

School absenteeism and the poverty-related attainment gap

Part II: School absenteeism and academic achievement

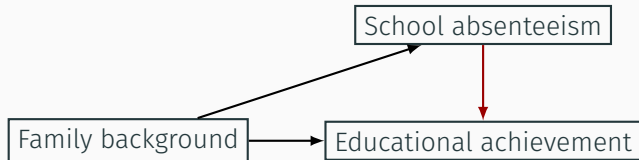
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30 March 2022, Webinar - Part II

1. School absenteeism and academic achievement
2. School absenteeism and post-school destinations
3. Implications

School absenteeism and academic achievement

School absenteeism and educational achievement



- Peer-reviewed journal articles
 - Klein, M., Sosu, E. M., Dare, S. (2020). Mapping inequalities in school attendance: The relationship between dimensions of socioeconomic status and forms of school absence. *Children and Youth Services Review*, 118, 105432.
 - Sosu, E. M., Dare, S., Goodfellow, C., Klein, M. (2021). Socioeconomic status and school absenteeism: A systematic review and narrative synthesis. *Review of Education* 9(3), e3291.
 - Klein, M., Sosu, E. M., Dare, S. (2022). School absenteeism and academic achievement: does the reason for absence matter?. *AERA Open*, 8, 23328584211071115.
- Research briefs
 - Klein, M., Goodfellow, C., Dare, S., Sosu, E. (2020). Socioeconomic Inequalities in School Attendance in Scotland. University of Strathclyde
 - Sosu, E. M., Klein, M. (2021). Socioeconomic disparities in school absenteeism after the first wave of COVID-19 school closures in Scotland. University of Strathclyde
- Work in progress
 - Sosu, E. M., Klein, M., Dare, S. School attendance and academic achievement: Understanding variation across family socioeconomic status. *Under review*
 - Klein, M., Sosu, E. M. Secondary school absences and adolescents' post-school destinations – Evidence from the Scottish Longitudinal Study. *In preparation for submission*

- School absenteeism associated with poor academic achievement (e.g. Gottfried, 2009, 2010, 2014; Ready, 2010)
- **But:** Most studies used measures of overall absenteeism (e.g., number of days absent in school year)
 - Authorised versus unauthorised absences (e.g. Gottfried, 2009; Aucejo and Romano, 2016; Gershenson et al., 2017) .
 - Limited evidence on more precise reasons (Hancock et al., 2017)
- Investigating more precise reasons informs us about potential mechanisms

- Low-SES students have a higher risk of school absenteeism than high-SES students (Klein et al., 2020)
- Absences may cause greater harm to low-SES students → families have fewer resources to compensate for lost instructional time
- **But:** Studies on the moderating role of family SES (e.g. Ready, 2010; Smerillo et al., 2018) did not consider multiple SES dimensions

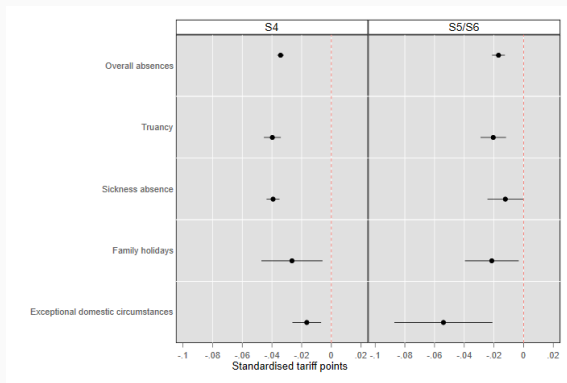
Research Questions

- **RQ1:** Does school absenteeism have an adverse impact on academic achievement at the end of compulsory (S4) and post-compulsory schooling (S5/S6)?
- **RQ2:** Does the effect vary depending on the form of absenteeism (sickness absence, exceptional domestic circumstances, family holidays, and truancy)?
- **RQ3:** Does the association between school absenteeism on academic achievement vary across SES dimensions?

- **Academic achievement** at S4 and S5/S6: Unified Points Score Scale (extended version of the UCAS Scottish Tariff points system) taking into account number of subjects, level of difficulty and grade
- Overall and specific forms of **school absences** (truancy, sickness, exceptional domestic circumstances, family holidays) were measured as the proportion of days a pupil was absent in S4 (for S4 achievement analysis) and S5 (for S5/S5 achievement analysis)

- **Family SES:** parental class (NS-SeC), parental education, housing tenure (social rented vs. owned/private rented), FSM registration
- **Covariates:** SIMD, ethnicity, place of residence, child's sex, child's age, mother's age at birth, family structure, number of siblings, child health, parental health, parental caring status, additional support needs, temporary exclusion

Absenteeism and academic achievement



Source: Scottish Longitudinal Study, own calculations. Note: Estimates based on OLS regressions, $n = 4,419$ for S4 analysis; $n = 3,135$ for S5/S6 analysis, weighted with inverse probability of dropout weights.

- **Robustness check:** Estimating the effect of absence changes (from S4 to S5) on academic achievement progress (from S4 to S5/S6) confirmed these results except for family holidays

Findings: Variation across SES

- No differences in the association between school absences and academic achievement → overall absences equally harmful for all pupils
- We find the same pattern when considering truancy
- We found evidence for a stronger negative impact of sickness absences on the achievement of pupils from lower than higher SES backgrounds.
 - statistically significant differences for social class, FSM, and housing tenure, but not for parental education

Summary

- In line with US findings, school absences overall are detrimental to student achievement in Scotland
- Absences due to truancy, sickness and exceptional domestic circumstances had unique adverse effects on students' academic achievement → unauthorised and authorised absences equally harmful
- Findings suggest that there are other mechanisms at play, in addition to learning loss
 - Health pathway
 - Behavioural and psychosocial pathway

Summary

- Overall absences and truancy equally harmful for all children no matter their socioeconomic background
- High-SES pupils recover more quickly from sickness absence learning loss
 - fewer underlying health conditions
 - greater school support in affluent areas (variation by housing tenure)
 - families leveraging assets to catch up with missed lesson content (variation by parental class and FSM)

School absenteeism and post-school destinations

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Motivation

- School absenteeism is a key vulnerability that likely locks young people into path dependencies of disadvantaged life course trajectories
- School absenteeism literature mainly focuses on schooling outcomes, such as academic achievement, dropout, or exclusion
- Studies on the longer-term consequences of school absences, e.g., on post-school destinations are rare
 - If existent, they do not examine different reasons for absenteeism
- Studies do not consider why school absences are linked to post-school destinations

Research Questions

- **RQ1:** Are school absences in upper secondary education associated with students' post-school destinations ("Not in employment, education, or training (NEET)" status, occupational attainment)?
- **RQ2:** Are school absences differently associated with post-school destinations depending on the reason for absenteeism (truancy, sickness absence)?
- **RQ3:** To what extent does academic achievement in S5/S6 mediate the association between school absences and post-school destinations?

Findings on risk of being NEET

	Overall absence	Sickness	Truancy
Total effect	0.003 (0.001)***	0.004 (0.001)***	0.003 (0.002)*
Direct effect net of achievement	0.002 (0.001)*	0.003 (0.001)**	0.002 (0.002)
% explained by achievement	36	29	50

Source: Scottish Longitudinal Study (n = 2,941), own calculations

Notes: Analyses restricted to pupils in upper secondary schooling (S5/S6); decomposition via Karlson-Holm-Breen (KHB) method; Control variables: previous academic achievement (S4), sociodemographic and health characteristics; Estimates refer to Average Marginal Effects; * p < .05, ** p < .01, *** p < .001. Cluster-robust standard errors in parentheses.

Summary

- Overall and all specific forms of absenteeism (sickness, truancy) increase the risk of being NEET
 - Sickness absence has a somewhat stronger impact the risk of NEET
- Overall and sickness absences increase the risk of being NEET net of academic achievement in S5/S6
 - The extent to which achievement explains the greater risk of being NEET varies across the reason for absence; stronger for truancy and weaker for sickness absence
- No statistically significant effect of overall absences and specific reasons (sickness, truancy) on occupational attainment among those employed (n = 488)

Implications

Implications

- School absences and various reasons (truancy, sickness, exceptional domestic circumstances) are harmful to achievement among all pupils
- School absenteeism contributes to SES-achievement gaps → Greater focus on reducing absenteeism, particularly among students from low-SES backgrounds
 - Sickness absence especially problematic as more detrimental to low-SES students
- Policy and practice should pay equal attention to unauthorised (truancy) and authorised absences (e.g., sickness)

Implications

- Aside from reducing absenteeism, interventions should be concerned with mitigating lost learning for absent pupils, particularly where absence cannot be avoided (e.g., sickness)
- Frequently absent students need also career support, either by providing access to further education or help in integrating into the labour market
- Analyses were restricted to the senior secondary stages → We need more reliable achievement data prior to this stage to better understand the link between absences (and SES) and achievement

Disclaimer

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For more information on the SLS, please visit: <http://sls.lscs.ac.uk>

References

- Aucejo, E. M. and Romano, T. F. (2016). Assessing the effect of school days and absences on test score performance. *Economics of Education Review*, 55:70–87.
- Gershenson, S., Jackowitz, A., and Brannegan, A. (2017). Are student absences worth the worry in U.S. primary schools? *Education Finance and Policy*, 12:137–165.
- Gottfried, M. A. (2009). Excused Versus Unexcused: How Student Absences in Elementary School Affect Academic Achievement. *Educational Evaluation and Policy Analysis*, 31(4):392–415.
- Gottfried, M. A. (2010). Evaluating the Relationship Between Student Attendance and Achievement in Urban Elementary and Middle Schools: An Instrumental Variables Approach. *American Educational Research Journal*, 47(2):434–465.
- Gottfried, M. A. (2014). Chronic Absenteeism and Its Effects on Students' Academic and Socioemotional Outcomes. *Journal of Education for Students Placed at Risk*, 19(2):53–75.
- Hancock, K. J., Lawrence, D., Shepherd, C. C., Mitrou, F., and Zubrick, S. R. (2017). Associations between school absence and academic achievement: Do socioeconomics matter? *British Educational Research Journal*, 43(3):415–440.
- Klein, M., Sosu, E. M., and Dare, S. (2020). Mapping inequalities in school attendance: The relationship between dimensions of socioeconomic status and forms of school absence. *Children and Youth Services Review*, 118:105432.
- Ready, D. D. (2010). Socioeconomic Disadvantage, School Attendance, and Early Cognitive Development. *Sociology of Education*, 83(4):271–286.

Smerillo, N. E., Reynolds, A. J., Temple, J. A., and Ou, S.-r. (2018). Chronic absence, eighth-grade achievement, and high school attainment in the Chicago Longitudinal Study. *Journal of School Psychology, 67*:163–178.

Thank you!