

Why do some children become disengaged from school?

Foliano, Meschi, Vignoles

Institute of Education

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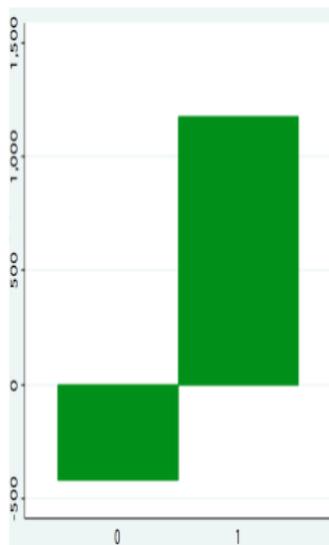
Outline

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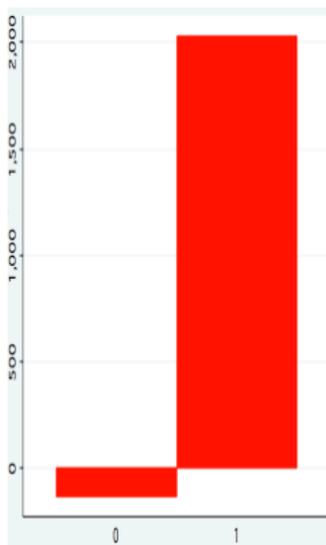
Motivations

- No child Left Behind and Every Child Matters: focus on pupil well being
- Focus on the whole child rather than simply on academic attainment
- Schools should have broader aims and potentially produce a range of outcomes for children such as well being, engagement with school and other positive outcomes

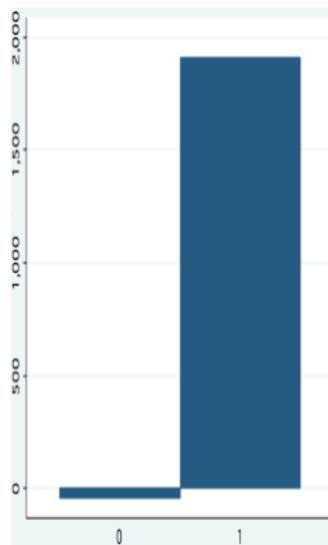
Motivations: Why is disengagement relevant?



Dropout at 17



Vandalism



Police

Literature

- Fredricks, Blumenfield and Paris (1994)
 - * Engagement as multidimensional construct: emotional, behavioural and cognitive
- Bosworth (1994)
 - * Engagement and truanting behaviour as determinants of achievement
- Gibbons and Silva (2008)
 - * Parental perception of school quality and children wellbeing

Research aims

- Our analysis builds on and extends the previous literature by adopting a longitudinal framework
- What can we learn about the relationship between child's disengagement and the environment surrounding the child?
- We explore the role that school characteristics might play in children's disengagement

The model

- To model the outcome of interest, namely emotional disengagement, we assume a linear relationship between the continuous outcomes of interest and the explanatory variables:

$$ED_{it} = Z'_{it}\gamma + X'_{it}\beta + \varphi u_i + \varepsilon_{it}$$

Data Description

- LSYPE
 - * Measure of Emotional Disengagement
 - * Individual time-varying characteristics
- PLASC
 - * FSM
 - * School time-varying characteristics
 - * Individual and school value added measure

Dependent variable: Emotional Disengagement

Measure based on the following questions:

- I am happy when I am at school
- School is a waste of time for me
- School work is worth doing
- Most of the time I don't want to go to school
- On the whole I like being at school
- I work as hard as I can in school
- In a lesson, I often count the minutes till it ends
- The work I do in lessons is a waste of time

Dependent variable: Emotional Disengagement

Multivariate ordinal variables create problems in generating a ranking of the underlying latent trait. To overcome the problem we use a ranking score (Wittowski, 2004) based on the indicator function:

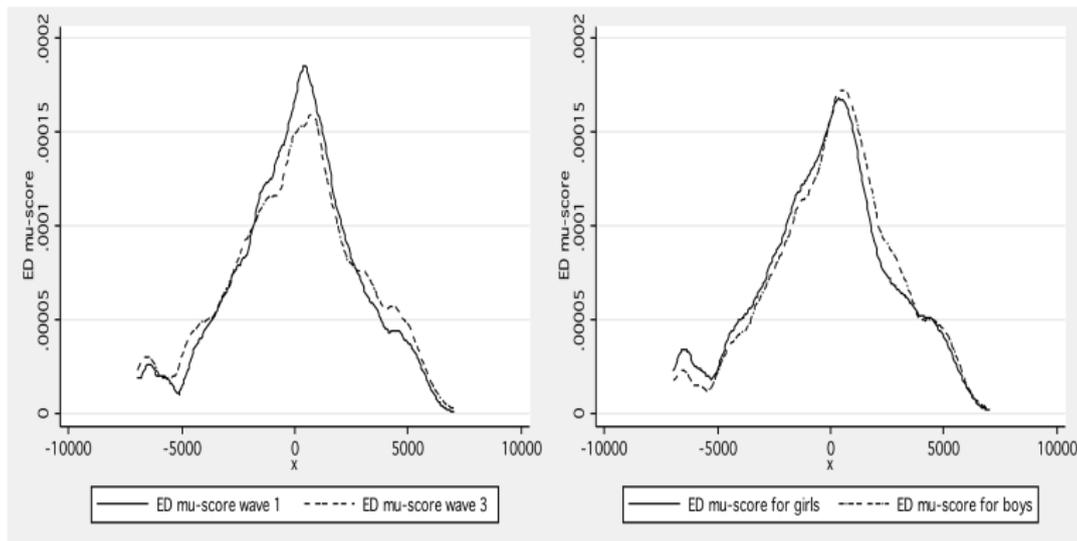
$$I(x_{j'} < x_j) = \begin{cases} 1 & \text{if } x_{j'} < x_j \\ 0 & \text{if } x_{j'} \text{ and } x_j \text{ cannot be ordered} \\ 0 & \text{if } x_{j'} > x_j \end{cases}$$

The score is then defined as:

$$u(x_j) = \sum_{j'} I(x_{j'} < x_j) - \sum_{j'} I(x_{j'} > x_j)$$

where $x_j = (x_{j1}, \dots, x_{jL})$, $j=1\dots N$ and L is the number of item responses

Dependent variable: Emotional Disengagement



Distribution of emotional disengagement by wave

Distribution of emotional disengagement by gender

School performance and disengagement

- As a measure of school performance we use the school mean value added from KS2 to KS3 for the first wave, and from KS3 to KS4 for the third wave.
- The value added in school j is the average difference between attainment y_{ijt} and \hat{y}_{ijt-1} for pupils $i = \{1, \dots, n_j\}$ in school j .

Descriptive statistics

Table: Individual characteristics

Wave 3 (2006) Variables	First Quartile (high engagement)		Last Quartile (low engagement)	
	Mean	Std. Dev.	Mean	Std. Dev.
Whether played truant	0.09	0.28	0.4	0.49
Achievement	0.6	0.77	-0.09	0.89
Individual Value Added	0.31	0.59	-0.09	0.64
Single parent	0.23	0.42	0.33	0.47
Eligible for FSM	0.14	0.35	0.13	0.34
Whether bullied	0.16	0.36	0.35	0.48
No of hours worked	1.55	3.32	2.11	4.33

Descriptive statistics

Table: School characteristics

Wave 3 (2006) Variables	First Quartile (high engagement)		Last Quartile (low engagement)	
	Mean	Std. Dev.	Mean	Std. Dev.
School size	1150.77	331.54	1131.37	339.44
Pupil-teacher ratio	16.49	1.64	16.69	1.7
School Value Added	0.02	0.3	-0.01	0.27
School % of SEN	15.83	10.2	15.87	9.23
School % of EAL	18.05	25.76	12.83	21.61
School % of ethn min	29.1	30.25	22.68	26.45
School % of FSM	12.94	12.65	11.39	10.66
Expenditure per pupil	4.49	0.71	4.42	0.67

Regression results

Table: OLS and Fixed Effects

Variables	OLS	FIXED EFFECTS
School value added	697.024*** (109.97)	242.268** (96.718)
Individual value added	-395.786*** (61.39)	135.523 (80.872)
Whether bullied	713.335*** (52.35)	284.877*** (83.933)
Observations	14068	14068
R-squared	0.09	0.75

In the regressions we include a set of school and individual time variant characteristics and the standard errors are clustered at school level

Conclusions 1

- Time-varying characteristics explain a minimum part of the variation of emotional disengagement.
- Most of it is explained by the individual effects and therefore by a stock of individual characteristics fixed over the time considered.
- We find a clear result when using our models which control for unobserved individual heterogeneity.

Conclusions 2

- Pupils who are attending schools that are improving their academic performance, as measured by their value added scores, are less emotionally engaged.
- No relationship between the change in individual value added and emotional engagement.
- What affects the attitude towards school is not the individual change in effort but a change at school level.

Policy implications

There might be a short negative impact on students' engagement from school improvement initiatives.