The Computerworld Honors Program

Honoring those who use Information Technology to benefit society

Final Copy of Case Study

YEAR:
2012

STATUS:
Laureate

Organization:
Volunteers of America Chesapeake

Organization URL:
www.voachesapeake.org

Project Name:
Operational Dashboarding and Predictive Analytics

What social/humanitarian issue was the project designed to address? What specific metrics did you use to measure the project's success?

The project was designed to deliver outcome measures and an evidence-based record to the funders of our human services programs. 1) Comprehensive operational and financial dashboard capturing and visualizing over 100 operational and financial metrics leveraging strategic modeling and predictive analytics. 2) Supports Operations, HR, Finance and Development business units to deliver real-time reports on operational outcomes, and financial and human resources impact, thereby helping our organization glean actionable business intelligence based on historical data and drive a predictive trend that impacts budgeting and forecasting We are among the few non-profits and government contractors that believe in gaining significant long-term benefits by applying analytics and dashboarding to our operational and historical data. Unlike traditional BI, which is more backward-looking in nature, predictive analytics approaches help us glean actionable intelligence based on historical data. It also enables organizations such as ours to identify and respond to new opportunities more quickly and be agile to budget cuts.

Please describe the technologies used and how those technologies were deployed in an innovative way. Also, please include any technical or other challenges that were overcome for the successful implementation of the project.

We are among the few human services non-profit organizations to leverage business intelligence, visualization and strategic modeling/predictive analytics on the back end to map outcome measures in the human services space. The innovation is in leveraging analytics and modeling these outcome metrics back into our forecasting and budgeting process through adaptive planning. The backbone for most predictive analytics applications is the data management repository for the data set used to build and score the predictive analytics models. These tend to be high-performance database servers. A key requirement for predictive analytics projects is a predictive analytics tooling platform to build and score the predictive analytics models. We have leveraged on cloud-based BI to extend analytic capabilities beyond the traditional database to leverage big data solutions as we further develop our data repository capabilities.

Please list the specific humanitarian benefits the project has yielded so far.

From a societal impact standpoint, through leveraging IT and business intelligence we are able to put back 87 cents for every $1 in revenues back into direct services and the transparency and outcomes driven approach in serving the homeless, veterans, individuals with mental health and intellectual disability issues, which has attracted the attention of government funding agencies, including the Veterans Administration.

Please provide the best example of how the project has benefited a specific individual, enterprise or organization. Feel free to include personal quotes from individuals who have directly benefited from the work.

We have executed an operational turnaround in this difficult budgetary environment leveraging our analytics investment, which has had a significant strategic impact through competitive differentiation and increased market share. Not only did we generate a $180k operational positive variance to budget over a 4-month time frame this fiscal year, we have also received a $1.3M contract to house returning veterans in D.C. primarily as a result of delivering evidence-based outcomes backed by solid data, thanks to our data repository backed with strong visualization capabilities. We have already recouped our investment in 2 quarters and expect a strong financial impact north of $500k over the fiscal year.