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EXECUTIVE SUMMARY

Technically, teachers may not be superheroes. But they have extraordinary powers to shape the future.¹ These "superheroes" increasingly are in short supply.² Fewer are entering the profession,³ and fewer than half of adults want their children to pursue teaching.⁴ This will only get worse without intervention.

A perfect storm has fueled the crisis: state tax cuts that reduced education spending,⁵ a rising pay gap between teachers and professionals with comparable education and experience,⁶ increased demand for teachers,⁷ retirement of the Baby Boomers,⁸ difficulty attracting Millennials to teaching,⁹ and teacher turnover of 16% annually.¹⁰

The crisis now costs taxpayers, students, and the US economy.

- Teacher turnover costs taxpayers about \$8.5 billion annually.11
- Lack of a high-quality, stable teacher corps reduces students' future earnings.
- Schools increasingly cannot offer classes to prepare students for in-demand, high-paying jobs.¹³

Dissatisfaction is a major reason for teacher turnover¹⁴ – and a factor in the decline of students considering careers in teaching.¹⁵ Salary, rightfully, has become symbolic of that dissatisfaction.¹⁶

- Compared to professionals with equal education and experience, teachers are underpaid in every state. The weekly wage penalty ranges from -0.2% in Wyoming to -32.6% in Arizona.¹⁷
- Teachers who have left the classroom would consider returning if pay increased.¹⁸
- The declining presence of males in the teaching profession is tied to the wage penalty.¹⁹

Yet as critical as salaries are to the teacher crisis, teachers assert the problem goes beyond salaries.²⁰ This report supports their assertion.

This report on teacher satisfaction is based on data collected in a Fall 2018 teacher survey conducted by the Student Research Foundation (SRF). 2,385 teachers nationwide responded.²¹ Listening to the voices of teachers, this report:

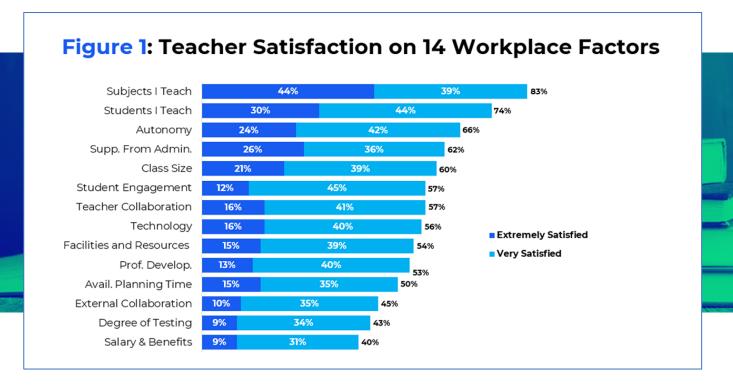
- Assesses educational workplace satisfaction on 14 dimensions.
- Examines the association between satisfaction with compensation and other workplace conditions.
- Targets strategies to boost teacher satisfaction, thus benefiting communities and students.

EDUCATOR SATISFACTION

Teachers rated their satisfaction on 14 factors associated with the educational workplace. Overwhelmingly, teachers were most likely to be satisfied with:

- the subjects they teach (83%)
- the students they teach (74%). [Figure 1]

The intensity of satisfaction on these two factors is noteworthy. Roughly half of satisfied teachers are not merely satisfied, they are "extremely satisfied."



In contrast, only 4 in 10 teachers are satisfied with compensation. This is consistent with findings of other studies,²² but nevertheless remarkable. Economists find teachers incur a substantial "weekly wage penalty" that grows larger with experience: ²³

Even after adjusting for the shorter work year, beginning teachers nationally earn 20% less than individuals with similar degrees in other fields. The wage gap widens to 30% by mid-career.²⁴

This wage penalty is relatively recent.²⁵ It has quadrupled since the mid-1990s as many states cut education budgets to fund tax cuts.²⁶

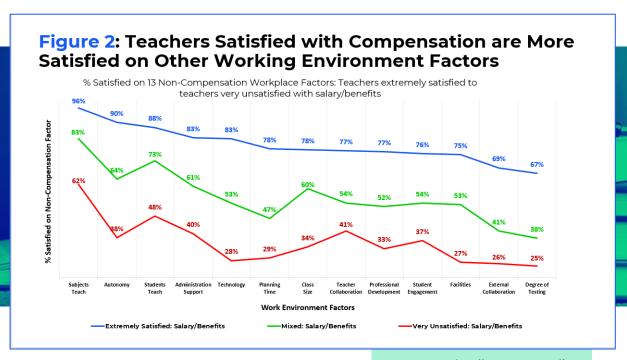
The weekly wage penalty is ironic given the substantial ROI from teacher salaries. Good teachers – even in the early grades – add far more than they earn to the expected lifetime earnings of the students they teach.²⁷

Satisfaction: Salary and Workplace Factors

Teachers do not choose their careers to get rich. But they must pay their bills – which often include the student loans that made it possible for them to become teachers. Not only do teachers think they are underpaid, but two-thirds of adults agree they are as well.²⁸

SRF's survey shows teacher satisfaction with compensation is correlated with satisfaction on the other 13 non-salary workplace factors. Figure 2 illustrates:

- Teachers with similar views about compensation are consistently most likely to be satisfied with the subjects they teach and the students they teach – both missionfocused factors.
- Teachers satisfied with compensation are more likely to be satisfied on the 13 other work environment factors.
- Teachers most and least positive about compensation diverge *most* on satisfaction with technology (55 pts.) and *least* on satisfaction with subjects taught (34 pts.).



For more detail, see appendix.

The dynamics underlying the correlation between satisfaction with salary and other factors are likely a combination of personal and structural pressures.

- Personal pressures undoubtedly play some role in the relationship. Indeed, one in five teachers hold second jobs during the academic year.²⁹ Teachers who hold second jobs during the academic year are more likely to feel their second job lowers the quality of their work as a teacher; ³⁰ they are also more likely to consider leaving the profession.³¹
- The structural forces that depress teacher salaries often depress education budgets overall. Policymakers unwilling to invest in teacher salaries have been unwilling to invest in textbooks, facilities, technology, professional development, and other items that facilitate learning – but require funding. Protesting teachers have raised public awareness of this.³²

Teacher pay is critical to attracting and retaining teachers. The SRF survey of teachers shows it clearly affects satisfaction on a wide range of educational workplace factors. But this is not the full story.

Recognizing the complexity of factors that affect teacher satisfaction, the next section examines the intersection of feelings about salary/benefits and four additional key drivers of overall teacher satisfaction: feelings about support of the administration, facilities/ resources, class size, and testing.³³ The results show that salary is important to teacher satisfaction. But the results also suggest amassing a teacher workforce that equips today's students to compete and win globally requires a deeper understanding of teacher satisfaction.



Intersection of Attitudes about Salary and Support of Administration

Administrators play a key role in setting the tone of the school. They are a powerful influence on teacher satisfaction.³⁴ Previous research finds that teacher turnover is lowest where teachers are positive about the support of the administration and maximum salary of the most experienced teachers is higher.³⁵

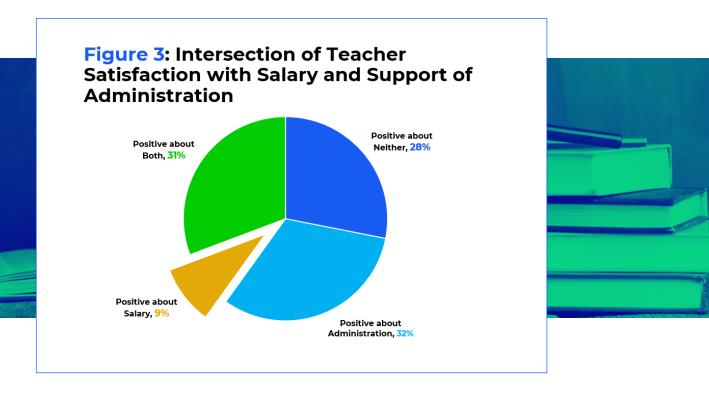


Figure 3 shows the intersection of attitudes about salary and support of administration among the teachers surveyed.

Whether teachers are positive about both salary and support of the administration or positive about neither,³⁶ their relative satisfaction on the other 12 measures is typically similar. [Figure 4a] For example, both groups are most satisfied with the subjects they teach. However, the absolute level of satisfaction takes a steep decline on each of the 12 factors when they are positive about neither salary nor support of administration. That decline is greatest on professional development (55 pts.), autonomy (54 pts.), facilities (52 pts.), and technology (50 pts.). It is smallest on subjects taught (32 pts.) and students taught (40 pts.).

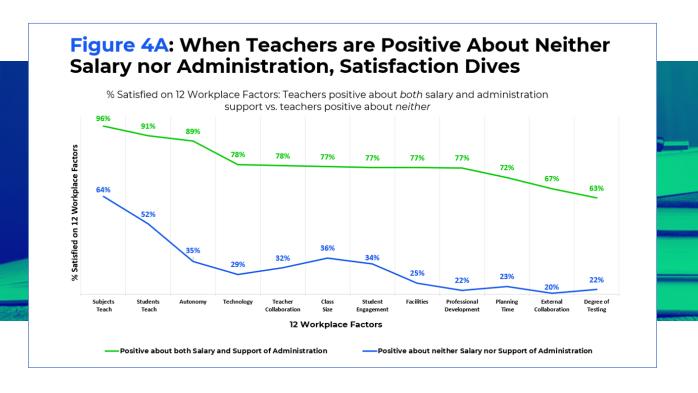
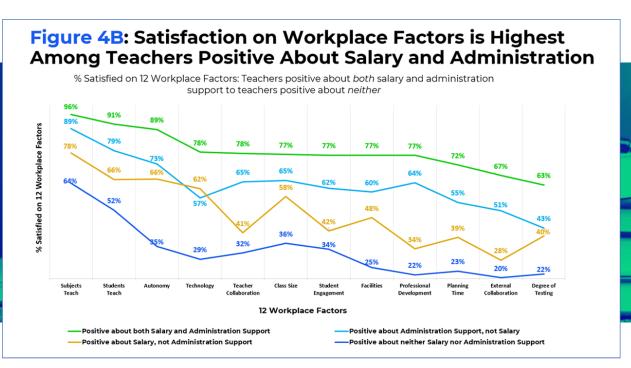


Figure 4b makes a compelling case that teacher satisfaction is neither solely about compensation nor supportive administrators. Compared to teachers positive about *both* compensation and support of their administration, teachers satisfied with only one of the two factors are markedly less satisfied on all 12 educational workplace factors. There is no exception.



However, Figure 4b shows those who are positive only about their administration and those who are positive only about salary have distinctly different satisfaction profiles on the 12 workplace factors.

- Teachers positive about the administration only are more satisfied on 11 of the 12 work environment factors than are teachers positive about salary only.
- Compared to those positive about both factors, teachers positive about salary, but not the support of the administration, are much less satisfied with professional development (43 pts.), external collaboration (39 pts.), teacher collaboration (37 pts.), and student engagement (35 pts.) all factors that weaken the educational community and teacher effectiveness.
- Compared to those positive about both salary and administration, those positive
 about the administration, but not salary, are less often satisfied with technology
 (which requires funding) and testing (21 and 20 pts, respectively). Their maximum
 satisfaction gaps are only about half the size of those gaps observed among
 teachers positive about only salary.

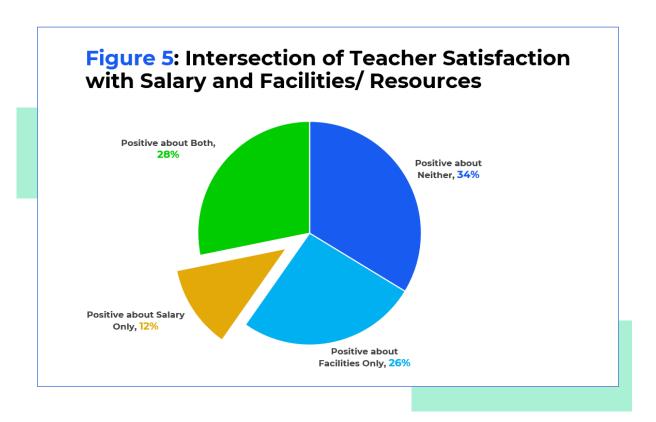
Administrators matter.³⁷ These results suggest the benefits of higher pay for teachers may fail to be realized if the strings attached make the teacher-administrator partnership more adversarial. Satisfactory salaries absent supportive administrators may drive teachers away from the classroom – and sour them on the profession. *Compensation plans that nurture the teacher-administrator partnership are critical to attracting and retaining committed educators.*³⁸

The results do not lessen the importance of salary for attracting and retaining teachers. Inadequate salaries may force teachers to abandon the job they love to pay the bills. However, dissatisfaction with salary apparently does not have the widespread and deeply negative impact that comes from dissatisfaction with the administration. This may explain why former teachers who gave a wide variety of reasons for leaving the profession overwhelmingly indicated that better pay could entice them to return to the classroom.³⁹

In short, attracting and retaining enough qualified teachers to allow students to thrive requires salaries commensurate with job qualifications *and* policies that foster teacher-administrator partnerships.

Intersection of Attitudes about Salary and Facilities/ Resources

Teacher protests in recent months focused not only on salaries, but also facilities/ resources. 40 Twenty-five year old text books, holes in ceilings, smelly buildings, and computers held together by duct tape are just the beginning of the stories teachers tell about the toll underfunding of education has taken on learning environments in many states. Figure 5 shows the largest segment of teachers is positive about neither salary nor facilities/ resources, while the smallest segment is positive about salary alone.



Analysis of the intersection of teacher views about salary and facilities/resources on the range of 12 other workplace factors confirms what teachers have articulated at protests: they care about more than simply salary.

Moving from teachers positive about both salary and facilities/resources to those positive about neither, the satisfaction on the 12 workplace factors takes a steep decline. [Figure 6] The largest satisfaction gap is a 60-point difference on technology – which also requires financial resources.

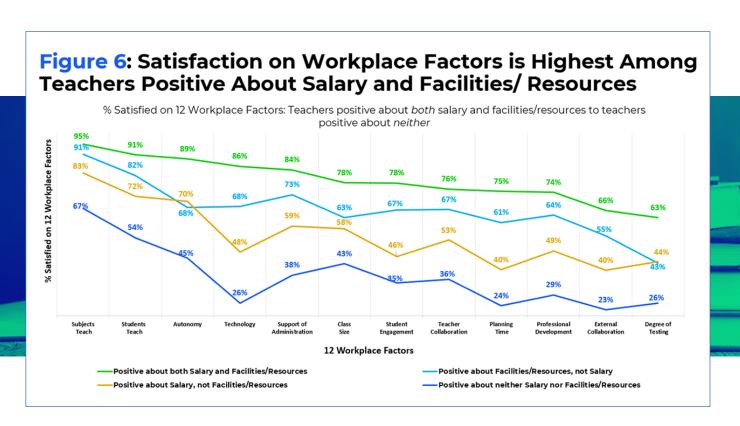
Compared to teachers in the ideal situation – positive about *both* compensation and facilities/ resources, teachers satisfied with only one of the two factors are less satisfied on all twelve educational workplace factors. There is no exception.

However, those positive about facilities/resources only and those positive about salary only have distinctly different satisfaction profiles on the 12 factors. [Figure 6]

- Teachers positive about salary, but not facilities/resources, are less satisfied on 10 of the 12 work environment factors than are those positive about facilities/resources, but not salary.
- Compared with teachers positive about both salary and facilities/resources,
 teachers positive about salary alone diverge most on satisfaction with technology

- (-38 pts.), planning time (-34 pts.), and student engagement (-32 pts.).
- Compared with teachers positive about both salary and facilities/resources, those
 positive about facilities/resources only diverge most on autonomy (-21 pts.) and
 testing (-20 pts.).

The results drive home the commitment of teachers to their students. Teachers' negative feelings about salary once again appear to take a more limited toll on satisfaction with other workplace factors.



But the results do not mean salary is unimportant in retaining teachers – or attracting them to the classroom in the first place. Updated school facilities will not pay their student loans or mortgages, and many unsatisfied with salary may find that remaining in the classroom is not feasible financially. However, creating a positive educational environment is most likely when teachers receive fair salaries and the community invests in facilities/resources that support learning.

Testing has often been paired with salary incentives, in much the same way some in the private sector work on commission.⁴¹ Advocates of high-stakes testing assert it will identify the good teachers and the not-so-good teachers. Teachers often assert test-centered education hinders the learning process and prevents them from teaching many important skills. Others suggest that testing and its incentive structure reduces the ability of administrators to create positive learning environments. Research suggests testing increases teacher dissatisfaction and turnover.⁴²

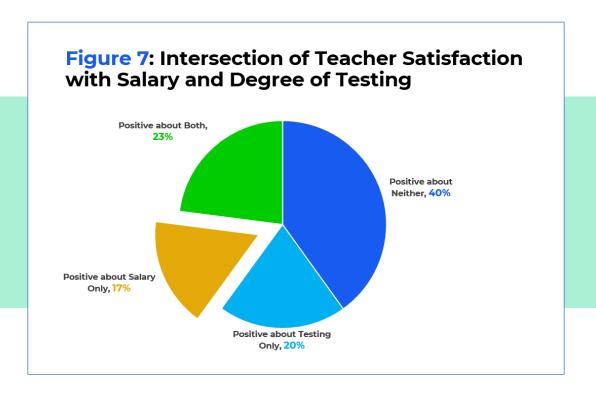
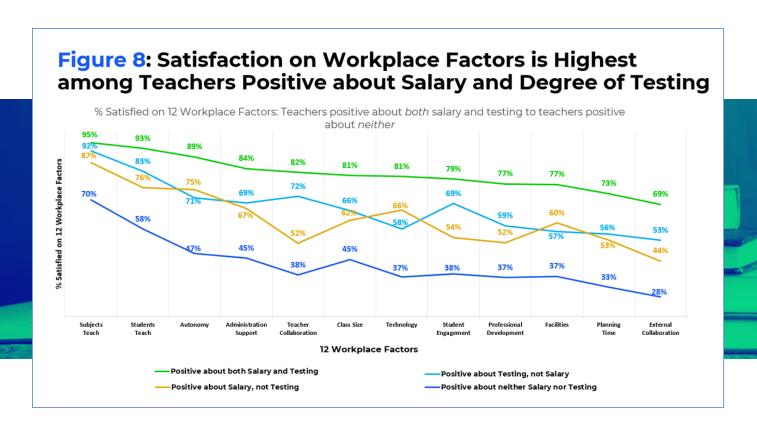


Figure 7 illustrates the intersection of attitudes about salary and testing.

Further analysis highlights the challenges of tying compensation to test results – if the goal is to attract and retain teachers. [Figure 8]

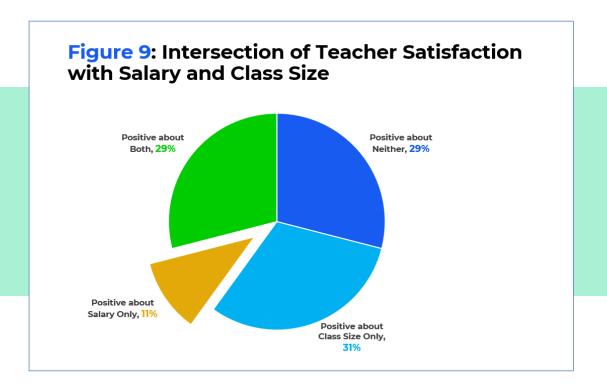
- When teachers are positive about both salary and testing, their satisfaction ratings on the 12 factors suggest a high-quality educational environment. But only about 2 in 10 teachers are in this group.
- When teachers are negative about both salary and testing, satisfaction declines sharply on every factor – triggering what might be described as a general malaise.
 Those dissatisfied with both salary and testing are the largest segment of teachers, accounting for 4 in 10.
- When teachers are positive about salary or about testing but not both, teachers have a more positive view of the school environment than those positive about

neither. Teachers positive about salary can afford to stay in the classroom, but if they are not satisfied with testing as well, the learning environment is less than ideal. Teacher collaboration and student engagement suffer. These patterns are consistent with previous analyses of performance-based compensation plans.⁴³



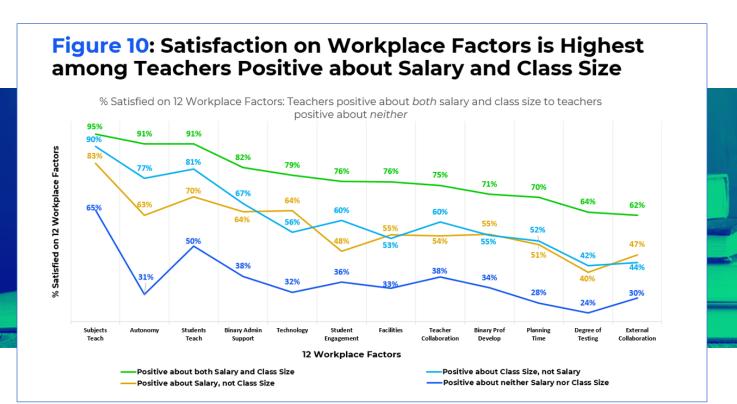
Intersection of Attitudes about Salary and Class Size

Figure 9 shows teachers are fairly evenly divided among three groups: satisfied with both salary and class size, satisfied with neither salary nor class size, and satisfied with only class size. Teachers satisfied with only salary are a small remnant.



Analysis of the interaction of feelings about salary and class size mirrors analysis of the intersection of salary and testing. [Figure 10] Teachers positive about neither factor are far less satisfied on the remaining 12 factors. Their satisfaction takes a noteworthy drop on autonomy. Teachers positive about neither class size nor salary are substantially less satisfied with autonomy (60 pts.) than are those who feel positive about both compensation and class size.

Compared to teachers in the ideal situation – positive about *both* compensation and class size, teachers positive about only one of the two factors are less satisfied on all twelve educational workplace factors. There is, once again, no exception.



But when districts force a tradeoff between salary and class size, the impact on satisfaction with the workplace factors is similar – with three exceptions. Teachers positive about salary, but not class size, are 10+ points more satisfied on autonomy (14 points), student engagement (12 points), and students taught (11 points).

Once again, the analysis suggests a myopic approach to teacher dissatisfaction is unlikely to adequately resolve the issues that matter to teachers. Providing teachers with weekly wages commensurate with education and experience may allow more teachers to remain in the profession. But failing to also provide class sizes that make high quality education possible lowers teacher workplace satisfaction and, teachers suggest, hurts students.

Recommendations for Supporting the Superheroes

The most remarkable finding in this report is consistent with other research: A sizeable minority of teachers are actually satisfied with their salary/benefits. That is remarkable since US teachers earn about 20 percent less than professionals with comparable education and experience.

Yet despite the altruistic orientation of these superheroes, the supply of teachers increasingly falls short of demand. Interventions are urgently needed. These may include:

Eliminating the weekly wage penalty. Relatively low pay is creating a staffing crisis.⁴⁴

- Fewer millennials are preparing for the teaching profession, creating a smaller labor pool as demand grows.
- Pay matters. States with higher pay scales have fewer shortages and lower turnover.⁴⁵
- Some districts have offered tuition reimbursement plans and loan forgiveness programs in addition to salary increases.⁴⁶ These seem most effective when targeted to members of the local community⁴⁷ – and accompanied by iron-clad guarantees.⁴⁸

Ultimately, the solution rests with elected officeholders. Many responsible for cuts in earlier years became advocates for education when they faced pro-education challengers in the 2018 elections.⁴⁹ Time will tell whether this results in policy change.

Cultivating Teacher-Administrator Partnerships. The local school principal and the workplace community cultivated by positive teacher-administrator relationships seem to be the key to long-term retention. ⁵⁰ Administrators can take the lead in forging community. As one resource-strapped administrator explained:

Most of the external factors that could contribute to longevity in a career — such as the extent of parental involvement, age of facilities, competitiveness of salary — we don't have.... So we have to compensate by creating a community, climate, and culture that make teachers feel valued and excited, and make the idea of leaving something they would never consider.⁵¹

Teachers are most loyal to their local administrators and will stay with a group of collaborative teachers to support the school and students for longer periods.

- Teacher mentoring programs, especially in the first few years of teaching, along with working collaborations by grade level, have been successful in strengthening retention rates.⁵²
- Residencies for principal training and state educational leadership academies are strategies proven effective for equipping administrators to cultivate positive, collaborative school environments that retain good teachers and help students thrive.⁵³

The most effective principals succeed in boosting retention by retaining the strong teachers (regardless of test scores) – and encouraging the least effective teachers to leave the field.⁵⁴

Giving teachers a voice in funding choices. Teachers can influence budgets, but rarely have control of how dollars are allocated at the classroom level.⁵⁵ As a result, already underpaid teachers spend an average of \$479 per year of their own money to provide classroom supplies.⁵⁶ That adds to the burden of low salaries – and fails to solve major issues.

School principals and administrators should look for opportunities to involve teachers in budgetary expenditures for classroom materials. For example, some teachers may prefer to forgo expensive professional development courses to implement new learning software or purchase a teaching template for their classroom.

Administrator support for teachers eager to unleash their entrepreneurial spirit can ensure that the money for classroom necessities comes from other sources than the teacher's own paycheck:

- Involving parents to a greater degree in helping to fund purchases for classrooms either through voluntary donations or fund-raising activities,
- Applying for grants to fund specific classroom activities through businesses or other local/national funding agencies,
- Using social media sites like DonorsChoose.org or tweeting #ClearTheList to harness the power of crowdfunding for specific projects or classroom needs.

These steps may help at the margins, but they are only a start. Fundraising may add to teachers' already excessive workload.⁵⁷ More importantly, big issues remain unaddressed: too few textbooks for each student to have their own, leaking roofs, lack of access to computers, lead in the water supply, etc. When parents, community leaders, and corporate leaders who need highly skilled workers speak out with teachers, it becomes a constituent issue that can alter public policy.⁵⁸

Eliminating pressures to teach to the test. The impact of standardized testing on student achievement remains a hotly contested political issue – particularly when tied to educator compensation. Following political fallout from No Child Left Behind, the U.S. Department of Education issued guidelines to limit testing. Education testing ranks second to last in teacher satisfaction ratings – right above salary. Teachers' options are limited.

- Research shows highly skilled principals who rely on multiple methods to evaluate teachers, including in-class observation, can mitigate the negative impact of standardized testing on good teachers.⁶¹ But principals cannot stop mandated standardized testing.⁶² And policies at the local, state, and national levels can limit their discretion in using those scores.
- Parents have some power but only over their own children and sometimes only if they aggressively assert their rights.⁶³ Federally mandated testing will continue for teachers until the Every Child Succeeds Act (ESSA) is amended or replaced.

Educators, parents, and alumni of the test culture who want change on standardized testing will have to change the minds of elected officeholders. Some states have lessened the number of tests they administer, but they still must administer some to comply with ESSA. ESSA's federal mandates for testing mean change will have to start with Congress and progress to the local level.⁶⁴

CONCLUSION

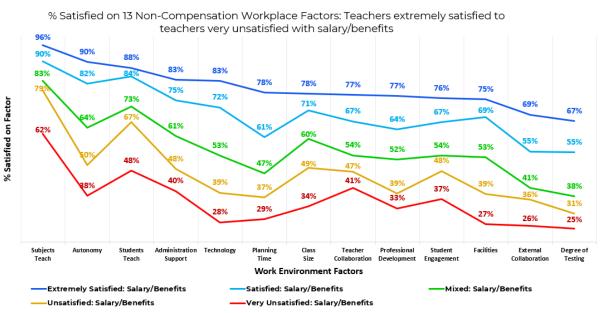
Listening to the voices of teachers drives home an important message: Teacher satisfaction is driven by far more than salary. Teacher dissatisfaction is not only justified by the weekly wage gap, it is also an early warning signal of broader problems in public education that are unlikely to be resolved by piecemeal solutions.

Money is a major need, but human resources are a critical need as well. Teacher education programs are shrinking,⁶⁵ and some states are turning to adults without adequate credentials⁶⁶ – a step that only increases turnover rates and reduces student success.⁶⁷

Students who aspire to teaching are most likely to report their own teachers have been a major influence – more often than parents or other adults.⁶⁸ But the voices of teachers captured in this survey describe a "branding" problem for the teaching profession. Listening to the voices of teachers is critical before these Superheroes become a dying breed.



Expanded Figure 2: Teachers Satisfied with Compensation are More Satisfied on Other Working Environment Factors



ENDNOTES

- ¹ No profession focuses more time on, invests as deeply in, or has a greater impact on children's lives than teachers. Most adults remember a teacher who changed their life by teaching a skill, building an interest, recognizing a talent, being a role model, or simply caring. Teachers today are influencing whether the US will have the labor force to compete in global markets. SRF's 2018-19 survey found students most frequently cite teachers as a positive influence on their STEM interest outpacing the influence of parents, other adults, friends, and even "natural talents." Today's teachers are powerful influences on tomorrow's teachers. High school students who aspire to teaching have been influenced by teachers more than by mothers, fathers, other adults, or even friends (https://www.studentresearchfoundation.org/research/future-teachers/).
- ² For example, in the 2015-16 school year the gap between supply and demand was substantial. Roughly 260,000 new teachers were needed, but the number of qualified entrants available was approximately 196,000. See https://learningpolicyinstitute.org/sites/default/files/product-files/A_Coming_Crisis_in_Teaching_REPORT.pdf
 ³ Leib Sutcher, Linda Darling-Hammond, and Desiree Carver-Thomas, A Coming Crisis in Teaching? Teacher Supply, Demand, and Shortages in the U.S., Learning Policy Institute, September 2016. Also see Strauss, Valerie. 2017. "Teacher Shortages Affecting Every State as 2017–18 School Year Begins." Washington Post, August 28, 2017.
- ⁴ https://www.edweek.org/ew/articles/2019/08/05/half-of-teachers-considered-quitting.html?%E2%80%A6
- ⁵ https://www.epi.org/publication/the-teacher-weekly-wage-penalty-hit-21-4-percent-in-2018-a-record-high-trends-in-the-teacher-wage-and-compensation-penalties-through-2018/
- ⁶ https://www.epi.org/publication/the-teacher-weekly-wage-penalty-hit-21-4-percent-in-2018-a-record-high-trends-in-the-teacher-wage-and-compensation-penalties-through-2018/
- ⁷ See https://learningpolicyinstitute.org/sites/default/files/product-files/A Coming Crisis in Teaching REPORT.pdf
- 8 http://neatoday.org/2016/03/15/future-teachers-at-all-time-low/
- 9 http://neatoday.org/2016/03/15/future-teachers-at-all-time-low/
- ¹⁰ Goldring, R., Taie, S., & Riddles, M. (2014). Teacher Attrition and mobility: Results from the 2012–13 Teacher Follow-Up Survey. National Center for Education Statistics. Cited in Carver-Thomas, D. & Darling-Hammond, L. (2017). Teacher turnover: Why it matters and what we can do about it. Palo Alto, CA: Learning Policy Institute.
- ¹¹ Carroll, T.G. (2007). The high cost of teacher turnover. Washington, DC: National Commission on Teaching & America's Future cited in Anne Podolsky, Tara Kini, Joseph Bishop, and Linda Darling-Hammond. (2018) "Sticky schools: How to find and keep teachers in the classroom." Phi Delta Kappan. August 18. Costs reflect 2018 dollars.
- ¹² Carver-Thomas, D. & Darling-Hammond, L. (2017). Teacher turnover: Why it matters and what we can do about it. Palo Alto, CA: Learning Policy Institute.
- ¹³ School districts nationwide face challenges filling vacancies for specialties such as STEM and CTE. See Carver-Thomas, D. & Darling-Hammond, L. (2017). Teacher turnover: Why it matters and what we can do about it. Palo Alto, CA: Learning Policy Institute. Also see "CTE Teacher and Faculty Shortages" Advanced CTE, 2018.
- ¹⁴ Nearly 40% of teachers that left teaching did so due to dissatisfaction. They left for better opportunities. Farber, K. (2010) Why Good Teachers Quit and How We Might Stop the Exodus. Thousand Oaks, CA. Corwin.
- ¹⁵ Farber, K. (2010) Why Good Teachers Quit and How We Might Stop the Exodus. Thousand Oaks, CA. Corwin; Darling-Hammond, Linda, Roberta Furger, Patrick M. Shields, and Leib Sutcher. 2016. Addressing California's Emerging Teacher Shortage: An Analysis of Sources and Solutions. Learning Policy Institute, January 2016.
- ¹⁶ https://www.epi.org/publication/the-teacher-weekly-wage-penalty-hit-21-4-percent-in-2018-a-record-high-trends-in-the-teacher-wage-and-compensation-penalties-through-2018/
- ¹⁷ https://www.epi.org/multimedia/the-teacher-weekly-wage-penalty-in-every-state/
- ¹⁸ Anne Podolsky, Tara Kini, Joseph Bishop, and Linda Darling-Hammond. (2018) "Sticky schools: How to find and keep teachers in the classroom." Phi Delta Kappan. August 18.
- $^{19}\ https://www.epi.org/publication/the-teacher-weekly-wage-penalty-hit-21-4-percent-in-2018-a-record-high-trends-in-the-teacher-wage-and-compensation-penalties-through-2018/$
- ²⁰ Carver-Thomas, D. & Darling-Hammond, L. (2017). Teacher turnover: Why it matters and what we can do about it. Palo Alto, CA: Learning Policy Institute. Teacher protests have raised public awareness of the multidimensional nature of the problems facing public education. https://www.edweek.org/ew/articles/2019/08/05/half-of-teachers-considered-quitting.html?%E2%80%A6
- ²¹ The paper survey was mailed to schools nationwide. It covered a variety of topics, including job satisfaction.
- ²² http://blogs.edweek.org/edweek/teacherbeat/2018/05/teacher salary job satisfaction.html

- ²³ The weekly wage penalty varies from a low of -0.2% in Wyoming to a high of -32.6% in Arizona. https://www.epi.org/multimedia/the-teacher-weekly-wage-penalty-in-every-state/. The penalty persists if total compensation (including benefits) is considered.
- ²⁴ Baker, B., Sciarra, D.G., and Farrie, D. (2015) Is School Funding Fair? National Report Card, Newark, NJ, Educational Law Center.
- ²⁵ Women teachers enjoyed a weekly wage premium of close to 7% in 1979. https://www.epi.org/publication/the-teacher-weekly-wage-penalty-hit-21-4-percent-in-2018-a-record-high-trends-in-the-teacher-wage-and-compensation-penalties-through-2018/
- ²⁶ https://www.epi.org/publication/the-teacher-weekly-wage-penalty-hit-21-4-percent-in-2018-a-record-high-trends-in-the-teacher-wage-and-compensation-penalties-through-2018/
- ²⁷ Research jointly conducted by Harvard and Columbia Universities found that teachers not only educate, inspire, and guide students but have a great influence on each students' future financial success. That research found that a good 4th grade teacher can guide students to make educational, career and life decisions that can result in a \$25,000 increase in personal earnings over their lifespan. Assuming that 4th grade teacher remains in the classroom an average of 14 years and teaches an average of 30 students each year, the lifetime return is more than ten million dollars. https://www.nytimes.com/2012/01/12/opinion/kristof-the-value-of-teachers.html; also see https://www.nytimes.com/2012/01/06/education/big-study-links-good-teachers-to-lasting-gain.html.
- ²⁸ https://www.edweek.org/ew/articles/2019/08/05/half-of-teachers-considered-quitting.html?%E2%80%A6
- ²⁹ https://www.edweek.org/ew/articles/2018/06/19/to-make-ends-meet-1-in-5.html

https://blogs.edweek.org/teachers/teaching_now/2016/08/a_third_of_texas_teachers_are_working_second_jobs_to make ends meet survey finds.html

- ³¹ Carver, Thomas, D. & Darling-Hammond, I. (2017) Teacher Turnover Why it Matters and What We Can Do About It. Palo Alto, CA, Learning Policy Institute.
- ³² https://www.epi.org/publication/the-teacher-weekly-wage-penalty-hit-21-4-percent-in-2018-a-record-high-trends-in-the-teacher-wage-and-compensation-penalties-through-2018/
- ³³ Focus on this factor specifically is based on results of key driver analysis. That multivariate analysis suggests support of the administration is the most powerful predictor of overall teacher satisfaction.
- ³⁴ Burkhauser, S., (2017) How Much Do School Principals Matter When it Comes to Teacher Working Conditions? RAND Corporation, Loyola Marymount University, Education Evaluation and Policy Analysis, March 2017, Vol1, PP 126-145. Grissom, J. A. (2011). Can Good Principals Keep Teachers in Disadvantaged Schools? Linking Principal Effectiveness to Teacher Satisfaction and Turnover in Hard-to-Staff Environments. Teachers College Record, 113(11), 2552–2585. Podolsky, A., Kini, T., Bishop, J., & Darling-Hammond, L. (2016). Solving the teacher shortage: How to attract and retain excellent educators. Palo Alto, CA: Learning Policy Institute. Carver-Thomas, D. & Darling-Hammond, L. (2017). Teacher turnover: Why it matters and what we can do about it. Palo Alto, CA: Learning Policy Institute.
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