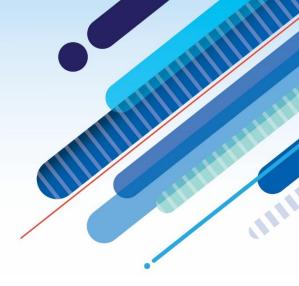


# Education at a Glance 2023 Country note



# Czech Republic

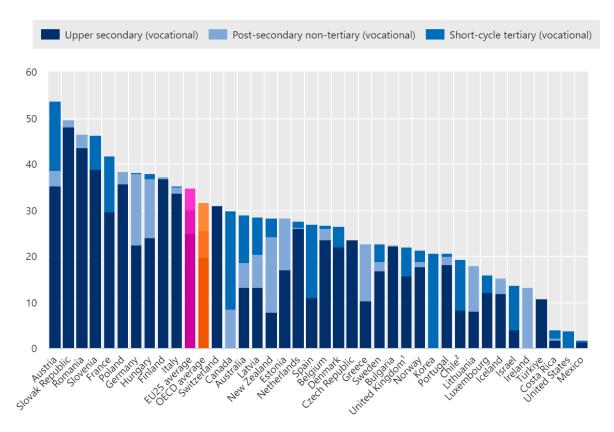
This country note provides an overview of the key characteristics of the education system in the Czech Republic. It draws on data from *Education at a Glance 2023*. In line with the thematic focus of this year's *Education at a Glance,* it emphasises vocational education and training (VET), while also covering other parts of the education system. Data in this note are provided for the latest available year. Readers interested in the reference years for the data are referred to the corresponding tables in *Education at a Glance 2023*.

### The output of educational institutions and the impact of learning

- High-quality VET programmes integrate learners into labour markets and open pathways for further
  personal and professional development. However, the quality and importance of VET programmes
  differ greatly across countries. In some countries, half of all young adults (25-34 year-olds) have a
  vocational qualification as their highest level of educational attainment, while the share is in the low
  single digits in other countries. In the Czech Republic, 24% of 25-34 year-olds have a VET
  qualification at upper secondary or post-secondary non-tertiary level as their highest level of
  attainment (Figure 1).
- Across the OECD, unemployment rates for 25-34 year-olds with vocational upper secondary attainment are lower than for their peers with general upper secondary or post-secondary nontertiary attainment. This is not the case in the Czech Republic, where 2.7% of young adults with vocational upper secondary attainment are unemployed, compared to 1.6% of those with general upper secondary attainment.
- Although an upper secondary qualification is often the minimum attainment needed for successful labour-market participation, some 25-34 year-olds still leave education without such a qualification. On average across the OECD, 14% of young adults have not attained an upper secondary qualification. In the Czech Republic, the share is lower than the OECD average (7%).
- Workers in the Czech Republic aged 25-34 with vocational upper secondary or post-secondary non-tertiary attainment earn 43% more than those without upper secondary attainment, whereas the earning advantage for workers with general upper secondary or post-secondary non-tertiary attainment is 29%. However, in almost all OECD countries, tertiary degrees provide a significantly larger earnings advantage. In the Czech Republic, 25-34 year-old workers with bachelor's attainment (or equivalent) earn 71% more than their peers without upper secondary attainment, while those with master's or doctoral attainment (or equivalent) earn 100% more.
- Tertiary attainment continues to increase among the working age population. On average across
  the OECD, tertiary attainment is becoming as common as upper secondary or post-secondary nontertiary attainment among 25-64 year-olds. In the Czech Republic, 27% of 25-64 year-olds have
  tertiary attainment, a smaller share than those that have upper secondary or post-secondary nontertiary attainment (68%).

Figure 1. Share of 25-34 year-olds whose highest level of education has a vocational orientation, by level of educational attainment (2022)

#### In per cent



 Data for upper secondary attainment include completion of a sufficient volume and standard of programmes that would be classified individually as completion of intermediate upper secondary programmes (9% of adults aged 25-34 are in this group).
 Year of reference differs from 2022. Refer to the source table for more details.

Countries are ranked in descending order of the share of 25-34 year-olds who attained vocational upper secondary, vocational post-secondary non-tertiary or vocational short-cycle tertiary education.

Source: OECD (2023), Table A1.3. For more information see *Source* section and *Education at a Glance 2023 Sources, Methodologies and* <u>Technical Notes</u> (OECD, 2023[1]).

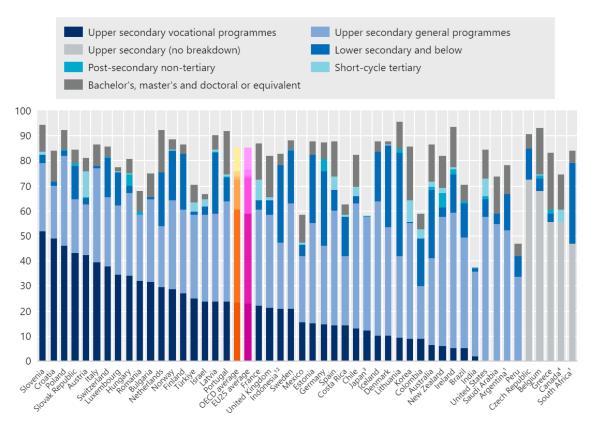
- On average across OECD countries, 14.7% of young adults aged 18-24 are not in education, employment or training (NEET), while in the Czech Republic the corresponding figure is 30.9%. Reducing NEET rates among young adults is a particularly important challenge in all countries because those who become NEET face worse labour-market outcomes later in life than their peers who remained in education or training at this age.
- As the demand for skills in the workplace changes ever more quickly, the importance of lifelong learning continues to grow. In the Czech Republic, the share of adults who participated in nonformal job-related education over a four-week reference period is 6% among 25-64 year-olds with vocational upper secondary or post-secondary non-tertiary attainment, 9% among those with general upper secondary or post-secondary non-tertiary attainment and 12% among those with tertiary attainment. This compares to average shares of 7% (vocational upper secondary or postsecondary non-tertiary attainment), 7% (general upper secondary or postsecondar

#### Access to education, participation and progress

- Participation in high-quality early childhood education (ECE) has a positive effect on children's well-being, learning and development in the first years of their lives. In the Czech Republic, 11% of 2-year-olds are enrolled in ECE. This increases to 72% of 3-year-olds, 87% of 4-year-olds and 93% of 5-year-olds.
- Compulsory education in the Czech Republic starts at the age of 6 and continues until the age of 15. Students typically graduate between the ages of 19 and 20 from general upper secondary programmes. The age range for completing vocational programmes is just as wide, with students typically graduating from vocational upper secondary programmes also between 19 and 20. This is different from most OECD countries, where graduates from vocational upper secondary programmes have a wider age range, reflecting the greater diversity of pathways into these programmes than for general ones.
- The large majority of 15-19 year-olds across the OECD are enrolled in education. In the Czech Republic, and 51% in vocational upper secondary education73% are enrolled in upper secondary education. A further 12% are enrolled in lower secondary programmes and 6% in tertiary programmes. This compares to an OECD average of, 23% in vocational upper secondary programmes59% enrolled in upper secondary education, 12% in lower secondary programmes and 12% in tertiary programmes (Figure 2).
- Bachelor's programmes are the most popular programmes for new entrants to tertiary education. On average across the OECD, they attract 76% of all new students compared to 87% in the Czech Republic. Short-cycle tertiary programmes are the second most common level of education for new entrants into tertiary education, but their importance differs widely across countries. In the Czech Republic, they are chosen by 1% of all new entrants.
- Perhaps surprisingly, the share of international students at tertiary level has not been negatively
  affected by the COVID-19 pandemic in many OECD countries. However, a few countries
  experienced double digit declines in the share of international students. The Czech Republic is not
  one of them, as the share of international students increased from 14% of all tertiary students in
  2019 to 16% in 2021.

# Figure 2. Enrolment rates of 15-19 year-olds, by level of education (2021)

In per cent



1. Year of reference differs from 2021: 2020 for Argentina and South Africa; 2018 for Indonesia.

2. Excludes students enrolled at tertiary levels.

3. Breakdown by age not available after 15 years old.

4. Excludes post-secondary non-tertiary education.

Countries are ranked in descending order of the share of students enrolled in upper secondary vocational education.

Source: OECD/UIS/Eurostat (2023), Table B1.2. For more information see *Source* section and *Education at a Glance 2023 Sources,* <u>Methodologies and Technical Notes</u> (OECD, 2023[1]).

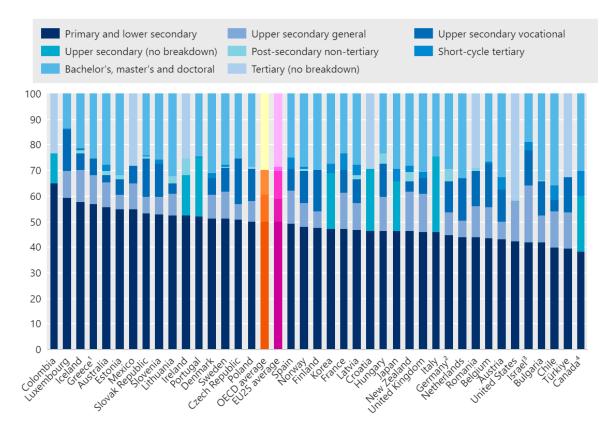
# **Financial resources invested in education**

- All OECD and partner countries devote a substantial share of their domestic output to education. In 2020, OECD countries spent on average 5.1% of their gross domestic product (GDP) on primary to tertiary educational institutions. In the Czech Republic, the corresponding share was 4.5% of GDP, of which 23% was dedicated to primary education, 28% to lower secondary education, 24% to upper secondary education and 25% to bachelor's, master's and doctoral or equivalent programmes (Figure 3).
- Funding for education in absolute terms is strongly influenced by countries' income levels. Countries with higher per capita GDP tend to spend more per student than those with lower per capita GDP. Across all levels from primary to tertiary education, the Czech Republic spends USD 11 846 annually per full-time equivalent student (adjusted for purchasing power), compared to the OECD average of USD 12 647. Expenditure per student is equivalent to 28% of per capita GDP, which is slightly above the OECD average of 27%.

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Figure 3. Total expenditure on primary to tertiary educational institutions, by level of education (2020)

In per cent



1. Year of reference differs from 2020. Refer to the source table for more details.

2. Upper secondary vocational programmes include lower secondary vocational programmes.

3. Upper secondary programmes include lower secondary programmes.

4. Primary education includes pre-primary programmes.

Countries are ranked in descending order of total expenditure on primary and lower secondary institutions.

Source: OECD/UIS/Eurostat (2023), Table C2.1. For more information see Source section and <u>Education at a Glance 2023 Sources</u>, <u>Methodologies and Technical Notes</u> (OECD, 2023<sub>[1]</sub>).

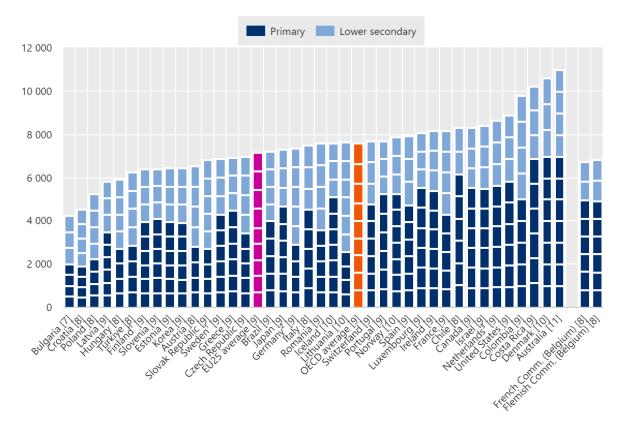
- The COVID-19 pandemic has created unprecedented challenges for education systems across the world. On average across the OECD, expenditure on primary to tertiary educational institutions per full-time equivalent student (including expenditure on research and development) grew by 0.4% from 2019 to 2020 (the first year of the pandemic and the latest period with available data). In the Czech Republic, it decreased by 3.7%. This change in expenditure per student is the result of total expenditure on educational institutions decreasing by 2.5% and the total number of full-time equivalent students increasing by 1.3%.
- The distribution of spending between general and vocational upper secondary programmes depends on a variety of factors, such as the number of VET students, the fields of study within VET programmes and the importance given to VET relative to general programmes. In the Czech Republic, 6% of all funding for educational institutions is spent on general upper secondary education and 17% on vocational upper secondary education (11% and 10% respectively on average across the OECD).

- Government sources dominate non-tertiary education funding in all OECD countries, while the private sector contributes 9% of the total expenditure on educational institutions on average. Private funding in the Czech Republic accounted for 7% of expenditure at primary, secondary and post-secondary non-tertiary levels.
- In most countries, private sources accounted for similar shares of expenditure on general and vocational programmes at upper secondary level. However, in a few countries the differences in the share of private funding between general and vocational programmes were wider. In the Czech Republic, the private sector is responsible for 8% of expenditure on general upper secondary programmes and 10% of expenditure on vocational upper secondary programmes.
- On average across OECD countries, more than half of government expenditure on primary to postsecondary non-tertiary education comes from subnational governments. In the Czech Republic, 9% of the funding comes from the central government, after transfers between government levels, 67% from the regional level and 24% from the local level.

# Teachers, the learning environment and the organisation of schools

- The total compulsory instruction time throughout primary and lower secondary education varies widely from country to country (Figure 4). Across the OECD, over the course of primary and lower secondary education, compulsory instruction time totals an average of 7 634 hours, distributed over nine grades. In the Czech Republic, the total compulsory instruction time is lower, at 6 984 hours, over nine grades.
- On average across OECD countries, 25% of the compulsory instruction time in primary education is devoted to reading, writing and literature and 16% to mathematics. In lower secondary education, the share is 15% for reading, writing and literature and 13% for mathematics. In the Czech Republic, 28% of time is devoted to reading, writing and literature and 17% to mathematics at primary level compared to 12% each to both subjects at lower secondary level.
- Teachers' salaries are an important determinant of the attractiveness of the teaching profession, but they also represent the single largest expenditure category in formal education. In most OECD countries, the salaries of teachers in public educational institutions increase with the level of education they teach, and also with experience. On average, annual statutory salaries for upper secondary teachers (in general programmes) with the most prevalent qualification and 15 years of experience are USD 53 456 across the OECD. In the Czech Republic, the corresponding salary adjusted for purchasing power is USD 29 180, which is equivalent to CZK 433 200. Upper secondary teachers in vocational programmes in the Czech Republic have different statutory salaries depending on their qualification levels and subjects taught: for those with the most prevalent qualification and 15 years of experience, salaries range from USD 27 078 to USD 29 180.
- Besides average teacher salaries themselves, annual teaching time requirements, annual hours of compulsory instruction time for students, and class size also impact total spending on teacher salaries. When combined, these factors can be used to estimate an average cost of salaries per student and show the relative impact of each individual factor on total salary spending. Total teacher salary costs per primary student are USD 2 099 in the Czech Republic, lower than the OECD average of USD 3 614. This difference can be broken down into these four factors: lower teacher salaries reduce costs (by USD 567), below-average teaching hours increase costs (by USD 544), below-average student instruction time reduces costs (by USD 416) and larger classes reduce costs (by USD 1 077). Between 2015 and 2021, the salary cost of teachers per student increased by 61% in the Czech Republic (from USD 1 304 to USD 2 099).

# Figure 4. Compulsory instruction time in general education (2023)



In hours, in primary and lower secondary education, in public institutions

Note: Instruction hours for each grade refer to average hours per grade for the level of education. Numbers in square brackets refer to the total number of years for primary and lower secondary education.

1. Estimated number of hours by level of education based on the average number of hours per year, as for some subjects, the allocation of instruction time across multiple levels is flexible.

2. Year of reference 2022.

3. The number of grades in lower secondary education is three or four, depending on the track. The fourth year of pre-vocational secondary education was excluded from the calculation.

Countries and other participants are ranked in ascending order of the total number of compulsory instruction hours.

Source: OECD (2023), Table D1.1. For more information see *Source* section and *Education at a Glance 2023 Sources, Methodologies and* <u>Technical Notes</u> (OECD, 2023[1]).

- Between 2015 and 2022, statutory salaries of upper secondary teachers in general programmes (with the most prevalent qualification and 15 years of experience) declined in real terms in roughly half of all OECD countries with available data. In the Czech Republic, upper secondary teachers' salaries increased by 28% between 2015 and 2022.
- On average across OECD countries, in full-time equivalent terms, there are 14 students for every teaching staff member in general upper secondary programmes and 15 students per staff member in vocational upper secondary programmes. In the Czech Republic, in full-time equivalent terms, there are 10 students per staff member in general upper secondary programmes, lower than the OECD average. In vocational upper secondary programmes, in full-time equivalent terms, there are 10 students for every teaching staff member (below the OECD average).
- The average age of teachers varies across OECD countries. In some countries, the teaching workforce is much younger than the labour force in general, whereas in others, teachers tend to

be older. In the Czech Republic, 53% of teachers in general upper secondary programmes are aged 50 or older, compared to the OECD average of 39%. Teachers in vocational programmes are the same age on average as their general programme peers.

 National/central assessments (standardised tests with no consequence on students' progression through school or certification) are more common at primary and lower secondary levels than at upper secondary level, while most OECD countries conduct national/central examinations (standardised tests with formal consequence) in the final years of upper secondary education. These national/central assessments and examinations take place at different grades and can have different periodicities, their contents may vary over years and/or across students and are not necessarily compulsory for students. In the Czech Republic, there are at least two national/central assessments at primary level, and at least two at lower secondary level. At upper secondary level, there is one national/central examination that each student may be expected to take.

#### References

| OECD  | (2023), <i>E</i> | Education | at a | Glance | 2023  | Sources, | Methodolo | ogies and | Techn | nical | Notes,  | OECD   | [1] |
|---|------------------|-----------|------|--------|-------|----------|-----------|-----------|-------|-------|---------|--------|-----|
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| OECD (2023), Education at a Glance Database, https://stats.oecd.org/. |                  |           |      |        |       |          |           |           |       |       |         | [2]    |     |
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https://doi.org/10.1787/e13bef63-en.

#### **More information**

For more information on *Education at a Glance 2023* and to access the full set of indicators, see: <u>https://doi.org/10.1787/e13bef63-en</u>.

For more information on the methodology used during the data collection for each indicator, the references to the sources and the specific notes for each country, see *Education at a Glance 2023 Sources, Methodologies and Technical Notes* (<u>https://doi.org/10.1787/d7f76adc-en</u>).

For general information on the methodology, please refer to the OECD Handbook for Internationally Comparative Education Statistics 2018 (<u>https://doi.org/10.1787/9789264304444-en</u>).

Updated data can be found on line at <u>http://dx.doi.org/10.1787/eag-data-en</u> and by following the *StatLinks* 2 under the tables and charts in the publication.

Explore, compare and visualise more data and analysis using the Education GPS:

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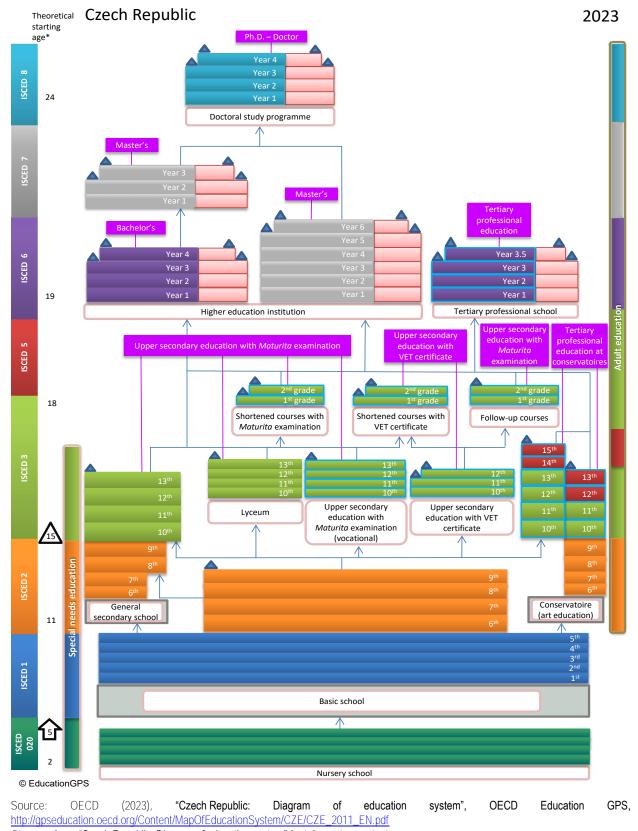
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# Key facts for the Czech Republic in *Education at a Glance 2023*

| Indicator  |         | untry      | OECD          | Source                            |             |  |
|--|---------|------------|---------------|-----------------------------------|-------------|--|
| Educational attainment of 25-34 year-olds by   | 2       | 022        | 20            | Table A1.2                        |             |  |
| gender   | % Men   | % Women    | % Men         | % Women                           |             |  |
| Below upper secondary  | 7%      | 7%         | 16%           | 12%                               |             |  |
| Upper secondary or post-secondary non-tertiary   | 66%     | 50%        | 44%           | 35%                               |             |  |
| Tertiary   | 27%     | 43%        | 41%           | 54%                               |             |  |
| NEET rates of 18-24 year-olds by gender  | 2       | 022        | 20            | OECD<br>(2023 <sub>[2]</sub> )    |             |  |
| ,  | % Men   | % Women    | % Men % Women |                                   |             |  |
| -  | 32%     | 29.6%      | 14%           | 15.5%                             | -           |  |
| Employment rates of 25-64 year-olds by   | 2       | 022        | 20            | OECD                              |             |  |
| educational attainment and gender  | % Men   | % Women    | % Men         | % Women                           | (2023[2])   |  |
| Below upper secondary  | 69%     | 49%        | 70%           | 48%                               | _           |  |
| Upper secondary or post-secondary non-tertiary   | 91%     | 77%        | 84%           | 69%                               |             |  |
| Tertiary   | 96%     | 81%        | 90%           | 83%                               | -           |  |
|  |         | 021        | 20            | Table B2.1                        |             |  |
| Enrolment rate of children aged 3 in ECEC  |         | 2%         | 7             |                                   |             |  |
| Encolment rate of 15, 10 years aldo  |         | 270<br>D21 | 20            | Table B1.1<br>Table B1.3          |             |  |
| Enrolment rate of 15-19 year-olds  |         | 1%         | 8             |                                   |             |  |
|  |         |            |               |                                   |             |  |
| Share of upper secondary students enrolled in  |         | 021        | 20            |                                   |             |  |
| VET programmes   |         | 9%         | 4             | Table B3.1                        |             |  |
| Upper secondary completion rates by  |         | 021        | 20            |                                   |             |  |
| programme orientation  | General | Vocational | General       | Vocational                        | _           |  |
| By the end of the programme duration   | m       | m          | 77%           | 62%                               | _           |  |
| Two years after the end of the programme duration  | m       | m          | 87%           | 73%                               |             |  |
| Expenditure on educational institutions per full-<br>time equivalent student by level of education (in<br>USD PPP)       | 2020    |            | 20            | Table C1.1                        |             |  |
| Primary  | USD     | 8 466      | USD           | -                                 |             |  |
| Lower secondary  | USD     | 12 760     | USD           |                                   |             |  |
| Upper secondary  |         | 12 374     | USD           |                                   |             |  |
| Tertiary   |         | 16 237     | USD           |                                   |             |  |
| · · · · · · · · · · · · · · · · · · ·  |         | 020        | 20            | Table C2.1                        |             |  |
| Total expenditure on primary to tertiary<br>educational institutions as % of GDP   |         | 5%         |               |                                   |             |  |
|  |         | 020        |               | 1%<br>)20                         |             |  |
| Share of total education expenditure on upper  |         |            |               |                                   | Figure C2.  |  |
| secondary educational institutions by<br>programme orientation   | General | Vocational | General       | Vocational                        | _           |  |
|  | 6%      | 17%        | 11%           | 10%                               | T-1-1- D1 1 |  |
| Total compulsory instruction time in primary and   |         | 023        | 20            | Table D1.1 Table D3.1. Table D3.7 |             |  |
| lower secondary education  |         | l hours    | 7 634         |                                   |             |  |
| Statutory salaries of upper secondary teachers   |         | 022        | 20            |                                   |             |  |
| in general programmes with the most prevalent<br>qualifications after 15 years of experience (in<br>USD PPP)             | USD     | 29 180     | USD           |                                   |             |  |
| Change in statutory salaries of upper secondary  | 2015    | 5-2022     | 2015          |                                   |             |  |
| teachers in general programmes with the most<br>prevalent qualifications after 15 years of<br>experience (in real terms) | 2       | 8%         | 4             |                                   |             |  |
| Share of teachers in general upper secondary   | 2       | 021        | 20            | Table D7.2.                       |             |  |
| programmes aged 50 or older  | C       | 3%         | 3             |                                   |             |  |

Note: The OECD average for completion rates reflects a different country coverage (see Indicator B3). Source: OECD ( $2023_{[2]}$ )



#### **Diagram of the education system**

Please refer to "Czech Republic: Diagram of education system" for information on the keys.

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