HUMAN-CENTERED DATA SYSTEM DESIGN

COMMUNITY ACTION NETWORK

By Cassandra Dorius, Shawn Dorius, Matthew Voss, and Sarah Walker
Introduction

Iowa's Community Action agencies need a more intuitive, accurate, and customizable data system with seamless integration to build stronger communities and support individuals and families in need.

The Public Science Collaborative (PSC) at Iowa State University provided technical assistance to Iowa's Community Action Network (CAN) to identify the most pressing data system needs, develop heuristics to assess those needs, and compare five high-value systems for potential use by the network.

PSC disseminated client and employee surveys to identify key concerns of current data system users. We then leveraged the insights from the surveys to design six focus groups with stakeholders representing LIHEAP, CSBG, Weatherization, vendors, fiscal, and CAN directors. Analysis of the interview and survey data revealed six usability principles that were crafted into an apples-to-apples matrix to guide the evaluation of five data systems. The evaluation included one-on-one interviews and communication with system providers, a review of the system's available training materials, and hands-on system walkthroughs to directly assess usability features.

Concurrent with our extensive data collection effort, PSC hosted three human-centered design workshops to help CAN establish data governance principles, identify key stakeholders, and develop five personas to center impactful decision-making on the needs of real people using the system. The personas selected by the CAN participants include LuAnn from the Local Agency, Van the Vendor, Carl the Client, Steve from State, and Eleanor from ICAA. The personas were used in the culminating half-day Design Thinking Workshop, where CAN stakeholders were guided through the development of a governance plan capable of selecting and implementing a new data system that meets the needs of LuAnn, Steve, Eleanor, and Van.
Human-centered design is an iterative research process that involves working with end users to understand their needs and preferences and then creating solutions tailored to meet those needs.

By putting the end user at the heart of our research design, PSC identified six high-value heuristics to drive impactful data system selection (right). PSC conducted an apples-to-apples comparison of five potential data systems on the six human-centered criteria, and identified CAP60 as the data system most likely to meet CAN's needs. eLogic Genesis and EmpowOR are also suitable candidates.

Iowa's Community Action Network is now poised to select a data system that is more relevant and useful to their stakeholders. Next steps include establishing a Governing Board and Advisory Committee, implementing a data system selection process, testing system features with local agency experts, negotiating contracts, migrating data, and training users on the new system. The data transition timeline is estimated to take 24-30 months.

Across the two surveys, six focus groups, and three workshops led by PSC, data users said they wanted more:

- Intuitive Data Entry
- Accurate Reporting
- Customizable Systems
- Governance & Security
- Seamless Integration
- Training & Support
Comparing System Features

An apples-to-apples comparison of five data systems across six usability features

The key criteria for evaluating the Community Action Network's five proposed data systems are intuitive data entry, accurate reporting, customizable systems, strong governance and security, seamless integration, and adequate training and support. Based on the criteria that matter to CAN stakeholders, the top three systems are CAP60, eLogic Genesis, and EmpowOR. Check out the detailed and summary matrices in the appendix or read more here: https://go.iastate.edu/RG7HMF.

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
<th>Avg Agency Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAP60 excels in data entry, customization, system integration, and training.</td>
<td>Client eligibility is distinct from the household landing page. Users re-run rather than save custom reports</td>
<td>$5,500-$6,500 annually</td>
</tr>
<tr>
<td>eLogic Genesis excels in reporting, system integration, and governance/security.</td>
<td>Limited Weatherization and LIHEAP functionality. Menus change; not intuitive. Training fee-for-service.</td>
<td>$4,500 annually PLUS data migration fee of $3,000-$100,000, based on agency size</td>
</tr>
<tr>
<td>EmpowOR excels in system integration.</td>
<td>No Weatherization support; no API in the base system. Limited translation of surveys.</td>
<td>Provider declined to provide a cost estimate</td>
</tr>
</tbody>
</table>

Note: Operational Data Stores (ODS) are designed to integrate data from multiple sources for basic data processing activities such as agency reporting with real-time analysis. Though not a part of our formal evaluation, several CAN stakeholders asked PSC to weigh in on their usefulness. We confirm that ODSes are incredibly useful but costly strategies for achieving excellent system integration. For a price comparison, a recent DHHS-ODS build was estimated at $3.5 million plus the costs of the underlying data systems.
Identifying Data Insights

Across surveys, focus groups, and workshops, stakeholders were iteratively asked, "What works well for you in your current data system?" And "How might a future system better meet your needs"?

The Public Science Collaborative conducted two surveys, six focus groups, and three workshops on behalf of the Community Action Network (CAN) to evaluate their current data systems’ effectiveness and identify feature gaps. The results of these data collection efforts were shared back to CAN leaders in December 2022, when state, local, and ICAA leaders had a chance to utilize these insights to create a 'Go Forward Plan' for data governance. A summary of the data collection results is provided below.

Client Survey

Nine of ten clients would recommend CAN services to others. However, they disliked the application process and wanted a more intuitive user interface that gave alerts when they qualified for additional services and provided faster notice of eligibility.

Employee Survey

Employees are concerned about reporting accuracy and frustrated about difficulties faced when producing data insights related to reports, tracking clients, and monitoring caseloads. System changes may threaten productivity and confidence.

Focus Groups

Four consistent themes emerged from the focus groups. Topics included the accuracy of data and reports; efficiency of work processes such as generating reports and deduplicating or cleaning data; system integration across platforms; and the technical support needed to effectively use the data system.

Workshops

The first workshop produced personas and a stakeholder map (see Appendix). The second workshop introduced CAN to a variety of governance options. Participants unanimously agreed that CAN needed a Governance Plan. The third workshop reviewed project findings and asked participants to generate a Governance Plan capable of moving decisions forward.
Next Steps

Establish a governance system that supports collaborative and strategic decision-making and sets standards for best practices around data.

Iowa’s Community Action Network unanimously agreed that a data governance plan was needed to oversee the necessary data system changes ahead. ICAA was identified as an underutilized resource in data management that needs greater access to data moving forward to better support local groups. Agencies shared that they want to hold their non-profit status at the forefront of decision-making to minimize confusion about who owns their data. The state was committed to helping lead the charge on the new data plan.

01 Create a Governance System

Establish a Governance Board and Advisory Committee charged with selecting a data system and engaging in contract negotiations on behalf of CAN. Ensure participation from agencies, the state, and ICAA.

02 Test Data System Features

Involve data system users and local experts to review the selected system and provide recommendations on general use, the purchase of ad hoc features, and other relevant issues.

03 Negotiate Contract & Setup

Authorize the Governance Board to negotiate the contract’s cost, usage, ownership liabilities, and data security. System setup and data migration should prioritize maintaining data access for existing clients and services.

04 Training and Integration

Train data users on the new system via role-specific manuals, webinars, asynchronous videos, and on-call support. Training may begin concurrently with data migration and will likely extend 6-12 months after.
Appendix

PSC created the following human-centered design tools to support CAN members with their data governance planning and data system selection. The personas and stakeholder map were co-constructed with CAN stakeholders in facilitated workshops, while the matrix emerged in the analysis of surveys and focus groups.

User Personas

Ask, "Does this system work for":
- LuAnn from the Local Agency,
- Eleanor from ICAA,
- Steve from State,
- Van the Vendor, and
- Carl the Client?

Stakeholder Map

Leverage these lists to decide:
- Who should be engaged and who should be kept informed?
- How will CAN develop targeted communication plans?

Apples-to-Apples Matrix of Features

Compare T.H.O., NIFCAP, CAP60, eLogic Gensis, and EmpowOR on:
- Six usability criteria,
- Strengths and weaknesses, and
- Costs and benefits.

"The key to this whole thing is to truly embrace our consumers in the way they want to interact with us instead of the way we think they want to interact with us...people in the field tend to stand in their own way." -Focus Group Participant
Community Action Network Personas

**LUANN FROM LOCAL AGENCY**

**PROFILE**
- Gender: Female
- Age: 34
- Education: Bachelor’s degree in Social Work
- Occupation: Case Worker for CAN

**BIOGRAPHY**
Luann enjoys serving her community and often volunteers on weekends to work in her neighborhood community garden. Her job is emotionally taxing and so to decompress, she enjoys listening to true crime podcasts. She frequently feels frustrated with work because she often finds she is spending more time with data reporting than her passion, which is helping clients.

**MOTIVATIONS**
Luann cares deeply about serving families and genuinely helping people. She feels supported by her co-workers to accomplish her heavy task load. She enjoys the variety of being able to work with clients both in the field and in the office. She is interested in advancement opportunities and actively seeks self-improvement.

**GOALS**
She needs a data system that allows for:
- A streamlined single application with ability to see information across all the Community Action Network (CAN) programs and determine eligibility
- Features should include the ability to upload documents and photos from multiple devices and to connect the application to a payment processing method
- The reduction of repetition in data entry while being able to report accurate data to funder and community requests
- Her agency must maintain ultimate control of their data
- A simple user interface that is streamlined and user friendly
- Improved reporting options that allows for customization and lets her create reports for outreach and outcomes while being easy to learn

**FRUSTRATIONS**
Luann struggles with burnout and often feels that there is not enough time to get everything done. She becomes frustrated with how clunky the system is for users to navigate—getting accurate reports or data is a constant struggle. Often she feels overwhelmed by training for technology updates, system changes, and the lack of easy interfaces and manuals. Frequently she has to capture large amounts of information over multiple formats which is repetitive and time consuming.

“I believe if I can help even one person, that I am helping the whole community.”

**ELEANOR THE EXECUTIVE**

**PROFILE**
- Gender: Female
- Age: 52
- Education: Master’s degree
- Occupation: Executive Director

**BIOGRAPHY**
Eleanor is passionate about learning and keeping up on emerging trends in the field. Her background is extensive in non-profit leadership and community development experience. She finds listening to audio books easiest when trying to relax and looks forward to that time in her day. It helps her with the stress of having so much to do and never having enough time. Even at home she finds herself troubled by issues at work like frequent staff turn over.

**MOTIVATIONS**
Eleanor is intent to make a difference and have a positive impact on the families of Iowa. She is looking to provide greater opportunity to create systematic change. To do that she wants good, accurate data to eliminate frustrations and increase efficiency. She is passionate about engaging her employees and serving clients.

**GOALS**
She feels a data system needs to:
- Give people the ability to tell their story and access the services they need to succeed
- Be used for planning purposes and forecasting staffing needs
- Show how money is being spent to support data driven decision-making and look for future funding opportunities
- Measure the impacts that we are having on families in a clear, accurate, and consistent way
- Help identify the programs that work and those that don’t
- Find gaps in the community where we can provide services
- Be client centered with the capacity to report outcomes at the family, community, and agency levels

**FRUSTRATIONS**
Eleanor is frustrated by how difficult it is to monitor a state-wide effort across multiple systems—she can’t easily see the whole picture. She regularly deals with conflicting needs from stakeholders—it’s hard to make everyone happy. She finds that poor data quality makes it hard to monitor, evaluate, and forecast the needs of staff and clients. She often finds that there is not enough unrestricted funds to support creative, new, and impactful initiatives.

“I have dedicated my career to creating positive change for the people of Iowa.”

“Be client centered with the capacity to report outcomes at the family, community, and agency levels.”

“I believe if I can help even one person, that I am helping the whole community.”

**PUBLIC SCIENCE COLLABORATIVE**

**CAN FINAL REPORT, FEBRUARY 2023**

**PERSONALITY**
- Introvert
- Thinking
- Judging
- Sensing
- Extrovert
- Feeling
- Perceiving
- Intuition

**TECHNOLOGY**
- Software
- Social Media
- Mobile App

**INFLUENCERS**
- Attending professional conferences
- Interaction with staff
- Interaction with clients
- Continuing Education
- Community Action Network (CAN)
### STEVE FROM STATE

**PROFILE**
- **Gender:** Male
- **Age:** 48
- **Education:** Master’s degree
- **Occupation:** Social Services

**BIOGRAPHY**
Steve has an extensive background in leadership and community development experience that he draws on as a Program Manager. Outside of work he enjoys staying busy by coaching his son’s soccer team and spending time outdoors. He looks forward to fishing and camping trips whenever he can find the time. It is important to Steve that he stay up-to-date on important issues and is a dedicated NPR listener during his commute to work.

**MOTIVATIONS**
Steve is focused on working towards more accurate data application. He wants to move his department to be as cutting edge as possible while having a positive impact on the people of Iowa. He really cares about the work and wants to support the agencies. It is important for long-term success to maintain and grow collaborations with local entities.

**GOALS**
Steve feels a data system needs to:
- Have an integration strategy that allows for ease of use for all data software management across the system
- Be able to provide an overview of the state-wide system
- Measure the impacts that we are having on families in a clear, accurate, and consistent way
- Correlation of data across the system
- Not rely on a single person in order to access information like the energy audits
- Need accurate data for federal reporting
- Need new legal agreements to access the data on demand
- Have a comprehensive look at the state-wide system
- Have an integration strategy that allows for ease of use for all data software management across the system

**FRUSTRATIONS**
Steve is frequently frustrated by changing data when needing to submit federal reports. He doesn’t trust the data is always correct which impacts his ability to make federal requests. This is compounded by not being able to pull the reports he needs. It makes finding the needed information a long and tedious process. Frequently he feels pulled between local and federal reporting needs and requests.

Steve also feels frustration over having to provide extra technical assistance due to software problems. They are supporting a software that is old and out of date that doesn’t run with modern technology. He also wants to avoid being audited.

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### VAN THE VENDOR

**PROFILE**
- **Gender:** Male
- **Age:** 40
- **Education:** Associate’s degree
- **Occupation:** Energy Utility Representative

**BIOGRAPHY**
Outside of work Van is very family centered, he works hard for 40 hours and then goes home to enjoy a full home life. He likes being able to attend his daughter’s soccer games every weekend. With his son he does competitive RC racing. He cares about his community and worries about the people of Iowa who struggle whenever the temperatures drop.

**MOTIVATIONS**
Enjoys working with clients throughout the state and has a passion for providing services to those in need
- Being able to process reports and data effectively with few obstacles—has a goal of fully automated data processing.
- Enjoys working with clients throughout the state and has a passion for providing services to those in need
- Interacting with staff and clients
- Attending professional conferences
- Serves on boards
- Gets connected to agency data using the Bulletin Board system

**GOALS**
The relationship and data needs for a partnership with CAN are:
- A data system that produces accurate reports and information that can be used for automated processing
- Crisis funding payments formatted the same as other agency payments to make for a cleaner, faster processing
- A continuation of friendly relationships with Community Action Network (CAN) representatives
- Corrections that are provided to CAN are added into client records and reports consistently
- Having an efficient system that checks information for accuracy and communicates directly with our processing system

**FRUSTRATIONS**
Van feels the weight of how critical doing his job well is to support the people of Iowa who depend on them for heat through the winter. He wants to avoid delayed payments from agencies for crisis funding because it creates billing conflicts. He often struggles with inefficiency and hassle of extra paperwork and payment processing. He is frequently discouraged with the amount of time spent entering information by hand or having to “clean” the data because of inconsistent and inaccurate data in the reports.
# CARL THE CLIENT

## PROFILE

<table>
<thead>
<tr>
<th>Gender</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>46</td>
</tr>
<tr>
<td>Education</td>
<td>High School Diploma, Military Service and Training</td>
</tr>
<tr>
<td>Occupation</td>
<td>Manufacturing Prior to Permanent Injury</td>
</tr>
</tbody>
</table>

## BIOGRAPHY

Carl is a single male who lives alone. He has one remaining family member, a sister who helps to support him and navigate services applications. He volunteers at his local community center to stay active. It also helps him stay connected to other veterans. His passion is for cheering on his beloved Chicago Bears: Go Bears!

## MOTIVATIONS

Carl is motivated to remain as independent as possible for as long as possible. He works to stay connected to the veteran community and to honor their collective service. He wants to be valued as a respected member of the community. Having to apply for aid can be embarrassing but he as found that when he has to call for help he never feels judged by the CAN staff. Their kindness is his biggest positive when having to seek help.

## GOALS

**To successfully remain independent, he needs services that:**

- Are focused on his goals of having a stable living situation
- Provide quick response times to know if he has qualified for services in order to plan his budget for utilities
- Allow him to be seen and heard by the system, not just a file
- Recognize that he has worked hard his whole life and wants to remain independent and have the ability to access the assistance that will meet his needs without stigmatizing him
- Have a single, easy to use application for all the programs who could give him support services allowing him to access multiple programs

## FRUSTRATIONS

Carl feels frustration over filling out the application because it is hard to read, long, and time consuming. He is forced to frequently connect with the agencies multiple times to get all his documentation submitted. It is a struggle to upload documents or pictures from his phone to his applications. Carl often gets confused by the program interfaces being overly complicated and then feels embarrassed having to call the agency for help. He uses multiple devices from different locations to access application and service information which forces him to restart the application repeatedly adding to the frustration. It's difficult to get to the service office for face-to-face meetings and needs help with transportation.

## PERSONALITY

| Introvert | Extrovert |
| Thinking  | Feeling   |
| Judging   | Perceiving |
| Sensing   | Intuition |

## TECHNOLOGY

<table>
<thead>
<tr>
<th>Software</th>
<th>Social Media</th>
<th>Mobile App</th>
</tr>
</thead>
</table>

## INFLUENCERS

- Connected to CAN through caseworker
- Uses online portals to access services

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“How do I move forward and rebuild my life after my injury?”

Read more about the development of five Community Action Network personas here: [https://go.iastate.edu/ZVQHNI](https://go.iastate.edu/ZVQHNI).
## Community Action Network Stakeholder Map

<table>
<thead>
<tr>
<th>Important: Powerful, high influence stakeholders with low interest demand key attention to leverage connections, keep informed and connected through board membership and to enlist direct participation if possible.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical: Powerful stakeholders with strong interests (labelled CRITICAL) demand the most attention. Critical stakeholders who are likely to be advocates for ICAA and should be engaged early and encouraged to help address the concerns of other groups that may be influential but less supportive.</td>
</tr>
<tr>
<td><strong>Current Software Providers, Board Members, DAS, IT at State level, IT Staff, Consumers, DCAA Commission at state level, households, other management staff, Lobbyists, Customers who want something that works but aren’t interested in how the sausage is made, OCS, Non-DCAA Funders, Community partners, Funders, Donors, Customers, Board, Community partners that rely on our data, individuals who apply for services, Decision-makers</strong></td>
</tr>
<tr>
<td><strong>Funders, Users, Board Members, Critical, US Dept of Health and Human Services, end users, ED CAA/Staff and DCAA, Executive Directors funders, Funding Agencies, Consumers, National Community Action Foundation, CAA staff, Division of Community Action Agencies, LIHEAP Coordinators CSBG Planners EDs, Outreach, LIHEAP staff, Food pantry staff, Program staff, CSBG planner, DCAA Leadership, LIHEAP Application Processors, CSBG Planners who have to report data to State, Organizations or Entities who will assist with funding, Utility Companies, Agency Management, Coordinators, Staff that use System, Planners who prepare reports, collaborative partners, Fiscal, Deliverable fuel vendors, Disaster Coalitions, Hospitals/Clinics, Other Local Nonprofit Agencies, Utility Vendors</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Informed: Less influential stakeholders with low interest should not be forgotten. This group should be kept informed, especially of updates that have a general interest after key decisions have been made. This group will neither be interested or obligated to share time or influence, but should also be kept informed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Supporters: Less influential stakeholders with strong interests who are willing to do the work to make this project a success. We want to encourage the groups they make up to participate even if individuals do not have high influence.</td>
</tr>
<tr>
<td><strong>Community supporters, city governments, partners, community partners, the public, school districts, community members, doctor offices and pharmacies, corporate partners, other community partners, local supporters, federal partners, non-client non-donor community members, some community partners/groups, potential community partners, small businesses, prospective donors</strong></td>
</tr>
<tr>
<td><strong>Board, Partners, Application Processors, customers, clients, frontline staff using system, staff in outreach centers, current software providers, community partners, data entry workers, partners and their volunteers, area agencies on aging, other local nonprofits, funding partners, local church partners, local governments, consumers, Community Centers, local government, Staff in programs for not using the system, some Funders, Those not being served, community project partners</strong></td>
</tr>
</tbody>
</table>

Read more about the Community Action Network's stakeholder map here: [https://go.iastate.edu/ZVQHNI](https://go.iastate.edu/ZVQHNI).
## Detailed Applies-to-Apples Matrix (Features Comparison)

<table>
<thead>
<tr>
<th>Feature</th>
<th>T.H.O.</th>
<th>NIFCAP</th>
<th>EmpowOR</th>
<th>CAP60</th>
<th>eLogic Genesis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Data Entry</strong></td>
<td>Fair</td>
<td>Fair</td>
<td>Good</td>
<td>Excellent</td>
<td>Good</td>
</tr>
<tr>
<td>• Intuitive interface</td>
<td>Data entry is generally simple, with dear household and individual screens. Some automated duplicate checking and addressing checking. Auto-population for LEAP and CSBG form online forms (CSBG not currently used by Iowa agencies).</td>
<td>Icon-based system is less intuitive, and data entry windows that pop up on top of each other are confusing. However, entry is easy within those windows. Some duplicate checking and other input regulations.</td>
<td>Data entry is easy, with significant flexibility for client intake, including customization based on program. Duplicate checks on data entry using one or more fields. Agencies have customization ability and provider works with agencies to further customize intake.</td>
<td>Data entry is straightforward, but most comes through client look. Duplicate and address checking across multiple fields. Bulk service assignment. Program eligibility is calculated, but not on main page. Agency has customization, except for federally-required fields.</td>
<td>Agencies have substantial flexibility to create forms and assessments that clients can use as part of their client portal. System works best with CSBG, there is less LEAP-specific functionality. Bulk service assignment. Can apply tags to client notes. System interface looks modern but may be unsuitable for some users, including multiple menus that change based on screen or access.</td>
</tr>
<tr>
<td><strong>Reporting</strong></td>
<td>Poor</td>
<td>Fair</td>
<td>Good</td>
<td>Excellent</td>
<td>Good</td>
</tr>
<tr>
<td>• Accuracy</td>
<td>Agencies can create reports based on any fields for which data is collected. Accuracy and consistency are issues due to the complicated nature of running reports and a bug in the system. T.H.O. has been unable to find said bug.</td>
<td>A fair number of canned reports and reports created for agencies, but agencies cannot access all fields to create own reports. Variations in accuracy and confidence in data depending on data type. Some reports are deprecated or non-functional, but still listed.</td>
<td>Reporting appears to be simple, with access to many canned reports and ability to build out advanced/custom reports.</td>
<td>Reporting is simple and has access to all fields. Filters are intuitive and usable, with additional canned reports at CostBenefit.Net. Additional Google Looker Dashboard modules are available for data visualization and SQL querying.</td>
<td>Normal reporting within system. Relatively simple, and all fields are reportable. System is optimized for CSBG reporting. Additional Google Looker Dashboard modules are available for data visualization and SQL querying.</td>
</tr>
<tr>
<td><strong>System Customization</strong></td>
<td>Poor</td>
<td>Good</td>
<td>Excellent</td>
<td>Good</td>
<td>Good</td>
</tr>
<tr>
<td>• Agency customization</td>
<td>Some ability to customize data entry by removing fields. System is the same across states, so T.H.O. is hesitant to add features for a specific agency or state unless it's very small. Larger features have to be approved by group of CA clients across country.</td>
<td>Less in the way of agency customization, but easy to work with company to get customized reports or features.</td>
<td>Agencies have the ability to customize fields and questions on own. Most agency-level customization done at extra cost. Agencies have their own program workflows. Works with agencies on onboarding to make sure all programs are covered.</td>
<td>Agencies can create their own forms. Costs for new feature development outlined on website.</td>
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</tr>
<tr>
<td><strong>Governance and Security</strong></td>
<td>Fair</td>
<td>Fair</td>
<td>Good</td>
<td>Excellent</td>
<td>Excellent</td>
</tr>
<tr>
<td>• Privacy and security certifications</td>
<td>Extensive role-based access. Lack of certain security standards prevent system from being used for certain programs. Some project management ability with tracking staff and finances.</td>
<td>No singular certification, but security model contains aspects of NIST SP 800-33, NIST Trust CSP, COBIT 5, SOC 2, ISO 27001, PCI DSS, CSA STAR CCM. This sort of structure may be an issue for security compliance in certain programs.</td>
<td>Approved HUD and Head Start system. Passes DHHS security standard. System's current undergoing SOC 2 audit and Michigan security compliance process. Data is encrypted at upload, download, and at rest.</td>
<td>SOC reporting with third party system audit. Encryption at all data locations. Role-based access at State level or by group/role. Human resources module and volunteer management.</td>
<td>System built around HIPAA compliant SOC 2 certification. System uses nested networks to limit access. Has additional role-based access within network. System employs employees and client notifications and can track service, funds. CAMP offers data governance training and consultation.</td>
</tr>
<tr>
<td><strong>System Integration</strong></td>
<td>Fair</td>
<td>Poor</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
</tr>
<tr>
<td>• Deduplication</td>
<td>Minimal system integration. Strong integration with Orion fiscal software but no other API. Bulk export is possible with extensible CSV reporting.</td>
<td>Minimal system integration. At least one agency uses a customized bulk-in/fiscal export to Orion, but no API. Given limits on customizable reporting, there is little ability to mass export.</td>
<td>Can bulk import and export client lists. Can serve as single entry point given customization of intake.</td>
<td>API allows connection with other systems. Has established connections with CNAP Plus, SSA, and HMSI. Can set up bulk manual import and export processes for outside systems without API.</td>
<td>API that allows connection with other systems. Already has connections with Childcare.com. Can set up scripts and processes for bulk manual export and import as software is not an outside system without API.</td>
</tr>
<tr>
<td><strong>Training and Support</strong></td>
<td>Poor</td>
<td>Good</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
</tr>
<tr>
<td>• Formal training process</td>
<td>Does formal training with individual agencies and states as needed or requested. Has tried webinars in past. Does not see the point of a manual given the constantly changing nature of the system.</td>
<td>Direct access to software creator, with quick response for issues. Only one-to-one agency training and very “train the trainer” trainings.</td>
<td>Unlimited training/support, including one-on-one or group training. Video tutorials are available, and there are dedicated on-call support staff.</td>
<td>User guide is part of base setup. Free training webinars when software updates. Otherwise, training (webinar or in-person) has costs per hour. Beyond software training, company provides other data training and consultation as well.</td>
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</tr>
<tr>
<td><strong>Miscellaneous</strong></td>
<td>Client鲜艳 development Not a modularized system.</td>
<td>Nearly rewrite of NIFCAP software will replace current system in Spring 2022.</td>
<td>Weatherization module in development. Some agencies current use for pieces of Weatherization. Client intake 100+ language translations. No individual user licensing (unlinked users system). The system is set up around CSBG with ROMA standards has LEAP functionality, some Weatherization, but CAMP recommends Wwpotr. If Weatherization support is needed. Business portal. Client intake 85+ language translations. Not a modularized system.</td>
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</tr>
</tbody>
</table>
The matrix below summarizes the results of the detailed evaluation of each of the five programs across the six usability features. Ratings are based on a four point scale, with four stars indicating a rating of ‘Excellent’, three stars indicating a rating of ‘Good’, two stars indicating a rating of ‘Fair’, and one star indicating a rating of ‘Poor.’

<table>
<thead>
<tr>
<th>Features</th>
<th>T.H.O.</th>
<th>NIFCAP</th>
<th>EmpowOR</th>
<th>CAP60</th>
<th>eLogic Genesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Entry</td>
<td>4</td>
<td>4</td>
<td>4</td>
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<tr>
<td>Reporting</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>4</td>
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<tr>
<td>System Customization</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>4</td>
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<tr>
<td>Governance and Security</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
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<tr>
<td>System Integration</td>
<td>4</td>
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<td>4</td>
<td>4</td>
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<tr>
<td>Training and Technical Support</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>4</td>
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</tbody>
</table>

Read more about the Community Action Network's detailed and summary apples-to-apples matrices here: https://go.iastate.edu/RG7HMF.
We acknowledge the contributions of the many people who worked on the projects mentioned in this report. Below, are the names of those committed to these projects, such as:

Katherine Riley Harrington and Bill Brandt for concept and coordination

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Kelsey Van Selous for administrative support

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We thank you for contributing to our human-centered and data-informed decision making process.

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