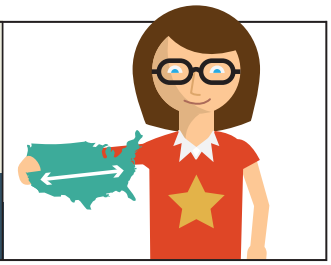
REDESIGNING SCHOOLS

TO REACH EVERY STUDENT WITH EXCELLENT TEACHERS

FINANCIAL PLANNING FOR SECONDARY-LEVEL TIME-TECHNOLOGY SWAP + MULTI-CLASSROOM LEADERSHIP



SUMMARY

This brief shows how middle and high school teachers in a Time-Technology Swap school model, with or without Multi-Classroom Leaders, may earn more while reaching more students, sustainably. In this model, students alternate between learning with teachers and working in a digital learning lab, where they learn online and engage in offline skill practice, homework, and project work. This frees the time of teachers to teach more students, plan, and collaborate with their peers in teaching teams. Teaching teams may also have Multi-Classroom Leaders, excellent teachers who are accountable for the outcomes of all the team's students in a subject and for team members' job-embedded development.

Here we show calculations when students learn online every other day in core subjects, spending a maximum average of two hours daily in a digital learning lab. In this model, core teachers reach 50 percent more students. **Students are 50 percent more likely to have excellent teachers in all four core subjects** (math, English language arts, science, and social studies subjects), and far less likely to have ineffective teachers. Teachers extending their reach gain an average of five to 15 new, additional periods weekly of non-teaching time to plan instruction collaboratively with peers, review student work, and learn on the job. Teachers may use some of these periods to pull small groups out of the lab for targeted instruction.

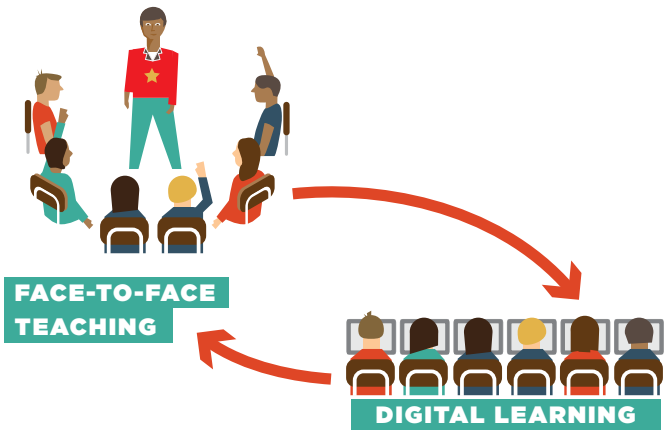
By teaching more students and achieving excellence in teams, teachers can earn more from existing per-pupil funding, even after costs of technology and new paraprofessional support. Calculations of savings and costs from this model show how secondary schools could **increase teacher pay between 20 and 26 percent,** and **Multi-Classroom Leader pay by up to 67 percent, *without increasing class sizes and within available budgets.*** Schools may choose to pay *all* teachers more, within budget, while still paying those who extend their reach even more.

This brief summarizes the expected savings and costs associated with a Secondary Time-Technology Swap alone and in combination with Multi-Classroom Leadership. These are two ways that schools and their teachers can simultaneously reach more students with excellent teaching, expand teachers' career opportunities, increase job-embedded development, and sustainably fund higher pay and other priorities.

TIME-TECHNOLOGY SWAP

Students spend part of the day engaged in self-paced digital learning. Digital instruction replaces enough of top teachers' time that they can teach more students, using face-to-face teaching time for higher-order learning and personalized follow-up. These blended-learning teachers can use part of their freed time for planning and collaboration.

The brief focuses on one variant of the Time-Technology Swap called **Rotation**. In this model, students rotate on a fixed schedule between digital instruction and face-to-face learning with the teacher. Teachers can teach a larger number of students without increasing class size because at a given time, some of their students are learning in a digital lab with paraprofessional supervision. Labs may be located next to or near the classrooms of teachers being served, promoting communication between paraprofessionals and teaching staff, or in a central location.



MULTI-CLASSROOM LEADERSHIP

Excellent teachers with leadership skills both teach and lead teams or "pods" of other teachers in order to share their strategies and tools for classroom success. Responsible for achieving high growth for all classrooms in the pod, and accountable for the learning results of all the pod's students, the teacher-leader determines how students spend time and tailors teachers' roles according to their strengths.

When Rotation is combined with Multi-Classroom Leadership, all teachers have a better chance of achieving excellence through high-standards leadership, collaborative planning, and on-the-job development.

Rotation and Multi-Classroom Leadership are among more than 20 school models published by Public Impact that use job redesign and technology to extend the reach of excellent teachers to more students, for more pay, within budget. Most of these models create new roles and collaborative teams, enabling all teachers and staff to develop and contribute to excellence.

We call this an "Opportunity Culture." In an Opportunity Culture, all teachers have career opportunities dependent upon their excellence, leadership, and student impact. Advancement allows more pay and greater reach. Development toward excellence is possible for all staff, in every role.

When teachers reach more students, additional per-pupil funds become available to support those teachers' work. This additional funding, minus new costs, can be used for higher pay and other priorities, according to the values, needs, and priorities of each school.

In this brief, we summarize how Rotation, alone and in combination with Multi-Classroom Leadership, can **generate savings that secondary schools can use for higher pay.** We show four **scenarios** that illustrate the estimated savings possible, the estimated costs to support extended reach of excellent teachers, and the estimated range of pay increases for blended-learning teachers and Multi-Classroom Leaders.

Schools can pay *all* teachers more within budget by extending reach in teams and developing instructional excellence schoolwide. Schools also can combine models to increase reach and excellence among teachers.

Extending the reach of excellence requires excellent results. Schools should implement models in ways that allow teachers to reach more students without lowering student outcomes below the excellence bar. Both options shown here allow significantly increased in-school planning and collaboration time, which can be scheduled for subject team collaboration and learning. School leaders who choose models wisely—to reach students with teachers who are most consistently excellent in a particular subject or role, and with the support each teacher needs—may find that improved student outcomes lead to increased public support for additional school funding. Initial Opportunity Culture sites have experienced significant increases in the number of teacher applicants, even in high-poverty schools.

For more information, see **OpportunityCulture.org,** which provides a **financial summary** showing how to calculate net savings in different models for extending the reach of excellent teachers, **school model summaries, detailed models, teacher career paths,** and more **tools.** Visit often for updated materials.

THE TIME-TECHNOLOGY SWAP—ROTATION AND MULTI-CLASSROOM LEADERSHIP MODELS EXPLAINED

In a Time-Technology Swap—Rotation model, students spend some of their in-school time engaged in personalized digital learning, replacing a portion of excellent, in-person teachers' whole-group and lecture instruction chosen by the teachers. Students rotate on a fixed schedule between digital instruction and face-to-face learning with the teacher. Combining digital and face-to-face instruction in this way is known as blended learning.

To extend their reach, excellent blended-learning teachers use freed time to teach additional classes, focusing primarily on personalized and enriched portions of instruction. During digital learning time, lab monitors supervise students, and tutors may work with students individually and in small groups. In secondary grades, students may spend a significant portion of "digital time" on *non*-digital learning—reading, practicing skills, doing homework, and working in project groups, for example—in a room supervised by paraprofessionals where some students are working online. Teachers, monitors, and tutors collaborate as a team.

When adding a Multi-Classroom Leader (MCL) to teams, each subject team has a leader who takes responsibility for the success of all the students in that subject and for on-the-job development of all teachers on the team. The MCL continues to teach, while also leading and developing the subject matter team. The MCL is formally accountable for outcomes of all the students taught by the team, and has authority to set the standard for the team's teaching excellence.

Reach Effects: Even while adding significant planning time during

school, excellent secondary blended-learning teachers can reach 50 percent more students. Reach may vary with the number of periods in which teachers extend their reach, the percentage of digital instruction time for students, and the amount of extra planning/collaboration time for teachers. Secondary teachers may extend their reach in any number of class periods, ranging from just one period to all of their class periods. Likewise, students may take blended-learning classes in any number of periods. By alternating digital and face-to-face learning every other day for four class periods of core subjects, students are at least 50 percent more likely to have an excellent teacher, while learning online two hours daily at most.

In a typically sized secondary school, Multi-Classroom Leaders can take responsibility for all of the schools' students in a subject, increasing their reach by 300 percent or more (the examples shown here extend reach by 500 percent). Larger schools may have two or more leaders within each subject who take responsibility for a portion of the courses in a subject.

Note: Rotation can work without students moving to a digital lab. Instead, students can rotate between "stations" within a classroom, including a station in which they engage in digital learning. Teachers can also vary the portion of learning that each student does online in a "**flex**" model. Here, however, we focus on the financial implications of lab rotations. Labs may be located close to the classrooms of the teachers they serve or be centrally located.

For more about these models, see: **http://opportunityculture.org/reach/time-tech-swaps-rotation** and **http://opportunityculture.org/reach/multi-classroom-leadership-in-person/.**

HOW THESE MODELS CAN GENERATE SAVINGS FOR HIGHER PAY AND OTHER PRIORITIES

Using Rotation schoolwide in secondary schools, alone or in combination with Multi-Classroom Leadership, presents several alternatives. For example, a school could pay *all* teachers more, within current budgets, with blended-learning teachers earning far more. Second, it could pay only participating teachers more—those who extend their reach. Third, a school could pay all participating teachers somewhat more and its most effective teachers far more, again within budget. In all cases, MCLs can earn a substantial additional premium.

Higher pay is possible because of potential **savings** that are only partially reduced by potential **costs.** In practice, the net savings available to pay teachers more and fund other priorities will differ by local wage differentials between teachers and other school staff, technology costs, and the specific decisions that school design teams make about how the model will work. See the scenarios below for some starting options.

In addition to making specific decisions about how the model will work, design teams of teachers and leaders will have to make choices about the **speed of transition,** based on the urgency of student learning needs, school values, and financial realities. Faster implementation in an existing school can free funds more quickly, but may increase one-time transitional costs, described below.

The ways that Rotation can produce financial savings or increase funding include:

- **Shifting non-classroom instructional specialists back into classrooms.** When excellent teachers reach more students successfully, fewer students may need specialists who supplement classroom instruction. In schools where specialists are chosen for their teaching prowess, those non-classroom specialists could return to classroom roles, extending their reach via rotation or team leadership. This saves funds by avoiding an additional hire when an excellent teacher working outside the classroom as a specialist is already available in the school and can move into a direct teaching role, for higher pay. Note: In some districts, these non-classroom positions may be paid for out of the district budget rather than school-level budgets. The district should work with schools designing Opportunity Culture models to allow them to reallocate those positions.
- **Reducing the number of teachers needed to reach the same number of students.** When teachers reach more students, fewer teachers are needed overall, reducing total costs and permitting remaining teachers to earn more, even without class-size increases. (This does not require dismissals; natural attrition is high enough in most places to make this transition within a few years *without* extra dismissals.)

Ongoing costs when implementing Rotation may be incurred by:

- **Adding paraprofessional roles to support extended-reach teachers.** Paraprofessionals oversee students learning in the digital lab, if personnel are not already available for this role. This does not require the high levels of combined academic, planning, and classroom management skills that full teachers need, and thus the pay for these positions is lower. People in these positions also would have shorter workweeks of approximately 40 hours (in contrast, teachers report working more than 50 hours weekly on average). If paraprofessionals supervise more than 24 students per lab, as is likely at the secondary level, savings are increased further because this cost is reduced.
- **Increasing technology costs.** Although most schools already spend money on technology, these costs would likely rise if students began spending significantly more time in digital learning. A school would face some start-up costs, discussed

below. A school also could have increased ongoing expenses in two categories.* First, schools might need to buy licenses for digital learning content and for a management system to enable students and teachers to use the content easily. While some free content exists, other applications carry licensing charges. Second, schools would likely face ongoing technology costs for expanded broadband Internet access, equipment maintenance and replacement, and other expenses. See the scenarios below for more discussion.

While this brief focuses on *ongoing* costs, transitional costs incurred may include:

- **Initial hardware and facilities costs.** Schools using this model may need to invest initially in new computers, wiring, Internet access equipment, furniture, and other hardware. In addition, changes may be required to the school's facility; for example, to create space for a digital lab that holds 50 to 100 students. These costs will vary widely by school depending on what hardware and facility configuration already exists. (New schools *save* facilities funds by building fewer internal walls.)
- **Obtaining design assistance.** Some schools and districts may need design and facilitation assistance to choose and tailor reach models. This temporary cost may be funded by allocating reach-model savings over a number of years or by obtaining special, temporary grants. See **http://opportunityculture.org/reach/** for links to detailed school models and implementation tools that may help reduce or eliminate this cost in some locations.
- **Transitioning pay discrepancies.** Schools may choose to transition to this model as excellent teachers become available (through new hiring or the development of solid teachers) and as natural attrition of the least effective teachers occurs. But other schools may choose to make faster transitions in which current teachers change roles immediately.
  - With Rotation, this might mean having all teachers who are consistently solid or excellent take on more students on alternating days in one or more class periods (without increasing class size). This would eliminate the need for persistently ineffective teachers to be responsible for most instruction—they could be reassigned to noninstructional positions within a district, or, where warranted, dismissed. Tenured and contract-protected teachers who remain in schools but do not continue in full teaching roles may need to be paid above the going rate of their new positions. Although this cost is transitional and temporary, it may be the most significant cost of reach extension for some schools. When financially viable, with public or private philanthropic funding, bearing this cost will make reach fairer and more palatable to those who entered the profession with different expectations. A slower transition to reach models within each school can avoid this cost, but may reduce the benefit to both good and great teachers—and students.

*For more discussion of these costs, see Battaglino, T. B., Haldeman, M., & Laurans, E. (2012). The cost of online learning. In Chester E. Finn, Jr., & Daniela Fairchild (Eds.), *Education reform for the digital era.* Washington, DC: The Fordham Institute (pp. 45–76).

Finally, **benefits costs may increase or decrease the savings—and teacher pay boosts—projected here,** both in absolute terms and as a percentage of wages and salaries. We do not model benefits here, as the permutations in different schools are too numerous for this summary. School and district financial officers will need to be mindful of benefits when calculating and reallocating the savings. Reallocating savings to pay increases for teachers whose reach is extended and to new spending on other priorities may have different effects on benefits costs. For example: Paraprofessional benefits during employment may be a higher percentage of wages than benefits for professionals, reducing savings somewhat. Alternatively, reducing the number of classroom and non-classroom teaching positions will in most cases increase savings—and funds available to pay classroom teachers more.

HOW SCHOOLS CAN USE SAVINGS

This model frees funds, and can free teachers' time, too. School design teams composed of teachers and school or district leaders must choose how to reinvest that money and time.

In addition to paying great teachers more for reaching more students, schools can use freed funds and time for nearly any school priority that requires time and money.

Schools and districts could also:

- **Increase leadership by freeing excellent teachers' time:**
  - To develop, lead, train, and evaluate other teachers and staff
  - To develop rubrics and routines that allow developing teachers and staff to take on more of the excellent teachers' duties while maintaining excellent student outcomes for all students
  - To help school leaders determine the best **career paths** for developing teachers
- **Increase development and collaboration of all teachers by freeing time:**
  - To collaborate with teammates in the same grades or subjects
  - To develop skills needed for excellence in every role and for career advancement
- **Increase learning personalization and enrichment by freeing time and funding talent:**
  - To add instructional time to students' days or school year

- To reduce instructional group sizes
- To provide more small-group and individual instruction, by teachers or tutors
- To spend more time on enriched instruction and higher-order thinking skills
- To increase the planning time needed to handle a greater student load

The benefits of reach extension to teachers are not all financial. This model could allow schools to increase **job flexibility and provide part-time work** to blended-learning teachers who teach fewer than the possible additional number of classes on a part-time schedule (but whose reach funds full benefits, often a cost deterrent to part-time positions).

For example, two teachers can share a position, reach more students than a typical teacher, and defray the cost of paying benefits to two teachers. A blended-learning teacher could teach two periods in the mornings, save one morning period for daily planning, and then leave the school at midday, reaching four classes total, which alternate days in the digital lab and classroom. A peer might teach the same subject in the afternoon, also reaching four classes that alternate between the lab and classroom and also saving one period daily for planning. Together these two produce more than the work of one full-time teacher (teaching eight classes total, instead of six), but each is able to work half-time, by choice. Schools can overlap job-sharing schedules to provide an opportunity for collaboration with the person sharing the position (or other teachers). This may help schools retain some excellent, experienced teachers who would otherwise exit the profession during various stages of their careers and family obligations. (See more on OpportunityCulture.org at **http://opportunityculture.org/teachers-time/**.)

Of course, for many teachers, the chance to pursue teaching excellence, impact more students, and help peers succeed are the best benefits of this model and of building an Opportunity Culture within schools.

Visit **OpportunityCulture.org** for more information on Rotation, other Time-Technology Swaps, other reach models, and their implications for students, teachers, and schools.

SCENARIOS

In this section, we show calculations of the net savings under four versions of Time-Technology Swap — Secondary Rotation. The scenarios come in two sets. In Set A, prior to the swap, teachers in the four core subjects (math, language arts, science, and social studies) each teach six classes per day in an 864-student school. In Set B, teachers teach five classes per day in a 720-student school.

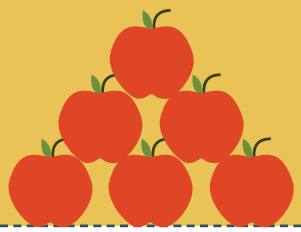
Each set includes two scenarios: One in which teaching teams work with no leader, and one in which teams have a Multi-Classroom Leader. All scenarios focus entirely on using a swap within the four core subjects, though similar strategies could potentially be used in other subjects as well.

These scenarios illustrate different ways schools could use these models, and the net cost savings possible in each approach. For each scenario, we express the "bottom line" as the maximum potential pay supplement a school using this model could pay the teachers whose reach is being extended.

OPPORTUNITY CULTURE PRINCIPLES

Teams of teachers and school leaders must choose and tailor models to:

1. **Reach more students with excellent teachers and their teams**
2. **Pay teachers more for extending their reach**
3. **Fund pay within regular budgets**
4. **Provide protected in-school time and clarity about how to use it for planning, collaboration, and development**
5. **Match authority and accountability to each person's responsibilities**



Common Elements of Scenarios

* **Alternating schedule:** To free time to reach additional students and to do more planning and development, individually and with their teams, teachers in both scenarios spend **every other day** with each of their classes of students. On the alternating days, students are in a homework lab where they can work on personalized digital learning, do off-line homework and skills practice, engage in project work individually or with peers, and receive targeted assistance if needed. Students rotating in the four core subjects spend an average of two periods daily in the lab.

  For example, a teacher might meet with one of her algebra I classes on Monday, Wednesday, and every other Friday during first period. On the other days, she would spend first period with another class of students, engage in planning alone or with other teachers and staff, or pull small groups of students out of the homework lab for personalized instruction.

  Alternating days is only one possible variant of a Rotation

swap. Students could meet with teachers more or less frequently. We present the alternating days scenarios here because they are relatively straightforward to schedule, keep full class periods intact, and serve as a starting point for school design teams wishing to consider more complex rotations. When teachers team-teach, alternate rotations are possible by adopting school schedules on a rotation other than a five-day week. For example, students can learn in a digital homework lab just every *third* day of each core class if a school adopts a six-day schedule.

* **Digital Lab Monitors:** When students are not with their teachers during core subjects, they are in a lab supervised by a "digital lab monitor." Both scenarios assume that three typical classrooms of students—72 in total—could be in a digital lab at one time. If schools chose to have more or fewer students in digital labs at a time, they would see larger or smaller levels of savings. To achieve the full level of savings shown in the scenarios, enough students would have to be learning in the lab to fill up a 72-student digital lab. Some schools may be able to focus volunteer time to provide tutoring, digital assistance, and general supervision during digital lab time, effectively reducing the student-to-adult lab ratio.
* **Technology costs:** Because digital learning is such a rapidly evolving field, and schools have so many choices about content and equipment, projecting the ongoing costs of Rotation is difficult. According to Battaglino et al.'s estimate, schools currently spend about $300 per student per year on a combination of content and other technology costs.* Here we project that cost to double to $600 in these scenarios. These estimates are within the range projected by Battaglino et al., who also include a much more detailed discussion of content and technology costs for schools using models like this.

For each scenario, we show the assumptions, the costs before and after the scenario, and the savings made possible by the scenario. We express these savings in various ways, but the "bottom lines" in the charts show how much more the blended-learning teachers and multi-classroom leaders could earn if the school (a) applied 100 percent of the savings to that purpose; and (b) either divided the savings equally among all the participating teachers or among blended-learning teachers and multi-classroom leaders differentially. Of course, schools may choose to divide savings between teacher pay increases and other valued spending, so these figures just show the maximum *possible* pay boost in these scenarios. In addition, schools may choose to pay some teachers more; for example, to pay teachers who demonstrate excellent results more consistently.

*Estimated from Battaglino et al., The cost of online learning, p. 61.

Schools using these scenarios will need to modify them to fit their own circumstances. For example, the scenarios contain assumptions based on national averages about the ratio of paraprofessional pay to teacher pay (0.45, meaning that the average paraprofessional pay is 45 percent of average teacher pay); the ratio of non-classroom specialist pay to teacher pay (1.11); average teacher salary ($55,000); technology costs (discussed above) and other elements. If a school's own ratios and averages differ significantly from these, or if a school chooses to boost paraprofessional pay as well, potential savings (and thus pay increases) from these scenarios will be higher or lower than shown here.

NOTE FOR ALL SCENARIOS: By non-classroom specialists, we mean individuals who coach teachers and/or teach non-special population students in core subjects, such as literacy specialists/facilitators; math specialists/facilitators; and remedial or gifted specialists. We are not referring to teachers of special education or English language learners, who we assume would continue to play their current roles in these models.

SCENARIO SET A

In both scenarios within Set A, we envision a secondary school with 864 students. Schoolwide figures can be doubled or more to make proportional schoolwide estimates for larger schools.

In each of the 4 core subjects, the school has 6 teachers, each teaching 6 classes every day, before the use of the Time-Technology Swap. Teachers' average class sizes are assumed to be 24, approximately the national average, and remain the same after introducing the Time-Technology Swap.

Scenario 1: All Core Teachers Rotate; No Multi-Classroom Leaders

In this scenario, 4 teachers—rather than the original 6—cover each of the 4 core subjects. Though they ideally operate as a team, with careful scheduling enabling joint planning and peer exchange, the teams have no identified Multi-Classroom Leader responsible for the success of all their students.

Before using this model, each teacher taught 6 classes every day of the week, occupying 30 class periods each week. Now each teacher has 9 classes of students, but teachers teach in person only on alternating days, as described above. For example, a teacher may teach 6 classes every Monday and Wednesday, and 3 classes every Tuesday and Thursday. On Fridays, she teaches 6 classes one week, and 3 the next. As a result, where 30 periods used to be occupied by teaching, only 21 or 24 are now occupied. *Each week*, teachers gain either 6 or 9 periods in *additional* planning and prepara-

tion time. (Other planning periods that used to be free remain free, as well.)

Because the model allows a school to place its four best teachers within each subject in charge of all students' learning, a school using this model can reduce the number of positions it has for non-classroom specialists to support classroom positions. Many previously excellent teachers holding these non-classroom positions would likely choose to shift into the rotating teacher roles or MCL roles (see below) in order to move back into classroom teaching while earning more.

This scenario assumes the school can reduce the number of non-classroom specialist positions by 3 positions. Schools with large numbers of FTEs of non-classroom specialists could potentially generate even higher levels of savings and higher pay increases for teachers by reducing these positions even further.

Though a school using this scenario incurs some new costs for technology and digital lab monitors, the approach generates considerable savings that can be used to pay the rotating teachers more for reaching more students. An average-size secondary school would save more than **$233,000** if it used this model schoolwide in core subjects. If all of these savings went to pay participating classroom teachers more, **participating teachers could earn a pay supplement of 25 percent** above average pay.

Scenario 2: All Core Teachers Rotate, and Multi-Classroom Leaders Lead Subject Teams

As in Scenario 1, 4 teachers—rather than the original 6—cover each of the 4 core subjects. In Scenario 2, 1 of the 4 is selected because of his or her leadership skills to become a Multi-Classroom Leader (MCL). Before using this model, each teacher taught 6 classes every day of the week, occupying 30 class periods each week. Now each Team Teacher in the MCL's pod has 10 classes, alternating days with each class as described in Scenario 1. So each Team Teacher now teaches 5 classes per day for a total of 25, freeing 5 periods *per week* in additional planning and preparation time. (Planning periods that used to be free remain free, as well.)

The MCL teaches just 6 classes, alternating days. The MCL might teach 3 classes every day, freeing the other 3 periods (s)he used to be teaching for planning and leading the team. Or the MCL might have heavier and lighter teaching days, such as teaching 5 classes on Mondays, Wednesdays, and alternating Fridays, and just 1 class on other days. Either way, the MCL gains 15 periods per week for leadership functions. (Other planning periods that used to be free remain free, as well.)

Because the model allows a school to place its 4 best teachers within each subject in charge of all students' learning, and has one of them serving as an accountable team leader (the MCL), a school using this model can reduce the number of positions it has for non-classroom specialists to support classroom positions even more than in Scenario 1. Many previously excellent teachers holding these non-classroom positions would likely choose to shift into the MCL or blended-learning teacher roles in order to move back into classroom teaching while earning more.

This scenario assumes the school can reduce the number of non-classroom specialist positions by 4 positions. Schools with large numbers of FTEs of non-classroom specialists could potentially generate even higher levels of savings by reducing these positions even further.

Though a school using this scenario incurs some new costs for technology and digital lab monitors, the approach generates considerable savings that can be used to pay the blended-learning teachers and MCLs more for reaching more students. An average-size secondary school would save more than **$294,000** if it used this model schoolwide in core subjects. If all of these savings went to pay participating classroom teachers more, the **Multi-Classroom Leaders could earn a supplement of 67 percent and Team Teachers could earn a supplement of 20 percent** above average teacher pay.

SCENARIO SET B

In both scenarios, we envision a secondary school with 720 students, about the national average.

In each of the four core subjects, the school has 6 teachers, each teaching 5 classes every day, before the use of the Time-Technology Swap. Teachers' average class sizes are assumed to be 24, approximately the national average, and remain the same after introducing the Time-Technology Swap.

Scenario 3: All Core Teachers Rotate; No Multi-Classroom Leaders

In this scenario, 4 teachers—rather than the original 6—cover each of the 4 core subjects. Though they ideally operate as a team, with careful scheduling enabling joint planning and peer exchange, the teams have no identified Multi-Classroom Leader (MCL) responsible for the success of all their students.

Before using this model, each teacher taught 5 classes every day of the week, occupying 25 class periods each week. Now each teacher has 7 or 8 classes of students, but teachers teach in person only on alternating days, as described in Scenario 1. A teacher with 7 classes, for example, may teach 5 classes every Monday and Wednesday, and 2 classes every Tuesday and Thursday. On Fridays, she teaches 5 classes one week, and 2 the next. As a result, where 25 periods used to be occupied by teaching, only 16 or 19 are now occupied, freeing 6 or 9 periods *per week* in *additional* planning and preparation time. (Other planning periods that used to be free remain free, as well.)

Because the model allows a school to place its 4 best teachers

within each subject in charge of all students' learning, a school using this model can reduce the number of positions it has for non-classroom specialists to support classroom positions. Many previously excellent teachers holding these non-classroom positions would likely choose to shift into the MCL or blended-learning teacher roles in order to move back into classroom teaching while earning more.

This scenario assumes the school can reduce the number of non-classroom specialist positions by 2 positions. Schools with large numbers of FTEs of non-classroom specialists could potentially generate even higher levels of savings by reducing these positions further.

Though a school using this scenario incurs some new costs for technology and digital lab monitors, the approach generates considerable savings that can be used to pay the rotating teachers more for reaching more students. An average-size secondary school would save more than **$215,000** if it used this model schoolwide in core subjects. If all of these savings went to pay participating classroom teachers more, **participating teachers could earn a pay supplement of 24 percent** above average pay.

Scenario 4: All Core Teachers Rotate, and Multi-Classroom Leaders Lead Subject Teams

As in Scenario 3, 4 teachers—rather than the original 6—cover each of the four core subjects. In Scenario 4, one of the 4 teachers is selected because of his or her leadership skills to become a Multi-Classroom Leader.

Before using this model, each teacher taught 5 classes every day of the week, occupying 25 class periods each week. Now each Team Teacher in the MCL's pod has 8 classes, alternating days with each class as described in Scenario 1. For example, a Team Teacher may teach 5 classes on Mondays and Wednesdays, and 3 classes every Tuesday and Thursday. On Fridays, she teaches 5 classes one week, and 3 the next. As a result, where 25 periods used to be occupied by teaching, only 19 or 21 are now occupied, freeing 4 or 6 periods *per week* in additional planning and preparation time. (Planning periods that used to be free remain free, as well.)

The MCL teaches just 6 classes, alternating days. For example, the MCL might teach 3 classes each day, freeing the other 2 periods for planning and leading the team, thereby gaining 10 periods per week for these leadership functions. (Other planning periods that used to be free remain free, as well.)

Because the model allows a school to place its 4 best teachers within each subject in charge of all students' learning, and has one of them serving as an accountable team leader (the MCL), a school using this model can reduce the number of positions it has for non-classroom specialists to support classroom positions even more than in Scenario 3. Many previously excellent teachers holding these non-classroom positions would likely choose to shift into the MCL or blended-learning teacher roles in order to move back into classroom teaching while earning more.

This scenario assumes the school can reduce the number of non-classroom specialist positions by 3 positions. Schools with large numbers of FTEs of non-classroom specialists could potentially generate even higher levels of savings by reducing these positions even further.

Though a school using this scenario incurs some new costs for technology and digital lab monitors, the approach generates considerable savings that can be used to pay the blended-learning teachers and MCLs more for reaching more students. An average-size secondary school would save over **$276,000** if it used this model schoolwide in core subjects. If all of these savings went to pay participating classroom teachers more, the **Multi-Classroom Leaders could earn a supplement of 67 percent and Team Teachers could earn a supplement of 20 percent** above average teacher pay.

Other Possibilities

These scenarios are designed to show some of the possibilities for using blended-learning Rotations and Multi-Classroom Leadership to pay teachers more, reach more students with excellent teaching, and develop teachers on the job. Schools could vary these scenarios' parameters in many ways based on their own values, staffing needs, and constraints. We welcome teachers and schools to share their own scenarios with us here: **http://opportunityculture.org/our-initiative/feedback/.**

Note: The scenarios shown here do not include transitional or start-up costs. These costs will vary depending on the speed of transition, the need for outside assistance during design and implementation, and the school's current state of technology. Temporary costs may be funded by allocating reach-model savings over a number of years (so that teachers may be paid more immediately for their new reach roles) or by obtaining special, temporary grants for temporary costs as discussed above.

Data Sources

Average salaries for teachers, paraprofessionals, and non-classroom specialists are based on authors' tabulations of data from Bureau of Labor Statistics, *Occupational Employment and Wages, May 2011,* retrieved from **http://www.bls.gov/oes/2011/may/oes_nat.htm.** Average teacher salary is the national mean salary for the following types of teachers: kindergarten, elementary, middle school, secondary school, elementary special education, middle special education, and secondary special education. Technology costs based on Battaglino, T. B., Haldeman, M., & Laurans, E. (2012). The cost of online learning. In Chester E. Finn, Jr., & Daniela Fairchild (Eds.), *Education reform for the digital era.* Washington, DC: The Fordham Institute (pp. 45–76).

Scenario Set A

Note: Calculations may not be exact due to rounding.

	SCENARIO 1	SCENARIO 2
	4 teachers teach 9 classes each No MCL	MCL teaches 6 classes & leads team 3 Team Teachers teach 10 classes each
Number of students in the school	864	864
Number of students per core class	24	24
Number of core classes	36	36
BEFORE SWAP		
Number of core teachers	24	24
Student load per teacher	144	144
Number of classes taught by each teacher	6	6
AFTER SWAP		
Number of core teachers	16	16
Number of Team Teachers (TTs)	16	12
Number of MCLs	0	4
Student load after the swap (TTs)	216	240
Student load after the swap (MCLs)	N/A	144
Number of classes taught by each Team Teacher	9	10
Number of classes taught by each MCL	N/A	6
New, additional planning periods per week, TTs	6 to 9	5
New, additional planning periods per week, MCLs	N/A	15
SALARIES		
Ratio of average Digital Lab Monitor to average teacher salary	0.45	0.45
Ratio of current teacher salary to specialist salary	1.11	1.11
COSTS BEFORE SWAP		
Teacher salaries	$1,320,000	$1,320,000
Non-classroom specialist salaries	$244,444	$244,444
Tech costs	$259,200	$259,200
Total—before swap	**$1,823,644**	**$1,823,644**
COSTS AFTER SWAP		
Teacher salaries	$880,000	$880,000
Non-classroom specialist salaries	$61,111	$0
New Digital Lab Monitor salaries	$130,952	$130,952
Tech costs	$518,400	$518,400
Total—after swap	**$1,590,463**	**$1,529,352**
SAVINGS		
Total savings for the school	**$233,181**	**$294,292**
Total savings per student	**$270**	**$341**
PARTICIPATING TEACHER PAY POTENTIAL		
Pay supplement per Team Teacher ($)	$14,574	$12,241
Pay supplement per Team Teacher (%)	26%	22%
Pay supplement per MCL ($)	N/A	$36,850
Pay supplement per MCL (%)	N/A	67.0%

Scenario Set B

Note: Calculations may not be exact due to rounding.

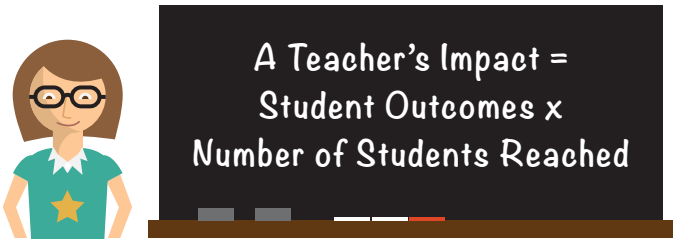
	SCENARIO 3	SCENARIO 4
	4 teachers teach 7–8 classes each No MCL	MCL teaches 6 classes & leads team 3 Team Teachers teach 8 classes each
Number of students in the school	720	720
Number of students per core class	24	24
Number of core classes	30	30
BEFORE SWAP		
Number of core teachers	24	24
Student load per teacher	120	120
Number of classes taught by each teacher	5	5
AFTER SWAP		
Number of core teachers	16	16
Number of Team Teachers (TTs)	16	12
Number of MCLS	N/A	4
Average student load after the swap (TTs)	180	192
Student load after the swap (MCLs)	N/A	144
Number of classes taught by each Team Teacher	7 or 8	8
Number of classes taught by each MCL	N/A	6
New, additional planning periods per week, TTs	4 to 9	4 to 6
New, additional planning periods per week, MCLs	N/A	10
SALARIES		
Ratio of average Digital Lab Monitor to average teacher salary	0.45	0.45
Ratio of current teacher salary to specialist salary	1.11	1.11
COSTS BEFORE SWAP		
Teacher salaries	$1,320,000	$1,320,000
Non-classroom specialist salaries	$244,444	$244,444
Tech costs	$216,000	$216,000
Total—before swap	**$1,780,444**	**$1,780,444**
COSTS AFTER SWAP		
Teacher salaries	$880,000	$880,000
Non-classroom specialist salaries	$122,222	$61,111
New Digital Lab Monitor salaries	$130,952	$130,952
Tech costs	$432,000	$432,000
Total—after swap	**$1,565,175**	**$1,504,063**
SAVINGS		
Total savings for the school	**$215,270**	**$276,381**
Total savings per student	**$299**	**$384**
PARTICIPATING TEACHER PAY POTENTIAL		
Pay supplement per Team Teacher ($)	$13,454	$10,748
Pay supplement per Team Teacher (%)	24%	20%
Pay supplement per MCL ($)	N/A	$36,850
Pay supplement per MCL (%)	N/A	67.0%

OTHER RESOURCES

Additional resources for reallocating spending to support better student learning include the following:

Education Resource Strategies (ERS) is a nonprofit organization dedicated to helping urban school systems organize talent, time, and money to create great schools at scale. Learn more about how to reallocate resources to support strategic school designs that extend teacher reach on their website: **http://www.erstrategies.org/strategies/school_design**.

The Center on Reinventing Public Education has published numerous reports about public school spending and has a web page devoted to finance, spending and productivity: **http://www.crpe.org/finance-and-productivity**.



Acknowledgements

This publication was made possible by support from the Bill & Melinda Gates Foundation. The underlying school model was made possible in part by support from Carnegie Corporation of New York. The statements made and views expressed are solely the responsibility of Public Impact. Learn more at OpportunityCulture.org.

Please cite this report as: Public Impact. (2013). *Redesigning schools to reach every student with excellent teachers: Financial planning for secondary-level Time-Technology Swap + Multi-Classroom Leadership.* Chapel Hill, NC: Author. Retrieved from http://opportunityculture.org/wp-content/uploads/2013/10/Financial_Planning_Secondary_Level_Time-Tech_Swap_MCL-Public_Impact.pdf

BUILDING AN OPPORTUNITY CULTURE FOR AMERICA'S TEACHERS

PUBLIC IMPACT