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Making the Grade: How to Better Spend on Teacher Professional Development

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In the 2015-2016 school year, Texas school districts spent more than $1 billion on curriculum and staff development.[1] Our analysis suggests that many Texas school districts aren't getting their moneys' worth.[2] We cannot find any evidence that districts that spend more than other districts on curriculum and staff development are any more likely to experience high academic performance or be more cost effective.

The Research on Professional Development

Researchers have been studying staff professional development (PD) for years. To sum up the research:

- Interactive, ongoing, supportive, and content-specific PD opportunities increase teachers' ability to improve student outcomes.[3]
- Many teachers participate in workshops that contribute little to their development.[4]
- Teachers do not struggle with learning the practices taught during PD, but they do struggle with implementation.[5]

To address the implementation struggle, researchers recommend teachers become active participants in their learning by engaging in training opportunities spanning a longer period, such as learning communities and coaching sessions. These opportunities should also provide teachers with a support system that allows feedback to be customizable as teachers progress in content-specific knowledge.[6, 7]

PD Practices Among Texas Districts

At the request of TSS, a team of students at the Bush School interviewed seven high-performing and five low-performing school districts about their educational practices. Those interviews suggest that some of the best districts in the state follow PD best practices by encouraging teachers to customize their own PD opportunities.

Interestingly, each district had a different way of facilitating teachers' PD customization. Officials from two high-performing districts mentioned their PD ideas come from their regional service centers. These districts' policies allow teachers to determine which service center opportunities they felt would best help them grow. As one superintendent said:

"Allow them to make decisions about what they want to go to and what they want to attend—again, kind of being responsible for their own classrooms. It's an area you want to grow in; it's

an area you need help in. Let's go find a workshop."

In addition to service center activities, some districts also adjust their calendars to include regular time for staff development. One high-performing district asks teachers to work with their principals to customize the PD activities they pursue on staff development days. Another superintendent stated:

"So, we think that that's the best model—for the teachers to get staff development that they've identified is what they need to do a better job in the classroom every single day. And it's customizable to meet their needs."

Another high performing school district, Knippa Independent School District (ISD), facilitates the PD of its teachers through a "Grow-Your-Own-Mentoring Program." The purpose of this program is to encourage the growth of its teachers by pairing new hires with the best teachers on staff. Knippa ISD also allows teachers to suggest PD training the teachers believe would help them grow.

Our Analysis

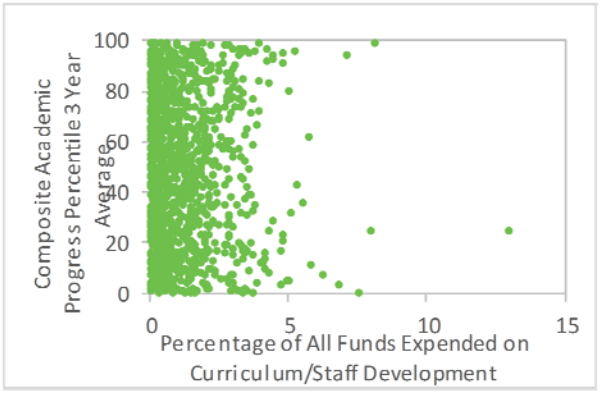
Our interviews led us to wonder if there were patterns in the relationship between PD expenditures and student performance or cost efficiency. In particular, we wondered if districts that spend more on PD are able to accomplish more in the classroom. After holding constant the effects of individual and district characteristics,[8] we found no evidence that a higher percentage of the budget expended on curriculum and staff development (our best available measure of PD) could be associated with increased, academic growth or cost efficiency. If anything, districts that spend larger shares of their budgets on PD underperformed their peers.[9]

Academic Measures

We used regression analysis to examine the relationship between the percentage of the budget spent on PD expenditures and the TXSmartSchools.org (TSS) academic progress measures (math, reading and composite). Our analysis of math scores found no association between the percentage of a district's budget expended on curriculum/staff development and the district's gains in math, once other district and student characteristics were taken into account. A similar analysis of composite academic progress and reading scores suggests that an increase in the percentage of a district's budget spent on curriculum/staff development was associated with a decrease rather than an increase in academic growth.

Such results were not unexpected. As Figure 1 shows, there is a large variation in academic gains even around the median amount (0.85%) of the budget expended on professional development. Thus, increased spending on PD is not associated with an increase in student academic growth.

Figure 1: Professional Development Expenditures vs. Academic Gains



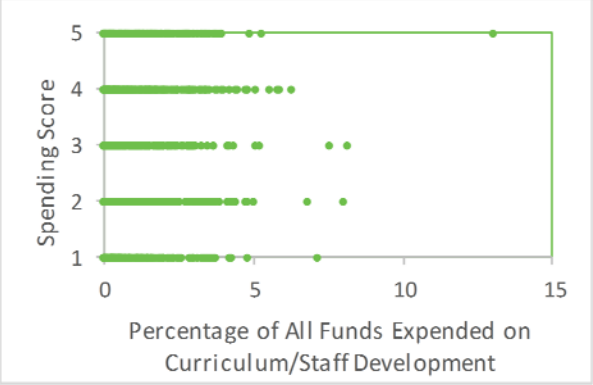
Of course, there could be other factors. Districts combatting lower academic performance may be choosing to invest more in PD. To explore this possibility, we examined the relationship between the percentage of the budget spent on PD and the prior year's academic performance. We found that districts with low prior composite scores spent *less*, not more, on PD. So, it

doesn't appear to be the case that low performance leads to high spending on PD. Thus, while this brief does not mean to imply that funds allocated to PD should be eliminated, the analysis does indicate that simply investing more funds in PD is not a cure for low academic performance.

Relative Spending

We also analyzed the TSS Spending Scores to determine whether districts spending more on PD had a tendency to spend more in general. As Figure 2 illustrates, this test found no association between the percentage of budget used for PD and the Spending Score. Some districts with high Spending Scores spent next to nothing on PD, but other districts with high Spending Scores spent a lot. The same pattern is true for districts with low Spending Scores. Thus, an increase (or decrease) in PD spending is not predictive of a district's relative spending.

Figure 2: Professional Development Expenditures vs. Spending Scores



Cost Efficiency Measures

We used the TSS Smart Scores to measure the cost efficiency of PD expenditures. Districts with higher Smart Scores are more cost effective than other districts. An increase in the percentage of the budget spent on PD was associated with a decrease in the TSS Smart Score. This suggests that districts investing heavily in PD tend to be less cost efficient (in terms of experiencing greater student growth for what is spent) than other districts.

PD Oversight Increasing But Could be Better

The Texas P-16 Council recommended, "high-quality PD programs and opportunities be put under the purview of a division at the Texas Education Agency (TEA)."[10] TEA has implemented this recommendation. However, the current system can be improved by ensuring all teacher PD opportunities meet the four criteria of high-quality development— interactive, ongoing, supportive, and content-specific. Currently, TEA has a list of pre-approved PD providers on its website. TEA's application requires providers to indicate whether there is follow-up on activities, whether opportunities are collaborative, and whether teachers will be active participants.[11] Still, teachers are also allowed to participate in PD programs that may meet only one of the four criteria for quality PD. Moreover, TEA already classifies Texas public school districts as pre-approved providers. Therefore, TEA's regional service centers could continue to encourage districts to be more creative and flexible about their in-house PD opportunities, which may encourage cost efficiency. By using TEA's current application to vet PD opportunities and providers to ensure these programs meet the criteria of being interactive, ongoing, supportive, and content specific, the state can decrease the current variation in PD quality which may increase the chances the training received is useful in terms of increasing student outcomes and cost efficiency. TEA could play a role in the implementation of this evidence-based PD model by implementing a quality-control system that encourages productive PD activities at the district level.

Conclusion

Our analysis suggest that high quality professional development is an educational best prac-

Effective PD must be interactive, ongoing, supportive, and content-specific

tice, but that many district fall short. Steadily increasing the amount spent on teacher PD will not guarantee an increase in student performance or cost efficiency. Rather, it would be the equivalent of doing the same thing but expecting a different result. TEA should take a larger role in ensuring PD quality, which would help Texas increase its chances of improving teacher quality and student outcomes in a cost-efficient manner.

About the Author

Marlisa Griffin will soon graduate from the Bush School of Government & Public Service with a Master of Public Service and Administration degree. The research behind this brief was done as part of a culminating Capstone project supported by the Texas Smart Schools Initiative.

Notes:

1. Texas Education Agency PEIMS expenditure report 2017.
2. Coyle, S. et al. (2017) The Search for Smart Schools: Identifying Texas School District's Best Practices.
3. Garet et al. (2001); Gulamhussein (2013); EL-Deghaidy et al. (2015); Holm & Kajander (2015).
4. Gullamhussein, A. (2013). Teaching the teachers: Effective professional development in an era of high stakes accountability. Center for Public Education.
5. Gullamhusein (2013); EL-Deghaidy, H., Mansour, N., Aldahmash, A., & Alshamrani, S. (2015). A framework for designing effective professional development: Science teachers' perspectives in a context of reform. *Eurasia Journal of Mathematics, Science & Technology Education,* 11(6), 1579-601.
6. Holm, J., & Kajander, A. (2015). Lessons learned about effective professional development: Two contrasting case studies. *International Journal of Education in Mathematics, Science and Technology,* 3(4), 262-74;
7. Garet, M. S., Porter, A. C., Desimone, L., Birman, B. F., & Yoon, K. S. (2001). What makes professional development effective? Results from a national sample of teachers. *American Educational Research Journal*, 38(4), 915-45.
8. Controls include percentage of students African American, percentage of students Hispanic, percentage of economically disadvantaged students, percentage of limited English proficiency students, percentage of special education students, enrollment, and urban
9. Technical details of the data analyses done on the academic and cost efficiency measures are available upon request.
10. Texas Education Agency Office of P-16 Coordination (2007). Educator quality committee report: A report to the Texas P-16 Council on recommendations, Produced FY 2006-2007.
11. Texas Education Agency. CPE Provider Registration Form 2012-2013 Instructions.

About TXSmartSchools.org

TXSmartSchools.org is an online resource which allows anyone to access Texas school and district-level data and "Smart Scores" free of charge. It uses comprehensive academic, financial, and demographic data to create the fairest, most apples-to-apples comparisons available. The goal is to improve education by identifying Smart Schools that are both effective and efficient and then highlighting their successful practices.

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