

THE TEACHING JOB:

Restructuring for
Effectiveness

SECTION 4

School-Based Support

PRACTICAL TOOLS
for District Transformation

ANALYSES AND DO-IT-YOURSELF WORKSHEETS

THE TEACHING JOB WORKSHEET SERIES INCLUDES worksheets with step-by-step instructions to help you calculate and measure teaching effectiveness. These analyses can help identify your largest challenges and

greatest opportunities for action. Armed with this knowledge, you will be able to quantify transformational opportunities for your district. This document contains **Section 4.**

GET THE REMAINING WORKSHEETS AT WWW.ERSTRATEGIES.ORG.

Analyses for restructuring teaching effectiveness

	ANALYSIS	WORKSHEET
1. DEFINING AND MEASURING EFFECTIVENESS	Measuring and managing teaching effectiveness	1. Span of review for teacher evaluation 2. District use of teacher evaluation data in human capital decisions
	2. HIRING	Supportive hiring practices
Tracking teacher distribution		4. Stability of teaching force by school performance
3. INDIVIDUAL GROWTH	Investing in teacher development	5. District individual professional development spending by category
	Managing poor performers	6. Unsatisfactory teacher performance by school performance quartile 7. Non-renewal patterns of untenured teachers
4. SCHOOL-BASED SUPPORT	Job and team assignment	8. Incidence of novice teachers and student performance by grade
	Collaborative planning time	9. Teacher collaborative planning and unspecified time
	Expert support and facilitation	10. Coach and lead teacher investments per teacher 11. Teacher-to-coach ratio by school, grouped by AYP status
5. COMPENSATION AND CAREER PATH	Compensation and career path	12. Compensation spending per teacher
	Competitive market salaries and benefits	13. Teacher salary relative to contracted hours
	Differentiated compensation	14. Total possible raises and stipends over a teacher's career

Data checklist

Use this list to gather the data and files you will need to complete the worksheets that follow. Once you have the data you need and know which questions you want to answer, follow the steps identified in the worksheets for the appropriate analyses. You will need:

District current-year and previous-year human resources files.

These files will allow you to:

- a. Determine total years of experience in teaching, in district and in school.
- b. Identify tenured and untenured teachers.
- c. Identify coaches and lead teachers and their associated average compensation.

District K–12 course file by student, by grade, and by school.

This file will allow you to:

- a. Determine the primary subject taught by teachers.
- b. Categorize teachers as core-subject versus noncore-subject.
- c. Determine the primary grade level taught by teachers.

District student performance file. This file will allow you to:

- a. Track student performance metrics for various testing instruments in district (e.g., statewide standardized exams).

District teacher contract. This will allow you to:

- a. Identify raises and stipends for which teachers are eligible.
- b. Identify the hours contractually required of teachers.

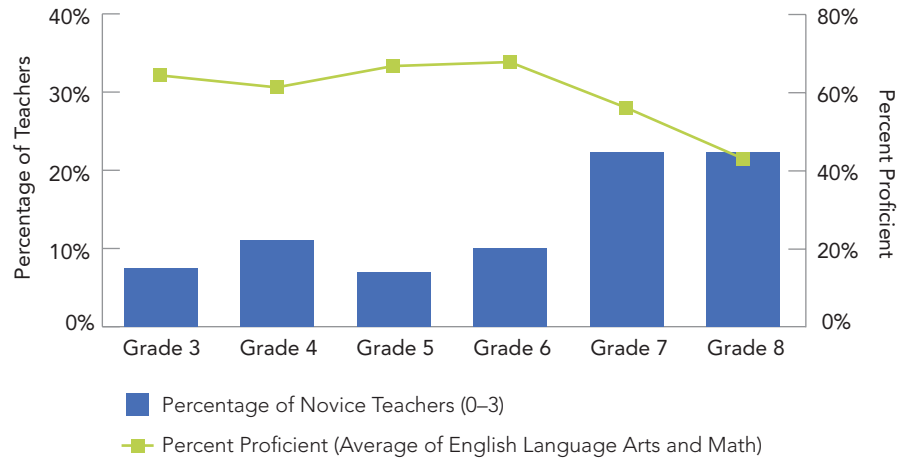
Job and team assignment

Teacher assignment should match teacher experience and capacity to the needs of the students and the job. Strategic school leaders deliberately assign teachers to create a complementary mix of skills across subjects, teams, and grades, and they provide collaboration and leadership opportunities that allow teachers to share and develop their expertise. For example, they might team a teacher struggling with classroom management with a teacher who has demonstrated strength in that area, or they might assign a novice teacher to teach courses with smaller class sizes or lower-need students. But in many schools, the opposite happens: New teachers are assigned the courses that more senior teachers don't want to teach—large, transition grade classes or remedial courses. These courses can be more difficult to teach, may have higher-need students, and therefore may be better served by a more experienced, highly effective teacher.

Strategic school leaders deliberately assign teachers to create a complementary mix of skills across subjects, teams, and grades, and they provide collaboration and leadership opportunities that allow teachers to share and develop their expertise.

Figure 8 illustrates that the percentage of novice teachers in each grade level in a large urban district remains relatively stable until grade seven. At that point, the number of novice teachers triples, while student performance dips significantly. This trend is not intentional—it is more difficult to attract and retain middle-school teachers—but without a proactive process for managing teacher assignment, the result is that novice teachers are being assigned to the grades with the lowest performance and highest need.

Figure 8: Incidence of Novice Teachers and Student Performance by Grade



Worksheet 8: Incidence of novice teachers and student performance by grade

OBJECTIVE: To determine the distribution of novice teachers, and to understand whether there are opportunities to better align teacher assignment with student need.

SUMMARY OF METRICS

STEP 1: Determine the number of core-subject teachers at each grade level.

STEP 2: Determine the number of novice core-subject teachers at each grade level.

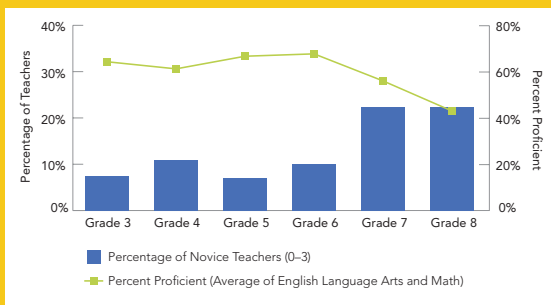
STEP 3: Calculate the percentage of novice core-subject teachers at each grade level.

STEP 4: Calculate the average percent of students proficient by grade level.

STEP 5: Graph the percentage of novice teachers and the average percent of students proficient by grade level.

REMINDER

Figure 8: Incidence of Novice Teachers and Student Performance by Grade



Note: This guide illustrates this analysis at the district level for middle grades. You may want to do a more in-depth analysis by looking at the distribution of teacher experience across all grades and subjects in the district and by grade and subject within schools.

STEP 1: Determine the number of core-subject teachers at each grade level.

1. Using your district's previous-year HR file:
 - a. Identify teachers and unique teacher IDs using job code/title.
2. Using the district's previous-year course file:
 - a. Identify the subject taught by each teacher. Assign a teacher to a subject if they teach that subject for more than 50% of their classes.
 - b. Categorize each teacher as either a core-subject teacher or noncore-subject teacher. Core-subject teachers are those that teach English language arts, math, science, social studies, or foreign language for at least 50% of the classes they teach.
 - c. Identify a grade level for each teacher. The grade level of a teacher can be determined through the course file using the name of the courses they teach (e.g., 7th grade math) or the student composition of their classes (i.e., teachers who teach more than 50% 8th graders are considered to be 8th grade teachers).
3. Using the designations you just created, calculate the number of core-subject teachers in each grade level.

STEP 2: Determine the number of novice core-subject teachers at each grade level.

1. Within the district's previous-year HR file:
 - a. Identify which measure denotes total years of experience in teaching.
 - b. This analysis defines "novice" as a teacher who has three years or less of total teaching experience, so categorize every teacher identified in Step 1 with three years or less of total teaching experience as "novice."
2. Count the number of novice core-subject teachers at each grade level.

STEP 3: Calculate the percentage of novice core-subject teachers at each grade level.

$$\frac{\text{Number of novice core-subject teachers by grade}}{\text{Number of core-subject teachers by grade}} = \text{Percentage of novice core-subject teachers at each grade level}$$

STEP 4: Calculate the average percent of students proficient by grade level.

1. Identify the test instrument to measure student proficiency (e.g., state standardized exams, districtwide assessments).
2. Determine the cutoff points for at/above proficient and below proficient.
3. Using your district student performance file:
 - a. Identify the number of unique student IDs by grade that are at/above proficient.
 - b. Calculate the percentage of tested students by grade who are at/above proficient.

STEP 5: Graph the percentage of novice teachers and the average percent of students proficient by grade level.

1. Construct a graph with:
 - a. Left Y-axis: Percentage of novice teachers.
 - b. Right Y-axis: Average percentage of students at/above proficient.
 - c. X-axis: Grade levels.
2. You may also want to compare the distribution of novice teachers with student performance by subject, across schools, or by grade and subject within schools.

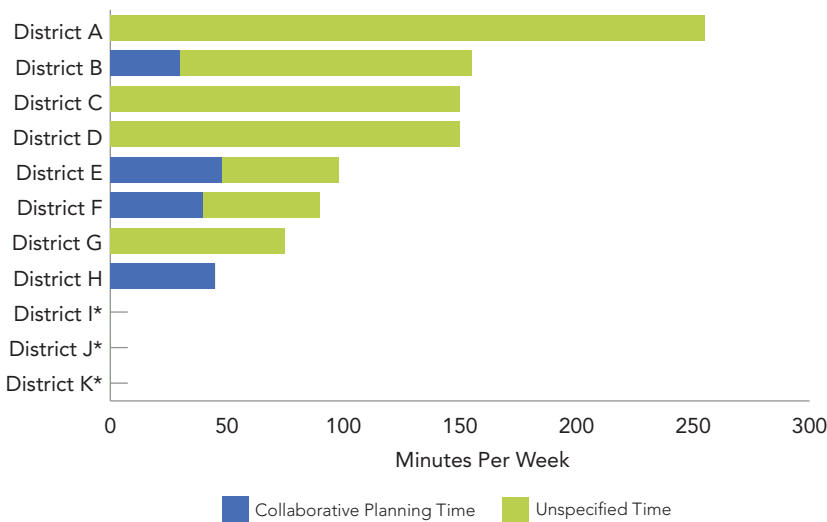
ANALYSIS AND WORKSHEET 9

Collaborative planning time

To continuously adjust and improve instruction based on evolving student needs, teachers need nonteaching time built into their schedules to work with and understand student results, to collaborate with each other and with experts, and to adapt their instructional plans as a result. We have found that teachers ideally need at least 90 minutes of collaborative planning time per week.¹ Given the inherent complexity of school schedules and union contracts, it can be difficult to schedule this much time for teacher teams, and districts may have to provide additional or reallocated resources to make it happen. But if used strategically, this time is the most effective use of professional development resources.

The amount of time that districts provide teachers for this critical work varies significantly from district to district. Figure 9 illustrates the amount of time that 11 large districts provide to elementary school teachers each week that is or could be used for collaborative planning—time that is contractually specified as collaborative and time that is unspecified (not including individual planning time). There is wide variation in available time across the districts, with four already designating some time to collaborative planning. What is important to note is the unspecified time in green, which shows the potential for collaborative planning time. The challenge is to support schools in scheduling this time in blocks that are at least 45 minutes long and that are shared across teaching teams and their coaches/lead teachers. Teachers must have planning time that overlaps with colleagues teaching the same students or the same subjects to allow for collaboration.

Figure 9: Teacher Collaborative Planning and Unspecified Time



**These districts had no unstructured or collaborative planning time stipulated in contract*

Given the expense and potential impact on instructional quality, having the right data and support during that collaborative planning time is paramount.

1 Miles, K., & Frank, S. (2008).

Worksheet 9: Teacher collaborative planning and unspecified time

OBJECTIVE: To identify relative investment in collaborative planning time and identify opportunities to leverage and reallocate existing time for collaborative planning.

SUMMARY OF METRICS

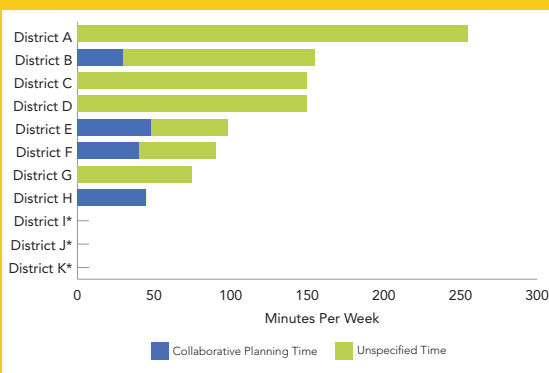
STEP 1: Identify number of minutes of collaborative planning time stipulated in teacher contract.

STEP 2: Determine number of minutes of unspecified time.

STEP 3: Graph collaborative planning and unspecified time.

REMINDER

Figure 9: Teacher Collaborative Planning and Unspecified Time



STEP 1: Identify number of minutes of collaborative planning time stipulated in teacher contract.

1. Using the district's teacher contract, identify the number of minutes allocated for collaborative planning time.
2. In doing this, you will most likely also be able to identify the number of minutes allocated for other teacher activities in a day
 - a. Arrival and departure time
 - b. Student day
 - c. Individual planning
 - d. Lunch
 - e. Other
3. Determine the total number of minutes stipulated in contract:

Collaborative planning time
+ Arrival/departure time
+ Student day
+ Individual planning
+ Lunch
+ Other stipulated time

Minutes stipulated in contract

STEP 2: Determine number of minutes of unspecified time.

1. Unspecified time is generally not stipulated in the contract and must be calculated as the difference between total time and stipulated time:

Total minutes
– Minutes stipulated in contract (Step 1)

Unspecified time

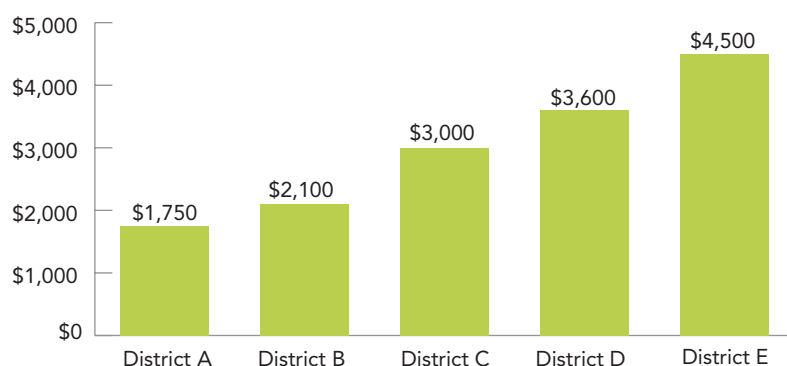
STEP 3: Graph collaborative planning and unspecified time.

1. Construct a bar graph with:
 - a. Y-axis: Minutes per week.
 - b. X-axis: Collaborative and unspecified time.
2. Graph the total minutes per week of collaborative planning and unspecified time and compare to other districts and to the 90-minute recommended minimum collaborative planning time.

Expert support and facilitation

Effective teaching teams need experts in instruction and facilitation who can help them diagnose student learning progress and adjust instruction. These experts should have a proven record of outstanding instructional performance. They need training in analyzing and interpreting data, expertise in working with adult learners, sufficient time to prepare for team meetings, and opportunities to work with teachers in their classrooms. Providing this kind of expert support will require moving some of a district's best teachers out of the classroom for at least some of their time, but research shows it can have a powerful positive impact on student outcomes.²

Figure 10: Coach and Lead Teacher Investment per Teacher



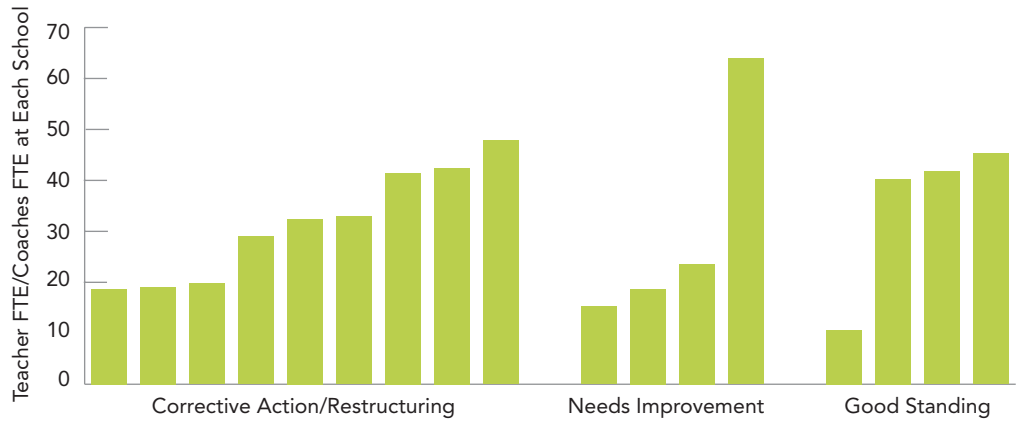
Most districts already invest significantly in coaches and/or lead teachers and may not need to invest incremental dollars in this area. Figure 10 shows the per-teacher investment in coaches and lead teachers in five large urban districts. Many districts already invest in this area, but if they are not hiring the right lead teachers or coaches, are not providing them with adequate time and training, or are not deploying them in concert with collaborative planning time and data on student progress, they may not be realizing the results they had hoped to achieve.

If districts decide to invest in coaches or lead teachers, they should focus coaching resources on the highest-need schools and teachers and ensure that coaches have adequate time and appropriate workloads to provide effective support. Too often, districts try to spread coaching resources thinly to help as many schools as possible. Coaches responsible for too many schools and/or too many teachers cannot succeed at helping teachers improve instruction. Figure 11 on the next page shows the coach-to-teacher ratio for middle and high schools, sorted by AYP status, in one urban district. In this district, there is a wide range in the number of teachers that a single coach is expected to support, from as few as 10 teachers to more than 60, and the district is making no distinction among schools by need: The coaching ratio is about the same for schools in good standing as for schools requiring corrective action. Limited coaching resources will be more effective if they are focused on the highest-need schools, teachers, and subjects and they support a reasonable number of teachers.

Districts should focus coaching resources on the highest-need schools and teachers and ensure that coaches have adequate time and appropriate workloads to provide effective support.

2 Bryk, A. (2010, May). *A Value-Added Study of Literacy Collaborative*. American Educational Research Association Annual Meeting, Denver.

Figure 11: Teacher-to-Coach Ratio by School, Grouped by AYP Status



Using coaches or lead teachers effectively involves structuring their time well to make the most of both coaches' and teachers' time. It is also imperative to hire the right people as coaches/lead teachers—skilled instructors with subject-area knowledge and the skills to work effectively to help teachers improve.

Worksheet 10: Coach and lead teacher investment per teacher

OBJECTIVE: To understand relative level of investment in coaches and lead teachers.

SUMMARY OF METRICS

STEP 1: Determine the number of coaching full-time equivalents (FTEs) for the district.

STEP 2: Calculate investment in coaches using average coach compensation.

STEP 3: Determine the number of lead teachers used in the district.

STEP 4: Determine if lead teachers are compensated in a standard way across the district or differently at each school.

STEP 5: Calculate the investment in lead teachers based on the compensation model.

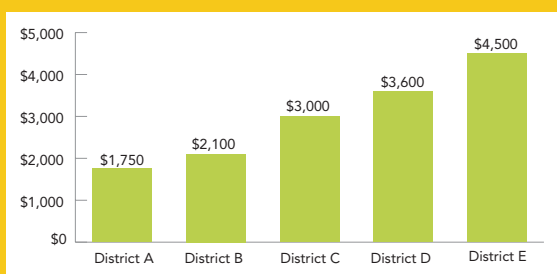
STEP 6: Determine the total number of teacher FTEs in the district.

STEP 7: Calculate the coach and lead teacher investment per teacher.

STEP 8: Graph the investment in coaching for your district.

REMINDER

Figure 10: Coach and Lead Teacher Investment per Teacher



STEP 1: Determine the number of coaching full-time equivalents (FTEs) for the district.

- Using your district's HR file:
 - Identify coaches by job code/title (often identified as instructional specialists).
 - Where applicable, determine the number of FTE units for each coach.
 - Determine the average compensation for a full-time coach/instructional specialist.
 - For each school, create a list of the coaches with four columns:
 - Coach name/ID
 - FTE units
 - Average coach compensation (from HR/payroll file)
 - Coach investment (calculated in Step 2)

STEP 2: Calculate investment in coaches using average coach compensation.

- Using the list you just created, calculate coach investment by:
 - Multiplying each coach's FTE allocation by the average compensation.
- Sum coach investment for all coaches in all schools. This sum is the total investment in coaches for the district.

STEP 3: Determine the number of lead teachers used in the district.

Note: Depending on how your district treats the lead teacher role, lead teachers may be difficult to identify from the HR file. If you know that schools in your district have a significant number of lead teachers, you may want to ask individual schools for lead teacher information.

- The district HR file will most often flag a teacher as a lead teacher, either in job title or in additional roles.
- Identify the number of lead teachers in your district.

STEP 4: Determine if lead teachers are compensated in a standard way across the district or differently at each school.

1. Refer to the teacher contract to understand whether lead teachers are compensated via stipend or are provided release periods when they perform their lead teacher duties.
2. If the contract does not indicate this information, the district payroll file may indicate whether stipends are given to lead teachers.
3. If the district payroll file does not indicate this information, you may need to discuss lead teacher practices individually with each school.

STEP 5: Calculate the investment in lead teachers based on the compensation model.

1. For each school, create a list of the lead teachers with four columns:
 - a. Lead teacher name
 - b. FTE units (calculated below)
 - c. Average teacher compensation (HR/payroll file)
 - d. Lead teacher investment (calculated below)
2. If a lead teacher is compensated through an annual stipend, simply enter this amount in the lead teacher investment column.
3. If a lead teacher is provided release time, the lead teacher investment will equal FTE units multiplied by average teacher compensation:
 - a. To determine FTE units, use the district course file to determine the number of periods (or minutes) of release time and the percentage of total periods (or total minutes). Enter this as the FTE units.
 - b. In the lead teacher investment column, multiply the average teacher compensation by the FTE units.
4. Sum the values in lead teacher investment. This sum is the total lead teacher investment.

STEP 6: Determine the total number of teacher FTEs in the district.

1. Using your district's HR file:
 - a. Calculate the total number of teacher FTEs in the district by summing the FTE values across all unique teacher IDs.

STEP 7: Calculate the coach and lead teacher investment per teacher.

1. Perform the following calculation:

$$\frac{\text{Investment in coaches} + \text{Investment in lead teachers}}{\text{Total number of teacher FTEs in the district}} = \text{Coach and lead teacher investment per teacher}$$

STEP 8: Graph the investment in coaching for your district.

1. Construct a bar graph with:

- a. Y-axis: Dollar investment.
- b. X-axis: List of districts for which you want to compare coach and lead teacher investment.

2. Graph the level of coach and lead teacher investment per teacher for your district and compare to other districts.

Worksheet 11: Teacher-to-coach ratio by school, grouped by AYP status

OBJECTIVE: To determine the number of teachers that each instructional coach or teacher leader is expected to support, and identify whether there are opportunities to better match coaching support to school and teacher need.

SUMMARY OF METRICS

STEP 1: Determine the number of coaches deployed at each school and total FTE allocation.

STEP 2: Determine the number of teachers at each school and total FTE allocation.

STEP 3: Calculate teacher-to-coach ratio at each school.

STEP 4: Graph comparison metrics by school.

REMINDER

Figure 11: Teacher-to-Coach Ratio by School, Grouped by AYP Status



STEP 1: Determine the number of coaches deployed at each school and total FTE allocation.

1. Using your district's HR file:

- Identify coaches by job code/title (often identified as instructional specialists).
- Determine whether each coach is assigned to one school or multiple schools. The HR file typically lists the schools each coach is assigned to in the current year.
- Where applicable, determine the number of FTE units for each coach at each school; e.g., a coach who is assigned to one school full-time will have FTE = 1. A coach who works only 50% and splits her time at two schools will have FTE = 0.25 **at each school**.
- For each school, create a list of the coaches with two columns:
 - Coach name/ID
 - FTE units at school
- Using the list you just created, calculate total coach FTE units at each school:
 - Sum the "FTE units at school" column.

STEP 2: Determine the number of teachers at each school and total FTE allocation.

1. Using your district's HR file:

- Identify teachers by job code/title.
- Where applicable, determine the number of FTE units for each teacher at each school.
- For each school, create a list of the teachers with two columns:
 - Teacher name/ID
 - FTE units at school
- Using the list you just created, calculate total teacher FTE units at each school:
 - Sum the "FTE units at school" column.

STEP 3: Calculate teacher-to-coach ratio at each school.

$$\frac{\text{FTE teacher units}}{\text{FTE coach units}} = \text{Teacher-to-coach ratio at each school}$$

STEP 4: Graph comparison metrics by school.

1. Construct a bar graph with:

- a. Y-axis: Teacher-to-coach ratio (i.e., number of FTE teachers per each FTE coach).
- b. X-axis: List of schools for which you want to compare teacher-to-coach ratio. It may be helpful to sort schools by whatever measure of school performance you use in your district. Lower-performing schools are likely to have higher needs for coaching resources, and therefore, they should ideally have lower teacher-to-coach ratios.

QUESTIONS TO CONSIDER AND ACTION STEPS

Questions to Consider

1. Are you investing enough to provide effective school-based professional support?
2. Do your school leaders deliberately organize job and team assignments to leverage teacher strengths and support continuous improvement?
3. Does your district provide adequate collaborative planning time to teacher teams for them to continuously improve instruction?
4. Does your district provide teachers with effective formative assessments for every grade and subject?
5. Is your district investing in coaches or lead teachers? Are you ensuring they have the right skills and support to be successful?
6. Are your coaches or lead teachers focused in areas of highest need or fragmented across too many schools and teachers to be effective?
7. Are there opportunities to improve the return on your coaching investment by redeploying coaches or lead teachers and implementing best practices around school-based support?

Take Action!

- **Support principals in assembling teacher teams with complementary skills and experience.** You can help principals be strategic in teacher job and team assignments by supporting them in hiring the teachers they need, providing them adequate information on strengths and weaknesses, and providing them with staffing flexibility. Staffing flexibility includes the ability to vary class size and student groupings based on teacher skills and student need, to use part-time resources to fill in critical skill areas, and to change job and team assignments to leverage teacher knowledge and experience. You may need to work with your union to relax requirements that allow teachers to choose course assignments based on seniority.
- **Provide teachers with at least 90 minutes per week of collaborative planning time.** All teachers in your district, but especially those teaching struggling students and those at high-need schools, should have at least 90 minutes of collaborative planning time each week. When used well, this time is critical to improving instruction. Establish clear guidelines for how this time is to be used, and hold school leaders, teachers, and coaches accountable for using the time well.

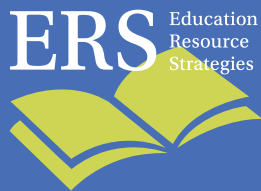
Although the required release time can be difficult to fund, districts can find additional resources by using strategies such as improving the management of school programs and capacity; increasing class sizes in noncore subjects; using part-time staff and less expensive staff to cover release time; or redirecting professional development investment from non-job-embedded programs and tuition reimbursement.

Increasing class sizes to free teacher time for collaboration may seem counterintuitive—states and districts have been investing to reduce class size for years. However, reducing class sizes without having enough high-quality teachers to teach those smaller classes is not effective. Instead, districts should look at incrementally increasing class sizes, especially in noncore subjects, to fund needed investments in teacher development first.

- **Invest in formative assessments and a system that makes it easy for teachers and coaches to access results and track progress.** Regular student assessment data are critical to high-quality professional development and collaborative planning time. Ongoing formative assessment data allow teachers to closely track the performance of their students to evaluate the effectiveness of specific practices and interventions. Schools should prioritize assessments for English language arts, math, and early and transitional grades to augment existing classroom assessment tools.
- **Create or refine a coaching or lead teacher program that provides effective expert support to teachers in the areas of highest need.** Figure out how much you are currently investing in coaching. Your investment may be larger than you realize, especially if you look across all departments and programs that involve coaching. Then, look carefully at the load for each coach and lead teacher—overloaded coaches are not effective. It is better for each teacher to have one coach with the time and skills to really help him or her than to work with numerous coaches from different programs, so assign your coaches accordingly. Ensure that high-need schools and teachers have all the coaching resources they need, and then provide coaching for other schools if you have enough capacity. Core academics—especially math and English language arts—should take priority. Find out how well your current coaches are performing—are teachers getting the support they need to improve their practice? Are the coaches skilled enough? Are you providing them with the training and support they need? Seniority alone does not make a good coach. Coaches must not only be outstanding and experienced instructors, but they also need to know how to teach adults, a skill not everyone has.
- **Build expert support within teacher teams.** Leveraging existing teachers to provide expert support as lead teachers by reducing their course load and/or increasing their compensation is generally less expensive than adding full-time coaches. It can also be more effective, as these teachers are full-time at the school and understand the instructional vision and cultural dynamics of the school better than an outsider might. These positions can also be part of a career path for teachers. However, some schools may not have enough high-capacity teachers to provide coaching expertise. In these cases, the district may choose to introduce external coaches to build capacity over time. One district deployed coaches and lead teachers based on the performance of each school and each teacher. Where school performance and teacher capacity were low, the district provided instructional support teams and content coaches. Where school performance and teacher capacity were higher, schools were encouraged to promote teachers to team leader positions and bring in outside experts only as needed.

ABOUT ERS

ERS is a non-profit organization dedicated to helping urban school systems organize people, time, and money to create great schools at scale.



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