NZPF 2001 TRANSIENCE SURVEY

NZCER ANALYSIS CHECK

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TE RŪNANGA O AOTEAROA MŌ TE RANGAHAU I TE MĀTAURANGA

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INTRODUCTION

NZCER was asked by the NZ Principals' Federation (NZPF) to provide quality assurance on Murray Neighbour's analysis of the NZPF's national survey of all primary and intermediate schools, undertaken in Novermber 2001. The aim of this survey was to establish New Zealand figures for student transience levels, in the light of growing sector concern about the relationship between student transience and achievement, and the impact of student transience for schools (Lee 2000, Neighbour 2001).

NZPF provided NZCER with all the individual replies received from schools, which were then data-entered before being analysed in terms of school size, decile, region, and type.

RESULTS

Our analysis of the NZPF data substantively agrees with that of Murray Neighbour, and we have managed to get some further possible insights into the interrelationships between deprivation, size of school, region and type of school. We raise some issues which were found with the data, and suggest a new format for any replication of this survey. We analysed data from NZCER's 1999 national survey to provide some comparison. We also look briefly at the existing research on student mobility to get an idea of the meaning of the results found, and to suggest some paths forward for further investigation of student transience and its effects.

Data issues and NZCER approach to the analysis

We have reservations about the quality of the data that was collected in this study. In particular, it seems apparent that not all schools understood the questions to mean the same thing. This is apparent from the following examples:

Question	School A	School B	School C	School D
2. "The number of children enrolled from day 1 2001 to 1 November 2001."	83	217	28	250
3. "The number of children who have left the school from day 1 to 1 November 2001."	56	106	10	25
4. "The Grading Roll of the school."	237	402	U2	238
5. "The number of children excluding New Entrants enrolled from day 1 to 1 November 2001."	53	111	18	204
6. "The number of Year 6 (contributing) or Year 8 (full primary or intermediate) pupils who will leave at the end of this year."	36	63	-	39
Roll Turnover	58.3	80.4		115.5
Transience rate	30.8	38.3		79.8

Schools A and B probably filled in the form as intended.

School C, by giving the grading roll code, left us the option of using the Ministry of Education-supplied total roll (which is usually, but not always, close in value to the grading roll as supplied by the school).

School D failed to distinguish between "new" children enrolling (which was what was sought by Question 2) and all children attending the school.

Unfortunately, the distinction between responses like those of Schools A and B (assuming B to be a school with high transience) and those like School D is not always clear-cut, particularly in the case of intermediate schools (where there was some confusion as to what constituted a "new entrant", with some possibly including their full year 7 intake).

For our analysis, we:

- Checked the representativeness of the returns by comparing school characteristics with the Ministry of Education national schools database. This showed that the survey returns are close to the national figures for school decile and region, with a slight under-representation of small schools (U1, U2, U3), and over-representation of medium-sized schools (U4, U5), and some over-representation of contributing schools. (See the Appendix for details).
- Included returns where we could impute numbers (using total roll for grading roll, or the appropriate fraction of the grading roll for Q6—assuming that approximately equal number of pupils were in each year in the school, thus where the grading roll was 240 for a full primary school, imputing 30 for the number leaving at the end of year 8)
- Excluded returns where the roll turnover or transience were "nonsense". This included values over 100% (which in some instances may have been legitimate), or negative (some transience rates were negative, where the value given for Q6 exceeded the sum of the values given for Q3 and Q5).
- This left us a few more responses than were included in the original analysis (about 820 versus 795). Because some of those now included may be more "suspect"—or just because we have extra observations—some of the extremes (highest and lowest values) quoted in our analysis are outside those quoted by Neighbour.

However, this still leaves the possibility that responses from principals who understood the questions differently from how they were understood by other principals, and as they were intended, are included in the analysis, if they did not show extreme roll turnover or transience rates.

We used the same formulae as Murray Neighbour, that is:

$$\textit{Roll turnover} = \frac{\text{pupils joining the school + pupils leaving the school x 100}}{\text{Grading roll}}$$

$$\textit{Transience} = \frac{\text{pupils joining the school – new entrants+ pupils leaving the school –Year6/Year8 leaving at year end x 100}}{\text{Grading roll}}$$

Average roll turnover and transience

The average *roll turnover* was 43.7%, ranging from 5% to 100%. The margin of error was 1.17, giving a 95% confidence interval of 42.5 to 44.9%

The average *transience* was 29.6%, ranging from 2% to 98%. The margin of error was 1.06, giving a 95% Confidence interval of 28.6 to 30.7%

School size, decile, region, and type all showed some relationship to turnover and transience rates. The means in tables 1-4 below are close to those provided by Murray Neighbour.

School Size

Turnover rates were highest in the smallest and largest schools. Transience rates were also highest for the smallest schools and the largest, though there were only two schools in the latter category.

Table 1 Transience and roll turnover (as percent) by size of school

	Roll Turnover			*Transience*			*Number of*
Size	*Minimum*	*Mean*	*Maximum*	*Minimum*	*Mean*	*Maximum*	*Schools*
U1	14	48	100	3	34	98	120
U2	11	41	93	5	30	67	103
U3	10	40	100	5	29	82	86
U4	10	42	100	7	29	88	234
U5	12	45	94	2	29	75	209
U6	5	47	80	2	27	69	70
U7	63	65	68	18	36	54	2
All	**5**	**44**	**100**	**2**	**30**	**98**	**824**

Socioeconomic decile rating

Decile 1 and 2 schools had much higher rates of turnover and transience than others.

Table 2 Transience and roll turnover (as percent) by decile

	Roll Turnover			*Transience*			*Number of*
Decile	*Minimum*	*Mean*	*Maximum*	*Minimum*	*Mean*	*Maximum*	*Schools*
1	22	56	100	3	39	80	87
2	10	53	100	7	40	88	86
3	18	46	89	10	33	71	79
4	15	45	95	5	30	90	101
5	14	39	100	3	27	98	69
6	10	42	94	7	26	83	84
7	16	38	100	5	26	80	81
8	12	42	90	2	27	68	89
9	12	38	95	5	24	85	69
10	5	35	100	2	23	96	74
All	**5**	**44**	**100**	**2**	**30**	**98**	**820**

Region

We used the regions as defined by the file of schools data supplied by the Ministry of Education, which are slightly more detailed than those used by Neighbour. Regions with higher than average turnover were Auckland, Bay of Plenty, Gisborne, Marlborough, Northland, and Waikato. The regions with higher than average transience rates were Marlborough, Bay of Plenty, Waikato, Auckland, Chatham Islands, Northland, Gisborne, and West Coast.

Table 3 Transience and roll turnover (as percent) by region

	Roll Turnover			*Transience*			*Number of Schools*
Region	*Minimum*	*Mean*	*Maximum*	*Minimum*	*Mean*	*Maximum*	
Auckland	10	49	100	8	33	88	159
Bay of Plenty	23	47	94	3	34	83	44
Canterbury	10	38	100	5	26	96	102
Chatham Is	30	32	34	30	33	35	2
Gisborne	17	46	88	7	32	59	17
Hawkes Bay	14	44	100	5	29	55	37
Manawatu-Wanganui	16	43	87	5	30	80	63
Marlborough	27	47	91	13	39	50	7
Nelson	17	37	62	12	21	33	8
Northland	19	47	95	11	33	86	65
Otago	11	38	100	7	25	98	46
Southland	12	41	88	2	29	68	34
Taranaki	18	43	68	12	31	59	29
Tasman	25	38	50	13	26	42	13
Waikato	22	48	95	7	34	90	93
Wellington	5	37	71	2	23	71	90
West Coast	14	44	71	11	32	67	12
All	**5**	**44**	**100**	**2**	**30**	**98**	**821**

School Type

Intermediates and restricted composites (of which there were only 2) had higher than average roll turnover. Because students attend an intermediate for only two years, this is to be expected. However it looks as if a relatively large proportion of returns from intermediate schools did not answer the question as intended, so results from a more rigorous follow-up study may not agree with the results of this survey. Special schools and contributing schools had higher than average transience rates.

Table 4 Transience and roll turnover (as percent) by type of school

	Roll Turnover			*Transience*			*Number of Schools*
Type	*Minimum*	*Mean*	*Maximum*	*Minimum*	*Mean*	*Maximum*	
Composite	5	37	64	2	29	57	27
Contributing	17	45	100	3	31	98	355
Full primary	11	41	100	2	29	96	395
Intermediate	43	65	100	5	17	75	36
Restr. Comp.	38	60	81	25	29	34	2
Special	10	24	41	18	35	82	6
All	**5**	**44**	**100**	**2**	**30**	**98**	**821**

NZCER 1999 Survey data

The NZCER 1999 national survey found that 27% of primary and intermediate schools lost between 10–19 percent of their school roll, and 17% lost more than 20 percent; 38% gained between 10–19 percent of their roll through newcomers transferring from other schools, and 25%, 20 percent or more. Similar patterns to the NZPF 2001 survey were found in relation to decile, but a different pattern for school size, with higher turnover in schools with rolls over 120 (Wylie 1999, pp.158–9).

We have now calculated the average turnover rate for primary and intermediate schools in the NZCER survey. On a sample of 182, and using 1998 student mobility data in relation to 1999 mid-year roll data, we found an average transience rate of 26%, with a margin of error of 2.61, giving a 95% confidence interval of 22.9 to 28.1%.

We found similar trends in relation to decile (an average transience rate of 39% for decile 1 schools, decreasing with decile to 15% for decile 10 schools), a somewhat different trend for school size other than U3 and U4), and similar patterns for school type.

Principals' perceptions of students' reasons for leaving their school

We have less close agreement with Murray Neighbour's figures for principals' perceptions of the reasons for students' leaving their school. This could be because of data entry error, or collation error. As the responses were given in very different format by different schools, data entry was more difficult than it is when a very standard format is used. We were able to easily check the numerical responses, but checking the reasons for leaving would have needed a close inspection of at least 10 percent of the responses.

There is at least broad agreement with Murray Neighbour's results, and if all the results are used for is to give a "big picture overview", then the data will probably support this overview.

The reasons for children leaving school that were offered were:

a) Parents seeking employment elsewhere
b) Family breakups or difficulties
c) School dissatisfaction
d) Housing
e) Being chased by other agencies
f) Other
g) "All of the above" (the response of 6 of the schools).

In the tables that follow, two percentages are given. As each respondent could tick more than one of the reasons, there are more responses than there are respondents. Meaningful percentages are

- the percentage of the responses (not shown) to each question—these would sum to 100% in each row;
- the percentage of respondents (shown)—these will add to more than 100% across the whole table;
- the percentage of respondents in each category (decile, school type, etc) (shown)—these will sum to more than 100% in each column.

School Size

Employment was more likely to be given as a main reason for student departures from their school by U5 and U6 principals; and family issues by U3 and U4 principals. Housing was less likely to be seen as a reason for student departures by U1 and U2 principals.

Table 5 Reasons for leaving the school by size of school

		School size							***Total responses***
Reason		*U1*	*U2*	*U3*	*U4*	*U5*	*U6*	*U7*	
Employment	Count	74	74	52	143	137	45	1	**526**
	% of size	*62*	*72*	*60*	*61*	*66*	*64*	*50*	
	% of respondents	9	9	6	17	17	5	0	**64**
Family issues	Count	21	22	22	60	35	13	1	**174**
	% of size	18	21	26	26	17	19	50	
	% of respondents	3	3	3	7	4	2	0	**21**
School issues	Count	4	4	5	7	6	0	0	**26**
	% of size	3	4	6	3	3	-	-	
	% of respondents	0	0	1	1	1	-	-	**3**
Housing	Count	12	12	20	71	66	18	0	**199**
	% of size	10	12	23	30	32	26	-	
	% of respondents	1	1	2	9	8	2	-	**24**
Other agencies	Count	5	3	5	8	16	3	0	**40**
	% of size	4	3	6	3	8	4	-	
	% of respondents	1	0	1	1	2	0	0	**5**
Other	Count	18	11	15	30	21	10	0	**105**
	% of size	15	11	17	13	10	14	-	
	% of respondents	2	1	2	4	3	1	-	**13**
All of the above	Count	1	0	1	4	0	0	0	**6**
	% of size	1	-	1	2	-	-	-	
	% of respondents	0	-	0	0	-	-	-	**1**
Total	**Count**	**120**	**103**	**86**	**234**	**209**	**70**	**2**	**824**
	% of respondents	**15**	**13**	**10**	**28**	**25**	**8**	**0**	**100**

Decile

There are more marked gradients evident school decile and reasons for students to leave a school. Most striking are family issues: from 39% of decile 1 school principals to 4% of decile 10 school principals – a ten-fold difference. Housing is a main reason given by 47% of decile 1 school principals, falling to 12% of decile 10 school principals. Employment is the only main reason to show a different pattern, with 43% of decile 1 school principals reporting this compared with 74% of decile 10 principals.

Table 6 Reasons for leaving the school by decile

		Decile										***Total responses***
Reason		*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	
Employment	Count	37	46	49	61	50	52	60	62	52	55	**524**
	% of decile	43	53	62	60	72	62	74	70	75	74	
	% of respondents	5	6	6	7	6	6	7	8	6	7	**64**
Family issues	Count	34	33	23	24	12	14	11	12	8	3	**174**
	% of decile	39	38	29	24	17	17	14	13	12	4	
	% of respondents	4	4	3	3	1	2	1	1	1	0	**21**
School issues	Count	4	6	3	2	3	3	2	1	1	1	**26**
	% of decile	5	7	4	2	4	4	2	1	1	1	
	% of respondents	0	1	0	0	0	0	0	0	0	0	**3**
Housing	Count	41	31	27	25	16	19	14	13	4	9	**199**
	% of decile	47	36	34	25	23	23	17	15	6	12	
	% of respondents	5	4	3	3	2	2	2	2	0	1	**24**
Other agencies	Count	12	9	8	4	1	3	1	1	0	1	**40**
	% of decile	14	11	10	4	1	4	1	1	0	1	
	% of respondents	1	1	1	0	0	0	0	0	0	0	**5**
Other	Count	15	8	14	5	7	10	8	9	10	17	**104**
	% of decile	17	9	18	5	10	12	10	10	14	23	
	% of respondents	2	1	2	1	1	1	1	1	1	2	**13**
All of the above	Count	4	1	0	0	0	0	0	0	0	0	**5**
	% of decile	5	1	-	-	-	-	-	-	-	-	
	% of respondents	0	0	-	-	-	-	-	-	-	-	**1**
Total	**Count**	**87**	**86**	**79**	**101**	**69**	**84**	**81**	**89**	**69**	**74**	**820**
	% of respondents	**11**	**10**	**10**	**12**	**8**	**10**	**10**	**11**	**8**	**9**	**100**

Region

Employment was more likely to be mentioned as a main reason for student departures from a school by principals in provincial areas: Gisborne, Taranaki, Waikato, Hawkes Bay, Manawatu/Wanganui, and Bay of Plenty. Housing was most likely to be mentioned by principals in Auckland and Nelson regions. Family issues were more likely to be mentioned as main reasons by principals in the West Coast, Taranaki, Northland, and Gisborne regions. Tasman principals were most likely to mention school issues, and Manawatu-Wanganui and Bay of Plenty, other agencies.

Table 7 Reasons for leaving the school by region

Reason		*Region*																	**Total responses**
		Auckland	*Bay of Plenty*	*Canterbury*	*Chatham Is*	*Gisborne*	*Howkes Bay*	*Manawatu/ Wanganui*	*Marlborough*	*Nelson*	*Northland*	*Otago*	*Southland*	*Taranaki*	*Tasman*	*Waikato*	*Wellington*	*West Coast*	
Employment	Count	82	32	55	2	14	28	47	5	5	35	28	23	23	8	72	57	8	**524**
	% of region	52	73	54	0	82	76	75	71	63	54	61	68	79	61	77	63	67	
	% of respondents	10	4	7	0	2	3	6	1	1	4	3	3	3	1	9	7	1	**64**
Family issues	Count	37	9	16	0	5	9	9	1	1	20	5	4	9	3	23	17	6	**174**
	% of region	23	20	16	-	29	24	14	14	13	31	11	12	31	23	25	19	50	
	% of respondents	5	1	2	-	1	1	1	0	0	2	1	0	1	0	3	2	1	**21**
School issues	Count	3	2	3	0	0	1	2	0	0	2	3	2	2	2	4	0	0	**26**
	% of region	2	5	3	-	-	3	3	-	-	3	7	6	7	15	4	-	-	
	% of respondents	0	0	0	-	-	0	0	-	-	0	0	0	0	0	0	-	-	**3**
Housing	Count	62	11	26	0	1	5	14	1	3	14	10	3	6	3	16	23	1	**199**
	% of region	39	25	25	-	6	14	22	14	38	22	22	9	21	23	17	26	8	
	% of respondents	8	1	3	-	0	1	2	0	0	2	1	0	1	0	2	3	0	**24**
Other agencies	Count	7	6	2	0	1	4	2	0	0	6	1	0	3	0	6	2	0	**40**
	% of region	4	14	2	-	6	11	22	-	-	9	2	-	10	-	6	2	-	
	% of respondents	1	1	0	-	0	0	0	-	-	1	0	-	0	-	1	0	-	**5**
Other	Count	21	6	17	0	2	4	3	0	3	10	6	5	2	3	7	13	2	**104**
	% of region	13	14	17	-	12	11	5	-	38	15	13	15	7	23	8	14	17	
	% of respondents	3	1	2	-	0	0	0	-	0	1	1	1	0	0	1	2	0	**13**
All of the above	Count	0	0	0	0	0	0	1	0	0	1	0	0	2	0	0	1	0	**5**
	% of region	-	-	-	-	-	-	0	-	-	0	-	-	-	-	-	0	-	
	% of respondents	-	-	-	-	-	-	0	-	-	0	-	-	-	-	-	0	-	**1**
Total	**Count**	**159**	**44**	**102**	**2**	**17**	**37**	**63**	**7**	**8**	**65**	**46**	**34**	**29**	**13**	**93**	**90**	**12**	**821**
	% of respondents	**19**	**5**	**12**	**0**	**2**	**5**	**8**	**1**	**1**	**8**	**6**	**4**	**4**	**2**	**11**	**11**	**1**	**100**

Type

Intermediate principals were most likely to mention employment as a main reason for student mobility, and contributing schools, housing.

Table 8 Reasons for leaving the school by type

Reason		*Type*				***Total responses***
		Composite	*Contributing*	*Full primary*	*Intermediate*	
Employment	Count	15	219	263	25	**522**
	% of type	56	62	60	69	
	% of respondents	2	27	32	3	**64**
Family issues	Count	2	86	77	6	**171**
	% of type	7	24	19	17	
	% of respondents	0	10	9	1	**21**
School issues	Count	2	9	14	1	**26**
	% of type	7	3	4	3	
	% of respondents	0	1	2	0	**3**
Housing	Count	2	128	61	7	**198**
	% of type	7	36	15	19	
	% of respondents	0	16	7	1	**24**
Other agencies	Count	0	23	14	2	**39**
	% of type	0	6	4	6	
	% of respondents	0	3	2	0	**5**
Other	Count	9	28	56	9	**102**
	% of type	33	8	14	25	
	% of respondents	1	3	7	1	**13**
All of the above	Count	0	2	3	0	**5**
	% of type	-	1	1	-	
	% of respondents	0	0	-	-	**1**
Total	**Count**	**27**	**355**	**395**	**36**	**813**
	% of respondents	**3**	**44**	**49**	**4**	**100**

Restricted composite and Special schools are not shown on the table.

Transience and school characteristics

Decile, size, type and region all show some relationship with transience rates. What is the most important of these, and how do these different characteristics relate to each other?

Regression tree (a technique that requires minimal assumptions) was used to explore how important the various variables such as decile, type of school, region, and school size were, and how they interrelate. The regression tree attempts to predict transience based on the observed values of the other variables. The results are illustrated in Figure 1.

The relative importance of the variables is shown by the length of the branches on the tree; also, the more important the variable, the higher up the tree it appears. The first branch (and after that each successive branch) is determined by the dichotomous separation of the observations into two groups based on some characteristic or value that accounts for the greatest amount of variation between groups. Decile was the most important variable. In this instance, the most important division is between the Decile 1, 2 and 3 schools, and the rest of the schools.

The second most important divisions are different in the high and low decile groups.

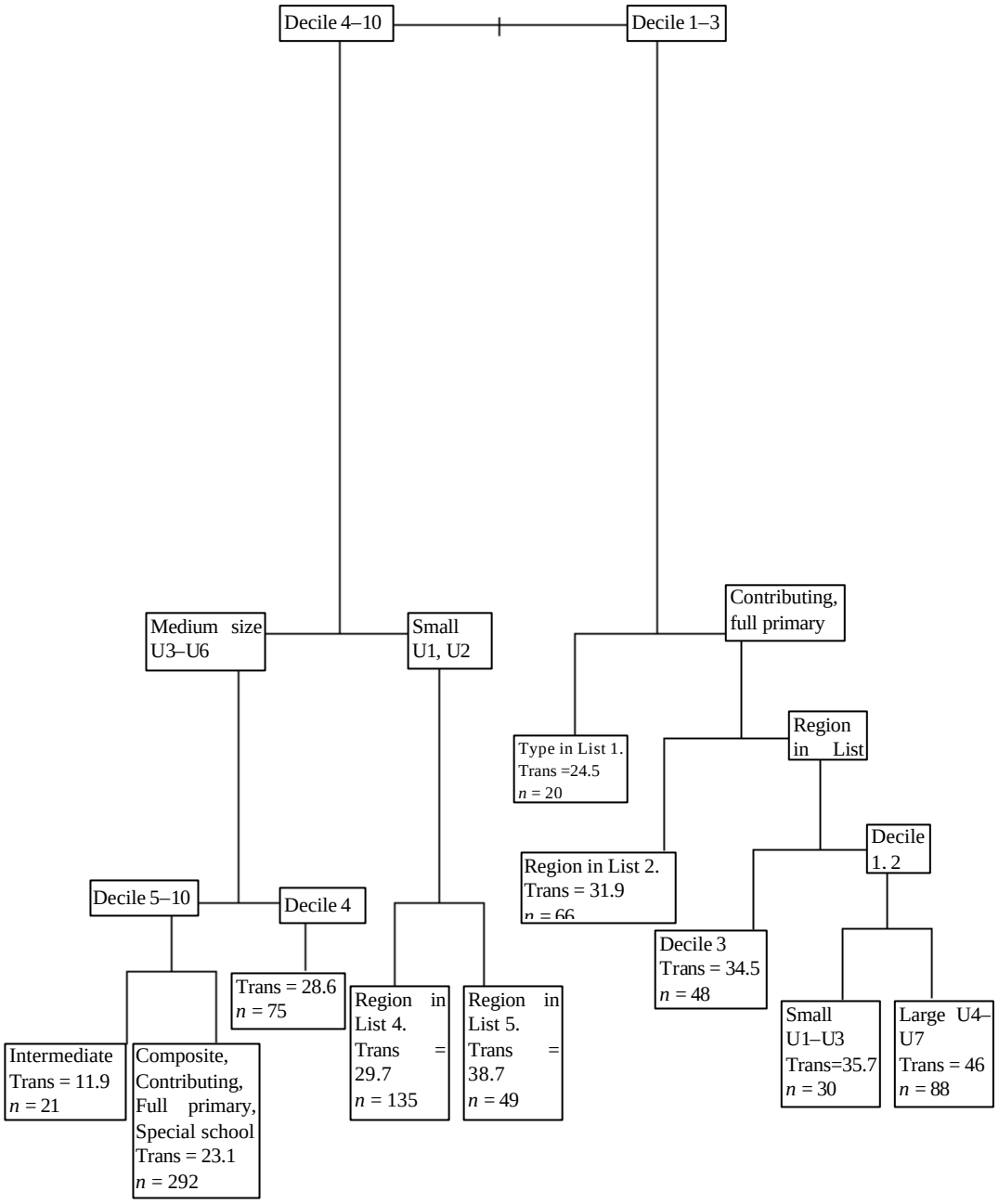
In the higher decile group, the second most important variable was size of school, with the very small schools (U1 and U2) forming one group with higher transience, and the larger schools forming the other group, with lower transience.

In the lower decile (1, 2, 3) group, the second most important variable was type of school, with Composite, Intermediate, Restricted composite, and Special schools having on average lower transience rates than the Contributing and Full Primary schools.

All of the variables decile, size, type, and region were used in the tree, which means that all were relatively important in determining transience rate.

The numbers at the end of the branches of the tree are the mean transience rate (Trans) in the group and the number of schools in the group (*n*). Typically, the branches on the left of the diagram are associated with lower transience rates, and those on the right with higher transience rates.

Figure 1 Regression tree predicting transience from the other variables



List 1: Composite, intermediate, restricted composite, special school.
List 2: Gisborne, Hawkes Bay, Nelson, Otago, Southland, Taranaki, Wellington, West Coast.
List 3: Auckland, Bay of Plenty, Canterbury, Manawatu-Wanganui,Marlborough, Northland, Waikato.
List 4: Canterbury, Chatham Is, Gisborne, Hawkes Bay, Manawatu-Wanganui, Marlborough, Nelson, Northland, Otago, Southland, Taranaki, Tasman, Wellington.
List 5: Auckland, Bay of Plenty, Waikato, West Coast.

In summary,

- The most important variable was decile, followed by size, type and region.
- The lowest transience rate was in high decile (5–10), medium-sized (U3–U6) intermediate schools (this did follow some adjustment to some of the submitted responses) which had a mean transience rate of 11.9%.
- Medium-low transience rate of a mean of about 29% was in higher decile (4–10), small schools, in Canterbury, Chatham Is, Gisborne, Hawkes Bay, Manawatu-Wanganui, Marlborough, Nelson, Northland, Otago, Southland, Taranaki, Tasman, Wellington regions, or in medium-sized, decile 4 schools.
- Medium-low transience rate (25%) in decile 1–3 schools was achieved by Composite, Intermediate, Restricted composite and Special schools.
- Medium-high transience rate of a mean of 39% was in higher decile (4–10), small (U1–U2) schools in the Auckland, Bay of Plenty, Waikato and West Coast regions.
- Medium-high transience rate (32%) in decile 1–3 schools was achieved in Contributing or Full primary schools in Gisborne, Hawkes Bay, Nelson, Otago, Southland, Taranaki, Wellington and the West Coast.
- High transience rates (46%) in decile 1–2 schools was observed in Contributing or Full primary, larger (U4–U7) schools.

Suggestions for continuation of the survey

This survey has provided the most recent national New Zealand data on student turnover and transience. If we are to understand more about transience and its effects, it would be useful to continue to survey schools regularly, since rates can change within schools and across schools.

If NZPF continues to gather national data on transience, we would suggest providing the survey in the form of a worksheet that principals can fill in and which clearly relates the numbers requested to each other (thereby removing any possible ambiguity).

There are three options. Two would give overall rates for each school. The third would provide rates for each year level as well, something that may be increasingly important with the new schools' planning and reporting framework.

Overall school rate

Both options a and b would ask for school name and MoE id number (if this is used by principals), and total school roll for the year. The MoE id number would be used to gain information on school characteristics without principals having to supply it.

Option a – based on NZPF 2001 survey

New pupils enrolled at the school for the first time this year (at the beginning of the year or during the year): *"New entrant" = pupil in the first year for your school.*	a) New entrants: _____ b) Other new pupils: + _____ c) Total new pupils _____ (a+b)
Pupils leaving the school this year:	a) Final year pupils Leaving at end of school year _____ b) pupils leaving **during** School year + _____ c) Total pupils leaving _____ (a+b)

Option b – based on NZCER's 1999 national survey of a sample of schools

Looking at student mobility during the school year (excluding graduates and new entrants):

a) How many students transferred to another school during the school year in 1998? ____

*b) How many students other than 5 year old new entrants transferred to this school during the school year in 1998?*____

Option c – Year level and overall school student transience

Year level	**No. of students entering from other schools at start of year**	**No. of students entering from other schools during school year**	**No. of students leaving school before end of school year**
Year 1	n/a		
Year 2			
Year 3			
Year 4			
Year 5			
Year 6			
Year 7			
Year 8			
Total			

NZCER will be running its national survey again in 2003, and some questions on transience can be included, allowing analysis of the relationship of school transience rates to other aspects of school provision, operation, and issues.

THE MEANING OF TRANSIENCE

School transience rates

The NZPF 2001 national survey data show a much higher average transience rate than the UK primary school data: 30 percent compared with 10-20 percent reported by Dobson and Heathorne (1999), and the median of 11 percent reported in a recent OFSTED report covering over 3,300 primary schools (OFSTED 2002).

Little research has been done about the impact of school transience rates. There is mixed evidence about the relationship between school transience rates and student achievement. On the one hand, OFSTED report only a 'weak' relationship at the primary level. OFSTED reports a stronger relationship at secondary level, "almost all schools with mobility above 15% have average GCSE scores below the national average". On the other hand, Demie (2002) found marked effects for schools in an inner city London LEA: "When schools are compared on the basis of pupils for whose schooling they were wholly responsible ['non-mobile students], the rank order of schools' performance in the DfEE league table changed dramatically in most schools." (p. 209).

The 2002 OFSTED report includes material from a small number of schools with high mobility rates. It concludes from these that "It was clear that mobility has effects, and sometimes highly significant effects, on the work of the schools visited." The other recent UK research on mobility also mentions issues for school workload (Demie 2002, Dobson, Henthorne & Lynas 2000), particularly for incoming students. The issues mentioned are consistent with the issues identified by NZ principals (e.g. Lee 2000, Neighbour 2001). These include:

- the need to assess incoming students' performance and needs
- disruption to class programmes as new students are settled in and assessed
- disruption to class programmes and established behaviour standards with new students seeking to establish themselves; transient students are said to be more anxious than others about relationships with peers, and more interested in attracting adult attention; they are also said to be less trustful of others
- additional administrative workloads in enrolling students, and tracking down their record of schools attended and any information from their previous school related to their performance and curriculum covered
- difficulties in planning if roll numbers fluctuate (this is linked to staffing and funding)
- difficulties in fundraising from parents and the local community if students' families do not form an attachment with a school
- difficulties in maintaining continuity of parental involvement in voluntary support, including governance
- difficulties in maintaining a positive reputation if the school's image is one of high turnover
- difficulties in maintaining teacher motivation, since it becomes difficult to see the results of one's work with students.

Demie (2002) also identifies the additional issue of lower student achievement on national tests, which can give schools lower performance on benchmark indicators and in 'league tables'. She notes that this may be a particular issue for primary schools since they have higher mobility rates (families tend to move more when children are younger), and are smaller, so that the impact of one group of students can be larger. The new schools planning and reporting framework and the new schools monitoring system would indicate the need for New Zealand schools to be analysing their student achievement data in terms of student mobility.

The OFSTED report found some schools had more effective approaches to "reducing the negative effects of high mobility levels", and that some LEAs were more supportive of schools with high mobility rates, including systems to ensure quick transfer of student records and information between schools.

NZCER will be undertaking research on the impact of mobility rates on schools in four high-mobility communities, as part of the CRESA longitudinal project, *Building attachment in families and communities affected by transience and residential movement,* which will run from late 2002 to 2007. This work provides the opportunity to gain more understanding of the impact for New Zealand schools and their communities, and to look at the impact over time.

Overlaps between transience and socioeconomic circumstances

Higher transience rates are usually found in schools serving low income families. In the UK, they are also found in schools serving students for whom English is a second language. NZCER suggested in its submission to the Education and Science Select committee that the inclusion of transience rates in the formation of the decile rankings be investigated; it also noted that there was a reasonable correlation between decile and transience rates already, particularly for low decile schools. We found in the longitudinal Competent Children project much higher mobility among children from low income families, and higher student turnover rates (teacher estimated) in low socioeconomic decile schools (Wylie, Thompson & Lythe 2001).

Individual student transience rates

Most of the overseas research on transience has focused on individual rates, and its effect on individual achievement. On the whole, transience does have negative effects for children (Demie 2002, Dobson, Henthorne & Lynas 2000), but some research indicates that it is more likely to negatively affect children from low-income homes. Students who are transient are more likely to have entered school with lower achievement levels (Mantzicopoulos & Knutson 2000, Strand 2000).

Wylie, Thompson and Lythe (2001) found that NZ children who had attended four or more schools by the time they were aged ten tended to score lower than others on their range of academic, attitudes, and social skills measures, after taking into account family income and maternal qualification levels.

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APPENDIX

Comparison with Ministry of Education National School Statistics

On the whole, the survey returns compared well with the Ministry of Education national figures, particularly in relation to the school characteristics of decile and region. Tables giving the numbers and percentages in each category follow. Not all percentages sum to 100, due to rounding errors.

Table 11 Size of school

	Sample		*All schools*	
Size	*Number*	*Percent*	*Number*	*Percent*
U1	120	15	508	21
U2	103	13	403	17
U3	86	10	277	12
U4	234	28	588	25
U5	209	25	416	17
U6	70	8	173	7
U7	2	0	14	1
Total	**824**	**99**	**2379**	**100**

Small schools (U1, U2, U3) were slightly under-represented and medium schools were slightly over-represented (U4, U5).

Table 12 Decile

	Sample		*All schools*	
Decile	*Number*	*Percent*	*Number*	*Percent*
1	87	11	261	11
2	86	10	246	10
3	79	10	226	10
4	101	12	250	11
5	69	8	208	9
6	84	10	221	9
7	81	9	227	9
8	89	11	240	10
9	69	8	233	10
10	74	9	227	10
Total	**820**	**98**	**2368**	**100**

Table 13 Region

	Sample		*All schools*	
Region	*Number*	*Percent*	*Number*	*Percent*
Auckland	159	19	439	18
Bay of Plenty	44	5	140	6
Canterbury	102	12	287	12
Chatham Is	2	0	4	0
Gisborne	17	2	54	2
Hawkes Bay	37	5	124	5
Manawatu-Wanganui	63	8	204	9
Marlborough	7	1	29	1
Nelson	8	1	21	1
Northland	65	8	140	6
Otago	46	6	144	6
Southland	34	4	95	4
Taranaki	29	4	105	4
Tasman	13	2	33	1
Waikato	93	11	289	12
Wellington	90	11	227	10
West Coast	12	1	42	2
Total	**821**	**100**	**2378**	**99**

Table 14 Type

	Sample		*All schools*	
Size	*Number*	*Percent*	*Number*	*Percent*
Composite	27	3	120	5
Contributing	255	43	838	35
Full Primary	295	48	1233	52
Intermediate	36	4	134	6
Restricted Composite (Yr 7–1?	2	0	6	0
Special school	6	1	47	2
Total	**821**	**99**	**2378**	**100**