

The Long-Term Impact of Performance Related Pay for Teachers: Evidence from Israel

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Abstract

This research highlight reviewed the study of Lavy (2015) on the impact of performance related pay for teachers on students' lifelong human capital outcomes.

Key words: human capital outcomes, long-term, performance related pay

Tying what teachers earn to what students learn has reemerged as an important educational policy lever and regained much interest among researchers and policymakers both in the United States and around the world (Liang, 2013; Liang & Akiba, 2011; Podgursky & Springer, 2007). Theoretically, performance pay programs can (a) motivate teachers to strengthen their instruction, (b) improve the quality of the teaching profession, and (c) enhance student learning (Lazear, 2003). On the first issue, a recent study has provided some evidence that when aligned with teacher evaluation focusing on instruction, performance related pay is promising in enhancing teachers' instructional practices (Liang & Akiba, 2015). On the second one, we still have no evidence of its impact on teacher recruitment and retention.

Most of the empirical research to date on teacher performance related pay has focused on the third issue, especially on the short-run student outcomes as measured by standardized test scores (e.g., Atkinson et al., 2009; Glewwe, Lias, & Kremer, 2010; Winters, Ritter, Greene, & Marsh, 2009). Although those studies generally found higher student achievement in the short-term, none has been able to examine the impact on students' long term human capital outcomes. Lavy (2015) strived to fill this knowledge gap by studying the long run effect of an experiment conducted in Israel between 2000 and 2001 that rewarded teachers with extra pay for improving students' performance in high stakes exams at the end of high-school. Using data collected from 10,229 students in the experiment and

restricted-access panel datasets from Israel's National Insurance Institute (e.g., information on income and earnings from the Israel Tax Authority), Lavy found positive impact of performance related pay on a broad scope of long run human capital measures. More specifically, treated students are 4.3 percentage points more likely to enroll in a university and to complete an additional 0.17 years of college education. In addition, exposure to a teacher who received performance related pay also led to a 7 percent increase in the student's annual earnings, to a 2 percent reduction in claiming for unemployment benefits, and a 1 percent decline in receiving disability payment from the government.

This study is a first endeavor to examine the impact of teacher performance related pay on the lifelong outcomes by following students from high-school to adulthood. The positive impacts reported in the study suggests that linking teacher compensation to student outcomes is promising not only in motivating teachers to enhance students' academic attainment in the short-run (Lavy, 2009), but also in improving lifetime well-beings. The findings can be of important references for educational policy making in countries implementing or contemplating performance pay for teachers.

Both the level and the structure of teacher compensation are important factors affecting teacher and student outcomes. Research has shown that higher salary is positively associated with the recruitment and retention of better teachers (e.g., Podgursky, Monroe, & Watson,

2004), and higher student achievement (e.g., Akiba, Chiu, Shimizu, & Liang, 2012). However, we know much less on the effectiveness of different compensation schemes, a most notably one being performance pay. Lavy (2015) encourages researchers and practitioners around

References

Akiba, M., Chiu, Y.-L., Shimizu, K., & Liang, G. (2012). Teacher salary and national achievement: A cross-national analysis of 30 countries. *International Journal of Educational Research*, 53, 171-181. <http://dx.doi.org/10.1016/j.ijer.2012.03.007>

Atkinson, A., Burgess, S., Croxson, B., Gregg, P., Propper, C., Slater, H., et al. (2009). Evaluating the impact of performance-related pay for teachers in England. *Labour Economics*, 16, 251-261.

<http://dx.doi.org/10.1016/j.labeco.2008.10.003>

Glewwe, P., Llias, N., & Kremer, M. (2010). Teacher incentives. *American Economic Journal: Applied Economics*, 2(3), 205-227. <http://dx.doi.org/10.1257/app.2.3.205>

Lavy, V. (2009). Performance pay and teachers' effort, productivity and grading ethics. *American Economic Review*, 99(5), 1979-2011. <http://dx.doi.org/10.1257/aer.99.5.1979>

Lavy, V. (2015). Teachers' pay for performance in the long-run: Effects on students' educational and labor market outcomes in adulthood. Cambridge, MA: National Bureau of Economic Research. <http://dx.doi.org/10.3386/w20983> PMID:PMC4340220

Lazear, E. P. (2003). Teacher incentives. *Swedish Economic Policy Review*, 10, 179-214.

Liang, G. (2013). Performance-related pay for teachers: An updated review. *Journal of Postdoctoral Research*, 1(1), 99-117. <http://dx.doi.org/10.14304/SURYA.JPR.V1N1.10>

Liang, G., & Akiba, M. (2011). Performance-related pay: District and teacher characteristics. *Journal of School Leadership*, 21(6), 844-869.

Liang, G., & Akiba, M. (2015). Teacher

the world to examine the long-term impact of teacher performance related pay within their country-specific policy, cultural, and social contexts.

evaluation, performance-related pay, and constructivist instruction. *Educational Policy*, 29(2), 375-401.

<http://dx.doi.org/10.1177/0895904813492379>

Podgursky, M., Monroe, R., & Watson, D. (2004). The academic quality of public school teachers: An analysis of entry and exit behavior. *Economics of Education Review*, 23, 507-518. <http://dx.doi.org/10.1016/j.econedurev.2004.01.005>

Podgursky, M. J., & Springer, M. G. (2007). Teacher performance pay: A review. *Journal of Policy Analysis and Management*, 26(4), 909-949. <http://dx.doi.org/10.1002/pam.20292>

Winters, M. A., Ritter, G. W., Greene, J. P., & Marsh, R. (2009). Student outcomes and teacher productivity and perceptions in Arkansas. In M. G. Springer (Ed.), *Performance Incentives: Their Growing Impact on American K-12 Education*. Washington D.C.: Brookings Institution Press.