

Gender Differences in Aspirations and Attainment

What is the role of parents, peers and teachers in shaping school experiences and informing the career choice of males and females? Does the school context matter, and to what extent do educational experiences influence young people's self-concept, values and their outlook to the future? Do teenage aspirations influence later outcomes regarding educational attainment and the assumption of work and family related roles? These questions and more are addressed in the chapters of this book, following lives over time and in context. The book is both innovative and timely, moving the discussion of gender inequalities forward, providing a dynamic and contextualized account of the way gendered lives evolve. Chapters address the role of institutional structures and the wider socio-historical context in helping young men and women to realize their ambitions. A unique feature is the longitudinal perspective, examining the role of multiple interlinked influences on individual life planning and attainment.

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Gender Differences in Aspirations and Attainment

A Life Course Perspective

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SARAH HAYFORD is a social demographer in the T. Denny Sanford School of Social and Family Dynamics at Arizona State University. Her areas of study include childbearing, family, and social change in the United States and in sub-Saharan Africa. Recent work examines gender differences in adolescent goals for work and family, changes in the timing of first births within marriage, and the childbearing plans of HIV-positive women.

JUTTA HECKHAUSEN grew up in Germany and received her PhD from the University of Strathclyde in Glasgow, Scotland. She joined the Max-Planck-Institute for Human Development in Berlin in 1984 and then became a post-doctoral fellow, junior and senior scientist. In 1995/1996 she was a fellow at the Center for Social and Behavioral Science at Stanford and in 1999 she received the Max Planck Research Award. In 2000, she was offered a professorship and joined the Department of Psychology and Social Behavior at the University of California Irvine. She served as Chair of the Academic Senate at UC Irvine in 2008–2009. Her work is widely published, including articles in *Developmental Psychology*, *Psychology and Aging*, *Journal of Personality and Social Psychology*, and *Psychological Review*. Her most recent book is *Motivation and Action*, published by Cambridge University Press.

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JOHN JERRIM is a Lecturer in Economics and Social Statistics at the Institute of Education, University of London. Jerrim’s research interests include the economics of education, access to higher education, intergenerational mobility, cross-national comparisons, and educational inequalities. He has worked extensively with the OECD Programme for International Student Assessment (PISA) data, with this research being reported widely in the British media. Jerrim was the recipient of an ESRC Research Scholarship (2006–2010), and was awarded the prize as the “most promising PhD student in the quantitative social sciences” at the University of Southampton. He was a Fellow of the Jacobs Foundation postdoctoral PATHWAYS to Adulthood program, and in October 2011 he was awarded a prestigious ESRC postdoctoral fellowship to continue his research into the educational and labor market expectations of adolescents and young adults. Since then he has won the inaugural ESRC Early Career Outstanding Impact award and has just received an ESRC grant to study cross-national comparisons of educational attainment and social mobility.

HEATHER JOSHI is Professor Emerita at the Institute of Education, University of London, having been the Director of the Centre for Longitudinal Studies and of the Millennium Cohort Study in particular. She was also president of the European Society for Population Economics, of the British Society for Population Studies and the founder president of the Society for Lifecourse and Longitudinal Studies. She was a co-investigator on the project about single-sex schooling summarized here, which was led by the late Diana Leonard.

SARAH KENNY was a research assistant at the University of Michigan, focusing primarily on gender differences in STEM. She is currently an MA student at the London School of Economics, and plans to pursue a doctorate focusing on children and young people’s experiences of digital media at home and school.

IRENE KRIESI is a sociologist who currently heads a research section at the Swiss Federal Institute of Vocational Education and Training. Her research, on topics such as social and gender inequality, the transition from childhood and youth to adulthood, education and labor market careers, has been widely published.

OLIVER LÜDTKE is a Professor of Psychological Research Methods at the Humboldt University of Berlin. He received his PhD in Psychology from the Free University of Berlin and worked as a research scientist at the Center for Educational Research at the Max-Planck-Institute for Human Development. His main research interests include the application of multilevel modeling in psychological and educational research, international student achievement studies, and personality development in adolescence.

CAROL LYNN MARTIN is a Professor of Child Development in the T. Denny Sanford School of Social and Family Dynamics at Arizona State University. She is also a director of the Lives of Girls and Boys Enterprise, which promotes innovative research and its application to the real life issues and challenges facing girls and boys. Her research interests include gender development and peer relationships.

SARAH-KATHRYN MCDONALD, Principal Research Scientist in the Academic Research Centers at NORC at the University of Chicago, has more than 25 years' experience serving as a policy analyst, social scientist, evaluation researcher, public affairs advisor, and senior manager with governmental, for profit, and not-for-profit organizations in the US and Europe. Since 2002 she has collaborated with faculty, clients, and staff at NORC on a range of impact evaluations and educational research projects. Other organizations with which she has worked include the US Bureau of the Census; Nuffield College, University of Oxford; Birkbeck College, University of London; and the University of Chicago Consortium on Chicago School Research.

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LARA PEREZ-FELKNER is an Assistant Professor of Higher Education in the College of Education and Department of Sociology at Florida State University. Her research examines how young people's social contexts influence their college and career outcomes. She focuses on the mechanisms that shape entry into and persistence in fields in which they have traditionally been underrepresented. In particular, she investigates racial-ethnic, gender, and socioeconomic disparities in postsecondary educational attainment and entry to scientific career fields. She was a recent Visiting Scholar at the Center for Khmer Studies for cross-national extensions of this work and a Fellow of the Jacobs Foundation postdoctoral PATHWAYS to Adulthood program.

RICARDO SABATES is Senior Lecturer in International Education and Development at the University of Sussex. Much of his work concerns the relationship between education and wider social outcomes such as health and crime. Special interests include the application of quantitative research methods to investigate the strength in the relationship between education and outcomes in the UK and international contexts and the role of education in reducing social inequalities.

KATARIINA SALMELA-ARO is Professor of Psychology at the University of Jyväskylä, and Visiting Professor at the Institute of Education, University of London. She was Research Director of the Helsinki Collegium for Advanced Studies at the University of Helsinki, and Professor in the Finnish Center of Excellence on Learning and Motivation Research. Professor Salmela-Aro is Director of several ongoing longitudinal studies, such as FinEdu and Secretary General of the International Society for the Study of Behavioral Development (ISSBD). She is also a founding member of the PATHWAYS to Adulthood postdoctoral fellowship program. Her main topics are motivation and academic wellbeing using longitudinal studies.

CARLOS SANTOS was trained as a developmental scientist and is currently an Assistant Professor in the Counseling and Counseling Psychology program at

Arizona State University. His research explores how social identities and categories (e.g., being a boy or a girl and Latina/o or white) intersect, and how experiences (e.g., discrimination) and attitudes (e.g., stereotypes) associated with these categories influence youths' identity, relationships, and health.

INGRID SCHOON is Professor of Human Development and Social Policy at the Institute of Education, University of London and is Director of the international postdoctoral Jacobs Foundation Fellowship PATHWAYS to Adulthood. Her research interests are focused on issues of human development across the life course, in particular the transition from dependent childhood to independent adulthood, the intergenerational transmission of (dis)advantage, and the realization of individual potential in a changing socio-historical context. Her work is published widely in peer-reviewed journals. She also has written a monograph on *Risk and Resilience* and co-edited a book with Rainer K. Silbereisen on *Transitions from School to Work*, both published by Cambridge University Press.

BARBARA SCHNEIDER is the John A. Hannah Chair and University Distinguished Professor in the College of Education and Department of Sociology at Michigan State University. Her research and teaching focus on understanding how the social contexts of schools and families influence the academic and social well-being of adolescents as they move into adulthood, with a particular emphasis on improving educational opportunities for students with limited economic and social resources. She is the co-author of 15 books, author of numerous journal articles, and previously editor of *Educational Evaluation and Policy Analysis* and *Sociology of Education*. Schneider was a Fulbright New Centuries Scholar, member of the Sociological Research Association, and Senior Fellow at NORC at the University of Chicago. She is a founding member of the Jacobs Foundation postdoctoral Fellowship program PATHWAYS to Adulthood, and was recently elected President of the American Educational Research Association (AERA).

JACQUELINE SCOTT is Professor of Empirical Sociology in the Faculty of Human, Social and Political Sciences at the University of Cambridge. From 2004 to 2010 she directed the Economic and Social Research Council's (ESRC) Research Priorities Network on Gender Inequalities in Production and Reproduction, where she coordinated projects across eight institutions investigating the changing roles and lifestyles of men and women. The Network investigated why gender inequality is so prevalent within our society and sought to identify ways that greater equality might be achieved. She is the editor of several books about gender inequalities and sociology of family and has published many articles on attitudinal change. She is a member of the Scientific Advisory Board of the European Social Survey and the ESRC National Centre for Research Methods.

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inequalities, including inequalities of social class, gender, and ethnicity. Her published work includes research on social class and gender differences in cognition and educational attainment, Bourdieu and cultural capital, school sector differences, and education policy.

JENNIFER SYMONDS' research interests are in the development of children's psychological and emotional wellbeing at school transition. Recently, she has directed the Changing Key study of musical identity at school transition for the Paul Hamlyn Foundation, investigated adolescents' school engagement as a research fellow on the Learning Futures project for the University of Bristol, and researched adolescent mental health on both the Nuffield Foundation's Changing Adolescence program and as a research fellow on the international PATHWAYS to Adulthood program at the University of Helsinki. Currently she is writing a psychology book for teachers: *Understanding Transition: What Happens to Children and How to Help Them*.

ULRICH TRAUTWEIN is a Professor for Educational Science at the University of Tübingen. His main research interests include educational transitions, the effects of different learning environments on self-concept, interest, and personality development, and the role of self-related cognitions in students' homework behavior. He has published more than 100 scholarly articles in peer-reviewed journals. Trautwein directs two longitudinal large-scale school achievement studies and several large-scale intervention projects. He is also the director of the graduate program Learning, Educational Achievement, and Life Course Development (LEAD), funded by the excellence initiative of the German Federal and State Governments, and is a member of the Jacobs Foundation post-doctoral Fellowship program PATHWAYS to Adulthood.

LORNA UNWIN is Chair in Vocational Education at the Institute of Education, University of London. She has held academic posts at the Open University and University of Sheffield, and was Director of the Centre for Labour Market Studies at the University of Leicester. Her latest books include *Contemporary Apprenticeship: International Perspectives on an Evolving Model of Learning* (co-authored with Alison Fuller and published in 2012). She is editor of the *Journal of Vocational Education and Training*.

KATJA UPADYAYA, PHD, is a research investigator at the Institute of Social Research, University of Michigan. Her research interests include teacher–student and parent–child interaction, causal attributions and beliefs, study and work engagement, academic motivation and performance, gender differences, STEM, and school and work transitions. From 2008 to 2010 she was a Fellow of the Jacobs Foundation post-doctoral PATHWAYS to Adulthood program.

MING-TE WANG is an Assistant Professor of Applied Developmental Psychology and Research Scientist in the Learning Research & Development Center at the

University of Pittsburgh. He received his doctoral degree in Human Development and Psychology from Harvard University, and he was a Fellow of the Jacobs Foundation postdoctoral PATHWAYS to Adulthood program at the University of Michigan. His research focuses on the impact of school climate and family socialization on adolescents' motivational beliefs and the effects of multiple ecological systems on the behavioral, social, and emotional development of youth from diverse socioeconomic and cultural backgrounds. His work emphasizes the interplay of developmental processes across both academic and social domains in adolescence, and situates these processes within family, school, and community contexts.

ELIZABETH WEBB is a Research Associate in the Department of Epidemiology and Public Health at University College London, and a member of the ESRC International Centre for Lifecourse Studies in Society and Health (ICLS).

DAVID WEISS studied psychology at the University of Kiel and the Australian National University. He completed his PhD at the University of Erlangen-Nuremberg, for which he received the Karl-Giehl Award for the most outstanding dissertation of the year. In 2009, he joined the Department of Psychology at the University of Zurich as a postdoctoral researcher. For his research on age identity, he received the Vontobel Award for Research on Age(ing) in 2011. His main research interests relate to self, identity, and stereotypes from a life-span perspective.

BETTINA S. WIESE is a Professor of Personnel and Organizational Psychology and currently the Managing Director of the Department of Psychology at the RWTH Aachen University, Germany. She received her PhD in psychology from the Free University of Berlin. Her main research interests include the influence of personal goals and self-regulatory strategies on career development and the interplay of work and family during transitions (e.g., return to work after maternity leave).

KRISTINA ZOSULS earned her PhD in Social Psychology, and is currently an associate faculty member at the T. Denny Sanford School of Social and Family Dynamics at Arizona State University.

Abbreviations (selected)

| | |
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| ACT | American College Testing |
| AGFI | Adjusted Goodness of Fit Index |
| AIC | Akaike's Information Criterion |
| A-level | Advanced level (UK) |
| ANOVA | Analysis of Variance |
| ARS | Academic Rating Scale (US) |
| BCS70 | British Cohort Study (1970) |
| BHPS | British Household Panel Survey |
| BIC | Bayesian Information Criterion |
| BYS | British Youth Survey |
| CAB | Childhood and Beyond (Study) (US) |
| CAPI | Computer Assisted Personal Interview |
| CATI | Computer Assisted Telephone Interview |
| CCCI | Civic Competence Composite Indicator |
| CES-D | Center for Epidemiologic Studies–Depression Scale |
| CFI | Comparative Fit Index |
| CIVED | Civic Education Study |
| COCON | Swiss Survey of Children and Youth |
| CRELL | Centre for Research on Lifelong Learning |
| DAA | Differential Ability Analysis |
| DfE | Department for Education (UK) |
| DTI | Department of Trade and Industry |
| ELS | Education Longitudinal Study (US) |
| ELSA | English Longitudinal Study of Ageing |
| EOC | Equal Opportunities Commission (UK) |
| EU | European Union |
| GCSE | General Certificate of Secondary Education (UK) |
| GDI | Gender Development Index |
| GEM | Gender Empowerment Measure |
| GFI | General Formal Investigation (UK) |
| GPA | Grade Point Average |
| HGLM | Hierarchical Generalized Linear Model |
| HLM | Hierarchical Linear Model |
| ICC | Intra-Class Correlations |

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|---------|---|
| IDA | Individual Development and Adaptation Study (Sweden) |
| IER | Institute of Employment Rights |
| ILO | International Labour Organization |
| IPUMS | Integrated Public Use Microdata Series |
| IRT | Item Response Theory |
| ISCO | International Standard Classification of Occupations |
| IT | Information Technology |
| LPA | Latent Profile Analysis |
| LSYPE | Longitudinal Study of Young People in England |
| MA | Modern Apprenticeship (UK) |
| MLA | Multilevel Analysis |
| MRA | Multiple Regression Analysis |
| MSALT | Michigan Study of Adolescent Life Transitions (US) |
| NCDS | National Child Development Study (UK) |
| NCES | US National Center for Educational Statistics |
| NEET | Not in Education, Employment, or Training |
| NLS | National Longitudinal Survey (US) |
| NLSY | National Longitudinal Survey of Youth (US) |
| NS-SEC | National Statistics Socio-economic Classification (UK) |
| OECD | Organisation for Economic Co-operation and Development |
| O-level | Ordinary level (UK) |
| OLS | Ordinary Least Squares |
| ORACLE | Observational Research and Classroom Learning Evaluation (UK) |
| PAQ | Personal Attributes Questionnaire |
| PISA | Programme for International Student Assessment |
| PME | Physical Sciences, Mathematics, and Engineering |
| RMSEA | Root Mean Square Error of Approximation |
| SAMSAD | Secondary and Middle School Adolescent Development (Study) (UK) |
| SAT | Scholastic Assessment Test (US) |
| SDQ | Self-Description Questionnaire |
| SEM | Structural Equation Modeling |
| SES | Socioeconomic Status |
| SET | Science, Engineering, and Technology |
| SFR | Statistical First Release |
| SOC | Selection, Optimization, and Compensation Model |
| SRMR | Standardized Root Mean Square Residual |
| STEM | Science, Technology, Engineering, and Math |
| STVs | Subjective Task Values |

xxx LIST OF ABBREVIATIONS (SELECTED)

| | |
|--------|--|
| TIMSS | Third International Mathematics and Science Study |
| TLI | Tucker-Lewis Index |
| TOEFL | Test of English as a Foreign Language |
| TOSCA | Transformation of the Secondary School System and Academic Careers (Germany) |
| UKRC | UK Resource Centre for Women in Science, Engineering and Technology |
| UNESCO | United Nations Educational, Scientific and Cultural Organization |
| VET | Vocational Education and Training (UK) |