

EDUCATION  
AT A GLANCE 2013

## Germany

### Germany is one of the few countries whose unemployment rate did not rise during the recent economic crisis...

In fact, unemployment rates for German workers at all levels of educational attainment fell between 2008 and 2011. Across OECD countries, unemployment rates among adults who had not attained an upper secondary education rose, on average, from 8.8% to 12.6% during that period; in Germany, they fell from 16.5% to 13.9%, although they remained relatively high.

### ...and whose population of young people who were neither employed nor in education or training (NEET) decreased.

Some 11% of young people in Germany were neither employed nor in education or training (NEET) in 2011 (12% in 2008), compared with the OECD average of 16% (14% in 2008). Only in Austria, Germany, Switzerland and Turkey did the population of NEETs fall or remain stable during the global recession. Some 6% of all NEETs do not participate in the labour force; 4.6% are unemployed. Similar to many OECD countries, more than half of those unemployed have been so for more than six months. The incidence of long-term unemployment among the population of NEET is higher in Germany than in most other countries with relatively small proportions of NEETs, namely Austria, Switzerland and the Scandinavian countries.

### Vocational qualifications are as important as educational attainment in Germany's labour market

The employment rate among 25-34 year-olds with a vocational upper secondary or post-secondary qualification (84%) is almost 30 percentage points higher than that among adults of the same age who have a general upper secondary or post-secondary qualification (53%) (OECD average: 79% and 69% respectively). Inactivity is also more prevalent among young adults with a general education (43%) than among those with a vocational upper secondary education (10%) (OECD average: 23% and 13% respectively). Some 6.7% of 25-34 year-olds with a vocational upper secondary or post-secondary education are unemployed compared with 6.9% of young adults of the same age who have a general education (OECD average: 9.8% and 11.5% respectively). Among 35-44 year-olds, the advantage of having a vocationally oriented education is even more apparent. Some 5.4% of those with a vocational education were unemployed compared with 8.1% of those with a general upper secondary education in 2011 (OECD average: 7.0% and 8.5%, respectively).

### Tertiary attainment has increased steadily but remains significantly below the OECD average...

Germany has one of the highest shares of 25-64 year-olds who have attained at least an upper secondary education: 86% compared to the OECD average of 75%. Among individuals with an upper secondary or post-secondary non-tertiary education, most hold a vocationally oriented degree. Yet, Germany still lags behind the OECD average in tertiary attainment. Only 28% of younger Germans, aged 25 to 34, have attained a tertiary education, while the OECD average for this age group is 39%. Trends show that women have made substantial progress in educational attainment, with the share of tertiary-educated 25-34 year-old women increasing steadily from 20% to 30% between 2000 and 2011 (the OECD average increased from 27% to 43%). Among younger men, tertiary attainment

increased by only 2 percentage points, from 24% to 26%, during the same period (OECD average: from 24% to 33%).

Trends for Germany also show that entry rates into tertiary-type A programmes increased by 10 percentage points from 36% in 2005 to 46% in 2011 (OECD average: 54% and 60%, respectively). With the Higher Education Pact 2020, Germany is investing additional funds in the expansion of study opportunities, thereby providing a suitable solution to the increasing demand for higher education.

### ...while more students are pursuing studies in mathematics, science and technology.

Over the past decade, entry rates into so-called MINT studies, i.e. mathematics, computer science, natural sciences and technology, have increased substantially. These increases come at a time when many skilled workers in these fields are retiring and when more jobs are demanding these skills (Institut der Deutschen Wirtschaft, 2013). For example, some 59% of graduates in mathematics and statistics in 2011 were women; in 2000, 42% of graduates in this field were women (OECD average: 42% in 2000 and 45% in 2011). And also in physical sciences, the share of female graduates increased from 27% in 2000 to 42% in 2011 (OECD average: 40% to 43%).

### Other findings

- **Graduation rates in advanced research programmes (2.7%) are considerably higher than the OECD average (1.6%).** Only Sweden and Switzerland have higher graduation rates in these programmes.
- **Since 2000, the gap between the relative earnings of workers with tertiary education compared to earnings of workers with an upper secondary or post-secondary non-tertiary education widened.** In 2000, workers with a tertiary degree earned around 40% more than their peers who did not have this level of education (the OECD average was 49% more); in 2011 they earned almost two-thirds more (the OECD average was 64% more). In 2011, German workers with lower secondary education earned 86% of what their peers with an upper secondary or post-secondary non-tertiary education earned, still significantly above the OECD average of 74%. In 2000, workers with lower secondary education earned 75% of what their better educated peers earned (the OECD average was 79% in 2000).
- **Income differentials between individuals with an upper secondary or post-secondary non-tertiary degree and those with a tertiary degree increase with age.** While 25-34 year-olds with a tertiary-type A or advanced research degree earn 42% more than their peers who have an upper secondary or post-secondary degree, 55-64 year-old tertiary-educated workers can expect to earn twice as much as their peers who have not attained this level of education.
- **The gender gap in pay is wider in Germany than the OECD average.** In Germany, women earn only around 74% of what men earn, compared to the OECD average of 79%. The gender gap in earnings is striking among those who earn more than the median income. Some 43% of men with a tertiary-type A or advanced research degree earn more than twice the median income. By contrast, only 11% of women earn more than twice the median income. In no other country with available data is the gender gap in the share of highly educated workers who earn at least twice the median income wider. This may be explained by the high share of women working part-time in Germany (56% of tertiary-educated women work full time, compared to 81% of tertiary-educated men).

### References:

Institut der Deutschen Wirtschaft (2013), MINT Fachkräfte - Zu wenig Nachwuchs. <http://www.iwkoeln.de/de/infodienste/iwd/archiv/beitrag/mint-fachkraefte-zu-wenig-nachwuchs-111260?highlight=MINT>, accessed 29 May 2013.

OECD (2013), Going for Growth. Country Notes: Germany, OECD website <http://www.oecd.org/eco/growth/Germany.pdf>, accessed 29 May 2013.

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# Key Facts for Germany in Education at a Glance 2013

Table	Indicator	Germany		OECD average		EU21 average		Rank among OECD countries and other G20 countries*
<b>Educational Access and Output</b>								
	<b>Enrolment rates</b>	<b>2011</b>	<b>2005</b>	<b>2011</b>	<b>2005</b>	<b>2011</b>	<b>2005</b>	
C2.1	3-year-olds (in early childhood education)	90%	82%	67%	64%	77%	73%	9 of 36
	4-year-olds (in early childhood and primary education)	96%	93%	84%	79%	90%	84%	11 of 36
C1.1a	5-14 year-olds (all levels)	99%		99%		98%		20 of 38
	<b>Percentage of population that has attained below upper secondary education</b>	<b>2011</b>	<b>2000</b>	<b>2011</b>	<b>2000</b>	<b>2011</b>	<b>2000</b>	
A1.4a	25-64 year-olds	14%	18%	26%	34%	25%	34%	27 of 35
	<b>Percentage of population that has attained upper secondary education</b>	<b>2011</b>	<b>2000</b>	<b>2011</b>	<b>2000</b>	<b>2011</b>	<b>2000</b>	
A1.4a	25-64 year-olds	59%	58%	44%	44%	48%	46%	7 of 36
	<b>Percentage of population that has attained tertiary education</b>	<b>2011</b>	<b>2000</b>	<b>2011</b>	<b>2000</b>	<b>2011</b>	<b>2000</b>	
A1.3a	25-64 year-olds	28%	23%	31%	22%	28%	20%	24 of 36
	30-34 year-olds	31%		39%		37%		24 of 34
A1.4a	25-34 year-olds	28%	22%	39%	26%	36%	24%	28 of 36
	55-64 year-olds	26%	20%	24%	15%	21%	14%	16 of 36
	<b>Entry rates into tertiary education</b>	<b>2011</b>	<b>2000</b>	<b>2011</b>	<b>2000</b>	<b>2011</b>	<b>2000</b>	
C3.1a	Vocational programmes (Tertiary-type B)	21%	15%	19%	16%	15%	11%	16 of 32
	University programmes (Tertiary-type A)	46%	30%	60%	48%	59%	46%	26 of 36
	<b>Graduation rates</b>	<b>2011</b>	<b>2000</b>	<b>2011</b>	<b>2000</b>	<b>2011</b>	<b>2000</b>	
A2.1a	Percentage of today's young people expected to complete upper secondary education in their lifetime	92%	92%	83%	76%	83%	77%	6 of 27
A3.1a	Percentage of today's young people expected to complete university education (tertiary-type A) in their lifetime	31%	18%	39%	28%	41%	27%	21 of 26
<b>Economic and Labour Market Outcomes</b>								
	<b>Unemployment rate of 25-64 year-olds - Men and Women</b>	<b>2011</b>	<b>2008</b>	<b>2011</b>	<b>2008</b>	<b>2011</b>	<b>2008</b>	
A5.4b	Below upper secondary	13.9%	16.5%	12.6%	8.8%	15.6%	10.4%	11 of 35
	Upper secondary and post-secondary non-tertiary	5.8%	7.2%	7.3%	4.9%	8.5%	5.2%	20 of 36
	Tertiary	2.4%	3.3%	4.8%	3.3%	5.2%	3.2%	34 of 36
	<b>Unemployment rate of 25-64 year-olds - Women</b>	<b>2011</b>	<b>2008</b>	<b>2011</b>	<b>2008</b>	<b>2011</b>	<b>2008</b>	
A5.4d	Below upper secondary	12.1%	15.0%	12.2%	9.5%	15.1%	11.0%	16 of 35
	Upper secondary and post-secondary non-tertiary	5.4%	7.2%	8.0%	5.7%	9.1%	6.1%	24 of 35
	Tertiary	2.7%	3.9%	5.1%	3.6%	5.5%	3.6%	34 of 36
	<b>Average earnings premium for 25-64 year-olds with tertiary education**</b>	<b>2011 or latest year available</b>		<b>2011</b>		<b>2011</b>		
A6.1	Men and women	164		157		158		12 of 33
	Men	161		162		164		13 of 33
	Women	155		161		161		19 of 33
	<b>Average earnings penalty for 25-64 year-olds who have not attained upper secondary education**</b>	<b>2011 or latest year available</b>		<b>2011</b>		<b>2011</b>		
A6.1	Men and women	86		76		77		4 of 33
	Men	88		77		78		3 of 33
	Women	81		74		75		6 of 33
	<b>Percentage of people not in employment, education or training for 15-29 year-olds, by level of education attained</b>	<b>2011</b>	<b>2008</b>	<b>2011</b>	<b>2008</b>	<b>2011</b>	<b>2008</b>	
C5.4d	Below upper secondary	12.5%	12.1%	15.8%	14.4%	15.3%	13.5%	21 of 34
	Upper secondary	10.8%	11.8%	16.2%	13.6%	15.1%	11.8%	27 of 34
	Tertiary	5.9%	8.1%	13.3%	10.6%	12.3%	9.6%	31 of 34

## Key Facts for Germany in Education at a Glance 2013

Table	Indicator	Germany		OECD average		EU21 average		Rank among OECD countries and other G20 countries*
<b>Financial Investment in Education</b>								
	<b>Annual expenditure per student (in equivalent USD, using PPPs)</b>	<b>2010</b>		<b>2010</b>		<b>2010</b>		
B1.1a	Pre-primary education	m		6762 USD		7085 USD		m
	Primary education	m		7974 USD		8277 USD		m
	Secondary education	m		9014 USD		9471 USD		m
	Tertiary education	m		13528 USD		12856 USD		m
	<b>Total expenditure on educational institutions as a percentage of GDP</b>	<b>2010</b>	<b>2000</b>	<b>2010</b>	<b>2000</b>	<b>2010</b>	<b>2000</b>	
B2.1	As a percentage of GDP	m	4.9%	6.3%	5.4%	5.9%	5.2%	m
	<b>Total public expenditure on education</b>	<b>2010</b>	<b>2000</b>	<b>2010</b>	<b>2000</b>	<b>2010</b>	<b>2000</b>	
B4.1	As a percentage of total public expenditure	m	10.2%	13.0%	12.6%	11.4%	11.4%	m
	<b>Share of private expenditure on educational institutions</b>	<b>2010</b>	<b>2000</b>	<b>2010</b>	<b>2000</b>	<b>2010</b>	<b>2000</b>	
B3.2a	Pre-primary education	m		17.9%		11.3%		m
B3.2a	Primary, secondary and post-secondary non-tertiary education	m	12.9%	8.5%	7.1%	6.1%	5.6%	m
B3.2b	Tertiary education	m	11.8%	31.6%	22.6%	22.7%	14.3%	m
B3.1	All levels of education	m	13.9%	16.4%	12.1%	10.7%	7.9%	m
<b>Schools and Teachers</b>								
	<b>Ratio of students to teaching staff</b>	<b>2011</b>		<b>2011</b>		<b>2011</b>		
D2.2	Pre-primary education	13 students per teacher		14 students per teacher		13 students per teacher		20 of 31
	Primary education	16 students per teacher		15 students per teacher		14 students per teacher		15 of 35
	Secondary education	14 students per teacher		14 students per teacher		12 students per teacher		14 of 36
	<b>Total intended instruction time for students (hours)</b>	<b>2011</b>		<b>2011</b>		<b>2011</b>		
D1.1	Primary education	2806 hours		4717 hours		m		28 of 31
	Lower secondary education	4449 hours		3034 hours		m		1 of 31
	<b>Number of hours of teaching time per year (for teachers in public institutions)</b>	<b>2011</b>	<b>2000</b>	<b>2011</b>	<b>2000</b>	<b>2011</b>	<b>2000</b>	
D4.2	Pre-primary education	800 hours		994 hours		977 hours		21 of 29
	Primary education	804 hours	783 hours	790 hours	780 hours	777 hours	776 hours	15 of 31
	Lower secondary education	757 hours	732 hours	709 hours	697 hours	669 hours	658 hours	7 of 30
	Upper secondary education	715 hours	690 hours	664 hours	628 hours	651 hours	635 hours	11 of 31
	<b>Index of change in statutory teachers' salaries for teachers with 15 years of experience/minimum training (2000 = 100)</b>	<b>2011</b>	<b>2008</b>	<b>2011</b>	<b>2008</b>	<b>2011</b>	<b>2008</b>	
D3.4	Primary school teachers	m	m	120	120	121	122	m
	Lower secondary school teachers	m	m	116	116	121	121	m
	Upper secondary school teachers	m	m	117	118	118	119	m
	<b>Ratio of teachers' salaries to earnings for full-time, full-year adult workers with tertiary education</b>	<b>2011</b>		<b>2011</b>		<b>2011</b>		
D3.2	Pre-primary school teachers	m		0.80		0.77		m
	Primary school teachers	0.92		0.82		0.80		8 of 27
	Lower secondary school teachers	1.01		0.85		0.84		7 of 27
	Upper secondary school teachers	1.09		0.89		0.89		7 of 27

\* Countries are ranked in descending order of values.

\*\* Compared to people with upper secondary education; upper secondary = 100.