Teaching Note


Accompanies case study with the same name available at Innovations for Successful Societies
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This case study introduces some of the challenges associated with public sector-establishment control in the context of a low-income country, specifically the removal of ghost workers.

- “Establishment control” refers to practices that ensure a government has the right number of staff, at the correct grades, with clear job descriptions, and with the right skills to perform assigned tasks well. Both public and private organizations struggle to attain this goal.

- Lack of control may mean that people not physically present to do their jobs receive salaries or wages—or that payments go to people who do not exist. These “ghosts” cost money and jeopardize ability to pay civil servants higher wages, expand employment to people with the right skills, and provide resources for other government functions.

The case is designed to help people understand the steps involved in removing ghost workers, the likely implementation challenges a ghost worker removal campaign will encounter, and steps that may help minimize the delivery challenges and the risk “ghosts” will reappear. Through directed discussion, the instructor can elicit these points, provide additional information, and help students generate innovative ideas. The proposed sequence of questions is suggestive only.

Part 1: Framing the question

Instructor: Today I ask you to transport yourself to July 2015 and step into the shoes of George Werner, who has just become Liberia’s education minister. The country’s president, Ellen Sirleaf, installed Werner in this post with a mandate to fix a failing education system. The previous year, no graduate of the country’s public schools had passed the college entrance examination. Out of a total government budget of about $600 million USD at the time, the education ministry received roughly $44 million, of which $35 million covered salaries. To improve educational outcomes, Werner would have to make better use of the money available.
What do we know about Minister Werner?

George Kronnisanyon Werner knew the problems of his country’s civil service well. For part of the country’s prolonged “second” civil war (1999-2003), Werner had pursued his studies abroad. In 2009, he graduated from the University of Pennsylvania with a degree in social work. When he returned to Liberia, President Sirleaf asked him to serve as Director General and Head of the Civil Service Agency (CSA), a post he held from June 2013 to May 2015. In that role he led reform of the civil service, including changes to the payroll system, an evaluation of functions, and capacity development. He reduced the number of civil servants by 3,500 people. In other words, he already had experience with the task featured in this case.

What is the overarching problem or development challenge Werner faces?

Poor educational outcomes can result from several things, including how teaching takes place, class size, student circumstances, and other things, but in this instance part of the problem was high expenditure on teachers who couldn’t teach or didn’t exist.

- The average high school classroom had 158 students and where the estimated qualified teacher-to-pupil ratio ranged from 33:1 in urban Montserrado county (which included the capital, Monrovia) to 90:1 in rural Sinoe county. This was higher than the average for Sub-Saharan Africa, which stood at about 43 pupils for every primary school teacher in 2011.

- 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.

- “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.”

Instructor: So we really have two—maybe three—types of problems in the teacher corps.

1) Ghost workers -- someone recorded as an employee on the payroll system, who does not actually work as a teacher.
a. A real person who collects pay but does not actually perform the work.
b. A real person in whose name someone else collects extra pay.
c. A fictitious person in whose name someone collects pay.

These are all forms of fraud.

2) Teachers who lack the skills to do their jobs. These people are under-trained. Some may be able to improve, while others may not.

3) Possibly there are also people who are above the mandatory retirement age.

Note that this problem is universal. Every large organization has to manage this type of challenge as part of establishment control. The incentive to put friends or family members on a payroll as ghosts may be greater when there are few opportunities to earn a livelihood, as in many low income countries, but there is plenty of evidence that the problem exists everywhere in the world.

In Africa, a number of governments embarked on efforts to rid their civil service payrolls of ghost workers in the period 2014–2017. In 2016, Nigeria removed roughly 50,000 ghost workers from the payroll, saving nearly 630 million euros.ii In the same year, Tanzania removed 10,000 ghost workers for an estimated savings of about $2 million per month.iii

**How did the problem arise? How could someone get on a payroll illicitly?** There are several possibilities, depending on how the organization’s internal controls are designed.

1) If a dishonest person has access to the payroll system, then s/he may be able to bypass controls and simply add the name, address, and/or banking information.

2) If the dishonest person does not have high-level access to the payroll system, then s/he may have to forge documents and clearances in order to add the ghost’s name to the payroll.

3) A third possibility is that the name of someone who has left the organization remains on the books and the dishonest person simply changes the address and banking information and then forges any timesheets required.

4) A fourth possibility is that the dishonest person finds a way to prepare false timesheets so that someone on the payroll receives extra compensation for work not carried out.
To spot payroll fraud, look for

- missing personnel files or missing personnel data, payments going to people with the same address post office box, payments going to people with the same bank account, or payments that go to people who have no job descriptions

- frequent turnovers of staff members in units that have no special or seasonal demands for extra workers or when such turnover is the exception to the rule for similar units

- differences between the nominal roll—the list of staff members to be paid each week or each month—and the approved establishment list.

Missing files, shared addresses, high turnover, or differences among lists point to potential ghost workers, or a higher than average probability of payroll fraud. However, in low-income post-conflict countries documentation is often partial, making this task harder and necessitating field visits to confirm with co-workers and clients that a person is actually on post.

**How can the education ministry prevent this problem from occurring—what kind of system does the ministry want?**

- To prevent these kinds of actions, governments must routinely audit the payroll—that is, check that names match real people who are on post and have the required credentials.

- The ministry needed a comprehensive, detailed, and accessible database. For Werner, the mission was clear: More than anything, teacher management was about data management. His team also hoped that, at the end of the process, it could issue new biometric identity cards to all salaried teachers. 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.

- The plan: 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.

**Part 2: Addressing the Problem**

**Instructor:** As we step into Minister Werner’s shoes, the question is how to go about removing ghost workers and poorly qualified teachers while also taking steps to prevent
this kind of problem in the future. So let’s first think about what we have to do and how to go about it—how to implement these steps.

**Play the role of someone on Minister Werner’s team. What steps do you need to take to implement the proposal we have just discussed?**

1) Identify the ghost workers and teachers who lack skills. How do we do that? Conduct an audit to help match every name on the payroll with someone who is active in the classroom.

2) Create a dispute resolution process.

3) Test skills and create an option to retrain or leave the system.

4) Create a new employee database.

5) Revise the payroll and HR practices to reduce opportunities for fraud.

**Minister Werner has a lot to do. He is also trying to introduce educational experiments to improve teaching quality and school access. He clearly can’t do all the work himself. What steps does he take to create capacity?**

1) Werner set up a project implementation unit. The ministry hired four people, each on a 12-month contract: a project manager, a financial manager, a field operations manager, and administrative assistant.

2) 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.

**What challenges was the implementation team likely to encounter?** If we think ahead, we may be able to design a process that is less vulnerable to these challenges.

1) There were three separate payrolls.

   - 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.

   - “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.
• 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.

2) For years there was no system for evaluating qualifications

• Because the ministry lacked the capacity to check teacher qualifications, unqualified teachers often made it onto the regular payroll.

3) Reform required coordination and cooperation across two separate agencies.

• 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.

4) There is a teachers’ union.

• The National Teachers’ Association of Liberia, a statutory body that represented most of the country’s more than 19,000 paid public-school teachers. Vetting qualifications was likely to be controversial, and the ministry expected pushback from the teachers’ association.

• The union members might benefit from higher pay or more regular receipt of pay if we can straighten out the problems that exist, but … A) The teachers are already upset about the other education reforms the minister has undertaken, B) some may fear the skills tests, and 3) a few may lose money they have received from kickbacks from ghost workers.

5) Many teachers work in remote areas and communication is poor.

6) Importantly, the district and county officers had to sign off on changes to each school’s personnel listing and monitor teacher attendance. In the worst case, local officials might collude with school principals to add ghost worker names to the payroll.

The approach you take, as a member of Werner’s team, must anticipate these challenges. That is, you need to design a process that takes account of these circumstances.

Part 3: How the process unfolds
Instructor: 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 plan was to audit the payroll and test teachers simultaneously.

The government amended its policies so that ministries had more control over their own payrolls. Whereas the civil service 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.”

What steps does Werner’s team take?

1) The reform team works with the teachers union to persuade the union to accept the changes. The union wants to ensure that teachers who lack the required skills have a chance to re-train and wants those let go to receive severance pay. The ministry agrees to give the union a role in preparing the test.

2) They had to inform the teachers about the exercise and the steps to take to remain on the payroll. Because it was hard to reach people in remote areas, the team used radio programs to get the news out.

3) In each county, 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. Teachers took tests and also presented their credentials. (There were four versions of the test, to help prevent cheating.)

4) 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.

5) 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.
6) 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 biometric id system did not work well.)

7) 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.

Part 4: Results and New Ideas

What was the result of the process? Did Werner's team succeed in your view?

1) 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.)

2) The removal of 2,046 ghost teachers generated US$2.3 million of annual savings. The ministry expected this number to increase to US$3.1 million when there were no longer any ghost teachers on the payroll.

3) 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.

4) 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.

5) The project also revealed that more than 1,000 teachers older than the mandatory retirement age of 65 were still on the payroll at an estimated annual cost of US$2 million. (Most of these teachers remained on the payroll because there was no money to pay pensions.)
The case helps us understand the origins of the ghost worker problem and the steps one might take to eliminate ghost workers from the payroll. Are there any general insights you draw from this case? Any ideas that might help others facing similar challenges?

1) Political will was essential to the success of the project.

2) Clarity in communication is vital. In this instance, teachers and members of the public linked two different reforms and feared they might lose their jobs. Explaining the rationale and expected impact of each reform carefully in advance and throughout—through unions and through press conferences—eases implementation.

3) Try to eliminate some of the conditions that make it easier to add ghosts to the payroll.
   • High rates of staff turnover may make it hard for payroll managers to identify ghosts, as can heavy use of part-time employees. Reducing turnover or improving ability to scrutinize lists easily can help bring ghost workers to attention.
   • Payroll system design affects the ease of adding ghost workers. Split responsibility for approval between at least two people—the manager of the unit and a payroll employee in a different unit—in order to increase the costs of collusion. Rotate responsibilities of people in the payroll division so that one person is not regularly able to collude with employees or their managers.
   • Paying wages and salaries through direct deposit may help reduce the problem of ghost workers. To obtain a bank account, a person has to present several types of identity documents. Forging these documents increases the difficulty associated with securing payment as a “ghost.” Accounts are also more easily traceable.
   • Reduce fragmentation in personnel databases. The payroll is underpinned by a personnel database (sometimes called “nominal roll”), which provides a list of all staff who should be paid every month, and which can be verified against the approved establishment list, the list of budgeted positions and the individual personnel records (or staff lists). In many countries, linkages between these databases are often problematic.

For additional information:


You Tube conversation with Minister George Werner at the American Enterprise Institute  https://www.youtube.com/watch?v=6sEpkdkvRZg

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iii Fumbuka Ng’wanakilala, “Tanzania says over 10,000 ‘ghost workers’ purged from government payroll,” Reuters, May 16, 2016.
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