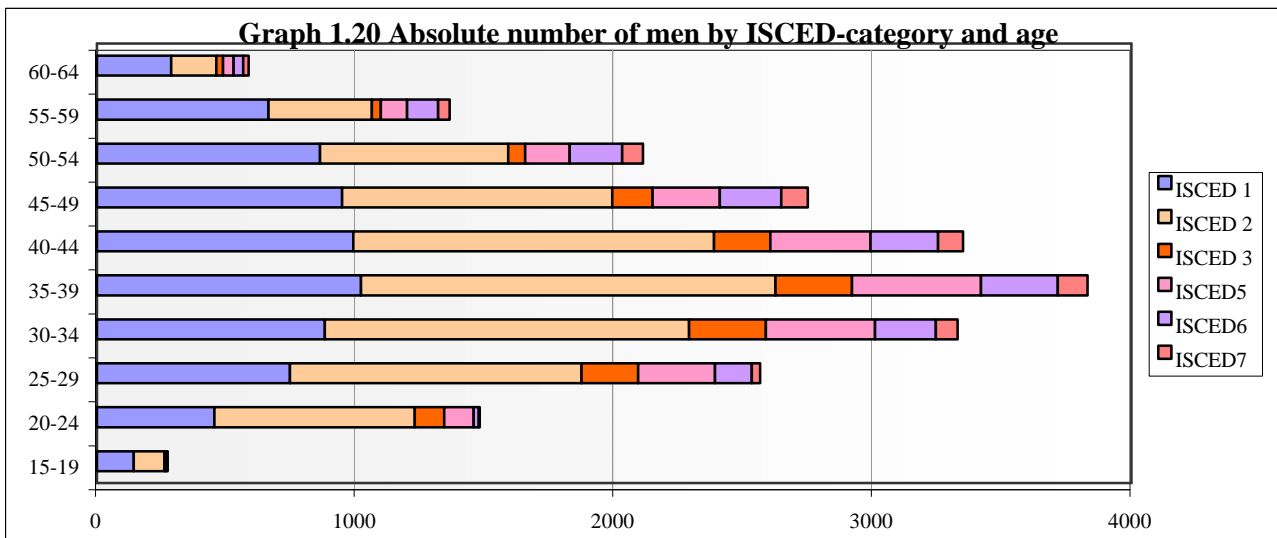
	ISCED 0&1	ISCED 2	ISCED 3	ISCED5	ISCED6	ISCED7	ISCED 9	Total	ISCED 1	ISCED 2	ISCED 3	ISCED5	ISCED6	ISCED7	ISCED 9	Total
15-19	142	120	7	5	0	0	1	275	51.5	43.5	2.7	1.9	0.0	0.0	0.4	100.0
20-24	455	774	114	113	20	4	5	1,486	30.6	52.1	7.7	7.6	1.3	0.3	0.4	100.0
25-29	747	1,128	218	297	143	32	11	2,575	29.0	43.8	8.5	11.5	5.5	1.2	0.4	100.0
30-34	881	1,408	298	421	235	85	14	3,342	26.4	42.1	8.9	12.6	7.0	2.5	0.4	100.0
35-39	1,021	1,603	295	499	298	114	13	3,843	26.6	41.7	7.7	13.0	7.8	3.0	0.3	100.0
40-44	991	1,394	218	387	261	96	9	3,358	29.5	41.5	6.5	11.5	7.8	2.8	0.3	100.0
45-49	948	1,045	155	260	237	103	3	2,752	34.5	38.0	5.6	9.5	8.6	3.7	0.1	100.0
50-54	862	729	65	172	203	81	9	2,121	40.6	34.4	3.1	8.1	9.6	3.8	0.4	100.0
55-59	664	399	36	101	120	45	6	1,370	48.4	29.1	2.6	7.4	8.7	3.3	0.5	100.0
60-64	288	174	25	41	38	21	4	591	48.7	29.5	4.3	6.9	6.4	3.6	0.7	100.0
Total	6,997	8,774	1,433	2,297	1,555	581	76	21,713	32.2	40.4	6.6	10.6	7.2	2.7	0.3	100.0

Table 1.31b Number of employed women by ISCED-category and age

	ISCED 0&1	ISCED 2	ISCED 3	ISCED5	ISCED6	ISCED7	ISCED 9	Total	ISCED 1	ISCED 2	ISCED 3	ISCED5	ISCED6	ISCED7	ISCED 9	Total
15-19	60	62	14	8	0	0	1	145	41.3	42.8	9.4	5.8	0.0	0.0	0.7	100.0
20-24	328	664	139	177	41	4	3	1,356	24.2	49.0	10.2	13.1	3.0	0.3	0.2	100.0
25-29	552	1,004	233	293	195	40	2	2,319	23.8	43.3	10.0	12.6	8.4	1.7	0.1	100.0
30-34	719	1,120	321	436	238	82	4	2,921	24.6	38.4	11.0	14.9	8.2	2.8	0.1	100.0
35-39	952	1,442	331	417	273	80	13	3,507	27.2	41.1	9.4	11.9	7.8	2.3	0.4	100.0
40-44	1,025	1,337	287	260	249	62	12	3,231	31.7	41.4	8.9	8.1	7.7	1.9	0.4	100.0
45-49	995	978	142	146	221	36	7	2,524	39.4	38.7	5.6	5.8	8.7	1.4	0.3	100.0
50-54	751	559	60	97	121	18	2	1,606	46.7	34.8	3.7	6.0	7.5	1.1	0.1	100.0
55-59	452	248	25	56	72	12	2	866	52.1	28.6	2.9	6.4	8.4	1.3	0.2	100.0
60-64	218	81	7	25	30	4	2	369	59.3	21.9	2.0	6.8	8.3	1.1	0.6	100.0
Total	6,052	7,493	1,558	1,915	1,441	337	48	18,844	32.1	39.8	8.3	10.2	7.6	1.8	0.3	100.0

Population Census Aruba 2000

The percentage of employed persons with lower education is very similar for both sexes. At age-group 15-19 we see much lower levels of educational attainment. This is quite normal because young persons who are already on the labor market at this age obviously could not have obtained a higher degree of education. Less than 10 percent of all employed persons have a university degree, either at the first level or at the postgraduate level. Persons between thirty and forty years of age have the highest level of education in the workforce. Persons of this generation had much better chances to obtain a diploma than their generation of their parents. Since a number of years, more girls than boys get into higher education. As a result of this trend, we can see a higher percentage of women with ISCED levels of 3 or higher in the age categories between 20 and 40. Graphs 1.20 and 1.21 present the absolute number of men and women by ISCED-category and age.



The number of persons who are working and who are still following school is very limited. A total of 321 men and 412 women are working while they are also at school. This conforms to respectively 1.45 percent and 2.17 percent of all employed men and women. Of these persons 328 are following an education at the ISCED 2 level; 96 persons are trying to improve their schooling by following a program at the ISCED level 6 or 7.

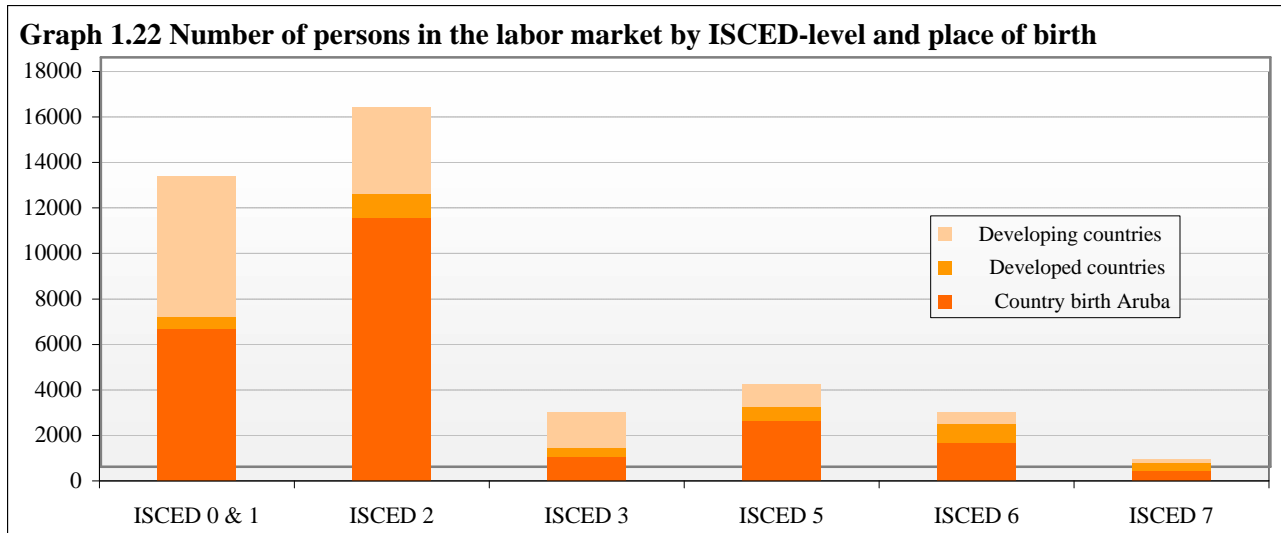
The educational attainment of an employed person is largely determined by his/her type of country of birth (see table 1.32). A high percentage of employed persons from developing countries have a very low educational level: 46.6 percent have only primary school or less. This is much higher than the percentage of the Aruban born population (27.6 percent) and the population born in developed countries (14.3 percent). A large proportion of persons born in a developed country have a very high education.

Table 1.32. Employed population -not attending school by ISCED level, sex and type of country of birth.

	Country birth Aruba			Developed countries			Developing countries		
	Man	Vrouw	Total	Man	Vrouw	Total	Man	Vrouw	Total
ISCED 0 & 1	4,102	2,580	6,682	369	161	529	2,787	3,406	6,193
ISCED 2	6,148	5,418	11,566	666	398	1,064	2,077	1,710	3,787
ISCED 3	450	606	1,056	226	167	393	770	794	1,563
ISCED 5	1,423	1,221	2,644	383	226	609	521	476	996
ISCED 6	874	826	1,700	442	358	800	261	267	528
ISCED 7	289	180	468	197	103	300	111	58	169
ISCED 9	37	30	67	14	1	15	30	21	51
Total	13,322	10,861	24,184	2,296	1,413	3,710	6,557	6,732	13,289

Percentages	Country birth Aruba			Developed countries			Developing countries		
	Man	Vrouw	Total	Man	Vrouw	Total	Man	Vrouw	Total
ISCED 0 & 1	30.8	23.8	27.6	16.0	11.4	14.3	42.5	50.6	46.6
ISCED 2	46.1	49.9	47.8	29.0	28.2	28.7	31.7	25.4	28.5
ISCED 3	3.4	5.6	4.4	9.8	11.8	10.6	11.7	11.8	11.8
ISCED 5	10.7	11.2	10.9	16.7	16.0	16.4	7.9	7.1	7.5
ISCED 6	6.6	7.6	7.0	19.3	25.3	21.6	4.0	4.0	4.0
ISCED 7	2.2	1.7	1.9	8.6	7.3	8.1	1.7	0.9	1.3
ISCED 9	0.3	0.3	0.3	0.6	0.1	0.4	0.5	0.3	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Population Census Aruba 2000



Almost half (46.1 percent) of all employed persons from a developed country have an ISCED level of 5 or higher. Among the Aruban born population and the population from developing countries these percentages are respectively 19.8 and 12.8. Graph 1.22 shows clearly that persons born in a developing country are predominantly found in the lower educational categories. Persons from developed countries are better educated than the rest and the Aruban born population takes a position in between.

Table 1.33. Number of persons by industrial category (ISIC) and ISCED-level

	ISCED 0 & 1	ISCED 2	ISCED 3	ISCED 5	ISCED 6	ISCED 7	ISCED 9	Total	% ISCED 0,1,2	% ISCED 5,6,7
1 Agriculture, hunting and forestry	83	50	16	12	12	3	0	175	76.0	15.0
2 Fishing	19	13		1	1	0	0	34	93.8	6.3
3 Mining and quarrying	15	14	2	5	2	0	0	38	75.0	19.4
4 Manufacturing	803	1,034	161	235	148	27	4	2,413	76.2	17.0
5 Electricity, gas and water supply	84	250	8	108	36	7	0	494	67.7	30.6
6 Construction	1,731	1,419	249	314	117	20	7	3,857	81.7	11.7
7 Wholesale and retail trade, repair	2,346	3,146	465	624	273	66	20	6,939	79.1	13.9
8 Hotels and restaurants	2,975	2,995	654	597	273	41	27	7,562	78.9	12.1
9 Transport, storage and communications	742	1,422	171	320	133	40	16	2,844	76.1	17.3
10 Financial intermediation	159	734	180	201	125	59	3	1,459	61.2	26.3
11 Real estate, renting and business activities	1,030	1,337	373	411	284	176	15	3,625	65.3	24.0
12 Public administration and defence; social security	578	1,509	226	523	392	213	11	3,450	60.5	32.7
13 Education	118	159	39	149	845	105	1	1,415	19.5	77.7
14 Health and social work	370	711	68	405	224	134	3	1,915	56.4	39.9
15 Other community, social and personal services	947	1,162	211	245	121	33	14	2,732	77.2	14.6
16 Private households with employed persons	1,281	349	154	65	14	0	6	1,869	87.2	4.2
17 Extra territorial organizations and bodies	1	8	8	2	16	8	0	44	21.4	59.5
Total	13,280	16,310	2,985	4,217	3,014	933	127	40,866	72.4	20.0

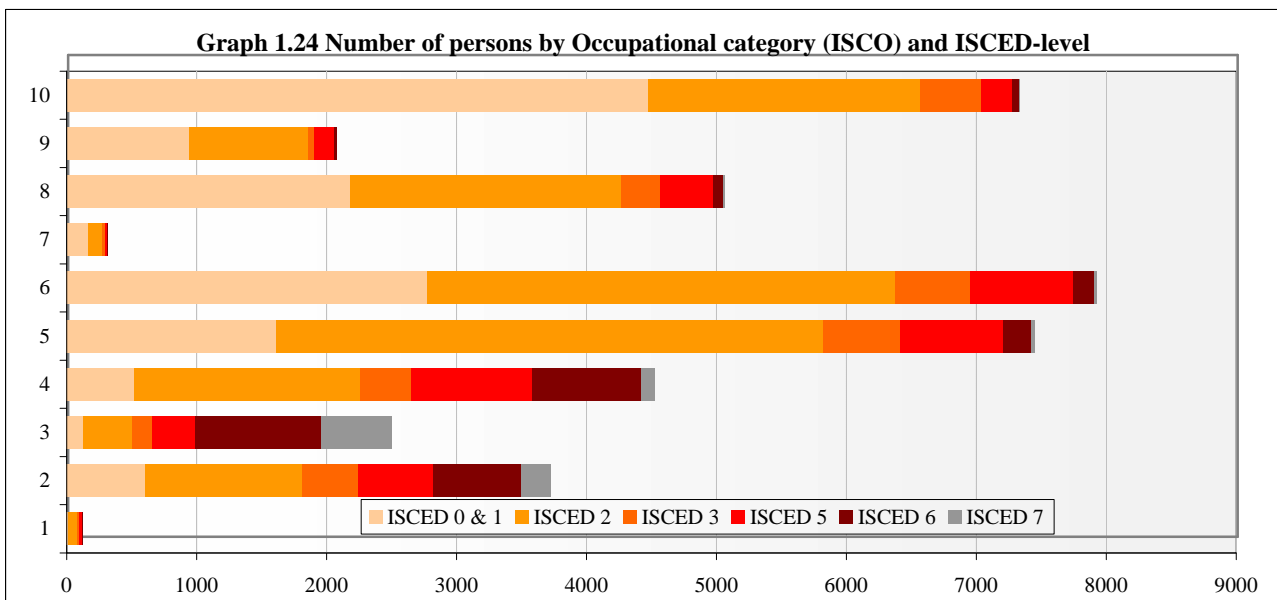
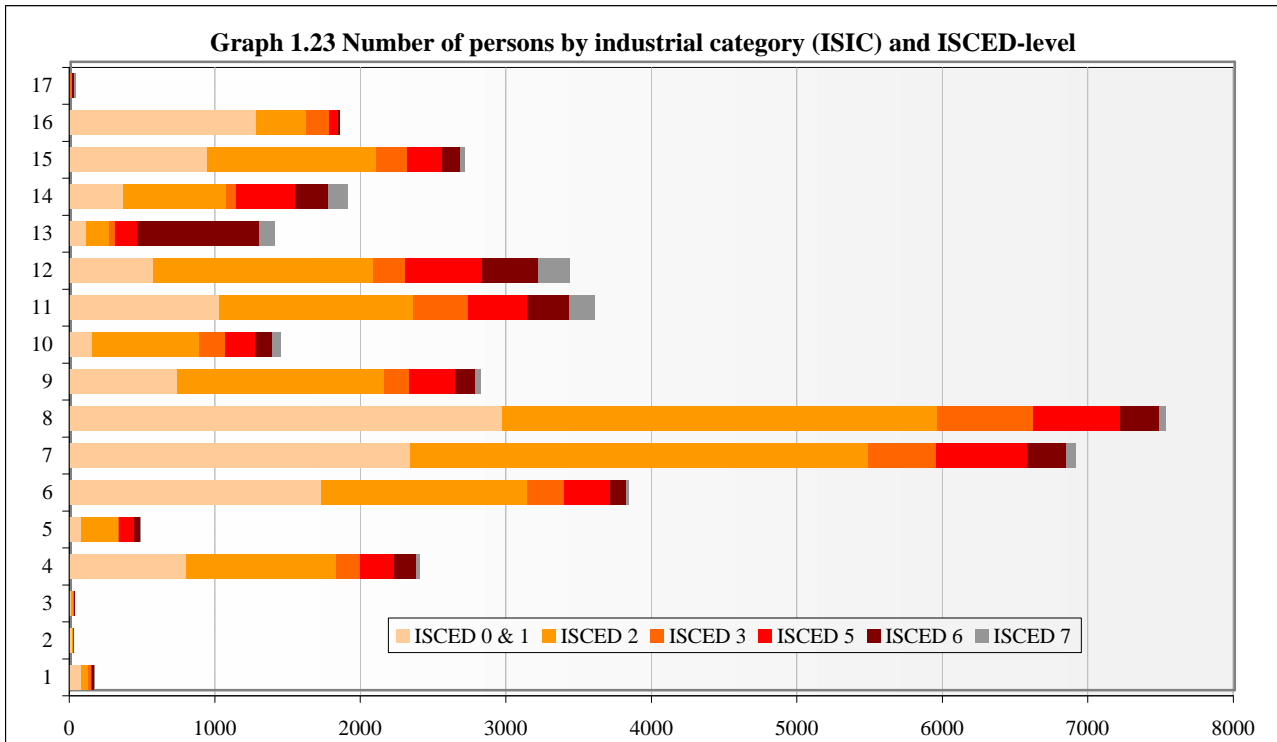
Source: Population Census Aruba 2000 (Excluding unknown branches of Industry)

Table 1.34. Number of persons by major occupation (ISCO) and ISCED-level

	ISCED 0 & 1	ISCED 2	ISCED 3	ISCED 5	ISCED 6	ISCED 7	ISCED 9	Total	% ISCED 0,1,	% ISCED 5,6,7
1 Armed forces	9	68	20	23	6	2	1	130	59.7	24.2
2 Legislators, senior officials, and managers	601	1,216	428	573	684	226	21	3,749	48.5	39.6
3 Professionals	126	380	153	331	966	542	5	2,503	20.2	73.4
4 Technicians and associate professionals	520	1,741	391	927	843	102	19	4,542	49.8	41.2
5 Clerks	1,609	4,215	590	798	209	28	21	7,470	78.0	13.9
6 Service workers and shop and market sales workers	2,777	3,596	584	787	163	18	19	7,944	80.2	12.2
7 Skilled agricultural and fishery workers	168	104	26	13	6	1	1	319	85.2	6.2
8 Craft and related trades workers	2,178	2,091	302	401	78	9	18	5,077	84.1	9.6
9 Plant and machines operators and assemblers	943	915	47	158	18	2	7	2,089	88.9	8.5
10 Elementary occupations	4,475	2,092	470	238	56	7	23	7,362	89.2	4.1
Total	13,405	16,417	3,012	4,249	3,028	938	135	41,185	72.4	19.9

Source: Population Census Aruba 2000 (Excluding unknown occupations)

Educational attainment typically varies with industrial category (see table 1.33 and graph 1.23). The last two columns of table 1.33 show the percentage of all the persons working in a particular industrial category by low (ISCED 0,1,2) and high (ISCED 5,6,7) education. The education sector has is the sector with the highest proportion of workers with ISCED levels 5, 6 or 7 (77.7 percent). Persons working in private households represent the group with the lowest educational attainment¹⁸: 87.2 percent of persons in this ISIC-sector have an educational level of 0,1 or 2. It is interesting to see that in the tourist sector, which is the economic motor of the island, almost 80 percent of its workers have a low education.



It should not come as a surprise that persons with an elementary education have the lowest level of education (see table 1.34 and graph 1.24). Almost ninety percent of people with an elementary occupation have low levels of education. In the group of professionals we have 73.4 percent of persons with a high education. In general, one would expect that managers have a high level of education. However, this is not necessarily so; 48.5 percent of managers on Aruba have an education at the ISCED levels 0,1 or 2.

¹⁸ We disregard persons in 'Fishery' who actually have a lower education because so few are working in this industrial sector

1.9. HANDICAPPED PERSONS ON THE LABOR MARKET

In this section we look at the position of handicapped persons on the labor market. First, we will briefly look into the activity status of handicapped persons. Then we will explore some other issues related to handicap and labor. In may 2002, the CBS-Aruba already issued a publication about handicapped persons on Aruba¹⁹. In this publication, the topic of handicapped persons and the labor market was already discussed extensively. The reader who wants more information than we present here is referred to this working paper.

On Aruba 2,520 men and 2,516 women have a handicap. In the working age population (15-64 years) 1,588 handicapped men and 1,461 handicapped women were counted in the Population Census 2000. At older ages women have a higher percentage of handicaps than men. As can be expected, a large proportion of handicapped persons are either non-active or retired. Among all 3,049 handicapped persons in age group 15-64 years, 30.1 percent are employed. Handicapped men have a higher employment percentage than handicapped women: 34.1 against 25.7 percent (see table 1.35). This percentage is less than half of non-handicapped persons. Among handicapped men 15-64 years of age, 5.8 percent are unemployed. Among handicapped women this figure is 3.8 percent. If we look at the unemployment rate for handicapped persons we can clearly see that their physical or mental condition definitely restricts their capability of finding adequate work. The absolute number of unemployed handicapped persons on Aruba is however rather small: 92 men and 56 women. Handicapped men in the age group 15-64 have an unemployment rate of 14.6 percent, against 6.4 percent for non-handicapped men. Among women these figures are respectively 12.9 and 7.3 percent.

Table 1.35. Activity status of persons 15-64 by sex and handicap

Activity Status	Men					Women				
	Handicapped	%	Not Handicapped	%	Total	Handicapped	%	Not Handicapped	%	Total
Employed	542	34.1	21,488	76.2	22,032	376	25.7	18,875	60.5	19,254
Unemployed	92	5.8	1,459	5.2	1,552	56	3.8	1,490	4.8	1,546
Housewife	2	0.1	32	0.1	34	164	11.2	4,968	15.9	5,133
Student	64	4.0	2,632	9.3	2,697	82	5.6	2,848	9.1	2,930
Retired	137	8.6	979	3.5	1,116	121	8.3	1,029	3.3	1,151
Other non-active	743	46.8	1,517	5.4	2,264	651	44.6	1,866	6.0	2,517
Not classified	6	0.4	56	0.2	63	11	0.7	103	0.3	113
Not reported	1	0.1	23	0.1	128	1	0.1	16	0.1	106
Totaal	1,588	100	28,186	100	29,886	1,461	100	31,193	100	32,749

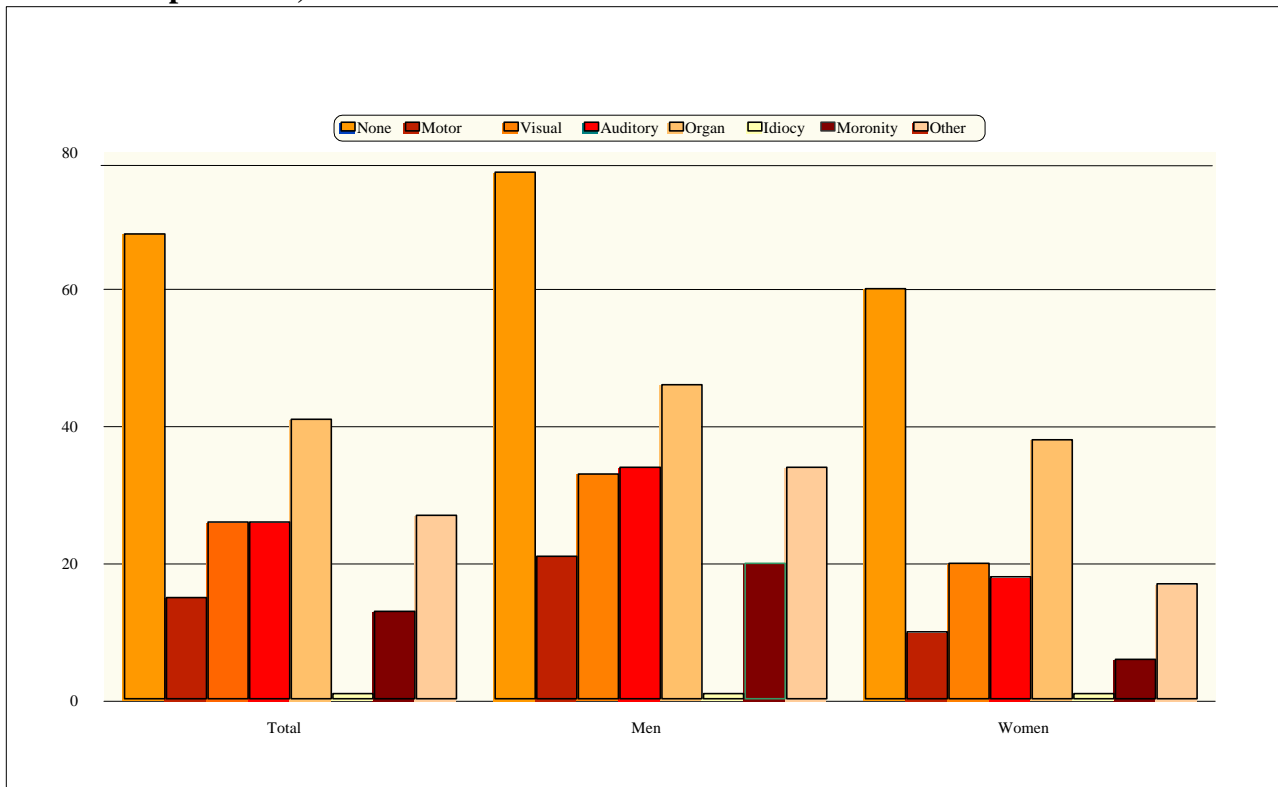
Source: Population Census 2000

Graph 1.25 clearly shows that persons with a mental handicap have a much lower participation rate than persons with a physical handicap. Obviously, it is very hard for mentally retarded persons to find suitable work. The participation rate is highest for persons who have an organ handicap. A lot of these persons seem to be able to function on the labor market without much difficulty. Both men and women with a motor handicap have lower participation rates than, for instance, the visually and auditory impaired. Differences between persons with a visual or auditory handicap are small in terms of labor force participation. One in every five visual handicapped women is economic active. One in every three visually handicapped men participates in the labor force.

It is interesting to see whether working handicapped persons have the same type of jobs as those who are not handicapped. Table 1.36 show the absolute and relative number of persons by sex and handicap status and by industrial classification. As before, we have used the ISIC-system from the ILO to categorize the type of industrial category. We also include a table that presents the absolute and relative number of persons by sex and handicap status and by occupation. We use the main categories of the International Standard Classification of Occupations (ISCO) for this table.

¹⁹ CBS-Aruba (Mei 2002), *Census 2000 working papers: De positie van gehandicapten op Aruba*. p.50. This section is a small compilation of the extensive discussion on handicapped persons in the labor market. The reader who wants more information is referred to the working paper.

Graph 1.25 Labor force participation persons 15 years and older, by kind of handicap and sex, 2000.



Source Census 2000, CBS Aruba;

There is very little difference between the industrial categories where handicapped and non-handicapped persons work. One would expect that, because of the hard physical labor, less handicapped men would work in the construction sector. Table 1.36 shows that about the same percentage of handicapped and non-handicapped men work in this sector. A somewhat higher percentage of handicapped women work in the trade sector and somewhat less in the hotel sector. Less handicapped women work in private households.

Rather few handicapped persons can be found in those occupational groups that require a higher level of education. The category 'Legislators, senior officials, and managers' consists of 7.0 percent of all handicapped men and of 10.6 percent of all non-handicapped men. Among women these categories are respectively 5.0 and 6.9 percent. On the other hand, elementary occupations comprise 18.1 percent of all handicapped men and 12.7 percent of all non-handicapped men. Among women the percentage of those who work in an elementary occupation is almost the same for handicapped and non-handicapped.

Table 1.36. Number of persons aged 15-64 by sex, handicap and ISIC-category

					Women			
	Handicapped	% Handicapped	Not Handicapped	%	Handicapped	% Handicapped	Not Handicapped	%
Agriculture, hunting and forestry	5	1.0	132	0.6	2	0.6	36	0.2
Fishing	2	0.4	30	0.1	0	0.0	1	0.0
Mining and quarrying	3	0.6	32	0.1	0	0.0	3	0.0
Manufacturing	46	8.6	1,808	8.5	13	3.4	507	2.6
Electricity, gas and water supply	9	1.8	438	2.1	3	0.8	51	0.3
Construction	85	15.8	3,462	16.3	8	2.2	305	1.6
Wholesale and retail trade, repair	79	14.6	3,027	14.2	99	26.3	3,847	20.1
Hotels and restaurants	96	17.8	3,378	15.9	70	18.7	4,082	21.3
Transport, storage and communications	49	9.2	1,849	8.7	11	2.8	957	5.0
Financial intermediation	4	0.8	498	2.3	21	5.6	973	5.1
Real estate, renting and business activities	43	8.0	2,029	9.5	29	7.8	1,575	8.2
Public administration and defence; social security	47	8.8	2,070	9.7	28	7.5	1,394	7.3
Education	8	1.6	447	2.1	18	4.7	950	5.0
Health and social work	8	1.6	422	2.0	28	7.5	1,535	8.0
Other community, social and personal services	46	8.6	1,579	7.4	24	6.4	1,119	5.8
Private households with employed persons	4	0.8	69	0.3	20	5.3	1,785	9.3
Extra territorial organizations and bodies	1	0.2	23	0.1	1	0.3	19	0.1
Total	538		21,293		376		19,140	

Source: Population Census Aruba 2000.

Table 1.37. Number of persons aged 15-64 by sex, handicap and ISCO-category

					Women			
	Handicapped	% Handicapped	Not Handicapped	%	Handicapped	% Handicapped	Not Handicapped	%
Armed forces	0	0.0	134	0.6	0	0.0	0	0.0
Legislators, senior officials, and managers	38	7.0	2,288	10.7	19	5.0	1,305	6.9
Professionals	27	5.0	1,383	6.5	18	4.7	1,074	5.7
Technicians and associate professionals	49	9.1	2,448	11.4	30	8.1	2,059	10.9
Clerks	66	12.2	2,253	10.5	122	32.4	5,190	27.6
Service workers and shop and market sales workers	73	13.6	3,425	16.0	91	24.3	4,449	23.6
Skilled agricultural and fishery workers	14	2.5	271	1.3	3	0.8	28	0.2
Craft and related trades workers	113	21.0	4,632	21.6	7	2.0	309	1.6
Plant and machines operators and assemblers	62	11.4	1,839	8.6	1	0.3	124	0.7
Elementary occupations	98	18.1	2,739	12.8	84	22.3	4,281	22.7
Total	541		21,411		376		18,819	

Source: Population Census Aruba 2000.

CHAPTER 2: NEW ENTRANTS ON THE LABOR MARKET

In many countries youth unemployment is an important social issue. Unemployment among young people²⁰ often leads to frustration, hopelessness and alienation. Consequently, these youngsters are more vulnerable to drug abuse and criminal behavior. It will be interesting to see if Aruba – with its low overall levels of unemployment- has any problems in this area. In this chapter some other interesting aspects of the position of young persons on the labor market will be looked at. For instance, it is still unclear what niches of the labor market young people fill. Is it difficult for new entrants to secure a government job because older workers already occupy most positions? Are youngsters better educated and do they occupy more jobs as professionals and skilled laborers? We start by looking into some aspects of the entry of young persons into the labor market.

2.1. ENTERING THE LABOR MARKET

School attendance is very high on Aruba. Up to age 15, more than 95 percent of children are still enrolled in school. At age 18, about 80 percent of all youngsters are still studying. At the higher educational levels, more girls than boys can be found in schools in Aruba. The number of girls who are in higher education overseas with a fellowship is also higher for girls than for boys. The entry of young persons in the labor force depends on the timing and intensity by which they leave school.

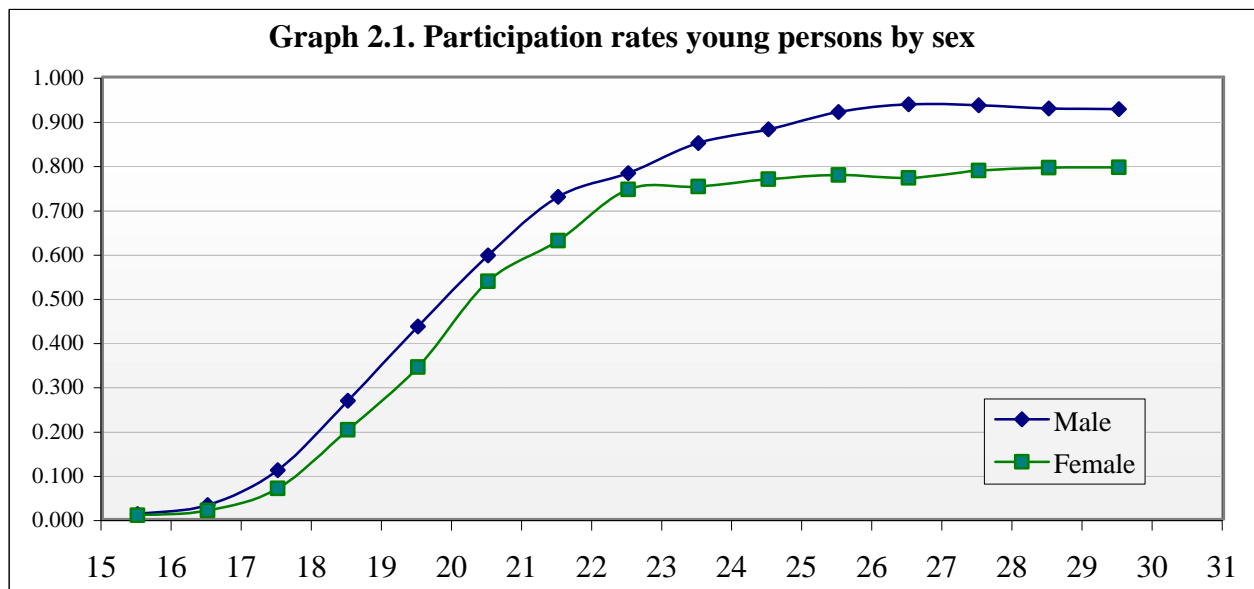
Table 2.1 shows the age-specific participation rates for young persons aged 15-29 years by sex. The complement of the participation rates, i.e. the inactivity rate, is also presented in this table. In the 2000 census, 8,475 men in the age group 15-29 were counted against 8,966 women. The discrepancy between the number of boys and girls is partly due to the fact that more girls than boys leave the island to study abroad. Among all young men between 15 and 30, 60.6 percent were economically active at the time of the census. For young women the participation rate is somewhat lower (52.9 percent). Graph 2.1 depicts these age specific participation rates.

Table 2.1. Participation rates, persons aged 15-29

Age	Men				Women			
	Economically active	Not economic active	Part. rate	Inactivity rate	Economically active	Not economic active	Part. rate	Inactivity rate
15	7	644	0.011	0.989	6	696	0.009	0.991
16	20	607	0.032	0.968	13	636	0.019	0.981
17	69	558	0.111	0.889	43	576	0.069	0.931
18	154	422	0.268	0.732	113	448	0.202	0.798
19	249	322	0.436	0.564	183	349	0.344	0.656
20	313	212	0.596	0.404	278	239	0.538	0.462
21	353	131	0.729	0.271	329	193	0.630	0.370
22	373	104	0.782	0.218	351	120	0.746	0.254
23	400	70	0.850	0.150	404	133	0.752	0.248
24	405	55	0.881	0.119	412	124	0.769	0.231
25	487	42	0.921	0.079	453	129	0.778	0.222
26	488	33	0.938	0.062	424	126	0.771	0.229
27	595	41	0.936	0.064	488	131	0.788	0.212
28	602	46	0.929	0.071	589	152	0.795	0.205
29	623	49	0.927	0.073	657	169	0.795	0.205
Total	5,139	3,336	0.606	0.394	4,743	4,223	0.529	0.471

Source: Population Census Aruba 2000

²⁰ In this analysis limited to persons aged 15 to 29 years



As we saw in chapter 1, participation rates at all ages are higher for men than for women. Also in the youngest section of the labor market a higher percentage of men than of women are economically active. At age 30, 92.7 percent of men are either employed or unemployed. Among women 79.5 percent are economically active at that age. We have calculated the mean age at which men and women enter the labor market. To do this we have used a technique that is similar to the calculation of the singulate mean age at marriage (SMAM)²¹. Strictly speaking, the estimate of this mean is only valid if all single year age-cohorts observed at the time of the census would have experienced the same intensity and tempo of entry into the labor market. In practice this condition does not hold completely. The estimate of the mean age of entry into the labor market should therefore only be considered as a rough estimate of the true mean age. We estimate the mean age at which young men enter the labor market to be 20.0 years, against 19.9 years for young women. The estimate took into account that ultimately the percentage of men, who enter the labor market, is considerably higher than the percentage of women.

Another way to examine the entry of young persons into the labor market is by looking at the type of activity persons do at young ages. In graph 2.2.a. and 2.2.b. we show, respectively for men and women below age 25, their activity status. We discern 6 categories: employed, unemployed, housewives/housemen, student, non-active and a category 'not elsewhere classified'. The data on which these graphs are based are presented in tables 2.2.a. and 2.2.b. Both for young men and women entry into the labor market starts to speed up at age 17. At that age, the number of youngsters in school decreases rapidly. This decrease is not only due to school-leavers, but also to the large group of boys and girls who leave the island to study overseas. The Netherlands is the most popular country for those who are going to study abroad. In the census 2000, 2,275 native-born persons aged 14 years of age and older were enumerated as having obtained their highest diploma in the Netherlands. The USA is also quite popular: 694 native persons received a diploma from an American educational institute. Curaçao remains the third most popular place for study: 289 native born persons obtained their diploma in Curaçao. These countries are still the most popular foreign venues for Aruban students. The number of students with a fellowship from the government to study in the Netherlands, the USA and Curaçao are respectively 975, 178 and 43²².

The group of unemployed young persons seems to be quite considerable. The next section will be completely dedicated to this phenomenon. Between age 20 and 25, 218 men and 233 women are economically non-active. These persons are neither in school nor at work. The group includes those who are handicapped, but excludes housewives/housemen. The number of housemen is practically zero. The number of young women who choose to become housewives instead of entering the labor market is also very small: 227 women out of a total of 6,308 women between 14 and 25 are currently active as housewives.

²¹ A discussion of Hajnal's method to calculate the mean age at first marriage can be found in Wunsch and Termote (1978, p134). Though widely used this estimate provides a rough estimate of the mean age at marriage.

²² *Ensenanza na Aruba, Relato-Estadístico traha pa Seccion di Estadística di Departamento di Ensenanza (s.d., s.l.)*.

Table 2.2.a. Number of men < 25 yrs. by type of activity status and age

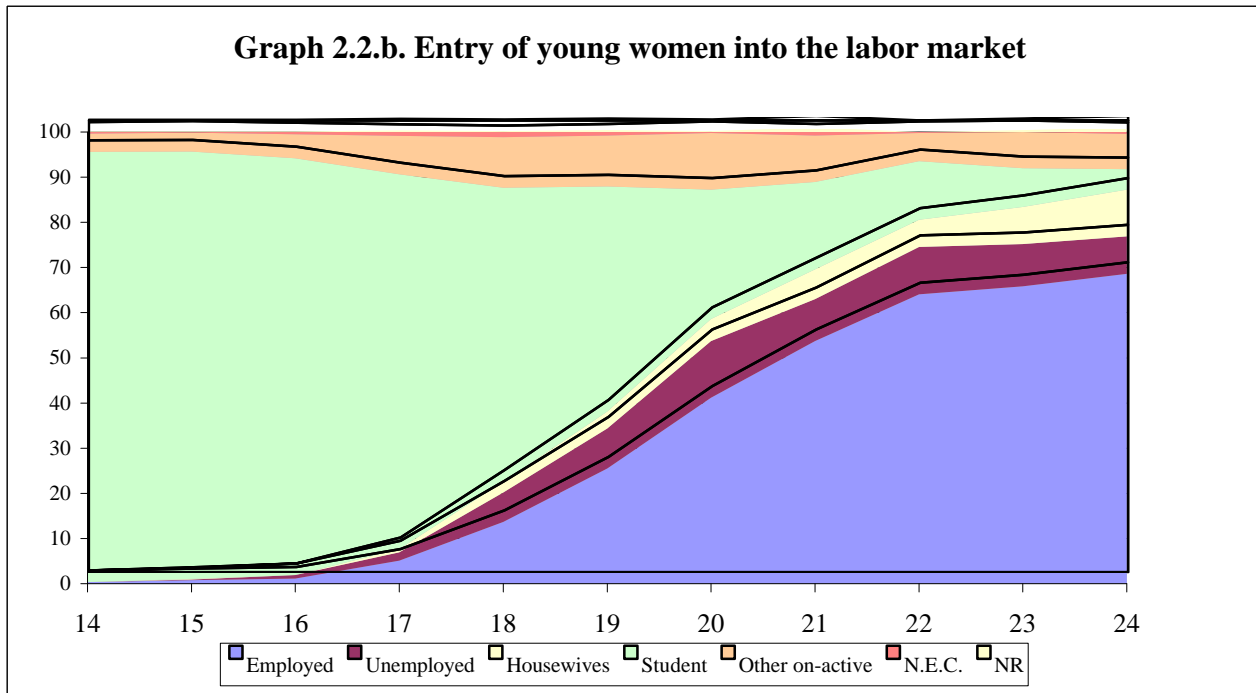
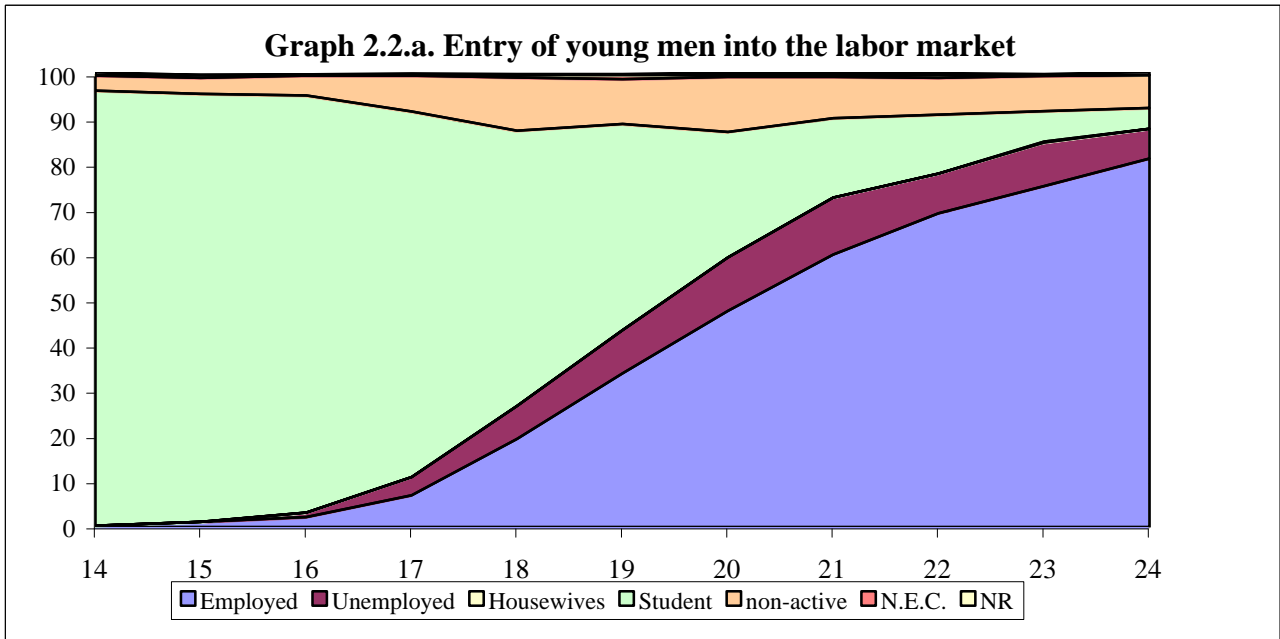
Age	Male - absolute								Male - percentage						
	Employed	Unemployed	Housewives	Student	Other non-active	N.E.C.	NR	Total	Employed	Unemployed	Housewives	Student	Other non-active	N.E.C.	NR
14	2	0	0	638	22	1	4	668	0.3	0.0	0.0	96.2	3.3	0.2	0.6
15	7	0	0	616	23	4	0	651	1.1	0.0	0.0	94.7	3.5	0.6	0.0
16	14	6	0	579	27	1	1	628	2.2	1.0	0.0	92.3	4.4	0.2	0.2
17	44	25	0	507	49	1	2	629	7.0	4.0	0.0	80.9	7.9	0.2	0.3
18	112	42	0	351	68	3	1	577	19.5	7.3	0.0	60.9	11.8	0.5	0.2
19	194	55	0	260	57	5	1	572	34.0	9.6	0.0	45.6	9.9	0.9	0.2
20	251	62	0	146	64	2	3	528	47.8	11.8	0.0	27.8	12.2	0.4	0.6
21	292	61	0	85	44	2	2	486	60.3	12.6	0.0	17.6	9.1	0.4	0.4
22	331	42	0	62	39	3	2	479	69.4	8.8	0.0	13.0	8.1	0.7	0.4
23	355	45	1	32	37	1	1	471	75.4	9.6	0.2	6.7	7.8	0.2	0.2
24	375	30	0	21	34	0	3	463	81.5	6.6	0.0	4.6	7.3	0.0	0.7
Total	1,977	369	1	3,297	464	24	21	6,153							

Source: Population Census 2000
 NEC = Not elsewhere classified
 Source: Population Census 2000

Table 2.2.b. Number of women < 25 yrs. by type of activity status and age

Age	Female - absolute								Female - percentage						
	Employed	Unemployed	Housewives	Student	Other non-active	N.E.C.	NR	Total	Employed	Unemployed	Housewives	Student	Other non-active	N.E.C.	NR
14	2	0	0	609	26	2	1	640	0.3	0.0	0.0	95.3	4.1	0.3	0.2
15	5	1	1	665	29	1	1	703	0.7	0.1	0.1	94.6	4.2	0.1	0.1
16	7	5	0	599	35	3	1	650	1.1	0.8	0.0	92.2	5.3	0.5	0.2
17	32	12	4	515	53	5	2	622	5.1	1.9	0.7	83.1	8.5	0.8	0.3
18	77	37	14	365	63	6	1	563	13.6	6.5	2.4	65.0	11.2	1.1	0.2
19	135	47	20	265	60	4	2	533	25.5	8.9	3.8	49.8	11.3	0.8	0.4
20	213	65	25	148	65	1	1	519	41.2	12.6	4.9	28.6	12.6	0.2	0.2
21	280	48	35	101	54	4	5	527	53.7	9.3	6.6	19.3	10.3	0.8	1.0
22	301	49	28	61	29	1	0	470	64.1	10.5	6.0	12.9	6.2	0.2	0.0
23	354	50	44	46	43	0	2	540	65.8	9.4	8.2	8.6	8.0	0.0	0.4
24	368	44	56	24	42	2	5	541	68.6	8.2	10.4	4.5	7.8	0.4	1.0
Total	1,775	359	227	3,397	499	30	22	6,308							

Source: Population Census 2000
 NEC = Not elsewhere classified
 Source: Population Census 2000



2.2. YOUTH UNEMPLOYMENT

Youth unemployment is one of the major social problems in many parts of the world. Often youth unemployment is linked to other social problems such as criminal activities, drug abuse and social alienation. In the European Union youth unemployment²³ in the age group 15-24 was 17.7 percent in 1999. Unemployment has dropped considerably in the European Union in recent years. In 1998, unemployment was still 2 percent higher and in 1994 even 4.5 percent higher than in 1999. The youth unemployment rate in the European Union is much lower for men (15.2 percent) than for women (18.0 percent)²⁴. Youth unemployment in Aruba among men is slightly lower than

²³ The youth unemployment rate is calculated as the number of persons between age 15 and 25 who are unemployed, divided by the total labor force between 15 and 25. The total labor force consists of those employed and those unemployed. In the population census, the unemployed comprise all persons, between 15 and 25, who - during the week prior to the census- complied with all three of the following conditions.: a) without work, i.e. not in paid employment or self-employed, b) 'currently available for work, i.e. able to start a new job within two weeks time and c) seeking work: i.e. had taken specific steps to seek employment or self-employment. This definition complies completely with the standard definition of the International Labor Organization. (ILO).

²⁴ European Commission (s.d.), *Employment in Europe 2000*, p.10.

in the European Union. In 2000, the unemployment rate for young males aged 15-24 was 15.7. The unemployment for young women in Aruba is slightly higher than in the European Union; 16.8 percent of all women between ages 15 and 25 are without work.

Table 2.3. Youth unemployment rates, by age and sex

Age	Males			Females		
	Working	Unemployed	Unemployment rate	Working	Unemployed	Unemployment rate
15	7	0	0.0	5	1	16.7
16	14	6	31.6	7	5	41.7
17	44	25	36.4	32	12	26.8
18	112	42	27.2	77	37	32.4
19	194	55	21.9	135	47	25.9
20	251	62	19.8	213	65	23.4
21	292	61	17.3	280	48	14.7
22	331	42	11.3	301	49	14.1
23	355	45	11.3	354	50	12.5
24	375	30	7.5	368	44	10.7
25	449	38	7.8	408	44	9.7
26	458	30	6.2	382	42	9.9
27	562	34	5.6	439	49	10.1
28	553	48	8.0	547	42	7.1
29	590	33	5.2	609	48	7.3
Total	4,587	551	10.7	4,158	585	12.3

Source: Population Census Aruba 2000

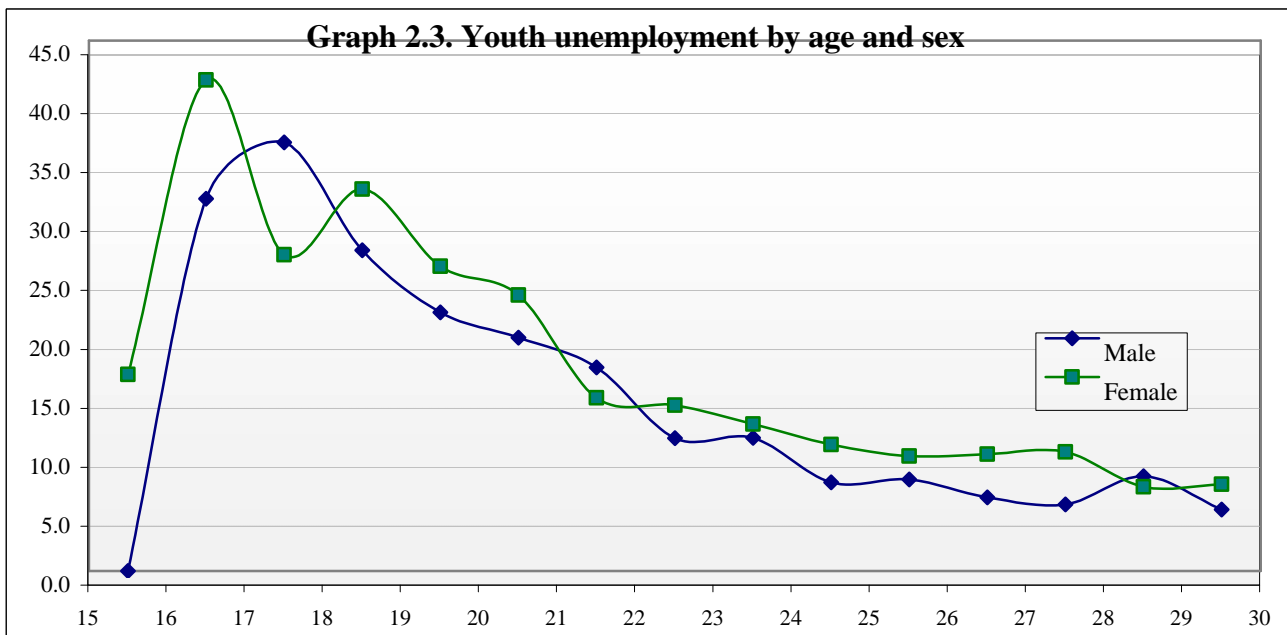


Table 2.3 and graph. 2.3 show the age specific unemployment rates between ages 15 and 30 by sex. The graph clearly shows the high unemployment among the very young. In the age group 15-19, the unemployment rate is 25.6 percent for men and 28.4 percent for women. However, one has to take into account that the absolute number of unemployed and employed in this age group is relatively small: 858 persons below 20 are in the labor force, 384 of them are out of work. Especially among 16, 17 and 18 year olds, many cannot find work. It should not come as a surprise that unemployment in this group is so high. These youngsters are almost certainly without a diploma and have no work experience. Both factors are closely related to higher unemployment.

An important aspect among the unemployed youth is their duration of unemployment. A young person who is out of work for too long, may become discouraged and give up looking for a job altogether. In the census unemployed persons were asked for how many months they had been looking for work. Among unemployed persons younger than 30 years old, the mean number of months they had been out of a job was 9.2 months for men and 7.9 months for women. The median duration was respectively 4.0 and 3.0 months. One should keep in mind that these figures do not indicate how many months it takes on average for a young person to find employment. They indicate how many months these persons are already without work. The number of additional months it took for these persons to find work after the census is unknown. Despite this limitation of the data, the figures suggest that duration of unemployment is rather short for many unemployed young persons. Fifty percent of all young unemployed persons were without work for less than 4 months for men and 3 months for women. The census was held in October 2000, which is about 3-4 months after the end of the school year. In the census 250 persons between ages 15 and 30 indicated they were without work because they recently finished school.

There is also a group that has serious difficulties entering the labor market. Twenty five percent of young unemployed men had been out of work for longer than a year; for 25 percent of women this period was 9 months. To indicate which factors contribute to longer periods of unemployment among Aruba's youth, we have set up a MCA-table. Five variables were included in the MCA: sex, ISCED-category, migrant status, age-category and handicap.²⁵ The MCA-table provides estimates for the mean and deviations from the overall mean, before and after controlling for the factors in the analysis. For instance, one can see that the unadjusted mean duration of unemployment is somewhat longer for men than for women. However, after controlling for the intervening effects of the other variables in the equation, the difference becomes very small.

Table 2.4. Multiple Classification Analysis table youth unemployment

		N. of cases	Predicted Mean		Deviation	
			Unadjusted	Adjusted for Factors	Unadjusted	Adjusted for Factors
Sex	Male	547	9.45	8.87	0.67	0.09
	Female	572	8.14	8.70	-0.64	-0.08
ISCED category	1	482	10.46	10.51	1.69	1.73
	2	454	7.93	7.77	-0.85	-1.01
	3	79	5.40	6.99	-3.38	-1.79
	5	77	7.85	7.48	-0.93	-1.30
	6	20	5.16	4.01	-3.62	-4.77
	7	6	2.33	-0.54	-6.45	-9.32
Migrant	9	2	19.50	18.48	10.72	9.70
	Country birth Aruba	654	10.79	10.75	2.01	1.97
	Developed countries	66	5.78	6.91	-3.00	-1.87
Age-cat.	Developing countries	399	5.98	5.86	-2.80	-2.92
	15-19	224	7.14	6.41	-1.64	-2.37
	20-24	492	8.46	8.30	-0.32	-0.47
Handicap	25-29	403	10.08	10.67	1.30	1.89
	Yes	36	20.21	18.42	11.43	9.64
	No	1,084	8.40	8.46	-0.38	-0.32

Source: Population Census Aruba 2000

Higher educational attainment is linked to shorter mean durations of unemployment. Young persons who have primary education or lower had on average an unemployment duration of 10.5 months at the time of the census. In contrast, those with a diploma at the Bachelor level had only a mean duration of 4 months. Moreover, note that only very few unemployed persons can be found in ISCED category 6 and 7. Another interesting finding is that young unemployed persons who were born on Aruba have longer durations of unemployment than those born abroad. Those born in a developing country, who migrated to the island had spent on average 5 months less in the unemployed state than those born in Aruba. The data show that young handicapped persons have more difficulties entering the labor market. Their average unemployment duration is 18.5 months. This is 10 months longer than those without a handicap.

²⁵ In the MCA-table only those cases were selected for whom information was available for all five variables in the equation.

2.3. POSITION OF YOUNG WORKERS ON THE LABOR MARKET

During the last ten years, Aruba's labor market underwent drastic changes. Foreign laborers have filled many empty niches on the local labor market. The participation rate of women has also further increased. Especially the tourism and construction sector expanded rapidly. It is an important challenge for young entrants on the labor market to find a position that matches their education, experience and preference. In this section we will look briefly into the position young workers have on the labor market. To do so we will compare persons below age 30 with those 30 years of age and over.

Table 2.5. Persons below and above age 30 by economic sector and sex

	Male			Female		
	<30	>=30	Total	<30	>=30	Total
Private sector	4,038	14,101	18,140	3,558	12,009	15,567
Public or subsidized sector	39	323	362	101	605	706
Government owned inc.	143	783	926	88	349	437
Foundation	28	275	303	106	706	812
Local government	302	2,253	2,556	294	1,493	1,787
Extra territorial organization	25	97	122	1	33	34
Not reported	14	54	67	12	51	63
Total	4,590	17,887	22,476	4,160	15,245	19,405

Percentages	Male			Female		
	<30	>=30	Total	<30	>=30	Total
Private sector	88.0	78.8	80.7	85.5	78.8	80.2
Public or subsidized sector	0.8	1.8	1.6	2.4	4.0	3.6
Government owned inc.	3.1	4.4	4.1	2.1	2.3	2.3
Foundation	0.6	1.5	1.4	2.5	4.6	4.2
Local government	6.6	12.6	11.4	7.1	9.8	9.2
Extra territorial organization	0.5	0.5	0.5	0.0	0.2	0.2
Not reported	0.3	0.3	0.3	0.3	0.3	0.3

Source: Population Census Aruba 2000.

Table 2.5 shows the absolute and relative number of persons below and above age 30 by economic sector and sex. A higher percentage of younger persons than older persons are working in the private sector. Among all men younger than 30 years of age, 88.0 percent work in the private sector, against 78.8 percent of men above 30. Many persons on Aruba still favor a job in the public sector; 18.8 percent of older men and 16.1 percent of older women work for the local government, the public or subsidized sector or in a government owned company. Younger persons have a lower representation; 10.5 percent of men and 11.6 percent of women work in the public sector.

Young persons are found more in temporary jobs than older persons. Respectively 14.1 percent of young men and 7.8 percent of older men work temporary (see Table 2.6.). For women these percentages are 14.4 and 7.6. It seems to take some time before persons on Aruba decide to take the step to become independent entrepreneurs. Only 4.9 percent of young males are either employer, small employer or own account worker. About fifteen percent of male workers above age 30 run their own business. Among women we can see a similar trend (2.3 against 6.8 percent). It is well possible that young workers decide to gain more experience and save some money before they start their own business.

Graph 2.4.a and 2.4.b show the type of occupation young male and female workers have, compared to their more senior counterparts. We use the main categories of the 'International Standard Classification of Occupation' (ISCO)²⁶ from the ILO to discern the different types of occupations. These graphs are based on Table 2.7. A comparison between both graphs immediately shows that women are more concentrated in fewer occupational categories than men.

²⁶ International Labor Office (1990), ISCO-88. *International Standard Classification of Occupations*, Geneva

Table 2.6. Persons below and above age 30 by status in employment and sex

	Male			Female		
	<30	>=30	Total	<30	>=30	Total
Employer	61	1,069	1,130	42	407	449
Small employer	59	542	601	20	281	301
Own account worker	106	1,085	1,191	35	357	392
Employee with permanent job	3,692	13,717	17,409	3,438	12,916	16,354
Employee with temporary job	646	1,390	2,036	599	1,163	1,762
Unpaid family worker	13	29	42	15	64	79
Other	9	47	57	11	46	57
Not reported	4	7	12	2	9	12
Total	4,590	17,887	22,476	4,160	15,245	19,405

	Male			Female		
	<30	>=30	Total	<30	>=30	Total
Employer	1.3	6.0	5.0	1.0	2.7	2.3
Small employer	1.3	3.0	2.7	0.5	1.8	1.6
Own account worker	2.3	6.1	5.3	0.8	2.3	2.0
Employee with permanent job	80.4	76.7	77.5	82.6	84.7	84.3
Employee with temporary job	14.1	7.8	9.1	14.4	7.6	9.1
Unpaid family worker	0.3	0.2	0.2	0.4	0.4	0.4
Other	0.2	0.3	0.3	0.3	0.3	0.3
Not reported	0.1	0.0	0.1	0.1	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Population Census Aruba 2000.

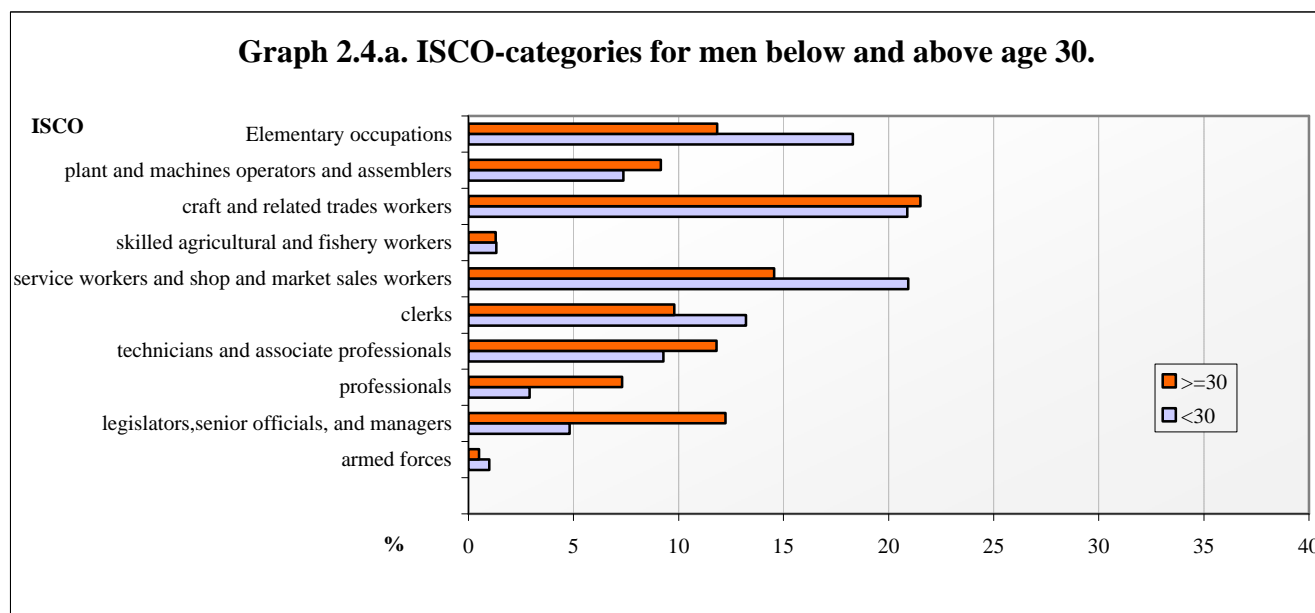
Table 2.7. ISCO-category for workers below and above 30 years of age, by sex.

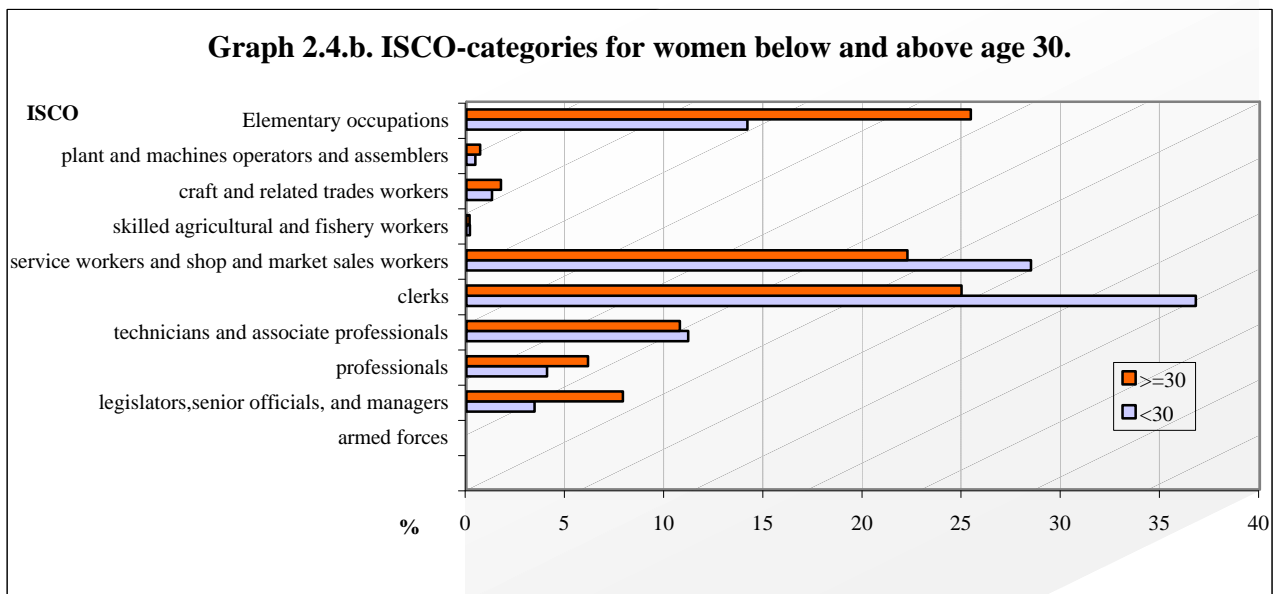
ISCO-category	Male			Percentage		
	Absolute <30	Absolute >=30	Total	<30	>=30	Total
Armed forces	45	89	134	1.0	0.5	0.6
Legislators, senior officials, and managers	221	2,189	2,410	4.8	12.2	10.7
Professionals	133	1,306	1,440	2.9	7.3	6.4
Technicians and associate professionals	425	2,113	2,538	9.3	11.8	11.3
Clerks	607	1,750	2,357	13.2	9.8	10.5
Service workers and shop and market sales workers	961	2,605	3,566	20.9	14.6	15.9
Skilled agricultural and fishery workers	61	231	292	1.3	1.3	1.3
Craft and related trades workers	959	3,847	4,806	20.9	21.5	21.4
Plant and machines operators and assemblers	338	1,637	1,975	7.4	9.2	8.8
Elementary occupations	840	2,119	2,959	18.3	11.8	13.2
Total	4,590	17,887	22,476	100.0	100.0	100.0

ISCO-category	Female			Percentage		
	Absolute <30	Absolute >=30	Total	<30	>=30	Total
Armed forces	0	0	0	0.0	0.0	0.0
Legislators, senior officials, and managers	143	1,203	1,346	3.4	7.9	6.9
Professionals	169	934	1,104	4.1	6.1	5.7
Technicians and associate professionals	465	1,640	2,105	11.2	10.8	10.8
Clerks	1,530	3,805	5,335	36.8	25.0	27.5
Service workers and shop and market sales workers	1,184	3,390	4,575	28.5	22.2	23.6
Skilled agricultural and fishery workers	7	24	32	0.2	0.2	0.2
Craft and related trades workers	54	265	318	1.3	1.7	1.6
Plant and machines operators and assemblers	19	106	125	0.5	0.7	0.6
Elementary occupations	589	3,877	4,466	14.2	25.4	23.0
Total	4,160	15,245	19,405	100.0	100.0	100.0

Source: Population Census Aruba 2000

Graph 2.4.a. ISCO-categories for men below and above age 30.





Young women are mainly attracted to two occupational categories: ‘clerks’ and ‘service workers and shop and market sales workers’. More than 65 percent of women under 30 work in one of these two sectors. Somewhat more than 41 percent of young men work as ‘craft and related trade workers’ or as ‘service workers and shop and market sales workers’. Young women are clearly turning away from elementary occupations. A much lower percentage of young women have an elementary occupation. On the other hand more and more young men are working in elementary occupations.

Although more young men than women can be found in the category ‘legislators, senior officials and managers’, the absolute number of young women who work as professionals or associate professionals is higher than the number of young men. In recent years, educational attainment of women was higher than of men. Our data show that because of their better schooling, women are more and more improving their position on the labor market. This is most apparent among younger women.

Another way to examine the position of young persons on the labor market is by looking at the industrial branch in which they are active. To do so we present in table 2.8 and in graphs 2.5.a. and 2.5.b the number of men and women below and above age 30 by industrial category. To classify the industrial categories we used the ‘International Standard Industrial Classification of all Economic Activities’ (ISIC) from the ILO²⁷.

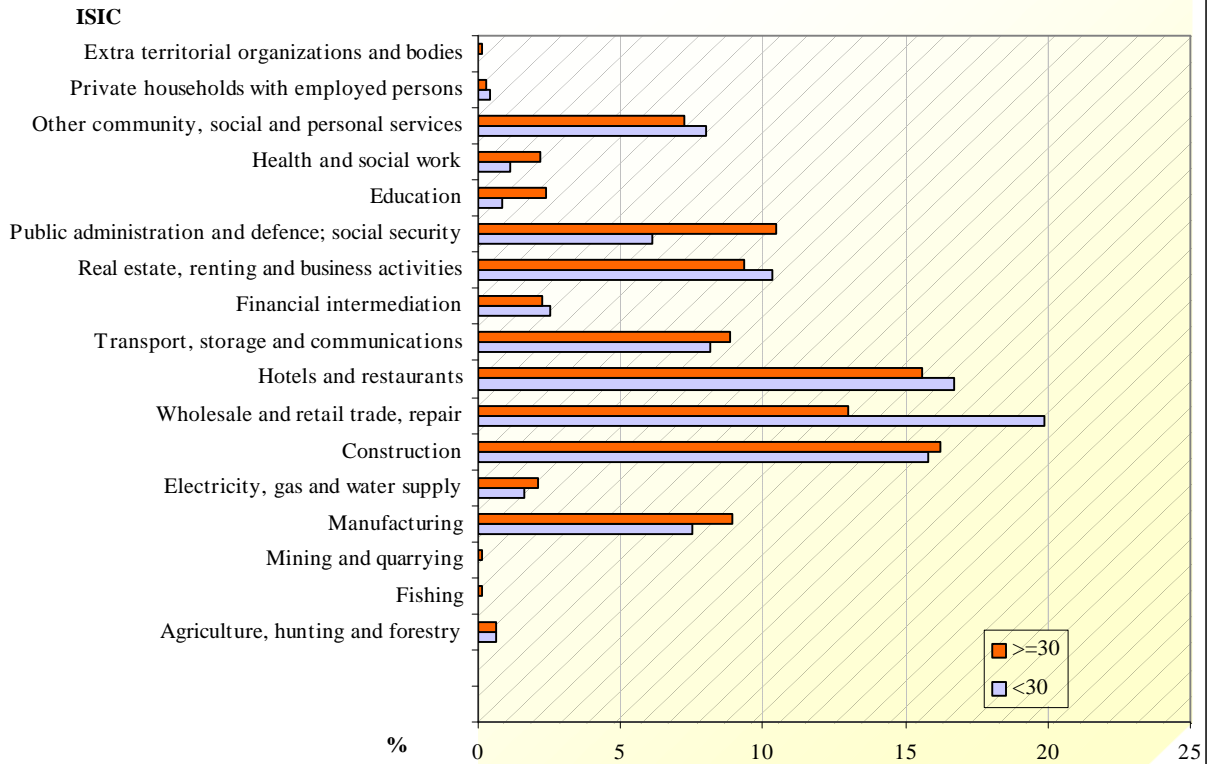
²⁷ International Labour Office (1990), *International Standard Industrial Classification of all Economic Activities, Third Revision*, Department of International Economic and Social Affairs, Statistical Office of the United Nations, New York.

Table 2.8. ISIC-category for workers below and above 30 years of age, by sex.

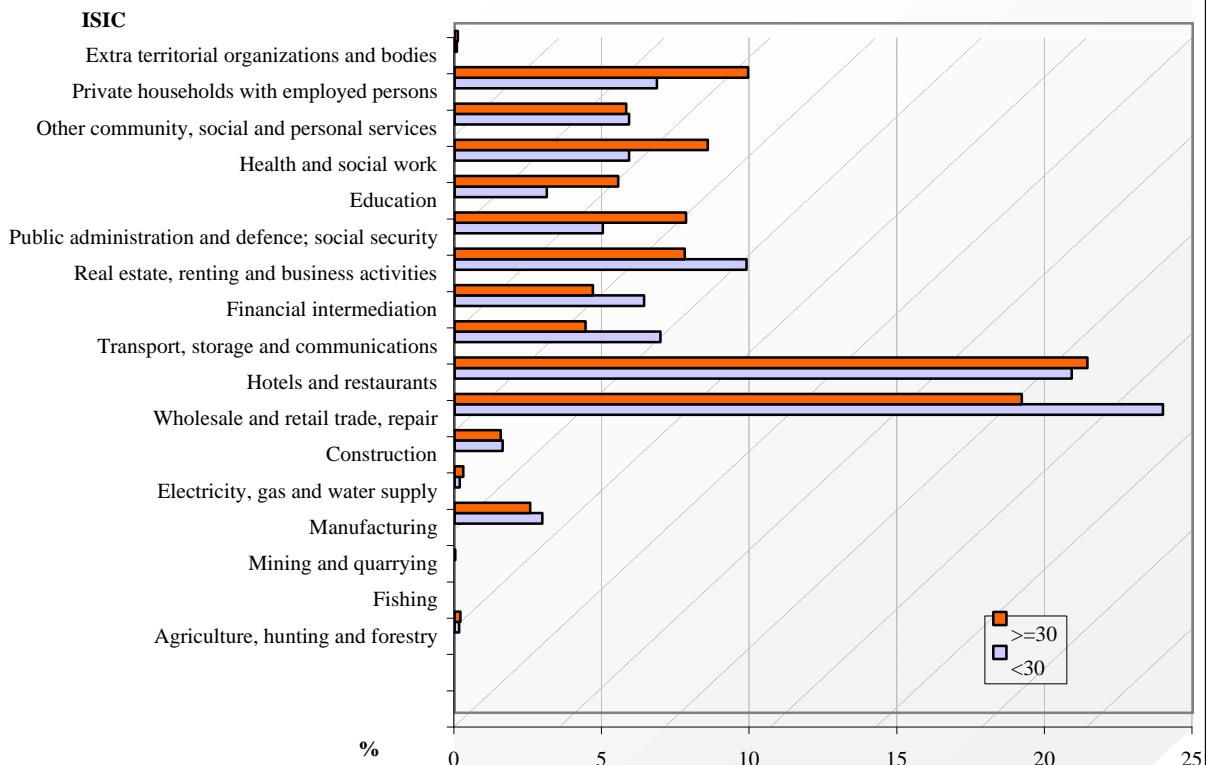
ISIC-category	Male			Female		
	Absolute <30	Absolute ≥30	Total	Percentage <30	Percentage ≥30	Total
Agriculture, hunting and forestry	29	113	143	0.6	0.6	0.6
Fishing	4	28	33	0.1	0.2	0.1
Mining and quarrying	4	30	35	0.1	0.2	0.2
Manufacturing	343	1,584	1,928	7.5	8.9	8.7
Electricity, gas and water supply	75	375	449	1.6	2.1	2.0
Construction	719	2,869	3,588	15.8	16.2	16.1
Wholesale and retail trade, repair	906	2,298	3,205	19.9	13.0	14.4
Hotels and restaurants	762	2,768	3,530	16.7	15.6	15.9
Transport, storage and communications	370	1,572	1,941	8.1	8.9	8.7
Financial intermediation	116	394	509	2.5	2.2	2.3
Real estate, renting and business activities	471	1,658	2,129	10.4	9.4	9.6
Public administration and defence; social security	277	1,851	2,128	6.1	10.4	9.6
Education	40	422	462	0.9	2.4	2.1
Health and social work	50	391	441	1.1	2.2	2.0
Other community, social and personal services	365	1,283	1,648	8.0	7.2	7.4
Private households with employed persons	19	56	75	0.4	0.3	0.3
Extra territorial organizations and bodies	2	23	25	0.0	0.1	0.1
Total	4,554	17,716	22,269	100.0	100.0	100.0
<hr/>						
Female						
ISIC-category	Absolute <30	Absolute ≥30	Total	Percentage <30	Percentage ≥30	Total
Agriculture, hunting and forestry	6	29	36	0.2	0.2	0.2
Fishing	0	1	1	0.0	0.0	0.0
Mining and quarrying	1	2	3	0.0	0.0	0.0
Manufacturing	123	387	510	3.0	2.6	2.6
Electricity, gas and water supply	7	44	51	0.2	0.3	0.3
Construction	67	237	305	1.6	1.6	1.6
Wholesale and retail trade, repair	993	2,910	3,903	24.0	19.2	20.2
Hotels and restaurants	865	3,247	4,112	20.9	21.4	21.3
Transport, storage and communications	289	672	961	7.0	4.4	5.0
Financial intermediation	266	710	975	6.4	4.7	5.1
Real estate, renting and business activities	410	1,181	1,591	9.9	7.8	8.2
Public administration and defence; social security	208	1,188	1,395	5.0	7.8	7.2
Education	129	839	968	3.1	5.5	5.0
Health and social work	245	1,300	1,545	5.9	8.6	8.0
Other community, social and personal services	245	880	1,125	5.9	5.8	5.8
Private households with employed persons	284	1,506	1,789	6.8	9.9	9.3
Extra territorial organizations and bodies	3	17	20	0.1	0.1	0.1
Total	4,140	15,149	19,290	100.0	100.0	100.0

Source: Population Census Aruba 2000.

Graph 2.5.a. ISIC-categories for men below and above age 30.



Graph 2.5.b. ISIC-categories for women below and above age 30.



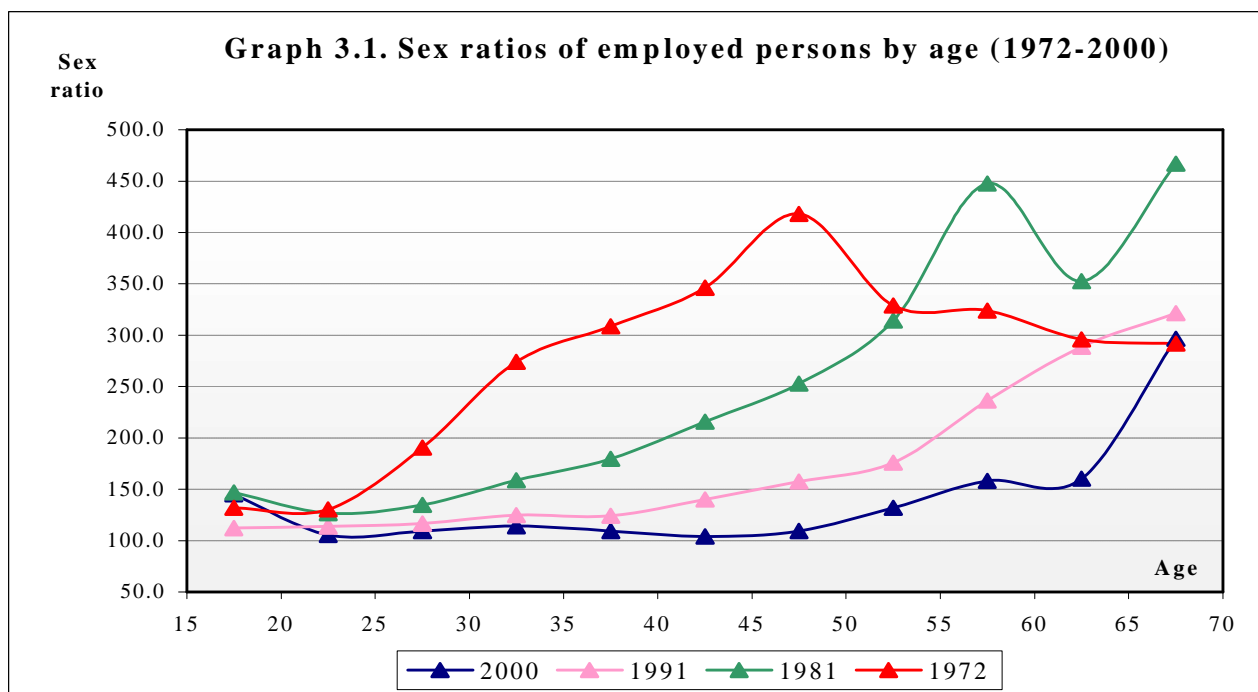
Graph 2.5.b. clearly shows that a large part of women, both below and above age 30, find a job in retail and the hotel/restaurant sector. Together with construction, these are also the main industrial sectors where men find work. In relative terms, more women below than above age 30 can be found in 'wholesale, retail trade and repair', 'transport, storage and communications', 'financial intermediation', and 'real estate, renting and business activities'. 'Trade' is the most important industrial sector where women find employment. Social sectors such as education and health have a lower percentage of persons below age 30. This may be due to the fact that these sectors demand a high level of specialized skills. Many young persons who eventually work in the social sector may not have finished their studies.

CHAPTER 3. WOMEN IN THE LABOR FORCE

In our report on the demographic and social characteristics of the population of Aruba²⁸ we have indicated that the position of women in society has changed drastically over the last decades. The most important changes have been the broader access of girls to all levels of education and the participation of women in the labor market. In the current chapter we will look deeper into the position of women on the labor market. We will pay special attention to the changes that have taken place since the last population census in 1991.

3.1. PARTICIPATION OF WOMEN RISES

During the last decades a silent revolution has taken place in which women have more and more established themselves in a solid position on the labor market. Table 3.1 shows the number of men and women employed by five-year age groups, according to the population censuses of 1972, 1981, 1991 and 2000. Since 1972 the total employed population has increased with a factor of 2.7. The number of women with a job has increased by a factor of 4.1. Currently, 19,420 women are employed against 22,498 men. This implies a sex ratio²⁹ of 115.9. In 1972, the sex ratio was still as high as 227.5. In 1981 and 1991, the ratio of working men versus working women was respectively 178.5 and 135.9.



Graph 3.1 shows the age-specific sex ratios of men versus women with a job. For all four periods, the sex ratios under age 25 are fairly equal and relatively low. In 1972 and 1981 the sex ratio increased rapidly after age 30. During those days a woman often stopped working as soon as she was married and had children. The graph shows that since the eighties more and more women remained working during their thirties and forties. Today the sex ratio of working women versus working men is below 110, between the ages 20 and 50. Only after age 50 does the sex ratio jump up. This may either be due to the fact that women are leaving the labor force earlier than men, or because women who are now above age fifty belong to birth-cohorts whose participation in the labor force has always been low.

²⁸ Central Bureau of Statistics –Aruba (2000), *The People of Aruba, Continuity and Change*. p. 98.

²⁹ The sex ratio is the number of males (with a certain characteristic) divided by the number of females times 100. A sex ratio which is higher than 100 indicates that more men than women are present.

Table 3.1. Number of men and women working 4 hours or more per week, 1972-2000

Age	1972				1981				1991				2000		
	Male	Female	Total	Sex ratio	Male	Female	Total	Sex ratio	Male	Female	Total	Sex ratio	Male	Female	Total S
10-14	23	6	29	383.3	4	2	6	200.0	6	1	7	600.0	2	2	4
15-19	767	581	1348	132.0	788	537	1325	146.7	391	348	739	112.2	372	256	628
20-24	1547	1187	2734	130.3	2324	1836	4160	126.6	1611	1416	3027	113.7	1603	1516	3120
25-29	1478	775	2253	190.7	2357	1750	4107	134.7	2454	2104	4558	116.7	2612	2386	4998
30-34	1608	587	2195	273.9	2076	1308	3384	158.7	2949	2367	5316	124.6	3363	2952	6315
35-39	1414	458	1872	308.7	1752	975	2727	179.7	2614	2107	4721	124.0	3863	3527	7390
40-44	1111	321	1432	346.1	1653	765	2418	216.1	2205	1575	3779	140.0	3374	3245	6618
45-49	995	238	1233	418.1	1416	560	1976	252.9	1700	1081	2781	157.4	2762	2528	5290
50-54	622	189	811	329.1	1056	336	1392	314.3	1319	750	2069	175.9	2122	1609	3731
55-59	609	188	797	323.9	739	165	904	447.9	877	371	1248	236.1	1370	867	2238
60-64	358	121	479	295.9	423	120	543	352.5	372	129	501	288.7	591	369	960
65+	0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0	0	0
NR									42	45	86	93.0	22	15	37
Total	10532	4651	15183	226.4	14588	8354	22942	174.6	16540	12294	28834	134.5	22056	19271	41327

Sources: Population Censuses 1972, 1981, 1991, 2000.

Table 3.2. Percentage of women 15-65 who work more than 12 hours per week in 2000, by place of birth

	Born in Aruba				Born in developed country				Born in developing countries			
	Male	% Male	Female	% Fem.	Male	% Male	Female	% Fem.	Male	% Male	Female	% Fem.
Worked	12932	68.8	10832	56.1	2166	76.0	1358	53.6	6346	86.1	6487	63.2
Not worked	6109	31.2	8608	43.9	739	24.0	1194	46.4	1119	13.9	3910	36.8
Not reported	232		126		55		20		96		132	
Total	19273		19566		2960		2571		7561		10529	

Note: Migrant status was unknown for 9 men and 80 women.

Source: Population Census Aruba 2000.

In 1999 -for the first time in its recent history- more than half of all women in the age group 15-65 had a job of 12 hours or more per week³⁰ in the Netherlands. Aruba has an even higher percentage of working women working than the Netherlands (57.7 percent). In the Aruba Census of 2000, 18,677 women between 15 and 65 who worked at least 12 hours per week were counted; 13,714 women were inactive or without a job. In recent years large groups of migrants have come to Aruba, attracted by its booming economy. Table 3.2 shows the percentage of men and women between ages 15 and 65 who worked more than 12 hours a week, by type of place of birth. Three categories were discerned: born on Aruba, born in a developed country and born in a developing country. The percentage working is highest for women born in a developing country (63.2 percent). This should not come as a surprise as most of these women have come to Aruba with a sole purpose: to work. Among women who were born in a developed country; 53.6 percent have a job. Aruban born women take an intermediate position with a percentage of 56.1 percent.

Table 3.3. Percentage of persons 15-65 who work more than 12 hours per week

	Male				Female			
	Worked	Not worked	NR	% worked	Worked	Not worked	NR	% worked
Bonaire	120	54	3	69.1	79	73	0	51.7
Curacao	702	222	14	76.0	408	269	4	60.3
St.Maarten	38	45	0	45.6	45	56	0	44.8
Brazil	62	7	1	89.4	29	28	0	50.9
China	237	37	8	86.6	105	143	6	42.4
Colombia	2062	340	26	85.8	2381	1389	54	63.2
Dominican Republic	664	228	5	74.4	1336	874	26	60.5
Grenada	35	8	1	80.5	109	40	1	73.2
Guyana	112	21	5	84.3	56	60	1	48.2
Haiti	265	33	8	89.0	440	173	16	71.7
India	129	3	3	97.6	20	34	0	37.3
Jamaica	155	33	4	82.7	365	85	6	81.1
Netherlands	937	316	32	74.8	622	553	12	52.9
Peru	421	44	6	90.5	284	103	3	73.4
Philippines	385	20	1	95.1	244	53	1	82.3
Portugal	54	16	0	77.3	28	40	0	41.5
Suriname	354	98	5	78.4	303	165	3	64.8
Trinidad and Tobago	54	11	1	83.6	36	23	0	60.7
United States	163	56	0	74.5	92	117	2	44.2
Venezuela	1072	165	15	86.7	507	512	9	49.7

Note: only countries with more than 100 persons in the age range were selected

Source: Population Census Aruba 2000.

Country of birth is an important determinant of female labor force participation. In Table 3.3 we have grouped men and women according to their country of birth. For each country we have calculated the percentage of men and women who are employed. At the moment, residents of Aruba represents no fewer than 124 different countries of birth. In Table 3.3 we have only included those countries where more than 100 persons between 15 and 65 live on Aruba. Indian women on Aruba are least likely to be working. Only 37.3 percent of these women are employed. On the other hand, out of every 100 Indian men, almost 98 are working. No less than 97.6 percent of Indian men have a job. More than 80 percent of women from Jamaica and the Philippines are working. Also a very high proportion of women from Haiti, Grenada and Peru are employed. In none of the countries is the percentage of women with a job higher than the percentage of men.

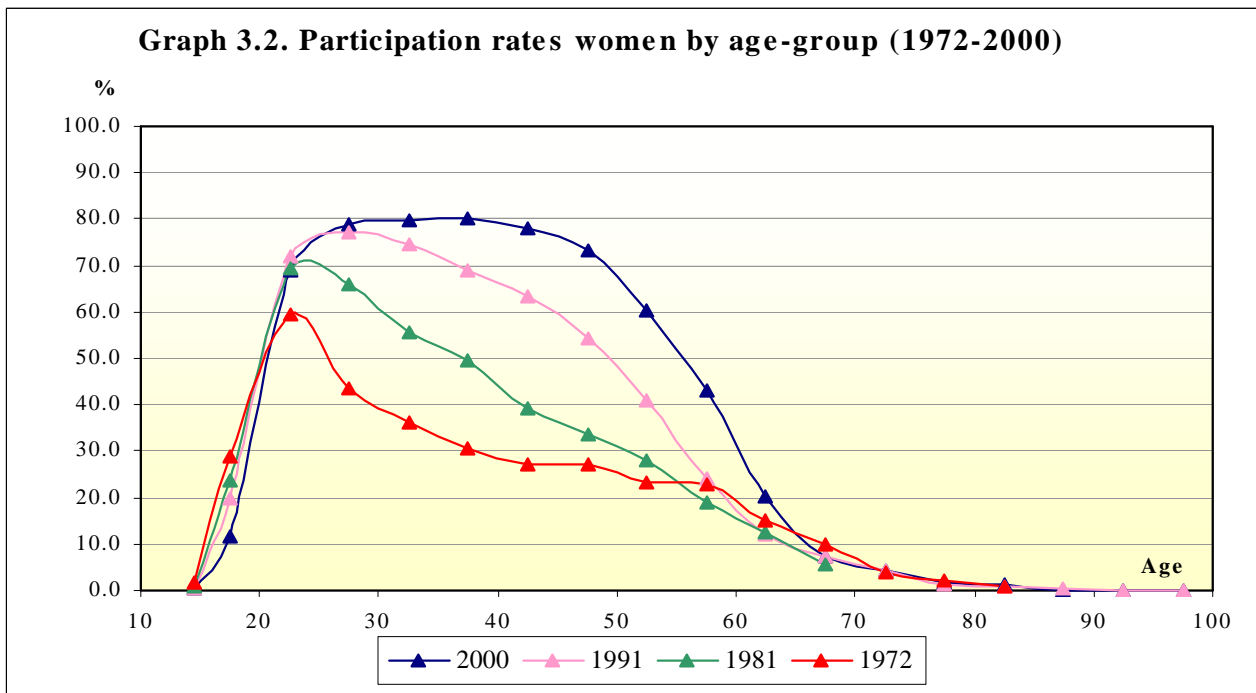
³⁰ CBS-Nederland: *Het jaar in cijfers 2000*, p.22.

Table 3.4. Participation rates for males and females 1972 - 2001.

Age group	1972			1981			1991			2000		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
14	5.0	1.6	3.3	1.2	0.8	1.0	1.6	0.4	1.0	0.3	0.3	0.3
15-19	38.6	29.0	33.8	32.6	23.9	28.3	21.4	19.9	20.7	16.5	11.8	14.1
20-24	88.9	59.5	73.7	85.0	69.3	77.3	80.9	71.8	76.4	76.6	68.9	72.6
25-29	94.7	43.5	79.0	96.3	65.7	80.2	92.4	77.1	84.7	93.2	79.0	85.7
30-34	95.7	36.1	64.8	96.2	55.7	74.9	93.4	74.4	83.8	94.6	79.8	87.0
35-39	95.6	30.7	61.2	96.5	49.7	71.5	92.6	69.1	80.4	93.6	80.1	86.5
40-44	94.8	27.0	60.2	95.6	39.3	65.4	93.1	63.3	77.7	91.7	77.8	84.3
45-49	96.8	27.3	63.5	94.6	33.7	62.1	91.8	54.2	72.1	90.3	73.3	81.3
50-54	90.0	23.3	53.4	92.9	27.9	58.7	81.0	41.0	60.0	88.7	60.2	73.7
55-59	84.1	22.9	51.4	84.0	18.8	51.2	64.8	24.0	43.1	75.3	43.0	58.3
60-64	57.1	15.2	35.4	59.1	12.7	31.0	38.7	12.2	24.8	40.1	20.1	29.1
65-69	33.0	9.7	20.6	31.7	5.6	15.9	23.8	7.5	15.3	25.6	7.1	15.2
70-74	20.6	4.0	11.5				16.4	4.3	9.6	15.5	4.1	9.1
75-79	10.5	2.2	5.5				11.0	1.3	5.2	7.2	1.8	4.2
80-84	4.6	0.9	2.2				3.9	0.7	2.0	5.3	1.2	2.7
85-89	19.6	4.4	9.9				1.1	0.5	0.7	1.8	0.0	0.6
90-94							0.0	0.0	0.0	0.0	0.0	0.0
95+							0.0	0.0	0.0	0.0	0.0	0.0
Total	73.2	31.2	51.4	75.1	40.1	56.7	72.3	50.0	60.8	72.5	56.7	64.2

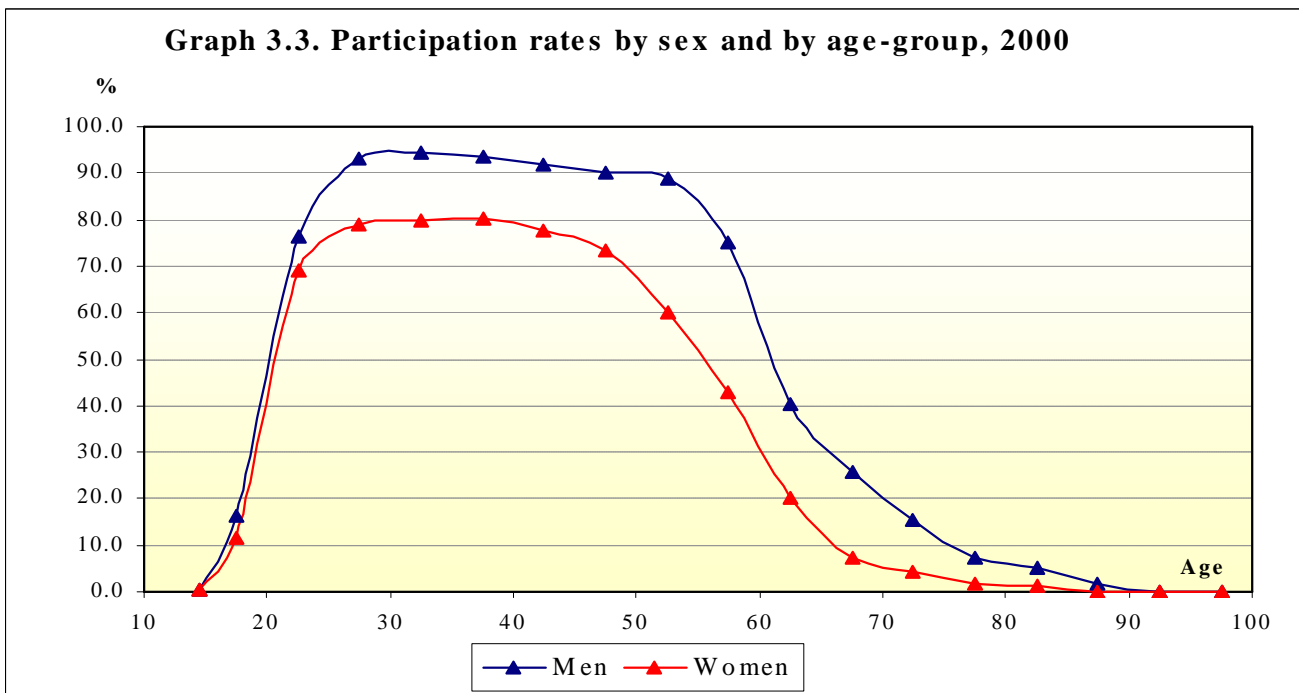
Sources: Population Censuses 1981, 1991, 2001.

Note: Age-category 85-89 is actually 85+; for 1981 age-category 65-69 is actually 65+



Another way to determine the position of women on the labor market is to look at the participation rates for women, relative to men. In table 3.4 we show the participation rates for women by five-year age groups as observed in the last four censuses. Graph 3.2 depicts these data in a graphical format. Again it is clear that the participation of women in the labor market has increased significantly since the early seventies. Especially middle-aged women now have much higher degrees of participation in the labor force than in the past. In 1972 and 1981, participation rates for women were highest in the age-category 20 to 25. In 1981, the participation was highest in the age group 25-29, while currently women are most active on the labor market between ages 30 and 35. In age groups 15-19 and 20-24 participation rates are slightly lower than in 1991.

This has probably more to do with the rising level of female higher education than with a reluctance of women to enter the labor market at a younger age.



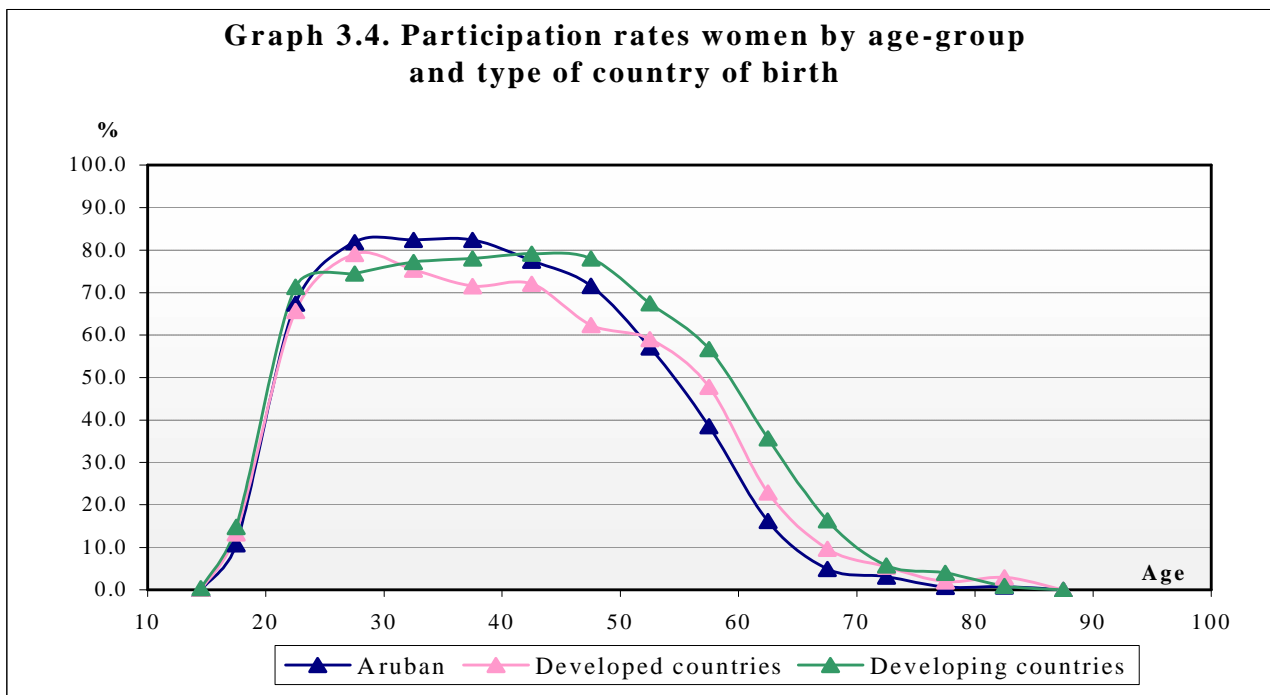
Graph 3.3 compares the participation rates of women and men for the year 2000. Participation rates for men are particularly high between age 25 and 50. In these age groups more than 90 percent of men are either working or unemployed. Women still have participation rates that are about 15 percent lower than men. The difference between men and women becomes larger at more advanced ages. In the age group 35-39 men have a participation rate of 93.6 percent and women a rate of 80.1 percent. Between ages 55 and 60 the gap between men and women becomes even larger. Men’s participation rate in this age group is 75.3 percent, while the participation of women is only 43.0 percent.

The age-pattern of labor force participation is quite different for women born in Aruba, in a developed country or in a developing country. We show participation rates for women by type of place of birth in table 3.5 and in graph 3.4. Between ages 25 and 40, the position of Aruban women on the labor market is strongest in all three subgroups. Women who came to Aruba from developing countries stay in the labor force much longer than Aruban women. In the age group 60-64 only 16.2 percent of Aruban women are still economically active. At that age 35.7 percent of women born in a developing country are still active. Most probably for many of these women it is an economic necessity to continue working: still 16.3 percent of women from developing countries are at work between their 65th and 70th birthday.

Table 3.5. Participation rates for persons born in Aruba, in a developed country or in and a developing country by sex.

Age group	Aruban		Developed countries		Developing countries	
	Male	Female	Male	Female	Male	Female
14	0.0	0.0	0.0	0.0	0.4	0.3
15-19	15.3	10.7	14.5	13.3	22.0	14.8
20-24	73.0	67.4	72.8	65.7	85.8	71.3
25-29	90.0	81.9	93.1	79.1	97.1	74.5
30-34	91.4	82.4	96.1	75.4	97.8	77.1
35-39	90.4	82.4	95.1	71.5	98.0	78.0
40-44	88.9	77.5	93.0	72.1	97.8	79.1
45-49	88.5	71.6	91.1	62.4	95.4	78.0
50-54	86.9	57.1	89.5	59.0	95.3	67.5
55-59	73.2	38.5	73.2	47.8	89.9	56.7
60-64	36.1	16.2	49.2	22.9	59.3	35.7
65-69	22.2	4.9	29.2	9.7	44.6	16.3
70-74	11.2	3.1	19.3	5.4	24.2	5.8
75-79	3.6	0.7	11.6	2.0	12.5	4.0
80-84	4.7	0.8	2.0	3.0	8.8	0.9
85-89	1.5	0.0	5.0	0.0	0.0	0.0

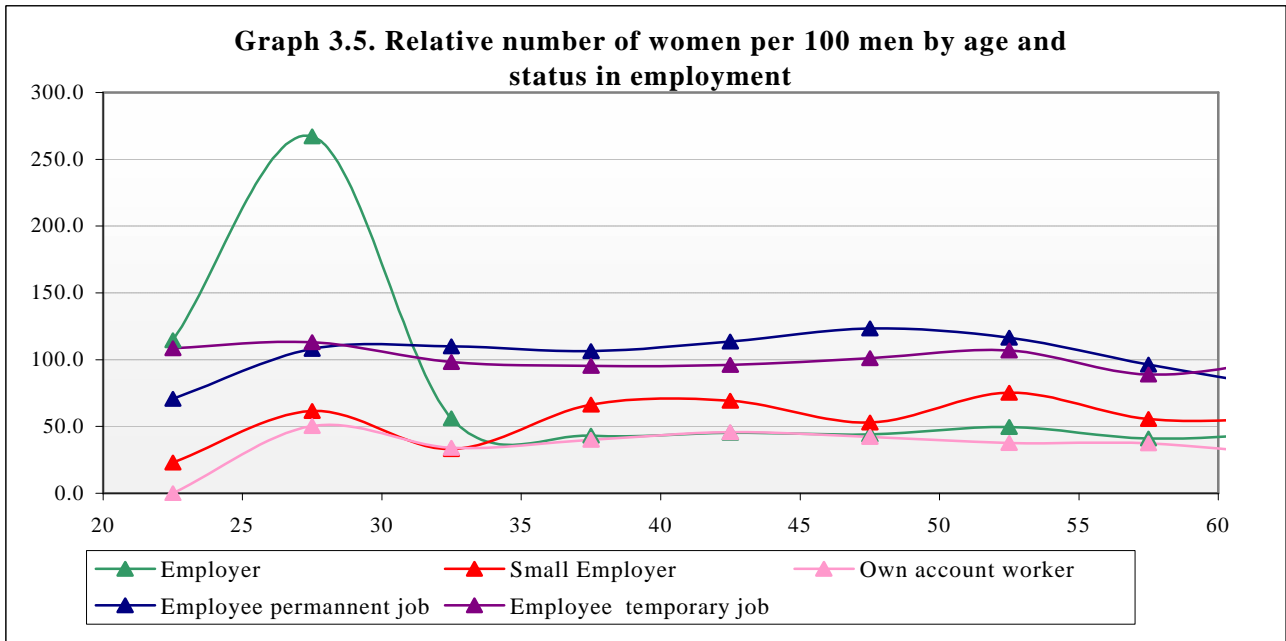
Source: Population Census 2000



3.2. MALE DOMINATED TOP

If women would have perfect equality in the labor market, the relative number of persons from both sexes at a certain level would be the same. One would expect that for instance the percentage of female employers would be the same as the percentage of male employers. Table 3.6 shows the number of women and men per thousand by status in employment. Graph 3.5 shows the relative number of women per 100 men by age and status in employment. With the exception of age groups 20-24 and 25-29 the number of female employers is less than half of the number of male employers.

One should take into account that only very few employers are present below the age of thirty³¹. These results may therefore be disturbed by small number variation. Also for 'small employers' and 'own account workers'



³¹ As the number of persons working below the age of 20 is very small, no figures were presented for this age group. 'Armed Forces' was not included because no women are in the army on Aruba.

Table 3.6 Promille of persons 20 - 65 by sex and status in employment

Age category	Male								
	Employer	Small Employer	Own account worker	Employee permanent job	Employee temporary job	Unpaid family worker	Other	Not reported	Total
20-24	0.0	0.2	0.1	11.3	4.6	0.2	0.2	0.0	16.9
25-29	0.3	0.6	1.2	58.4	11.9	0.2	0.1	0.0	72.7
30-34	2.4	1.8	3.5	97.6	12.8	0.1	0.0	0.1	118.5
35-39	5.0	3.0	5.9	124.9	13.4	0.1	0.2	0.0	152.5
40-44	8.7	4.7	8.2	137.7	15.1	0.2	0.4	0.0	175.2
45-49	7.9	5.0	10.0	117.3	12.3	0.4	0.1	0.0	153.0
50-54	8.9	3.8	8.2	95.2	8.6	0.1	0.4	0.0	125.2
55-59	7.0	3.3	6.3	72.9	6.2	0.1	0.3	0.0	96.2
60-64	4.9	2.0	5.9	45.4	3.5	0.2	0.3	0.0	62.1
NR	2.8	1.4	2.8	17.1	2.6	0.0	0.1	0.0	26.8
Total	47.9	25.9	52.0	777.9	90.8	1.8	2.2	0.4	

Age category	Female								
	Employer	Small Employer	Own account worker	Employee permanent job	Employee temporary job	Unpaid family worker	Other	Not reported	Total
20-24	0.1	0.1	0.0	8.0	5.0	0.0	0.2	0.0	13.3
25-29	0.8	0.4	0.6	63.1	13.4	0.3	0.2	0.0	78.7
30-34	1.4	0.6	1.2	107.3	12.5	0.5	0.2	0.1	123.8
35-39	2.2	2.0	2.3	132.9	12.8	0.5	0.4	0.2	153.2
40-44	3.9	3.3	3.8	156.3	14.5	0.7	0.5	0.1	183.0
45-49	3.5	2.7	4.2	144.8	12.4	0.5	0.2	0.1	168.4
50-54	4.4	2.8	3.1	110.8	9.2	0.5	0.2	0.1	131.2
55-59	2.9	1.9	2.3	70.2	5.5	0.4	0.2	0.0	83.5
60-64	2.2	1.1	1.7	35.7	3.5	0.2	0.5	0.1	45.0
NR	0.9	0.7	0.7	14.7	1.9	0.2	0.1	0.1	19.1
Total	22.2	15.4	19.9	843.9	90.7	3.8	2.8	0.6	

Source: Population Census 2000

the relative number of men at all ages is almost twice as high as the number of women. Relative sex ratios for employees with a permanent job are above 100 for almost all ages. This result shows that the top of the labor market is still very much male dominated.

The ISCO provides a systematic classification structure that encompasses all occupations of the economically active population. The classification structure consists of four levels: major groups, sub-major groups, minor groups, and unit groups. There are ten major groups.

The ten major groups of the ISCO classification are:

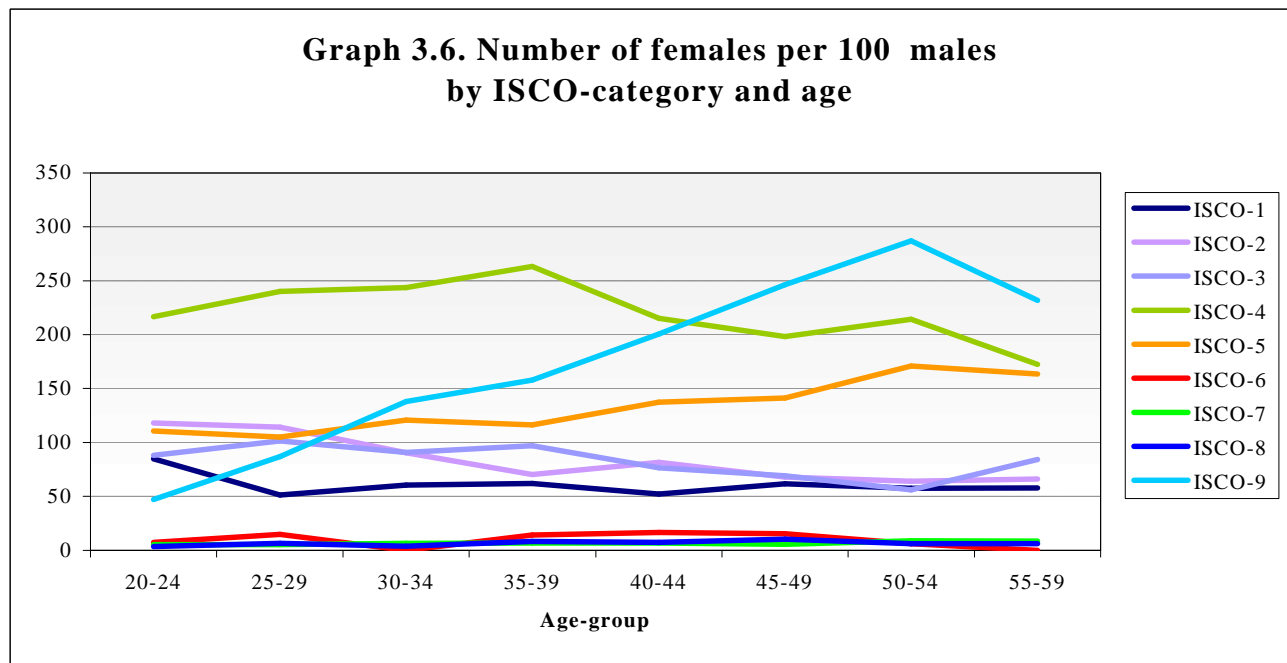
1. Legislators, senior officials, and managers;
2. Professionals;
3. Technicians and associate professionals;
4. Clerks;
5. Service workers and shop and market sales workers;
6. Skilled agricultural and fishery workers;
7. Craft and related trades workers;
8. Plant and machine operators and assemblers;
9. Elementary occupations;
10. Armed forces.

Table 3.7. Number of females per 100 males by ISCO-category and age.

Age	ISCO-category								
	1	2	3	4	5	6	7	8	9
20-24	84.9	118.2	88.2	216.6	110.8	7.4	5.5	3.5	46.9
25-29	51.1	114.2	101.4	240.1	105.2	14.8	5.3	6.6	87.0
30-34	60.3	90.6	90.9	243.9	120.8	0.0	6.6	3.9	138.1
35-39	62.0	70.4	96.9	263.1	116.3	14.4	6.9	8.3	157.7
40-44	52.2	81.6	76.5	215.1	137.6	16.8	6.9	7.4	200.5
45-49	61.5	68.0	69.1	198.1	141.3	15.4	5.8	10.5	246.5
50-54	57.4	64.0	55.9	214.2	170.7	6.3	9.0	6.1	287.0
55-59	57.6	65.9	84.2	172.3	163.4	0.0	8.6	6.3	231.9

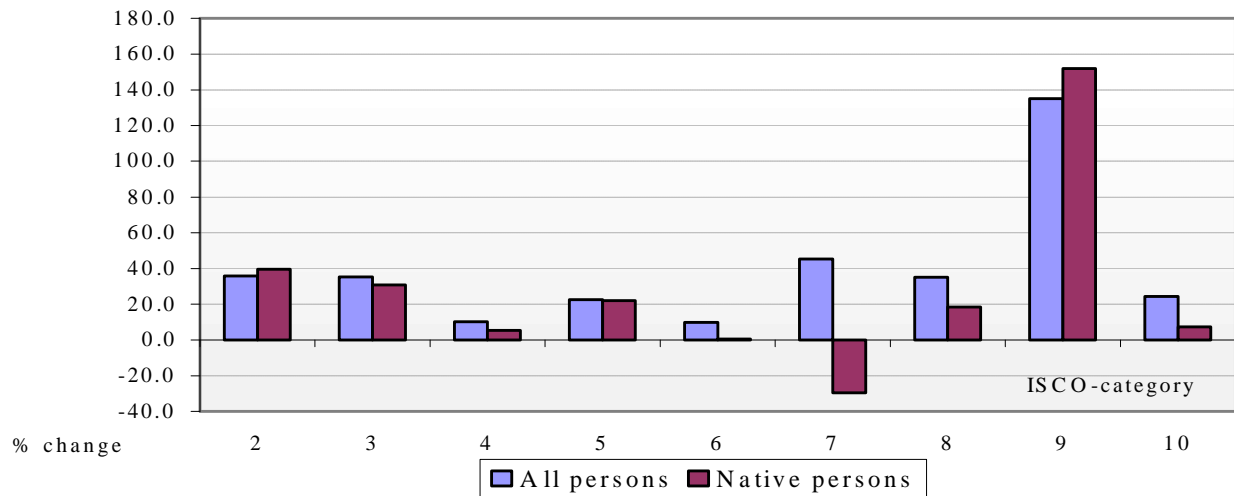
Source: Population Census 2000

Table 3.7 and Graph 3.6 present the number of women per 100 men by ISCO-category and age. At the level of managers, professionals and technicians, men are still in the majority. However, especially for professionals and technicians, the sex ratio below age 30 shows that more women are finding their way into these categories. There is no doubt this has to do with the fact that more and more women find their way into higher education. There are more women than men with a university education up to age group 30-34. A number of years ago, boys who studied well left the island to go to university, while girls followed non-university higher education. In the last ten years this trend has stopped and more girls than boys now go to university and colleges of higher education. According to the figures of the Department of Education, some 65 percent of all fellowship students in universities are girls³². It can be expected that this will cause a rise in the sex ratios for the professional and technicians' categories in the coming years. Whether this will result in a higher proportion female legislators, senior officials, and managers remains to be seen. ISCO-categories 'Clerks' and 'Service workers and shop and market sales workers' are very much female dominated. On the other hand, very few women can be found in the ISCO-categories 'Craft and related trades workers' and 'Plant and machine operators and assemblers'.



³² *Ensenanza na Aruba, Relato-Estadístico traha pa Seccion di Estadística di Departamento di Ensenanza (s.d., s.l.).*

Graph 3.7. Relative changes in no. of women per 100 men between 1991 and 2000 for ISCO-categories, all persons-native persons.



To see whether the competitive position of women on the labor market has changed, we can compare the 2000 situation with the census of 1991. Table 3.8.a presents the number of males and females at each ISCO-level in 1991 and 2000, together with the number of women per 100 men. Graph 3.7 depicts these results graphically. In the last column of table 3.8.a we present the relative change in the number of women per 100 men during the intercensal period. The table clearly shows that the position of women on the higher side of the labor market has improved considerably during the last nine years. In 1991, only 41.2 women per 100 men were present at the senior managerial level. By 2000, the ratio at this level had increased to 55.2. Currently, 1,349 women are working at the managerial level against 674 in 1991. Although serious progress has been made, there are still some two male managers for every female manager. At the professional and associate professional level women are also catching up. The participation of women in these categories has increased rapidly in recent years. In 2000, more than 75 women could be found for every 100 men at these levels. Since the early nineties large groups of women have come to work on Aruba. To see whether the position of local born women has changed we show the results in a separate table (Table 3.8.b). For most ISCO-categories differences between 'all women' and 'local women' are small. Graph 3.7 clearly shows that foreign women more and more dominate elementary occupations. In 1991, out of 5,331 persons doing an elementary job, 2,943 (55.2 percent) were women. In 2000, the number of persons with an elementary occupation has risen to 7,300. In 1991, for every 100 men with an elementary occupation there were 123.2 women. The sex ratio in this category increased to 153.2. A large proportion of elementary occupations can be found in the hotel sector. Women execute many of the elementary occupations in this sector. Among native women still many more men than women have an elementary occupation. The largest increase in the number of women per 100 men among all ISCO-categories is in category 'Plant and machine operators and assemblers'. The increase in number of women per 100 men, both for all women and for native women is more than 130 percent. However, the actual number of women who work as a machine operator remains quite small (125).

Table 3.8.a. Participation of women in the labor force by ISCO-category, '91 - '00

	1991			2000			Rel. change sex ratio '91- '00
	Male	Female	Sex ratio	Male	Female	Sex ratio	
Armed forces	124	0	0.0	134	0	0.0	-
Legislators, senior officials, and managers	1,637	674	41.2	2,413	1,349	55.9	35.8
Professionals	847	480	56.7	1,441	1,105	76.7	35.3
Technicians and associate professionals	1,557	1,171	75.2	2,539	2,106	83.0	10.3
Clerks	2,066	3,812	184.5	2,361	5,335	225.9	22.4
Service workers and shop/market sales workers	2,585	3,013	116.6	3,571	4,575	128.1	9.9
Skilled agricultural and fishery workers	229	17	7.4	292	32	10.8	45.4
Craft and related trades workers	3,803	187	4.9	4,807	319	6.6	35.0
Plant and machines operators and assemblers	1,487	40	2.7	1,976	125	6.3	135.1
Elementary occupations	2,388	2,943	123.2	2,883	4,417	153.2	24.3
Total	16,723	12,337	73.8	22,417	19,363	86.4	17.1

Source: Population censuses 1991 and 2000. Only employed persons are included from whom job information was available

Table 3.8.b. Participation of native women in the labor force by ISCO-category, '91 - '00

	1991			2000			Rel. change sex ratio '91- '00
	Male	Female	Sex ratio	Male	Female	Sex ratio	
Armed forces	43	0	-	29	0	-	-
Legislators, senior officials, and managers	1,017	449	44.2	1,422	877	61.7	39.6
Professionals	542	342	63.1	879	726	82.6	30.7
Technicians and associate professionals	1,226	943	76.9	1,892	1,534	81.1	5.4
Clerks	1,861	3,423	184.0	1,946	4,367	224.4	22.0
Service workers and shop/market sales workers	1,897	2,278	120.1	2,007	2,424	120.8	0.6
Skilled agricultural and fishery workers	149	10	7.0	128	6	4.9	-29.7
Craft and related trades workers	2,708	134	5.0	2,309	135	5.9	18.4
Plant and machines operators and assemblers	1,269	33	2.6	1,509	100	6.6	152.0
Elementary occupations	1,970	1,280	65.0	1,478	1,032	69.8	7.4
Total	12,681	8,893	70.1	13,599	11,201	82.4	17.5

Source: Population censuses 1991 and 2000. Only employed persons are included from whom job information was available

3.3. UNEMPLOYED WOMEN

In chapter 1 levels of unemployment were already discussed. At the time of the census the total unemployment rate for men was 6.5. Women experienced a slightly higher unemployment rate (7.4 percent). In many countries in the world women have higher levels of unemployment than men. In the European Union the female unemployment rate dropped below 10 percent in 2000, while unemployment for men was about 7 percent³³. We have fitted a number of loglinear models to investigate whether, besides sex, other factors and covariates play an important interactive role in the relationship between sex and unemployment. After a number of tests it was found that the type of place of birth of the respondent was an important factor in the relationship sex and unemployment. Other factors were not important as interaction terms.

Table 3.9 shows the unemployment rates by age and sex for persons born in Aruba, in a developed and in a developing country. Graphs 3.8.a and 3.8.b. show these data separately for men and women. For both sexes and type of place of birth, unemployment is highest among young persons. There is no doubt this has to do with the moment the census was held. In October many students who have just left school are still looking for a job. Among men, unemployment is highest for the Aruban born (7.7 percent) and lowest for men from other developed countries. Women from developing countries have a much higher unemployment rate (10.0 percent) than the other two categories (6.0 percent and 5.7 percent). Unemployment remains relatively high

³³ Europäische Kommission: *Beschäftigung und Soziales*, 1 Juli 2001, p. 25.

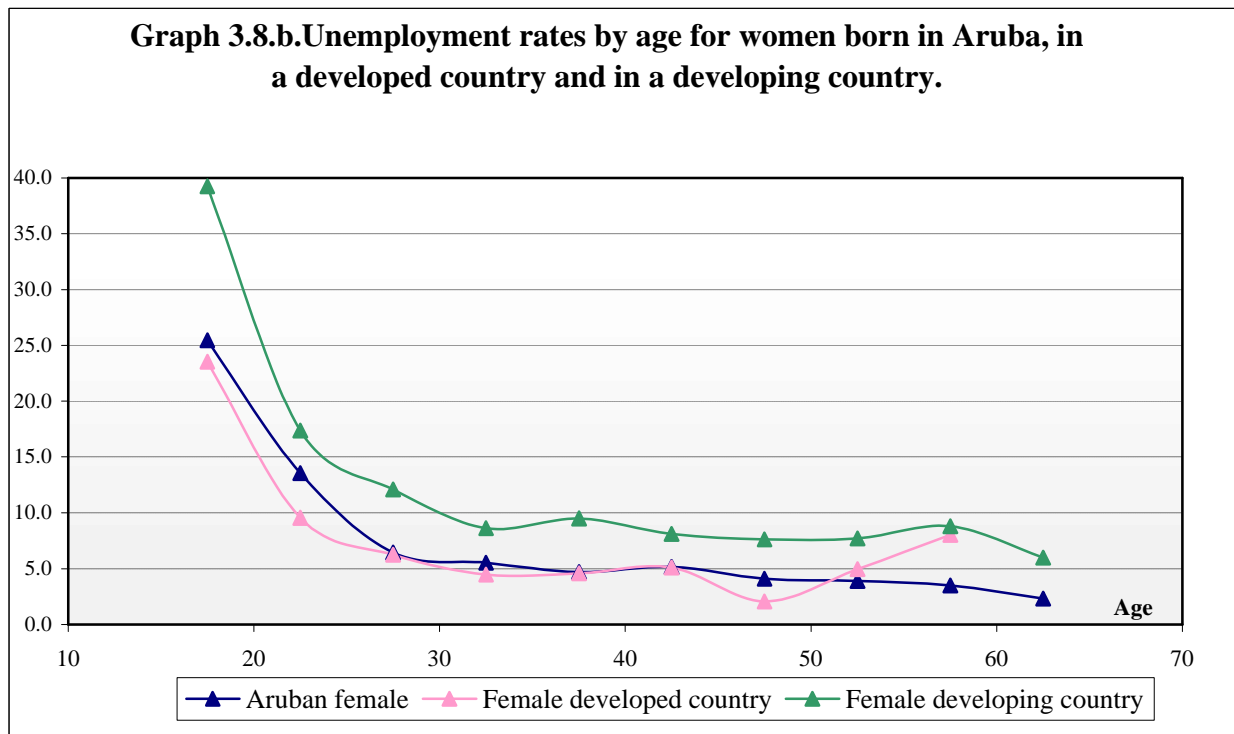
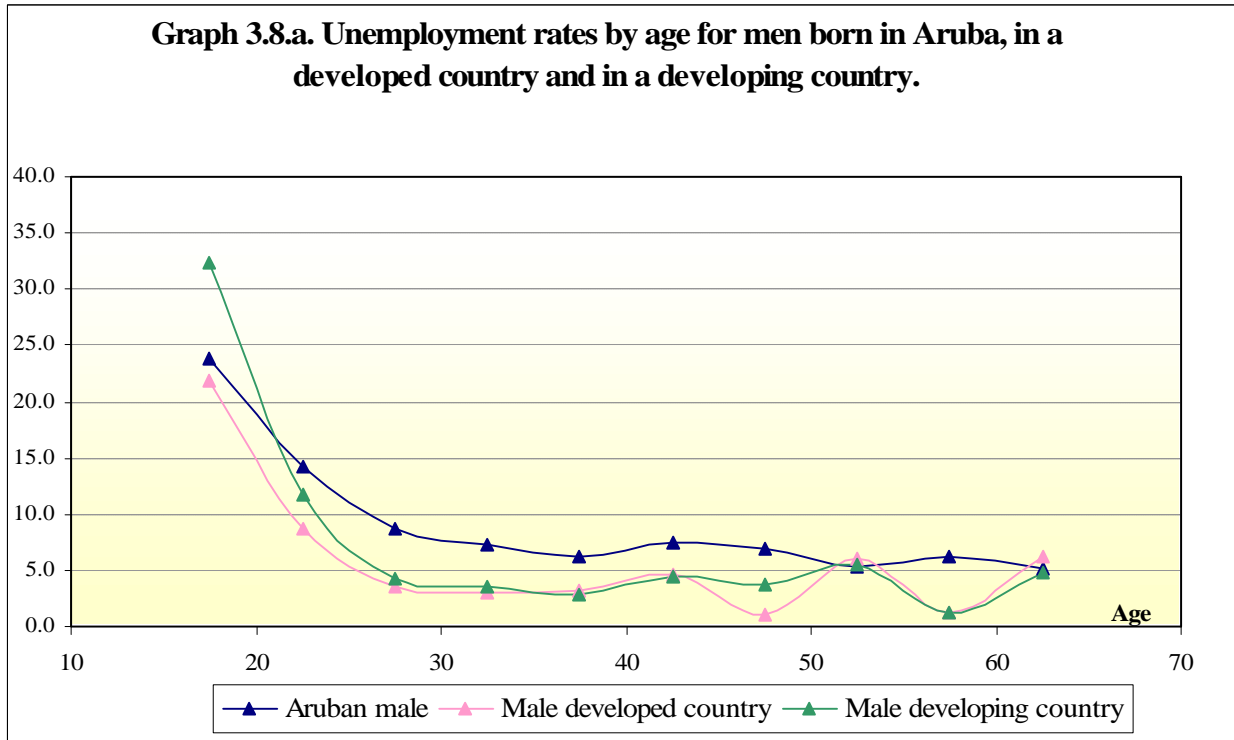


Table 3.9. Unemployed rates by age and sex for persons born in Aruba, a developed country and a developing country.

Age group	Male			Female		
	Aruban	Developed countries	Developing countries	Aruban	Developed countries	Developing countries
15-19	23.8	22.0	32.4	25.4	23.5	39.2
20-24	14.3	8.7	11.7	13.5	9.6	17.4
25-29	8.8	3.5	4.3	6.5	6.2	12.1
30-34	7.3	3.1	3.6	5.5	4.5	8.6
35-39	6.1	3.2	2.8	4.7	4.6	9.5
40-44	7.4	4.5	4.4	5.2	5.1	8.1
45-49	6.9	1.1	3.8	4.1	2.1	7.6
50-54	5.3	6.1	5.4	3.9	5.0	7.7
55-59	6.2	1.2	1.2	3.5	8.0	8.8
60-64	5.1	6.2	4.8	2.3	-	6.0

Sources: Population Census 2000.

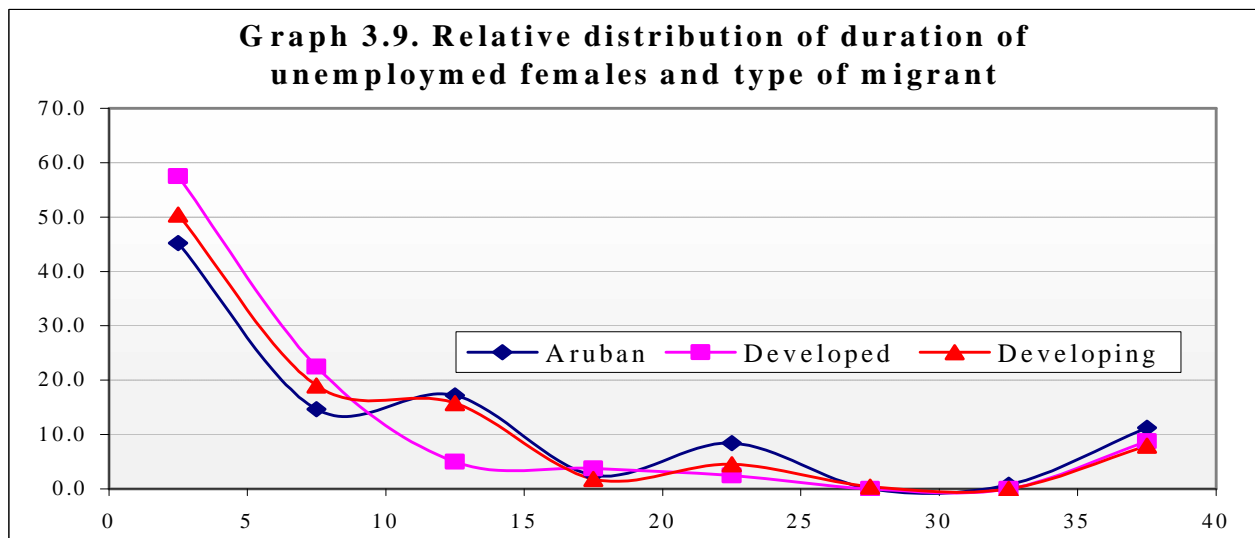
for women from developing countries at all age groups. For all age groups it is significantly higher than the unemployment for women born in Aruba and in developed countries. It is unclear why there is a different pattern between unemployment among men and women. More research is necessary to determine why exactly men and women from developing countries have higher levels of unemployment than the rest.

Table 3.10 presents the number of unemployed women by their educational attainment and type of country of birth. To classify the level of education we use the *International Standard Classification of Education (ISCED)*. ISCED is basically a three-stage classification system, providing successive subdivisions from level of education to field of study to program group. The ISCED level of program incorporates seven categories. A residual category for education not definable by level is added. A description of these categories can be found in appendix 3.1. The main ISCED-categories are:

- Level 0 Education preceding the first level
- Level 1 Education at the first level
- Level 2 Education at the second level, first stage
- Level 3 Education at the second level, second stage
- Level 5 Education at the third level, first stage, of the type that leads to a certificate not equivalent to a first university degree
- Level 7 Education at the third level, second stage, of the type that leads to a postgraduate university degree or equivalent
- Level 9 Education not definable by level.

In the population census a question was asked about the type of diploma the respondent attained. Moreover, a question was asked whether the respondent had followed an education for which he/she did not obtain a diploma. The categories in table 3.10 indicate the level of education a person has followed. At each level a distinction is made between those who were successful in obtaining a diploma and those who were not.

Women with low levels of educational attainment have much higher levels of unemployment than woman with higher education; 78.6 percent of all persons who are unemployed have an educational level of 2 or less. Among women born in developing countries, 73.7 percent have a low educational attainment (ISCED-2 or less). An Aruban woman with an ISCED-educational level of higher than 2 has only a very small chance to be unemployed. Only 14.2 percent with such an attainment were unemployed at the time of the census. This comes to about 100 women in the whole labor force. Moreover, many of these women with higher educational attainment are in between jobs or have recently finished school. These results clearly illustrate the importance of a good education for a person to prevent unemployment.



The duration of unemployment has important social and economic consequences. The longer a person is without a job, the more difficult it becomes for him/her to reenter the labor market. In the census all persons who were unemployed were asked for how many months they had been without work. Data on duration of unemployment derived from the population census are censored. That is, we know for all unemployed how long they have been without work, but we do not know for how long they will remain unemployed. Therefore the usefulness of these data is rather limited. Data in Table 3.11 (and Graph 3.9) show that a large part of persons remains unemployed for only a limited time: 45.3 percent of unemployed men and 48.4 of unemployed women had been looking for a job for less than 5 months. The number of long term unemployed persons is rather small on Aruba. Hardly any difference exists between the number of long term unemployed men and women.

Table 3.10. Educational attainment of unemployed women by type of place of birth.

	Absolute				Percentage			
	Aru-ban		Countries		Aru-ban		Countries	
	Developed	Developing	Developed	Developing	Developed	Developing	Developed	Developing
No education	0	0	27	27	0.0	0.0	3.6	1.8
Isced cat.1 or less	133	7	273	414	18.6	8.4	36.4	26.6
Diploma isced cat.2	256	23	150	429	35.8	26.5	20.0	27.7
Diploma isced cat.3	13	3	94	110	1.8	3.6	12.6	7.1
Diploma isced cat.5	42	11	44	97	5.9	12.0	5.9	6.2
Diploma isced cat.6	12	8	12	32	1.6	9.6	1.5	2.0
Diploma isced cat.7	3	4	4	12	0.4	4.8	0.6	0.7
Diploma isced cat.9	2	0	2	4	0.3	0.0	0.3	0.3
No diploma, attended isced 2	137	11	64	211	19.1	12.0	8.5	13.6
No diploma, attended isced 3	3	1	5	9	0.4	1.2	0.7	0.6
No diploma, attended isced 5	4	1	7	13	0.6	1.2	1.0	0.8
No diploma, attended isced 6	0	0	1	1	0.0	0.0	0.1	0.1
No diploma, attended isced 9	3	0	2	5	0.4	0.0	0.3	0.3
Diploma isced 2 and attended other studies	88	11	39	138	12.3	12.0	5.2	8.9
Diploma isced 3 and attended other studies	9	4	15	28	1.3	4.8	2.0	1.8
Diploma isced 5 and attended other studies	7	1	7	16	1.0	1.2	1.0	1.0
Diploma isced 6 and attended other studies	3	2	2	7	0.4	2.4	0.3	0.5
Total	716	87	750	1553	100	100.0	100	100

Sources: Population Census 2000.

Table 3.11. Absolute and relative distribution of duration of unemployment by sex and type of region of origin.

Months without a job	Male		Female		Male						Female					
	Total		Total		Aruban		Developed countries		Developing countries		Aruban		Developed countries		Developing countries	
	Abs.	Rel.	Abs.	Rel.	Abs.	Rel.	Abs.	Rel.	Abs.	Rel.	Abs.	Rel.	Abs.	Rel.	Abs.	Rel.
0-4	696	45.3	741	48.4	454	41.1	45	45.3	197	59.7	320	45.2	48	57.5	373	50.4
5-9	243	15.8	264	17.2	167	15.1	17	16.8	59	17.8	104	14.7	19	22.5	141	19.0
10-14	245	15.9	243	15.8	189	17.1	16	15.8	40	12.1	122	17.2	4	5.0	117	15.8
15-19	40	2.6	35	2.3	34	3.0	0	0.0	6	1.9	18	2.5	3	3.8	14	1.8
20-24	102	6.6	96	6.2	81	7.3	7	7.4	14	4.1	60	8.4	2	2.5	34	4.5
25-29	6	0.4	3	0.2	6	0.6	0	0.0	0	0.0	0	0.0	0	0.0	3	0.4
30-34	4	0.3	5	0.3	4	0.4	0	0.0	0	0.0	5	0.7	0	0.0	0	0.0
35+	200	13.0	146	9.5	170	15.4	15	14.7	15	4.4	80	11.3	7	8.8	59	8.0
NR	28		23		22		1		5		8		3		12	
Total	1563	100	1555	100	1127	100	101	100	336	100	717	100	87	100	751	100

Source: Population Census 2000.

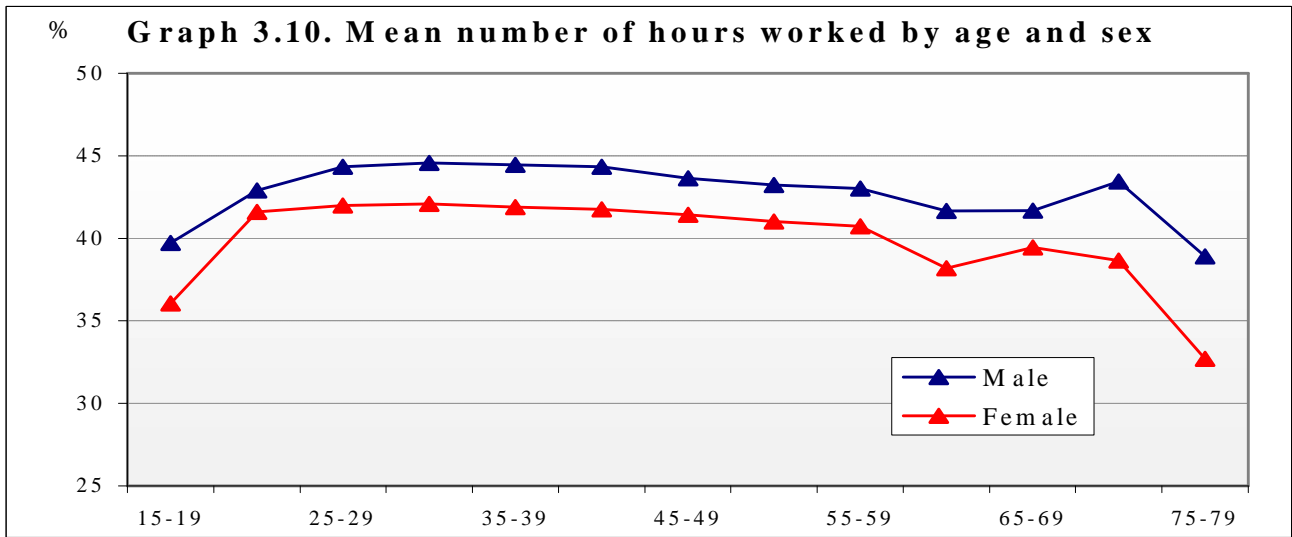
The number of men and women who have been unemployed for longer than 2 years is 154 and 180 respectively.

Unemployed women who were born in a developed country seem to have slightly shorter durations of unemployment. Their proportion is highest at the shorter durations and low at the longer durations. More than 20 percent of Aruban women were without work for more than 20 months. Among women from developed and developing countries this was respectively 11.3 and 12.9 percent. This is an indication that Aruban born women remain somewhat longer without a job than women who were born abroad.

3.4. WORKING HOURS AND PART-TIME WORK

The average person on Aruba works a total of 42.8 hours per week. Men spend 43.8 hours on the job, while women work 41.5 hours per week. On average, people on Aruba work much longer than their European counterparts within the Kingdom of the Netherlands. The average Dutch worker spends only 31.4 hours per week on the job³⁴. Dutch workers spend less time on the job a) because the overall workweek is generally shorter than in Aruba and b) because more people work part-time.

³⁴ CBS-Nederland (2002), *Statistisch Jaarboek 2002*, p204.



In table 3.12 and Graph 3.10 we present the mean number of hours worked by age and sex. On average, employed men work somewhat more than 2 hours more in a week than women. This difference remains fairly constant over age.

The difference between both sexes stays about the same after we control for a number of intervening factors. To look at the effects of intervening factors Multiple Classification Analysis (MCA) was used in which working hours was made the dependent variables and a number of personal characteristics of the employed person were made intervening factors (see Table 3.13). A number of variables were tested about their impact on the number of hours worked in the week prior to the census. Some variables, which were believed to be important, were dropped from the analysis because their effect proved to be minimal. For instance, age (both in continuous format and in large age-groups) did not have an important effect on the number

Table 3.12. Working hours by age and sex

Age	Working hours Males									%	
	0-9	10-19	20-29	Part-time	30-34	35-39	40-49	50+	NR	Total	part time
10-14	0	0	1	1	0	1	0	0	4	6	16.7
15-19	15	21	24	60	7	2	277	20	12	378	15.8
20-24	16	19	45	80	26	19	1,351	94	45	1,616	4.9
25-29	11	16	44	70	28	19	2,202	252	56	2,627	2.7
30-34	16	11	45	71	30	39	2,794	376	68	3,379	2.1
35-39	15	25	66	106	58	42	3,115	482	81	3,884	2.7
40-44	17	28	45	90	56	34	2,732	389	93	3,394	2.7
45-49	16	16	56	87	83	37	2,197	307	68	2,778	3.1
50-54	14	17	55	85	57	33	1,677	228	55	2,134	4.0
55-59	13	18	44	75	35	18	1,072	142	36	1,377	5.4
60-64	9	11	35	55	27	15	423	59	18	596	9.2
65-69	4	5	28	38	13	4	194	23	13	285	13.3
70-74	1	7	7	16	2	5	70	8	9	111	14.2
75-79	1	1	4	6	1	1	20	1	4	34	18.8
80-84	0	1	2	3	1	0	8	1	1	15	21.4
85-89	0	0	1	1	0	0	1	0	1	3	33.3
NR	1	0	0	1	0	1	12	3	162	179	0.6
Total	147	195	503	845	424	269	18,146	2,385	726	22,794	3.7

Age	Working hours Females										%	
	0-9	10-19	20-29	Part-time	30-34	35-39	40-49	50+	NR	Total	part time	F/M
10-14	0	1	0	1	0	0	0	0	2	3	33.3	200.0
15-19	15	25	38	78	9	3	152	11	11	264	29.5	186.2
20-24	21	24	72	118	43	24	1,233	69	43	1,530	7.7	155.7
25-29	24	20	113	158	44	61	1,981	113	42	2,399	6.6	245.1
30-34	21	38	151	210	83	68	2,399	153	53	2,966	7.1	335.0
35-39	25	48	221	294	109	76	2,794	203	65	3,541	8.3	304.1
40-44	32	45	197	274	109	72	2,574	172	59	3,260	8.4	315.9
45-49	32	33	168	232	109	65	1,947	143	42	2,538	9.1	291.5
50-54	20	44	104	168	67	43	1,219	84	36	1,617	10.4	260.6
55-59	19	35	69	123	27	16	628	48	28	870	14.1	260.6
60-64	18	9	50	78	13	9	247	18	11	375	20.7	226.4
65-69	7	5	14	26	0	5	53	6	4	95	27.8	209.1
70-74	2	5	7	15	2	1	17	1	6	42	35.0	247.3
75-79	0	3	1	4	1	0	4	1	0	11	40.0	213.3
80-84	1	0	0	1	0	0	4	0	1	6	16.7	77.8
85-89	0	0	0	0	0	0	0	0	0	0	0.0	0.0
NR	1	0	1	2	0	0	8	1	148	160	1.3	223.7
Total	237	336	1,208	1781	617	444	15,260	1,024	550	19,676	9.1	244.1

Source: Population Census Aruba 2000.

of hours worked per week. Only the very young and the old on the labor market worked significantly less than the ones in the middle age groups. Also family type did not prove to be an important factor. Table 3.12 shows the results of the MCA table.

Even after controlling for intervening factors the average number of working hours per week for men remains about 2.6 hours more than for women. The MCA-table shows a number of interesting characteristics. For instance, persons who come from developing countries on average work 2 hours per week longer than Aruban born persons. Many workers are active in the hotel industry. These people work on average 3.1 hours longer than the overall average. Persons who work in the education sector work 6.4 hours less than the overall average. However, it is well possible that many schoolteachers indicated the number of hours they had worked in school and have not included the long hours they worked at home preparing their lessons and correcting homework. Managers make most hours of all the occupation categories. On average they work 3.6 hours longer than the population as a whole.

We used the following definition of full-time and part-time work. Full-time employment consists of persons who usually work 30 hours or more at their main job or only job. Part-time employment consists of those persons who usually work less than 30 hours per week at their main job or only job. Especially in the European Union part-time work has become an important part of people's labor participation. Part-time work increased in almost all countries of the European Union during the nineties. In 2000, 42 percent of all jobs in the Netherlands were on a part-time basis. Other countries in the EU had somewhat lower levels of part-time employment. In the United Kingdom, Sweden and Denmark the level was somewhere between 20 and 25 percent. In the EU it is predominantly women who do part-time work. Only in France, Ireland and Sweden is the proportion of men among part-time workers higher than one third³⁵.

In Aruba, the proportion of persons with a part-time job is much smaller than in Europe. Only 6.1 percent of all persons with a job are working part-time. Table 3.12 and graph 3.11 show the percentage of males and females who have a part-time job by age and sex. The number of women with a part-time job is considerably higher than the number of men: 9.1 percent of all working women have a part-time job, against 3.7 percent of all men. The proportion of women working part-time is lowest in the age group 20 to 40. Part-time work is much more prevalent at the very young and at the older age groups. This is somewhat surprising, because one would expect that more women would opt for part-time work at the moment they have small children. Especially at the older ages women have a tendency to work for shorter times. However, one should not forget that only very few persons are still working at these ages. Graph 3.12 shows the number of women per 100 men by age, who work part-time. One can see that –with the exception of the very young age groups- the tendency for women to work part-time is more than double that of men. Especially between the ages 30 and 45 the relative number of part time working women is much higher than the number of men.

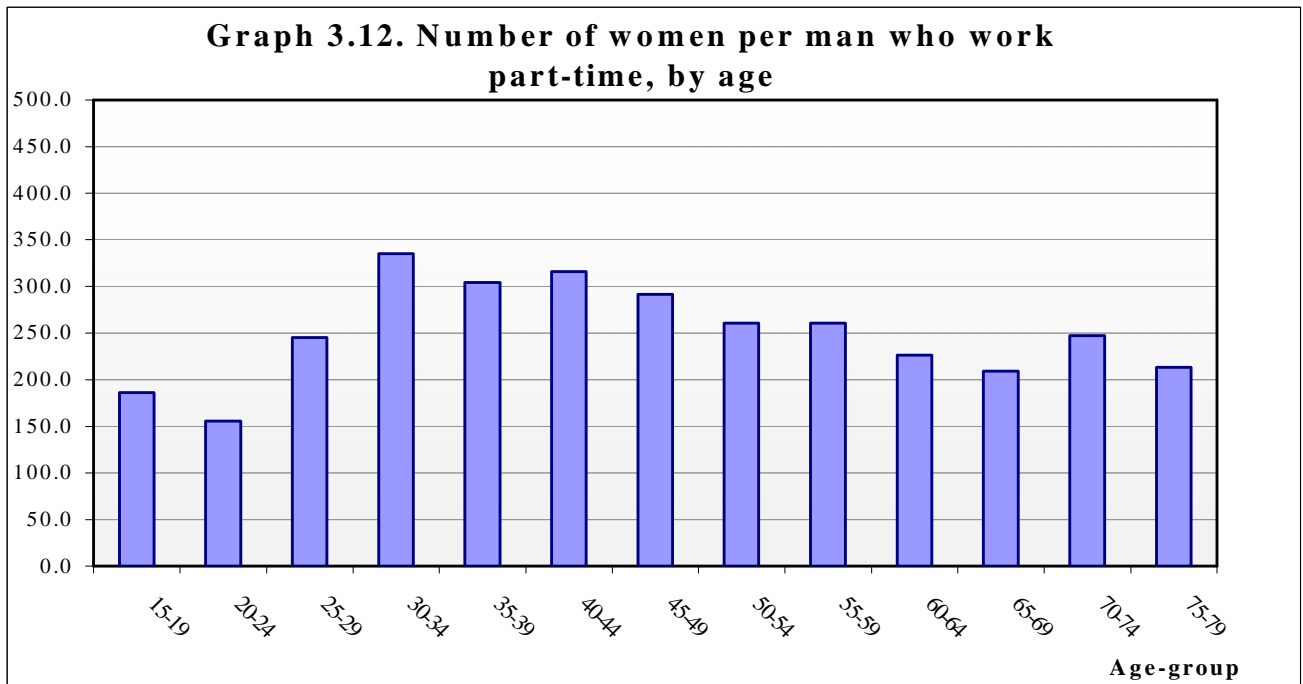
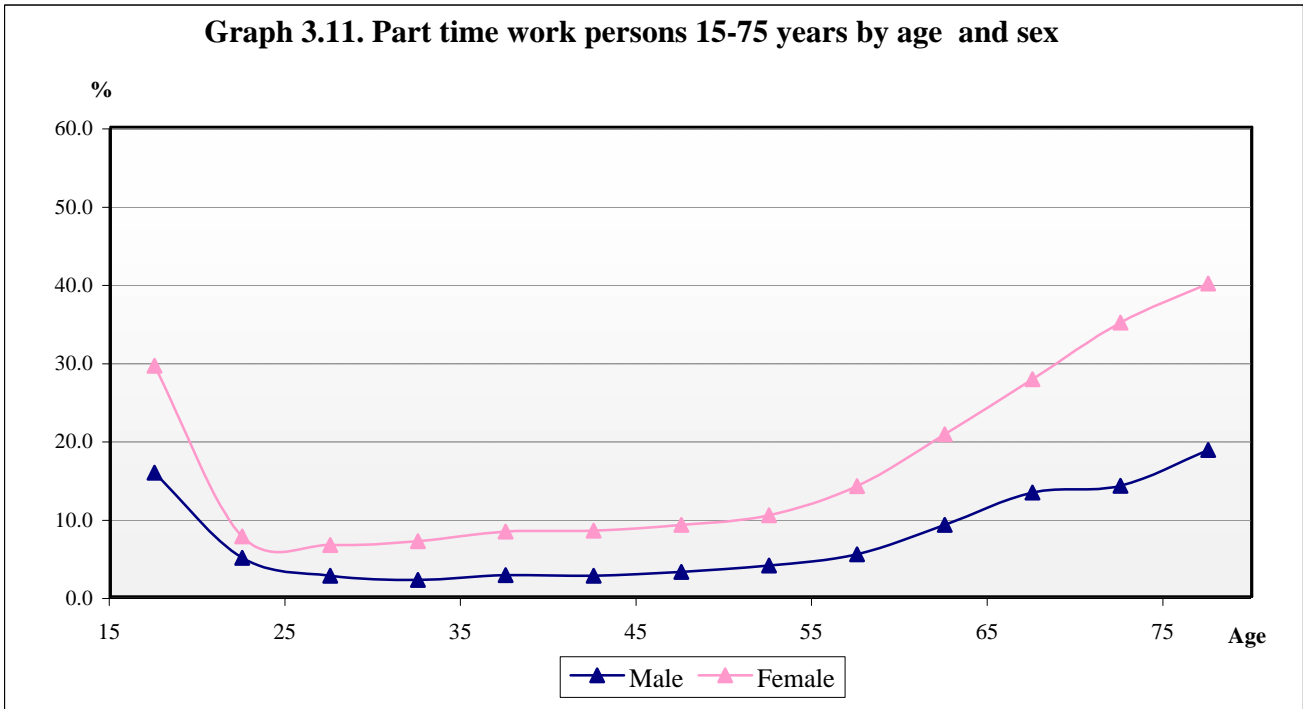
In many countries – especially in Europe- part time work is promoted to allow young women to combine working careers and motherhood. In the Netherlands, the historical explanation for the growth of part-time work lies in the response to the situation in the 1960s when there was an excess demand for labor. Up to then in the Netherlands participation of women was very low compared to other countries, and employers were forced to offer jobs to women that were tailor-made for them (given family responsibilities and the limited availability of childcare facilities). From then on, part-time work became an accepted feature of the labor market and developed from providing second-class jobs for married women to fully acceptable jobs for all women and an increasing number of men. Increasingly employers now use part-time employment as the best

³⁵ Europäische Kommission: *Beschäftigung und Soziales*, 1 Juli 2001, p. 20.

Table 3.13. MCA analysis on working hours

Variable	Category	N of cases	Predicted Mean	Adjusted	Deviation	Adjusted	
			Unadjusted	for factors	Unadjusted	for Factors	
Sex	Male	22,286	43.8	43.9	1.1	1.2	
	Female	19,301	41.5	41.4	-1.2	-1.4	
Region of birth	Country birth Aruba	24,579	41.8	42.1	-0.9	-0.7	
	Developed countries	3,759	43.0	42.8	0.2	0.0	
	Developing countries	13,249	44.4	44.0	1.7	1.3	
Handicap	Yes	942	41.1	41.3	-1.7	-1.4	
	No	40,646	42.8	42.8	0.0	0.0	
ISIC categories	Agriculture, hunting and forestry	179	42.9	41.9	0.2	-0.9	
	Fishing	34	46.3	46.5	3.5	3.7	
	Mining and quarrying	38	46.6	45.5	3.8	2.8	
	Manufacturing	2,439	43.4	43.1	0.7	0.3	
	Electricity, gas and water supply	501	40.5	40.5	-2.3	-2.3	
	Construction	3,892	42.4	41.7	-0.4	-1.0	
	Wholesale and retail trade, repair	7,112	43.1	42.9	0.3	0.2	
	Hotels and restaurants	7,650	46.3	45.9	3.6	3.1	
	Transport, storage and communications	2,904	41.3	41.5	-1.4	-1.2	
	Financial intermediation	1,485	41.2	42.1	-1.5	-0.6	
	Real estate, renting and business activities	3,722	43.1	42.9	0.4	0.2	
	Public administration and defence; social security	3,528	40.9	41.4	-1.9	-1.4	
	Education	1,431	35.2	36.3	-7.5	-6.4	
	Health and social work	1,987	39.6	40.7	-3.2	-2.0	
	Other community, social and personal services	2,775	43.0	42.8	0.2	0.1	
	Private households with employed persons	1,866	42.3	43.3	-0.5	0.5	
	Extra territorial organizations and bodies	45	45.7	45.0	2.9	2.2	
	ISCO categories	Armed forces	134	41.4	41.6	-1.3	-1.2
		Legislators, senior officials, and managers	3,728	46.8	46.4	4.0	3.6
		Professionals	2,536	40.2	42.6	-2.6	-0.2
Technicians and associate professionals		4,627	40.5	41.8	-2.3	-0.9	
Clerks		7,673	41.5	42.4	-1.3	-0.3	
Service workers and shop and market sales workers		8,120	44.4	43.6	1.7	0.9	
Skilled agricultural and fishery workers		315	43.7	42.0	0.9	-0.8	
Craft and related trades workers		5,061	42.6	41.7	-0.1	-1.0	
Plant and machines operators and assemblers		2,077	42.9	42.7	0.1	-0.1	
Elementary occupations		7,316	42.6	41.7	-0.2	-1.0	

Source: Population Census 2000 Aruba



solution to meet particular labor needs instead of as a second-best option as was the case in the 1960's. In Aruba this attitude towards part-time work does not exist (yet). At the ages when women normally have their children very few women, and even fewer men, opt for a part time job. At this moment it is unclear whether many women would be interested in part-time occupation, whether employers would see it as an option to solve some of the problems on the labor market or what the standpoint of the government is on this matter.

3.5. SINGLE MOTHERS

A single mother has a vulnerable position on the labor market. As the sole breadwinner of the family, she is often forced to take up paid employment outside the home. To do so she has to leave the children at home or in the care of others. This may create less than ideal conditions for the well being of the children. Often when children are sick or when other family problems arise she has to make a choice between her responsibilities as a mother or as an employee. Because of its social importance, in this section we pay some attention to single mothers.

Table 3.14. Number of single mothers by age 1991-2000

	1991			2000		
	Single mothers	All women	% single mother	Single mothers	All women	% single mother
14	1	5227	0.0	3	6758	0.0
15-19	85	4501	1.9	118	6129	1.9
20-24	243	4413	5.5	393	5024	7.8
25-29	356	5780	6.2	469	6354	7.4
30-34	554	6753	8.2	606	7774	7.8
35-39	545	6169	8.8	857	9092	9.4
40-44	440	5103	8.6	949	8421	11.3
Total	2225	37946	5.9	3395	49552	6.9

Source: Population Census 1991, 2000.

Table 3.14 shows the number of single mothers by age living on Aruba at the time of the census of 1991 and 2000. As we are interested in single mothers with relatively young children, we have restricted the analysis to those mothers below age 45. We consider a single mother a person with children who live without a partner. In this case the partner does not have to be the father of the children nor is he necessarily the legal husband of the women. In 1991, 2,225 single mothers were living on Aruba; in 2000 this figure had increased to 3,395. As a percentage of all women, the number of single mothers increased from 5.9 to 6.9 between 1991 and 2000. The proportion of single mothers among all women is highest for Aruban born women (8.8 percent) against 6.5 percent among women born in a developing country and 4.9 percent for women from a developed country. In 2000, 1,456 single mothers were living in a nuclear family. All others were either living in an extended or in a composite household.

Table 3.15. Day-care after school by type of family.

	One-person Family		Married couple		Father alone with child(ren)		Mother alone with child(ren)		Consensual union with children		NEC	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Mother/father	116	27.6	5485	58.2	76	30.1	1431	38.0	795	44.5	13	25.0
Other family member	207	49.5	1278	13.5	90	36.0	1027	27.3	319	17.9	3	6.3
Paid baby sitter at home	5	1.3	582	6.2	25	10.0	155	4.1	80	4.5	0	0.0
Elsewhere with family/friends	27	6.5	930	9.9	26	10.5	427	11.3	265	14.8	4	8.3
Child remains at home alone	9	2.3	201	2.1	9	3.8	127	3.4	41	2.3	0	0.0
Childcare out of home	47	11.3	853	9.0	19	7.5	560	14.9	272	15.2	0	0.0
Not reported	6	1.5	104	1.1	5	2.1	38	1.0	16	0.9	30	60.4
	418	100.0	9432	100.0	251	100.0	3765	100.0	1787	100.0	50	100.0

Source: Population Census 2000.

NEC: Not elsewhere classified

Table 3.15 shows how single mothers arranged for day-care of their children after school, compared to other types of family. The analysis was restricted to children below the age of 16; 58.2 percent of children of married parents stay at home after school with their mother or father. Among children of single mothers this percentage is much lower (38 percent). Single mothers have to rely much more on other family members to take care of children after school: 27.3 percent of children stay with another family member at home and 11.3

percent elsewhere with family or friends. Almost 15 percent of all children of single mothers go to professional childcare after school.

Table 3.16. Single mothers by age and employment status

	Single mothers			All other women			Single/all women	
	Working	Unemployed	Unempl.rate	Working	Unemployed	Unempl.rate	Working	Unemployed
15-19	17	20	54.3	239	82	25.5	6.6%	19.6%
20-24	226	62	21.5	1,290	195	13.1	14.9%	24.1%
25-29	345	47	12.0	2,040	179	8.0	14.5%	20.9%
30-34	471	46	8.9	2,480	169	6.4	16.0%	21.5%
35-39	679	58	7.8	2,847	190	6.3	19.3%	23.3%
40-44	741	47	6.0	2,502	167	6.3	22.9%	22.1%
Tot.	2,480	280	10.2	11,399	982	7.9	17.9%	22.2%

Source: Population Census 2000.

Of all women aged 15 to 45 in the labor force, 18.2 percent are single mothers. Table 3.16 provides a breakdown of single mothers (and all other women) by age and employment status. Especially in the younger age-categories, single mothers have much higher unemployment rates than other women. At somewhat older ages, the unemployment rates come much closer to those of the other women. In these age groups the proportion of women with small children becomes much smaller. This may be an indication that is more difficult for single mothers with small children to find the right job where they can combine their role as breadwinner and caretaker. The last two columns in the table show employed and unemployed single mothers as a percentage of all employed and unemployed women. These figures confirm that on the whole single mothers have higher levels of unemployment than their overall portion of the labor market.

Table 3.17. Number of mothers (15-45 years) by family type and source of income

Family type	No income	Salary/wage	Capital/profit own account	Government welfare	Other	Total
<u>Absolute</u>						
Legal union with children	2,238	4,274	213	43	93	6,860
Mother with children	336	2,441	55	366	197	3,395
Consensual union with children	284	1,089	30	44	33	1,479
Not elsewhere classified	1	8	0	0	14	23
Total	2,858	7,812	298	454	333	11,755
<u>Percentage</u>						
Legal union with children	32.6	62.3	3.1	0.6	1.4	100.0
Mother with children	9.9	72.0	1.6	10.8	5.7	100.0
Consensual union with children	19.2	73.6	2.1	3.0	2.2	100.0
Not elsewhere classified	4.5	36.4	0.0	0.0	59.1	100.0
Total	24.3	66.5	2.5	3.9	2.8	100.0

Source: Population Census 2000.

Table 3.17 shows the percentage of all mothers between 15 and 45 with children, by family type and source of income. As single women are often the sole breadwinner of the family, few of these women have no income (9.9 percent). Many women who have a husband and children stay home to take care of the children when they are young. Most single mothers cannot afford this. As we saw before, unemployment among single mothers is higher than among all women. This may be the reason that many more single mothers live on welfare (10.8 percent) than other mothers.

3.5. EQUAL PAY?

'Equal pay for equal work' is an important principle to promote social justice in the workplace. Many countries have adopted measures to promote equal pay between the sexes. 'These measures do not target women for protection or special treatment, but they do have the explicit goal of improving women's labor market outcomes by eliminating wage and employment discrimination against women. The "equal pay for equal work" clause requires employers to provide equal pay for workers performing the same job with equal efficiency, regardless of gender'³⁶. In Aruba, equal pay is guaranteed by law for public servants. No law exists for the private sector.

Comparing salary levels for men and women is not straightforward, largely because of methodological difficulties in separating their effect from other concurrent changes. We used a multiple classification analysis (MCA) to estimate the difference between salary levels of men and women. The dependent variable we used in the MCA was monthly salary. The following factors were introduced in the equation: sex, occupation, education attainment and handicap status. As we saw before, women on average have less working hours per week than men. This obviously has some effect on the income level. Therefore, we introduced hours per week worked as a covariate in the MCA.

The results for the MCA are presented in table 3.18. Large differences in level of income exist between the various education and occupation levels. The overall mean of income on the basis of the census was 2,242 Afl. per person. As could be expected persons with a higher education have the highest salaries. After controlling for factors and covariates, persons with a university diploma (ISCED 6 or 7) have income levels that are respectively Afl 2,261 and Afl 3,839 higher than the overall mean. If a person did not complete his/her education his/her income is significantly lower. Persons working as 'legislators, senior officials and managers' and 'professionals' earn respectively Afl 2,178 and Afl. 2,253 more than the overall mean. The MCA shows clearly that, after we control for intervening factors and covariates, men have an income that is considerably higher than women. Per month men on average take home about Afl 525 more than women.

³⁶ Yana van der Meulen Rodgers (1999), *Protecting Women and Promoting Equality in the Labor Market: Theory and Evidence*. The World Bank Development Research Group/ Poverty Reduction and Economic Management Network. Nov. 1999, p. 10.

Table 3.20. MCA-table, income by sex, occupation, education, handicap status and number of hours worked.

		N	Mean for subgroups, without control	Controlled for factors and Covariates	Deviation from mena without control	Deviation from mean after control
Sex						
	Male	12223	2544.3	2494.5	302.5	252.7
	Female	11310	1914.9	1968.7	-326.9	-273.1
Occupation (ISCO)						
	legislators, senior officials, and managers	1644	4419.6	3953.4	2177.8	1711.7
	professionals	1228	4494.8	3450.5	2253.0	1208.7
	technicians and associate professionals	2430	3299.6	3019.4	1057.8	777.6
	clerks	4178	2174.3	2356.3	-67.4	114.5
	service workers and shop and market sales workers	4837	1762.1	1910.2	-479.7	-331.6
	skilled agricultural and fishery workers	197	1474.0	1448.2	-767.8	-793.6
	craft and related trades workers	3053	1877.5	1814.6	-364.3	-427.2
	plant and machines operators and assemblers	1094	2267.1	2213.7	25.3	-28.1
	Elementary occupations	4870	1198.6	1508.4	-1043.2	-733.4
Diploma						
	No education	292	1099.8	1666.9	-1142.0	-574.9
	Isced cat.1 or less	5346	1512.0	1854.5	-729.7	-387.3
	Diploma isced cat.2	7133	2083.9	2123.3	-157.9	-118.5
	Diploma isced cat.3	1249	2150.1	2199.7	-91.7	-42.1
	Diploma isced cat.5	1909	2784.1	2509.2	542.4	267.4
	Diploma isced cat.6	1286	4502.8	3610.8	2261.0	1369.0
	Diploma isced cat.7	354	6080.5	4898.2	3838.7	2656.4
	Diploma isced cat.9	51	2481.8	2131.0	240.0	-110.8
	No diploma, followed, isced 2	2187	1751.4	1928.2	-490.4	-313.6
	No diploma, followed, isced 3	209	1567.8	1922.2	-674.0	-319.6
	No diploma, followed, isced 5	131	2036.7	2189.5	-205.1	-52.3
	No diploma, followed, isced 6	41	2467.8	2211.4	226.0	-30.4
	No diploma, followed, isced 7	4	1815.0	1722.3	-426.8	-519.5
	No diploma, followed, isced 9	49	1738.1	1928.8	-503.7	-313.0
	Diploma isced 2 with other unfinished study	2168	2341.5	2263.2	99.7	21.4
	Diploma isced 3 with other unfinished study	488	2799.6	2552.4	557.8	310.6
	Diploma isced 5 with other unfinished study	376	3058.3	2608.9	816.5	367.1
	Diploma isced 6 with other unfinished study	209	4677.6	3713.4	2435.8	1471.6
	Diploma isced 7 with other unfinished study	32	5484.3	4116.1	3242.5	1874.3
	Diploma isced 9 with other unfinished study	18	2894.1	2585.1	652.3	343.3
Handicap status						
	Handicaped	542	2015.5	2169.1	-226.3	-72.7
	Not handicaped	22991	2247.1	2243.5	5.3	1.7

Source: Population Census 2000.

CHAPTER 4. FOREIGN LABOR

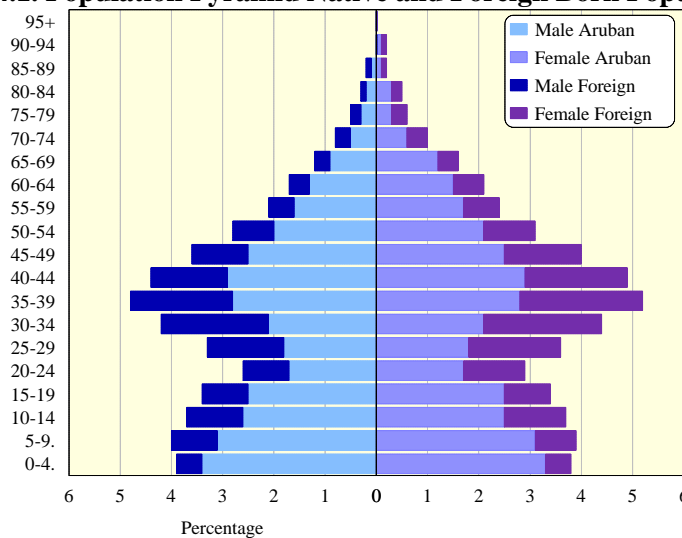
During the last ten years Aruba witnessed an enormous growth in its population, caused by a large-scale influx of foreign laborers. The growth of the foreign born population was triggered by a series of decisive events that took place after Aruba's 'Status Aparte' from the Netherlands Antilles in 1986. At that moment Aruba went through its most serious economic crisis of the last century. One year earlier the Lago oil refinery closed its operation on Aruba. The refinery had been the backbone of Aruba's economy for the preceding fifty years, providing 50 percent of Aruba's exchange earnings, 40 percent of the tax revenues and being the direct employer of an estimated 8 percent of the total labor force³⁷. Its closure caused an economic domino effect and instigated a rise in unemployment to some 30 percent. The country lost almost half of its income and many citizens left the island in desperate search for work. The government took firm action. Through a series of favorable fiscal measures, many hotels and timeshares were attracted to the island. Aruba was able to fully develop its potential as a prime tropical tourist paradise. In less than fifteen year Aruba has become one of the most prosperous countries in the region³⁸.

The development of the tourist industry caused an enormous boom in the construction sector on the island. In September 1990, 4,382 laborers were working in the construction sector (Aruba Economic Memorandum, 1991). Due to the shortage of construction workers, wages in the construction sector soared. From 1988 to 1990, wages increased by 41.9 percent, from Afl. 1,655 to Afl. 2,434. The second most important increase in salaries was in the retail sector, where wages went up by 20 percent on average. The completion of hotel rooms fell a little short of the amount originally planned. However, by the end of 1992, 5,804 rooms were in operation³⁹. Currently, the island has 6,574 hotel rooms available. Due to the increased capacity of the Aruban hotels, the tourist sector attracted a large group of service workers. These workers have come from all corners of the world. Currently, people born in no less than 124 countries are living on Aruba. The rapid population growth that accompanied immigration has caused stress on different economic and social sectors such as housing, health care, the pension system and other services.

4.1. GENERAL CHARACTERISTICS OF MIGRANTS

At the time of the 1991 census, out of a population of 66,687, 15,910 persons were not born on the island (23.9 percent). In 2000, out of the total 90,506, people living on Aruba, 59,886 (66.1 percent) were born on the island; the other 30,104 (33.9 percent) were born elsewhere. The immigration of large groups of foreign workers has had some serious effect on the demographic characteristics of the population on Aruba.

Graph 4.1. Population Pyramid Native and Foreign Born Population, Aruba 2000.

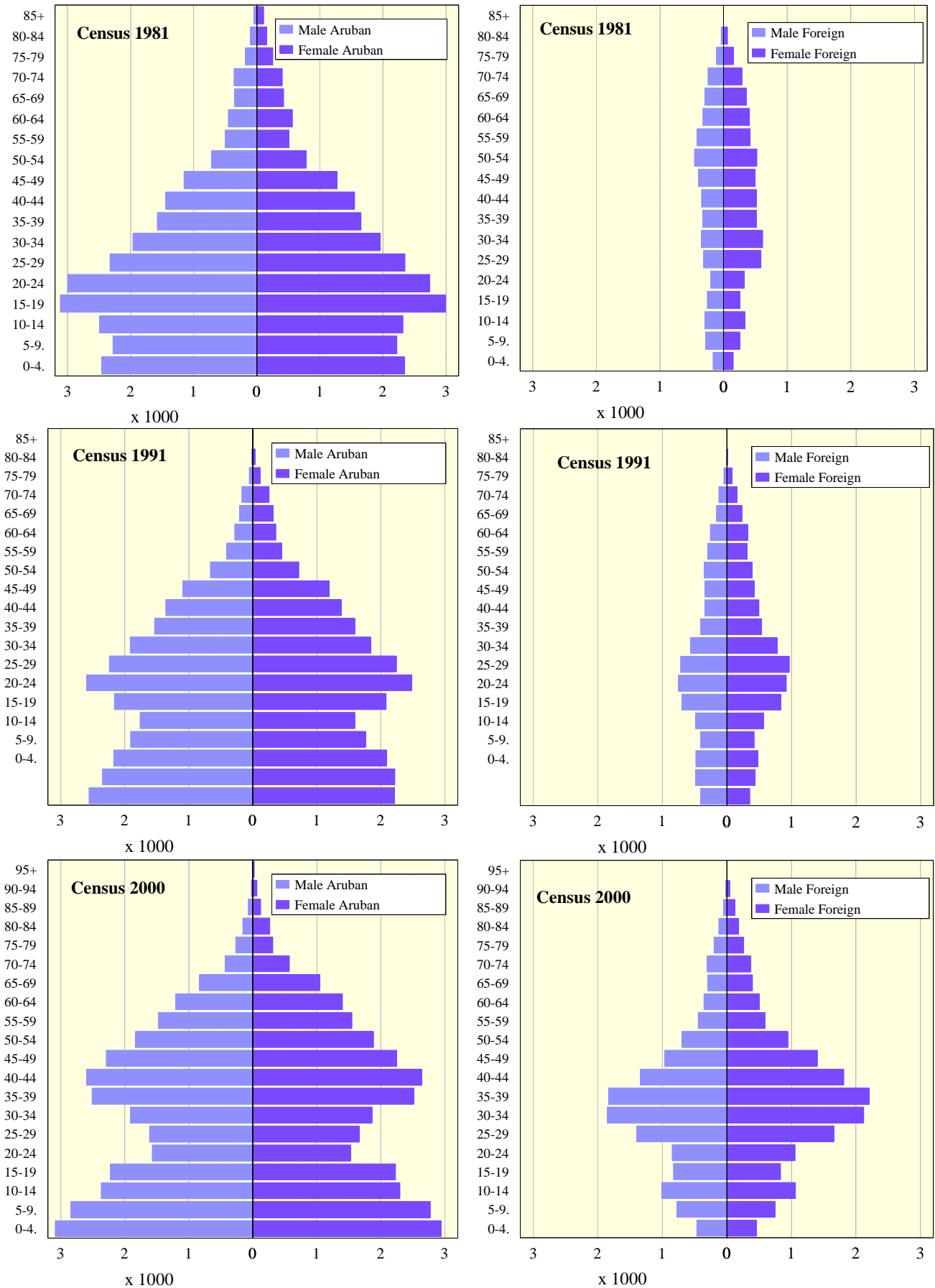


³⁷ Centrale Bank Annual Report 1986

³⁸ Edo Haan (2001), *Ontketende economie. In: Aruba y su Status Aparte. Logro di Pasado, reto pa futuro.* P. 83-90.

³⁹ Information provided to the Central Bureau of Statistics by the Department of Economic Affairs, Commerce and Industry.

Graph 4.2. Population Pyramid Native and Foreign Born Population, Aruba 1981-2000.



The sex ratio of the native born population is 98.1. Many more women than men have come to Aruba during the last 15 years. Currently, the sex ratio among the foreign born population is 81.5. In other words: for every

100 foreign-born women, there are 81.5 foreign-born men on the island. The influx of predominantly young adults has caused large changes in the age structure of the population. Figure 4.1 presents the population pyramids for the native born and foreign-born population as observed in the census, with the relative age-distribution for each group. The relatively large number of children among the native born population clearly stands out. The limited number of children among the foreign-born population compensates this large number. The reason for the large number of local born children is not because fertility among the native-born population has suddenly shot up. The explanation for this is that the Aruba-born children of many foreign-born women are classified as native born.

Most of the migrants who have come to Aruba in the last ten years are in the age groups between 25 and 40. The large proportion of local people in age groups 40-49 shows the aging of the population on Aruba. In contrast, the group of native persons between 20 and 30 is very small. There are two reasons for this. First, every year a large number of students leave the island to study overseas. The exact number of young Arubans studying overseas is unknown. A total of 1,225 Arubans were studying abroad in 2000 on a loan provided by the Aruban government, but an unknown number of students are abroad without financial support from the government⁴⁰. Second, the rapid decline in fertility levels had an effect on the number of persons in age groups 20 to 35.

Graph 4.2 shows how the foreign population has increased during the last twenty years. Especially during the period 1991-2000 the proportion of foreign-born population has increased rapidly. In 1991, 23.9 percent of the population was born outside the island. In 1981, this percentage was 18.5. No figures on native/foreign born are available for 1972. The age structure of the foreign-born population is the direct result of past migration trends to the island. There is a significant group of older foreign-born people on the island. Many came to Aruba in the heyday of the Lago refinery before the 1960's. The largest group of migrants is between ages 25 to 40. Most of these migrants came to Aruba to fill the vacancies in the tourist and construction sector, caused by the economic boom during the late eighties and early nineties.

An important aspect of the demography of Aruba is the rapid ageing of its native population. The pattern of ageing can be observed by looking at the population pyramids for native-born persons for 1981, 1991 and 2000. The effects of ageing on society will largely depend on the future position of foreigners in Aruba. Some important questions arise in this context. To what extent will foreigners contribute to Aruba's social system? How many foreigners will ultimately use the pension system? Will foreigners stay and integrate or will most remain on the island for relatively short periods of time? Will foreigners speed the consequences of ageing or will they dampen its effects? More research is needed on the interaction between migration, ageing and the viability of Aruba's social system.

Throughout Aruba's history, migration has contributed to the ethnic, economic and cultural diversity of the island⁴¹. During the last ten years people from all corners of the world have settled on the island. Table 4.1 gives the total population by country of birth. By far the greatest contingent of migrants comes from Colombia (7191), followed by the Netherlands (3755), Dominican Republic (3692) and Venezuela (2914). In the last column of table 4.1 we present the percentage growth of the population for each country of birth. The fastest growing group of migrants on Aruba is that from Peru. In 1991, there were only 157 Peruvians on the island; by 2000 this had grown to 960, an increase of 511 percent. Citizens from other countries have seen their numbers on Aruba grow considerably in the last ten years: Venezuela (132.3 percent), Haiti (188.1 percent) Philippines (221.2 percent), Jamaica (305.4 percent), China (131.4 percent) and Guyana (151.3 percent). The relatively large group of Filipinos, in particular, who has found its way from the other side of the world to Aruba, is quite remarkable. At the time of the census in 2000, 768 Filipinos were living on Aruba. It is not clear what triggered the migration of these people to Aruba. In the past many people born in the Netherlands Antilles have lived on Aruba. Many of these had Aruban parents and were born in the Antilles because their parents lived there temporarily. In 1981, 4,115 persons from other islands of the Netherlands Antilles lived on Aruba. Many of them left the island when the Status Aparte came into effect.

⁴⁰ *Ensenanza na Aruba, Relato-Estadístico traha pa Seccion di Estadística di Departamento di Ensenanza (s.d., s.l.).*

⁴¹ For an overview of historic patterns of migration and its interaction with the economy, the reader is referred to Eelens, F. (1993) *Migration and the Economy of Aruba. Paper presented at the XXIIInd General IUSSP Conference, Montreal, Canada, 25 August-1 September 1993.*

Currently, more than 15,000 persons who were born in Latin countries have settled on Aruba. Many foreigners on the island married Aruban partners. Since 1991, the number of native-born men and women

Table 4.1. Total population by country of birth Census 2000,1991,1981

Country of birth	Total Population		Increase 1991-2000	
	2000	1991	1981	
Aruba	59,886	50,777	49157	17.9
Colombia	7,191	2,027	946	254.8
Netherlands	3,755	2,296	1378	63.5
Dominican Republic	3,692	2,237	935	65.0
Venezuela	2,914	1,254	414	132.3
Curacao	2,271	1,922	2195	18.2
Suriname	1,301	788	551	65.0
Haiti	1,023	355	220	188.4
Peru	960	157		511.1
Philippines	768	239		220.9
Jamaica	730	180		305.6
United States	695	469	307	48.2
China	636	275	183	131.8
Bonaire	534	543	695	-1.6
St.Maarten	506	494	693	2.4
Guyana	307	122		152.0
Grenada	285	327		-12.9
India	207	60		242.9
Rest of the world	2,330	2,165	2637	7.6
NR	517		1	
Total	90,506	66,687	60,312	35.7

Source: Census 1981,1991,2000

marrying a foreign-born person is much higher than the number of persons in marriages where both partners are native born. There is no doubt that this will cause some important changes in Aruban society. Many Aruban citizens feel some anxiety about the possible effects of such large groups of foreigners on the Aruban way of life⁴².

4.2. FOREIGNERS ON THE LABOR MARKET

In 1991, the total labor force⁴³ consisted of 31,111 persons, of whom 8,097 (26.0 percent) born overseas. Table 4.2 shows a number of key employment indicators for native and foreign born persons by sex, based on the 2000 population census. The census showed that the labor force had increased to 45,037 in 2000, a growth of no less than 44.7 percent since 1991. The number of persons in the labor force not born on the island increased to 18,447. This means that currently 40.9 percent of the labor force was born outside Aruba. The foreign labor force increased by 127.8 percent in the span of nine years. The census counted 41,918 people who had a job, of whom 24,745 were born on Aruba and 17,173 elsewhere. This means that 41 percent of the employed population came to Aruba from abroad, 39.7 percent of men and 42.4 of women⁴⁴.

The employment rate of a population indicates the number of employed persons expressed as a percentage of the population 15 years of age and over. The employment rate for the total population on Aruba is 64.2 percent: i.e. 72.5 percent for males and 56.7 percent for females. The employment rate for foreign-born persons is considerably higher than for native-born persons: 68.1 percent against 61.7 percent. The difference

⁴² More information about the characteristics of migrants to Aruba can be found in CBS 'the People of Aruba, Continuity and Change.' Census 2000 Special Reports. This information was not duplicated here.

⁴³ The labor force consist of the group of both employed and unemployed persons.

⁴⁴ CBS-Aruba (2002), *The People of Aruba. Continuity and Change*, p.80.

is somewhat larger between native and foreign born males than between native and foreign born females: respectively 77.5 percent against 69.7 (males) and 60.5 against 54.1 (females).

Table 4.2. Key employment indicators, native and foreign born males and females.

		Total	Aruban born	Foreign born
Population of working age (15 - 64)	Male	29,887	19,273	10,807
	Female	32,749	19,566	13,641
	Total	62,636	38,838	24,447
Total employment	Male	22,498	13,566	8,932
	Female	19,420	11,179	8,240
	Total	41,918	24,745	17,173
Total unemployment	Male	1,563	1,127	437
	Female	1,555	717	838
	Total	3,118	1,844	1,275
Economically Active Population	Male	24,062	14,693	9,369
	Female	20,975	11,896	9,078
	Total	45,037	26,589	18,447
Employment rate (%)	Male	75.3	70.4	82.7
	Female	59.3	57.1	60.4
	Total	66.9	63.7	70.2
Unemployment rate (%)	Male	6.5	7.7	4.7
	Female	7.4	6.0	9.2
	Total	6.9	6.9	6.9
Participation rate (%)	Male	80.5	76.2	86.7
	Female	64.0	60.8	66.6
	Total	71.9	68.5	75.5

Source: Central Bureau of Statistics, Census 2000

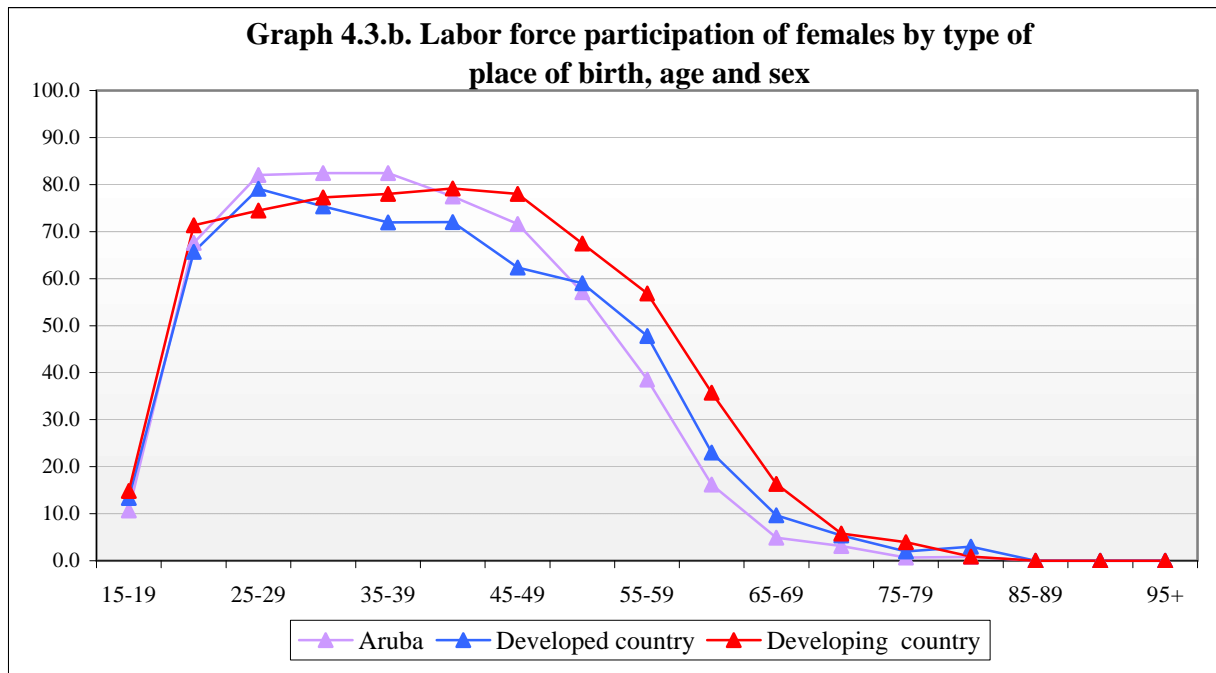
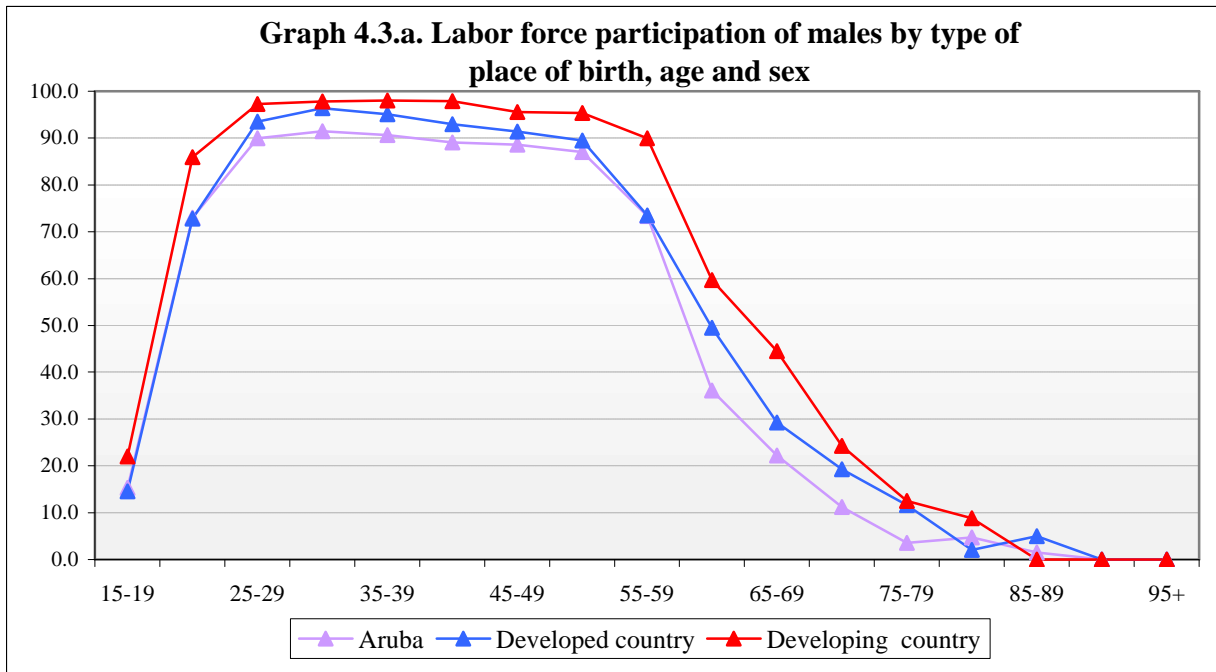
The participation rate for foreign workers is also higher than the rate for native persons: both for males and females. Aruba's total participation rate is higher than the estimated overall rate of the world, the industrialized countries and the Latin American and Caribbean region. For instance, the ILO estimated the participation rate in the industrialized world to be 61.1 percent. In 2000, the overall participation rate in Aruba was 64.2 percent for the whole population. Foreign men have the highest labor force participation: 77.5 percent of all foreign-born men age 15 and above are in the labor force. The participation of foreign women is about 17 percent lower than that of foreign men.

Table 4.3. Annual percentage change in number of persons employed and labour force participation rate, 1990-1999

	Labour force participation rate ¹ (percentage)		
	1990	1995	1999
World	62.9	62.5	61.6
Developed (industrialized countries)	61.3	60.6	61.1
Transition economies	-	59.4	57.5
Asia and the Pacific	63.8	63.2	62.5
Latin America and the Caribbean	57.2	62.6	-

Source: ILO: Key Indicators of the Labour Market 1999 (KILM) (Geneva: ILO, 1999) and 2001 (forthcoming).

¹ Estimate.



At all ages, participation rates for men born in a developing country are higher than for Aruban men and men born in a developed country. For one reason or the other, the participation rates for Aruban men are lowest. The difference is biggest in age group 20-24 and age group 50-59. Typically young persons who migrate here for work have finished their education, while part of the Aruban youth continue their studies after age 20. Aruban men tend to retire sooner than others. Perhaps a number of them are financially in a position that they can leave the labor force at a younger age. However, it is possible that foreigners who leave the labor market also leave the island.

The age-specific participation pattern for women is somewhat different. At the two youngest age groups, women from developing countries have the highest labor force participation. Between age 25 and 40 Aruban born women have slightly higher participation than the other groups. After age 40, women from developing countries have higher participation rates. For instance, between age 60 and 64, 35.7 percent of women born in a developing country are still active on the labor market, against 23.0 percent of women from a developed country and 16.2 percent of Aruban born women.

Table 4.4. Labor force participation of males by type of place of birth, age and sex

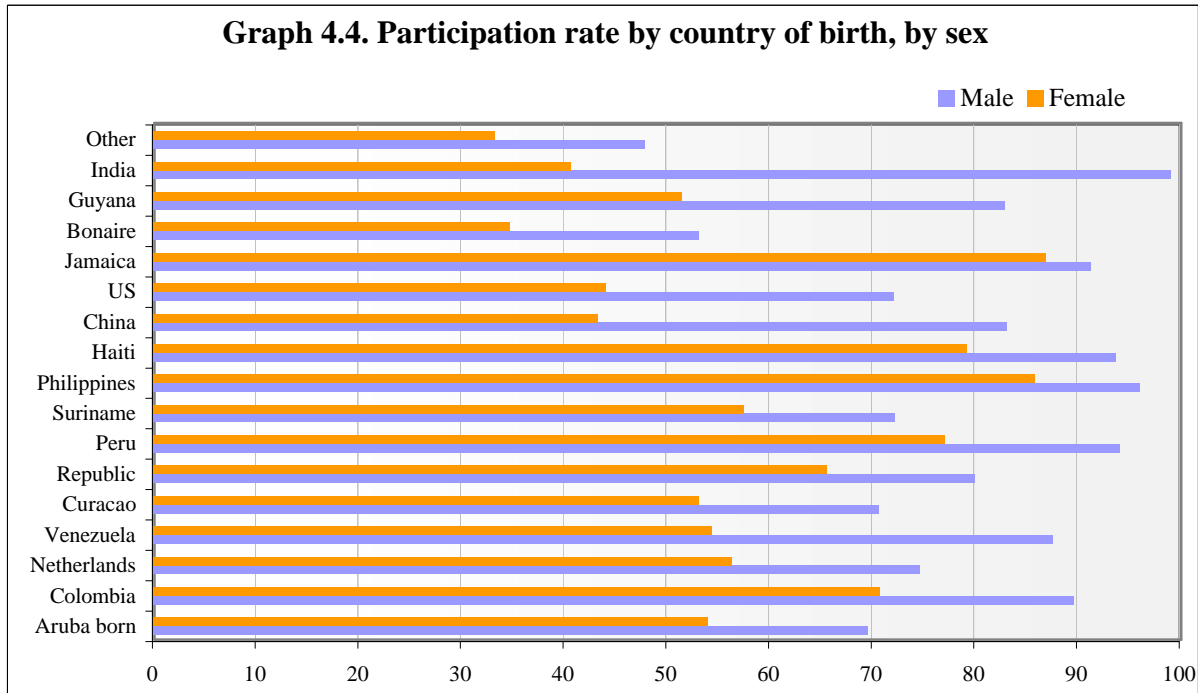
Age	Economically active			Economically inactive			Participation rates		
	Aruba	Developed	Developing	Aruba	Developed	Developing	Aruba	Developed	Developing
		country	country		country	country		country	
15-19	340	43	117	1887	253	413	15.3	14.5	22.0
20-24	1147	158	540	424	59	88	73.0	72.8	86.0
25-29	1451	271	1073	162	19	30	90.0	93.5	97.2
30-34	1746	338	1469	163	13	33	91.5	96.4	97.8
35-39	2273	364	1416	235	19	28	90.6	95.1	98.0
40-44	2318	347	937	285	26	20	89.1	93.0	97.9
45-49	2037	279	612	261	26	28	88.6	91.4	95.6
50-54	1598	258	386	238	30	19	87.0	89.5	95.3
55-59	1083	181	179	394	65	20	73.3	73.5	89.9
60-64	435	102	87	771	104	59	36.1	49.5	59.7
65-69	186	55	47	651	132	59	22.2	29.2	44.6
70-74	48	33	34	382	137	105	11.2	19.3	24.2
75-79	9	12	13	256	88	88	3.6	11.6	12.5
80-84	7	1	6	149	50	65	4.7	2.0	8.8
85-89	1	1	0	69	20	28	1.5	5.0	0.0
90-94	0	0	0	22	13	9	0.0	0.0	0.0
95+	0	0	0	7	1	3	0.0	0.0	0.0
NR	13	0	9	3	0	1			
Total	14693	2441	6925	6360	1055	1097	69.8	69.8	86.3

Table 4.5. Labor force participation of females by type of place of birth, age and sex

Age	Economically active			Economically inactive			Participation rates		
	Aruba	Developed	Developing	Aruba	Developed	Developing	Aruba	Developed	Developing
		country	country		country	country		country	
15-19	239	36	83	1997	232	477	10.7	13.3	14.8
20-24	1032	143	599	495	75	240	67.6	65.7	71.3
25-29	1367	218	1026	299	58	351	82.0	79.1	74.5
30-34	1535	257	1374	327	84	404	82.5	75.4	77.3
35-39	2076	229	1469	442	89	414	82.4	71.9	78.0
40-44	2049	206	1203	596	80	316	77.5	72.1	79.2
45-49	1617	153	896	639	92	252	71.7	62.4	78.0
50-54	1077	127	490	808	88	236	57.1	59.0	67.5
55-59	597	91	227	953	100	172	38.5	47.8	56.8
60-64	227	48	105	1174	162	189	16.2	23.0	35.7
65-69	51	20	32	1000	186	162	4.9	9.7	16.3
70-74	18	8	13	554	147	206	3.1	5.4	5.8
75-79	2	2	6	312	104	152	0.7	2.0	4.0
80-84	2	2	1	264	68	114	0.8	3.0	0.9
85-89	0	0	0	125	49	77	0.0	0.0	0.0
90-94	0	0	0	65	16	32	0.0	0.0	0.0
95+	0	0	0	22	5	9	0.0	0.0	0.0
NR	6	0	8	1	2	8			
Total	11896	1541	7532	10074	1637	3812	54.1	48.5	66.4

Source: Population Census Aruba 2000.

Persons born in various countries have unequal labor force participation. In table 4.5 we give the participation rates for persons born in a number of countries. We have restricted the table to these countries of birth from which more than hundred people are active on the labor market on Aruba. The results are depicted in Graph 4.4.



Graph 4.4 shows that participation rates for men 15 years of age and older are considerably higher than for women for all countries of birth. Ten countries have a labor force participation that is higher than 80 percent. Five countries are even higher than 90 percent. Men from India score highest: out of 137 Indian who were residing on Aruba at the time of the 2000 census, 136 were either employed or unemployed. It is interesting to see that these men have imported their norms about female work to their new country. Slightly more than 40 percent of Indian women 15 years of age and above can be found in the labor force. This is the lowest among all the countries, with the exception of Bonaire. It is interesting that there is such a large variety of labor force participation among the different countries of birth. Women from Jamaica and the Philippines have the highest rates (respectively 87 and 86 percent). This is about 2.5 times higher than Bonaire, the country with the lowest degree of participation. Participation rates for Aruban born men and women are quite low compared to most of the other countries. Next to men from Bonaire, Aruban born men have the lowest participation. Aruban born women occupy somewhat more of a middle position.

Table 4.6. Unemployment rates by sex and country of birth

	Employed			Unemployed			Unemployment rates		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Aruba	13566	11179	24745	1127	717	1844	7.7	6.0	6.9
Bonaire	132	81	213	8	3	12	6.0	3.8	5.1
Curacao	760	433	1193	46	32	78	5.7	6.8	6.1
St.Maarten	48	53	101	8	4	13	14.8	7.4	11.1
China	252	116	368	3	2	5	1.2	1.8	1.4
Colombia	2122	2490	4612	111	332	443	5.0	11.8	8.8
Dominican Republic	687	1396	2083	80	180	259	10.4	11.4	11.1
Grenada	41	116	156	4	2	6	9.3	1.8	3.9
Guyana	118	58	175	5	11	16	4.3	15.4	8.2
Haiti	273	471	744	15	61	76	5.1	11.4	9.2
India	133	20	153	2	3	5	1.6	13.6	3.3
Jamaica	162	377	539	16	24	40	8.9	6.0	6.9
Netherlands	997	664	1661	26	38	64	2.6	5.4	3.7
Peru	434	288	721	15	15	29	3.3	4.9	3.9
Philippines	389	247	635	3	11	14	0.8	4.1	2.1
Suriname	381	317	698	14	9	23	3.5	2.9	3.2
United States	171	100	271	6	4	11	3.6	4.0	3.7
Venezuela	1099	528	1627	49	73	123	4.3	12.2	7.0

Source: Population Census Aruba 2000.

Remark: only those countries with more than 100 persons in the labor force were selected

The overall unemployment rate stands at 6.9 percent. Foreign-born men have an unemployment rate of 4.7 percent. Aruban born men score much higher with 7.7 percent. Among women, this trend is the other way around. Aruban born women have an unemployment rate of 6.0 percent, while 9.2 percent of foreign women are unemployed. In 1991, unemployment was 5.6 percent for immigrants and 6.2 percent for the native population.

Country of birth is closely linked to the level of unemployment. In Table 4.6 we present unemployment rates for men and women by country of birth. Again, only those countries with more than 100 persons in the labor force were selected. Persons born in Aruba have the same unemployment rate as the overall national level. It is interesting to see that Aruban men have a higher unemployment rate than Aruban women: 7.7 percent against 6.0 percent. Unemployment is lowest among economic active persons from China (1.4 percent) and the Philippines (2.1 percent). Other countries that score very low in terms of unemployment are: Grenada, the Netherlands, Peru, Surinam and the United States. Men from India also have very low unemployment (1.6 percent). Although a high percentage of Indian women are out of work (13.6 percent), it should be noted that very few of these women are active on the labor market.

The highest levels of unemployment can be observed among women from Colombia (11.8 percent), the Dominican Republic (11.4 percent), Guyana (15.4 percent), Haiti (11.4 percent), Jamaica (13.6 percent) and Venezuela (12.2 percent). Unemployment for men is higher than 10 percent for workers from the Dominican Republic (10.4 percent) and St. Maarten (14.8 percent). However, in the case of St Maarten only a very small group of male workers born there are working on Aruba.

In general, 40.9 percent of all the unemployed persons on the island were not born on Aruba. Among all foreign-born persons, Colombians have the highest absolute number of unemployed. In October 2000, 443 Colombians were out of work. A total of 259 persons from the Dominican Republic and 123 Venezuelans are unemployed. It is unclear why unemployment among persons from these countries is so much higher as among persons born in other countries.

4.3. SPECIFIC NICHE ON THE LABOR MARKET

In the last fifteen years, foreign workers have found specific niches on Aruba's labor market. Figure 4.5 gives more details of the economic activities of the employed foreign population. Appendix 20 shows data on which this graph is based. The figure shows the division of the labor market by major occupational group and sex. To categorize the occupational group we used the *International Standard Classification of Occupation (ISCO-88)*, developed by the International Labor Organization (ILO, 1990).

Figure 4.7 clearly shows the position of migrants on the local labor market. One can see that a significant number of foreign workers are present in each ISCO category. A large proportion of foreign workers – and especially women in this group - can be found in the group of elementary occupations. As expected, the vast majority of these women originate from developing countries. For instance, 1,797 foreign-born women work as housemaids in private homes and 1,402 work as cleaners in offices, hotels or other establishments. Among native women these numbers are respectively 47 and 654. Among men, too, more foreign-born males perform elementary occupations than native men.

'Craft and related trade workers' is another ISCO category where many foreign laborers are active; 2,498 foreign-born men worked in this category, compared with 2,309 native men. Foreign craftsmen dominate the construction sector in Aruba. For instance, the number of foreign-born masons is 584, against 331 Aruban masons. The numbers of foreign-born and local carpenters are respectively 309 and 235. Also in this category, the number of migrants from developing countries is much higher than that from developed countries.

Table 4.7. Employed population by occupation (ISCO major division), sex and country of birth

Major Occupational group	Male				Female			
	Aruba	Developed countries	Developing countries	NR	Aruba	Developed countries	Developing countries	NR
Armed forces	29	103	2	0	0	0	0	0
Legislators, senior officials, and managers	1,422	482	509	0	877	235	237	0
Professionals	879	357	205	0	726	250	129	0
Technicians and associate professionals	1,892	359	288	0	1,534	275	297	0
Clerks	1,946	184	232	0	4,367	330	638	0
Service workers /shop and market sales workers	2,007	317	1,247	0	2,424	276	1,874	0
Skilled agricultural and fishery workers	128	11	153	0	6	0	25	0
Craft and related trades workers	2,309	282	2,215	0	135	13	171	0
Plant and machines operators and assemblers	1,509	111	355	1	100	5	20	0
Elementary occupations	1,478	140	1,392	250	1,032	75	3,403	219

Population and Housing Census 2000.

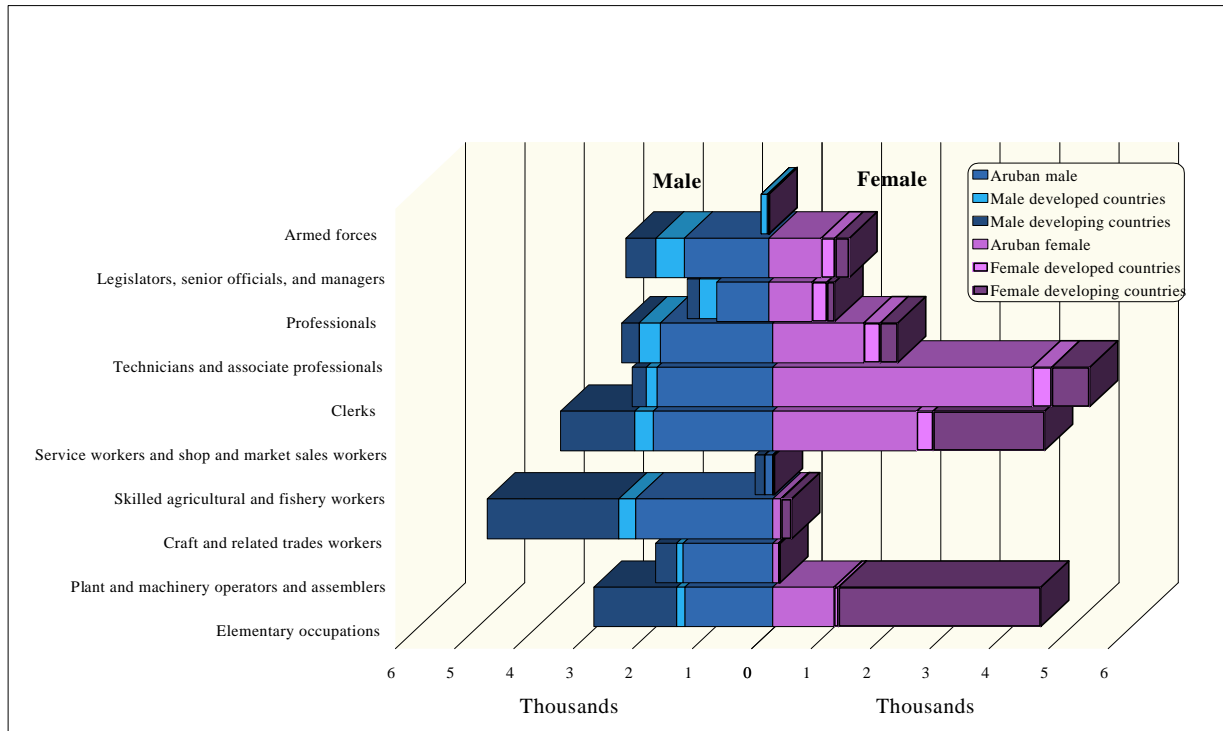
The majority of 'clerks' are native born; this category includes most government workers. A basic knowledge of Spanish is often handy for shopping on Aruba. Many salesgirls in shops come from Latin countries. In 1991, 25.4 percent of 'Service workers and shop and market sales workers' were born outside Aruba. This proportion increased significantly in the next nine years and in 2000 45.6 percent of workers in this category were foreign born. The proportion of foreign-born staff in the group 'Legislators, senior officials and managers' has increased slightly. In 1991, 36.5 percent of persons in this category were born outside Aruba. This percentage has further increased to 38.9. Migrants from developed countries constitute an important part of the workforce in these three categories.

Table 4.8. Employed population by branch of industry (ISIC major division), sex persons and country of birth

<i>Major Occupational group</i>	Male				Female			
	Aruba	Developed countries	Developing countries	NR	Aruba	Developed countries	Developing countries	NR
Agriculture, hunting and forestry	47	6	89	0	16	3	17	0
Fishing	28	2	2	0	0	0	1	0
Mining and quarrying	17	4	14	0	3	0	0	1
Manufacturing	1,139	183	607	0	328	50	132	0
Electricity, gas and water supply	422	18	9	0	45	1	5	0
Construction	1,543	239	1,806	0	170	24	110	0
Wholesale and retail trade, repair	1,811	320	1,075	0	2,660	242	1,004	0
Hotels and restaurants	1,717	339	1,479	0	1,498	235	2,382	0
Transport, storage and communications	1,648	149	145	1	779	76	107	0
Financial intermediation	392	71	46	0	864	65	46	0
Real estate, renting and business activities	1,158	275	697	0	997	138	458	0
Public administration and defence; social security	1,786	295	51	0	1,242	112	41	0
Education	302	126	35	0	625	205	139	0
Health and social work	287	78	78	0	1,192	168	185	0
Other community, social and personal services	1,133	193	326	0	668	107	350	0
Private households with employed persons	20	1	54	0	38	7	1,747	5
Extra territorial organizations and bodies	4	17	4	0	3	8	8	0

Population and Housing Census 2000.

Graph 4.5. Employed population by (ISCO) major occupational group, sex and native/foreign born status



Source: Population and Housing Census 2000

Another way to view the position of foreigners on the labor market is by looking at the industrial sector in which they work. For the classification of industrial and business activities in Aruba, the *International Standard Industrial Classifications of all Economic Activities (ISIC, Revision 2)* was used.

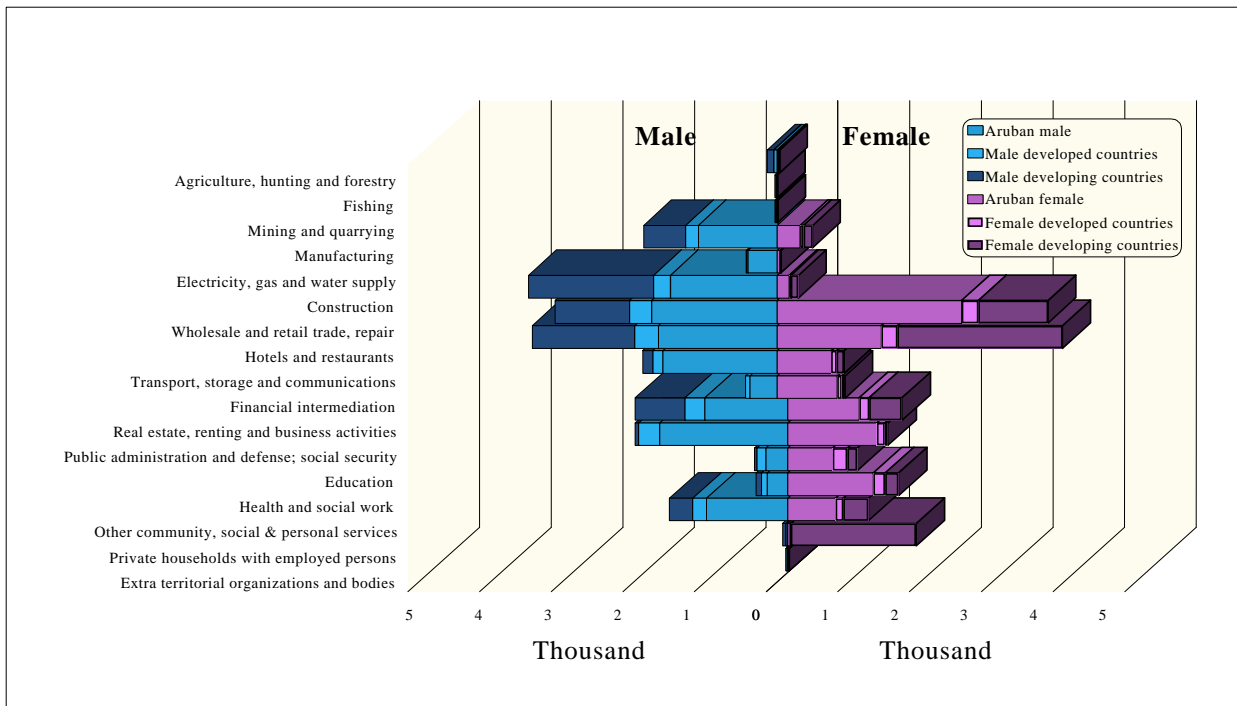
Like the ISCO, the ISIC system uses a four-digit code to classify the economic activities of businesses and other economically active organizations in a country. The classifications of the branch of industry are broken down by major division (1-digit code), division (2-digit codes), major group (3-digit codes), and group (4-digit codes). Information obtained in the population census is coded at the group level. Because of space restrictions, the information provided on 'branch of industry' is restricted to the ISIC major divisions. Those interested in more detailed information on the 'branch of industry' can contact the Central Bureau of Statistics.

ISIC Aruba-99 tabulation categories are given below:

1. Agriculture, hunting and forestry
2. Fishing
3. Mining and quarrying
4. Manufacturing
5. Electricity, gas and water supply
6. Construction
7. Wholesale and retail trade; repair of motor vehicles and motorcycles and personal and household goods
8. Hotels and restaurants
9. Transport, storage and communications
10. Financial intermediation
11. Real estate activities
12. Public administration and defense; compulsory social security
13. Education
14. Health and social work
15. Other community, social and personal services
16. Other service activities
17. Extraterritorial organizations and bodies

Graph 4.6 shows the significance of certain sectors of the economy (see also table 4.8). After the closure of the Lago, Aruba invested heavily in the development of its tourism industry, and this sector and its related activities became now the main pillar of its economy. The increase in retail trade and construction in particular have been closely linked to the development of the tourism industry. In the hotel and restaurant sector the majority of employees are foreign-born. At the time of the census 4,436 (58 percent) of the 7,651 people employed in the hotel sector were born outside Aruba, mostly in developing countries. The construction sector is heavily male dominated. A total of 2,045 foreign workers were active in construction, 57 percent of the total of 3,588 male construction workers. More native than foreign-born persons work in the 'wholesale and retail trade and repair' sector (4,471 and 2,641 workers respectively).

Figure 4.6. Employed population by branch of industry (ISIC major division), sex and country of birth



Population and Housing Census 2000

The country of birth of a person largely determines his/her position on the labor market. Both in terms of ISCO and ISIC-categories we see a clear division between the countries of birth of persons. In table 4.9 we show the ISCO-categories for persons 15 years of age and older by country of birth. Some countries have a large proportion of their citizens at the lower end of the occupation spectrum. For instance, 71.6 percent of persons born in Haiti and 58.3 percent of persons born in Jamaica have an elementary occupation. Persons originating from the Dominican Republic (46.6 percent) and Colombia (38.8 percent) also have a quite high representation in elementary occupations. Although their absolute number is rather small, persons born in India have the highest proportion in the 'managers' category. Many Indians are involved in trade and have their own shops, mainly in the center of Oranjestad. If we look at the three highest ISCO-levels ('Legislators, senior officials, and managers', 'Professionals' and 'Technicians and associate professionals') we see that persons born in the US score highest (74.7 percent for the three categories combined), followed by the Netherlands (61.5 percent) and Surinam (43.7 percent). As a comparison, 28.5 percent of the Aruban born are in one of these three categories. Many Philippines and Chinese who came to the island found employment as a 'service, shop or market worker'. Arubans are mainly employed as 'clerks'.

Table 4.9. ISCO-categories for persons 15 years of age and older by country of birth

ISCO-category	Total	Aruban born	Colombia	Netherlands	Venezuela	Curaçao	Dominican Republic	Peru	Suriname	Philippines	Haiti	China	US	Jamaica	Bonaire	Guyana
Armed forces	134	29	0	100	0	0	0	0	1	0	0	0	0	0	0	0
Legislators, senior officials, and managers	2,413	2,298	125	324	102	186	41	29	87	13	7	107	84	12	19	2
Professionals	1,441	1,604	62	366	63	126	17	1	96	16	1	0	57	4	13	2
Technicians and associate professionals	2,539	3,426	161	326	108	152	29	18	122	15	3	2	61	18	35	11
Clerks	2,361	6,313	293	180	100	212	108	65	85	61	15	28	19	17	42	17
Service workers/shop/market sales workers	3,571	4,431	1,038	224	353	207	562	161	118	282	117	149	20	85	38	29
Skilled agricultural and fishery workers	292	134	81	2	13	7	7	8	3	9	8	13	0	12	0	5
Craft and related trades workers	4,806	2,443	949	70	468	143	294	190	108	56	42	11	19	61	33	58
Plant and machines operators & assemblers	1,976	1,609	103	25	89	58	48	26	23	11	18	3	7	17	14	7
Elementary occupations	2,880	2,380	1,783	36	329	97	967	222	53	170	531	51	3	314	21	44
Total	22,413	24,669	4,595	1,653	1,624	1,188	2,074	720	695	632	742	364	270	539	213	175
Percentage																
Armed forces	0.6	0.1	0.0	6.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Legislators, senior officials, and managers	10.8	9.3	2.7	19.6	6.3	15.6	2.0	4.1	12.5	2.0	1.0	29.4	31.1	2.1	8.9	1.2
Professionals	6.4	6.5	1.3	22.2	3.9	10.6	0.8	0.1	13.7	2.5	0.1	0.0	21.0	0.8	5.9	1.2
Technicians and associate professionals	11.3	13.9	3.5	19.7	6.7	12.8	1.4	2.5	17.5	2.3	0.4	0.6	22.6	3.3	16.3	6.0
Clerks	10.5	25.6	6.4	10.9	6.1	17.9	5.2	9.0	12.2	9.6	2.0	7.8	7.0	3.1	19.7	9.6
Service workers/shop/market sales workers	15.9	18.0	22.6	13.5	21.7	17.4	27.1	22.3	16.9	44.7	15.7	40.9	7.4	15.8	17.7	16.8
Skilled agricultural and fishery workers	1.3	0.5	1.8	0.1	0.8	0.6	0.4	1.2	0.5	1.5	1.1	3.5	0.0	2.1	0.0	3.0
Craft and related trades workers	21.4	9.9	20.7	4.3	28.8	12.0	14.2	26.4	15.6	8.8	5.7	2.9	7.0	11.3	15.3	32.9
Plant and machines operators & assemblers	8.8	6.5	2.2	1.5	5.5	4.9	2.3	3.6	3.3	1.7	2.4	0.9	2.7	3.1	6.4	4.2
Elementary occupations	12.9	9.6	38.8	2.2	20.2	8.1	46.6	30.8	7.6	26.9	71.6	14.1	1.2	58.3	9.9	25.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Population and Housing Census 2000.

Table 4.10. ISIC-categories for persons 15 years of age and older by country of birth

ISCO-category	Total	Aruban born	Colom-bia	Nether-lands	Vene-zuela	Cura-cao	Dominican Republic	Peru	Suri-name	Philip-pines	Haiti	China	US	Jamaica	Bonaire	Guyana
1	179	63	38	4	11	3	6	5	5	2	6	12	0	6	0	2
2	34	28	2	1	0	1	1	0	0	0	0	0	0	0	0	0
3	38	20	4	2	6	2	0	2	1	0	0	0	0	0	0	0
4	2,439	1,467	258	55	138	76	98	42	42	24	44	4	56	15	11	6
5	501	467	5	4	3	11	3	0	2	0	0	0	0	0	4	0
6	3,892	1,713	801	98	427	105	171	155	79	25	50	6	11	53	20	50
7	7,109	4,471	658	231	239	194	268	131	124	100	69	139	28	29	35	26
8	7,651	3,215	1,120	186	358	177	810	227	80	356	208	181	55	153	24	47
9	2,905	2,428	87	69	40	99	45	9	17	2	6	1	7	12	23	4
10	1,485	1,256	25	48	6	66	7	6	25	1	2	0	3	2	14	2
11	3,722	2,156	416	209	141	126	172	51	103	28	92	2	22	47	14	17
12	3,528	3,028	18	255	5	103	12	1	32	1	3	0	6	1	14	1
13	1,431	927	16	225	17	61	8	1	97	1	4	0	21	2	13	1
14	1,986	1,477	81	139	34	58	27	3	51	16	6	0	5	4	18	4
15	2,775	1,801	231	114	125	91	140	23	22	30	7	8	39	19	21	7
16	1,870	58	795	0	62	4	289	57	16	43	235	11	0	195	1	6
17	45	7	4	7	3	0	3	2	0	0	0	0	18	0	0	0
Total	41,589	24,582	4,560	1,647	1,615	1,177	2,060	717	695	630	735	363	271	539	210	175
Percentage																
1	0.4	0.3	0.8	0.3	0.7	0.3	0.3	0.7	0.8	0.3	0.9	3.2	0.0	1.2	0.0	1.2
2	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.1	0.1	0.1	0.1	0.4	0.2	0.0	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	5.9	6.0	5.7	3.3	8.5	6.4	4.7	5.9	6.0	3.8	6.0	1.2	20.5	2.7	5.0	3.6
5	1.2	1.9	0.1	0.3	0.2	0.9	0.2	0.0	0.3	0.0	0.0	0.0	0.0	0.0	2.0	0.0
6	9.4	7.0	17.6	5.9	26.5	8.9	8.3	21.7	11.3	4.0	6.9	1.7	3.9	9.7	9.5	28.7
7	17.1	18.2	14.4	14.0	14.8	16.5	13.0	18.3	17.8	15.8	9.4	38.2	10.5	5.5	16.5	15.0
8	18.4	13.1	24.6	11.3	22.2	15.1	39.3	31.6	11.5	56.5	28.3	49.7	20.2	28.5	11.5	26.9
9	7.0	9.9	1.9	4.2	2.5	8.4	2.2	1.3	2.4	0.3	0.9	0.3	2.7	2.1	11.0	2.4
10	3.6	5.1	0.6	2.9	0.4	5.6	0.4	0.9	3.6	0.2	0.3	0.0	1.2	0.4	6.5	1.2
11	8.9	8.8	9.1	12.7	8.7	10.7	8.4	7.2	14.8	4.5	12.6	0.6	8.1	8.8	6.5	9.6
12	8.5	12.3	0.4	15.5	0.3	8.7	0.6	0.1	4.5	0.2	0.4	0.0	2.3	0.2	6.5	0.6
13	3.4	3.8	0.3	13.6	1.0	5.2	0.4	0.1	13.9	0.2	0.6	0.0	7.8	0.4	6.0	0.6
14	4.8	6.0	1.8	8.4	2.1	4.9	1.3	0.4	7.4	2.5	0.9	0.0	1.9	0.8	8.5	2.4
15	6.7	7.3	5.1	6.9	7.7	7.8	6.8	3.2	3.2	4.8	1.0	2.3	14.3	3.5	10.0	4.2
16	4.5	0.2	17.4	0.0	3.8	0.4	14.0	7.9	2.3	6.8	32.0	2.9	0.0	36.3	0.5	3.6
17	0.1	0.0	0.1	0.4	0.2	0.0	0.2	0.3	0.0	0.0	0.0	0.0	6.6	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Population and Housing Census 2000.

18.4 percent of the total workforce works in the hotel and restaurant sector and 17.1 percent in shops trade. The proportion of Aruban born persons who work in the hotel sector (13.1 percent) is less than the overall average. At the time of the census, 630 persons born in the Philippines were working on Aruba; 65.1 percent of them were working in hotels and restaurants. Aruba has a large number of Chinese restaurants. Therefore, it should come as no surprise that almost half of the Chinese workforce on Aruba works in this sector. As many supermarkets are in Chinese hands, 15.8 percent of the Chinese work in shops and trade.

To compensate for the shortage of schoolteachers, many Dutch teachers are hired. Out of a total of 1,431 persons working in education, 225 were born in the Netherlands. In the past many teachers from Surinam were also recruited. To this day, a contingent of 97 Surinam teachers is active on Aruban. Less than half of workers in construction are Aruban born (1,713 out of 3,892). The largest group of foreign workers in construction originates from Venezuela. Among all Venezuelan workers 26.5 percent are active in construction.

Nowadays, many families can afford to have a housemaid. These housemaids often play an important role in the family they work. They keep the house clean and do the cooking. Also, many children stay with the housemaid while their parents go out working. In the census, 798 children stayed home with a housemaid or a babysitter while their parents were out working⁴⁵. At the time of the census 1,844 women worked as housemaids in private homes on Aruba. Among these women only 45 were born on Aruba. The largest group of housemaids originates from Colombia (765; 41.5 percent). Other important countries of origin of housemaids are the Dominican Republic (17.1 percent), Haiti (12.6 percent) and Jamaica (10.5 percent).

Table 4.11. Number of housemaids by country of birth.

	No.	Percentage
Aruba	47	2.6
Brazil	2	0.1
China	11	0.6
Colombia	765	41.5
Cuba	6	0.3
Curacao	3	0.2
Dominica	12	0.6
Dominican Republic	316	17.1
Ecuador	8	0.5
Grenada	27	1.5
Guyana	6	0.3
Haiti	233	12.6
India	2	0.1
Italy	1	0.1
Jamaica	193	10.5
Peru	54	2.9
Philippines	47	2.6
Portugal	1	0.1
Saba	1	0.1
Saint Lucia	6	0.3
Saint Vincent and the Grenadines	15	0.8
St.Eustatius	2	0.1
St.Maarten	1	0.1
Suriname	14	0.7
Trinidad and Tobago	4	0.2
Venezuela	61	3.3
NR	4	0.2
Total	1,844	100.0

Source: Population Census Aruba 2000

⁴⁵ CBS-Aruba (2001), *Fourth Population and Housing Census. Selected Tables*, p. 102.

CHAPTER 5: OLDER WORKERS ON THE LABOR MARKET

The ageing of the world's population is the result of some major achievements of the last century: the revolution in medicine and the ability of women to limit their offspring to the number they want. Ageing also poses one of the most delicate challenges for the coming decades. Ageing of the population is the direct result of higher life expectancy and the decline in fertility levels. The increasing number of people who reach old age is only made possible through far better living conditions and spectacular improvements in health care. In the last fifty years many countries have seen the life expectancy of their population grow by twenty years or more. An important challenge faced by many governments now is to ensure that sufficient resources will be available to provide for adequate living standards for the retired. Furthermore, specialized systems of care for the elderly have to be maintained and further developed.

All European countries have seen growing levels of persons 65 years of age and older. Currently, in these countries between 11 and 17 percent of the population is 65 and above⁴⁶. Compared to these countries the level of ageing is still quite moderate in Aruba. Moreover, the percentage of persons 65 years and older in the Aruban population has not increased drastically since 1991 (from 7.0 to 7.3 percent). To a layman this may suggest that aging should not be a primary concern for Aruban society. A more detailed analysis, however, shows that Aruba will soon be confronted by a severe aging of its population. The mean age of the population has increased from 32.6 to 33.4 years since 1991⁴⁷. It is interesting to note that in 1960 the mean age was only 23.9 years. Much of the aging of the Aruban population is masked by the arrival of large groups of young foreign workers that came to Aruba in the past ten years. To understand the aging process, it is necessary to disentangle the aging of native and foreign-born persons. At this moment it is not clear whether the majority of foreigners who have come to Aruba in recent years will stay indefinitely or return to their country of origin. Although many may intend to stay on the island, it is questionable whether they will do so if, for instance, the economy were to take a plunge.

Since 1991, the number of native persons of 65 and older has increased by 55.9 percent. The increase in the numbers of native men and women in this age-category is almost equal. The growth rate for older foreign-born persons has been much smaller (19.2 percent). The growth of age categories 55-64 and 40-54 among native-born persons has also been impressive, 53.3 and 40.1 respectively. The retirement of the generation born after World War II, which will happen between five and fifteen years from now, is going to trigger a very rapid aging process among the native population⁴⁸. The aging of the Aruban population will progress more rapidly than for instance in the Netherlands, where aging is considered one of the major social and economic problems of the future. The reason for this is that the fertility transition has been much more rapid in Aruba than in the Netherlands.

In this chapter we will look at the ageing of the Aruban labor force, together with the position of persons 55 years of age and older on the labor market. An important aspect that will get some attention concerns the age at which people retire on Aruba.

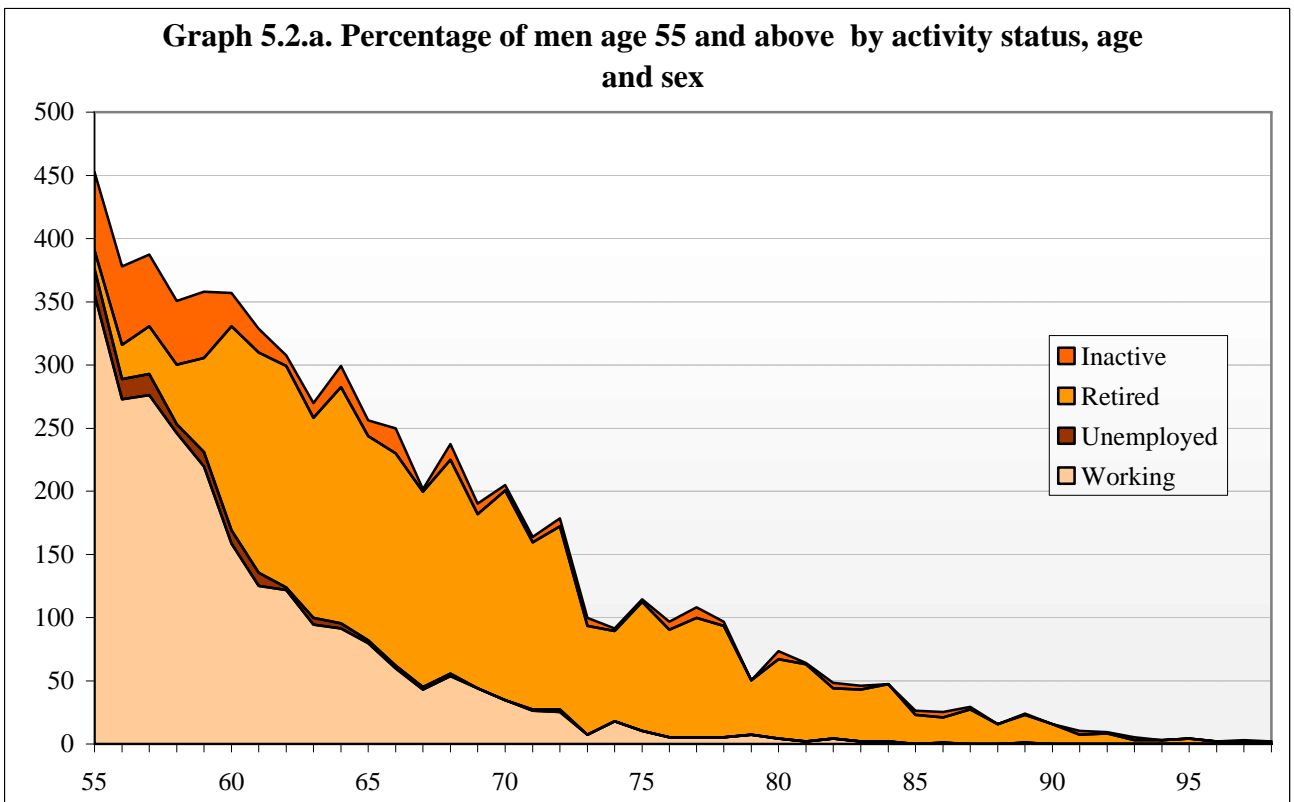
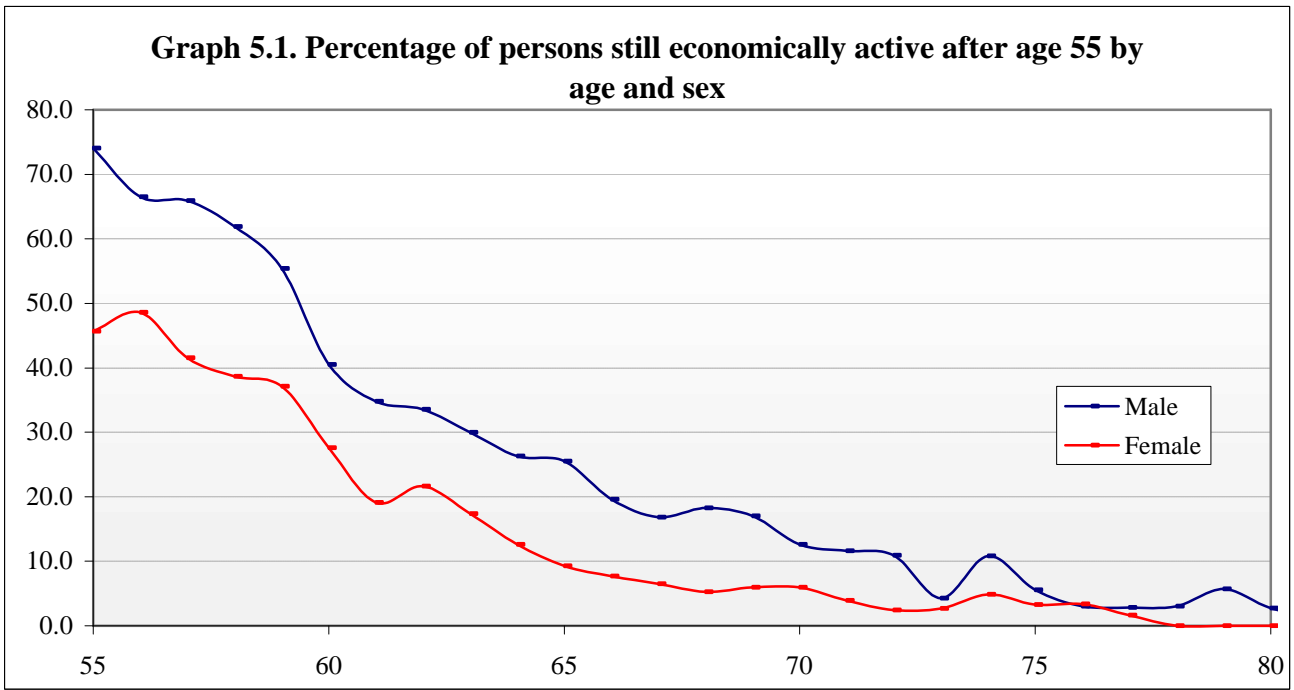
5.1. STILL GOING STRONG

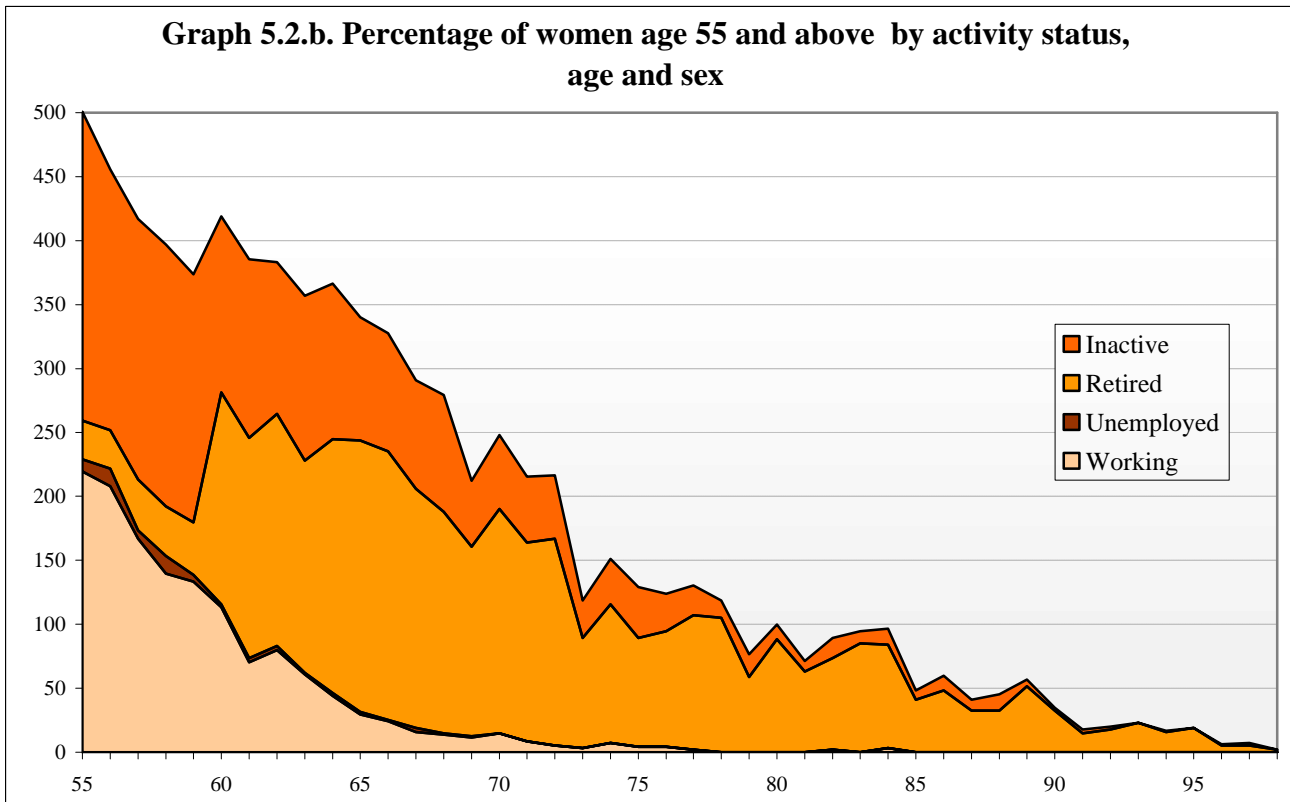
Graph 5.1. shows the percentage of men and women who are still economically active after age 55. The figures on which this graph is based can be found in the table in appendix 5.1. As we saw before, participation rates in Aruba are quite high. Graph 3.3 showed that in their late twenties and thirties, men have age-specific participation rates of above 90 percent. The participation for women hovered around 80 percent in the same age groups. Graph 5.1 shows that for both sexes a rapid decline in participation takes place after age 55. At all ages the participation of women is still substantially lower than the participation of men. At age 60, 40.5

⁴⁶ United Nations (1999), *Population in Europe and North America on the eve of the millennium: dynamics and policy response*, p. 15.

⁴⁷ CBS-Aruba (2002), *The People of Aruba, Continuity and Change. Census 2000 Special Reports*, p. 12.

⁴⁸ For a detailed description of the process of ageing and the position of the elderly in Aruba we refer to: CBS-Aruba (2002), *The People of Aruba, Continuity and Change. Census 2000 Special Reports and CBS-Aruba (2002), Leefomstandigheden van Bejaarden op Aruba*.





percent of men and 27.6 percent of women are still active on the labor market. By age 65, participation has further decreased to 25.5 for men and 9.3 percent for women. It is interesting to see that a significant proportion of men remain economically active at more advanced ages. About 10 percent of men work in the age group 70 to 75. At those ages, less than 5 percent of women are still active. Graph 5.2.a and 5.2.b are based on the same table in appendix 5.1. They show the percentage of men and women, aged 55 and above by type of activity status. We discerned four activity statuses: working, unemployed, inactive and retired. When looking at activity status at older ages, there is an important methodological issue. At these ages it is often difficult to make a distinction between unemployed, inactive and retired. For instance, older unemployed persons often find it difficult to find a job, get discouraged and stop looking for work. At that age it also becomes unclear whether they are inactive or have retired. Graphs 5.2.a and 5.2.b show absolute numbers of men and women above age 55 by activity status. The graphs clearly show that the number of women after 55 is considerably larger than the number of men. This is mainly caused by the difference in life expectancy between men and women. In Aruba, men have a life expectancy of 70 years while women can expect to live for 76 years. At age 55, women on average can look forward to 24.4 years, while men have about 20 years more to live.

Table 5.1.a. Percentage of men by economic activity, health condition, and age

	Economically active				Economically inactive			
	Good health	Bad health	Total	% Bad	Good health	Bad health	Total	% Bad
15-19	472	3	475	0.6	2,394	28	2,422	1.2
20-24	1,737	10	1,747	0.6	528	14	542	2.6
25-29	2,635	21	2,656	0.8	169	32	201	15.9
30-34	3,333	39	3,372	1.2	166	29	195	14.9
35-39	3,789	64	3,853	1.7	213	54	267	20.2
40-44	3,342	80	3,422	2.3	250	64	314	20.4
45-49	2,703	80	2,783	2.9	216	81	297	27.3
50-54	2,038	89	2,127	4.2	190	83	273	30.4
55-59	1,289	73	1,362	5.4	354	101	455	22.2
60-64	563	31	594	5.2	743	143	886	16.1
65-69	257	17	274	6.2	667	133	800	16.6
70-74	106	2	108	1.9	489	103	592	17.4
75-79	31	1	32	3.1	319	92	411	22.4
80-84	14	0	14	0.0	188	63	251	25.1
85-89	2	0	2	0.0	58	54	112	48.2
90-94	0	0	0	-	24	17	41	41.5
95+	0	0	0	-	6	5	11	45.5
NR	21	0	21	-	2	2	4	50.0
Total	22,334	510	22,844	2.2	16,838	1,208	18,046	6.7

Source: Population Census 2000

Table 5.1.b. Percentage of women by economic activity, health condition, and age

	Economically active				Economically inactive			
	Good health	Bad health	Total	% Bad	Good health	Bad health	Total	% Bad
15-19	332	6	338	1.8	2,523	41	2,564	1.6
20-24	1,656	23	1,679	1.4	745	24	769	3.1
25-29	2,441	33	2,474	1.3	635	35	670	5.2
30-34	2,950	55	3,005	1.8	725	49	774	6.3
35-39	3,491	91	3,582	2.5	809	89	898	9.9
40-44	3,163	115	3,278	3.5	812	130	942	13.8
45-49	2,406	127	2,533	5.0	783	152	935	16.3
50-54	1,515	93	1,608	5.8	859	217	1,076	20.2
55-59	806	61	867	7.0	904	260	1,164	22.3
60-64	333	27	360	7.5	1,191	254	1,445	17.6
65-69	93	5	98	5.1	1,010	270	1,280	21.1
70-74	34	3	37	8.1	644	217	861	25.2
75-79	9	1	10	10.0	362	177	539	32.8
80-84	5	0	5	0.0	272	151	423	35.7
85-89	0	0	0	-	125	113	238	47.5
90-94	0	0	0	-	50	56	106	52.8
95+	0	0	0	-	17	18	35	51.4
NR	15		15	-	9	1	10	10.0
Total	19,251	640	19,891	3.2	22,133	2,322	24,455	9.5

For both sexes unemployment after age 55 is low. Among men above age 55, 4.6 percent indicated that they were unemployed. Women above 55 have about the same level of unemployment (4.7 percent). The main difference between both sexes is about the level of inactivity. A total of 2,732 older women are economically inactive, against 655 older men. Especially in the age group 55-60, about half of the persons are inactive. After age 60, the proportion inactive decreases and many more women consider themselves retired.

A person's economic activity status is closely related to his/her health. People who are less healthy are normally less active than persons with a perfect health. Tables 5.1.a and 5.1.b show the percentage of men and women older than 15 years by economic activity, health status and age. For economic activity two categories were used: active and non-active. An economically active person is either employed or unemployed. The economically non-active group encompasses all the other categories (housewives, retired, other inactive). The Aruba Census 2000 included a question on perceived health, phrased as follows: "How is your health in general?", with possible answers: 1) perfect, 2) good, 3) moderate, 4) sometimes good, sometimes bad and 5) bad. In our analysis we have grouped these 5 categories into 2: 'Good' and 'Bad'. Bad is a combination of categories four and five. 'Good' groups the first three categories. For both sexes the proportion of persons who indicated that they had a bad health is much bigger among the inactive than among the active population. It is remarkable to see that among men above age 70, the percentage with a bad health is actually very low. In the age group 70-74, only 1.9 percent of economically active persons indicated that they had a bad health. Among the inactive persons 17.4 percent indicated poor health. Between ages 25 and 60, we find that among the inactive group, the proportion of men in bad health is larger than among women. There is a clear explanation for this. Among inactive women, a number voluntarily stay home as housewives. Although more and more women can be found in the workforce, it is perfectly accepted in society that a woman stays home to take care of the family. For men, however, the norm is still that they have to go out and earn a living for themselves and their family. Bad health can therefore force men –more than women- to stay outside of the labor market.

5.2. EARLY RETIREMENT

'Knowing the average age at retirement for a given population provides important information for administering and analyzing public and private pension programs. Yet, very little information is available on this topic. Indeed, aside from the Social Security Administration's time series of the mean age at initial award of the Social Security retirement benefit, there have been few efforts to measure the average age at retirement in the United States. Similarly, studies of retirement age trends in other countries have rarely sought to measure the average retirement age.'⁴⁹

Up to now, in Aruba no attempt was made to calculate the retirement behavior of the island's population. Measuring the timing of exiting the labor force has great value for pension and manpower planning. Therefore a special effort was made to fill this gap in our understanding of labor force dynamics. Data were used from the 1991 and 2000 Population and Housing Censuses of Aruba. The limitations of the census data are that they provide observations from one point in time, while a cohort type of approach would be preferable. The available information includes the number of persons, by age and sex, by activity status. Instead of these stock data, it would have been better to have flow data available, i.e. the number of net exits from the labor market in a year.

The following steps were taken to analyze the pattern of exit from the labor market:

1. An estimation of the age specific net exits from the labor force was made. Because no cohort data were available, we considered the data as coming from a fictitious cohort. Estimates were made for both sexes separately. Net exits from the labor force were estimated by using the following formula⁵⁰:

$$E_{x,x+1} = L_{x,x+1} \cdot (1 - r_{x+1, x+2} / r_{x, x+1})$$

⁴⁹ Murray Gendell (1998), *Trends in retirement age in four countries, 1965-1999*, Monthly Labor review, August 1998, p.20.

⁵⁰ This estimation procedure is presented in Murray Gendell (1998), p. 21.

Where:

- $E_{x,x+1}$ is the estimate of the average annual number of net exits (or withdrawals) within the fictitious cohort
 - $L_{x,x+5}$ is the number of persons in the labor force between exact ages x and $x+1$.
 - $r_{x+1, x+2}$ is the labor force participation rate for the age category between $x+1$ and $x+2$.
 - $r_{x, x+1}$ is the labor force participation rate for the age category between x and $x+1$.
2. Exits from the labor market can easily be compared to deaths in society. Both phenomena remove people from the population to which they belong. Therefore, a life table was used to describe the attrition of people from the labor force. Through the use of life tables, some important indices are calculated to describe the timing and intensity of retirement.

Tables 5.2.a through 5.2.d show the results from the life table analyses. In the first two tables estimates are presented for respectively men and women on the basis of the 2000 Population Census. The last two tables give the estimates for men and women for 1991⁵¹. As the life table measures exits from the labor force, we started at age 50. Important measures in the life table are l_x and e_x , respectively the function of survival in the labor force and expected time left as an economic active person. The survival function starts with 10,000 at age 50. The figures in the column indicate how many persons out of this initial population of 10,000 are still economically active at a particular age. The e_x column indicates how many years a person at exact age x can expect to remain in the labor force. Graph 5.3.a and 5.3.b. show the number of exits out of the labor force per 10,000 persons after age 50, by age and sex, respectively for 1991 and 2000.

In 1991, the average age at exit from the labor force was 63.1 years for men and 59.4 years for women. By 2000, the average age at exit was about the same for men (63.3 years) but slightly higher for women (59.7 years). Data from other countries are rather scarce. In his study on trends in retirement age in four countries (United States, Japan, Sweden and Germany) Murray Gendell presents average ages at exit for men which are considerably lower than for Aruba. During the period 1990-1995 the average ages at labor force exit for men were 60.3 (Germany), 65.2 (Japan), 62.0 (Sweden) and 62.2 (United States). For women the average ages were respectively 59.9 (Germany), 62.9 (Japan), 62.0 (Sweden) and 62.7 (United States). Among these four countries Germany is the country where both men and women retire at the youngest ages. The age at which men leave the labor force in Germany is about 3 years earlier than among men on Aruba. For women this difference is 4.7 years. Figures for Germany relate to the period 1990-1995.

⁵¹ The life table functions given in Tables 5.2.a through 5.2.d are the following:

- $M(x,x+1)$ the age-specific exit rate defined as the number of exits in age group x to $x+1$, divided by the economic active population in age group x to $x+1$.
- $Q(x,x+1)$ the age-specific probability of leaving the labor force between ages x and $x+1$.
- $l(x)$ the function of survival, being the number of economic active persons in the life table at exact age x , out of an initial population of 10,000 at age 50.
- $D(x,x+1)$ the function of exits, being the number of labor force exits in the life table between ages x and $x+1$.
- $L(x,x+1)$ the total number of person years lived by the economic active total population between ages x and $x+1$ in the life table
- $S(x,x+1)$ the survival rate $S(x,x+1)$ is the probability of staying in the labor force between two groups of completed years. This survival rate can be used for the construction of labor force projection models.
- $T(x)$ the 'total after lifetime' $T(x)$ is the total number of person-years lived by the fictitious economic active cohort after exact age x .
- $e(x)$ the expectancy of time left as an economic active person at exact age x .

Table 5.2.a. Life table analysis labor force male exits Aruba 2000

Age	Econo- mically active	Not econ. active	Partici- pation rate	Smoothed Part rates		Net exits	Qx	lx	Dx	Lx	Sx	Tx	ex
				I	II								
50	548	56	0.908	0.908	0.908	11	0.0206	10,000	206	9,897	0.985	132,731	13.3
51	440	63	0.875	0.886	0.889	4	0.0097	9,794	95	9,746	0.992	122,834	12.5
52	416	60	0.874	0.874	0.880	3	0.0066	9,699	64	9,667	0.989	113,088	11.7
53	446	65	0.873	0.882	0.875	7	0.0158	9,634	152	9,559	0.974	103,421	10.7
54	393	44	0.899	0.868	0.861	15	0.0373	9,483	354	9,306	0.958	93,863	9.9
55	376	76	0.833	0.833	0.829	18	0.0475	9,129	434	8,912	0.951	84,557	9.3
56	289	88	0.766	0.786	0.789	15	0.0516	8,695	449	8,471	0.937	75,645	8.7
57	293	93	0.758	0.750	0.749	22	0.0757	8,247	624	7,934	0.906	67,174	8.1
58	253	96	0.726	0.710	0.692	29	0.1145	7,622	873	7,186	0.868	59,239	7.8
59	231	126	0.647	0.615	0.613	35	0.1521	6,749	1,027	6,236	0.853	52,054	7.7
60	169	188	0.474	0.512	0.520	24	0.1407	5,723	805	5,320	0.873	45,818	8.0
61	135	190	0.416	0.431	0.446	15	0.1102	4,917	542	4,646	0.905	40,498	8.2
62	124	184	0.403	0.396	0.397	10	0.0784	4,375	343	4,204	0.916	35,852	8.2
63	100	170	0.370	0.365	0.366	9	0.0902	4,032	364	3,851	0.905	31,648	7.8
64	96	202	0.322	0.337	0.333	10	0.1001	3,669	367	3,485	0.894	27,797	7.6
65	82	173	0.321	0.297	0.300	9	0.1122	3,302	370	3,116	0.902	24,312	7.4
66	62	187	0.249	0.265	0.266	5	0.0830	2,931	243	2,809	0.923	21,195	7.2
67	45	156	0.224	0.237	0.244	3	0.0710	2,688	191	2,592	0.930	18,386	6.8
68	56	180	0.237	0.231	0.227	4	0.0694	2,497	173	2,410	0.912	15,794	6.3
69	44	146	0.232	0.213	0.211	5	0.1073	2,324	249	2,199	0.875	13,384	5.8
70	35	170	0.169	0.189	0.188	5	0.1443	2,074	299	1,924	0.876	11,185	5.4
71	27	137	0.167	0.163	0.161	3	0.1006	1,775	179	1,685	0.901	9,260	5.2
72	27	151	0.153	0.131	0.145	3	0.0982	1,596	157	1,518	0.928	7,575	4.7
73	7	92	0.074	0.141	0.131	0	0.0440	1,440	63	1,408	0.879	6,057	4.2
74	18	73	0.195	0.120	0.125	4	0.2022	1,376	278	1,237	0.787	4,649	3.4
75	11	104	0.092	0.114	0.100	2	0.2270	1,098	249	973	0.814	3,412	3.1
76	5	91	0.054	0.065	0.077	1	0.1338	849	114	792	0.928	2,439	2.9
77	5	103	0.049	0.052	0.067	0	0.0000	735	0	735	0.870	1,647	2.2
78	5	91	0.054	0.083	0.067	1	0.2594	735	191	640	0.425	912	1.2
79	7	43	0.146	0.067	0.050	7	1.0000	544	544	272	0.000	272	0.5

Source: Population Census 2000

Table 5.2.b. Life table analysis labor force female exits Aruba 2000

Age	Econo- mically active	Not econ. active	Partici- pation rate	Smoothed Part rates		Net exits	Qx	lx	Dx	Lx	Sx	Tx	ex
				I	II								
50	441	224	0.664	0.664	0.664	24	0.0553	10,000	553	9,724	0.947	96,961	9.7
51	330	208	0.613	0.627	0.627	17	0.0514	9,447	485	9,205	0.944	87,237	9.2
52	356	233	0.604	0.590	0.595	22	0.0611	8,962	547	8,688	0.941	78,032	8.7
53	282	229	0.552	0.567	0.558	16	0.0561	8,415	472	8,179	0.936	69,344	8.2
54	286	239	0.544	0.518	0.527	21	0.0719	7,943	571	7,657	0.934	61,165	7.7
55	229	271	0.458	0.496	0.489	14	0.0603	7,372	444	7,150	0.932	53,508	7.3
56	222	234	0.486	0.453	0.460	17	0.0758	6,928	525	6,665	0.920	46,358	6.7
57	173	244	0.416	0.430	0.425	15	0.0848	6,403	543	6,131	0.894	39,692	6.2
58	153	243	0.387	0.392	0.389	20	0.1282	5,860	751	5,484	0.857	33,561	5.7
59	139	234	0.372	0.345	0.339	22	0.1603	5,109	819	4,699	0.832	28,077	5.5
60	116	302	0.276	0.280	0.285	20	0.1765	4,290	757	3,911	0.834	23,377	5.4
61	73	309	0.192	0.229	0.234	11	0.1533	3,533	542	3,262	0.842	19,466	5.5
62	83	299	0.217	0.194	0.198	14	0.1640	2,991	491	2,746	0.823	16,204	5.4
63	62	294	0.174	0.172	0.166	12	0.1927	2,501	482	2,260	0.789	13,458	5.4
64	46	320	0.126	0.131	0.134	11	0.2345	2,019	473	1,782	0.774	11,199	5.5
65	32	309	0.093	0.099	0.103	7	0.2148	1,545	332	1,379	0.808	9,417	6.1
66	25	302	0.077	0.078	0.081	4	0.1636	1,213	199	1,114	0.863	8,037	6.6
67	19	272	0.065	0.065	0.067	2	0.1042	1,015	106	962	0.913	6,923	6.8
68	15	265	0.053	0.059	0.060	1	0.0674	909	61	879	0.913	5,961	6.6
69	13	200	0.059	0.057	0.056	1	0.1071	848	91	802	0.859	5,082	6.0
70	15	233	0.059	0.053	0.050	3	0.1793	757	136	689	0.844	4,280	5.7
71	8	206	0.039	0.041	0.041	1	0.1267	621	79	582	0.926	3,591	5.8
72	5	211	0.024	0.030	0.036	0	0.0139	543	8	539	0.986	3,009	5.5
73	3	114	0.027	0.033	0.036	0	0.0141	535	8	531	0.979	2,470	4.6
74	7	143	0.049	0.036	0.035	0	0.0280	527	15	520	0.892	1,939	3.7
75	4	125	0.033	0.038	0.034	1	0.1902	513	98	464	0.716	1,419	2.8
76	4	120	0.034	0.028	0.028	2	0.4003	415	166	332	0.750	955	2.3
77	2	128	0.016	0.017	0.017	0	0.0000	249	0	249	1.000	623	2.5
78	0	119	0.000	0.005	0.007	0	0.0000	249	0	249	0.500	374	1.5
79	0	77	0.000	0.000	0.002	0	0.0000	249	249	125	0.000	125	0.5

Source: Population Census 2000

Table 5.2.c. Life table analysis labor force male exits Aruba 1991.

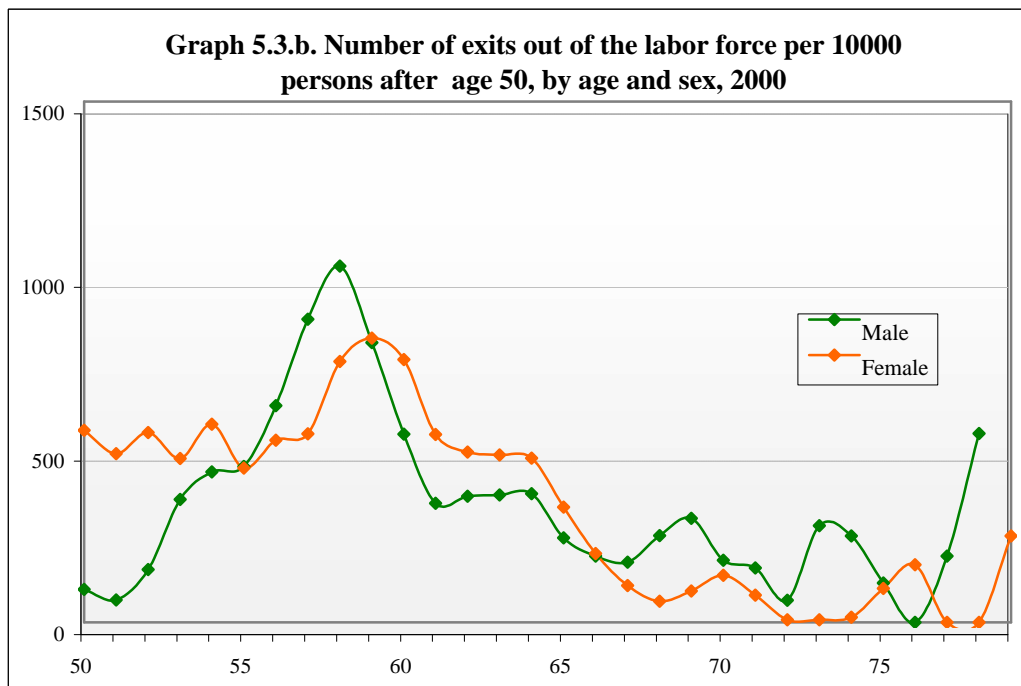
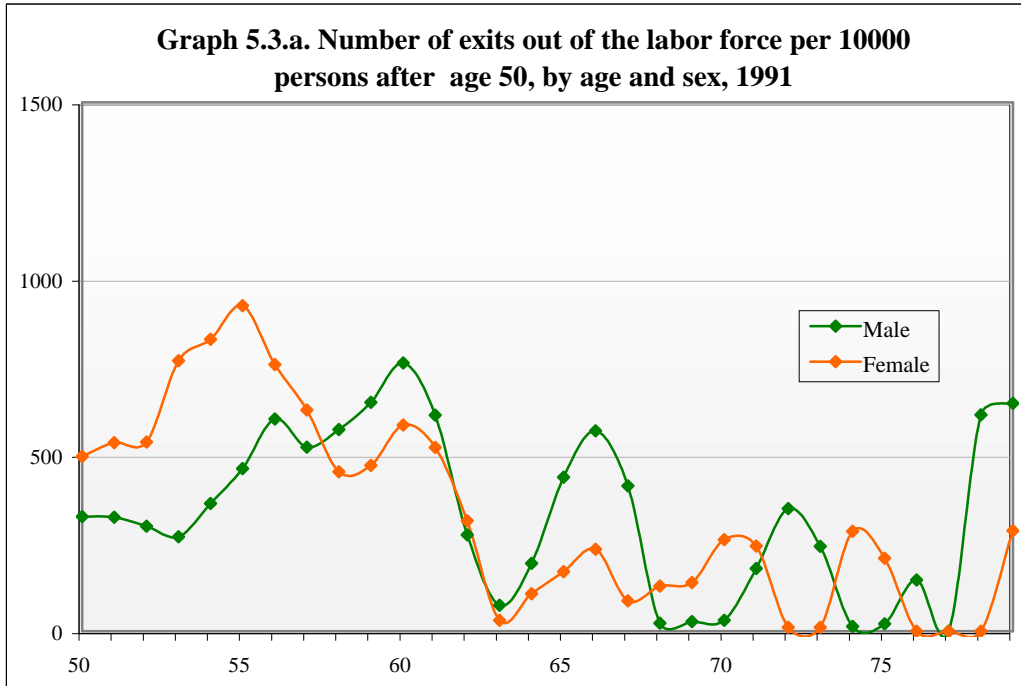
Age	Econo- mically active	Not econ. active	Partici- pation rate	Smoothed Part rates		Net exits	Qx	lx	Dx	Lx	Sx	Tx	ex
				I	II								
50	322	52	0.861	0.861	0.861	10	0.0325	10,000	325	9,838	0.967	131,110	13.1
51	288	58	0.832	0.833	0.833	10	0.0334	9,675	323	9,513	0.967	121,272	12.5
52	287	70	0.805	0.806	0.805	9	0.0319	9,352	298	9,203	0.969	111,759	12.0
53	244	69	0.781	0.778	0.780	7	0.0296	9,054	268	8,920	0.965	102,556	11.3
54	231	78	0.747	0.756	0.757	10	0.0412	8,786	362	8,605	0.952	93,636	10.7
55	232	82	0.738	0.736	0.725	13	0.0548	8,424	462	8,193	0.935	85,032	10.1
56	220	84	0.724	0.684	0.686	17	0.0757	7,962	602	7,661	0.927	76,839	9.7
57	166	115	0.590	0.636	0.634	12	0.0710	7,360	522	7,099	0.923	69,178	9.4
58	147	100	0.595	0.581	0.589	12	0.0837	6,837	572	6,551	0.907	62,079	9.1
59	157	125	0.557	0.549	0.539	16	0.1036	6,265	649	5,941	0.881	55,528	8.9
60	111	113	0.495	0.488	0.484	15	0.1354	5,616	761	5,236	0.869	49,587	8.8
61	101	144	0.413	0.413	0.418	13	0.1262	4,856	613	4,549	0.903	44,352	9.1
62	66	132	0.332	0.353	0.365	4	0.0643	4,243	273	4,106	0.958	39,802	9.4
63	72	157	0.314	0.330	0.342	1	0.0184	3,970	73	3,933	0.966	35,696	9.0
64	41	77	0.345	0.343	0.336	2	0.0494	3,896	193	3,800	0.917	31,763	8.2
65	43	73	0.369	0.334	0.319	5	0.1178	3,704	436	3,486	0.856	27,963	7.5
66	41	101	0.287	0.280	0.281	7	0.1739	3,268	568	2,983	0.836	24,477	7.5
67	28	124	0.185	0.230	0.232	4	0.1526	2,699	412	2,493	0.913	21,494	8.0
68	32	115	0.218	0.187	0.197	0	0.0100	2,287	23	2,276	0.989	19,001	8.3
69	24	128	0.158	0.174	0.195	0	0.0120	2,265	27	2,251	0.987	16,725	7.4
70	14	79	0.146	0.199	0.193	0	0.0138	2,237	31	2,222	0.953	14,474	6.5
71	34	82	0.295	0.205	0.190	3	0.0808	2,206	178	2,117	0.876	12,252	5.6
72	19	89	0.173	0.198	0.175	3	0.1713	2,028	347	1,855	0.841	10,135	5.0
73	14	95	0.125	0.122	0.145	2	0.1432	1,681	241	1,560	0.919	8,280	4.9
74	7	101	0.067	0.115	0.124	0	0.0093	1,440	13	1,433	0.988	6,720	4.7
75	15	81	0.152	0.117	0.123	0	0.0145	1,427	21	1,416	0.941	5,287	3.7
76	9	62	0.130	0.137	0.121	1	0.1034	1,406	145	1,333	0.945	3,870	2.8
77	9	63	0.129	0.109	0.109	0	0.0000	1,260	0	1,260	0.756	2,537	2.0
78	5	70	0.069	0.079	0.075	3	0.4871	1,260	614	954	0.339	1,277	1.0
79	2	51	0.039	0.036	0.038	0	0.0000	647	647	323	0.000	323	0.5

Source: Population Census 1991

Table 5.2.d. Life table analysis labor force female exits Aruba 1991.

Age	Econo- mically active	Not econ. active	Partici- pation rate	Smoothed Part rates		Net exits	Qx	lx	Dx	Lx	Sx	Tx	ex
				I	II								
50	164	200	0.451	0.451	0.451	8	0.0496	10,000	496	9,752	0.947	94,479	9.4
51	183	225	0.449	0.426	0.429	10	0.0563	9,504	535	9,236	0.942	84,727	8.9
52	145	238	0.378	0.410	0.405	9	0.0598	8,969	537	8,701	0.925	75,491	8.4
53	154	229	0.402	0.379	0.381	14	0.0910	8,433	767	8,049	0.901	66,790	7.9
54	125	225	0.357	0.353	0.346	13	0.1081	7,666	828	7,251	0.879	58,741	7.7
55	112	261	0.301	0.306	0.309	15	0.1351	6,837	923	6,375	0.868	51,489	7.5
56	87	250	0.259	0.267	0.267	11	0.1278	5,914	756	5,536	0.875	45,114	7.6
57	78	246	0.240	0.228	0.233	9	0.1217	5,158	628	4,844	0.889	39,578	7.7
58	55	242	0.185	0.203	0.204	5	0.0997	4,530	452	4,304	0.893	34,734	7.7
59	54	239	0.184	0.182	0.184	6	0.1152	4,078	470	3,843	0.863	30,430	7.5
60	41	190	0.176	0.167	0.163	7	0.1621	3,608	585	3,316	0.833	26,587	7.4
61	42	253	0.141	0.140	0.136	7	0.1725	3,023	522	2,763	0.849	23,271	7.7
62	20	174	0.102	0.103	0.113	2	0.1252	2,502	313	2,345	0.927	20,509	8.2
63	17	242	0.064	0.096	0.099	0	0.0141	2,188	31	2,173	0.969	18,163	8.3
64	17	119	0.123	0.097	0.097	1	0.0491	2,158	106	2,105	0.935	15,990	7.4
65	17	142	0.105	0.098	0.093	1	0.0822	2,052	169	1,967	0.898	13,886	6.8
66	10	144	0.068	0.082	0.085	1	0.1236	1,883	233	1,767	0.910	11,918	6.3
67	11	142	0.074	0.074	0.075	1	0.0525	1,650	87	1,607	0.933	10,152	6.2
68	11	129	0.081	0.067	0.071	1	0.0817	1,564	128	1,500	0.912	8,545	5.5
69	7	155	0.045	0.070	0.065	1	0.0959	1,436	138	1,367	0.855	7,045	4.9
70	9	101	0.085	0.057	0.059	2	0.1997	1,298	259	1,169	0.786	5,678	4.4
71	6	144	0.042	0.048	0.047	1	0.2324	1,039	241	918	0.862	4,509	4.3
72	2	112	0.018	0.035	0.036	0	0.0139	797	11	792	0.986	3,591	4.5
73	7	151	0.046	0.030	0.036	0	0.0141	786	11	781	0.811	2,799	3.6
74	4	149	0.027	0.035	0.035	2	0.3657	775	284	634	0.613	2,018	2.6
75	5	152	0.033	0.020	0.022	2	0.4212	492	207	388	0.733	1,385	2.8
76	0	78	0.000	0.011	0.013	0	0.0000	285	0	285	1.000	996	3.5
77	0	130	0.000	0.007	0.009	0	0.0000	285	0	285	1.000	712	2.5
78	2	92	0.022	0.007	0.007	1	0.0000	285	0	285	0.500	427	1.5
79	0	95	0.000	0.007	0.005	0	0.0000	285	285	142	0.000	142	0.5

Source: Population Census 1991



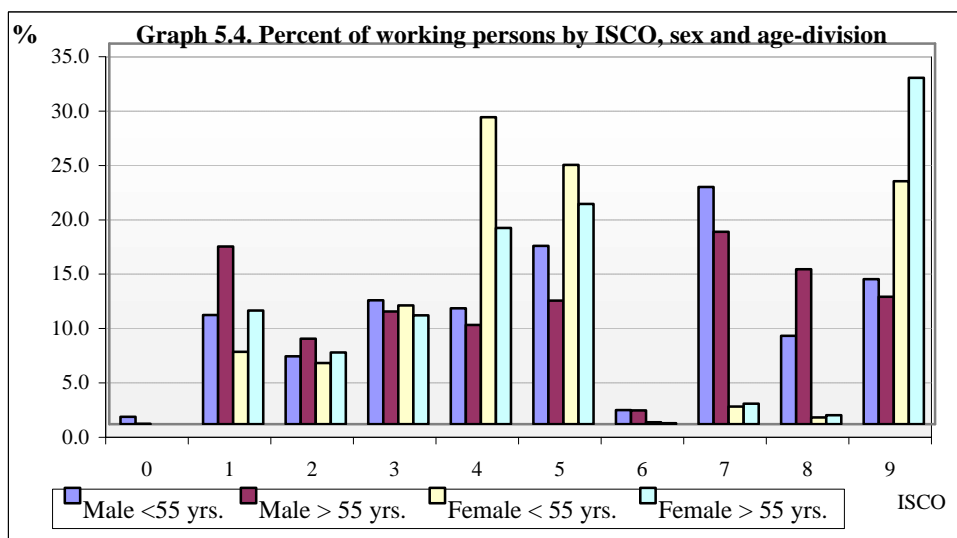
We compare exits from the labor market between 1991 and 2000 in graph 5.3.a and graph 5.3.b. In our analysis ‘exit’ means more than retirement. It also includes persons who leave the labor force due to health reasons or to become housewife again. For men, one can see a shift between the two observations. These graphs refer to the life table population. As such they describe the experience of a fictitious cohort of 10,000 persons who are economically active at exact age 50 and do not give absolute figures for the actual population. In the male life table population in 2000, 871 would leave the labor market before age 55. This is much less than in 1991 when out of 10000 men, 1576 men would retire before age 55. Somewhat more than a quarter of women (2628) would leave the labor force between age 50 and 55. The majority of men leave the work force between ages 55 and 60. Among an initial life table population of 10,000 at age 50, some 3,400 men leave work in this age group. In 1991, this figure was about 2,800. In 2000, 5,723 men in the life table were economically still active at age 60. This is about the same level as in 1991. In 2000, among the 4,838 (life table) women still working at age 55, 3,534 left work before age 55.

5.3. POSITION OF OLDER WORKERS

It is important for manpower planning to know the position of older workers on the labor market. Some important questions arise; for instance: 'What is the proportion of older persons within certain sectors and occupation categories?', 'What is the status in employment of these workers, compared to their younger colleagues?', 'What is the educational attainment of older workers?', 'What is the household situation of older workers compared to those who have already retired at the same age?', 'Is early exit from the labor force related to household composition?' In this section we will go deeper into some of these issues.

Tables 5.3.a and 5.3.b show the percentage of working population by ISCO-category⁵², sex and younger (<55 years) and older (55+) age groups. Both tables present percentages. However, the first table presents column percentages, while the second shows row percentages. From the first table we can deduct what the distribution of younger and older workers is, across the various ISCO-categories. The second table provides an insight in how many younger and older workers are present in each occupational category. Graph 5.4. presents the data of table 5.3.a. and 5.3.b. visually.

Older persons hold a higher percentage of senior positions in the workforce. Among men who are younger than 55, 10 percent have a position in the category 'Legislators, senior officials and managers'. Older working men hold 16.3 percent of these positions. For women these percentages are respectively 6.7 and 10.5 percent. Older men are less active as 'Service workers and shop and market sales workers' and 'Craft and related trades workers' and more active as 'Plant and machine operators' than younger men.



⁵² A thorough explanation of the International Standard Classification of Occupation (ISCO) has been given in Chapter 1 of this publication.

1. Legislators, senior officials, and managers;
2. Professionals;
3. Technicians and associate professionals;
4. Clerks;
5. Service workers and shop and market sales workers;
6. Skilled agricultural and fishery workers;
7. Craft and related trades workers;
8. Plant and machine operators and assemblers;
9. Elementary occupations;
0. Armed forces

Women dominate some occupational categories: clerks, service workers and shop and market sales workers and elementary occupations. Especially in the category of elementary occupations we can find a lot of older women. Among women age 55 and older, 31.8 percent work in an elementary occupation, against 22.3 percent of younger women. Somewhat less older than younger men have an elementary occupation (11.7 against 13.3 percent).

Table 5.3.a. Percentage of working population by ISCO-category, sex and younger and older age-division (column %)

	Male		Female		No. of cases			
					Male		Female	
	< 55 yrs	>=55yrs	< 55 yrs	>=55yrs	< 55 yrs	>=55yrs	< 55 yrs	>=55yrs
Armed forces	0.7	0.0	0.0	0.0	133	1	0	0
Legislators, senior officials, and managers	10.0	16.3	6.7	10.5	2,017	393	1,201	145
Professionals	6.2	7.9	5.6	6.6	1,251	189	1,012	91
Technicians and associate professionals	11.4	10.4	10.9	10.0	2,289	249	1,967	139
Clerks	10.7	9.1	28.2	18.0	2,138	219	5,085	250
Service workers and shop and market sales work	16.4	11.4	23.8	20.2	3,293	273	4,295	280
Skilled agricultural and fishery workers	1.3	1.3	0.2	0.1	261	30	30	1
Craft and related trades workers	21.8	17.7	1.6	1.9	4,382	425	292	26
Plant and machines operators and assemblers	8.1	14.2	0.6	0.8	1,633	342	113	12
Elementary occupations	13.3	11.7	22.3	31.8	2,799	298	4,122	454
Total	100.0	100.0	100.0	100.0	20,196	2,420	18,118	1,398

Source: Population Census 2000

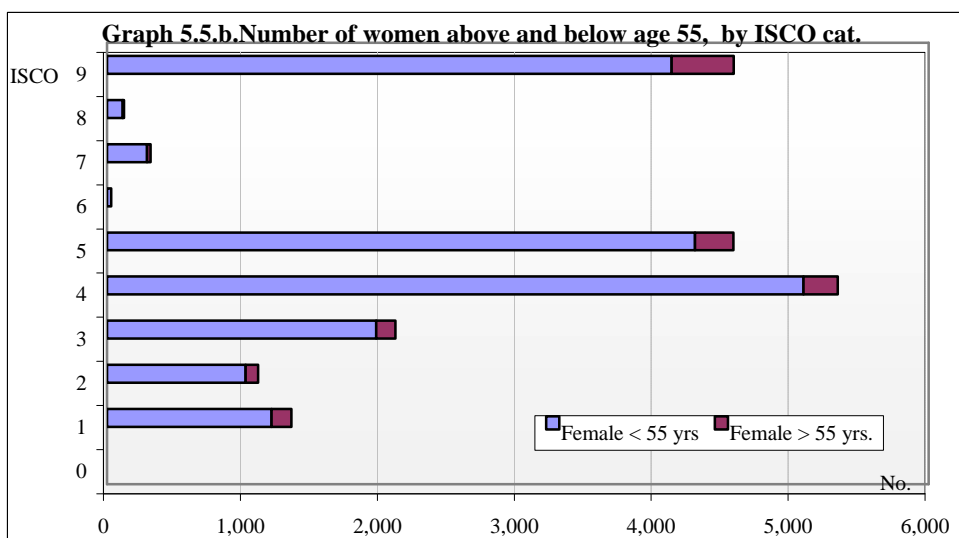
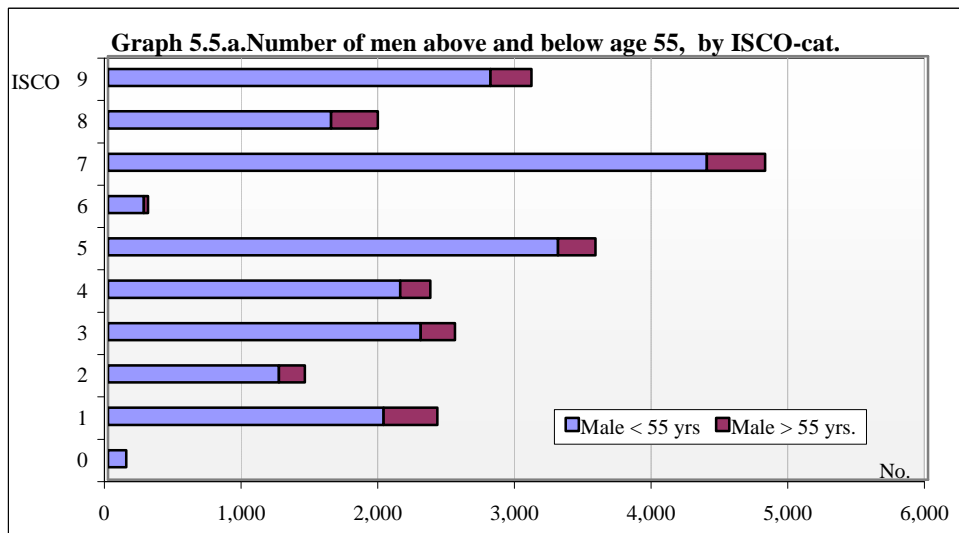
Cases for which informatio on age was missing were not included in the table.

Table 5.3.b. Percentage of working population by ISCO-category, sex and younger and older age-division (row %)

	Male		Female		No. of cases			
					Male		Female	
	< 55 yrs	>=55yrs	< 55 yrs	>=55yrs	< 55 yrs	>=55yrs	< 55 yrs	>=55yrs
Armed forces	99.2	0.8	0.0	0.0	133	1	0	0
Legislators, senior officials, and managers	83.7	16.3	89.2	10.8	2,017	393	1,201	145
Professionals	86.9	13.1	91.7	8.3	1,251	189	1,012	91
Technicians and associate professionals	90.2	9.8	93.4	6.6	2,289	249	1,967	139
Clerks	90.7	9.3	95.3	4.7	2,138	219	5,085	250
Service workers and shop and market sales work	92.3	7.7	93.9	6.1	3,293	273	4,295	280
Skilled agricultural and fishery workers	89.6	10.4	96.7	3.3	261	30	30	1
Craft and related trades workers	91.2	8.8	91.7	8.3	4,382	425	292	26
Plant and machines operators and assemblers	82.7	17.3	90.8	9.2	1,633	342	113	12
Elementary occupations	90.4	9.6	90.1	9.9	2,799	298	4,122	454
Total	89.3	10.7	92.8	7.2	20,196	2,420	18,118	1,398

Source: Population Census 2000

Cases for which informatio on age was missing were not included in the table.



Graph 5.5.a and 5.5.b show the exact number of male and female workers by ISCO-category and by age division. The graph clearly shows that the number of persons above 55 is relatively small in all ISCO-categories. Obviously, this has a lot to do with the age structure of the population and with the age at which persons leave the work force. In the previous section we saw that already a significant number of men and women were no longer active at age 55. The ISCO-categories with the largest proportion of men above age 55 are ‘Craft and related trades workers’ and ‘Legislators, senior officials and managers’. In these categories respectively 17.7 and 16.3 percent of all workers are above age 55. As women tend to leave the labor market at a younger age, the percentages of persons above 55 are much lower than among men. The category with the highest degree of mature workers is ‘Legislators, senior officials and managers’ (10.8 percent).

More women than men work in education (Table 4.a.): 992 against 441. Among all working women 55 years of age and over 8.8 percent work in education; 4.7 percent of women below 55 work in this sector. This is an indication that our educators are getting older. Actually, 12.6 percent of female teachers are above 55 against 13.6 percent of men (Table 5.4.b.).

The foreign workers have a much younger age structure than the Aruban workers. Many of these foreign laborers are employed in the hotel and restaurant sector and in construction. The proportion of workers 55 years of age and above is relatively small in both industrial categories. In private households (housemaids) only a small proportion is above age 55. This industrial category is highly dominated by foreign workers.

Table 5.4.a. Percentage of working population by ISIC-category, sex and younger and older age-division (column %)

	Male		Female		No. on cases	
	< 55 yrs	>=55yrs	< 55 yrs	>=55yrs	Male	Female
Agriculture, hunting and forestry	0.6	0.7	0.2	0.1	136	34
Fishing	0.2	0.0	0.0	0.0	31	1
Mining and quarrying	0.1	0.2	0.0	0.1	33	3
Manufacturing	8.2	12.1	2.6	2.7	1,837	486
Electricity, gas and water supply	1.9	2.6	0.3	0.2	428	49
Construction	16.6	11.8	1.6	0.8	3,417	290
Wholesale and retail trade, repair	14.4	14.7	19.8	25.5	3,054	3,719
Hotels and restaurants	16.3	12.0	21.5	18.8	3,367	3,920
Transport, storage and communications	8.4	11.2	5.1	3.3	1,851	916
Financial intermediation	2.3	1.9	5.2	2.7	485	929
Real estate, renting and business activities	9.4	10.8	8.4	6.3	2,029	1,516
Public administration and defence; social security	9.6	9.3	7.3	6.9	2,031	1,329
Education	2.0	2.7	4.7	8.8	441	922
Health and social work	1.9	2.5	7.9	9.1	420	1,471
Other community, social and personal services	7.4	7.3	5.9	5.4	1,573	1,071
Private households with employed persons	0.4	0.1	9.3	8.6	71	1,710
Extra territorial organizations and bodies	0.1	0.2	0.1	0.3	24	19
Total	100	100	100	100	21,228	18,385

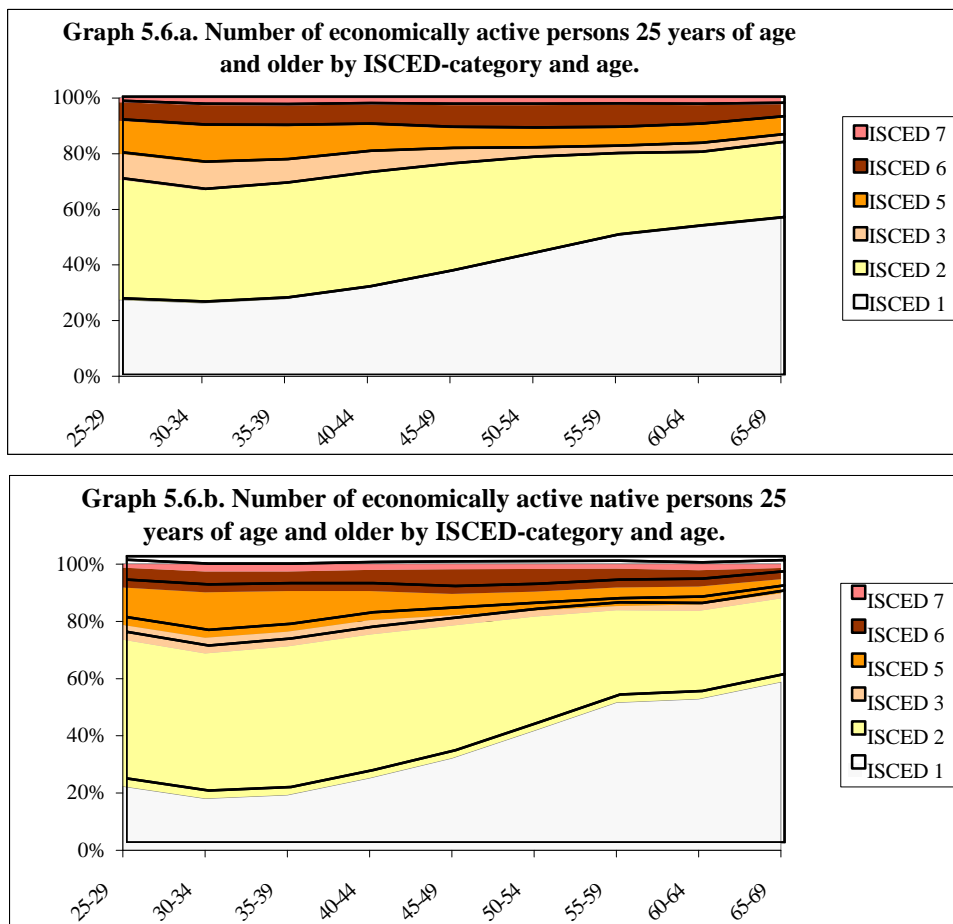
Source: Population Census 2000

Table 5.4.b. Percentage of working population by ISIC-category, sex and younger and older age-division (row %)

	Male		Female		No. on cases	
	< 55 yrs	>=55yrs	< 55 yrs	>=55yrs	< 55 yrs	>=55yrs
Agriculture, hunting and forestry	88.2	11.8	97.1	2.9	136	34
Fishing	96.8	3.2	100.0	0.0	31	1
Mining and quarrying	84.8	15.2	75.0	25.0	33	3
Manufacturing	85.1	14.9	92.6	7.4	1,837	486
Electricity, gas and water supply	86.2	13.8	93.9	6.1	428	49
Construction	92.2	7.8	96.2	3.8	3,417	290
Wholesale and retail trade, repair	89.1	10.9	91.0	9.0	3,054	3,719
Hotels and restaurants	91.9	8.1	93.7	6.3	3,367	3,920
Transport, storage and communications	86.3	13.7	95.3	4.7	1,851	916
Financial intermediation	91.3	8.7	96.1	3.9	485	929
Real estate, renting and business activities	88.0	12.0	94.5	5.5	2,029	1,516
Public administration and defence; social security	89.6	10.4	93.2	6.8	2,031	1,329
Education	86.4	13.6	87.4	12.6	441	922
Health and social work	86.7	13.3	91.8	8.2	420	1,471
Other community, social and personal services	89.6	10.4	93.4	6.6	1,573	1,071
Private households with employed persons	95.8	4.2	93.4	6.6	71	1,710
Extra territorial organizations and bodies	83.3	16.7	78.9	21.1	24	19
Total	89.3	10.7	92.9	7.1	21,228	18,385

Source: Population Census 2000

In the chapter on general characteristics of the labor force we have already described the educational attainment of the labor force of Aruba. We have again summarized the ISCED levels of economically active persons, both for the general population and the people born on Aruba. In both graphs 'ISCED 1' groups persons with 'primary education or less'. Graph 5.6.a clearly shows that a substantial portion of the labor force on Aruba has a low educational attainment. Older workers have a lower degree of education than their younger counterparts. Above age 55, more than half of all economic active persons have only primary education or lower.



Aruban born workers at the youngest age group have a higher educational attainment than the foreign born. However, at the more mature age groups in the labor force the difference between both groups becomes very small. After age 55 also more than 50 percent of Aruban workers have only primary education or less.

5.4. GRAYING LABOR FORCE

The Aruban population, and thus the labor force, is gradually aging. Older employees cost more to the employer. Productivity of older employees may decline proportionally with age. Generally, an older employee will become sick more often, earn more vacation and is at the top of his salary scale. Most of the problems associated with the aging of the labor force can be avoided through appropriate policy measures. Therefore, for optimal labor force planning it is necessary for policy makers to have a clear picture what the labor force will look like in the years to come. The aging of the population was already discussed in depth in an earlier Census publication⁵³. In this section we will look into the future prospect of Aruba's labor force. To do so, we will make use of the medium demographic projection that was presented earlier by the CBS⁵⁴.

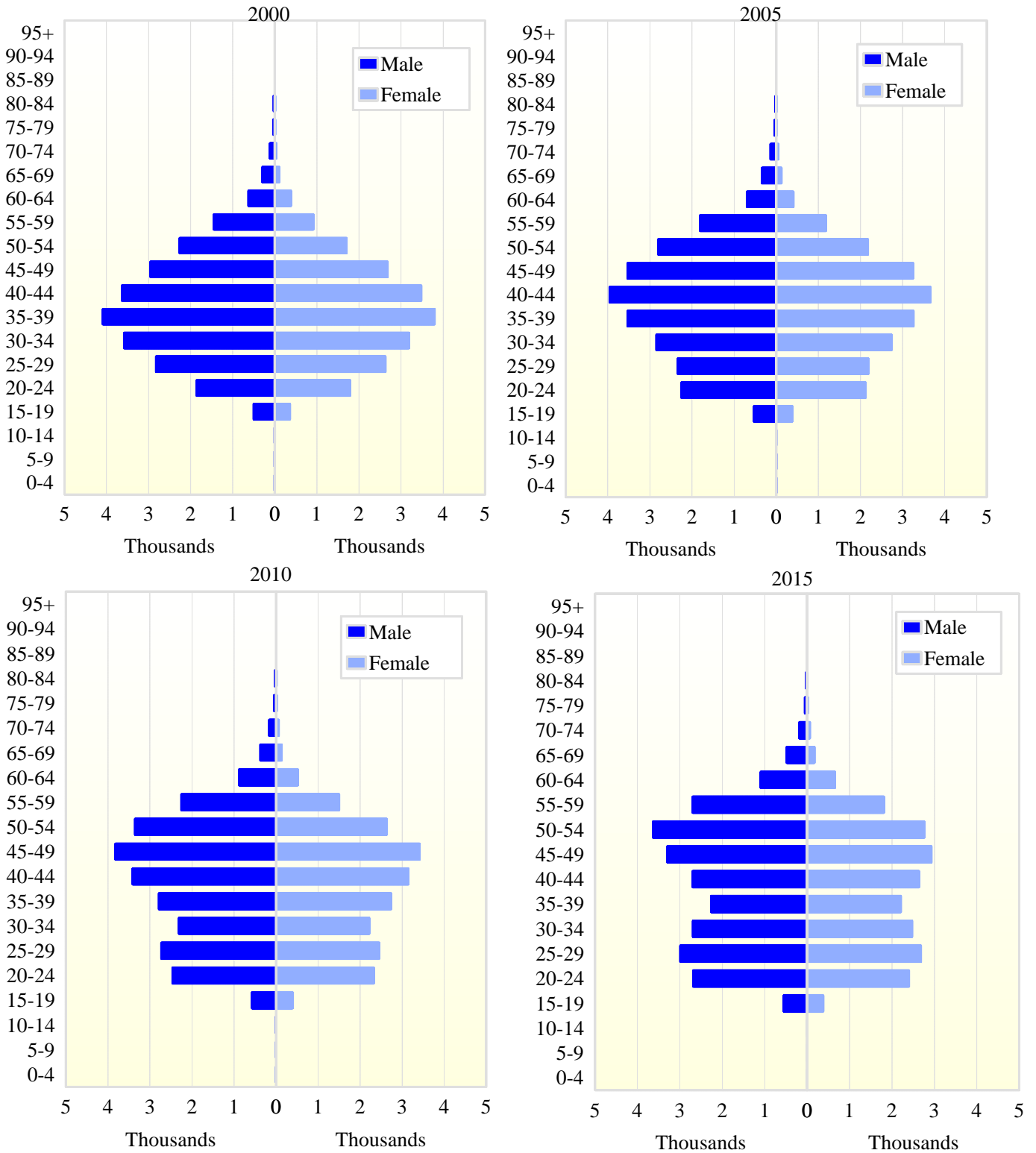
In 1960, only 4.9 percent of the population was over 60 years of age. From 1960 to 1991, the percentage of this age group more than doubled. After 1991, the absolute number of people over 60 continued to grow rapidly, from 6,845 to 10,097, but because of high levels of immigration, their percentage increased only moderately, from 10.3 to 11.2. The medium projection shows that after 2006 the rate of aging will accelerate. Between 2001 and 2005, the percentage of over-60's will increase by 1.2 percent points; between 2005 and 2011 by 2.1 percent points and between 2011 and 2016 by 2.9 percent points. Between 2001 and 2005 another 1,500 persons over 60 will be added to the island's population, and from 2011 to 2015 the number of extra persons aged 60 and over will have more than doubled, to over 3,000.

⁵³ Central Bureau of Statistics – Aruba (2002), *The People of Aruba, Continuity and Change. Fourth Population and Housing Census, Aruba.*

⁵⁴ See note above.

What we will do in this section is to link the projected population (by age and sex) for the years 2000-2015 to the age and sex specific participation rates observed in the census. For the sake of simplicity we will keep

Graph 5.7. Population pyramids of the projected labor force 2000-2015



these participation rates constant between 2000 and 2015. If we multiply the projected population in a specific year and age group with the corresponding participation rate, we obtain an estimate of the labor force

population in that particular age group. In such a way we can make estimates of Aruba's future labor force. These estimates are based on the following assumptions:

- The labor force estimates are based on the medium demographic projection. The first assumption we make is that this projection is a good approximation of what really is going to happen demographically on Aruba⁵⁵.
- In our labor force estimate we assume that the participation rates for 2000 will not change drastically during the next 15 years. It is possible that for instance the labor force participation of women will further increase in the coming years. If this would happen, our estimate of the labor force will be biased.
- The number of persons in the labor force is dependent on the economic climate. The projection looks only at the supply side of the labor market, and not at the demand side. Developments in the tourist industry will have a major impact on the demand for labor. If the industry would further expand, more foreign workers will be needed. A decrease in the number of visitors would make foreign workers return to their country and thus cause a shrinking of the labor market.

Table 5.5 gives the results of the labor force projection until 2015. Graphs 5.7 and 5.8 summarize the results of the projection. If the labor force would purely be driven by demographic changes, and not by the economic climate, the number of persons in the labor force would increase slightly in the period 2000-2015 from 45,371 persons to 46,588. A total of 25,349 of these persons would be male and 21,239 would be female. Currently, the sex ratio in the labor force equals 114.9. By 2015, the sex ratio will slightly increase to 119.4. In 2015, the median age of the active population will be almost 5 years higher than in 2000. In 2000, the median age of the active population was 34.3. This will have increased to 39.0 years by 2015. This is a clear indication of the rapid ageing of the population. The median age of active women is higher than that of men. It is interesting to note that the difference between the median ages for men and women will increase in the coming 15 years. In 2000 the difference was 1.7 years. By 2015, this difference will be 4.4 years.

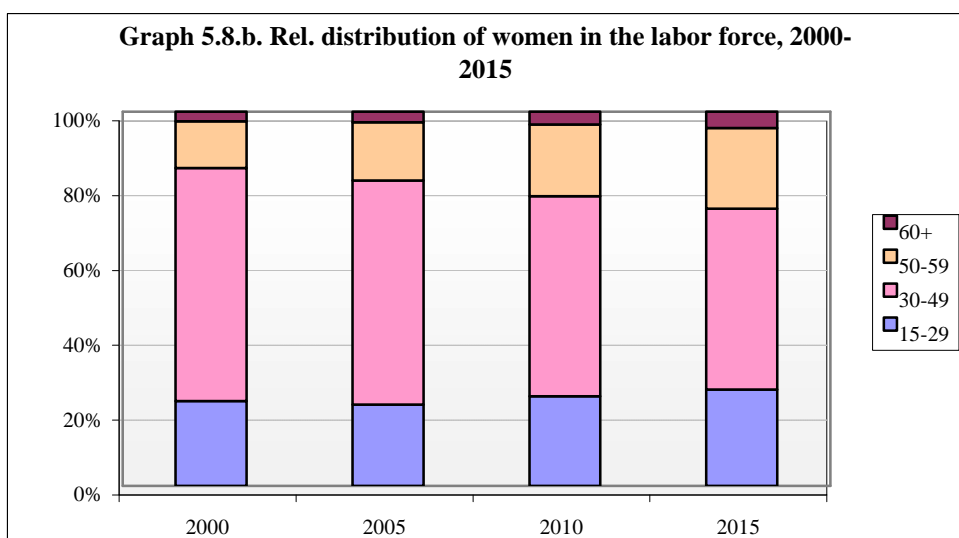
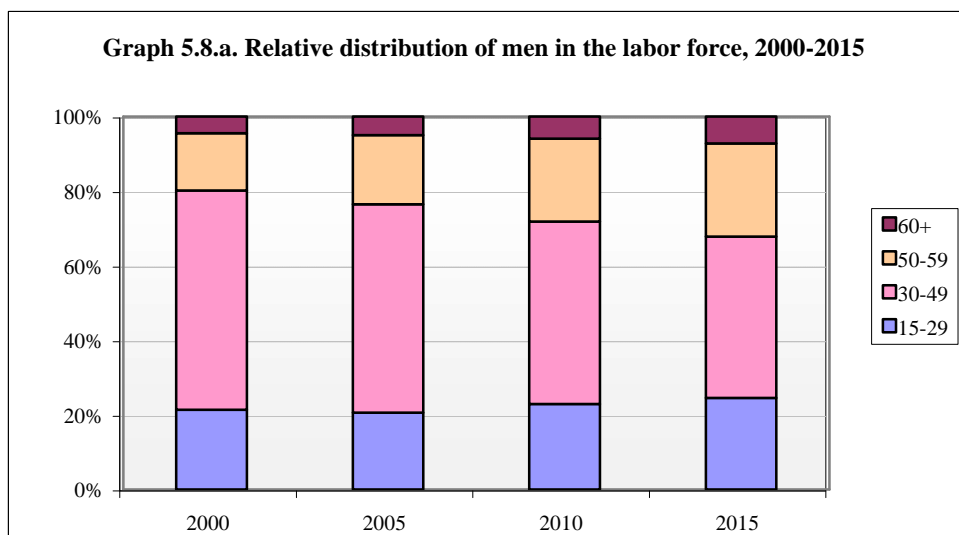
The population pyramids clearly show how the age distribution of the labor force will change drastically in the coming years. As more and more younger persons will enter the labor market, the age structure will become bi-modal. More and more persons will be present at the younger and at the older age-categories of the labor force. This may have an implication on the overall productivity and cost of the labor force: younger persons are often less experienced and frequently fill lower positions. Older persons are more expensive, or more absent and may generally have lower productivity. The number of active persons in the age-category 30-49 may decrease drastically before 2015. At the time of the census, 27,422 persons were between 30 and 49. If the current demographic trends continue, only 21,212 active persons between 30 and 49 will be present in 2015. Among the persons 50 years of age and older, 7,980 were economically active in 2000. This number will increase to 13,677, implying an increase of more than 70 percent. The number of young persons in the labor force will increase from 9,966 to 11,695, which is an increase of 17 percent. These changes are shown separately for men and women in graphs 5.8.a and 5.8.b.

⁵⁵ The medium projection made use of the following assumptions. As there is little reason to believe that fertility or mortality will change drastically in the course of the next fifteen years, both fertility and mortality were kept constant at its 2000 level. Migration is the most unpredictable factor in the projection equation. In the medium scenario we assume that the level and age pattern of migration will not change in the period 2000-2005. This means we use the net migration schedule observed at the time of the census, for the period 2000-2005. Net migration of men was negative in 2000 (-268) while it was positive for women (298). This means that after one year of being exposed to this schedule, 566 more women than men were living on the island because of migration. The schedule we used for the period 2005-2015 is based on the following assumptions. First, it is assumed that the levels of net migration will be very limited during this period. We expect that the real boom years are over. Second, for the younger and older age groups it is assumed that net migration is zero. It is assumed that net migration is negative in age groups 15-19, as many Aruban youngsters leave the island at these ages to study abroad. Third, we assume that net migration for women is slightly higher than for men. In absolute terms the total net migration for women is 50. For men we assume that total net migration is 0. In the projection model the total number of male and female migrants was included, and not the net migration rates.

Table 5.5. Projected number of persons in the labor force by age and sex.

Age group	2000			2005			2010			2015		
	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total
0-4	0	0	0	0	0	0	0	0	0	0	0	0
5-9	0	0	0	0	0	0	0	0	0	0	0	0
10-14	2	2	4	2	2	4	2	2	4	2	2	4
15-19	503	360	863	525	379	905	573	393	965	554	382	936
20-24	1,861	1,789	3,650	2,249	2,121	4,370	2,466	2,322	4,789	2,686	2,401	5,087
25-29	2,821	2,632	5,453	2,341	2,192	4,533	2,729	2,453	5,182	2,990	2,683	5,673
30-34	3,583	3,190	6,773	2,849	2,737	5,586	2,313	2,214	4,527	2,693	2,478	5,171
35-39	4,091	3,800	7,891	3,530	3,262	6,792	2,791	2,734	5,524	2,265	2,212	4,477
40-44	3,635	3,484	7,119	3,956	3,664	7,619	3,413	3,148	6,561	2,697	2,638	5,335
45-49	2,956	2,683	5,639	3,529	3,252	6,781	3,819	3,415	7,234	3,295	2,934	6,230
50-54	2,263	1,706	3,969	2,800	2,176	4,975	3,357	2,630	5,988	3,633	2,763	6,396
55-59	1,453	920	2,373	1,811	1,180	2,991	2,251	1,499	3,751	2,699	1,813	4,513
60-64	628	383	1,011	694	405	1,099	879	519	1,398	1,093	660	1,752
65-69	291	103	394	339	125	464	377	133	510	478	171	648
70-74	115	39	154	138	52	190	162	63	225	180	67	247
75-79	34	11	44	38	14	52	46	19	65	54	23	77
80+	24	10	34	23	10	33	25	11	36	29	14	43
All ages	24,259	21,112	45,371	24,825	21,571	46,396	25,204	21,556	46,760	25,349	21,239	46,588
Median age	33.4	35.1	34.3	35.4	37.3	36.4	36.5	39.5	38.1	36.6	41.0	39.0
Summary												
15-29	5,184	4,781	9,966	5,115	4,692	9,808	5,768	5,168	10,936	6,230	5,466	11,695
30-49	14,265	13,156	27,422	13,864	12,915	26,779	12,335	11,511	23,846	10,951	10,262	21,212
50-59	3,715	2,627	6,342	4,611	3,355	7,967	5,609	4,130	9,738	6,332	4,576	10,909
60+	1,092	546	1,638	1,232	606	1,839	1,490	745	2,235	1,834	934	2,768

Source: Population Census Aruba 2000.



ANNEXES

ANNEX I

INTERNATIONAL CLASSIFICATION OF EDUCATION

The levels of programs used in the ISCED system are:

Level 0 Education preceding the first level usually begins at age 3, 4 or 5 (sometimes earlier) and lasts from one to three years. School types that fall under this level are: crèche, day nursery, playschool, and kindergarten.

Level 1 Education at the first level usually begins at age 5, 6, or 7 and lasts for about five or six years. School types at this level are primary school and special primary schools.

Level 2 Education at the second level, first stage begins at about age 11 or 12 and lasts for about three years. For instance: general programs such as MAVO, HAVO 1-3, VWO 1-3; lower levels of vocational training (LTO, LHNO, ETAO, AHS-lbo, AHS-llw).

Level 3 Education at the second level, second stage begins at age 14 or 15 and lasts for about three years. In this level we find general programs (HAVO 4-5, VWO 4-6) and vocational schooling, intermediate level, such as MTO 1-2, MHNO 1-2, MAO 1-2, Associate degree AHS 1-2, Police school, MOVAA 1-2, and nursing program (first two years).

Level 5 Education at the third level, first stage, of the type that leads to an award not equivalent to a first university degree begins at age 17 or 18 and lasts for about three years. Thus, at about ages 20 or 21, the students who have progressed through the regular school system to complete these programs are usually ready to enter employment. Programs included are vocational education, intermediate level, final year(s) of e.g., MTO, MHNO, MAO, AHS (Associate degree), MOVAA, and nursing program (final year).

Level 6 Education at the third level, first stage, of the type that leads to a first university degree or equivalent also begins at age 17 or 18 and lasts for about four years. Thus, students who have progressed through the school system to complete their first degree are usually ready for employment or for postgraduate study at about age 21 or 22. It includes programs leading to the usual first degrees such as Bachelor of Arts, Bachelor of Science, 'kandidaatsdiploma', 'HBO-diploma'.

Level 7 Education at the third level, second stage, of the type that leads to a postgraduate university degree or equivalent includes all education beyond level 6. The degrees and awards obtained in this level take various forms and have different titles from country to country, some of them being Master of Arts, Master of Science, diplôme d'étude supérieure, doctorates of various kinds.

Level 9 Education not definable by level. The content of this category can only be described in a negative sense, i.e. programs that cannot be fitted into any of the other categories.

ANNEX II

NUMBER OF PERSONS 55+ BY ACTIVITY STATUS, AGE AND SEX

Annex II by chapter 5

Age	Male					Total	Female				Total	Participation rate	
	Working	Unemployed	Retired	Inactive	Working		Unemployed	Retired	Inactive	Male		Female	
55	356	20	15	62	508	219	9	30	242	501	74.1	45.7	
56	273	16	27	62	434	208	14	30	204	456	66.5	48.6	
57	276	17	38	57	444	167	6	40	204	417	65.9	41.6	
58	246	7	47	50	409	140	14	39	205	397	61.9	38.6	
59	219	12	75	53	417	133	5	41	194	374	55.4	37.1	
60	159	11	162	26	417	113	2	166	138	419	40.5	27.6	
61	125	11	174	19	390	70	3	172	140	385	34.8	19.1	
62	122	2	175	8	370	80	3	182	119	383	33.5	21.6	
63	94	5	159	12	333	61	1	166	129	357	30.0	17.4	
64	91	4	187	17	363	44	2	198	122	366	26.3	12.6	
65	80	2	162	13	321	29	2	212	97	340	25.5	9.3	
66	60	2	168	20	316	24	1	210	92	328	19.6	7.7	
67	43	2	154	2	269	16	3	187	85	291	16.8	6.5	
68	54	2	169	13	305	14	1	173	91	279	18.2	5.3	
69	44	0	138	8	259	12	1	148	51	212	17.0	5.9	
70	35	0	166	4	275	15	0	175	58	248	12.6	5.9	
71	26	1	132	4	235	8	0	155	51	215	11.6	3.9	
72	25	2	145	6	251	5	0	162	49	216	10.9	2.4	
73	7	0	86	6	173	3	0	86	29	119	4.3	2.7	
74	18	0	71	2	165	7	0	108	36	151	10.8	4.9	
75	11	0	102	2	189	4	0	85	40	129	5.5	3.3	
76	5	0	85	6	173	4	0	90	29	124	3.0	3.4	
77	5	0	94	8	185	2	0	105	23	130	2.8	1.6	
78	5	0	88	3	175	0	0	105	14	119	3.0	0.0	
79	7	0	43	0	129	0	0	59	18	77	5.7	0.0	
80	4	0	63	6	154	0	0	88	12	100	2.7	0.0	
81	2	0	61	1	145	0	0	63	8	71	1.4	0.0	
82	4	0	40	4	130	2	0	71	16	89	3.2	2.4	
83	2	0	41	3	129	0	0	85	9	94	1.6	0.0	
84	2	0	45	0	131	3	0	81	13	97	1.6	3.3	
85	0	0	23	3	111	0	0	41	7	48	0.0	0.0	
86	1	0	20	4	111	0	0	48	12	60	0.9	0.0	
87	0	0	27	2	116	0	0	33	8	41	0.0	0.0	
88	0	0	16	0	104	0	0	33	13	45	0.0	0.0	
89	1	0	22	1	113	0	0	51	5	57	0.9	0.0	
90	0	0	16	0	106	0	0	33	2	35	0.0	0.0	
91	0	0	7	3	102	0	0	15	3	18	0.0	0.0	
92	0	0	8	1	101	0	0	18	2	20	0.0	0.0	
93	0	0	3	2	98	0	0	23	0	23	0.0	0.0	
94	0	0	3	0	97	0	0	16	1	17	0.0	0.0	
95	0	0	4	0	99	0	0	19	0	19	0.0	0.0	
96	0	0	2	0	98	0	0	5	1	6	0.0	0.0	
97	0	0	2	1	100	0	0	5	2	7	0.0	0.0	
98	0	0	2	0	100	0	0	2	0	2	0.0	0.0	
103	0	0	0	0	103	0	0	1	0	1	0.0	0.0	
104	0	0	0	0	104	0	0	1	0	1	0.0	0.0	
NR	22	0	2	159	183	15	1	1	159	175			
Total	2,426	116	3,271	655	10,040	1,400	69	3,859	2,732	8,060	25.3	18.2	

Source: Population Census 2000.

ANNEX III

CONCEPTS AND DEFINITIONS

ACTIVITY STATUS Main activity before looking for work. Distinguishes between those who were working (that is job leavers, job losers and temporary lay-offs) and those who were not in the labor force but were keeping house, going to school, or involved in some other type of activity.

Data on activity status are restricted to persons aged 15 years and over. The economically active population comprises all persons of either sex who contribute to the production of economic goods and services, during a specified period of time. The reference period used in the Labor Force Survey (LFS) was the week preceding the survey.

AGE Age is collected from every household member in the survey, and the information on labor market activity is collected from all persons aged 15 and over.

**ARUBAN/
NON-ARUBAN** Arubans possess the Dutch nationality. A person who was born on the island and who possesses the Dutch nationality is considered an Aruban. All others are non-Aruban.

AVAILABILITY Persons are regarded as available for work if they reported that they could have worked in the reference week, if a suitable job had been offered (or recalled if on temporary layoff); or if they could not take a job because of their own illness or disability, personal or family responsibilities. Full-time students currently attending school and looking for full-time work are not considered to be available for work during the reference week. They are assumed to be looking for a summer or co-op job or permanent job to start sometime in the future.

**BRANCH OF
INDUSTRY** Branch of industry refers to the economic activity of the establishment in which an employed person worked during the week preceding the survey or in which the person last worked, if unemployed. The International Standard Industrial Classification of Economic Activities (ISIC-third revision) was used for the classification of industrial and business activities in Aruba.

The ISIC system uses a four-digit code -as did the ISCO- to classify the economic activities of businesses and other economically active organizations in a country. The hierarchy in the classifications of the branch of industry is made up of divisions (2-digit codes), major groups (3-digit codes), and groups (4-digit codes). Information obtained in the labor force survey is coded at the group level. For analytical purposes, the divisions are grouped in 17 tabulation categories. A letter indicates each of the categories. In this report we will mainly use these tabulation categories.

ISIC-III tabulation categories are given below:

- A. Agriculture, hunting and forestry
- B. Fishing
- C. Mining and quarrying
- D. Manufacturing
- E. Electricity, gas and water supply
- F. Construction
- G. Wholesale and retail trade; repair of motor vehicles and motorcycles and personal and household goods
- H. Hotels and restaurants
- I. Transport, storage and communications
- J. Financial intermediation
- K. Real estate activities

- L. Public administration and defense; compulsory social security
- M. Education
- N. Health and social work
- O. Other community, social and personal services
- P. Other service activities
- Q. Extraterritorial organizations and bodies

DISABLED

Disabled persons are persons with a physical or mental disorder. The disability is formed by the limitations of the personal abilities due to the disorder.

'Disabled persons' do not include individuals who are recovering from an illness or an accident and who will be cured within a limited period of time. Their perspective is, after all, to be completely cured.

A relatively crude distinction is made between the various types of handicaps, this because of the restrictions which a population census poses to investigate a topic like this. The following types of physical and mental handicaps are discerned:

Physical handicaps

- Motor handicap: This kind of handicap is a consequence of a disfunction of the limbs. Examples of causes of this impairment are: Parkinson disease, polio and spasticity.
- Visual handicap: This includes blindness and very poor eyesight.
- Auditory handicap: This includes deafness and serious hearing impairments.
- Organ handicap: This kind of handicap is the result of organ disorders such as asthma, diabetes, stoma, etc.
- Multiple physical Handicap: Combination of various physical handicaps, for instance, combined blindness and deafness.

Mental handicaps

Mental handicaps are disorders caused by a failure in intellectual development that results in social incompetence, and is considered to be the result of a defective central nervous system. The disorders have often originated around the time of birth. In some cases mental handicaps can originate as well from an accident or a disease. Mostly a distinction is made according to the degree of intellectual limitations:

- Idiocy: i.e. a very deep, mental handicap. The disabled person leads a very passive, sometimes vegetating life.
- Imbecility: i.e. a very serious mental disorder. Independent functioning is impossible for the handicapped person.
- Moronity: i.e. a light mental handicap. The mentally retarded person can function moderately independently.

Combined physical and mental handicap

Some persons have both physical and mental disorders. For instance, a blind mentally retarded child.

DISCOURAGED
SEARCHER
(DISCOURAGED
WORKER)

Those persons who reported wanting to work at a job or business during the reference week and were available but who did not look for work because they believed no suitable work was available.

DURATION OF SETTLEMENT The duration of settlement is the interval of time between the date of the survey and the date when the person arrived on the island. The duration of time is expressed in completed years; one year thus means between one and two years on the island.

DURATION OF UNEMPLOYMENT Number of continuous weeks during which a person has been on temporary layoff or without work and looking for work. Respondents are required to look for work at least once every four weeks; they are not required to undertake job search activities each week in order to be counted as unemployed.

ECONOMICALLY ACTIVE POPULATION ECONOMICALLY ACTIVE POPULATION
 ACTIVE
 POPULATION
 (EAP)=
 Employed Persons
 (E) + Unemployed
 Persons (U)

The economically active population includes persons in the civilian labor force as well as those serving in the armed forces. The civilian labor force comprises both the 'employed' and the 'unemployed' in the week prior to the survey.

EMPLOYED: The 'employed' comprises all persons 15 years of age and over who, during the week preceding the survey, were in one of the following categories:

(a) Paid employment:
'At work': persons who worked for a wage or salary, in cash or in kind for at least four hours.

'With a job but not at work': persons who, having already worked in their present job, were temporarily not at work and had a formal attachment to their work as evidenced, for example, by continuous receipt of wage or salary, an agreement on a date of return following the short duration of absence from their job, etc.

(b) Self-employment:
'At work': persons who worked for profit or family gain, in cash or in kind for at least four hours.

'With an enterprise but not at work': persons with an enterprise, be it a business enterprise, a farm or a service enterprise, who were temporarily not at work for whatever specific reason.

UNEMPLOYED: The 'unemployed' comprises all persons 15 years of age and over who, during the week preceding the survey, met all three of the following conditions: Age is collected for every household member in the survey, and the information on labor market activity is collected for all persons aged 15 and over.

- (a) 'Without work', i.e., were not in paid employment or self-employment.
- (b) 'Currently available for work', i.e., able to start a new job within two weeks' time.
- (c) 'Seeking work', i.e., had taken specific steps to seek employment or self-employment. The specific steps may include: registration at a public or private employment agency; applying for a job; checking at work sites; placing or answering newspaper advertisements; seeking assistance from friends and relatives; looking for land or a building, machinery, or equipment to establish own enterprise; arranging for financial resources; applying for permits and licenses, etc.

ECONOMICALLY NON-ACTIVE POPULATION

The economically non-active population comprises the following functional categories:

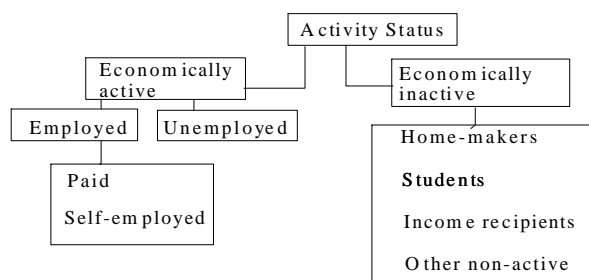
Homemakers: Persons, of either sex, who are not employed or unemployed and who are engaged in household duties in their own home. Domestic employees receiving a salary are consequently classified as economically active.

Students: Persons of either sex, economically non-active, who attend a regular educational institution, public or private, for systematic instruction at any level of education.

Income recipients: Persons of either sex, economically non-active, who receive income from property or investments, interest, rent, royalties or pensions from former activities. Persons who retired early from the public sector, using the so-called VUT arrangement ('Vrijwillige Uitdiensttreding' - Voluntary Retirement), are also included in this category.

OTHER NON-ACTIVES: Persons of either sex, not economically active, who receive public aid or private support, and all other persons who do not fit into any of the above categories, such as young persons who do not attend school and not economically active.

In the following diagram we summarize the hierarchical division of the activity status.



EDUCATIONAL ATTAINMENT

Highest level of schooling completed.
 More information is collected on the type of post-secondary education:

1. Some post-secondary
2. Trades certificate or diploma from a vocational or apprenticeship training
3. Non-university certificate or diploma from a community college, school of nursing
4. University certificate below bachelors degree
5. Bachelors degree
6. University degree or certificate above bachelors degree

EMPLOYMENT

Employed persons are those who, during the reference week did any work for pay or profit, or had a job and were absent from work.

EMPLOYMENT RATE

Number of employed persons expressed as a percentage of the population 15 years of age and over. The employment rate for a particular group (age, sex, marital status, etc.) is the number employed in that group expressed as a percentage of the population for that group. (WAP = Working age population).

$$\frac{E}{WAP} \times 100$$

FLOWS INTO UNEMPLOYMENT	Characterizes the unemployed in terms of their activity immediately prior to looking for work. See JOB LEAVERS, JOB LOSERS, RE-ENTRANTS and NEW ENTRANTS.
FUTURE STARTS	Persons who did not have a job during the survey reference week and did not search for work within the previous four weeks, but were available to work and had a job to start within the next four weeks. These persons are classified as unemployed, despite the lack of job search within the previous four weeks, since it is apparent that they are part of the current supply of labor. In contrast, those with jobs, to start at a later time than the next four weeks are designated as long-term future starts and are classified as not in the labor force since they are not part of the current labor supply.
HEAD OF HOUSEHOLD	<p>The head of the household is the member of the household who is either:</p> <ul style="list-style-type: none">- the legal owner of the housing unit, or- the person responsible for paying the rent. <p>Where no, or more than one, head in one housing unit can be determined, the oldest among all candidates is assigned as the head of the household. This occurs, for instance, in cases of combined ownerships and rent-free housing units.</p> <p>The head of the household is most commonly used as the reference person to whom the relationship of all other household members is established.</p>
HOURS	<p>ACTUAL HOURS WORKED Number of hours actually worked by the respondent during the reference week, including paid and unpaid hours.</p> <p>USUAL HOURS WORKED The number of hours usually worked by the respondent in a typical week, regardless of whether they were paid.</p> <p>AVERAGE HOURS WORKED Average number of hours worked per week, usual or actual, is calculated by dividing total hours by the total number of employed persons. Also available is the average number of <u>actual hours</u> worked per week calculated by <u>excluding</u> persons who were not at work during the reference week.</p> <p>HOURS LOST (Absence from work) A distinction is made between those who lose hours from work because they missed part of the workweek or the full workweek. Reasons for the absence are collected for both situations.</p> <p>Part-week absence: <u>Collected for employees only.</u> Reasons for absence include: own illness or disability, personal or family responsibilities, maternity leave (females only), vacation, weather, labor dispute, job started or ended during reference week, holiday, working short time, other reasons.</p> <p>Full-week absence: <u>Collected for all employed persons.</u> Reasons for absence include: own illness or disability, personal or family responsibilities, maternity leave (females only), vacation, labor dispute, work schedule, self-employed (no work available), seasonal business (self-employed), other reasons. The numbers of full weeks absent are recorded. In addition, employees and self-employed with an incorporated business are asked if they received wages or salary for any time off in the reference week.</p>

EXTRA HOURS WORKED

The number of hours worked during the reference week in excess of the usual hours reported in all jobs combined. It includes all extra hours, whether the work was done at a premium or regular wage rate, or without pay.

PAID OVERTIME

Includes any hours worked during the reference week over and above standard or scheduled paid hours, for overtime pay or compensation (including time off in lieu).

EXTRA HOURS WITHOUT PAY (unpaid overtime)

Refers to time spent directly on work or work-related activities over and above scheduled paid hours. These must be extra hours worked for which the respondent received no additional compensation.

HOUSEHOLD

A household may either be:

- A. a one-person household, i.e., a person who provides his or her own food or other basic essentials, without teaming up with any other person to form part of a multi-person household or
- B. a multi-person household, i.e., a group of two or more persons living together which makes common provision for food or other essentials for living.

A criterion, to determine whether persons belong to the same household is to detect whether these persons use a common room. Another important indicator is that the persons share their meals. In this respect, we must note that a live-in housemaid sometimes belongs to the household in which she works and sometimes not. It all depends on whether or not the housemaid has her own quarters where she lives, separately and almost independently, after her daily work.

Examples of households: a person living alone, a family consisting of a father, a mother and some children, a man and a woman living together but have no children, a man and a woman with their children living together with the parents of the woman and a live-in maid, a vagabond living on the streets.

ICSE
CATEGORY

The International Classification of Status in Employment (ICSE) defines its categories as follows:

- Employer: a person who operates his or her own economic enterprise or engages independently in a profession or trade, and hires one or more employees.
- Own-account worker: a person who operates his or her own economic enterprise or engages independently in a profession or trade, and hires no employees.
- Employee: a person who works for a public or private employer and receives remuneration in wages, salary, commission, tips, piece-rates or pay in kind.
- Unpaid family worker: usually a person who works without pay in an economic enterprise operated by a related person (not necessarily living in the same household).
- Persons not classifiable by status: experienced whose status is unknown or inadequately described and unemployed persons not previously employed (i.e. new entrants).

INDUSTRY	The general nature of the business carried out by the employer for whom the respondent works (main job only). If a person did not have a job during the survey reference week, the information is collected for the last job held, providing the person worked within the previous twelve months.
ISCED LEVEL CATEGORY	<p>The <u>INTERNATIONAL STANDARD CLASSIFICATION OF EDUCATION (ISCED)</u> is an instrument for presenting statistics on education.</p> <p>ISCED is basically a three-stage classification system, providing successive subdivisions from <u>level of education</u> to <u>field of study</u> to <u>program group</u>. The ISCED-system, which was used in several tables, incorporates seven categories. A residual category for education not definable by level is added. The levels used in the ISCED system are:</p> <p>LEVEL 0 <u>Education preceding the first level</u> usually begins at age 3, 4 or 5 (sometimes earlier) and lasts from one to three years. School types in this category level are: crèche, day nursery, play school, and kindergarten.</p> <p>LEVEL 1 <u>Education at the first level</u> usually begins at age 5, 6, or 7 and lasts for about five or six years. School types at this level are primary school and special primary schools.</p> <p>LEVEL 2 <u>Education at the second level, first stage</u> begins at about age 11 or 12 and lasts for about three years. For instance: general programs such as MAVO, HAVO 1-3, VWO 1-3; lower levels of vocational training (LTO, LHNO, ETAO, AHS-lbo, AHS-llw).</p> <p>LEVEL 3 <u>Education at the second level, second stage</u> begins at age 14 or 15 and lasts for about three years. At this level we find general programs (HAVO 4-5, VWO 4-6) and vocational schooling, intermediate level, such as MTO 1-2, MHNO 1-2, MAO 1-2, the Associate degree AHS 1-2, the Police school, MOVAA 1-2, and nursing program (first two years).</p> <p>LEVEL 5 <u>Education at the third level, first stage, of the type that leads to an award not equivalent to a first university degree</u> begins at age 17 or 18 and lasts for about three years. Thus, at about ages 20 or 21, students who have progressed through the regular school system to complete these programs are usually ready to enter employment. Programs included are vocational education, intermediate level, final year(s) of e.g., MTO, MHNO, MAO, AHS (Associate degree), MOVAA, and nursing program (final year).</p> <p>LEVEL 6 <u>Education at the third level, first stage, of the type that leads to a first university degree or equivalent</u> also begins at age 17 or 18 and lasts for about four years. Thus, students who have progressed through the school system to complete their first degree are usually ready for employment or for a postgraduate study at about age 21 or 22. It includes programs leading to the usual first degrees such as Bachelor of Arts, Bachelor of Science, 'kandidaatsdiploma', 'HBO-diploma'.</p> <p>LEVEL 7 <u>Education at the third level, second stage, of the type that leads to a postgraduate university degree or equivalent</u> includes all education beyond level 6. The degrees and awards obtained at this level take various forms and have different titles from country to country, some of them being Master of Arts, Master of Science, diploma d'étude supérieure and doctorates of various kinds.</p>

	<p>LEVEL 9</p> <p><u>Education not definable by level.</u> The content of this category can only be described in a negative sense, i.e. programs that cannot be fitted into any of the other categories.</p>
JOB LOSERS	<p>Persons currently not employed, who last worked within the previous year and left that job voluntarily. That is, the employer did not initiate the termination.</p> <p>Detailed reasons collected are: marriage, birth of child, health reasons; disabled for work (AO), studies/ courses, military draft, quit for personal reason, own company closed down or sold; fired due to company closure; reorganization; cutbacks, fired due to contract deadline or other reason, no work permit (yet), retired; rentier, problems with childcare, family responsibilities, other reasons.</p> <p>Persons currently not employed, who last worked within the previous year and left that job involuntarily (employer initiated because of business conditions, downsizing etc.). In the Labor Force Survey 1994 this category was divided into those on temporary layoff and those laid off on a permanent basis.</p>
JOB PERMANENCY	<p>The information collected in the labor force survey allows the categorization of paid jobs as either permanent or temporary. This classification is based on the intentions of the employer, and characteristics of the job, rather than the intentions of the employee.</p> <p>PERMANENT: a permanent job is one that is expected to last as long as the employee wants it, given that business conditions permit. That is, there is no pre-determined termination date.</p> <p>TEMPORARY: a temporary job has a pre-determined end date, or will end as soon as a specified project is completed. Information is collected to allow the sub-classification of temporary jobs into four groups: seasonal; temporary; term or contract; including work done through a temporary help agency; casual job; and other temporary work.</p>
LABOR FORCE	<p>Civilian non-institutional population 15 years of age and over who, during the survey reference week, were employed or unemployed. Thus the employed and unemployed population.</p>
LABOR FORCE STATUS	<p>Designates the status of the respondent vis-à-vis the labor market: a member of the non-institutional population 15 years of age and over is either employed, unemployed or not in the labor force.</p>
LEVEL OF EDUCATIONAL ATTAINMENT	<p>For those who were no longer following regular education, data were gathered on their highest level of educational attainment. The ISCED system was also used for the classification of this information. Almost the same program levels are utilized as above. Persons who did not complete their primary education are grouped together with those who had no education at all.</p> <p>For those who did not receive a diploma after primary school an extra question was asked, namely what the highest educational attainment of the respondent was without acquiring a diploma. All persons were asked in which country they acquired their education.</p>
MAIN JOB	<p>When a respondent holds more than one job or business, the job or business involving the greatest number of usual hours worked is considered to be the main job. The full or part-time status and industry and occupation information available from the survey refer to the main job, as does information for employees on wages, job permanency and workplace size.</p>

MARITAL STATUS	<p>Refers to the marital status reported by the respondent. No differentiation is made between married and common-law relationships; both are classified as married in the survey.</p> <p>There are five categories of marital status:</p> <ul style="list-style-type: none"> ◦ never married ◦ married ◦ divorced ◦ legally separated ◦ widowed <p>Note that these categories indicate the <u>legal</u> status of the person. If a man is married, but lives no longer with his wife, his marital status remains 'married'. A clear distinction should be made between 'divorced and 'legally separated'.</p> <p style="margin-left: 40px;">DIVORCED</p> <p style="margin-left: 40px;">Refers to a situation where the marriage has been terminated by a court ruling.</p> <p style="margin-left: 40px;">LEGALLY SEPARATED</p> <p style="margin-left: 40px;">Under to the Civil Code (art.154, par.1) married persons are obliged to live together. If, for one reason or another, the couple can no longer live together, they can request the court of law for a formal divorce, or a legal separation. In the case of a legal separation, the spouses are exempted from their obligation to live together. However, the legal bond between the spouses remains.</p>
METHODS OF JOB SEARCH	<p>Identifies the various methods of job search activities undertaken by unemployed persons in the previous four weeks. If more than one method is used, the one the respondent considers to be the most important is recorded. Search methods include: answering a job ad, placing an advertisement, asking around at various companies, via friends or connections, via job center or agency, reading all the job ads, actively preparing for own business, other methods.</p>
MULTIPLE JOB HOLDER	<p>Persons who, during the reference week, were employed in two or more jobs simultaneously.</p>
NATIVE AND FOREIGN-BORN POPULATION	<p>'Native population' indicates persons born in Aruba. 'Foreign-born population' refers to persons born outside of Aruba. Note that the country of birth is not necessarily the country of nationality. Information about the country of birth is given on the basis of the national boundaries existing at the time of the Labor Force Survey.</p>
NEW ENTRANTS	<p>Persons entering the labor force in search of their first job (unemployed).</p>
OCCUPATION	<p>Occupation refers to the kind of work done, in the week preceding the survey, by the person employed (or the type of work done in the past, if unemployed). We used the <u>INTERNATIONAL STANDARD CLASSIFICATION OF OCCUPATION (ISCO-88)</u>. The ISCO provides a systematic classification structure, which encompasses all occupations of the economically active population.</p> <p>The classification structure consists of four levels: major groups, sub-major groups, minor groups, and unit groups. There are ten major groups.</p> <p>The ISCO classification system uses 4-digit codes for the unit groups of occupation. The unit group of occupation for all persons aged 14 years and over was coded and entered into the computer. However, due to the limited space available, the tables in this volume only present the classification by major occupational group. Data users who are interested in more detailed information on occupations in Aruba can contact the Central Bureau of Statistics.</p>

The following brief outline of the ten ISCO-88 major groups facilitates the interpretation of the classification.

1. LEGISLATORS, SENIOR OFFICIALS AND MANAGERS

This major group consists of occupations in which policy-making and high-level management play a primary role, both in the private and in the public sector. Lower-level managers do not belong to this category.

2. PROFESSIONALS

This major group includes occupations that require a high level of professional knowledge and experience in the field of physical and life sciences or social sciences and humanities. The tasks of the members of this group consist of increasing know-how and experience, applying scientific concepts and theories to the solution of problems, and imparting their knowledge in a systematic manner.

3. TECHNICIANS AND ASSOCIATE PROFESSIONALS

This major group requires technical know-how and experience in one or more fields of physical and life sciences, or social sciences and humanities. The main tasks consist of carrying out technical work connected with the application of concepts and operational methods in the above-mentioned fields, and in teaching at certain educational levels.

4. CLERKS

The main tasks are secretarial duties, operating word processors and other office machines, recording and computing numerical data, and performing a number of customer-oriented clerical duties, mostly in connection with mail services, money-handling operations and appointments.

5. SERVICE WORKERS AND SHOP AND MARKET SALES WORKERS

The main tasks of this major group are the provision of services related to travel, housekeeping, catering, personal care, protection of individuals and property, and the maintenance of law and order, or selling goods in shops or at the market.

6. SKILLED AGRICULTURAL AND FISHERY WORKERS

The main responsibilities of this group are growing crops, breeding or hunting animals, catching or cultivating fish, conserving and exploiting forests and, especially in the case of market-oriented agricultural and fishery workers, selling products to purchasers and marketing organizations, or at the market.

7. CRAFT AND RELATED TRADE WORKERS

The main tasks of these occupations are of extracting raw materials, constructing buildings and other structures, and making various products including handicraft.

8. PLANT AND MACHINE OPERATORS AND ASSEMBLERS

The occupations within this major group are involved in operating and monitoring mining, processing, and production machinery and equipment, as well as driving vehicles and operating mobile plants, or assembling needed component parts. These occupations require the know-how and the experience to operate this machinery.

9. ELEMENTARY OCCUPATIONS

This major group covers occupations that require the know-how and experience to perform simple and routine tasks involving the use of hand-held tools and, in some cases, considerable physical effort. Only in a few cases do these occupations require personal initiative and judgment.

The main tasks are selling goods in the street, doorkeeping and property watching, as well as cleaning, washing, and pressing, and working as laborers in mining, agriculture and fishing, construction and manufacturing.

0. ARMED FORCES

Persons who are currently serving in the armed forces, including auxiliary services, whether on a voluntary or compulsory basis, and who are not free to accept civilian employment. It includes conscripts enrolled for military training or other services for a specified period of time.

OTHER JOB	Information collected on the second job of multiple job holders and the old job of those who changed jobs during reference week is limited to: type of employment, number of hours per week, type of work, type of activity of the company and income from this second job.
PARTICIPATION RATE	Total labor force expressed as a percentage of the population 15 years of age and over. The participation rate for a particular group (age, sex, marital status, etc.) is the labor force in that group expressed as a percentage of the population for that group.
PLACE OF RESIDENCE	The place of residence is the geographical place where the enumerated person usually resides. The Geographical Address Classification (GAC-97) system for the classification of the place of residence was used.
POPULATION	The target population covered by the survey corresponds to all persons aged 15 years and over. Total population = Working Age Population (WAP) + Population below working age
PUBLIC/ PRIVATE SECTOR EMPLOYMENT	<p>PUBLIC SECTOR Includes employees in public administration and other government institutions, such as schools, government owned hospitals and public libraries.</p> <p>PRIVATE SECTOR Comprises all other employees and self-employed owners of businesses (including unpaid family members workers in those businesses), and self-employed persons without business.</p>
REASON FOR NOT LOOKING FOR WORK	<p>Asked of all persons classified as unemployed or not in the labor force who last worked within the previous year. See Job losers and Job leavers for detailed reasons.</p> <p>The persons who were not employed and did not search actively for work were asked the reason for not looking for a job. Reasons include: retirement; rentier; too old, not possible with children, finish school/ courses first, no suitable work available, don't have a proper diploma to find a good job, waiting for/ fulfilling military draft, financially not necessary, prefer to do housework, health, family circumstances, no work permit, already found a job, other reason.</p>

SALARY (WAGES)

Salary refers to gross salary in the month preceding the survey. All data on salary are presented in Aruban florins. It includes salaries and wages for the job about which information was gathered (first and second job, as well as previous employment). As such income does not include earnings from other sources such as unemployment benefits, pension, profit from financial investments etc.

In those instances where the respondent was unable to state the amount in another currency but not in florins, the amount provided was calculated afterwards at the office. Exchange rates used were those that applied at the time.

Weekly and hourly wages/ salary are calculated in conjunction with usual paid work hours per week. Average wages, average weekly wages and wage distributions can then be cross-tabulated by other characteristics such as ex, education and occupation.

SCHOOL-
ATTENDING
POPULATION

The school-attending population consists of those persons who follow a regular education program. A regular program normally spans a period of more than one year and leads to an accredited diploma. The program can be followed during the daytime or in the evening. A regular program can normally be considered to be full-time education.

A few examples of regular programs in Aruba are: primary school, ETAO, International School, VWO, IPA, LTO, MAO, University of Aruba, Police school, MOVAA.

STATUS IN
EMPLOYMENT

Status in employment refers to the status of an economically active person with respect to his or her employment. We distinguish whether the person is employed as an employer, an own- account worker/small employer, an employee with a permanent job, an employee with a temporary job, an unpaid family worker, or employed in another way.

EMPLOYER

An 'employer' is a person who, as an owner, runs a business and employs three or more persons. It should be clear that a household is not a business. A housewife who has three housemaids is not an employer. The director of a foundation, an incorporated business, or government organization is also not an employer.

SMALL EMPLOYER

A 'small employer' is an independent, economically active person who gives employment to less than three persons. A carpenter, for instance, who works by himself without any employees is a 'small employer/own-account worker'.

EMPLOYEE

An employee is a person who works for a public or private employer and who receives remuneration in wages, salary, commission, tips, piece-rates, or pay in kind. A distinction is made between 'Employee with a permanent job' and 'Employee with a temporary job'. 'Employees with a permanent job' are those persons who, by written or verbal contract, have been hired for a period of six months or longer. 'Employees with a temporary job' include those who are hired for less than six months, with or without a contract.

CASUAL LABORER, ODD JOBS

A person who does odd jobs, for several days at a time, is also classified under this category.

UNPAID FAMILY WORKER

An 'unpaid family worker' is usually a person who works without pay in an economic enterprise operated by a related person living in the same household.

This category comprises of workers such as members of producers' cooperatives.

UNEMPLOYMENT
RATE

$$\frac{U}{TLF} \times 100$$

Number of unemployed persons expressed as a percentage of the labor force. The unemployment rate for a particular group (age, sex, marital status, etc.) is the number unemployed in that group expressed as a percentage of the labor force for that group. (U = no. of unemployed persons 15 y. and above, TLF = Total labor force)

WORK

Includes any work for pay or profit, that is paid work in context of an employer-employee relationship, or self-employed. It also includes work performed by those working in family business without pay (unpaid family workers).

WORKPLACE SIZE

The number of employees at the location of employment is collected from employees.

Categories are as follows:

- 1 person
- 2-4 employees
- 5-9 employees
- 10-19 employees
- 20-49 employees
- 50-149 employees
- more than 150 employees

WORKING AGE
POPULATION
(WAP)

Economically Active Population (EAP) + Economically Inactive Population

OTHER

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