Figure I. Correlation between life expectancy in 1980/85 and the number of children per woman (total fertility rate) 1985/90 for the 30 most populous countries, covering 80% of the total world population.

Figure II. The population of Germany in the 21st Century excluding migration effects, assuming an increase in the number of births per woman (TFR) from 1.25 to 1.50 over 15 years, starting from alternative points in time.

Source: H. Birg, University of Bielefeld, 2000.
Figure III. The population of Germany in the 21st Century including migration effects, assuming annual net immigration of 250,000 and an increase in the number of births per woman (TFR) from 1.25 to 1.50 over 15 years, starting from alternative points in time.

Increase in TFR starting in

2000
2010
2020
2030
2040
2050

Assumed life expectancy: Increasing to 81 yrs (M) and 87 yrs (F) by 2080

Source: H. Birg, University of Bielefeld, 2000.
Figure IV. The absolute number of births and deaths and the gap between the two in Germany, 1946-1997 and 1998-2100

Birth surplus

Deaths

Birth deficit

Live births

Number of live births and deaths each year (in thousand)

Assumptions:
- Total fertility rate - 1.4 children per woman
- Life expectancy increasing to 84 yrs (M) and 90 yrs (F) by 2080
- Net annual immigration = 225,000

The curves plotted up to 1997 are based on actual figures.

Figure V: Hypothetical net migration rate for a constant population number in Germany (for various birth rates)

Initial Population (Dec.54) = 81.539 Million
Life expectancy: 75 Years (Men), 81 Years (Women)
(Frozen)

- Dashed line: Number of births per women (Total Fertility Rate) 1.2
- Solid line: Number of births per women (Total Fertility Rate) 1.4
- Dotted line: Number of births per women (Total Fertility Rate) 1.5
- Dashed-dotted line: Number of births per women (Total Fertility Rate) 1.6

Net migration per year

Years
Figure VI: Development of the age profile in former West and East Germany
(Population projection variant 5 - including migration and economic feedback)
Figure VII: The relationship between the statutory pension contribution rate, the pension level and increased life expectancy

Assumed life expectancy increases since 1994/96 and ageing index (AI) for chosen years

1994/96: Males 73.3 years, females 79.7 years; AI = 37.5
2020 a): no increase: AI = 51.0
2020 b): plus 3.7 years; AI= 58.4
2035 a): no increase; AI = 71.0
2035 b): plus 5.3 years; AI = 81.8
2050: plus 6.7 years; AI = 87.9

Source: H. Birg, University of Bielefeld 1999.
Data used: Simulations, scenario 4; Materialien des IBS, vol. 45, University of Bielefeld, 1999.
Figure VIII: Course of the ageing indices based on differing boundaries between the age groups

Figure IX. Course of the potential support ratio based on differing boundaries between the age groups.
Figure X: Simulations of the demographically induced rise in health care expenditure and of the impact on health insurance contributions in the 21st Century

Assumptions: Gradual increase in life expectancy from 73 to 81 years (males) and 80 to 87 years (females) by 2080; TFR = 1.4; annual net immigration = 150,000.
Figure XI: Changes in the demographic senior citizens’ care indices, using different delineation ages

Source of the underlying data: H. Birg, E.-J. Flöthmann, Demographische Projektionsrechnungen zur Rentenreform 2000, Report to the German Insurance Association (Gesamtverband der deutschen Versicherungswirtschaft), Berlin 1999, (projection variant 5).
Figure XIII: Estimate of the future number of people aged 100 years and over in Germany (projection variant 5)

Figure XIV: Estimate of the future share of the total population taken up by people aged 100 years and over in Germany (projection variant 5)