

Press release: 13 492-259/24

Literacy of adults in Austria declined, numeracy above OECD average

Above-average results also in the new skill domain “adaptive problem solving”

Vienna, 2024-12-10 – Over the past eleven years, adult literacy in Austria has declined significantly, falling below the OECD average, according to the PIAAC survey on basic skills conducted by Statistics Austria for the second time in 2022/23. However, Austria remains above the OECD average in terms of numeracy – as in the last survey in 2011/12.

„Adults in Austria are less literate than eleven years ago. Reading skills in German have fallen significantly since 2011/12, particularly among those with lower educational qualifications and older people. While higher educational qualifications have a positive effect on reading skills, the growing number of elderly people and the increase in the number of people with non-Austrian citizenship have a negative impact. There is also a decline among people who were born in Austria and have German as their first language. In contrast, young adults in Austria perform above average in all skill domains comparison to other OECD countries,” says Tobias Thomas, Director General of Statistics Austria.

According to the current PIAAC survey (Program for the International Assessment of Adult Competencies), the average literacy of the adult population between the ages of 16 and 65 in Austria is 254 points, which is significantly below the OECD average of 260 points (see table 1). In numeracy, however, Austria achieved a good result with an average of 267 points (OECD average: 263 points), as in the 2011/12 survey. The skill domain “adaptive problem solving”, which was surveyed for the first time in 2022/23, is defined as the ability to achieve one’s goals in a dynamic situation in which a solution method is not immediately available. In this skill domain, Austria is with 253 points also just above the OECD average of 251 points.

Proportion of people with low literacy skills has increased significantly

Approximately 1.7 million people in Austria have low literacy skills, which puts them at a disadvantage both in the workplace and in everyday life. The proportion of people with low literacy skills increased sharply from 17% to 29% between 2011/12 and 2022/23. However, the composition of this group varies in terms of literacy proficiency. Some individuals (with skill level below 1, see information on methods) are either unable to read German at all or can only comprehend meanings at sentence level or assess sentence coherence. Others, however, can understand short texts (skill level 1). What these individuals have in common is that they all struggle to understand longer texts with some distracting information.

The number of people with low literacy skills has risen significantly, particularly among those with lower **educational qualifications**. Nearly one in two individuals with at most a compulsory school-leaving qualification, one in three with an apprenticeship qualification, and one in five with an intermediate VET qualification score at the two lowest literacy competence levels (levels below 1 and 1; see table 2)

A comparison over time reveals a significant decline in the average skill levels for individuals with these three educational qualifications, while no significant changes were observed among those with higher qualifications, such as a school leaving exam.

The increasing proportion of people with low literacy skills is also evident when considering the characteristics of country of birth and first language: Among people born in Austria with German as their first language, the proportion with low literacy skills (levels below 1 and 1) rose significantly from 12% in

2011/12 to 19% in 2022/23. For people born abroad with a non-German first language, the proportion increased considerably from 39% to 61% over the same period.

Young adults with above-average literacy skills, older age groups below average

Austria's 16 to 24 age group performs significantly better in literacy than the corresponding age group in the OECD average. Older age groups in the Austrian population have lower literacy skills than younger groups and are also significantly below the OECD average for their respective comparison groups. In Austria, the skill gap between age groups is more pronounced than the OECD average. These differences were already evident in 2011/12 but have grown since then.

Reading literacy is declining regardless of socio-demographic changes

When extrapolating, the PIAAC sample is carefully weighted so that the statistical results correspond to the actual population composition in 2022/23. An analysis of the influence of population change on basic skills (see box "information on methodology") shows that reading literacy in Austria will remain unchanged in 2022/23 (254 points) even if the population structure of 2011/12 is used for the extrapolation – i.e. if the extrapolation is carried out as if the population had not changed socio-demographically for eleven years.

Looking at the demographic influencing factors individually, the expansion in education has a positive impact on reading literacy (+5 points), but the ageing of the population (-2 points) and the increase in people with non-Austrian citizenship (-3 points) have a negative effect on the average reading literacy level. This means that the individual effects of the socio-demographic changes on reading literacy balance each other out and the observed decline in reading literacy remains, but cannot be attributed to either the ageing of society or immigration. The factors that are actually responsible for the deterioration in reading skills will be investigated in an expert report in the course of the coming year.

Further information on the PIAAC survey and the national results report "PIAAC: Survey of Adult Skills 2022/23 – Volume 1" can be found on our [website](#).

The OECD publishes the international results together with the Department for Education (United Kingdom) in a [online press conference](#) on 10 December 2024 at 11.00 a.m. Further information can be found on the [OECD website](#).

Table 1: International comparison of mean proficiency scores (2022/23)

Countries	Literacy		Numeracy		Adaptive problem solving	
	Mean	SE ¹	Mean	SE ¹	Mean	SE ¹
Austria	254.4	0.9	267.0	0.9	253.0	0.7
OECD average	260.0	0.2	263.0	0.2	250.6	0.2
Belgium (Flemish Region)	274.7	1.0	279.3	0.9	262.0	0.8
Chile	217.9	2.2	214.3	2.3	217.5	1.9
Denmark	273.0	0.8	279.1	0.8	264.4	0.7
Germany	266.1	0.8	272.8	0.7	261.0	0.6
Estonia	275.5	0.6	281.0	0.6	263.2	0.6
Finland	296.5	1.2	293.8	1.2	276.5	1.0
France	254.8	0.6	256.5	0.7	247.9	0.5
Ireland	262.8	1.0	259.7	1.2	248.7	0.9
Israel	243.6	1.1	245.8	1.2	236.2	1.0
Italy	245.5	1.5	244.3	1.7	230.8	1.3
Japan	289.2	0.9	290.8	0.8	276.3	0.7
Canada	270.8	0.9	270.7	0.9	259.4	0.7
Korea	249.0	0.8	252.7	1.0	237.6	0.7
Croatia	254.3	1.8	253.6	1.6	234.9	1.5
Latvia	247.9	0.9	262.7	0.9	244.3	0.8
Lithuania	238.3	1.0	245.6	1.2	230.5	1.0
New Zealand	259.6	2.0	255.7	2.1	249.4	2.1
Netherlands	278.6	0.9	283.9	1.1	265.3	0.9
Norway	280.8	1.0	284.8	0.9	270.6	0.8
Poland	235.7	1.1	238.8	1.1	226.3	1.0
Portugal	234.7	1.7	238.1	1.9	233.4	1.5
Sweden	284.1	1.0	285.2	1.0	272.6	0.9
Switzerland	266.3	0.7	276.1	0.7	257.1	0.7
Singapore	254.5	0.7	274.1	0.8	251.8	0.8
Slovak Republic	253.9	1.2	260.6	1.2	246.7	1.1
Spain	247.2	0.9	249.7	0.9	240.9	0.8
Czechia	260.2	1.0	267.3	1.1	250.1	0.9
Hungary	248.5	1.0	254.4	1.1	240.5	0.9
United States	258.2	1.4	248.8	1.6	247.5	1.4
United Kingdom (England)	271.6	1.0	268.4	1.1	258.9	0.9

S: PIAAC 2022/23, PIAAC Data Explorer of the OECD. – Population aged 16 to 65, including doorstep interviews. – OECD average: unweighted average of the 29 OECD countries (i.e. excluding the non-OECD countries Croatia and Singapore). –

1) SE= standard error, see box „informations on methodology, definitions“.

Table 2: Literacy by socio-demographic characteristics (2022/23)

Characteristics	Population in 1 000	Mean proficiency		Low literacy skills (Level 1 and below)	
		Score	SE ¹	in %	SE ¹
Age groups					
16–24 years	867.6	278.3	2.2	13.2	1.7
25–34 years	1136.3	274.4	2.4	16.5	1.9
35–44 years	1169.5	261.2	2.4	25.2	1.9
45–54 years	1197.0	253.2	2.2	27.3	2.0
55–65 years	1432.3	232.3	1.6	44.7	1.6
Highest qualification					
Compulsory school	730.1	235.0	2.6	43.3	2.4
Apprenticeship	1576.7	244.9	1.7	30.3	1.8
Intermediate VET School	372.5	257.4	2.8	20.8	3.6
School for nurses responsible for general care	80.9	267.7	4.8	(X)	(X)
Industrial master college, craftsperson	180.7	261.6	3.8	(18.3)	(4.2)
Academic secondary school	315.6	298.0	3.3	(X)	(X)
VET college	559.9	293.1	2.2	(4.0)	(1.1)
Post-secondary education	99.4	282.6	6.0	(X)	(X)
University	781.4	306.7	2.0	(X)	(X)
Foreign education qualification	1008.0	217.7	2.8	57.0	2.4
Country of birth/first language					
Native-born/German	4317.8	267.8	0.9	19.	0.8
Foreign-born/German	298.0	275.2	4.8	(16.9)	(3.4)
Native-born/other language	146.6	262.3	6.3	(19.8)	(5.7)
Foreign-born/other language	1000.2	210.4	2.9	61.3	2.5

S: STATISTICS AUSTRIA, PIAAC 2022/23. –Excl. doorstep interviews. – () Values are highly random (cell contains less than 40 cases). (X) Values are not statistically interpretable and therefore not shown (cell contains less than 20 cases). –

1) SE= standard error, see box „informations on methodology, definitions“.

Information on methodology, definitions:

PIAAC survey: The Programme for the International Assessment of Adult Competencies (PIAAC) aims to assess the basic skills of the adult population (16 to 65 years) in the domains of literacy, numeracy and adaptive problem solving in an internationally comparable manner. Under the leadership of the OECD, a total of 31 countries (29 OECD countries, including Austria, and the two non-OECD countries Croatia and Singapore) took part in this survey. It was conducted for the second time in 2022/23 (first PIAAC survey: 2011/12) and therefore provides an insight into how the skills of the adult population have developed over time. In Austria, the PIAAC survey was conducted by Statistics Austria on behalf of the Federal Ministry of Labour and Economy and the Federal Ministry of Education, Science and Research.

Points on the scale: The values of the skill survey are mapped in all three skill domains in the form of a scale from 0 to 500 points. The mean proficiency score for the population or individual groups are presented.

Skill levels: The scales were divided into skill levels to support the interpretation of the results in terms of content. Six skill levels were defined for literacy and numeracy competence (level below 1 and levels 1 to 5), and five for adaptive problem solving (level below 1 and levels 1 to 4). Analogous to the OECD, the levels below 1 and 1 are summarised here under the designation “Persons with low skills”.

Literacy level below 1: Most adults at this level can process meaning at sentence level and assess the meaningfulness of sentences; read short simple paragraphs and select an appropriate word from two alternatives; answer simple and clear questions with information from very short texts (one word or one number).

Literacy level 1: Most adults at this level can find individual pieces of information on a page of text; find a link on a website; identify relevant passages of text when they are explicitly mentioned; understand the meaning of sentences or short texts and the structure of a list or several sections on a page.

Functional illiteracy: Although the low literacy skill level (levels below 1/1) described in PIAAC is partly similar to the concept of functional illiteracy (for example in the emphasis on social participation), it is not directly comparable with it. The most important differences are the lack of measurement of written skills in PIAAC and the exclusive assessment of skills in the common national language. For Austria, this means that PIAAC only measures literacy skills in German. It is therefore possible that the literacy skills of the people tested are significantly higher in other languages.

OECD average: The OECD average refers to the unweighted average of all 29 OECD participating countries. Although Croatia and Singapore took part in the 2022/23 survey, they are not OECD countries and are therefore not included in the OECD average.

Influence of socio-demographic changes: The analysis of the influence of population change on literacy was carried out on the basis of a reweighting of the current survey to the population structure of 2011/12 using high-quality register and administrative data and includes the characteristic “highest educational qualification” in addition to the variables of gender and citizenship. The OECD calculations on the influence of population change are based solely on the PIAAC survey data and were conducted without the characteristic “highest educational qualification”, which may lead to differing results.

Doorstep interview: In the first PIAAC survey (2011/12), 1.8% of participants in Austria were unable to answer the questionnaire due to language barriers. This group was therefore also unable to take part in the skills survey. In order to include this group, the so-called doorstep interview was introduced with the current survey. This is a short questionnaire that was offered in ten languages in Austria. Based on this information, a proficiency score was estimated for this group without conducting a competence test. A total of 2.8% of respondents in Austria completed a doorstep interview. When interpreting the PIAAC results, it is important to note whether people with a doorstep interview were included in the analyses. This information is therefore always shown in the tables.

Standard error (SE): The standard error (SE) is a statistical measure that describes the accuracy or precision of a sample parameter, such as the mean. It indicates the extent to which the mean value (or another statistical estimator) from different samples of a population is likely to scatter around the true mean value of the population.

Statistics Austria is the central organisation for official data and statistics on society, the economy, the state and the environment. As a national statistical institute, it is committed to the statutory principles of independence, impartiality and objectivity. Statistics Austria is headed by Tobias Thomas, Director General Statistics, and Franz Haslauer, Director General Finance.

Further enquiries:

For information on results and methodology, please contact:

Eduard Stöger, phone: +43 1 711 28-8290, e-mail: eduard.stoeger@statistik.gv.at

For interview requests, please contact the press office: presse@statistik.gv.at

Media owner, producer and publisher:

STATISTICS AUSTRIA | Federal Institution under Public Law | Guglgasse 13 | 1110 Vienna | www.statistik.at

Press: phone: +43 1 711 28-7777 | e-mail: presse@statistik.gv.at

© STATISTICS AUSTRIA