There are now over 5.3 million of us – the population grew and became more diverse in 2007

The year 2007 was exceptional for the population growth of Finland, thanks to the constantly increasing immigration. The significance of immigration in keeping the population growing has been on the increase for some time.

STATISTICS FINLAND
PEKKA PÖYRY - HT

THE POPULATION of Finland exceeded 5.3 million around the turn of this year. According to Statistics Finland the population grew by nearly 23,000 people during 2007. It was the biggest annual increase in 15 years.

The main reason for the exceptional growth was the increased immigration. A bit over 25,000 people moved to Finland last year, a good share of them from Estonia and Russia. The number of immigrants was bigger than ever before in the history of the country. Last year's net immigration – roughly 13,000 people – is a new record as well. The previous records were made in 2006.

While the number of emigrants has stood around 12,000 for a few years now, immigration shows no signs of declining. The statistics show that the number of immigrants has been rising for four consecutive years and in January 2008 more immigrants came to Finland than in January 2007.

In population projections by Statistics Finland it's precisely the high level of net immigration which is expected to keep the population of Finland growing for the decades to come.

Not quite a baby boom, but some kind of wedding boom

So far the population has grown by the other – that is the biological – way, too. The number of births (58,700) exceeded the number of deaths by 9,800 last year. According to the statistics, in recent years Finns have been keener on making babies compared to the beginning of the decade, when the average number of newborns was roughly 56,000 per year.

However, **Irma Pitkänen** from Statistics Finland says one can hardly speak of a baby boom. "The increase of the last few years can't be considered as a significant one. The number of newborn babies varies slightly depending on the size of the age groups reaching reproductive age."

In 2007 the wedding bells kept on ringing: Statistics Finland estimates that a little less than 30,000 couples were married; it's the highest number since 1982. When it comes to break-ups, there were 13,300 divorces – broadly the same amount as in 2006.

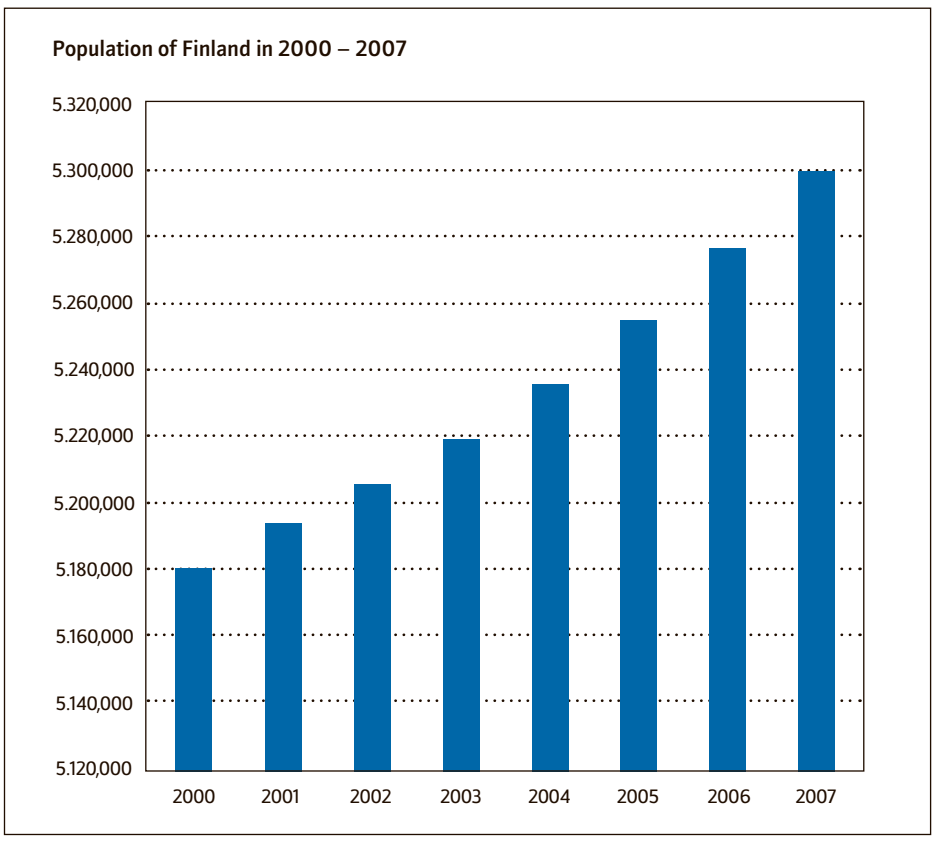
Upstairs and downstairs provinces

Helsinki, followed by Espoo, Tampere and Vantaa are the biggest cities in Finland and the rapidest population growth is also concentrated around them. Helsinki, Espoo and Vantaa make up most of the Metropolitan Area, which is inhabited approximately by one million people. In 2007 the province of Uusimaa surrounding it was the leading province as for population growth, both in absolute (15,000 people) and relative (1.1 per cent) terms.

Tampere cuts in between the Metropolitan Area cities by being the third most populated city in Finland with nearly 210,000 inhabitants. And the province of Pirkanmaa surrounding Tampere came second after Uusimaa in population growth in 2007.

The population is not growing throughout the country, however. Last year it diminished in almost half of the 20 provinces and the provinces in Eastern Finland especially tended to be on the losing side. The province of Etelä-Savo surrounding the town of Mikkeli is the one which lost the most in 2007, both in absolute and in relative terms.

Net emigration was the main reason for losses in the diminishing provinces. Therefore a factor hardly favouring the withering areas was the quantity of internal migration last year: 291,000 moves from a municipality to another were registered. The number is the biggest in the history of independent Finland.



Going wireless, at what cost?

Wireless technology is spreading quickly everywhere. Experts debate about its possible effects on human health and raise contrasting opinions.

FEDERICA SENEGHINI
HELSINKI TIMES

GOING WIRELESS seems now the coolest thing to do. Technology is spreading fast throughout schools, public transportation and cities, but experts have serious concerns about the effects of electromagnetic fields (EMF) originating from the wireless networks linking our laptops and mobiles.

The type of radiation emitted by Wi-Fi devices, although on a slightly different wavelength, is essentially the same as that used by DECT cordless, Bluetooth devices, mobile phones and their transmitter masts.

Recent evidence

Recently an increasing amount of research has been dedicated to the potential danger of EMF. **Dariusz Leszczynski** and collaborators at Finland's Radiation and Nuclear Safety Authority (Stuk) in Helsinki have shown that relatively low-power mobile phone radiation can alter the production of proteins in human skin. "What we did is basic research. We don't know yet whether the observed effects might lead, in due time, to health effects in humans. Further studies are needed to examine this possibility."

LEHTIKUVA / AFP PHOTO / ADRIAN DENNIS

Even toddlers use mobile phones nowadays even though no one really knows what the long term effects of mobile phone and Wi-Fi radiation are.

13 countries are currently participating in the Interphone study, a study of brain tumours and occupational exposures to EMF. Some of the groups got worrying results. "Single studies cannot prove damage: what is important is the weight of evidence. For this reason authors and the International Agency for Research on Cancer recommend caution in the interpretation of these results, while waiting for a global analysis including the data coming from all the participant countries," says **Paolo Vecchia**, president of ICNIRP, the International Commission on Non-Ionizing Radiation Protection.

Guidelines

In May 2007 Sir **William Stewart**, chairman of the Health Protection Agency (HPA), told the BBC programme *Panorama* how the approach adopted by the WHO is not an "accurate reflection" of the current science. After that the WHO, instead of saying that there is "no evidence" that Wi-Fi could have an effect on health, said that there is "no convincing scientific evidence that the weak RF signals from base stations and wireless networks cause adverse health effects."

For data on radiation safety limits, the WHO follows the guidelines supplied by the ICNIRP, which considers biological thermal effects (biological effects caused by microwave heating) but not the so-called non-thermal effects (biological effects observed in the absence of substantial heating). In other words, the radiation has to be so strong that it causes a heat effect before it is restricted. ICNIRP data are based on studies prior to 1997, the year in which Wi-Fi was first introduced.

Are these limits safe? "Nobody really knows for sure," says Leszczynski. "More epidemiological studies have to be made in order to be able to know whether Wi-Fi and mobile phone radiation might be a risk in the long term on human health. But before that more basic research on biochemical level in human volunteers is needed. These basic research results are ultimately necessary as evidence to either support or disprove results of epidemiological studies".

Biological effects

"Epidemiological data, albeit limited, show that exposure to electromagnetic fields, both at low frequency and radiofrequency can lead to biological effects," says Doctor **Morando Soffritti**, Scientific Director of the European Ramazzini Foundation, in Bologna, Italy, where two experiments on the potential long-term carcinogenic effects of EMF exposure are currently underway using rats. "While we await further experimental data, it is advisable to limit the use of mobile phones by children and teenagers."

According to Professor **Angelo Levis** of Padua University in Italy, "Some reassuring studies are often financed by telecommunication companies or by people interested in the development of these technologies and are not based on scientific evidence. The WHO continues to say that the only effect of radiofrequencies is thermal and, since the current limits keep us safe from thermal effects, everything would be therefore safe."

Strengths of microwave technologies (Volt per metre)

-Mobile phone held next to head, 10 – 150 V/m
-DECT cordless phone held next to head, 10 – 80 V/m
-Microwave oven at 1m, 1 – 6 V/m
-Wi-Fi laptop on lap, 1 – 5 V/m
-Wi-Fi router at 0.5m, 1 – 2 V/m
-Mobile phone mast at 150m, 0.5 – 2 V/m
-DECT base unit at 0.5m, 0.5 – 2 V/m
-Digital baby monitor 1m from baby, 0.3 – 2 V/m
-Bluetooth device at 50cm, 0.3 – 0.7 V/m
-DECT base unit at 3m, 0.2 – 0.4 V/m
-Wi-Fi router at 5m, 0.1 – 0.2 V/m

Source: Powerwatch