Who is Missing Out on School? Exploring Socioeconomic Inequalities in School Absenteeism

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University of Strathclyde, UK
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The literature consistently found that low-SES students have a higher risk of school absenteeism than high-SES students (for a meta-analysis on risk factors see Gubbels et al., 2019).

But: Studies rarely look at different dimensions of SES in a single study; most studies from US.
Research Questions

• Are there social inequalities in school absenteeism (overall) in Scotland? Do inequalities differ by the type of social background measured (free school meal eligibility, parental class, parental education, neighbourhood deprivation, housing status)?

• Are there differences in the association between social background characteristics and types of school absenteeism (truancy, sickness absence, temporary exclusion)?

• Are these relationships moderated by gender and place of residence?
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• Are these relationships moderated by gender and place of residence?
• The mediating pathways between social background and school absenteeism remain unexplored
SES and school absenteeism

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• Neighbourhood mechanisms (e.g. air pollution, neighbourhood and school conditions, exposure to crime)
Growing up in adverse family conditions may be more detrimental to boys’ behaviour than to girls’ behaviour.
SES and school absenteeism by gender

- Growing up in adverse family conditions may be more detrimental to boys’ behaviour than to girls’ behaviour.
  - Boys’ behavioural development more elastic to family circumstances than girls’ behaviour (Autor et al., 2016)
- Parents from lower social backgrounds may be more involved in girls’ schooling than in boys’ schooling (Entwisle et al., 2007)
- Period poverty (Phillips-Howard et al., 2016) may lead to greater sickness-related absenteeism among girls from lower social backgrounds.
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Rural areas are less exposed to crime, neighbourhood problems (e.g. litter, graffiti), air pollution or income deprivation and have a greater community sense than urban areas (Scottish Government, 2018). Urban schools tend to suspend more students than rural schools (Achilles et al., 2007). Pupils in urban areas are also more likely to be truant than students from rural areas (Darmody et al., 2008; Sheldon and Epstein, 2004). Social inequalities in school absenteeism may be less pronounced in rural areas than in urban areas.
SES and school absenteeism by place of residence

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- Joint project between National Records of Scotland (NRS) and University of Edinburgh
Our SLS sample

• We focus on SLS members that were in the last year of compulsory schooling (S4) in 2007 and 2008 (according to school census data)
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• Data on social background characteristics are derived from the Census 2001
Overall, Truancy and Sickness-related absenteeism were measured as the proportion of half-days a pupil was absent in S4.
Variables

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- Controls: sex, place of residence (urban vs. rural), ethnicity (white vs. non-white), child’s age, mother’s age at birth, year of schooling
• Dependent variable as proportion of half-days absent (overall, truancy, sickness-related): Fractional logistic regression
Methods

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- Standard errors clustered at the school level
- Results are based on complete cases (n=4620)
## Descriptives

<table>
<thead>
<tr>
<th>Description</th>
<th>Proportion/Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall absenteeism</td>
<td>14.13</td>
<td>12.99</td>
</tr>
<tr>
<td>Truancy</td>
<td>1.78</td>
<td>5.37</td>
</tr>
<tr>
<td>Sickness-related</td>
<td>4.68</td>
<td>6.70</td>
</tr>
<tr>
<td>Temporary exclusion</td>
<td>0.05</td>
<td></td>
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</tbody>
</table>

### Parental class

<table>
<thead>
<tr>
<th>Parental Class</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service class</td>
<td>0.42</td>
</tr>
<tr>
<td>Intermediate occ</td>
<td>0.31</td>
</tr>
<tr>
<td>Working class</td>
<td>0.23</td>
</tr>
<tr>
<td>Never worked and long-term unemployed</td>
<td>0.04</td>
</tr>
</tbody>
</table>

### Parental education

<table>
<thead>
<tr>
<th>Education</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>University</td>
<td>0.27</td>
</tr>
<tr>
<td>HNC/HND</td>
<td>0.11</td>
</tr>
<tr>
<td>Highers/A-level</td>
<td>0.18</td>
</tr>
<tr>
<td>Standard Grade/GCSE</td>
<td>0.31</td>
</tr>
<tr>
<td>No qualification</td>
<td>0.14</td>
</tr>
</tbody>
</table>
## Descriptives (continued)

<table>
<thead>
<tr>
<th>Description</th>
<th>Proportion/Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free school meal eligibility: yes</td>
<td>0.09</td>
<td></td>
</tr>
<tr>
<td>Housing tenure: Socially rented</td>
<td>0.28</td>
<td></td>
</tr>
<tr>
<td><strong>SIMD</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIMD 5 = least deprived</td>
<td>0.21</td>
<td></td>
</tr>
<tr>
<td>SIMD 4</td>
<td>0.21</td>
<td></td>
</tr>
<tr>
<td>SIMD 3</td>
<td>0.20</td>
<td></td>
</tr>
<tr>
<td>SIMD 2</td>
<td>0.19</td>
<td></td>
</tr>
<tr>
<td>SIMD 1 = most deprived</td>
<td>0.18</td>
<td></td>
</tr>
<tr>
<td>Sex: Girls</td>
<td>0.47</td>
<td></td>
</tr>
<tr>
<td>Place of residence: Rural</td>
<td>0.22</td>
<td></td>
</tr>
</tbody>
</table>

Source: Scottish Longitudinal Study, n=4620, own calculations
SES and overall absenteeism

Source: Scottish Longitudinal Study, own calculations
# SES and sickness absence

Source: Scottish Longitudinal Study, own calculations
SES and truancy

Source: Scottish Longitudinal Study, own calculations
SES and temporary exclusion

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• All social background characteristics including our neighbourhood indicator are uniquely associated with overall absenteeism
Summary

- All social background characteristics including our neighbourhood indicator are uniquely associated with overall absenteeism.
- Social rent and originating from households with no qualification are the most persistent social background measures associated with all types of absenteeism.
Summary

- All social background characteristics including our neighbourhood indicator are uniquely associated with overall absenteeism.
- Social rent and originating from households with no qualification are the most persistent social background measures associated with all types of absenteeism.
- Main risk factors for sickness-related absenteeism: Parents with lower qualifications, social rent and free-school meal eligibility.
Summary

- Main risk factors for truancy: Social class, housing tenure and parents with no qualifications

- Main risk factors for exclusion: Neighbourhood deprivation, social rent, free-school meal eligibility and parents with no qualifications

Visible characteristics appear to influence exclusion although these are not necessarily related to truancy.

No moderation by gender and place of residence. However, trends suggest that social background has a stronger impact on the risk of exclusion among boys than among girls.
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• Limitations
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- Private schools are not part of our sample.
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  • Private schools are not part of our sample
  • Poverty/Family income not directly measured
The help provided by staff of the Longitudinal Studies Centre – Scotland (LSCS) is acknowledged. The LSCS is supported by the ESRC/JISC, the Scottish Funding Council, the Chief Scientist’s Office and the Scottish Government. The authors alone are responsible for the interpretation of the data. Census output is Crown copyright and is reproduced with the permission of the Controller of HMSO and the Queen’s Printer for Scotland.

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


Thank you!
We focus on SLS members that passed through the school stages S3-S6 or S4-S6 in 2007-2010 (cohorts 10 and 11) and who were present during Census 2001 and for whom father and/or mother were identified.
## SES correlations

<table>
<thead>
<tr>
<th></th>
<th>Parental class</th>
<th>Parental educ.</th>
<th>FSM</th>
<th>Housing</th>
<th>SIMD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parental class</td>
<td>1</td>
<td>0.34</td>
<td>0.35</td>
<td>0.50</td>
<td>0.25</td>
</tr>
<tr>
<td>Parental educ.</td>
<td>1</td>
<td>0.30</td>
<td>0.44</td>
<td>0.22</td>
<td></td>
</tr>
<tr>
<td>FSM</td>
<td>1</td>
<td>0.33</td>
<td>0.24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing</td>
<td></td>
<td></td>
<td></td>
<td>0.45</td>
<td></td>
</tr>
<tr>
<td>SIMD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
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Note: Correlations based on Cramer’s V; Source: Scottish Longitudinal Study, n=4620, own calculations