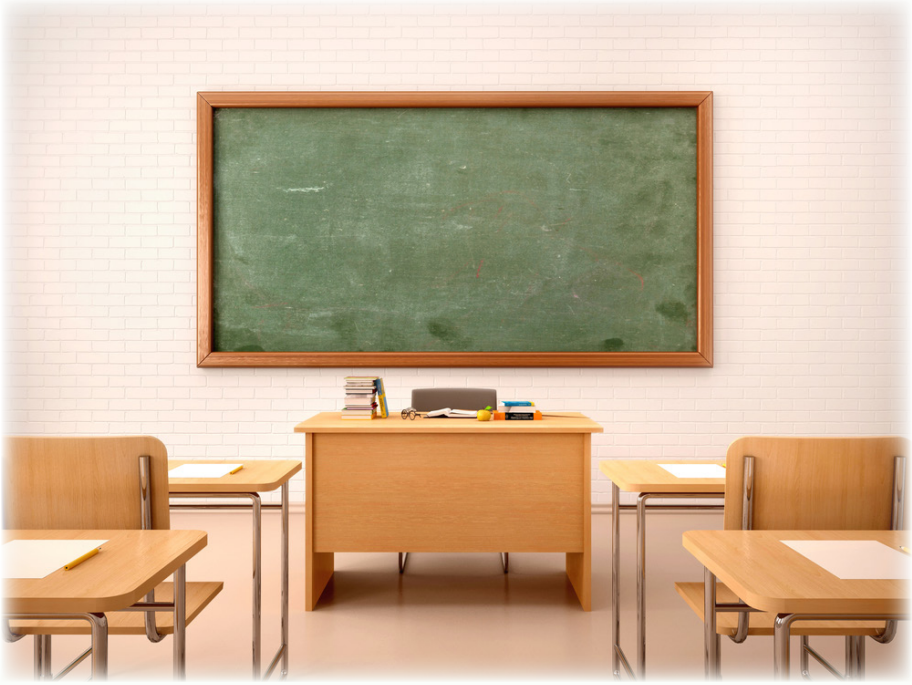
NEPC Review: Autonomous Schools Can Help Solve the Problem Behind the Teacher Shortage Problem (Progessive Policy Institute, October 2022)



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Summary

The Progressive Policy Institute recently published a report highlighting the emergence of widespread teacher staffing shortages. It describes contemporary "autonomous" school initiatives, which all fall under the umbrella of positioning teachers with greater decision-making responsibilities and authority. It then suggests that such initiatives are effective strategies to remedy shortages because increased autonomy produces greater job satisfaction for teachers. However, while the report attempts to isolate the single factor of autonomy, this claim oversimplifies the complex shortage issue and overlooks the frequent connection of autonomy to practices such as flexible work schedules. Supporting evidence in the report is thin and relies primarily not on empirical literature, but on popular contemporary readings and descriptive surveys. However, as classical economic theory suggests, teacher shortages result from an imbalance between supply and demand generated by multiple factors. Furthermore, teacher labor markets are geographically small and localized, requiring local action. Effectively addressing the problem, therefore, requires understanding local conditions and analyzing factors affecting demand and supply in a specific context. Regarding autonomy reforms, it also requires assessing the cost-effectiveness and sustainability of those reforms. Policymakers and other readers should be aware that what is ignored in this report is far more important to informed policy than what it contains.

NEPC
NATIONAL EDUCATION POLICY CENTER

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I. Introduction

Teacher shortage is not a new problem in the U.S. public education system but instead a persistent concern for the nation and many states.[1] For example, teacher shortages that began to appear during the Great Depression are also noted in the 1983 report *A Nation at Risk*. Whether shortages exist throughout the country has been a constant debate in policy circles, fueled by varied definitions of the term and the lack of measurement data.[2] However, there is collective evidence that the U.S. public education system is facing severe teacher shortages resulting from the so-called "Great Resignation."[3]

Teacher shortages threaten the U.S. education system and the nation's economy because they negatively affect students' learning opportunities and so prevent human-capital development for economic innovation and development.[4] In schools facing severe teacher shortages or staffing difficulties, classrooms are often filled with underprepared teachers or out-of-field teachers. Prior research consistently shows that students with uncertified and/or temporary licensed teachers underperform relative to peers whose teachers were certified, particularly in mathematics and science.[5]

Equally at stake is educational equity. Because of inadequate funding and poor working conditions, teacher shortages are greater in urban and rural schools serving large proportions of historically marginalized student populations.[6] Under-resourced schools are much more likely to hire uncertified teachers and out-of-field teachers, severely impacting their students' learning opportunities.[7] This pattern exacerbates the already inequitable distribution of teacher quality and performance across schools and districts.[8] The educational imperative for solving teacher shortages has never been stronger than in the age of the pandemic. The COVID-19 crisis has forced school systems to confront the brutal cost of forcing students

out of classrooms and online, creating discomfort for many teachers engaging with online education for the first time.

The Progressive Policy Institute's recent report *Autonomous Schools Can Help Solve the Problem Behind the Teacher Shortage Problem*, authored by Tressa Pankovits,[9] examines rising teacher shortages in the U.S., attributes them primarily to lack of teacher autonomy, and offers autonomous school models as a policy solution.

II. Findings and Conclusions of the Report

The report first establishes the existence of teacher shortages nationwide, especially in Southern states[10] but with wide variations across similar districts and among subject areas,[11] and particularly in high-demand fields and subjects.[12] It then explores teachers' dissatisfaction with their work, concluding that many teachers are unhappy and that this unhappiness is a result of teachers' lack of autonomy over school policy, curriculum, and classroom practice.[13] Its discussion of contemporary autonomous school initiatives ("teacher-led schools," "semi-autonomous schools," and "autonomous charter schools")[14] determines that such initiatives provide the most sustainable strategy to retain teachers and alleviate teacher shortages.[15]

III. The Report's Rationale for Its Findings and Conclusions

The report reaches its conclusions about the current teacher shortage based on an Annenberg study of state-reported data,[16] a RAND Corporation survey of teachers and principals,[17] and a variety of anecdotal observations.[18] It cites teacher surveys and additional anecdotal observations to support its claims about teachers' dissatisfaction,[19] and peer-reviewed research to support the connection between autonomy and greater job satisfaction.[20] Finally, it reviews case studies of "teacher-led schools," "semi-autonomous schools," and "autonomous charter schools" to support conclusions about the ability of these approaches more generally to create an appealing work environment that would prevent teachers from leaving the profession.[21] The report promotes autonomy as a policy solution by describing "expensive and complicated strategies" that districts are trying, and reasoning in favor of "autonomous school" approaches because "it costs nothing to grant teachers and teacher leaders more autonomy to innovate.[22]

IV. The Report's Use of Research Literature

The report includes no systematic review of current research and thinking on teacher shortages, although references to popular contemporary readings are dispersed throughout. About 13% of the citations are from partisan sources, while more than 50% are straightforward anecdotal observations from various media outlets.

The report never cites or considers the extensive body of research concerning indicators of teacher shortages,[23] as well as current trends in supply and demand[24]—a framework within which policies related to teacher recruitment and retention in charter schools and portfolio districts can be investigated, understood, and evaluated. The report's literature review would have benefitted from the following research literature:

- Mechanism behind teacher shortages

  The report fails to: analyze the severity and persistence of the labor market imbalance;[25] discuss the impact on students and schools;[26] and, investigate the multiple factors influencing teacher shortages.[27] Oversimplifying lack of autonomy as the primary cause of shortages, the report provides readers with the unwarranted conclusion that more autonomy provides an effective solution to the problem.

- Relationship between teacher autonomy and retention

  Teacher autonomy is a key aspect of a school's working conditions.[28] The literature on teacher turnover consistently finds that organizational climate, including teacher autonomy as a subset of the larger set of school climate, is one of the strongest predictors of teacher retention and turnover across various teachers and schools.[29] However, while increasing teacher autonomy has great potential for improving job satisfaction and retention, no causal relationship between lack of autonomy and teacher shortages has been established.

- Localized teacher labor markets

  The report pays scant attention to studies that examine the local nature of teacher shortages,[30] and thus it fails to detail how the policy of empowering teachers is relevant. While there are shortages in many parts of the country, they are experienced most acutely at the local level.[31] Regrettably, the report fails to consider recent studies acknowledging teacher shortage as a local phenomenon, an important perspective that can be used to address the specific aspects of the culture and climate of the school that need improvement.[32] As a result, the report makes no connection between its "empowered" teachers argument and the goal of nurturing effective local-level responses to the problem of teacher shortage in the face of local realities. As a case in point, researchers have examined whether schools reorganize teaching (an aspect of teacher autonomy) in response to teacher turnover.[33] These studies are policy-relevant, in the sense that using incentives to help schools revisit and reorganize features of organizational climate that have the most robust connection to student outcomes is a better approach than just giving teachers more autonomy.

V. Review of the Report's Methods

As noted above, the report ignores that the classical view of the labor market assumes labor shortage as a condition when demand continually grows more rapidly than supply.[34] In the same way, widespread teacher shortages are due to a combination of factors, including: rapid increase in demand triggered by "Great Resignation" and COVID relief funds; inflex-

ible teacher labor supply due to licensing standards; and, slow teacher labor market reactions caused by union contracts, state and district policies, declining enrollment in teacher preparation programs, and pre-retirement attrition.[35] Teacher demand is also influenced by student enrollment, student-teacher ratio, and class size.[36] Teacher supply is influenced by potential new entrants and re-entrants.[37] In addition, the fact that shortages are local means that and each district or state faces varying staffing challenges because of differences in such areas as funding, salaries, licensure and certification policies, and teacher preparation enrollment and completion trends. [38] All of these factors suggest that teacher shortages are unlikely to be solved by simply providing teachers more autonomy. Although autonomous school reforms could help schools retain and attract teachers by improving working conditions, adoption of such reforms only partially affects teacher demand. They neither substantially change teacher demand nor affect teacher supply.

Essentially, the method of analysis does not provide scientific evidence on (1) the assumed positive link between teacher autonomy and satisfaction,[39] (2) the assumed positive link between job satisfaction and retention,[40] and (3) the assumed negative link between teacher retention and teacher shortages.[41]

VI. Review of the Validity of the Findings and Conclusions

The report suffers from "anchoring bias heuristic,"[42] a concept used in behavioral economics, in which one piece of information is used to anchor only one way to solve the problem, akin to a solution in search of a problem. Like a physical anchor, there is no appropriate linkage with the problem being addressed. Throughout the report, autonomy in schools is presented as a panacea for reversing the teacher shortage problem. But in reality and in contrast, autonomy can be a double-edge sword. While advocates have framed it in a positive light, other research has suggested that the various aspects of work autonomy may lead to teachers being stretched too thin and experiencing increased burnout.[43] Estimates from national survey data show that teachers across all kinds of charter schools report higher workloads than teachers in traditional public schools.[44]

Although teacher autonomy has great potential for improving teacher retention, the report fails to frame such autonomy in a meaningful context. Teacher autonomy is multidimensional and context-specific, and teachers may be more autonomous in certain areas of their work than in others. While the report offers as a case study the Education Evolving organization—a group of district semi-autonomous innovation schools and charter schools—it fails to explicitly discuss just which areas of school-based decision-making teachers have least and most autonomy over.

Teacher autonomy alone cannot resolve the multifaceted, deeply nuanced, and complex problems that school districts face, including, for example: staffing gaps, low pay, and high workloads.[45] Thus, the report simply ignores factors that may result in teacher turnover but are unrelated to degrees of teacher autonomy.

While the report argues for the benefits of autonomy including efficiency, innovation, and

teacher retention, it offers little firm evidence to support such claims. Some research literature, however, has found that turnover in charters and portfolio districts raises questions about their stability and sustainability. For example, research in post-Katrina New Orleans and Tennessee's local innovation Zones (iZones), which the report touts as leading examples of portfolio district models,[46] suggests that portfolio districts have faced similar challenges in retaining effective teachers over time, despite interventions centered on local autonomy and teacher salary incentives.[47] In the case of iZone schools, salary incentives for teacher recruitment and retention may have played an important role in the model's success in the first year, but may have left too few effective educators available to staff schools in later years.[48] To be clear, while there is not enough large-scale, quantitative evidence to definitively say how local autonomy affects teacher retention in charter and portfolio district settings, evidence from more mature initiatives on autonomous school models paints a sobering picture of their effectiveness in increasing teacher retention.[49]

The fact of the matter is that charter schools and portfolio districts have varied characteristics and typically include a basket of related reforms besides autonomy, such as flexible salary schedules to attract and retain teaching talent, school choice system, equitable school funding, and performance-based accountability. It is deeply misguided to claim that autonomy is an isolated mechanism that mediates teacher retention.

Finally, the significance of the reforms cited in the report—such as those reported for Indianapolis Public Schools' innovation schools—have been cherry-picked for the report's narrative.[50] In addition, analysis of teacher retention is never a simple task because research designs should, for example, be able to explain variations in teacher retention among schools as well as to control for differences in teacher and school characteristics. Even if the debate over validity were reduced to a policy issue, the report offers little or no supporting evidence for its claims.

VII. Usefulness of the Report for Guidance of Policy and Practice

The report oversimplifies the complex issue of teacher attrition, fails to analyze multiple supply and demand indicators, ignores the extent to which teacher attrition (or retention) may affect shortages, and provides no data in support of claims. Nor does it meaningfully assess the effectiveness, sustainability, and relative cost-effectiveness of autonomous reforms.

Therefore, because the report focuses on only a single factor in what is actually a systemic issue varying greatly among discrete locations, it offers no useful guidance to policymakers or other education decision makers.

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See:

Pankovits, T. (2022, October). *Autonomous schools can help solve the problem behind the teacher shortage problem* (p. 5). Progressive Policy Institute. Retrieved October 26, 2022, from https://www.progressivepolicy.org/wp-content/uploads/2022/10/PPI_Teacher-shortages.pdf

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19 For example, the report shares that in the Merrimack College Teacher Survey, just over 50% of teachers were very or somewhat satisfied with their jobs, whereas in the AFT survey, close to three-quarters of the union-member teachers were dissatisfied with their jobs.

Pankovits, T. (2022, October). *Autonomous schools can help solve the problem behind the teacher shortage problem* (p. 6). Progressive Policy Institute. Retrieved October 26, 2022, from https://www.progressivepolicy.org/wp-content/uploads/2022/10/PPI_Teacher-shortages.pdf

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Veneri, C.M. (1999). Can occupational labor shortages be identified using available data? *Monthly Labor Review, 122*, 15-21. Retrieved October 26, 2022, from https://www.bls.gov/opub/mlr/1999/03/art2full.pdf

See: Carruthers, C.K. (2012). The qualifications and classroom performance of teachers moving to charter schools. *Education Finance and Policy, 7*(3), 233-268. Retrieved October 26, 2022, from https://doi.org/10.1162/EDFP_a_00067

35 Pre-retirement attrition refers to teachers who quit within the years in the profession. Some teachers leave the profession for good to pursue a different career, others leave temporarily. Pre-retirement attrition can be caused by organizational factors within a school, such as poor salaries, lack of support and decision-making power.

36 A considerable amount of research on teacher turnover indicates that teacher characteristics, working conditions, and school context impact the demand for teachers (Education, certification, and assignment are also related to teacher turnover. In specific teacher shortages in content areas (special education), turnover can be caused by poor allocation of resources and disincentives to productivity. Studies have also found associations between turnover and working conditions and organizational climate, such as: salary, autonomy, commitment, morale. See: Stuit, D.A., & Smith, T.M. (2012). Explaining the gap in charter and traditional public school teacher turnover rates. *Economics of Education Review, 31*(2), 268-279. Retrieved October 26, 2022, from https://doi.org/10.1016/j.econedurev.2011.09.007

37 Re-entrants refer to teachers who leave and return to the classroom, while new entrants refer to a new pool of teachers in the workforce.

38 McHenry-Sorber, E., & Campbell, M.P. (2019). Teacher shortage as a local phenomenon: District leader sensemaking, responses, and implications for policy. *Education Policy Analysis Archives, 27*(87). Retrieved October 29, 2022, from https://doi.org/10.14507/epaa.27.4413

See: Sutcher, L., Darling-Hammond, L., & Carver-Thomas, D. (2019). Understanding teacher shortages: An analysis of teacher supply and demand in the United States. *Education Policy Analysis Archives, 27*(35). Retrieved October 22, 2022, from https://doi.org/10.14507/epaa.27.3696

39 The report fails to provide empirical evidence that autonomous school models are indeed successful regarding improving teacher job satisfaction and retention through increased autonomy. Among the three models, the report only references one internal study and a case study that provide anecdotal evidence that Education Evolving schools are performing well regarding teacher retention and motivation and student performance. These studies do not provide information about how the data were collected and analyzed, making their findings less trustworthy. For the other two models, the report only portrays the degree of autonomy teachers enjoy and provides no evidence on their success.

40 A large body of literature on teacher job satisfaction and retention suggests that these are also affected by such factors as teacher personal and professional characteristics (e.g., academic ability, STEM teachers, and

teaching experiences), teacher salaries, school environments (e.g., support from administrators, disciplinary problems, effective leadership), and testing and accountability environments. Furthermore, some of these factors could be less expensive and more sustainable than starting autonomous school models, which challenges the report's main argument. See: Ingersoll, R.M., & Perda, D. (2010). Is the supply of mathematics and science teacher sufficient? *American Educational Research Journal, 47*(3), 563-594. Retrieved October 26, 2022, from https://doi.org/10.3102/0002831210370711

41 The report primarily uses anecdotal evidence and teacher vacancy data to portray the severity of teacher shortages. Teacher vacancy data alone cannot accurately capture the magnitude of teacher shortages. The report needs to combine multiple teacher shortage indicators, both from teacher demand and supply, such as number of applicants per vacancy, student-teacher ratios, number of emergency certificates issued, and number of preparation program enrollees. Obtaining some of the data at the national level would be challenging; however, local-level data could be more accessible.

42 Daniel, K. (2017). *Thinking, fast and slow*. New York, NY: Farrar, Straus and Giroux. Retrieved October 26, 2022, from https://doi.org/10.2501/IJA-31-2-445-446

43 Torres, A.C. (2016). Is this work sustainable? Teacher turnover and perceptions of workload in charter management organizations. *Urban Education*, *51*(8), 891-914. Retrieved October 31, 2022, from https://doi.org/10.1177/0042085914549367

See: Malloy, C.L., & Wohlstetter, P. (2003). Working conditions in charter schools: What's the appeal for teachers? *Education and Urban Society, 35*(2), 219-241. Retrieved December 21, 2022, from https://doi.org/10.1177/0013124502239393

See also: Harris, D.C. (2007). Should I stay or should I go? Comparing teacher mobility in Florida's charter and traditional public schools. *Peabody Journal of Education, 82*(2-3), 274-310. Retrieved October 29, 2022, from https://doi.org/10.1080/01619560701312970

See also: Wei, X., Patel, D., & Young, V.M. (2014). Opening the "black box": Organizational differences between charter schools and traditional public schools. *Education Policy Analysis Archives, 22*(3). Retrieved October 31, 2022, from https://doi.org/10.14507/epaa.v22n3.2014

See also: Carruthers, C.K. (2012). The qualifications and classroom performance of teachers moving to charter schools. *Education Finance and Policy, 7*(3), 233-268. Retrieved October 29, 2022, from https://doi.org/10.1162/EDFP_a_00067

44 Torres, A.C. (2016). Is this work sustainable? Teacher turnover and perceptions of workload in charter management organizations. *Urban Education*, *51*(8), 891-914. Retrieved October 31, 2022, from https://doi.org/10.1177/0042085914549367

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Ni, Y. (2017). Teacher working conditions, teacher commitment, and charter schools. *Teachers College Record, 119*(6), 1-38. Retrieved October 26, 2022, from https://doi.org/10.1177/016146811711900606

45 Lundström, U. (2015). Teacher autonomy in the era of New Public Management. *Nordic Journal of Studies in Educational Policy*, *2015*(2). Retrieved October 30, 2022, from https://doi.org/10.3402/nstep.v1.28144

Henry, G.T., Pham, L.D., Kho, A., & Zimmer, R. (2020). Peeking into the black box of school turnaround: A

formal test of mediators and suppressors. *Educational Evaluation and Policy Analysis, 42*(2), 232-256. Retrieved October 31, 2022, from https://doi.org/10.3102/0162373720908600

46 Post-Katrina New Orleans is a portfolio district characterized by multiple school providers and several school types. While prior research centers on positive upward trends in student outcomes, the results of more recent studies with sophisticated methodological design point to several unintended consequences over time, such as increasing segmentation of student populations through student mobility. See: Welsh, R.O., Duque, M., & McEachin, A. (2016). School choice, student mobility, and school quality: Evidence from post-Katrina New Orleans. *Education Finance and Policy*, *11*(2), 150-176.

See also: Redding, C., & Nguyen, T.D. (2020). The relationship between school turnaround and student outcomes: A meta-analysis. *Educational Evaluation and Policy Analysis*, *42*(4), 493-519.

47 Harris, D.N., & Larsen, M.F. (2016). *The effects of the New Orleans post-Katrina school reforms on student academic outcomes*. Technical Report, Education Research Alliance for New Orleans. Retrieved October 28, 2022, from https://educationresearchalliancenola.org/files/publications/The-Effects-of-the-New-Orleans-Post-Katrina-School-Reforms-on-Student-Academic-Outcomes.pdf

See: Kho, A., Henry, G.T., Pham, L.D., & Zimmer, R. (2022). Spillover effects of recruiting teachers for school turnaround: Evidence from Tennessee. *Educational Evaluation and Policy Analysis*. Retrieved October 27, 2022, from https://doi.org/10.3102/01623737221111807

See also: McEachin, A.J., Welsh, R.O., & Brewer, D.J. (2016). The variation in student achievement and behavior within a portfolio management model: Early results from New Orleans. *Educational Evaluation and Policy Analysis, 38*(4), 669-691. Retrieved October 29, 2022, from https://doi.org/10.3102/0162373716659928

48 Pham, L.D., Henry, G.T., Kho, A., & Zimmer, R. (2020). Sustainability and maturation of school turnaround: A multiyear evaluation of Tennessee's achievement school district and local innovation zones. *AERA Open, 6*(2). Retrieved October 31, 2022, from https://doi.org/10.1177/2332858420922841

49 Dixon, L.L., Pham, L.D., Henry, G.T., Corcoran, S.P., & Zimmer, R. (2022). Who leads turnaround schools? Characteristics of principals in Tennessee's achievement school district and innovation zones. *Educational Administration Quarterly*, *58*(2), 258-299. Retrieved October 31, 2022, from https://doi.org/10.1177/0013161X211055702

50 For example, despite Tennessee's local iZones' success in recruiting effective teachers during the first year, in later years levels of staff turnover returned to levels like those in comparison schools. In terms of achievement impact, Kho et al's (2022) analysis of iZone schools found short-term effects of losing teachers in student test score gains, with larger negative effects when more effective teachers leave. See: Pham, L.D., Henry, G.T., Kho, A., & Zimmer, R. (2020). Sustainability and maturation of school turnaround: A multiyear evaluation of Tennessee's achievement school district and local innovation zones. *AERA Open*, *6*(2). Retrieved October 31, 2022, from https://doi.org/10.1177/2332858420922841

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