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CONCEPTUALISING *and* MEASURING THE MOBILITY *of* INDIGENOUS STUDENTS *in the* NORTHERN TERRITORY

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■ Abstract

The vexed and ongoing issue of poor educational outcomes for Indigenous students in the Northern Territory continues despite years of successive programs and policies. Much of the debate has been on funding and pedagogy, in particular the merits or otherwise of bi-lingual teaching. Largely omitted from discussions, although well known by teachers and schools in remote areas to be an issue, are high rates of in-term student mobility. Such “unexpected” moves are thought to affect the capacity for students to achieve benchmark outcomes, for teachers to deliver these and for schools to administer their students within the allocated systems and budgets. Up to now teachers and schools have relied on anecdotes to engage in dialogue around the impacts of mobility. This is because adequate conceptualisations for aggregating, depicting and reporting on the size and nature of in-term mobility were not available. This paper documents several years of work into producing these outcomes. Three measures are conceptualised and outlined in this paper which will be of interest to teachers, schools and educational administrators in all jurisdictions where services are delivered in a remote setting. The results clearly demonstrate the high churn of Indigenous students within terms, especially in remote areas of the Northern Territory. The findings from this study can be applied to inform funding and policy making and as a basis for further research to document the impacts for teachers and schools.

■ Introduction

The historical record of Indigenous student outcomes in the remote Northern Territory (NT, population around 225,000) of Australia is demonstrative of the difficulties of delivering education within a geographically isolated setting and to students from culturally specific contexts. More than a third of the population, and half of those outside of its capital city Darwin, were recorded as Indigenous in the 2006 census (Taylor, 2009, p. 2). Disparate rates of urbanisation between Indigenous and non-Indigenous people (although both are urbanising) are resulting in increasing concentrations of Indigenous Australians in the most remote areas (Taylor & Carson, 2009). Here, Indigenous people are known for their high mobility with much of the extant demographic literature depicting a consistently churning population where individuals and groups undertake short visits away from their “home” communities (Taylor, 1998). The phenomenon has most commonly been described as “temporary mobility”, where a change of residence is not featured, and where fluid exchanges of populations in, around and between discrete communities as well as between these and towns or urban areas is commonplace (see Long & Memmott, 2007; Taylor, 2006; Prout, 2008).

The accurate measurement and depiction of temporary Indigenous mobility in remote Australia is a well known problem, highlighted especially in the north of Western Australia, the NT and in northern Queensland. Two main reasons for this can be themed from the academic literature. First, there are no nationally (or even State/Territory) consistent databases for measuring the size and spatial realms of the phenomenon. Secondly, its drivers are complex and heavily interwoven with cultural, historical and other factors. These provide the perception of a population whose actions contradict the norms and expectations of the modern society and its service delivery institutions, including for health and education. Nevertheless, Taylor and Carson (2009) found temporary mobility in remote NT to be very much embedded in a common set of drivers and around a multiplicity of individual needs and requirements. Importantly, their work advocates that temporary mobility is well entrenched

at the local level, to the extent that patterns are not fundamentally altered by the introduction of shocks from policy or programs.

Temporary Indigenous mobility can fundamentally alter the demographic size and characteristics of populations at both the receiving and source locations. In line with this, levels of demand for services may fluctuate according to the characteristics of temporary movers (Biddle & Prout, 2010). Warchivker et al. (2000) and Taylor (1998) propose that three populations are important for understanding the potential demand for local services – the base population (essentially the official census count), the maximum population (based on the highest count of persons per dwelling from administrative or other sources) and the service population (the average of the latter two, or comparisons at a local level between the usual residence and place of enumeration counts from the census, as described by Bell & Ward, 2002).

For these sorts of reasons, temporary Indigenous mobility continues to be denoted as problematic both by measure and in its impacts. Prout (2008) highlighted this perception as derivative of the lack of knowledge and understanding about Indigenous mobility practices, in itself stemming from a lack of reliable data for depicting and understanding it. Consequently, aspersions have long been cast on mobile Indigenous people in remote areas (although almost no studies identify who “they” are) for “opting out” of the systems, institutions, and infrastructures put in place to provide them with lifestyles approaching equivalence to those in less remote parts of the Territory. On the surface, such sentiments might reflect the frustrations, born out of a lack of progress in “closing the gap”, where education features prominently in the Australian context (Lynch, 2009). Specifically, Indigenous spatialities (the places people live at, move to and move through) is one of many elements contributing to the very high costs of service provision in remote areas where populations are dispersed, dynamic and fundamentally different in terms of their demographic characteristics when compared to non-remote populations.

Demonstrative of these issues, the delivery of education in the NT is acutely affected by the demographic and settlement characteristics of its population. It has a high Indigenous composition (around one third), with a large proportion (around 80 percent) living in remote or very remote areas. In 2008, just over 40 percent of the school aged population enrolled in transition to Grade 12 was Indigenous, compared to around four percent nationally (DET, 2009). Meanwhile, more than 40 percent of all government schools in the NT have close to 100 percent Indigenous enrolments, and the majority of these are in remote areas (DET, 2009). The costs of education delivery within this context are, unsurprisingly, high.

Indigenous student mobility and its impacts for schools and students in remote areas and has been touched on only at the periphery of the educational literature for Australia, and barely at all in the migration literature, despite commonalities existing across the north of Australia. Although some programs are in place to track students and deal with the outcomes of high mobility (for example the Individual Learning Plan Toolkit within Queensland Education’s Building For Success strategy), attempts to quantify the size of the issue, the spatial characteristics of mobility flows, and the characteristics of mobile students (e.g., age, gender and Indigenous status) have not successfully delivered a consistent and comparable research based account of in-term mobility. The availability of such information is the necessary starting point for assessing teacher workload, individual and school impacts and for discussing how to deal with it on a system-wide and informed basis.

There is some literature for the NT which hints at the size of the issue. Dunn (2009), for example, has documented a remote homeland school in the NT which had on average 100 students attending per day, but had a throughput of twice this amount of individual students during the year. Fluctuations of this order complicate the allocation of resources “on the ground” since estimates of workloads are generally made prior and on the basis of official counts or estimates. Funding allocation models deal poorly with such fluid populations, particularly where the subjects are mobile cross administrative boundaries. Consequently the real costs of in-term mobility are not evident in the funding models for distributing resources within the system.

The primary concern in relation to student mobility is for the student themselves. Although limited, discourse on impacts from student transience in the NT and other parts of remote Australia has been linked in a small number of reports and studies on ongoing poor educational outcomes for Indigenous students. The most holistic document in the NT is the “Learning Lessons” 1999 review of Indigenous education (Northern Territory Department of Education, 1999). Foremost, this report identified three areas of risk for mobile Indigenous students from what it described as a “growing issue” (Northern Territory Department of Education, p. 146). Paraphrased, these were:

- a) An increased likelihood of students needing to repeat work due to contact with multiple teachers;
- b) A reduced likelihood of students developing a rapport with the teacher(s); and
- c) Reduced capacity for administrative systems to keep track of academic progression of students and consequently for their needs in the classroom to be articulated.

Research from overseas provides a more solid account of the potential impacts for students. Several articles on transient Maori students in New Zealand have noted that they are susceptible to bullying and behavioral risks and that mobile students themselves articulate lower educational aspirations compared to non-mobile students (e.g., Macarthur & Higgins, 2007). Mobile students have been found to have poorer attendance, a lower level of interaction within the school system, and less engagement in extra-curricular activities in New Zealand (Bull & Gilbert, 2007). Auld (2007) attributed the poor performance of transient students to an inability in coping with the double life change created by a new environmental setting, and the new or different school. Associations between short-term mobility and poor student performance have also been established by studies in Europe and the United States including those by Demie (2002) and Strand and Demie (2007). They found that mobile students were more likely to come from low socio-economic backgrounds and consequently, have a reduced capacity to adjust to location and contextual changes as a result of mobility.

As well as the ramifications for students, schools themselves must cope administratively and educationally with fluctuations in student numbers. Mobility affects student numbers not only where schools are located, but also in their catchment areas, including outstations, temporary camps, and semi-permanent camps (e.g., Foster et al., 2005). Whereas an individual school in the urban context can be relatively confident about the size and composition of its student cohort, remote schools may be dealing with daily fluctuations of what may be essentially an "unknowable" cohort. Students who are unexpectedly on the move create a disjuncture for schools between their fixed schooling infrastructure and the desire to meet the needs of all students. This places the administrative capacity of schools to track students through the system according to institutional norms, where student's successive enrolments are meant to progress in a pre-determined and relatively predictable way, at risk (Auld, 2007; Prout, 2008). Lynch (2009) meanwhile has discussed the extra efforts made by teachers in remote Queensland to improve the flagging literacy of transient students. In the United States, Beaulieu (2000) has raised an important point regarding the effects of mobility on educational reforms at the school level. He noted that quality improvement strategies were difficult to enact and evaluate at schools where student transience was high.

Fundamental to this discussion, there is limited published data for assessing the size and impacts of Indigenous student mobility such that dialogue and appropriate responses both in the NT and other jurisdictions of Australia can address the issue meaningfully. Understanding about how Indigenous student mobility is related to student outcomes has

been constrained by an absence of data collected on a consistent basis over time and reported on using appropriate quantitative measures which are conceptualised around business rules with meaning in the institutional context. Instead, workload measures in the past, in the NT at least, have relied on traditional methods for reporting student enrolments and attendance, based on the average numbers enrolled at a point in time to calculate student and school performance (Dunn, 2009). Because of this, little is known about magnitude, frequency, direction and characteristics of the mobile student cohort. The current situation has prolonged the generalised nature of commentary on the issue and meant that dialogue has relied largely on anecdotes, despite the common knowledge that in-term student mobility is a major issue. Consequently, teaching staff and principals possess limited evidence to bring to the table when they engage with the educational leadership, with policy makers, and with their program managers to discuss the effects of mobility on their capacity to deliver educational outcomes.

In this study we describe in detail three conceptual measures developed over several years by the Department of Education (DET) in the Northern Territory for measuring and depicting student mobility. These are significant for their unique representation of the unit record level data held within administrative systems. They are also very important for facilitating quantitative comparisons across spatial areas and between student cohorts (notably between Indigenous and non-Indigenous students) for, in this case, Northern Territory Government schools. Underlying the development of these concepts has been a suite of business rules developed to ensure that each measure delivers consistent and comparable (over space and time) representations of in-term student mobility. We first outline these before defining the formulae themselves and passing through data from the NT education system to deliver the results. Finally, we discuss the value and implications of this work for growing understanding about Indigenous student mobility and Indigenous mobility in remote areas more broadly.

■ Methods

This study describes the conceptual basis of and supporting business rules for three measures of student mobility developed in the Northern Territory:

- Student Movements
- The Cumulative Enrolment Ratio
- the Student Replacement Rate

These determine how unit record level data held within the Northern Territory Department of Education's

Student Administration and Management System (SAMS) has been treated (in statistical terms aggregated, related across databases, cross classified, and queried) for the purpose of measuring and illustrating in-term mobility. SAMS contains information on all students enrolled at Northern Territory Government (NTG) schools. The DET databases record multiple levels of information about NTG students against a Unique Pupil Number (UPN) which remains with the students throughout their government schooling, and against which demographic characteristics, enrolment and attendance records are notated. A spatial and temporal account of student enrolments and the movements of students between schools are provided by the recording of the UPN at the time a student enrolls at an individual school, for which geo-codes are available and added to the record.

Sequences of enrolments at the same or successive schools provide a history of the enrolment episodes for individual students. Spatially, these episodes can be represented by cross-matching the school of enrolment to a number of statistical reporting regions and this makes it possible to track the spatial "itineraries" of individual students at the micro-level (between individual schools) as well as macro-level (across statistical regions within the NT). In this study we analyse student mobility in and between regions in the NT according to the Accessibility Remoteness Index of Australia (ARIA, see ABS, 2005). ARIA classifies individual Census Collection Districts, according to common characteristics of remoteness, into broad geographical regions called remoteness areas. The NT contains only three remoteness areas – Provincial (essentially Darwin and its immediate surrounds, sometimes referred to as "outer regional"), Remote (Katherine, Alice Springs and their surrounds), and Very Remote (the balance of the NT).

There are a number of limitations with the measures presented here. Firstly, it is restricted to students who are enrolled at NTG administered schools. An estimated 10,000 students on average who are enrolled at non-government schools each year are excluded from the analysis. Secondly, there is a small potential for student enrolments to be inaccurate or duplicated by incorrect recording of data or UPNs. In relation to Indigenous students the likelihood is increased by cultural factors (such as the non-use of certain names after death) and a higher likelihood of students not engaging with the officious systems which are designed to track their enrolments. In the NT, DET and individual schools have worked consistently since the introduction of SAMS to improve policy and practices to ensure that the UPN is used consistently as students move between schools and that enrolment conflicts (where a student is incorrectly enrolled at more than one school at the same time) are identified and corrected. Consequently, the accuracy of the SAMS database is high. We now detail the concepts and measures around which our

analysis of student mobility in the Northern Territory is constructed.

■ Proposed concepts and measures of student mobility: Student movements

Information relating to each student and their enrolment sequences can be used to produce a dataset of enrolment "sequences" or "pairs". Student movement datasets consist of information relating to the student's enrolment at the school of *departure* and school of *arrival*. A student *movement* occurs whenever a student (identified by his or her UPN) is removed from the current roll of a school and then undergoes the enrolment process again (either at different NTG school, or by re-enrolment at the same school). As there may be a lag between the student's departure from one school and their re-enrolment, a movement is triggered by the arrival enrolment date.

A student movement is *between schools* whenever a student is removed from the current roll of a school and then undergoes the enrolment process at a different NTG school. On the other hand, a student movement is defined to be a *return to the same school* whenever a student is removed from the current roll of a school and then undergoes the enrolment process at the same school without attending another NTG school. A student movement is considered to be *expected* whenever the student transfers at the start of the school year and progresses from primary to middle school, primary to high school, or middle to high school or secondary college. All other student movements are *unexpected*. A large number of student movements are accounted for by the requirement that administrative staff to remove students from the current roll when they have unexplained absences for four weeks, a policy which was under review at the time of writing.

■ The Cumulative Enrolment Ratio (CER)

The CER provides school level comparisons on the cumulative size of the student cohort relative to average weekly enrolments. Based on the actual number of students enrolled at a particular school or during a given time period, this measure is defined as the ratio of the total number of students enrolled compared to the average weekly enrolment for a specified time period. A student is deemed to be *enrolled* at an individual school on any particular day if his or her enrolment date was on or before that day and he or she had no departure date recorded (or the recorded departure date was after that day). For this measure, *average weekly student enrolment* numbers are calculated based on the last day of each school week to smooth out seasonal effects in enrolment numbers evident when enrolments are recorded during selected weeks within terms. *Average weekly*

enrolments captures enrolment numbers across 40 school weeks per year (occasionally 41) and is defined as the average of the weekly enrolments during the selected time period:

$$\text{Average weekly enrolments} = \frac{\text{sum of weekly enrolments}}{\text{number of weeks}}$$

By treating student enrolments as a throughput measure, the total number of students who attended a particular school at any stage during the school year (or any reporting period) can be identified. This cumulative measure of enrolment highlights the manner in which the aggregate number of enrolments at an individual school increases over time as students move into and out of the school. The CER is thus defined as the total number of students who were enrolled at any stage during the specified time period according to the number of distinct student UPNs recorded:

$$\text{CER} = \frac{\text{cumulative enrolment}}{\text{average weekly enrolment}} \times 100\%$$

The student replacement rate (SRR)

This measure indicates the size of student turnover in the school population by quantifying the differences between student *arrivals* and *departures*. A student *arrival* occurs at enrolment and a student *departure* is defined to have occurred whenever a student is removed from the current roll of the school. To avoid situations where student turnover exceeds 100 percent, which in the past has been misinterpreted as every student in the school changing, an average of arrivals and departures is proposed. This adjusted measure of student turnover is called the Student Replacement Rate (SRR). The SRR is therefore defined as:

$$\text{SRR} = \frac{(\text{student arrivals} + \text{student departures})/2}{\text{average student enrolments}}$$

The breakdown of arrivals and departures in this way facilitates the important analysis of how many and which students have experienced temporal ‘gaps’ in their enrolment sequences. These are created when students unexpectedly depart from a school during term, are subsequently removed from the enrolment register, and do not re-enrol (at the same or a different school) until a later date within the school term, or in a subsequent term.

■ Results

Results for student movements

In 2008 there were approximately 151 NTG administered schools, of which about three-quarters were in remote (or very remote combined) areas of the NT. Average weekly enrolments for all NTG schools were 31,346 in 2007 and 32,684 in 2008, with 43 percent and 44 percent respectively being Indigenous students. During 2007 and 2008 there were a total of 16,000 student movements between schools, of which more than half were undertaken by Indigenous students (Table 1), although Indigenous student movements declined by around four percent from 2007 to 2008. Of all Indigenous student moves, around 85 percent were unexpected, compared to just half of the moves for non-Indigenous students. In 2008, almost 60 percent of Indigenous student moves involved a return to the same school, compared to just 12 percent for non-Indigenous students. There was an increase of 15 percent in the proportion of Indigenous student moves which featured a change of school from 2007 to 2008 but this ratio was far higher for non-Indigenous students,

Table 1. Student movements by Indigenous status, 2007 and 2008.

Indigenous status	Type of movement	2007	2008	Total
Indigenous	Expected	485	756	1,241
	Unexpected	3,448	3,765	7,213
Total		3,933	4,521	8,454
<i>percent unexpected</i>		87.7 %	83.3 %	85.3 %
Non-Indigenous	Expected	1,251	2,128	3,379
	Unexpected	1,868	2,031	3,899
Total		3,119	4,159	7,278
<i>percent unexpected</i>		59.9 %	48.8 %	53.6 %
Unknown	Expected	19	31	50
	Unexpected	109	152	261
Total		128	183	311
<i>percent unexpected</i>		85.2 %	83.1 %	83.9 %

at a third. For movements between schools, the highest rate of unexpected moves was for schools in Very Remote (95 percent of all moves) followed by Remote (71 percent) and Provincial (at just 59 percent of all moves).

In terms of spatial flows (movements within and between remoteness regions) the vast majority involved a return to the same region classification that the student departed from. That is, 91 percent of departures from Very Remote schools resulted in arrivals to Very Remote schools, 73 percent of departures from remote schools were to Remote areas, and 91 percent of departures from Provincial schools were to Provincial. The 27 percent of departures from Remote schools that did not involve a return to Remote schools were distributed evenly as arrivals to Provincial and Very Remote schools.

Results for the CER

The CER for all students averaged just over 120 percent during the 2006, 2007 and 2008 school years, but was consistently and markedly higher for Indigenous students (Table 2). Reflecting this, the CER was also much higher in Very Remote areas (almost 150 percent in 2006, 145 percent in 2007 and 140 percent in 2008). The CER for Remote schools was 129 percent in 2008 while for Provincial schools it was 116 percent. There was very little difference between genders in the CER for the period of analysis.

Results for the SRR

The SRR for all NTG schools during 2006 to 2008 varied only marginally from as low as 57 percent in 2006 to 63 percent in 2008. There was little difference between males and females in the rate, although females were slightly higher in 2007 and 2008 (at 63.2 percent and 62.1 percent respectively). Although reasonably consistent across the three years, an increase of six percent in the rate was observed from 2006 to 2007. The SRR was highest for Very Remote Indigenous students at around 100 percent each year (Figure 1). The rate was lower for Remote

areas (around 60 percent) and much lower again for Provincial schools (around 40 percent).

Discussion

According to the measures conceptualised and applied in this study, the results clearly demonstrate that Indigenous students enrolled at NTG schools are significantly more mobile than non-Indigenous students. The CER and SRR were far higher for Indigenous students as well as significantly higher for schools in Remote and Very Remote areas of the NT when compared to Provincial schools. More importantly, a far higher proportion of Indigenous students recorded unexpected moves, with rates for both the CER and SRR being at their highest for Very Remote Indigenous students. The fact that the vast majority of moves in the remote sphere were unexpected is demonstrative of the disruptiveness faced by remote area teachers, students and schools from what are clearly, given the consistency in the numbers over time, persisting patterns of high mobility.

As well as demonstrating the higher mobility of Indigenous students relative to others, the measures provide an indication of the scale of additional "burden" on schools in remote areas and particularly those with high proportions of Indigenous students. Factors include the administrative costs of processing student departures and arrivals, costs and efforts in assessing the students' level of competence upon arrival, and the costs of monitoring the progress of highly mobile students including ensuring they are removed from the enrolled list, should they depart. While most unexpected moves involve a return to the same school, data suggests that there are definitive gaps in the enrolment itineraries for large numbers of individual students in remote areas. These represent time spent outside of the education system and this is perhaps the most concerning element of the findings for educators. The exception is movements which may have resulted in a temporary arrival to a non-government school, which cannot be quantified using SAMS data (although these are thought to be small in number). Despite the clear differentials between

Table 2. Enrolments (number) and cumulative enrolments (CER), 2006 to 2008.

	Student enrolments			CER (%)		
	2006	2007	2008	2006	2007	2008
All DET students	38,449	38,634	39,240	123.1%	123.3%	120.0%
Indigenous	17,417	17,816	18,333	134.0%	132.6%	126.9%
Non-Indigenous	21,032	20,818	20,907	115.4%	116.2%	114.6%
Provincial	18,886	18,825	19,403	116.9%	117.0%	116.4%
Remote	8,723	8,688	8,272	129.8%	135.7%	128.6%
Very remote	12,499	12,810	13,392	149.7%	144.8%	139.7%
Female	18,551	18,770	19,046	122.4%	123.2%	120.0%
Male	19,898	19,864	20,194	123.9%	123.3%	120.2%

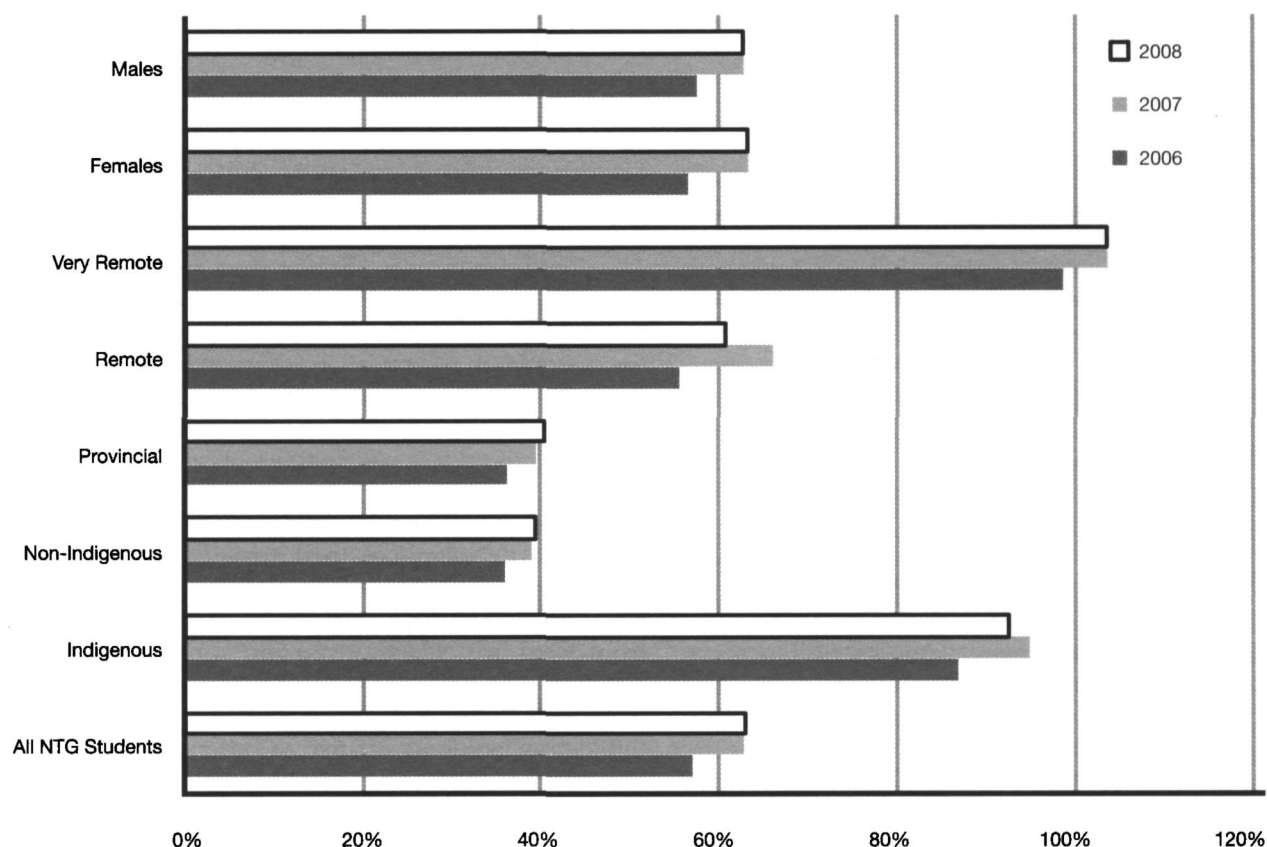


Figure 1. Student replacement rates, 2006 to 2008.

Indigenous and non-Indigenous rates of student mobility, what must be kept in mind is that, under the definitions here, a “move” does not necessarily feature travel away from the home community of the student. An unknown proportion of moves will involve no change of address, community or town at all.

■ Conclusions

This study essentially confirms the history of anecdotes in relation to there being a consistently churning student population in remote areas which must be dealt with administratively and educationally by schools. While the results here are probably not unexpected for those educators who have worked at remote schools in Australia, this study lays out for the first time research based information on which dialogue for addressing impacts can begin. At the very least it provides principals at any school where data on enrolments is available with the intellectual basis for quantifying the size of in term mobility, assessing the localised effects, and negotiating with system administrators to have these recognised (explicitly or inherently) within funding models. Types of effects from high mobility are likely to include direct financial costs (largely administrative), increased cost for the recruitment and retention of teaching and administrative staff and reduced student (and thus school) outcomes.

This study suggests that Indigenous student movements are a sub-set of the broader and more complex phenomenon of high frequency, temporary, and short-distance movements in and around remote indigenous communities in Australia. Critical to establishing how these are interrelated is knowledge about what triggers unexpected moves for Indigenous students and to what extent are these different to non-Indigenous students? There is little to inform us in either official datasets or in administrative data sources like the SAMS databases on the critical question who (if anybody) tends to accompany mobile students through movement sequences. And, as we have suggested, we also do not know the extent to which unexpected moves (with significant lags before re-enrolment) represent partial or complete disengagement from educational activities, or what activities are might have been substituted in the place of classroom attendance. It is likely that the answers to these questions will vary substantially across States and Territories, within regions and between communities.

While this study has highlighted the worrying incidence of temporal disengagement from the education system, we should not fall into the trap of viewing all such episodes as overtly negative and detrimental to the student, just because they sit outside of the norms of the system. It is not unreasonable to suggest that at least some of the mobile cohort is travelling purposefully on, for example, bush holidays,

family holidays or to visit friends or relatives. These may include elements of “education” in the broader sense. The undertaking of travel within school terms also signals the need for research which articulates if and how these are related to broader demographic and social processes like urbanisation (are students part of trips to visit relatives who have migrated to urban centres, for example?), changing access to and use of technology, and policies put in place by the Australian and Northern Territory Governments which overtly seek to influence the daily lives of Indigenous people in remote areas.

Interestingly, the timing of the data reference period (2006 to 2008) coincides with the commencement of the Northern Territory Emergency Response (NTER), enacted in June 2007. Several reports have lamented (largely anecdotally) large increases in the “drift” of people from communities to urban centres as a result of the NTER and its programs. Studies such as Holmes and McRae-Williams (2008), for example, have linked a growth in the number of “long grass” people in Darwin post-2007 directly to the NTER. While acknowledging that homelessness for any individual is traumatic and is symptomatic of wider societal issues, the numbers quoted in such studies can best be described as small and lacking in baseline evidence on which to assess temporal change. Direct links between student movements and the movements of adults might be expected in the SAMS data if indeed the NTER drove such large numbers to urban centres. But comparisons of 2007 to 2008 data provide no evidence of a fundamental change in the size of student movements between remote and urban areas. While some students may indeed have ended up “in town” with “drifting” adults and not enrolled while they were there, at least some effect should be observable in the SAMS data if indeed the scale of movement intimated by Holmes and McRae-Williams did occur.

For teachers, schools and DET this study clearly points to a need for a research program which delivers knowledge about the drivers and the spatial attributes of the flows identified here. Secondly, the impacts on students, teachers and schools must be further understood and adjustments should be made to funding models and policy on the basis of these. The conceptualisation and application of the measures outlined in this paper represent only part progress in the building up knowledge about contemporary Indigenous mobility. In the face of continued lamenting about the dearth of data capable of depicting short-term Indigenous spatialities (e.g., Biddle & Prout, 2010; Taylor & Bell, 2004) this study plays a small but important role and it is particularly useful because the SAMS datasets are built from the unit record level up, making it methodologically consistency in its collection, the business rules applied to its aggregation and manipulation, and the reporting measures conceptualised here. The internal consistency of SAMS

data means it is a valuable resource and the efforts of the Department in developing and maintaining it must be recognised. Other jurisdictions will see the value in developing capabilities to measure student mobility on a system-wide basis.

With the ongoing urbanisation of the Indigenous population in the NT the question is raised of whether those who are “left” in remote areas are a highly mobile cohort that contributes disproportionately to the differences in rates observed here between Indigenous and other students. Most importantly from a demographic perspective is the question of who (if anyone) is accompanying students that undertake moves where there is a spatial change. Answering these questions would require a complex and sophisticated data set which simply does not exist. Given the strong relationships observed overseas between student mobility and student outcomes, there is an imperative to better understand these issues through research. The first task is to understand what proportion of moves actually involves a “move” at all in the spatial realm and why or why not these occur.

In conclusion, our study has provided appropriate measures and clear quantitative evidence to demonstrate the disparities between Indigenous and other student mobilities in the NT, and particularly in remote areas. For educators, the quantification of the phenomenon provides a research-based underpinning from which discussions on dealing with the consequences can progress. Our findings lend support to the notion that student mobility is one aspect of what, for many individuals, is no doubt a complex and dynamic, yet well entrenched, pattern of short-term and frequent mobilities. The drivers of such mobility are inevitably complex themselves. The embedded nature of Indigenous short-term mobility should lead us to question whether and how systems and procedures designed for progressing students in an orderly and pre-defined way might be improved to accommodate the life choices of students and their families, such that (as described by the Ministerial Council on Education Employment Training and Youth Affairs, 2006) remote Indigenous education is not a “bolt on” to mainstream education, but is a consciously and thoughtfully derived part.

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entirely the authors' in their roles as researchers with the School for Social and Policy Research at Charles Darwin University.

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