Case Study

SLDS - It's not just K-12

Understanding Data-Driven
Decision Making
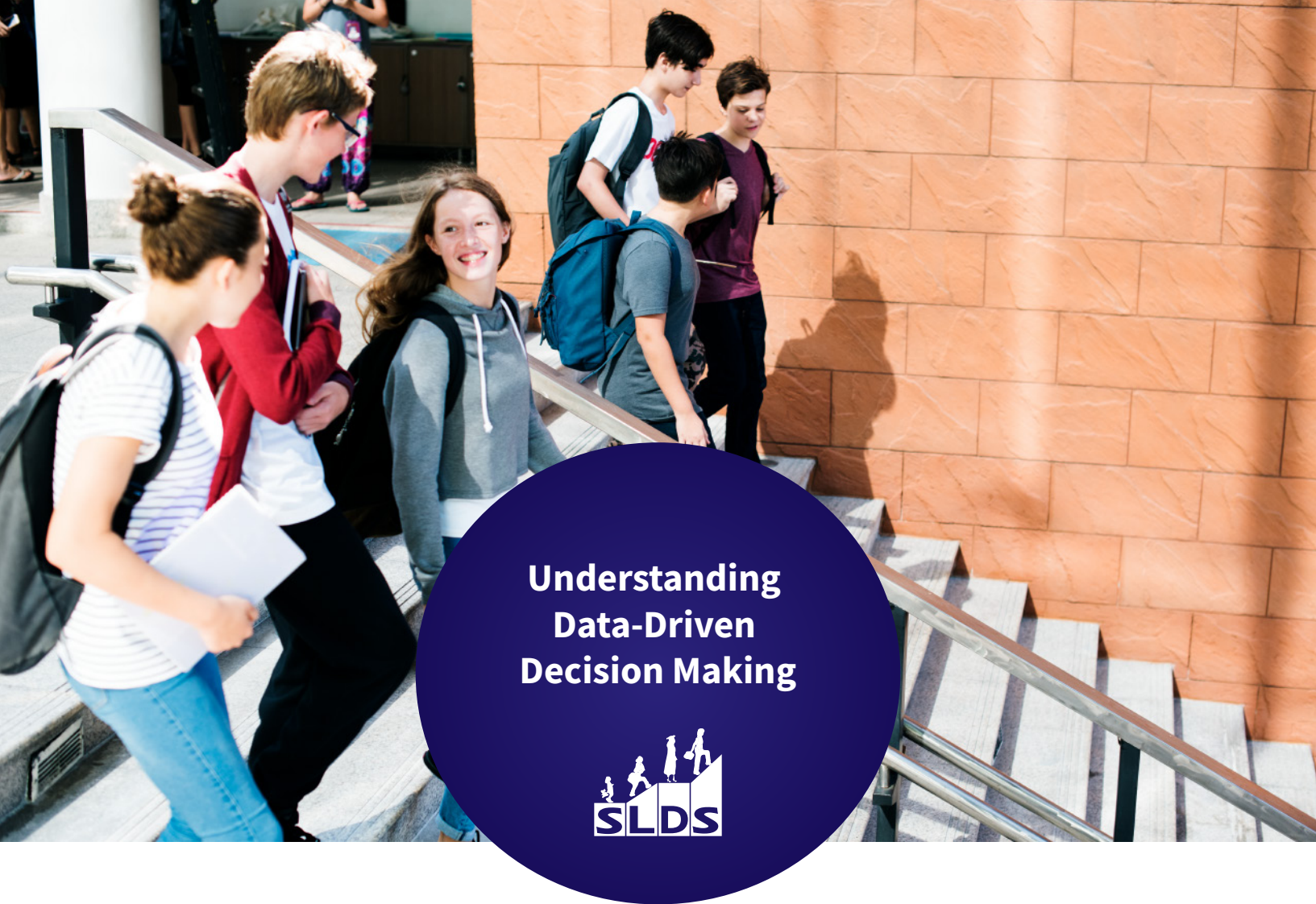
Understanding Data-Driven Decision Making

Education does not stop and start at the classroom door. With over 55 million students in grades K-12 this year, how do administrators make sense of what really impacts student achievement?

With information gathered from statewide P-20 longitudinal data systems (SLDS), educators and administrators will soon have these answers.

The introduction of Common Core State Standards (CSSS) has brought educational leaders and policy makers together with the need to implement an integrated and comprehensive system that will drive student performance and achievement. Big data is driving this effort forward.

Data-Driven Decision Making (DDDM) uses student assessment data and relevant supporting information to make decisions related to planning and implementing strategies at the district, school, classroom, and individual student levels.

Data Ladder

Understanding the value of data quality and record linkage tools is fundamental in evaluating a data quality program for schools. With these tools, states can monitor their reforms and make any changes needed. Data mining and data analytic software can help educators understand various patterns that might predict outcomes in student achievement, as well as identify teachers who are succeeding or need improvement.

Creating a seamless integrated system will take the joint efforts of many to make it happen. Current evaluation systems are very limited as to how teachers and students receive feedback. With a data-driven approach, it is possible to improve learning environments in real-time and provide accurate assessments in order to improve a student's chance for success, both in school and after graduation. By increasing the match accuracy of the data available, it becomes much more useful, and decision making improves.

Data Ladder
Get the most out of your data

Gartner

"39 percent of educational organizations are already beginning to address the big data challenge"

Special Needs For The Education Industry

There are numerous benefits to using data tools to help improve performance within education. Using record linkage tools, schools have developed dashboards that allow them to monitor learning, performance, and behavioral issues at both the student and school level.

Several states have already begun implementing these dashboards, including:
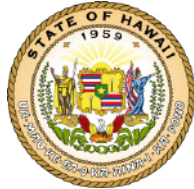
Evidence of the benefits of data-driven decision making have also been seen throughout the business world. Research done by several economists at the Massachusetts Institute of Technology studied 179 large companies. Those that adopted a data-driven decision making process achieved productivity that was 5-6 percent higher than Could be explained by other factors.

Data-driven technology enables learning through both predictive and diagnostic assessments. Through analyzing data, educators can not only predict how students will Perform on standardized tests, but also determine which instructional techniques work best on individual students.

Record linkage tools can bring together disparate data such as: Student demographic information Teacher demographic data, including licensing & preparation Immediate vs. delayed entry into post-secondary education.

Data mining techniques can also help identify problem areas for at-risk students. These may include:

- ✓ Truancy
- ✓ Disciplinary Problems
- ✓ Changes in Grades
- ✓ Changes in Performance

Tale of Two Cities:

Understanding Best Practices

In our experience, we've seen several examples of programs who have had preexisting data quality and fuzzy logic solutions in place, and saw significant changes after beginning usage of Data Ladder's enterprise level software. Our work at the state level exceeds the industry standard; while the normal data linkage rate is 90 percent, our average linkage is at about 97 percent.

AVERAGE DATA LINKAGE RATE

85%

95%

■ Industry Standard

■ Data Ladder
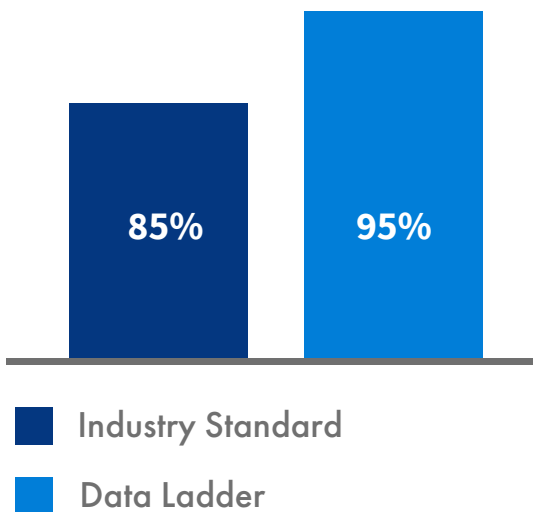
Imagine the effects that improved match accuracy can have when comparing schools in two cities. Just a small improvement can make the difference in everything from property values to policy-making in those areas.

In one state with a record linkage program in place, a sample was done evaluating the number of students in one year who attended post-secondary education in a specific city. With the old existing program, the sample found that 22 percent of the 5,344 students in that city had gone on to higher education. After using our record linkage software, that number went up to nearly 41 percent, nearly double the first figure! The chart below compares this sample to a city of comparable numbers (5,025 students) with no new program in place.

It's important for administrators of an SLDS or P-20 program to understand some best practices when evaluating a match accuracy improvement program:

- ✓ Locate an expert with proven results
- ✓ Implement a good workflow
- ✓ Strong reporting tools
- ✓ Configure a system that can identify correct settings to be used
- ✓ Ability to review matches and non-matches quickly and efficiently
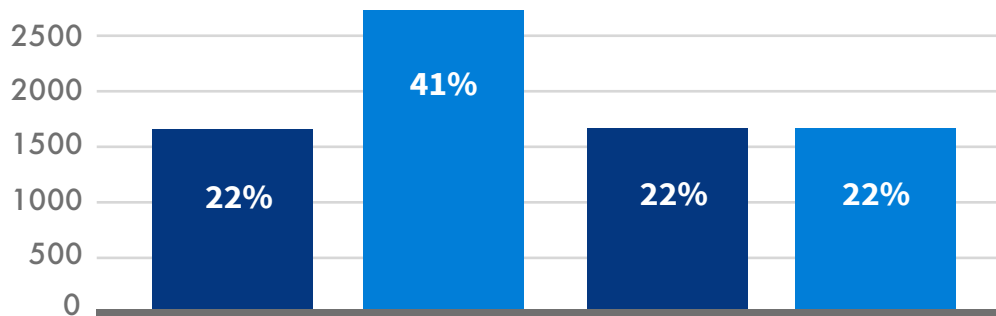
Why Data Ladder

It's simple: our user-friendly and powerful software helps business users across many industries manage their data more effectively and drive their bottom line. Our powerful software suite, DataMatch Enterprise, was proven to find approximately 5-12% more matches than leading software companies IBM and SAS in 15 different studies.

Let **Data Ladder** be your partner in your next marketing campaign. Increase your sales by offering data cleansing services through **DataMatch Enterprise™.**

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