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Public Finance and Public Employment: An Analysis of Public Sector Retrenchment Programs in Ghana and Guinea

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CORNELL FOOD AND NUTRITION POLICY PROGRAM



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PROGRAMS IN GHANA AND GUINEA**

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1. INTRODUCTION

Civil service reform is an issue whose time has come in Africa. Overstaffing is pervasive in most African governments and severe enough to cause important macroeconomic and structural problems. Under the best of conditions, bloated payrolls contribute to fiscal deficits and a host of consequent macroeconomic problems. But the problems often run deeper. There is a limit to what governments can raise in tax revenues (including the inflation tax), and public sector employment has grown so much in Africa that the limit often impinges on the government's ability to manage its finances in a reasonable manner. Civil service overstaffing also affects the productivity of the public sector. In particular, as the civil service wage bill grows, governments are forced to cut back on other expenditures such as development spending and operations and maintenance. In more extreme cases, even those cuts do not suffice, and civil service wage rates begin to fall, especially for more skilled civil servants, even if the total wage *bill* does not. As the salary structure is compressed, skilled employees leave for other jobs (often abroad), further impairing the civil service's ability to function. Other employees resort to moonlighting, "daylighting," or accepting bribes to augment their meager wages.

As an example, Table 1 shows this pattern for Ghana. While poor record-keeping makes it difficult to establish the total number of civil servants on a regular basis (a problem that is endemic in Africa), employment clearly grew rapidly from independence in 1961 to the civil service census in 1984. Concurrently, the government established a variety of public enterprises and nationalized many others, especially in the mid-1970s. The fiscal deficit expanded rapidly in this period, peaking at 15 percent of GDP in 1975. From then on, a series of shocks and chronic economic mismanagement prompted a sharp economic decline which reduced tax revenues and, with them, civil servants' pay. Senior civil servants saw an especially sharp decline, and many qualified people left the civil service (and Ghana) in the early 1980s.

More generally, lack of data makes it difficult to demonstrate the same pattern in other African countries.¹ Nevertheless, Table 2 shows data on civil servants' salaries and the overall wage bill for the public sector in several African countries. As one can see, wages for individual civil servants generally fall from 1975 to 1985, while the pattern of the wage bill is much less pronounced. This combination — sharply declining wage rates with more stable wage *bills* — implies a general increase in the number of government employees in each country. At the same time, governments have been unable to raise revenues to pay these additional employees, so their salaries must come from squeezing other parts of the budget, including their colleagues' salaries.

¹ Gregory (1993) establishes similar results for Somalia.

Table 1 — Ghana: Civil Service Employment, Wages, and Real GDP

Year	Employment (1,000s)			Wage index (1977=100)		Compression ratio		Real GDP per capita (1977=100)
	Total	GES	CS	Unskilled	Senior	Pre-tax	Post-tax	
1961	105	—	—	—	—	—	—	110
1977	—	—	—	100	100	—	—	100
1980	—	—	—	32	30	—	—	102
1983	—	—	—	32	10	2.3	1.5	84
1984	311	—	—	27	7	—	—	83
1985	—	—	—	55	13	—	—	85
1986	317	—	—	56	36	5.7	4.1	87
1987	—	—	—	44	31	—	—	89
1988	281	156	125	55	33	5.4	—	90
1989	—	—	122	54	41	7.8	—	92
1990	—	—	114	48	42	9.5	6.7	92
1991	—	—	—	—	—	—	—	—
1992	260	160	100	—	—	—	—	—

— = Not available.

Sources: World Bank (1985; 1989b); IMF (1992); IMF (various years); Gregory (1992).

Notes: Total employment in 1986 includes roughly 10,000 "ghost workers" who are not counted in the percentage reduction information presented in the text. The "compression ratio" is the ratio of the 80th civil service salary scale (essentially, the highest) to the first (the lowest).

Table 2 — Trends in Central Government Expenditures on Wages and Salaries in Selected African Countries

Countries	Civil Service Wage Bill			1985/1975 Wage Bill and Wage Rates		
	1975	1980	1985	Wage Bill	Wage Rates	
					Lowest	Highest
Ethiopia	0.059	0.085	0.012	1.91	0.63	0.31
The Gambia	0.052	0.074	0.063	1.21	0.40	0.36
Ghana	0.065	0.029	0.040	0.61	0.55	0.13
Guinea	—	0.130	0.125	—	—	—
Kenya	0.084	0.069	0.078	0.94	0.58	0.42
Morocco	0.089	0.110	0.101	1.14	0.66	0.53
Nigeria	0.029	0.016	0.015	0.53	0.42	0.22
Sierra Leone	0.063	0.074	0.043	0.69	0.23	0.16
Togo	0.149	0.083	0.081	0.54	0.58	0.58
Tunisia	0.093	0.092	0.098	1.06	0.74	0.53
Zimbabwe	0.115	0.108	0.097	0.85	1.51	0.58

Overstaffing problems appear to have three distinct sources. First, many African governments were establishing themselves in the 1960s when the state was seen as an important engine of growth. At that time, it was usual to suppose that a variety of social and economic problems could and should be addressed with new ministries, agencies, or state-owned enterprises. Second, many governments guaranteed employment to all university graduates as a means of promoting education. And third, public sector jobs were regularly used as a form of political patronage. These problems are often exacerbated by labor laws or collective bargaining agreements which make it difficult to dismiss staff. The result is an abundance of staff who have little to do, but cannot be laid off.

Overlaying these fundamental causes is a general loss of control over hiring. Even though all governments have some central agency (the Auditor General, Public Service Commission, etc.) that is charged with monitoring payrolls, these institutions are often unable to control the hiring decisions of more powerful ministries. In the worst cases, the government cannot even account for all of its employees, let alone control further hiring.

Whatever the cause of overstaffing, it is important to note in the context of this set of case studies that there is no justification for it in terms of public finance theory. Attitudes about the public sector's role in economic development have changed dramatically since the 1960s; most professional economists now feel that many public institutions in Africa, whether ministries or enterprises, have no *raison d'être* either because they have proved ineffective or because their mission is more appropriately carried out by a nonpublic entity. Further, economic theory cannot justify patronage jobs or the use of the public sector as an employer of last resort for the educated.

If there are no good economic arguments to defend overstaffing then, conversely, there are strong macroeconomic and microeconomic arguments to eliminate it. Yet attempts to reduce the size of the public sector's payroll are few and far between. The first argument that any potential reformer is likely to face is a socioeconomic one. Because the public sector has come to dominate formal sector employment in many African economies, it is not clear that laid off civil servants could find employment in other sectors of the economy. If not, it would be irresponsible and even cruel to throw civil servants out on the street. Public sector employment becomes a kind of welfare for those who policy makers believe cannot find work elsewhere.

While this is a common argument, the political costs of retrenchment programs are an even greater obstacle to reform. Civil servants have significant political power. They are generally better educated than the population at large, and they are concentrated in urban areas (most prominently the capital). What's more, to the extent that patronage is a source of overstaffing, one must recognize that civil servants who hold patronage jobs got their employment because the government found it politically expedient to hire them. Laying them off is therefore politically risky. Nevertheless, a few African governments have begun to address the issue of overstaffing. This paper describes the reforms in

Ghana and Guinea, two countries that have gone further than most in reducing the size of the civil service.²

The development experiences of the two countries are similar in many ways. Both embarked upon state-led development strategies soon after independence. While figures on the size of public sector employment are imprecise before the last few years — neither government kept careful records on their payrolls — it is clear that the civil service and other public institutions grew rapidly. At the same time, both suffered prolonged periods of declining per capita incomes, with the pace of the deterioration accelerating in the late 1970s and early 1980s. At the nadir, each country suffered acutely from the problems discussed above, with declining salaries, flight of skilled employees, widespread moonlighting, and crippling shortages of materials and equipment. In sum, the civil service and most state enterprises became dysfunctional.

The severity of these problems in Ghana and Guinea probably caused them to pursue civil service reforms more aggressively than other African countries, but the decision was not entirely voluntary. Both Ghana and Guinea were early converts to the wave of "Economic Recovery Programs" that is sweeping Africa, largely because their economic problems were so severe that they had no option but to turn to the donors for assistance and accept the conditions that accompanied that aid. One such condition in both Ghana and Guinea was civil service reform. Thus, to some extent, the reform programs were driven by the donors. It is not that the respective governments did not recognize overstaffing as a problem — it was and is obvious to everyone, including civil servants themselves — but they had serious political reservations about the feasibility of retrenchments. The authorities believed that, given the state of the labor markets and their understanding of how they functioned, retrenched civil servants would not be able to find acceptable employment. Nevertheless, each government did take the risk of laying off civil servants in earnest, and each did so without significant political turmoil. In the remainder of this paper, we describe the design, implementation, and outcomes of civil service reform in Ghana and Guinea. Our primary aim is to explain the political, economic, and social consequences of these reforms for the economy as a whole and for the individual civil servants who were laid off.

² This choice of countries is not accidental. The CFNPP has carried out household level surveys in each country as part of its larger effort to evaluate the impact of structural adjustment policies on the poor. These surveys enable us to discuss not only the general characteristics of the retrenchment programs in these two countries, but also the experiences of the former civil servants themselves.

2. CIVIL SERVICE REFORM IN GHANA

By the time that Ghanaian policy makers began to consider civil service reform policies, the civil service was in very bad shape. From 1977 to 1983, the average civil service wage for an unskilled worker fell by two-thirds in real terms; that for senior staff fell by 90 percent. In 1983, the "compression ratio" of the highest civil service salary to the lowest was only 2.3. Most skilled civil servants had long since left, and those that remained had few materials with which to work. With the advent of the Economic Recovery Program (ERP) in 1983, the situation began to improve, largely because the government began to collect significantly larger amounts of tax revenue. By 1986, real salaries had risen by 75 percent for unskilled civil servants and by 320 percent for senior workers. The compression ratio rose to 4.1 during the same period (see Table 1). These improvements did not come through civil service reform, however, but rather higher spending financed by greater tax revenues. The government had political reservations about civil service reform (which we will discuss below), and it stalled the donors until 1987. At the signing of the first Structural Adjustment Credit (SAC) with the World Bank, however, the government did accept and implement a reform program.

OBJECTIVES OF THE CIVIL SERVICE REFORM PROGRAM (CSRP)

The Redeployment Management Committee (RMC) states the objectives of the civil service redeployment exercises as:

- 1) to remove all surplus or under-employed labor from the civil service and to keep its size at an economically viable level;
- 2) to use the savings from staff reductions to enable government to pay improved remuneration to workers who remain in the civil service, thereby improving morale;
- 3) to relocate redeployed labor rationally within the private informal sectors of the economy; and
- 4) to afford redeployed workers the opportunity to rediscover their potentials and develop them through retraining (Government of Ghana 1990).

The first objective, retrenchment of significant numbers of civil servants, was clearly the most contentious, but it was also the most important in terms of rationalizing the civil service. The remaining objectives were generally helpful in making the layoffs palatable to civil servants. The second goal, in particular, was arrived at after considerable debate over whether the primary objective of reform should be fiscal stabilization through a reduction of the wage bill or recovery of the capacity of the civil service through improved

remuneration and recruitment of more highly skilled people. Given the overall wage bill was reasonable (usually less than 6 percent of GDP) and that fiscal stabilization was already a well-established component of the ERP, the latter goal prevailed. In the end, it was good that the government did not count on significant fiscal savings from the program. Because targeted redeployees were predominantly low-paid staff so the anticipated savings from retrenchment itself were modest.

DESIGN OF THE CIVIL SERVICE REFORM PROGRAM

To achieve these goals obviously required retrenchment of civil servants; there were simply too many employees to pay competitive salaries and at the same time maintain the fiscal discipline that has been the hallmark of the ERP. But the CSRPF included other important policy changes, the most important of which was to strengthen the supervisory capabilities of the Office of the Head of the Civil Service (OHCS). Ghana had never had effective, centralized control over civil service hiring decisions or payroll practices. The first step of the CSRPF, then, was to design and install a centralized computer payroll that the authorities could use to control staffing levels and salaries. This was a critical step. Other attempts at civil service retrenchment in Africa have foundered because the government could not make the staff reductions stick: decentralized ministries and agencies hired new workers (or re-hired retrenched civil servants) as quickly as the reform program laid them off, yielding no net reduction.³ Thus, a centralized payroll was a necessary prerequisite to the retrenchment program. An additional benefit of the payroll audit was that it identified many "ghost workers" — i.e., names on the payroll of people who actually do not exist.⁴

Retrenchment and payroll control were the first aspects of the CSRPF to be implemented; others have followed more slowly. While salaries were unified in 1991 — i.e., all special allowances for housing, transport, lunch, etc. were incorporated into the basic salary — other aspects of the program aimed at rationalizing the incentive structure for civil servants have not yet taken effect. In particular, while the government has worked out a comprehensive redesign of the pay and grading system, it has not adopted the reforms.

³ Even in Ghana, there has been no net reduction in Education Service staffing levels despite the fact that nonteaching staff were subject to redeployment, probably because the centralized payroll does not extend to that Service.

⁴ Usually, this "person's" salary was collected by someone else, often another higher ranking civil servant. For some ranking civil servants, this additional income helped to overcome their otherwise low salary.

Job audits⁵ were to be another integral part of the CSRP, but they only began in earnest in 1991 and have progressed slowly. Nevertheless, in 1992 the job audits replaced the wholesale retrenchments of 1987-1991. This slowed the rate of redeployment significantly, largely because the auditors could not cover enough offices during the year.

THE REDEPLOYMENT PROGRAM

While other aspects of the CSRP are important from a policy perspective, it is retrenchment that causes the most concern and generates the greatest interest. The design and implementation of this aspect of the reforms has been quite effective in Ghana. First, the Redeployment Management Committee (RMC) and the Labor Ministry (now the Ministry for Mobilization and Social Welfare) managed the public relations for the program deftly. They never referred to "retrenchment" but rather "redeployment," emphasizing that redeployment meant transfer to another job, perhaps inside the civil service (if an appropriate post were available) or else to the private sector. An early publicity campaign used radio, television, and the newspapers to explain that the government intended to provide employment counselling, financing for retraining, and of course, financial assistance in the form of a severance package.

In identifying civil servants for redeployment, the RMC adopted a set of transparent and (reasonably) objective criteria:

- 1) staff whose output and work habits had persistently been negative;
- 2) staff who exceeded the mandatory retirement age of 60;
- 3) staff whose output was adversely affected by physical infirmity;
- 4) staff hired after approved levels for an office, agency, etc. were exceeded;
- 5) staff who volunteered for redeployment;
- 6) staff whose entry qualifications were proven to be falsified;
- 7) staff on secondment outside the civil service who were dispensable; and as a last resort
- 8) staff most recently hired (last in, first out) (Government of Ghana 1990).

⁵ Job audits review the present staffing of an office and compare it to the staffing that appears to be necessary for the performance of the office's duties. Any discrepancies are then corrected through retrenchment or additional hiring.

With the exception of teachers in the Ghana Education Service (GES) and medical employees of the Ministry of Health, no civil servant was or is exempt from redeployment, at least in theory. In practice, the authorities have concentrated on redeploying lower echelon employees, which is quite reasonable given the "bottom-heavy" structure of the civil service. In particular, skilled staff whose work is vital to their agency's performance are retained (even if they volunteer for redeployment).

It is important to note that while the RMC established these criteria, implementation was decentralized. In each ministry or department, a committee comprised of the department head, a representative of middle management, a workers' representative, and the workplace CDR⁶ representative actually made the redeployment decisions. Decentralization has meant that redeployment has been somewhat uneven across the civil service, with some ministries and departments redeploying many more than others. On the other hand, this structure seems to have helped avoid the use of redeployment for vindictive ends. While other retrenchment schemes in Africa have suffered from the perception that they were applied only to certain political or ethnic groups, Ghana's program has generally been seen as fair, with little abuse of the program.

In addition to equitable application of the criteria for redeployment, the program's credibility has also benefitted from the payment of reasonably generous severance packages. Each redeployee is entitled to severance pay equal to 4 months base salary plus an end-of-service benefit of 2 months pay for each year worked in the civil service.⁷ As we will see below, this package is sufficiently attractive to encourage a considerable number of civil servants to volunteer for redeployment. Even for those redeployees who did not leave voluntarily, we have found little bitterness, except for those who were redeployed in the first year or so of the program. At that time, base salaries (and thus severance benefits) were lower and there were considerable delays in payment of benefits which served to reduce their real value further. Nevertheless, once the government began to make severance payments promptly, the whole process seems to have functioned with little acrimony.

GLOBAL RESULTS OF THE REDEPLOYMENT PROGRAM

Table 3 shows the number of redeployed civil servants and their severance pay for 1987-1992. While the program was somewhat slow to get going in 1987, it did meet or exceed the target of 12,000 redeployments per year that the government had agreed upon with the donors in each of the following three years. The pace slowed considerably in 1991 when the redeployment strategy shifted from

⁶ Committees for the Defense of the Revolution. These are quasi-political, mostly local, institutions that the present government established as a means of promoting "grassroots" democracy.

⁷ We will refer to these together as severance pay.

Table 3 - Ghana: Summary of Civil Service Redeployments, 1987-1992

Year	Redeployed	Redeployed from GES	Redeployees >=60	Total Severance	Severance/Government Expenditures	Severance per Worker
				(Million Cedis)	(Percent)	(US\$)
1987	8,881	4,307	881	851	0.8	383
1988	12,372	1,062	337	2,141	1.5	553
1989	13,937	1,810	43	3,686	1.9	661
1991	4,597	687	-	1,820	0.5	1,003
1992 (Jan-June)	7,774	246	-	3,800	-	1,102
Total	59,810	14,470		15,466		

Source: Boasa Ltd. (1990); authors' calculations.

Note: US dollar figures are calculated using the end-of-period bureau exchange rate.

the broad criteria outlined above to department and ministry-specific job audits which identify unnecessary staff in the context of a more careful evaluation of the unit's function and staffing needs. Such evaluations are time-consuming, and this seems to account for the reduced number of redeployments. Nevertheless, the pace appears to have picked up again in 1992.

The last column of Table 3 shows a marked increase in the severance pay per redeployee throughout the past six years. This is explained by the general rise in civil service pay during the period (see Table 1), and also by the salary unification of 1991 which brought several allowances worth about 20 percent of total compensation into civil servants' base pay.⁸ The very low payout in 1987 was also affected by the fact that many of the redeployees in that year had worked for the District Assemblies. Because these local institutions paid half of their employees salaries, they were also held responsible for half of their severance pay, reducing the central government's liability (that recorded by the MMSW) considerably. As it turned out, many of the District Assemblies did not pay their half, which contributed to the low severance payments and the general bitterness of these redeployees.

Table 3 also reports the gross reductions in civil service staff due to redeployment. Figures on net reductions are more difficult to obtain, but Table 1 shows the best data we could obtain for different points in time in Ghana. For the most part, the gross reductions of the redeployment program seem to have translated into similar net reductions: the government redeployed 60,000 civil servants between 1987 and June of 1992, and total civil service employment fell by 57,000 from 1986 to 1992. While this net change includes normal attrition as well as redeployments, rehiring has not negated the majority of the impact of the redeployment program.⁹ This is particularly true since the government has been purposefully hiring to fill vacant skilled positions.

At the same time, it is interesting to note that, at least since 1988, all of the progress has come in the civil service rather than the GES. In part, this is due to a planned expansion of the teaching staff (for the Junior Secondary Schools), but it is also true that the GES has never implemented a computerized, central system of recruitment control such as that put in place by the OHCS. This has made it difficult to maintain the staffing reductions brought about by redeployments in the GES. In fact, the surge of redeployments from the GES in

⁸ Recall that severance payments are a proportion of base pay rather than total compensation. The marked increase in severance cost per redeployee to the government may have contributed to the reduced pace of redeployments in 1991. The government maintains targets for the fiscal deficit with the IMF which it had difficulty meeting in that year.

⁹ These data do not agree with de Merode (1992) who claims that rehiring equal to about 25 percent of redeployments occurred in Ghana, often for the same lower echelon jobs that the redeployment program was trying to eliminate. We are unsure of the source of this contradiction, though it may be that the situation has improved greatly since 1989 (when de Merode cited his figures).

1989 and 1990 probably reflects the lay-off of a large number of (unplanned) new hires: average severance pay for GES redeployees was quite low relative to that of civil servants that year, which is consistent with their having few years of experience.

The fiscal impact of the redeployments was minor in the first several years of the program, although it has started to become significant. Table 4 shows that the net cash flow from the program turned positive in 1990, and the cumulative savings did so in 1991. By 1992, a nontrivial proportion of government expenditures had been saved. Nevertheless, these data should serve as a warning to governments hoping to reap fiscal benefits through retrenchment: such programs are investments whose payback period is drawn out over several years. One should not expect to see significant reductions in total spending until a large number of employees have been retrenched and their severance paid.

IMPACT OF REDEPLOYMENT ON THE REDEPLOYEES¹⁰

The most pressing concerns about laid off civil servants is their ability to find other work and the incomes they receive from that work. Table 5 compares Ghanaian redeployees' labor force participation with that of respondents to the 1987 Ghana Living Standards Survey (GLSS) who are 17 or older.¹¹ The pattern of employment for our sample, who we interviewed anywhere from one month to four years after being laid off, is virtually identical to the population at large, and the unemployment rate is quite low in both cases. (This is not atypical for a developing economy, where people simply cannot afford to be unemployed.) What's more, most redeployees had only short spells without work after they were laid off. Fully 63 percent had no spell without work, mostly because they simply continued to work at a second job that they already held while they were in the civil service. For the remaining 37 percent (including those who have probably withdrawn from the labor force), the median spell without work was only 13 weeks. Thus, fears that redeployees would not find work appear to be exaggerated.

Nevertheless, it is true that most redeployees are not working in formal wage employment. As Table 6 shows, redeployees are more likely to be self-employed than the population at large, with correspondingly lower proportions in wage employment and farming. The low level of wage employment reflects the state of the labor market in Ghana during the ERP, when many traditional sources of formal sector employment, including State-Owned Enterprises and the Civil Service

¹⁰ This section draws on Alderman, Canagarajah, and Younger (1993), which readers may consult for a description of the CFNPP survey and a more detailed overview of its results.

¹¹ The GLSS is a large, multipurpose household survey based on a nationwide, random sample of the population at large. Because our own survey sampled only from three regions, Greater Accra, Central, and Ashanti, all comparisons in this paper are between our survey and the GLSS respondents residing in these three regions.

Table 4 — Ghana: Cash Flow of Severance Pay and Salary Savings for Redeployment Program

Item	Year					
	1987	1988	1989	1990	1991	1992
	(million cedis)					
Severance pay	851	2,141	3,686	2,968	3,624	3,983
Compensation savings	281	1,321	3,301	5,845	8,868	11,431
Net savings	(570)	(820)	(385)	2,877	5,244	7,448
Discounted savings	(1,621)	(1,756)	(651)	3,464	5,269	6,703
Sum of discounted savings	(1,621)	(3,377)	(4,027)	(564)	4,705	11,408
Net savings/ expenditure	-0.006	-0.006	-0.002	0.012	0.015	0.019

Sources: de Merode (1992) and Government of Ghana (1992).

Notes: For 1992, the CPI is for June. For all other years, it is the monthly average. 1992 government expenditures are based on the budget. All other years are actual expenditures. Discounting is at a real rate of 10 percent per year.

Table 5 — Ghana: Labor Force Participation Status of Redeployees and GLSS Respondents in Three Regions

	Working	Unemployed	Other Inactive	Student	Total
General population	2,387	91	249	153	2,880
Percent	83	3	9	5	
Redeployees	423	17	41	29	510
Percent	83	3	8	6	

Source: Alderman, Canagarajah, and Younger (1993).

Table 6 — Ghana: Type of Work for Redeployees and GLSS Respondents in Three Regions

	Farming	Self- Employed	Wage Work	Unknown Work	Total
General population	1,084	660	635	8	2,387
Percent of respondents	45	28	27	0	83
Redeployees	167	167	89		423
Percent of respondents	39	39	21		83

Source: Alderman, Canagarajah, and Younger (1993).

itself, are not hiring. On the other hand, redeployees are somewhat less likely to be farming, probably because the vast majority of civil servants are urban-based.

The large proportion of self-employed redeployees may lead to concerns that they are underemployed, but Tables 7 and 8 should allay those fears. Table 7 compares median household incomes for the GLSS and redeployees.¹² Median household incomes for redeployees are very close to the population at large, and the median self-employed income is comparable as well (and greater than median wage income for the population at large).

The more alarming data are those for farming incomes, which are quite low among redeployees. This concern is amplified by Table 8, which reports the proportion of redeployee households that fall in each GLSS income quintile, by the main type of work for the redeployee in the household. In general, redeployees' households are slightly overrepresented in the lower two quintiles, largely because households with redeployees who are not working or who are farming have very low incomes. (The self-employed, on the other hand, are less likely to be in the lowest income quintile.) It appears that farming could be an important type of underemployment for redeployees in Ghana. By social tradition, most Ghanaians may return home to their village and receive land to work, even if they have been away for some time. Thus, farming may be a fall-back option for Ghanaians who cannot find other work. Nevertheless, many redeployees do not appear to be doing well at farming. On average, plot sizes are smaller, hours worked are fewer, and yields are much worse than comparable figures for the population at large. (See Alderman, Canagarajah, and Younger [1993] for a more detailed discussion.) As a result, farming incomes (and efforts) are quite low even when compared to other Ghanaian farmers.

There are surely a significant number of poor people among redeployees,¹³ particularly among those who have not found work and those who are farming. Nevertheless, it is not clear that this calls for any special consideration for redeployees: it appears that their household incomes are only slightly worse than the population in general, so there is no compelling reason to create a special anti-poverty program for them.

¹² Originally, we made these comparisons on a *per capita* basis (see Alderman, Canagarajah, and Younger 1993). But household sizes in the GLSS are suspiciously small, 4.3 people per household versus 5.4 in our survey, which inflates any *per capita* incomes for that survey. As a result, we report only total household incomes here. At the same time, household incomes from the GLSS are small relative to expenditures, especially in Greater Accra, and several researchers have concluded that incomes are seriously underreported in that survey (see Alderman and Higgins 1992). Our survey did not collect expenditure data, so we have no way of making a similar judgment about the veracity of income responses for our households.

¹³ Boateng et al. (1989) find that about 35 percent of the Ghanaian population is poor, based on estimates of minimal caloric intake from the GLSS data.

Table 7 — Ghana: Incomes of Redeployees and GLSS Respondents in Three Regions (1991 Cedis Per Month)

	GLSS		Redeployees	
	Median	Number of Households	Median	Number of Households
Household income	19,524	1,346	20,000	510
of which:				
Wages	6,951	429	16,433	207
Agriculture	14,474	672	5,333	227
Self-employment	12,616	733	12,000	363
Other	1,185	771	7,340	82
Note: Remittances	2,370	472	4,000	127

Source: Alderman, Canagarajah, and Younger (1993).

Note: The medians are the middle value of only the households that have some of the particular type of income reported. Remittances are not included in household income.

Table 8 — Ghana: Proportion of Redeployee Households Falling in GLSS Income Quintiles, by Redeployees' Main Type of Work

GLSS Income Quintile	All Redeployees	Not Working	Farming	Self-Employed	Wages
Lowest	0.18	0.30	0.26	0.13	0.05
Second	0.28	0.22	0.32	0.22	0.35
Third	0.23	0.23	0.18	0.22	0.35
Fourth	0.18	0.10	0.16	0.22	0.19
Highest	0.13	0.15	0.08	0.21	0.06

Source: Alderman, Canagarajah, and Younger (1993).

At the same time, one must recognize that redeployees have lost a considerable amount of income because their salaries were above average when they worked in the civil service (despite the fact that they were overwhelmingly from the lower echelons of the civil service). On average, current earnings for redeployees are 28 percent lower than their earnings when they were in the civil service. If we exclude all redeployees who are not currently working from the sample, the difference is 20 percent. To some extent, these losses are offset by the receipt of a severance package, but only partially. If we suppose that the redeployees could earn a 10 percent real return on their severance package, that income flow would be about 12 percent of their earnings while they were in the civil service.

PROGRAMS TO COMPENSATE REDEPLOYEES

When the redeployment program was launched, government officials placed great emphasis on the fact that their aim was to redeploy, not retrench. In addition to severance pay, redeployees were to receive employment counselling, retraining, credit and managerial assistance to help with small business, and tools, seeds, etc. to begin farms. In practice, only the severance program has been effective. There were considerable delays in implementing the other compensation schemes, partly because the donors who agreed in principle to support them were slow to allocate funds in practice. Thus, de Merode (1992) reports that by the end of 1989 only 100 redeployees had received retraining (out of 3,000 applicants). In our sample, 26 percent had received employment counselling; but only 1 percent had received tools or agricultural inputs and 8 percent had received food-for-work.¹⁴ Thus, while the emphasis on these redeployment programs may have had an important public relations effect, the programs themselves have not had much impact.¹⁵

The one compensation for redeployees that has been effective is reasonably attractive severance pay. Thirty-three percent of our sample volunteered for redeployment, and our informal conversations suggest that the end-of-service benefit was an important (indeed, dominant) consideration in this decision. It is also interesting to note that redeployees saved or invested a large portion of the severance pay. Table 9 shows that redeployees used 21 percent of total severance pay to accumulate financial assets, and another 34 percent to make expenditures that are traditionally considered to be investment. Redeployees who are currently self-employed or farming are even more likely to invest a significant proportion of their severance, presumably in the businesses they are pursuing. Thus, severance pay alone seems to have assisted the development of a significant amount of small-scale enterprise among redeployees.

¹⁴ It is likely that not all of these received food-for-work because they were redeployees.

¹⁵ At the time we were surveying (late 1991), the MMSW's retraining and counselling efforts were picking up steam, but too late for the impact to show up in our results.

Table 9 — Ghana: Allocation of Severance Pay in Ghana, by Expenditure and Savings Type (Nominal Cedis)

Use of Severance Pay	Mean	Percentage of Total
Liquid assets	28,030	13
Repayment of debts	18,065	8
Real estate	25,820	12
Business equipment	41,570	19
Education	7,490	3
Subtotal (Financial and real savings)	120,975	56
Consumer durables	17,321	8
Consumer nondurables	77,332	36
Total (Severance pay)	215,628	100

Source: Alderman, Canagarajah, and Younger (1993).

In the end, lack of attention to other forms of compensation may have been fortuitous. Experience with such schemes in other countries has generally been unfavorable (see Kingsbury 1992a), and the evidence that we cited above suggests that redeployees are not an especially disadvantaged group. What's more, severance pay is costless to administer (once the payroll has been established) and reasonably effective at assisting redeployees establish new forms of employment.

3. PUBLIC SECTOR REFORM IN GUINEA

Like Ghana, the fiscal conditions and efficiency of the public sector in Guinea deteriorated dramatically throughout the early 1980s. By the end of the First Republic in 1984 the public sector wage bill was estimated to account for 37.3 percent of public expenditures. The relatively high share of total spending for wages, coupled with the extreme low public-sector wage rates, was a consequence of a policy to expand the role of the state in the economy. This occurred even though stagnant economic performance was limiting the resource base available to the state.

Public sector growth was a logical component of the state's creation of a command economy with central control over almost all economic activity. But it is also true that the government used a well-functioning and expansive system of patronage, most obviously manifested in the state provision of jobs, to legitimize the state and maintain its political support. Ironically, it was the growing demands of the expanding public sector work force that contributed to declining conditions of service for public sector workers. As policies that accompanied the burgeoning bureaucratic infrastructure and state employment stifled private sector growth, the revenue base from which to pay a growing number of public sector workers shrank. The government responded by freezing nominal wages in a highly inflationary environment. The real average base salary for a state worker declined to a low of \$16/month at the parallel exchange rate in 1984.

In addition to real wage decline and salary compression, there were few performance incentives in the form of advancement or opportunities for training and skill development. Coupled with the fact that there was virtually no mechanisms for accountability in the public sector, this contributed to a system where rent seeking and other abuses of power were common ways of extracting additional benefits from working for the state. In Guinea, then, the institutional mandate for public sector reform was far more compelling than accompanying budgetary pressures.

Under the Second Republic, the government moved quickly to both reduce the scope and improve the efficiency of the public sector by implementing liberal economic policies favorable to private enterprise and foreign investment. Economic reform measures were first proposed in the *Programme Intérimaire de Redressement Nationale* in 1985, which was subsequently elaborated into a structural adjustment program for 1986 to 1988, *Programme de Redressement Economique et Financier* (PREF), supported by loans from the World Bank and IMF. The PREF committed the government to undertake a number of concrete actions to reduce the role of the state in the economy and liberalize markets, including the mandate to reduce the number of public sector employees and privatize or liquidate most parastatals.

OBJECTIVES OF THE PUBLIC SECTOR REFORM PROGRAM IN GUINEA

As part of the initial economic recovery program outlined in 1985, three targets were set to reduce the number of public sector employees and increase the efficiency of the sector: a redeployment program was to reduce total public sector employment by 25,000 persons; a new pay and benefits framework was to be introduced to provide incentives for performance; and the skill levels of remaining public sector employees were to be increased. The second phase of PREF, commencing late in 1988, focused on increasing the efficiency of the remaining public sector employees through institutional reform.

Like Ghana, the fiscal and institutional crises that confronted Guinea made reducing the number of workers a necessary first step, but also the most politically difficult for the new government's new reform program. At the same time, the overt failure of the state bureaucracy to provide even the most rudimentary services, whether economic or social, made improving the functioning of the remaining state workers an equally important long-term objective of the program.

DESIGN OF THE REDEPLOYMENT PROGRAM

The first major step to realizing the ambitious objectives of the reform program was a census of public sector employees conducted between December 1985 and April 1986 to determine the number of public sector employees on the payroll. The census results indicated that 70,989 individuals were employed directly by the civil service; 17,111 were employed in parastatals, state banks, or attached to mining companies; 12,700 were enrolled in the military; and 2,000 were employed without a specified sector.

Following the census, the government instituted a hiring freeze that included termination of employment guarantees for university graduates. This reversed a long-standing component of the previous regime's patronage system. The government also took several measures to reduce existing staff levels:

- 1) a large number of public sector enterprises and banks were closed and their employees were removed from the public sector payroll;
- 2) employees of the joint venture mining companies were removed from the public sector payroll (although most were re-employed on a contractual basis);
- 3) civil servants over the age of 55 and those with more than 30 years of service were forced to retire; and
- 4) mandatory skill testing of all civil service employees was instituted, to be followed by release of those found to lack required skills.

Concurrently, the authorities developed three programs to lessen the social and political impact of the proposed reductions. First, the Administrative Reserve Status program (*Disponibilité spéciale*) was instituted in December 1985. The program placed individuals redeployed as part of liquidation or privatization of public sector enterprises on administrative reserve status. This status provided them with six months of base salary after termination of their employment. Under political pressure salary payments were later extended until December 1988. Subsequently, civil servants who failed the skills test were also placed on Administrative Reserve Status. Delays in the confirmation process of test results allowed some of those who did not pass to remain on reserve status and continue to draw civil service salaries for up to two years after the initial December 1988 deadline.

Second, as a complement to the forced departure of persons from closed enterprises or of persons who failed skills tests, a Voluntary Departure program was created to encourage civil servants to leave the employment of the state. Under this program, incentives for departure were provided of between 500,000 FG and 1,000,000 FG paid over 30 months. This was roughly equivalent to US\$ 1,130 to US\$ 2,257 at the 1987 parallel exchange rate, or the return to about 5 years of schooling. The deadline for enrollment in the voluntary departure program was December 1988 and those who opted to take the civil service skills test, regardless of whether the outcome was favorable or not, forfeited their eligibility for the program. Individuals participating in the Voluntary Departure program were also eligible to receive private enterprise development loans and training from the *Bureau d'aide à la reconversion des agents de la fonction publique* (BARAF). This initiative was intended to facilitate the transition of redeployed workers into the nascent private sector.

THE GLOBAL RESULTS OF THE REDEPLOYMENT PROGRAM

Between 1985 and 1990, the government privatized or liquidated over 70 percent of state enterprises and removed their employees from state payrolls. At the same time, employment within the public sector was reportedly cut by 27 percent. To verify the effectiveness of these efforts to reduce the size of the public sector, a second census of public sector employees was undertaken at the end of 1989. This census found that 32,639 workers had been taken off the public sector payrolls since 1985. Table 10 shows the number of departees, by sector and departure program, for the period. Departures of ministry civil service staff accounted for a little over half of all reductions and redeployments from state banks, parastatals, and mining companies accounted for the remaining departures. Over the same period, the size of the military actually increased in number from 12,700 to 15,000 persons. Clearly, in terms of exceeding its target of removing 25,000 persons from the public sector the census statistics suggested the redeployment program was a major success. However, as we shall see, this success was tempered by questions about the reliability of payroll information and the commitment of the government to pursuing more far-reaching institutional reforms in the wake of these initial gains.

Table 10 – Total Public Sector Redeployment between 1985 and 1989, by Sector and Reason for Departure

	Mining Companies	State Banks	Public Enterprise	Ministry Staff	Military	Indeterminate	Total
	Number of workers						
Staff at end of 1985	6,517	4,394	6,200	70,989	12,700	2,000	102,800
Reason for departure							
Retirements		-610		-4,090			-4,700
Early retirements		-380		-6,146			-6,526
Voluntary departures		-2,391	-5,985	-1,744			-10,120
Removed from administrative reserves				-4,245			-4,245
Reemployed on contract	-5,617						-5,617
Staff to be retrained				-4,061			-4,061
Recruitments				1,330	2,300		3,630
Staff at end of 1989	900	1,013	215	52,033	15,000	2,000	71,161

Source: World Bank, 1990, p. 24.

Compensation programs also appear to have effectively targeted the majority of redeployees. Of the 32,639 departures, 10,120 departed under the voluntary departure program; 4,700 retired; 6,526 retired early; and 4,245 were removed from Administrative Reserve status. All these persons were entitled to receive financial compensation and/or retirement benefits and, as will be discussed below, most did receive some form of compensation. Further, many of the 5,617 mining sector civil servants who were removed from the civil service rolls were rehired on a contractual basis.

At the same time, more long-term institutional reform measures quickly eroded the budgetary savings from employment reductions. The most important of these were the rapid wage increases among remaining civil servants. Between 1985 and 1986, indications are that the base salary increased more than threefold,¹⁶ and between 1986 and 1990 real government wages increased by 150 percent (Table 11). Wages as a percentage of total public expenditures followed a similar pattern. In the early period of the redeployment program (between 1986 and 1987), wages as a percentage of total public expenditures dropped from 12.8 percent to 10.4 percent. However, this trend was soon turned, as wages as a share of total spending rose to 17.5 percent in 1989, and then an estimated high of 22.1 percent in 1992 as a direct result of continuing real wage increases. Thus, the fiscal savings of the layoffs were overwhelmed by the imperative of improving the conditions of service in the sector over the longer term.

While the reform program was able to exceed targets in terms of the number of workers to depart the civil service, several administrative problems mitigated its success. Few individuals reported actually volunteering for the "voluntary" departure program. Indeed, most claimed they were chosen by their supervisors. Further, program benefits were poorly understood and most departees believed they would receive much more compensation than they actually did. The mandatory testing program was also unequally implemented across ministries, with the Ministry of Education and Health for the most part being exempted. Problems such as the design of function-specific tests and the frequent re-organization of ministries hampered the progress. In addition, while about 23,000 civil servants were tested between 1986 and 1990, some of those failing the test were never officially notified and continued to work in the civil service. Each of these problems leads us to wonder whether the program was as impartial as it was on paper.¹⁷ Finally, only 3.2 percent of those leaving the public sector through the voluntary departure program actually secured loans or training from BARAF. No training or employment assistance was provided to the 96.8 percent of voluntary departees who did not secure loans or the larger population of redeployees.

¹⁶ The fact that some in-kind payments were eliminated suggests that the increase in the real value of compensation was much less.

¹⁷ We have, nonetheless, no evidence to suggest that the deviations were systematic.

Table 11 — Government Expenditure and Wage Statistics for 1980 to 1992

Year	Wages as % of Total Public Expenditures	Recurrent % of Total Public Expenditures	Index of Real Government Wage (1986=100)	Compression Ratio (Pre-tax)	Real GDP per Capita (1985=100)
1980 (Estimated)	39.9	76.7	—	—	100
1986	12.8	58.9	100	4	104
1987	10.4	58.2	93	—	105
1988	16.5	55.3	172	—	108
1989	17.5	54.0	212	4	109
1990	17.1	50.1	252	—	111
1991	20.0	54.4	—	—	—
1992 (Estimated)	22.1	50.6	—	—	—

Sources: 1980 - 1986, UNDP and The World Bank (1992), p. 52.
 1987 - 1992, IMF (1993), p. 18 and 108.
 Real government wage figures, World Bank (1990), p. 25.
 Mills and Sahn (forthcoming).

Note: "—" is not available.

* Not available, but nominal base salaries increased 145 percent.

At the same time that it reduced staffing levels, the government took a number of other actions to improve the efficiency of the sector in the area of accountability and resource use through the newly created Ministry of Reform and Civil Service (MRAFP). Furthermore, the evidence indicates that redeployment efforts had a substantial impact on the average skill levels of public sector employees since those who remained on the payroll were better educated than departees, as were the new recruits that joined the ranks of the civil service during and subsequent to the redeployment program's implementation.

Despite these accomplishments there is a common perception that this second wave of civil service reforms lost momentum and even eroded after 1988. Perhaps most importantly, transparency and accuracy in payroll and personnel information proved difficult to establish and maintain despite two public sector censuses in four years. A verification exercise in Conakry in 1987 suggested 5 percent of payroll records were improper and a second public sector census in 1989-1990 showed further erosion in the accuracy of payroll information. Correspondingly, CFNPP survey results suggest that official government statistics (see Table 10) significantly overstate the effects of the redeployment program on public employment (Mills and Sahn 1993). In fact, these recruits may have eroded advertised staff reductions by upwards of 50 percent. Under pressure from the World Bank and the International Monetary Fund (IMF), outside technical assistance was provided to overhaul and computerize the civil servant roster and payroll system. Yet, progress in establishing a clear system of accounting for public sector workers continues to move slowly.

Adoption and implementation of systems of improved accountability have also met with stiff resistance, since many civil servants benefit from the current status quo. Overall, there is still little empirical basis for arguing whether or not the efficiency of the public sector has increased. Institutional relationships do not change with policy pronouncements, but with the institution of the proper incentive structure. The redeployment program was only a first step in establishing this type of incentive structure. In a country like Guinea, where during the First Republic a number of institutional mechanisms developed to promote rent-seeking behavior, particularly, centralized decision making, poor monitoring and control of resources, and cumbersome bureaucratic rules inhibited the transparency of actions, a large portion of civil servants who benefit by perpetuating the status quo can be expected to oppose reform efforts. Currently, it is unclear if the government has the political strength to confront these groups.

IMPACT OF REDEPLOYMENT ON REDEPLOYEES¹⁸

Survey results of individuals living in Conakry, the capital, who left the public sector between 1985 and 1988 indicate that public sector departees were

¹⁸ This section draws on Mills and Sahn (1993), which readers may consult for a description of the CFNPP survey and a more detailed overview of its results.

less likely to re-enter the private labor market in Guinea than in Ghana. Further, for those who did find another job, the duration of the job search was quite long. Table 12 shows that 81.7 percent of individuals leaving the public sector during the 1985-1988 period experienced a spell without work.¹⁹ As of 1992, 4 to 7 years after leaving the public sector (depending on the date of departure), just over one-third of the redeployees, and nearly one-half of the retirees, were still not working. Equally striking is the fact that, of those not working, 43.9 percent overall and 58.3 percent of redeployees were still actively seeking work in 1992. Clearly, involuntary unemployment among former public sector workers remains a problem. In 1992 their overall unemployment rate was 21 percent. This rate is higher than the overall unemployment rate for Conakry of 12 percent despite the fact that the majority of departees reside in age and gender cohorts with the lowest rates of unemployment (Glick, Sahn, and del Ninno 1992).

Unlike Ghana, 69 percent of public sector departees between 1985 and 1988 who found another position re-entered the wage sector, with the remaining 31 percent undertaking self-employment.²⁰ This is unexpected since only 49.5 percent of persons in Conakry are engaged as wage workers, and most employment created during the past few years has been in the informal, nonwage sector. The long duration of unemployment, coupled with the low share of redeployees entering into the rapidly expanding informal and self-employment sector, suggests that public sector workers are willing to wait for other wage sector opportunities. Possible reasons for this queuing include perceived low returns to, and high risks of, self-employment. In addition, there are also indications that the severance pay retarded the rate of labor market re-absorption (Mills and Sahn 1993). This suggests that policymakers should focus their efforts on identifying opportunities for, and removing barriers to, entering the nonwage sector if they wish to lower the unemployment rate among redeployees. However, the BARAF was an example of such a potential intervention and its failures suggest the institutional capacity of the government to implement sophisticated loan and retraining programs also need to be taken into account.

In terms of the impact of the redeployment program on workers and their households, the results are mixed. A comparison between the current earnings of the redeployees who re-entered the labor market with their earnings at the time of departure from the civil services indicates that nearly two-thirds of departees who found other work in the wage sector had higher earnings in 1992 than at the time of their departure from the public sector, and the same is true for around half of those redeployees who became self-employed (Table 13). Thus, those who have found work since redeployment do not appear to have suffered a loss of income. But earnings of the approximately one-third of the persons who

¹⁹ The figure was slightly higher for persons who were retirees than redeployees.

²⁰ Self-employment figures may be in part lower, due to lack of farming opportunities.

Table 12 – Duration of Spell Without Work upon Leaving the Public Sector, by Reason and Period of Departure

	Period of Departure							
	1979-1984				1985-1988			
	Retirees	Redeployees	Found Other	All	Retirees	Redeployees	Found Other	All
	Percentages							
Duration without work								
≤ 1 month (i.e., no spell)	8.0	31.6	100.0	22.0	11.4	15.9	100.0	18.3
> 1 month to 1 year	4.0	10.5	0.0	6.0	8.6	8.7	0.0	8.3
1 to 2 years	12.0	5.3	0.0	8.0	17.1	11.6	0.0	12.8
2 to 4 years	4.0	10.5	0.0	8.0	11.4	15.9	0.0	13.8
4 to 6 years	8.0	10.5	0.0	10.0	0.0	13.0	0.0	8.3
6 to 8 years	4.0	10.5	0.0	8.0	2.9	0.0	0.0	0.9
> 8 years	0.0	10.5	0.0	4.0	-	-	-	-
% not re-entering work force by 1992*	60.0	10.5	0.0	34.0	48.6	34.8	0.0	37.6
Total	100	100	100	100	100	100	100	100
Number of individuals*	N = 25	N = 19	N = 2	N = 50	N = 35	N = 69	N = 5	N = 109

Source: Mills and Sahn (1993).

Notes: Figures in bold are biased by the truncation of the sample period in 1992; "-" means not applicable.

* In the 1979-1984 period, four individuals listing 'other reasons' for leaving the public sector are included in the "All" sample.

Table 13 — A Comparison of Individuals' Real 1992 Private Sector Earnings with Their Public Sector Earnings at the Time They Left the Public Sector

	Sector	
	Wage Workers	Non-wage Workers
Average % change in salary	118	102
% of individuals with increased earnings	63	48
Distribution of percentage change in earnings		
> 90	365	452
75 - 90	166	159
50 - 75	51	-29
25 - 50	-35	-62
10 - 25	-64	-77
Number of individuals	N = 46	N = 21

Source: Mills and Sahn (forthcoming).

Notes: See Arulpragasam and Sahn for deflators used.

are not working, including those searching and not searching, are zero, and thus are clearly lower since leaving the employ of the state. But given that more than half of these nonworkers are not searching for a job, we should not assume that they would have still been employed as civil service workers in the absence of the redeployment program.

Of course, making comparisons of an individual's wage earnings before and after redeployment tells only part of the story concerning how household welfare has changed. Unfortunately, our survey does not allow us to compute broader indicators of welfare (e.g., consumption) before and after redeployment. We can, however, address two other questions: How does the welfare of households with redeployees compare with the general population at large? And is there a difference in the welfare of households where the redeployee has found another job, and where the redeployee is not working?

The first row of Table 14 shows that in 1990, 33.1 percent of the individuals who continued to work in the public sector (i.e., nonredeployees, nonretirees, and new recruits) were from households that fell in the lowest two consumption quintiles.²¹ By contrast, 49.1 percent of the individuals who had left public sector positions between 1979 and 1990 were in the lower two quintiles. Individuals leaving the public sector due to retirement were particularly vulnerable, with 54.6 percent falling into the lowest two consumption quintiles.

The employment transition of individuals appears to be far more important than their reason for leaving the public sector in determining the probability of the household falling in the lower per capita consumption quintiles. Among redeployees who successfully transitioned into a private sector position, 42.5 percent resided in households in the lower two consumption quintiles as compared to 55.3 percent for redeployees who did not subsequently find work. Similarly, among retirees who found other positions in the private sector, 46.2 percent who were from households in the lower two consumption quintiles versus 60.0 percent of retirees who remained unemployed.

However, Mills and Sahn (1993) report the results of a household welfare function (where welfare is measured by per capita expenditures), showing that having been redeployed does not lower household welfare after controlling for the human capital endowment and demographic makeup of the household. Thus, the results in Table 14 may simply reflect the fact that low-skill workers were more likely to be redeployed. While the analysis cannot indicate whether the low economic status of households with redeployees is a function of their job loss, it does indicate that the ability to find other employment appears to be the major determinant of the welfare of redeployees' households. The two-thirds of persons who searched for, and were able to find other employment appear to be, on average, at least as well off as before redeployment, as measured in terms of

²¹ The distribution of household per capita consumption by quintile for the general populations is, by definition, 20 percent for each quintile group.

Table 14 — Household Consumption Quintiles in 1990 by Reason for Leaving the Public Sector and 1990 Employment Status

	Bottom 30%	Quintile					Total	Number of Individuals
		Lowest	2nd	Middle	4th	Highest		
		Percent						
Total 1990 Public Sector	23.5	14.7	18.4	17.9	25.8	25.8	100	694
Total leaving Public Sector between 1979 and 1990	37.1	25.7	23.4	17.7	16.0	17.1	100	175
By reason:								
Retrenchment	35.1	25.5	23.4	17.0	16.0	18.09	100	94
• Not working	38.3	34.0	21.3	14.9	14.9	14.9	100	47
• Working	31.9	17.0	25.5	19.2	17.0	21.3	100	47
Retirement	43.9	28.8	25.8	19.7	13.6	12.1	100	66
• Not working	50.0	37.5	22.5	20.0	12.5	7.5	100	40
• Working	34.6	15.4	30.8	19.2	15.4	19.2	100	26
Found other work	9.1	9.1	9.1	18.2	27.3	36.4	100	11

Source: Mills and Sahn (forthcoming).

both the individual's earnings and the household's welfare. By contrast, the inability to find other work has translated into costly transitions.

PROGRAMS TO COMPENSATE REDEPLOYEES

There are two primary forms of compensation for workers leaving the public sector: pensions and severance pay. Pension schemes have been in place since before the Second Republic and all public sector workers over 55 years of age or with over 30 years of public service are eligible. As discussed previously, severance pay programs were instituted after 1985 as part of the redeployment program and sought both to induce the voluntary departure of public sector workers and provide redeployees with continued salary payments for short periods under the Administrative Reserve Program. The BARAF program, as discussed, was supposed to provide loans and training to voluntary departees; however, only 3.2 percent of voluntary departees ever secured loans and even fewer received training.

The effectiveness of targeting is clearly shown in Table 15 where compensation from last public sector position is examined by reasons for leaving the position. Retirees appear to be effectively targeted by pensions plans: 87.8 percent received pensions and relatively few, 8.1 percent, received severance benefits.²² By contrast, redeployees compensation comes primarily from severance pay, 63.0 percent, with only 9.4 percent receiving pensions and 34.0 percent receiving no compensation.

Unlike Ghana, compensation appears to have had little impact on employment creation or enterprise development. Mills and Sahn (1993) find that severance payments actually had a negative impact on the probability that a redeployee would take other employment. The median compensation payment was 700,000 FG and this money was primarily used for consumption although, averaging across households, 29.4 percent was allocated for investment in income generating activities. However, the positive and significant parameter estimate of the compensation variable in the model in Table 16 indicates that a higher percentage of compensation was allocated to investment at higher total compensation levels, suggesting that at high levels of compensation individuals become more willing to invest. Since payments were dispersed over a 30-month period, the results also suggest that one lump sum payment may have been more effective in stimulating investment in income-generating activities.

²² Compensation percentages do not sum to 100 percent since some individuals received more than one form of compensation.

Table 15 – Guinea: Compensation for Leaving the Public Sector, by Reason of Departure and 1992 Employment Status

	Compensation Type				Total	Number of Individuals
	Pension	Severance Pay	Pension and Severance Pay	Nothing		
	(Percent)					
All	33.7	33.2	3.7	29.5	100.0	190
Retirees	82.4	2.7	5.4	9.5	100.0	74
- Not working	79.1	4.7	4.7	11.6	100.0	43
- Working	87.1	0.0	6.5	6.5	100.0	31
Redeployees	3.0	60.0	3.0	34.0	100.0	100
- Not working	2.6	65.8	5.3	26.3	100.0	38
- Working	3.2	56.5	1.6	38.7	100.0	62
Found other work	0.0	14.3	0.0	85.7	100.0	11

Table 16 — Guinea: Estimated Relationship Between Utilization of Redeployees' Compensation and Compensation Size and Recipient's Age and Sex

Dependent Variable: Percent Compensation Invested		
	Parameter Estimate	T-statistic
Independent variables		
Compensation (100,000's FG)	0.850	2.57**
Age (years)	0.001	0.24
Sex (female = 1)	0.051	0.97
Model statistics		
F-ratio	2.98**	
R-square	0.128	
Number of observations	65	

** Significant at the 0.05 level.

4. CONCLUSIONS

ADMINISTRATIVE CONSIDERATIONS

The examples of civil service reform examined here provide several lessons for other African countries that confront similar problems in their public sectors. First and probably most important is a simple administrative point: the government must be able to monitor and control its own hiring and employment for a reform program to work. It makes no sense to dismiss public employees at a cost if the government then turns around and rehires them (or someone in their place). In Ghana, this appears to have happened in the Education Service (where centralized control over hiring and payroll is weak), but not in the civil service proper, which implemented a much stronger control system. In Guinea, the government's inability to maintain a hiring freeze and accurately monitor its payroll cast doubt on whether net reductions in public employment are as large as advertized.

In countries where patronage hiring has been an important part of the public sector it is not easy to establish a strong system of recruitment control. Nevertheless, there are some "technological fixes" that can help reforming governments. Centralized control of the payroll is important to avoid uncontrolled recruiting at the ministry or agency level, and computerized payroll systems can be very helpful. In the Ghanaian civil service, for example, the change from a decentralized payroll in which pay clerks distributed wages in cash to a computerized payroll that issues workers checks from one small office was a critical aspect of the civil service reform. Because payroll records are centralized and easily accessed, it is a simple matter to check changes in the payroll from month to month to be sure that individual spending units are not hiring beyond their limits. Of course, establishing a computerized payroll is not in and of itself a sufficient condition for recruitment control. Guinea also adopted such a system, but was unable to use it effectively to monitor the evolution of the payroll, probably for political reasons. Thus, the agency in charge of recruitment control must be dedicated to enforcing hiring limits and have the support of the highest political authorities.

At the same time that a government establishes effective control of its payroll, it should implement a hiring freeze. Even though the number of redeployees in Ghana and Guinea seems large, only 3 to 5 percent of public sector employees were redeployed in any given year, an amount easily offset by unrestricted hiring. This hiring is particularly expensive since it entails not only the new employees' salaries, but also the eventual cost of redeploying them (or others in their place) if the reform program is to progress in the future. What's more, evidence on turnover rates for public sector employees in Guinea suggests that an effective hiring freeze with no redeployments would have worked almost as well as the redeployment program combined with the actual hiring that occurred.

In both Guinea and Ghana, the government chose to use broad-based layoffs based on a few simple, observable criteria such as job type, tenure, or parastatal firm closings. Some critics have argued that it would have been more sensible to begin the reform programs with job audits, identifying unnecessary posts and laying off those particular employees rather than relying on a rather blunt wholesale approach. In a public sector where the required number of layoffs are few, and the pattern of employment relatively rational, that is a valid point. However, the degree of excess employment throughout the public sectors of both Ghana and Guinea was (and remains) so severe in the lower echelons that wholesale layoffs were unlikely to err in the sense that the public sector's ability to function was hampered by the loss of a particular employee. (Both programs protected more skilled employees from redeployment.) Likewise, the obvious inefficiency of most parastatal enterprises makes their closure a logical policy. In addition, even if a broad-based layoff occasionally redeployes the wrong people, it is easier to subvert a redeployment program based on job audits at lower levels of the civil service. At the same time, the Ghanaian experience has shown that job audits are time consuming exercises that would delay significantly the implementation of public sector layoffs. Even an apparently simple exercise such as the skills tests in Guinea can lead to significant delays while the authorities decide on appropriate tests for different types of positions within the public sector. In the end, the use of generalized layoffs first, with job audits and other more precise measures following only several years later, is probably appropriate.

In sum, the experience in Ghana and Guinea suggests that the proper sequence of hiring and firing is:

- 1) establish effective control over the payroll;
- 2) freeze all new hiring;
- 3) implement a broad-based redeployment program based on a few easily verifiable criteria (for public sectors with serious overstaffing problems); and
- 4) only then continue with agency-specific job audits to identify remaining excess labor.

BUDGETARY SAVINGS

For fiscal policy, the impact of redeployment programs is not dramatic in the short run. In fact, the costs of severance pay generally outweigh the savings in wages for the first few years of a program, so the net impact on the budget is negative. Nevertheless, the internal rate of return to the government is greater than 60 percent in Ghana, so over several years, the government is likely to realize significant savings. Thus, retrenchment makes sense

financially as long as severance payments are not exorbitant, but the payoff is small and perhaps negative in the early years of a program.²³

Another point that is clear in Ghana, Guinea, and many other African countries is that the government cannot pay appropriate salaries to public sector employees without incurring untenable fiscal deficits. To the extent that poor salaries affect the work effort and moral rectitude with which public sector employees carry out their duties, increasing them is important for the restoration of an efficient public sector. In turn, fiscal responsibility requires that staffing levels decline before salaries increase. Thus, redeployment of public sector workers is a key component of any effort to improve the efficiency of the public sector in Africa.

SOCIOECONOMIC IMPACT ON REDEPLOYEES

Our results on the social costs of redeployment are mixed. With the exception of farmers in Ghana, former civil servants who have found work appear to have earnings which are comparable to the population at large and not greatly different than their earnings while they were employed in the public sector. Similarly, these redeployees' families have incomes (in Ghana) and expenditures (in Guinea) that are similar to the population at large. Of course, both of these countries suffer widespread poverty, so many redeployee households are surely poor. But there does not appear to be any social welfare argument for targeting anti-poverty programs at redeployees as an especially hard-pressed class.²⁴

At the same time, the large number of unemployed former public sector workers in Guinea and underemployed (in farming) redeployees in Ghana suggests that the transition from public sector employment to productive private sector activity is not necessarily smooth. Because these redeployees suffer very low earnings and household incomes, there is special cause for concern about poverty among redeployees who do not successfully re-enter the labor market. To date, neither government has developed an effective program to help them find or develop productive work. In fact, the history of special programs to compensate redeployees is bleak, in these two countries and others as well. Administrative capacity is almost by definition poor in countries that need civil service reform. In Ghana, special projects to aid the redeployees were very slow to

²³ For example, if wages are 40 percent of the overall budget and 4 percent of public sector workers are laid off per year, the savings on wages in the first year are only 1.6 percent of expenditures if a representative group of civil servants are laid off. Recognizing that it is much more likely (and appropriate) to lay off unskilled employees, the savings are likely to be much less. Nevertheless, the annual savings accumulate so that they can become appreciable in a few years. See Table 4 for an example from Ghana.

²⁴ There may be, however, political considerations that lead a government to establish special programs for redeployees.

develop. In Guinea, they never did. What's more, generating a new bureaucracy to administer such projects runs counter to the spirit of redeployment. Special credit schemes such as the BARAF in Guinea are often poorly administered and have repayment rates that are so low that the loans end up looking much more like additional severance pay than bona fide loans.²⁵ Further, such transfers are made in a much less objective and equitable fashion than the actual severance pay.

In the end, it may be best to stick to simple severance programs. They are easy to administer and in the case of Ghana, there is evidence that many redeployees used a significant part of their severance pay for investment purposes and self-employment generation. In Guinea, use of redeployment benefits for consumption was much higher, but the government could have increased the investment rate out of severance pay by paying it out in one (large) lump-sum rather than 30 monthly installments.

One factor which greatly increased the probability of a smooth transition from the civil service in Ghana is "moonlighting" or "daylighting" before redeployment. Civil servants who had a second job while in the civil service usually had no spell of unemployment because they simply moved into that job as their main work. To the extent that these jobs involved "daylighting" — i.e. working at the second job during hours in which one should be working in the civil service — an effective technique for selecting those civil servants for redeployment may be to simply insist that civil servants show up at work for a full 8 hours. This, combined with some incentive to leave such as severance pay, may encourage civil servants with second jobs to volunteer for redeployment. As we have seen, these are precisely the public employees who are least likely to suffer social costs of redeployment.

POLITICAL CONSIDERATIONS

In many respects, the political circumstances in Ghana and Guinea were similar at the time the redeployment programs began. Both countries had military governments that had recently come to power. Both had suffered precipitous economic declines under previous governments. Further, both public sectors suffered from extremely low pay and morale, and did not perform even the basic functions of government well, if at all. These conditions, while unenviable, are propitious for public sector reform. Low pay meant that the cost of a job loss to a public sector employee was lower in Ghana and Guinea than it would be in other countries where civil servants are a relatively well-paid and privileged class. Lower cost, in turn, lessens an employee's interest in mounting or supporting political opposition to the reforms. On the other side, the fact that neither government was subject to the oversight of a parliament or the approval of the electorate reduced the likely effectiveness of any political opposition.

²⁵ See Kingsbury (1992a, 1992b) for reviews of special compensation programs in other African countries.

In addition, the general economic collapse left each country desperate for foreign assistance, and the donors conditioned that assistance on public sector reform in both. It would be wrong to suppose that the donors imposed reform on unwilling governments or populations, though. Both the government and public employees themselves in Ghana and Guinea recognized the absurdity of the situation in the public sector, even if they feared tackling the problem. Civil servants also recognized, at least in private, that their salaries could not rise to reasonable levels until their numbers fell. In these circumstances, the donors' prodding for reform appears to have encouraged governments to take measures which they recognized as important but nonetheless feared.

It seems to us useful to consider two political hurdles that a redeployment program must pass to succeed. The first is the general opposition from civil servants that will accompany the announcement of a program. Even though only a small to moderate proportion of all public sector employees will be retrenched *ex post*, the *ex ante* possibility of losing their jobs will cause most civil servants to oppose the program. In both Ghana and Guinea, the government cleared this hurdle by offering more benefits than it delivered in the end. The public relations campaign in Ghana was particularly effective, emphasizing the (undeniable) need for retrenchment on the one hand and an emphasis on retraining and redeployment benefits on the other. These promises were not necessarily disingenuous: many members of the government apparently thought that they should deliver such services. But either for fiscal or administrative reasons, they did not. The proposals did, however, help to assuage civil servants initial fears.

The second political hurdle is to avoid the wrath of the civil servants who actually are retrenched. Here it is important to note that each government, even if it did not deliver all that it promised, did deliver. Severance payments were generally prompt²⁶ and the government allowed employees to stay at their posts until their benefits were paid. Severance pay was also reasonably generous while still satisfying the demands of tight fiscal policy. Just as relatively low civil service salaries minimize the political fallout from redeployment by reducing the cost of layoff, high severance pay increases the viability of redeployment. Of course, paying severance that is generous relative to lost earnings is more expensive in countries where civil service salaries are high, so programs in such countries will have to proceed more slowly if fiscal constraints are a problem.

Finally, the vast majority of involuntary redeployees in both countries came from the lower echelons of the civil service and were therefore the least likely to wield significant political power. This was probably not done for reasons of political expedience — those same lower ranks are the ones where overstaffing is most severe — but it did help minimize organized opposition after the retrenchments began.

²⁶ The exceptions to this include late payments to redeployees in Ghana in 1987. This was behind most of the bitterness we observed among redeployees in that country.

In the end, neither government faced serious political problems with the redeployments, although we must also recognize that each backed off certain controversial parts of its original program. In both countries, the general rules for redeployment were not enforced equally across the public sector. In Ghana, some offices managed to avoid having their employees redeployed and public enterprises remained outside the program. In Guinea, many civil servants avoided the skills tests. Such exceptions may be politically practical in the short-term as a means of avoiding conflicts with powerful entities within the public sector, but they also have a long-run cost because they diminish the credibility of the overall program. Fortunately, the pattern of exceptions was not such as to encourage a mobilization of larger political interests against the program in either country.²⁷

It is also true that the program in Guinea did not persist past the stage of broad-based layoffs and, in general, appears to have lost momentum. Rehiring also appear to have been more common than in Ghana. After making the easiest layoffs of poorly paid, lower echelon workers, the government has not had the political strength to continue. The Ghanaians, on the other hand, have carried on with the program. There seem to be several possible explanations for this difference. First, redeployees in Ghana have had much shorter periods of unemployment following their layoff, suggesting that their cost of redeployment was lower than that of the Guineans. In addition, the authorities in Ghana played their cards better on salaries. Both governments used the argument that layoffs were necessary to allow increased public sector salaries (because the wage bill could not increase), but the Ghanaians made better use of it. Public sector salaries were increased substantially soon after the redeployment exercise began in Guinea, a move that both reduced the government's leverage for further layoffs and also increased opposition because civil servants would now lose a larger salary (while severance benefits remained tied to pre-increase salary levels). In Ghana, the government was much more conservative, arguing that a small layoff (3 percent per year) did not justify a large salary increase in the short run. The public relations effort on this point was so successful that it is quite common for civil servants to understand and agree with the notion that salary increases must be tied to further reductions in public sector payrolls.

²⁷ In other West African countries, redeployments directed at specific ethnic groups or political parties quickly failed because of the political opposition they generated (see Kingsbury 1992a).

REFERENCES

- Alderman, Harold, Sudharshan Canagarajah, and Stephen D. Younger. 1993. *Consequences of Permanent Lay-off from the Civil Service: Results from a Survey of Retrenched Workers in Ghana*. Working Paper No. 35. Ithaca, NY: Cornell Food and Nutrition Policy Program.
- Alderman, Harold, and Paul Higgins. 1992. *Food and Nutritional Adequacy in Ghana*. Working Paper No. 27. Ithaca, NY: Cornell Food and Nutrition Policy Program.
- Boasa Ltd. 1990. "Evaluation of Ghana Government Redeployment Programme." Report to the Ministry of Mobilization and Social Welfare.
- Boateng, E. Oti, Kodwo Ewusi, Ravi Kanbur, and Andrew McKay. 1989. *A Poverty Profile for Ghana*. Social Dimensions of Adjustment Working Paper 5. Washington, DC: The World Bank.
- de Merode, Louis. 1992. "Implementing Civil Service Pay and Employment Reform in Africa: The Experiences of Ghana, the Gambia, and Guinea." Draft.
- Government of Ghana. 1990. *Labour Redeployment Programme: Achievements, Problems, and Prospects*. Report issued by the Labour Redeployment Programme's Management Committee.
- _____. Various years. *Quarterly Digest of Statistics*.
- Glick, Peter, David E. Sahn, and Carlo del Ninno. 1992. *Labor Markets and Time Allocation in Conakry*. Ithaca, NY: Cornell Food and Nutrition Policy Program.
- Gregory, Peter. 1993. "Diagnosis with Limited Information: Government Pay and Employment Reform in Somalia." In *Rehabilitating Government: Pay and Employment Reform in Developing Economies*. David Lindauer and Barbara Nunberg, eds. Forthcoming.
- _____. 1992. "Ghana: Dealing with Redundancies in Government Employment." Draft.
- International Monetary Fund. 1993. *Recent Economic Developments*. Washington, DC: IMF.
- International Monetary Fund. 1992. *Staff Report for the 1991 Article IV Consultation and Request for Arrangements under the Enhanced Structural Adjustment Facility: Guinea*. Washington, DC: IMF.

- _____. 1991. *Staff Report for the 1991 Article IV Consultation and Request for Arrangements under the Enhanced Structural Adjustment Facility: Guinea*. Washington, DC: IMF.
- _____. Various years. *Government Finance Statistics Yearbook*. Washington, DC: IMF.
- Kingsbury, David S. 1992a. "Compensatory Social Programs and Structural Adjustment: A Review of Experience." Bethesda, MD: Development Alternatives, Inc.
- _____. 1992b. "Programs for Mitigating Adverse Social Impacts During Adjustment: The A.I.D. Experience." Bethesda, MD: Development Alternatives, Inc.
- Mills, Bradford F., and David E. Sahn. Forthcoming. "Reducing the Size of the Public Sector Workforce: Institutional Constraints and Human Consequences in Guinea." *Journal of Development Studies*. 31(4): 505-528.
- Mills, Bradford, and David Sahn. 1993. *Is There Life After Public Service: The Fate of Retrenched Workers in Conakry, Guinea*. Working Paper No. 42. Ithaca, NY: Cornell Food and Nutrition Policy Program.
- United Nations Development Programme and The World Bank. 1992. *African Development Indicators*. New York: UNDP, and Washington, DC: The World Bank.
- _____. 1990. *Republic of Guinea Country Economic Memorandum; Volume I: Main Report: The Guinean Economy*. Washington, DC: The World Bank.
- _____. 1989a. *Ghana: Public Expenditure Review, 1989-1991*. Report No. 7673-GH. Washington, DC: The World Bank.
- _____. 1989b. *Ghana: Structural Adjustment for Growth*. Report No. 7515-GH. Washington, DC: The World Bank.
- _____. 1985. *Ghana: Towards Structural Adjustment*. Report No. 5854-GH. Washington, DC: The World Bank.

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