KEY FINDINGS
Great Falls Public Schools (GFPS) integrated SuccessMaker into its Grade K-6 curriculum to increase student achievement through differentiated instruction. The average proficiency of Grade K-6 students at GFPS for Measures of Academic Progress® (MAP) increased by 10 points in reading and by 15 points in math from fall 2014 to spring 2015. GFPS teachers have also used SuccessMaker reports and data to improve communication with parents and students.

STUDY SETTING AND PARTICIPANTS
Great Falls Public Schools (GFPS) is the second-largest school district in Montana, with approximately 10,315 students, including 5,667 students in Grades K–6 as of January 2014 (Table 1). The district includes a pre-school, 15 elementary schools, two middle schools, and three high schools. GFPS, located in Cascade County along the Missouri River, has had only 10 superintendents since its founding in 1888.

Students eligible for Free and Reduced Lunch (FRL) represent 47.6% of GFPS’ enrollment. The rate has been rising since approximately 2008 and is higher than the state’s FRL rate of 40.2% in 2013. The percentage of American Indian students at GFPS is 12%, slightly higher than Montana’s school average for American Indian students, 11.3%.

<table>
<thead>
<tr>
<th>ENROLLMENT</th>
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<tbody>
<tr>
<td>Grades K–6</td>
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<td>Grade K–12</td>
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<td>76.6%</td>
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<tr>
<td>African American</td>
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<tr>
<td>Asian</td>
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<tr>
<td>Free and Reduced Lunch</td>
<td>47.6%</td>
</tr>
<tr>
<td>Mobility Rate</td>
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<tr>
<td>Special Education</td>
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<tr>
<td>English Language Learners</td>
<td>5.0%</td>
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<tr>
<td>Student/Teacher Ratio</td>
<td>14:1</td>
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Table 1: Great Falls Public Schools, Student Demographics 2013–2014. The mobility rate is for 2014-2015.
GFPS employs 761 teachers, including approximately 300 in elementary schools; 71% have a Masters degree or higher. Its 15 elementary schools include 11 Title 1 schools and an elementary school that serves Malmstrom Air Force Base. Nearly all of the approximately 400 students at GFPS’ Loy Elementary live on the base, located directly behind the school. In 2014, GFPS reported that 12.5% of its students were from active duty military families.

Pearson’s Efficacy team interviewed the Assistant Superintendent for Grades K–6, Ruth Uecker, and representatives from the various schools in the district, including six principals, eight elementary teachers, and two librarians—all of whom work with SuccessMaker. Pearson reviewed publicly available information and data from Measures of Academic Progress (MAP) that the district provided. No personally identifying student information was requested, accepted, or reported at any time in the study.

Montana Standards and Assessments
Montana adopted the Common Core State Standards (CCSS), the next generation of K–12 standards for college and career success, in fall 2011 and began implementing the CCSS into the schools’ curriculum in 2013–2014. The CCSS include new areas of assessment, and are considered more rigorous than the previous standards. Achievement of the standards will be measured by the Smarter Balanced assessment, an online, adaptive test in English Language Arts (ELA) and mathematics. The assessment was piloted in spring 2014, optional in spring 2015, and will likely be required in spring 2016.

CHALLENGES AND GOALS
SuccessMaker has been an integral part of the curriculum at GFPS since the 1980s. “In the beginning, we used SuccessMaker as intervention for lower achieving students, but we expanded to all students in K–6 after we realized that it could help everyone. Every student has strengths and weaknesses in their learning,” said Ms. Uecker.

The district’s goal for expanding its SuccessMaker usage was to increase achievement through personalized, differentiated learning for all students. GFPS aimed to accomplish this while successfully meeting the challenges posed by implementing the new CCSS into the curriculum. The GFPS administrators also cited that SuccessMaker’s online and adaptive learning helped to prepare students for the Smarter Balanced online and adaptive testing that will be implemented in the state.

IMPLEMENTATION
Key Factors in the Implementation
“We are proactive with how we implement SuccessMaker,” reported Ms. Uecker. GFPS uses SuccessMaker strategically to meet individual student needs and uses its data to foster conversations with parents and students. Distinct features of the implementation are:

- Teachers use SuccessMaker data to provide remediation, additional practice, or enrichment for students, by adapting SuccessMaker to target instruction to meet students’ needs.
- Teachers use SuccessMaker data to support communication with parents and students.
- Train-the-trainer model provides professional development.
- All students use SuccessMaker four days a week.
- Each school manages the SuccessMaker logistics to best meet its needs. In general:
  - GFPS schedules a longer lab time for students in Grades 4–6 (45 minutes) than for students in Grades K–3 (30 minutes).
  - Teachers vary math and reading based on the length of students’ SuccessMaker sessions.
  - Students use SuccessMaker in the computer lab or in the classroom with teachers monitoring usage.

How SuccessMaker Works
SuccessMaker is an interactive online course for supplemental instruction and practice in essential reading and math skills. Students begin with the Initial Placement Motion (IPM) in SuccessMaker to identify their place in the online program based on the reading and math abilities demonstrated in the screening. The SuccessMaker program responds to each student individually upon completion of the IPM. The system then offers curriculum at higher or lower levels as it evaluates the current instructional level of the student in each of 16 math strands and eight reading strands. The reading strands are:
• Concepts of Print
• Comprehension
• Fluency
• Phonics
• Phonemic Awareness
• Vocabulary
• Grammar
• Spelling

Once the IPM is completed, the system calculates an average of the strand level scores to identify an overall instructional level for each student. Strand levels drive each student’s learning path. For example, a student might have an average instructional level of 4.3 in reading, but a strand vocabulary level of 3.9. The student would begin at the level designated by the IPM score for each strand (e.g., at the 3.9 level in vocabulary), not at the average reading level of 4.3. The process is the same for math.

It is recommended that students work 20 hours or more, per year, in SuccessMaker in order to achieve one academic year of growth in either reading or math. SuccessMaker collects individual data on students as they work, and the data informs four reports about student usage, performance, and content mastery:

• System Enrollment and Usage (SEU)—Time on task and number of sessions
• Cumulative Performance Report (CPR)—Level of each strand, IPM level, current level, and gains (the difference between the student’s current level and his or her IPM level)
• Student Performance Report (SPR)—Overall average, overall percentage, average time on task
• Areas of Difficulty (AOD)—Specific areas of difficulty for the student

By using students’ SuccessMaker data, teachers can have a greater influence on student achievement.

The role of SuccessMaker at GFPS
GFPS teachers use SuccessMaker for reading and math intervention and reinforcement—with content at the students’ ability level. When students need support with a specific concept or skill in the classroom, they work on it in SuccessMaker. “We modify SuccessMaker to each student’s needs because the program has the ability to be specific to each student,” reported one teacher. SuccessMaker does not affect how students learn in the classroom. Instead, the classroom affects how students use SuccessMaker.

“SuccessMaker fills in gaps for students who didn’t understand something or missed class, or for new students,” said Shantelle Hutchinson, a Grade 6 teacher at Riverview Elementary. “Students see questions and content in SuccessMaker that we don’t normally cover in the classroom, especially in math.” Teachers encourage students to challenge themselves in SuccessMaker by taking advantage of its adaptive content to learn new concepts, when appropriate.

SuccessMaker Data
Principals and teachers use SuccessMaker reports during their weekly Professional Learning Community Time (PLCT) to identify where students are making progress and where they are not. This analysis is used for RTI to develop custom instruction. “We drill down into skills to find out where students are struggling. It can be difficult because some students struggle across the board,” reported a principal.

To monitor students’ work in the lab, teachers and principals use metrics including time on task, the number of questions answered in each session, and how often students click the help button for hints. “Sometimes, if a student needs less scaffolding, we shut the help button off,” said one principal. “Looking at the SuccessMaker data is a must. If you are not paying attention to it, you have no idea what kids are really doing in the lab.”

GFPS uses data, including SuccessMaker data, in IEPs, RTI meetings, interventions, planning, and to support every instructional decision. “We use SuccessMaker data as part of creating a clear picture of the child,” said one principal.
**SuccessMaker Data in Communication**

GFPS uses SuccessMaker data at parent-teacher conferences. “Because SuccessMaker is aligned with CCSS, we show the families that the students are moving towards that goal,” said Kristin Brown, a Grade 2 teacher at Longfellow Elementary.

Teachers also use the SuccessMaker data with students. “I conference with students quarterly about their SuccessMaker reports, because in 6th Grade they are able to understand how SuccessMaker supports what they need to work on,” said Ms. Cockrell, a Grade 6 teacher at West Elementary. “The reports are available for students to use anytime. They like to track their percentages—and sometime we graph that data in math class.”

Cathy Allen, a Librarian/Media Specialist and SuccessMaker trainer at Sunnyside Elementary, cautions against using the data in isolation and instead recommends that teachers use it as a springboard for discussion. “I encourage teachers to ask their students about their SuccessMaker work, rather than just change instruction based on the data alone. You need to see the bigger picture and context to understand what is going on for a student.”

**Professional Development**

GFPS uses a train-the-trainer model for professional development. Two staff members in each elementary school receive yearly SuccessMaker training from Pearson. Then they train their colleagues. Topics include how to manage a classroom in the lab, how to run and use reports, and how to set up custom courses. Trainers maintain the lab, answer questions, troubleshoot throughout the year, and attend the computer labs with other teachers.

A technology integration coach works district-wide to provide further training and support for the computer labs and trainers. Teachers work with trainers and review reports at the weekly PLCT.

**SuccessMaker Lab Sessions**

GFPS students use SuccessMaker on desktops and Netbooks in the computer lab or in their classroom, four days a week in both math and reading. Schools manage the logistics. For instance, Meadow Lark Elementary has two computer labs and three portable Netbook carts. Grades K–3 use SuccessMaker in the computer lab, while students in Grades 4–6 use the Netbooks. At Lewis and Clark Elementary, students in Kindergarten and Grade 1 use SuccessMaker in the classroom on a rotating basis. Six students use SuccessMaker on Netbooks, while another six work with the teacher and a third group of six completes a different assignment. Groups rotate every 30 minutes. Students in Grades 2–6 in the school use SuccessMaker in the computer lab.

The time spent with SuccessMaker varies by grade level and school. In general, students in Grades 4–6 have 45-minute sessions, while students in Grades K–3 have 30 minutes. The larger schools provide less time in the lab because they have more classes to accommodate in the computer lab. In Grades 4–6, where students spend more time in the computer lab, students complete 20 minutes of SuccessMaker reading, 15 minutes of SuccessMaker math, and 10 minutes of transition time. In Grades K–3, teachers typically alternate between reading and math every other day.

Schools deviate from the usage guidelines as needed. At Sacajawea Elementary, for instance, all students, regardless of grade, use SuccessMaker in the computer lab for 30 minutes a day, four days a week. Any additional work is completed in the classroom on Netbooks.

Classroom teachers attend the lab sessions to monitor their students’ work. Each lab has an equipment log. If there is a hardware or software problem, teachers log it. The schools also use their computer labs for work other than SuccessMaker, including state and MAP testing, typing/keyboarding classes, and for research on school projects.

**Technology**

GFPS uses PC desktops and Netbooks with Internet Explorer in all 15 elementary schools. Chief Joseph Elementary is the exception; it is 1:1 with each student using an iPad.
MAP RESULTS AND DATA

The district administers MAP, a 50-minute adaptive online assessment in reading and math from Northwest Evaluation Association™ (NWEA), to all students in Grades K–6. Students take MAP three times a year to measure their growth.


GFPS’ MAP percentile data compares GFPS students with students across the U.S. who also took MAP in the same year. Because 42 states and the District of Columbia have adopted the CCSS, many students are facing the same challenges as GFPS.

MAP percentiles in spring 2014 reflect the first full school year after the CCSS implementation in Montana, which resulted in a more difficult MAP assessment than in previous years. In the two years after the CCSS implementation, the average percentile ranking of GFPS’ students grew in MAP reading and math. The total number of GFPS students who took MAP reading and math are listed in Table 2.

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<td>Fall 2014</td>
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<tr>
<td>Spring 2015</td>
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Table 2: The total number of GFPS students who took MAP reading and math in fall and spring from 2013 to 2015

The average student in the U.S. who takes MAP should be at the 50th percentile. Due to the large size of GFPS, it would be reasonable to expect that average in the district. However, after the first year of CCSS, GFPS students’ average percentile in MAP reading was above the 50th percentile in nearly every grade (Figure 1). For instance, the average percentile for GFPS students in Grade 4 was 54%, indicating that these students scored higher on MAP reading in spring 2014 than 54% of the students in the U.S. who took MAP reading. This indicates that the average Grade 4 student at GFPS grew at a faster rate than the average Grade 4 student in the U.S. in MAP reading.

Great Falls Public Schools—Grades K–6
Average Percentile, MAP Reading, Fall 2013 to Spring 2014

Figure 1: Average percentiles of GFPS students for MAP reading in Grades K–6 from fall 2013 to spring 2014
From fall 2014 to spring 2015, the average percentile in MAP reading increased for every grade, and the average percentile for every grade was at or above the 51st percentile in spring 2015 (Figure 2).

In MAP math, from fall 2013 to spring 2014 (the first year with CCSS) the average percentile for all grades increased and the average percentile for every grade was at or above the 54th percentile in spring 2014 (Figure 3). The average percentile grew at least 6 points in every grade. Kindergarten students grew 27 points in 2013-2014 and in the following school year (Figure 4).
From fall 2014 to spring 2015, the growth in average percentile in MAP math increased in Grades K–6 and the average percentile for every grade was at or above the 53rd percentile in spring 2015 (Figure 4). The average percentile increased at least 6 points in every grade.

**Figure 4:** Average percentiles of GFPS students for MAP math in Grades K–6 from fall 2014 to spring 2015

**MAP Scores of Benchmark or Advanced, 2014–2015**

MAP results indicate students’ instructional goals and RIT (or Rasch Unit score). The RIT indicates a student’s instructional level and estimates yearly achievement. It is categorized as:

- Intensive (below grade level)
- Strategic (below grade level)
- Benchmark (at grade level)
- Advanced (above grade level)

A student with a RIT of Benchmark or Advanced is considered proficient.
Between fall 2014 and spring 2015, the second year of the CCSS implementation, the percentage of students at GFPS who scored Benchmark or Advanced in MAP reading grew in all grades (Figure 5). The average percentage of students scoring Benchmark or Advanced increased by 10 points at that time.

The percentage of GFPS students earning a Benchmark or Advanced in MAP math increased from fall 2014 to spring 2015 in every grade (Figure 6). The average percentage of students scoring Benchmark or Advanced increased by 15 points at that time.
PRINCIPAL AND TEACHER EXPERIENCE

GFPS principals and teachers reported that time set aside specifically for students to meet their learning goals, which SuccessMaker supports, is valuable. Students learn new skills or practice skills that they did not understand in class. “It’s educational content at a student’s instructional level,” said Robert Ingalls, Principal of Chief Joseph Elementary.

Teachers appreciate how SuccessMaker includes age-appropriate visuals. “It’s great that the graphics adjust for the older students, and SuccessMaker looks more adult for them,” said Anne Stevenson, a Grade 4 teacher at Meadow Lark.

STUDENT EXPERIENCE

“The younger students see SuccessMaker as education in a game format. It engages them,” reported Mr. Ingalls. “The Kindergarteners are so excited to go to the lab. They love it. They love all the characters in the program,” said Teresa Sprague, Principal of Meadow Lark. Seeing their results on the computer screen and from their teacher has a positive impact. “When students know that their teacher is tracking their work, they are more motivated,” reported one of the principals.

PARENT EXPERIENCE

The district uses SuccessMaker reports at parent-teacher conferences and demonstrates the program at Open House and Back to School nights. “When we show parents that their child is learning and growing in math and reading, they are overjoyed,” said Mr. Ingalls. Sharing data with parents also helps to motivate students.

CONCLUSION

GFPS implemented SuccessMaker to bring personalized, differentiated learning to all students at their instructional level—and students’ proficiency rates and average percentiles in MAP reading and math in Grades K–6 increased. These increases occurred as the district implemented the new and challenging CCSS into its curriculum. By strategically using SuccessMaker reports and data, GFPS has also supported communication with parents and students. This work will help prepare students for the implementation of the Smarter Balanced assessment in 2016.

Data on SuccessMaker usage and MAP results for 2015-2016 are pending. This additional information will further gauge how the SuccessMaker implementation helped to prepare students for the Smarter Balanced assessment in spring 2016.