The Impact of Class Absenteeism on Undergraduates Academic Performance: Evidence from an Elite Economics School in Portugal

Aurora A.C. Teixeira 1,2,3

1 FEP-UP, School of Economics and Management, University of Porto
2 CEF.UP, Research Center in Economics and Finance, University of Porto
3 INESC TEC and OBEGEF
The impact of class absenteeism on undergraduates’ academic performance: evidence from an elite Economics school in Portugal

Aurora A.C. Teixeira*

CEF.UP, Faculdade de Economia, Universidade do Porto; INESC Porto; OBEGEF

The empirical literature focusing mainly on the USA suggests that class absenteeism undermines students’ academic performance and that an enforced mandatory attendance policy may be beneficial. Based on a different cultural and economic context, and using data on 146 second-year management students enrolled in a Macroeconomics course at an elite economics school in Portugal, it is shown that even when controlling for potential endogenous factors associated to attendance and academic performance, absenteeism considerably lowers the students’ final grade (about 2 points in a 0-20 point grading scheme). In addition, it is established that a compulsory, though flexible, attendance policy contributes to improving students’ academic performance.

Keywords: Absenteeism; Academic performance; Economics; Management; University; Portugal

JEL-Codes: I21; I29; J22; J24

* Address for correspondence: Faculdade de Economia do Porto, Rua Dr Roberto Frias, 4200-464 Porto, Portugal; tel. +351225571100; Fax +351225505050; email: ateixeira@fep.up.pt.
Introduction

Professors without students are like workers without implements: superfluous. (…)
Students without professors are like raw materials without workers: unimproved.


As a teacher I feel very frustrated and concerned when students fail to take advantage of the tuition and support available. Like others (e.g., Romer, 1993; McInnes, 2001; Marburger, 2006; Chong, Cheung, & Hui, 2009; Barlow & Fleischer, 2011), I have noticed over my teaching career that students’ class attendance is far from the desirable. Several studies have documented high rates of class absenteeism at university level, even in the so-called ‘elite’ US universities, ranging from 18.5% (Marburger, 2001) and 25% (Friedman, Rodriguez, & McComb, 2001) to 40% (Romer, 1993) and even as high as 59% and 70%, in two separate biology classes (Moore, Armstrong, & Pearson, 2003).

Some contend that this wave of absenteeism is likely to jeopardize the teaching and learning environment at schools (Brauer, 1994). As such, it has been considered as a major problem by both staff and university administrators (Chong et al., 2009; Balfanz, & Byrnes, 2012).

Class attendance is likely to be substantially influenced by contextual factors (Credé, Roch, & Kiesczynka, 2010), such as attendance norms at the university, perceived difficulty of the class, characteristics of the instructor, and whether students can obtain lecture material online. It is also true that individual difference factors such as motivation, conscientiousness, and intelligence increase the likelihood of a student attending class (Devadoss & Foltz, 1996; Arulampalam, Naylor, & Smith, 2012). As stressed by Barlow and Fleischer (2011: 234), “[s]hortcomings of teaching are acknowledged as a potential factor [for class absenteeism], but poorly motivated students may not even give themselves the opportunity to find out how inspiring their teachers may be.”

Moreover, one can argue that students do not attend class because they are missing the least productive classes ( Stephenson, 1994), effective analytical abilities are not being

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1Absenteeism is generally defined as deliberate or habitual absence from the classroom environment without valid reason, excluding absence for valid reasons such as sickness or accidents.
properly developed in undergraduate classrooms (Hartman, 1979), and students would learn relatively little if they attend it (Romer, 1993; Hunter & Tetley, 1999). The reasons may have to do factors such as the instruction is of low quality, students have already mastered the material, or they can learn the material better by spending the same time studying in other ways.

Regardless of the reason for student absenteeism, a key issue in why it matters is that class attendance is likely to be beneficial for learning, irrespective of the specific teaching mode or modes used by the instructor (Credé et al., 2010).

In an earlier, quite revealing study, published in the American Economic Review, Schmidt (1983) measured the impact of time commitments by students to various course activities on the students' performance in a given class. The author found that, by far, the most valuable and important time commitment in a course was the time actually spent in the classroom.\(^2\) Time spent studying for any or all exams was not a statistically significant determinant affecting student performance in that class, which reinforced the idea that the most important learning in a course takes place in the classroom and that students who do a conscientious job on a daily basis preparing for and participating in class outperform those students who skip class and try to cram for exams.

Although acknowledging that attendance per se does not ensure that learning will take place, a reasonable number of studies analyzing the impact of students’ attendance on their academic performance (e.g., Romer, 1993; Park & Kerr, 1990; Chen & Lin, 2008) found a positive and significant relation between attendance and academic performance, with the effect being larger in high absenteeism contexts. Recently, Schmutian and Coetzee (2011) contended that such a positive relation will most likely not be as meaningful in distinct cultural and economic environments, other than the US, and for large classes. Moreover, Triadó-Ivern, Aparicio-Chueca, Guàrdia-Olmos, Peró-Cebollero and Jaría-Chacón (2013: 2282) recognized that despite student absenteeism being “a current feature of all university classrooms”, it “had been rarely or not at all studied as an objective variable” in other countries than the USA.

\(^2\) The second most important time was that spent in discussion sections that accompanied the lectures, followed by the time spent studying outside of class preparing for the class session itself. The least significant time commitment in improving student performance in a particular class was the time spent studying for the final exam.
Based on these remarks, it would be enlightening to explore evidence on a different context, specifically Portugal, focusing particularly on the undergraduate management course at the Faculty of Economics, University of Porto (FEP). Two main reasons support the pertinence of such a study. Firstly, in Portugal degrees awarded by higher education institutions, most notably public universities, generally serve as an important tool for employability (Neave & Amaral, 2012) and convey high returns in terms of wages (Alves, Centeno, & Novo, 2010). Therefore, absenteeism and poor academic performance may result in loosing long-run benefits such as finding a better job (Devadoss & Foltz, 1996). Secondly, numerus clausus are applied to entry to public universities and admissions to the undergraduate economics and management degrees at FEP are quite selective, attracting the best students in Portugal to these areas of study. Given that these students are high academic achievers, one would think that absenteeism would not be an issue.

I argue, nevertheless, that class absenteeism in the Portuguese higher education system should not be overlooked and deserves more attention and analysis. Besides the potential learning losses, student absenteeism is a waste of educational resources, time and human potential (Weller, 2000). The context and the individuals’ specificities mentioned previously, combined with the economic crisis (and the associated government austerity plan) that has severely affected Portugal, with a significant impact on the resources available for education in general and universities in particular (OECD, 2012), call for the best use of the available resources, namely teachers’ time and physical infrastructures.

After a brief review of the literature on student absenteeism and academic performance, in Section 3 some methodological considerations are put forward. Then, in Section 4, the empirical results are detailed and in Conclusions, the implications of such results are discussed.

**Student absenteeism and academic performance: a brief review**

The literature on student absenteeism can be divided into two main strands: one concerned with the reasons for students’ absenteeism (Wyatt, 1992; Levine, 1992; Devadoss & Foltz, 1996). 

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3 In the 2012/2013 academic year, the Faculty of Economics, University of Porto (FEP) recorded the highest average admissions grade in Portugal for the undergraduate Economics degree (which stood at 162.5 out of 200) and the second highest in the country for the undergraduate Management degree (with an average admissions grade of 155).
Devadoss & Foltz, 1996; Chong et al., 2009), and other, the focus of this paper, with the impact of students’ absenteeism on their academic performance (Schmidt, 1983; Park & Kerr, 1990; Romer, 1993; Caviglia-Harris, 2006; Chen & Lin, 2008; Schmulian & Coetzee, 2011).

A vast majority of the papers on the impact of students’ absenteeism in the area of economics and management (e.g., Schmidt, 1983; Park & Kerr, 1990; Romer, 1993; Chen & Lin, 2008; Schmulian & Coetzee, 2011) found that absenteeism is detrimental for learning, where the latter is generally proxied by the grades students achieve in a particular subject (e.g., Microeconomics, Macroeconomics or Accounting). Notwithstanding, some authors have recognized that such an impact is small (Chen & Lin, 2008; Schmulian & Coetzee, 2011) or even negligible (Caviglia-Harris, 2006).

Using simple linear regression models, Romer (1993) estimated that, after controlling for prior grade point average (GPA) and considering a sample of students who did all of the problem sets, the difference in learning (measured by the overall score on the three exams in an intermediate macroeconomics course at an elite US university) between a student who attends classes regularly and another who only attends sporadically is about a full letter grade (B versus C). He noted that “[a]ttendance alone account[ed] for 31 percent of the variance in performance” (Romer, 1993: 171) and that although prior GPA (which served to control for some student differences, in general, ability and motivation) strongly impact on performance, the inclusion of that variable in the regression did not change the (positive and significant) relation between attendance and academic performance.

Later, Devadoss and Foltz (1996), using data on 400 students collected from four US universities (University of Idaho, Washington State University, Purdue University, and Ohio State University) also found strong empirical evidence for the positive influence of class attendance on student performance. Specifically, they showed that, after accounting for other factors, namely motivation and aptitude, a student who attended all classes was likely to achieve, on average, a 0.45 point higher grade than a student who attended only half of the classes. A similar result was obtained by Marburger (2001). This author gathered daily attendance records from a small Macroeconomics class at a US university and kept track of each student’s rate of absenteeism. Resorting to a probit estimation he found that a student who had missed class on a specific day was 7.5 percent to 14.6 percent more likely to respond incorrectly to a multiple-choice question
on the material covered that day than a student who had been present. In a later paper, published in 2006, the author extended his previous analysis of the relationship between absenteeism and exam performance based on two groups of classes: one (comprising 39 students) where attendance was compulsory and the other (with 38 students) where no attendance policy was implemented. Basically, he reached similar conclusions to his former paper regarding absenteeism and grades, and further demonstrated that “… the lack of an enforced attendance policy resulted in daily absenteeism increasing by 6.8 percent during the period before the second exam and by 14 percent before the third exam.” (Marburger, 2006: 151). Also focusing on the impact of a mandatory attendance policy and absentee rates on students’ grades, Caviglia-Harris (2006), using 301 observations from students enrolled in four microeconomic principles courses at a regional US university, showed that, after accounting for student motivation, the number of absences did not impact on exam grades, and that mandatory attendance policies did not impact overall on students’ grades.

Focusing on Taiwan, Chen and Lin (2008) used a randomized experiment on 114 students who attended the Public Finance course at Tamkang University, and concluded that attending lectures corresponds to a 7.7% improvement in exam performance for students who choose to attend lectures with the several econometric techniques (least squares and fixed and random effects), yielding similar estimates of the attendance effects. In contrast, but using simple correlation techniques (instead of regression analysis) and a sample characterized by low levels of class absenteeism (less than 10%), Schmulian and Coetzee (2011: 191) observed that in a large accounting class in South Africa there was a significant positive correlation between class attendance and academic performance, albeit not very high, and, according to the authors, “not very meaningful”. They further suggested that the cultural and economic environment may reduce the effect of class attendance on academic performance and recommended that additional studies isolating the effect of these variables in other contexts be performed to help disentangle the true effect of absenteeism on academic performance.

**Methodology**

Macroeconomics II is a compulsory subject in the 2nd year of the undergraduate program in Management at the Faculty of Economics (FEP - Faculdade de Economia do Porto), University of Porto (Portugal). It is taught in the second semester on a weekly basis with 3 sessions of 80 minutes per week during 14 weeks. In the 2012/2013
academic year, 205 students were enrolled and 40 sessions were lectured (starting in
February 13 and ending on June 4, 2013).

The students could opt for two alternative schemes of evaluation: 1) continuous
evaluation: 3 written tests (60 minutes each), evenly distributed over the semester,
 focusing on 2 chapters of a total of 6 that constitute the program; 2) a final exam at the
end of the term focusing on all chapters. The final grade in Macroeconomics II is the
simple average of the three tests, in the case of students who opted for continuous
evaluation, or the grade obtained in the exam. In the continuous evaluation system, class
attendance was compulsory with students being allowed to miss up to 10 classes (25% of
the total) without any justification. In every class all students attending were required
to sign an attendance sheet. Students that obtained a grade lower than 6 (out of 20) in
one of the tests would be excluded from the continuous evaluation system, having
nevertheless the opportunity to take the final exam.

At the beginning of the semester, students wanting to attend classes were required to
register in one of the 3 blocks of classes available (all the blocks were held on the same
week days, Monday, Tuesday and Wednesday). Two professors lectured the subject,
one being responsible for 2 blocks (with 147 students registered) and the other for the
third block (with 43 students registered). In order to control for lecturer ‘quality’, the
analysis presented in this paper was only made for the two first blocks which were
taught by the same lecturer.

Given that the aim was to assess the impact of the student’s absenteeism on her/his
subject grade (Macroeconomics II), the model’s dependent variable is the final grade in
that subject and the key independent variable is the number of classes the student
skipped over the semester, controlled by two variables that are intended, in line with
the literature (e.g., Romer, 1993; Marburger , 2001; Caviglia-Harris, 2006; Credé et al.,
2010), to control for differences across students’ general ability, motivation and prior
Grade Point Average (GPA). Additionally, and in order to account for the ‘attendance

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4 Although care was taken by the lecturer to confirm in each class that the number of students attending
more or less corresponded to the number of signatures in the attendance sheet, this is, as Stephenson
(1994) contended, a difficult system to monitor, raising ill-at-ease questions of enforcement, particularly
in preventing absent students from being signed-in by their friends.

5 156 students took the first test (7 failed to obtain the minimum 6 points to remain in the continuous
evaluation system). In the second and third tests, the corresponding figures were, respectively, 117 (12
were excluded from the continuous evaluation system) and 108 (8 excluded from the continuous
evaluation system). The final exam was taken by 48 students.
policy’, an additional variable was considered – ‘Attendance policy’ – aiming to control for the type of attendance/evaluation system chosen by the students: the continuous evaluation system imposing a maximum number of absences (10) or one-shot evaluation, which does not impose any requirements/limits on class attendance/absence.

Four log linear models were estimated by OLS (cf. Table 1), a first including only the number of absences from classes and the other three including the controls for students’ characteristics and attendance policy (or evaluation system).

Results

The average absenteeism rate is high, particularly for Block 1, reaching, on average, 34% of the total students enrolled (cf. Figure 1). This figure, however, is not very different from those observed in similar studies. In the seminal paper by Romer (1993: 167) it was noted that “[a]ttendance counts in economics courses at three relatively elite universities indicate that absenteeism is rampant: on a typical day at a typical elite American university, roughly one-third of the students in economics courses are not attending class.”

Figure 1: Average class attendance of students enrolled in two blocks of Macroeconomics II

Note: This analysis covers the 147 students who were registered in Block 1 (67 students) and Block 2 (80 students). The vertical dotted line indicates the classes held before the first and second written tests (the third test occurred after classes were finished). 156 students took the first test (7 failed to obtain the minimum 6 points to remain in the continuous evaluation system). In the second and third tests, the corresponding figures were, respectively, 117 (12 were excluded from the continuous evaluation system) and 108 (8 excluded from the continuous evaluation system).

Figure 1 reflects that not only is the average absenteeism rate relatively high, but it also increases sharply over the course of the semester, a recurrent feature documented in previous studies (e.g., Marburger, 2006). In our particular case, such a trend may, in part, be explained by the fact that some students that were previously in the continuous
evaluation system quitted and also stopped attending classes (since the final exam did not required a minimum class attendance).

Out of the 205 students enrolled in the subject, 146 (71%) were effectively evaluated (by continuous evaluation or final exam). Of these, 55% were students who registered relatively high or very high absences from classes, i.e., missed, respectively, 6-10 or more than 10 classes out of the 40 lectured (cf. Figure 2). About one quarter of the students never missed classes or did so 2 times at the most.\(^6\)

![Figure 2: Distribution of students enrolled in Macroeconomics II in the second semester of 2012/2013 by group of class attendance](image)

Note: This analysis covers the 146 students who were effectively evaluated by continuous evaluation (100) or final exam (46).

In an exploratory manner, we observed that the final grades obtained by the students enrolled and evaluated in Macroeconomics II, differ quite significantly by groups of class attendance (see Figure 3). Indeed, the average final mark for highly assiduous students was 14.4 (out of 20), whereas the group of absent students reported a negative average mark of 8.5 (out of 20). It is interesting to note that although some differences exist in prior grade point average between students with distinct attendance propensities, such differences are less pronounced when compared to the final grade obtained in Macroeconomics II. The students under analysis were quite homogenous in terms of their academic performance at admission to university.

Although going beyond the scope of the present paper, rather striking differences were found between the average grades obtained in the course and at admission, 2 to 4 points

\(^6\) 16 students never missed classes, 7 missed once and 13 missed twice.
lower (on a scale of 0-20). A curious aspect is that at high school, attendance is compulsory for all subjects whereas in the university system attendance is generally voluntary, at least for economics and management courses.

The distribution of the final grade obtained for Macroeconomics II by students' attendance status reveals that 'absent' students not only perform worse academically but they are also more heterogeneous and concentrated in the lowest percentile of grades (see Figure 4).

Note: This analysis covers the 146 students who were effectively evaluated (by continuous evaluation or final exam).
Attendance alone accounts for 38 percent of the variance in academic performance (see Model 1, in Table 1). As expected, the more a student skips classes the lower her/his final grade in Macroeconomics II. After controlling for motivation and ability, by including, in line the studies of Romer (1993), Devadoss and Foltz (1996), Marburger (2001) or Caviglia-Harris (2006), the prior average grade the student obtained in the undergraduate course (‘Prior Grade Point Average (GPA)’) and her/his grade at admission to university (‘University admission GPA’), if the student’s absences increase by one percent, one would expect her/his final mark in Macroeconomics II to decrease by 0.17-0.25 percent. In levels, this means that if a student misses 3 classes, her/his final mark in Macroeconomics II is estimated to decrease by about 0.5 points in a 20-point grading system. Thus, a student with 10 absences in a given term would lower his/her grade by almost 2 points in a 20-point grading system, which could mean the difference between failing and passing the course, for example.

Table 1: OLS regression results. Dependent variable: final grade for Macroeconomics II (in logarithm)

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of absences at classes (log)</td>
<td>Beta</td>
<td>St. beta</td>
<td>Beta</td>
<td>St. beta</td>
</tr>
<tr>
<td></td>
<td>-0.251</td>
<td>-0.618</td>
<td>-0.171</td>
<td>-0.419</td>
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<td>(0.000)</td>
<td>(0.000)</td>
<td>(0.000)</td>
<td>(0.000)</td>
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<tr>
<td>Prior Grade Point Average (GPA) (log)</td>
<td>1.378</td>
<td>0.336</td>
<td>1.397</td>
<td>0.342</td>
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<tr>
<td></td>
<td>(0.000)</td>
<td>(0.000)</td>
<td>(0.000)</td>
<td>(0.000)</td>
</tr>
<tr>
<td>University entrance GPA (log)</td>
<td>-0.142</td>
<td>-0.032</td>
<td>-0.062</td>
<td>-0.014</td>
</tr>
<tr>
<td></td>
<td>(0.615)</td>
<td>(0.669)</td>
<td>(0.274)</td>
<td>(0.274)</td>
</tr>
<tr>
<td>Attendance policy (dummy; 1 if student opted for the continuous evaluation system which required a minimum class attendance)</td>
<td>2.867</td>
<td>-0.792</td>
<td>-0.452</td>
<td>-0.564</td>
</tr>
<tr>
<td></td>
<td>(0.000)</td>
<td>(0.301)</td>
<td>(0.676)</td>
<td>(0.590)</td>
</tr>
<tr>
<td>Constant</td>
<td>2.867</td>
<td>-0.792</td>
<td>-0.452</td>
<td>-0.564</td>
</tr>
<tr>
<td></td>
<td>(0.000)</td>
<td>(0.301)</td>
<td>(0.676)</td>
<td>(0.590)</td>
</tr>
<tr>
<td>Sample size</td>
<td>146</td>
<td>146</td>
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<tr>
<td>F test (p-value)</td>
<td>88.797</td>
<td>59.712</td>
<td>39.683</td>
<td>34.428</td>
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<tr>
<td>Adjusted $R^2$</td>
<td>0.377</td>
<td>0.449</td>
<td>0.446</td>
<td>0.481</td>
</tr>
</tbody>
</table>

Notes: *** significant at 1%; (p-value in parenthesis. In what respects the course admission average grade, eight students were admitted by special routes, namely ‘the highest than 23 years old’; for such students the average admission grade was not available, thus we considered the missing grade equal to the student’s average course grade.

Sources: Data collected by the author (number of absences: attendance was taken at every class of the 40 lectured during the semester; students' prior grade point average (GPA) and university admission GPA were taken directly from students’ personal records at the school’s administrative office).

Although the effort and motivation of students in the undergraduate course (measured by the prior GPA) emerged as quite strongly related to good academic performance in the Macroeconomics II course (see Models 2-4), their effort and motivation prior to admission to university (proxied by the ‘University admission GPA’) failed to emerge.
as statistically relevant (cf. Models 3 and 4). This is in large part explained by the fact
that (as observed earlier) at admission to university, all students admitted had excelled
in their secondary studies (with average grades above 16 in a 20-point grading system).
Apparently, after entering university, previously similar students in terms of academic
achievement and motivation started to differ greatly in their choices concerning time
allocation, especially between leisure and courses and, regarding the latter, between
hours spent in lectures, study outside of class, and preparation for mid-term and final
exams.

In line with Marburger (2006) and Self (2012), the estimation results (see Model 4 in
Table 1) reveal that having an explicit, mandatory attendance policy improves student
academic performance. Indeed, all other factors remaining constant, a student that opted
for the continuous evaluation system which requires a minimum class attendance (at
least 75% of the total classes), achieves in Macroeconomics II a mean grade that is 2.5
points (in a 20-point grading system) higher than a student who does not.

It is interesting to note that, excluding Model 4, absenteeism is the variable that most
impacts on student academic performance – according to the standardized betas, a
change in 1 standard deviation in students’ absences from classes has more impact on
students’ academic performance than a 1 standard deviation change in students’ prior
GPA.

Conclusion

80 percent of success is just showing up. (Woody Allen, American screenwriter, director)

Strange as it might seem, one of university students’ hardest tasks today is ‘showing up’
for development and learning at a given class. Woody Allen once wittily pointed out
that “80 percent of success is just showing up”. At first glance, Allen’s satiric view
seems perfectly suited to the issue of university students’ absenteeism and their
academic success/performance. ‘Showing up’ is likely to mean that an average student
is 80% on the way to good performance.

In this essay I have shown that in a different cultural and economic context from the
American - Portugal - and in reasonably sized classes, regular class attendance emerged
as critical for students’ academic performance even when controlling for potential
endogenous factors associated to attendance and academic performance. Moreover, an
explicit and mandatory attendance policy appeared to improve students’ academic performance.

Given that absenteeism is associated with poor academic performance, some authors contend that attendance should be more closely monitored (Robert, Jr., 2007; Chen & Lin, 2008), encouraged (Powell & Shughart II, 1994; Devadoss & Foltz, 1996) and even enforced (Romer, 1993; Brauer, 1994).

Despite recognizing the virtues of class attendance, some authors have long fiercely contested arguments in favor of compulsory attendance. For instance, Stephenson (1994: 207) emphasized that “a captive audience is not an ideal learning environment … [and] professor[s] may have a difficult time controlling hundreds of resentful and bored students”; Powell and Shughart II (1994: 209) highlighted that “… mandatory attendance artificially distorts the opportunity cost of absenteeism and imposes a welfare loss on the student”; and Lipscomb and Snelling (2010: 573) stressed that it “… potentially undermines humanist and androgogic principles associated with the concept of ‘adult learning’”.

I would like to underline, as others have done before (e.g., Deere, 1994; Robert Jr., 2007), that although class attendance is an important facilitator of academic success (Moore et al., 2008; Credé et al., 2010; Barlow & Fleischer, 2011) it does not per se guarantee success. It is not a matter of ‘just showing up’. It is a fact that students will achieve little in academic terms if they only show up in class to socialize, complete work for other classes/activities or sleep. Obviously, teachers have the responsibility to present value added knowledge that goes beyond the information students can get from reading textbooks and/or class slides, specifically by incorporating active learning in lectures, linking lectures to assessment, adding additional insights into what is already in the notes (Fitzpatrick et al., 2011). In short, both students and teachers must be actively engaged for class attendance to provide the most academic value.

Thus, the evidence of the returns on attendance should not be interpreted straightforwardly, in that making attendance compulsory will necessarily improve performance of all students. Indeed, Arulampalam et al. (2012) concluded that missing class has a higher adverse causal effect on performance for higher-performing students than for their lower-performing counterparts. These authors argue that such results reflect a high marginal productivity of work conducted in class for higher-performing
students and suggest that the low marginal productivity of attending class for lower-performing students might mean that the material covered within class is too challenging or the students do not have the ability or motivation to engage in appropriate private study around class-based material.

Although I concur with the arguments defending freedom of choice by students in what concerns attendance or absence from (given) classes, based on my personal teaching experience, I have often found that students may not always make the wisest use of their time and/or are unacquainted with the value of a lecture. Therefore, combining the results obtained in the present empirical study and my teaching experience, I would recommend that, following the advice of Stephenson (1994), Powell and Shughart II (1994) and Moore et al. (2003), teachers in a first lecture should inform students of the empirical relationship between attendance and performance and establish a flexible attendance policy by proposing two or more alternative schemes of evaluation (for instance, continuous assessment versus assessment exclusively by examination at the end of the course), one in which attendance is compulsory but giving some space for non-justified absences (e.g., 10%-20%). Such an evaluation/attendance scheme would enable students to make their own decisions and would therefore maintain the ‘humanist and andrologic principles’ of ‘adult learning’.

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References


Balfanz, R., Byrnes, V. (2012). *Chronic Absenteeism: Summarizing What We Know From Nationally Available Data*, Baltimore: Johns Hopkins University Center for Social Organization of Schools.


