Santa Cruz County's EBSD Operational Dashboard and Potential Adaptation for Santa Clara County

Mike Rasche

EXECUTIVE SUMMARY

The Santa Clara County Social Services Agency set a goal to create a public-facing dashboard that shares data on program benefits, client demographics, and customer satisfaction. The Employment and Benefit Services Division of the Santa Cruz County Human Services Department developed an Operational Dashboard which automatically and continuously charts performance in areas such as management of lobby and phone traffic and application processing against a pre-set benchmark. While not a public resource, the Operational Dashboard is a key driver in the agency's internal operations and decision-making. Santa Clara County has an array of dashboards that capture much of the same data from each of its departments but not in a single integrated system. There may be benefit in creating a new, expanded database that draws from all of Santa Clara County's departmental dashboards, but this should only be done if it will improve SSA's operations or if it could be incorporated into a tool for community use.

Mike Rasche, Management Analyst,
Santa Clara County Social Services Agency

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Introduction

The mission of the Santa Clara County Social Services Agency (SSA) is to provide resources and opportunities in a culturally-responsive manner to enhance the quality of life in our community by protecting, educating, and empowering individuals and families. To this end, the agency strives to present a clear story of what the agency does and how this work aligns with its mission through a public-facing data dashboard. A dashboard is a collection of charts, graphs, and other visual aids that displays important information in a single, easily accessible and navigable location with an easy-to-understand format. Ideally, clients and community members will be able to log into the dashboard to view current numbers of clients served, metrics of satisfaction with agency services, amounts of benefits administered, and worker caseload sizes, in addition to accessing factors such as age, spoken language, and other demographic information on benefits recipients.

This project is still in its early planning stages and is an all-hands-on-deck effort. Every department in the Social Services Agency has been tasked with identifying what data is most often requested and which pieces of that data could be made public. The Technology Services and Solutions Department will provide technical support, and County Counsel will provide legal guidance on whether and how data can be shared. Helpfully, a significant quantity of data of potential interest to the public is already being gathered in internal, agency-facing databases and dashboards derived from Medi-Cal and CalFresh benefits offices, call centers, and receiving centers. The coordinator of the Santa Clara County dashboard project is also reaching out to other agencies in the state to see what comparable resources are being provided to staff and communities in other counties.

Santa Cruz County EBSD Operational Dashboard

Serendipitously, Santa Cruz County Human Services Department (HSD) offered to showcase its Employment and Benefit Services Division (EBSD) Operational Dashboard this year for BASSC participants. This dashboard is part of the EBSD's approach to ensuring excellent customer service and managing staff workload using data tools. While not a public-facing repository deployed to inform the community about the agency's operations, HSD's Operational Dashboard is a sophisticated instrument that collects and conveys information in a practical way which has been integrated into staff's everyday work processes and therefore offers a model for Santa Clara County to study.

Santa Cruz County is a leader among California county agencies in the number of analysts it employs. As such, HSD is highly data-driven and utilizes data-informed decision-making to effectively operate a relatively small agency where staffing and funding resources present the largest challenges. This robust system of information analysis is put in service of the overarching goal to develop an agency culture that is receptive to data and where questions can be answered transparently and non-defensively. There was cynicism and anxiety from both staff and directors during the initial implementation of the EBSD dashboard; after all, no one enjoys having imperfect performance held up to colleagues'

scrutiny. However, HSD leaders insist that the data is not used punitively. The dashboard can be used positively by supervisors to communicate staff successes and by program managers to discuss new assignments and make staffing decisions.

The EBSD Real Time Operational Dashboard is accessed via a web browser. It is organized around a Key Indicator System (KIS) and comprises several blocks. One block lists specific, measurable staff tasks labeled "Key Indicators". These tasks include: Customer Experience measures such as Lobby Wait Time and Call Average Wait Time; Application Processing measures such as CalFresh Application Timeliness and Application Task Completion Rate; and Ongoing Processing measures such as CalFresh Closure Rate, Medi-Cal Application Backlog, and Homeless Assessments. Next to each task are 12 colored dots in green, yellow, and red, which indicate whether monthly performance of that task exceeded, met, or fell below the benchmark. Each of these measures can be dragged into a second Analysis block which charts specific performance levels for each month compared to the benchmark for that task. For some tasks, such as Lobby Service Level, an additional block opens up to display current real-time data.

Some of the benchmarks that appear for each task on the dashboard, and which the Agency strives to meet and exceed, are set based on measures in state guidelines. However, often the state is non-specific in its performance expectations. In these cases, HSD defines its own benchmarks by mining relevant university studies or other research-based data and refining them in the course of actually administering services and identifying outcomes that are realistic but also of benefit to the community.

While the EBSD Operational Dashboard displays straightforward measurements of performance, each of those details is also cross-referenced with a wide variety of other variables. These variables include client-oriented details such as the reason for the client's visit to the agency or whether a household consists of or is headed by immigrants. Variables also

include agency-focused factors such as the absentee rate at the location where the visit took place. Furthermore, HSD posits time-specific contextual drivers that could conceivably impact outcomes such as: the agency's job vacancy rates at certain periods; levels of funding and the accompanying availability of staffing and program services; and environmental circumstances such as the current pandemic and its attendant challenges. Taken together, this data provides a highly detailed picture of HSD's resource capacity and performance at a given time, which contributes to data-informed decision-making by agency leadership on funding allocation, staffing, and other strategic planning.

Several of the measures charted in the EBSD dashboard are utilized directly by staff and are indeed completely integral to daily operations, such as measures of call volume, lobby traffic, and task completion. For example, clerical staff advise clients on the quickest way to reach a Benefit Representative by comparing the real-time dashboard figures of current wait times for clients in the lobby against clients who have phoned in to the call center. Most dashboard measures, however, are high-level and visible only to managers. Office managers can easily see when call wait times exceed a certain threshold and re-assign other workers to help out until the rush has abated. Closing supervisors monitor the dashboard to ensure that all clients in the lobby have been served and that certain other requirements are completed before the end of the day. Supervisors can, although not all do, use the dashboard to assess completion rates and overdue tasks for their teams and for individual workers. Collectively, managers use the dashboard to drive the Agency to "go from red to green," raising performance measures from below benchmark level to above it. And while not directly accessible to the public, the dashboard provides reliable and ready answers to queries from the Board of Supervisors, owing to the depth and scope of detail captured by the dashboard, the ease with which specific data can be extrapolated, and the fact that the dashboard is refreshed as frequently as every 30 seconds for some measures.

The dashboard collects information from many sources including: CalWIN, the Agency's eligibility benefits database; the Avaya phone system; the County Information Server (CIS) software which tracks activity history and engagement; the Task Management System which distributes assignments and tracks task completion; and the Rushmore case review system which documents processing errors. With the EBSD Dashboard, all these previously separate sources are merged into a common database, allowing designers and analysts to access all reports from a single portal and to cross-reference and analyze interrelationships among previously disconnected data points across multiple systems. HSD's MyPortal interface allows administrators and staff to quickly generate data reports including Phone Service Center, Task Tracking, Lobby Wait Times, Applications and Program Participation by Residency Status, and many others.

The EBDS Operational Dashboard has been in use for five years. The system was developed over the course of three years by a mix of internal HSD staff and external third-party vendors which, being outside the day-to-day requirements of HSD's regular operations, could contribute independent, strategic thought toward creating an agile and useful tool for the agency. These vendors included Exemplar Human Services, which was commissioned for $183,000 primarily to assist in creating new reports. Consulting from the other main outside vendor InTelegy Corporation was obtained for $336,420. InTelegy advised HSD to incorporate data "replication," the process by which the databases are continually being refreshed, and to track completion of tasks individually rather than in aggregate. In this way, if a client applied for Medi-Cal and CalFresh at the same time, the system would be updated as soon as each benefit was approved, rather than continuing to show a pending status until both benefits were approved. And while the dashboard was the result of collaboration by all partners toward a common vision, the majority of the planning, design, and implementation work was done by HSD's own IT technicians,

data analysts, and management team, with significant contributions from Santa Cruz County's reporting team.

Data Management Systems at Santa Clara County Social Services Agency

In Santa Clara County, the Department of Employment and Benefit Services (DEBS) at SSA is the analog of HSD's EBSD in Santa Cruz County. These departments generally perform the same functions and administer the same benefits for the same populations. Both departments also make wide use of databases and "homemade" dashboards for similar purposes. However, Santa Cruz County's EBSD Operational Dashboard is a more centralized resource drawing on more sources and accessed by more individual users than any one comparable database at Santa Clara County. Agency databases in both counties are also mined for mandated state and federal compliance reports. However, most dashboards developed for SSA and the data derived from those dashboards are intended for county staff, to be either posted for all staff on the SSA intranet or shared as highlights directly with department and agency directors.

The first dashboards to track Santa Clara DEBS performance were developed in 2004 for the Benefits Service Center, one of several DEBS offices. Historically, DEBS collected only anecdotal data, which tends to skew perceptions toward extremes and therefore seldom provides an accurate overall picture. At that time, DEBS had a backlog of 15,000 unprocessed, pending applications. A management analyst with experience designing dashboards to drive performance toward specific targets was tasked to create systems to continuously monitor performance in key areas. As with the EBSD Operational Dashboard's use of benchmarks, these initial DEBS dashboards compared current performance against a target which allowed office managers to direct their staff accordingly and ultimately resolve the backlog. Today dashboards are in use in all DEBS offices. Program managers continue to effectively use them to foster a spirit of healthy competition among

DEBS units and to maintain a steady level of performance. To take a more recent example, in May 2019 DEBS offices had 2163 unprocessed MEDS alerts. By December 2019, the number was brought down to 256 through constant monitoring of dashboard metrics and coordinated direction by management. As at HSD, designers at SSA do not intend for the data collected to be used for punitive purposes. Rather, dashboards can support supervisors in coaching staff, guide office managers in setting targets, or assist directors in identifying trends in benefit applications or usage. Dashboards show where additional attention is needed, allowing supervisors to redirect staff efforts to specific tasks that address changing caseload demands.

One significant difference between the dashboards used by DEBS and EBSD is that in Santa Clara County the final dashboard products are assembled manually. Behind the dashboards are data warehouse modules created by analysts which automatically perform daily updates. These modules are agile and accommodate cross-referencing across many variables to allow "slicing and dicing" of data into different views. Analysts design queries using SAP Business Objects software that operate on a preset schedule to automatically pull current snapshots of performance metrics and send the results to the analysts, who then manually compile the data into dashboards for use in manager meetings or staff reviews. One reason the entire process is not fully automated is that the data elements on the DEBS dashboard are frequently changed depending on the needs of office managers. For instance, during the labor-intensive transition of CalFresh benefits for SSI recipients from the Social Security Administration to the Social Services Agency, DEBS office managers asked for the dashboard to reflect additional metrics more pertinent to that specific population than those that appear on a typical monthly dashboard. Additionally, each office in DEBS serves slightly different populations and apportions work differently. For instance, eligibility workers at the Benefits Service Center receive assignments every day to serve different clients who only receive Medi-Cal, while workers at the Continuing Benefit Services office have an assigned caseload of clients who receive both Medi-Cal and CalFresh. Because the workload distribution is so different for each office within DEBS, the dashboards often partition performance data by office.

As in Santa Cruz County, Santa Clara County relies primarily on in-house expertise to design and implement the dashboards. Currently, a team of eleven management analysts and two senior managers produce most of the dashboard information for DEBS. Staff from the Decision Support and Research Bureau build more complex reports containing performance tracking data that can be shared with state and federal agencies. The DEBS Program Bureau also provides direction on dashboard development to address its needs for establishing program policies and writing handbooks. DEBS and EBSD use some of the same software applications in the course of populating dashboard data, such as CalWIN and CIS. in addition, DEBS also draws data from its human resources system PeopleSoft as well as from Snap Schedule and Task Management Tool, both of which are programs that assign tasks and track completion of assignments. Data from these systems is re-assembled as dashboard metrics to illustrate trends including: the number of annual redeterminations completed, applications for expedited services processed, average caseloads assigned for monolingual and bilingual workers, call center volume and answer speeds, lobby visits and wait times, and other measures. The dashboards allow analysts to compare performance across different offices, across units within offices, and for individual workers.

While many of the DEBS dashboards and data sources pertain to client benefits, dashboards have also been created to collect data collected by Human Resources to inform staffing decisions by DEBS managers. Dashboards exist to illustrate movement and retention—in other words, patterns of staff leaving certain positions and whether they left due to promotion, demotion, or retirement. Payroll data shows salary percentages and amounts paid out for

language differentials or overtime, which aids directors in determining whether additional workers are needed to serve clients who speak a particular language or whether caseload sizes are appropriate. Vacancy reports show numbers for each job position which help office managers determine adequate staffing for offices and units. Used in combination with metrics of office operations and benefits administration, personnel- and payroll-related dashboards empower DEBS leadership to ensure that offices are properly resourced to serve the community in the most effective way possible.

Challenges with Dashboards

When the pandemic struck, the County Board of Supervisors tasked Santa Clara County with creating a public dashboard showing numbers of COVID-19 cases, hospitalizations, and deaths throughout the county, among other details. This dashboard is now one of the agency's few public-facing data repositories and represents an instance where a dashboard satisfied a public demand for data in an easily understood format.

One of the biggest challenges in developing a dashboard for external audiences is making something that people want to view and can easily understand. People may be less interested in data about Medi-Cal caseloads or CalFresh benefit dollars administered in Santa Clara County than information about a public health threat that affects them directly. At present, Santa Clara County SSA has many internal-facing dashboards, mostly department-specific and viewed only by managers. However, these dashboards comprise a wealth of information which could benefit the public if curated and placed in locations where public traffic is high. For instance, links to infographics on CPS and APS referrals could be embedded in communications regarding crime and public safety. Charts detailing CalFresh applications and dollars spent and re-invested in the local economy could be added in publications from philanthropic organizations such as Second Harvest Food Bank. Posts on Santa Clara County's Facebook, YouTube, and Instagram accounts could be tagged with links to data resources relevant to the social media updates.

Recommendation

Santa Cruz County does not yet have the public-facing, data-rich dashboard envisioned by Santa Clara County directors to concisely communicate the impact of the Social Services Agency's work on the community. What they do have in the EBSD Operational Dashboard is a sophisticated, flexible, practical tool that is essential to both frontline workers and executives and which serves as a model resource that facilitates the kind of data-informed decision-making that Santa Clara County wishes to embrace. Critically, the Operational Dashboard collects performance figures on most, if not all, of the agency's operations in a single database where success can be measured against a benchmark. Santa Clara County has already independently built much of the infrastructure that Santa Cruz County has in terms of tracking clerical functions and benefits administration metrics and broadcasting this data to stakeholders. Santa Clara County accomplished this infrastructure largely with only the collective expertise and creativity of its own staff. Any additional financial cost of integrating the currently separate databases into a single, queryable dashboard plotting current performance metrics against standard benchmarks would likely be subsumed by the salaries of the management analysts already compiling the dashboards.

Incorporating a benchmark measurement for comparison with all metrics may require outside consulting, although this comparison framework does already exist in some SSA dashboards. Using a benchmark determined by a neutral party like a government or academic body could imbue a public-facing dashboard with transparency and independence, particularly if accompanied by a thoughtful improvement plan whenever performance levels fall below the benchmark. The legal vetting and strategic planning to identify which operations data are both safe and impactful to share with the community is already under way at SSA.

Lastly, it does not appear that measures of satisfaction with SSA services are being collected on a consistent basis at this time. If this element is to be a featured component of a public-facing dashboard, effort must be made to produce and administer surveys to consumers of SSA services at or after the point of delivery, which could then be collated in a database that feeds into the public dashboard. Establishing this survey process could constitute a substantial logistic undertaking of some cost and would require further exploration.

Acknowledgements