**INNOVATIONS FOR SUCCESSFUL SOCIETIES**

# MANAGING THE BUSINESS OF EDUCATION:
# LIBERIA CLEANS UP ITS TEACHER PAYROLL, 2015–2017

## SYNOPSIS

In late 2015, Liberia's newly appointed education minister, George Werner, recognized that the government school system was wasting money and failing its students. Shortly before Werner assumed office, a pilot project had identified significant numbers of ghost workers (teachers who never showed up for their jobs or were fraudulently included on the payroll) as well as teachers who lacked even basic qualifications. Although the project covered just three of Liberia's 15 counties (the most populous counties of Montserrado, Nimba, and Bong), the findings illuminated a long-standing national problem. Resolving to put an end to the abuses, Werner and senior ministry officials created a program implementation unit dedicated to the nationwide project, refined vetting procedures for assessing qualifications, and introduced mandatory competency testing that laid the foundation for additional reforms. President Ellen Johnson Sirleaf provided crucial political support when the project ran into resistance from the national teachers' association. By February 2018, the education ministry had removed 83% of the 2,046 ghost teachers, and planned to remove the remaining 17% that it identified during the last six months of the project. Overall, the project generated US$2.3 million in annual savings that opened spaces for new teachers in the school system and budget, with the ministry expecting that this number would increase to $3.1 million once all ghost teachers were gone. As a result of the project, the ministry hired 1,371 trained new graduate teachers. Still, challenges remained: 49% of public school teachers had failed the competency tests. Armed with this important baseline data, the ministry had to decide what to do to improve teacher quality.

*Leon Schreiber drafted this case study with assistance from Blaykyi Kenyah based on interviews conducted in Monrovia, Liberia, in August 2017. Case published February 2018.*

## INTRODUCTION

George Werner knew his new job wouldn't be an easy one.

When he became Liberia's education minister in 2015, the country's public-school system remained mired in crisis despite making some gains in the decade or so since the end of a 14-year civil war in 2003. Liberia ranked 177th out of 188 countries on the United Nations Development Programme's education index.[1] The year before, more than half (52%) of the 27,600 students had failed the annual high school exam administered by the West African Examination Council.[2] In 2013, all 25,000 high school graduates who had applied to the University of Liberia had failed the entrance exam. At the time, university officials said that students "did not have a basic grasp of English," and President Ellen Johnson Sirleaf conceded that the education system was "in a mess."[3]

Werner, a former head of the Liberian Civil Service Agency and university teacher with degrees in education and social work, inherited an existing pilot project to address these problems, funded by the United States Agency for International Development (USAID) and implemented by the Washington, DC-based nonprofit organization Family Health International 360. But that initiative, which had identified so-called ghost workers (teachers who never showed up for their jobs but still received pay, or who were fraudulently included on the payroll) and unqualified teachers in three of the country's 15 counties, was part of a larger Liberia Teacher Training Program that was set to conclude at the end of 2015.

In order to ensure that the education ministry completed the project to remove ghost workers, President Sirleaf turned to Werner because of his previous work as the head of the Civil Service Agency, where he had championed efforts to clean up the government's payroll.

Werner aimed to expand access to quality public schooling in a country where the average high school classroom had 158 students and where the estimated qualified teacher-to-pupil ratio ranged from 1:33 in urban Montserrado county (which included the capital, Monrovia) to 1:90 in rural Sinoe county.[4] This was higher than the average for Sub-Saharan Africa, which stood at one teacher for every 43 primary school pupils in 2011.[5] In order to meet the goal of expanding access, Werner had to assert control over a system that had overlapping and intertwined problems.

Paying salaries to ghost workers not only hobbled classroom effectiveness but also sapped the ministry's coffers. Hiring more teachers was impossible because more than 92% of the budget already went to payroll expenses.

Effectiveness also suffered because large numbers of teachers lacked the minimum education, background, and experience. A 2014 assessment by the education ministry in partnership with UNESCO estimated that 90% of teachers lacked a university degree, and 36% were untrained and unqualified.[6] The skills shortfall was a conundrum because Liberia had plenty of qualified candidates for teaching positions. Since the end of the civil war, the country had reopened teacher-training institutes, and between 2006 and 2014, more than 5,000 new teachers had completed training programs.[7]

In order to manage the business of teaching, Werner had to establish control over the education ministry's payroll—not just the bottom-line numbers but the identities and qualifications of every person on it. To do so, he had to detect payroll ghost workers and weed out teachers who lacked qualifications and skills. The ministry also had to identify teachers who had exceeded the mandatory retirement age of 65 and were holding jobs that could go to new, better-trained instructors.

"We couldn't hire more qualified teachers, because you had thousands of ghosts in the system absorbing scarce government resources," explained Gbovadeh Gbilia, whom Sirleaf had appointed assistant education minister for fiscal affairs and human resource development in June 2015 and later promoted to deputy minister. "That's why, in my view, the teacher vetting exercise was the most important initiative we had at the time."

## THE CHALLENGE

The education ministry's quest to clean up its payroll was in line with a government-wide pay-reform strategy adopted in 2014, a project spearheaded by Werner when he was head of the Civil Service Agency. But the teacher payroll posed some special challenges.

One legacy of the civil war—a warlord clash that had left 300,000 people dead and displaced roughly 3 million—was that the education ministry had little knowledge of who was on its payroll. As an emergency measure during the war, when thousands of teachers were killed or had to flee their posts, the government had created a "supplementary" payroll next to the existing

"general" and "regular" payrolls to compensate community members who stepped in to ensure that classes continued. David Baysah, a sociologist and education planning strategist, whom the ministry subsequently hired to lead the vetting project's implementation unit, said the civil war produced a crisis in teacher recruitment: "the available became capable."

In theory, the three payrolls were separate: the regular payroll was for qualified teachers, the supplementary payroll was meant for (often under-qualified) teachers hired during the war, and the general payroll was for government employees who worked at schools in non-teaching capacities (such as cleaners and security guards). According to the ministry's education sector analysis, carried out in November 2016, there were 13,403 teachers on the regular payroll and 6,024 on the supplementary payroll. In addition, there were 7,299 unpaid volunteer teachers.[8]

In practice, the distinctions between the payrolls and categories quickly blurred, and when the war ended in 2003 the government did not check and integrate the three payrolls. A decade later, the existence of three parallel yet interlinked payrolls aggravated problems of corruption and poor control, as the ministry lost track of which teachers were on which payroll. "You could have the same name on different payrolls, so how do you know if it's a different person, or the same person?" said Josephus Meatey, human resources director in the education ministry.

Baysah explained that the existence of different payrolls also led to teachers being overpaid or underpaid. "The way that people are currently put on the payroll is through replacement. When you replace someone, you get the exact same salary that the previous person received irrespective of your qualifications or experience," he said. Because the ministry lacked the capacity to check teacher qualifications, unqualified teachers often made it onto the regular payroll. Additionally, teachers on the regular payroll received higher salaries than those on the

supplementary payroll—even when they had the same qualifications. Many teachers also had duplicate payroll numbers. Because it often took the Civil Service Agency many months to add new names to the payroll, some teachers opted to receive their salary payments in the name of the person whom they had replaced on the payroll. To overcome the lack of control, the ministry "had to create one integrated payroll that was disaggregated by school, district, and county," Baysah said.

The education ministry could not streamline its system alone, however. In addition to dealing with three separate payrolls, the ministry had to coordinate with Liberia's Civil Service Agency, which had to authorize any changes. In the past, poor communication between the ministry and the agency meant that teachers sometimes had duplicate payroll numbers (the number used to verify that a teacher was eligible to receive a salary check) or that a name deleted from the ministry's personnel list continued to appear on the Civil Service Agency's payroll. To reform the system, the ministry thus needed the agency to accept the new personnel database the vetting and testing process would create. Prior to becoming minister of education, Werner had served as director-general of the Civil Service Agency, and Gbilia had been a senior technical adviser at the agency. They hoped to use their connections at the agency to secure support for the education project.

Just as important was the need for the ministry to coordinate with and secure buy-in from the National Teachers' Association of Liberia, a statutory body that represented most of the country's more than 19,000 paid public-school teachers.[9] (The vetting project applied only to paid public-school teachers; Liberia also had an estimated 21,710 private-school teachers at the time.)[10] Vetting qualifications was likely to be controversial, and the ministry expected pushback from the teachers' association.

Although Liberia prohibited public-sector workers from joining labor unions, the teachers'

group was something of an exception. It was originally created through a 1958 law that classified it as an association rather than a trade union. However, in practice, the teachers' association acted much like a regular union. "The teachers' association is the strongest association" in Liberia, Gbilia said. "Their people are in an especially strong position to influence community opinion, so politicians have to pay attention to what the association says."

The ministry also had to work with district and county education officers who oversaw school administration in their coverage areas. Importantly, the district and county officers had to sign off on changes to each school's personnel listing and monitor teacher attendance. After the Civil Service Agency added a name received from district and county officials to the payroll, the finance ministry deposited salary payments directly into teachers' bank accounts. But administrators were badly overstretched and often unable to carry out regular oversight in Liberia's many hard-to-reach rural areas. In the worst case, local officials might collude with school principals to add ghost worker names to the payroll.[11] Involving district and county officers in the vetting process would thus help the team identify discrepancies between the personnel listings compiled by school principals and those held at higher government levels.

Once a project team was in place, the ministry had to design and implement a credible system for vetting teacher identities and qualifications. Gbilia's team had to decide which data were relevant and then make sure that the project team collected accurate information from each teacher in the country. Some of the organizational work already had been done. The USAID team had prepared a handover report that documented how the vetting had been carried out in the three pilot counties of Montserrado, Nimba, and Bong. Nisha Makan, an adviser to the education ministry from the Tony Blair Institute for Global Change, noted that "capacity building was done well" under USAID's Liberia Teacher Training Program,

which meant that staff members working in the ministry's human resources department were familiar with the vetting procedures. The key challenge was to redesign the project to rely exclusively on in-house skills.

A related challenge involved what to do with the data collected during the vetting exercise. The need for the project partly arose from the government's inability to maintain accurate employee records. The ministry clearly needed a system that could integrate mounds of information into a comprehensive, detailed and accessible framework. It was no small task. Properly maintained, the database would lay the foundation for sustainability and prevent the reemergence of problems like ghost workers. For Werner, the mission was clear: More than anything, teacher management is about data management.

The team also initially hoped that, at the end of the process, it could issue new biometric identity cards to all salaried teachers. The cards would include their photographs, fingerprints, and biographic information. The ministry reasoned that the biometric cards would be more secure and harder to fake than the education ministry's existing identity cards. The idea was to eventually require teachers to show their biometric cards before receiving their salary deposits, thereby ensuring that only vetted teachers would be paid.

Once the data was centrally stored, the team also needed a way to link the database information with individual teachers. While employees in other government departments used biometric ID cards to prove their identities, those in the education ministry had never received such cards. Using equipment already purchased under the USAID program, the project team resolved to capture teachers' fingerprints and issue biometric ID cards to all verified employees.

Funding was a final challenge. In late 2015, education officials were determined to complete the payroll-vetting project despite USAID's withdrawal from the initial three-county pilot project, which had employed a US-based nonprofit

as manager. They needed extra funds to do so, but they thought it was possible to make the program less expensive and attractive to potential donors by using in-house staff and experienced Liberians rather than outside consultants. Gbilia said they had a fallback plan: "We [had] to make sure that [we had] a very lean budget because, if no donor came through, [we wanted] to make sure that the national budget—through some kind of emergency appropriation—can help us with this amount of money."

In late 2015, Werner asked for support from Big Win Philanthropy, a philanthropic organization that provides direct budget support to government initiatives in Sub-Saharan Africa that invest in human capital development in children and youth. In January 2016, a delegation from Big Win visited the education ministry to assess the feasibility of supporting the government's efforts to launch a successful payroll cleanup. In February, Big Win's board approved an approximately US$1 million grant to fund the teacher workforce reform.

While the agreement with Big Win solved one challenge, it also created another. In contrast to most other donors, Big Win provided the money directly to the education ministry. Officials were determined to use the opportunity as a test case to show that the ministry could internally manage donor funding. Working with auditors from PricewaterhouseCoopers, they designed strict internal financial controls. Big Win agreed to provide funds in quarterly tranches based on specific implementation targets.

FRAMING A RESPONSE

Liberia's challenges were not unique. Governments around the world struggled with payroll reliability and credibility problems. In a 2010 article on its Public Financial Management blog, the International Monetary Fund identified fragmentation between different databases, poor coordination among ministries, and weak internal controls as key factors that created space for ghost workers.[12] The country was also not alone in trying

to remove ghosts. Nigeria undertook a payroll cleanup in 2011 that identified 43,000 ghost workers,[13] and in 2016 the Tanzanian government announced that it had expunged more than 10,000 ghosts.[14]

The Liberian education ministry was also aware of how difficult payroll cleaning could be. In the late 2000s, the ministry had worked with the Civil Service Agency on a similar effort to identify ghost teachers. Although that project ultimately succeeded in removing over 1,300 ghost workers, it ended in acrimony when hundreds of disgruntled teachers—whose pay had been frozen after they were wrongly designated as ghost workers—barricaded the entrance to the ministry's headquarters in Monrovia.[15] The problem was caused by poor coordination between the ministry and officials in other government departments, as well as by inconsistencies in how ministry officials spelled teachers' names.[16]

For the new project to succeed where the previous effort failed, the team had to design strict operating procedures for data collection.

But Werner decided to go beyond just checking qualifications. Following a series of meetings between ministry officials, advisers from the Tony Blair Institute for Global Change, and representatives of Big Win, he decided to incorporate mandatory competency testing for all teachers—paid and unpaid—alongside the process of vetting of qualifications by checking paperwork. The tests aimed to identify salaried teachers who lacked competence or required retraining, and also to identify talented volunteer teachers who lacked formal qualifications but who could go for training.

The tests also complemented the vetting exercise. James Bayogar, of the education ministry's professional development department, explained that even if someone held a high school diploma or tertiary teaching certificate, "teaching is dynamic, and we anticipated that many teachers needed retraining." He said the exam had four aims: testing teachers' content knowledge and

pedagogic skills, identifying training needs, informing administrative decision making on overall ministry challenges, and ultimately making sure that only qualified teachers received classroom positions.

Although competency testing was likely to be controversial, Gbilia said the assessment was badly needed: "Some teachers couldn't even spell the name of their school, or the word 'Liberia.'" The decision to add competency testing was reflected in the project's official name, the Teacher Vetting and Testing Project.

Another important step was to create a project implementation unit. The ministry hired four people, each on a 12-month contract. One was Baysah, who became project manager. Varney became the financial manager. The ministry also employed a field operations manager and an administrative assistant. With the unit at the heart of the project, Werner also seconded in-house support staff from the ministry's human resources and teacher education departments to collaborate for the duration of the project.

Plans called for the newly created team to visit the 12 counties that were not covered under the USAID pilot project. But in contrast with the previous initiative, which aimed only to confirm and record the identities and qualifications of teachers, the new project required teachers in all 15 counties to undergo competency testing.

## GETTING DOWN TO WORK

Swift action was essential, as the team faced some challenging timing ahead of the October 2017 presidential election. Facing term limits, Sirleaf could not seek reelection as president, and it was impossible to know whether her successor would have the same focus on improving education. This meant that the project could not afford any significant delays to the planned deadline of August 2017, when the team's 12-month contracts would expire.

*Winning support*

With the official launch of the teacher vetting and testing project in July 2016, the implementation team's first challenge was to work with Gbilia to secure buy-in from two crucial stakeholders: the Civil Service Agency and the National Teachers' Association.

A lack of coordination between the education ministry and Civil Service Agency was a longstanding problem, and Werner hoped his past role as head of the agency would pave the way for better collaboration. Under the existing system, district and county education officers sent lists of teachers who worked in their schools to the ministry. However, the ministry lacked the resources and capacity to cross-check the lists for complete accuracy. As a result, the formal personnel listings that it passed on to the Civil Service Agency often were flawed. Unaware of the potential problems, the agency, which was formally in charge of payroll management for the entire government, checked only for payroll numbers before forwarding the names to the finance ministry, which signed the final authorization for payments to individual teachers.

The Civil Service Agency initially did not see the vetting project as part of its responsibility, arguing that it was up to individual ministries to ensure that personnel listings were accurate. However, because the agency had to sign off on any changes to the listing, the education ministry felt it was vital for agency officials to perceive the vetting process was legitimate. "In response to the initial lack of cooperation, Werner's ministry elevated [its lobbying efforts] to another level by going directly to the finance ministry," Baysah said. Although the Civil Service Agency was in charge of maintaining and processing any changes to the government's payrolls, the agency required approval from the finance ministry to process payments. (The finance ministry issued all civil service payments). After running into opposition at the agency, the ministry team "provided the

[finance minister] with information on how much money government will lose annually if the [payroll] issues are not addressed," Baysah said.

By explaining that the vetting and testing exercise could save up to $7.5 million per year—reducing the annual amount spent by the education ministry on salaries from $34 million to $26.5 million—the project team secured support from the finance ministry. The team also relayed to the agency and the finance ministry that President Sirleaf had agreed up front that the funds recovered would be earmarked for re-investment in education, and would not be put into the government's general coffers. Convinced by the outreach effort, officials from the Civil Service Agency agreed to have their officials accompany the vetting team as they traveled around the country.

In another step to address the disjuncture between the Civil Service Agency and other government departments, the finance minister worked with the agency to introduce a policy amendment in the cabinet. Whereas the agency previously had overarching responsibility for—and substantial control over—ministry payrolls, there was now "a policy, endorsed by the cabinet, that ministries will handle their own payroll and be held accountable for it," Baysah said. In addition to smoothing the path for the project's implementation, the finance ministry's creation of the draft policy promised to give greater power to individual ministries to maintain their own payrolls.

Next, the education ministry turned to the teachers' association. In negotiations with Werner and senior officials, the association's main concerns were that no teacher should be fired summarily based on the outcome of the competency testing, that those who failed but held at least a high school qualification should receive training, and that the government should pay adequate severance to any teachers who lost their jobs because they were determined to be "untrainable" for various reasons.

The ministry used an existing forum to open a dialogue with the teachers. Under the teacher training program that ended in 2015, the ministry had established a committee that brought together the teachers' association, senior education officials, donor partners, and nongovernmental organizations as well as civil society groups. In response to resistance that had emerged among some teachers during the USAID pilot, the ministry framed the new project as one that would remove cheaters and improve payroll management, leading to better salaries. The team presented its plan to the committee in the hope of winning the association's support.

Despite initial resistance, the teachers' association's long-serving president, Ellen Varfley, ultimately agreed to the planned vetting and testing, and the ministry agreed to provide future training opportunities to all teachers deemed trainable, and severance packages to others. In addition to being the teachers' association president, Varfley also worked in the ministry's teacher-training division, a position that allowed her to be involved in drafting the competency test.

In championing the project, Varfley said she hoped that the competency testing in particular would lead to further gains. "After doing the test, we would know if people need content or pedagogical training, which would allow us to design better training" plans, she said. "… We knew that one size does not fit all. Teachers would [ultimately] benefit by receiving better training."

The ministry also agreed to pay additional per diems to enable staff from the Civil Service Agency, who became part of the project team, to travel throughout the country.

*Managing data*

Before the team could begin collecting data, they needed a way to manage it. They decided to use a common software product, Microsoft Access, to create a database of information that would allow users to see the big picture as well as to focus on specific schools, districts, and counties.

Data would enter the system both electronically and manually. After a teacher's fingerprints were digitally scanned, a computer would generate a unique enrollment number. Using the same number, the team would manually upload information—including digital copies of the teacher's qualification documents, photo, and ID materials—to the corresponding file in a database, which the team named the Payroll Data Access Tracking System.

When all the information on any particular person was in the system, "you can see the person's face as well as all their bio data, their current status, their salary history, their health information and also all their academic credentials," Baysah said. "It's a one-stop shop." The cost of setting up the system was minimal because the human resource team was able to use the ministry's existing computer systems and worked with the ministry's in-house IT specialist to design the platform.

Once completed, the database was a valuable management tool. In addition to forming the backbone of an integrated future payroll system, the ministry could use it for professional development and to track replacements and transfers between schools. Further, the ministry could use the database to predict how many teachers were set to retire in coming years, enabling the ministry to anticipate future costs and recruitment needs.

Gbilia's team recognized that keeping the database up to date was crucial to its long-term effectiveness. After completion of the countrywide vetting and testing, education officers in each of the 15 counties would gain access to the database. The plan required the education officers to update the system whenever a teacher was hired, transferred, or otherwise changed status in their region. The national human resources department in Monrovia would then audit the central database every calendar quarter. The ministry's hope was that, over time, the Access Tracking System managed by Gbilia "would not just be a data management system but also a planning system," Baysah said.

*Getting the word out*

The team's next task was to inform teachers about the planned project. In a nation where roads were poor and comparatively few people, particularly in isolated or densely forested rural areas, had access to television and less than half the population had cell phones,[17] radio was the go-to communications medium. Aware of the need to assuage potential fears among teachers and to inform parents and the general public, the education ministry produced a series of radio spots that played on some of the more than 60 FM radio stations across the country. (Radio jingles and other productions were often used as tools to make public service announcements in Liberia). The education ministry's radio spots aimed to head off any knee-jerk opposition among teachers by emphasizing that the vetting and testing would not lead to any arbitrary firings. At the same time, the messages reached the wider community, potentially galvanizing public support.

Prior to kicking off the vetting process in any specific county, the field team also distributed flyers at schools and engaged with community leaders and county authorities during town hall meetings. Their aim was not only to encourage public and parental support for the vetting project but to help teachers understand that they ultimately stood to benefit because the cleanup would free up more money for salaries.

"The communication was very clear that the process will lead to results and consequences: At the end of this process, teachers will have better salaries and access to training opportunities. But also, those that cannot be trained will be removed from the system," Baysah said. "But no one will be just kicked out. … There will be severance packages."

Public sentiment was on the side of the project team. Many parents were deeply concerned about the quality of education. A 2014

Afrobarometer research network survey showed that half of all respondents felt the Liberian government handled education "very badly" or "fairly badly."[18] "When the teachers heard [the president saying that] if you want to boycott the vetting exercise or test you will be removed, protests stopped immediately," Gbilia recalled.

The team also worked closely with local district education officers and their county-level supervisors. The local officers, who were well known in their communities, provided additional information to teachers in other areas of their counties. Before they traveled, the project unit and local education officers jointly decided on a feasible schedule and locations across a county (usually in public spaces like schools or town halls) to conduct the vetting and testing.

*Vetting and testing*

Teachers from each school received assignments telling them when and where their vetting and testing would take place. While teachers were responsible for their own travel expenses, the ministry paid accommodation and food costs, as needed. The project team divided the teachers—usually about 150 per day—into two groups. One group took the competency test in the morning, while the other group went through the vetting process. In the afternoon, the tasks were reversed. Baysah pointed out that bona fide teachers who happened to be sick on their assigned days were "provided a window for them to come to one of the other vetting venues in the county, or they would have to travel to Monrovia."

On the assigned day, the vetting process began when school principals submitted personnel lists to the project team. The team then compared each principal's list to lists submitted separately by district and county education officers, who monitored all schools in their areas. If principals and local officials could not explain why a name appeared on one list and not on the other, the name moved to the "ghost worker" category. This

step would enable the ministry, working with the CSA, "to get rid of some ghosts," Baysah said. "It was the first filter."

The competency test, designed by the education ministry's teacher training division, contained two papers, one on mathematics and the other on English. Both tests included questions on teaching methods. The test incorporated a combination of different types of questions, including multiple choice, short one-paragraph answers, as well as one longer essay or sample lesson plan based on a prompt. Kammi Sheeler, an economist from the Overseas Development Institute (an independent London-based think tank) who worked with the education ministry on data management, noted that the ministry eventually created four different versions of the test in order to prevent cheating.

While the tests were mandatory only for salaried teachers, the ministry encouraged volunteer teachers to participate. The ministry recommended that volunteers who did well on the test but lacked formal qualifications should attend a teacher training institute and then apply for formal positions. Volunteers who scored well *and* held teaching qualifications would be in line to replace ghost workers on the payroll. After teachers completed the tests, the team sent the papers to Monrovia, where 25 staff members from Varfley's teacher training division graded them. The team then uploaded the results to the digital Access Tracking System.

During the vetting part of the day, teachers formed lines behind their principals (all principals and vice principals also had their identities and qualifications reviewed as part of the project). Teachers submitted their credentials to the vetting team, including their national identity cards as well as any documents proving high school and other educational qualifications. Because some Liberians, especially in rural areas, did not have national ID documents, the vetting team also accepted voting ID cards, birth certificates, passports or driver's

licenses. "Almost everyone had at least a voting ID card, but we accepted any of these documents," explained field supervisor Veekie Wilson.

It was particularly important to confirm dates of birth and the exact spellings of names in order to stop the practice where some teachers received salaries made out in someone else's name. If the team identified a fake document, they seized the document, and placed the offending teacher's name on the same list as personnel who did not show up for the vetting process. Just as was the case for teachers who missed the exercise, those who submitted fake documents were given up to two months to provide the proper documentation before their names were submitted to the Civil Service Agency for removal from the payroll.

Similarly, when the team identified a ghost worker, they submitted the name to the Civil Service Agency for removal from the payroll. The agency then sent a letter to the school where the person supposedly worked, calling on the teacher to present his or her credentials to the national education ministry in Monrovia. If the person in question failed to do so during a specified period, the name was removed from the payroll.

The team also regularly encountered qualified teachers who were older than the mandatory retirement age of 65. In some counties, over 10% of the teachers were eligible for pension. When a teacher was older than 65, the team issued the teacher a pensioner's ID card from the Civil Service Agency, and the Agency official that accompanied the field team recorded that the teacher was eligible for pension. But due to a lack of funding, it often took the Civil Service Agency a long time to issue pensions and remove pensionable teachers from the payroll. In the meantime, many kept teaching to continue earning an income. (The government calculated pension benefits based on length of tenure. For example, a 65-year old teacher with 30 years of service and a monthly salary of US$100 would get a monthly pension of about US$60).[19]

Project staff next made copies of all supporting documents and uploaded digital scans to the Access Tracking System. At the end of the process, teachers who submitted all of the required documents had their fingerprints scanned and were issued special biometric ID cards. (The cards were issued only to qualified teachers who also took the competency test.)

The process was not foolproof. Despite the team's efforts to work with district and county education officers, local officials still might collude with school principals to get ghost names added to the payroll. For example, if a district and county officer, as well as a local principal, agreed to add a person's name to their personnel listing, that person could theoretically show up and undergo vetting and testing. In an effort to curb fraud, the team carried out follow-up spot checks a few weeks after completing the vetting process, in order to identify any ghost workers who slipped through the net.

In addition, the biometric system fell short of expectations. The USAID pilot had planned to install biometric card readers at all public schools. Teachers who had been vetted could then use their biometric cards to clock in and out of work every day, reducing the opportunities available for ghosts, tracking absenteeism, and generating useful data.

When the project team took over, they found that about 400 card readers had already been purchased by the education ministry as part of the Liberia Teacher Training Program. "But we have around 3,000 public schools, so that was not enough. Many of the machines were already quite old, so we didn't know how many still worked," Baysah said. Another problem was that "every year you would have to pay a license fee of US$20,000 to continue using the software, but that did not include maintenance costs."

The field team also experienced problems with the machines used to capture biometric IDs, which meant that some fingerprints were not

recorded. The project team also decided not to install the 400 scanners. For those teachers who did receive IDs, the cards were still useful in proving their identities. But the money spent on the scanners was effectively wasted, and the technical problems with some data-capturing machines meant that not all teachers had their biometric information captured.

Mary Brownell, a veteran Liberian teacher, told the newspaper *Front Page Africa* she was happy with the project. "From what I was told there were many ghost names on the payroll and it's not fair, that's complete dishonesty," Brownell said. Despite the inconvenience of going through the process, Brownell was willing to give Werner's team a chance: "It's a [trial] and error method, if after a year or six months, if nothing is working then we can rebel...but I beg the teachers and students to give him a chance to do his work."[20]

But Samuel Johnson, secretary-general of the teachers' association, was concerned that the tests did not differentiate between elementary, junior high, and high school teachers. "We were taking tests before we got our degrees, so why would we be afraid of tests? But the tests should be based on peoples' areas of specialization," Johnson said. He also argued that the test should have been designed and administered by a neutral organization.

## OVERCOMING OBSTACLES

As the ministry team worked to implement the vetting and testing project across the country, news broke about a separate, controversial education initiative that President Sirleaf and Werner had launched. In early 2016, the government announced a new initiative called Partnership Schools for Liberia (PSL), a one-year pilot project (subsequently extended to two years) that allowed private operators—including for-profit companies and charitable organizations—to take control of 120 public schools in an effort to improve teaching. (The number of schools

involved in the first year of the pilot was later reduced to 93).[21]

The news of the PSL program unleashed a flood of local concern that Liberia was privatizing its public schools. Much of the criticism focused on the selection of Bridge International Academy as one of eight private providers to run 25 of the 93 publicly-funded schools. Bridge, a for-profit company that already managed hundreds of private schools in Kenya and Uganda, used scripted lessons from tablet computers to instruct and monitor teachers on what to say and do throughout the school day. The technology enabled Bridge to save money on salaries by employing as teachers high school graduates who had received only a three-week training course.[22]

The timing was unfortunate. Although the vetting and testing project was completely unrelated to the PSL project, shortly after the school year began in September 2016, the teachers' association launched on a strike calling for Werner to resign over the PSL program.[23] As the relationship between the teachers' association and the ministry soured, disagreement over PSL spilled over into other areas. "Because these reforms were happening at the same time, that [controversy over PSL] has trickled down into what we're trying to do in the teacher vetting and testing," Gbilia said. The teachers' association issued a public statement suggesting that the education minister and his deputies were the ones in need of competency testing.[24]

One of the key issues was that, under PSL, the private providers also used tests to design training programs for their teachers. And, with the exception of Bridge, all of the PSL contractors used the same testing material that was administered under the vetting project. According to Gbilia, the teachers' association conflated the two tests, arguing that the results from the vetting and testing project would be used to fire teachers to make way for PSL providers to become involved in more schools.

"The vetting project became part of an ideological debate, with payroll vetting used to undermine the PSL program," said Makan, the adviser to the education ministry from the Tony Blair Institute.

Gbilia expressed his disappointment: "The teachers' association was part of the planning for the vetting project at one point. They were also part of the agreement to remove teachers that were functionally illiterate. But that all changed because they said this [testing] is to remove teachers for PSL."

Gbilia nonetheless conceded that the teachers' association "maybe felt we were trying to sneak something in under the rug" by using the same test for the vetting project and some PSL schools. A complicating factor was that Varfley, the president of the teachers' association at the time, worked for the ministry and helped to design the competency test. Her members perceived a conflict of interest.

In April 2016, the association ousted Varfley from her position as president, citing her support for, and involvement in, the testing project. In a statement announcing Varfley's removal, the association's national executive committee revealed the extent to which it had conflated the PSL and testing projects: "You [Varfley] failed to relate to fellow…members concerning the ongoing teacher's test which is part of the [PSL] process. … We know that the test is a part of the [PSL] scheme."[25] By the time that schools reopened in early September 2016, Mary Mulbah, who replaced Varfley as head of the teachers' association, was convinced that the testing project was a ruse to smooth the way for the PSL program.

With tensions escalating and the teachers' association threatening to shut down schools across the country, Sirleaf intervened by publicly declaring that teachers who refused to take the test would lose their jobs.[26] "When the teachers heard [the president saying that] if you want to boycott the test you will be removed, protests stopped," Gbilia recalled. With the strike called off, Sirleaf "held several meetings where she brought in the

teachers' association and the minister to all sit around the table." Although the relationship between the ministry and the teachers' association remained strained—and while the teachers' association was as opposed as ever to the PSL program—the two sides agreed that the vetting and testing project was a separate initiative that should be allowed to proceed. Sirleaf's mediation in support of the project broke the stalemate, cleared up the misunderstanding, and allowed the ministry's implementation unit to continue its work across the country.

## ASSESSING RESULTS

"It's been a beautiful struggle" was how Gbilia, Liberia's deputy education minister, described his ministry's efforts to ensure that the teachers in government schools were on post, on time, every day—and had the training to do their jobs well. According to the project team's data, the vetting exercise had generated some immediate payoffs, while the benefits of the competency tests would take longer to materialize.

By February 2018, the education ministry had vetted the qualifications of almost all of the country's estimated 19,500 teachers, while 14,237 wrote the competency test. (The latter number was lower because teachers past retirement age, as well as those identified as ghosts, did not write the test.) The ministry, working with the CSA, had removed 83% of 2,046 ghost teachers identified through the payroll cleaning exercises carried out since 2015. The remaining 17% were identified during the last six months of the project, and the ministry planned to remove them soon. The removal of ghost teachers generated US$2.3 million of annual savings that opened spaces for new teachers in the school system and budget. The ministry expected this number to increase to US$3.1 million when there were no longer any ghost teachers on the payroll.

As a result of the space created on the payroll by the project, the ministry had hired 1,371 newly-trained teachers in place of some of the ghosts.

The replacement of the ghosts meant that nearly 80,000 additional students—over 10% of public-school pupils—who previously had a ghost teacher now had access to a real one who not only showed up for class but also knew how to teach. (The new teachers hired to replace the ghosts did not have to undergo the competency tests, as they were all recent graduates of the teacher training institutes and had ministry certification.)

The project also revealed that more than 1,000 teachers older than the mandatory retirement age of 65 were still on the payroll[27] at an estimated annual cost of US$2 million.[28] Instead of biometric ID cards, the project team issued the teachers pensioners' cards from the Civil Service Agency. However, because the public pension fund lacked both money and the resources to process retirements quickly, the team anticipated that most of those eligible for retirement would remain on the payroll for some period of time. Still, having credible data on teachers' ages enabled the ministry to do proper succession planning in future.

There were some remaining challenges as well. Problems with the biometric machines meant that the team fell short of its initial goal of capturing biometric information on all bona fide teachers who had the requisite qualifications. The ministry consequently did not issue biometric cards, and would not be able to use the cards to monitor work attendance and to verify teachers' identities when collecting their pay. The ministry would first have to issue cards to all teachers before making the biometric ID a prerequisite for salary collection. Additionally, with over 1,000 teachers waiting to be pensioned, it would likely take years before the ministry could safely designate the biometric ID as the only acceptable form of teacher identification. However, the problems with the biometric IDs did not prevent the ministry from removing the ghost teachers from the payroll.

Both the vetting and testing exercises equipped officials with much-needed data for future policy decisions. The project estimated that Liberia had to hire an additional 10,782 principals and teachers to meet the goal of having a paid, qualified teacher in every classroom across the country. Additionally, 4,295 qualified teachers who were on the supplementary payroll and thus received lower salaries had to be transitioned over to the regular payroll.

Although it was not directly relevant to the vetting and testing project, the results of the competency tests showed how far Liberia generally still had to go before achieving quality public education. The testing data showed that 49% of Liberia's public school teachers failed the examination with a combined score of less than 40% on the mathematics and English papers. Only 6% of teachers passed with a combined score higher than 70%. The rest, 45%, scored between 40% and 69%, which the ministry regarded as a conditional pass. More than one in three failed the mathematics paper, and more than half of all teachers failed the English paper.

"The data on testing has been jarring," observed Sheeler, the economist from the Overseas Development Institute who worked with the education ministry.

The results left the ministry with the clear understanding that there was more work to do. The original goal behind the competency tests had been to understand the competency levels of teachers within the ministry and to provide training where necessary, but the poor results forced officials to reevaluate the possibility of replacing unqualified teachers. While the ministry clearly could not immediately fire nearly half of its workforce, having accurate data on the skills of individual teachers would be a valuable tool for any future policy decisions.

One proposal that resulted from the new data was to provide training to those who scored between 20% and 69%, while classifying teachers who scored less than 20% on both tests as "untrainable." Such a move would cut between 800 and 900 people from the payroll. While it

would be fairly easy to remove from classrooms unqualified volunteer teachers—who were not listed on the payroll to begin with—the difficulty lay in removing unqualified teachers who were listed on the regular or supplementary payrolls.

Because it had pledged that no one would be summarily fired as a result of the testing exercise, the ministry also considered offering a second round of tests for the worst-performing teachers. Sheeler suggested that, during the second test, the team could make it clear that "this time your job is on the line." She also pointed out that the ministry's use of four different versions of the test during the first round meant that the outcomes were not always comparable, which was another compelling reason to give failing teachers a second chance. However, Sheeler conceded that a second round of testing would face hurdles because doing so would "require additional funding, and it would be a big issue to get the teachers' association on board with that." The proposals illustrated how having accurate data enabled the ministry to come up with new ideas to tackle old problems.

In July 2017, the education ministry began implementing a new strategic policy framework, known as the Getting to Best plan. The plan pledged to continue the workforce reform process initiated through the vetting and testing project, with the aim of creating "a clean, stable payroll which is able to absorb newly qualified teachers" by removing ghosts and "untrainable" teachers, transitioning supplementary and volunteer teachers onto the official payroll, retiring and retrenching eligible staff, and training and certifying untrained teachers who meet minimum requirements.[29]

## REFLECTIONS

The key outstanding question was whether the payroll cleanup would be sustainable, or whether the ministry would have to repeat the exercise in a few years. The teacher vetting and testing project had already been the second attempt in the last decade to clean up the education payroll. David Baysah, who led the

project implementation unit, was hopeful that a new compensation policy, adopted by the cabinet in August 2017, would give individual ministries more control over payroll decisions in order to overcome a fragmentation of responsibility between ministries, the Civil Service Agency, and the finance ministry.[30]

But preventing the reemergence of ghost teachers and the hiring of unqualified staff also would require broader reforms in how the education ministry compiled its personnel listing. "We saw this [vetting and testing] project as a means to an end, where we can ultimately link all the databases together and eliminate the grey areas," said Gbovadeh Gbilia, who started as assistant education minister but was subsequently promoted to deputy education minister for planning, research and development.

Most importantly, the Access Tracking System that was developed as part of the vetting project offered a way for the ministry to monitor changes made to the payroll by district and county officers on a quarterly basis.

The experience reminded policy makers that clear communication with the people the project affected was essential. Because the implementation team was so busy, it did not fully appreciate the need to explain the distinction between the vetting and testing project and the controversial Partnership Schools for Liberia (PSL) program. In the absence of clear, public statements, teacher representatives erroneously linked the two projects, which increased resistance among many public school teachers. Gbilia further stressed that a seemingly technical exercise like payroll cleaning was inherently and highly political: "We knew [the project] would be contentious, and you want to stay away from elections for any kind of reform. You don't want political actors or aspirants to derail your plan."

Throughout, political will was crucial to success. Werner and Gbilia were determined to see the project through, because, as Gbilia explained,

they viewed it as a natural continuation of their earlier work at the CSA, pointing out that "40 to 45% of all employees on the government payroll come from the education ministry." Their personal dedication was essential.

Further, when there were disagreements, especially the opposition of the teachers' association, the president intervened, because she viewed improving the education system as a key goal and was willing to spend time helping each side understand the other. The president expressed her vision for Liberia's education system in the foreword to a 2015 book about rebuilding the country's education system published by the Open

Society Foundations: "One overriding goal in a post-conflict situation is a return to normalcy. Getting children off the streets and into schools that function well enough to keep them there is a primary step in this direction. I see a technical education sector producing skilled men and women for future jobs in the petroleum sector, engineering, agricultural economics, and information technology."[31] Making the best use of the budget to achieve this goal was the central aim of the ghost removal project and continuing efforts to improve skills and effectiveness of Liberia's teacher corps.

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