

> Cabrillo College

Community college reduces marketing costs and increases revenue

Situation

Cabrillo College, a two-year community college in Aptos, California, was founded in 1959. The college has approximately 14,500 undergraduate students that are either starting or continuing their education through programs that transfer to four-year universities or occupational job training. Cabrillo College maintains a positive reputation both locally and nationally, and is ranked third in the state for the percentage of students successfully transferring to the ten campuses of the University of California system. The Council for Aid to Education, a subsidiary of Rand Corporation, ranks Cabrillo College first in the nation out of 1,400 community colleges for the number of donors contributing to its Foundation.

Critical Issue

Cabrillo College's mission is to aid students in their pursuit of transfer, career preparation, personal fulfillment, job advancement, and retraining goals. In order to better uphold its mission, Cabrillo wanted to determine which students were most likely to drop out in order to improve student retention by offering a more relevant selection of classes scheduled at convenient times.

Solution

With SPSS Inc.'s PASW Modeler as its data mining solution, Cabrillo College is gaining a deep understanding of student enrollment patterns and tendencies. By predicting which students are less likely to return to school, faculty and management can directly or indirectly intervene with academic counseling, financial aid packages, and curriculum offerings.

Results

- Reduced marketing costs and improved curriculum offerings
- Increased revenue through student retention

** PASW Modeler, formerly called Clementine®, is part of SPSS Inc.'s Predictive Analytics Software portfolio.*

At-a-glance

Country: United States
Industry: Higher education
Founded: 1959
Company Type: Private
Students: 14,500

Application

Enrollment management
Student retention

Solutions Used

PASW® Modeler *

Like many community colleges, Cabrillo serves as a transition from high school to four-year universities. It also offers occupational training in more than thirty fields, serving those students who wish to bypass a four-year college and directly enter the workforce.

Academic performance and enrollment management are often measured by a student's persistence. Colleges who consistently keep students enrolled benefit from better academic programs and increased revenue. Cabrillo determined it would be necessary to identify students who were less likely to return from semester to semester, and tailor interventions and marketing strategies accordingly. In order to better identify students' tendencies, Cabrillo invested in PASW Modeler, SPSS Inc.'s data mining solution.

According to Dr. Jing Luan, Cabrillo College's chief planning and research officer, "We like PASW Modeler because it is very easy to deploy and has major data mining models available on its workbench."

Reduced marketing costs and improved curriculum offerings

The two biggest factors in a student's withdrawal from school are lack of educational aspirations and financial aid. PASW Modeler allows Cabrillo to explore and evaluate a range of variables, and then predict each student's probability of completing a class, transferring out of a class, or leaving the school altogether. "By predicting which students may need some attention or reinforcement of their education, we can provide each student on an individual basis with relevant information, or discuss how we might be able to help them overcome the obstacles negating their staying," said Dr. Luan.

□ "Data mining has tremendous applications in higher education research, including marketing, persistence, fund raising, survival analysis, and Web site click-stream analysis. Cabrillo views SPSS Inc. as a strategic partner for conducting in-depth research on our students and their enrollment patterns."

– Dr. Jing Luan
Chief Planning and Research Officer
Cabrillo College



Cabrillo used a combination of segmentation and clustering techniques to establish typologies and to understand grouping dynamics, as well as predictive modeling. Who are the students likely to return for more classes? What types of courses can be offered to attract more students? Cabrillo set out to answer these questions. “We can adjust our curriculum to add programs or subtract classes that are disadvantageous to our students’ learning,” said Dr. Luan. “Moreover, we can determine which classes should be offered at what times. For example, we found students with particular profiles were more likely to take night classes.”

“Rather than print and distribute hundreds of class catalogues, with the information we obtained using PASW Modeler we were able to adjust class schedules and match them to students’ preferences,” added Dr. Luan. “This reduced our marketing budget while increasing our effectiveness.”

Increased revenue through student retention

Cabrillo’s faculty and management are making a targeted effort to increase student success and enhance learning by intervening before students drop out of school.

Dr. Luan sees data mining’s benefit through the one-percent doctrine. “For a community college with an enrollment of 15,000 students, with each full-time equivalent student (FTES) bringing in state funds of \$5,000, the total revenue can be \$75 million, and much more so at four-year institutions,” explained Dr. Luan. “If data mining is able to increase FTES enrollment by one percent, tuition revenue jumps another \$750,000. The same idea can be applied to additional higher education functions like alumni pledging and graduation.”

Dr. Luan feels that Cabrillo College has only scratched the surface of data mining’s potential. “In addition to enrollment management, data mining has tremendous applications in higher education research, including marketing, persistence, fund raising, survival analysis, and Web site click-stream analysis. Cabrillo views SPSS Inc. as a strategic partner for conducting in-depth research on our students and their enrollment patterns.”

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“With PASW Modeler, we were able to reduce our marketing budget while increasing the effectiveness of our student outreach. In this case, it is a double-edged sword with twice the advantage.”

– Dr. Jing Luan
Chief Planning and Research Officer
Cabrillo College

