Higher Education to 2030

VOLUME 1

DEMOGRAPHY

CENTRE FOR EDUCATIONAL RESEARCH AND INNOVATION
# Table of Contents

## Executive Summary

13

## Chapter 1. Are Long-term Demographic Forecasts Possible? Turning Points and Trends

by Hervé Le Bras

19

1.1. External migration: frequent turning points linked to political events 20

1.2. Fertility: infrequent turning points with lasting effects 23

1.3. Mortality: a hidden turning point 32

1.4. Conclusions 38

References 39

## Chapter 2. What is the Impact of Demography on Higher Education Systems?

### A Forward-looking Approach for OECD Countries

by Stéphan Vincent-Lancrin

41

2.1. The impact of demography on student enrolment 42

2.2. Impact on the budget for higher education 53

2.3. Impact on student-teacher ratios 59

2.4. Impact on teacher recruitment requirements 62

2.5. Impact on the percentage of higher education graduates in the population 64

2.6. How will social inequality evolve in higher education? 70

2.7. Higher education policies vis-à-vis growth or falls in student enrolment 76

2.8. Summary 89

Notes 90

References 90


Annex 2.A2. Supplementary Tables 97

## Chapter 3. Demography and Higher Education: The Impact on the Age Structure of Staff and Human Capital Formation

by Frans Willekens

105

3.1. Introduction 106

3.2. Major demographic trends in the OECD area 106

3.3. Ageing in the higher education sector 109

3.4. Trends in human capital and higher education in the OECD area and in China and India 114

3.5. Conclusion 119

Notes 121

References 121

Chapter 4. Back to the Future? The Academic Professions in the 21st Century
by Jürgen Enders and Christine Musselin

4.1. Introduction
4.2. The changing profile of the academic profession
4.3. Conclusions and outlook
Notes
References

Chapter 5. Student Enrolments and Graduation Trends in the OECD Area:
What Can we Learn from International Statistics?
by Ulrich Teichler and Sandra Bürger

5.1. Introduction
5.2. Enrolment trends
5.3. The composition of the student body
5.4. The output of tertiary education
5.5. Beyond tertiary education: outcomes
5.6. Concluding observations
Note
References

Chapter 6. Access to Post-secondary Education in the United States:
Past, Present, and Future Perspectives
by Eugene Anderson and Bryan Cook

6.1. Introduction
6.2. The expansion of access to higher education: from past to present
6.3. The expansion of access to higher education beyond demography
6.4. The future of enrolment in American higher education
6.5. Challenges for the future
6.6. Conclusion
Notes
References

Chapter 7. The Future of Higher Education in the Context of a Shrinking
Student Population: Policy Challenges for Japan and Korea
by Akiyoshi Yonezawa and Terri Kim

7.1. Introduction
7.2. The path to universal access to higher education
7.3. A declining and ageing population and the saturation of traditional
student markets
7.4. Linking higher education supply and labour market demand
7.5. Structural policy strategies and challenges for the future of higher education
7.6. Co-ordinating the shrinking higher education market
7.7. Conclusion and implications for other OECD countries
Notes
References
## Table of Contents

### Chapter 8. Adapting Higher Education to the Needs of Disabled Students: Developments, Challenges and Prospects
by Serge Ebersold .................................................. 221

- 8.1. Becoming a learning organisation by opening up to disability ...................... 223
- 8.2. Openness to diversity subject to various models of inclusion ..................... 231
- 8.3. Conclusion ................................................................ 237

Notes .......................................................................... 238
References .................................................................... 239

### Chapter 9. Immigration and Access to Tertiary Education: Integration or Marginalisation?
by Francisco Marmolejo, Sean Manley-Casimir and Stéphan Vincent-Lancrin .... 241

- 9.1. Introduction .................................................................. 242
- 9.2. Migratory patterns and educational attainment ........................................ 243
- 9.3. Access of migrants to higher education: the cases of the United States and of France .......................................................... 251
- 9.4. Conclusion .................................................................... 260

Notes .......................................................................... 261
References .................................................................... 262

### Chapter 10. The Reversal of Gender Inequalities in Higher Education: An On-going Trend
by Stéphan Vincent-Lancrin ............................................................................ 265

- 10.1. Gender inequalities in higher education: international trends ................... 266
- 10.2. What is the reason for gender inequalities? .............................................. 278
- 10.3. What is the future and importance of gender inequalities in higher education? .......................................................... 287
- 10.4. Summary and conclusion .................................................................... 292

Notes .......................................................................... 294
References .................................................................... 294

### List of Figures

- 1.1. Migration observed between 1950 and 2005 and projected until 2050 in selected developed countries .................................................. 21
- 1.2. Migration observed between 1950 and 2005 and projected until 2050 for selected major developing countries ........................................... 22
- 1.3. Reconstruction of net migration in the Netherlands on the basis of multiple regressions using exogenous economic and political variables .......................................................... 22
- 1.4. Total fertility rate and mean age at childbearing of mothers under 30 (proxy of the age of first maternity) between 1900 and 2000 in France .................................................. 23
- 1.5. Proportion of out-of-wedlock births between 1900 and 2000 in France .................................................................................... 24
- 1.6. Proportion of twin births in France between 1900 and 2000. .................... 25
- 1.7. Trend of the total fertility rate in selected developed countries between 1950 and 2002 ........................................................................... 25
- 1.8. Comparison of the fertility of 23 EU countries (each country is shown by a dot) in 1955-60 and 2000-05 (EU24 less Cyprus) .......................................................... 26