

Hacking Bureaucracy: Reimagining California's Food Stamp Program in the Digital Age

Over Thanksgiving in 2013, Dave Guarino, Jake Solomon and Alan Williams (see **Exhibit 1** for brief biographies)—along with nearly a dozen other former Code for America fellows—retreated to Williams' family home to decompress and reflect on the work they had just completed for the organization. A year earlier they had been selected for the coveted fellowships which promised them the chance to “transform government from the inside out.”¹ Once hired, they had been assigned to different project teams, embedded at client sites in far flung cities: Guarino in South Bend, Indiana, collecting feedback on vacant and abandoned properties; Williams in Akron, Ohio, working for the National Parks System developing an open data standard for trails and public lands; and Solomon in California, assigned to Human Services Agency of San Francisco (HSA).

After the fellowship ended, Williams wasn't quite ready to move on. He had invited his peers to his family's home for the holiday and they held marathon debates, ultimately agreeing that their work was vitally important. “We didn't want to stop doing it,” said Williams.^A Solomon, in particular, was focused on the nation's food stamp program, SNAP, and California's version, CalFresh, where he saw an opportunity to use technology to make a significant positive social impact by fixing what he believed was a “broken” system.

Indeed, California's SNAP participation rate^B had lagged behind the national average for more than a decade² ranking 48th in the nation:³ Only 66% of eligible residents participated in the program in 2013 when a majority of states had rates of 87% or higher.⁴ This meant California was forgoing as much as \$3.88 billion^C that could flow from the federal government to the state's poorest residents^D if it could reach full participation. Equally concerning, CalFresh had the highest administrative costs per case per month—\$68.92 (up 4.5% from fiscal year 2014)—of all but one state.⁵ The need to address CalFresh's enrollment problems was becoming even more

^A Alan Williams, Jacob Solomon, David Guarino, Jennifer Pahlka, Tiana Wertheim and Leo O'Farrell were interviewed by the case writer on May 26-27, 2016 in San Francisco, California.

^B The participation rate was the number of residents enrolled in SNAP divided by the number eligible for benefits.

^C Extrapolated by case writer.

^D In California, SNAP eligibility was tied to the official poverty line. Nearly 4 in 10 residents were living in or near poverty.^D A family of four with an annual adjusted income under about \$24,000 would qualify for SNAP in 2014.^D

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urgent: SNAP was reinstating strict work requirements for non-disabled, working-age adults without dependents in 2018 which could further lower enrollment.⁶

Solomon believed one way to improve the participation rate was to focus on making it easier for potential recipients to enroll in and use CalFresh benefits. While still at Williams' home, Solomon wrote a blog post, "[People, Not Data: Disdain and Empathy in Civic Tech](#),"⁷ (click link to read) a scathing indictment that called for more empathy in social service delivery. "What he recognized that I didn't—but that was obvious as soon as he wrote it—was the extent to which our community is focused on open data as a theory of change," said Williams. The blog was a rebuttal, theorizing that instead, technology should be used to focus on the quality and dignity of a user's experience.

Solomon wanted to leverage the relationships he had built at HSA during his fellowship to do more work on CalFresh. By the close of 2013, he had convinced Guarino and Williams to join him in what would become an all-consuming skunk works quest to feed the hungry of California.

Code for America

Code for America (CfA) was a San Francisco-based non-profit organization that partnered with city, county and state governments to redesign public services in the areas of public health, safety and justice, and economic development. Jennifer Pahlka founded CfA in late 2009 to help the public sector more effectively use technology to meet policy goals and solve community problems.

CfA formed small teams comprising software developers and designers who were hired for 12-month fellowship appointments. Each team was embedded in a city, county or state government for a year, building open source apps and engaging in civic hacking—a technology-driven process to quickly and creatively solve problems facing cities.⁸

When CfA accepted a fellowship project they asked the sponsoring city to pay a portion of their costs (approximately \$50,000 per fellow) and the rest was matched by a charitable organization or donor.^E "Oftentimes it comes together as a bit of a patchwork quilt. Sometimes that charity is focused around, say, criminal justice, or workforce development. Sometimes it's an issue area, sometimes it's a location," said Pahlka. CfA required a government payment to ensure its fellows were taken seriously. "Many of our fellows are late-20s, early-30s technology and design professionals who are working for a fraction of their salary and if they show up and get called interns its really destructive," said Pahlka. At the same time, she wanted some funding to be provided privately, so CfA could maintain control over its own work. "Having a source of additional funding means there's another stakeholder who [supports our] user-centered, iterative, and data-driven approach. . . It gives us the freedom to work through our own process," said Pahlka.

^E CfA also received grant funding from organizations such as Omidyar Network and the Knight Foundation to support its base operating costs.

In 2011, the first year of the fellowship program, four teams of five fellows each were tasked with solving civic problems in Washington, DC., Seattle, Boston and Philadelphia. In Boston, the city needed help explaining to parents new rules and procedures for determining which public schools their children could choose to attend. The city had created a 28-page printed brochure to explain its new system, but the generic information left parents confused. “It was a mapping problem,” explained Pahlka. “Our fellows created a web app, Discover BPS (Boston Public Schools), that allowed any parent in Boston to enter their address, the age of their child, and whether the family had siblings in another public school, and it would return a map of the schools that they were eligible for,” she said. The CfA team built a functional, user-friendly site after just three months of work; when it was up, Pahlka learned that if the city of Boston had gone through its traditional procurement process, it would have taken two years and cost \$2 million to develop the app. “But the city needed a solution now, not two years from now,” said Pahlka. “The ability to take that policy and implement it in a way that parents could understand, in the timeframe that they needed, really struck me as one of the key values of CfA. If everything you need to do takes two years, how can you respond to the needs of citizens?”

CalFresh

By 2013, two years later, Pahlka’s organization was routinely turning out teams that delivered value quickly. One such client was The Economic Benefits and Self-Sufficiency division of HSA, comprised of the administrative offices for many social service outreach programs, including Temporary Assistance for Needy Families (TANF; a federal assistance program colloquially known as Welfare and known as CalWORKS in California); Medicaid, a federally-administered health insurance program for the elderly and disabled (Medi-Cal in California); and CalFresh, California’s name for the Supplemental Assistance Nutrition Program (SNAP, a federal aid program formerly known as the Food Stamp Program, that provided low-income individuals and families with funds to purchase food). (See **Exhibit 2** for key characteristics of households receiving CalFresh benefits in 2014.)

HSA, which administered the CalFresh program for the city and county of San Francisco, employed 174 staff for CalFresh, comprised primarily of benefits eligibility workers, supervisors and a handful of managers. In 2016, HSA served 30,000 recipient families (44,000 individuals) up from 15,000 in 2008. About \$200 million in federal SNAP benefits were issued in San Francisco. All CalFresh’s SNAP benefit costs and half of the program’s administrative overhead costs were paid by the federal government; of the remaining administrative costs, 35% was paid by the state of California and 15% by the city and county governments of San Francisco.

CalWIN

The Personal Responsibility and Work Opportunity Reconciliation Act of 1996, a major welfare reform law, called for every U.S. state to design an automated data system to track their public assistance recipients. California delegated the task to its counties, which formed three separate consortia to pool resources and share costs. San Francisco was one of 18 counties in the Welfare Client Data Systems Consortium (WCDS) which was governed by a Board of Directors consisting of the Welfare Directors from each of the participating counties. WCDS represented 40% of the state’s SNAP caseload.

WCDS's online automated system, CalWIN (California Work Opportunity and Responsibility to Kids Information Network), was built by multinational information technology company Hewlett Packard (HP); the organization was awarded a ten-year contract in 1996 to build the system which was completed in 2006 at a cost of \$525 million. Once completed, CalWIN supported eligibility and benefits determination, client correspondence, management reports, and case management for 28 public assistance programs ranging from CalWORKs to Medi-Cal.⁹

My Benefits CalWIN

In 2007, Tiana Wertheim, acting manager and senior analyst for the CalFresh and Medi-Cal programs, was charged with administering a \$1 million grant to increase CalFresh enrollment. The plan called for HSA to transition from a caseworker-serviced, caseload-driven model to a customer-focused service center; to develop a network of community based organizations (CBOs) to help people learn about and apply for CalFresh benefits; and to create a website for San Francisco county residents to apply for food stamps online.

Developing the online application turned out to be an arduous task: though the funding was specifically earmarked for CalFresh, to encourage cross-program enrollment, HSA included information about CalWORKs and Medi-Cal. "It took a herculean effort," explained Wertheim. "It was very difficult negotiating with the government administrators of the other benefit programs to get their buy-in to even include information about those benefits because they already had their own online applications and they didn't have a grant or mandate to enable them to engage."

The web-based application, dubbed BenefitsSF, launched in 2009. Applicants who visited the website could apply online for CalFresh benefits and if they wished, were screened for their eligibility for CalWORKs and Medi-Cal. The website passed data through to the CalWIN system, which stored the client records. "Name, social security number, all client correspondence, all verification documents, everything was stored in CalWIN," said Wertheim.

After Wertheim made presentations of BenefitsSF to the California Welfare Directors Association annual conference and the WCDS consortium, officials in other counties became interested in using the system. Accordingly, BenefitsSF was adopted by the WCDS Consortium and renamed MyBenefitsCalWIN. As a result, proposals regarding the website were formally presented to all 18 counties, monthly, through its formal governance structure. "New projects have to be negotiated and prioritized," said Wertheim.

Once projects were agreed upon, HP undertook the work which could be expensive and time consuming. Inevitably, the process of adding improvements and upgrades became bureaucratic. "In BenefitsSF we had very deliberately used street language and very simple literacy. We held many focus groups with clients and potential applicants to see if they understood the language and had them go through the navigation of the site," explained Wertheim. Though she considered the first iteration of the site to be user friendly, as the other counties added their requirements, over time the site became wordier, more complicated. "It became an exercise of trying to ensure that every word in every offline form was reflected in the online application versus trying to convey the meaning without using complicated language," said Wertheim.

Nevertheless by 2016, nearly one-third of CalFresh applications came in through the website—and many of those applications were submitted with the help of community based organizations (CBOs), such as food banks and hospitals. Indeed, Wertheim’s office had contracts with local food banks which hosted HSA staff to help applicants navigate the complex online interface and to complete their CalFresh applications. The food banks, in turn, trained staff at health clinics, childcare centers, homelessness advocacy organizations and other CBOs to take on-site applications for CalFresh. “For example, staff at the Mission Economic Development Association were trained by the Food Bank in very basic CalFresh eligibility, how to use the website to enter an application, and what documents applicants need to provide. That’s primarily because we didn’t have the staff to train CBOs so they’ve built up the expertise,” said Wertheim. The food bank offered them \$55 per approved enrollment in CalFresh. “The Food Bank wanted to give a financial incentive to that network to do the work,” said Wertheim.

Code for America at CalFresh

In 2012, CfA approached HSA Executive Director Trent Rhorer (HKS MPP 1996) and asked him to host a team of four 2013 CfA fellows, including Solomon. Rhorer agreed, and Wertheim was asked to serve as project lead, supervising the fellows. “They were really smart, capable, and interested in applying their technical skills to public service,” recalled Wertheim.

The fellows set out to learn everything they could about HSA. “I think they interviewed about 100 staff at all different levels,” said Wertheim. “They wanted to understand the challenges from the agency’s perspective, but they wanted the solutions to incorporate the client’s voice and needs,” said Wertheim. Solomon said his team felt welcomed, trusted and empowered by Rhorer, Wertheim and CalFresh director, Leo O’Farrell. “They created cover for us to go into this 2,500 person big, bureaucratic, politicized social service agency and talk to anybody. And they were very honest and told us how the system worked,” said Solomon.

After the interviews were completed, the fellows conducted a series of meetings and brainstorming sessions with directors from CalFresh, Medi-Cal, and CalWORKS. “They did a presentation on the agency’s challenges and project opportunities,” said Wertheim. By then, it was early July 2013. Even as the team worked to identify a project that they could accomplish within the remaining time of their fellowships, Solomon was taking note of some of the thornier problems the team had uncovered. “I was cataloguing things that I wanted to pursue that didn’t make sense to pursue in the fellowship,” said Solomon.

Addressing Churn

O’Farrell wanted the fellows to address the CalFresh churn rate. CalFresh recipients were required to have their benefits eligibility recertified annually and to complete a check-in form, semi-annually; recipients who did not submit these forms had their benefits discontinued. “It isn’t because they become food secure,” said O’Farrell. “It’s a paperwork problem that causes them to drop off,” he said, noting that there were many reasons why the forms might not be completed properly, including not reaching the recipient, not being filled out correctly, the form being provided in the wrong language, etc. If they did not check in or recertify, recipients learned—often by having their CalFresh benefits card (EBT) rejected at a supermarket—that they were no longer receiving CalFresh benefits, and were forced to re-apply for the program. O’Farrell referred to this phenomenon as churn and noted that every

six months about 20% of recipients dropped off the CalFresh rolls and re-applied. “As a result, one out of five customers has to reapply, re-interview, and resubmit documentation [because they were unable to properly complete the semi-annual check-in form]. One way to look at it is that every fifth day we’re repeating work that we have already done. It’s wasteful,” said O’Farrell.

The CfA fellows analyzed the problem and expanded their interviews to include CalFresh recipients. “They were very committed to client-centered information gathering and even in the definition of the problem, getting that from the client’s perspective,” said Wertheim. The fellows were surprised to discover that the churn rate was one of the biggest reasons why California had the second lowest SNAP participation rate in the U.S. “Turns out recipients had an experience that led them to drop off and not come back,” said Solomon.

The team wanted to understand why the user experience was so poor and they felt that documenting the entire user experience—from application through churn and reapplication—and showing it to the CalFresh leadership might create “positive pressure” to focus on the user experience. Solomon felt that by improving the user experience—even marginally—it would reduce the cognitive and time cost of accessing social services. “[We’re making users pay a] price—in stress, confusion and aggravation,” said Solomon.

Understanding the System

The fellows decided to complete CalFresh applications themselves to better understand the application process. One of the CfA team members, Rebecca Ackerman, applied in earnest. O’Farrell supported the idea. “I told [our eligibility workers] to treat her like a secret shopper and sign her up for benefits,” he said. “We wanted her to get all the communication we typically send out so they could figure out if it was understandable,” said Wertheim.

Ackerman received many Notices of Action (NOA)—letters CalFresh sent to recipients to notify them of changes to their benefits—and the CfA team concluded that the notices were so confusing that recipients were allowing their benefits to lapse because they were uncertain what action they should be taking. “At least one of the letters she received was in Chinese, when certainly it should have been in English. Some of the NOAs said things like, ‘Your income has changed from \$200 to \$200...’ Pretty much none of them made any sense,” said Wertheim. She noted that because the system auto-generated the NOAs, CalFresh staff had no other easy way to see what type of correspondence was being sent to recipients.

The CfA team thought that rather than mailing NOAs, sending text messages to recipients’ cell phones could be an effective way to alert them that they needed to take some immediate action (e.g., file a form or make an appointment with CalFresh)—which, if effective, might lower the churn rate. Within weeks, the CfA team developed a software application—dubbed Promptly—designed to prompt recipients to respond by a particular date. While it sounded like a simple solution, Wertheim had to help the team negotiate a host of obstacles. First, they had to figure out how they would move recipients’ phone numbers from CalWIN into a texting system. They also had to address concerns about recipient confidentiality. “We had to involve the city attorneys to determine what kind of consent and release form we would have to [obtain from recipients] because of privacy concerns and because it can cost money to receive a text so we needed permission,” said Wertheim. She also had to address

business process issues. “We had to help our eligibility workers understand how to explain to clients what the texting was, how to indicate within our CalWIN system if they had given consent, and, how to explain to clients—who might be anxious or confused about receiving a text—what the texts meant,” said Wertheim. Even reaching agreement on the wording of the texts was difficult.

Nevertheless, Wertheim was impressed with the fast prototyping model CfA used to develop Promptly. “They worked with us to develop a piece of the program, beta test it, get feedback, make adjustments, and do it again. It’s iterative,” said Wertheim. After seeing the prototype, HSA committed to text messaging as a viable method of communicating with CalFresh recipients. “Promptly was a good idea that prodded us to come up with our own version at scale,” said Wertheim. Inspired by the success of San Francisco’s test of Promptly, Wertheim added a county-controlled text consent field to the CalWIN database. In August 2015, the WCDS Consortium added the consent box on MyBenefits CalWIN, created a text reminder system and integrated it with Promptly.

Skunk Works^F

Shortly after the debut of Promptly, the 2013 CfA fellowship term came to an end. Back from their Thanksgiving retreat and without jobs, in early 2014, Solomon, Williams and Guarino formed a skunk works team and started running software experiments around CalFresh. They established a base of operations in Solomon’s living room and to pay the bills, they took on freelance work.

O’Farrell wasn’t surprised that Solomon was interested in doing more work on CalFresh after the end of the fellowship. “He seemed particularly fascinated by this intersection of technology and government,” said O’Farrell. Indeed, Solomon was fixated on finding a way to streamline the CalFresh online application, which comprised more than 200 questions over 50 screens.

In summer 2014, Williams took a month off from freelancing and the resulting drop in his income made him eligible for food stamps. “It was opportunistic, but intentional,” said Williams, who applied and was enrolled in CalFresh. He and the team were hoping to find answers to some of the questions that remained after Ackerman’s experience enrolling in CalFresh in 2013; though she, too, had applied, she did so through an administrative exemption and had not gone through the experience of attending an eligibility interview or receiving and using benefits. For Williams, the experience would be real.

Williams documented the time consuming and difficult process of applying online. For instance, the online application did not use branching logic so if, for example, an applicant indicated on an early screen that they were single and homeless, they would still be asked scores of questions about family members and household living expenses. Also complicating the process was that the application was designed to collect information for CalFresh,

^F A skunk works was a group of people—often a small team—that work on a project in a way that is outside traditional organizational rules to achieve unusual results, often in a short time with minimal management constraints. A skunk works was sometimes used to spearhead a product design that might eventually be developed using the organization’s customary processes and procedures.

Medi-Cal and CalWorks but each had distinct information requirements. “If you say on one of the earlier screens, I’m only applying for CalFresh, they don’t hide the other questions,” said Guarino. Additional obstacles ranged from online sessions timing out too quickly, to the website only accepting outdated file types for documentation uploads to planned outages outside of traditional office hours. (A year later, Solomon described the process in a presentation, [Improving the User Experience of CalFresh](#)¹⁰ (click link to view), and noted that the majority of people who tried to apply online were unable to reach the end of the application.)

After completing his application, Williams was asked to attend an in-person interview and provide additional documentation—bank statements and the like. Soon after Williams became a bona fide CalFresh recipient and was given an EBT card.

EBT Near Me and Balance

After he received his EBT card, Williams set out to buy groceries. “I went to a corner grocery and I assumed they would take EBT. I got a basket of groceries and I was in line and then I realized I didn’t see any sign,” said Williams. He discovered the store did accept EBT—but only at a specially designated register. “They had to stop the line and take me over to a different register. I got flushed,” he said.

Williams shared his experience with the skunk works team and they built EBT Near Me, a web app that used a recipient’s location to show the stores nearby that accepted EBT. As was typical of the approach they learned at CfA, they built EBT Near Me as a minimally-viable product and then asked users for feedback. “What we heard was that that experience only happens once. Once you find the grocery store near you that takes it, you go there,” said Williams.

During their usability testing they discovered something else: because the EBT card doubled as an ATM card for TANF recipients, many were paying high cash withdrawal fees at ATMs because they didn’t know where to find no-fee ATMs. About \$20 million from EBT was going to the banks in ATM fees in California every year. “We said really? These high marginal utility dollars for the poorest among us are going to the country’s biggest banks?” said Williams. As a result, the skunk works team added another layer to the map—the locations of no-fee ATMs.

Once he started using his EBT card, Williams realized he did not have a fast or easy way to check his balance. He knew he could call an 800 number, but the process was time consuming and cumbersome. “The time I wanted to know the balance was when I was in line, in the supermarket,” he explained. The skunk works team quickly prototyped a text message service called Balance; an EBT card holder simply texted the word “Balance” to a designated number and immediately received a return text with their account balance amount.

Even though the skunk works team no longer had a formal relationship with CalFresh, Solomon felt that to get buy-in from O’Farrell, Wertheim and others in government was important. O’Farrell wasn’t sure the suite of digital tools that the skunk works team was developing would help the typical CalFresh recipient, but he thought they would be embraced by the agency’s more tech-savvy recipients. “The next generation are going to really want this, even if it’s not fully adopted now,” said O’Farrell. He also saw the potential to use the technology more broadly. “If you can prove something like this works in San Francisco, it should be scalable across the nation, right?” he said, noting that 45 million Americans received SNAP nationwide.

The skunk works team’s pilots generated buzz within city government—and elsewhere. “We did [these] small projects without asking anybody for permission or holding meetings,” said Solomon. “Once we had a little bit of value to offer, every single door just swung open—including to the director of social services of California. Compare that to trying to do a thorough market assessment, figure out a plan, raise money . . . just showing up with a little bit of value opened doors,” said Solomon. Indeed, Solomon garnered an invitation to speak at the annual September 2014 Code for America Summit where he presented [Deepening Impact in Health: The Big Thing About Small Things](#)¹¹ (click link to view), detailing Williams’ experience in enrolling in and using the CalFresh program.

Soon after, Williams and Solomon were invited to present at HP’s quarterly board meeting attended by the 18 county directors of the WCDS Consortium. At a typical meeting, HP presented its development plans for the next quarter and the county directors voted on what features they wanted. At this meeting, Williams and Solomon presented a “tear down” of the user experience of applying for and churning through CalFresh. At the time, Solomon felt he had nothing to lose. “I had no vested interests. I thought I was going to probably get out of social services, because I didn’t have a good next step there. So this was a little bit of a last hurrah, like I’m blowing it up,” he said. They spent their presentation time [displaying and critiquing the more than 50 screens on their system](#)¹² (click link to view). Solomon explained:

We said, “The short story is, this is really bad,” but we did it to build the case that the user experience was worth investing in. And we did it by showing the existing user experience, which everybody in the room was collectively responsible for building, but really nobody in the room knew. There was not a single person who knew the end-to-end experience of SNAP enrollment. Even the people who were responsible for building the website, only [knew that] part of the enrollment process. Seeing the end-to-end experience was mind-blowing to them.”

Solomon felt that the presentation helped the counties to better understand why SNAP participation was so low.

Creating a Simplified Application

In the meantime, enabling applicants to bypass the online application became the main goal for the skunk works team. “We said let’s build a radically simplified thing so that it really minimizes the burden on the client and removes the initial application as a barrier. Make it something you can do in 5-10 minutes,” said Guarino. Solomon proposed an idea that Guarino admitted was “a little adversarial”:

He pointed out that federal law stated a valid application required only four fields of information. He had the idea when he was in the fellowship of just letting people apply by filling out those four fields but he didn’t do it [then] because it would have pissed people off. But now that we were done with the fellowship, we could [create software] that would just let people fill out those four fields and then the application process would start. It’s a valid application; it has to be processed.

Since by law HSA had to conduct in-person or telephone interviews anyway, the skunk works team figured that the interviewer could collect whatever additional information they needed during the interview. “It was a pretty simple process hack. If you’re going to do an interview anyway, why are you making people answer 200 questions?” said Guarino. “Why are you putting a burden on people who have the most friction in their lives? You should be removing friction,” he said.

Guarino told Solomon that he could code it in a few days and soon after they were in O’Farrell’s office, demonstrating the functionality. Potential applicants were asked to answer four questions and then, behind the scenes, the team dropped the answers onto a paper form and faxed it to the CalFresh office, effectively bypassing MyBenefitsCalWIN entirely. “That was the first iteration and it was a legally valid application,” said Williams.

Impressed, O’Farrell asked his business process analyst how much extra time the new process would add to the application process. The answer: not much, because in most cases the information provided online had to be corrected and augmented during the interview anyway. “Our eligibility workers refer to the information applicants have provided online, but they still have to go through it over again, to make sure the information is correct and to dig into it in greater detail,” said Wertheim.

Selling the Simplified Application

In the meantime, Pahlka invited Guarino, Williams and Solomon to join CfA’s staff, which they did, in January 2015. “We were doing this outside CfA and Jen said, you’re doing a lot of really good work getting attention from the state and from counties. You should just do that here full time,” said Guarino.

Soon after, the trio began to pilot the simplified application with CBOs, starting with the Food Bank of San Francisco and Marin. “We said, ‘Hey, we’re working on this super-minimal application that will hopefully be much easier than MyBenefitsCalWIN.’ We thought we would start with this group because the food banks are the only real power users, one of the few groups of folks filling it out over and over again,” said Guarino. But by mid-2015 it was clear that their approach wasn’t working. They had tried to make the application process faster and easier for CBOs’ outreach workers but in the process, found that their needs were different. “They needed to track things. They needed a reporting mechanism. But we were a small team and adoption was slow,” said Williams.

At the same time, the team was trying to interest other counties in the new application which by then had been transformed from fax to email delivery so they could attach applicants’ documentation uploads. Because they wanted to build the application in a way that could scale, they needed to bring in additional counties to avoid investing in features and customization that was only relevant to San Francisco. But other counties declined to adopt the new application process. “They weren’t willing to let us expand to them because they didn’t want an emailed .zip file, which would have to be processed differently. It was too much business process change for them,” said Guarino. Although O’Farrell supported their work—“I think because we had a pre-existing relationship,” said Guarino—the other counties objected to establishing a parallel business process and dedicating personnel. “They were all stretched to capacity,” said Guarino.

getcalfresh.org

It was then that the team had two revelations: first, that improving the application process for people who applied through the CBOs was in some ways less important than improving it for those applying on their own, online. “At the CBOs, applicants have someone help them with the application process. The person for whom improving the application process has the highest impact is the person who Googles ‘how to apply for food stamps’ in the library,” said Guarino. At the same time, they needed to solve the problem of the counties not wanting to set up parallel business processes.

The team developed an outside-the-box idea: what if they set up their own website and ran ads on Google to solicit people who wanted to apply for food stamps? They could then collect information from them through a user-friendly interface before sending the data through to CalFresh’s legacy online system. “I said sure, I can write code that does that,” said Guarino. Earlier, Guarino had learned of another organization doing something similar using a tool designed for test automation. “They just re-purposed it,” he said. The tip came with a caution, though. “They warned us that we would probably receive a cease-and-desist letter and we thought, ‘who is going to sue us for helping people get food stamps? Those optics don’t work,’” said Guarino. “So, we said, well, OK. Don’t ask permission, ask forgiveness.”

Soon after, during a retreat in Utah, they purchased a URL—getcalfresh.org—developed a simple off-the-shelf form and pointed their Google ads traffic to it. “So if you searched ‘apply for food stamps’ in California, you’d see our ad, ‘Apply in 10 minutes right here.’ Applicants would click on it and we would receive their application then sit around a table, open up MyBenefitsCalWIN] and enter the applicants’ data manually,” explained Guarino. He also noted that in California, more than one-third of those who searched for “food stamps” or “CalFresh” online were searching using a mobile phone—“but none of the existing sites let you apply on those phones,” he said.

They weren’t sure if the counties would accept the applications, so to confirm the applications were being processed, they began to follow-up with the applicants to see if they had been granted an interview. “We asked ‘Did they call you? Have you gotten approved?’ And it *was* working. People were getting benefits,” said Guarino. Though they were careful to include language on their website indicating that the application was going to non-profit CfA—not the county—Guarino said applicants did not seem to care. “We were very clear that we’re not the government. We’re just helping people apply. We’re sort of like a CBO, like a food bank except we do it with software,” said Guarino.

Some might say Guarino and the team operated like pirates, but Guarino thought they were more like Robin Hood and his Merry Men:

There was no business model. We just wanted to do this. We cast everything else aside, ignored everything, ignored politics. We weren’t going after partnerships, we weren’t going after co-creation with government. We were trying to create social good. And if there was ever a question of whether to compromise on something, we just went back to creating social good. We thought money would come [to CfA as compensation] at some point but even if it didn’t, so what? We’ll get fired and we’ll go back to doing it not getting paid? That’s fine.

Building for Scale

They began in June 2015 and by October 2015, getcalfresh.org had processed 1,000 applications. Guarino wrote code that would automatically transfer the webform information to the MyBenefitsCalWIN system, thereby addressing the counties' most significant objection.

They approached officials from other counties and showed them the process. "We said, we're doing a pilot of a new online application. It takes about 10 minutes and [applicants] can do it through the phone, it arrives like any other application, no parallel business process," said Guarino. "And they thought it sounded great because they wouldn't have to change anything that they were doing."

By the end of 2015, CfA processed 2,000 applications through getcalfresh.org, validating many of their assumptions through the prototype—including that a minimal application could work. The next challenge was building it to scale so they could reach their 2016 goal of processing 10,000 to 20,000 applications.

Guarino said it was 90% there but that the team needed to work to make it more sturdy, reliable and robust enough to handle 100,000 applications. They also wanted to introduce smart branching and offer applicants multiple ways/formats to provide supporting documents. They were confident, though, that they had already made the application process much easier for recipients. "Assuming you're eligible, you are more likely to be approved for food stamps if you use our system because we've taken all the logistical headaches we can out of the system," said Williams.

In the meantime, Guarino was certain that one of the legacy vendors was poised to create a streamlined application website within the next three years—but he doubted it would be successful. "Because they're only ever going to be copying our outputs, not the outcomes," he said and told a parable of three stone cutters. "You ask the first one, what do you do? I cut stones. You ask the second one, what do you do? I make tools that make it easier to cut stones. You ask the third one, what do you do? I build cathedrals. The legacy vendors will build apps, they'll build websites to fulfill a contract delivering some output. We're making sure everybody who needs money for food has money for food. We're building a machine that finds barriers and removes them, over and over—not just some mobile-friendly app," said Guarino.

For their part, HSA remained supportive of CfA's work but had no formal relationship with the organization since the end of the fellowship several years earlier. Still, Wertheim tried to keep up with CfA's progress. "We recently let three of them spend a full half day here, shadowing different workers and understanding our business process so that could inform whatever process they're currently developing. They're very interested in not making it harder for us, because they recognize that's not going to get them very far, or achieve their goals," said Wertheim. Even so, she felt there were times she felt a little out of the loop. "I don't think we can fault them as much as ourselves. We were just so busy," she said.

Sustaining a User-Centered Design Approach

CfA's hallmark was its user-centered design approach, but the organization was challenged to define a sustainable revenue and business model that allowed for work that would support the interests of the users if

those interests conflicted with the interests of the organization's funders. Williams, Guarino and Solomon were nevertheless committed to the approach. "User-centered design means that the tie goes to the end user," said Williams. "We're always balancing the user experience versus customer service versus cost or, in the world of social services, program integrity. And there's a lot of gravity pulling you to serve government needs or business needs, but user centered design means that when you're faced with tough decisions that all else being equal, you go with the user. You do what's better for your customer or your client."

Exhibit 1: Biographies of Code for America Fellows Alan Williams, Dave Guarino and Jake Solomon

Alan Williams

Williams was an undergraduate student at Tulane University in New Orleans when Hurricane Katrina hit in 2005. Immediately afterwards, he became involved in the city's recovery and reconstruction efforts. After graduation, he joined a company that was focused on enterprise software for recovery, creating decision support dashboards. Williams was drawn to people's stories about the problems they were having trying to get insurance reimbursements, or garbage pickup from the City of New Orleans—interacting with the big institutions participating in the recovery efforts. Williams recalled thinking there was a “big disconnect” between what people were trying to communicate as their needs and the way that decisions were being made by the institutions that were trying to help them.

Dave Guarino

Guarino described himself as having been “a geek for a very long time.” At college, he majored in Political Economy of Industrial Societies, which he described as Berkeley's version of politics, philosophy, and economics. After a brief, “soul crushing” stint with a biotech and pharmaceutical consulting firm—where he learned that money was not a motivating factor for him—Guarino joined an organization that analyzed proposed California health policy legislation, focusing on actuarial modeling; Guarino spent his days doing Excel programming. He realized he loved the connection to public impact but enjoyed most the day-to-day of programming. After a few years he moved to Pittsburgh to focus on programming, and entered a federalchallenge.gov app contest, working on a team that created an app for the Department of Labor to combat gender pay inequity, and from there applied to the Code for America fellowship in 2012.

Jake Solomon

After graduating in 2009 from Occidental College with a BA in economics, Solomon joined Palantir Technologies and spent a year managing sales, training and software deployment before taking a position as a research analyst at RAND Corporation, a non-profit global policy think tank focused on interdisciplinary problem solving. He stayed for 3 years, supporting research studies on matters affecting the nation, including behavioral healthcare for veterans and the legalization of medical marijuana.

Source: Personal interviews with case writer.

Exhibit 2: Key Characteristics of Households Receiving CalFresh Benefits, 2014

Average age of head of household: 39.8 years

Average age of child: 7.5 years

Average number of persons per household: 2.2

Recipients who are U.S. citizens: 93.3%

Recipients who are female heads of households: 68.7%

Household completing at least 12 years of education: 67.6%

Single-person CalFresh only households (% of all Non-Assistance Households): 50.4%

CalFresh households that have received CalFresh benefits for five years or more: 9%

CalFresh households with earnings: 24.1%

Average CalFresh allotment per household: \$304

CalFresh recipients that also receive CalWORKS benefits: 24.4%

CalFresh households that also receive CalWORKS benefits: 19.4%

Head of household ethnicity: Hispanic/Mixed Race: 40%; White: 30%; Black: 19%; Other: 8%; Mixed Race: 2%

CalFresh recipients ethnicity: Hispanic/Mixed Race: 55%; White: 20%; Black: 15%; Other: 7%; Mixed Race: 2%.

Source: CalFresh Household Profile, California Department of Social Services, CalFresh Program Information, <http://www.dss.cahwnet.gov/foodstamps/pg844.htm>, accessed August 30, 2016.

Endnotes

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