IBM Predictive Analytics
Solutions for Education

Empower your institution to make the right decision every time
Educational institutions at every level are facing demands for greater accountability for what students learn and for managing costs and other resources more effectively. Meeting these challenges involves making a host of operational decisions every day, as well as being smarter about strategic decisions around the student life cycle.

What if you could predict outcomes reliably—and easily—and know which actions or interventions were most likely to achieve specific objectives? For instance, what if you and all the others involved in a decision had greater insight into questions like these:

- Who are the applicants that will be successful at your institution and what is the probability that they will matriculate?
- Which students are at risk of not advancing to the next level and what interventions are most likely to help each student get back on track?
- Who are the alumni most likely to give a major gift, how much are they likely to donate, and what is the best channel to reach them?
- What is our projected enrollment for the next five years, and do we have the capacity to support future growth?
- What are people saying about our institution on social media and in surveys; is the sentiment positive, negative, neutral or ambivalent?

Predictive analytics bridges the gap between data analysis, predictive insights and improved outcomes, empowering educators and administrators to be smarter about leveraging data to improve the student lifecycle and reach institutional objectives.

**A powerful combination for education**

With IBM Predictive Analytics Solutions for Education, administrators and educators can gain predictive, actionable insight so they can be confident that they’re making the right decisions, every time. Whereas traditional analytic tools are often backward-facing (example: a report on last year’s attrition rate), IBM predictive analytics enables a forward-looking view of your institution’s situation, coupled with prescriptive recommendations to guide decision making (example: these students are likely to drop out, and this is the targeted intervention to get each one back on track).

As a data-agnostic platform, IBM predictive analytics can incorporate both structured and unstructured data as inputs for statistical analysis, data mining and predictive modeling to uncover hidden patterns and associations within the data, anticipate likely outcomes and prescribe personalized recommendations.

These predictive insights and prescriptive actions can be deployed via a user-friendly, web-based application to make it easy to view all available information about your students, faculty, campus, community or donors. They can also be
integrated into business intelligence tools so users can receive key performance indicators, reports and alerts to provide information on the past, present and future of your institution.

The IBM predictive analytics platform can support multiple applications at a single institution—so, for example, if your university wants to improve both its student recruiting and its retention efforts, you could leverage your software investment for even greater impact.

Who can use IBM Predictive Analytics Solutions for Education?

In elementary and secondary school districts:

- Superintendents
- Principals
- Educators
- Guidance counselors
- Analysts and grant application personnel
- Community relations officers

In higher education:

- College or university presidents, chancellors or provosts
- Deans of students
- Deans of faculty
- Recruitment officers
- Development or advancement officers
- Alumni relations officers
- Government relations officers
- Institutional researchers

IBM Predictive Analytics for Student Performance

With increased pressure to meet state performance mandates and with competitive and lucrative incentives available to those who demonstrate real results, K-12 educational administrators and teachers realize that the time to act is now. IBM Predictive Analytics for Student Performance empowers K-12 administrators and educators to use data about students’ past and present performance to predict their future success. By understanding the combination of factors that lead to dropouts and identifying at-risk students, teachers and administrators can proactively intervene to ensure student success.

IBM Predictive Analytics for Schools and Educational Systems (PASSES)

To enable states, school districts and schools to improve student performance, this product and services offering is designed to identify the indicators that affect student outcomes—from early literacy to ensuring students are on track to graduate from high school. The result is greater control over academic outcomes, delivery of personalized, data-driven learning programs and improved compliance with regulatory standards.

IBM Predictive Analytics for Student Retention

Student attrition is a costly problem for many colleges and universities. With IBM Predictive Analytics for Student Retention, university administrators and faculty can reach out
to students early, when they first show signs of being at risk of failing to graduate. This solution enables schools to identify key variables that lead to success and failure – and proactively intervene with data-backed recommendations that will help keep students enrolled through graduation. In addition to avoiding the loss of tuition dollars, improving student retention can maintain or enhance an institution’s reputation and its ability to offer financial aid to prospective and current students – which, in many cases, is a key factor in students’ ability to remain enrolled.

**IBM Predictive Analytics for Enrollment Management**

When looking into post-secondary education, young people are often told: “For every student, there’s a college or university that’s the right fit.” And administrators know that certain students are more likely than others to succeed at their institution. IBM predictive analytics makes it easier to focus recruitment efforts on those who are most likely to accept enrollment and succeed at a particular institution. This benefits institutions by controlling recruitment costs and by enabling them to offer the right incentives, such as financial aid packages, that will attract desirable students. It also enhances a school’s ability to create course schedules, maintain the appropriate levels of faculty and support staff and optimize the use of campus facilities.

**IBM Predictive Fundraising Analytics**

In today’s difficult fundraising environment, knowing how to leverage your wealth of prospect and donor data is critical. IBM Predictive Fundraising Analytics can help your alumni office or foundation predict which alumni are most likely to donate, how much they will donate and when they are most likely to give. It delivers insights about new potential major donors who may have been overlooked using traditional methods, and recommends the optimal channels for engaging with current and prospective donors to maximize relationships and gift amounts.

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**How the Hamilton County Department of Education got smarter**

For Hamilton County, the essence of educational intelligence is granular insight into individual student performance. By leveraging predictive analytics and business intelligence, the county’s teachers, counselors and administrators have a better understanding of how adverse patterns develop and can now step in earlier to keep students on the right track. That’s one reason the county’s graduation rate increased by 10%.^1

“Offering users such as teachers and social workers information on demand is a real game changer,” comments Dr. Kirk Kelly, Director of Accountability and Testing at HCDE. “Rather than constantly playing ‘catch-up’ with old data, they are given an up-to-date daily view of students and teaching, equipping them to make better decisions. Role-based access means that users see only the information that they are authorized to view.”
Michigan State University enables smarter fundraising

By mining alumni and stakeholder records, social media and other unstructured data sets with text analytics software, MSU gains insights into the engagement, sentiments and behavior of current and potential donors.

Potential donors can be steered toward more positive engagement with MSU and targeted with opportunities they are likely to support – raising the probability of donation as high as 85 percent in some cases.²

“For the first time, text analytics gives MSU insight into what potential benefactors think about the university, what their interests are, and what kind of projects they fund at other institutions. By getting closer to our donors, we are in a better position to steer them towards greater affinity with the university – and shape more positive fundraising outcomes,” says Monique Dozier, AVP Advancement Information Systems and Donor Strategy, Michigan State University

As part of this portfolio, IBM Predictive Analytics software helps organizations predict future events and proactively act upon that insight to drive better business outcomes. Commercial, government and academic customers worldwide rely on IBM Predictive Analytics software as a competitive advantage in attracting, retaining and growing customers, while reducing fraud and mitigating risk. By incorporating IBM Predictive Analytics software into their daily operations, organizations become predictive enterprises—able to direct and automate decisions to meet business goals and achieve measurable competitive advantage. For further information or to reach a representative, visit: http://bit.ly/EducationAnalytics or call 1.800.543.2185.

About IBM Business Analytics

IBM Business Analytics software delivers complete, consistent and accurate information that decision makers trust to improve business performance. A comprehensive portfolio of business intelligence, predictive analytics, financial performance and strategy management, and analytic applications provides clear, immediate and actionable insights into current performance and the ability to predict future outcomes. Combined with rich industry solutions, proven practices and professional services, IBM Business Analytics software can help organizations of every size drive the highest productivity, confidently automate decisions and deliver better results.