

**Focusing on Women  
2005**

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## Preface

*Focusing on Women 2005* is intended to inform women, policy makers, community groups, students and the public about the contemporary position of women in New Zealand society, as well as changes in their position over time. Publication of this report coincides with the New Zealand Women's Convention, "Looking Back, Moving Forward – Titiro Whakamuri Haere Whakamua", to be held in Wellington in June 2005 to mark the 30th anniversary of the United Women's Convention in Wellington.

There have been many changes affecting women's lives over the past 30 years. Many more women are now participating in tertiary education, making up more than half of all tertiary enrolments in 2001. Women now have higher levels of participation in skilled and non-traditional occupations. They are living longer and having fewer children. Fewer women marry, and first marriages occur later in life – as does childbearing.

Income levels still show a gap between women and men. For women, time out of the workforce and part-time work particularly impact on remuneration. Across occupational streams, there are differences in participation by women's ethnicity, which is reflected in income. Despite the differences, the gap has generally narrowed.

This publication uses information from the 2001 Census of Population and Dwellings as its baseline, and draws widely from sources such as the Ministries of Health, Education and Justice, New Zealand Police and the Department of Corrections.

The team who produced this document is proud to have worked on such an important social document and hopes that readers gain a sound appreciation of the position of women in New Zealand Society.



Brian Pink  
Government Statistician  
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Sisterhood for Homophile Equality in Christchurch) were established. ▲ Whetu Tirikatene-Sullivan, Labour MP for Southern Māori, became the first Māori woman cabinet minister, serving as Associate Minister for Social Welfare (1972–74), Minister of Tourism (1972–75), and Minister of the Environment (1974–75). ▲ *Broadsheet*, the country's feminist magazine, first appeared.

**1973:** The domestic purposes benefit was introduced for all parents (mainly women) caring for dependent children without the support of a partner. Previously, from 1968, there existed a family maintenance allowance which was a discretionary benefit. ▲ The Accident Compensation Amendment Act extended compensation to non-earners, benefiting women who do full-time unpaid work in the home in particular. ▲ A Select Committee on Women's Rights was set up. Its report, in 1975, found that the main cause of sexual inequality in New Zealand was the acceptance of different traditional roles for women and men. Measures were recommended to advance women's opportunities in employment, education, the home and public life. ▲ The Council for the Single Mother and Her Child was set up as a political advocacy body for sole mothers. ▲ The first United Women's Convention was held to raise the status and confidence of women and get more women working on women's issues, with 1,500 women attending.

**1974:** The first national lesbian conference was held, at Victoria University. ▲ The first women's studies courses were established at Waikato and Victoria universities. In 1976, a national Women's Studies Association was formed. Most New Zealand universities now offer courses or degrees in women's studies. ▲ The Working Women's Alliance was formed in Wellington to educate women about trade union issues. Its areas of interest grew to include childcare, health and cost of living.

**1975:** The Women's Electoral Lobby of New Zealand (WEL(NZ)), a non-party organisation, was established to encourage women to enter political life, act as a united political force and promote women's issues in the political arena. ▲ A national conference on education and equality of the sexes proposed measures for overcoming the disadvantages for women and girls in the education system. ▲ Dame Whina Cooper led a Land March from Northland to Wellington to oppose the further alienation of Māori land.

**1976:** The Matrimonial Property Act 1976 was introduced to provide for the equitable division of matrimonial property, particularly of the matrimonial home and chattels, when marriage ends. ▲ The Domicile Act legislated that a woman does not have to live with her husband.

**1977:** The Human Rights Commission Act legislated against, and provided remedies for, discrimination against women, with some limitations. The grounds were extended in an amendment in 1993. ▲ After a two-year struggle, women won the right to become professional jockeys. One of the last western countries to allow women jockeys, by 1993 New Zealand had the highest number of female apprentice jockeys in the world. ▲ The introduction of national superannuation entitled women to this retirement benefit from 60 years of age, improving financial independence for older women. Previously, the pension had been assessed and paid on the basis of the marital unit. ▲ The Citizenship Act extended to women the same nationality rights as men, enabling them to pass on their nationality to their children or husband. PACIFICA Inc (Pacific Women's Council), a non-party political organisation of Pacific women, was incorporated in Wellington.

**1978:** The New Zealand Home Birth Association was established in response to increased demand for home births during the 1970s, a reaction to the medicalisation of childbirth. ▲ The Working Women's Charter – a bill of rights for working women – was promoted by the Working Women's Council within the Labour Party and union movement, and the Wellington Trades Council Women's Sub-Committee was formed to educate unions about the charter. Demands included provision of childcare and paid parental leave. The Federation of Labour accepted the charter in 1980 and set up a Women's Advisory Committee. ▲ The first New Zealand woman ambassador was appointed – Barbara Angus, to the Philippines.

**1979:** A National Advisory Committee on Women and Education was set up. ▲ The Lesbian Mothers Defence Fund was established in Dunedin to provide positive support for lesbian mothers faced with losing custody of their children. ▲ The Women's Appointment File (The Nominations Service from 1992) was set up to increase women's representation on statutory boards and committees through a database of names and curricula vitae of women available to be nominated. It is currently administered by the Ministry of Women's Affairs. ▲ Jean Herbison was the first woman appointed Chancellor of a New Zealand university, at Canterbury.

**1980:** The Family Proceedings Act 1980 made irreconcilable differences, proven by living apart for two years, the only ground for marriage dissolution, shifting from an adversarial approach to one of conflict resolution, and making dissolution quicker, simpler and cheaper. ▲ The Evidence Amendment Act restricted evidence relating to a victim's sexual history, reducing the trauma for those involved in court hearings. ▲ The Maternity Leave and

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## Chronology of Important Events

**1893:** New Zealand women won the right to vote in general elections, the first in a self-governing country. ▲ Mere Mangakahia petitioned the Māori Parliament to allow women to vote and stand as candidates; in 1897, Māori women won the right to vote. Her action also spawned tribally based Māori women's committees – Nga Komiti Wahine – which met on marae to discuss political and land issues. ▲ Elizabeth Yates became New Zealand's first woman mayor when she won the mayoralty of Onehunga. ▲ The age of sexual consent for girls was raised from 12 to 14 years, and then increased to 16 years in 1896. ▲ The Society for the Protection of Women and Children was set up to press for legislative change to protect women and children, particularly from domestic violence. In 1955 it was renamed the Society for the Protection of Home and Family, then the Home and Family Society. Many of its early functions, such as those in the area of family violence, have now been taken over by modern organisations.

**1894:** The Industrial Conciliation and Arbitration Act allowed the formation of trade unions and gave women the right to negotiate legally enforceable awards and agreements. Despite this, many awards and agreements had lower rates of pay for females than for males, for the same work.

**1895:** The first edition of temperance journal *The White Ribbon* was issued. It became a major vehicle for expressing women's rights. ▲ The first women's hockey club was established.

**1896:** The National Council of Women was set up following the campaign for women's enfranchisement, with Kate Sheppard as president. It was a political but non-party organisation. ▲ Emily Siedeberg became the first woman to graduate as a doctor. ▲ Mary Ann Bacon became the country's first woman stockbroker.

**1897:** Ethel Benjamin became the first woman to graduate with a law degree.

**1898:** The Divorce Act 1898 was the first major reform of the original Divorce and Matrimonial Causes Act 1867 and made the grounds for dissolution of marriage virtually equal for women and men. Previously, it was more difficult for a woman to divorce her husband than vice versa.

**1901:** The New Zealand Women Teachers' Association was formed.

**1904:** The Midwives Registration Act was passed.

**1907:** The Plunket Society was formed. ▲ Miss J A McKegg became the first woman to gain a certificate as engineer of a restricted-limit ship.

**1908:** The Domestic Workers Union was registered. Established as early as 1897 to demand a 68-hour week, it was excluded from the Arbitration Act because domestic workers were not employed for monetary gain. ▲ Akenehi Hei became the first Māori nurse to graduate.

**1909:** The Misses Basten became associate members of the New Zealand Society of Accountants.

**1911:** A means-tested widow's pension was introduced, with benefits for dependent children.

**1913:** Housewives' unions were formed in all the main centres, concerned with family and community, and international peace. In 1939, the unions and the housewives' associations formed the New Zealand Housewives' Association, which lasted, under various names, until the 1970s. It was concerned with home, family and issues such as rising prices in the Depression. ▲ Ellen Melville was the first woman to be elected a city councillor. She sat on the Auckland City Council for 33 years, its longest serving member.

**1914:** The Public Servants Association Conference demanded equal pay and privileges for women employees.

**1914–19: First World War** Ettie Rout initiated the New Zealand Volunteer Sisters nursing service in New Zealand and Cairo, promoting the use of contraceptives among Australasian soldiers to prevent the spread of venereal disease. ▲ Women led Māori opposition to conscription, especially in Waikato.

**1917:** The National Council of Women was revived, after being in recess since 1906.

**1919:** Women won the right to stand in general elections when the Women's Parliamentary Rights Act was passed. None of the four women who stood in the 1919 election was elected.

**1920:** Swimmer Violet Waldron was the first New Zealand woman to compete at the Olympics.

**1921:** The New Zealand Federation of Country Women's Institutes (CWI) was established, with a group of Māori Women's Institutes within it which focused on Māori culture as well as home and family.

The CWI claims to have the largest membership of any women's organisation in New Zealand and aims to improve community life in rural areas by bringing women together for discussion and activities. ▲ The New Zealand Medical Women's Association was founded.

**1922:** The New Zealand Federation of University Women was established to provide a contact network for women graduates, encourage ongoing education with discussion groups and lectures, and support research through grants to female students. It was also involved in activities such as lobbying for equal pay and later became known as the New Zealand Federation of Graduate Women.

**1924:** The Health Department's campaign for safe maternity adopted the slogan "Perfect Motherhood is Perfect Patriotism".

**1925:** The Women's Division of Federated Farmers grew from a perceived need for contact among isolated rural women. An early priority was providing home help following childbirth or during illness. The organisation also fundraises for community facilities and educational activities, and undertakes research to benefit women's lives. ▲ Mrs G Sanford became the first New Zealand woman pilot.

**1926:** The League of Mothers and Homemakers was established to provide support and contact for isolated women at home. Today, it focuses on the low status of mothers who stay at home to care for their families. Māori membership was encouraged, with a Māori branch set up in Wairoa in 1929. ▲ Bessie Te Wenerau Grace (thought to have been the first Māori woman to receive a degree from a New Zealand university) graduated with a Bachelor of Arts. ▲ Women were permitted to become justices of the peace.

**1927:** Dr Nina Catherine Muir, the first woman house surgeon, became president of the Medical Association of New Zealand.

**1928:** Runner Norma Wilson was the country's first Olympic representative in track and field.

**1932:** The *New Zealand Women's Weekly* was launched. ▲ The New Women Writers Society was formed.

**1933:** It became illegal to marry before the age of 16 years. Previously there was no legal minimum age. ▲ The first woman MP, Elizabeth McCombs, was elected in the by-election for Lyttelton.

**1934:** The law changed to allow married women to retain their own nationality. Previously, they had to forego their New Zealand nationality if they married a man of another nationality. ▲ The first edition of *Working Woman*, edited by Elsie Freeman, was issued: "The issues of the moment are stark: food,

housing, keeping families together." ▲ The first National Working Women's Conference was held.

**1935:** The Sex Hygiene and Birth Regulation Society was established as a voluntary organisation by women committed to improving access to birth control. The name was changed to the New Zealand Family Planning Association in 1939.

**1937:** The Māori Women's Health League was formed by Arawa women to improve the health and welfare of Māori throughout the Bay of Plenty and Tairāwhiti (East Coast) regions. It gave guidance in the care of children, food values, hygiene and disease prevention, and care of home and gardens, and encouraged an interest in Māori arts and crafts.

**1938:** The Labour Government granted the equivalent of the widow's benefit to women who had been deserted by their husbands. ▲ Labour's Catherine Stewart became the second woman MP, winning Wellington West. She was defeated in the 1943 election. ▲ Women were allowed to join the police force, but not allowed outside duties until 1947.

**1939:** The New Zealand Federation of Business and Professional Women's Clubs was established to encourage business and professional women to enter public life and community affairs, and work to improve employment conditions and opportunities for women.

**1941:** Women gained the right to sit in the Legislative Council, the nominated upper house of Parliament. ▲ Labour's Mary Dreaver joined Stewart in Parliament after winning a by-election in Waitemata. She was defeated in 1943. ▲ The Play Centre Movement began.

**1942:** Mary Grigg became the National Party's first woman MP, winning Mid-Canterbury in a by-election after her MP husband Arthur was killed in action in North Africa.

**1943:** Labour's Mabel Howard won a by-election in Christchurch East, remaining in Parliament until 1969.

**1944:** The Public Service Women's Committee was formed to campaign for equal pay. ▲ Approximately 1,400 war brides left for the United States.

**1945:** National's Hilda Ross won a by-election in Hamilton, which she held until her death in 1959.

**1946:** The universal family benefit was introduced, giving mothers the benefit for each dependent child, irrespective of family income or property. In 1979, it doubled to \$6 per week and in 1991 it was abolished. ▲ Mary Dreaver and Mary Anderson became the first women appointed to the Legislative Council. Both served until the council's abolition in 1950.

**1947:** Labour MP Mabel Howard became New Zealand's first woman cabinet minister. She served as Minister of Health and Minister in Charge of Child Welfare until Labour's defeat in 1949, then as Minister of Social Security in the 1957–60 Labour Government.

**1948:** The Apprentices Act was passed, specifically excluding women. The ban was not lifted until 1972.

**1949:** Labour's Iriaka Ratana became the first Māori woman MP, succeeding her deceased husband, Matiu, in the Western Māori seat. ▲ National's Hilda Ross was appointed to the new National Cabinet.

**1950:** The Joint Family Homes Act 1950 made it less costly for house titles to be transferred to wives after their husband's death, by exempting them from gift duty.

**1951:** The government-sponsored Māori Women's Welfare League was established by Māori women, to address the social problems arising from the increasing urbanisation of Māori.

**1952:** Long jumper Yvette Williams won gold at the Olympics.

**1953:** The first family planning clinic opened in Auckland, moving into school and community education programmes in the 1970s.

**1957:** Samoan Fanaafi Ma'ai'l was the first Pacific woman in New Zealand to gain a Bachelor of Arts, at Auckland University. ▲ The Council for Equal Pay and Opportunity, comprising women's organisations, trade unions and employer organisations, was established.

**1959:** Phyllis Guthardt was the first woman ordained in New Zealand on an equal status with men, in the Methodist Church. In 1965, Margaret Reid became the country's first woman Presbyterian minister and in 1976 the Anglican General Synod admitted women to the priesthood. Four women were ordained in 1977.

**1960:** The oral contraceptive pill was introduced. New Zealand women are among the highest users of this form of contraception. With other methods, the pill gave most women control over their fertility, allowing them more choice of lifestyle and independence. ▲ The Government Service Equal Pay Act was introduced, giving women the right to equal pay in the public service, and covering about one-fifth of all women in paid employment. It was expected to flow on to the private sector. ▲ Extramural studies at university level first became available through a branch college of Victoria University, located at Palmerston North. The college combined with Massey Agricultural College in 1964 to form Massey University. Extramural university study allowed women to pursue a tertiary

qualification from home, while engaged in childcare or paid work.

**1963:** The Matrimonial Proceedings Act 1963 allowed separation agreements to qualify as grounds for divorce. A 1968 amendment reduced the qualifying periods for divorce on the grounds of formal separation and informally living apart. ▲ The New Zealand Childcare Association was established to improve conditions, quality of care and provide staff training for childcare workers. It helped achieve major reforms in funding and administration and training programmes. ▲ The Matrimonial Property Act first recognised non-monetary contributions to a marriage, but allowed courts broad discretion as to how property should be divided between spouses.

**1966:** Te Arikinui Dame Te Atairangikaahu was elected Arikinui (paramount leader) of Te Kingitanga. Te Kingitanga – the King Movement – began in the 1850s to establish a Māori king to protect Māori land from alienation and to end internal strife and establish a spirit unity. Dame Te Atairangikaahu is also known as the Māori Queen. ▲ The Society for Research on Women was founded to undertake voluntary social research. Its studies have included topics such as childcare, professional women, maternity services, doctor-patient relationships, immigrant women, sole mothers, older mothers, family violence and women in unusual jobs.

**1967:** The National Advisory Council on the Employment of Women was set up and involved itself with employment-related legislation: the Equal Pay Act 1972, Human Rights Commission Act 1977 and Maternity Leave Protection Act 1980.

**1968:** The Domestic Proceedings Act was introduced requiring fathers of ex-nuptial children to pay some maintenance towards the mothers, as well as the children.

**1969:** The Status of Children Act gave equal status to all children, regardless of their parents' marital status, reducing the social stigma attached to unmarried mothers.

**1971:** The Abortion Law Reform Association of New Zealand (ALRANZ) was formed, followed in 1973 by the Women's National Abortion Action Campaign (WONAAC). Both lobbied for women to have a choice over abortion.

**1972:** The Equal Pay Act phased in equal pay in annual steps to 1977. It aimed to remove discrimination based on employees' sex and extended legislation to the private sector which had previously applied only to the public sector. ▲ The first national Women's Liberation Conference was held in Wellington. ▲ Gay Liberation was set up by a lesbian woman. In the following years, more specifically lesbian organisations (such as the

Sisterhood for Homophile Equality in Christchurch) were established. ▲ Whetu Tirikatene-Sullivan, Labour MP for Southern Māori, became the first Māori woman cabinet minister, serving as Associate Minister for Social Welfare (1972–74), Minister of Tourism (1972–75), and Minister of the Environment (1974–75). ▲ *Broadsheet*, the country's feminist magazine, first appeared.

**1973:** The domestic purposes benefit was introduced for all parents (mainly women) caring for dependent children without the support of a partner. Previously, from 1968, there existed a family maintenance allowance which was a discretionary benefit. ▲ The Accident Compensation Amendment Act extended compensation to non-earners, benefiting women who do full-time unpaid work in the home in particular. ▲ A Select Committee on Women's Rights was set up. Its report, in 1975, found that the main cause of sexual inequality in New Zealand was the acceptance of different traditional roles for women and men. Measures were recommended to advance women's opportunities in employment, education, the home and public life. ▲ The Council for the Single Mother and Her Child was set up as a political advocacy body for sole mothers. ▲ The first United Women's Convention was held to raise the status and confidence of women and get more women working on women's issues, with 1,500 women attending.

**1974:** The first national lesbian conference was held, at Victoria University. ▲ The first women's studies courses were established at Waikato and Victoria universities. In 1976, a national Women's Studies Association was formed. Most New Zealand universities now offer courses or degrees in women's studies. ▲ The Working Women's Alliance was formed in Wellington to educate women about trade union issues. Its areas of interest grew to include childcare, health and cost of living.

**1975:** The Women's Electoral Lobby of New Zealand (WEL(NZ)), a non-party organisation, was established to encourage women to enter political life, act as a united political force and promote women's issues in the political arena. ▲ A national conference on education and equality of the sexes proposed measures for overcoming the disadvantages for women and girls in the education system. ▲ Dame Whina Cooper led a Land March from Northland to Wellington to oppose the further alienation of Māori land.

**1976:** The Matrimonial Property Act 1976 was introduced to provide for the equitable division of matrimonial property, particularly of the matrimonial home and chattels, when marriage ends. ▲ The Domicile Act legislated that a woman does not have to live with her husband.

**1977:** The Human Rights Commission Act legislated against, and provided remedies for, discrimination against women, with some limitations. The grounds were extended in an amendment in 1993. ▲ After a two-year struggle, women won the right to become professional jockeys. One of the last western countries to allow women jockeys, by 1993 New Zealand had the highest number of female apprentice jockeys in the world. ▲ The introduction of national superannuation entitled women to this retirement benefit from 60 years of age, improving financial independence for older women. Previously, the pension had been assessed and paid on the basis of the marital unit. ▲ The Citizenship Act extended to women the same nationality rights as men, enabling them to pass on their nationality to their children or husband.

**1978:** PACIFICA, a non-party political organisation of Pacific women, was established in Auckland. ▲ The New Zealand Home Birth Association was established in response to increased demand for home births during the 1970s, a reaction to the medicalisation of childbirth. ▲ The Working Women's Charter – a bill of rights for working women – was promoted by the Working Women's Council within the Labour Party and union movement, and the Wellington Trades Council Women's Sub-Committee was formed to educate unions about the charter. Demands included provision of childcare and paid parental leave. The Federation of Labour accepted the charter in 1980 and set up a Women's Advisory Committee. ▲ The first New Zealand woman ambassador was appointed – Barbara Angus, to the Philippines.

**1979:** A National Advisory Committee on Women and Education was set up. ▲ The Lesbian Mothers Defence Fund was established in Dunedin to provide positive support for lesbian mothers faced with losing custody of their children. ▲ The Women's Appointment File (The Nominations Service from 1992) was set up to increase women's representation on statutory boards and committees through a database of names and curricula vitae of women available to be nominated. It is currently administered by the Ministry of Women's Affairs. ▲ Jean Herbison was the first woman appointed Chancellor of a New Zealand university, at Canterbury.

**1980:** The Family Proceedings Act 1980 made irreconcilable differences, proven by living apart for two years, the only ground for marriage dissolution, shifting from an adversarial approach to one of conflict resolution, and making dissolution quicker, simpler and cheaper. ▲ The Evidence Amendment Act restricted evidence relating to a victim's sexual history, reducing the trauma for those involved in court hearings. ▲ The Maternity Leave and

Employment Protection Act allowed women to take leave for up to 26 weeks during pregnancy or after the birth of a child, and prohibited dismissal due to pregnancy, pregnancy-related sickness or maternity leave. ▲ The Health Alternatives for Women (THAW), set up in Christchurch as a health resource, information and referral centre for women, became New Zealand's longest-established women's health centre. From the late 1970s, other women's health centres were set up throughout New Zealand.

**1981:** An amendment to the Factories and Commercial Premises Act repealed the prohibition of women's employment on night-shift in factories. ▲ With the introduction of the Liable Parent Contribution Scheme as part of the Family Proceeding Act 1980, the Department of Social Welfare took over the role of securing maintenance for the children of beneficiaries. Women applying for benefit support no longer needed to take court action to secure maintenance from the non-custodial parent. ▲ The National Collective of Independent Women's Refuges was established, although refuges had begun in the early 1970s. It provides safe houses, counselling, referral and advocacy for battered women and their children, and organises community education programmes to change attitudes. The collective received government funding for the first time in 1984. The Women's Refuge Foundation was established in 1986 to raise funds to support refuge work. In 1988, the collective's constitution added an agreement between Māori women and women of other cultures, enabling each to develop culturally appropriate and complementary services. ▲ The first women qualified for full-time operational work as firefighters, after a long campaign.

**1982:** The Domestic Protection Act was introduced, to lessen the effects of domestic violence by providing for non-molestation orders, non-violence orders, and emergency occupation and tenancy orders. ▲ Te kohanga reo (preschool Māori language nests) were formed, followed by kura kaupapa Māori (primary schools with curriculum based on Māori culture, taught in Māori), and have been a fundamental source of empowerment for Māori women. Through their involvement in the establishment and running of te kohanga reo, Māori women developed their organisational and administrative skills. For many Māori women, their own links with whanau, hapu and iwi were re-established. ▲ Elspeth Kennedy became the first woman member of the New Zealand Stock Exchange.

**1983:** New Zealand ratified the International Labour Organisation (ILO) Equal Pay Convention adopted by the organisation in 1951. The convention covers equal pay for work of equal value. ▲ The Minimum Wage Act was introduced, entitling women over 20 years to the same minimum wage as men. ▲ An

equal employment opportunities programme (EEO) was introduced in the Public Service, with four target groups; women, Māori, ethnic groups and people with disabilities. ▲ Women Against Pornography formed to try to change public attitudes and laws regarding pornography, which some see as being linked to violence against women. ▲ Sonja Davies was elected the first woman vice-president of the Federation of Labour.

**1984:** The Ministry of Women's Affairs was established to provide policy advice and information on women throughout government sectors and to the general public. Te Ohu Whakatupu is the Māori Women's Policy Unit within the Ministry. Secretary of Women's Affairs Katherine O'Regan, was the first woman to head a government department. ▲ New Zealand ratified the United Nations Convention on the elimination of all forms of discrimination against women. ▲ Te Kakano o te Whanau was established nationwide to provide services for Māori women who are victims of incest, rape, sexual abuse and related violence. ▲ Fertility Action was set up, initially to publicise the danger of the Dalkon Shield contraceptive, evolving into a women's health consumer advocacy group. It exposed the 'Unfortunate Experiment' at National Women's Hospital where treatment was withheld from women with abnormal cervical smears, and was involved in the subsequent inquiry report. In 1993 it became Women's Health Action to reflect its wider scope. ▲ Margaret Wilson became the first woman president of the Labour Party. ▲ Diana Shand was appointed Human Rights Commissioner, with special responsibility for women's affairs.

**1985:** The Crimes Amendment Act (No 3) made rape of a spouse a criminal offence. ▲ The Adult Adoption Information Act allowed adult adoptees and their birth parents access to records relating to the birth. Among both adoptees and birth parents, mainly women have sought information. ▲ Keri Hulme's book *The Bone People* won the Booker Prize.

**1986:** The National Collective of Rape Crisis and Related Groups was formed, although the first groups began in the early 1970s. Support is provided for women and child survivors of rape and sexual abuse, as well as community education and prevention programmes. ▲ The unemployment benefit was split between partners in cases where it was received at the married rate. Previously, the full payment had been made to the male partner.

**1987:** The Parental Leave and Employment Protection Act superseded the Maternity Leave and Employment Protection Act 1980, extending to fathers the right to take leave after their child's birth. The combined leave time of both parents could be up to 52 weeks. ▲ The Māori Women's Welfare League began administering the Māori Women's

Development Fund, to help Māori women establish their own businesses. ▲ A professional association for sex workers, the New Zealand Prostitutes' Collective, was established. It has played a major role in preventing the spread of HIV/AIDS among sex industry workers, and in the decriminalisation of sex workers as well as advocating in such issues as discrimination and better working conditions. ▲ Nadja Tollemache was appointed New Zealand's first woman ombudsman. ▲ A repeal of the Miners Act removed barriers against women working underground in mines. ▲ The first Māori Women's Refuge was established.

**1987–88:** The Cervical Cancer Inquiry into allegations about the treatment of cervical cancer at National Women's Hospital and related ethical concerns was chaired by Judge Silvia Cartwright. The inquiry's recommendations in 1988 had major implications for the health sector about informed consent to treatment and research, and the proposed national cervical screening programme.

**1988:** The report of the Women's Advisory Committee on Education, "A National Policy on the Education of Girls and Women in New Zealand", was published and its findings and recommendations used in administration reforms in the education sector. ▲ The State Sector Act required the sector to put equal employment opportunities in place.

**1989:** The government-appointed Committee of Inquiry into Pornography presented its report, which resulted in legislation in 1993 to tighten controls on materials concerning violence and sexual violence against women and children. ▲ Helen Clark became Deputy Prime Minister, the highest political office held by a woman in New Zealand. ▲ The Minister of Health set up a Women's Health Advisory Committee to advise on women's health issues from a community/consumer perspective. ▲ The first Pacific Women's Refuge was established.

**1990:** The Employment Equity Act established a mechanism to assess the comparative worth of jobs. However, later in the year, the incoming government repealed the legislation. ▲ Dame Catherine Tizard was appointed New Zealand's first woman Governor-General. ▲ Penny Jamieson, Anglican Bishop of Dunedin, was ordained the first woman Anglican bishop in the world. ▲ Wahine Pakari, a programme encouraging Māori women into self-employment, was established by Te Ohu Whakatupu (the Māori Women's Policy Unit of the Ministry of Women's Affairs). ▲ The Bill of Rights Act 1990 set out basic rights, including freedom from discrimination on the grounds of sex and marital status. ▲ The Contraception, Sterilisation and Abortion Amendment Act gave people under 16 years access to information on contraception and

to supplies of contraceptives. ▲ The Nurses Amendment Act gave midwives autonomy to take full responsibility for a woman throughout pregnancy and childbirth. ▲ Ruth Richardson became the first woman Minister of Finance. ▲ The new National Government repealed the Labour Government's Employment Equity Act and established a Working Party on Equity in Employment. On its recommendation, the Equal Employment Opportunities (EEO) Trust was established in 1991 to promote the business benefits of equal employment opportunities to all employers.

**1991:** Amendments to the Crimes and Summary Proceedings Acts made it more difficult for violent offenders to get bail, reducing the trauma for women involved in court action against them.

**1992:** Through the Child Support Act 1991, the Inland Revenue Department took over assessing the maintenance payable by a non-custodial parent and enforcing payment. Custodial parents who were not beneficiaries were also covered by the Act, and no longer had to go to court to secure maintenance.

**1993:** The Human Rights Commission Act was amended to extend the grounds under which discrimination in employment matters, provision of goods and services, and access to places, vehicles and facilities is illegal in New Zealand. The grounds now cover sex, pregnancy, childbirth, sexual orientation, marital status (including living in a relationship in the nature of a marriage), family status (including responsibility for care of children or other dependants), and disability. ▲ The Films, Videos and Publications Classification Act was passed, combining three separate censorship bodies to give greater consistency. It set up structures under which classifications could be reviewed and made possession of all banned material illegal. The Act is seen as a positive step towards recognising that violence and sexual violence against women and children is not acceptable. ▲ Dame Silvia Cartwright was appointed New Zealand's first High Court Judge. ▲ Sandra Lee was elected MP for Auckland Central, making her the first Māori woman to be elected in a general seat and the first woman MP for a third party. ▲ The centennial of women's suffrage in New Zealand raised the profile of women, with a number of celebrations throughout the year. Numerous projects were completed and books produced with the aid of grants from the Suffrage Centennial Year Trust Whakatu Wahine. ▲ Helen Clark became the first woman leader of the Labour Party, making her the first woman to lead a major political party in New Zealand and the first woman leader of the opposition. ▲ Wilma Smith took up the role of New Zealand Symphony Orchestra (NZSO) Concertmaster, making NZSO history by being the first woman appointed to a traditionally male role. ▲ Anna Paquin was the first New Zealand female to

win an Oscar for Best Supporting Actress for her role in Jane Campion's film *The Piano*. Paquin was the second-youngest winner in Oscar history, aged 11 years. ▲ The Government released "Status of Women in New Zealand 1994", the second report on New Zealand's progress in implementing the Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW).

**1994:** Dame Whina Cooper, leader of the 1975 Land March from Northland to Wellington, died aged 98.

**1995:** The Domestic Violence Act was aimed at reducing and preventing violence in domestic relationships by recognising that domestic violence is unacceptable behaviour; and ensuring that there is effective legal protection for its victims.

**1996:** The first General Election was held under the Mixed Member Proportional Representation Electoral System. Parliament increased to 120 MPs, with 36 women MPs elected, making up 30 percent. ▲ Pansy Wong became the first Asian woman MP in the New Zealand Parliament. ▲ Deborah Morris, aged 26, became the youngest woman Cabinet Minister, appointed Minister of Youth Affairs and Associate Minister of the Accident Compensation Corporation, Women's Affairs and Environment. Morris resigned from Parliament in 1998 when she fell out with her party, New Zealand First, and its leader, Winston Peters.

**1997:** The Shakti Asian Women's Refuge was established in Auckland, serving the Asian migrant and refugee communities in New Zealand. ▲ Jenny Shipley became the country's first woman prime minister when she succeeded Jim Bolger as leader of the National Party.

**1998:** The Government released "Status of Women in New Zealand 1998", combining the third and fourth reports on New Zealand's progress in implementing the CEDAW. ▲ The national women's rugby team, the Black Ferns, became world champions at the Rugby World Cup. ▲ Jeanette Fitzsimons became co-leader of the Green Party when it left the Alliance to be an independent political party. Fitzsimons was the third woman to lead a party in Parliament, out of seven parliamentary political parties.

**1999:** Theresa Gattung became New Zealand's first woman chief executive of a major company, appointed CEO of Telecom at age 37. ▲ Margaret Wilson became the first woman Attorney General. ▲ The country's first national survey on time use was funded by the Ministry of Women's Affairs and conducted by Statistics New Zealand. ▲ Luamanuvao Winnie Laban became the first Pacific woman elected to Parliament, as List MP for Labour. She became electorate MP when she won

Mana in 2002. ▲ Helen Clark became New Zealand's first elected woman prime minister. ▲ Georgina Beyer became the world's first transsexual MP when she won Carterton for Labour. ▲ Dame Sian Elias was sworn in as Chief Justice of the New Zealand Court of Appeal, the first woman to hold that position in New Zealand.

**2001:** Dame Silvia Cartwright became the second female Governor General. ▲ Jenny Shipley, New Zealand's first woman prime minister, was replaced as leader of the National Party. ▲ The Property (Relationships) Amendment Act 2001 extended the rules covering the division of property after relationship breakdown to de facto couples.

**2002:** The Parental Leave and Employment Protection (Paid Parental Leave) Act 2002 established 12 weeks' paid parental leave for women. ▲ The Government released "Status of Women in New Zealand 2002", the fifth report on New Zealand's progress in implementing CEDAW.

**2003:** The Equal Opportunities Unit was established in the New Zealand Human Rights Commission with its first Commissioner Dr Judy McGregor. ▲ Professor Judith Kinnear became the first woman Vice Chancellor with her appointment at Massey University. ▲ The Prostitution Reform Act decriminalised prostitution and prohibited anyone under 18 years from working as a prostitute. ▲ The Government appointed a taskforce to produce a five year action plan to reduce a gender pay gap of approximately 17 percent among public servants.

**2004:** The Government launched an Action Plan for New Zealand Women, focused on three key areas: improving the economic independence of women; achieving greater work-life balance for families; and improving the well-being and quality of life of New Zealand women. ▲ The Civil Union Act, passed by conscience vote, established civil unions for different and same-sex couples. ▲ The Women's Electoral Lobby received a special award from the New Zealand Electoral Commission to mark its contribution to democracy, winding up its national organisation after 27 years. ▲ Dr Helena Catt became the first woman CEO of the New Zealand Electoral Commission.

**2005:** Margaret Wilson became New Zealand's first woman Speaker of the House of Representatives. ▲ The New Zealand Women's Convention: "Looking Back, Moving Forward – Titiro Whakamuri Haere Whakamua", marking the 30th anniversary of the United Nations Convention of International Year of Women, was held on Queens Birthday weekend in Wellington.



## Summary

- *In 2001 females made up more than half of the New Zealand population and two-thirds of the population aged 80 years and over.*
- *Ethnic diversity is increasing. Numbers of Asian and Pacific peoples are growing the most rapidly. Māori and Pacific peoples have a younger age structure than the general population.*
- *The median age for females is projected to rise from 36.1 years at 30 June 2004 to 47.1 years at 30 June 2051.*
- *Twenty-three percent of New Zealand females were born overseas, mostly in the United Kingdom, Ireland, Asia and the Pacific Islands.*
- *At the time of the 2001 Census of Population and Dwellings, young women were more likely to leave school with a qualification (86 percent) than their male counterparts (81 percent).*
- *Women are now more highly represented in tertiary education than ever before. In 2001 women made up more than half (53 percent) of all tertiary enrolments, compared with 1971 when women made up just under a third (30 percent) of all tertiary enrolments.*
- *There are still distinct differences between male and female fields of study choices. In 2001 the most common post-school qualification for women aged 15 years and over was in the field of health (22 percent), while for men it was in engineering and related technologies (33 percent).*
- *Over the 30 years from 1971 to 2001, changes in marriage and childbearing patterns have resulted in an increased proportion of women living in a growing diversity of household types.*
- *Women are now considerably more likely to have children outside marriage. In 2001, 43 percent of births were to women who were not legally married, compared with 14 percent in 1971. The growth in ex-nuptial births can be attributed in part to increased numbers of women in de facto relationships.*
- *Women are more likely than men to be living alone (13 and 10 percent respectively). This is a likely consequence of women's longer life expectancy.*
- *The ethnicity of women greatly influences their likelihood of living in an extended family. Pacific women were more likely to live in this type of family than women identifying with the other main ethnic groups, followed by Asian and then Māori women.*
- *Family formation has a major effect on women's labour force participation, with rates dipping during the years when they are most likely to be raising children. Just 39 percent of mothers with children under a year old were in the labour force in 2001.*
- *Women's labour force participation rate increased from 39 percent to 60 percent between 1971 and 2001, but it is still considerably lower than that of men (74 percent in 2001).*
- *Employment growth in recent years has been much faster among women than among men, with almost 200,000 more women in jobs in 2001 than in 1991. Part-time job growth exceeded full-time job growth in the early 1990s, but since then the majority of growth has been in full-time work.*
- *Women are three times as likely as men to work part-time – 36 percent compared with 12 percent. Women are most likely to work part-time as young adults, around retirement age and at ages when they are likely to be raising children.*
- *Women have higher rates of participation than men in all categories of unpaid work, both within and outside the household.*
- *Women's income from all employment types can be seen to have a strong relationship to age, reflecting the stages of childbearing and child-rearing. Women's earning life-cycle reaches two peaks, the first at 25 to 29 years (\$20,900), and the second at 45 to 49 years when incomes are at their highest (\$22,000).*
- *Differences in men's and women's median incomes were greater for those who had attained a higher degree than for those with lower-level qualifications. This is because the skilled workforce has more opportunity for career progression and advancement. The greater likelihood of women taking time out (eg for care giving) impacts on their income potential in comparison to men.*
- *Women were more likely than men to be in receipt of some form of income support (27 and 19 percent, respectively). Women receive proportionately different forms of income support to men.*

- *Incomes of women aged 65 years and over are greatly dependent on the provision of New Zealand Superannuation. Withdrawal from the labour force into retirement around this age means there is little variance in the income received by people in this age group regardless of their age and ethnicity.*
- *Females made up just over half of the population in 2001, yet they made up only 20 percent of all recorded apprehensions, 17 percent of convictions and 4 percent of those sentenced to a custodial sentence.*
- *In 2001 female offenders under the age of 16 accounted for just over a quarter of all recorded female apprehensions. They were responsible for just under half of all female apprehensions for dishonesty and property damage offences, and just over a quarter of property abuses.*
- *In 2001 there were 5,905 police apprehensions for violence offences where the offender was female. In 20 percent of cases, the offenders were under 16.*
- *Thirty percent of females aged 15 and over experienced some form of victimisation in 2000, with each of these females experiencing an average of 2.7 victimisations.*
- *In 2003, 13,729 women and 10,053 children were assisted by the Women's Refuge.*
- *In 2000–2002, female life expectancy at birth was 81.1 years, nearly five years more than for males (76.3 years).*
- *Females had a lower rate of death than males in all age groups, especially in the 15 to 24 years age group, where the male rate of death was nearly three times the female rate.*
- *Males are over-represented in injury statistics such as traffic accidents, but more females than males are hospitalised for falls and for suicide and self-inflicted injury.*
- *In 2002/03, females were less likely than males to have had an alcoholic drink in the past year, and female drinkers were less likely to have potentially hazardous drinking patterns.*
- *Females had slightly lower rates of smoking than males in 2002/03.*
- *In 2001, the rate of females who were overweight (excluding obesity) was lower than that for males, but both sexes had similar rates of obesity.*





*Chapter 1*

# Population

## Chapter 1

# Population

Since 1858 there have been many demographic changes for females in the New Zealand population. The proportion of females has risen so that they now make up more than half of the New Zealand population. Fertility rates have decreased, the median age has risen by 10 years, and women are living longer and in greater proportions than in previous times.

This chapter examines the size and growth, age structure, geographical distribution and migration patterns of the female population of New Zealand. The analysis will look at women within the context of total population structure and change, comparing females with males and looking across ethnic groups and age bands. The timeframe for this chapter ranges from the first New Zealand Census of 1858 through to the present day, and then to future projections, some as far out as 2051.

Population statistics are subject to all sorts of influences, such as government policies, social trends, economic growth and recession, medical advances, wars and diseases. These influences have helped shaped New Zealand today. The analysis starts with the European settlement of New Zealand – which is not to deny the importance of pre-European Māori society; it simply reflects the lack of statistics for this period. Reliable population statistics only became available with the first census in 1858.

### Size and growth

Changes in the size and shape of the population are influenced by two factors. The first is natural increase, which is the difference between the number of births and the number of deaths. Up to this point in New Zealand's history there has been an excess of births over deaths, and therefore the population has continued to grow in number. The other main factor is net migration, which is the difference in the number of people arriving and leaving the country.

The New Zealand population has undergone a remarkable change in the past 150 years or so, from a mainly indigenous group of Māori with a smattering of whalers, sealers and missionaries living around coastal areas, to a culturally diverse population centred in urban areas. Early Māori populations were nearly decimated with the arrival of European settlers. The *New Zealand Official 1990 Yearbook* (p126) states that estimates of the Māori population before 1858 were 100,000 to 125,000, but by the time of the first Census in 1858 the Māori population had decreased to 56,000, mainly through the effects of land wars and diseases brought to New Zealand

by the new settlers. The Māori population reached its lowest recorded point in 1896, with a total of 42,114 people. The 1858 Census also showed that the total European population was 59,412 (43 percent of which were female), surpassing the Māori population (56,049), which it would continue to do right up to the present day.

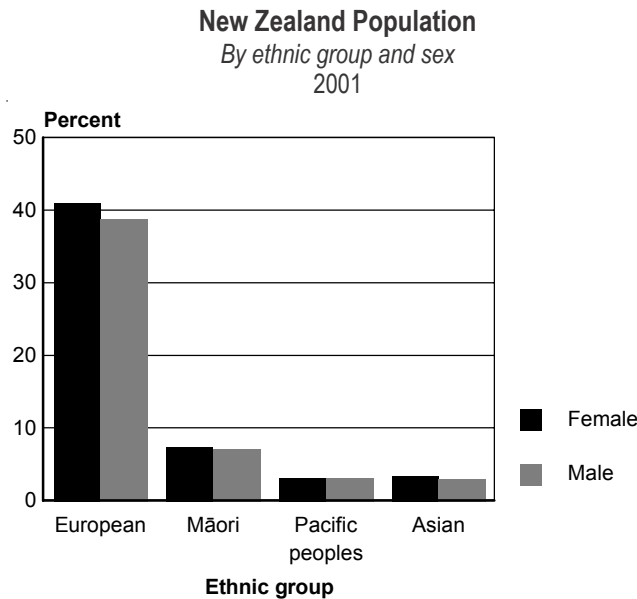
Although the growth rate has varied over the past 150 years, the size of the population has continued to increase. It took 50 years from the time of the first census in 1858 until 1908 for the population to reach 1 million, but it only took 44 years to reach the second million in 1952, even though an economic depression and World War II occurred during that time. Both the Depression and the war led to a decline in birth rates, particularly with women joining the workforce to replace men fighting overseas.

With increased immigration and the birth of the baby boomers (those born after the return of servicemen from overseas duty, covering the period from 1946 to 1966), it was only 21 years before the third million was reached in 1973. Since then population growth has slowed, but with the natural increase in the population it reached a total of 3.7 million people, of which 1.9 million or 51 percent were female, at the 2001 Census. It has taken 30 years from 1973 for the population to reach its fourth million, an event that occurred in 2003. Nearly all of this growth was due to natural increase, as net migration was not significant over this period, although it had a significant impact on population composition. The pace of growth is expected to slow further. It is projected to take almost 40 years for the population to reach 5 million and only under the highest growth scenarios is it projected to reach 6 million.

Demographic trends have shown a pattern of decreasing fertility rates, an ageing population, people living longer, and variable migration patterns, all of which will impact on future populations. Although the proportion of young people continues to decrease, the numbers in the older age groups continue to increase. This reflects the fact that New Zealand is entering the final stages of a demographic transition to an older age structure.

The ethnic makeup of the New Zealand population in 2001 was predominately European. Seventy-nine percent of the estimated resident population was European and 15 percent Māori as at 30 June 2001. Asian and Pacific peoples each comprised 7 percent of the population. Less than 1 percent of the total population was classified as Other, the main groups of which were Arab, Iranian, Iraqi and African. Totals for all ethnic groups will add up to more than

Figure 1.01



100 percent because people are able to identify with one or more ethnic groups.

As Figure 1.01 shows, female patterns echo male patterns for each ethnic group, as they do in the general population. Each ethnic group shows a slightly higher percentage of females than males, with a slightly higher margin of European females than European males (2 percent).

Projections indicate a markedly different future for European and non-European populations. Māori, Pacific and Asian populations are expected to increase at a faster rate than the European population. This reflects the higher fertility rates of the Māori and Pacific populations, and the assumed net migration gains for the Asian population. The Māori and Pacific populations, in particular, also have a much younger age structure than the European population, which provides built-in momentum for future growth.

For the European population, birth rates are projected to decline because of fewer women in the childbearing ages (fertility rates are assumed to remain stable). In contrast, deaths are projected to increase due to more people in the older ages. A net out-migration of people with European ethnicity is also assumed. The net result is that the European population is expected to increase only marginally from the 2001 figure of 3.07 million to 3.1 million in 2021, an increase of 1 percent. On the other hand, the Māori population is expected to increase from 586,000 to 749,000, an increase of 28 percent.

The Pacific population is expected to rise from 262,000 to 414,000, an increase of 58 percent. The biggest increase is expected to be in the Asian population, which is expected to more than double, from 272,000 to 604,000. For the female population

then, a more culturally diverse population is expected to emerge over time, which may influence social trends for women.

Table 1.01

**Projections for European, Māori, Pacific and Asian Populations**

2001-base

	2001 (000)	2011 (000)	2021 (000)	2001-2021 % change
European	3,074	3,124	3,103	1
Māori	586	665	749	28
Pacific peoples	262	332	414	58
Asian	272	489	604	122

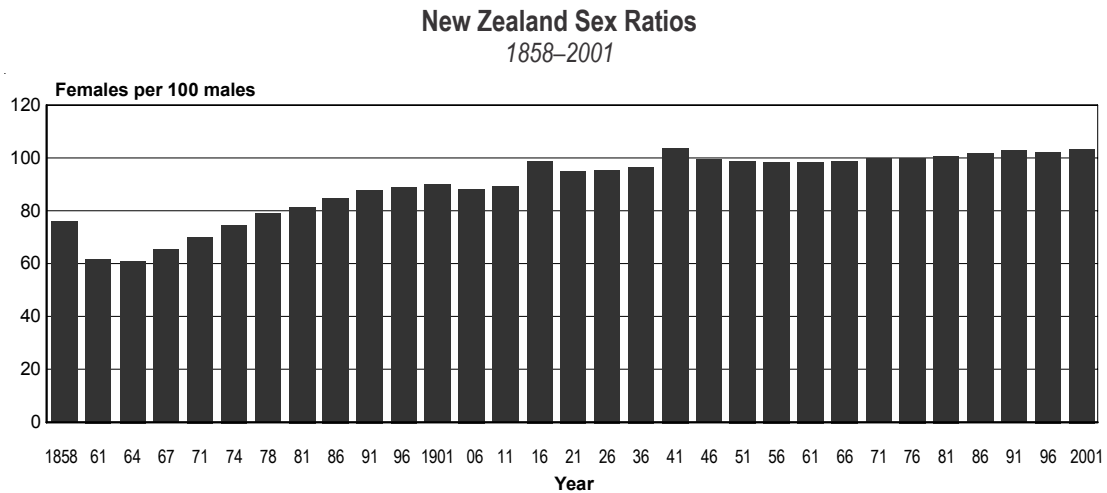
**Note:** This is Series 6 of population projections (base 2001).

**Sex ratios**

The sex ratio of the population is the number of females per 100 males and it is determined by the numbers of female and male children born, patterns of mortality, and migration. The current ratio favours females even though there are slightly more male babies born than female, and migratory patterns show that more males are gained through migration than females. But mortality rates tend to be higher for males than females across all age groups, particularly in the 15–24 year age groups, when males die at 2.5 times the rate of females (see the Health chapter).

Figure 1.02 shows the disparity between females and males at the time of the first census in 1858, when there were only 76 females to every 100 males. Michael King wrote in the *Penguin History of New Zealand* (p230) that an effort was made to encourage women to come to New Zealand by the Vogel Government of the 1870s. Women were

Figure 1.02



Source: Statistics New Zealand, Censuses of Population and Dwellings 1858–2001

**Note:** Population data for years prior to 1936 represent census counts from the 1858 Census through to the 1926 Census. Population data from 1936 to 1986 represent estimated de facto population at 31 December, whereas population data from 1991 onwards represent estimated resident population at 31 December.

offered a free passage to New Zealand, with the prospect of work at a higher rate of pay than at home. Over the ensuing 100 years, with changing immigration and a rise in the proportion of the population born in New Zealand, the imbalance between men and women slowly began to dissipate. Because of the two World Wars, the 1916 and 1941 figures show that the uneven ratio had all but disappeared. Ratios for 1941 showed more women than men in the population, but this did not include servicemen serving overseas. The 1971 Census heralded the first real change in female/male ratios when women began to outnumber men. Since then the sex ratio has favoured females, and by 2001 there were 104 females for every 100 males. By 2051 it is expected there will be 103 women to every 100 males, assuming that life expectancy for males increases faster than for females.

### Age structure

The June 2004 population estimates state that 22 percent of the total population were aged 15 years and under, and 12 percent were aged 65 years and over. The working-age population (which includes the large baby boom generation) made up the remaining two-thirds. Figure 1.03 shows there were more males in the younger age groups and more females in the older age groups. Thirty percent of males were under 19 years of age, compared with 28 percent of females in the same age group. By the age of 65 years, the trend was reversed. Women tend to live longer than men, therefore they make up a greater percentage of those in the older age groups. Thirteen percent of women and 11 percent of men were over 65. However, in the 80 years-plus age groups, the gap widens even further, with twice as many women as men.

Figure 1.03

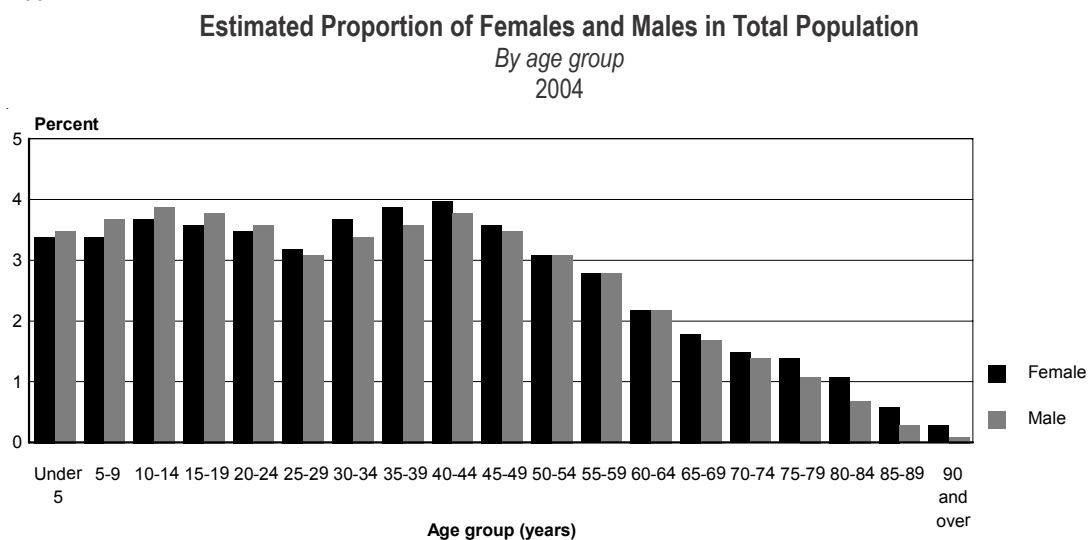
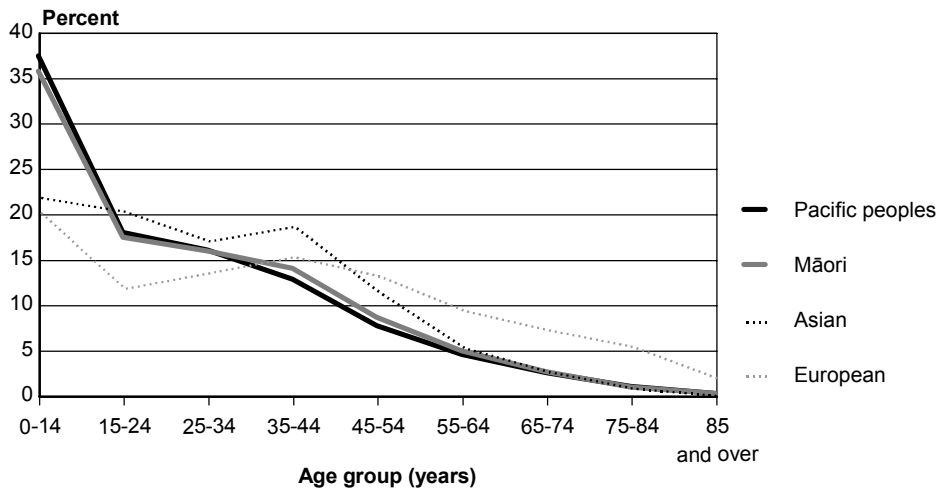


Figure 1.04

**Age Structure of European, Māori, Pacific and Asian Female Populations**

By age group  
2001



When looking at the age structures of females in the four main ethnic groups, marked differences can be seen. Māori and Pacific peoples have a similar pattern through the different age groups and a much higher concentration of people under the age of 15 years than European and Asian. Thirty-seven percent of Pacific females, 36 percent of Māori females, 22 percent of Asian females and 20 percent of European females were under the age of 15. This highlights the high fertility rates for Māori and Pacific females and the relatively low fertility rates for European and Asian females.

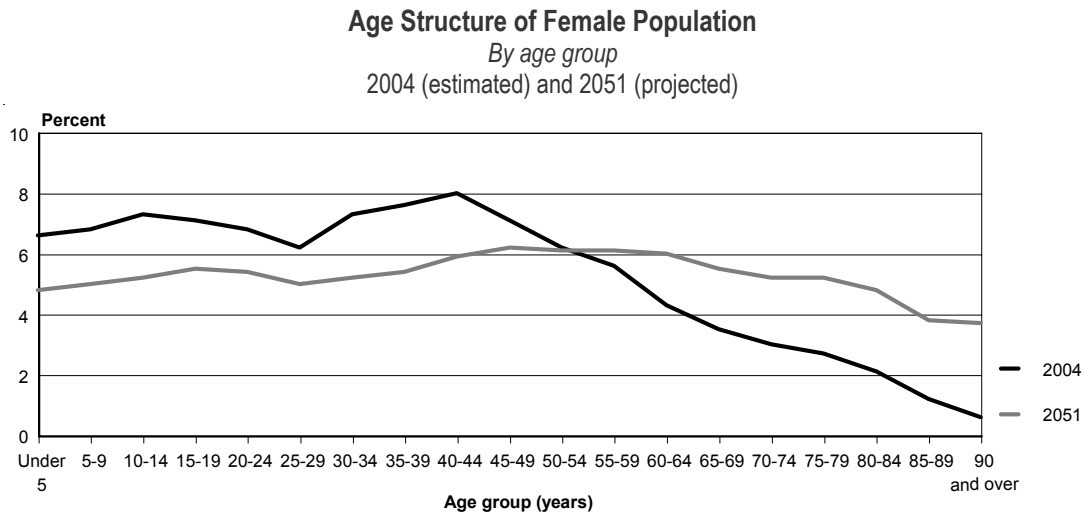
Conversely, European females have a much longer life expectancy than the other ethnic groups. Fifteen percent of the European female population is over the age of 65, in comparison with 4 percent each of Māori, Pacific and Asian females. In the working-age group of 15–64 years, there was a much higher concentration of Asian females compared with the other ethnic groups, mainly due to the education and employment opportunities available in New Zealand. According to the 2001 Census, the number of New Zealand residents born in Asian countries was three

times the number of Asian people born in New Zealand.

The age distribution of the female population will change markedly over the next 50 years. The June 2004 population estimates show that 21 percent or 429,000 females were under the age of 15. By 2051, it is projected this age group will decrease to 15 percent or 382,000 females. It is projected the same will occur in the 20–39 year age group, where the 43 percent or 891,000 females in 2004 will decrease to 33 percent or 843,000 females in 2051. The trend reverses, as indicated in Figure 1.05. By the year 2051, it is projected that 46 percent of the female population will be over 50, compared with only 29 percent in 2004.

However, the greatest change is in the over-65 age group, where the current proportion of the female population is expected to double. The 65 and over age group is projected to increase from 273,000 in 2004 to 718,000 females in 2051, comprising 28 percent of the female population compared with 13 percent in 2004. It is also projected that there will

Figure 1.05



be 93,000 females aged 90 years and over by 2051, seven times the 2004 total of 13,290. Thus, by 2051, New Zealand will have largely completed the demographic transition to an older population structure, which is a natural consequence of prolonged low fertility and low mortality. At the age of 65, people will still have an expected 20 years of life remaining, so the population aged over 65 will significantly outnumber children who are in their first 15 years of life.

The following age sex pyramids illustrate how the population has changed and will continue to change over time. The Empire State Building shape of 1951 highlights the youthful population at the base, peaking to a low percentage of elderly people at the top. The percentage of males and females present a very similar picture, but there is a slightly higher percentage of males up to the age of 55 years, when the trend reverses and the percentage of females becomes higher.

The 2001 age sex pyramid shows how the fertility rates for the total population have decreased by the

reduced proportion of children under the age of 10. The thickening of the bump for those aged 35–50 years shows the baby boomers moving through mid-life. The tip of the pyramid highlights those aged 90 years and over, where there are three times as many women as men.

The 2051 population projection has a box-like structure illustrating a society more evenly distributed across age. By 2051 the percentage of people aged over 90 years will have increased seven-fold from 2004 (from 0.4 percent of the population to 3 percent). Older people's issues will continue to disproportionately affect women as they age, considering they will make up the greater proportion of older people. In 2001 the Office for Senior Citizens released the *New Zealand Positive Ageing Strategy*, a report investigating issues affecting older people such as health, transport, care facilities, housing, employment and welfare among others, and necessary strategies to support this group of older people.

Figure 1.06

**Total New Zealand Population by Sex, 1951**

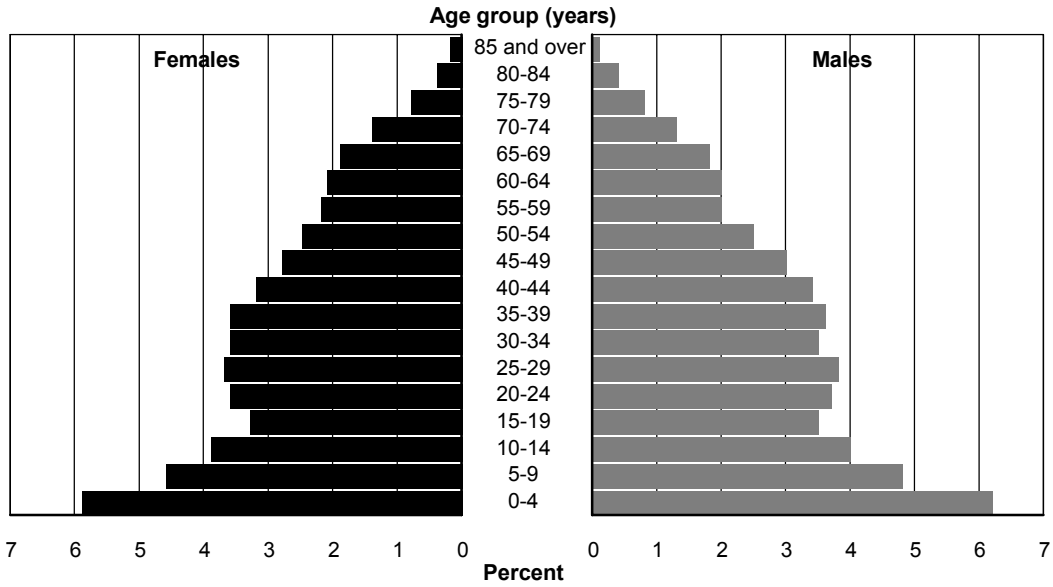


Figure 1.07

**Total New Zealand Population by Sex, 2001**

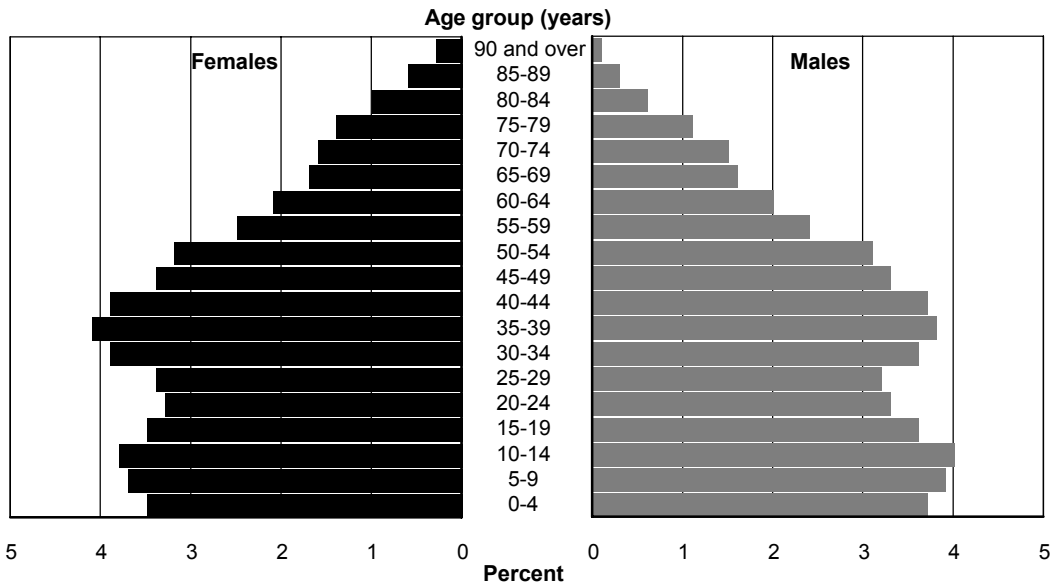
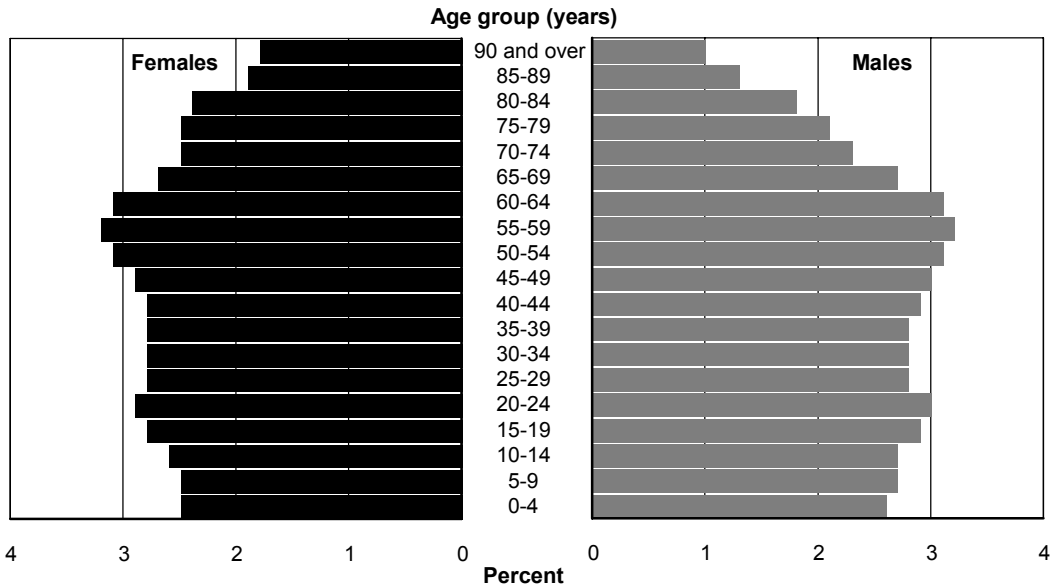


Figure 1.08

**Projected Total New Zealand Population by Sex, 2051**



## Median age

The median age is the halfway mark of the population where half the population is above this age and half is below. The median age fluctuates according to many factors, such as fertility rates, life expectancy, mortality rates and migration, wars and diseases. Figure 1.09 shows that since 1901 when the median age was 22 years for females and 24 years for males, the median age has slowly increased. Generally speaking, the median age will rise when there is a decline in both fertility and mortality, and it will fall when there is a baby boom and increased mortality, such as in World War I and II. The male median age evened out in the early part of the 20th century (1914–18) as a result of the large numbers of deaths during World War I, and again during World War II.

However, there is an increase in the median age for both males and females in the late 1920s, as a result of decreased fertility during the Depression years. By the 1950s and 1960s the median age had decreased by just over three years for females and just under four years for males, as fertility rates increased considerably. Since the late 1970s the median age has shown a general upward trend, with continuing low birth rates, improvement in life expectancy and the movement of baby boomers into middle age. By the year ending 31 December 2004, the median age for females was 36.2 years and for males 34.5 years. In 2051 the median age is expected to be 46.5 years for females and 43.7 years for males.

When looking at the median age for females in the four main ethnic groups, wide variations can be

seen. Figure 1.10 shows that Pacific females have the lowest median age at 22.1 years, followed by Māori at 23.1 years and Asian females at 29.8 years. European females have the highest median age of 37.6 years. By 2021 the median age for Pacific females is estimated to increase by only 2.6 years to 24.7 years, the lowest of all the increases. It is estimated Māori females will also have a low increase, of 4.9 years, so that the median age in 2021 is expected to be 28 years. The median age for Asian females is expected to rise to 37.1 years, an increase of 7.3 years. European females are estimated to have the highest median age (46.1 years) and the highest increase (8.5 years).

Figure 1.10

**Median Age of Female Population**  
By ethnic group  
2004 (estimated) and 2021 (projected)

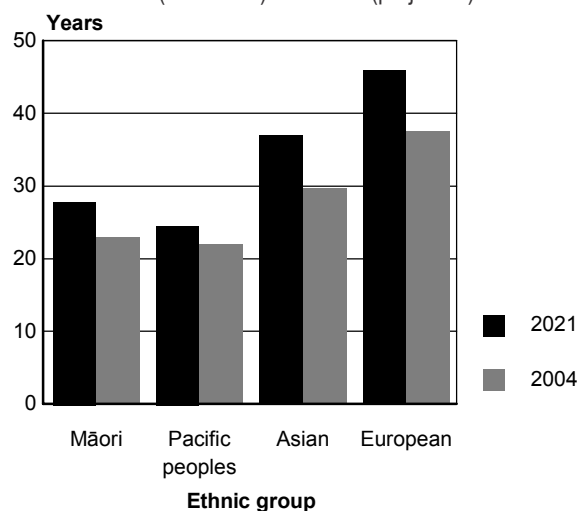
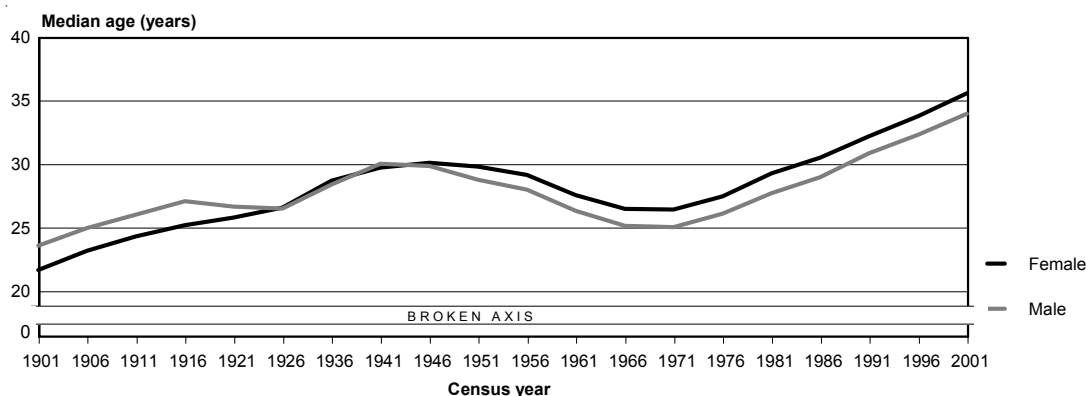


Figure 1.09

**Median Age of New Zealand Population**  
By sex  
1901–2001



### International comparisons

The United Nations Population Division stated that, globally, in the year 2000 there were 99 females to every 100 males. Asia (96 females) and Oceania (99 females) were the only major regions with fewer females than males. All other major regions had more females than males. Europe had 107, North America 104, and Africa 101 females to every 100 males. In 2002 the United Nations released population projections for the year 2050. Globally, it is expected there will be an increase of females to males (101 females to every 100 males), with increases also expected in Asia (100 females) and Oceania (101 females). Africa and North America are expected to experience a decrease (99 and 103 females, respectively), with Europe remaining the same.

Table 1.02

**International Population Prospects**  
By region  
2000 and 2050 (projected)

Area	Median age		Difference in years
	2000	2050	
World	26.8	37.8	11.0
Africa	18.4	27.4	9.0
Asia	26.2	39.9	13.7
Europe	37.6	47.1	9.5
Latin America and the Caribbean	24.4	39.9	15.5
North America	35.4	41.5	6.1
Oceania	31.2	40.5	9.3

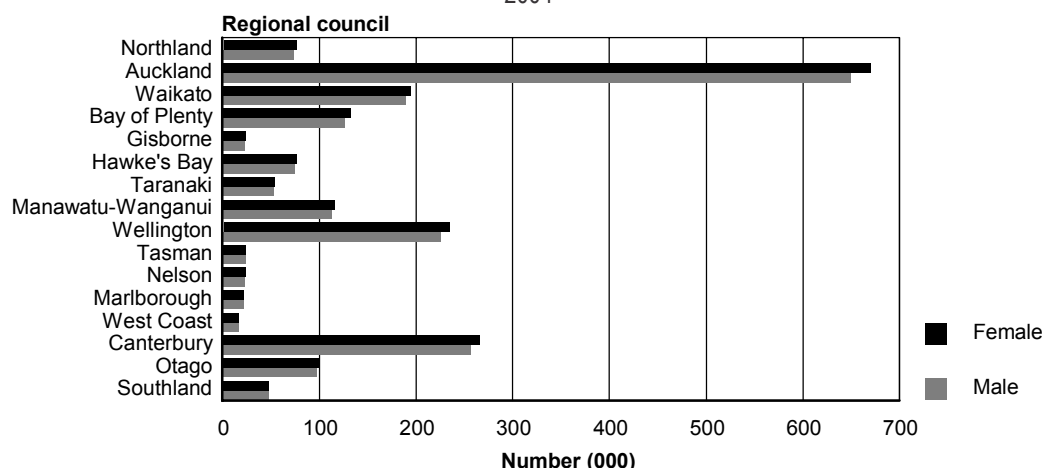
Source: United Nations World Population Prospects: The 2004 Revision Population Database

Latest Organisation for Economic Co-operation and Development (OECD) statistics show that New Zealand had the highest rate of population growth (1.8 percent) over the 2002/2003 period, followed by Luxembourg, Turkey and Spain. OECD statistics also show that New Zealand is sparsely populated in comparison with other countries of similar size. The United Kingdom is similar in geographical size to New

Figure 1.11

### Geographical Distribution of the Population

By regional council and sex  
2004



Zealand, but it has just over 15 times the population, and Poland, which is only slightly larger, has more than nine times the population. Ireland, which has a similar-size population to New Zealand, is only a quarter of the geographical size. Therefore, even allowing for the fact that almost a third of New Zealand is vested in the conservation estate, which is considered too ecologically fragile to develop, the country is sparsely populated by international standards.

There are wide variations in age structure when comparing New Zealand with other countries. Mexico has the highest proportion of young people under the age of 15 (32 percent) followed by Turkey (29 percent), and Iceland (23 percent). New Zealand is ranked fourth out of 31 OECD countries, with 22 percent of the population under 15 years of age. Japan has both the lowest percentage of people aged under 15 years (14 percent), but it also has the highest number of people aged 65 years and over (19 percent). New Zealand has a similar proportion of over-65 year olds as the United States and Iceland. It is predicted that countries with much lower fertility levels than New Zealand, such as Italy, Greece and Japan, will have more than a third of their population aged 65 years and older by 2051.

As shown in Table 1.02, the United Nations Population Division expects there will be considerable extensions to the median age. By 2050 Latin America and the Caribbean is expected to have the biggest increase, of 15 years, with the median age expected to be 40 years. Europe, however, is expected to have an older population structure, with half its population over the age of 47 years, while Africa is expected to have a much younger age structure, with a median age of only 27 years.

### Geographical distribution

The majority of the New Zealand population live in the northern-most parts of the North Island. As Figure 1.11 shows, regional geographical distribution

patterns in 2004 are similar for both females and males, with high concentrations in the main centres. Thirty-two percent of both females and males live in Auckland, 13 percent live in Canterbury and 11 percent live in Wellington. The least populated regions (less than 2 percent) for both females and males are Gisborne, the West Coast, Tasman and Nelson, and Marlborough.

Patterns of geographical distribution for females in each ethnic group illustrate interesting differences. In 2001 the Auckland region had the highest proportion of females in each ethnic group, as shown in Table 1.03. Sixty-eight percent of Pacific, 64 percent of Asian, 25 percent of Māori and 27 percent of European females all live in Auckland. Whereas European females are spread across the country, with pockets of higher concentrations in urban areas, nearly two-thirds of the Māori population live in the northern part of the North Island, including Northland, Auckland, Waikato and the Bay of Plenty. The South Island is fairly sparsely populated, with just over a quarter (28 percent) of the female European population, 12 percent of Māori and Asian female populations, and only 6 percent of Pacific females.

As the female population increased over the 25 years between 1976 and 2004, so too did the female population in all but three regional council areas. Figure 1.12 highlights the trend for females to move to the top of both the North and South Islands.

female populations of Auckland, Bay of Plenty and Tasman have increased by more than a half, and in Northland, Nelson and Marlborough by a third. However, those regional councils registering a loss were Southland (with a 10 percent decrease), the West Coast (a 6 percent decrease) and Gisborne (a 1 percent decrease).

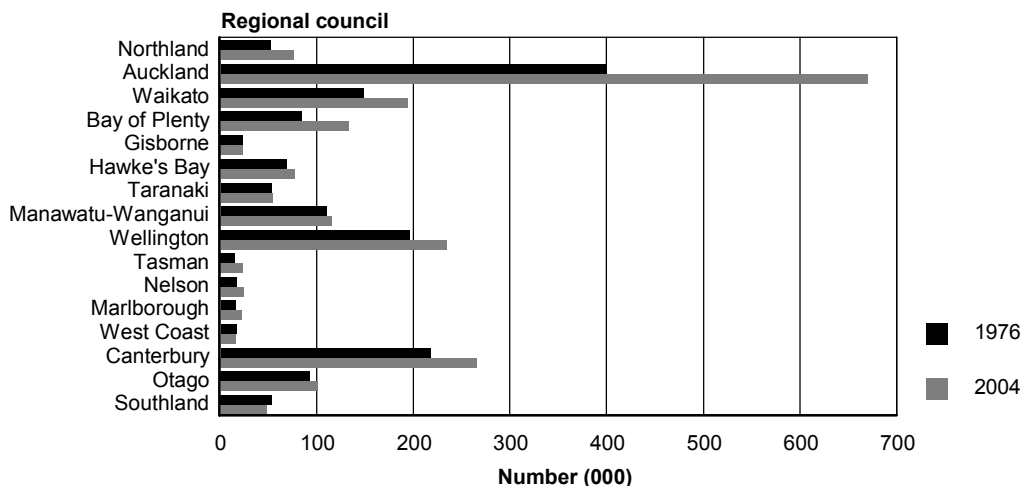
Table 1.03

**Distribution of Female Population**  
By regional council and ethnic group  
2001

Regional council	Māori	Pacific peoples	Asian	European
Northland	8.1	1.2	0.9	3.6
Auckland	24.8	68.0	63.8	26.7
Waikato	13.7	4.3	5.0	9.7
Bay of Plenty	12.2	2.2	2.1	6.3
Gisborne	3.7	0.5	0.2	0.9
Hawke's Bay	6.1	1.9	1.1	3.8
Taranaki	2.7	0.4	0.6	3.1
Manawatu-Wanganui	7.3	2.1	2.7	6.3
Wellington	9.6	13.8	11.5	11.5
West Coast	0.5	0.1	0.1	0.9
Canterbury	5.7	3.5	8.3	14.8
Otago	1.9	1.1	2.5	5.7
Southland	1.8	0.5	0.3	2.8
Tasman	0.5	0.1	0.2	1.3
Nelson	0.6	0.2	0.4	1.3
Marlborough	0.7	0.2	0.2	1.2
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Figure 1.12

**Geographical Distribution of the Female Population**  
By regional council  
1976 and 2004 (estimated)



## Urbanisation

The majority of New Zealanders live in urban areas, with females and males showing a similar pattern of settlement. In 2003, 72 percent of both females and males lived in a main urban area, and 14 percent of both females and males lived in secondary and minor urban areas. A slightly higher percentage of males (15 percent) than females (13 percent) lived in rural centres and areas. Since 1996 there has been a marginal shift for both females and males from less populated areas into main urban areas. This shift to main urban areas, although small, was also common across ethnic groups.

Wide differences occur in urbanisation patterns across ethnic groups. As Table 1.04 shows, in 2001 most females lived in an urban area, particularly Pacific and Asian (98 percent). The higher levels of urbanisation among Pacific and Asian females in part reflect their more recent immigration history, as immigrants typically disperse gradually from their

point of arrival. Eighty-five percent of European and 84 percent of Māori females lived in a main urban area, but they were also more likely to live in towns with fewer than 10,000 people and in rural areas than Pacific and Asian females.

As Figure 1.13 shows, the tendency to reside in urban areas increases across all ethnic groups within the working-age groups, particularly those who are 20–39 years old, obviously for work reasons. However, from the age of 60-plus, quite a divergent pattern emerges for Māori in comparison to the other ethnic groups. There is a strong tendency for Māori to reside in rural areas, contrary to the trend of the other ethnic groups, suggesting the strength of family and ancestral roots. For European women in the older age groups and, to a lesser extent, for Pacific women, the tendency was to cluster in urban areas, probably to be closer to family, amenities and services, or residential care units which are mainly located in urban areas.

Table 1.04

### Female Population Living in Urban and Rural Areas

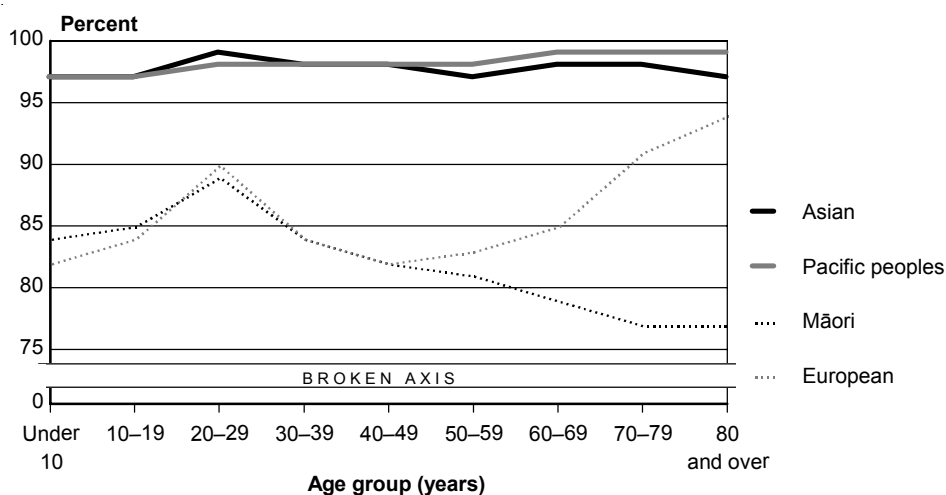
By selected ethnic group  
2001

	European	Māori	Pacific peoples	Asian
	Percent			
Main urban area (30,000+)	69.6	64.0	92.6	93.6
Secondary urban area (10,000-29,999)	6.9	6.9	2.9	1.8
Minor urban area (1,000-9,999)	8.7	13.4	2.3	2.4
Total urban population (1,000 and over)	85.1	84.3	97.8	97.9
Rural centre	2.1	3.6	0.4	0.4
Other rural area	12.8	12.2	1.8	1.7
Total rural population (under 1,000)	14.9	15.7	2.2	2.1
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Figure 1.13

### Percentage of Female Population Living in Urban Areas

By age group and ethnic group  
2001



## Mobility

In the intercensal period between 1996 and 2001 nearly half the total population changed their address at least once, with both females and males showing a similar pattern. As shown in Figure 1.14, the most mobile women were those in their 20s and early 30s, as they moved out of the parental home and started independent living, travelled, moved to another area for educational or training purposes, or started families of their own. In the 20–24 year age group, 70 percent of females changed their address at least once, compared with 65 percent of males, which could be related to the propensity of women to leave home earlier than men. The mobility of the population slows from the late 30s as people settle into home

ownership and careers. Toward the end of the life cycle, people, particularly women over the age of 75, were again changing addresses more often. There is a tendency earlier in life for women to partner older men, so by the age of 75 women are often facing the death or disability of their partner and move to be closer to family, services or institutional care.

Nearly half the total female population changed their address at least once between 1996 and 2001. On the whole, Māori females changed their address more often than females in the total population, with 53 percent of Māori females changing address compared with 46 percent of the total female population.

Figure 1.14

**Proportion of Total Population who Changed Address between the 1996 and 2001 Censuses**  
By age group and sex

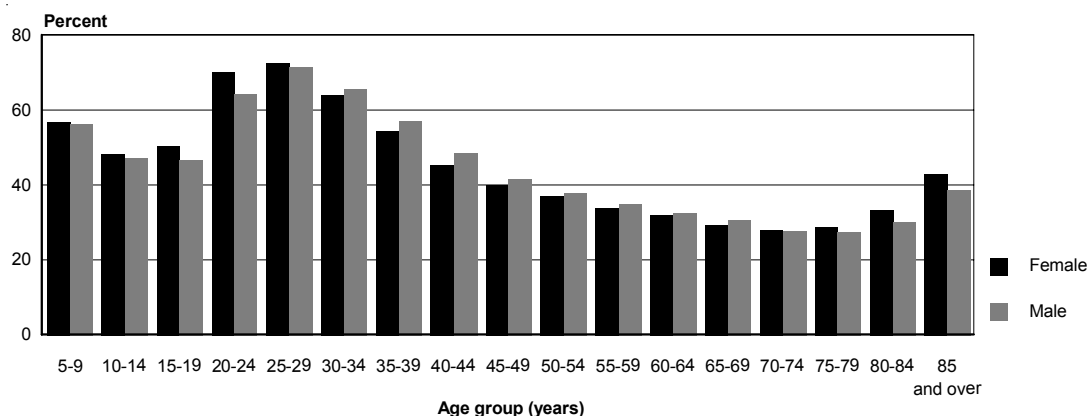
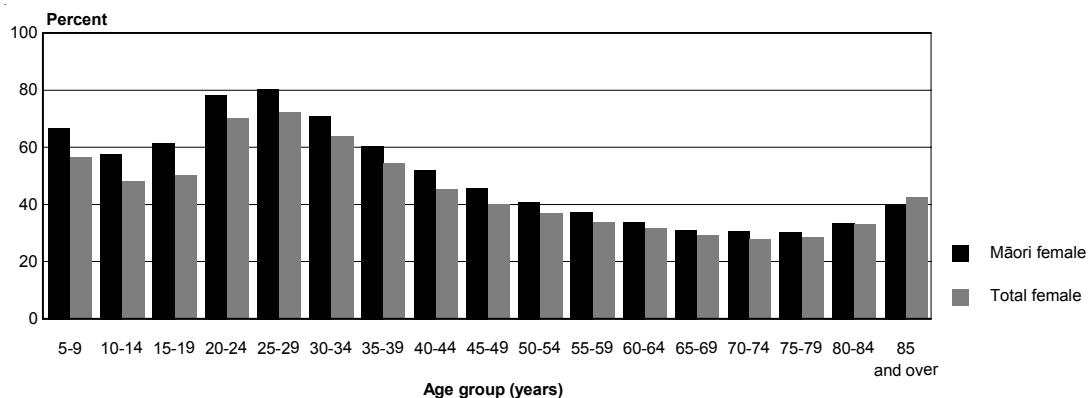


Figure 1.15

**Proportion of Māori Female and Total Female Populations who Changed Address between the 1996 and 2001 Censuses**  
By age group



## Immigration

Net migration (the difference between the number of people coming into the country and the number leaving) provided a net gain in the New Zealand population in 2004. In the year ending December 2004 there was a total of 8.3 million passenger movements, of which 42 percent were New Zealand residents; the remainder were overseas visitors. There was a net inflow of 15,100 permanent and long-term migrants to New Zealand in 2004 and although there was a net gain of 33,200 non-New Zealand citizens, there was a net outflow of 18,100 New Zealand citizens.

Over 80 years, from 1896 to 1976, the proportion of New Zealand-born females steadily increased from 66 percent to 84 percent, as shown in Table 1.05 below. However, from 1976 and 2001 this proportion decreased to 77 percent. In 1896 the United Kingdom and Ireland were the major source of females immigrating to New Zealand (28 percent), decreasing to 9 percent by 1976. By 2001 only 6 percent of New Zealand females were born in the United Kingdom and Ireland, and as this proportion decreased, the proportion of females coming from

other parts of the world increased. Between 1896 and 1976 only a small percentage of the New Zealand female population were born in other parts of the world, but by the time of the 2001 Census the proportion of females coming, first, from the Pacific Islands, and more recently from Asia has steadily increased as New Zealand's immigration policies have been liberalised.

Of those females coming from the Pacific Islands the highest proportion comes from Samoa (40 percent). Fiji (22 percent), Tonga (15 percent) and the Cook Islands (13 percent) were the next major groups. Male patterns of migration from the Pacific to New Zealand are similar to that of females. In the 1960s, a time of economic growth in New Zealand, the flow of people from the Pacific Islands increased. As the economy slowed in the 1970s, so did the number of immigrants. However, by the 1980s a resurgence of migration from the Pacific Islands occurred. By 1996 natural increase was the main growth characteristic of the Pacific peoples, taking over from migration.

Migrants to New Zealand in 2001 came from a wider range of countries and in greater numbers than in previous times. In the 10 years between 1991 and 2001 the number of females usually resident in New Zealand who came from Asian countries increased considerably, particularly from the Republic of Korea, where the number of females increased 23 times from 408 in 1991 to 9,354 in 2001. The number of females from China quadrupled from 4,620 to 20,457 over this time. Those born in India and Sri Lanka and now living in New Zealand have more than doubled. The numbers of females from African countries have also increased considerably. The numbers of females from South Africa, Zimbabwe and Somalia have more than quadrupled between 1991 and 2001.

Table 1.05

### Birthplace of New Zealand Females 1896–2001

Birthplace	1896	1976	2001
	Percent		
New Zealand	66.5	84.1	77.3
UK/Ireland	28.2	9.4	5.9
Asia	0.2	0.7	4.6
Pacific Islands	0.1	1.6	3.2
Australia	3.3	2.1	1.6
Europe	1.1	1.3	1.5
Other	0.5	0.8	5.8
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

## Summary

- *In 2001 females made up more than half of the New Zealand population and two-thirds of the population aged 80 years and over.*
- *The population growth rate is expected to continue to slow over the coming decades as the population ages. Latest projections estimate New Zealand's population will grow from its present 4.1 million to 5 million people by 2041.*
- *Ethnic diversity is increasing. Numbers of Asian and Pacific peoples are growing the most rapidly. Māori and Pacific females have a younger age structure than the general population.*
- *The median age for females is projected to rise from 36.1 years at 30 June 2004 to 47.1 years at 30 June 2051.*
- *Twenty-three percent of New Zealand females were born overseas, mostly in the United Kingdom/Ireland, Asia and the Pacific Islands.*



*Chapter 2*

# **Families and households**

## Chapter 2

# Families and households

Over the past 30 years the family has undergone many changes in New Zealand. New Zealand is unique in the contribution that particular ethnic groups bring to family formation patterns. Māori women in particular bring considerable diversity to the family through different patterns of childbearing. They are less likely to marry and more likely to live in extended families than non-Māori. Asian and Pacific women also have distinctive patterns of family formation, resulting in an increasing diversity of family and household types. Differences also exist between different age groups.

Key social and demographic trends in recent decades have brought about increasing diversity in families and households. These trends include a movement toward later marriage and childbearing, an increasing incidence of women living in non-marital partnerships, increasing rates of marital dissolution and sole parenthood, and growing numbers in shared households. This chapter will examine each of these trends in turn and look in the particular differences that occur between women in New Zealand of differing ages and ethnicities.

### Profile of family change 1971–2001

Table 2.01 shows some of the main differences that have taken place in the family in the period 1971–2001. In 1971, the typical New Zealand family comprised a legally married husband and wife with about three children. The husband was usually the sole breadwinner while the wife worked in the home

carrying out domestic tasks and child-rearing. In 1971, 26 percent of married women were employed full-time in the labour force. Women married relatively early, at about 22 years of age. Divorce was rare and few women never married.

In 2001 the picture was quite different. The number of married women in full-time employment had increased to 38 percent. The proportion of women aged 15 years and over who were currently married had decreased from 65 percent in 1971 to 48 percent in 2001 and those that did marry were doing so at a later age. Women were also having children later; the median age of a first birth was 30 years for married women. When women do choose to have children they are having fewer of them than in the past. The average number of births per women in 2001 was 1.97 compared with 3.18 in 1971.

The structure of the family has also changed. In 2001, 43 percent of all births occurred outside of marriage, considerably more than the 14 percent recorded in 1971. The percentage of sole-parent households has increased from 5 percent in 1971 to 15 percent in 2001.

This profile indicates that a great deal of change has occurred in the period from 1971 to 2001. It also indicates a growing diversity of family and household types in which women play an important role. For a better understanding, each of the relevant factors is looked at in greater detail throughout the rest of the chapter.

Table 2.01

**Demographic Indicators for Women**  
1971 and 2001

	1971	2001
Percentage never married		
age 30–34 years	6	36
age 35–39 years	5	22
Percentage married	65	48
Median age of first-time brides	21	27
Divorce rate	5.1	12.2
Remarriages as percentage of all marriages	16	37
Average number of births per women	3.18	1.97
Median age of first birth to married women	23	30
Percentage of births outside of marriage	14	43
Percentage of married women in full-time labour force	26	38
Percentage of households that are sole parent	5	15
Percentage of households that are two-parent	41	49

## Marriage and partnerships

Since the 1960s societal changes have seen an increasing diversity of family and household types. This diversity has been influenced by changes that have occurred in marital and marriage dissolution trends. People have become less likely to marry and when they do it is at a later age, rates of divorce have increased and more people are choosing to live in partnerships as a precursor to, or instead of, marriage.

As Figure 2.01 shows, the proportion of married women has fallen steadily over the past three decades. In 1971, 65 percent of women aged 15 years and over were married; by 2001 this had fallen to 48 percent. Over the same period the proportion of women who had never married increased from 22 to 30 percent. Divorces also increased, from 1.5 percent of women in 1971 to 8 percent in 2001. In comparison, the proportion of women separated had not changed significantly since 1981 (4 percent).

Marital status is a series of transitional categories which women may move in and out of at different stages of their life cycle. Women in the older age groups were more likely to have been married than their younger counterparts. Not surprisingly, the proportion of women who had never married was highest in the younger age groups. Eighty-nine percent of women aged 20–24 years had never been married, declining to just 5 percent of those aged 65 years and over. As Figure 2.02 illustrates, some variation does exist depending on ethnicity in the proportions of women never married. Women belonging to the Other and Asian ethnic groups were the least likely to have never married in the younger age groups, with 71 and 81 percent respectively remaining single in the 20–24 year age group. In comparison, 92 percent of Māori and 90 percent of European women aged 20–24 years had never been

married. In 2001, Māori women between the ages of 20–50 years were more likely to have never been married than all the other major ethnic groups, while those over the age of 50 years had similar rates as other ethnic groups.

The general marriage rate (the number of marriages per 1,000 unmarried people aged 16 years and over) increased throughout the 1960s to reach a peak in 1971 at 45.5 marriages per 1,000, but by 2001 this had fallen to 14.7 per 1,000. Since 1971, the rate of first marriage has declined across all age groups, the largest decrease occurring at the younger ages.

Between 1971 and 2001 the first-marriage rate fell from 95.4 to 5.8 marriages per 1,000 never-married women aged 16–19 years, while for those aged 20–24 years the fall was even more pronounced – from 314.1 to 37.1 per 1,000. Not only did marriage become less common but the ages at which first marriages occurred shifted upwards. In 1971, women aged 20–24 years had the highest rates of first marriage; this had risen to the 25–29 year age group by the 1980s. This shows fewer women getting married, particularly in the younger age groups, which may be due to increased participation of women in tertiary education, a greater opportunity for overseas travel, and more women pursuing careers and financial independence. It may also indicate a tendency to live in consensual unions before getting married.

A shift away from early marriage has resulted in fewer women marrying in their teens. In 2001, 601 teenage girls (under 20 years) were married, compared with 8,717 in 1971. Teenagers comprised about one-third of all females who were married in 1971, but only 3 percent in 2001. The mean age of first-time brides has been rising steadily since the early 1970s, from 21.7 years in 1971 to 28.2 years in 2001. This reflects a trend away from early

Figure 2.01

Legal Marital Status of Women Aged 15 Years and Over  
1971–2001

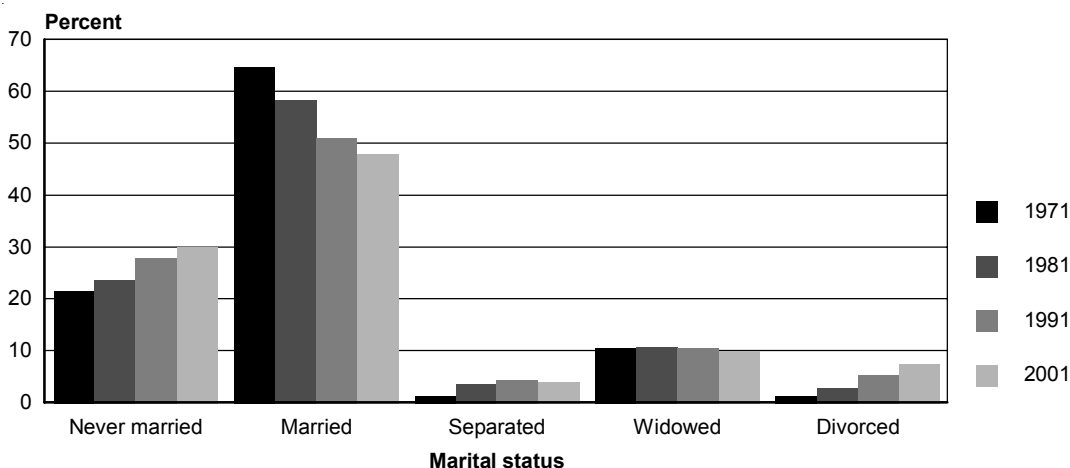
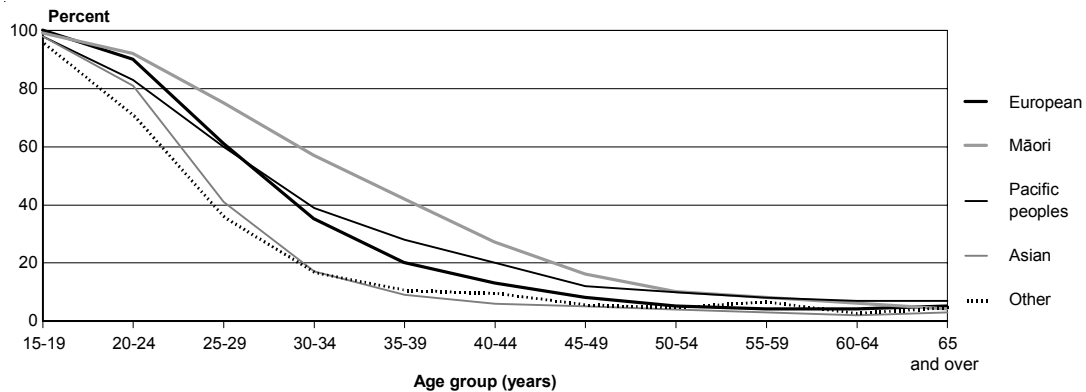


Figure 2.02

**Proportion of Women Aged 15 Years and Over Who Have Never Married**  
By age group and ethnic group  
2001



marriage, with an increasing number of women remaining either unpartnered or living in non-marital relationships into their 30s and perhaps ultimately, never marrying.

Women still tend to marry men older than themselves, but the gap has narrowed slightly. In 1971 the gap was 2.3 years; by 2001 it had narrowed to 2.1 years. The mean age of first-time grooms in 2001 was 30.1 years and the mean age of remarriage of a man previously divorced was 44.7 years.

**Marital dissolution**

In 2001, 9,700 divorces were granted by family courts, considerably more than in 1971 (3,347). The number of divorces granted increased through the 1970s, accelerating when the Family Proceedings Act 1980 was passed which allowed for the dissolution of marriage on the grounds of irreconcilable difference. This made dissolution simpler, quicker and cheaper. As a result, in 1982

divorces recorded a temporary high of 12,400. Subsequently, the number fell to a low of 8,600 in 1989 and since 1996, the annual number has fluctuated around 10,000.

As Figure 2.03 shows, over time the age at which women are most likely to be separated or divorced has shifted from women aged in their 30s in 1981, to older age groups. In 2001 the highest proportion of women separated or divorced were in their 40s and 50s. A likely explanation for this shift is that older women are more likely to be married and therefore available for divorce or separation. Between 1991 and 2001, the proportion of women who were divorced or separated decreased for those under 40 years of age. This may reflect the increasing proportion of women in the younger age groups who have never married.

In 1971, more than three-quarters (78 percent) of divorces involved people with children aged under 18 years. By 2001, this had fallen to less than half

Figure 2.03

**Proportion of Women Who Are Separated or Divorced**  
By age group  
1971–2001

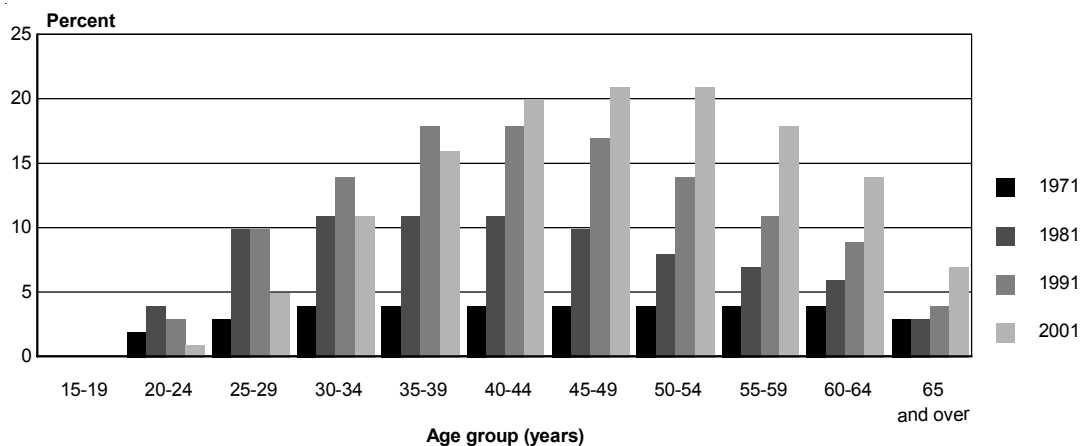
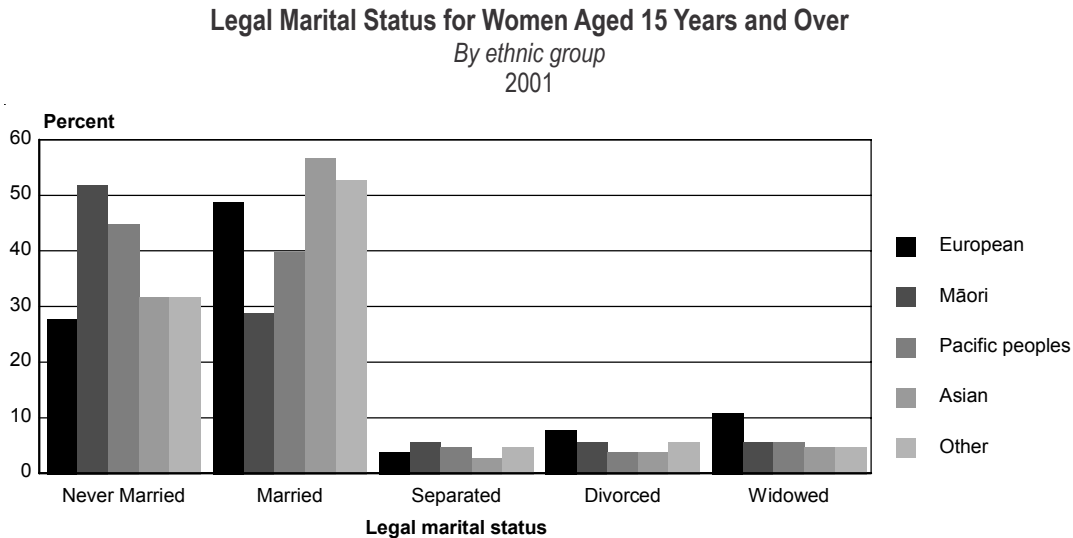


Figure 2.04



of all divorces (47 percent). The fall may be a consequence of delaying marriage and childbearing, with some women divorcing before they have begun a family. Alternatively, it may also point to marriages ending in the older age groups, after children have left home or reached adulthood.

As a result of the increasing prevalence of divorce, rates of remarriage have risen. In 2001 more than a quarter (26 percent) of marriages involved a woman who had been previously married – significantly higher than the 1971 rate of 11 percent. Twenty-three percent of women who married in 2001 were previously divorced – a similar percentage to men (24 percent). The increasing proportion of women remarrying has contributed to the continued rise in the average age at marriage. Women who remarry are more likely to be older at the time of remarriage than those who are marrying for the first time. The mean age of divorcees remarrying in 2001 was 41.2 years compared with 36.5 years in 1971. The mean age of a widow remarrying has changed little, from 51.4 in 1971 to 53.8 years in 2001.

European women were more likely than those of other ethnicities to be widowed. In 2001 they had almost twice the proportion in this group (11 percent) compared with Māori and Pacific women (6 percent). This may be a result of the older age structure of the European population and their high life expectancy rates as women tend to outlive their partners.

At the time of the 2001 Census, Māori women were significantly less likely to be married than women of other ethnicities; just 29 percent of Māori women aged 15 years or over were married. Pacific women, at 40 percent, were the next least likely to be married. Comparatively, Asian women were the most likely to be married, at 57 percent, followed by those in the Other ethnic groups, at 53 percent.

As Figure 2.04 shows, the difference is largely due to the greater proportions of Māori women who have never married, 52 percent, compared with 28 percent of the European population. The larger proportion of never-married women in the Māori ethnic group is a reflection of the younger age structure of the Māori population in general.

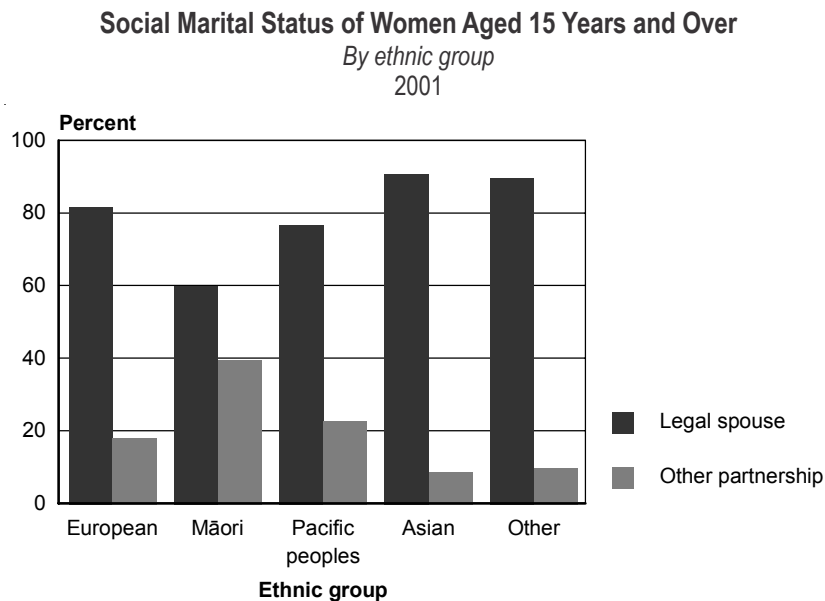
### De facto unions

An increasing proportion of New Zealand men and women are choosing to live together without legally formalising their relationship. De facto unions were first recorded in the census in 1981. At that time 4 percent of women aged 15 years and over were in this type of union. By the time of the 2001 Census, about three in 10 men and women aged 15–44 years were in a de facto union, a greater proportion than in 1996 when one in four were in this type of relationship. Figures on de facto relationships, particularly in the past, may have actually been higher as not all women might have wished to categorise themselves as de facto in the census.

De facto unions are more common than formal marriages among younger New Zealanders. Men and women today are opting, at least for a short time, to live in de facto unions, often as a precursor to marriage. This emerging trend has been in part responsible for the continued decline in marriage, particularly in the younger age groups. In 2001, de facto unions were most popular for women in their 20s. Twenty-three percent of women aged 20–24 years were living with a partner outside of marriage, a higher proportion than that recorded for men the same age (18 percent). Men and women aged 25–29 years were equally as likely to be living in a de facto relationship in 2001 (25 percent).

Comparing data from previous censuses, it can be seen that the trend toward living with partners in de

Figure 2.05



facto relationships is spreading from the younger ages into the older ages. This could indicate that it is becoming more socially acceptable to not marry a long-term partner and to raise children outside of marriage. It may also reflect women delaying having children.

As Figure 2.05 shows, Māori women were more likely at the time of the 2001 Census to have been living in a de facto union than those of other ethnic groups. Forty percent of women from the Māori ethnic group were living in a de facto relationship compared with just 9 percent of Asian women. Difference by ethnicity is likely to be a result of the differing social norms and traditions associated with different ethnic groups as well as differing age structures.

### Childbearing

Although many women now have children outside of marriage, trends in childbearing still closely reflect those of marriage. Women are now more likely to marry at older ages and it also appears they are delaying childbearing, and when they do start a family, they are having fewer children.

From the end of World War II until the 1960s, New Zealand along with other developed countries experienced a dramatic shift toward almost universal marriage and early childbearing. This period of high fertility has been termed the 'baby boom' which peaked in the early 1960s with an average of about four births per woman. From 1962 the total fertility rate for New Zealand women decreased. This decrease was particularly pronounced in the 1970s and by the early 1980s women were having on average just over two births per woman. In the late 1980s and early 1990s a baby blip occurred. This was an unexpected rise in the total fertility rate from an average of 1.93 births per women in 1985 to 2.18 in 1990. Aside from this 'blip', the average number of births per women has remained relatively constant for the past 20 years at about two births per woman. In 2001, the total fertility rate for New Zealand was 1.97 – just under the level required for a population to be able to replace itself (2.1 births per woman).

Women are now considerably more likely to give birth in their late 20s or early 30s than in their teens or early 20s. As Table 2.02 shows, in 1971 fertility rates were highest for women aged 20–24 years but by the 1980s this had shifted to those aged

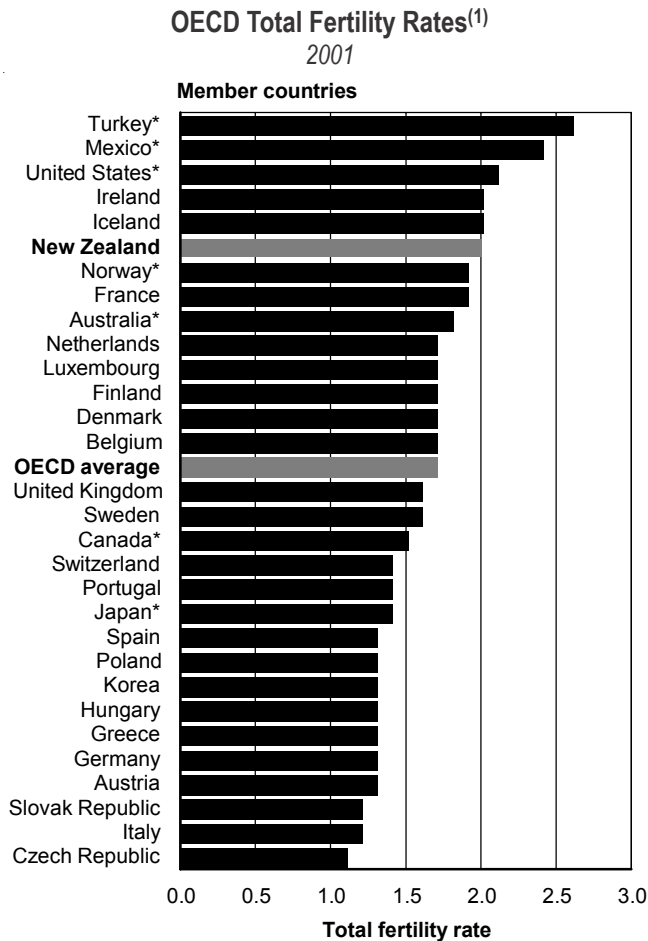
Table 2.02

**Birth Rates Per 1,000 Women**  
By age group  
1971–2001

Age group	1971	1976	1981	1986	1991	1996	2001
15-19	67.9	49.8	38.0	30.2	33.9	33.0	27.5
20-24	210.8	152.1	123.1	105.1	95.2	81.2	76.1
25-29	200.1	151.9	146.6	143.7	140.9	119.2	113.3
30-34	102.1	68.9	69.9	85.7	105.0	105.3	111.7
35-39	41.3	22.9	20.2	24.1	37.9	44.6	53.8
40-44	12.2	6.1	4.4	4.0	5.9	8.0	10.4
45-49	0.9	0.5	0.2	0.3	0.3	0.4	0.5

Source: Table 2.10 *Demographic Trends 2003*

Figure 2.06



Source: *OECD in Figures*, 2003, New Zealand figure from *Demographic Trends 2004*

(1) Number of births per woman.

\* Data for Turkey, Mexico, United States, Norway, Canada, Australia and Japan are for the 2000 year.

25–29 years. Over the past 30 years a gradual fall in the fertility rate of women in the younger age groups occurred. For those aged 15–19 years the fertility rate fell from 67.9 to 27.5 births per 1,000 women. For women aged 20–24 years the fall was even more dramatic, from 210.8 to 76.1 births per 1,000 women.

The trend toward lower fertility levels has not been restricted to New Zealand – as Figure 2.06 shows, it is occurring in most Organisation for Economic Co-operation and Development (OECD) countries. Although New Zealand's fertility rate in 2001 was below replacement level it still ranked the fourth highest in the OECD, equal with both Ireland and Iceland and behind only Turkey, Mexico and the United States. The Czech Republic had the lowest total fertility rate with just 1.1 births per woman in 2001. (*OECD in Figures*, 2003)

At irregular intervals the census has included a question relating to the number of children that women have given birth to, most recently in 1996. For this reason information presented in the following section relates to 1996 data. As Table 2.03 shows,

ethnicity is an important distinguishing variable determining women's fertility, with strong differences in childbearing patterns between different ethnic groups likely to be the result of varied social histories. The fertility of migrants may also include a significant number of overseas births. Overall, in 1996 European and Asian women had lower fertility levels than Māori and Pacific women but the gap is showing signs of converging. This can be seen when comparing women in the older age groups with women in their 40s.

Pacific women aged 65 years and over had on average 4.89 children, significantly higher than that of European women who averaged 2.79 children. This difference by ethnicity is less pronounced for women aged in their 40s, European women aged 40–44 years had on average 2.29 children, while Pacific women in this age group had 3.25. Māori were more likely than women from other ethnic groups to start their childbearing in the younger ages. Moreover, the general trend among cohorts that have completed or nearly completed their childbearing is towards fewer children.

Table 2.03

**Average Number of Children Born Per Woman**  
By age group and ethnic group  
1996

Age group (years)	Ethnic group <sup>(1)</sup>				
	European	Māori	Pacific peoples	Asian	Other
15-19	0.03	0.13	0.08	0.02	0.03
20-24	0.27	0.76	0.53	0.15	0.30
25-29	0.79	1.61	1.42	0.65	0.89
30-34	1.56	2.32	2.20	1.25	1.76
35-39	2.10	2.75	2.88	1.79	2.18
40-44	2.29	2.98	3.25	2.09	2.50
45-49	2.38	3.22	3.55	2.28	2.43
50-54	2.60	3.74	3.82	2.61	2.71
55-59	2.88	4.34	4.31	3.08	3.24
60-64	3.11	4.73	4.76	3.48	3.32
65 and over	2.79	4.62	4.89	3.62	3.33
Total	1.89	2.12	2.08	1.37	1.63
Age-standardised <sup>(2)</sup>					
Total	1.83	2.79	2.84	1.88	2.02

Source: 1996 Census of Population and Dwellings

(1) People may have more than one ethnicity and may be counted in more than one category.

(2) See Technical Notes for more information.

## Abortion

Abortion rates are affected by the legal environment, access to abortion services and societies' acceptance of the practice. As Figure 2.07 shows, the number of induced abortions has almost continually increased since 1979 when statistics were first published.

The general abortion rate (number of abortions per 1,000 women aged 15–44 years) rose from 14.0 in 1991 to 19.1 in 2001, indicating that New Zealand women are having more abortions than in the past.

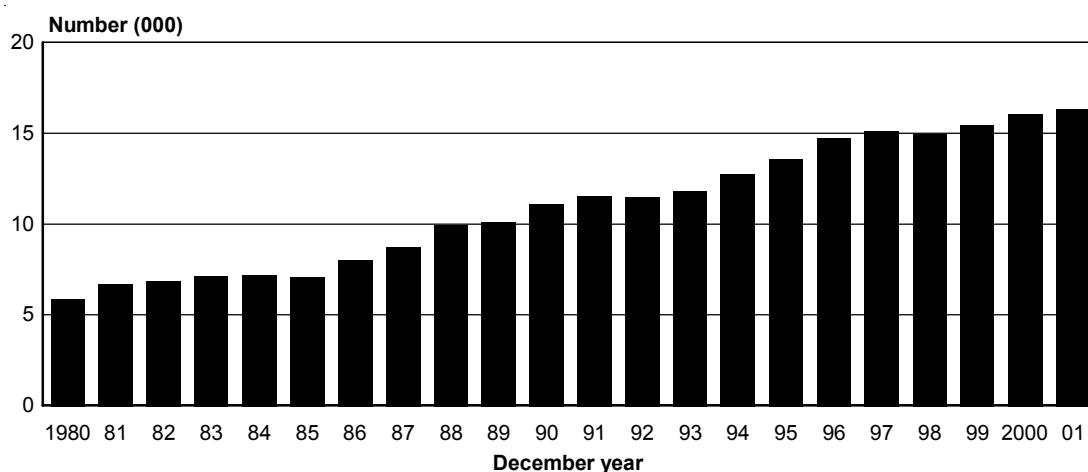
International comparisons of induced abortion rates are influenced by differing statistical coverage and

laws relating to induced abortion by country as well as differences in age structures. As a result, differences between New Zealand and other countries should be interpreted with caution.

New Zealand has experienced noticeable increases in abortion rates over the past decade. This has not been the case for many European countries that have either experienced a slight decline in the rate of abortion or little change. In 2001, the general abortion rate for New Zealand was 19.1 per 1,000. In comparison, Germany (7.7), the Netherlands (8.4), Finland (10.9) and Scotland (11.3) Japan (13.8) England and Wales (16.2) and Sweden (18.7) had lower rates. Australia (21.0) and the United States (21.3) had similar rates to New Zealand.<sup>1</sup>

Figure 2.07

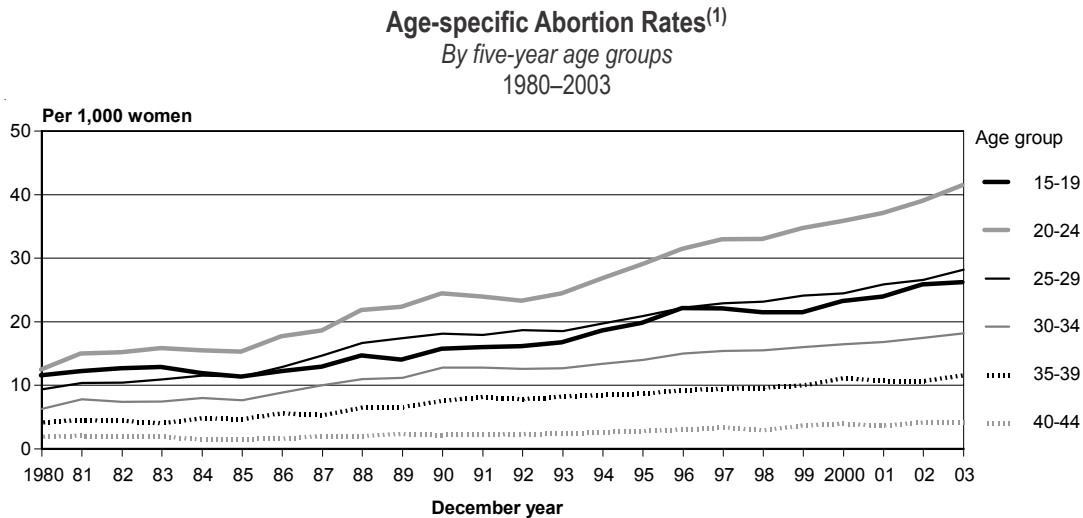
**Induced Abortions Registered in New Zealand**  
1980–2001



Source: Abortion Supervisory Committee

(1) See Bibliography for full details.

Figure 2.08



Source: Abortion Supervisory Committee.

(1) Induced abortions registered in New Zealand per 1,000 mean female estimated population in each age group.

**Note:** Rates from 1991 onwards are based on the mean estimated resident population. Rates prior to 1991 are based on the mean estimated de facto population.

While women giving birth have steadily become older, those having abortions have remained relatively young. In 2001, the median age (half are older than this age and half are younger) for those having an abortion was 25.2 years. In 1991 it was 25.1 years. This shows that the age at which women are most likely to have an abortion has remained stable for the past decade.

In 2001, women aged 20–24 years were the most likely to have an abortion (36.9 per 1,000); approximately three out of 10 abortions in that year were to women in this age group. The next most common age group for abortions were those aged 25–29 years (25.9 per 1,000), followed by those aged 15–19 years (23.8 per 1,000).

As Figure 2.08 shows, since the 1980s all age groups have recorded increased rates of abortion. Some age groups have increased more than others. Since 1991 the abortion rate for women aged 40–44 years has increased little, from 2.4 to 3.9 in 2001. Over the same period the rate rose from 23.8 to 36.9 for women aged 20–24 years.

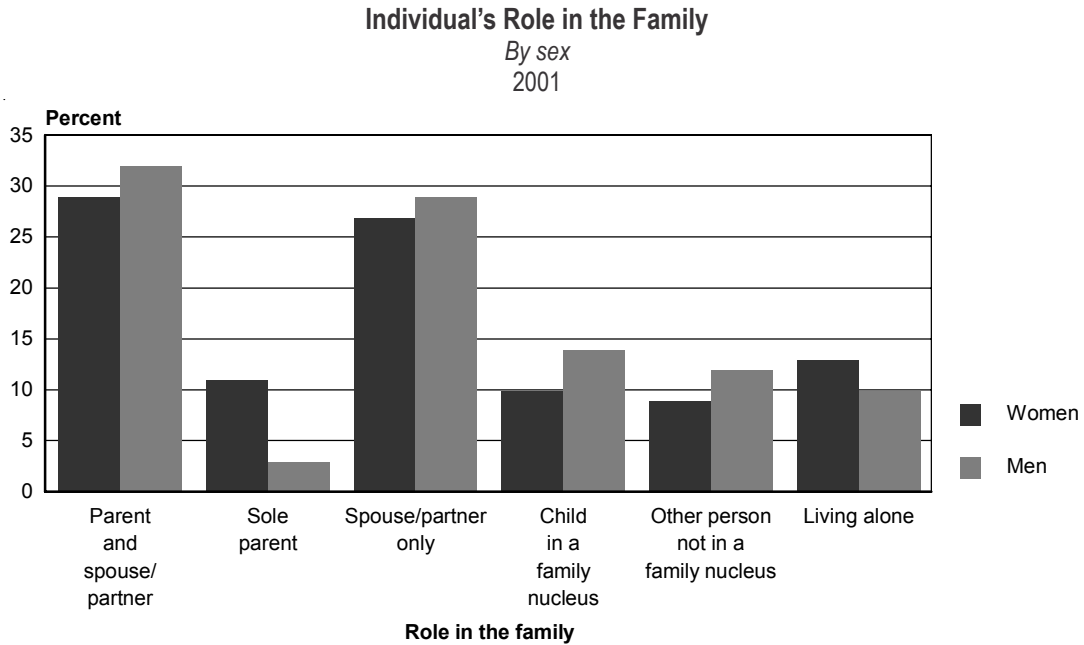
## Families

As Figure 2.09 shows, the distribution of women across family roles within households differs slightly from that of men. In 2001, 29 percent of women aged 15 years and over were parents in a two-parent family, 27 percent were part of a couple without children, 13 percent of women were living alone, 11 percent were sole parents and 10 percent were in the role of a child. Women were more likely than men to be living alone (13 and 10 percent, respectively) or as a sole parent (11 and 3 percent, respectively).

Women of different ages predominate in different roles within the family. At the age of 15–19 years, 74 percent of women were living with their parents. This declined dramatically to 27 percent of women aged 20–24 years. This is the result of moving out of the parental home into more independent households. In 2001, non-family households were the most common family type for women aged 20–24 years, indicating that a substantial proportion (29 percent) were living in flatting situations. The proportion still living as a child with their parents in this age group was still relatively high perhaps indicating that younger people are postponing leaving home to reduce the costs associated with studying.

The numbers of women in their 20s in the role of the parent increased. In 2001, 29 percent of women aged 25–29 years lived as a parent in a two-parent family while 15 percent were sole parents. Twenty-seven percent of women aged 25–29 years lived in a couple-only family, reflecting the high proportions of women delaying childbearing until their 30s. Half of all women aged 30–34 years were parents in a two-parent family. In comparison just 5 percent were living alone and 4 percent were living with their parents. Women aged 50–54 years were most likely to be found as part of a couple-only family. Differences in family role between this age group and those aged 45–49 years are quite significant. Forty-five percent of women aged 50–54 years lived in couple only households compared with 25 percent of those aged 45–49 years. At the same time, those living as a parent in a two-parent family decreased from 48 percent of those aged 45–49 years, to 29 percent of those aged 50–54 years. This relatively high proportion of women still in the role of the parent

Figure 2.09



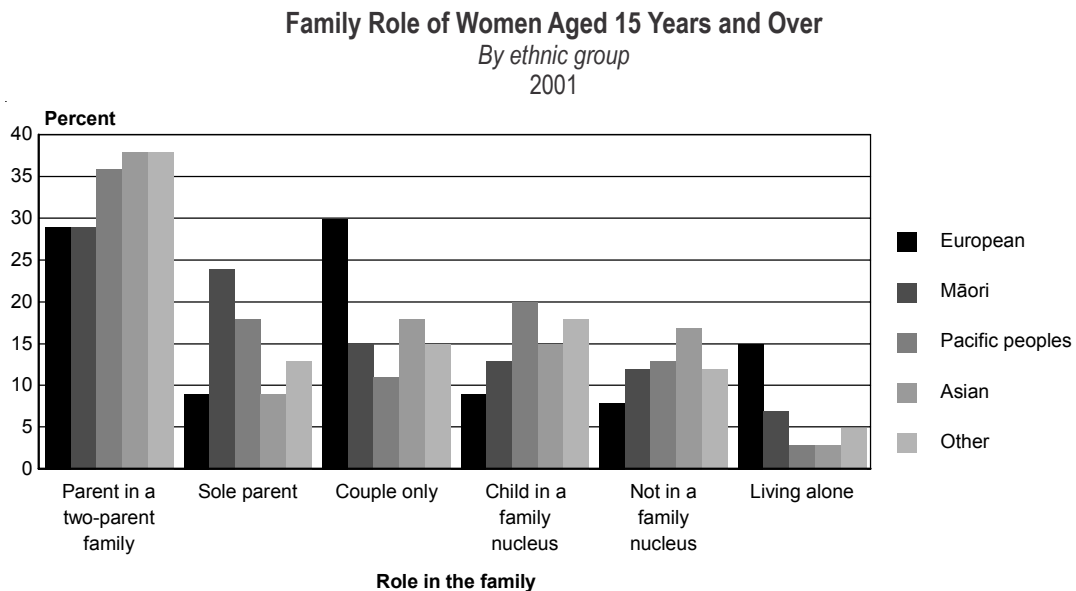
at this age may be a consequence of having children later in life or may reflect children returning to their parental home to reduce the cost associated with living and give them the opportunity to pay off debts incurred while studying. Low numbers of women in the role of the parent in the older age groups reflect the movement of children out of the family home, resulting in larger numbers of older women living either as part of a couple-only family or alone.

Although census data can tell us the proportion of women living in either one or two-parent families we are unable to determine the number of these families that are non-conventional as a result of the growing numbers of women involved in marital dissolution, remarriage and reconstituted families. For instance, it cannot be determined how many women are living in families in which they are not

the biological mother of the children. The number of parents with children outside the households is also unidentifiable. Extended families within households will be discussed later this chapter.

Being a parent in a two-parent family was the most common role for women aged 15 years and over in every major ethnic group excluding European. As Figure 2.10 shows, Māori women were more likely than any other major ethnic groups to be a sole parent (24 percent). Pacific women were the next most likely (18 percent) while European and Asian women were the least likely (both 9 percent). European women were the most likely to be living as part of a couple-only family or alone (30 and 15 percent respectively). The relatively high proportions of European women in these family types can be attributed to the older age structure of the European

Figure 2.10



population who as a consequence may no longer have dependent children living with them in the household. It may also reflect the fact they have fewer children, resulting in a shorter overall period of dependence. Another factor may be that women in other ethnic groups are more likely to live in extended families, having older generations such as grandparents caring for children.

Women in the Asian and Other ethnic groups were the most likely to be parents in a two-parent family (both 38 percent), although numerically they were considerably fewer (34,600 and 2,900) than their European counterparts (314,000) of whom only 29 percent were in this family type.

### Sole mothers

In 2001, 11 percent of women aged 15 years and over were sole parents with dependent children. This is slightly lower than the proportion recorded in 1991 (15 percent). Sole parents were far more likely to be women than men (82 and 18 percent, respectively). Of women who were sole parents at the 2001 Census, 58 percent were aged between 30 and 49 years. There were not significant numbers of sole mothers in the younger age groups; just 2 percent of all sole mothers were teenagers aged 15–19 years, while 8 percent were aged 20–24 years. Most sole mothers were in the 35–39 year age group (17 percent) dispelling the stereotypical image of a young sole-parent mother.

Women were much more likely than men to be sole parents at every age, as Figure 2.11 shows, but the age distribution between the sexes was different with male sole parents in general being slightly older – 33 percent of male sole parents were aged between 40 and 49 years compared with 30 percent of female sole parents. The older age profile of male sole

parents can in part be attributed to the different situations in which men and women tend to become sole parents. Some women may become sole parents as a result of informal relationships from which they take the responsibility for the children. This is reflected in the greater proportion of sole parent mothers who have never been married compared with men (37 and 23 percent, respectively). Men were slightly more likely than women to be sole parents as a result of marital separation or divorce (45 and 40 percent, respectively). Women tend to form relationships with men older than themselves therefore men become fathers at an older age than their partners. Additionally, men tend to look after older children.

Rates of sole parenthood by age differ for all the major ethnic groups. As Figure 2.12 shows, the proportion of Māori women who were sole parents notably increased from 5 percent of those aged 15–19 years, to 27 percent of those aged 20–24 years. Women in the Asian ethnic group had a later peak than the other major ethnic groups; the highest rates of sole parenthood for Asian women were between the ages of 45 and 49 years. For Pacific and European women sole parenthood was most common between the ages of 35 and 39 years.

As Figure 2.13 shows, women in two-parent families were more likely than their sole-parent counterparts to have more than one dependent child. Almost half of women in sole-parent families had just one dependent child, compared with just over a third of mothers in two-parent families. Neither family type was likely to have four or more children, just 4 and 7 percent of sole and partnered mothers, respectively. Information on the number of sole mothers receiving a benefit in the year ended March 2001 and the proportions of those working are included in the Work and Income chapters of this report.

Figure 2.11

**Proportion of Those Aged 15 Years and Over who Are Sole Parents**  
By age group and sex  
2001

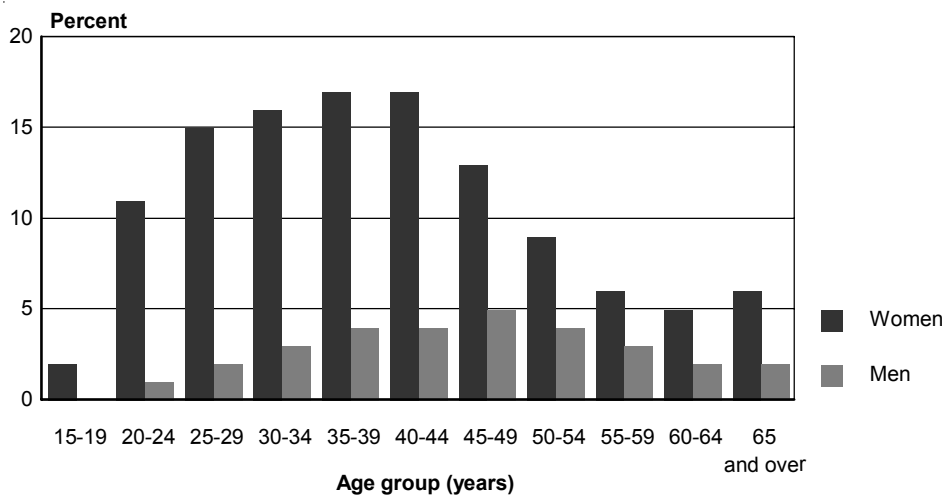


Figure 2.12

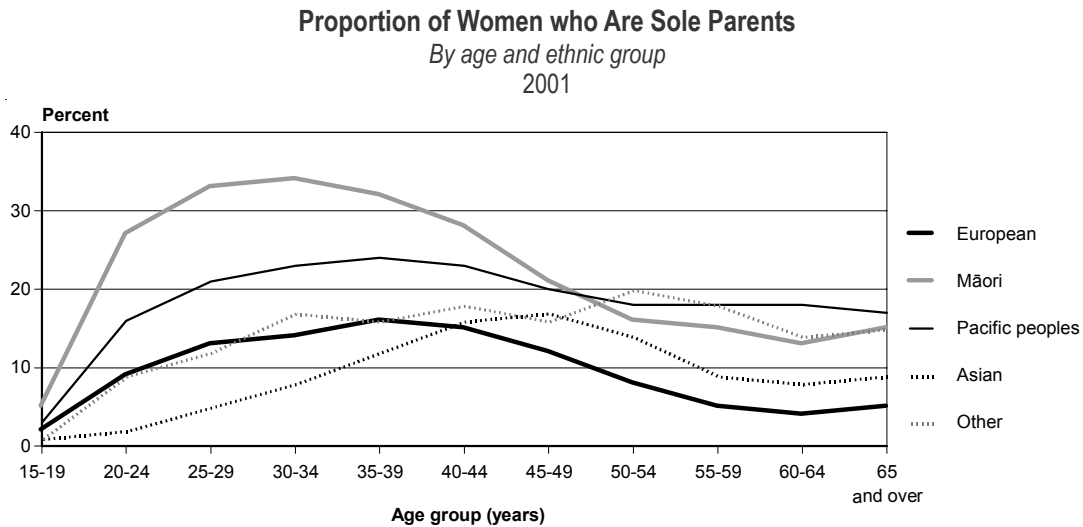
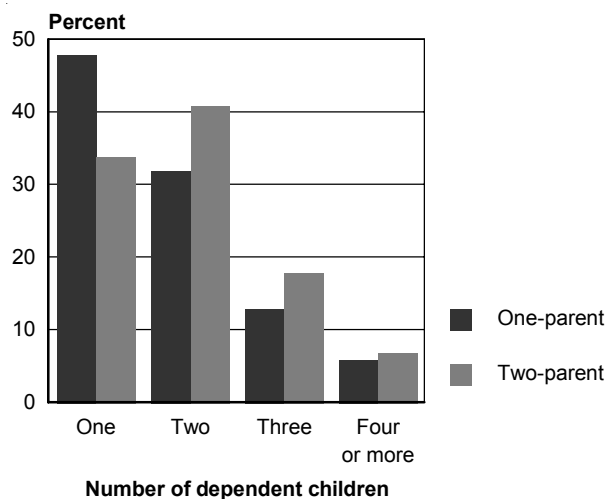


Figure 2.13

**Proportion of Women with Dependent Children**  
By number of children and family type  
2001



### Extended families

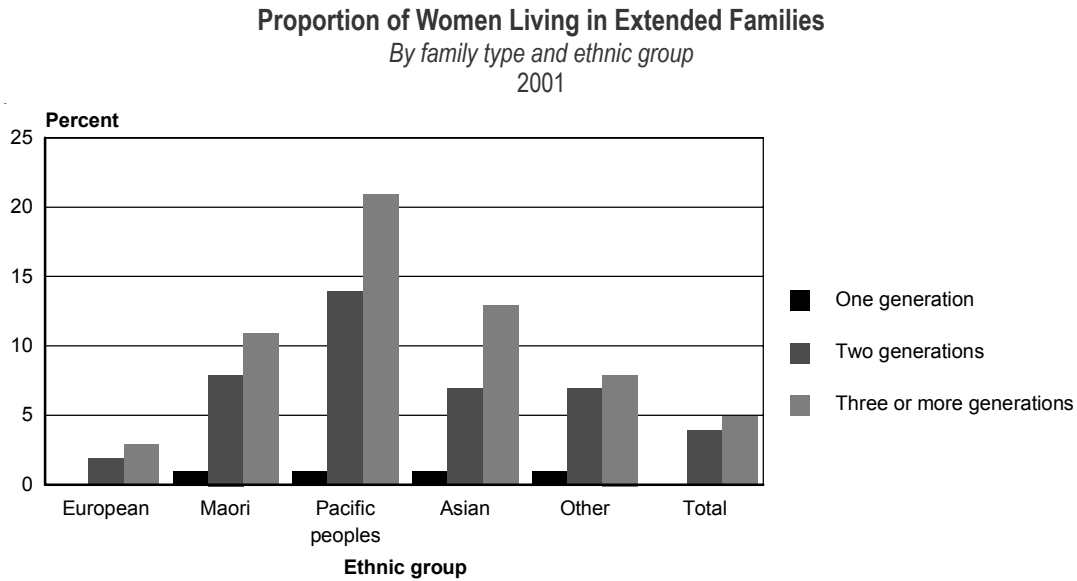
An extended family is a group of related people that consists of a family nucleus and one or more other related persons, for example a couple with children who live with a cousin of one of the parents. An extended family can also be two or more related family nuclei living together, for example two sole-parent families that are related to each other. The number of generations that an extended family is classified as depends on how the additional person or family relates to the family nucleus. A one-generation family consists of siblings and their partners. A two-generation family consists of a family nucleus and a related person or family which is one generation distant from them, while a three-or-more generation family is at least two generations apart. Due to the practical difficulties of collecting statistics on extended families across households, the definition is restricted to extended families within

households. This practical constraint does not affect data quality as such, but it does affect what data is obtained.

In 2001, 9 percent of women aged 15 years and over were living in extended families, a similar proportion to that of men (8 percent). One reason for living in a multi-generational family is looking after an aged parent. This is reflected in the fact that 55 percent of women who lived in extended families were in families of three or more generations, indicating perhaps couples with children living with a grandparent while 41 percent were in two-generation families and the remaining 4 percent were in one-generation families.

The ethnicity of women greatly influences their likelihood of living in an extended family. As Figure 2.14 shows, Pacific women were more likely than other ethnic groups to live in an extended family (35 percent), followed by Asian (21 percent), Māori (20 percent), Other (15 percent) and European (5 percent). The majority of Pacific women living in extended families were in families of three or more generations (21 percent). Although European women were the least likely to be living in an extended family, overall they made up the majority of women in these families (57,255). Forty-three percent of women in extended families of three generations or more were of European ethnicity. Māori were proportionally the next highest, (27 percent) followed by Pacific women (21 percent). Difference by ethnicity is likely to be a result of the differing social norms and traditions associated with different ethnic groups as well as economic necessity. As the Income chapter of this report shows, Asian, Other and Pacific women were more likely to receive low incomes; they may therefore live in multi-generational families because they have limited choice to do otherwise. High proportions of Māori and Pacific sole mothers may also explain their high likelihood of living in an extended family.

Figure 2.14



These women may live in extended families for financial reasons as well as for support. Only very small proportions of one generation extended families existed for all the major ethnic groups.

### Households

In 2001, 77 percent of women and 78 percent of men aged 15 years and over lived in one-family households. Within this group the most common type of households that women lived in were couples with children (42 percent), followed by couple-only households and one-parent households (31 and 13 percent, respectively). Women were more likely than men to live alone (13 and 10 percent, respectively), a likely result of their greater life expectancy and that they tend to marry men older than themselves. Men were marginally more likely than women to be

living with other individuals in a household such as in a flatting situation (7 and 6 percent, respectively). An equal proportion of men and women (4 percent) aged 15 years and over lived in households made up of two or more families.

Figure 2.15 shows that there has been very little change since 1991 in the distribution of New Zealand women across household types, although the proportion of women living in one family households from 2001 to 1991 has decreased slightly (77 and 79 percent, respectively). At the same time there was a small increase in the proportions living in both two-or-more family households and one-person households. This is indicative of the growing diversity of household types in New Zealand resulting from demographic and social changes.

Figure 2.15

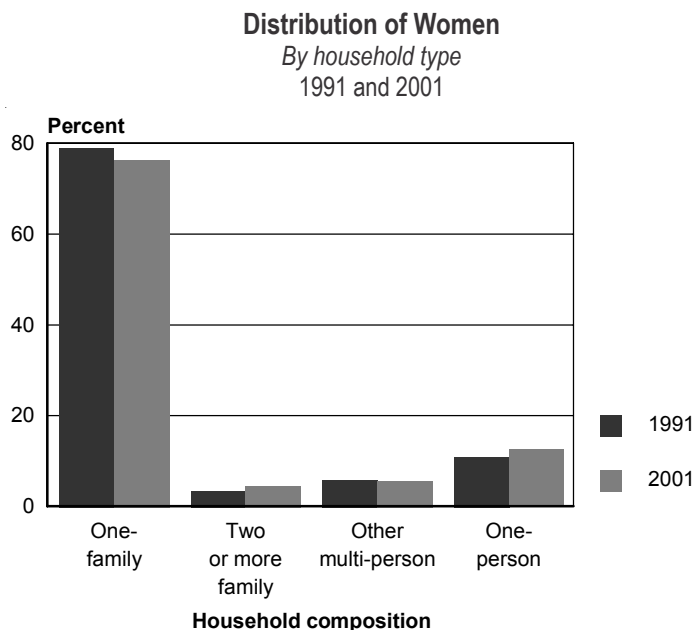
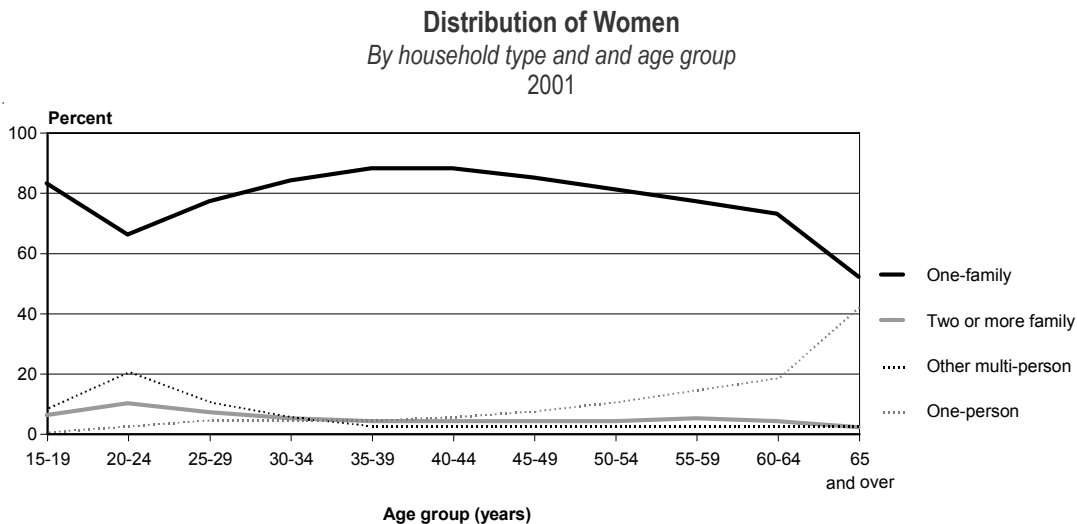


Figure 2.16



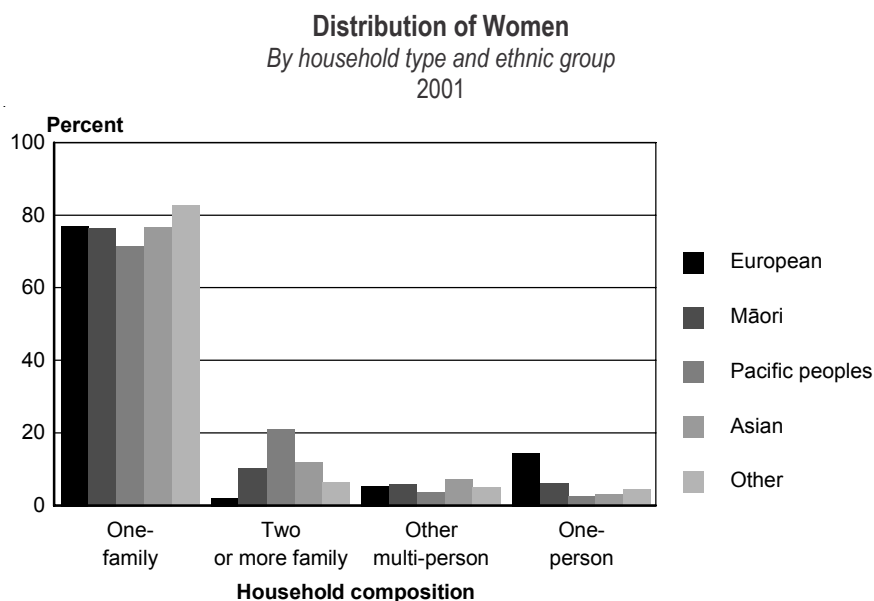
The type of households women live in is influenced to a degree by age. As Figure 2.16 shows, women of all ages were most likely to live in one-family households, but the proportions differ. Women in their late teens and 20s were more likely than women of any other age to live in flatting situations and therefore less likely to be found in one-family households. One-person households show a constant increase with age – in 2001 just 3 percent of women aged 20–24 years lived by themselves, this increased to 43 percent of those aged 65 years and over. The marked decrease of women in one-family households for those aged 60 years may be a result of women living longer than their partners and consequently moving from a couple only household to a one-person household.

The proportion of women living in one-family households peaks at two stages of women’s lives. The first occurs for women aged 15–19 years. These

women are likely to be living in their parents’ home. The second peak occurs between the ages of 30 and 50, when women have families of their own. The proportion of women in two or more family households remains relatively constant across all ages.

As Figure 2.17 shows, some differences existed in household composition of women by ethnicity. One-family households were most common for women in each of the major ethnic groups. Eighty-three percent of women in the Other ethnic groups were found in this household type, compared with Pacific women who were the least likely (72 percent). The remaining ethnic groups all had the same proportion of women in one-family households (77 percent). Pacific women were more likely than women from any of the other major ethnic groups to be living in a two or more family household (21 percent); this may be a result of the continuation of cultural preferences and/or as a way of reducing the costs of

Figure 2.17



accommodation. Māori and Asian women also had reasonably high proportions living in two or more family households; around one in 10 women in both these ethnic groups were found in this household type. European women, at 2 percent, were the least likely to be living in households containing two or more families. Fifteen percent of European women in 2001 were living in one-person households – more than double that of any other ethnic group. This may be due to the older age structure of the European population and increased longevity, a difference in cultural values and/or a lack of extended family to live with. It may also reflect the ability of this population to live near family in a separate dwelling, for example a granny flat.

New Zealand women were most commonly found in small households, with slightly under a third (32 percent) living in households with just two usual occupants. By comparison, less than one in 10 lived in a household with six or more usual residents (8 percent). In 2001, the average household size women lived in was 3.1 usual residents. European women tended to live in smaller households than those of other ethnicities, averaging 2.9 occupants. Māori lived in slightly larger households averaging 3.9 occupants, followed by Asian and Other, both with an average of 4 occupants. Pacific Island women on average lived in the largest households with 5.1 usual occupants.

The small average size of households in which European women live may be attributable to their ageing population. Proportionately more European women are in older age groups and are therefore more likely to live alone. Income may also play a part in determining household size. As the Income chapter of this report shows, European women have higher median annual incomes than women in the other ethnic groups and can therefore exercise greater choice to live in smaller households or alone. At the same time, migration might also explain the high average household size experienced by the Pacific Island, Asian and Other ethnic groups. Recent immigrants in these groups may need, at least for a short time after arrival in New Zealand, to live with extended families or friends while they settle, resulting in larger average household sizes.

### Older women

As illustrated in the Population chapter of this report, women tend to live considerably longer than men and for this reason are more likely to be widowed, live alone and reach a point where they may require

ongoing care in either a retirement home or hospital. Consequently, they have a higher likelihood of living in some form of non-private dwelling.

In 2001, the vast majority (91 percent) of women aged 65 years and over lived in private dwellings, but proportions varied with age. Women aged 65–69 years were more likely to be found in this dwelling type (99 percent) than those over the age of 85 years (66 percent). The decrease in the proportion of women in private dwellings with age corresponds with an increase of those in non-private dwellings; this is largely a result of increased numbers of women living in homes for the elderly and hospitals. A likely result of an increased need for ongoing care often required at the older ages and also a desire for companionship.

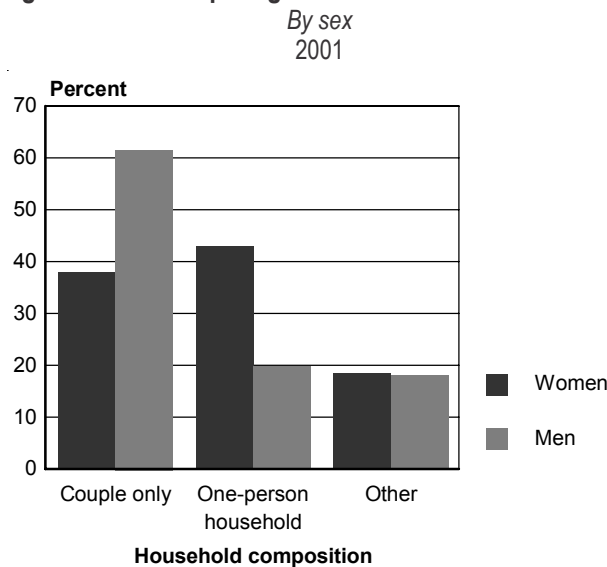
Ninety-three percent of women living in non-private dwellings aged 65 years and over, lived in homes for the elderly, retirement homes and either public or private hospitals. As expected, the proportions of women living in these types of dwellings increases with age. Sixty-five percent of women aged 65–69 years lived in a hospital or home for the elderly, increasing to 96 percent for women aged over 85 years. The remaining 4 percent were in a variety of different non-private household types such as hotels, motels, boarding houses, and motor camps etc.

As Figure 2.18 shows, 38 percent of women aged 65 years and over in private dwellings lived in couple only households, a considerably lower proportion than that for men in the same age group (62 percent). This variation by sex is explained by differences in life expectancy and women forming partnerships with men older than themselves. Women often outlive men meaning that frequently women live without a partner for many years, while older men generally have the benefit of a living partner. For this reason, older women were more than twice as likely as men to be living alone (43 and 20 percent, respectively).

As expected, the types of households that women live in change with age. Women aged 85 years and over were far less likely to be living as part of a couple than those aged 65–69 years (11 and 52 percent, respectively). This is a result of the higher proportions of widows in the older ages or couples being less able to care for themselves. Conversely, women are progressively more likely to be living alone at the older ages – from 27 percent of women aged 65–69 years, to 68 percent of those 85 years and over. The proportion of older women who live in other types of household remained relatively constant at around 20 percent.

Figure 2.18

### Living Arrangements for People Aged 65 Years and Over in Private Dwellings



## Summary

- Over the thirty years from 1971 to 2001, changes in marriage and childbearing patterns have resulted in an increasing proportion of women living in a growing diversity of household types.
- Women are less likely to marry than in the past. In 1971, 65 percent of women aged 15 years and over were legally married; by 2001 this had fallen to 48 percent. This reflects the growing proportion of women who are choosing to remain never married as well as those who are separated or divorced.
- De facto relationships have become more popular; between 1981 and 2001 the proportion of women aged 15 years and over living in a de facto relationship has increased from 4 percent to 19 percent. Māori women are considerably more likely to be living in a de facto relationship than women in any of the other main ethnic groups.
- Women are now considerably more likely to have children outside of marriage. In 2001, 43 percent of births occurred to women who were not legally married compared with just 14 percent in 1971. The growth in ex-nuptial births can be attributed in part to increased numbers of women in de facto relationships.
- Women are now having fewer children than in the past and delaying their childbearing until the older ages. In 1971 the birth rate was highest for women aged 20–24 years at 200.1 births per 1,000 women. In 2001, this group had been replaced as the peak childbearing age group by women aged 25–29 years with a birth rate of 113.3 births per 1,000 women.
- Women are more likely than men to be living alone (13 and 10 percent, respectively). This is a likely consequence of women's longer life expectancy compared with men.
- In 2001, the most common family role for women was that of a parent in a two-parent family (29 percent), while 11 percent of women were sole parents
- At the time of the 2001 Census, the majority of women aged 15 years and over lived in one-family households (77 percent). Within this group the most common type of households women lived in were couples with children (42 percent), followed by couple-only households and one-parent households (31 and 13 percent, respectively).
- The ethnicity of women greatly influences their likelihood of living in an extended family. Pacific women were more likely to live in this type of family than women identifying with the other main ethnic groups, followed Asian and Māori women. Difference by ethnicity is likely to be a result of differing social norms and traditions associated with different ethnic groups as well as economic necessity.
- The proportion of older women in private households decreases with age from 99 percent of women aged 65–69 years to 66 percent of those aged 85 years and over. This decrease is largely the result of increased numbers of women living in homes for the elderly and hospitals.



*Chapter 3*

# Education

## Chapter 3

# Education

Education is a primary means of developing a wide range of skills and knowledge. Acquiring a good education is widely regarded as key to economic and social advancement and the means by which many aspects of human life can be enhanced. Education broadens the options available to women in their lives; it also enhances their sense of self-worth, security and belonging.

Historically, women received less formal education than men and this has placed them at a disadvantage, particularly in the labour market. In recent decades gender disparities in education have been decreasing and women have caught up to men in both participation and attainment levels. Women are now participating in larger numbers, attaining better grades and achieving higher qualifications than their male counterparts. Many of the ethnic disparities that exist are showing signs of narrowing, with Māori and Pacific women closing the gap with European and Asian women.

The growing importance of a degree qualification in establishing a career and the increasing accessibility of degree courses has resulted in an increase in the number of people with degree qualifications. It has become possible to obtain a degree as a part-time student, and/or a correspondent/extramural student from almost all tertiary providers, rather than just universities. There is also a wider range of degree courses available now than 30 years ago, and the introduction of summer semesters has enabled fast-tracking of tertiary education. Many of these changes have been particularly attractive to women and have encouraged them to undertake study at different ages.

### Early childhood education

Access to affordable early childhood education (ECE) is an important issue for women, who tend to have the primary responsibility for the care and education of young children. Most early childhood services in New Zealand have evolved from individual and community initiatives, resulting in a diverse early childhood education system. Since 1986, early childhood education and childcare services have been integrated and are part of the formal educational system.

ECE includes kindergartens, playcentres, education and care services, te kōhanga reo, Pacific early childhood groups and other funded play groups. Some services give primary caregivers the opportunity to take up other activities, such as paid employment, training, voluntary work or recreation.

Participation in early childhood education is now common for children under five. Figures from the Ministry of Education show that in 2001 the apparent participation rate for children of this age was 60 percent. It is important to note here that this count will include children more than once if they are enrolled in more than one type of ECE service at the same time. Apparent participation rates varied considerably by age, from just 15 percent of those aged under one year to 99 percent of four-year-olds. This may reflect both the type of ECE services available for children of different ages and women's desire to not work while their children are very young. Women tend to move back into the paid workforce either full- or part-time once their children are older.

Between 1991 and 2001 the total number of enrolments of children aged under five increased by 36 percent, from 126,134 in 1991 to 171,333 in 2001, although once again, these numbers can multi-count children who are enrolled in more than one type of ECE service at the same time. This increase may indicate the increasing support for formal ECE in New Zealand, as well as women returning to the paid workforce either by choice or economic necessity.

The type of ECE parents enrol their children in is influenced by a number of factors. Some services have a strong language and cultural aspect, such as te kōhanga reo and Pacific early childhood groups which may be particularly attractive to the parents of Māori and Pacific children. Whether the early childhood service provides full- or part-time care and the amount of parental involvement required also influences the choice of childcare. Some types of care are more demanding of parents' time and require a great deal of parental involvement. This may suit some parents but may limit accessibility for others, especially those in paid employment. Affordability of care and the availability of places in preferred types of ECE also affect the type of early childhood education parents enrol their children in. Finally, some types of early childhood care such as kindergarten cater for particular age groups, limiting those who can participate.

There is little difference in the type of ECE participated in by sex. In 2001 education and care services<sup>1</sup> were the most popular form of early childhood education, with 43 percent of girls enrolled in some type of care using this service. Kindergartens were the second most popular childcare type (27 percent), followed by ECE-funded playgroups and playcentres (9 and 8 percent, respectively).

(1) Education and care services provide seasonal, all-day, or flexible hour programmes for children from birth to school age. They may be privately owned, non-profit making, or operating as an adjunct to the main purpose of a business or organisation.

Table 3.01

**Distribution of Enrolments of Girls in Early Childhood Education***By ethnic group  
2001*

Type of Service	Kindergartens	Playcentre	Education & Care Service	Te Kohanga Reo <sup>#</sup>	ECD** Funded Playgroups	ECD** Funded Pacific Early Childhood Groups	Other*
Percent							
European	26.3	10.2	<b>45.8</b>	0.0	11.1	0.0	6.6
Māori	24.0	5.2	30.9	<b>31.1</b>	4.5	0.1	4.2
Pacific peoples	30.7	2.8	<b>39.0</b>	0.0	3.1	23.0	1.4
Asian	36.7	5.3	<b>46.8</b>	0.0	8.7	0.0	2.5
Other	24.8	4.6	<b>51.1</b>	0.0	10.4	0.0	9.1
Total	26.7	8.5	<b>42.8</b>	5.6	9.3	1.5	5.7

Source: Ministry of Education

\* Includes home-based childcare, nga puna kohungahunga, and Correspondence School.

\*\* Early Childhood Development promotes early childhood education for children and their families.

# Includes both licensed te kohanga reo and licence-exempt te kohanga reo.

As Table 3.01 shows, excluding Māori, the largest proportion of girls of each ethnic group were enrolled in education and care centres, with kindergartens the second most populated of these groups. For Māori, nearly a third of all girls in ECE were enrolled in te kohanga reo services, making it and education and care services (30.9 percent) the two most popular choices of early childhood education facilities for this ethnic group. Twenty-three percent of Pacific girls enrolled in early childhood education attended Pacific early childhood groups.

### Primary schooling

Throughout the primary school years, the official curriculum is the same for all students in New Zealand schools. This was not always the case: up to the mid-1970s the form one and two curriculum prescribed homecraft and sewing for girls and woodwork and metalwork for boys. Equal access to technical training at this level may account for the increased representation of boys in Year 9 home science classes. In 1971 boys represented just 4 percent of all students studying this subject; by 1991 this had increased to 26 percent. In 2001 boys made up 43 percent of all Year 9 students studying home economics.

### Secondary education

Analysis of secondary education begins with students aged 15 years and older, as there is little difference between the participation rates of females and males until this age. This is in part due to the compulsory nature of schooling up to the age of 16, resulting in near-universal participation rates for young men and women. Until legislation was passed in 1992 and came into effect in 1993, the school-leaving age in New Zealand was 15. In practice, the conventional leaving age had moved past this, and

in 1971 the vast majority of 15-year-olds were still in school. By 1991 this was also true for those aged 16. Small variations do exist, however, in ages below 16 years, as small numbers of young people under this age were awarded early exemption for special circumstances. This may have included those who had found employment or who had been accepted at tertiary institutions.

### Participation and attainment

As Table 3.02 shows, in 1971 young women were less likely than young men at every age to stay at secondary school beyond the compulsory leaving age, especially over the age of 16. During the 1970s young women aged 16–18 made substantial gains in school participation, so that by the 1980s the proportion of young women attending school was nearly equal to that of young men. By 1991 a higher proportion of young women than men aged 15–17 were participating in secondary education, a trend that continued in 2001.

The rise in the proportion of 17-year-olds attending school is of particular importance, because by this age they will have had four to five years of secondary education. In 1971 fewer than one in five or 19 percent of females aged 17 years were still in school, increasing to just under three in five or 57 percent in 2001. In comparison, 30 percent of men aged 17 years were in secondary education in 1971, increasing to 52 percent in 2001.

Many complex and interrelated factors influence the attendance of young people at school. Historically, the New Zealand labour market has influenced these numbers. An unfavourable labour market and high unemployment may have encouraged people to stay at school; conversely, a favourable market may have encouraged young people to leave school and

Table 3.02

**Secondary School Participation***By age and sex  
1971–2001*

Age	Sex	1971	1981	1991	2001
15 Years	Female	85.8	91.1	96.1	92.4
	Male	87.8	88.3	93.4	90
16 Years	Female	54.4	70.6	85.9	79
	Male	60.2	67.6	82.6	73.3
17 Years	Female	18.7	33.1	55.4	57.2
	Male	30.3	34.7	53.6	51.7
18 Years	Female	2.1	5.5	10.4	11.7
	Male	6.1	7.4	12.6	12.4

Sources: Statistics New Zealand, *All About Women in New Zealand, 1993*

Ministry of Education, *2001 participation rates*.

Statistics New Zealand, Estimated Resident Population of New Zealand by Age at 30 June 2001.

venture into employment. Various law changes may also have impacted on school participation levels. Under the 1990 welfare reforms, the age of eligibility moved from 16 to 18 years for both the unemployment and domestic purposes benefits. These changes may have discouraged young people from leaving school. In recent years, the greater availability and variety of tertiary courses provided by polytechnics and private tertiary establishments have influenced secondary participation levels. Tertiary institutions may be an appealing alternative to secondary school for students seeking alternative training schemes, or wishing to combine employment and education.

### Exam subject participation and attainment

The following analysis looks at the participation and attainment of all candidates, including adult students, unless otherwise stated.

Attainment is the number of students who obtained a certain grade in a given subject divided by the total number of students taking that subject.

The selection of subjects was made by taking the top 10 subjects for females, top 10 subjects for males and the core subjects of mathematics, science and English – both externally and internally assessed – where they were not already included in a top 10 list.

Despite increased diversity in the subjects offered at school, traditional subjects still play a large part in subject selection, though to a lesser extent than in the past. In 2001 the percentage of School Certificate candidates for the core subjects of mathematics, English and science was similar for both sexes. The most popular subjects for females, apart from core subjects, were text and information management (25 percent), geography (23 percent) and art (21 percent). In comparison, the most

popular subjects for males were design technology (24 percent), geography (23 percent) and graphics (17 percent).

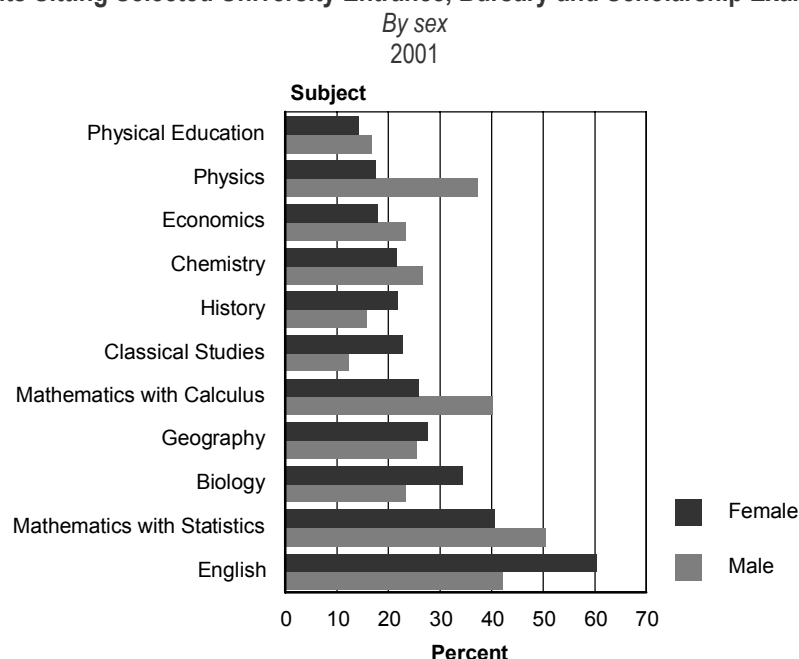
Changing perceptions of men's and women's roles reflect changing participation in traditionally male or female subjects. For example, in 1991 young women made up 75 percent of students enrolled in School Certificate home economics; by 2001 only 70 percent of young women were candidates for the now renamed food and nutrition examinations. In 1991 young women made up just 14 percent of students enrolled in School Certificate technical drawing. By 2001, 26 percent of young women were candidates for the now-renamed graphics examination.

Sixth Form Certificate participation also centred on the core subjects of mathematics, English and science. At this level of study, science is divided into the three disciplines of biology, chemistry and physics. Some differences in participation rates occurred within these core subjects, although English and mathematics were still the most popular for both sexes. After these subjects, biology (34 percent), chemistry (20 percent), geography (16 percent) and physics (15 percent) were the preferred subjects for young women in 2001. Physics (32 percent), chemistry (21 percent) and biology (20 percent) were the subjects favoured by young men.

As Figure 3.01 shows, the percentages of young women and men taking particular subjects show significant differences at University Entrance/Bursary/Scholarship levels. In 2001 more young women were candidates for the English examination (60 percent) than their male counterparts (42 percent). Young women were also more likely than men to sit biology (34 and 23 percent, respectively) and classical studies (23 and 12 percent, respectively). Young men were more likely to sit

Figure 3.01

**Students Sitting Selected University Entrance, Bursary and Scholarship Examinations**



Source: New Zealand Qualifications Authority

physics, 37 percent compared with 17 percent of young women, as well as mathematics with calculus (40 percent compared with 26 percent).

This report measures the achievement of School Certificate as the proportion of students who achieved an A, B or C grade in the subject. In 2001 pass rates for young women and men at this level was within a few percentage points in subjects such as history, geography, science, accounting and maths. However, young women outperformed young

men in some subjects. Eighty-five percent of young women candidates passed the art examination with an A, B, or C pass, compared with 69 percent of young men, a difference of 16 percent. Young women also had a higher pass rate than young men in design technology (by 17 percent), English (by 13 percent) and food and nutrition (by 21 percent). Males outperformed females in biology at School Certificate level by 13 percent. Examination of the A grade passes achieved in 2001 in the core subjects of English, mathematics and science show that a

Table 3.03

**Candidates Sitting Examinations and Attainment in Selected University Entrance and Bursary Subjects**

By sex  
2001

Subject	Participation		Attainment	
	Female	Male	Female	Male
English	60.2	42.0	42.7	32.0
Mathematics with Statistics	40.4	50.3	40.8	43.0
Biology	34.2	23.2	42.0	37.9
Geography	27.4	25.3	34.6	32.5
Mathematics with Calculus	25.7	40.0	49.1	47.6
Classical Studies	22.7	12.2	43.6	32.9
History	21.7	15.7	40.6	38.1
Chemistry	21.4	26.5	49.6	53.5
Economics	17.8	23.2	38.3	45.9
Physics	17.4	37.1	53.7	47.0
Physical Education	14.1	16.6	28.6	19.9

Source: New Zealand Qualifications Authority

Selection based on top 10 subjects for females, top 10 subjects for males and the core subjects of mathematics, science and English – both externally and internally assessed.

greater proportion of young women gained an A pass in English (8 percent) compared with young men (3 percent). There was only a marginal difference in science (9 percent for females and 8 percent for males), but more males than females earned an A grade pass in mathematics (13 percent and 11 percent, respectively).

Attainment of Sixth Form Certificate was defined as those achieving a grade between 1 and 5. In most subjects, more young women attained the grades 1–5 than young men, particularly in food and nutrition (by 28 percent), design technology (by 20 percent), graphics (by 16 percent) and English (by 13 percent). Young men out-performed young women in computer studies (by 6 percent).

Attainment at University Entrance Bursary levels as indicated in Table 3.03 shows that 43 percent of females and 32 percent of males achieved an A or B scholarship in English and 44 percent of females and 33 percent of males in classical studies, a difference of 11 percent. Females also had more passes in physical education than males (8 percent). Males attained 8 percent more grades in economics than females. In all other subjects, there were only marginal differences between the sexes.

### School leavers

Ministry of Education data shows that in 2001, 83 percent of school leavers left with a school qualification. Young women were more likely to leave school with a qualification (86 percent) than their male counterparts (81 percent). Eighteen percent of all students left school having achieved an A or B Bursary or National Certificate Level 3. Thirty-seven percent of students left with a qualification usually

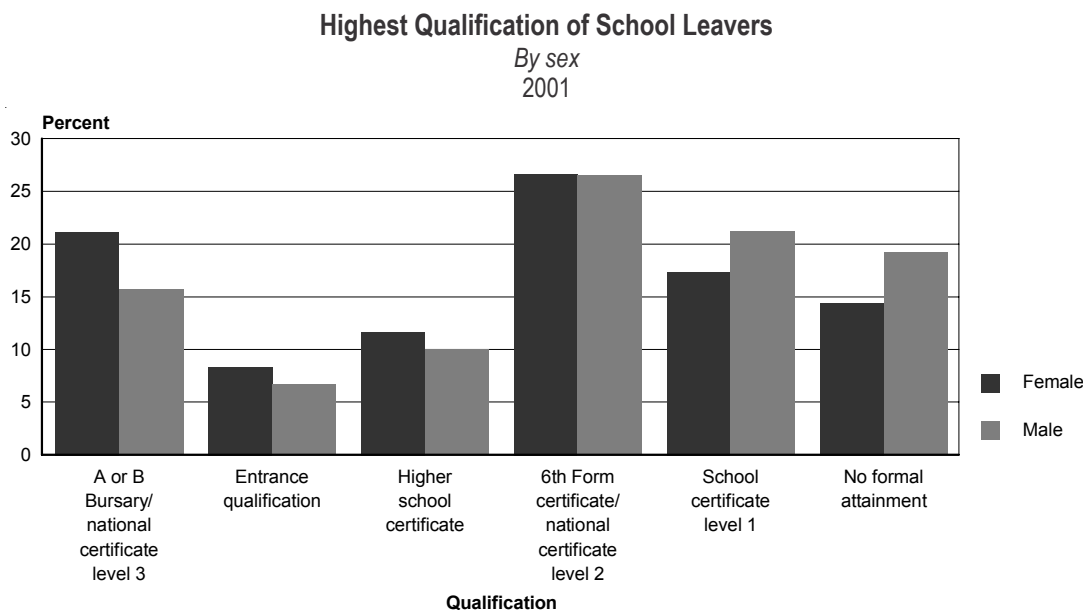
obtained after five years of secondary school education (A or B Bursary, National Certificate Level 3, University Entrance qualification, or Higher School Certificate.)

Not only were young women more likely than young men to leave secondary school with a qualification, they were also more likely to have gained a higher qualification, as Figure 3.02 shows. In 2001, 41 percent of young women left school having achieved an A or B Bursary, National Certificate Level 3, a University Entrance qualification or Higher School Certificate, compared with only 33 percent of their male counterparts. Higher proportions of women left with an A or B Bursary in 2001 than men (21 and 16 percent, respectively). Young men were more likely than women to leave school without formal qualifications (19 and 14 percent, respectively) or with just School Certificate (21 and 17 percent, respectively).

Differences also exist in the attainment levels of school leavers from different ethnic groups. In 2001, women of Asian ethnicity were the most likely to leave school with an A or B Bursary, National Certificate Level 3, a University Entrance qualification or Higher School Certificate, with 69 percent having achieved one of these qualifications. European women were the next most likely (46 percent), followed by Pacific women (28 percent) and Māori women (18 percent).

In 2001, young Māori women were the most likely to leave school with no qualifications (30 percent), followed by Pacific women (21 percent) and European (10 percent). Asian women school leavers were the least likely to leave school without a qualification (6 percent).

Figure 3.02



Source: Ministry of Education

### Stand-downs and suspensions

A stand-down is the formal removal of a student from school for a specified period. Stand-downs of a student may total no more than five school days in any term, or 10 days in a school year. Following their stand-down, students return automatically to school. The suspension of a student is the formal removal of a student from school until the board of trustees decides the outcome at a suspension meeting. Following a suspension, the board may decide to lift the suspension with or without conditions, to extend the suspension, or to either exclude (formal removal of a student aged under 16, with the requirement that the student enrol elsewhere) or expel (the formal removal of a student aged 16 or over from school, although he or she may enrol in another school) the student.

In 2001 the total number of stand-downs and suspensions for secondary schools were 11,933 and 3,743, respectively. Young women were greatly outnumbered by young men in both stand-downs and suspensions across all age groups. Fourteen-year-olds were the most likely age group at secondary school to be stood down and suspended, particularly males, who accounted for just over two-thirds of both stand-downs (69 percent) and suspensions (68 percent). In this age group, 108.3 male students per 1,000 were stood down, compared with 49.7 female students per 1,000 in 2001. Although there were fewer suspensions, the difference between the sexes in this age group was similar, with 38.6 males and 18.9 females per 1,000 students suspended in 2001.

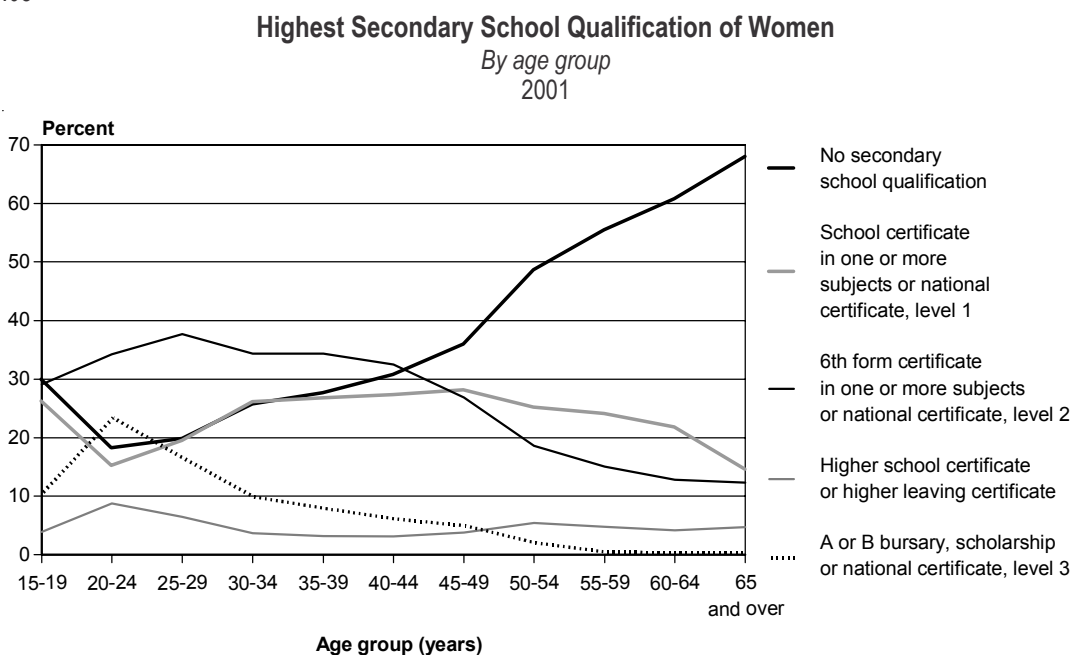
### Highest school qualification

The Census of Population and Dwellings collects data on the highest secondary school qualification for the population aged 15 years and over. In 2001, 66 percent of women and 63 percent of men aged 15 years and over had a secondary school qualification. While examining secondary attainment is useful because it provides an indicator of the population's basic level of academic skill, it is important to note that many people with no or low school qualifications may have undertaken tertiary study to up-skill rather than returning to school study.

Overall, between 1991 and 2001 the proportion of women aged 15 years and over without a secondary school qualification decreased at every age, with one of the most significant decreases occurring for those aged between 40 and 49 years. In 1991 more than half of women aged 40–44 years and 45–49 years did not have a secondary school qualification; by 2001 this had decreased substantially, to 31 and 36 percent, respectively. This suggests that cohorts of women who were more likely to have completed secondary school education are now moving through to the older age group. The migration of more highly-skilled women into New Zealand will also have influenced the figures. The Education Act, which was introduced in 1975 and allowed adults to return to full or part-time study at secondary school, may also have contributed slightly to this increase.

The distribution of qualifications has changed in recent years, with a shift towards higher school qualifications. The proportion of women aged 15 to

Figure 3.03



Source: Statistics New Zealand

39 years with School Certificate as their highest secondary school qualification decreased over the 10 years from 1991 to 2001, while the proportion with Sixth Form Certificate and A or B Bursary or Scholarship increased. The proportion of women aged over 40 with School Certificate or Sixth Form Certificate as their highest secondary school qualification has increased, as has the proportion of women aged 40–54 with A or B Bursary, Scholarship or National Certificate Level 3.

As Figure 3.03 shows, the proportion of women with no qualifications increases with increasing age. Women aged 20–24 years were the least likely to have no formal school qualification (18 percent), compared with 68 percent of those aged 65 years and over. This may reflect changes in the labour market; women in the older age groups would not have needed to be highly qualified to secure employment in the past, due to the higher numbers of unskilled jobs available, and less pressure and expectation to participate in the labour force.

The proportion of females with an A or B Bursary as their highest school qualification is significantly higher for those in the younger ages. Just 2 percent of women aged 50–54 years achieved such a qualification, compared with 24 percent of those aged 20–24 years. The shift towards a highly skilled labour force and the increasing social desirability of a better education has encouraged women to stay on at school longer to gain higher qualifications.

## Tertiary education

New Zealand has an integrated tertiary education system that covers university, vocational, further and other forms of post-secondary education. The major providers of tertiary education are universities, polytechnics, colleges of education or wānanga (Māori tertiary institutions) and private training establishments (PTEs).

Universities are public tertiary education institutions that are primarily concerned with advanced learning and knowledge, research, and teaching to a postgraduate level. Polytechnics are public tertiary education institutions, characterised by a wide diversity of vocational and professional programmes. Colleges of education are public tertiary institutions that are largely focused on the provision of teacher training. In the modern context, wānanga are tertiary educational institutions that provide programmes and opportunities within a Māori environment, with an emphasis on the application of knowledge

regarding ahuatanga Māori (Māori tradition) according to tikanga Māori (Māori custom). Private training establishments are organisations that are owned by trusts or private owners and are registered with the New Zealand Qualifications Authority.

Women are now more highly represented in the tertiary education sector than ever before. A change in attitude towards post-secondary education and a different employment environment has seen the number of tertiary students grow rapidly over the 30 years from 1971 to 2001. In 2001<sup>2</sup>, 287,461 people were enrolled in formal qualifications at tertiary education providers, of which 163,606 (53 percent) were women. In 1971 data was collected only for participation in universities, polytechnics and colleges of education. In that year women made up just 30 percent of all tertiary enrolments.

As Table 3.04 shows, the distribution of female enrolments was not even across provider types. Women in both 1971 and 2001 were more likely to be enrolled in universities than in any other type of tertiary institution (43.6 and 42.8 percent, respectively). Over the 30-year period, the greatest change has taken place in colleges of education, where the number of women enrolled has declined from 22.2 percent of all female enrolments in tertiary education in 1971 to just 5.2 percent in 2001<sup>3</sup>. The

Table 3.04

### Women in Tertiary Education

By sector  
1997 and 2001

Tertiary sector	Women as a percentage of enrolments in each sector		Distribution of female enrolments by sector %	
	1971	2001	1971	2001
Polytechnics	19.6	54.6	34.1	29.4
Colleges of Education	76.7	78.7	22.2	5.2
Universities	32.9	55.7	43.6	42.8
Wānanga	...	70.6	...	4.9
Private Training Establishments	...	56.1	...	17.7
<b>Total</b>	<b>29.8</b>	<b>56.9</b>	<b>100.0</b>	<b>100.0</b>

Sources: Statistics New Zealand, *All About Women in New Zealand*, 1993

Ministry of Education

**Symbol:**

... Not applicable.

(2) These data and many of the other enrolment counts in this chapter are derived from a census of enrolments on 31 July in the year concerned. This is an undercount of the actual numbers in any year. Refer to *New Zealand's Tertiary Education Sector: Profile and Trends 2003*, Ministry of Education (2004), for trends in full-year enrolments

(3) The trend is influenced to an extent by the fact that two of the six colleges of education that existed in 1971 were disestablished during the 1990s, with their qualifications absorbed by neighbouring universities.

Table 3.05

## Tertiary Institution Participation Rates per 1,000 Women

By age group  
1991 and 2001

Tertiary institution	1991 <sup>(1)</sup>				2001			
	Rates per 1,000 women							
	15–17	18–24	25+	Total (15+)	15–17	18–24	25+ (15+)	Total
Private training establishments	...	...	...	...	28.7	43.5	9.4	14.0
Polytechnics	27.9	72.6	12.7	22.4	25.1	86.6	21.4	28.6
Colleges of education	0.4	15.8	3.2	4.9	0.5	15.4	4.0	5.1
Universities	3.9	133.0	18.4	34.3	10.9	212.3	21.6	41.7
Wānanga	...	...	...	...	5.5	9.1	4.1	4.7

Sources: Ministry of Education

Statistics New Zealand National Population Estimates, June 2001 quarter

(1) No data was collected for PTEs and wānanga in 1991.

**Symbol:**

... Not applicable.

increase in the types of tertiary providers available, such as private training establishments and wānanga, has affected the pattern of distribution. Women now have greater choice across tertiary institutions to meet their educational needs. The newer types of institution often offer different learning styles and the flexible hours that are essential to women trying to balance work and family life.

As Table 3.05 shows, in 2001 private training establishments now have a significant influence on participation rates<sup>4</sup> in tertiary education. For young women aged 15–17, they were the most favoured type of training establishment, with 28.7 per 1,000 women of that age attending this type of tertiary institution. Since 2001 enrolments at PTEs have flattened, while wānanga have grown very significantly. A possible explanation for the popularity of private training establishments, particularly in younger age groups, is that they provide young people with an alternative to secondary school education and a chance to gain skills in specific areas without necessarily having completed five years of secondary school.

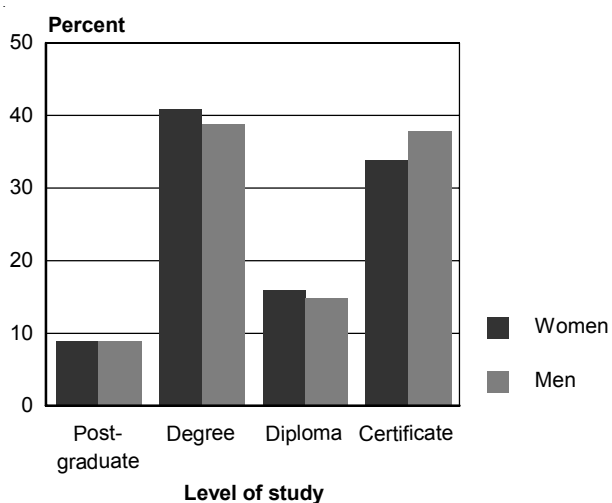
Tertiary education participation rates are highest in the core age group of 18–24 years, although there has been significant growth in older age groups. Over the sector as a whole, the core age group no longer represents the majority of students, and one-third of all growth in the last decade has been among the over-40s. Women aged 18–24 had the highest rates of participation at university, with 212.3 per 1,000 women that age attending. This is considerably higher than for those aged 25 years

and over, who have a rate of just 21.6 per 1,000 women that age. This suggests that participation at university is most common among younger women who have completed secondary schooling and wish to continue their education.

There has been an increase in the proportion of women aged 25 years and over undertaking study in every type of tertiary institution in the period 1991–2001. Women aged 25 years and over had a participation rate of 34.3 per 1,000 women of in 1991, which increased to 60.6 per 1,000 in 2001. The high participation rates of women over the age of 25 in

Figure 3.04

## Distribution of Level of Study

By sex  
2001

Source: Ministry of Education

(4) Participation rates have changed since 2001. Consult Ministry of Education (2004) *op cit* for a more detailed and up-to-date view of participation rates.

tertiary institutions may reflect large groups of women continuing study later in life or perhaps beginning to study. It may also point to a general need to upskill throughout life in order to sustain and improve employment prospects. The increased flexibility in training options now offered by many newer tertiary institutions, particularly those that provide the opportunity to study from home, may be particularly attractive to women trying to balance work and family life.

As Figure 3.04 shows, women were more likely to study at some qualification levels than others in 2001. They were most likely to be enrolled in a degree level qualification (41 percent), followed by certificate level (34 percent), then diploma and post-graduate courses (16 and 9 percent, respectively)<sup>5</sup>. Women were more likely to be enrolled in a degree or diploma-level course than men, but were less likely to be enrolled in certificate-level courses.

Postgraduate studies have become more popular in recent years. This reflects students' growing interest in gaining higher qualifications to improve their job prospects or to make progress in their chosen career. The higher numbers of undergraduate students are also more likely to contribute to the increasing number of people choosing to continue into post-graduate studies. In 2001 similar percentages of women and men were enrolled in doctorate-level qualifications (48 and 52 percent, respectively)<sup>6</sup>. This indicates that women are now participating at the highest level of education at similar levels to men, and have made considerable progress since 1971, when women accounted for just 12 percent of doctoral enrolments.

### Full-time and part-time students

A full-time student is defined as having an Equivalent Full Time Student (EFTS) enrolment value of 0.8 or greater for a full-year programme. This report uses the same definition of part-time students used for the purposes of a student loan full-interest write-off, which includes enrolment in any course that is not full-time (that is, less than 0.8 EFTS).

In 2001 women were more likely to be studying full-time (54 percent) than part-time (46 percent). While men had a similar result, there was a more significant difference (60 and 40 percent, respectively).

Some types of tertiary institution had higher proportions of women enrolled in part-time study. Women enrolled at wānanga were the most likely of all types of tertiary institution to be studying part-time (77 percent), followed by those at polytechnics

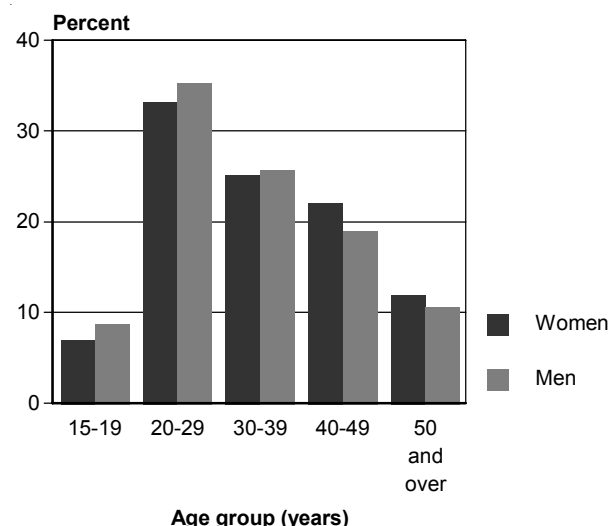
(55 percent), colleges of education (49 percent) and PTEs (47 percent). Women enrolled at universities were the least likely to be studying part-time (36 percent). The dominance of some types of institution in part-time study may be a result of a conscious decision on the part of the institution to attract women who may not have had the option to study previously due to family and/or work commitments.

### Industry training

Industry training is education and training arranged by an Industry Training Organisation (ITO) in the workplace and/or with a registered and accredited tertiary education provider – mostly polytechnics and PTEs. A person is eligible to engage in industry training if they are employed and their employer has signed a training agreement with the ITO and the employee.

Data from the Tertiary Education Commission shows that women generally make up the minority of trainees in most industries, except for service and care-related industries such as hairdressing and community services. In 2001 the 22,345 women who participated in industry training at some stage during the year made up just under a quarter (23.5 percent) of all people who participated in industry training that year. This is an increase from 1992, when women made up just 12 percent of industry trainees.

Figure 3.05  
Age Distribution of Those Participating in Industry Training  
By sex  
2001



Source: Tertiary Education Commission

Note: Figures include all those participating in industry training in that year.

(5) Since 2001, this balance has changed. In 2003, using full-year data, the proportion of women's enrolments at each qualification level were: certificate 58 percent; diploma 13 percent; degree 31 percent; postgraduate 7 percent. Totals do not add up to 100, as students may have been enrolled in more than one educational level at the same time.

(6) The 2003 figures show that 50 percent of all doctoral enrolments were by women.

In 2001, 9,498 National Certificates were achieved by people undertaking industry training; of these, 21.8 percent (2,066) were awarded to women. The level of National Certificate achieved varied by sex, with women most likely to be awarded a level two certificate (40.1 percent) and men more likely to achieve a level four certificate – indicating that men are achieving higher levels of industry training.

As Figure 3.05 shows, the age distributions of those participating in industry training vary slightly by sex. Both women and men were most likely to be participating in industry training between the ages of 20 and 29 (33.3 and 35.4 percent, respectively), but women had a slightly older age distribution, with proportionately more in the 40–49 and 50+ age groups (22.2 and 12.1 percent, respectively) than men (19.1 and 10.7 percent, respectively).

In 2000 the Modern Apprenticeships scheme was introduced, with the aim of encouraging young people aged 16–21 to take up and complete apprenticeships. The scheme was formalised in 2001, and in December of that year just 6.2 percent (128) of 2,049 apprentices involved in the programme were female. One possible cause of lower female participation in Modern Apprenticeships is that several industries with high female participation are not included, such as hairdressing, community support services, building service contractors, social services and sport and fitness recreation.<sup>7</sup>

### Graduates

Female students were awarded 60 percent of all qualifications in 2001, which was slightly higher than

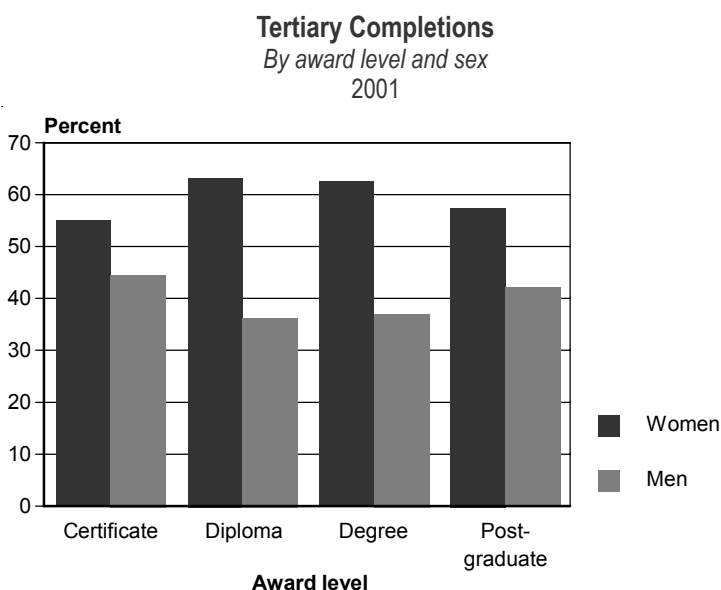
their share of enrolments in tertiary education that year (57 percent). Proportionately, women were slightly under-represented in the number of graduates at certificate (55 percent) and postgraduate levels (58 percent). They were awarded 63 percent of qualifications at diploma and degree levels, as shown in Figure 3.06.

Although women gained the majority of qualifications, they were far less likely than men to complete a doctorate-level qualification in 2001. Just over four in 10 or 41 percent of doctorate level qualifications were awarded to women. Since 2001, the proportions have changed, with 48 percent of PhD completions in 2002 and 45 percent in 2003 being by women.

A greater number of women graduated at every award level than men. In 2001, 5,542 female students graduated with a postgraduate qualification, compared with 4,071 males. Of women who graduated in 2001, the majority completed a certificate qualification (43 percent), followed by a degree (31 percent), diploma (15 percent) and postgraduate qualification (11 percent).

Women also have a higher rate of qualification completion than men. Of those who started their qualifications in 1999, 54 percent of women had completed by 2003, compared with 45 percent of men. The greater completion rate by women was evident at every level except masters (55 percent for women against 58 percent for men) and doctorate (where the five-year completion rates by men and women were equal at 60 percent).

Figure 3.06



Source: Ministry of Education

(7) Curson R, Green N and Hall D (2004), 23–24.

## Loans

The Student Loans Scheme was introduced in 1992 as part of a government strategy to increase participation in tertiary education. Despite an initial reluctance to take up student loans, the number of student loan clients in each year has increased dramatically, from 44,202 in 1992 to 148,174 in 2001. The increase is a result of both larger proportions of students taking out student loans and growing numbers of students. Since borrowing began under the scheme, women have borrowed less each year on average than men. The average amount borrowed by women in 1992 was \$3,586, while for men it was a little more (\$3,665). In 2001 the average amount borrowed by men was \$6,576, which was \$825 more than that borrowed by women (\$5,751). Borrowing has therefore increased less for women (60 percent) since the scheme began, compared with 79 percent for men.

The average amount borrowed by both sexes has increased since the scheme began, the only exception being in 1999, when policies aimed at curbing unnecessary borrowing were introduced. In 2000 the average amount borrowed had increased to more than the previous high experienced in 1998. The trend towards increased levels of borrowing continued for men in 2001, while the average amount borrowed by women dropped in 2001.<sup>8,9</sup>

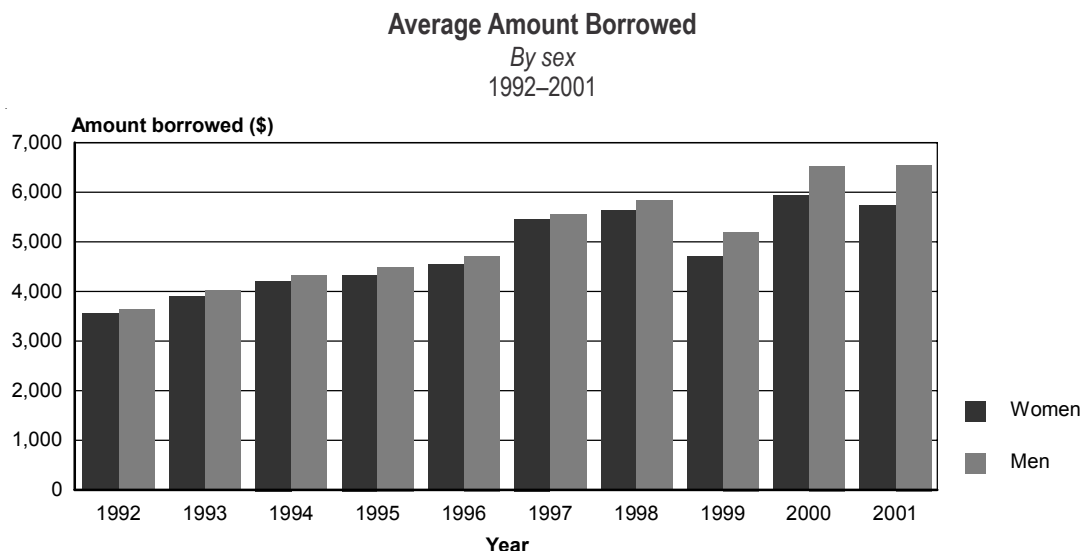
Since 1994 the number of women borrowing money through the Student Loans Scheme has been higher than that of men. In 2001 women accounted for 57 percent of all borrowers. However, when differences in numbers of students by sex are taken into account, it is clear that the sexes are equally likely to take out a student loan (43 percent).<sup>10</sup>

## Qualifications

The increase in the numbers of women and men with degrees reflects the growing importance of a degree qualification in establishing a career, and the increasing accessibility of degree courses. Government funding policies since 1990 have significantly eased the restrictions on access to university qualifications that characterised the 1980s. It has also become increasingly possible to obtain a degree as a part-time student and/or a correspondent/extramural student, and through polytechnics rather than just universities. There is also a wider range of degree courses available now than 30 years ago, and the introduction of summer semesters has enabled fast-tracking of tertiary education.

Fewer women in New Zealand have degrees than men, but the gap is closing as higher numbers of women complete tertiary courses. In 1971 only 1 percent of the female population aged 15 years and

Figure 3.07



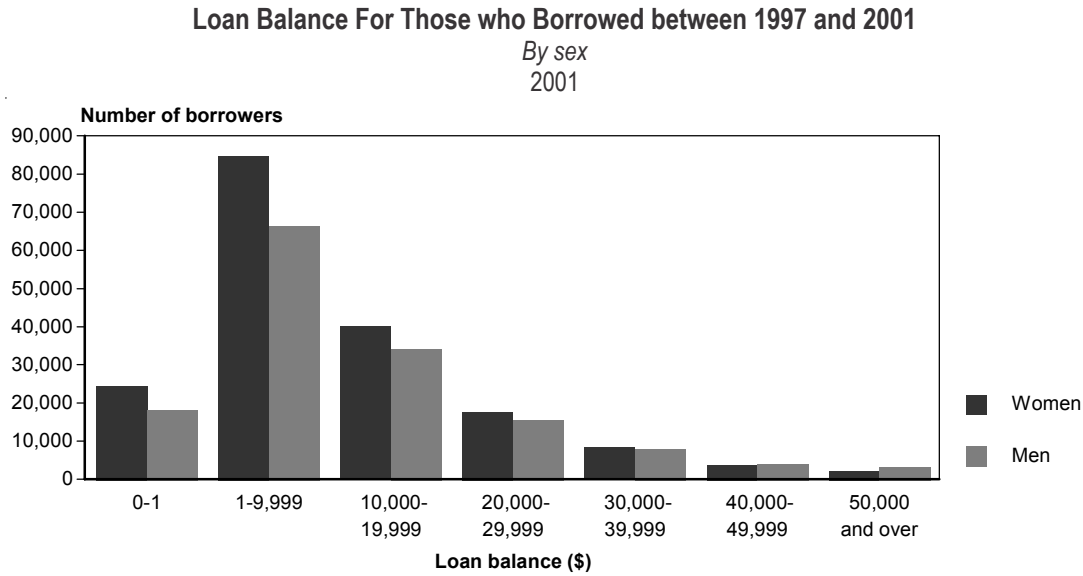
Source: Ministry of Education and Ministry of Social Development

(8) The average amount borrowed by women increased again in 2002 and 2003, although it has not reached the level seen in 2000. In large part, the flattened rate of increase in amounts borrowed is attributable to the government's policy of stabilisation of tuition fees in tertiary education, introduced in 2001.

(9) The median student loan balance was about \$10,000 in 2004. About 6 percent of all balances were over \$40,000.

(10) Source: Statistics New Zealand, Ministry of Education, Inland Revenue Department, and Ministry of Social Development.

Figure 3.08



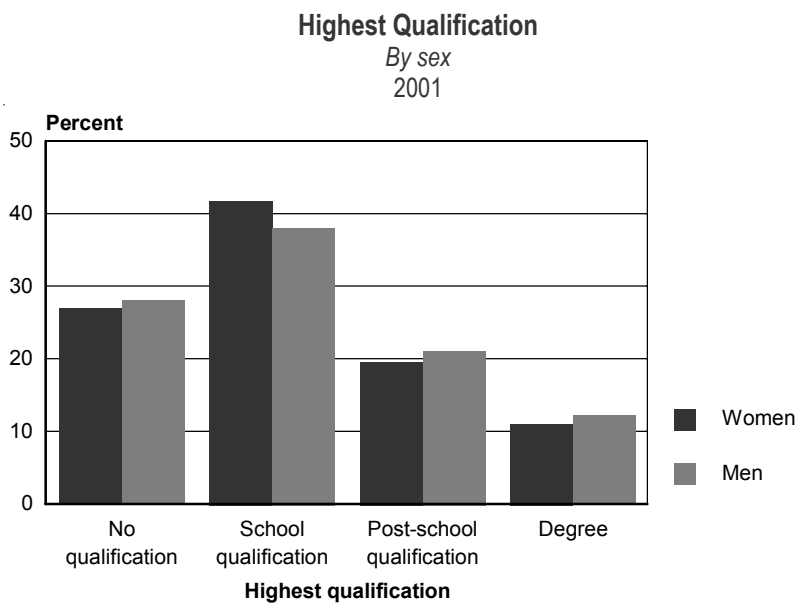
Source: Statistics New Zealand

over had a degree or higher qualification; in 1981 this had increased to 2 percent; and by 1991 it was 5 percent. In the decade to 2001 the proportion more than doubled to 11 percent. Over the same period, the proportion of men aged 15 years and over with a degree grew from 4 percent in 1971 to 12 percent in 2001<sup>11</sup>.

In 1991 the proportion of women aged 15 years and over without a qualification was greater than that for men; however, by 2001 this situation had been reversed. The numbers of those without a qualification decreased for both sexes over the period 1991–2001. As most of those without a qualification were in older age groups, this trend can be expected to continue.

In 2001 women aged 15 years and over who identified with the Asian and Other ethnic groups were more likely than women in any of the other broad ethnic groups to hold a qualification of any type (85 percent). In comparison, Māori women were the least likely to have a secondary or tertiary qualification (59 percent). However, the Māori and Pacific ethnic groups showed the greatest increase in the proportions obtaining a qualification between 1991 and 2001, signalling an upskilling of their populations. The proportion of Pacific women with a qualification increased from 51 percent to 67 percent between 1991 and 2001. Over the same period, the proportion of Māori women with a qualification increased from 45 percent to

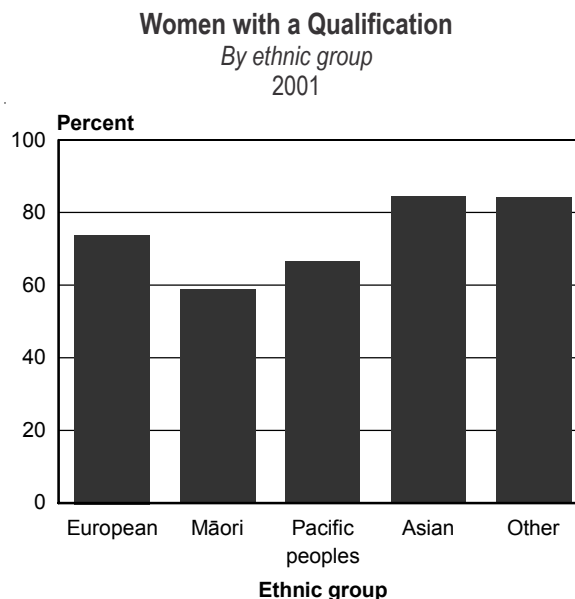
Figure 3.09



Source: Statistics New Zealand

(11) Caution should be taken when comparing the 1991 Census data for highest qualification with 2001 data, due to a change in the post-school question (from tick box to write in) in 1996.

Figure 3.10



Source: Statistics New Zealand

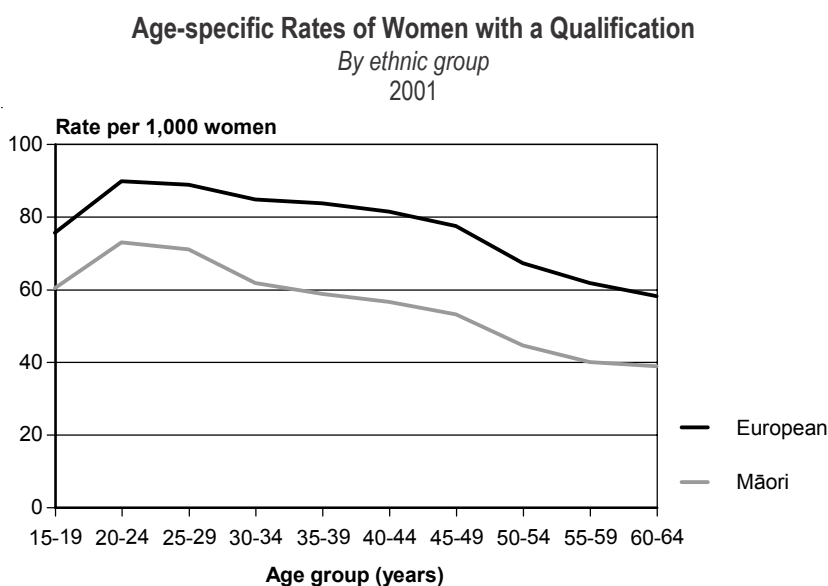
59 percent. It is likely that the introduction of private training establishments and wānanga has contributed to this rise – Māori and Pacific women have had a high uptake in these types of institution.

There has been a general upskilling of the population over the last five decades. Changes in women's roles over the past 30 years in areas such as labour force participation, accessibility to education and general social attitudes have meant that female profiles in the education system became similar to

the profiles for males. In fact, in the last decade females have begun to outperform males in many areas of the educational system – for example, in participation rates and in educational attainment.

The age-specific rates<sup>12</sup> take into account the different age structures of the various ethnic populations. As Figure 3.11 shows, Māori women are generally less qualified at all ages than European women; however, the gap at the younger age levels is smaller than at the older ages.

Figure 3.11



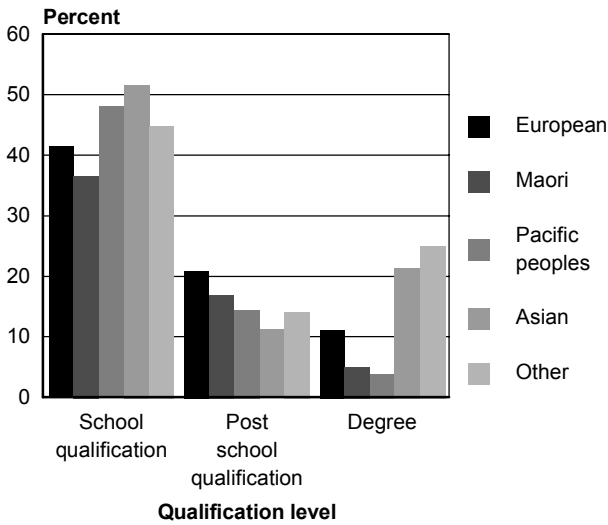
Source: Statistics New Zealand

(12) The same data was age-standardised, but no significant differences were found in the results that offered a differing or further explanation of the data or trends/patterns within the data.

Figure 3.12

### Highest Qualification of Women

By ethnic group  
2001



Source: Statistics New Zealand

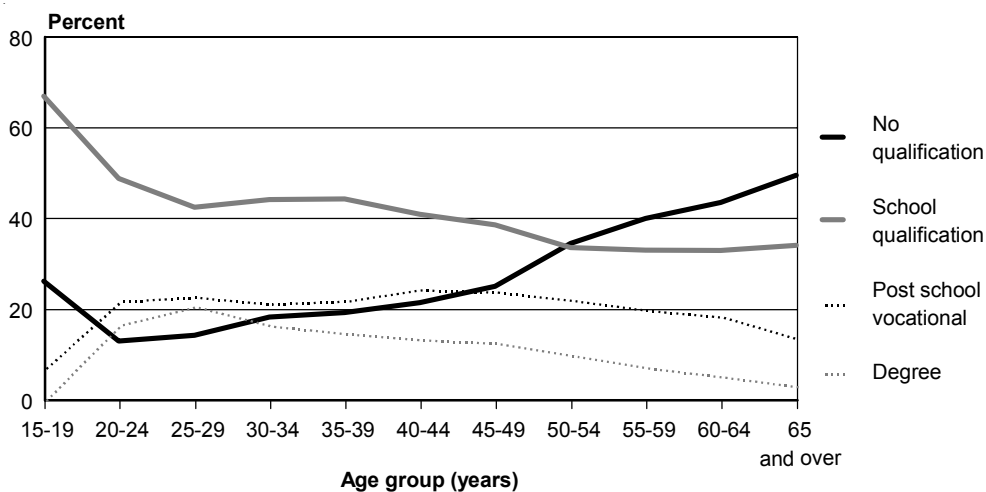
As Figure 3.12 shows, women belonging to the Other ethnic groups were the most likely to hold a degree qualification (25 percent), followed by Asian (22 percent), European (11 percent), and those of Māori and Pacific ethnicity (5 and 4 percent, respectively). European women were the most likely (21 percent) to hold a post-school vocational qualification, while Asian women were the least likely (11 percent).

Figure 3.13 shows trends in highest qualification of women by age in 2001. Patterns are indicative of lifecycle changes in educational participation that have occurred over the last 30 years. It should be noted that many of those aged between 15 and 24 will have not yet completed their education and may

Figure 3.13

### Highest Qualification of Women

By age group  
2001



Source: Statistics New Zealand

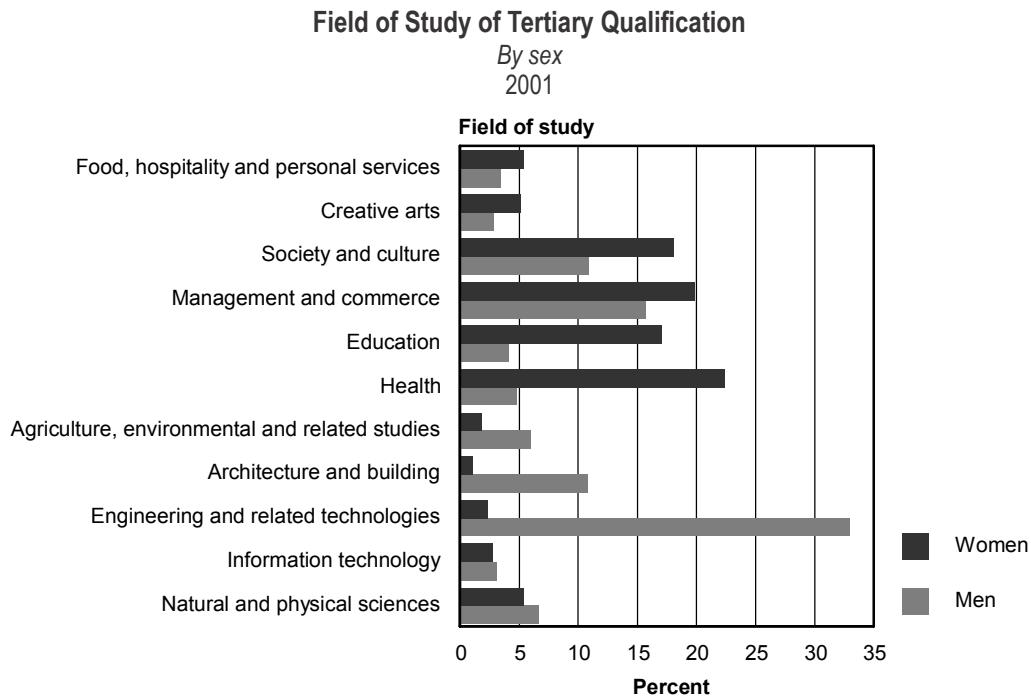
gain further qualifications. The proportion of females without a qualification increased with age, while the proportion of women whose highest school qualification was from secondary school decreased with age, illustrating greater participation and attainment of tertiary qualifications in recent years.

At the time of the 2001 Census, the proportion of females with a degree was highest in the 25–29 years age group (21 percent), reflecting the recent increase in women’s participation in tertiary education. Seventeen percent of all women with a degree were in this age group, compared with 2 percent of those aged 60–64 years. The trend for young women to be more qualified is evident when comparing them to men. In the 25–29 years age group, 11 percent of females had a degree qualification, 4 percent more than the figure for males (17 percent). In comparison, 7 percent of women aged 55–59 held a degree, which was a lower proportion than their male counterparts (12 percent).

### Fields of study

Historically, women’s qualifications have been concentrated in a narrow range of subject areas at university, namely arts, the social sciences and education. There are still distinct differences between male and female patterns in field of study. In 2001 the most common post-school qualification for women aged 15 years and over was in the field of health (22 percent), while for men it was in engineering and related technologies (33 percent). The areas of engineering and architecture and building are still highly male dominated. In 2001 the ratio of males to females in the field of engineering was more than 14 to 1, while in architecture it was more than 10 to 1. In the fields of health and education, the number of females was much higher

Figure 3.14



Source: Statistics New Zealand

than that of males, but the ratios were not quite as dominant, with females outnumbering males in the field of education by nearly 5 to 1, and in health by just over 4 to 1.

When tertiary qualifications are analysed by age, there is evidence that the trend towards men and women studying in traditional fields is changing. In 2001 women in the older age groups were more likely than younger women to have a post-school qualification in a traditional field of study. It is important to note that some women in the younger age groups will still be completing their education and will therefore not be included in the analysis. For women aged 20–29, management and

commerce was the field of study in which most had a post school qualification (26 percent), followed by society and culture (20 percent), and then health and education (both 11 percent). For women aged 40–49, the pattern was quite different, with health the field of study in which most women had a post-school qualification (27 percent), followed by education and society, and culture (20 and 18 percent, respectively). This trend does not appear to be universal – in the field of engineering and related technologies, the proportion of women with post-school qualifications does not vary greatly by age, from 2 percent of those aged 20–29 to 1 percent of those aged 50–59.

## Summary

- *In 2001, 60 percent of children aged less than five were enrolled in early childhood education. Access to early childhood education is a key issue for many mothers rejoining the paid workforce.*
- *Education and care services were the most popular form of early childhood education, with 43 percent of girls enrolled in some type of care using this service. Kindergartens were the second most popular choice for girls (27 percent), followed by ECD-funded playgroups and playcentres (9 and 8 percent, respectively).*
- *The most popular subjects for females outside the traditional subjects of English, mathematics and science in 2001 were text and information management at School Certificate level (25 percent of female students), biology at Sixth Form Certificate level (34 percent), and biology at University Entrance Bursary level (34 percent).*
- *Between 1971 and 2001, young women have made substantial gains in school participation. In 1971 fewer than one in five or 19 percent of females aged 17 years were still in school, increasing to just under three in five (57 percent) in 2001.*
- *At the time of the 2001 Census of Population and Dwellings, young women were more likely to leave school with a qualification (86 percent) than their male counterparts (81 percent).*
- *Differences existed in attainment levels of female school leavers by ethnicity. Young women of Asian ethnicity were the most likely to leave school with a qualification gained after five years of secondary school education (69 percent). European women were the next most likely (46 percent), followed by Pacific women (28 percent) and Māori women (18 percent).*
- *Women are now more highly represented in tertiary education than ever before. In 2001 women made up over half (53 percent) of all tertiary enrolments, compared with 1971 when women made up just under a third (30 percent) of all tertiary enrolments.*
- *Women belonging to the Other ethnic group were the most likely to hold a degree qualification (25 percent), followed by the Asian (22 percent), European (11 percent) and Māori and Pacific ethnic groups (5 and 4 percent, respectively).*
- *Although there are signs of change, distinct differences remain between male and female choices of fields of study. In 2001 the most common post-school qualification for women aged 15 years and over was in health (22 percent), while for men it was in engineering and related technologies (33 percent).*





*Chapter 4*

**Work**

## Chapter 4

### Work

Increasing participation in paid work and changing patterns of employment have been among the most profound changes affecting women in recent times. Far greater proportions of women are now in the labour force and increasing numbers occupy high-status and formerly male-dominated jobs. The changing aspirations of women, the promotion of equal employment opportunities and structural changes in the economy which have led to growth in service jobs and non-standard employment such as part-time and casual work have all contributed to these trends. Nevertheless, women remain less likely than men to be employed and tend to spend fewer hours in paid employment, and gender segregation persists in many jobs from management to the trades. Women’s participation in paid employment is still much more affected than men’s by family circumstances, as women continue to shoulder more of the responsibility for childcare and other forms of unpaid work both within and outside the household. In addition to persisting inequality between men and women in the labour market there are also marked inequalities between different groups of women, particularly on the basis of ethnicity.

#### Labour force participation

Women’s participation in the labour force has been increasing markedly for several decades and the gap between male and female labour force participation has narrowed considerably since the 1970s. The trend results from a combination of factors. Changing social attitudes and expectations, the impact of feminism, the fact that women are

delaying marriage and childbearing and having smaller families, financial necessity and changing patterns of labour demand have all played a part.

Figure 4.01 shows that in 1971 women’s labour force participation rate was less than half that of men (39 percent compared with 82 percent). Thirty years later in 2001, the gap had diminished by 30 percentage points, with 60 percent of women in the labour force, compared with 74 percent of men. This reflects not only increasing participation by women but falling participation by men, particularly in the second half of the 1980s when restructuring and recession hit the male-dominated secondary industries. Women’s participation also fell slightly in the late 1980s but not as markedly as men’s and it enjoyed a stronger recovery through the 1990s. In the 1990’s, new areas of job growth in service industries, non-manual occupations and part-time and casual work might have been more conducive to increases in women’s employment than men’s.

Despite these changes, women’s labour force participation remains lower than men’s at all ages and is more subject to life-cycle factors. As Figure 4.02 shows, male and female participation in 2001 was closest in the youngest age groups of 15 to 24 but the rates diverged between the ages of 25 and 40 when starting families and raising children are most likely to occur. While men’s participation remained steady around 90 percent between the ages of 25 and 54, women’s participation dipped to 71 percent in the 30–34 age group before recovering to a peak of 82 percent in the 45–49 age group.

Figure 4.01

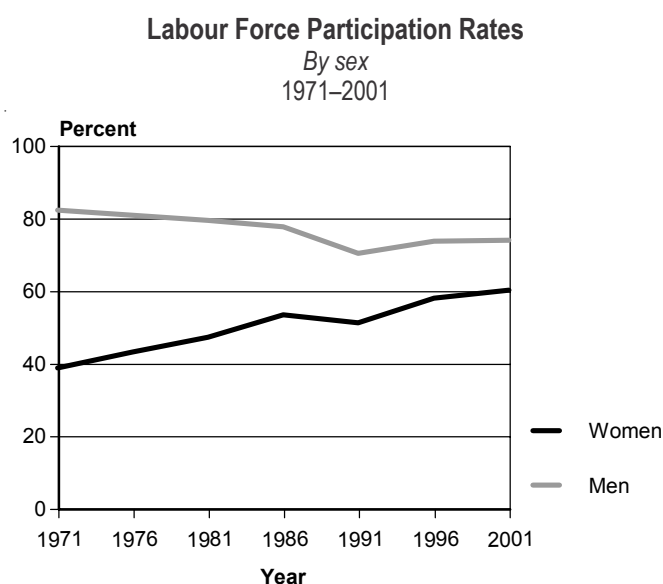
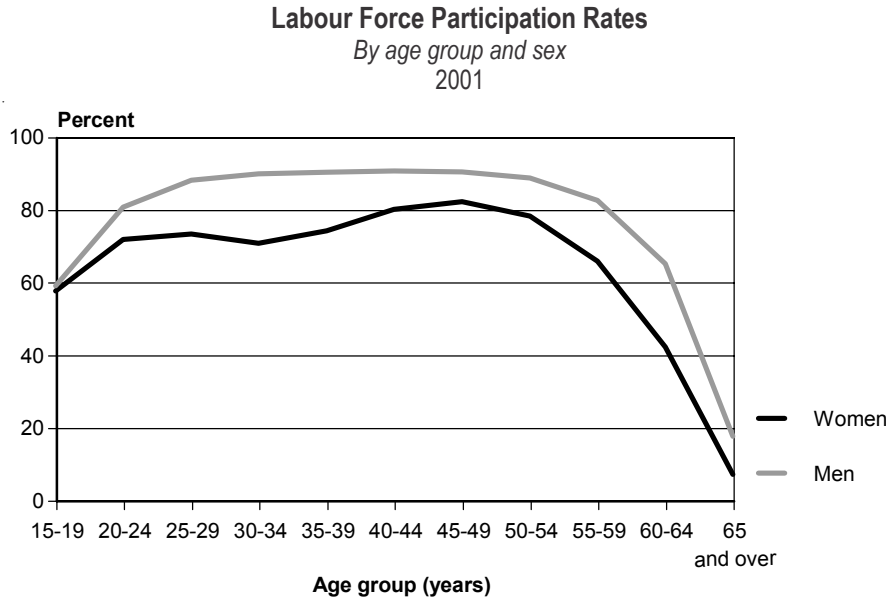


Figure 4.02



Women then begin to withdraw from the labour force earlier than men, with the gap increasing again up to the 60–64 age group when women had a participation rate of 42 percent compared to men’s 65 percent. Although the gap narrows in the retirement age group, men remained more likely than women to be in the labour force after the age of 65.

However, the gap between male and female participation in the pre-retirement age groups is lessening as the older generation of women who tend to have spent less time in paid work are superseded by the generation of women who entered the workforce in the 1960s and 1970s and for whom paid work has generally been more focal in their lives. As Figure 4.03 shows, between 1991 and 2001, the proportion of 60 to 64-year-old women in the labour force increased from 17 percent to 42 percent, while the proportion of 55 to 59-year-olds

increased from 45 percent to 66 percent. Although these were the most marked increases, participation at all other ages also rose over the same period, with notable increases also in the 25–34 year age group, which may partly reflect a trend for women to return to work more quickly after childbirth as well as a continuing trend for delaying childbirth until the late 30s or even later. It is evident that the increase in participation rates of women in their late 30s and early 40s were relatively small during this period.

Participation rates for the major ethnic groups show similar age-related patterns, as Figure 4.04 shows. However, in 2001 European women were more likely than women of other ethnic groups to be in the labour force at all ages up to 65. The gap was most marked for those in their 20s, when European women are less likely than Māori and Pacific women to have children, and in the late 40s and 50s when many

Figure 4.03

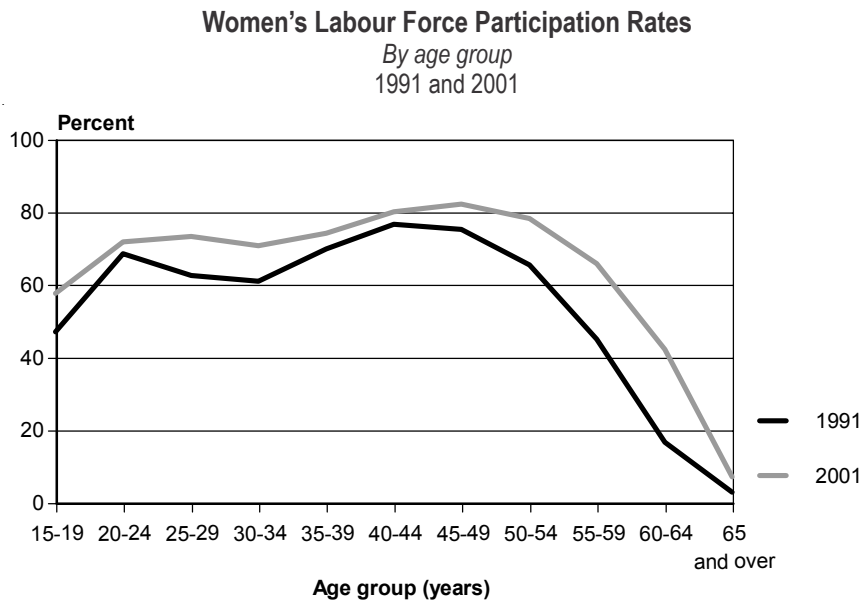
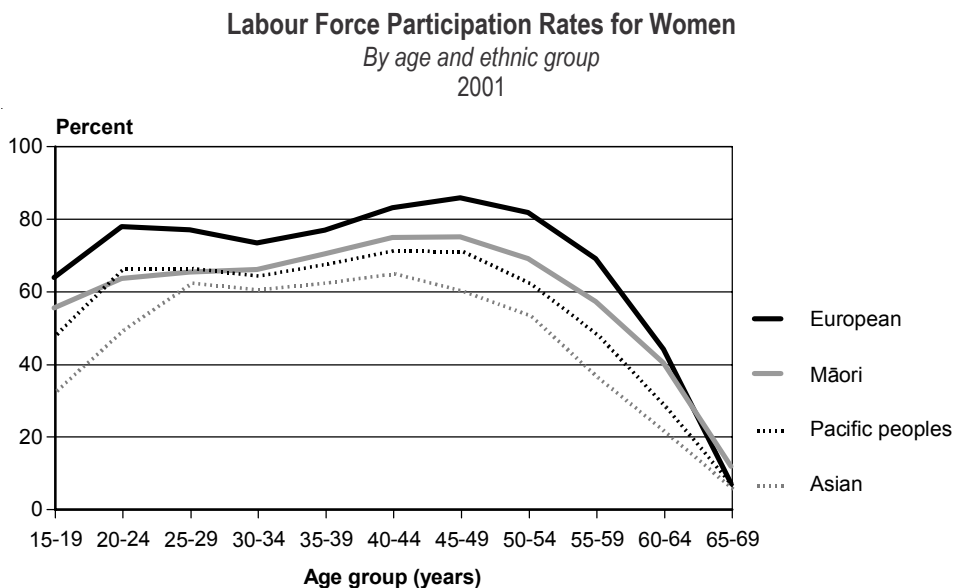


Figure 4.04



European women return to the workforce after raising families. The participation rates of Māori and Pacific women were similar to each other up to the age of about 50, after which Pacific rates fell faster than those of Māori. Māori women had the highest rates of participation in the 65-plus age group—12 percent compared with less than 7 percent for other groups – perhaps reflecting a greater financial need to work past the usual retirement age. Asian women have the lowest participation rates at all ages, particularly in the younger age groups when many are engaged in full-time study. The lower Asian rates also reflect the fact that higher proportions of them are relatively recent immigrants, who are generally less likely than others to be in the labour force.

Family formation has a major influence on women’s labour force participation. As Figure 4.05 shows, married women had the lowest rates of labour force

participation up to the age of 35, after which non-partnered women (either never married, separated, divorced or widowed) had the lowest rates. At all ages, women who were living with partners but not married had the highest participation rates, most notably in the younger age groups, probably because they are less likely to have children. However, there is very little difference in the participation rates of married women and other partnered women after the age of 40, with participation for both groups peaking in the 45–49 age group at 85 percent for married women and 86 percent for other partnered women. The lower participation rates for non-partnered women in their 40’s may reflect the fact that in this age group most unpartnered women are separated or divorced and therefore will often be bringing up children on their own.

Figure 4.05

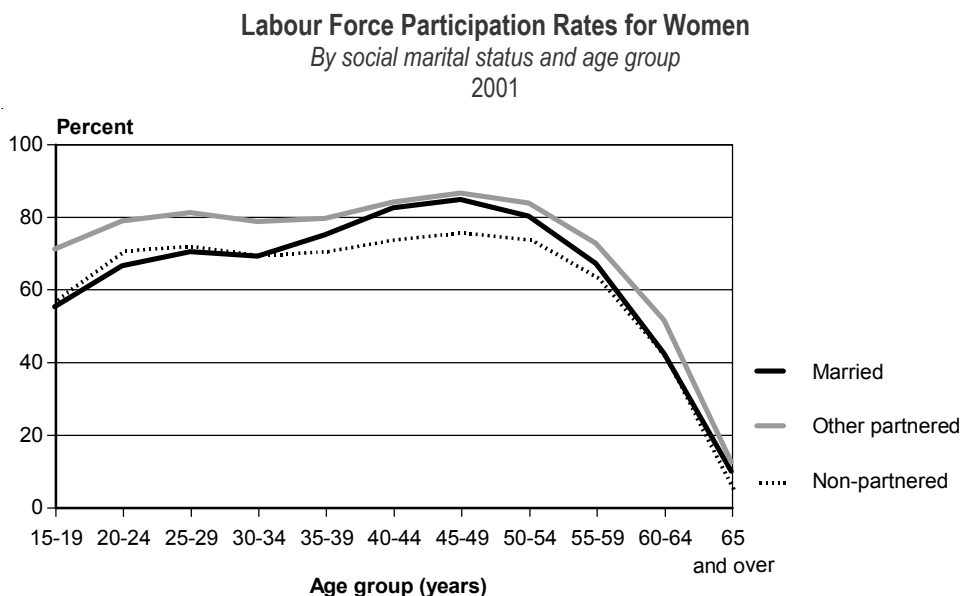
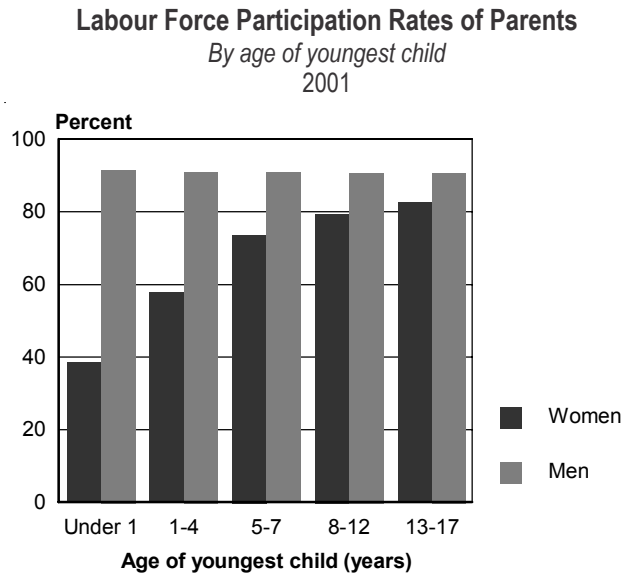


Figure 4.06



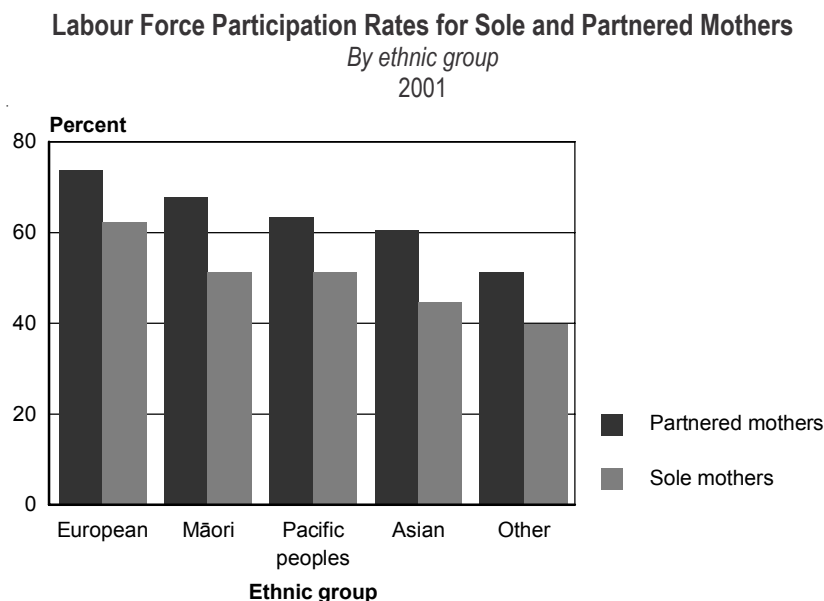
Despite the social changes of recent decades, women remain responsible for the majority of childcare in families and so the presence of dependent children has a far greater effect on their labour force participation than it does on men's. Overall, mothers of dependent children had a labour force participation rate of 68 percent in 2001, compared with 91 percent for fathers of dependent children. As Figure 4.06 shows, women's labour force participation rises progressively with the age of their youngest child. Thirty-nine percent of women with a child under the age of one were in the labour force, but this rose to 58 percent for women whose youngest child was between one and four years. By the time their youngest child was of secondary school age, 83 percent of women were in the labour force. By contrast, dependent children had little effect on the labour force participation of men, with more

than 90 percent of fathers being in the labour force regardless of the age of their children.

There has been, however, a growing trend for mothers to return to the workforce earlier. Overall, the proportion of mothers with dependent children who were in the labour force increased from 58 percent to 68 percent between 1991 and 2001. The biggest increases in participation were among mothers of pre-school children – from 29 percent to 39 percent of mothers with children under one, and from 45 percent to 58 percent of mothers whose youngest child was aged between one and four.

The labour force participation of mothers varies considerably by ethnicity. Whereas 71 percent of European mothers with dependent children were in the labour force in 2001, the figures were 61 percent

Figure 4.07



for Māori, 60 percent for Pacific peoples, 58 percent for Asians and 49 percent for other ethnic groups.

There is also a disparity between mothers who are partnered and those who are bringing up children on their own. Overall, 71 percent of partnered mothers with dependent children were in the labour force in 2001, compared with 58 percent of sole mothers. As Figure 4.07 shows, sole mothers had markedly lower participation rates across all ethnic groups, but European sole mothers were more likely to be in the labour force than sole mothers from other ethnic groups – 62 percent compared with 51 percent of Māori and Pacific sole mothers and still fewer of those from Asian and other ethnic groups.

### Employment

As a result of their increasing rates of labour force participation, women make up a greater proportion of the workforce than they used to – up from 41 percent of all workers in 1986 to 47 percent in 2001. As Figure 4.08 shows, women have accounted for significantly more employment growth than men over that period. The vast majority of the employment losses in the late 1980s were experienced by men – while their employment fell by 11 percent or more than 95,000 jobs between 1986 and 1991, employment for women fell by less than 1 percent or fewer than 4,000 jobs. Although many more women than this lost jobs over the period, this was offset by the entry of more women into the workforce and new areas of job growth for women, particularly in part-time work. Since 1991, both sexes have experienced significant employment growth but women’s has outstripped that of men. Between 1991 and 1996 the number of women in paid employment

increased by more than 135,000 or 22 percent, and between 1996 and 2001 it increased by more than 63,000 or 9 percent – around double the increases for men.

However, much of the employment growth for both sexes has been in part-time work. This was especially so in the early 1990s when economic recovery was tentative and employers sought more flexible workforces with more casual and part-time workers. As Figure 4.09 shows, the number of women in part-time work increased by 41 percent between 1991 and 1996, compared with a 14 percent increase in full-time work. Among men, the proportional growth in part-time work was far greater – 84 percent, compared with a 6 percent growth in full-time work. However, the percentage growth in male part-timers was greater because there were fewer to begin with. In terms of numbers, part-time job growth was still greater among women than men in this period –78,000 compared with 51,000.

Between 1996 and 2001 the growth in part-time work slowed markedly, and there was also a slight drop in the rate of full-time job growth. Women experienced 9 percent growth in full-time work and 8 percent growth in part-time work, while for men a 4 percent increase in full-time jobs was partly offset by a small drop in part-time work. In this period, full-time job growth for women was almost double that of part-time job growth – 42,000 compared with 22,000.

In all, during the decade from 1991 to 2001, women accounted for 56 percent of the increase in full-time workers and 66 percent of the increase in part-timers.

Figure 4.08

Percentage Change in Number of Women and Men Employed  
1986–2001

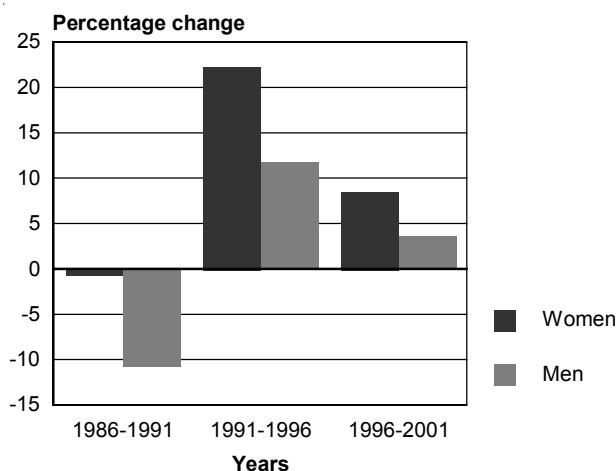
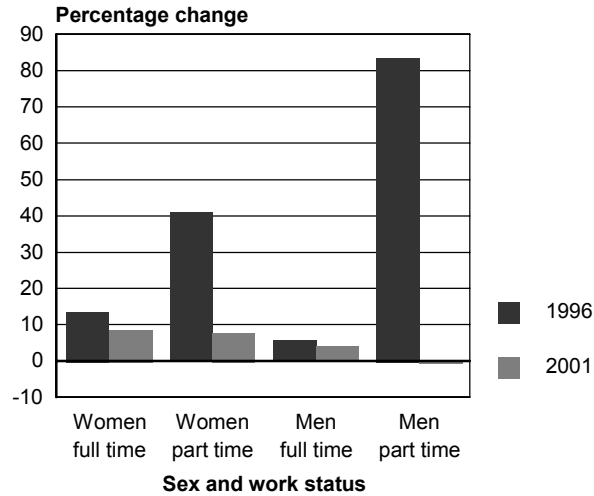


Figure 4.09

**Percentage Change in Number of Women and Men in Full-time and Part-time Work**

By sex  
1991 and 2001



Despite the growing numbers of women in full-time work, they remain far more likely than men to be part-time workers. In fact, the proportion of women workers employed part-time has increased since the mid-1980s – rising from 28 percent to 36 percent between 1986 and 1996, before levelling off in the 1996–2001 period, as Figure 4.10 shows. The proportion of male workers who were employed part-time more than doubled over the decade from 1986 to 1996, but men at 12 percent in 2001, were still considerably less likely than women to work part-time.

Women are much more likely than men to work part-time across every age group, as Figure 4.11 shows. Part-time work for both sexes is most common in the youngest and oldest age groups. In 2001, in both the 15–19 age group when many people combine part-time work with study, and in the 65-plus age

group when many people are making the transition to retirement, 68 percent of women workers were employed part-time. This compared with just under half of male workers in those age groups. Although part-time work falls markedly for both sexes between the ages of 20 and 30, for women it increases again in the 30s when they are most likely to be combining work with childcare responsibilities. Between the ages of 30 and 44, women workers were about six times as likely as men to be working part-time.

Women work part-time for a variety of reasons. For some, it may be a preferred option because of family commitments or for lifestyle reasons, while for others it may reflect lack of opportunities for full-time employment. The fact that it is often a matter of necessity rather than choice is illustrated by data from the Household Labour Force Survey which shows that in 2003 there were more than 70,000

Figure 4.10

**Percentage of Employed Women and Men Working Part Time**

1986–2001

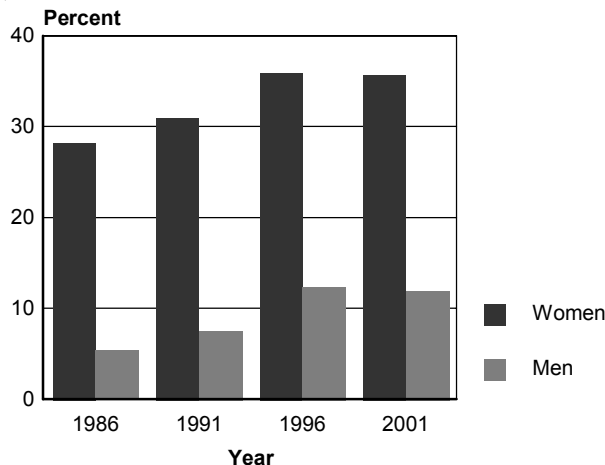
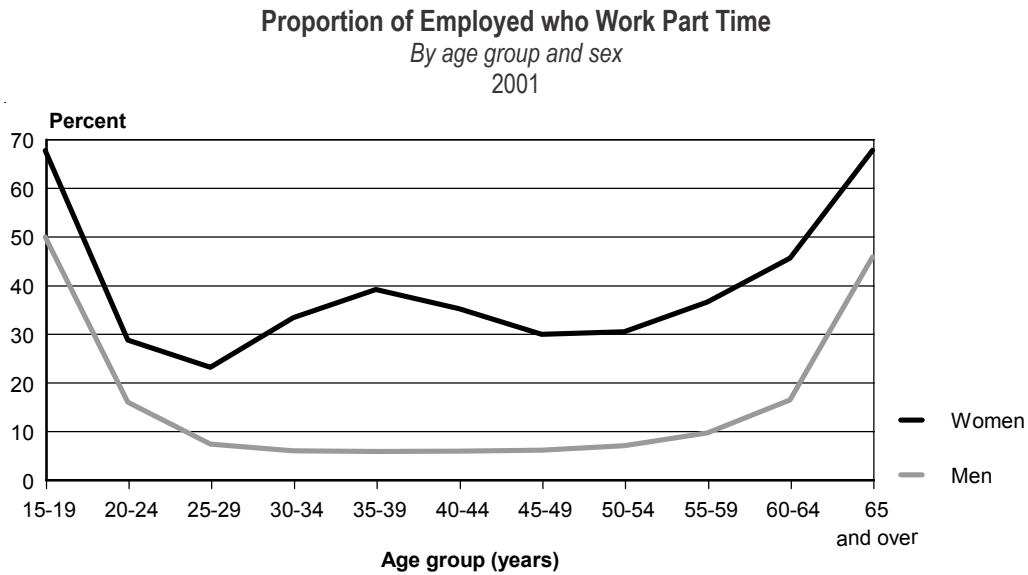


Figure 4.11



women employed part-time who wanted to work more hours. This was almost twice the number of men who wanted more hours, although it was a smaller proportion of female part-timers (23 percent) than male part-timers (31 percent). Although, they would have liked to work more hours, however, most women in this group were not seeking full-time work. In 2003, about 12,000 female part-timers, just 4 percent, were looking for full-time work – slightly lower than the proportion of male part-timers wanting full-time jobs (7 percent).

Family formation obviously has an effect on whether women work part-time or full-time, given the difficulty of balancing childcare responsibilities with full-time work. For mothers with dependent children, the age of their youngest child is a key factor here. In 2001, 34 percent of mothers with dependent children were in full-time employment, while 28 percent worked part-time. As Figure 4.12 shows, the likelihood of working full-time increased with the age of the

youngest child. Although just 15 percent of mothers with children under a year old worked full-time, the figure increased progressively to 54 percent for mothers whose youngest child was of secondary school age. Part-time work was more common than full-time work for mothers of pre-school children but once the youngest child was over the age of seven full-time work became more common. Mothers with a youngest child aged over 13 were more than twice as likely to work full-time as part-time.

As mentioned earlier there has been a continuing trend for women with children to return to the labour force earlier, and this is reflected in the increasing employment rates of mothers of dependent children. Between 1991 and 2001 the proportion of this group in either part-time or full-time work increased from 52 percent to 63 percent. As Figure 4.13 shows, the biggest increases were among women with children of pre-school age – from 23 percent to 34 percent of women with children under a year old and from

Figure 4.12

**Percentage of Women in Part-time and Full-time Employment**  
By age of youngest child  
2001

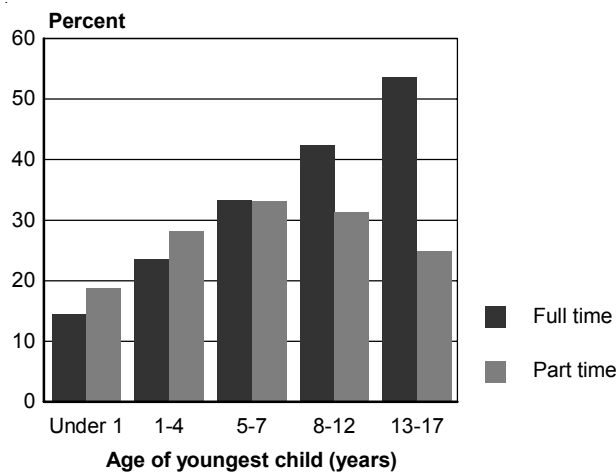
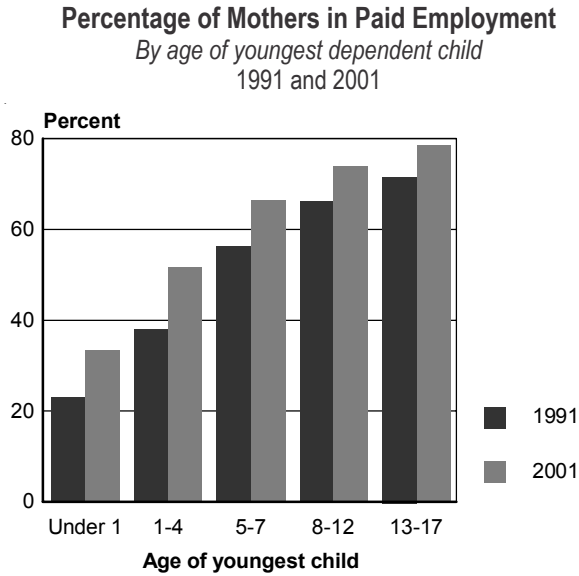


Figure 4.13



38 percent to 52 percent of women with a youngest child aged between one and four. Although both choice and necessity may be motivating mothers of young children to return to paid work earlier than in the past, it is also likely that this is a more feasible option than previously because of the increased availability of childcare facilities. It may also reflect changes in the domestic division of labour as fathers come to take on more responsibility for childcare than in the past.

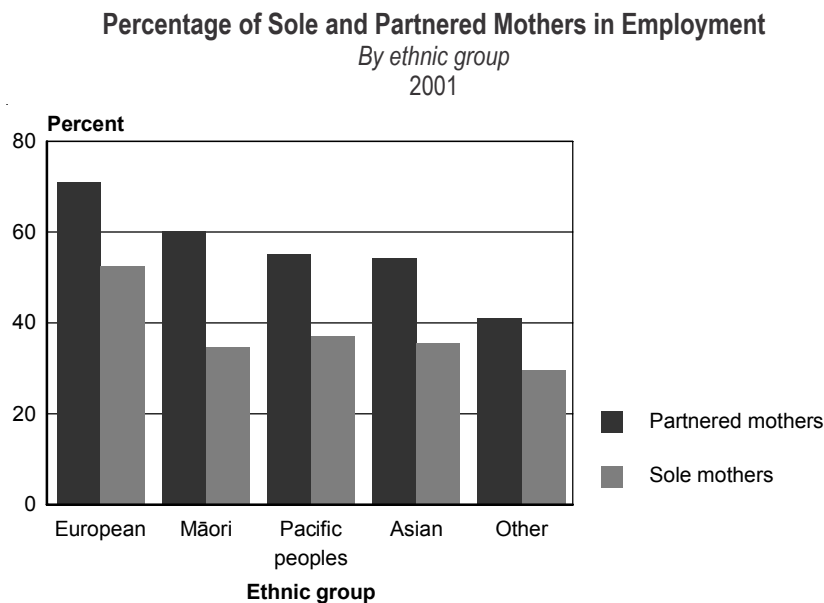
The fact that sole mothers do not have a partner to share responsibility for childcare is one factor contributing to their lower employment rates. In 2001, fewer than half (47 percent) of sole parents with dependent children were employed, compared with 68 percent of partnered mothers with dependent children. Of those who were in employment, similar

proportions of sole mothers and partnered mothers were working full-time (55 percent).

As Figure 4.14 shows, sole mothers were considerably less likely to be employed across all ethnic groups but particularly in the non-European groups. Just over a third of Māori, Pacific and Asian sole mothers (and still fewer of those from other ethnic groups) were employed in 2001, compared with just over half of European sole mothers.

However, among both sole and partnered mothers who were employed, Europeans were the least likely to be working full-time. In all, 51 percent of employed European mothers were in full-time work, compared with 61 percent of Māori, 71 percent of Pacific women, 69 percent of Asians and 59 percent of those from other ethnic groups.

Figure 4.14



## Hours of work

Although part-time work was more common for women than for men, the majority of female workers worked full-time, which was reflected in the fact that about half of all employed women worked in paid employment for between 35 and 54 hours a week in 2001. As Figure 4.15 shows, it was most common for both women and men to work something approximating the standard 40-hour working week, with 27 percent of women and 32 percent of men usually working between 40 and 44 hours. Women were over-represented among all those working fewer than 40 hours and under-represented among those working longer hours. Nevertheless, 19 percent of women worked 45 hours or more a week (up from 16 percent in 1991), with 6 percent working 60 hours or more (up from 5 percent). Over the decade it became less common for women to work between 35 and 44 hours a week and more common for them to work either shorter or longer hours. Men experienced a similar trend.

When women's hours were looked at by employment status, it was paid employees who were most likely to work close to the standard working week, with 41 percent working between 35 and 44 hours in their main job. This compared with 22 percent of employers and 18 percent of those who were self-employed without employees. Employers were the most likely to work long hours, with 18 percent usually working 60 or more hours in the week. Those

who were self-employed without employees were also more likely than wage or salary earners to work long hours but at the same time relatively high proportions of self-employed women worked fewer than 40 hours (63 percent compared with 54 percent of paid employees).

In terms of occupation, the women who were most likely to work 45 hours or more a week in their main job were legislators, administrators and managers (37 percent) followed by professionals (28 percent) and agriculture and fishery workers (25 percent). Those who were least likely to do so were clerks (7 percent), elementary workers (8 percent) and service and sales workers (9 percent).

## Multiple-job holding

Multiple-job holding has become more common in recent years as part-time and casual work has increased, but it is still relatively rare. The proportion of women holding more than one job increased from 4.3 percent to 5.8 percent between 1993 and 1999 before falling back to 5.3 percent in 2003. Multiple job-holding is more common among women than men and, while the proportion of women in this position has risen over the past decade, the proportion of men with more than one job has fallen slightly, from 3.7 percent to 3.2 percent. Although making up just 45 percent of all employed people, women made up 58 percent of multiple-job holders in 2003.<sup>1</sup>

Figure 4.15



(1) Multiple job-holders in both the Household Labour Force Survey and the census are derived as the number of people for whom hours worked in other jobs (ie other than their main job) are greater than zero. The HLFS gives lower figures than the census, which is subject to greater respondent error as it is self-administered. The figures in this section are based on HLFS data and are therefore not comparable with census data used in earlier reports on women (Statistics New Zealand 1993, 1998).

The greater incidence of multiple-job holding in the female workforce is linked to their greater participation in part-time work, as having more than one job is more prevalent among people who work fewer than 30 hours a week. In 2003, 9 percent of women who worked part-time had more than one job, compared with 3.2 percent of those who worked more than 30 hours a week. However, women were more likely than men to have multiple jobs regardless of whether they were full-time or part-time workers.

When looked at by occupation in their main job, women who had more than one job were most likely to be service and sales workers (24 percent), professionals (19 percent) or clerks (18 percent). They were least likely to be plant and machine operators and assemblers (2 percent).

### Working at home

Another form of non-standard work which has become more common in recent years is working from home. Again, this is linked to the growth in casual or contract work, to strategies of outsourcing by businesses and to technological developments which have made teleworking more feasible.

Women and men work from home in equal proportions – 14 percent at the time of the 2001 Census. As Figure 4.16 shows, working at home generally becomes more common with age for both sexes. Although less than 5 percent of women aged 20–24 were working at home in 2001, the figure rose to 16 percent of women aged 35–39 – which is the age at when there is a peak in part-time work and when many women are combining paid work with childcare. Home-working among women dips very

slightly in the 40s before increasing markedly among those approaching retirement age. One in five women who were employed at age 55–59 were working at home, along with one in four aged 60–64 and half of those who were still working past 65. This increase also coincides with a rise in part-time work and with a rise in self-employment.

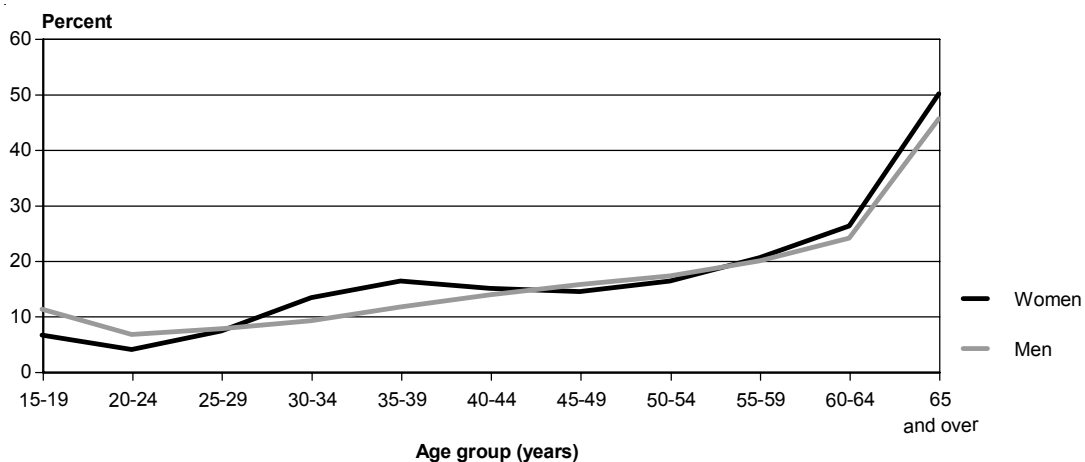
Working from home is much more common for people who are running their own business than it is for those who are working for wages or salaries. In 2001, 58 percent of women who were self-employed without employees worked from home, as did 42 percent of employers. This compared with just 5 percent of paid employees. However, the women who were most likely to work at home were unpaid workers in family businesses – 79 percent in 2001. The same patterns are evident among men, but women who are self-employed or unpaid workers are more likely than their male counterparts to be working from home.

The type of people working from home may vary from highly paid consultants to highly exploited outworkers or people working on the land. The women most likely to work at their home address in 2001 were agriculture and fishery workers (63 percent), many of whom probably worked on family farms. Other occupational groups who were more likely than most to work at home included trades workers (19 percent) and legislators, administrators and managers (18 percent). Those who were least likely to work at home were professionals and service and sales workers (both 6 percent). Women were more likely than men to work at home in all occupational groups except professionals and technicians and associate professionals.

Figure 4.16

### Proportion of People Working at Home

By sex and age group  
2001



## Status in employment

The vast majority of both women and men in the workforce are paid employees, although women are more likely than men to be employees and less likely to be employers or self-employed without employees. Women are also more likely than men to be working without pay in family businesses. Women are also more likely than men to be working without pay in family businesses.

As Table 4.01 shows, 83 percent of women were paid employees in 2001, compared with 72 percent of men. For both sexes there had been a slight decline in the proportion of employees over the preceding decade as self-employment grew, along with a slight increase in unpaid workers assisting in family businesses. The proportion of women who were employers or self-employed increased from just under 12 percent to just over 14 percent over the decade – a small increase but greater than that experienced by males. The increasing significance of women in business is illustrated by the fact that they accounted for the majority of the growth among employers and self-employed people over the decade – with the number of women in these categories increasing by 56 percent, compared with an 18 percent increase for men.

Both women and men are more likely to become self-employed as they get older and accumulate the capital and experience required to establish businesses. For women, the proportion of workers who were employers or self-employed in 2001 increased from just 1 percent of 15–19 year-olds to 31 percent of workers aged 65 and over. As Figure 4.17 shows, there is a considerable increase in the proportion in both these categories between the ages of 25 and 40. In the 40–44 age group, 7 percent of women were employers and 11 percent were self-

Table 4.01

Employment Status	Women		Men	
	1991	2001	1991	2001
Paid Employee	85.9	83.0	74.0	72.3
Employer	4.6	5.1	10.3	10.0
Self-Employed and without Employees	7.2	9.0	14.8	15.9
Unpaid Family Worker	2.3	3.0	0.9	1.8
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

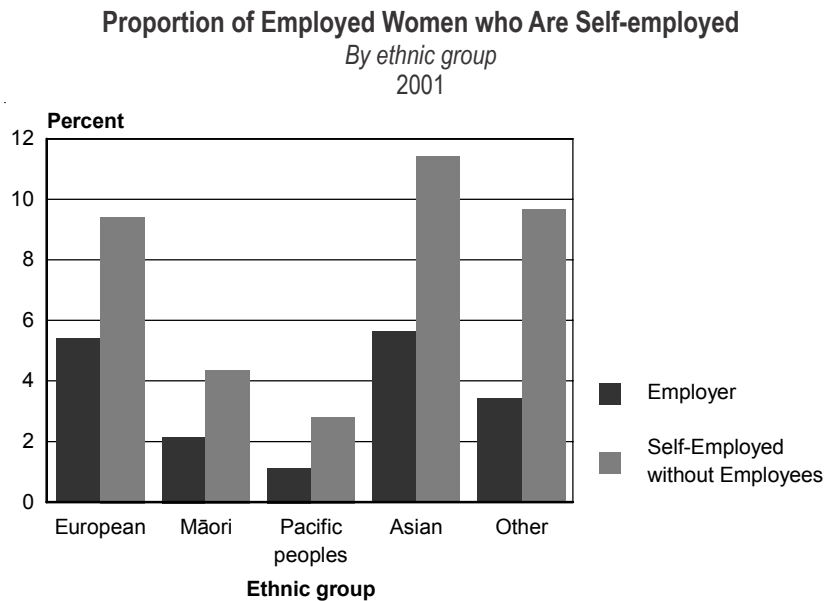
employed without employees. This increase levels off somewhat when women are in their 40s and 50s but self-employment without employees increases markedly again when women reach their late 50s, peaking at 23 percent in the 65-plus age group. This increase should be seen in the context of the transition to retirement, when working on one's own account, often in a part-time capacity, may be a more attractive option and when opportunities for obtaining paid employment may be limited.

There is considerable variation in employment status by ethnicity, as Figure 4.18 shows. Māori and Pacific women are much less likely than those from other ethnic groups to be employers or self-employed. Just 4 percent of Pacific women and 7 percent of Māori women were in these categories in 2001, compared with 17 percent of Asian women, 15 percent of European women and 13 percent of those from other ethnic groups. Asian women were the most likely to be self-employed without employees (11 percent) and along with European women were the most likely to be employers (6 percent). Asian women were also the most likely to be employed as unpaid family workers (5 percent).

Figure 4.17



Figure 4.18



Self-employment for both sexes tends to be clustered in particular industrial and occupational groups. In 2001, the most common industries for women who were employers or self-employed were agriculture, forestry and fishing (18 percent), property and business services (17 percent) and the retail trade (16 percent), together accounting for over half of women with their own businesses. Similar proportions of men and women were to be found in agriculture, forestry and fishing and property and business services but women were slightly more likely than men to be in retail businesses and considerably less likely to be in the construction industry. Self-employed women were also more likely than their male counterparts to be in accommodation, cafes and restaurants, education, health and community services, and personal services.

A quarter of women who were employers or self-employed were legislators, administrators or managers, while 17 percent were agriculture and fishery workers and 15 percent were technicians or associate professionals. About one in five men who were employers or self-employed were in the categories of legislators, administrators and managers or agriculture and fishery workers, but a similar proportion were also trades workers – compared with just 2 percent of women. Conversely, women running their own businesses were more likely than their male counterparts to be in clerical or service and sales occupations.

### Industry

Women workers are predominantly concentrated in the service industries, and their increasing participation in the workforce has coincided with growth in these industries over recent years. In 2001,

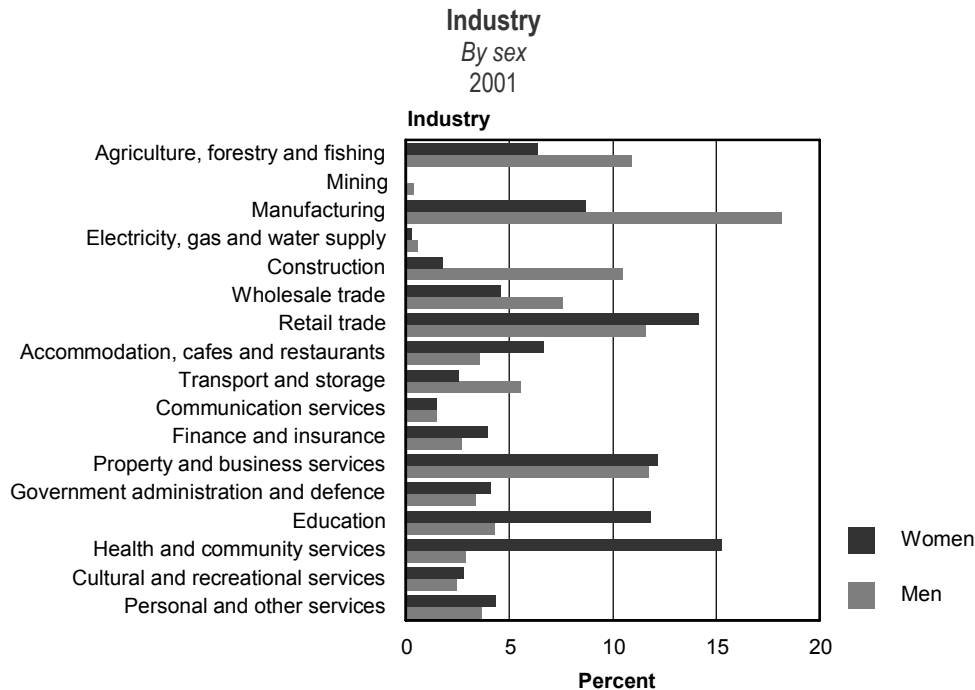
83 percent of women worked in service industries, compared with 60 percent of men. The proportion of women working in the services sector had increased from 79 percent in 1991, reflecting overall employment growth in this sector at the expense of primary and secondary industries.

Figure 4.19 shows that in 2001 women were more than five times as likely as men to work in health and community services and almost three times as likely to work in education. To a large extent this reflects their traditional predominance in nursing and teaching as well as more recent growth in other areas of the health and education sectors. The other major areas of employment for women were in the retail trade and in property and business services, where they were also over-represented although to a lesser degree. Together, these four industry groups accounted for more than half of all female employment. Women were over-represented in all service industry divisions with the exception of transport and storage, communication services and wholesale trade.

Although manufacturing industries were the fifth largest employers of women, female workers were only half as likely as males to work in these industries (9 percent compared with 18 percent). Women were also considerably less likely than men to work in agriculture, forestry and fishing (6 percent compared with 11 percent). With both primary and secondary industries accounting for a declining share of total employment as a result of restructuring and technological change, women's concentration in growing service industries has allowed them to take advantage of structural changes in the labour force.

Between 1996 and 2001, the industries that experienced the greatest employment growth were

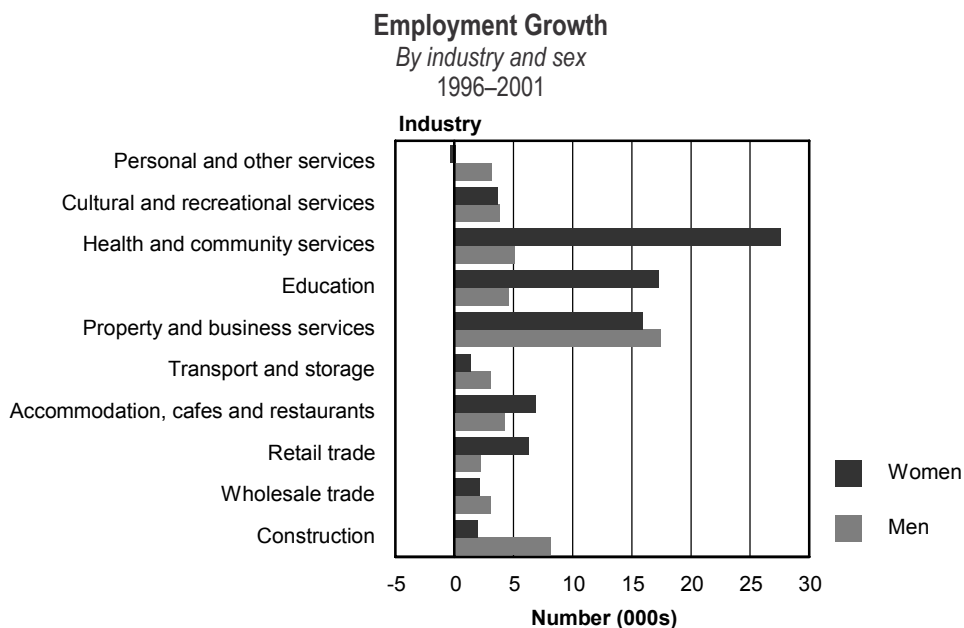
Figure 4.19



property and business services, health and community services and education. As Figure 4.20 shows, the job growth in health and community services and education was overwhelmingly based on an increase in women workers – 28,000 in health and community services and 17,000 in education. In the case of property and business services, men accounted for the greater share of job growth but there was still an increase of 16,000 in the number of women employed. Women also accounted for most of the growth in accommodation, cafes and restaurants and in the retail trade.

In many industries in which women are strongly represented, high proportions are part-time workers. Almost half the women working in accommodation, cafes and restaurants and in the retail trade worked part-time in 2001 (47 percent and 46 percent, respectively), as did 40 percent of those in health and community services and 39 percent of those in education. In all industries, women were much more likely than men to be part-timers. The biggest disparity was in the construction industry where 47 percent of women worked part-time compared with 6 percent of men.

Figure 4.20



When looked at by ethnicity, at least eight out of every 10 women in all the major ethnic groups were working in service industries in 2001. The most common service industry for European, Māori and Pacific women was health and community services, while for women from Asian and other ethnic groups, retail trade provided the most employment. Pacific women were the most likely to work in secondary industries (18 percent) followed by Māori and Asian women (13 percent and 12 percent respectively). European and Māori women were by far the most likely to work in primary industries (7 percent and 6 percent respectively), although this sector was a not a major employer of women.

### Occupation

In recent decades, increasing numbers of women have moved into non-traditional areas of work, whether it be professional or managerial jobs or some manual occupations which have historically been dominated by males. However, there remain considerable differences in the occupational distribution of men and women, as Figure 4.21 shows. The most common occupations for women are clerical and service and sales jobs, which together accounted for 43 percent of the female workforce in 2001, compared with 15 percent of the male workforce. Women were also over-represented in the professional and technical and associate professional categories – with 30 percent of women working in these two groups compared with 23 percent of men. This is largely a reflection of

women’s strong presence in the teaching and nursing professions and other health and welfare-related occupations. Conversely, women were less likely than male workers to be in legislative, administrative and managerial occupations (11 percent compared with 15 percent) and less likely to be in any of the manual occupational categories – particularly the trades and plant and machinery related jobs.

Occupational differences between women and men are further illustrated by the top 10, as shown in Table 4.02. For women, six of the top 10 occupations, including the top three, were in the clerical or service and sales categories. The one managerial occupation was in retailing, while the two professions in the list were in the traditional areas of nursing and teaching.

Although sales assistant was the most common occupation for both women and men, women were almost twice as likely as men to hold such jobs. For men, three of the top 10 jobs were managerial and the remaining occupations in the list were manual jobs. Cleaning was the only strictly manual job in the top 10 women’s occupations.

The greater concentration of women in particular occupations is illustrated by the fact that the 10 most common occupations for each sex accounted for 35 percent of employment for women, compared with 23 percent of employment for men.

Figure 4.21

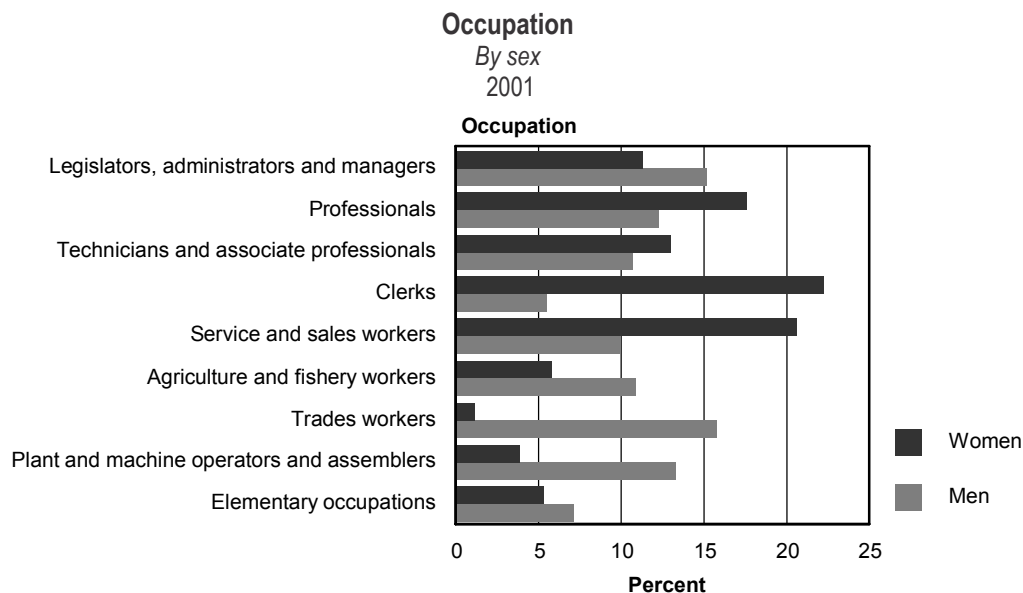


Table 4.02

**Top 10 Occupations of Women and Men**  
2001

Women	Percent of total employed	Men	Percent of total employed
Sales assistant	7.0	Sales assistant	3.7
General clerk	6.0	General manager	3.6
Secretary	3.4	Heavy truck or tanker driver	2.5
Registered nurse	3.1	Crop and livestock farmer, worker	2.0
Primary school teacher	3.0	Builder (including contractor)	2.0
Cleaner	2.9	Dairy farmer, dairy farm worker	2.0
Care giver	2.7	General labourer	1.9
Information clerk and other receptionist	2.7	Retail manager	1.8
Accounts clerk	1.9	Carpenter and/or joiner	1.5
Retail manager	1.8	Administration manager	1.4

Many of these occupations are highly segregated by sex. In all but three of the top 10 women's occupations (cleaners, sales assistants and retail managers) more than eight in every 10 workers in 2001 were female, including 97 percent of secretaries and 94 percent of registered nurses. Conversely, among the most common male occupations, 99 percent of carpenters and joiners were men, as were 97 percent of heavy truck or tanker drivers.

Some of the most common women's occupations are also dominated by part-time workers. In 2001, three-quarters (75 percent) of women cleaners worked fewer than 30 hours a week, as did 57 percent of caregivers and 52 percent of sales assistants.

Within the female workforce there are some marked differences in the occupational distribution of the major ethnic groups, as Table 4.03 shows. European women, along with Asians, were the most likely to

be working in legislative, administrative and managerial occupations in 2001, while relatively high proportions were professionals and other white collar workers. European women were the least likely to be in the lower skilled manual categories. Māori women were less likely than Europeans to be in the higher-skilled white-collar categories and more than twice as likely to be in the low-skilled manual categories of plant and machinery and elementary workers. However, Pacific women were the most likely to be in these two categories and the least likely to be working in managerial or professional occupations. Relatively high proportions of Asian women were in those higher-skilled groups but they were also among the most likely to be service and sales workers, while relatively high proportions were plant and machinery workers. Women from other ethnic groups were the most likely to be professionals and also slightly more likely than others to be service and sales workers.

Table 4.03

**Occupations of Women**

*By ethnic group*  
2001

Occupation	Ethnic group				
	European	Māori	Pacific peoples	Asian	Other
Legislators, administrators and managers	11.7	7.9	5.2	11.7	8.4
Professionals	18.0	13.1	10.6	18.0	24.4
Technicians and associate professionals	13.2	12.4	11.1	10.1	14.4
Clerks	22.6	19.5	23.6	20.0	18.9
Service and sales workers	20.2	23.5	22.8	23.6	23.8
Agriculture and fishery workers	5.9	5.5	1.9	2.8	1.4
Trades workers	1.1	1.2	1.6	1.5	1.1
Plant and machine operators and assemblers	3.0	6.8	10.6	7.3	3.2
Elementary occupations	4.3	10.2	12.7	5.0	4.4
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

## Unemployment

Unemployment rates for both women and men rose markedly during the late 1980s and early 1990s under conditions of restructuring and recession. As Figure 4.22 shows, women's unemployment, as measured by the census, rose from 5 percent in 1981 to peak at 11 percent a decade later, slightly above the male rate of 10 percent. Women were more affected than men by the initial rise in unemployment between 1981 and 1986, with their rates almost doubling, but men experienced a more rapid rise in unemployment between 1986 and 1991. Since 1991, unemployment has fallen but with 8 percent of women unemployed at the time of the 2001 Census it remained considerably higher than it had been before the restructuring of the 1980s.<sup>2</sup>

Unemployment is highest among the younger age groups and generally declines with age, as Figure 4.23 shows. In 2001 almost a quarter (23 percent) of young women aged 15–19 and in the labour force were unemployed. This figure more than halved to 9 percent by the time women were aged 25–29 and fell more gradually thereafter, falling below 5 percent among women in their late 40s onwards. Women's unemployment rates were slightly higher than those of men at all ages up to 50 but were slightly lower in the older age groups, perhaps reflecting a greater tendency for women to withdraw from the labour force rather than seek new employment at these ages.

Figure 4.22

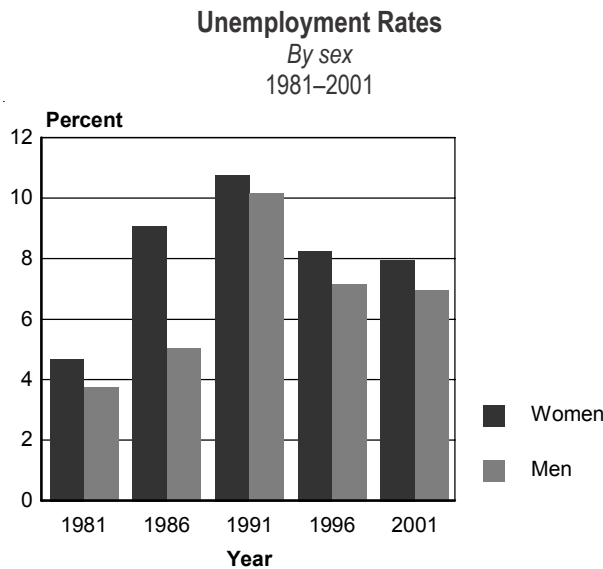
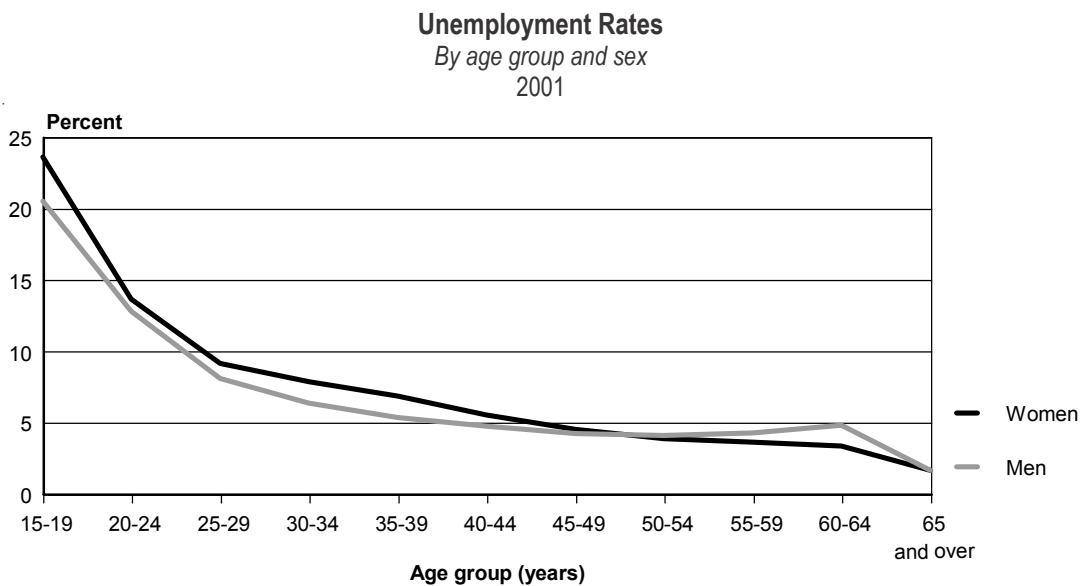
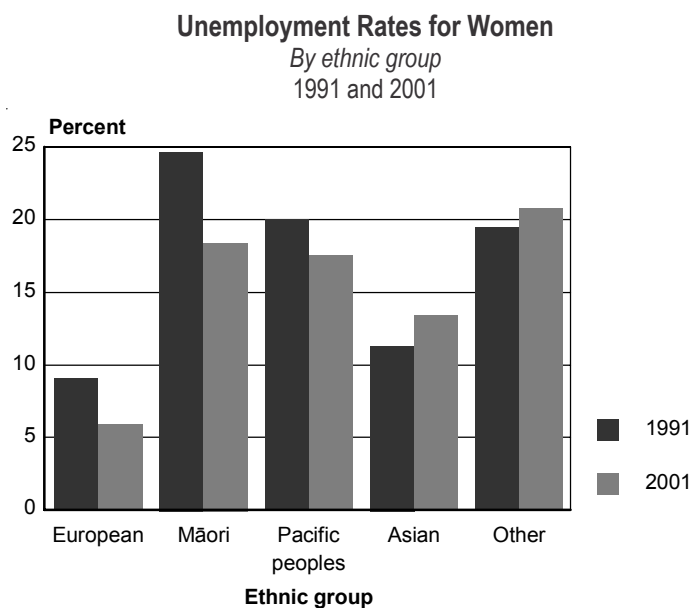


Figure 4.23



(2) It should be noted the census gives slightly higher rates than the official measure of unemployment, the Household Labour Force Survey (women's unemployment in the March 2001 HLFSS was 5.7 percent, and it had fallen further to 5.4 percent by March 2004). The census is used here for reasons of consistency with the remainder of the chapter and because it provides more reliable breakdowns by other variables.

Figure 4.24



Unemployment rates vary markedly between the ethnic groups, as Figure 4.24 shows. European women had by far the lowest rate in 2001 at 6 percent, compared with 13 percent for Asians, 18 percent for Māori and Pacific women and 21 percent for those from other ethnic groups. European, Māori and Pacific women all experienced a decrease in unemployment between 1991 and 2001 – most marked in the case of Māori women with a drop of more than six percentage points. However, Asian women and women from other ethnic groups experienced slight increases in unemployment over the same period. This may be due to increases in immigration during the 1990s, given that recent immigrants often experience a period of unemployment while establishing themselves in a new country.

Women from all ethnic groups are less likely to be unemployed if they have formal educational qualifications, particularly tertiary qualifications.

Overall, women without any qualifications had an unemployment rate of 12 percent in 2001, compared with 8 percent for those with only school qualifications, 6 percent for those with vocational qualifications and 4 percent for those with university degrees. However, differing education levels do not fully account for ethnic disparities in unemployment. As Table 4.04 shows, European women had by far the lowest unemployment rates at every qualification level. Even those with no qualifications were less likely to be unemployed than women from each of the other ethnic groups who had school or vocational qualifications. Māori, Pacific and Asian women were more than twice as likely to be unemployed as European women at most levels of education. However, women in the other ethnic groups category were the most likely to be unemployed at most levels – even those with degrees had an unemployment rate five times that of similarly qualified European women.

Table 4.04

**Unemployment Rates for Women**  
By highest qualification and ethnic group  
2001

Highest qualification	Ethnic group				
	European	Māori	Pacific peoples	Asian	Other
No qualification	8.9	24.9	22.8	14.3	36.4
School qualification	6.1	15.5	15.7	13.7	21.2
Vocational qualification	4.5	15.5	17.1	12.5	16.9
University degree	3.2	5.5	6.5	10.8	16.1

## Unpaid work

Although women have lower rates of labour force participation than men, they have higher rates of participation in unpaid work, both within and outside the household. As Figure 4.25 shows, women were more likely than men to have undertaken all types of unpaid work in the four weeks before the 2001 Census. For both sexes, activities such as household work, cooking, repairs and gardening were the most common type of unpaid work, being undertaken by 89 percent of women and 82 percent of men. This was followed by looking after children in the household, which was done by 35 percent of women and 27 percent of men. The most common type of unpaid work outside the household also involved looking after children, followed by voluntary work for organisations. In all, only 7 percent of women did no unpaid work of any kind in the four-week period, compared with 13 percent of men.

Participation in unpaid work varies by age and related life-cycle factors such as family circumstances and labour force status. As Figure 4.26 shows, the women who were least likely to undertake activities such as household work, cooking, repairs and gardening in their own household were those in the youngest and oldest age groups. People in these groups are more likely to be living in situations where others take responsibility for such work – for instance, young people living with their parents or in hostels, and older people living with relatives or in residential care facilities. Not surprisingly, looking after children within the household is most common among women in their 30s and early 40s, the ages when they are most likely to be raising children – 71 percent of women aged 35–39 spent time looking after children during the four-week period. Looking after household members with illness or disability was relatively rare for all ages but unlike other types of work within the household it did not decline markedly with age – probably reflecting the incidence of older women looking after partners.

Figure 4.25

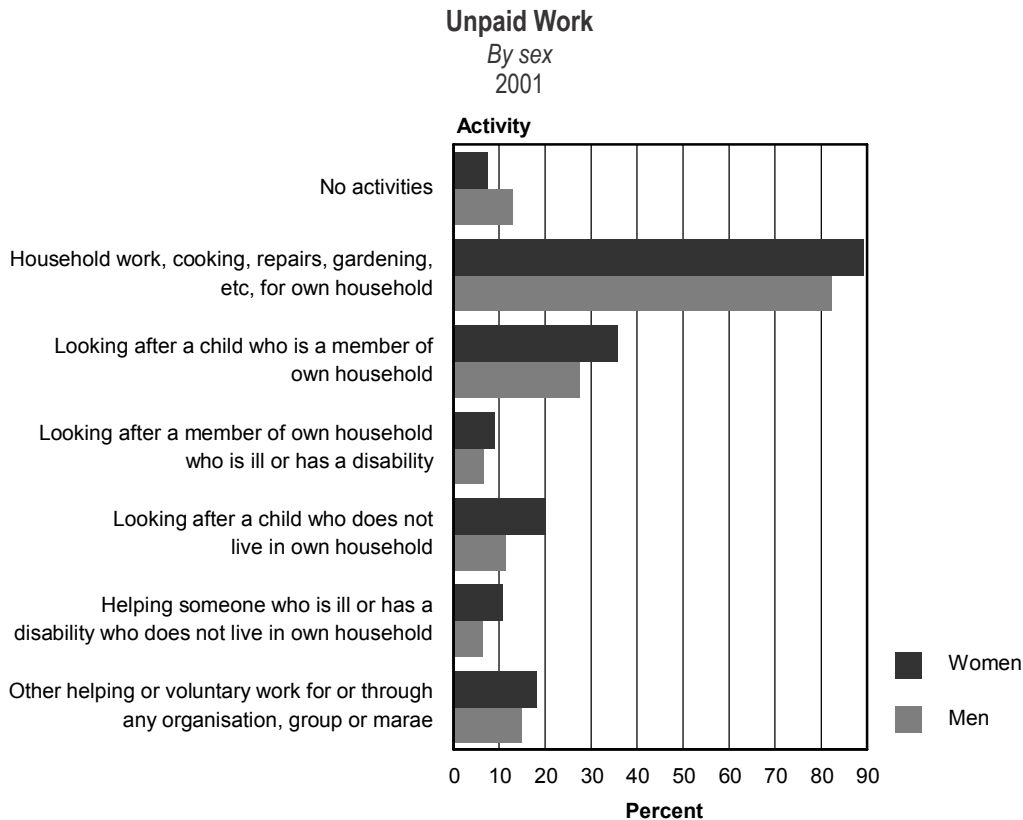
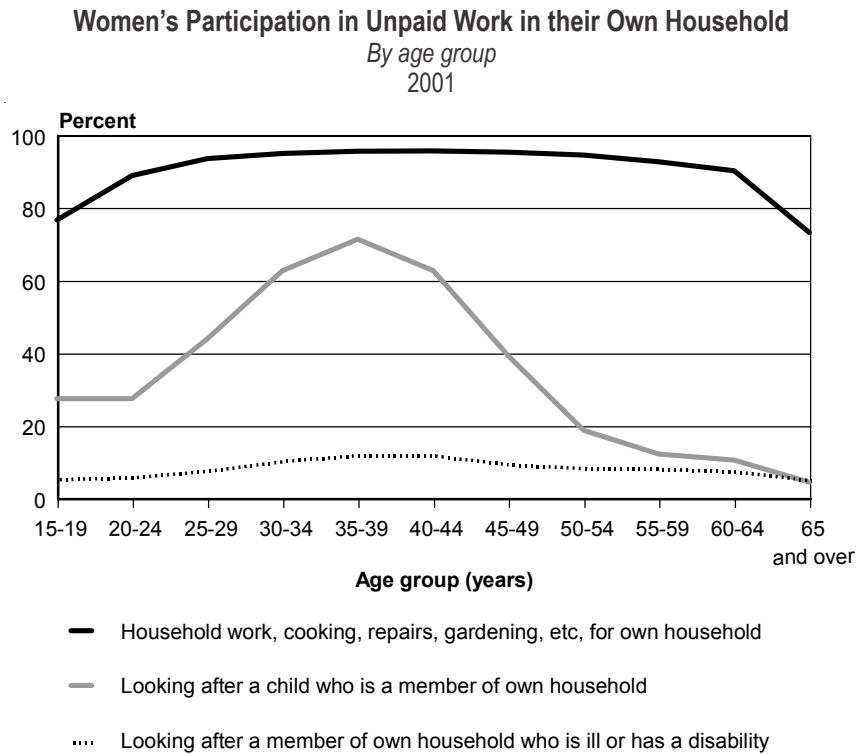


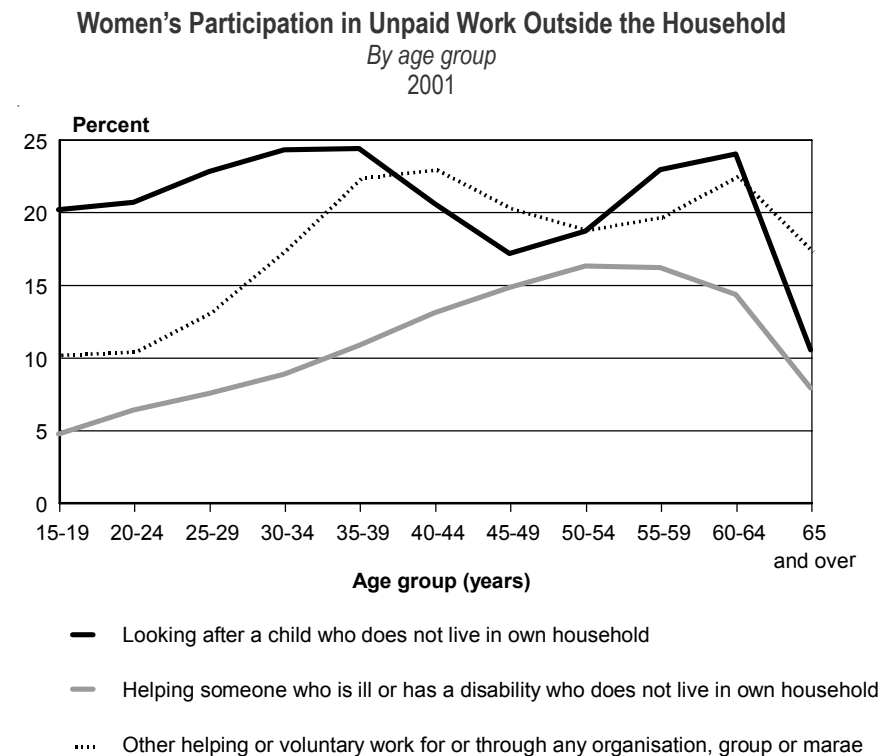
Figure 4.26



Unpaid work outside the household showed more fluctuations across the age groups, as Figure 4.27 shows. Looking after children who did not live in their own household was the most common activity for women up to the age of 39 and between the ages of 55 and 64 – in the latter group many may be looking after grandchildren. Voluntary work for organisations, groups or marae was the most common activity for

women in their 40s and in the retirement age group of 65-plus. The proportion of women helping people with illness or disability increased with age, peaking in the 50s at around 16 percent before declining – perhaps reflecting the fact that women in their 40s and 50s are the most likely to be looking after elderly parents or other relatives.

Figure 4.27



People's ability to undertake unpaid work of course depends to a large extent on the other demands on their time. Balancing paid work and unpaid activities can present difficulties for full-time workers in particular. When looking at participation in unpaid work by labour force status it is evident that unemployed women and those who work part-time have higher rates of participation in most unpaid activities than those who work full-time. Unemployed people were the most likely to have looked after a child who did not live in their own household (29 percent), and to have looked after people who were ill or had a disability either within or outside their own household (14 percent in each case).

Women who worked part-time were the most likely to have spent time looking after children who were members of their household (49 percent) or doing voluntary work through organisations, groups or marae (23 percent). Women who worked full-time, however, were slightly more likely than others to undertake activities such as household work, cooking, repairs and gardening (95 percent). Women who were not in the labour force were the least likely to do most types of unpaid work, with 14 percent not participating in any of the activities. This is largely a reflection of the numbers of older people in this group.

Participation in unpaid work also varies by ethnicity, as Table 4.05 shows. Māori women had the highest rates of participation in each type of activity outside the household, most notably in looking after children (29 percent) and doing voluntary work through organisations, groups or marae (23 percent). They were also the most likely to be looking after children who were members of their own households (51 percent), followed closely by Pacific women (48 percent). This reflects the higher rates of fertility and the greater incidence of extended family households among these groups.

Māori and Pacific women were also more likely than others to have looked after household members with illness or disability. Asian women and those in the Other ethnic groups category were the least likely to have undertaken unpaid work outside the household during the four-week period, but they were more likely than European women to have looked after children within their household. European women were slightly more likely than others to have undertaken activities such as household work, cooking, repairs or gardening and were more likely than other non-Māori women to have done voluntary work through organisations or groups and to have looked after non-household members with illness or disability.

Table 4.05

### Women's Participation in Unpaid Work

*By ethnic group*  
2001

Unpaid Activities	Ethnic group				
	European	Māori	Pacific peoples	Asian	Other
No activities	6.6	6.6	9.7	9.8	10.5
Household work, cooking, repairs, gardening, etc, for own household	90.4	88.6	84.0	80.4	79.2
Looking after a child who is a member of own household	33.6	51.4	48.2	35.6	39.3
Looking after a member of own household who is ill or has a disability	8.1	14.3	14.6	5.5	8.5
Looking after a child who does not live in own household	20.2	29.1	21.5	6.6	10.6
Helping someone who is ill or has a disability who does not live in own household	10.9	13.1	9.2	3.6	6.0
Other helping or voluntary work for or through any organisation, group or marae	18.1	23.2	14.5	8.3	12.8

## Summary

- *Women's labour force participation rate increased from 39 percent to 60 percent between 1971 and 2001, but it is still considerably lower than that of men (74 percent in 2001).*
- *Family formation has a major effect on women's labour force participation, with rates dipping during the years when they are most likely to be raising children. Just 39 percent of mothers with children under a year old were in the labour force in 2001.*
- *Employment growth in recent years has been much faster among women than among men, with almost 200,000 more women in jobs in 2001 than in 1991. Part-time job growth exceeded full-time job growth in the early 1990s but since then the majority of growth has been in full-time work.*
- *Women are three times as likely as men to work part-time – 36 percent compared with 12 percent. Women are most likely to work part-time as young adults or around retirement age but there is also an increase at the ages when they are most likely to be raising children.*
- *Around eight out of 10 women work as paid employees. Women are less likely than men to be employers or self-employed and more likely to be unpaid workers in family businesses. However, women accounted for the majority of the growth in employers and self-employed people between 1991 and 2001.*
- *Asian and European women are the most likely to be employers or self-employed, with Maori and Pacific women considerably less likely to be in either of these categories.*
- *Around eight out of 10 women work in service industries, with the biggest employers being health and community services, education, retail trade and property and business services – most of which are also rapidly growing industries*
- *There are still considerable differences in the occupational distribution of men and women, with clerical and service and sales jobs accounting for 43 percent of the female workforce. Women were also more likely than men to be in professional or technical and associate professional jobs.*
- *Within the female workforce there are marked differences in the occupational distribution of the major ethnic groups. Although clerical and service and sales jobs are the most common occupation for most groups, European and Asian women were the most likely to be working in the higher status white collar occupations.*
- *Around 8 percent of women were unemployed at the time of the 2001 Census, slightly higher than the rate for men but lower than the rate of a decade earlier.*
- *Unemployment is highest among young women (23 percent of those aged 15–19), and among those in the Other ethnic groups category (21 percent).*
- *Women have higher rates of participation than men in all categories of unpaid work both within and outside the household.*
- *Māori women have the highest rates of participation in each type of unpaid work outside the household and in looking after children within the household.*



*Chapter 5*

**Income**

## Chapter 5

### Income

Quality of life is largely dependent upon being able to maintain a reasonable standard of living. Most goods and services required to maintain a healthy standard of living are purchased in exchange for cash or credit. As a result, access to a reliable and adequate source of income is an important indicator of the resources available to women to meet both their own needs and the needs of any dependents that they may support. The level of income largely determines the extent to which men and women can participate in society.

The amount of personal income women earn is more affected than men's by family circumstances. According to the New Zealand Time Use Survey 1998–1999, women continue to shoulder most of the responsibility of childcare and unpaid work in the household. This has resulted in lower median personal incomes through the peak child-rearing years and continued income inequality between the sexes. Significant disparities in personal income also exist between different groups of women, particularly those of different ages and ethnicities.

#### Personal income

Annual personal income, as defined in the Census of Population and Dwellings, is the amount of money (before tax) that an individual receives from all sources in a 12-month period. This concept of an 'amount of money received' distinguishes income from wealth, which is considered to be an accumulated stock of assets (including but not confined to cash). It is important to note that median incomes calculated from census data are based upon income ranges and assume that the income values within ranges are evenly distributed. Median incomes quoted represent estimations only.

Personal income influences personal independence and the ability to care and provide for others. Almost all people (95 percent) aged 15 years and over received at least \$1 of income in the year ending March 2001. There was little difference by sex, with 94 percent of women and 96 percent of men recording an income. These proportions have changed little over time. In 1981, 92 percent of women and 96 percent of men received an income. There is a significant variation, though, in the amounts of income that women receive, both relative to men and between ethnic groups and by age.

In 2001, 6 percent of women aged 15 years and over stated that they received no income. One percent of women recorded a loss over the year,

the same percentage as for men. Thirty-one percent of women who recorded a loss or nil annual income were aged 15–19 years, a smaller proportion than that of men in the same age group (53 percent). The high proportion of people recording no income in this age group is a reflection of the numbers likely to be enrolled in school or tertiary study at this age. The proportion of women recording no income has decreased in the 10 years since the 1991 Census when 53 percent of women aged 15–19 years indicated that they received a loss or no income for that year.

The median income for women aged 15 years and over in New Zealand in 2001 was \$14,500. This means that half of all women had an income above \$14,500 and half had an income below \$14,500. Women's median income was \$10,400 below or only 58 percent of the income received by men over the same period (\$24,900). Women's incomes do not appear to have made any significant gain relative to men's over the preceding 10 years. In 1991 the median income of women was \$11,300, again just 58 percent of that received by men (\$19,200). Gains, however, were made between 1981 and 1991 – in 1981 the median income of women was just 37 percent of the median income of men.

Table 5.01 compares incomes over time. Analysis of real incomes (which are adjusted for inflation) shows that women's median incomes have varied by ethnicity over the 10 years from 1991 to 2001. On the whole, women's incomes increased by 9 percent, almost the same as that for men (9.7 percent) over the 10-year period. Women of Pacific ethnicity showed the greatest increase in real incomes between 1991 and 2001, rising 12.1 percent, although they did not achieve the same level of improvement as their male counterparts (19.5 percent). Median incomes for Māori men over the decade increased 21.6 percent, while those for Pacific men rose 19.5 percent. This means that women in both of these ethnic groups experienced some decrease in their median income as a proportion of men's between 1991 and 2001. In 1991, the median income of Māori women was 77 percent of that of Māori men. This had decreased to 71 percent in 2001.

Real incomes of Asian women and women from the 'other' ethnic group showed the greatest decrease from 1991 to 2001 (-22.1 and -15.5 percent, respectively). Lower incomes for these groups in 2001 may reflect the fact that higher proportions of them are relatively new immigrants

Table 5.01

Real Median Incomes				
By ethnic group				
1991–2001				
Ethnic group	Sex	1991	2001	Percentage change
		\$	\$	
European	women	13,600	15,100	11.0
	men	24,100	26,700	10.8
Māori	women	11,800	13,200	11.9
	men	15,300	18,600	21.6
Pacific peoples	women	11,600	13,000	12.1
	men	14,900	17,800	19.5
Asian	women	11,300	8,800	-22.1
	men	20,200	13,100	-35.1
Other	women	11,000	9,300	-15.5
	men	19,600	13,700	-30.1
Total	women	13,300	14,500	9.0
	men	22,700	24,900	9.7

who are generally less likely than others to be in the labour force. Also, growth in the numbers of overseas students over this time may account for some of the decrease in real incomes.

Women belonging to the European ethnic group received the highest female median income in the year ending March 2001 at \$15,100, but at 57 percent of the incomes of European men, this was also the largest gap between the income of men and women. Pacific peoples had the smallest income difference between men and women, with Pacific women earning 73 percent of men's median annual income. Women belonging to the Asian ethnic group had the lowest median income (\$8,800), followed by the 'other' ethnic group (\$9,300) and Pacific and Māori (\$13,000 and \$13,200, respectively).

## Age

Age is an important variable in determining a person's income. This is particularly true for women who have a distinct life-cycle pattern compared with that of men, with different stages of women's lives impacting not only on their ability to earn an income but the amount of income they are likely to receive. Because women are still commonly the primary caregivers of children their earning potential is influenced by the time required to bear and raise children.

Women have lower median incomes than men at every age but the difference in earnings between the sexes varies by age. As Figure 5.01 shows, women tend to have closer incomes to men in both the youngest and oldest ages, both periods of

Figure 5.01

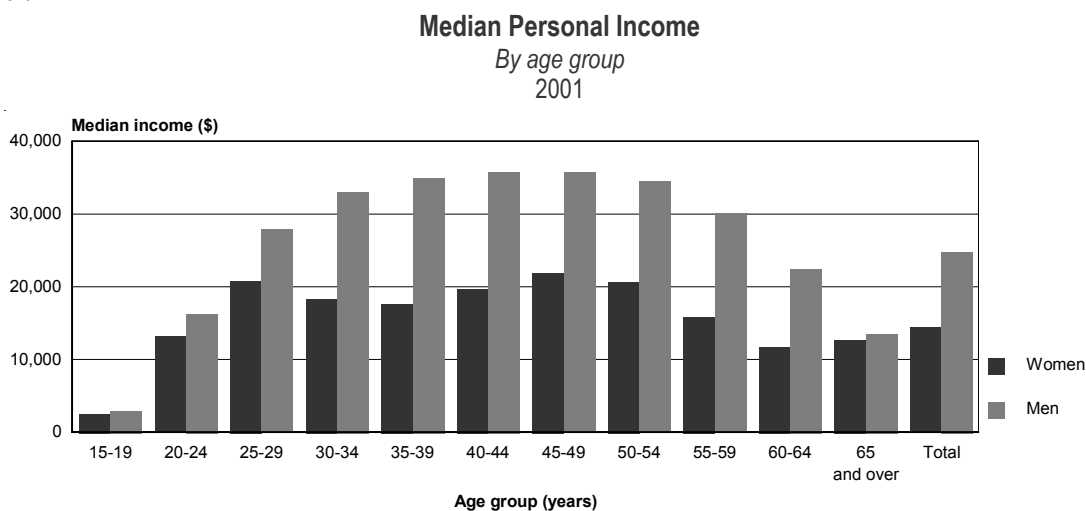
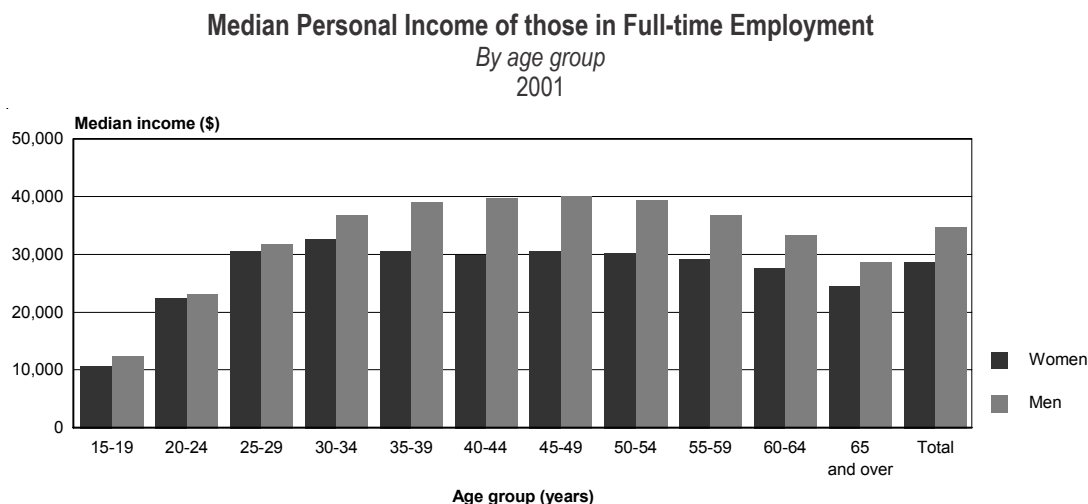


Figure 5.02



relatively low income and when dependency on others is at its highest. Women aged 15–19 years received an annual income of \$2,600 compared with men who received \$3,000. Personal income increased dramatically for both sexes as they moved out of the age groups not likely to be in educational institutions and into the peak working-age groups.

Unlike men's earning life cycle which rises to a single peak between the ages of 40–49, women's median incomes peak at two stages of their lives. The first peak occurs for women aged 25–29 years when they can expect to earn \$20,900 or the equivalent of three-quarters of the median income received by men at the same age. The second peak occurs at 45–49 years. At this age the median income for women is at its highest at \$22,000, although the difference between the sexes is larger, with women earning just 61 percent of the median income of their male counterparts.

Between these two peaks, the median incomes of women experience a decline. This is a direct result of women entering the key childbearing and child-rearing ages of their lives. As Figure 5.01 shows, after 25–29 years of age when men's incomes continue to rise, women's incomes fall slightly showing the impact of family responsibilities. Only after the peak child-rearing years do women's incomes start to increase again.

For both men and women, earning potential reaches its peak for those aged in their 40s. From 50–54 years of age onward a reduction in personal income occurs for both sexes. This is likely to be a result of the falling levels of involvement in the workforce from these ages onward, as more people withdraw from employment completely or move away from full-time work and into part-time and casual employment.

As Figure 5.02 shows, some of the discrepancy between the median incomes of men and women can be removed by analysing those in full-time employment (30 hours or more per week) separately. Women's pattern of earnings is closer to that of men when only those in full-time employment are considered. This removes the effect of those women that reduced their work hours to care for their children but not the effect of those who take jobs at lower pay rates with greater flexibility or proximity to childcare. Although the median incomes of women in full-time employment reflect that of men they still fail to reach the same levels as men. Women still earn less than men at every age but the gap is smaller.

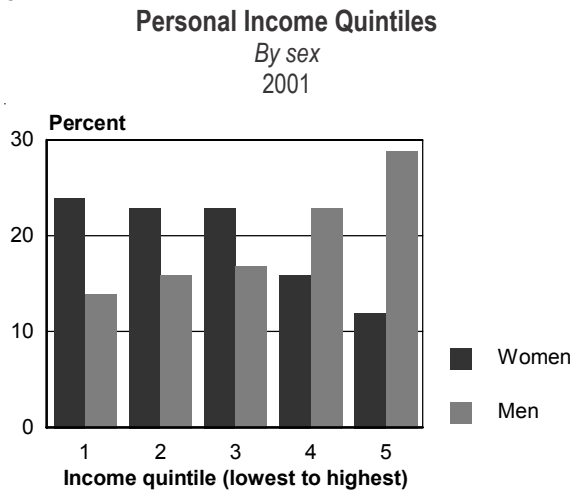
### Income distribution

Another way to analyse the income of women is to look at their income distribution. This is done by splitting the personal income received by all New Zealand adults into five equal groups or quintiles (where quintile one equals the lowest 20 percent of incomes received and quintile five is the highest 20 percent of incomes). If all else were equal, women would be evenly distributed, with one-fifth of women falling into each of the five categories.

Figure 5.03 shows that women are over-represented in the lower three quintiles, and under-represented in the top two. If the incomes of men and women were evenly distributed the proportions in each of the quintiles would be equal. In 2001, just under a half of New Zealand women had incomes in the two lowest income quintiles. A total of 24 percent of women had incomes in the lowest 20 percent of incomes received by all New Zealanders, while slightly fewer women, 23 percent, had incomes in the second lowest quintile. In comparison, just 15 and 16 percent of men had incomes in the lowest and second lowest quintiles,

respectively. Conversely, far higher proportions of men were found in the top two income quintiles. A total of 12 percent of women had incomes in the top 20 percent of incomes received by all New Zealanders in 2001, less than half of that of men (29 percent).

Figure 5.03



Source: Statistics New Zealand, New Zealand Income Survey, 2001

Figure 5.04 takes into account only those men and women who were in full-time employment (30 hours or more a week). The figure shows that the incomes of women remain unevenly distributed even when those who do not participate in the labour force and those who work only part-time are removed. Once again women are more likely than men to be found in the lower two quintiles. Women made up 25.1 percent and 23.6 percent of those quintiles, while men made up 14.2 and 19.6 percent, respectively. Women were almost twice as likely to be in the lowest income quintile as in the highest quintile. Men dominated the top two quintiles. Just 13.1 percent of women in full-time employment received incomes in the top 20 percent of all incomes, compared with 25.3 percent of men.

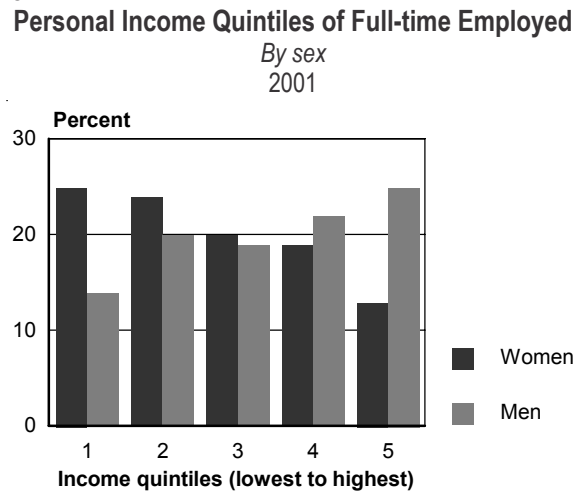
### Labour force status

Labour force status can account for many of the differences in personal income levels. Whether women are employed, unemployed or not in the labour force has direct implications for the amount of income they receive and their ability to obtain personal income. Note that the 2001 Census of Population and Dwellings collects estimates of annual income only.

Not surprisingly, women in full-time employment received a higher median income (\$28,900) than women in other labour force statuses in the year

ended March 2001. Full-time employment is not possible for many women balancing their time between work and home responsibilities. Working part-time may be a preferred option for many women, reflecting family commitments and financial necessity. A consequence of working part-time is

Figure 5.04



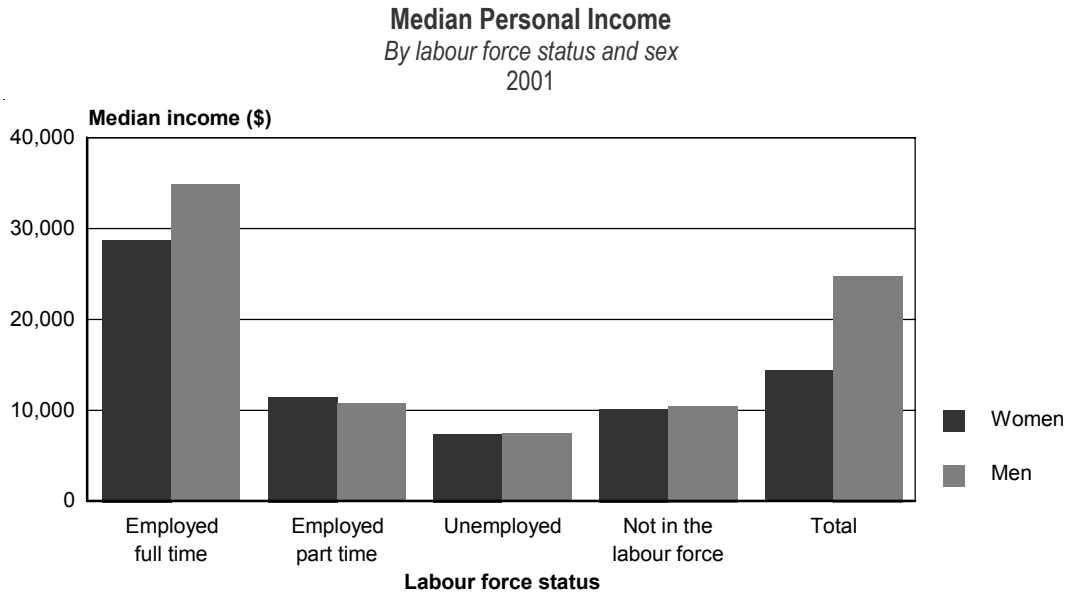
Source: Statistics New Zealand, New Zealand Income Survey, 2001

lower incomes – the median income for a woman working part-time (fewer than 30 hours a week) in 2001 was \$11,600, less than half that of full-time female workers. The median income of women who were unemployed and actively seeking work was \$7,500, while for those not in the labour force the median was \$10,300.

Figure 5.05 shows, that with the exception of part-time employment, women receive lower median incomes than their male equivalents across all types of labour force statuses. For women in part-time employment in 2001 the median annual income received was \$11,600, exceeding that of men (\$10,900). The median personal income of women in full-time employment was equivalent to 83 percent of their male counterparts' income (\$28,900 compared with \$35,000).

The gap between men's and women's income for people unemployed or not in the labour force is less pronounced. For women unemployed and actively seeking work the median income was \$7,500, just \$100 less than their male equivalents (\$7,600). Women not in the labour force had a median income of \$10,300 which was \$300 lower than men in the same work status (\$10,600). This probably reflects greater movement into and out of the paid workforce during the 12 months before the census for men than women. It might also reflect that they have greater sources of non-work income.

Figure 5.05



Between 1991 and 2001, women employed in full-time and part-time work made gains in their real level of income. Adjusting for the effect of inflation, the real incomes of women employed full-time increased from \$25,400 in 1991 to \$28,900 in 2001, or the equivalent of 14 percent. For those in part-time employment, incomes rose 4 percent, from \$11,200 in 1991 to \$11,600 in 2001. In comparison, men in part-time work experienced a 36 percent fall in real incomes over the decade, from \$14,800 in 1991 to \$10,900 in 2001. This may reflect the different reasons that men and women enter part-time work. Women in part-time employment may be involved in an industry in which they are skilled and have experience but cannot work full-time due to responsibilities surrounding childcare. Men on the other hand are likely to use part-time work as bridging employment while they look for full-time work.

The median income of European women aged 15 years and over in full-time employment in 2001 was \$29,800, 82 percent of their male counterparts. Full-time employed European women had higher median incomes than all the other major ethnic groups. Pacific women had the lowest median incomes for those in full-time employment (\$24,500) followed by Asian and Māori women (both \$25,300). Those in the 'other' ethnic group had a slightly higher median income of \$28,600 for those women employed full-time. The smallest difference between full-time employed men and women's median incomes was for the Pacific peoples ethnic group, where women earned the equivalent of 92 percent of the male median income.

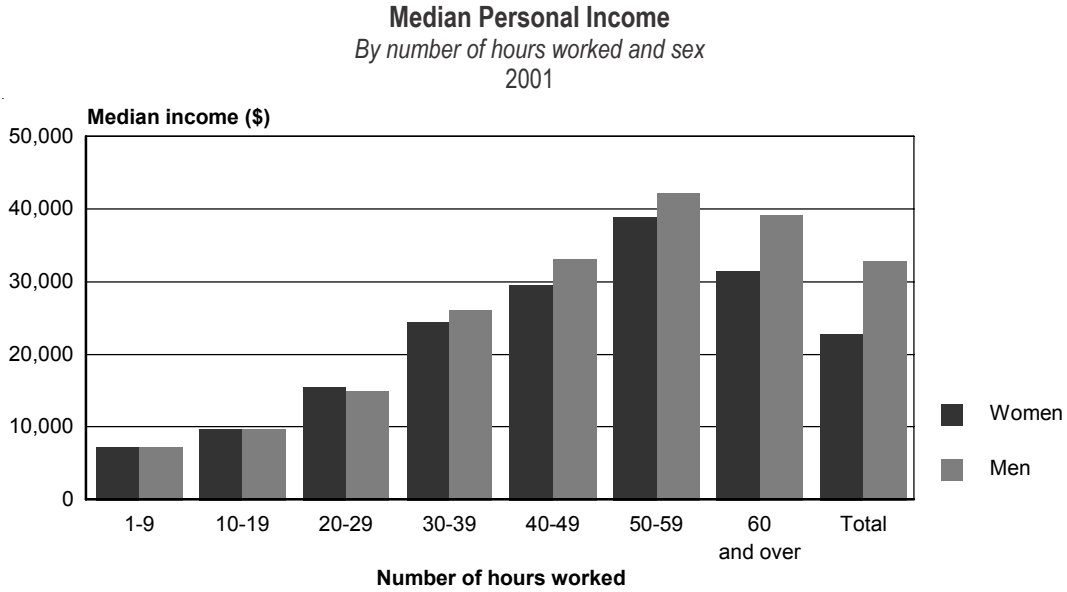
In 2001, 83 percent of New Zealand women over the age of 15 years in employment worked as paid

employees. Five percent were employers, half the proportion of that of men (10 percent). Nine percent of women were self-employed without employees, compared with 16 percent of self-employed men. This partly reflects men's greater participation in trades that dominate the self-employed group. Pacific women were the most likely to be working as paid employees, with 95 percent of them doing so, followed by Māori women at 91 percent. Asian women were the most likely to be an employer or self-employed without employees (6 and 12 percent, respectively). Women who employed others received higher median incomes (\$32,800) than those who worked as paid employees (\$22,800). Median incomes of women working part-time as paid employees (\$11,000) were considerably lower than that of their full-time counterparts (\$29,200).

### Hours worked

Variation in the number of hours worked per week between men and women also contributes to the disparity in the levels of income earned although women's incomes are lower than men's, even for women who work long hours. Women are less likely than men to be working 40 hours or more a week (47 and 81 percent, respectively). As a result, women are less likely to receive high incomes that often accompany jobs that require long hours. Women who worked between 50 and 59 hours a week had the highest median incomes in 2001 (\$39,100). As Figure 5.06 shows, women who worked 60 or more hours a week received lower median incomes than women working between 50 and 59 hours. This diminishing return for additional time spent working could indicate women working in multiple jobs, or perhaps lower rates of pay for

Figure 5.06



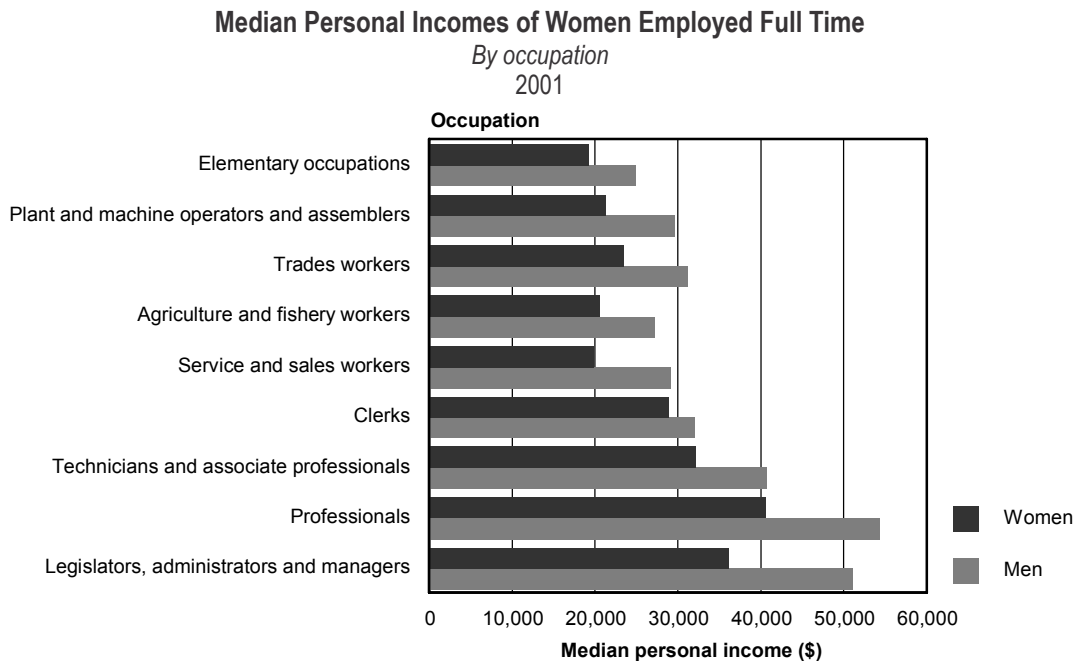
labour intensive jobs. Also, women in self-employment, who earn lower incomes than other full-time employed women, were more likely to be working 60 or more hours a week than women working for wages and salaries.

**Occupation**

As Figure 5.07 shows, median incomes of women working full-time in 2001 were highest for those working as professionals (\$40,500) followed by legislators, administrators and managers (\$36,000) and technicians and associate professionals (\$32,000). Full-time service and sales workers received the lowest median income of just \$19,700.

As with full-time work, women in part-time employment reported varying levels of median incomes depending on the type of occupation they were employed in. Thirty percent of women who worked fewer than 30 hours a week in paid employment were employed in service and sales occupations. This group along with those in the elementary occupations recorded the lowest median income – \$8,400 – of all major occupation groups. In comparison, women working part-time as legislators, administrators and managers earn more than two times the median incomes of women in services and sales and elementary employment but make up just 6 percent of female part-time workers. This shows that most women in part-time

Figure 5.07



employment were working in occupational groups which recorded the lowest median incomes.

### Industry

The proportion of women employed in each industry type varies by full-time and part-time work status. Some industries are more accommodating to part-time work and can act as transitional employment at different stages of women's lives, such as during study and child-rearing years. For this reason, analysis of industry has been broken down into full-time and part-time employment.

Like occupation, industry is strongly linked with the amount of personal income a woman can expect to earn. Women working full-time in the accommodation, cafes and restaurants industry in 2001 recorded the lowest median income of \$19,500 while accounting for only 5 percent of full-time workers. In comparison, women working in the education industry had the highest median incomes, earning around \$38,000 in the 12 months leading up to the 2001 Census. Twelve percent of women employed full-time worked in the education sector, below only property and business services, and health and community services (13 and 14 percent, respectively).

The retail trade industry employed the largest proportion of women in part-time employment (18 percent) but it was also the industry in which women received the lowest annual median income (\$7,600). Accommodation, cafes and restaurants

had the second lowest median income (\$7,800) and accounted for 9 percent of the total female part-time workforce. Women working part-time in the finance and insurance industry received the highest median income (\$18,000) but accounted for just 2 percent of the population.

### Educational attainment

As discussed in the *Education* chapter of this report, personal incomes of women are strongly related to their levels of educational attainment. Education provides both men and women with valuable skills and higher levels of income are associated with higher levels of education.

As Figure 5.08 shows, although the median incomes of women aged 15 years and over increase with rising levels of education, they still are below those of men at every level of attainment. The median income of women was lowest for those with no formal qualifications (\$12,100), \$5,700 lower than their male counterparts (\$17,800). Median incomes increased with each subsequent rise in educational attainment. The median income of women with school qualifications was \$14,000 increasing to \$20,300 for those with a vocational qualification. Women with university degrees received the highest median incomes, those with a degree earning about \$29,100 while those with a higher degree earned even more, \$35,600. However, women with a higher degree earned on average \$18,000 less than their male counterparts (\$53,800).

Figure 5.08

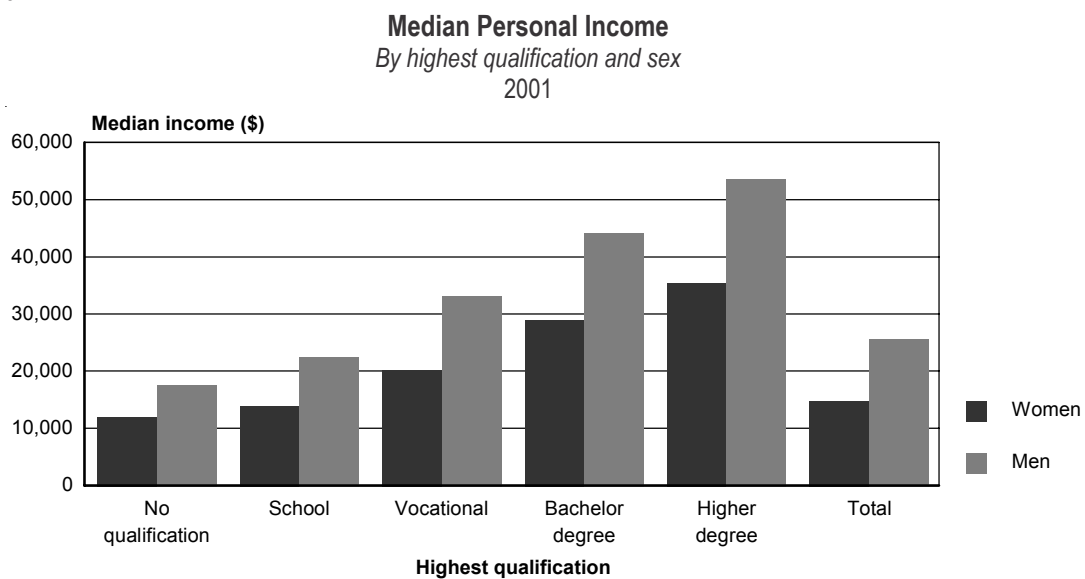
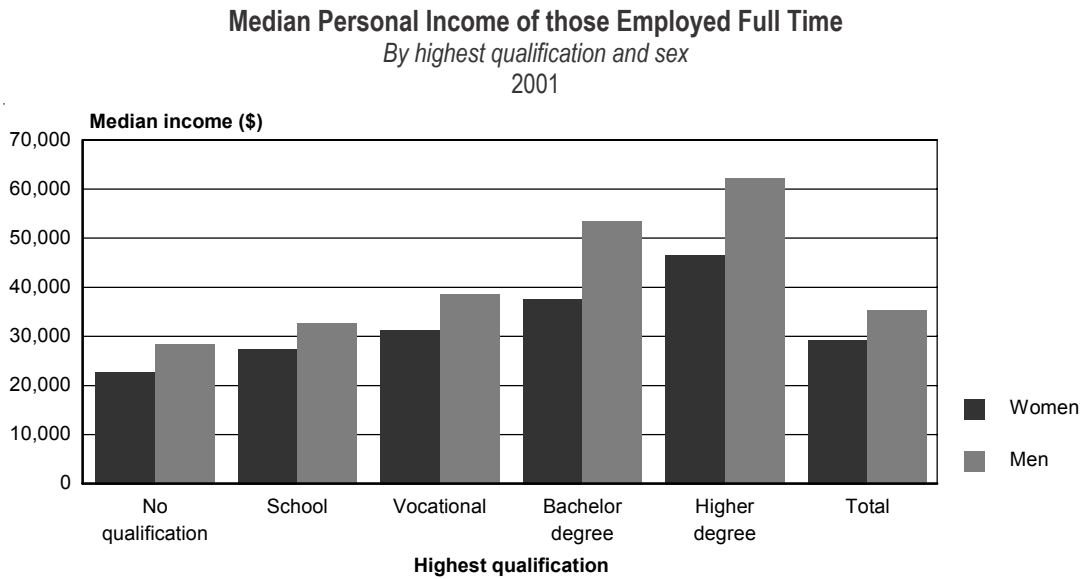


Figure 5.09



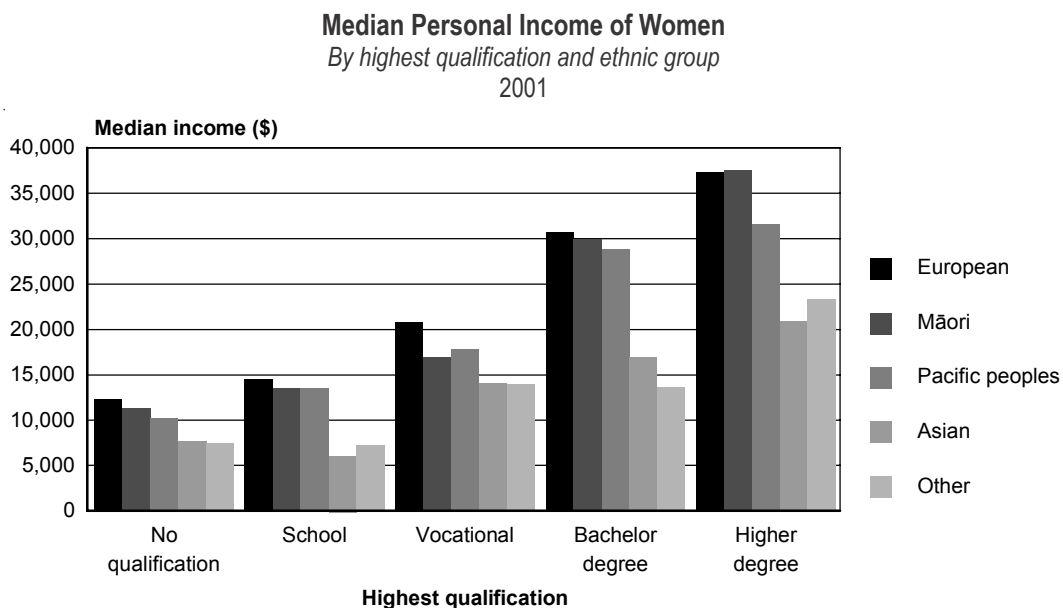
Median incomes of women as a proportion of men's incomes do not vary markedly across educational qualifications. Women with no qualifications receive on average 68 percent of the male median income in the same group. This changes little for women with higher degrees, whose incomes were the equivalent of 66 percent of those received by men with the same level of education.

When analysis is narrowed to include only those people who were employed full-time, it is possible to see that median incomes of women, although still lower than those of men, do not show the same levels of difference as those for all women regardless of labour force status. Excluding women who work less than full-time, however, does not show the impact that time out of the labour force has on women's

earning potential as a result of childbearing. As Figure 5.09 shows, median incomes of full-time employed women increase with rising educational attainment from \$22,900 for those with no qualifications to \$46,700 for those with a higher degree. Differences in median incomes between the sexes were not uniform; women with a degree had the largest proportional difference, receiving 71 percent of their male counterparts' income. In comparison, women with secondary school qualifications record the smallest disparity between the sexes, receiving 84 percent of the average income of men with the same level of education.

As Figure 5.10 shows, Māori women with higher degrees received the highest median income of all major ethnic groups (\$37,600) closely followed by

Figure 5.10



European women (\$37,400). Pacific women with a higher degree received the next highest median income (\$31,600), with those in the 'other' ethnic group and women of Asian ethnicity receiving the lowest median personal incomes (\$23,500 and \$21,100, respectively). In 2001, median incomes of women with a bachelor degree were very similar for women in the European, Māori and Pacific peoples ethnic groups at around \$30,000. The Asian and 'other' ethnic groups receive considerably lower levels of personal income than the other groups regardless of their educational level. This may again reflect the fact that higher proportions of these groups are relatively new immigrants who are generally less likely than others to be in the labour force.

### The earnings gap

In 2001 the average weekly income of women in full-time employment, working for wages or salaries was \$644. This was the equivalent of 79 percent of the weekly income received by men (\$813) over the same period. Analysis of the 2001 New Zealand Income Survey allows for an in-depth look at the interrelated factors that influence how much women earn. Taken in isolation, factors such as age, ethnicity, education, hours worked and occupation can only explain some of the reasons why women do not receive the same levels of income as men. Standardising for each of these variables can determine which are the most responsible for the difference between the wages and salaries of men and women. Note that the Income Survey uses prioritised ethnicity data (see Technical Notes) and is therefore not directly comparable with census data.

The following investigation uses data from the 2001 New Zealand Income Survey which provides more detail regarding trends and discrepancies in income levels. The analysis relates solely to the population in full-time employment and does not include those in self-employment. The New Zealand Income Survey is run annually as a supplement to the Household Labour Force Survey during the June quarter (April to June). The survey was conducted for the first time in 1997, so analysis over a five-year period (which the census allows us to do) is impossible.

When all five variables are standardised together, thereby controlling for the full-time employed female population to have the same age, ethnicity and occupational structure of the total full-time population, the same number of employed hours and the same level of education as all full-time employed people in New Zealand, their average weekly income would increase from 79 percent of that of men to 82 percent. This shows that an earnings gap still exists despite factors associated

Table 5.02

### Earnings Ratio

By standardisation and sex for selected factors  
2001

Standardised for:	Women	Men	Ratio
	\$	\$	
All five variables	666	813	0.82
Age	646	811	0.80
Usual hours worked	680	789	0.86
Occupation	627	835	0.75
Highest qualification	644	813	0.79
Ethnic group	645	812	0.79
Unstandardised	644	813	0.79

Source: Statistics New Zealand, New Zealand Income Survey, 2001

with the variables used. Differences in levels of income between men and women in full-time employment can therefore be assumed to be attributable to factors beyond those that have been considered in this analysis.

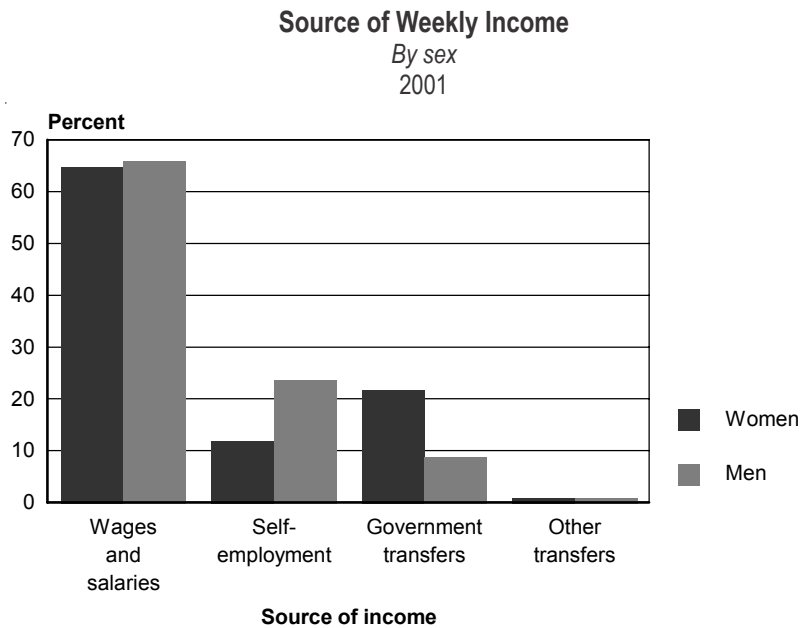
Analysis of the 2001 Income Survey shows that the biggest single factor determining the average weekly earnings of an individual was the number of usual hours worked, as shown in Table 5.02. When the number of hours worked was held constant for men and women, women's average weekly income as a proportion of men's increased from 82 percent to 86 percent. Data from the 1997 New Zealand Income Survey showed a similar result, with number of hours worked also emerging as having the largest single impact on amount of weekly income received. Standardised earnings of women by number of usual hours worked as a proportion of men's earnings increased slightly over the period, 1997 to 2001, from 84 percent to 86 percent, showing that the gender wage gap has closed slightly.

The second largest factor in determining average weekly earnings of women was age, although this effect was small. Age-standardised weekly earnings of women in proportion to men increased to 80 percent, from 79 percent when unstandardised. This is a similar result to that achieved in 1997 where age was not found to be a major factor contributing to the gender wage gap.

Standardising for qualifications and ethnicity had no effect on the ratio of women's earnings to men's, all 79 percent. This means that different ethnic structures and educational attainment levels of the full-time employed women's population compared with that of the total full-time population of New Zealand play no part in explaining why women on average receive lower incomes than men.

Differences in the occupational structure of the male and female workforce also did not emerge as significant in this analysis. One reason for this

Figure 5.11



Source: Statistics New Zealand, New Zealand Income Survey, 2001

unexpected result might be that men in lower income occupations can offset their low earning with longer hours, therefore eliminating the disadvantages they might encounter. It has already been established in this report that the number of usual hours worked is an important factor relating to income. It should also be noted that the occupation classification used in this analysis is broad and does not account for women being employed in the same profession as men but at a lower level.

### Income sources

People receive income from many sources other than wages and salaries. Other sources of income include self-employment, investments, superannuation, income support, or combinations of these sources. The 2001 Census of Population and Dwellings showed that the majority of women aged 15 years and over who received at least \$1 of income in the year ending March 2001 did so from wages and salaries (59 percent). Over the same period, just over a quarter (27 percent) received some income from interest or investments, and 13 percent from self-employment. Twenty percent of women received income from New Zealand Superannuation or another superannuation scheme, while 22 percent received some form of government benefit in the year.

Pacific women were less likely than Māori to have received income from either self-employment (3 and 6 percent, respectively) or interest and investments (4 and 8 percent, respectively). European women were the most likely to have

received income from these sources, with 14 percent receiving income from self-employment and 30 percent receiving income from interest and investments. The high proportion of European women receiving income from interest and investments might be a reflection of their older age structure. Differences in proportions of women receiving income from wages and salaries did not show the same level of variation by ethnicity. Sixty percent of European and Pacific women received income from this source, followed by 59 percent of Māori and 53 percent of women of Asian ethnicity, while 48 percent of those in the 'other' ethnic group received some income from wages and salaries in the year prior to the 2001 Census.

The New Zealand Income Survey 2001 shows similar results when looking at the sources from which women received income. As Figure 5.11 shows, 65 percent of women's received income was from wages and salaries compared with 66 percent of men's. Women were less likely than men to receive income from self-employment, with just 12 percent of women's income coming from this source, compared with 24 percent of men's income. However, a greater proportion of women's income was received from government transfers than men's (22 and 9 percent, respectively). This is attributable to the older age structure of the female population who are likely to receive superannuation. It is possible to see this by looking at the increase in proportions of women receiving government transfers by age, just 15 percent of women aged 15 to 19 years received income from this source compared with 97 percent of those aged 65 years and over.

The average weekly income for women from wages and salaries in 2001 was \$231. For women earning income from government transfers, including benefits, student allowances, family support, ACC, New Zealand Superannuation, and veterans and war pensions, the average weekly income was \$80 which was higher than that recorded for men (\$54).

The New Zealand Income Survey uses prioritised ethnicity data (see Technical Notes) and for this reason it is not directly comparable with census data. Average weekly income earned from wages and salaries varies by ethnicity, European women received the highest weekly incomes (\$244) followed by Pacific women (\$205), Māori and women in the Other ethnic group (\$184 and \$182, respectively). The pattern was slightly different when the average weekly income from self-employment was examined. European women still received the highest amount of weekly income (\$47) with the Other ethnic group emerging as the next highest (\$42), followed by the Māori and Pacific peoples ethnic groups (\$21 and \$7, respectively).

### Income support

As Table 5.03 shows, women receive proportionately different forms of income support to men. In the year leading up to the 2001 Census, women were more likely than men to have received the domestic purposes benefit – 7 percent compared with 1 percent of men. Men were slightly more likely than women to have been in receipt of ACC payments, the unemployment benefit and the invalids benefit. Overall, 27 percent of women compared with 19 percent of men received some form of income support not including ACC or superannuation.

Age is an important factor relating to women's receipt of income support. Women aged 20–24

Table 5.03

### Proportion Receiving Income from Selected Income Sources

By sex  
2001

Income Sources	Women	Men
	Percent	
Wages and salaries	59	61
Self-employment	13	23
Interest and other investments	27	28
New Zealand Superannuation or Veterans Pension	18	14
Other superannuation or pensions	3	4
Unemployment benefit	6	8
Domestic purposes benefit	7	1

**Note:** The 2001 Census of Population and Dwellings collects more than one source of income, so totals do not add up to 100.

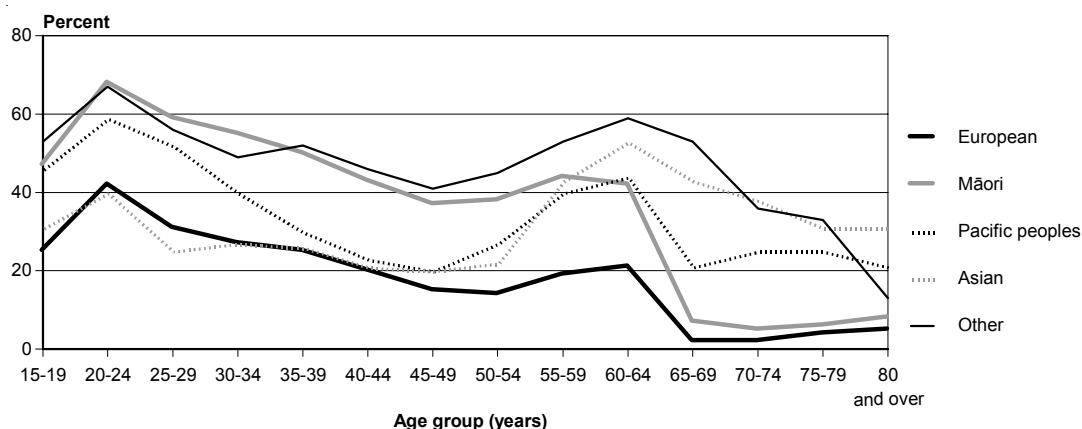
years have the highest rates of income support. This may be partly due to women this age receiving student allowances from the government while they study and this is also the age where uptake of the unemployment benefit is at its highest. Women's receipt of the domestic purposes benefit peaks between the ages of 25 and 35 years. After this age the proportion of women receiving the domestic purposes benefit declines to just 2 percent of women aged 60–64 years.

As Figure 5.12 shows, patterns of benefit use vary by age for different ethnic groups. Women belonging to the Māori ethnic group were more likely than others to be in receipt of income support (excluding ACC and superannuation) in the younger ages. Pacific and Asian women had a second peak of income support for women between the ages of 50 and 64 years.

Figure 5.12

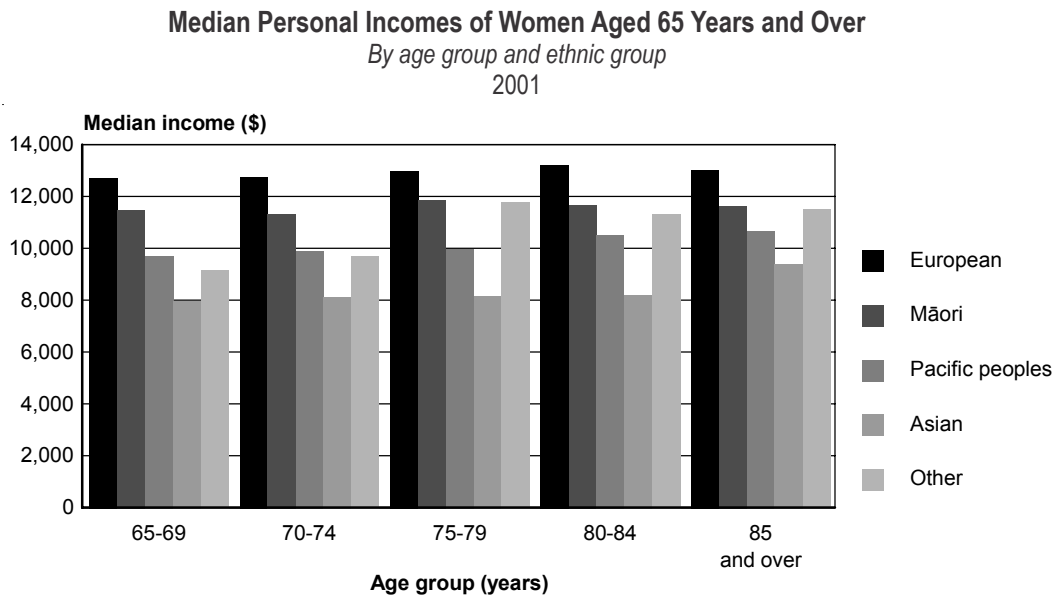
### Women's Receipt of Income Support

By age group and ethnic group  
2001



**Note:** Excludes women in receipt of New Zealand Superannuation and ACC payments.

Figure 5.13



In 2001, 241,800 women (18 percent) received income from New Zealand Superannuation. This number has fallen since 1991 when the number was 276,100 owing to the progressive raising of the age of eligibility.

### Income of women aged 65 years and over

The incomes of women aged 65 years and over are greatly dependent on the provision of New Zealand Superannuation. Withdrawal from the labour force around this age into retirement means that there is little variance in the incomes received by people in this age group regardless of sex and ethnicity. Men still receive higher incomes than women but the difference is small. In 2001 the median income of women aged 65 years and over was \$12,800 while men's was \$13,600. At this age women's income is the equivalent of 94 percent of that of their male counterparts.

Median incomes of women over the age of 65 years did not vary a great deal by age. The average median income of women aged 65–69 years was \$12,500, increasing slightly for those aged 70–74, to \$12,600 and again for those aged 75–79 years, to \$12,900. The average median income of women aged 85 years and over was \$13,000. A possible explanation for this increase relates to women's higher life expectancy. As women lose their partners, they no longer split the income that they receive from interest and investments, so they receive more personal income than they would as part of a couple. Also, the amount of income that a single person receives from New Zealand Superannuation is more than half of the superannuation received for a married couple.

There are differences in the median incomes of women across the major ethnic groups. Women of Asian ethnicity received considerably lower median incomes (\$8,200) than European (\$12,900), or Māori (\$11,600), and Pacific women (\$10,000). A general rise in the level of income received in the year before the 2001 Census by age can be seen to be occurring for all the major ethnic groups. As Figure 5.13 shows, these differences by main ethnic group are reasonably stable across the older age groups.

Older women have very different income sources than their younger counterparts. More than nine in 10 (93 percent) women aged 65 years and over received income from New Zealand Superannuation in the year before the 2001 Census. More than half, 51 percent of women aged 65 years and over who received New Zealand Superannuation had no other source of income in the same period. This was a higher proportion to that of men (40 percent). It is therefore clear that superannuation becomes an essential income source in the older ages.

As shown in Table 5.04, New Zealand Superannuation was the most common source of income for older men and women in each of the major ethnic groups, although the proportions varied. European women had the highest proportion reporting income from New Zealand Superannuation (95 percent) while Asians reported the lowest levels of uptake (41 percent). Māori women were the most likely to still be receiving income from wages and salaries, reflecting the younger age structure of the Māori population, even among those aged over 65 years. The proportions of women receiving income from interest and investments varied a great deal by ethnicity. Pacific

Table 5.04

**Income Sources for Those Aged 65 Years and Over***By ethnic group*  
2001

		New Zealand Superannuation	Other Superannuation	Interest and investments	Wages and salaries	Self-employment
<b>Women</b>	European	95	11	41	4	3
	Māori	88	10	13	7	2
	Pacific peoples	61	14	4	3	1
	Asian	41	8	21	3	2
	Other	51	11	25	6	2
	<b>Total</b>	<b>93</b>	<b>11</b>	<b>39</b>	<b>4</b>	<b>3</b>
<b>Men</b>	European	94	21	46	8	11
	Māori	87	13	15	11	6
	Pacific peoples	65	16	5	6	2
	Asian	39	9	25	5	7
	Other	44	15	28	8	9
	<b>Total</b>	<b>92</b>	<b>20</b>	<b>43</b>	<b>8</b>	<b>10</b>

women were the least likely to receive income from this source, with only 4 percent of them doing so, compared with 41 percent of European women.

Women were generally more likely than men to receive New Zealand Superannuation in all the major ethnic groups, but were universally less likely to receive income from all other income sources than men.

**Marital status**

As Figure 5.14 shows, women have lower median personal incomes than men regardless of their legal marital status. The greatest income parity existed for women and men who were widowed, with women receiving the equivalent of 93 percent of the median income of men (\$13,600 and \$14,600

respectively). This may be attributable to the high proportion of the population in this group who were largely dependent on New Zealand Superannuation. Women who had never married also had quite similar incomes to men; the median income of these women was the equivalent of 81 percent of their male counterparts. The greatest income disparity was for married women who recorded less than half the median income of married men (47 percent).

In every major ethnic group the greatest disparity between men's and women's incomes occurred for those who were legally married, but there was variation in terms of size. European men and women recorded the greatest difference in incomes, the median income of women being just 46 percent of their male counterparts (\$15,600 and \$33,600

Figure 5.14

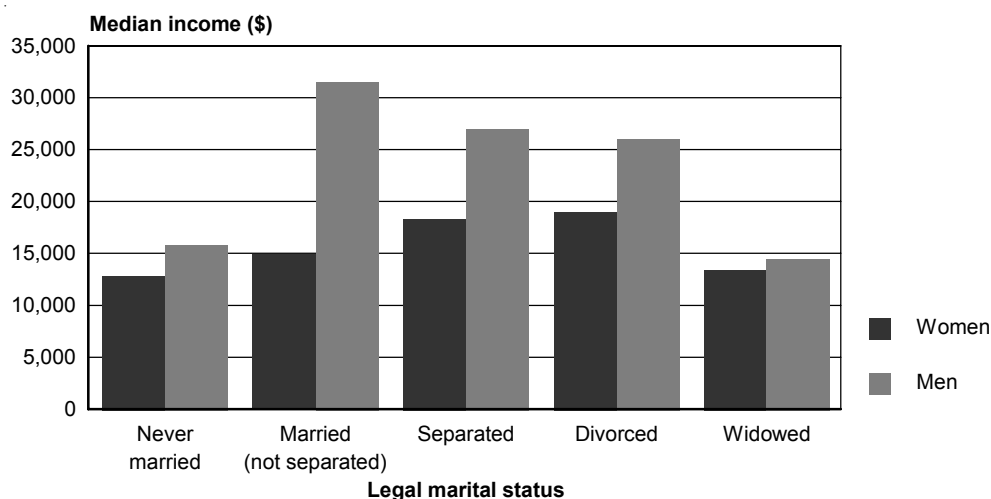
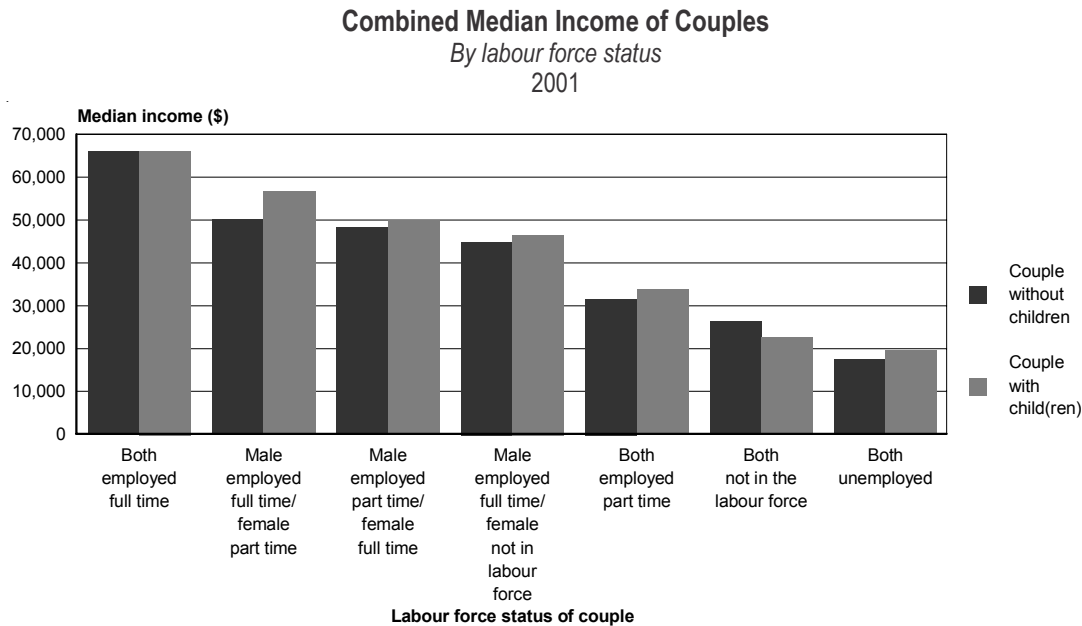
**Median Personal Income***By legal marital status*  
2001

Figure 5.15



respectively). In comparison, Pacific women received an income of 63 percent of their male counterparts (\$14,600 and \$23,300 respectively). Median personal incomes of Māori women were highest (\$16,300) for those who were divorced at the time of the 2001 Census, followed by those who were married (\$15,400). Māori women who had never married received the lowest median incomes (\$11,900), a likely consequence of the younger age structure of this population. Although never-married Asian women had the lowest median income of all ethnicities and marital statuses, they had the greatest income parity with men, receiving 97 percent of the median income of their male counterparts.

### Labour force status of partner

The labour force combination of partnered adults can have significant impact on their combined family incomes. Family income is important because although the amount of sharing that occurs within households cannot be determined, it can be assumed that some degree of income and wealth sharing takes place. Women working full-time with a partner also in full-time employment had the highest combined incomes, as shown in Figure 5.15. The median family income for a couple with both adults in full-time work was similar for those with and without children (\$66,400 and \$66,300, respectively). This shows that provided both parents are in full-time work children do not influence the median income of a family, although the financial responsibilities that the two groups face will be different. An unemployed couple without children have the lowest family income of \$17,700 per year.

Differences between the combined median family income of couples with and without children were minimal. Only when both partners were not in the labour force did the incomes of couples without children exceed those with children. This may be due to the fact that couples without children and not in the labour force were more likely to be older people in retirement. Recipients of New Zealand Superannuation generally receive a greater amount than those on other types of benefits. Furthermore, older couples were also more likely to receive additional income from interest and investments than younger couples.

The data suggests that a woman's labour force status is not as important in determining combined family income as their male partner. For example, a woman (with children) in part-time employment with a male partner in full-time employment can expect a combined median income of \$57,000. However, if the woman (with children) works full-time and has a partner employed part-time, their combined median income is considerably lower, at \$50,200. As such, if a woman is the main earner in a relationship where both partners are employed, the combined income of the adults is likely to be lower.

Given the above results, it is not surprising that the personal income of a woman in an opposite-sex couple displays a strong relationship with that of her male partner. Most New Zealand women live in relationships where their partner receives an income equal to or greater than their own.

Table 5.05

**Relationship between a Women's Personal Income and Income Received by Her Male Partner**  
2001

Income of woman	Income of man					
	\$10,000 or less	\$10,001 - \$20,000	\$20,001 - \$30,000	\$30,001 - \$40,000	\$40,001 - \$50,000	\$50,001 or more
	Proportion of women					
\$10,000 or less	27.5	11.9	15.1	15.0	10.5	20.0
\$10,001 - \$20,000	7.1	40.7	16.5	13.2	8.4	14.1
\$20,001 - \$30,000	5.7	8.5	33.5	19.9	12.4	20.0
\$30,001 - \$40,000	5.5	6.5	14.2	31.9	15.3	26.6
\$40,001 - \$50,000	5.8	6.3	10.8	15.7	26.7	34.6
\$50,001 or more	5.2	4.6	6.8	8.9	9.5	65.1

As Table 5.05 shows, the majority of women were in a relationship (married or unmarried) with men that received an income at a similar level to their own. Sixty-five percent of women who received an income of \$50,001 or more in the year leading up to the 2001 Census were partnered with a man earning the same amount. At the other end of the spectrum, 28 percent of all women receiving \$10,000 or less were living with a man also earning \$10,000 or below.

**Women with children**

Women are frequently the main caregivers of children in a family and as a result are more likely than men to withdraw from or reduce their hours in the paid workforce while they have dependent children in their care. As a result, their median personal incomes decrease.

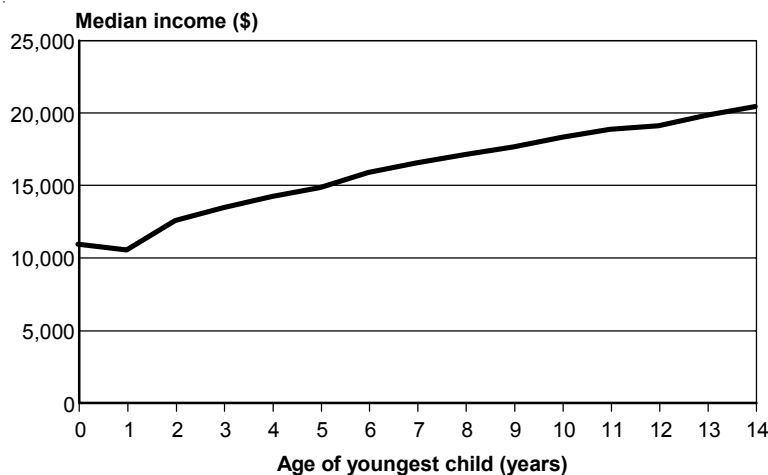
As Figure 5.16 shows, median incomes of mothers depend to an extent on the age of the mother's youngest child. Women with a child aged between

0 and 2 years received the lowest personal median incomes of all women with children in 2001. This is likely to be due to women's reduced participation in the labour force while their children were very young. But, as Figure 5.16 shows, income levels steadily rose as the age of the child increased and by the time the youngest child was aged 14 years and was more independent, a woman could expect to earn a median income of \$20,400. This was higher than the median income received by all women (\$14,500). This is likely to be a result of the older age of women with teenage children and the resulting greater workforce experience compared with the total population. They also have a greater likelihood of being employed full-time.

The historic costs of childcare and associated expenses mean that when a family has more than one child it may be cheaper, at least in the short term, for one of the parents to withdraw from the workforce and care for the children. This is often the mother. In 2001, the median personal incomes

Figure 5.16

**Median Personal Income of Mother**  
*By age of youngest child*  
2001



of women fell as the number of children in the family increased. Women in families with just one child received a median personal income of \$16,300. This decreased to \$16,000 for women living in families with two children and further to \$14,700 for those with three children. Women with five children had the lowest median personal incomes, at \$12,900. This may indicate that costs associated with working, such as childcare, which are viable for families with one child become too financially taxing for those with larger families and as a result women either stop work or reduce their hours, and

consequently receive lower amounts of personal income.

Median personal incomes of European women tend to be far more influenced by the number of children in the family than other ethnic groups. Median personal incomes of women in this group drop from \$17,200 for those with one child to \$13,100 for those with five or more children. In contrast, women of Asian, Pacific and Māori ethnicities had median personal incomes that varied little by number of children in the family.

## Summary

- *In the year to March 2001, 94 percent of women and 96 percent of men aged 15 years and over received income in their own right from wages and salaries, self-employment, investments and/or government income support programmes.*
- *Women's income from all employment types can be seen to have a strong relationship to age, reflecting the stages of childbearing and child-rearing. Women's earning life-cycle reaches two peaks, the first at 25–29 years at \$20,900 and a second at 45–49 years when incomes are at their highest, \$22,000.*
- *Median incomes of women varied in the 12 months to March 2001 by main ethnic group. Women identifying with the European ethnic group had the highest median income (\$15,100) followed by Māori (\$13,200) Pacific (\$13,000) 'other' and Asian women (\$9,300 and \$8,800, respectively).*
- *The income of women is unevenly distributed among the total population. Women are over-represented in the lowest three income quintiles and under-represented in the top two. A total of 24 percent of women had incomes in the lowest 20 percent of incomes received by all New Zealanders.*
- *Differences in men's and women's median incomes were greater for those who had attained a higher degree than for those with lower level qualifications. This is likely to be a result of the greater impact of child-raising on these women's ability to work.*
- *The average weekly income of women in full-time employment working for wages and salaries was lower than that of men (\$644 and \$813, respectively). Some of this difference can be attributed to the differing number of hours worked and well as the different age structures of the male and female workforce. However, when these factors alongside occupation, highest qualification and ethnicity were controlled, women still received incomes equivalent to just 82 percent of their male counterparts.*
- *Women receive proportionately different forms of income support to men. Women were more likely than men to be in receipt of some form of income support not including ACC or superannuation (27 and 19 percent, respectively).*
- *Incomes of women aged 65 years and over are greatly dependent on the provision of New Zealand Superannuation. Withdrawal from the labour force around this age into retirement means that there is little variance in the income received by people in this age group regardless of age and ethnicity.*



*Chapter 6*

**Health**

## Chapter 6

# Health

## Introduction

Good health encompasses physical, mental and social well-being, and the absence of disease. Health may be influenced by genetic factors, lifestyle factors such as smoking, drinking and physical exercise, demographics including age, sex and ethnicity, socioeconomic status and environmental factors such as housing.

This chapter examines trends in the health status of females in New Zealand compared with males, and differences in health status based on ethnicity<sup>1</sup> and age. Topics include health outcomes, common injuries, self-assessed health status, disability, main causes of death, and life expectancy.

Three risk factors – alcohol consumption, smoking and obesity – and one protective factor, physical activity – are discussed in this chapter, with ethnic comparisons given where available. Although pregnancy and childbirth are common causes of hospitalisation for women<sup>2</sup>, this topic is not specifically covered in this chapter, but fertility, births and abortion are covered in the *Families and Households* chapter of this report.

## Health outcomes

### Chronic illness and disease

This section presents information on diabetes, cancer and heart disease and conditions common to older women such as arthritis and osteoporosis.

### Diabetes

Diabetes is a major health issue in New Zealand and can result in serious complications including heart disease, kidney disease, blindness and limb amputations (Ministry of Health, 1999b and 2004b). Type 2 diabetes accounts for 85 to 90 percent of diabetes, and is often associated with obesity. Type 2 diabetes usually develops in adulthood although it is increasingly being seen in overweight children (Ministry of Health, 1999a and 2004e).

According to the 2002/03 New Zealand Health Survey, an estimated 4.3 percent of adults (or one in 23 adults) had been diagnosed with diabetes<sup>3</sup>, an increase from an estimated 3.7 percent (one in 27 adults) in 1996/97 (Ministry of Health, 1999b and 2004b). These figures may underestimate the true prevalence of diabetes as they are based on self-reported accounts of diagnosed diabetes – an estimated one-third to a half of the incidence of diabetes is undiagnosed and a diabetic may have no symptoms for several years before diagnosis (Ministry of Health, 1999b). Females and males had similar rates of diabetes prevalence in 2002/03, and prevalence increased with age.

When comparing information across ethnic groups, adjustment needs to be made for differences in the size and age-structure of the groups being compared. This is done through calculation of *age-standardised rates* (see Technical Notes).<sup>4</sup> When adjusted for age, Māori, Pacific and Asian had a higher self-reported rate of diabetes than European/Other ethnic groups (Figure 6.01).

More than 800 people died from diabetes in 2000, and males had a higher rate of death than females (NZHIS, 2004b). Māori females had a death rate from diabetes that was almost six times the non-Māori female rate, while the Māori male death rate was more than six times the non-Māori male rate (see Table 6.06).

Diabetes prevalence is predicted to increase by 58 percent in the European population, and more than double in the Māori population (132 percent increase) and the Pacific population (146 percent increase) by 2011 (Ministry of Health, 2004e). These increases reflect the changing demographics of the population (age structure and population size) and other risk factors such as obesity and physical activity.

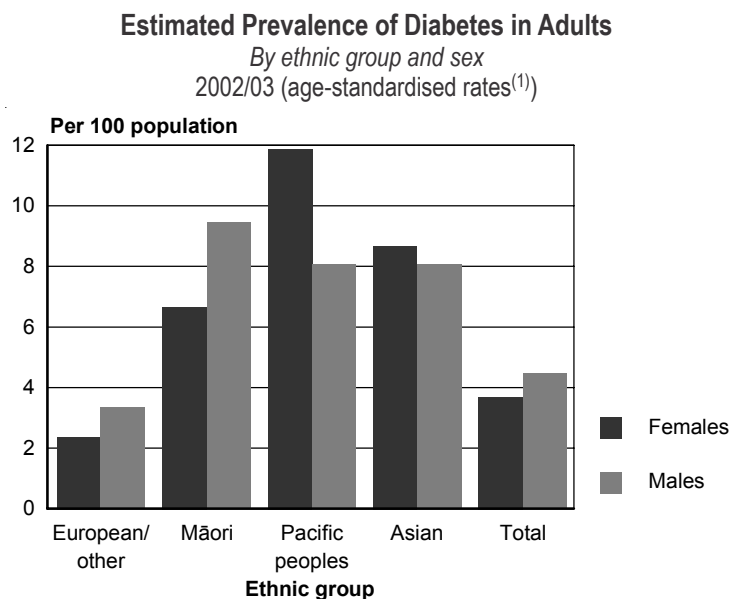
(1) Ethnicity data from the New Zealand Health Survey, Disability Survey and New Zealand Health Information Service is “prioritised”. See Technical Notes for more information.

(2) In 2000/01, nearly 50 percent of public hospital discharges for women aged 25 to 44 years were for normal birth and complications of pregnancy and the puerperium (New Zealand Health Information Service, 2004b).

(3) Excludes diabetes during pregnancy.

(4) Note that age-standardised rates from the New Zealand Health Survey have been standardised to the World Health Organisation standard world population. Cancer registration rates and mortality rates have been standardised to the Segi standard world population.

Figure 6.01



Source: 2002/03 New Zealand Health Survey

(1) See Technical Notes for more information.

### Cancer

Cancer is a leading cause of morbidity and mortality in New Zealand, and females are more likely than males to be diagnosed with cancer at some stage in their lives (Table 6.01).

According to the 2002/03 New Zealand Health Survey, one in 20 adults (5.0 percent) have been diagnosed with cancer (excluding non-melanoma skin cancer) at some stage in their lives.

Table 6.01

#### Estimated Lifetime Prevalence of Cancer

By ethnic group and sex  
2002/03 (age-standardised percentages)

	Ethnic group				
	European/ other	Māori	Pacific peoples	Asian	Total
Females	5.5	6.8	3.0	3.1	5.4
Males	3.4	3.0	--	--	3.2

Source: 2002/03 New Zealand Health Survey

-- Numbers too small to calculate reliable estimates.

All cases of primary malignant cancer must be reported to the New Zealand Cancer Registry, with the exception of some skin cancers.<sup>5</sup> More than one cancer may be recorded per person, so the numbers that follow are a count of cancer *registrations* rather than a count of people with cancer.

There were 8,232 female and 9,468 male cancer registrations in 2000 (NZHIS, 2004a). For females

the number of cancer registrations increased gradually with age, while for males there was a clear peak in cancer registrations in the 70–74 year age group. When adjusted for population size and structure (see Technical Notes), females had higher cancer registration rates than males between the ages of 20 and 54 years. Male cancer rates increased rapidly after 50 years of age, and were twice the female rate over the age of 70 years. These differences will be partly due to differences in cancer registration patterns for breast cancer in females and prostate cancer in males, which were both leading causes of cancer registration.

Breast cancer was the leading cause of female cancer registration, accounting for more than one in four (28 percent) female registrations. Other common causes of female cancer registrations were colorectal cancer (15 percent) and melanoma (10 percent). Prostate cancer was the leading cause of male cancer registrations (32 percent, or nearly one in three), followed by colorectal cancer (13 percent) and lung cancer (10 percent).

When adjusted for age, the male cancer registration rate was 26 percent higher than the female rate (Table 6.02). The male lung cancer registration rate was 50 percent higher than the female rate, while the male registration rates for cancers of the bladder, kidney and oesophagus were more than twice the corresponding female rates. Registration rates for melanoma were similar for both sexes.

(5) Basal-cell epithelioma and squamous-cell carcinoma of the skin are not required to be reported to the Cancer Register except when of the skin of genital organs. For more information, see the publication series *Cancer: New Registrations and Deaths* ([www.nzhis.govt.nz](http://www.nzhis.govt.nz)).

Table 6.02

	Cancer Registration Rates		
	By ethnic group and sex 2000 (age-standardised rates <sup>(1)</sup> per 100,000 population)		
	Ethnic group		
	Māori	Non-Māori	Total
Total	306.5	329.4	327.3
Females	313.1	294.3	295.1
Males	304.3	375.7	370.4

Source: New Zealand Health Information Service, 2004a

(1) See Technical Notes for more information.

Māori female cancer registrations accounted for 8 percent of total female cancer registrations in 2000, slightly higher than the percentage of Māori male cancer registrations (5 percent of total cancer registrations). When adjusted for age, the Māori cancer registration rate was 7 percent lower than the non-Māori<sup>6</sup> registration rate but this figure hides the differences between female and male cancer registration rates. The Māori female cancer registration rate was 6 percent higher than the non-Māori female rate, while Māori males had a much lower cancer registration rate than non-Māori males (19 percent lower).

Non-Māori had more than twice the rate of colorectal cancer and an 8 percent higher rate of breast cancer than Māori. The Māori rate of stomach cancer was over twice the non-Māori rate, and Māori had over 2 ½ times the rate of lung cancer. One in five female lung cancer registrations was Māori, compared with just over one in 10 male registrations.<sup>7</sup> The Māori

female registration rate of cervical cancer was more than 1 ½ times the non-Māori female rate, while the Māori female death rate from cervical cancer was more than four times the non-Māori female rate. Differences in the death rates may be due to lower levels of cervical screening for Māori women (Cervical Cancer Audit, 2004), access to care, co-morbidity or other factors occurring before or after diagnosis.

Cancer was the leading cause of death in 2000, accounting for 27 percent of female deaths and 30 percent of male deaths. Breast cancer, colorectal cancer and lung cancer were leading causes of cancer death for females (NZHIS, 2004b).

### Arthritis

Arthritis is a group of diseases involving inflammation of the joints. The most common type is osteoarthritis, which commonly affects older people. Arthritis can cause pain and loss of function, affecting the quality of life of sufferers.

An estimated one in six adults (15.7 percent) has arthritis, according to the 2002/03 New Zealand Health Survey. The most common types identified were osteoarthritis (7.7 percent) and rheumatoid arthritis (3.2 percent). Females had higher rates of arthritis, osteoarthritis and rheumatoid arthritis than males (Table 6.03). Arthritis prevalence was similar across ethnic groups, although Asian females had a lower rate than females from other ethnic groups. Arthritis prevalence increased with age and peaked in the age group 75 years and over.

Table 6.03

		Estimated Prevalence of Arthritis				
		By ethnic group and sex 2002/03 (age-standardised rates <sup>(1)</sup> per 100 population)				
		European/ other	Māori	Pacific peoples	Asian	Total
Arthritis	Females	15.1	13.8	12.8	7.7	14.4
	Males	11.7	15.6	14.9	13.2	12.4
-Osteoarthritis	Females	8.0	5.5	5.1	2.0	7.2
	Males	5.3	5.4	--	--	5.0
-Rheumatoid arthritis	Females	3.1	4.7	4.6	--	3.2
	Males	2.2	2.9	--	--	2.4

Source: 2002/03 New Zealand Health Survey

-- Numbers too small to calculate reliable estimates.

(1) See Technical Notes for more information.

(6) Non-Māori is not an ethnic group but includes all people who are not recorded as Māori. As this can include people from many different ethnic groups as well as people with ethnicity not recorded, comparisons should be made with caution.

(7) Apart from cervical and breast cancer rates, cancer registration rates by ethnicity and sex have not been presented here due to the small number of registrations.

## Osteoporosis

Osteoporosis is a condition where bone density decreases and bones become brittle, with an increased risk of fractures. These fractures can result in hospital care, pneumonia, blood clots as a result of prolonged bed rest, and death. Women are at an increased risk of developing osteoporosis after menopause. Other risk factors include family history, smoking, low body weight, heavy alcohol consumption and physical inactivity (Ministry of Health, 2004b). Exercise is a protective factor because it strengthens the bones, and it can reduce the risk of falls by improving muscle tone and balance.

According to the 2002/03 New Zealand Health Survey, an estimated 2.4 percent of adults (or one in 42 adults) have osteoporosis (Ministry of Health, 2004b). Females are more likely to have osteoporosis than males, and prevalence increases with age. European/Other ethnic groups have a slightly higher rate of osteoporosis than Māori (Table 6.04).

Table 6.04

### Estimated Prevalence of Osteoporosis

By ethnic group and sex

2002/03 (age-standardised rates<sup>(1)</sup> per 100 population)

	European/ other	Māori	Pacific	Asian	Total
Females	3.2	1.6	--	--	2.9
Males	0.8	0.4	--	--	0.7

Source: 2002/03 New Zealand Health Survey

-- Numbers too small to calculate reliable estimates.

(1) See Technical Notes for more information.

Table 6.05

### Estimated Prevalence of Selected Diseases and Conditions

By ethnic group and sex

2002/03 (age-standardised rates<sup>(1)</sup> per 100 population)

		European/ other	Māori	Pacific peoples	Asian	Total
Heart disease	Females	8.5	10.6	7.9	4.6	8.4
	Males	9.4	13.6	5.9	8.1	9.6
Stroke	Females	1.4	2.8	--	--	1.5
	Males	2.0	2.5	--	--	1.9
Asthma (15–44 years)	Females	25.9	27.2	10.8	8.7	24.3
	Males	20.8	21.6	9.4	6.3	19.6
COPD* (45 years and over)	Females	5.9	6.3	--	--	6.0
	Males	4.6	6.0	--	--	4.8

Source: 2002/03 New Zealand Health Survey

\*Chronic obstructive pulmonary disease (see page 108 for description).

-- Numbers are too small to calculate reliable estimates.

(1) See Technical Notes for more information.

(8) Hospital discharge data includes day patients (people admitted and discharged on the same day) and inpatients (people admitted and staying at least one night) discharged from publicly funded hospitals, as well as publicly funded patients treated in private hospitals. Accident and emergency data is not included unless the person is admitted as a day patient or an inpatient. Discharges include patients leaving the hospital to return home, transfers to another hospital or residential institution, and deaths occurring in hospital after formal admission. There may be more than one discharge recorded for each episode of care and so discharges are not a count of people.

## Other diseases and conditions

The estimated prevalence of a selection of other diseases and conditions is shown in Table 6.05. Females have a lower rate of heart disease than males across all ethnic groups except Pacific peoples.

Females have a lower estimated prevalence of stroke than males. However, the estimated rate for Māori females exceeds the rate for Māori males. Numbers are too small to reliably calculate estimates for Pacific and Asian people.

The estimated female rate of asthma for 15 to 44-year-olds exceeded the male rate in every ethnic group. Māori females and European/other females had the highest estimated rates of asthma.

Females had a higher rate of chronic obstructive pulmonary disease (COPD – see description on page 108) than males. The estimated rate for Māori exceeded the European/other rate for both sexes.

## Accidents and injuries

There were 130,887 public hospital discharges<sup>8</sup> involving injury and poisoning in 2000/01, and females accounted for 46 percent of these (NZHIS, 2004c). Female inpatients had a longer average hospital stay following injury (8.5 days) than male inpatients (7.2 days).

In some cases an injury is a secondary condition that arose during the stay in hospital as a result of an external cause (eg complications of surgery). Complications of medical and surgical care were the

leading category of injury and poisoning discharges from hospital in 2000/01 (37 percent of female discharges and 31 percent of male discharges). Falls were a common cause of hospital discharges involving injury and poisoning, especially for females (29 percent of female and 21 percent of male discharges). Although there were more female than male hospital discharges for falls, more males were hospitalised up until the 60–64 year age group. Females accounted for nearly three-quarters of hospitalisations for falls in the age group 65 years and over.

Although more males than females die as a result of suicide, females accounted for nearly two-thirds of hospital discharges for self-inflicted injury (3,259 female and 1,800 male discharges)<sup>9</sup>. The largest proportion of female hospital discharges for self-inflicted injury was in the age group 25–44 years (48 percent), followed by the 15–24 year age group (31 percent). Four percent of females hospitalised for self-inflicted injury (120 hospital discharges) were girls aged under 15 years.

Females accounted for one in four hospitalisations following assault in 2000/01. There were nearly 1,000 female assault hospitalisations, and 10 percent were aged under 15 years (99 hospital discharges). These figures only represent assaults that resulted in inpatient or day patient hospitalisation and those where assault was specified as the cause. In some cases such as those involving domestic violence, medical treatment may be avoided or an accident may be given as the cause of the injury.

Māori females were over-represented in the assault hospitalisation figures, accounting for nearly one in every two female hospital discharges following assault (47 percent). In comparison, fewer than one in three male hospital discharges following assault were Māori (27 percent). When adjusted for age, Māori females had a hospitalisation rate that was four times the rate of non-Māori females.

In 2002, 13,918 road users were injured or killed (LTSA, 2004a).<sup>10</sup> Females accounted for 43 percent of those injured and 33 percent of those killed. Male drivers were over-represented in traffic accident statistics – nearly 60 percent of drivers involved in injury crashes and 67 percent of drivers involved in fatal crashes were male<sup>11</sup>. Males were also over-represented in traffic accident mortality statistics, as the section on mortality shows.

In 2003 the Accident Compensation Corporation (ACC) received 65,000 ACC claims from females and 182,500 claims from males as a result of workplace injuries (26 percent female, 74 percent male). The most common industries employing females who made claims were health and community services (14 percent of female claims), manufacturing (13 percent) and the wholesale and retail trade (12 percent). Ninety percent of females and 89 percent of males did not have any time away from work as a result of their injury. ACC claims were made for four female workplace deaths and 83 male workplace deaths in 2003 (Statistics New Zealand, 2004).

### Self-assessed health status

In other parts of this chapter, health status is measured by rates of illness and death. Self-reported health status is an alternative measure that provides information on quality of life. It is a subjective measure that is based on an individual's perception of their own health.

Self-assessed health status has been measured in the 1996/97 and 2002/03 New Zealand Health Surveys using the SF-36 questionnaire. The questionnaire consists of 36 questions that are grouped into eight health concepts.<sup>12</sup> Scores are expressed on a scale from 0 to 100, with higher scores representing better self-perceived health.

In both the 1996/97 and 2002/03 New Zealand Health Surveys, males had a higher score than females (indicating better self-assessed health status) on all scales except general health (Ministry of Health, 1999b and 2004b). In 2002/03 the largest differences were for vitality, role limitations due to physical health, and bodily pain. However this may be due to females being more likely to acknowledge limitations rather than actual health differences (Ministry of Health, 2004b).

With the exception of vitality, the European/other ethnic group rated their health higher than Māori. In general, Pacific people rated their health better than Māori and, in some cases, better than European/Other. For females, Māori had a lower rating than European/Other for physical functioning, role limitations due to physical health, general health, social functioning and role limitations due to emotional health.

Pacific females had a higher rating than Māori females for role limitations due to physical health

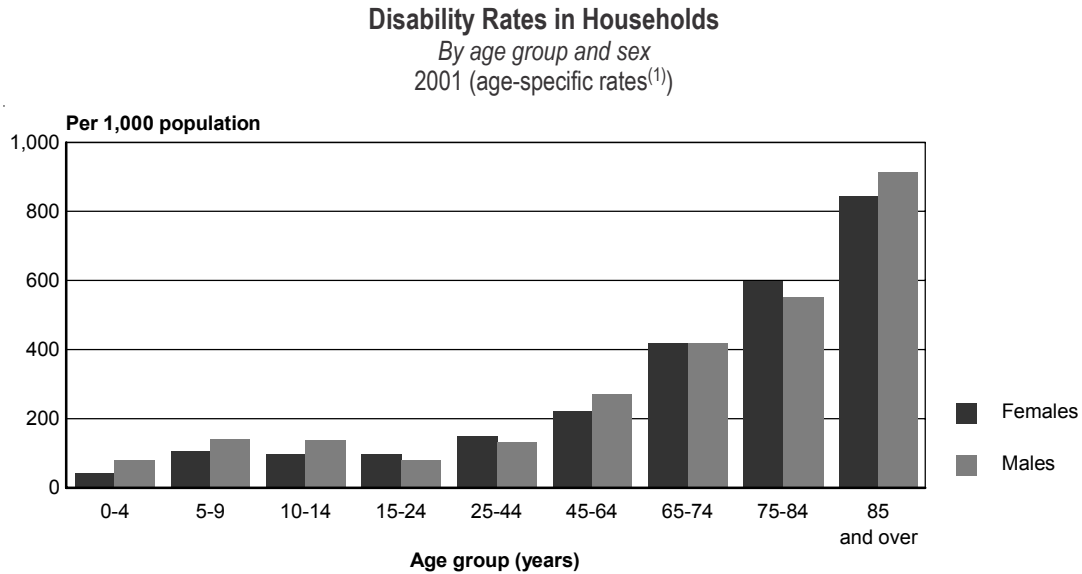
(9) These figures include deaths that occurred in hospital.

(10) All crashes resulting in injury are supposed to be reported to LTSA, but LTSA believes that only about a half of such injury crashes are reported.

(11) Includes car drivers and van drivers involved in injury crashes or fatal crashes reported to LTSA.

(12) The SF-36 scales are physical functioning, role limitations due to physical health, bodily pain, general health perceptions, vitality (energy/fatigue), social functioning, role limitations due to emotional health and general mental health.

Figure 6.02



Source: New Zealand Disability Survey 2001

(1) See Technical Notes for more information.

and role limitations due to emotional health, and a higher rating than European/Other females for vitality.

Female ratings for the physical functioning and role limitations due to physical health declined with age. While male ratings for bodily pain, general health and vitality decreased with age, female ratings for these scales were higher in the age groups 25-44 years and 45-64 years than in the younger age group (15-24 years) and older age group (65 years and over). For both males and females, mental health ratings increased with age.

### Disability

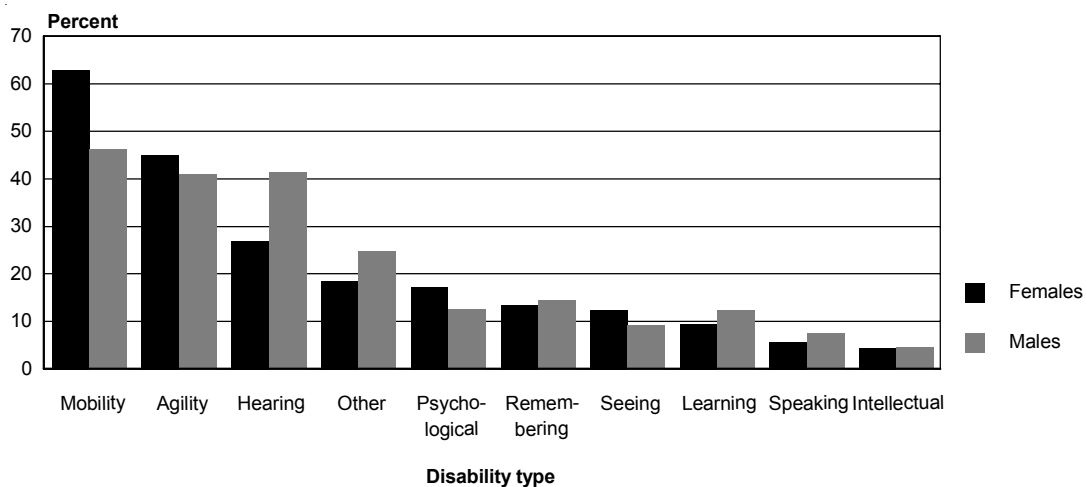
According to the Household Disability Survey 2001 and the Disability Survey of Residential Facilities 2001, approximately one in five New Zealanders had a disability in 2001 (an estimated 743,800 people). Ninety-six percent of people with disability lived in households and 4 percent lived in residential facilities such as rest homes or hospitals (Ministry of Health, 2004d, Statistics New Zealand, 2002).

In 2001, an estimated 716,500 people living in households had a disability. There were slightly more females than males with disability (366,100 females

Figure 6.03

### Adults (15 Years and over) with Disability who Are Living in Households

*By type of disability*  
2001



Source: New Zealand Disability Survey 2001

**Notes:** People may have more than one type of disability, so percentages will add to more than 100 percent. Psychological includes psychiatric.

and 350,400 males). This is a 6 percent increase from 1996 when there were an estimated 674,400 people (348,000 females and 326,400 males) with disability living in households.

Males had a slightly higher rate of disability (18,000 per 100,000 population) than females (17,000 per 100,000 population). Figure 6.02 shows the disability rate of females and males by age in 2001. Males had a higher rate of disability under the age of 15 years. The female disability rate exceeded the male rate between the ages of 15 to 44 years and 75 to 84 years. Disability rates increased with age, and eight out of 10 females and nine out of 10 males aged 85 years and over living in households had a disability.

Twenty-two percent of Europeans had one or more disabilities compared with 21 percent of Māori, 14 percent of Pacific and 10 percent of people from Asian and other ethnic groups. After adjusting for population size and structure, Māori had the highest disability rate (24,100 per 100,000), followed by Europeans (17,900 per 100,000), Pacific (17,000 per 100,000) and Asian/Other ethnic groups (13,400 per 100,000). Māori had a higher disability rate than European and Pacific people in all age groups, apart from 75 years and over where Pacific people had a higher disability rate (Ministry of Health, 2004d).

People may have more than one type of disability (eg physical and intellectual). Physical disabilities were the most common disability type for adults living in households (Figure 6.03). The three most common types of disability for women were mobility, agility and hearing. Mobility was the most common type of disability for males, but females were more likely than males in all adult age groups to have a mobility disability.

Eleven percent of children aged under 15 years had a disability. Special education was the most common disability type<sup>13</sup> for children aged under 15 years living in households, but there were large differences in the disability type of girls and boys. The most common disability type for girls was chronic health conditions (36 percent of girls, 32 percent of boys with disability). Nearly half of boys with disability (47 percent) were in special education compared with 27 percent of girls.

Disease and illness was the most common cause of disability for females (45 percent) while the most common cause for males was accident/injury (36 percent compared with 24 percent of women with disability).

The Disability Survey of Residential Facilities covered rest homes, long-stay beds in public or private hospitals, and residential units. Approximately 4 percent of people with disabilities lived in residential facilities, and more than two-thirds were females (an estimated 18,700 females and 8,500 males). Thirty-two percent of women and 17 percent of men aged 85 years and over had a disability and lived in residential facilities.

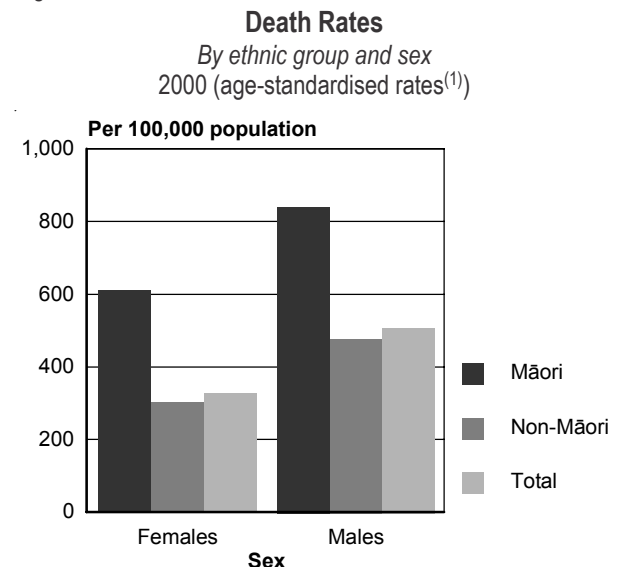
## Mortality

There were 26,723 deaths in 2000 (13,817 males and 12,906 females). Females had a lower rate of death than males in all age groups<sup>14</sup>, and the female youth (15–24 years) death rate was approximately one-third the corresponding male rate (NZHIS, 2004b). A large proportion of male deaths in this age group were due to motor vehicle crashes or suicide. The male death rate across all age groups (512 per 100,000) was 55 percent higher than the female rate (330 per 100,000).

Māori females had a higher rate of death than non-Māori females<sup>15</sup> in every age group, and the Māori female age-standardised death rate (614 per 100,000 population) was more than twice the non-Māori female death rate (305 per 100,000).

Between 1970 and 2000, the female death rate decreased by 44 percent compared with a 46 percent decrease in the male death rate. The Māori

Figure 6.04



Source: New Zealand Health Information Service, 2004

(1) See Technical Notes for more information.

(13) The Disability Survey children's form used the following categories for disability type: sensory, use of technical equipment, intellectual, psychiatric/psychological, chronic health problem, and other types.

(14) Age groups used here were 0–1, 1–14, 15–24, 25–44, 45–64, 65–74, and 75 years and over. Rates calculated by five-year age group show that females had a slightly higher rate than males in the 5–9 years age group.

(15) Refer to Footnote 6.

death rate has fallen by 19 percent between 1996 and 2000 (females 19 percent, males 20 percent).<sup>16</sup>

In 2000, the leading causes of death in New Zealand were cancer and ischaemic heart disease, collectively accounting for one out of every two deaths (cancer – 29 percent, ischaemic heart disease – 22 percent).

The most common causes of death for women were cancer (27 percent of female deaths), ischaemic heart disease (21 percent) and cerebrovascular disease (13 percent). The most common causes of female cancer death were breast cancer, colorectal cancer and lung cancer. Injury and poisoning accounted for 4 percent of female deaths in 2000 and the most common causes were transport accidents (1.3 percent of female deaths), falls (1.1 percent), suicide and self-inflicted injuries (0.6 percent) and homicide (0.2 percent). There were five maternal deaths in 2000.<sup>17</sup>

Death rates for selected leading causes of death are shown in Table 6.06. Females had a lower mortality rate than males for all of the causes shown in this table (excluding female breast cancer). The biggest differences between male and female mortality rates were for suicide (the male rate was more than 4.5 times the female rate), transport accidents (2.5 times the female rate) and ischaemic heart disease (twice the female rate).

Table 6.06

### Selected Causes of Death

By ethnic group and sex  
2000 (age-standardised rates<sup>(1)</sup> per 100,000 population)

	Females			Males		
	Total	Māori	Non-Māori	Total	Māori	Non-Māori
Total cancer	108.1	185.7	102.0	150.7	220.1	145.5
– Breast cancer	21.1	25.3	20.6	...	...	...
– Lung cancer	17.4	63.5	13.9	31.7	64.7	29.1
– Colorectal cancer	16.4	13.0	16.5	20.9	16.5	21.2
Ischaemic heart disease	55.7	113.8	51.5	114.1	201.4	106.8
Cerebrovascular disease	31.7	47.0	30.2	34.7	36.3	33.9
COPD*	14.2	38.0	12.5	25.1	42.8	23.8
Diabetes mellitus	10.3	44.8	7.9	14.7	70.0	11.2
Transport accidents	8.1	15.6	6.9	20.6	30.9	19.0
Suicide	4.0	3.6	4.0	18.7	23.3	17.5
<b>All causes of death</b>	<b>329.9</b>	<b>613.9</b>	<b>305.0</b>	<b>512.0</b>	<b>842.4</b>	<b>481.3</b>

Source: New Zealand Health Information Service, 2004b.

(1) See Technical Notes for more information.

\* COPD – Chronic obstructive pulmonary disease (see description on this page).

... Not applicable.

(16) Māori mortality data from 1996 onwards is not comparable with earlier data due to changes in the recording of ethnicity data that occurred in September 1995.

(17) A maternal death is defined as the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and the site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes (NZHIS, 2004b).

#### Medical terms

*Ischaemic heart disease* is a condition involving restricted blood flow and oxygen to the heart, normally caused by narrowing of the arteries. It may include chest pain (angina) and acute myocardial infarction (heart attack) that could result in heart failure.

*Cerebrovascular diseases* are conditions including haemorrhage, restricted blood flow or infarction that affect the central nervous system. It includes strokes and brain haemorrhage.

*Chronic obstructive pulmonary diseases (COPD)* are conditions where airways are obstructed, including chronic bronchitis and emphysema. It is also known as chronic obstructive respiratory disease (CORD). Smoking is an important risk factor for COPD.

Source: <http://eu.amershamhealth.com/medcyclopaedia>

Māori females had a higher rate of death than non-Māori females for all causes shown in Table 6.06 except colorectal cancer and suicide. The largest differences were for diabetes mellitus (the Māori female death rate was more than 5.5 times the non-Māori rate) and lung cancer (more than 4.5 times the non-Māori rate).

The following information shows the main causes of death by age group. It is based on data from 2000, but a lot of the information given here is indicative of trends over time.

**Infants (<1 year)**

There were more male than female deaths in this age group, with 1.3 male deaths to every female death. Congenital anomalies and conditions originating in the perinatal period were the most common cause of death, and collectively accounted for nearly two-thirds of infant deaths.

**Children (1–14 years)**

There were 1.5 male deaths to every female death in this age group. Accidents (including traffic accidents, drowning and suffocation) were leading causes of death for both females and males. Cancer and congenital anomalies were also a common cause of death.

**Youth (15–24 years)**

There were three male youth deaths to every female youth death in 2000. Traffic accidents were the most common cause of death for both females and males, accounting for one in every three youth deaths. Suicide was a leading cause of youth death (16 percent of female and 30 percent of male youth deaths). However, most of the deaths for both these causes were males – there were three male deaths from motor vehicle crashes to every female death, and more than five male deaths from suicide to every female death.

**Adults 25–44 years**

The most common cause of death for females in this age group was cancer (41 percent), most commonly, breast cancer (17 percent). External causes of death accounted for one in four female deaths and one in two male deaths, most commonly transport accidents. There were 4.5 male suicide deaths to every female death in this age group.

**Adults 45–64 years**

Cancer was the leading cause of death for both women (53 percent) and men (39 percent) in this age group. The most common types were lung cancer, colorectal cancer and breast cancer. Ischaemic heart disease was another leading cause, accounting for one in 10 female deaths and one in four male deaths in this age group.

**Adults 65–74 years**

The majority of deaths in this age group were due to cancer or ischaemic heart disease. Cancer accounted for 41 percent of female deaths and 40 percent of male deaths, while ischaemic heart disease accounted for 18 percent of female deaths and 25 percent of male deaths.

**Adults 75 years and over**

Ischaemic heart disease was the most common cause of death for women in this age group (25 percent), followed by cancer (18 percent). For

men, cancer and ischaemic heart disease were equally common causes of death (26 percent each).

*Sourced from New Zealand Health Information Service 2001 mortality data (NZHIS, 2004b).*

**Life expectancy**

Women's life expectancy increased by nearly 10 years between 1950–1952 and 2000–2002 (Table 6.07). In 2000–2002, life expectancy at birth was 81.1 years for females and 76.3 years for males, a difference of nearly five years (Statistics New Zealand, 2004b). The difference between female and male life expectancy has been decreasing since 1975–1977, when there was a difference of 6.4 years between female and male life expectancy.

Table 6.07

**Life Expectancy at Birth**  
1950–1952 to 2000–2002

	Life expectancy		
	Females	Males	Difference (years)
1950-1952	71.3	67.2	4.1
1955-1957	73.0	68.0	5.0
1960-1962	73.8	68.4	5.3
1965-1967	74.3	68.2	6.1
1970-1972	74.6	68.5	6.0
1975-1977	75.5	69.0	6.4
1980-1982	76.4	70.4	6.1
1985-1987	77.1	71.1	6.0
1990-1992	78.7	72.9	5.9
1995-1997	79.7	74.4	5.3
2000-2002	81.1	76.3	4.8

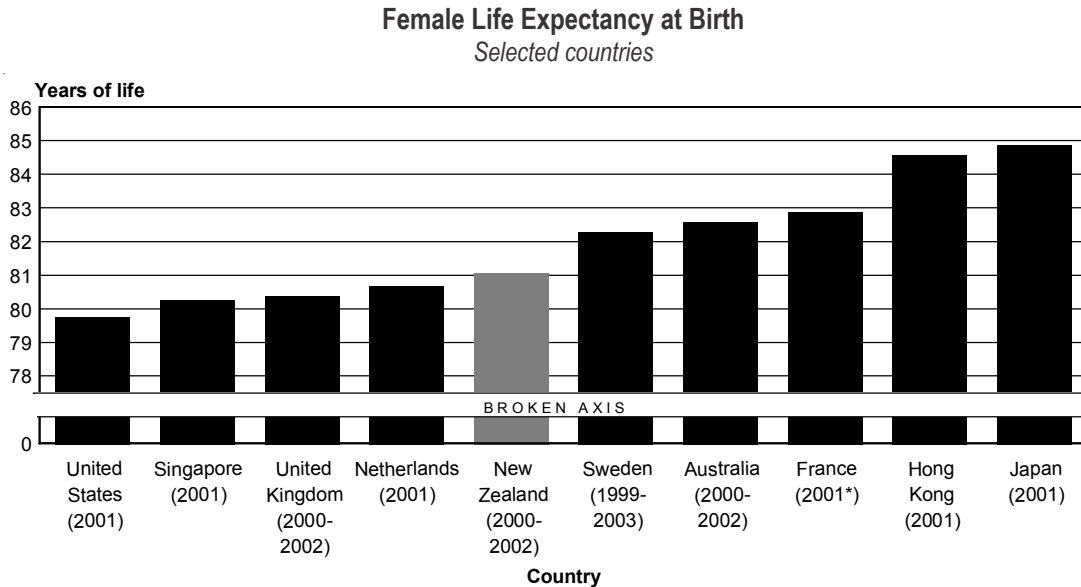
Source: Statistics New Zealand, 2004b

**Note:** Owing to rounding the difference given here may not equal the number obtained by subtracting the male from female life expectancies.

In 2000–2002, Māori female life expectancy at birth (73.2 years) was 8.7 years less than the life expectancy of non-Māori females (81.9 years). In comparison, Māori males had a life expectancy of 69.0 years compared with 77.2 years for non-Māori males. These comparisons should be interpreted with caution as non-Māori can include people from many different ethnic groups.

Life expectancy is projected to increase across all ethnic groups between 2001 and 2021. For the European population, life expectancy is projected to increase by four years (85.3 years for females, 80.8 years for males) and Māori life expectancy is projected to increase by six years (80.1 years for females, 75.8 for males). Life expectancy projections for Pacific and Asian ethnic groups are difficult to calculate due to the influence of immigration.

Figure 6.05



Source: Statistics New Zealand, 2004b

\*Provisional data.

A comparison of New Zealand female life expectancy at birth with females from other selected countries is shown in Figure 6.05. Japanese females had the highest life expectancy at 84.9 years, nearly four years higher than the life expectancy of New Zealand females (81.1 years).

### Risk and protective factors

This section looks at risk factors that may influence health outcomes, and protective factors that may help prevent disease. Information in this section is self-identified and as a result prevalence may be overestimated or underestimated.

Age-standardised rates (see Technical Notes) make up most of the data in this section. Where data is referred to as a percentage, this is the actual burden experienced by the population. Where data is referred to as a rate (or a number per 100 population), this is the age-standardised rate. Individual age-standardised rates have no meaning by themselves and should only be used in comparison with other rates (eg males and females, or Māori and European).

#### Alcohol consumption

Heavy alcohol consumption is associated with adverse health outcomes including heart disease, stroke, some cancers, mental health conditions, and accidents such as motor vehicle crashes, falls, drowning, suicide and violence both in and outside the home (Ministry of Health, 2004e). Alcohol consumption during pregnancy can lead to birth defects including foetal alcohol syndrome (Ministry of Health, 2004b).

In 2003, drink driving contributed to 12 percent of motor vehicle crashes resulting in injury and 31 percent of fatal motor vehicle crashes (LTSA, 2004b).

According to the 2002/03 New Zealand Health Survey, 83.5 percent of adults (15 years and over) reported having had a drink containing alcohol in the last year and 17.2 percent of drinkers had a potentially hazardous drinking pattern. Females were less likely than males to have an alcoholic drink in the past year (rates of 80.3 per 100 females and 88.5 per 100 males), and female drinkers had lower rates of potentially hazardous drinking patterns than male drinkers (11.4 per 100 female drinkers, 27.1 per 100 male drinkers). For both females and males, potentially hazardous drinking was most common in youth (15 to 24 years) and decreased with age.

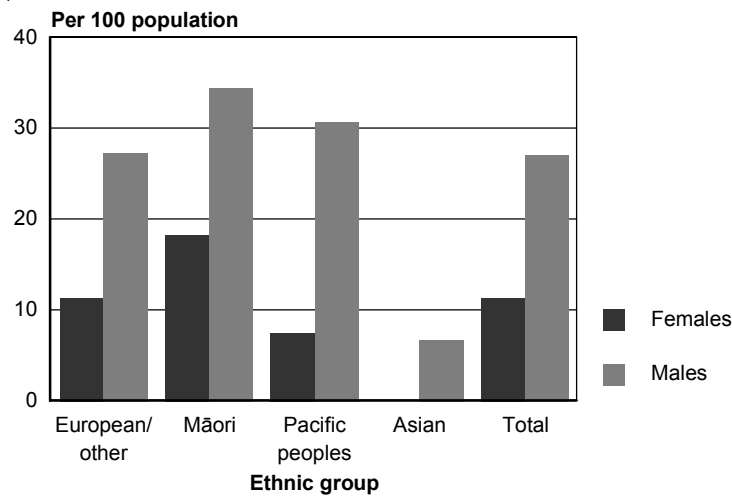
European/Other females and males were more likely than other ethnic groups to have had an alcoholic drink in the past year, followed by Māori. However, Māori female drinkers were more likely to have a potentially hazardous drinking pattern than female drinkers from other ethnic groups (Figure 6.06).

In the 1996/97 New Zealand Health Survey, 81.5 percent of people aged 15 years and over had an alcoholic drink in the past year. Males reported drinking more frequently than females, were more likely to drink five or more drinks on a typical day when drinking, and drink six or more drinks on one occasion at least weekly (Ministry of Health, 1999b).

Although Pacific people were less likely to drink than other ethnic groups surveyed in 1996/97, those who did drink were more likely than European/Other ethnic groups to drink five or more drinks on a typical occasion (Ministry of Health, 1999b). According to a survey of Pacific people, 25 percent of Pacific female drinkers and 41 percent of Pacific male drinkers reported drinking enough to feel drunk at least weekly (Pacific Research and Development Services and SHORE/Whariki, 2004).

Figure 6.06

**Adult Drinkers with a Potentially Hazardous Drinking Pattern<sup>(1)</sup>**  
*By ethnic group and sex*  
 2002/03 (age-standardised rates<sup>(2)</sup>)



Source: 2002/03 New Zealand Health Survey

(1) Potentially hazardous drinking is defined as an established pattern of drinking that carries a high risk of future damage to physical or mental health, but has not yet resulted in significant adverse effects. It has been measured here by the Alcohol Use Disorders Identification Test (AUDIT), which covers alcohol consumption, alcohol-related problems and abnormal drinking behaviour.

(2) See Technical Notes for more information.

**Note:** Data is not shown for Asian females due to low numbers.

Surveys of drinking conducted in 1995 and 2000 by the Alcohol and Public Health Research Unit (APHRU) showed increases in both the frequency of drinking and the amount drunk by female drinkers (Habgood, Caswell, Pledger and Bhatta, 2002). The frequency of drinking increased in all age groups, especially for teenagers aged 14 to 17 years. The amount drunk on a typical occasion also increased across all age groups, especially in females aged 16 to 24 years. The proportion of female drinkers aged 16 to 17 years who consumed larger amounts of alcohol (defined as four drinks or more) on a typical occasion doubled from 10 percent in 1995 to 21 percent in 2000.

### Smoking

Smoking is a major cause of preventable illness and death, and it is estimated to contribute to one in five deaths in New Zealand (Ministry of Health 1999b and 2003). Smoking can be a contributing factor for many cancers (including cancer of the lung, mouth, pharynx, oesophagus, larynx, pancreas and kidney), heart disease, stroke, respiratory disease, asthma and diabetes. Exposure to second-hand smoke can also have adverse effects on children, including sudden infant death syndrome (SIDS), respiratory infections and glue ear.

In the 2002/03 New Zealand Health Survey, more than one in five adults (22.9 percent) reported that they were current smokers (defined as smoking one or more tobacco cigarettes a day). This is slightly lower than the proportion reported in the 1996/97 New Zealand Health Survey (24.9 percent). Female

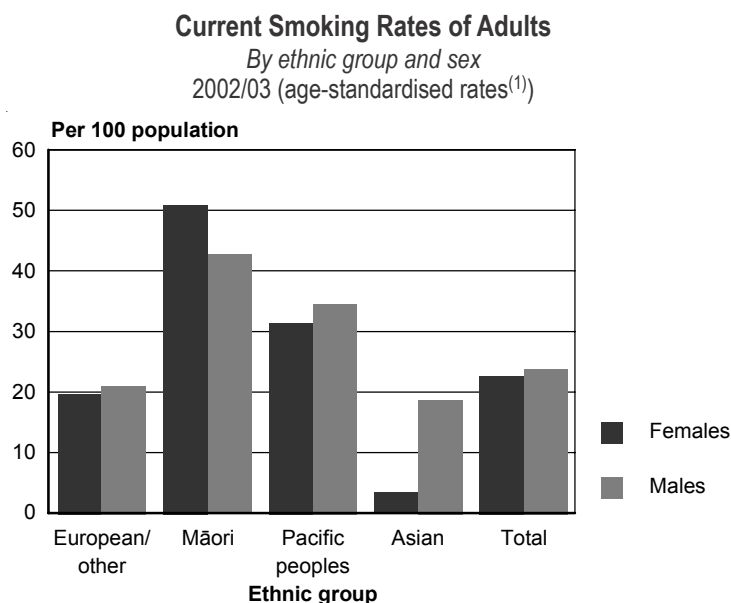
smoking prevalence was most common between the ages of 15 and 54 years, after which time it decreased, whereas male smoking was most common in the 25–34 year age group (Ministry of Health, 2004b). Males had slightly higher rates of smoking than females (24.0 per 100 and 22.9 per 100 respectively).

In the 2002/03 New Zealand Health Survey, Māori females had the highest prevalence of current smoking, followed by Pacific, European/Other and Asian ethnic groups (Figure 6.07).

The 1996/97 New Zealand Health Survey showed that Māori females aged 15 to 44 years had a particularly high smoking prevalence, with nearly 60 percent identifying themselves as current smokers. The highest prevalence of Māori female smoking was in the age group 25–44 years (58.2 percent). This was more than twice the rate for European/Other females (25.4 percent) and Pacific females (26.1 percent) in the same age group (Ministry of Health, 1999b). The comparative rate of smoking for Māori males in this age group was 52.8 percent.

According to a national survey of approximately 30,000 fourth form students, around one in five females and nearly one in seven males aged 14 to 15 years smoked at least weekly (Table 6.08). Māori females had by far the highest rate of smoking, with one in three reporting that they smoked daily. Asians had the lowest rate of smoking. Between 1999 and 2002, smoking prevalence declined for all ethnic groups except Māori female youth and Asian male youth.

Figure 6.07



Source: New Zealand Health Survey 2002/03

(1) See technical notes for more information.

Smoking can contribute to premature death, and it has been estimated that the elimination of smoking would increase life expectancy at birth by 0.8 years for females and 1.8 years for males (Ministry of Health, 2001). Smoking is a major contributing factor to socioeconomic and ethnic health inequalities in New Zealand (Ministry of Health, 2001) and it is likely to be a major contributing factor to poorer health outcomes of Māori compared with other ethnic groups, including heart disease, respiratory infection, glue ear, adverse outcomes of diabetes, asthma hospitalisations and meningococcal disease (Ministry of Health, 2004c).

Between 1989 and 1993, an estimated 31 percent of Māori deaths each year were due to cigarette smoking<sup>18</sup> (Laugesen and Clements, 1998). This included 41 percent of cancer deaths, 33 percent of circulatory deaths and 62 percent of respiratory deaths. Nearly half of Māori female deaths in middle age were attributed to cigarette smoking compared

with 18 percent of non-Māori female deaths. In 1990 the percentage of Māori middle-aged female deaths due to cigarette smoking was the highest out of 46 developed countries.

Laugesen and Clements (1998) estimated that Māori deaths due to cigarette smoking would double within 30 years, mainly because of the high prevalence of smoking in the past and the ageing of the population.

In addition to the direct effects of smoking, the health of non-smokers can also be affected by exposure to cigarette smoke (passive smoking). The effects of passive smoking on children can include chest infections, asthma, glue ear and meningococcal disease. In addition, maternal smoking has been identified as a modifiable risk factor for sudden infant death syndrome (SIDS, or cot deaths) (Scragg, Stewart, Mitchell, Ford and Thompson, 1995). The majority of the children who die from SIDS due to exposure to smoking are Māori (Ministry of Health, 1999a).

Table 6.08

**Prevalence of Smoking Among Youth Aged 14–15 Years**

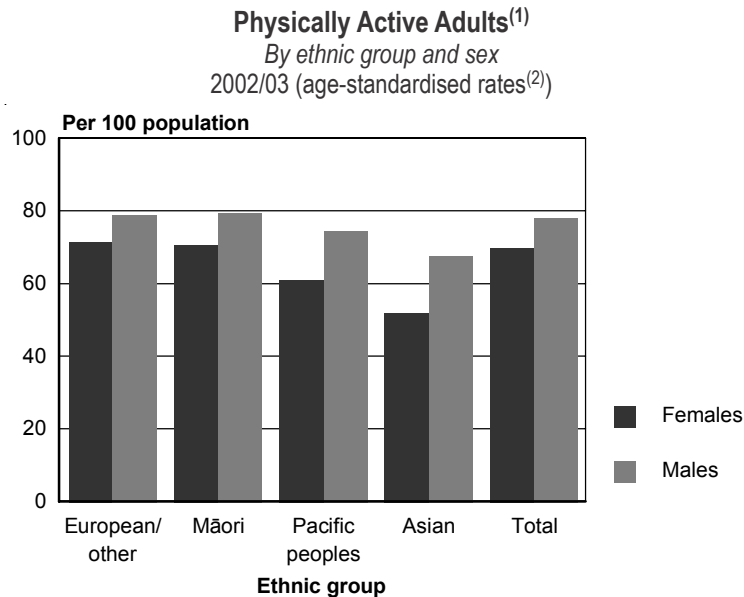
By ethnic group and sex  
2002 (percentages)

		Ethnic group				
		European/Other	Māori	Pacific peoples	Asian	Total
Daily smoking	Females	10.8	34.3	17.6	3.9	14.9
	Males	8.6	16.8	10.8	7.5	9.9
At least weekly smoking	Females	16.7	41.8	22.6	6.1	20.7
	Males	12.3	21.4	13.8	9.5	13.5

Source: Action on Smoking and Health (ASH) national fourth form survey, sourced from Ministry of Health, 2003

(18) Note: This analysis is based on the biological (percentage blood) definition of Māori. The analysis excludes cigarette-attributable deaths under the age of 35 years.

Figure 6.08



Source: 2002/03 New Zealand Health Survey

(1) Adults who were physically active for at least 2.5 hours per week in the past week.

(2) See Technical Notes for more information.

Hill (2003) found a link between exposure to second-hand smoke and increased mortality, with mortality increased by about 15 percent in people exposed to second-hand smoke. Cardiovascular disease appeared to be the main cause of the excess mortality.

### Physical activity

Physical activity is a major protective factor against poor health, and may reduce the likelihood of developing heart disease, stroke, some cancers, diabetes, obesity and poor mental health. Physical inactivity is estimated to account for more than 2000 deaths per year (Ministry of Health, 2004e).

Sport and Recreation New Zealand recommends that adults do at least 30 minutes of moderate physical exercise per day for at least five days (a total of 2.5 hours) per week (Hillary Commission, 2001). According to the 2002/03 New Zealand Health Survey, three out of four adults (73.4 percent) were physically active for at least 2.5 hours in the past week. Females were less likely than males to be physically active, with rates of 69.9 per 100 females and 78.4 per 100 males defined as physically active. Figure 6.08 shows the age-standardised percentage of adults who were physically active, by ethnic group.

One in eight adults surveyed (13.1 percent) were sedentary, doing less than 30 minutes of exercise in the past week. Females were slightly more likely than males to be sedentary, with rates of 13.6 per 100 females and 10.9 per 100 males. Asian females (26.7 per 100) and Pacific females (23.9 per 100) had higher rates of being sedentary than European/other females (12.0 per 100).

### Obesity

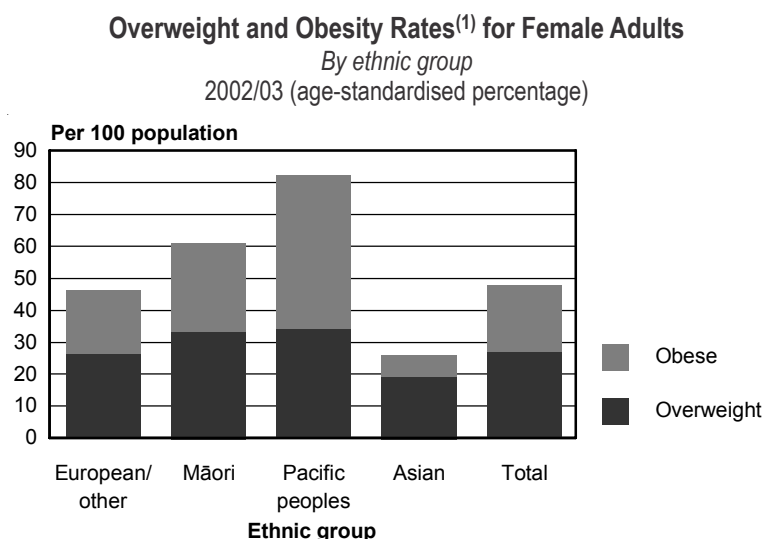
Obesity is a major modifiable risk factor for a number of diseases including type 2 diabetes, heart disease and some cancers (Ministry of Health, 2004a). Obese females have an increased risk of osteoarthritis, breast cancer, endometrial cancer, polycystic ovary syndrome and impaired fertility (Agencies for Nutrition Action, 2001). Obesity can lead to a reduced quality of life through conditions such as respiratory difficulties, and through discrimination. Obesity can result in death, and an estimated 1000 New Zealanders die each year from obesity-related diseases (Agencies for Nutrition Action, 2001).

Obesity is an increasing problem both in New Zealand and internationally due to changes in lifestyle and diet. Factors contributing to more sedentary lifestyles include labour-saving devices in the home and workplace, changes to transport (eg driving to work/school instead of walking), sedentary leisure activities (eg watching television, using the Internet, and playing computer games) and safety concerns for children playing or walking outside. Diets have changed through cost and availability of energy rich foods, and the increased consumption of convenience foods and processed meals that are often high in fat and sugar.

According to the 2002/03 New Zealand Health Survey, one in three adults (35.2 percent) was overweight (excluding obese) and one in five adults (20.9 percent) was obese<sup>19</sup>. Females had a lower rate of overweight than males (27.5 per 100 females, 40.5 per 100 males) but a similar rate of obesity (21.0 per 100 females, 19.2 per 100 males).

(19) In the New Zealand Health Survey, overweight and obesity were defined according to body mass index (BMI). See the publication *A Portrait of Health* for more information (Ministry of Health, 2004b).

Figure 6.09



Source: 2002/03 New Zealand Health Survey

(1) In the New Zealand Health Survey, overweight and obesity were defined according to body mass index (BMI). See the publication *A Portrait of Health* for more information (Ministry of Health, 2004b).

Approximately one in every two females was overweight or obese (50.2 percent), compared with 62.2 percent of males. As Figure 6.09 shows, Pacific and Māori had the highest prevalence of overweight or obesity among females, with rates of 82.6 and 61.2 per 100, respectively.

According to the Ministry of Health, the prevalence of overweight appears to be stable but obesity prevalence doubled between 1997 and 2003 (Ministry of Health, 2004f).

Table 6.09

**Prevalence (Percent) of Risk and Protective Factors in Adults**  
By ethnic group  
2002/03 (age-standardised)

		European/ other	Māori	Pacific peoples	Asian	Total
Physically active <sup>(1)</sup>	Females	71.7	70.7	61.2	52.2	69.9
	Males	79.2	79.7	74.8	67.8	78.4
Sedentary	Females	12.0	13.5	23.9	26.7	13.6
	Males	10.4	11.5	10.9	17.0	10.9
Overweight	Females	26.9	33.7	34.8	19.5	27.5
	Males	41.9	38.0	43.9	23.2	40.5
Obese	Females	19.8	27.5	47.8	6.9	21.0
	Males	18.0	29.0	38.0	4.3	19.2
Overweight or obese	Females	46.7	61.2	82.6	26.4	48.5
	Males	59.9	67.0	81.8	27.5	59.7
Hazardous drinking pattern <sup>(2)</sup>	Females	11.4	18.4	7.6	--	11.4
	Males	27.3	34.5	30.8	6.8	27.1
Current smoker	Females	19.9	51.1	31.6	3.6	22.9
	Males	21.3	42.9	34.8	18.9	24.0

Source: 2002/03 New Zealand Health Survey (Ministry of Health, 2004b)

(1) Adults who were physically active for at least 2.5 hours per week in the past week.

(2) Potentially hazardous drinking is defined as an established pattern of drinking that carries a high risk of future damage to physical or mental health, but has not yet resulted in significant adverse effects. It has been measured here by the Alcohol Use Disorders Identification Test (AUDIT), which covers alcohol consumption, alcohol-related problems and abnormal drinking behaviour.

-- Data not shown due to small numbers.

## Summary

- *Females have a slightly lower rate of diabetes than males, but it is becoming an increasing problem in New Zealand, especially among Māori and Pacific people.*
- *Females have higher cancer registration rates than males between the ages of 20 to 50 years, but a lower overall rate of cancer.*
- *Breast cancer is the leading cause of female cancer registration and the leading cause of female death from cancer.*
- *Around one in 20 adults reported that they had been diagnosed with cancer at some stage in their lives.*
- *Females have higher rates of arthritis, osteoporosis, asthma and chronic obstructive respiratory disease than males, but males have higher rates of heart disease and stroke.*
- *Falls are a common cause of female hospitalisations for injury and poisoning, particularly in the older age groups.*
- *Females account for nearly two-thirds of hospitalisations for self-inflicted injury, although more males than females die as a result of suicide.*
- *Females generally have a poorer self-perceived health status than males.*
- *Approximately one in five females have a disability, most commonly mobility, agility and hearing disabilities.*
- *Females have a lower rate of death than males across all age groups, especially the 15–24 year age group where the female mortality rate is approximately one-third of the male rate.*
- *Māori females have a higher rate of death than non-Māori in all age groups.*
- *Cancer and ischaemic heart disease are the leading causes of death for females, and together they account for nearly half of all female deaths.*
- *Female life expectancy at birth is 81.1 years, nearly five years more than male life expectancy (76.3 years).*
- *Māori female life expectancy is 73.2 years, nearly nine years less than for non-Māori females (81.9 years).*
- *Females are less likely than males to drink and less likely to have potentially hazardous drinking patterns.*
- *A study by the Alcohol and Public Health Research Unit (APHRU) found an increase in the amount of alcohol consumed and frequency of drinking by young female drinkers.*
- *Around one in five females are smokers.*
- *Māori females have the highest rate of smoking.*
- *Females are less likely than males to be physically active, and more likely to be sedentary (less than 30 minutes of exercise in the past week).*
- *Approximately one in two females is overweight or obese.*
- *Females are less likely than males to be overweight, but the rate of obesity is similar.*
- *Pacific and Māori have the highest prevalence of overweight or obesity among females.*



*Chapter 7*

# **Crime**

## Chapter 7

### Crime

This chapter presents a picture of women in the criminal justice system as both criminals and victims. Criminal activity among women, although increasing each year, is still relatively minor in comparison to men. In 2001 just over half of the total population were females, yet they made up only 20 percent of all recorded apprehensions, 17 percent of convictions and 4 percent of those sentenced to a custodial sentence. New Zealand Police statistics, Ministry of Justice statistics and the Census of Prison Inmates provide data on women as criminals.

The New Zealand National Survey of Crime Victims 2001 (NZNSCV) estimated that 30 percent of women in the population were victimised in 2000, and on average these women were victimised 2.7 times. Between the criminal and the victim sits what is often termed the 'dark figure of crime', which is the difference between the number of offences recorded by the police and the number of victimisations that are purported to have taken place. The NZNSCV estimated there were 1.7 million household and individual victimisations during the 2000 calendar year, yet the number of offences recorded by police represents only 15 percent of this estimate. However, not all offences are reported to police and not all offences known to police are recorded.

#### Women as criminals

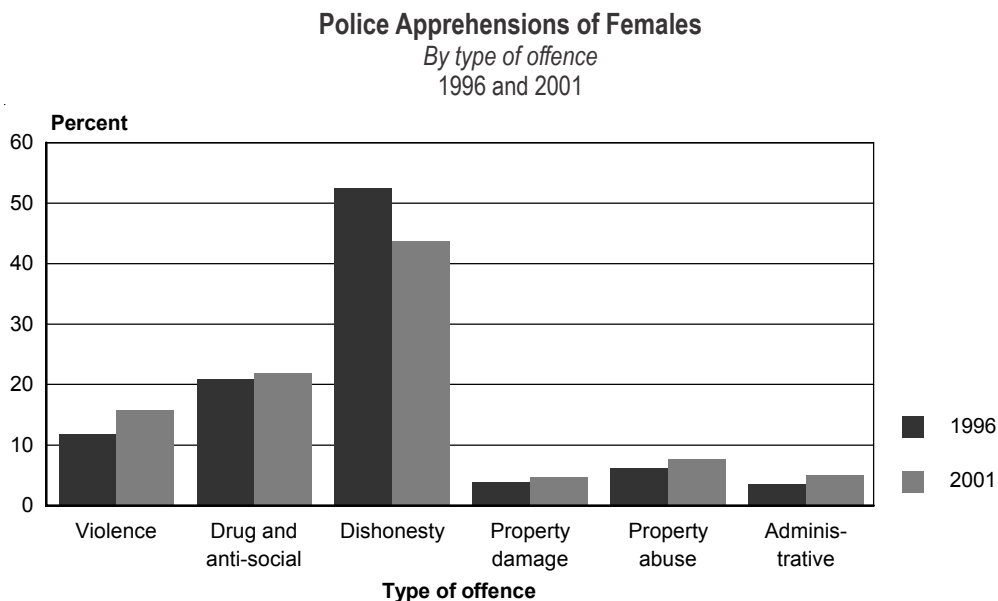
An important feature when considering crime is that what may be considered deviant at one point in time may not be considered so at another point. A recent example is the lowering of the purchase age of alcohol on 1 December 1999 from 20 to 18 years of age.

Before then, people under 20 were unable to purchase alcohol or drink on licensed premises unless they were with their parents or a spouse. Following the law change, young people were legally able to purchase alcohol from the age of 18. Another example is the Dog Control Act 1996, where failing to register a dog changed from a criminal offence to an infringement offence. As a result, between 1996 and 1997 the number of convictions for this offence decreased by 5,800.

Changes in societal expectations and awareness also impact on views of deviancy. *The New Zealand Official Year-book* of 1895 informs us that in 1893 nearly 2,000 women were taken into custody or summoned to appear in front of a magistrate. They represented 11 percent of the total population summoned. The most common offence was drunkenness, with just over a third of those females charged with this offence. Ten percent were charged with lunacy and 7 percent with larceny. Only one female was charged with murder, and 13 were charged with attempted suicide.

Just over 100 years later, neither lunacy nor attempted suicides are viewed as crime and drunkenness is no longer the dominant charge. In 1996 police apprehension figures show that 53 percent of apprehensions by female offenders were for dishonesty offences, 21 percent were for drug and anti social offences and 12 percent were for violence offences. Five years later in 2001, dishonesty offences had decreased by nine percentage points, but all other offence categories had risen marginally except violence offences, which had increased by four percentage points.

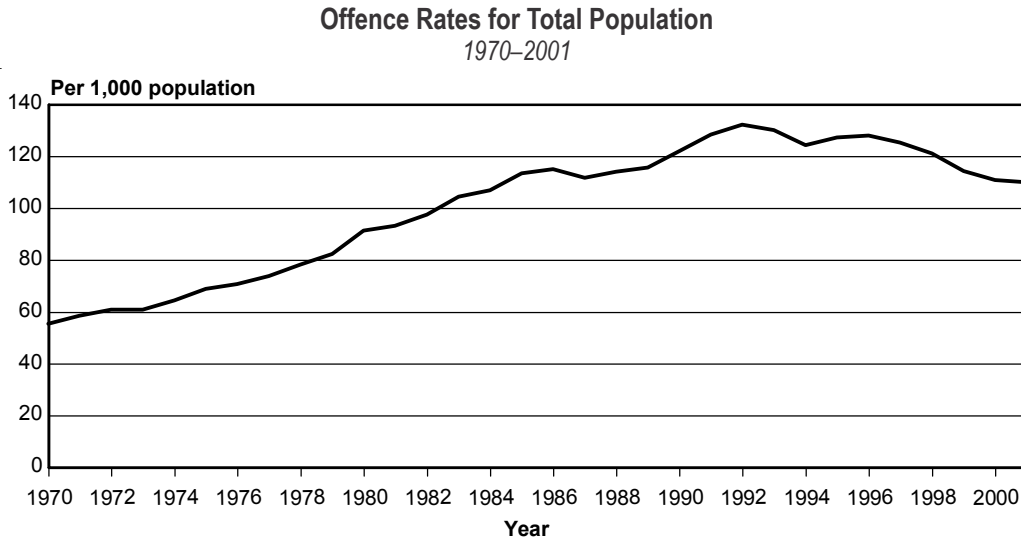
Figure 7.01



Source: New Zealand Police

Note: This graph refers to apprehensions for non-traffic offences using Police, not Ministry of Justice classifications.

Figure 7.02



Source: Statistics New Zealand and New Zealand Police

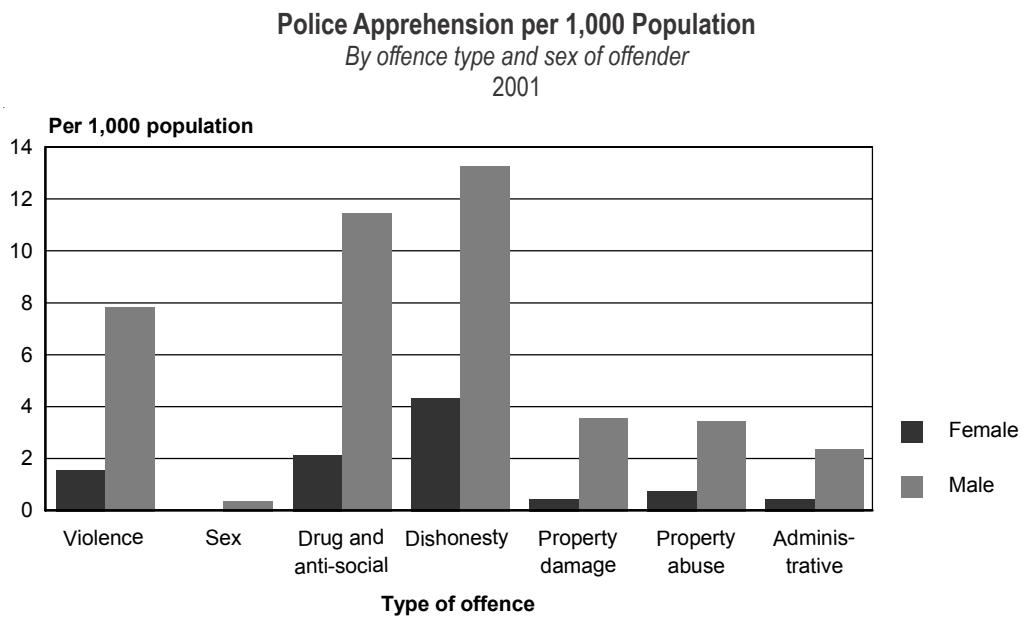
### Offence rates

Variations occur in the recording of offence rates, with the circumstances surrounding the offence determining how it is recorded. A single incident may be recorded either as one offence or as multiple offences. For example, a domestic incident could be recorded as either intimidation or assault or both. Similarly, an offence such as theft as a servant, which may occur over a period of time, may be recorded as one or more offences.

Between 1970 and 1992 the overall offence rate rose steadily from 55 per 1,000 people in the population to 132. From 1992 to 1996, the rate remained steady,

before decreasing to 110 per 1,000 in 2001. Offence rates vary over time due to a range of factors. There may be an actual increase in the number of crimes committed, but changes may also occur in recording practices. Demographic changes occur, such as the movement of the baby boomers into the age group where most offending occurs (15–30 years of age). The definition of what constitutes criminal behaviour can change, as illustrated by the lowering of the legal age for buying alcohol. Changes in social attitudes can mean that people are less tolerant towards criminal behaviour and therefore more likely to report it. A larger police force with more resources will also affect offence rates.

Figure 7.03



Source: New Zealand Police

### Criminal offending

This section reports on figures supplied by New Zealand Police. Because ethnicity is largely identified by police, it is not conceptually comparable with other ethnic data presented in this report, which is self-identified. For this reason it has been omitted.

In 2001 less than 20 percent of the 196,400 police apprehensions were of female offenders. Male and female offending showed similar patterns: dishonesty offences were the main offence category, followed by drug and anti social offences and violence offences, although the figures for males were considerably higher. In 2001, 13 males per 1,000 were apprehended for dishonesty offences, three times the rate for females, at four per 1,000. Males were five times (11 per 1,000) more likely to commit drug and anti social offences than females (two per 1,000), and just over five times more likely (eight per 1,000) to commit a violent offence than females (two per 1,000).

Although women commit sex-related crimes, they are few in number. Because of the nature of sex-related crimes, they are often portrayed widely in the media, appearing to be a large part of male criminal activity, when in fact sex-related crimes constituted only 1 percent of total male offending in 2001. However, victimisation reports would put male sexual offending at a much higher figure than this, indicating a high rate of unrecorded crime in this area.

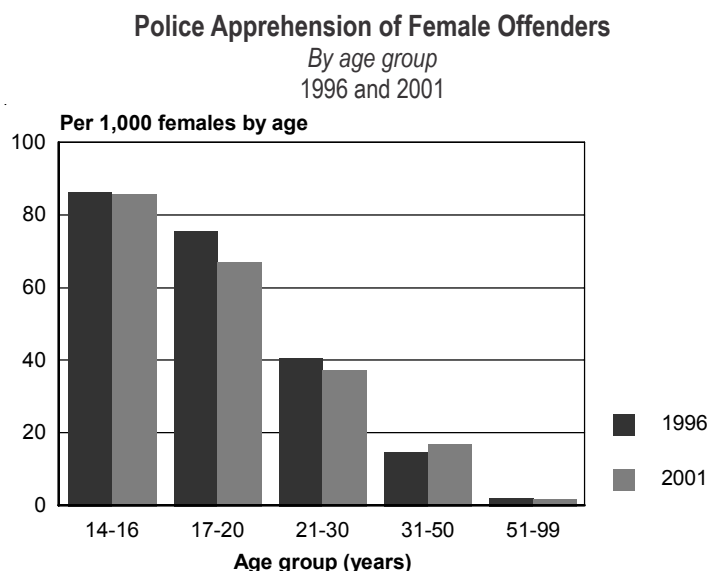
For just over half the apprehensions in both 1996 and 2001 where the offender was female, the offender was also under 20. (However, one offender may be apprehended for multiple offences, and multiple offenders may be apprehended for one offence). As Figure 7.04 shows, in general the apprehension rate where offenders were female, per thousand of population by age, decreased between 1996 and 2001. There was, however, a marginal increase in the 31–50 age group.

### Young offenders

The Ministry of Justice report *Conviction and Sentencing of Offenders in New Zealand: 1992 to 2001* shows that the total number of 14–16 year olds apprehended by police has fluctuated between 30,000 and 31,000 since 1995, with a 7 percent increase of offenders in this age group since 1994. Violent offending has increased by 21 percent since 1994, with a total figure of 2,885 violent offences recorded in 2001. Drug offences have also increased, by more than a half. The majority of offences committed by young people are property offences, which include burglary, theft, car conversion, arson, wilful damage and ‘other property’ offences, which decreased slightly over this period.

There was a significant increase between 1994 and 2001 in the category offences against justice (see Technical Notes). Ministry of Justice reports suggest that this increase may be due in part to a greater police focus on compliance with bail conditions.

Figure 7.04



Source: Ministry of Justice police apprehension rates

Table 7.01

**Offenders Aged 14–16 Apprehended by Police for Non-Traffic Offences**

By type of offence  
1994–2001

Offence Type	1994	1995	1996	1997	1998	1999	2000	2001	Overall % Change 1994-2001
Violent offences	2,389	2,690	2,741	2,630	2,658	2,708	2,829	2,885	21
Against persons	382	409	459	448	495	477	578	571	49
Property offences	19,893	20,740	21,006	19,663	18,550	18,965	19,687	18,901	-5
Drug	1,132	1,184	1,492	1,950	1,851	1,910	1,977	1,917	69
Against justice	361	467	586	759	952	1,018	1,331	1,308	262
Good order	3,188	3,412	3,354	3,839	3,501	3,720	3,712	4,127	29
Miscellaneous	1,334	1,487	1,633	1,738	1,992	1,867	1,210	1,082	-19
<b>Total</b>	<b>28,679</b>	<b>30,389</b>	<b>31,271</b>	<b>31,027</b>	<b>29,999</b>	<b>30,665</b>	<b>31,324</b>	<b>30,791</b>	<b>7</b>

Source: Ministry of Justice. Data for this section has been sourced from New Zealand Police but offences have been grouped using Ministry of Justice offence classifications. Figures used do not refer to distinct offenders, as people who are apprehended for more than one offence are counted once for each offence.

New Zealand Police statistics show a total of 37,200 apprehensions of female offenders in 2001, a quarter of those apprehensions involving females between the ages of 14 and 16. These young female offenders were responsible for just over a third of all female apprehensions for dishonesty and property damage offences, and just over a quarter of property abuses. Twenty percent of apprehensions for violent offences involving a female offender and 18 percent of apprehensions for administrative offences involving a female offender also came from this age group.

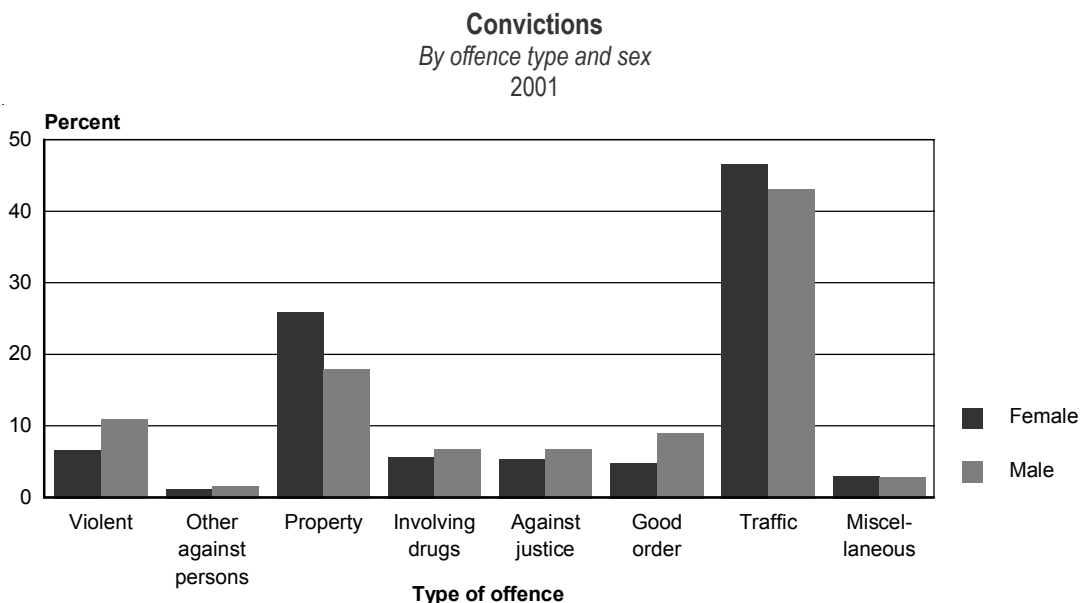
**Convictions**

Offence categories differ between Police and the Ministry of Justice, so figures used in the previous section of this chapter will not necessarily correlate to this section. In 2001 there were 261,602 criminal prosecutions, of which 66 percent resulted in a

conviction. However, not all people apprehended by police are prosecuted, as there are other options available to resolve apprehensions depending on the nature of the crime and the offender. These options include family group conferences, Youth Justice, diversion, warnings and cautions and the Youth Aid Section. These options are often available for first-time offenders, those who have committed non-serious offences, and/or those who are under 17.

*Conviction and Sentencing of Offenders in New Zealand: 1992 to 2001* reports that in 2001, out of a total of 95,345 cases that resulted in a conviction, where the sex was identified, 16,343 or 17 percent were females. As Figure 7.05 shows, the female pattern of conviction by offence type is similar to that of males. In 2001 the main offence category for which both sexes were convicted was traffic convictions. Forty-seven percent and 43 percent of

Figure 7.05



Source: Ministry of Justice

the total females and males, respectively, were convicted for this offence type. The other category where female offenders were more likely to be convicted than male offenders was property offences, which is a pattern similar to that shown by the police apprehension figures. However, more male than female offenders were convicted in all other conviction categories. Males were responsible for 89 percent of total convictions for violence and 90 percent of convictions for offences against good order (see Technical Notes).

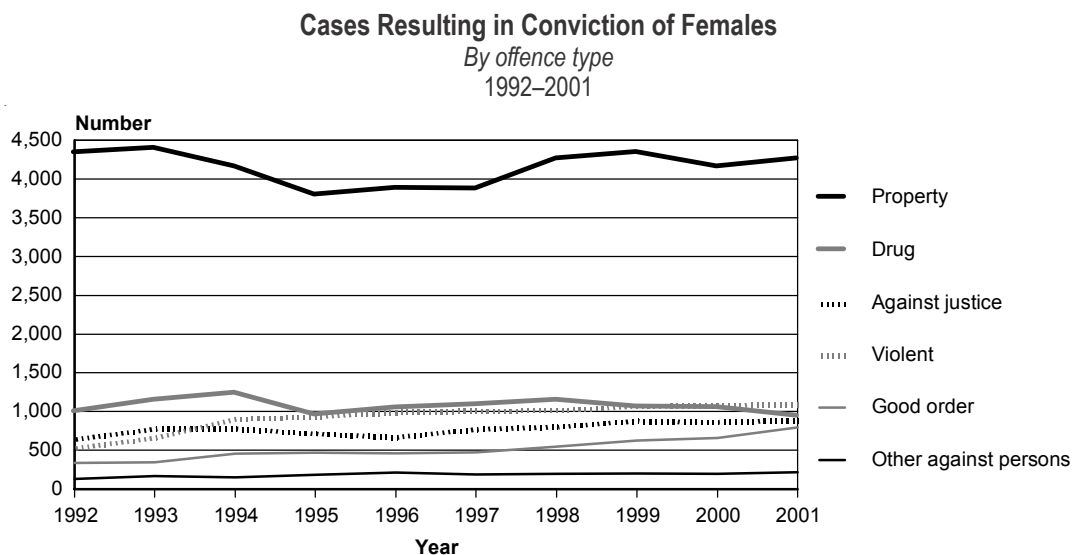
As shown in Figure 7.06, female conviction patterns between 1992 and 2001 have remained fairly static. Traffic convictions provided the highest number of convictions for female offenders, with 7,627 convictions in 2001. Although violent offences constitute a very small proportion of female convictions, they doubled between 1992 and 1997 from 542 to 1,020 convictions, and have steadily increased since then reaching 1,105 convictions in 2001. Convictions for the offence category ‘against good order’ also more than doubled in this period, from 337 to 793 convictions. To a lesser degree, convictions for the category ‘against justice’ (see Technical Notes) have also increased. Convictions for property offences fell in 1995 to 3,790 cases, but rose again to the 1992 rate in 2001 to reach 4,260 cases. Drug convictions were the only category to decrease between 1992 and 2001, from 994 to 939 convictions.

### Sentencing

A variety of sentences occur as a result of a conviction. The most severe is a custodial sentence, followed by periodic detention, community service and community programmes, supervision, monetary penalties, deferred sentences, ‘other’ and conviction and discharge. In this section of the report, only the most serious sentence is recorded. If, for example, an offender is sentenced to periodic detention and is required to pay reparation, then only the periodic detention sentence is recorded because it has the higher ranking. For both females and males, the most likely sentence to be received is a monetary penalty, but females are far more likely to receive a community-based sentence than males, who are more likely to receive periodic detention or a custodial sentence.

Capital punishment, or the death sentence as it was more commonly known, was on the New Zealand statute books from 1840 to 1989. According to the *1990 Yearbook* only one woman has been hung in New Zealand – Williamina ‘Minnie’ Dean, who was convicted of murdering a baby and executed in Invercargill on 12 August 1895. Two other women were convicted and sentenced to death, Caroline Whiting in 1872 and Phoebe Veitch in 1883, but their sentences were later commuted to life imprisonment.

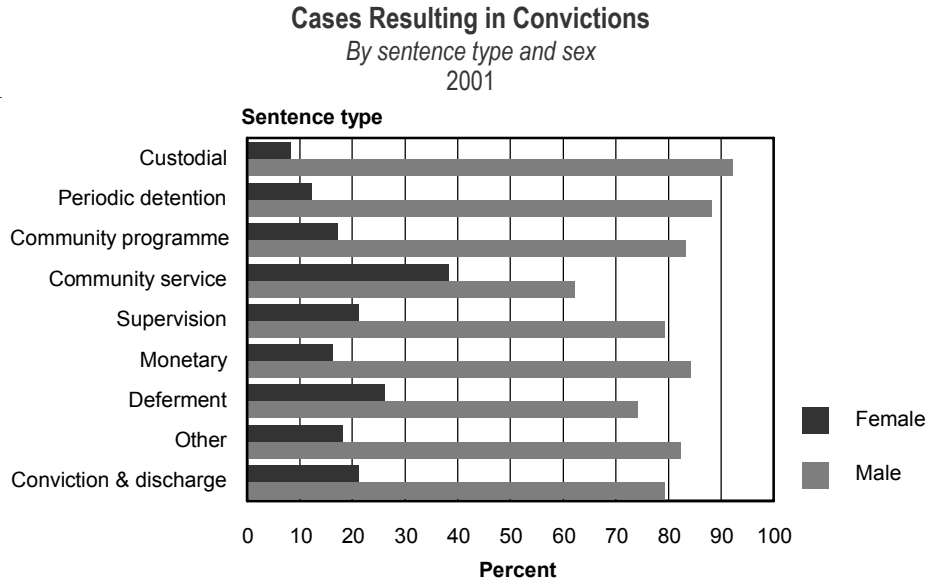
Figure 7.06



Source: Ministry of Justice

Note: Cases where a conviction was entered against a corporation and traffic offences were excluded from this table.

Figure 7.07



Source: Ministry of Justice

In 2001 the courts handed down more than 95,000 sentences, with females receiving fewer than one in five of these. As Figure 7.07 shows, female offenders received only 8 percent of the total custodial sentences handed down, 38 percent of community service sentences, 26 percent of deferred sentences and 21 percent of supervision sentences. Twenty-one percent of women were convicted and discharged. Male offenders, who were far more likely to receive harsher sentences, were handed down 92 percent of custodial sentences and 88 percent of periodic detention sentences in 2001.

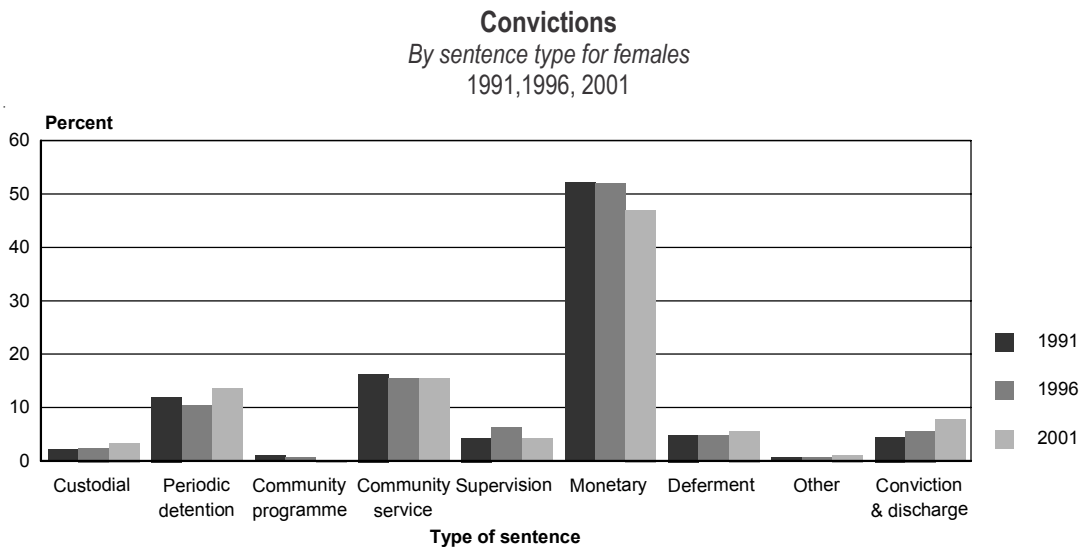
Figure 7.08 shows that the number of custodial sentences imposed for females increased from 2 percent to 4 percent, and periodic detention sentences increased from 12 percent to 14 percent between 1991 and 2001. Conviction and discharge

sentences also increased, from 5 percent to 8 percent, over this time. The community service and programme sentences and supervision sentences decreased over the 10-year period. Monetary sentences, the most common sentence handed down to female offenders, decreased from 52 percent to 47 percent.

### Custodial sentences

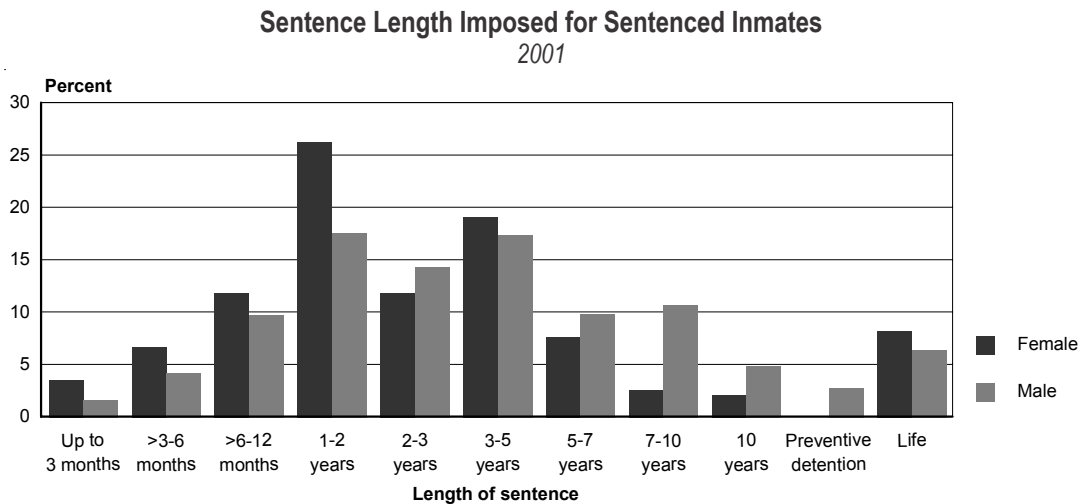
Traditionally, women in New Zealand make up a very small number of the people who are imprisoned. In 1893, 300 women (1 percent of the female population) were received into gaol, of which 43 percent were incarcerated for drunkenness, 31 percent for vagrancy and 17 percent for felony and larceny. The 2001 Census of Prison Inmates and Home Detainees from the Department of Corrections

Figure 7.08



Source: Ministry of Justice

Figure 7.09



Source: Prison Census 2001

shows that on the day of the 2001 Prison Census (15 November 2001), there were 202 sentenced women (4 percent of the total sentenced prison population) in New Zealand prisons. The majority of convictions were for violence (43 percent), property damage (27 percent) and drug-related offences (13 percent).

In 2001 the courts sentenced 4,918 people to a custodial sentence, 593 of whom were women, making up only 8 percent of the total custodial sentences given in that year. The difference between the number of custodial sentences given and the number of inmates entering prison on a given date can be explained by differences in the lengths of sentences imposed, and hence the time spent in prison.

Prison censuses from 1989 to 2001 show a 50 percent increase in the number of sentenced women in prison (from 135 to 202). The number of sentenced women in prison decreased in 1993 to 118 when suspended prison sentencing was introduced, but increased to just over 200 in 1997 and has remained at this level.

### Current sentence

At 15 November 2001, 80 percent of female inmates had sentences of less than five years and the most common sentence was for one to two years. Males were more likely to have longer sentences than females, although 65 percent of males still had sentences of less than five years. Life imprisonment is mandatory for murder and treason, and on census day there were 296 males and 16 females serving life imprisonment sentences. Preventive detention is for repeat sexual and violent offenders, and on census day no females and 128 males were serving this sentence.

### Violent offending

The most common sentence category for those serving a custodial sentence as at 15 November 2001 was for violent offending. Ninety females (46 percent) and 2,841 males (62 percent) were imprisoned for violent offences, including 3 percent of females and 22 percent of males for sexual violence. For women, the most prevalent violent offence was homicide (38 percent), while for men, robbery was the most prevalent (35 percent).

### Offending history

For those serving a sentence for violent offending on 15 November 2001, nine females (10 percent) and 651 males (36 percent) had a previous conviction for violent offending, and just under half of both females and males had a previous conviction for a non-violent offence. However, 44 percent of females and 17 percent of males had no prior conviction.

As at 15 November 2001, female inmates generally had fewer previous convictions than men, with 35 percent of females having had no previous convictions compared with 20 percent of males. Half of all inmates were aged 17–19 years when they had their first conviction. Males were four times more likely than females to have had their first conviction before their 16th birthday.

As Table 7.02 shows, just over half of the sentenced women were poorly educated, leaving school before they had reached Year 11 (fifth form), and 42 percent had no post-school qualifications. A high proportion of inmates were on low incomes, with nearly 70 percent on a benefit before their imprisonment. Forty-four percent of women in prison had children, with 84 percent of them having sole care and

Table 7.02

**Social Profile of a Woman in Prison**

Education	55 percent left school before Year 11 (fifth form) 22 percent left with no qualifications 12 percent had School Certificate subjects
Post-school qualifications	42 percent had no post-school qualifications 22 percent had attended a job skills course
Source of income	69 percent had been receiving a benefit, 44 percent of whom were receiving the Domestic Purposes Benefit 24 percent were in paid employment
Living with children under 18 years of age four weeks before going to prison	44 percent were living with children 13 percent of those living with children had more than three children
Sentenced inmates and childcare	84 percent of those living with children prior to imprisonment were sole caregivers
Care of children while in prison	26 percent of children of female sentenced inmates were being cared for by a partner or former partner 47 percent were being cared for by immediate family One in 13 female sentenced inmates had at least one child in the care of foster parents or the Department of Child, Youth and Family Services
Age of children	51 percent of female sentenced inmates with dependent children had a child under the age of five years
Marital status	56 percent were single 31 percent were married or in de facto relationships 13 percent were separated, divorced or widowed

Source: Prison Census 2001

51 percent with a child under the age of five. One in 13 inmates had at least one child in the care of foster parents or the Children, Young Persons and their Families Service (CYPFS) (now the Department of Child, Youth and Family Services).

### Home detention

Home detention became available through the Criminal Justice Amendment Act 1999, allowing some offenders to serve part of their sentence outside prison with electronic surveillance and under Probation Service supervision. The offender can be located by a signal omitted from a security device worn by the offender. If the offender moves outside the designated boundaries of the site of home detention, an alarm is set off.

There are two ways in which the home detention system works. The first is 'front-end' home detention where offenders who have been sentenced to a term of imprisonment of no more than two years can be given leave via the courts to apply to the District Prisons Board for home detention. The court must take into consideration the nature and seriousness of the offence, alongside a victim impact report. The second is 'pre-parole' home detention, where an

offender has been given a determinate custodial sentence of more than two years. Once the offender has completed a third of the sentence and is eligible for parole, the offender may apply for home detention for a period of up to five months before their release date. The offender can then apply to the District Prisons Board or the Parole Board, depending on the circumstances.

In 2001 there were 5,807 applications from those sentenced to less than two years in prison and eligible to apply for 'front-end' home detention, of which only 36 percent or 2,088 applications were granted by the courts. Fifty-nine percent or 286 female applicants were granted leave to apply for home detention. Of those 'front-end' female inmates who were sentenced in 2001, 131 or 46 percent had their application approved.

In 2001, for those sentenced to two years or more and eligible for 'pre-parole' home detention, there were 1,240 applications from the total prison population and 120 applications of those applications were approved. Of these, 54 applicants were female, 14 of whom were successful and released to home detention.

## Women as victims

An investigation of the types of victimisations experienced by individuals and households is carried out through the New Zealand National Survey of Crime Victims (NZNSCV). A random sample of the population aged 15 years and over were surveyed, asking about the extent of any victimisation they had experienced and the circumstances and impact of offences they had been exposed to, as well as a range of other victim-related information. This survey was first carried out in 1996 and repeated in 2001, and was based on the previous calendar year.

The report estimated that the New Zealand population aged 15 and over experienced 1.78 million victimisations in 1996, decreasing slightly to 1.77 million in 2000. However, care must be taken when comparing the data between the years because there were differences in data collection. Overall, both surveys found there was a large discrepancy between the incidence of victimisation as reported by survey participants and the police recording of crime. The 1996 NZNSCV estimated that only 13 percent of victimisations were recorded by police. This had risen to 15 percent by 2001.

According to the NZNSCV 2001 survey results, 30 percent of the population was estimated to have experienced some form of victimisation in the 2000 calendar year, with an average of 2.6 victimisations per victim. Similar patterns emerge for both females and males. In 2000, it was estimated that 30 percent of all females experienced a victimisation, with each female experiencing an average of 2.7 victimisations; and 29 percent of all males experienced a victimisation, with each male experiencing an average of 2.4 victimisations. As Figure 7.10 shows, those

most affected are in the younger age groups, particularly those aged 15 and 16. Females are more likely than males to experience victimisation across all age groups, except in the 17–24 age group.

As Table 7.03 shows, it is estimated that 70 percent of the population aged 15 years and over did not experience any victimisation in 2000, and 16 percent experienced one victimisation. However, just over 3 percent of people aged 15 years and over and 12 percent of those who were victimised experienced five or more victimisations. These people experienced more than 45 percent of all the victimisations. This trend, when broken down, is similar for both household and personal victimisations (see Technical Notes). A large proportion of households and the population aged 15 years and over did not experience any form of victimisation in 2000. Of those who did experience some form of victimisation, more often than not they were victims of only one offence.

Table 7.03

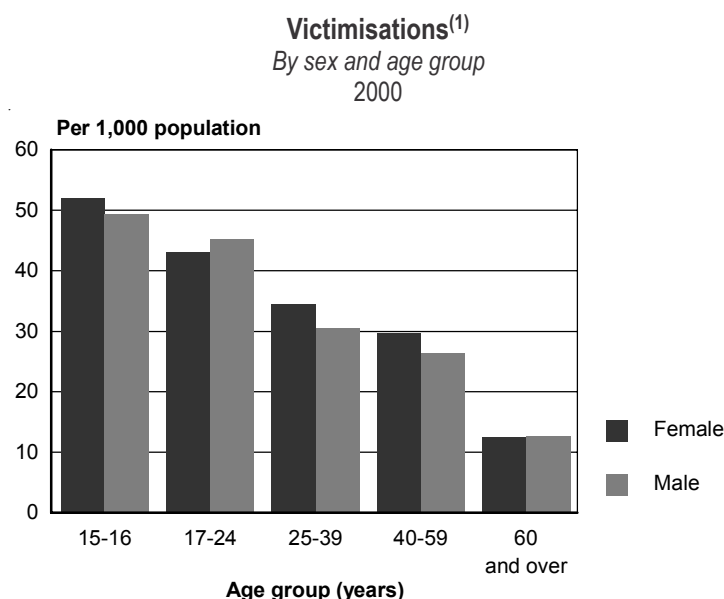
**Frequency Distribution for All Victimisations in 2000**

Times victimised	Percent of all people aged 15 years and over	Percentage of those victimised	Percentage of victimisations
0	70.5	NA	NA
1	16.1	54.6	21.3
2	5.8	19.8	15.4
3	2.6	8.7	10.2
4	1.5	4.9	7.7
5+	3.5	11.9	45.4
Prevalence	29.5		

Source: Ministry of Justice

Note: Sample size: 5,147 people.

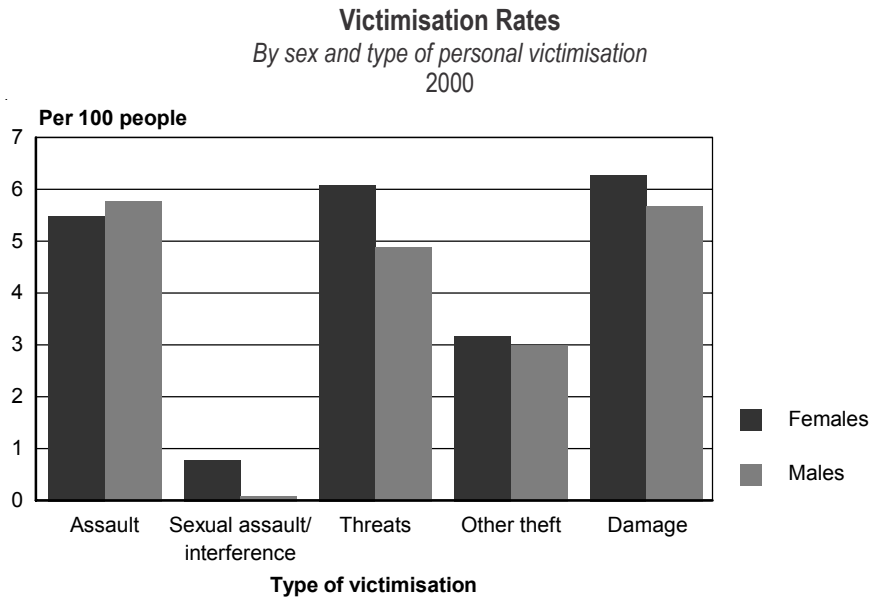
Figure 7.10



Source: Ministry of Justice

(1) People reporting a type of victimisation. Refer to the Technical Notes.

Figure 7.11



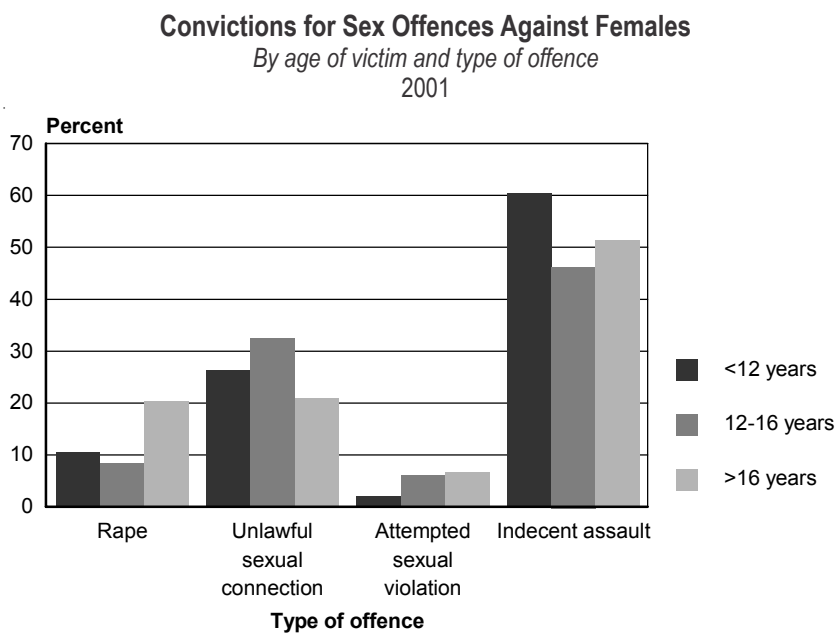
It is estimated that 9 percent of all people experienced at least one violent offence. A small number of people (just under 2 percent of the population aged 15 years and over) experienced five or more of the violent victimisations, making up just over half of all violent victimisations that occurred in 2000. Figure 7.11 shows that personal victimisations present a similar picture for both females and males. However, females are more likely to experience sexual assault and threats, and males are more likely to be victims of assaults. Women are also more likely to be victims of theft and damage than men.

### Victims of sex offences

The *Conviction and Sentencing of Offenders in New Zealand: 1992 to 2001* shows that there were 1,498 convictions for violent sex offences in 2001. These offences included rape, unlawful sexual connection, attempted sexual violation and indecent assault. Where the age group of the victim was known, 74 percent of violent sexual offences involved victims under the age of 17 years.

This report also states that females were considerably more likely than males to be a victim of a violent sexual offence, making up 82 percent of

Figure 7.12



Source: Ministry of Justice

victims. Of those females, 45 percent were under the age of 12. Sixty-one percent of victims in this age group were victims of indecent assault, 27 percent were subjected to unlawful sexual connection and 11 percent were raped. The most common violent sexual offence against all females was indecent assault, which constituted more than half of violent sexual offences against females.

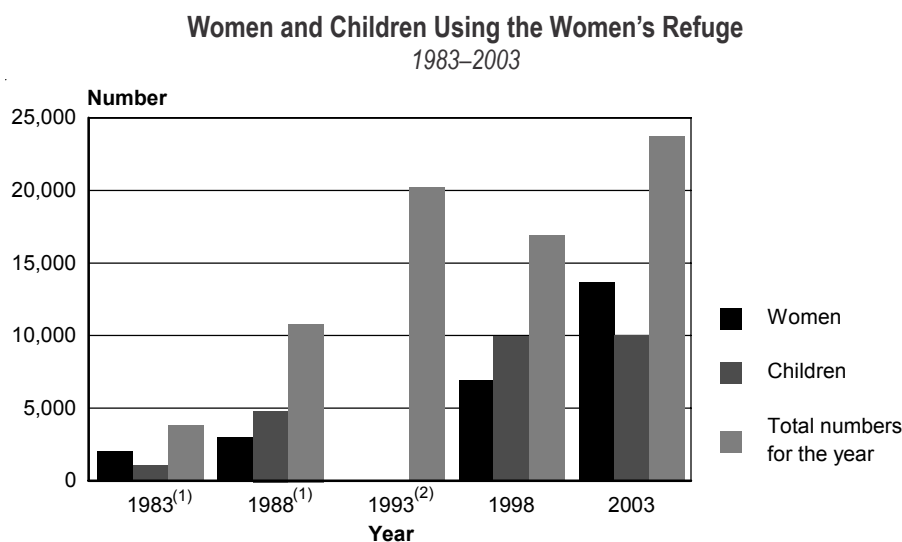
### Women's Refuge

Domestic violence is an issue of ongoing concern within New Zealand, with 13,729 women and 10,053 children assisted by the Women's Refuge in 2003. Approximately 30 percent of these were repeat clients. The number of women and children using the refuge has increased by a quarter since 2000 and doubled since 2000. In 2003 there were more than 750 women working in one of 52 refuges nationwide, with 70 percent of the women working voluntarily.

Over the 20 years between 1983 and 2003, there was a sharp increase in the number of women and children who used the services of the refuge. There was a slight drop in the total in 1998, but another sharp increase up to 2003. There has been a 553 percent increase in the number of women, and a 781 percent increase in the number of children who have used the refuge since 1983.

In 2003, three-quarters of the women using refuge services were not in the paid work force or were unemployed. Thirteen percent worked part-time or were studying. Men, made up 97 percent of abusers, nearly half of them aged between 18 and 35 years. Most women identified that their abusers had multiple issues, particularly with alcohol, finances and drugs. All the abusers were reported to have power and control problems.

Figure 7.13



(1) The figures for Women and Children in 1983 and 1988 do not include community clients. A community client is someone who continues to live in the community while availing themselves of refuge services. 'Total numbers for the year' in 1983 and 1988 include both residential and community clients, so do not add up to the total in each of those years.

(2) Individual figures for Women and Children are not available for 1993.

## Summary

- *In 2001 females made up just over half of the population, yet they made up only 20 percent of all recorded apprehensions, 17 percent of convictions and 4 percent of those sentenced to a custodial sentence.*
- *In 2001 female offenders under the age of 16 accounted for just over a quarter of all recorded female apprehensions. They were responsible for just under half of all female apprehensions for dishonesty and property damage offences and just over a quarter of property abuses.*
- *In 2001 there were 5,905 police apprehensions for violence offences where the offender was female. In 20 percent of cases, the offenders were under the age of 16.*
- *Thirty percent of females aged 15 and over experienced some form of victimisation in 2000, with each female experiencing an average of 2.7 victimisations.*
- *In 2003, 13,729 women and 10,053 children were assisted by the Women's Refuge.*

## Technical Notes

### Administrative offences

A New Zealand Police classification that includes: impersonating a member of the police, perjury and making false statements, escaping from custody and breaching periodic detention, failure to assist police, and breaches of various statutes.

### Against good order

A Ministry of Justice classification that includes: rioting, unlawful assembly, possession of an offensive weapon, offensive language, disorderly behaviour, and trespassing.

### Against the administration of justice

A Ministry of Justice classification that includes: breach of periodic detention, breach of supervision, breach of parole, breach of community service, failure to answer bail, non-molestation order, escaping custody, and obstructing or perverting the course of justice.

### Age sex pyramid

This is a bar chart which graphically represents the age structure of the population, usually in five-year age groups, for both males and females. The age structure of the population usually approximates the shape of a pyramid because mortality progressively reduces the number in each birth cohort as it ages. The age pyramid is useful to show the existence of unusually large or small cohorts, and in this way it not only conveys a lot about a country's past demographic history, but also a great deal about its demographic future.

### Age-specific and age-standardised rates

When comparing the status of different ethnic groups (eg Māori and European) or comparing the same population group over time (eg women in 2001 compared with women in 1981), it is necessary to adjust for differences in the size and structure of the groups being compared. Comparison between groups is possible through the use of *age-specific* and *age-standardised rates*:

- *Age-specific* rates refer to the number of events (disease prevalence, hospitalisations, deaths, etc) that occurred in an age group as a proportion of the total population in that age group. These rates are useful when comparing age groups from two populations (eg Māori and non-Māori females aged 15–24 years).
- *Age-standardised* rates adjust for differences in the size and population structure of the groups being compared (eg Māori and European). They are calculated by weighting age-specific rates by a standard population. Individual age-standardised rates have no

meaning by themselves and are only meaningful when compared with other age-standardised rates (eg Māori women compared with European women).

### Apprehension

A person is considered to have been apprehended when they have been identified by police as an offender and have been dealt with in some way, such as warned, prosecuted, referred to a youth justice family group conference or diverted. Apprehensions do not count distinct individuals, as a person may have been apprehended for multiple offences which are then counted multiple times in the data.

### Baby boomer

Baby boomers are considered to be those who were born between the years of 1946 and 1966. The exact baby boom period varies between sources and countries.

### Case

A collection of charges against one person, dealt with by a court at the same time.

### Census night population count

A count of all people present in a given area on a given census night. The census night population count of New Zealand *includes* visitors from overseas who are counted on census night, but *excludes* New Zealand residents who are temporarily overseas.

### Census usually resident population

The census usually resident population count of New Zealand *excludes* visitors from overseas and *excludes* New Zealand residents who are temporarily overseas.

### Charges prosecuted

Charges prosecuted are counted as one charge for each person.

### Custodial sentences

These include life imprisonment, preventive detention, imprisonment and corrective training. Life imprisonment and preventive detention are both indeterminate sentences where offenders are not eligible for parole until 10 years have been served. A minimum period of longer than 10 years may be imposed. Life imprisonment is mandatory for murder and treason. Preventive detention is available for repeat sexual and violent offenders. Imprisonment sentences are determinate sentences that are imposed according to the ruling of the courts. Corrective training is a three-month prison sentence with a rigorous training programme for offenders aged 16–19 years.

## Employed

A person is employed if they are in the working-age population (aged 15 years and over) and during the week before the census:

- worked for one hour or more for pay or profit in the context of an employee/employer relationship or self-employment
- worked without pay for one hour or more in work that contributed directly to the operation of a farm, business or professional practice owned or operated by a relative
- had a job but were not at work due to:
  - own illness or injury
  - personal or family responsibilities
  - bad weather or mechanical breakdown
  - direct involvement in industrial dispute
  - leave or holiday.

## Estimated de facto population

An estimate of all people present in a given area at a given date. The estimated de facto population of New Zealand *includes* all people present in New Zealand and counted by the census (census night population count). This estimate *includes* visitors from overseas who are counted on census night, but *excludes* New Zealand residents who are temporarily overseas. De facto population estimates are no longer produced.

## Estimated resident population

An estimate of all people who usually live in a given area at a given date. The estimated resident population of New Zealand *includes* all residents present in New Zealand and counted by the census (census usually resident population count), residents who are temporarily overseas (who are not included in the census), and an adjustment for residents missed or counted more than once by the census (net census undercount). Visitors from overseas are *excluded*. The estimated resident population at a given date after census includes births, deaths and net migration (arrivals less departures) of residents during the period between census night and the given date. National population estimates are produced quarterly, with reference dates at 31 March, 30 June, 30 September and 31 December.

## Ethnicity

An ethnic group is made up of people who have *some or all* of the following characteristics:

- a common proper name
- one or more elements of common culture which need not be specified but may include religion, customs or language

- a unique community of interests, feelings and actions
- a shared sense of common origins or ancestry
- a common geographic origin.

## External migration

The long-term movement of overseas and New Zealand travellers into and out of New Zealand. External migration statistics are compiled from individual migration forms filled in by passengers arriving in and departing from New Zealand, and forwarded to Statistics New Zealand by the Customs Department.

## Full-time employment

People who are employed full-time usually work 30 or more hours per week.

## Highest qualification

Highest qualification combines highest secondary school qualification and post-school qualification to derive a single highest qualification by category of attainment.

## Hours worked in employment

The total number of hours usually worked in employment per week by all people aged 15 and over who, at the time of the census, either:

- worked for one hour or more for pay, profit or payment in kind in a job, business, farm or professional practice
- worked without pay for one hour or more in work that contributed directly to the operation of a farm, business or professional practice operated by a relative, or
- had a job or business they were temporarily absent from.

## Household victimisations

These include burglary, theft from inside or outside property, unlawfully taking a motor vehicle, unlawful interference with a motor vehicle, and theft from a motor vehicle.

## Individual property offences

These include theft from a person, bicycle theft, general theft, damage, and damage including threat by a current partner and/or those known to the victim.

## Industry

The type of activity undertaken by the organisation, enterprise, business or unit of economic activity within which a person is employed.

## Inter-ethnic mobility or ethnic category jumping

This occurs when people change their ethnic identification from one group to another, or identify

with more or fewer ethnic groups over time. Different levels of inter-ethnic mobility change are assumed in population projections.

### Labour force

This consists of members of the working-age population (people aged 15 years and over) who during the week before the census were classified as 'employed' or 'unemployed'.

### Labour force participation rate

The percentage of the population aged 15 years or over who were either employed or unemployed and seeking work. The calculation for labour force participation rate excludes people with a work labour force status of 'unidentifiable'.

### Miscellaneous offences

A Ministry of Justice classification that includes all those not included in other offence categories, such as offences against the Income Tax Act 1994, Goods and Services Tax Act 1985, Sale of Liquor Act 1989, Fisheries Act 1983, Films, Videos and Publications Classification Act 1993, and Resource Management Act 1991.

### Net census undercount

In the context of population estimates and projections, New Zealand residents who should have been counted in a census but were not, minus a correction for New Zealand residents who were counted more than once in the same census. The base population for population estimates and projections includes an adjustment for net undercount in the most recent Census of Population and Dwellings.

### Occupation

An occupation is defined as a set of jobs that involve the performance of a common set of tasks. A job is a set of tasks performed or designed to be performed by one individual. Two jobs are similar if they require the performance of a similar set of tasks or to fulfil the technical requirements of an occupation. Skill is defined as the ability of an individual to perform a set of tasks or to fulfil the technical requirements of an occupation.

### Part-time employment

People who are employed part time usually work fewer than 30 hours per week.

### Personal violent victimisations

These include sexual interference and/or assault, indecent assault, grievous assault, other assault, assault by current partner or by other people well known to the victim, threats by current partner or people well known to the victim, abduction and weapon use.

### Population estimates

These are based on the resident population concept (the estimated resident population) and include adjustments for net census undercount and residents temporarily overseas. National population estimates are produced quarterly (with reference dates at 31 March, 30 June, 30 September and 31 December) from 1991, and subnational population estimates are produced annually (reference date at 30 June) from 1996.

### Population projections

Estimates of the future demographic characteristics of a population, families or households are based on an assessment of past trends and assumptions about the future course of demographic behaviour (eg fertility, mortality, net migration).

Alternative projections of the population are derived using different combinations of assumptions. The projections presented here are from:

- mid-range series 5 of the national population projections released in December 2004, which have as a base the estimated resident population of New Zealand at 30 June 2004
- mid-range series 6 of the national Māori, Pacific, Asian and European population projections released in May–June 2003, which have as a base the estimated resident population of each ethnicity of New Zealand at 30 June 2001.

### Prioritised ethnicity

Prioritisation is the method of categorising the ethnicity of a respondent who belongs to more than one ethnic group to a single group. A summarised version of the prioritisation schedule commonly used in the health, disability and education sectors and in the New Zealand Income Survey is as follows:

- If Māori is one of the ethnic groups reported, the respondent is assigned to the 'Māori' ethnic group.
- If any Pacific group is reported, the respondent is assigned to 'Pacific'.
- If an Asian ethnic group is reported, the assignment is to 'Asian'.
- If none of the above are reported, assignment is to 'European/Other'.

For example, a respondent who is Māori and Samoan would be categorised as Māori. A respondent who is New Zealand European and Samoan would be categorised as Pacific.

*Note:* The New Zealand Income Survey combines 'Asian' ethnic group with 'Other'.

### **Reported crime**

Where a matter has come to the attention of the police, usually for crimes that involve insurance claims or injuries requiring medical treatment. Research indicates that many crimes are never reported to the police.

### **Sentenced inmates**

The number of inmates serving a custodial sentence in prison at any given time.

### **Status in employment**

This classifies employed people aged 15 years and over according to whether they are working for themselves or for other people. The two main criteria underlying the classification of status in employment are:

- Economic risk – a worker who assumes some or all of the ‘risk’ in operating an economic entity is likely to be either an employer or a self-employed person; otherwise a worker is likely to be an employee.
- Economic control – who decides how and when an employed person’s work is to be performed. For example, if a particular worker decides this for himself or herself, they are probably either self-employed or an employer; if some other person makes these decisions, a worker is most likely to be an employee.

### **Unemployed**

All people in the working-age population who, during the week ended 4 March 2001, were without a paid job, were available for work and:

- had actively sought work in the past four weeks ended 4 March 2001, or
- had a new job to start within four weeks.

A person whose only job search method in the previous four weeks has been to look at job advertisements in the newspapers is not considered to be actively seeking work.

### **Unemployment rate**

The number of unemployed people expressed as a percentage of the labour force.

### **Unpaid work**

This covers activities performed in the four weeks prior to census that are either:

- for people living in the same household as the respondent, or
- for people outside the respondent’s household, for which the performance of those activities is not paid.

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