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Article in *Globalisation Societies and Education* · April 2006

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The impact of international teacher migration on schooling in developing countries—the case of Southern Africa

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Whilst the migration of teachers has been a phenomenon for hundreds of years, the advent of ‘globalisation’ has seen such migration return to prominence. This article focuses on the experiences of two developing countries in Southern Africa which have been on different ends of the process: South Africa as a net sender of teachers and Botswana as a net receiver of teachers. In comparing these two country experiences it is possible to highlight the complexity and impact of teacher mobility in developing countries. The authors argue that, in both cases, there are signs that international teacher mobility may have been a temporary issue as local markets in both countries have adjusted to meet the new demand. A possible conclusion is that the significance of international teacher mobility for developing country education systems lies less in its quantitative effects in terms of numbers of trained teachers and more in its qualitative effects in terms of the kind of teachers that move.

Introduction

Although there has been international movement of educators for at least as long ago as when the ancient Greeks first tutored the Romans, the advent of ‘globalisation’ in the 1990s has seen such migration return to prominence. Some countries that have seen net losses of educators have expressed concerns, for example leading to the adoption of a protocol on teacher recruitment by the Commonwealth in September 2004 (see Morgan *et al.*, 2005). In part, the concerns are financial: teacher training is often heavily subsidised, so governments are aggrieved to be paying to train people who subsequently teach in other countries. However, in this article we focus on a second concern—the fear that international teacher mobility will leave developing countries with insufficient personnel to run their own education systems. If true, this would

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provide an additional mechanism whereby international recruitment of teachers acts as a 'brain drain'—not only would sending countries directly lose skilled personnel through emigration, shortages in the education sector would impair the transfer of skills to their next generation of citizens.

In this article, we examine the impact of international teacher mobility on the education systems of two neighbouring developing countries, South Africa and Botswana. The issue of international migration—and the possible phenomenon of 'brain drain'—has stimulated recent research on southern Africa (see McDonald & Crush, 2002, for a useful collection of papers). It is estimated that South Africa in particular lost 310,000 of its citizens to emigration between 1987 and 2001, with 50,000 being professionals (Crush, 2002). However, while there has been particular interest in the migration of health professionals, there has been less work on the impact on other sectors. Nonetheless, for both South Africa and Botswana, the international movement of educators is an important policy issue. South Africa has been a net sender of educators and has been at the forefront of protest about international teacher mobility. It therefore provides an important case where one might expect *prima facie* to find negative impacts of international teacher mobility on local schools. Botswana is interesting in that it is a developing country that is a net receiver of educators from abroad. It thus provides a possible counterweight to the South African case, by potentially being an instance of where international teacher recruitment has assisted the educational system of a developing country. Even so, it is notable that, at the time of writing, the government of Botswana is attempting to reduce its reliance on expatriate teachers, with a programme of non-renewal of their contracts. The focus of this article is on the extent to which international teacher mobility has helped or hindered the school systems in the two countries. In so doing, we show that the situation in both countries is more complex and nuanced than official discourse allows.

Our analysis is essentially a 'micro' level one, centring on individual schools and drawing on visits made during fieldwork in 2004. Presenting a more 'macro' picture is problematic, since national data on the issue are lacking for South Africa, at least. Furthermore, our samples of schools are relatively small and do not allow the testing of generalisations at the provincial or national levels. However, by looking at particular schools' experiences of international migration, we are able to find insights into the process and propose hypotheses about its likely effects. The article is structured as follows. The next section presents the context, reporting salient features of the education systems in the two countries—particularly as they relate to the likely impact of international teacher mobility. The following section explains the nature of fieldwork in schools conducted for this study. Substantive results from these school visits are given in the next two sections, reporting on South Africa and Botswana respectively. This is followed by a concluding section.

The context

As neighbouring countries, South Africa and Botswana invite comparison. Not only do they share some geographic similarities, they are also at similar levels of

socio-economic development. South Africa is the most economically advanced sub-Saharan economy, but Botswana's 'growth miracle' has meant that it is now approaching its neighbour in terms of income. Using purchasing power parity-adjusted dollars, gross domestic product per capita in Botswana was put at \$8170 in 2002 compared to \$10,070 in South Africa (United Nations Development Programme, 2004). The combined educational enrolment ratio (primary, secondary and tertiary) is estimated to be 70% in Botswana and 77% in South Africa. Both countries have been severely hit by the HIV/Aids epidemic, with life expectancy at birth falling to 41 years in Botswana and 49 years in South Africa. However, there are salient differences between the two countries. Botswana is ethnically fairly homogenous whereas South Africa has great racial diversity. Botswana has a relatively stable recent political history, being one of the few long-lasting African democracies to emerge from de-colonisation, whereas South Africa has had barely a decade of majority rule since the end of the apartheid regime. There is also a difference in scale—South Africa has a large population of 44 million whereas Botswana is small with only 1.7 million inhabitants (both figures from 2001 censuses). These differences are sufficient to warrant considering the two countries separately in turn.

South Africa

Concern over the international recruitment of teachers in South Africa came to prominence in 2001 when the then Education Minister, Kadar Asmal, accused British recruiters of 'raiding' the country's resources. In part, this recruitment was objected to because, due to the heavy state subsidies of teacher education, it implied that South Africa would be funding the training of teachers who serve in other countries. However, the focus of this article is on a second concern: that international recruitment would leave South Africa with insufficient teachers to staff its own education system. At first glance, this second argument seems paradoxical given South Africa's exceptionally high unemployment rate. The unemployment rate in South Africa is one of the highest in the world, estimated at 30–40% (depending on the definition), and has been this high for over a decade, with no sign of abating (Kingdon & Knight, 2001). This apparent surplus of labour would seem to imply that South Africa could gain from the possibility of international movement of labour. Nonetheless, high unemployment in general does not necessarily imply a surplus of teachers in particular. To examine this issue, we need to look more specifically at the supply and demand for teachers in South Africa.¹

The government has a central role in the market for teachers in South Africa. Most schools are run by the government, with private schools tending to cater only for the more affluent. Consequently, the demand for teachers is determined in large measure by the government and has been subject to fiscal constraints as the post-apartheid administration has endeavoured to restrain government expenditure in the face of numerous political pressures. The great inequalities in public spending on education in the apartheid period have posed a particular challenge. White schools had much

lower teacher–pupil ratios than other schools, especially those for Africans. The post-apartheid government has responded to this by setting a uniform target teacher–student ratio (referred to as the ‘Post Provisioning Norm’ or PPN) for all schools and each year funding sufficient teachers in state schools to ensure that target is reached. This policy would risk driving previously privileged parents out of the state sector, so school governing bodies have been given the power to use fee income and other locally raised funds to employ staff (termed School Governing Body Teachers) in addition to those paid by the Ministry of Education.² The South African government also plays a major role in the supply of teachers: teacher training is provided by public sector institutions and is heavily subsidised by the state.

The South African government has sought to actively manage the supply of teachers to meet local demand. During the second half of the 1990s, the official perception was that there was an oversupply of teachers. The Hofmeyr audit of teacher training in 1994 estimated that 25,000 new teachers were being trained each year and judged that this was excessive, partly due to a decline in student numbers.³ As a consequence of this assessment, a moratorium on the employment of new teachers by the Ministry of Education was introduced in 1997. Until 2000, newly qualified teachers could only obtain temporary posts within the state sector. Furthermore, severance packages were introduced to encourage the exit of some teachers from the system. The number of teachers that the Ministry would continue to fund was set according to the PPN. Where schools had excess teachers, those who left the system were often those nearest to retirement age as they were the most willing to leave.

It is in this context of officially perceived oversupply in the late 1990s that the international recruitment of teachers from South Africa should be understood. With a moratorium on the employment of new teachers and numbers of experienced teachers taking early retirement, South Africa was an attractive location for agencies to find recruits willing to teach in the UK or other countries.⁴ Moreover, with an apparent oversupply of teachers locally, it seems hard to argue that the consequences of international recruitment for the education system in South Africa would be severe.

However, around 2000, as international recruitment of teachers from South Africa was becoming noticeable, there was a reassessment of the official position that there was an oversupply of teachers. This was partly because the measures introduced to deal with oversupply had been very effective. As well as reducing demand, they had reduced the supply of new teachers by making it less attractive for students to train to be teachers. This effect was compounded by reforms which shifted from provincial teacher training colleges to national Higher Education Institutes (HEIs, predominantly universities).⁵ This shift in provision was intended to raise the quality of teacher training but also tended to reduce the quantity. Teacher training colleges were closed and quotas for enrolments into HEIs set by administrators concerned with student enrolment generally, rather than teacher training in particular. Indeed, at the time of writing, the intention is to reduce enrolment in HEIs by 6% despite increasing concern within the Ministry of Education about a possible shortage of new teachers.

As a result of these reductions in supply, the flow of newly qualified teachers is substantially below the number of teaching posts that become vacant each year.

There are estimated to be around 39,000 students studying for B.Ed. and PGCE (Postgraduate Certificate in Education) courses, implying a flow of around 9000 newly qualified teachers each year. By contrast, rates of teacher attrition have been around 4–5% per annum. With a total stock of around 400,000 teachers in South Africa, this implies a need to recruit 17–20,000 teachers per year.⁶

Opinions differ over the extent to which there are currently teacher shortages in South Africa. Since the critical comments of Minister Asmal, the Ministry of Education has softened its criticism of international teacher migration. The permanent secretary at the Ministry, Duncan Hindle, has argued that there is no general shortage of teachers in South Africa, owing to the presence of a pool of 240,000 unemployed teachers in the country (*Sunday Times*, 5 October 2003). Nonetheless concern over the future has been raised by two separate developments. One is the HIV/Aids epidemic, which it is feared will have a serious negative impact on the supply of teachers in South Africa. Already, this is contributing to teacher attrition—teacher deaths alone implied a 1% rate of attrition from the service. In May 2002, a World Bank report on the impact of HIV/Aids estimated that in the worst-hit countries teachers ‘are dying faster than they can be replaced’ and estimated that 12% of teachers in South Africa are infected with the virus. It is not clear that teachers are a particularly high-risk group for the virus, but even if not, some may well be recruited to replace losses in the private sector (Peter Badcock-Walters, reported in *iafrica.com*, 5 May 2003). The second concern is that changes in the curriculum will introduce new demands for teachers, particularly in the shortage areas of mathematics and information technology. It is planned to make mathematics literacy compulsory in all classes in the future: in Grade 10 by 2006 and Grade 12 by 2008.⁷ Civil servants at the Ministry of Education interviewed by the authors suspected that this will lead South Africa to import teachers in the future. Further demands are likely to arise due to government initiatives to make pre-schooling (Grade 0) compulsory in 2010 and to ensure all schools are connected to the Internet by 2013.

Botswana

The Ministry of Education is responsible for teacher recruitment in all government schools in Botswana through the Teacher Service Management (TSM). They allocate all locally trained teachers to schools. Botswana teachers are trained at the University of Botswana and in six teacher training colleges. TSM is also responsible for recruiting teachers from abroad. This recruitment has occurred primarily as a result of the rapid expansion of the education system since independence in 1966. As Kamau has pointed out: ‘Botswana inherited a poorly developed education system with very few if any trained teachers at all levels of education’ (Kamau, 2004, p. 184). Consequently, construction of schools, training of teachers and the creation of a multi-level school system has been the key focus of the Ministry of Education for the past 40 years.⁸ The expansion has been impressive: ‘Between 1979 and 1989, primary school enrolment increased by 66% while secondary school and University of Botswana (degree) enrolment increased by 247% and 335% respectively’ (Campbell, 2002, p. 48).

Whilst there were shortages of teachers at all levels, these have always been more acute at the secondary level. This is mainly because primary school construction and staffing was the government's main priority in the immediate post-independence period and because training primary school teachers could take place over two years (through the attainment of the teaching certificate). It was the rapid expansion of the junior secondary schools during the late 1970s and 1980s coupled with the lack of locally trained subject-specific teaching staff that explains the recruitment of expatriate teachers. According to government figures, there are currently 1086 foreign teachers working on government contract. They are all concentrated in the secondary sector, which employs approximately 9000 teachers in total.⁹

Initially this recruitment seems to have mainly relied on employing teachers from neighbouring African countries. One interviewee stated that when he had been teaching at a senior secondary school in 1978 there were five Batswana teachers and 28 expatriate staff. These teachers were mainly from other African countries. One civil servant recalled that the education system had almost collapsed when many Zimbabwean teachers returned home following Zimbabwean independence in 1980. Following this exodus of teachers, the Botswana Ministry of Education made an arrangement with the British Council to supply British teachers under the Teachers for Botswana Recruitment Scheme (TBRS). Over the 20 years that it was running, the current director estimated that approximately 1000 British teachers had gone to work in Botswana. The British Council essentially acted as a recruitment agent for the Botswana government. They were responsible for advertising the posts in the UK (having been supplied with detailed requirements from the TSM) and creating the long short-list. The teachers were interviewed by members of the TSM in the UK. The TBRS ended in 2001 because first, there was a declining need for foreign teachers within Botswana and second, there was a decreasing amount of teachers interested in applying—highlighted by the fact that the final recruitment drive in 2001 yielded only seven teachers.

With the decline of the supply of British teachers, there was a diversification of the formal recruitment sources with a focus on Commonwealth countries. As one civil servant explained, the aim was to recruit teachers from countries which had a similar education system to Botswana. Recruitment from India and the Caribbean has been predominant and this is reflected in the current figures, which show that 138 Indian teachers and 89 Guyanese teachers are currently on government contract. The TSM contracted 'reputable human resource organisations' in the host country to perform the initial stages of recruitment (advertising and short-listing). TSM officials would then travel to the countries to undertake the interviews. All expatriate teachers formally recruited would receive an orientation before leaving their own countries and another one-week orientation upon arrival.

Another source of teachers in Botswana is from neighbouring African countries. These teachers are not formally recruited but they apply directly to the Ministry for work and they are known as 'freelancers' or 'local expatriates'. This is obviously an inexpensive route for the Botswana government as they are not required to pay recruitment costs, transportation, etc. According to recent government figures, the

majority of foreign teachers in Botswana are from neighbouring countries: Ghana (57), Kenya (44), Swaziland (26), Zambia (280) and Zimbabwe (138).

The private school sector is staffed mainly by expatriate teachers, with local teachers often only employed to teach Setswana, the national language. Private schools advertise in the local press and recruit expatriate teachers who are either current or former government contracted teachers or alternatively, are African teachers who have heard about the jobs through friends already working in Botswana. Private schools benefit from the fact that the government has hired expatriate teachers in the past as it allows the private schools to access a supply of expatriate teachers without paying relocation costs. They can also hire expatriate teachers who are familiar with the Botswana curriculum. The non-renewal of government contracts for expatriate teachers has put the private schools in a strong position. During the research, reference was made to the large amount of speculative applications private schools receive from expatriate teachers. Head teachers also recounted that very few local teachers apply for jobs in the private sector. They argued that local teachers believe the school is looking for expatriate teachers so they don't bother applying. However, another possibility is that private schools only hire on contracts whereas working for the government schools is a permanent and pensionable job.

In state schools, recruitment of expatriate teachers only occurs in the secondary sector and only in certain subject areas. The main ones are: art, business studies, music, computer studies, commerce and accounts, home economics, agriculture and physical education. Many of these are new subjects in the curriculum so there are not enough locally trained teachers. In 2003, a large amount of expatriate teachers' contracts were not renewed and this is a trend that seems certain to continue at least in the short term. The most recent recruitment exercise took place last year in India and the Caribbean. While it was stated that there are no plans for foreign teacher recruitment in 2004–2005, recruitment of teachers of the 'new subjects' is likely to continue over the next five years due to lack of local capacity.

There are problems of oversupply of local teachers in certain subject areas at present. This is due to the postponement of the planned expansion of senior secondary schools. Provision was made to train the teachers to work in these schools. However, due to budgetary constraints, the programme has been drastically reduced. Hence the teachers who were being trained to fill these vacancies have far fewer employment opportunities. An oversupply of teachers is an entirely new experience for the Ministry. Those interviewed in the Ministry seemed to feel a duty to find employment for these teachers and as a consequence, a couple of head teachers complained that their schools were overstaffed. As in other countries, there are issues in Botswana about training the 'right' amount of teachers in the 'right' subject areas. This is important as currently there is an oversupply of social studies and history teachers but not enough teachers of design and technology. This shortage has delayed the latter subject becoming a part of the core curriculum.

HIV/Aids and its impact on the teacher population have been examined by Bennell *et al.* (2002). The conclusion they draw is that the impact of HIV/Aids is unlikely to have a devastating impact on the levels of teaching staff. This view is supported by the

Ministry of Education. Teacher mortality levels have remained stable since 1999, and if anything have shown a slight decline. With the introduction of free anti-retroviral drugs, there is little overt concern about the impact of HIV/Aids on the projected supply of teachers. However, given the gestation period of the virus and the fact the Ministry does not know how many teachers are HIV positive, it is difficult to predict the long-term impact. On the positive side, the teaching of HIV/Aids has been inserted into every aspect of the curriculum and a weekly television programme *Talk back on HIV and AIDS* is broadcast to all schools. Of all members of the population, teachers will be among the best informed about the causes and consequences of HIV/Aids.

Data collection

South Africa

In South Africa, fieldwork was undertaken in the region around Pietermaritzburg in the province of KwaZulu-Natal (KZN). KZN is the largest of the country's nine provinces in terms of population, and correspondingly in terms of its number of educators and learners (the terminology in post-apartheid South Africa for school teachers and students respectively). In 2003, it had 2.7 million school students—23% of the national total (Republic of South Africa, 2003). In the same year, there were 5751 schools in the province—more than in some countries. South Africa's provinces are fairly heterogeneous, which implies care must be taken in trying to generalise from a study of any one of them alone. Although it has a high population density (second only to Gauteng), KZN province is rather rural, with 57% of the population in 1999 living in rural areas compared to 43% in South Africa as a whole (Statistics South Africa, 2004). In terms of racial composition, the 1996 census reported that 81.7% of the province's population were black and 80.1% had isiZulu as their mother tongue. The province had the highest proportion of people of Indian ethnicity (9.4%) in the country and relatively few Coloureds (1.4%). The white population in the province is predominantly English, rather than Afrikaans, speaking; a legacy of the province's pre-Independence history as a British-governed area. Education is a primarily a responsibility of provincial government in South Africa and it should be noted that in the immediate post-apartheid years, KZN was unique in not being governed by the ruling African National Congress (ANC). However, in the 2004 elections, the ANC defeated the Inkatha Freedom Party that had governed the province since the end of apartheid.

We contacted over 300 schools in Pietermaritzburg region to see if they had experienced international migration and from the responses chose 16 schools to visit for interviews to gather data. Eleven schools which reported experiencing international migration were selected, along with five other schools that were included as a control group. Sampling was purposive with our counterparts at the School of Education, University of KZN, selecting a diverse set of schools in terms of school location, type and ethnicity. Table 1 summarises the schools visited, characterising them by their

Table 1. Sample of schools visited in South Africa

Location	Type	Experienced international migration	Not experienced international migration
Urban	Primary	1 ex-Coloured school 1 ex-Indian school 2 ex-white schools	None
	Secondary	1 ex-African school 1 ex-Indian school 4 ex-white schools (inc. one private)	1 ex-African school 1 ex-Indian school
	Primary	1 ex-African school	2 ex-African schools
Rural	Secondary	None	1 ex-African school

racial composition in the apartheid era.¹⁰ As will be discussed, due to integration in the post-apartheid period, schools no longer necessarily retain their earlier racial composition. However, the categorisation is still useful in loosely identifying the historical endowments of the schools and their current potential for raising money from school fees. In a statistical sense, our purposive sample might be said to have overrepresented urban, secondary and white schools as these tended to have more experience of overseas migration.

Botswana

In Botswana, 23 schools were visited. Table 2 gives the breakdown of schools visited. Due to time constraints and given the size of the country, it was decided to undertake research in the vicinity of the capital Gaborone. A selection of schools was identified by our partner organisation, the Botswana Educational Research Association (BERA), a non-governmental organisation based at the University of Botswana. It was decided to include a sample of private schools as these had been identified by BERA as schools with significant amounts of expatriate teachers. We were unable to visit any remote rural school during the course of the research and the concept of ‘rural’ in Botswana included schools in the village of Molepolole, which is a relatively large conurbation and was referred to some head teachers as peri-urban. However, we were able to visit schools in small settlements between the larger villages.¹¹

Table 2. Sample of schools visited in Botswana

Location	Type	Government	Private
Urban	Primary	3	2
	Secondary	5	2
	Primary and Secondary	0	1
Rural	Primary	1	1
	Secondary	5	3

Results from South Africa

Eleven of the 16 schools visited reported experiencing international teacher migration, losing a total of 31 teachers due to such movements since 2000. This loss of, on average, three teachers per school is non-trivial given that the mean number of staff in these schools was 29. International migration accounted for one-quarter of all teacher attrition in these 11 affected schools since 2000. For these schools at least, it appeared a more important source of teacher loss than HIV/Aids; only six teachers were reported to have left the schools due to ill health or death since 2000.

As Table 1 showed, a variety of different kinds of school had been affected by international migration. However, the impact appeared to be primarily in urban areas—only one rural school contacted reported having experienced international migration—and was particularly prevalent in schools that were formerly exclusively for whites. To this extent, it may have little direct effect on the poorest South Africans, who tend to be Africans in rural areas. The 10 urban schools that we visited with experience of international migration were varied, although only one was a school that had been designated for Africans under the apartheid regime. This exception was a Technical High School that had lost one teacher—a head of communications—to the USA. All five formerly white schools (ex-Model C or private) schools that we visited had experienced some international teacher mobility, as had one ex-Coloured school and two ex-Indian schools. Due to the partial racial integration of student populations after apartheid, however, it would be wrong to conclude that overseas migration did not directly impact on African students. All schools visited had significant numbers of African students and some head teachers reported their schools served poor communities.

The direct impact of migration on staff shortages in affected schools

In this section, we focus on the 11 schools visited that reported losing teachers to international migration. Only two appeared to have suffered problems of staff shortages as a result of losing teachers overseas. In both cases, the impacts on the quality of education provided were described as moderate, although the head teachers of the schools did express concern.

One of the two adversely affected schools was an ex-Afrikaans Technical High School.¹² This school had the highest rate of teacher migration we observed, losing seven teachers since 2000 and four before that period. Five of the seven recent departures were said to have been difficult to replace. The school had also lost another seven teachers since 2000 that had left the profession. The head teacher reported concern about the high level of turnover: 'I am quite worried. Traditionally staffing has been fairly stable, but in the last few years, there has been a constant turnover'. She reported staff shortages, with three temporary teachers filling posts. Part of the problem in filling posts was administrative delays, but the head teacher also reported a shortage of suitable candidates. For example, for a mathematics post, just four teachers applied and only one was considered suitable. The head teacher mentioned

that five high schools in the same ward were also looking for mathematics teachers. Shortages of teachers were said to have had a negative impact on both the number of students the school enrolled and the quality of education provided. A lack of qualified teachers meant that the school could not offer subjects that students requested, such as commerce and some humanities. The effect on quality was described as ‘not huge’, arising from the difficulty of teaching 40 or more children in small classrooms, leading to time being spent on ‘disciplining not learning’. The head teacher’s comment was that the school was coping with teacher shortages, ‘but only just’.

The other school that was clearly adversely affected by international migration was an ex-Coloured primary school.¹³ This school had lost five teachers due to international migration since 2000 and another 11 for other reasons. Three of the five staff who went overseas were described as difficult to replace. In two of these three cases, this was because the departed teachers had made very big contributions to the school’s extra-mural work. In the other case, the problem was that the teacher was a mathematics and science specialist, subject areas where there are perceived to be particular shortages of teachers. The school had five vacancies for permanent posts (currently filled by temporary educators). These vacancies were unfilled due to administrative problems, but the head teacher also reported a problem finding suitable candidates. The shortage of teachers was said to have had a small negative impact on the quality of education provided, since one teacher who was not trained as a junior primary teacher had to cover in this area. This meant that the teacher was not as effective as if she were appropriately trained and this imposed a ‘tremendous burden’ on her, making her unhappy.

Why did international migration not appear to be a problem in the other nine affected schools we visited? In five cases, the affected schools were former schools for whites only, or (in one case) private schools, and as such were likely to be regarded as relatively attractive places for teachers to work. Consequently, they would be the last to suffer from any general shortage of teachers and were able to replace any losses overseas. Four of these schools still served predominantly white student bodies. They reported no shortages of staff and generally reported no difficulties in replacing the few teachers (never more than three since 2000) that had gone overseas.¹⁴ These schools said they had no problem finding suitable candidates for posts, with one school claiming to receive ‘millions’ of applications for each post. The other former white school was unusual in having fully integrated but was in some ways similar to the previous four cases.¹⁵ It had suffered rather greater losses of teachers overseas—five since 2000—but the head teacher appeared relaxed about this: ‘I have not experienced the brain drain. Over five years, I have had five people go—is that a brain drain? It’s not, is it?’ Only one of the five departures was described as difficult to replace—a head of department in a shortage subject (biology). Turnover as a whole seemed high in the school and at the time of the visit two posts were being covered by temporary teachers. However, the head teacher did not believe that teacher shortages had negatively impacted on the quantity or quality of education provided. This was perhaps because, he said, he was able to attract high-quality candidates to fill vacant posts in due course.

The other four schools that had experienced loss of teachers overseas cannot be said to have been harmed by it for various other reasons. One school was an African Technical High School that had lost one staff member to the USA. Although the school was suffering from staff shortages, the particular staff member—a head of communications—who went overseas had been replaced without difficulty. The staff shortages were ascribed to administrative delays rather than a shortage of suitable candidates. Indeed, the head teacher believed there to be considerable unemployment of African teachers and said that, were it in his power, he would encourage more of his staff to go overseas in order to free up posts for unemployed teachers. In another case, a former Indian primary school now with a majority of African pupils, two teachers had left to go overseas with the most recent being difficult to replace. This contributed to a shortage of teachers in the school—three posts had to be covered by temporary staff. However, although the head reported problems in finding suitable candidates to fill posts, he nonetheless said that the staff shortages did not adversely impact on either the quality or quantity of education provided by the school. This was because the temporary teachers employed to cover for unfilled permanent posts were qualified, although problems were anticipated if the school lost two more members of staff—for example, due to promotions. In another instance, a former Indian secondary school, the school was suffering from declining enrolments so that loss of two teachers overseas was described as ‘fortunate’, since it avoided the need for teachers to be declared in excess and transferred elsewhere.¹⁶

The final case where migration cannot be said to have had a negative impact is interesting in that it was the only rural school that reported having lost teachers to international migration. In this exceptional case, the school had lost its head teacher—a white woman who had been credited with having developed the predominantly African school (established in the early 1980s) and her loss was felt very keenly. However, it appeared that her migration was perhaps a consequence rather than a cause of her leaving the school as ill-health may have ended her service to the school regardless.

In summary, international migration did not appear to directly cause shortages in most of the affected schools we visited. The affected schools had lost a total of 31 staff members to international migration, but in 20 of these cases, head teachers reported no difficulty in finding replacement teachers. The fact that schools were usually able to replace teachers who went overseas is consistent with an apparent lack of correlation between overseas migration and teacher shortages. Table 3 cross-tabulates experience of international migration with whether the schools reported staff shortages (defined as unfilled vacancies or posts being temporarily covered). The 11 schools affected by international migration were fairly evenly divided between those that did and did not suffer from teacher shortages. However, four of the five schools that were unaffected by international migration reported staff shortages. These patterns are consistent with international migration stemming disproportionately from more advantaged schools that are more able to make good any losses of staff. This raises the question of the indirect effects of such migration—whether they cause ‘ripple’

Table 3. Staff shortages and the incidence of international recruitment in South African schools

	Not experienced international recruitment	Experienced international recruitment
Current staff shortages	4	5
Past staff shortages	0	1
No current or past staff shortages	1	5

effects and ultimately created shortages in more disadvantaged schools that had not themselves experienced international recruitment.

Indirect effects of migration on teacher shortages in South Africa: are there ripple effects?

Our fieldwork found that, in most cases, schools that had lost teachers overseas did not appear to suffer directly from teacher shortages as a result. Here we consider whether the teacher migration may indirectly lead to shortages, affecting those schools that had not themselves experienced international teacher mobility. A prerequisite for such indirect effects is that there is a shortage of teachers generally. However, head teachers’ perceptions on the extent of teacher shortages varied widely.

Although a majority of the schools that we visited suffered from staff shortages, this was not necessarily due to a general scarcity of teachers per se. In almost every case, schools attributed the failure to fill posts to administrative delays.¹⁷ Permanent teacher posts must be advertised in bulletins issued by the Department of Education. Sometimes vacancies are left off the bulletin due to administrative errors and sometimes delays have occurred due to confusion over whether the bulletin should be open to all or closed so that only teachers previously declared ‘in excess’ could apply.

Schools differed greatly over whether sufficient applicants applied for those permanent posts that were advertised. We have already noted that the most advantaged schools—formerly white-only schools—reported no problem in filling posts. By contrast, head teachers at the three formerly Indian and one formerly Coloured school visited all described the market for teachers as very tight, as did the ex-Afrikaans Technical High School previously discussed. For some core subjects—such as mathematics or science—these schools had on occasion experienced only one suitable candidate applying for vacancies. By contrast, former African schools tended (with one exception) to report no shortage of qualified applicants. Head teachers at these schools stressed instead the problem of unemployment of African teachers and reported receiving many applications for most posts advertised. These schools did report the occasional difficulties finding suitable candidates to teach certain combinations of subjects—for example, geography and Zulu—or particular vocational subjects. However, in general, they expressed no concern about the number of teachers available to fill vacancies. The one formerly African school that did report a shortage of suitable applicants was the most remote school visited. It was 120 km from Pietermaritzburg, and—due to the remoteness—was considered by the head teacher

to be one to which teachers would only apply to work 'if they were desperate'. It had been unable to find qualified candidates to fill two posts in shortage subjects—Zulu and agricultural science.¹⁸

What these observations suggest is a degree of separation between tiers of schools in terms of the market for teachers. If we identify tiers of schools in terms of their school resources, different tiers may have access to pools of potential applicants for teaching posts and these pools may be, to a degree, separate from each other. Teachers who may apply for posts within one tier of the school system may not compete for posts within tiers that experience shortages. The top tier—formerly white schools—is more likely to lose teachers abroad but also more able to make good those losses. In part, as attractive places to teach, these schools may be able to siphon off applicants who might otherwise work in lower tiers of the school system. However, they may also draw upon a reserve of applicants who would not be willing to work in schools that were less well endowed with resources or were in less well-advantaged areas. These applicants may include experienced teachers from formerly white schools who had earlier been declared in excess.

The upper middle tier of schools—former Indian and Coloured schools—may lose teachers directly to international recruitment and also indirectly by supplying replacement teachers to former white schools. However, what is unclear is why this tier does not appear able to make good its staff losses from the apparent surplus of African teachers. One possibility is that these schools tend to recruit from a particular network of Indian or white, as opposed to African, teachers. Although it is hard to confirm this without more research, this explanation is suggested by comments made during interviews with the four ex-Indian and Coloured schools which we visited.

For example, consider the ex-Coloured school mentioned previously as one of only two schools visited which appeared directly adversely affected by international recruitment. It had lost five teachers to overseas and at the time of the visit had five vacant posts filled by temporary teachers. The majority—four—of the school's governing body were African with only one Coloured. However, the head teacher recounted an instance of where he wanted to appoint an African teacher and said, 'although it sounds unbelievable', the African governing body members had been very opposed to the appointment on racial grounds. The head teacher said he had stopped the selection meeting in order to explain to the governing body the need to appoint African teachers. The most vociferous opponent of the appointment had been an African ex-teacher who argued that she knew first-hand how poorly some African teachers performed. The head teacher also argued that many African teachers were not suitably qualified—for example, many specialised in subject areas such as biblical studies rather than shortage subjects like mathematics. He also said that a problem with African teachers was a fondness for corporal punishment—now prohibited in South Africa. He recounted an instance in which a recently appointed African teacher at the school had pulled a tuft of hair out of a student's head, leading parents to cry 'hell and damnation' and ultimately to the teacher's dismissal.

In one formerly Indian secondary school, the Indian head teacher conceded that it was a 'fair comment' that some governing bodies of formerly Indian schools did not

want to employ African educators. He said that African teachers did apply for posts in formerly Indian schools but that the problem was at the selection stage. Although the pupils in these schools tended to be integrated, the head teacher said that the governing bodies still tended to reflect the old school composition and that, in '95% of cases', their teachers also reflected this. The head teacher said there was some validity in the complaint of some African teachers of formerly non-African schools, 'you take our children, but don't take our teachers'. He said that some governing bodies had not changed but would in time. He added that governing bodies of ex-Indian schools would not appoint African teachers who either were not qualified in the relevant field or lacked relevant experience. He claimed that there was a lot of nepotism and irregularities that needed to be attended to, and argued that this was one reason why the Department of Education should take control of the appointments away from the governing bodies. In the two other ex-Indian schools visited, one head teacher said he had experienced problems with three or four African teachers who lacked commitment while the other had only one African teacher, the Zulu language teacher, despite 60% of its students now being African.

In summary, most formerly African and white schools appear not to suffer from a shortage of potential applicants for posts. However, some schools—notably those that were formerly Indian or Coloured—do report shortages. The problems these schools face may have been exacerbated by international recruitment, both directly and indirectly through 'ripple' effects. There appears to be a something of a bottleneck in the market for teachers preventing these schools from recruiting replacements for migrant teachers from the apparent surplus of African educators in South Africa.

Results from Botswana

In this section we examine the experience of schools in Botswana which currently employ expatriate teachers. It is clear from interviews undertaken with members of the Ministry of Education that the employment of expatriate teachers has declined markedly in recent years. While the interviews with head teachers confirmed this, they also highlighted the reliance on expatriate teachers in certain subject areas.

Employment of expatriate teachers

The private schools that we visited in Botswana were run and staffed almost exclusively by expatriate teachers. All head teachers of private schools were expatriates, as were 90% of all teaching staff (Table 4 refers). By contrast, expatriates played a lesser role within government schools. None of the government primary schools we visited employed any expatriate teachers. However, all of the government secondary schools, junior and senior, that we visited did employ expatriate teachers. Within these 10 schools, expatriates accounted for 13% of all staff. There were more expatriate teachers employed in the senior secondary schools, 16.9% of all staff as compared with 7.85% in the junior secondary schools. This is due to the introduction of new subjects into the curriculum at the senior secondary level. This sector is also in a process of

Table 4. Numbers of expatriate and local teaching staff at schools visited in Botswana

	Expatriate Staff	Local Staff
Government schools:		
Senior Secondary	94	556
Junior Secondary	11	140
Primary	0	84
Private schools:		
High	78	8
Primary	114	18
Combined Primary/High	40	0

expansion (currently only approximately 50% of children are able to move from junior to senior secondary school).

At the time of the fieldwork, the schools visited in Botswana reported fewer staff shortages than their counterparts in South Africa. Only four state schools—two junior secondary and two senior secondary—reported shortages. However, in three of the four cases, it was apparent that staff shortages were the result of delays in the appointing of new staff by the Ministry. In the fourth case, a rural junior school, the head teacher explained that teachers did not want to work in rural areas and he had experienced problems retaining staff in the school. None of the staff shortages were the result of a shortage of teachers. Indeed, one head teacher complained that he was overstaffed. The impression that a lack of staff was not currently a major concern was supported by responses that head teachers gave to a question about their priorities for the use of any additional funding hypothetically made available to them. They were offered four alternatives—which included more staff and more staff training as two options, as well as better infrastructure and more educational materials. Only one school said the lack of staff was the number one priority for them (and in that case the head teacher argued that the Ministry did not calculate the teacher–pupil ratio correctly in the core subjects). The other schools did not rate this as a problem at all. One school rated training as its number one priority. Two schools rated this as their second priority.

However, 12 (all but two¹⁹) of the state schools visited reported experiencing staff shortages in the past. In the majority (seven) of cases, these shortages were attributed to a lack of suitable candidates. Other reasons included a failure of the Ministry of Education to recognise that there was a staff shortage, delays in replacing teachers on study leave and a lack of housing in the vicinity so that teachers were not attracted to the schools. Several head teachers expressed frustration about the administrative delays experienced in the appointment of teachers and voiced a desire to have more control over staff appointments.

In the private schools, staffing shortages did not appear to be an issue except in the sense that schools in financial difficulties found themselves unable to afford adequate numbers of teachers. Only two of the nine private schools (one primary and one

secondary) were in this position. Both stated lack of money as the reason they were unable to hire more teachers and one of them also gave the reason as lack of authorisation (from the management board—a decision which was itself related to lack of money). It was evident that all private schools had more than enough applicants for advertised positions. Many of them received speculative applications on a weekly basis.

Subject shortages

When asked about subject areas in which they had in the past experienced staff shortages, nearly all subjects were mentioned once. The most commonly mentioned shortage subjects (mentioned by four schools each) were mathematics and science, with arts and crafts following with three mentions. Within the state sector, schools said they had used a range of methods to cope with teaching shortages in the past. Eight schools said they had employed under-qualified or unqualified teachers, six schools reported increasing class sizes, four schools had employed an expatriate teacher and in four schools, teachers had taught outside their subject area.²⁰ All 12 state schools that had experienced shortages said the shortages had had a negative impact on the quality of education provided simply because the children were either not being taught by a trained teacher or were being taught in larger class sizes. Only two of the government schools said the shortages had had a negative impact on the number of students the school could enrol. As one head teacher explained, if the exam results went down then parents did not want their children to attend the school and would lobby to have them placed at a better-performing school. In the private sector, the two schools that had experienced shortages reported that they had both employed under-trained/untrained teachers and another had also doubled up the class.

Quality of expatriate teaching

Table 5 shows the head teachers' assessment of the effectiveness of expatriate teachers compared to the average of teachers employed at their schools.

Head teachers of state schools most commonly assessed expatriate teachers as having the same effectiveness as other teachers, although a substantial minority rated them as more effective. However, there were two qualifications made by head teachers. Firstly, some said that the expatriates, on the whole, were more qualified so it was not fair to make comparisons. Secondly, it was pointed out that expatriates were employed on a contract and therefore were under more pressure to prove themselves than the locals (who were employed on permanent and pensionable contracts).

Head teachers of private schools tended to assess expatriate teachers more favourably, although it should be born in mind that all these head teachers themselves were expatriates. One said it was a difficult, possibly an unfair, comparison to make because he employed very few local staff. Two of the head teachers felt the expatriate teachers put in more effort because they wanted to keep their jobs in order to remain in Botswana. The point about experience was also raised by the head teachers in private schools.

Table 5. Head teachers' assessment of expatriate teachers in Botswana

	State schools	Private schools
Effectiveness of expatriate teachers compared to average for the school's staff:		
5—More effective	4	5
4—Slightly more effective	0	2
3—Average	6	2
2—Slightly less effective	0	0
Parental feedback about expatriate teachers:		
Positive	1	5
Mixed	1	2
Negative	0	0
No feedback	8	2
Do expatriate teachers make an extra contribution?		
Yes	7	7
No	3	2

The head teachers' assessment of teaching effectiveness was broadly consistent with what they reported about parental feedback about expatriate teachers. Within state schools, most head teachers reported no parental feedback. However, the majority of private schools reported positive feedback (possibly not surprisingly given the parents were paying fees). In schools where parental feedback was said to be mixed, it was said that some parents had complained about an expatriate teacher's accent.

A clear majority of head teachers of both state and private schools agreed that expatriate teachers made an extra contribution to the school by virtue of coming from another country. Five mentioned the cultural contributions to the school through, for example, music, dance, food and traditional costumes. Nine mentioned the contribution made through extra-curriculum activities, particularly in sports and debating, and one mentioned specialist knowledge. Two head teachers said they wanted to qualify their comments because only some of the expatriate teachers made an extra effort.

It is evident that Botswana has benefited from the knowledge and experience of expatriate teachers. Without their input the educational system would not have been able to expand as rapidly as it did during the 1980s and 1990s. Expatriate teachers have also made positive contributions through curriculum design, through the writing of textbooks and through the introduction of pedagogical and specialist knowledge.

Conclusions

Despite considerable policy debate, there has been little academic research on international teacher mobility. This article has looked at the impact of such mobility on the school systems of two developing countries, South Africa and Botswana. There is symmetry between the two cases. South Africa has largely been a sender of teachers

to other countries, in part because of a perceived surplus of trained teachers. Botswana has used expatriate teachers because of insufficient supply of local teachers. In both cases, there are signs that the international teacher mobility may have been temporary, something of a transitory movement as the local market for teachers adjusts. In South Africa, the idea that there is a surplus of local teachers is being officially questioned, while in Botswana, the government has actively developed its teacher training institutions so that it need no longer depend on expatriate teachers. Nonetheless, broad economic considerations might warrant the continuation of such flows. South Africa's mass unemployment suggests a surplus of labour; while conversely Botswana's economic growth 'miracle' fuels the demand for labour.

At the outset of this article, we raised the possibility that the emigration of teachers might act doubly as a 'brain drain' for developing countries: firstly, by the direct departure of skilled labour; and secondly, by indirectly impeding the acquisition of skills by the next generation. However, our case-study evidence provided little support for this 'double burden' hypothesis, at least in so far as it relates to quantitative shortages of teachers. The education system in Botswana has benefited from the recruitment of expatriate teachers, allowing a rapid expansion of the secondary level of education that would not have been possible. This in turn presumably aided the impressive economic development of the country. In the case of South Africa, most schools visited during our fieldwork in Pietermaritzburg region reported little difficulty replacing staff lost to go overseas. This was partly because such recruitment tended to affect the most advantaged, formerly white, schools and these schools had little trouble attracting replacements. It is possible that recruitment indirectly leads to shortages, as its effects ripple down through the hierarchy of schools in South Africa. However, in the African schools visited, although there were shortages of staff (and typically no direct experience of international migration), these often were attributed to administrative delays rather than a lack of suitable candidates. There were signs of shortages in an upper-middle tier of schools—formerly Indian and Coloured schools—but this may have been because of a reluctance to recruit available African teachers. In summary, although we did find evidence of significant international mobility from our school visits in South Africa, the impression was that negative effects in terms of creating teacher shortages were currently modest.

Aside from these results about quantitative shortages of teachers, our fieldwork also provided insights about the effects of international teacher mobility on the quality of teaching staff. In Botswana, state schools tended to rate their expatriate teachers as no better or worse than local staff. However, private schools rated their expatriate teachers as superior and this qualitative advantage, rather than any quantitative shortages of local candidates, may explain why expatriates almost exclusively run and indeed staff such schools. In South Africa, head teacher assessments and parental feedback suggested that those teachers recruited to work in other countries did appear of above-average effectiveness. Indeed, one summary of our results is that it suggests the significance of international teacher mobility for developing country education systems lies less in its quantitative effects in terms of numbers of trained teachers and more in its qualitative effects in terms of the kind of teachers who move.

In terms of policy-related and research recommendations, there is a clear need for better official data collection in the case of South Africa. While Botswana has good information on the extent of recruitment of expatriate teachers, there are no corresponding records in South Africa of how many teachers are lost to such recruitment. Some progress has recently been made on this with the introduction of a nationally representative survey of the migration intentions of trainee teachers. The results of the first survey in 2004, part of the project of which this article is one output, are reported in Bertram *et al.* (2006); a second survey is currently in preparation and will be locally funded. There is still a need for more in-depth research to test at a national or provincial level some of the tentative conclusions of this article. Our finding that teacher shortages and international recruitment do not seem to be correlated is striking and would seem to contradict some of the more heated claims about 'brain drain' in South African education. However, due to the relatively small and unrepresentative nature of our samples of schools, we must be cautious in advancing this claim as a generalisation. Our finding that international recruitment from South Africa may have led to a disproportionate loss of the more effective teachers is also tentative. Nonetheless, it provides some grounds for considering selective incentives to either retain such teachers or entice them to return after a period of working overseas. In this regard, the recently adopted practice in state schools of requiring teachers to resign their posts if they wish to teach overseas may be counterproductive. It may be wiser to give the head teachers of state schools the discretion to do what one head teacher of a private school we visited did—that is to say, to offer unpaid leave to particularly valued members of staff in order to retain their services after a stint abroad. This is one specific instance of a more general principle we would advocate—of seeking policy responses that try to maximise the net benefits from international teacher mobility, rather than trying to minimise such movements *per se* (see Appleton *et al.*, 2005, for further discussion of policy issues).

Acknowledgements

This article is one output from the project 'Teacher Mobility, Brain Drain, Labour Markets and Educational Resources in the Commonwealth', funded by the United Kingdom's Department for International Development. Carol Bertram, Nithi Muthikrishna and Volker Wedekind at the University of KwaZulu-Natal and Kgosi Motshabi, Botswana Educational Research Association at the University of Botswana, all provided invaluable assistance with the data collection and contributed to our thinking on these issues.

Notes

1. Unemployment rates are much lower for highly skilled South Africans than the country as a whole. For example, Kingdon and Knight (2001) report unemployment rates of 4–6% (depending on definition) among South Africans with higher education in 1994.
2. By law, no state school may exclude pupils who do not pay fees. However, state schools serving more affluent communities are still able to collect substantial fee revenues.

3. The decline in student numbers is thought to be due to falling enrolment rates, perhaps due to HIV/Aids with children either directly infected or dropping out of school due to increased financial pressures.
4. Wages for teachers in South Africa were anyway well below those in the UK.
5. Up to 2001, universities offered PGCEs (Postgraduate Certificates in Education) whilst teacher training colleges offered four-year diplomas. Subsequently, all teacher training was to be done in HEIs. For example, in KwaZulu-Natal, the province that the fieldwork for this article was conducted in, there used to be 17 teacher training colleges. Fifteen of these colleges were shut down in 2001, with two being incorporated into HEIs. This left the University of KwaZulu-Natal as the only provider of teacher training in the province.
6. This information was provided by Dr Labby Ramrathan of the University of KwaZulu-Natal in an interview on Monday 26 July 2004.
7. It was reported that: 'The Department of Education estimates that it will need more than 6800 mathematics teachers, almost double the number now in the system, to meet its plans to introduce mathematics as a compulsory subject for grades 10–12' (www.newsdirectory.com, 28 August 2003).
8. Currently, all children attend the primary and community junior secondary schools and there is provision for approximately 50% of children to enter senior secondary schools.
9. These figures were kindly supplied by the TSM, Ministry of Education, Botswana during a fieldwork visit in 2004.
10. Schools were racially segregated under apartheid and separately administered. What we define as 'African schools' are those that were run by the Department of Education in the apartheid era. 'Coloured schools' were run by the House of Delegates. 'Indian schools' were run by the House of Representatives. 'White schools' are government schools reserved for whites (often referred to as ex-Model C schools); we have also included the sole private school visited in this category.
11. One of these schools, although not defined by the Ministry as a remote rural school, exhibited many of the features of a remote area: lack of electricity, lack of tarred roads and lack of accommodation for teachers. The interview with the head teacher in this school underscored some of the problems facing schools that are located in rural Botswana. He recounted an experience when two teachers had been allocated to work at his school. They reported for work and did not return. He was later told that they had gone back to the Ministry of Education and said they wanted to be transferred because the school was too remote.
12. Under apartheid this school had been an Afrikaans school where that language was used as the medium of instruction. More recently, only 35% of the student body was white (45% African, the rest Coloured or Indian) and only seven students had Afrikaans as their mother tongue.
13. This was a primary school that previously had been for Coloured students but now such students accounted for only around a quarter of the total.
14. The sole exception to this was one departure from a private school, which caused difficulties because it occurred during the academic year.
15. This school was unusual in that it had successfully integrated its student body to broadly reflect the racial composition of South Africa as a whole (84% of students were African, 8% white, the rest evenly divided between Coloured and Indian). Counterparts at the School of Education at the University of KwaZulu-Natal described the school as being officially regarded as a 'model' school for that reason.
16. The falling enrolments were attributed to the establishment of a new school in the heart of the existing school's catchment area.
17. Interestingly, the one school not to complain about administrative delays was the most remote school visited.
18. For example, in 2003, the school had short-listed five applicants for an agricultural science post. Only one applicant came to interview and he found work in another school.
19. One head teacher was unable to answer the question because he was a newly appointed head teacher.

20. No schools had dropped subjects from the curriculum or limited enrolment. However, the head teachers would not have had this authority within Botswana. These are decisions made by the centre.

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