

Career Success of Higher Education Graduates in Germany

Findings from the HIS Graduate Studies

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Outline

1. Concept of career success
2. Design of the HIS graduate surveys
3. Recent findings

1. Concept of career success

Relevance of the topic

- For the individual:
 - economic security
 - stability of perspectives
 - job satisfaction
- For employers:
 - motivation (increase of productivity)
 - low turnover of staff (reduction of transaction costs and loss of productivity)
- For labour-market and economic policies:
 - securing a well-functioning labour market
 - avoiding misallocation of labour, increase of productivity
- For higher education institutions (HEI):
 - indicator for the quality of teaching (cf. Grotheer 2010)

1. Concept of career success

Issues of definition

- Rare attempts at defining the concept
- Often lack of conceptual clarity:
 - “Career success may be defined as the accomplishment of desirable work-related outcomes at any point in a person’s work experiences over time.” (Arthur et al. 2005, p. 179, cited from Gunz & Mayrhofer 2011, p. 251)
 - “... the real or perceived achievements individuals have accumulated as a result of their work experiences” (Jugde & Kammeyer-Mueller 2007, p. 60, cited from Gunz & Mayrhofer 2001, p. 251)

Multidimensionality

- “Objective” career success (directly observable, measurable, and verifiable by an impartial third party; Hughes 1937, cited from Abele et al. 2011)
- “Subjective” career success (individual’s reaction to career experiences; ibid.)

1. Concept of career success

Indicators and their problems

- “Objective” indicators such as → salary/salary growth → status → promotions → (job-education match) → duration of the transition to a matching job (early career success)
 - necessity of adapting them to changing organisational and labour-market conditions (Abele et al. 2011)
 - differently suited in different fields of employment (ibid.)
 - suitability dependent on institutional context (issue of international comparability)
- “Subjective” indicators such as → job satisfaction → career satisfaction → pride in achievement (Nicholson & De Waal-Andrews 2005) → (job-education match)
 - different points of reference when evaluating the career: (1) comparison with personal objectives and standards (self-referent criteria); (2) comparison with other people (other-referent criteria); (3) comparison with social norms (other-referent criteria) (Abele et al. 2011; Dette et al. 2004; Heslin 2003)

1. Concept of career success

Indicators and their problems (cont.)

- “Objective” and “subjective indicators”
 - issue of time reference: (1) the career in terms of a sequence of positions and jobs held (longitudinal or life-course perspective); (2) the current work situation (cross-sectional perspective)

Conclusion

- Defining, conceptualising and measuring career success is a complex and challenging endeavour
- Additional complexity when it comes to international comparisons

2. Design of the HIS graduate surveys

- Panel and cohort design:
 - several cohorts of higher education graduates included: until now, graduates of the academic years 1989, 1993, 1997, 2001, 2005, 2009
 - up to three panel waves that cover an observation window of approximately ten years after graduation
 - possibility to do intra- and inter-cohort analyses
- Target population
 - all German and non-German higher education graduates who successfully completed their first degree course (2009 also master courses)
 - entire range of subjects
 - nearly all types of higher education institutions (HEI with special features are excluded; they only comprise a small proportion of the population)

2. Design of the HIS graduate surveys

➤ Modes of data collection:

- postal questionnaires
- supplemented by short online surveys on particular topics (e.g., doctoral studies)

➤ Survey programme:

- educational strategies, experiences, and outcomes, e.g., course of studies, academic achievement, further academic qualifications
- occupational careers, experiences, and prospects, e. g., job history (using an event-history design), job search strategies, characteristics of the jobs
- socio-biographic data and educational background prior to study



2. Design of the HIS graduate surveys

Event-history calendar for employment spells

Period (month/year)	Type of work- ing contract	Working hours	Occupation- al position	Place of work
Begin: ____/20____ End: ____/20____ <input type="radio"/> Ongoing	____ (codes below)	1 <input type="radio"/> Full time 2 <input type="radio"/> Part time with ____ hours per week 3 <input type="radio"/> Undetermined working hours with roughly ____ hours per week	____ (codes below)	Federal state or country (if abroad): _____ Town: _____ (first 3 digits of postal code)
Begin: ____/20____ End: ____/20____ <input type="radio"/> Ongoing	____ (codes below)	1 <input type="radio"/> Full time 2 <input type="radio"/> Part time with ____ hours per week 3 <input type="radio"/> Undetermined working hours with roughly ____ hours per week	____ (codes below)	Federal state or country (if abroad): _____ Town: _____ (first 3 digits of postal code)
Type of contract ↓ ↓		Occupational position ↓ ↓		
1 = Permanent 2 = Temporary etc. 6 = Self-employed 7 = Other		01 = Chief executive 02 = Academic staff with managerial tasks etc. 06 = Free professional 07 = Entrepreneur etc. 09 = Civil servant (senior official) etc. 13 = Untrained worker 14 = Contributing family worker		

2. Design of the HIS graduate surveys

- Indicators of career success (selection)
 - wages
 - vertical occupational mobility (reconstructed from the employment history and the positions held, e. g., getting a managerial position)
 - job-education match

Would you say that your employment and work is appropriate to your higher education qualification?

With regard to ...	<u>First job</u>					<u>Current job</u>				
	yes, at all events ▼				no, on no account ▼	yes, at all events ▼				no, on no account ▼
the occupational position	1	–	2	–	3	–	4	–	5	1 – 2 – 3 – 4 – 5
the level of the tasks	1	–	2	–	3	–	4	–	5	1 – 2 – 3 – 4 – 5
the field of study	1	–	2	–	3	–	4	–	5	1 – 2 – 3 – 4 – 5

2. Design of the HIS graduate surveys

Sample size

	1 st wave	2 nd wave	3 rd wave
Cohort 1989	12,164	8,163	no 3 rd wave
Cohort 1993	11,167	6,734	no 3 rd wave
Cohort 1997	9,586	6,220	5,477
Cohort 2001	8,130	5,426	currently running
Cohort 2005	11,786	6,459	–
Cohort 2009	10,173	–	–

3. Recent findings

Entry into adequate occupation (Grotheer 2010)

- Can we find a correlation between study quality and the entry into an adequate occupation?
- Assumption: Good study quality reduces difficulties to find an adequate job.
- Data used: 1997, 2001, 2005 (1st wave)

Study quality: ratings from graduates concerning the study program

- Organization of study program
(structure/feasibility to study program/coordination of courses)
- Training of scientific thinking/working methods
- Combination of theory and practice
- Assistance in transfer to labour market
(support during job search/offer of courses with job-oriented contents)

PCE-model for entry into adequate jobs within 12 months after graduation (only graduates with diploma in economics)

0-3 months	0.1450***
3-6 months	0.0874***
6-9 months	0.0678***
9-12 months	0.0349***
Cohort 2005	0.7454***
Cohort 2001 (ref.: cohort 1997)	1.1109**
Parent(s) with academic degree	0.9547
Women	0.8692***
Men with children	0.8543
Women with children	0.5178***
Partner full-time employed	1.3263***
Partner part-time employed or unemployed (ref.: no partner)	1.1872***
Final school exam grade (mirrored 0-30)	1.0086**
Apprenticeship before/with final secondary school examination	1.0821
Apprenticeship after final secondary school examination (ref.: no apprenticeship)	1.1972***
Degree of a Fachhochschule (university of applied sciences)	0.9814
Final grade (mirrored 0-30)	1.0107***
Short (real) duration of study (< median)	1.1038**
Long (real) duration of study (> median + 1 sem.) (ref.: average duration (median & median + 1 sem.))	0.9409
Job during studies related to field of study	1.3244***
Job during studies not related to field of study (ref.: no job)	0.9688
Organization of study program	0.9387
Training of scientific thinking/working methods	0.9437
Combination of theory and practice	1.1192**
Assistance in transfer to labour market	1.2854***
Number of persons	2,994
Transitions	2,407
2II (starting values)	-4,802
2II (final estimates)	-4,361
Pseudo R ²	0.0918

* p<0.1 ** p<0.05 *** p<0.01

Time start: month of graduation; time finish: entry into adequate occupation

3. Recent findings

Leading Position (Briedis/Rehn 2011)

- Can we observe positional advantages resulting from further education?
- Participation in further education increases the probability of the promotion into a leading position. But this effect also depends on the length of the activity and the initiator.
- Data used: 1997 (3rd wave)

Logistic regression on promotion into leading positions between 5 and 10 years after graduation (odds ratios)

Only short-running further education/only self-initiated	2.580**
Long-running further education/only self-initiated	2.192*
Short-running further education/employer-initiated	1.656
Long-running further education/employer-initiated (ref.: no further education)	2.414*
Men with children	1.020
Women with children	0.975
Women without children (ref.: men without children)	0.786
Partner	1.431*
Married (ref.: no partner)	1.566*
Parent(s) with academic degree	0.788
Degree of a Fachhochschule (university of applied sciences)	0.522***
Fields of study	...
Job during studies related to field of study (ref.: no job or job not related to field of study)	1.263
PhD-degree within the first five years	2.086***
Months of employment within first five years	0.935*
Months of employment within first five years (square)	1.001**
Employment in public sector after five years	0.746*
Working time (weekly) after five years	1.026***
Employment abroad within the first five years	1.595***
Number of persons	2,414
Pseudo R ²	0.153
Wald-test (chi ²)	259.985

* p<0.05 ** p<0.01 *** p<0.001

3. Recent findings

Income (Netz 2012, forthcoming)

- Do graduates benefit from study experiences abroad?
- A stay abroad during the study program leads to a higher income.
- Data used: 2005 (2nd wave)

OLS-regression on yearly wages (logarithm, gross, only full-time employed, incl. extra pay)

Stay abroad during studies (ref.: no stay abroad)	0.013
Women (ref.: men)	-0.077***
With child under 6 years (ref.: no child under 6 years)	0.010
With child under 6 years * women (interaction)	-0.073**
Partner full-time employed	0.057***
Partner part-time employed or unemployed (ref.: no partner)	0.036**
Fields of study	...
Final grade higher (=better) than average	0.004
Final grade lower than average (ref.: Final grade is average= within 1 standard deviation)	-0.040**
Job during studies related to field of study (ref.: no job or job not related to field of study)	0.049***
PhD-Holders (ref: no PhD)	0.052**
Leading position (ref.: no leading position)	0.083***
Working time (weekly)	0.006***
Change of employer related to income (ref.: no change or change due to other reasons)	0.037***
Job in northern Germany	-0.023*
Job in eastern Germany (ref: job in southern Germany)	-0.134***
Company with up to 49 employees	-0.051***
Company with more than 250 employees (ref: company with 50 to 249 employees)	0.076***
Company with branch(es) abroad	0.105***
Company with branch(es) abroad * stay abroad during studies (interaction)	0.071**
Constant	10.516***
Number of persons	2,790
Adjusted R ²	0.436

+ p<0.10 * p<0.05 ** p<0.01 *** p<0.001

3. Recent findings

Main conclusions

- **Positive effects:**
 - Job during studies related to field of study
 - PhD-degree
 - Partner full-time employed or at least a partnership
- **Negative effects:**
 - Occupation in public sector
 - Women
- **Both:**
 - economic situation
 - Field of study

3. Recent findings

Current project „Compatibility of work and family“

- What forms of parental leave can we find (long- vs. short-term break etc.)? What does the re-entry look like? Which consequences arise for the further career?
- Goal: identify groups without (or with only little) problems in order to determine factors that facilitate the compatibility of work and family for graduates and the success of especially women with children.
- Data used: 1997 (3nd wave)

Thank you for your attention!

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