Alameda County's Social Services Integrated Reporting System (SSIRS):
A Comprehensive View of Clients Across Programs

Matthew Welch

EXECUTIVE SUMMARY

Many social service agencies are struggling to effectively manage the programs they offer and to maintain an adequate level of support for their clients. Client information is often spread over multiple disparate systems, and increased caseloads and stricter regulations are making it harder than ever.

Findings

To overcome these struggles, the Alameda County Social Services Agency launched a business intelligence data warehouse in July of 2009. Known as the Social Services Integrated Reporting System (SSIRS), it integrates information from six social service programs. Alameda County partnered with IBM for this initiative, at a cost of $1.7 million. SSIRS provides caseworkers with a real-time look at who the clients are that are using the programs and how they are using them. It enables them to instantly analyze the effectiveness of an intervention and to make adjustments to services, as needed. The agency's Team Decision Making (TDM) staff use it when making critical placement decisions. The wealth of information gained through this system is expected to pay for itself in eighteen months.

Recommendations

Contra Costa County has many similarities to Alameda County and could greatly benefit from a Business Intelligence data warehouse resource such as SSIRS. I recommend taking the following further steps to determine if SSIRS could be utilized in Contra Costa County:

- Form a task force to review key SSIRS reports to assess their applicability at Employment and Human Services Department.
- Ask EHSD analysts to attempt to replicate the reports with existing sources and tools.
- Contact IBM for a cost estimate and a timeline for implementation of the product.
- Ask Alameda SSA to do a pilot project to show a Contra Costa "slice" of data in SSIRS.
- Contact the CalWIN Consortium regarding the implementation of a single SSIRS instance that would service all of the counties.

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Background/Introduction

One of my tasks in Contra Costa County's Employment and Human Services Department (EHSD) is to put together a first generation data warehouse and reporting dashboard. To begin this process, one of the first steps I took involved obtaining current electronic reports from each bureau. These reports were then made available at a common location on the computer network. This approach does work; however, any additional data analysis is limited because the data itself is not really joined together in a meaningful way. When I heard of Alameda County's Social Services Integrated Reporting System (SSIRS), I felt this was a better approach, and I requested it as the topic for this case study.

With a population of 1.6 million, Alameda County is California's 7th largest county. It faces social services challenges that are common to many urban centers around the country. Alameda County's Social Services Agency (SSA) currently has over 60,000 Medicaid and 28,000 Food Stamp cases. Rising caseloads, due in part to an economic downturn, coupled with the increased reporting requirements of the Deficit Reduction Act of 2005 (DRA), combined to put a huge strain on the agency. Additional program funding has been difficult to obtain and resources are stretched to their limits. An average caseworker may be serving 400 clients at a time, while navigating a maze of overlapping social programs and regulations. The systems and processes that support these caseworkers are hard-pressed to keep up with the need for good, current information. The DRA includes performance targets, and implements stiff penalties if targets are not achieved. The Act requires that the work participation rate (WPR) for welfare re-

cipients reach 50%, and it puts the burden on county social services agencies to find a way to make that happen. Counties and the state are at risk of sanctions if WPR rates are not achieved. This would not be easy for Alameda County, where a survey ranked their WPR well below the state's average of 22%. "We took that result as an indication that our business practices weren't working," says Don Edwards, SSA Assistant Agency Director. "Though we do a lot of good work, it was clear we had some issues that were hampering our efforts. ... We needed to give our caseworkers direct access to information about their own cases, at the individual case level. We needed faster, better reporting. We needed to give the workers the right information, on the spot."[1]

History

Don Edwards knew that changes were needed. During a tour of New York City's Welfare-to-Work program in 2003, he observed their "paperless office". Here, accurate and up-to-date information, combined from multiple programs, was available at the touch of a button. This formed a vision for what he could do back home. Alameda County was "data rich" but "information poor".

Title IV-E (federal regulations for foster case) funding is "stove piped" for a particular program with restrictions on its use. This makes it difficult to fund a large, multi-program infrastructure project such as the one needed here. An opportunity for such a program arose in the Child Welfare IV-E Waiver Program. This federal program tests new approaches to the delivery and financing of child

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[1] IBM (Feb 2010), Alameda Social Services: Closing service gaps through better use of information.

welfare services by providing states with greater flexibility to use funds to facilitate improved safety, permanency, and well-being for children. On March 31, 2006, the California Department of Social Services (CDSS) received approval for its submitted Title IV-E Waiver proposal. On July 1, 2007, Alameda and Los Angeles counties implemented the Title IV-E Child Welfare Waiver Demonstration Capped Allocation Project. The five-year project is scheduled to end June 30, 2012.[2]

This program provides a more flexible and direct way to use funds to overhaul the information systems infrastructure used for the collection, analysis and reporting of data.

The following are some of the specific desired outcomes of the IV-E Waiver:[3]

- Increase the number of children who can remain safely in their homes
- Increase the number of kids in less restrictive settings
- Increase the percent of timely guardianships and adoptions
- Improve the self sufficiency and well being of emancipating youth

Don Edwards had a vision of what was needed and a source of funding, but he was having difficulty finding the right tools. When he learned of a proof-of-concept system developed by IBM to serve foster children in San Francisco, he was intrigued. "This is a tool that will tell us where things really are and how they are doing, every day." Could this be the right tool?

IBM furthered the development of this system into one of the five areas of its Government Industry Framework (GIF). This framework helps agencies of all sizes use new technologies to transform their existing support and delivery processes, allowing them to more efficiently deploy limited resources and respond more quickly to everything from pub-lic emergencies to the delivery of social services.[4] In mid-2008, Alameda County engaged IBM in a $1.7 million ten-month contract[5] to customize the framework; the result came to be known as the Social Services Integrated Reporting System (SSIRS). It combines several stand-alone IBM software and hardware solutions (IBM D5000 balanced warehouse, Entity Analytic Solutions (EAS), Cognos BI Reporting, and Linux) into a powerful Business Intelligence (BI) Data Warehouse.[6] Having this tool enabled the SSA to shift its focus from low value data gathering activities to high value data analysis and objective Team Decision Making (TDM) activities.

Key Elements

In November 2009, after 12 months of work jointly completed by IBM and SSA technical personnel, the system was brought online with daily data feeds from the following departments:

- Child Welfare
- Probation (Juvenile)
- Employment Services (Welfare to Work)
- TANF (Temporary Assistance for Needy Families)
- IHSS (In Home Supportive Services)
- County Adoptions System

Phase two implementation is currently underway and includes data from Safe Measures (SDM), Childcare, Medi-Cal Eligibility, and Adult Probation. Phase three is already in the works, with the goal of extending the client view to include Alameda County's Health Care Services Agency (HCSA) social service programs. The system provides detailed audit logs and is capable of delivering automated e-mails, as well as text or voice messages by telephone to both caseworkers and clients.

The "Brains Behind SSIRS" is the Entity Analytic System (EAS), according to SSA Information Systems Manager, Jerome Graham. "This is what
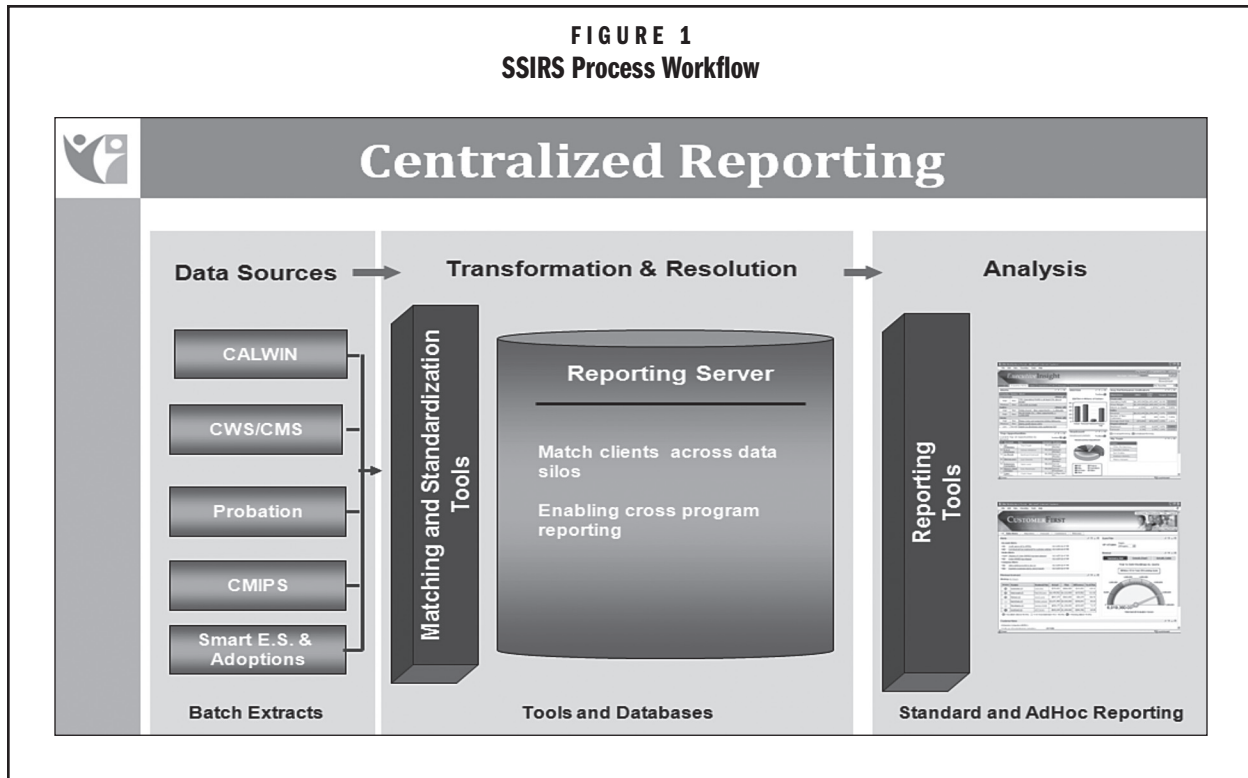
2 California Department of Social Services (2010), Title IV-E Child Welfare Waiver Demonstration Capped Allocation Project, Annual Progress Report

3 Alameda SSA (2009), Session 2-3DonEdwards.ppt

4 IBM (Nov 2009), IBM Unveils Technology Framework to Help Government Services

5 Alameda SSA (March 2009) BOS Agenda

6 CWDA Information Technology Highlights (Oct 2009), Alameda County Implements Business Analytic

FIGURE 1
SSIRS Process Workflow

The "face" of SSIRS comes from its data analysis and report viewer. (See Figure 1). The system contains a set of standard reports and the ability to execute custom "ad-hoc" queries. The reports are available via a web browser, but there are security measures in place so access can be restricted. Some reports are scheduled to run automatically at specific times and are subsequently e-mailed to a defined recipient

makes it stand above a traditional data warehouse." The EAS recognizes and understands the complex relationships between clients and programs. For the first time, it gives Alameda County a complete understanding of each individual's situation, all in one place. It helps to ensure that clients are not being over-served and also allows caseworkers to identify programs that might work better for their clients; these are both key requirements of the Title IV-E Waiver Program.

> *"SSIRS is showing us how we can change the way social services are provided for the better."*
> —Don Edwards

list. The Longitudinal Client View report (Attachment A) provides an overview of how a client is being serviced across multiple programs. With this information, the agency can immediately identify gaps in service and then direct funding and resources to where they are most-needed. The report has powerful drilled down capabilities to view the full case activity history for any client or program. These features are especially useful to caseworkers as they manage their caseloads. The Engagement Summary Dashboard (Attachment B) is tailored to agency directors and provides aggregate information on program usage. The information can be sliced and diced by county region, office location and/or program. The EAS Visualizer (Attachment C) graphically shows the complex relationships found in the data. This has been found to be useful as it applies to researching clients' eligibility and uncovering fraud.

Some of the business outcomes of the project have included:[7]

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7 IBM (2009), The Social Services and Social Security domain http://ibm.com/software/industry/frameworks/government

- An estimated $11M in benefits from improved efficiency and fraud detection and prevention
- Reduced engagement time (from months to days) with clients and providers
- Saved reporting and penalty costs as a result of up-to-date automated reporting capabilities
- Aid in achieving the desired outcomes of the IV-E Waiver
- Increased visibility into agency performance and required actions for improvement

A small project team (Attachment D) manages the daily extract, load and translate (ELT) of data for SSIRS, as well as ongoing change requests and custom reports. Alameda County owns the hardware and software for SSIRS; IBM is no longer on-site, but is available to help as needed.

Implications for Contra Costa County

Contra Costa and Alameda Counties do more than share a common border; the demographics and needs of the population are also similar. The social services arms in each county (EHSD & SSA) have similar goals, services offered, department structures, and visions for success. In fact, several software systems used to process and run the services in the two counties are the same (e.g. CalWIN, CWS/CMS, CMIPS). In theory, the SSIRS system could process a Contra Costa extract from these systems in the same way it currently operates. But, of course, it is not that simple. There are significant differences between the counties. Many differences exist in how the two counties' systems are configured and used. There are services and data collections that are unique to Contra Costa County, and vice versa. Also, as in all counties, Contra Costa is facing severe budget challenges, making funding a new initiative a daunting task. The opportunity for a Child Welfare IV-E Waiver is expired, but there may be other funding sources available. Based on Alameda County's experience, a SSIRS implementation in Contra Costa County will cost approximately $1.7M, and will take about six months to complete. SSIRS implementation will require a close partnership with IBM and a dedicated staff of approximately six members. After the project is im-

plemented, it will required a continuing staffing level of approximately four members dedicated at 60% of their time to the project. EHSD does not currently have an established vendor relationship with IBM or in-depth knowledge about its products, so this will add extra time before the project can get started.

Recommendations

Based on my observations, discussions and understanding of the SSIRS system used in Alameda, I recommend that EHSD take the following progressive steps:

- Form a task force to review the key reports from the SSIRS system in detail. At a minimum, this will include reviewing the Engagement Summary Dashboard, Client Overview, and Case Activity History reports. This is a low-impact task that can be started right away.
- If the task force determines EHSD would benefit from these reports, involve EHSD business analysts to determine if the reports can be replicated with existing data sources, extracts and reporting tools.
- Ask the Fraud Division to review the EAS Visualizer to determine if the interpersonal relationships uncovered through the use of this tool would be useful for deterring fraud.
- Contact IBM for a Request for Proposal (RFP) with cost estimates and timelines for a baseline implementation of their GIF solution. Perhaps they have perfected an attractive price point; however, it is important to note that hardware and ongoing maintenance costs could be prohibitive. Determine if a port of the GIF has been (or could be) done to the hardware/software platforms EHSD is already licensed for (e.g., MS SQL Server, MS Windows, IIS, Oracle, and Business Objects).
- Contact other vendors for possible solutions. Microsoft, for example, has a branch dedicated to working with government entities and also has a data warehouse solution. Oracle and SAP may offer similar solutions.

- Aggressively research alternate sources of funding as Alameda County did with the Title IV-E Waiver program.
- Form a task force to inventory Contra Costa County's specific sources of data and to determine if there is a benefit to including them in a data warehouse such as SSIRS. Contact Alameda SSA and determine how much re-use is possible from existing CalWIN, CWS/CMS and IHSS data loads.
- Contact Alameda SSA about doing a pilot project that will show a Contra Costa "slice" of data in SSIRS. Would the project be able to scale up to fit EHSD needs?
- Contact the CalWIN Consortium to determine its interest in implementing a single, centralized SSIRS instance. If this option is chosen, each county would share in the responsibilities and costs.

Acknowledgments

ATTACHMENTS

A) Longitudinal Client View

B) Engagement Summary Dashboard

C) EAS Visualize

D) SSA SSIRS Project Team