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Article

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“Corona Class of 2020”: A Lost Generation?

“The “Corona class of 2020” could face years of reduced pay and limited job prospects, long after the current economic storm has passed, unless additional support is provided fast.” (Kathleen Henehan, Resolution Foundation, on [Reuters](#) 2020).

The coronavirus pandemic has caused unprecedented disruptions in virtually all aspects of people’s lives. In addition to the severe health consequences individuals themselves or their relatives have encountered, many have suddenly found themselves in worse economic conditions. Furthermore, social isolation will probably have lasting impacts on people’s mental health as well as on their social interactions. While the pandemic has inarguably hit individuals of all ages, it is likely that children and adolescents have been affected the most severely. School, puberty and further education or the start of a working career are important phases in an individual’s life, accompanied by many uncertainties as well as life-changing experiences. This article aims to shed light on the consequences of the pandemic and its associated economic crisis as well as how it has impacted youth from school age to work entry. It highlights the first evidence on the impact of closed educational institutions on learning at all stages as well as the difficulties encountered when entering the job market or moving on to higher levels of education.

LEARNING LOSSES DURING THE COVID-19 CRISIS

The Extent of Current Learning Losses

Students are among those particularly affected by Covid-19 because they have to deal with the impacts of the pandemic on a daily basis. In fact, over 90 percent of school children worldwide (around 1.5 billion children) faced fully or partially closed schools in the first half of 2020. One year into the pandemic, almost half of the world’s students are still affected by school closures (UNESCO 2021). The associated dramatic learning losses are documented in many countries. For instance, in Germany, the time children spent with school-related activities in spring 2020 was more than halved as a consequence of the Covid-19-related school closures (Grewenig et al. 2020). During the second period of closures in early 2021, children still learned three hours less

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ABSTRACT

The coronavirus crisis has caused severe economic, social and health disruptions worldwide. Children and young adults were among those who suffered most from the effects of the pandemic. Schoolchildren and students faced learning losses, and time spent on school activities dropped by about one-half. Likewise, apprentices and young adults in vocational training experienced learning losses due to school closures and reduced in-person training time. With declining enrollment rates in high school and college, the pandemic caused a major and unprecedented disruption in (higher) education. In many OECD countries, youth unemployment increased sharply, especially at the beginning of the pandemic. In addition to all that, mental health deteriorated within the younger population. This shows us how important it is to learn from these negative consequences for a large part of the population and to ensure in the future that no one is left behind in times of crisis.

than on a typical school day before the pandemic (Woessmann et al. 2021). Maldonado and de Witte (2020) find that primary school students of the 2020 cohort in Belgium had significantly lower scores in standardized tests compared to previous cohorts – across all tested subjects. Following a study by the UK Department for Education (2021), average learning losses of primary students in England corresponded to 3.7 months in math and 1.8 months in reading by October 2020. In the Netherlands, the school closures in spring 2020 resulted in a loss of student performance in primary school achievement tests as large as 20 percent—corresponding exactly to what would have been learned during the period in which schools were closed, even though digitalization in the Netherlands is rather advanced (Engzell et al. 2021). All of these studies find drastically larger reductions in learning time or competencies for disadvantaged students. This also holds true for the US: While the learning progress of children living in high-income areas decreased temporarily at the outbreak of the Covid-19 crisis but soon returned to baseline levels, children in lower-income areas “remained 50 percent below baseline levels through the end of the school year” (Chetty et al. 2020, p. 41). Thus, school closures are likely to aggravate educational inequality.

The Long-Term Impacts of Learning Losses

Unfortunately, datasets comparable to the ones described above are hard to come by on a global scale. The exact effects of the Covid-19-related school closures on student skills and knowledge therefore remain largely unknown. However, Hanushek and Woessmann (2020) suggest that losses in both learning time and student competencies will likely have a life-long impact. Based on existing research, they estimate that the loss of one third of a school year reduces a student's later life-time income by 2.6 percent on average (3.9 percent if half a school year is lost). The estimates vary substantially by country: The learning losses associated with one third of a school year range from a 5.6 percent later income loss in Singapore to 1.5 percent in Greece. As indicated above, disadvantaged students may be disproportionately affected. However, it is not only the individuals' future earnings perspectives that are affected, but also society at large. Hanushek and Woessmann (2020) estimate that if an entire student cohort misses out on the skills usually learned during one third of a school year (and later cohorts return to previous learning levels), a country's future GDP may be reduced by 1.5 percent on average for the remainder of a century (2.2 percent if half a school year is lost). In this scenario, the total economic losses could amount to several trillions: for instance, in the US, this 1.5 percent loss in future GDP would correspond to USD 14.2 trillion. Additionally, research on previous school closures in Belgium, Canada, and Argentina shows that lost learning may lead to lower student competences (Baker 2013), increased class repetition and reduced educational attainment even in higher education (Belot and Webbink 2010), reduced income and increased unemployment (Jaume and Willén 2019). Hampf et al. (2017) find that higher competences correspond to a higher likelihood to find work, with consistent results across the diverse set of countries in their sample. In line with this, Woessmann (2016) asserts that more years of schooling systematically go with lower unemploy-

ment. Finally, unemployment at a young age seems to impact life-long income as well: De Fraja et al. (2017) suggest that one month of unemployment between the ages 18 and 20 causes a life-long income loss of 2 percent.

VOCATIONAL TRAINING DURING THE PANDEMIC

Decline in Apprenticeships

Vocational education has been particularly hit by a pandemic that prevents in-person meetings. In many cases, the practical parts taught mostly in firms had to be paused and could hardly be replaced by online formats. In addition, theoretical concepts are taught in schools that, like all other schools, have largely remained closed.

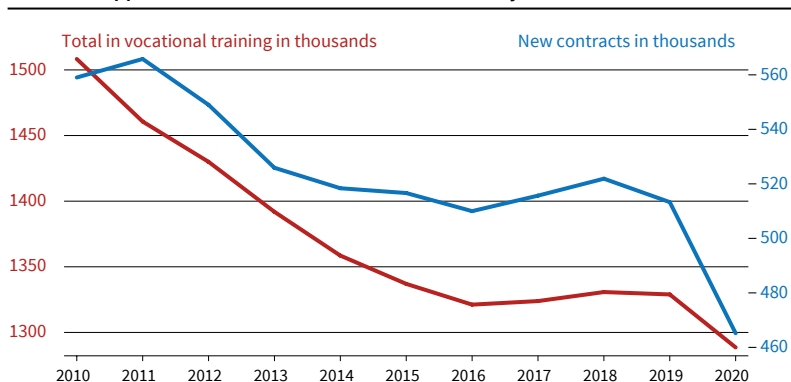
Generally, the number of signed apprenticeship contracts reacts to the economic cycle (e.g., Lüthi and Wolter 2020, among others). Using a novel dataset, Goller and Wolter (2021) analyze the behavior of apprenticeship supply by tracking the search intensity for apprenticeships on an online platform in Switzerland. The authors show a very strong, negative reaction in the search queries during the first shutdown in mid-March 2020. In Germany, around 465,200 people signed an apprenticeship contract in 2020, corresponding to 9.4 percent fewer concluded contracts than in the previous year. Although the demand for vocational training has been decreasing somewhat steadily in recent years, the current drop is unique in its magnitude (Figure 1).

Knowledge Gaps due to Closed Vocational Schools and Education Facilities

Figure 2 shows that students working in companies with operational constraints related to the coronavirus experienced a disruption in knowledge transfer (Brandt 2020). Although the resulting gaps could be closed in most cases, they remained in 23 percent of the firms. Overall, apprentices in the manufacturing sector had the largest gaps in knowledge transfer, but also the highest share of closed gaps. In contrast, knowledge gaps occurred less frequently in the trade sector. However, these gaps were also closed less often.

The extent to which vocational training has been affected varies greatly by industry and region. Working and learning from home may not be feasible for all occupations. For example, apprentices in the hospitality or service sector were more affected than apprentices in other sectors in which virtual solutions could compensate for much of the missed face-to-face training time, such as in the public sector (Biebeler and Schreiber 2020). Thus, the pandemic could exacerbate some of the shortages of skilled workers that already prevailed before the pandemic (ZDF 2021).

Figure 1
Decline in Apprentices Over the Last Decade in Germany



Source: Berufsbildungsstatistik of the Statistisches Bundesamt (2021a).

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In general, neither employers nor the vocational education system were prepared for a crisis of this kind. Although the pandemic accelerated distance learning also in vocational education, and some companies managed to switch to online training to at least some extent, a large learning gap is emerging between countries and societies. An international survey on technical vocational education and training (TVET) shows that low-income countries are particularly affected. Poorer countries could rarely offer distance learning due to the lack of adequate IT infrastructure, equipment, and financial resources, and are at risk of being left behind (International Labour Organization and World Bank 2021).

HIGHER EDUCATION IN TIMES OF COVID-19

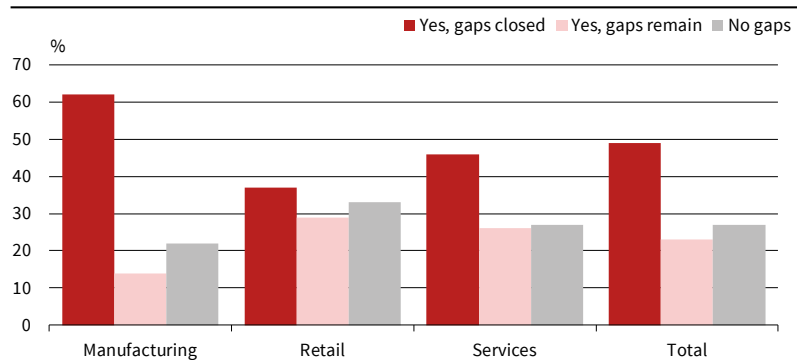
Overall, the coronavirus crisis has not led to an increase in drop-out rates from education and training for young adults (18-24 years) within the EU.¹ On average, the drop-out rate in 2020 even decreased by 0.1 percent in the EU27 compared to 2019. While in Germany there were slightly more early dropouts than in the previous year (+ 0.7 percent), Spain continued its trend of falling dropout rates but still ranges far above the average (Figure 3).

In contrast to most European countries, college and high-school enrollment in the United States experienced a drastic decrease in the first year of the pandemic. As higher education in the United States is relatively costly, many families most likely faced liquidity constraints due to the economic crisis and consequently might not have been able to further finance their children’s education.

High-school enrollment rates dropped by 6.8 percentage points on average in fall 2020 in a year-over-year comparison, which is 4.5 times larger than the drop between fall 2018 and 2019 (Figure 4). It is also important to highlight that the pandemic did not affect all high schools to the same extent. High schools with high poverty and low income levels as well as schools with a high share of minorities faced a far more pronounced decrease in enrollment rates: for high-poverty schools, the fall in enrollment rates was four times greater than the decline rate in low-poverty schools (Causey et al. 2021).

Bulman and Fairlie (2021) find that college enrollment in Californian Community Colleges decreased precipitously by 15 percent in fall 2020 compared to the previous year, constituting the largest downturn over the last two decades. African-Americans and Latinx students experienced the largest drops (17 percent). When observing different groups of students, the sharpest decrease took place for first-time enrollment (22 percent). In summary, first evidence suggests that the pandemic caused

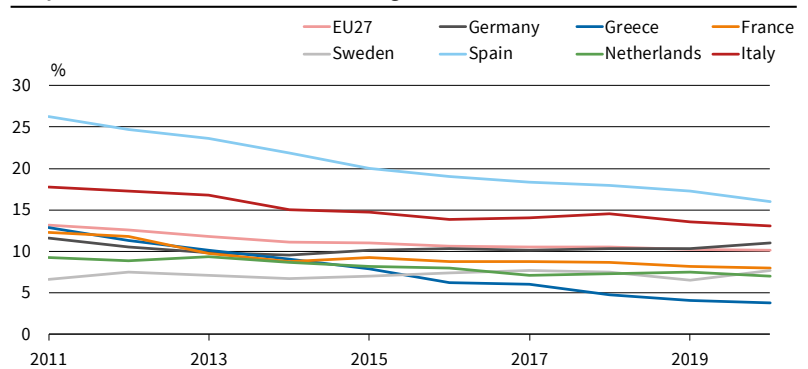
Figure 2
Knowledge Transfer Gaps Caused by the Coronavirus Pandemic
Share of companies with constraints related to the coronavirus in Germany



Source: Randstad-ifo-HR Manager Survey from Brandt (2020).

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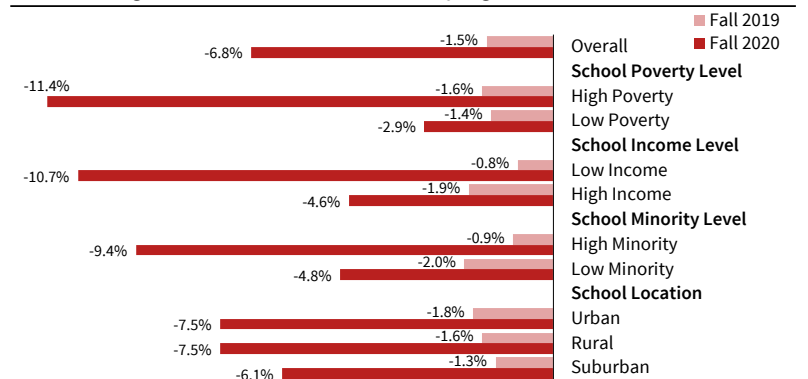
Figure 3
Early Leavers from Education and Training in the EU



Source: Eurostat (2021), Early leavers from education and training by sex and labour status [edat_lfse_14].

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Figure 4
Percent Change in Immediate Fall Enrollments by High School Characteristics



Source: National Student Clearinghouse Research Center (2021).

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a major and unprecedented disruption to higher education.

Looking at post-secondary education in Germany, the pandemic seems to have affected enrollment rates to a smaller extent. Even though overall university enrollment rates in Germany reached a new high in the fall term 2020/21 (compared to 2019, equivalent to an increase of 2 percent), the number of new students decreased by 4 percent. This can partly be explained by a drastic decrease of foreign students enrolling at

¹ However, data is only available on a yearly basis, not quarterly. Thus, it is hard to say whether the 4th quarter of 2020 (fall term) might paint a slightly different picture.

German universities due to the pandemic situation (Statistisches Bundesamt 2021b).

Consequences of Graduating During a Recession

The effects of graduating during a period of adverse labor market conditions differ substantially depending on an individual's educational stage. While high-school graduation during a recession generally leads to a higher probability of further investing in education and thus fosters better outcomes later in life, college graduates tend to face negative consequences.²

Hampf et al. (2020) exploit the representative PIAAC³ survey to analyze the short- and long-term effects of graduation from high school during a recession and find a positive effect on subsequent human capital investment, e. g., college enrollment as well as literacy and numeracy skills later in life. However, the positive effect of recessions is smaller for individuals with lower socio-economic status and thus leads to an increase of educational inequality. This finding can most likely be explained by the liquidity constraints low-educated and low-skilled parents of the affected cohorts face because of a higher probability of losing their job during an economic downturn.⁴

² The recession caused by the coronavirus crisis is different from prior ones in several ways. First, the current crisis' trigger was a pandemic and unlike previous recessions, did not result from financial factors but rather hit in a period of intact financial and labor markets. As a result, once the pandemic passes, the economic recovery is likely to take place at a faster pace than during a typical recession. Second, the ongoing crisis' major difference from prior ones in the context of education is the switch to online-teaching, which can have effects independent of the recession. Research shows that e.g., college students taking courses online instead of in person are more likely to drop out and not to enroll again (Bettinger et al. 2017). Consequently, findings from previous recessions are not completely applicable to the current one.

³ The survey provides an international comparison of the assessments of literacy and numeracy skills as well as background information on educational attainment and labor market outcomes.

⁴ Arellano-Bover (2020) uses the same survey data and also finds evidence of a higher probability of investment in formal education for cohorts who face bad economic conditions during their education-work transition (18–24 years). However, and in contrast to Hampf et al., the same cohorts show worse results in terms of cognitive skills later in life (ages 36–59), pointing at long-term negative effects for their wages as skill losses are associated with wage losses. These divergent findings are most probably due to different and fewer countries included in Arellano-Bover's paper.

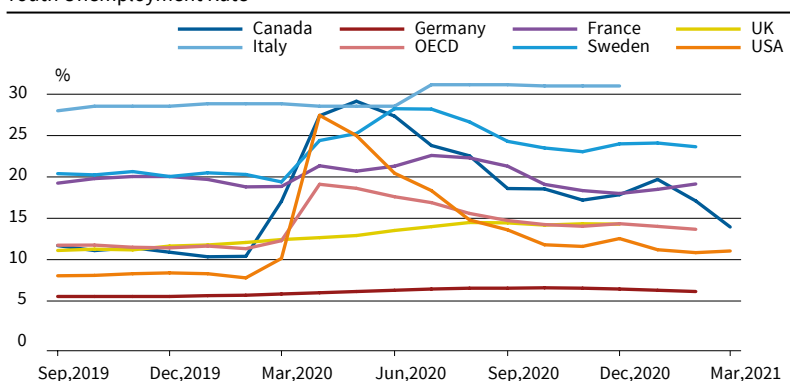
Oreopoulos et al. (2012) find substantial and unequal negative effects for graduating from college during a recession in Canada. A 5 percentage points increase in unemployment rates causes a loss of about 5 percent in cumulated earnings. Graduates from less prestigious colleges have larger and more persistent earnings losses than more advantaged graduates. Compared to the top graduate, with a loss of 8 percent of cumulative earnings in the first 10 years, the least advantaged one loses more than four times than the former. Apart from financial disadvantages caused by bad labor market conditions, entering the job market during a recession can also have serious negative health effects. Schwandt and von Wachter (2020) provide evidence of an increase in mortality by disease-related causes in midlife for cohorts entering the labor market during a recession. Furthermore, they are less likely to marry, more likely to divorce and are more likely to remain childless.

YOUTH UNEMPLOYMENT

The economic crisis caused by the shutdown of the economy has led to inevitable job losses around the globe (OECD 2021a). While there is a large academic discussion about individual as well as aggregate consequences of unemployment, not much focus has been put on young individuals' labor-market consequences. Figure 5 shows the development of youth unemployment (individuals aged 15–24) from September 2019 to March 2021. Four groups of countries can be distinguished: Italy had a relatively high rate of youth unemployment before the crisis which did not increase much during the pandemic, even though there was a slight increase in the second half of 2020. Sweden and France had similar pre-crisis unemployment rates but saw a different trend during the pandemic: both experienced an increase at the start of the pandemic in March 2020, but France had a much smaller increase in youth unemployment than Sweden, a pattern that seems to persist until today. Canada, the US, the UK and the OECD mean had relatively low pre-pandemic youth unemployment rates compared to the countries mentioned above but saw sharp increases at the beginning of the pandemic (with the exception of the UK) that last until today. Last, Germany had very low youth unemployment before the pandemic and saw virtually no increase in the numbers during the pandemic. This might be due to a variety of labor-market policies (such as the massive extension of the short-time working scheme) that Germany implemented to keep as many individuals as possible in employment during the crisis (see e.g., Christl et al. 2021).

Across all OECD countries, young women were more affected than young men, especially at the peak of the pandemic in March 2020. In September 2020,

Figure 5
Youth Unemployment Rate



Source: OECD (2021b).

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young women and men had returned to similar magnitudes of unemployment that until today persist at higher levels than pre-pandemic unemployment (not shown, OECD 2021b).

EFFECTS ON THE MENTAL HEALTH OF YOUNG ADULTS

Young people's mental health is disproportionately affected by the crisis. Data from Belgium, France and the United States suggest that the prevalence of anxiety and depression symptoms during the Covid-19 pandemic is around 30 percent to 80 percent higher for young individuals than for the general population. In Canada, 27 percent of young people aged 14–24 reported symptoms of anxiety, while the share in the age group 25–64 was only 19 percent (OECD 2021c)—even though adolescents had reported fewer mental health conditions in the years before the crisis than the general population (at the EU-level: 3.6 percent of 15–24 year-olds showed symptoms of depression vs. 6.9 percent among adults). In addition, younger children's (7–10 years) mental health seemed to suffer significantly more than older children's (11–17 years) (Ravens-Sieberer et al. 2021). Youth with previous mental health conditions are also particularly affected: A UK survey of adolescents with a mental illness history reports that 80 percent have experienced a deterioration in their mental health status (YoungMinds 2020).

In general, evidence from several countries suggests that the share of adolescents with mental health conditions more than doubled when compared to the pre-crisis level (e.g., OECD 2021c; Ravens-Sieberer et al. 2021). As the pandemic continues, the situation is likely to worsen: According to Woessmann et al. (2021), 50 percent of parents considered the school closures in Germany in early 2021 a major psychological burden for their child—a clear increase in comparison to the first school closures in 2020 (38 percent). Economic and psychosocial stressors such as lifestyle and economic disruption during the pandemic seem to be an important predictor of within-pandemic emotional distress for adolescents (Shanahan et al. 2020). As Courtney et al. (2020, p. 688) put it, “[c]hildren and youth are highly vulnerable to the impact of sustained stressors during developmentally sensitive times, and thus, their mental health during and after the pandemic warrants special consideration.”

REFERENCES

- Arellano-Bover, J. (2020), “The Effect of Labor Market Conditions at Entry on Workers' Long-Term Skills”, *The Review of Economics and Statistics*.
- Baker, M. (2013), “Industrial Actions in Schools: Strikes and Student Achievement”, *Canadian Journal of Economics* 46(3), 1014–1036.
- Belot, M. and D. Webbink (2010), “Do Teacher Strikes Harm Educational Attainment of Students?”, *Labour* 24(4), 391–406.
- Bettinger, E., L. Fox, S. Loeb and E. S. Taylor (2017), “Virtual Classrooms: How Online College Courses Affect Student Success”, *American Economic Review*, 107 (9), 2855–75.
- Biebler, H. and D. Schreiber (2020), “Ausbildung in Zeiten von Corona: Ergebnisse einer empirischen Studie zu Auswirkungen der Corona-Pandemie auf Ausbildungsbetriebe“, Bundesinstitut für Berufsbildung, *Wissenschaftliche Papiere* 223.
- Brandt, P. (2020), “Corona und die Ausbildungssituation – Ergebnisse”, *ifo Schnelldienst* 73(12), 44–45.
- Bulman, G. and R. Fairlie (2021), “The Impact of COVID-19 on Community College Enrollment and Student Success: Evidence from California Administrative Data”, *National Bureau of Economic Research Working Paper Series* No. 28715, DOI 10.3386/w28715.
- Christl, M., S. De Poli, T. Hufkens, A. Peichl and M. Ricci (2021), “The Role of Short-Time Work and Discretionary Policy Measures in Mitigating the Effects of the Covid-19 Crisis in Germany”, *CEifo Working Paper* 9072.
- Causey, J., A. Harnack-Eber, M. Ryu and D. Shapiro (2021), “A COVID-19 Special Analysis Update for High School Benchmarks”, Herndon, VA: National Student Clearinghouse Research Center.
- Chetty, R., J. N. Friedman, N. Hendren, M. Stepner and The Opportunity Insights Team (2020), “How Did COVID-19 and Stabilization Policies Affect Spending and Employment? A New Real-Time Economic Tracker Based on Private Sector Data”, *NBER Working Paper* 27431.
- Courtney, D., P. Watson, M. Battaglia, B. H. Mulsant and P. Szatmari (2020), “COVID-19 Impacts on Child and Youth Anxiety and Depression: Challenges and Opportunities”, *Canadian Journal of Psychiatry* 65(10), 688–691.
- De Fraja, G., S. Lemos, and J. Rockey (2017), “The Wounds That Do Not Heal: The Life-time Scar of Youth Unemployment”, *CEPR Discussion Papers* 11852.
- Department for Education (2021), “Understanding Progress in the 2020/21 Academic Year: Complete Findings from the Autumn Term”, retrievable from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/991576/Understanding_Progress_in_the_2020_21_Academic_Year_Report_2.pdf.
- Engzell, P., A. Frey and M. D. Verhagen (2020), “Learning Inequality During the Covid-19 Pandemic”, *Proceedings of the National Academy of Sciences* 118 (17): e2022376118.
- Goller, D. and S. C. Wolter (2021), “‘Too Shocked to Search’ The Covid-19 Shutdowns' Impact on the Search for Apprenticeships”, *CEifo Working Paper* 9060.
- Grewenig, E., P. Lorgetporer, K. Werner, L. Woessmann and L. Zierow (2020), “COVID-19 and Educational Inequality: How School Closures Affect Low- and High-Achieving Students”, *CEifo Working Paper* 8648.
- Hampf, F., M. Piopiunik and S. Wiederhold (2020), “The Effects of Graduating from High School in a Recession: College Investments, Skill Formation, and Labor-Market Outcomes”, *CEifo Working Paper* 8252.
- Hampf, F., S. Wiederhold, and L. Woessmann (2017), “Skills, Earnings, and Employment: Exploring Causality in the Estimation of Returns to Skills”, *Large-scale Assessments in Education* 5(12), 1–30.
- Hanushek, E. and L. Woessmann (2020), “The Economic Impacts of Learning Losses”, *Education Working Papers* 225, OECD Publishing, Paris.
- International Labour Organization and World Bank (2021), “Skills Development in the Time of COVID-19: Taking Stock of the Initial Responses in Technical and Vocational Education and Training”, Geneva.
- Jaume, D. and A. Willén (2019), “The Long-run Effects of Teacher Strikes: Evidence from Argentina”, *Journal of Labor Economics* 37(4), 1097–1139.
- Kahn, M. (2020), “Coronavirus ‘Class of 2020’: Europe's Lost Generation?”, <https://www.reuters.com/article/us-health-coronavirus-unemployment-youth-idUSKBN24A0LN> (accessed 9 June 2021).
- Luethi, S. and S. C. Wolter (2020), “Are Apprenticeships Business Cycle Proof?”, *Swiss Journal of Economics and Statistics*, 156(3), 1–11.
- Maldonado, J. E. and K. de Witte (2020), “The Effect of School Closures on Standardized Student Test Outcomes”, *KU Leuven Discussion Paper Series* DPS20.17.
- OECD (2021a), Unemployment Rate (Indicator), doi: 10.1787/52570002-en (accessed 9 June 2021).
- OECD (2021b), Youth Unemployment Rate (Indicator), doi: 10.1787/c3634df7-en (accessed 9 June 2021).
- OECD (2021c), “Supporting Young People's Mental Health Through the COVID-19 Crisis”, https://read.oecd-ilibrary.org/view/?ref=1094_1094452-vvnq8dqm9u&title=Supporting-young-people-s-mental-health-through-the-COVID-19-crisis&_ga=2.236017025.1279677299.1623673416-1595378193.1598879284 (accessed 14 June 2021).
- Oreopoulos, P., T. von Wachter and A. Heisz (2012) “The Short- and Long-Term Career Effects of Graduating in a Recession”, *American Economic Journal: Applied Economics*, 4 (1), 1–29.

- Ravens-Sieberer, U., A. Kaman, M. Erhart, J. Devine, R. Schlack and C. Otto (2021), "Impact of the COVID-19 Pandemic on Quality of Life and Mental Health in Children and Adolescents in Germany", *European Child and Adolescent Psychiatry*, <https://doi.org/10.1007/s00787-021-01726-5> (accessed 14 June 2021).
- Schwandt, H. and T. von Wachter (2020), "Socioeconomic Decline and Death: Midlife Impacts of Graduating in a Recession", NBER Working Papers 26638, National Bureau of Economic Research, Inc.
- Shanahan, L., A. Steinhoff, L. Bechtiger, A. L. Murray, A. Nivette, U. Hepp, D. Ribeaud and M. Eisner (2020), "Emotional Distress in Young Adults During the COVID-19 Pandemic: Evidence of Risk and Resilience From a Longitudinal Cohort Study", *Psychological Medicine*, 1–10.
- Statistisches Bundesamt (2021a), Berufsbildungsstatistik: "Auszubildende: Deutschland, Stichtag, Nationalität, Geschlecht, Ausbildungsbereich" (21211-0001) (accessed 9 June 2021).
- Statistisches Bundesamt (2021b), https://www.destatis.de/DE/Presse/Pressemitteilungen/2020/12/PD20_497_213.html.
- UNESCO (2021), "Education: From Disruption to Discovery", <https://en.unesco.org/covid19/educationresponse> (accessed 25 July 2020 and 13 April 2021).
- Woessmann, L. (2016), "The Economic Case for Education", *Education Economics* 24(1), 3–32.
- Woessmann, L., V. Freundl, E. Grewenig, P. Lergetporer, K. Werner and L. Zierow (2021), "Bildung erneut im Lockdown: Wie verbrachten Schulkinder die Schulschließungen Anfang 2021?", *ifo Schnelldienst* 74(5), 36–52.
- YoungMinds (2020), "Coronavirus: Impact on Young People With Mental Health Needs", <https://youngminds.org.uk/media/3904/coronavirus-report-summer-2020-final.pdf> (accessed 27 May 2021).
- ZDF (2021), *Berufsstart in der Pandemie - Generation Corona: "Effekt leider eindeutig"*, Interview with Stefan Sell on 2 March, 2021, <https://www.zdf.de/nachrichten/wirtschaft/corona-arbeitsmarkt-jugend-generation-100.html>.