ROI CASE STUDY
IBM BUSINESS ANALYTICS
CLARK COUNTY FAMILY SERVICES

THE BOTTOM LINE

Clark County Department of Family Services used IBM Cognos software to streamline its case management and reporting practices, which increased visibility and productivity while improving its ability to justify funding of targeted case management activities.

ROI: 245%

Payback: 9 months

Average annual benefit: $4,393,259

THE COMPANY

Clark County, the nation's fifteenth-largest county, is located in Southern Nevada and houses the state's most populous city, Las Vegas. The county supports more than 2 million residents and 42 million tourists a year. Clark County employs more than 12,000 employees in 38 departments with a total budget of $5.9 billion. The Department of Family Services is the county's fourth-largest department, employing 595 full-time and 90 part-time staff.

THE CHALLENGE

In 2004, the State of Nevada gave Clark County's Family Services Department the responsibility and complete control of all operations concerning the intake, documentation, and case management of all child welfare, foster care, and adoption services in the county. A fast-growing population and the need to track and report on all aspects of child welfare presented challenges for the department, which had limited visibility into case processing and case loads. Clark County needed:

- A better way to input, retrieve, and share information within each sector of the Family Services Department.
- A method to better manage the status of both pending and active cases. This included response times for abuse and neglect investigations and measuring the effectiveness and overall success of those active investigations.
- A way to ensure and prove that it was in accordance with Federal and State requirements in regards to policies, regulations, and legislation.
- A way to support and claim funding for activities like targeted case management.

THE STRATEGY

In 2004, Clark County began looking for solutions that could both integrate its existing system with Nevada's automated child welfare information system and accommodate future growth within the Family Services Department as well as other departments within the county.

After interviewing several vendors, Clark County's internal committee chose IBM Business Analytics – specifically, IBM Cognos software – because of its ease of use and functionality and scalability, and the ability to integrate with other systems. Clark County also chose consultants (currently with PerformanceG2, an IBM partner) to support development and deployment of the application, which occurred in two phases from 2005 to 2007. During this time, the department started with development of department level scorecards, then moved on to build a number of pilot cubes and, ultimately, data marts to support dashboards and reporting around key department processes including placement, intake, investigations, permanency, licensing, adoption, court, visits, eligibility, payments, recruitment, and training.

Clark County has continued to make upgrades within the system to accommodate growth in other departments. In 2010, the software is planned to be upgraded and deployed to further support dashboards and reporting.

KEY BENEFIT AREAS

Clark County Department of Family Services used Cognos software to provide staff members and managers with a single source of information about all departmental processes and operations, reducing users' reliance on IT while increasing visibility into information.

BENEFITS


Direct 3%

Indirect 97%

TOTAL: $13,179,776
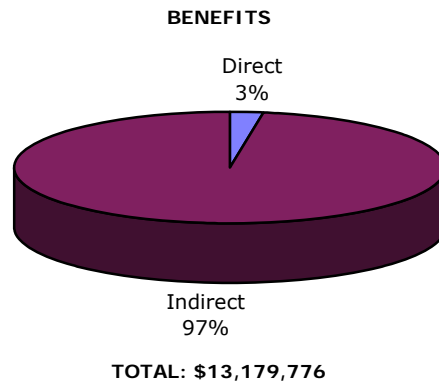
Key benefits from the project include:

- Increased office productivity. Staff can easily access data and run reports that exist on dashboards maintained by the department's business analysts. Supervisors can monitor their case workers' activities through real-time dashboards and reports, saving time that can then be spent on other activities.
- Improved case management. With ready access to information about all the processes and programs impacting a case, case workers and supervisors can make decisions that direct the best course of action for a particular case.

- Improved compliance. With a central data store, supervisors can quickly track and ensure that policies and procedures such as regular contact with children and parents are followed.
- Improved justification for additional funding. Because the data is available and accessible, analysts are able to work with eligibility staff to identify funding the county can receive based on its targeted case management practices and bring in that additional funding.

KEY COST AREAS

Key cost areas for the deployment included software, personnel, hardware, consulting, and training. Initial personnel consisted of the project team of one half-time project manager, 2.5 business analysts, 1.5 developers, and a half-time database administrator.

COSTS

Training 11%
Software 10%
Hardware >1%
Personnel 51%
Consulting 28%
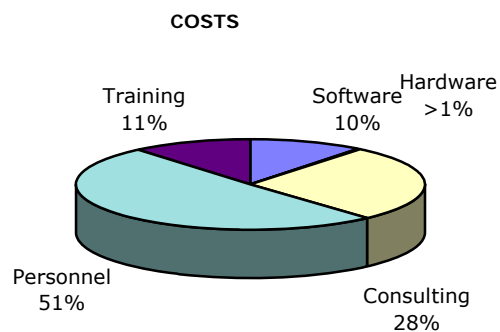
TOTAL: $3,043,826

BEST PRACTICES

Having a single source of information has helped the department to reduce errors and improve performance across a number of key business processes. Key to success was making the reports easy to access for non-technical users and providing visual dashboards that staff could quickly view and drill down on to make decisions. Also important was Clark County's decision to break the project down into manageable phases so costs could be incurred inline with benefits and initial gains could be used to drive greater project momentum.

CALCULATING THE ROI

Nucleus quantified the initial and ongoing costs of software, hardware, personnel, consulting, and training over a 3-year period to quantify Clark Country's total investment in IBM Cognos software.

Direct benefits quantified included IT resources that were redeployed and avoided because staff can now run reports. Indirect benefits quantified included increased productivity of supervisors and case workers and were calculated based on their average fully-loaded cost using a productivity correction factor to account for the inefficient transfer of time. Other indirect benefits quantified included the additional funds the department received by being able to accurately report on its targeted case management. Benefits not quantified include clear improvements in services impacting the welfare of children and adults in Clark County.

SUMMARY

Project:	**IBM Business Analytics**
Annual return on investment (ROI)	**245%**
Payback period (years)	**0.76**
Average annual benefit	**4,393,259**
Average annual total cost of ownership	**1,014,609**

ANNUAL BENEFITS	Pre-start	Year 1	Year 2	Year 3
Direct	0	115,144	115,144	115,144
Indirect	0	2,556,563	5,138,891	5,138,891
Total Benefits Per Period	0	2,671,706	5,254,035	5,254,035

DEPRECIATED ASSETS	Pre-start	Year 1	Year 2	Year 3
Software	233,201	0	0	0
Hardware	0	0	0	0
Total Per Period	233,201	0	0	0

DEPRECIATION SCHEDULE	Pre-start	Year 1	Year 2	Year 3
Software	0	46,640	46,640	46,640
Hardware	0	0	0	0
Total Per Period	0	46,640	46,640	46,640

EXPENSED COSTS	Pre-start	Year 1	Year 2	Year 3
Software	0	0	37,354	48,907
Hardware	7,327	0	0	0
Consulting	211,502	211,502	416,400	0
Personnel	563,613	431,725	273,754	273,754
Training	334,788	0	0	0
Other	0	0	0	0
Total Per Period	1,117,230	643,227	727,508	322,661

FINANCIAL ANALYSIS	Pre-start	Year 1	Year 2	Year 3
Net cash flow before taxes	(1,350,431)	2,028,479	4,526,527	4,931,374
Net cash flow after taxes	(791,816)	1,037,560	2,286,584	2,489,007
Annual ROI - direct and indirect benefits				**245%**
Annual ROI - direct benefits only				-25%
Net present value (NPV)				4,105,119
Payback (years)				**0.76**
Average annual cost of ownership				1,014,609
3-year IRR				177%

FINANCIAL ASSUMPTIONS

All government taxes	50%
Discount rate	8%