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The Careers of Teachers in Australia: A Descriptive Study*

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Abstract

This study uses longitudinal data from the Household, Income and Labour Dynamics in

Australia (HILDA) survey to provide a descriptive analysis of teacher careers in Australia,

looking at transitions in and out of teaching, the length of spells spent teaching, remuneration

and job satisfaction in both government and non-government school sectors. Each year,

approximately 14 per cent of teachers leave teaching (becoming a principal is not counted as

leaving teaching). Most who leave return to teaching at some stage, commonly after a gap of

just one or two years. This absence from teaching is typically associated with starting a family.

Overall, teachers are just as satisfied with their jobs as other professionals, and express above-

average levels of job satisfaction in relation to job security, but below average satisfaction in

relation to job flexibility (i.e. work/life balance). Those who left teaching recorded substantially

lower job satisfaction on all aspects of their job while teaching, which suggests they were no

longer well suited to teaching. The starting wages of full-time teachers are similar to those of

other full-time professions, but their wages grow much more slowly with experience than other

professions, for both males and females.

JEL classification: J22, J28, J44

Keywords: Teacher careers, teacher job satisfaction, teacher remuneration

1 Introduction

Teachers are correctly viewed by those who run school systems as a critical input for success. For instance, the *Government Schools Funding Review* (DET 2015) notes that teachers are critical to achieve the highest possible returns on student outcomes from resource inputs.¹ As the review points out, the bulk of the school funds are spent on teachers.² Therefore optimal use of funding requires effective use and marshalling of teachers. Yet the review also notes that recent increases in school resourcing have not produced better learning outcomes suggesting that funds may not have been used as productively as possible.³

Although the *Government Schools Funding Review* recommends the use of incentives (monetary and otherwise) to retain quality teachers (see p.180), it recognises that the labour market for teachers is affected by factors such as "the attractiveness of the profession, the quality of teacher education, movement in and out of the profession into other sectors, immigration and retirement." The review also identified several factors that hinder schools from attracting and retaining teachers such as "ageing of the workforce, hard to staff locations and subjects, variation in the profile and cost of school staff between schools, and limited teacher mobility."

This paper is very much a first step at describing key features of the careers of teachers in Australia. In this paper, we examine various characteristics of teachers and of the teaching career that may eventually help policy makers overcome barriers to attracting and retaining teachers. For instance, increasing mobility within teaching is difficult as financial incentives for teachers to relocate from the metropolitan area to regional and rural locations appear to have limited impact (DET, 2015). Therefore, leveraging aspects of the teaching job with low-satisfaction could be a potential tool to attract teachers at hard-to-staff locations or to increase teacher mobility.

A better understanding of teachers' careers is important because there is also evidence to suggest that teacher turnover has detrimental impact on student achievement (Ronfeldt et al.,

¹DET's "Framework for Improving Student Outcomes" notes that excellence in teaching is one of the key priorities (see http://www.education.vic.gov.au/about/educationstate/Pages/outcomes.aspx; accessed on April 5, 2016).

²Most (80-90%) of the Student-Resource package, which account for most of the school's expenditure is used for teacher salary.

³The review notes that the near automatic salary increment (merit payment) is at odds with widening gap between investment in schools and student performance.

2013). As teaching pay scales are generally centralised (at least for public schools), teachers may switch schools or exit teaching in response to non-pecuniary benefits such as student composition or neighbourhood quality. For instance, Hanushek et al. (2004) finds that in the United States (US), the probability of teachers to switch or exit public schools is strongly related with student characteristics such as race and achievement. Using data from Norway, Falch and Strøm (2005) also find that non-pecuniary job-attributes are important determinants of the probability of teachers to quit.

Teacher turnover research often focusses on teachers who leave specific schools, districts or states, and is usually concerned with whether attrition is greater for more able teachers. Much of this research is within the institutional context of the US where employees (including teachers) do not get paid leave. Although there are a few exceptions (see below), attrition is usually concerned with teachers who leave teaching in the first few years of their career. The absence of paid leave in the US necessarily entails greater costs, both to the individual as well as to the education system, of those who leave teaching and later re-enter the teaching profession. Stinebrickner (2002) uses survey data from the US and finds that having a newborn child is the most important reason for the exit of female teachers. Grissom and Reininger (2012) use the same data to examine re-entry in the teaching profession. They find that younger, betterpaid and more experienced teachers are more likely to re-enter. Not surprisingly, they find that women are more likely to return to teaching and that child-rearing plays an important role in the career decisions to re-enter teaching.

Much of the focus of teacher turnover research has been to examine if attrition is greater for more able teachers (defined by the value they add to the learning of students) and whether they transfer to high-scoring schools or to non-teaching careers. This is obviously important as exit of productive teachers from the teaching profession is costly while the exit of individuals mis-matched for teaching less so.

In this paper, we explore two broad aspects related to the careers of school teachers using data from Australia. First, we explore the dynamics of teachers' careers in regards to transition across teaching and non-teaching spells within the institutional context permitting (long) paid

⁴Even non-US specific research does not differentiate between teachers who leave the labour force with those who leave the public system. See, for instance, Falch and Strøm (2005).

and un-paid parental leave.⁵ Notwithstanding the flexibility to resume a teaching career after break, there is evidence to suggest that financial returns to teaching impact the decision of teachers to remain in the teaching profession (Dolton and Van der Klaauw, 1999; Chingos and West, 2012). Therefore, the second aspect of our analysis is the comparison of teachers with other professionals with respect to wages and aspects of job-satisfaction. Considerations of job-satisfaction measures are especially important in the context of teacher careers. As the wages of teachers are usually less flexible, schools may be able to attract and retain teachers of higher calibre by compensating for lower wage with other non-pecuniary benefits. Thus, it is important to take in account aspects of job-satisfaction beyond the monetary returns. Importantly, our data allows us to highlight the dimensions of a teaching job with which teachers express lower satisfaction.

The Australian context (described in section 3) is unique and informative. The institutional context is quite different in terms of the permanency of jobs with respect to family related leave compared with the US, for instance. Furthermore, more than one-third of the student population is serviced by private schools.⁶ Consequently, those in teaching professions have more flexibility with regards to choosing non-wage aspects of the teaching career. We use a nationally representative sample of the population with rich information on labour market participation and labour market outcomes and exploit the fact that teachers make up 4 percent of all full-time workers in Australia, providing us with sufficient observations to undertake this analysis (ABS, 2016).⁷

2 Research Questions

To describe teachers' career in Australia we explore a specific set of questions. First, we describe the characteristics of teachers in our data to answer the question: who is in the teaching profession? Besides demographic characteristics, we use measures of cognitive skill to explore differences in teachers by gender. This is useful to characterise the group of people who seek

⁵In Australia (the focus of our study), paid parental leave can extend up to 24 months. In contrast, employees in US are allowed 12 weeks of *unpaid* maternity leave.

⁶The private sector includes Independent schools and Catholic schools.

⁷The 4 percent figure includes pre-school teachers, who are excluded from the analysis in this paper.

a teaching career. The second question we are interested in is the transition patterns. In particular, we ask what are the patterns of transition from teaching to non-teaching. Transition patterns are useful because they inform policy with regards to the flux that needs to be taken into account to ensure a reasonably smooth functioning of the teacher labour market. Third, we examine the length of teaching spells of teachers to explore the reasons why persons leave teaching. Finally, we ask what the age-earnings profile and job-satisfaction measures look like for teachers when compared with non-teaching professionals.

We find that school-teaching related professionals in Australia have, on average, comparable levels or slightly higher cognitive ability then other professionals. The average year-on-year turnover of teaching professionals is approximately 15 percent. More than 50 percent of gaps in teaching career is explained by teachers taking long-term paid leave for family reasons (for example, maternity leave). Teachers in general report higher satisfaction with job-security aspect of their jobs but are less satisfied with flexibility that their job offers. We also find that aspects of job-satisfaction of primary- and secondary-school teachers vary by gender.

3 Institutional Context

The school system in Australia is similar to that in other English-speaking countries. Primary years of schooling is compulsory and the focus is on general education. Education, including regulations governing schooling, is the responsibility of the States and the Territories. State governments directly manage the public school systems in Australia.

One unique feature of the school education system in Australia is the substantial presence of non-governmental schools. Non-government schools enrol just over one third of the student population across Australia. Catholic schools educate about 20 percent of the students while 14 percent of students attend (denominational and non-denominational) Independent schools (DEEWR, 2011). Families pay fees for their children to attend Independent and Catholic schools, but not public schools. Government also subsidies students in the private schools. With a large private component, the labour market for teachers is not dominated by a single (school-sector) employer unlike that in other countries. Thus, individuals within the teach-

ing profession can potentially change employers without switching to a non-teaching career. The institutional context is therefore quite informative for examining the dynamics of teachers careers.

4 Data

The data used for the analysis is from the Household, Income, and Labour Dynamics in Australia (HILDA) survey. The HILDA survey is a nationally representative household survey that provides detailed labour market information on participants. Importantly, the survey includes information on the occupations respondents, coded to an occupational classification: the Australian and New Zealand Standard Classification of Occupations (ANZSCO) developed by the Australian Bureau of Statistics. Table 1 shows the four digit occupations from that classification that are generally associated with a teaching career in schools. We use 13 annual waves of HILDA (from wave 1 through wave 13), which corresponds with the years 2001 through 2013.

Using this classification of occupations, across all waves, we find 911 persons associated with teaching in any wave. A total of 4,950 person-wave (or person-year) observations are active teachers in any wave (see Table 2). There are 3,107 person-wave observations of individuals who are observed as teachers but are not teaching in the current wave.

We leverage two additional features of HILDA. First, we use information regarding job-satisfaction. Each year, respondents are asked to rate (on a scale of 1-10) how satisfied they are with various aspects of their job. Second, we use information from the cognitive ability module of wave 12. In this wave, three measures of cognitive ability were administered. We focus on two measures—Symbol Digits Modalities (SDM) and National Adult Reading Test, Short-Form (NART25) as they seem to be less noisy given our relatively smaller sub-sample of teachers. SDM entails participants matching symbols to numbers using a printed key and tests for divided attention, visual scanning and motor speed. The second measure, NART25, is a reading test of 25 irregularly spelled words (see Wooden, 2013, for details).

5 Descriptive Analysis

5.1 Teacher characteristics

We begin by describing some characteristics of teachers in our sample. Table 3 reports the proportion of female teachers, the age distribution and the educational qualification of teachers across the public and private sectors stratified by primary and secondary school teachers.8 In our sample, 73 percent of teachers are employed in public schools. The majority of teachers are females across all school categories (public or private school and primary or secondary school). In primary schools, over 80 percent of teachers are female while over 60 percent of secondary school teachers are female. This is true for both public as well as private schools with a slightly higher proportion of female teachers in public schools. Almost three-quarters of teachers across each strata are married. The median age of public school teachers is 43 while that of secondary school teachers is 42. Secondary school teachers are older than primary school teachers though less so in private schools.9 Broadly speaking, educational attainment of teachers across primary and secondary schools also show similar pattern across public sector and private sector schools. A greater proportion of teachers in secondary schools have qualification higher than the bachelor's degree although this proportion is higher for private schools. Almost 49% of primary school teacher in public schools, and about 46% in private schools have a bachelor's degree. Overall, we see that teachers across public and private sector are quite similar in terms of demographic characteristics and educational attainment.

In order to examine if persons who choose the teaching profession differ from other professionals, we use information on cognitive skills from wave 12 of HILDA. Figures 1 and 2 show the average cognitive skills by age of male and female teachers relative to other professionals. The first panel in figure 1 shows the average cognitive skills, conditional on their age, of female primary school teachers while the second panel is of male primary school teachers. Female primary school teachers who are above the age of 55 tend to have, on average, higher

⁸We use the response to the question regarding the category (government or private) of the employer to assign school sectors.

⁹The difference between median age of secondary school teachers and primary school teachers is 4 for public schools and 1 for private schools.

¹⁰The average cognitive skills among these groups is higher than those found among the general population.

cognitive skills both for NART25 (pronunciation) as well as for the SDM test compared to other professionals. Male primary school teachers have higher cognitive skills as measured by SDM test results but the pronunciation results of teachers and other professional are similar. Figure 2 shows the corresponding results for secondary school teachers. Female secondary school teachers tend to have higher cognitive skills on average though their SDM skills are lower among older teachers. Male secondary school teachers also display similar patterns with higher cognitive skills among those under the age of 55. It seems, then, that persons in the teaching profession, on average, have fairly high cognitive skills.

5.2 Transitions

To explore the careers of teachers, we examine the transition of teachers from teaching to non-teaching occupations. Table 4 considers persons observed across consecutive periods. The second column (t) shows that 43 persons were teachers in wave 1 but were not teachers in the subsequent wave (wave 2). The third column (t+1) shows that another 43 persons who were not teachers in the current wave (i.e. wave 1) become teachers in the subsequent wave (i.e. wave 2). The fourth column (t & t+1) show that 300 persons were teachers in both waves. Finally, the last two columns show the proportion of persons moving out of teaching and moving into the teaching profession. The last row show the global average across all the years. On average, over the last thirteen waves of HILDA, the proportion of persons moving out of and in to the teaching profession was around 14 percent.

How does this pattern of transition compare with other professions? We conducted a similar exercise for nurses (not reported here), where we found that the average transition rates for nurses was approximately 17 percent. One reason, the transition rate for teachers is lower is because the above analysis includes principals in our definition of teachers. In tables 5 and 6, we report the corresponding transition rates for primary and secondary teachers. The average transition rate of primary school teachers across all thirteen waves of our sample is 20 percent while that of the secondary school teachers is about 18 percent.¹³

¹¹Note that these 300 persons include persons who switch from one category of teachers to another category.

¹²The final wave reported is wave 12 as the last wave of our sample is wave 13.

¹³Note that the total number of persons entering and exiting primary and secondary school teaching profession

When we examine the transition pattern of teachers in public and private schools, we find that teachers in private schools exhibit substantially higher transition rates (approximately 30%) compared with public school teachers (approximately 18%). We explore this further by examining teacher mobility across sectors. The first panel of Table 9 reports movements in the public sector while the second panel show persons moving to the private sector. The columns indicate whether person is currently in the teaching profession (but in the alternate sector) or not. Among those who move to a public school, almost 20 percent were already in the teaching profession. The balance consist of new graduates and people returning to teaching. In contrast, 44 percent of those who move to private schools were already in the teaching profession. High teacher turnover is particularly concerning if schools lose effective teachers (as measured by their impact on student learning). Although our data do not permit us to examine effectiveness of teachers per se, Table 10 shows that educational profile of teachers who switch sectors is broadly similar to the educational distribution of teachers.

5.3 Teaching Spells

So far, we have examined transitions across consecutive periods. However, these transitions could be due to numerous factors and do not preclude persons returning to the teaching profession at a future point in time. Therefore, we now consider teaching spells in greater detail.

We use all of the person-wave observation of persons who were ever observed working as teachers. The first panel in Table 11 shows the distribution of these person-wave observations across 'spells' working as a teacher. We define a teaching spell as period(s) when a person is continuously observed (from one wave to the next) working as a teacher. Any and all periods when the person was not in the teaching profession are indicated by 0. These are periods the individual was in the survey but prior to them commencing a spell as a teacher or after them ceasing to work as a teacher. These non-teaching observations make up 39 percent of the person-wave observation. All continuous period(s) of the first teaching spell aer indicated by 1, second teaching spell by 2 and so on. As this is the sample of persons who are in the teaching

will differ from those entering teaching (in Table 4) as those who remain in teaching (column t & t+1 in Table 4) include those who switch from, say, primary school to secondary school.

¹⁴We combine two private sector employer types in this analysis, those in the "for profit" and "not for profit" sectors, though there are very few schools in the former.

profession in at least one wave, over 50 percent of the sample has at least one teaching spell. Less than 0.5 percent of the sample has 4 teaching spells—the maximum number of spells observed. Approximately 10 percent of the person-wave observations were part of second or third teaching spells, indicating movements in an out of teaching. The second panel in Table 11 shows that about 22 percent of the observations in our sample are from persons who worked as teachers in every wave.

Among those who are not in the teaching profession across all waves, some may (during the time-frame of our sample) return to teaching. To understand the dynamics of teachers' career we consider the gaps between teaching spells. It is important to know if there are long gaps between teaching spells as they could indicate a more disruptive transition for schools. Table 12 shows that more than 80 percent of those who are observed again in the teaching profession, have a gap of 2 years or less. Among these teachers with a gap of two year or less, about 55 percent are on paid leave (see table 13). This seems reasonable given that the majority of teachers are females. Conceivably, one of the attractions of teaching compared with other professions is that a teaching career imposes fewer penalties from career interruption due to family considerations associated with having children.

Next, we focus on those whom we do not observe returning to the teaching profession (i.e. right-censored). These are people who have had teaching spells but are not in the teaching profession in the last wave they are observed in the data. Table 14 reports that almost half of these are on paid leave suggesting that they would return to teaching after the gap period. Table 15 explores the reasons for not returning to the teaching profession. About 13 percent have retired (panel 1 of Table 15) while among those that have not-retired, approximately 22 percent are not in the labour force (panel 2 of Table 15). The last panel of Table 15 displays the reason why individuals left teaching. The most significant reason was to improve job prospects (34 percent) while 19 percent report they left because they were unhappy with the job. Over one-fifth report the reason for leaving the job was that either the job was temporary or that they were laid off.

¹⁵The reason for leaving the job is obviously only asked when individuals leave the job where they were employed in the previous period. As the average number of job-switches for any individual is small (80 percent of these individuals had only 1 job-switch), the table reports a small number of observations.

In summary, of the 931 people ever observed as a teacher, 79 are teachers in every wave. Some leave teaching but return to it – overwhelmingly this happens within one or two years. Most commence their absence on paid leave. Those that leave teaching are less likely to have been on paid leave when they commenced their absence, and leave in search of a better job.

5.4 Wage profiles and Job Satisfaction

Wage differentials may be an important factor, among others, affecting the decisions of teachers to exit teaching. Figure 3 shows the age-earnings profile of male and female teachers in comparison to that of males and females in other professions. We restrict our sample to full-time employees only. The figure shows hourly wage rates adjusted for inflation (using the Consumer Price Index) and the age-earnings profiles are generated using a non-parametric fit. Although most of the groups start their careers with similar hourly wages (around AU\$ 20), the growth trajectories diverge. The age-earnings profile of female nurses are also shown and provide something of an exception with their higher starting values. The largest growth is observed for non-teaching male professionals, followed by non-teaching female professionals. Teachers experience a slower growth rate in wages over their careers. Male and female teachers have very similar wage growth profiles.

We generate analogous graphs to distinguish teachers in primary school with those in secondary schools. Figures 4 and 5 show that although the age-earning profile of primary school teachers is very similar across both genders, the wages of male secondary school teachers grow at a faster rate in the initial years and the near retirement-age years of their career. Overall, male secondary school teachers earn more on average than female secondary school teachers.

Clearly, there is a substantial wage differential between teachers and other non-teaching professionals in favour of the latter. Further, there seems to be different patterns in hourly wages between male and female teachers across primary and secondary schools.

Although important, wages do not encapsulate all of the important characteristics of a job. Therefore, we use information about (self-reported) job-satisfaction measures in the HILDA

¹⁶We use the non-parametric locally weighted scatter-plot smoothing or "LOWESS."

¹⁷In fact, all health professionals, male and female tend to start with a slightly higher wage.

data. Figures 6 and 7 show the different aspects of job-satisfaction for primary school teachers and for non-teaching professionals. The first panel shows satisfaction measures (along with the 95% confidence interval) for females. It shows that female teachers are significantly more satisfied with job-security and significantly less satisfied with job-flexibility (i.e. flexibility available to balance work and non-work commitments) than female non-teaching professionals. We find this pattern in these specific aspects of job-satisfaction across all groups of teachers (primary or secondary school, male or female).

Although female primary teachers have generally higher satisfaction than female non-teaching professionals on all other aspects of job-satisfaction, with the exception of the hours worked, these are not statistically significant. However, female teachers in primary schools have significantly higher overall-job satisfaction.¹⁹ In contrast, male primary school teachers do not report higher overall job-satisfaction but do report significantly lower satisfaction with their pay (see panel 2 of Figure 6).

Job-satisfaction patterns are different for secondary school teachers with the exception of satisfaction with job-security and job-flexibility. Both male and female secondary school teachers are more satisfied with their pay. However, female secondary school teachers are significantly less satisfied with their hours. Male secondary school teachers report greater satisfaction with the hours compared with non-teaching male professionals, although the difference is not statistically significant. They do, however, report significantly higher satisfaction with respect to the work itself. Female secondary school teachers report significantly lower overall job-satisfaction while male secondary school teachers report significantly higher overall job-satisfaction.

Although teachers are, on average, more satisfied with their job than other professionals, we also document people leaving the teaching profession. To better understand these patterns, we explore job-satisfaction among those who leave the teaching profession in the subsequent period ("leavers") and compare their job-satisfaction with teachers who continue teaching in the subsequent period.

¹⁸Measures are on a scale of 1 to 10, increasing with satisfaction.

¹⁹Overall satisfaction is the response to the question "All things considered, how satisfied are you with your job?"

The first panel of Figure 8 shows the job-satisfaction of females who remain in teaching and of the "leavers" in the period when they were employed as teachers. The "leavers" exhibit lower levels of satisfaction for all aspects of the job except satisfaction with amount of flexibility in the job. The overwhelmingly lower job-satisfaction of "leavers" compared with those who remain teachers in the future suggests that these individuals (i.e. leavers) are possibly not well matched for a teaching career. The second panel of Figure 8 displays the job-satisfaction measures of only the "leavers." It compares job-satisfaction while they were teachers and after they move out of the teaching profession. All measures of the different aspects of job-satisfaction are higher after these individuals leave teaching. A similar pattern emerges when we consider males, although some differences are not statistically significant (see Figure 9).

Insofar as the higher job-satisfaction can reflect a better fit between the individual's skills and attitudes with the job, the higher job-satisfaction of leavers after they leave teaching reflects a healthy labour market.

6 Discussion and Conclusion

From a policy perspective, it is important to know the extent of teacher attrition as well as to characterise those who leave teaching. Given that interruptions in teaching career do not impose large costs (based on the slow growth in hourly wages with age or experience found in the last section), individuals who leave teaching may choose to return to the teaching profession. In this paper, we have explored the careers of teachers by using a nationally representative sample from Australia.

Overall, we found that the overwhelming majority of teachers continue in the profession from year to year, with approximately 14 percent of teachers entering and exiting the teaching profession annually. In examining movement from one school sector to another, we found that the educational attainment of those who switch (from teaching in public school to private school and vice-versa) is, on average, similar. This suggests that the general description (at least in terms of educational attainment) remains stable over time in the school system.

To better understand the flux in teaching and non-teaching transitions we examine the extent

and reasons for gaps between teaching spells. Among those who remain in teaching, we found gaps in teaching spells were overwhelmingly two years or less. More than half of these non-teaching spells were explained by paid leave while still in the same job. Among those who leave teaching for a different occupation, the most important reported reason reflects a desire for improved career prospects. Broadly speaking, we found that teachers' careers are characterised by the fairly stable progression across careers with majority of the gaps between teaching spells due to family related reasons such as maternity leave.

Interestingly, the low rates of attrition from teaching are despite lower career monetary returns. When we examined wage patterns, we found teachers tended to have lower growth in wages over their entire working career when compared with other professionals. A possible reason for the low attrition rate of teaching is possibly greater satisfaction with job-security. In line with differential pecuniary returns to teaching at primary or secondary level, we found that male secondary school teachers tend to report greater overall job-satisfaction when compared with non-teaching male professionals.

Overall, we see some clear patterns in the measures of job-satisfaction among those associated with teaching. First, compared with other professionals, teachers tend to be considerably more satisfied with various aspects of their job. Second, those that are possibly not well-suited to a teaching career record substantially lower job-satisfaction. Indeed, such individuals who are not well-matched exhibit significantly higher job-satisfaction once they leave teaching.

Although our study does not allow us to examine if more effective teachers have different dynamics, we highlight the patterns in teachers' careers. In particular, we find that a large proportion of teachers have short non-teaching spells, principally due to family-related reasons. This is important, as it potentially precludes job-search costs if individuals did not have recourse to their former teaching position while it also lowers long-term replacement costs to schools. Future research that matches student attainment with being a teacher and explores the dynamics of effective teachers would be of benefit to policy-makers.

²⁰Teachers who remain in teaching (those with higher levels of job-satisfaction) may be more effective teachers.

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7 Tables and Graphs

Table 1: Occupational Code of Teachers in HILDA

Teache	Teachers & Principals			
Occupation Code	Occupation Description			
1343	School Principals			
2410	School Teacher			
2412	Primary School Teachers			
2414	Secondary School Teachers			
2415	Special Education Teachers			
N = 49	50 (911 persons)			

Table 2: Teachers and Non-teachers in HILDA

Non-Teachers		<u>Is a Teac</u>	<u>cher</u>
Wave		In a different	In this
		wave	wave
1	11,485	193	365
2	10,605	202	360
3	10,298	214	343
4	9,968	207	350
5	10,165	219	364
6	10,235	228	361
7	10,074	243	361
8	10,064	238	366
9	10,502	254	369
10	10,657	257	371
11	14,167	277	459
12	14,087	295	439
13	14,128	280	442
		3107	4950

Table 3: Demographic Characteristics and Educational Attainment of Teachers

		Secondar
	Public S	School (%)
Female	83.26	64.91
Married	76.92	74.49
Age		
$p25^{\dagger}$	30	33
p50	40	44
p75	47	53
Qualification		
Master/PhD	3.02	9.36
Grad Dip	21.57	47.66
Bachelor	48.55	30.56
Diploma or lower	26.86	12.43
	N = 362	21 (73.2%)
	Private	School(%)
Female	80.50	61.35
Married	73.58	74.54
Age		
p25	32	34
p50	43	44
p75	51	52
Qualification		
Master/PhD	8.18	17.79
Grad Dip	29.56	38.80
Bachelor	45.70	32.67
Diploma or lower	16.56	10.74
-	-12°	29 (26.8%)

Table 4: Transition of School Teachers

	Te	Teachers in Wave:		Prop	ortion:
Wave (t)	(t)	t+1	(t & t+1)	(t)	(t+1)
1	43	43	300	0.13	0.13
2	46	36	292	0.14	0.11
3	35	49	286	0.11	0.15
4	46	51	289	0.14	0.15
5	49	48	301	0.14	0.14
6	48	50	296	0.14	0.14
7	40	54	299	0.12	0.15
8	49	45	300	0.14	0.13
9	56	60	300	0.16	0.17
10	47	51	304	0.13	0.14
11	74	51	363	0.17	0.12
12	47	58	370	0.11	0.14
				0.13	0.14

Table 5: Transition of Primary School Teachers

	Te	Teachers in Wave:		Prope	ortion:
Wave (t)	(t)	t+1	(t & t+1)	(t)	(t+1)
1	21	29	127	0.14	0.19
2	27	24	125	0.18	0.16
3	25	28	123	0.17	0.19
4	32	29	120	0.21	0.19
5	33	36	116	0.22	0.24
6	29	49	121	0.19	0.29
7	36	25	131	0.22	0.16
8	30	30	125	0.19	0.19
9	32	34	123	0.21	0.22
10	29	31	128	0.18	0.19
11	47	31	149	0.24	0.17
12	36	29	148	0.20	0.16
				0.20	0.20

Table 6: Transition of Secondary School Teachers

	Te	achers	s in Wave:	Prop	ortion:
Wave (t)	(t)	t+1	(t & t+1)	(t)	(t+1)
1	24	32	110	0.18	0.23
2	28	22	109	0.20	0.17
3	19	32	106	0.15	0.23
4	20	30	118	0.14	0.20
5	30	18	128	0.19	0.12
6	26	24	117	0.18	0.17
7	25	23	110	0.19	0.17
8	14	19	119	0.11	0.14
9	22	28	126	0.15	0.18
10	29	24	119	0.20	0.17
11	39	30	134	0.23	0.18
12	24	42	140	0.15	0.23
				0.17	0.18

Table 7: Transition of Public School Teachers

	Te	achers	s in Wave:	Prop	ortion:
Wave (t)	(t)	t+1	(t & t+1)	(t)	(t+1)
1	53	49	216	0.20	0.18
2	53	28	208	0.20	0.12
3	38	50	192	0.17	0.21
4	46	49	193	0.19	0.20
5	48	37	200	0.19	0.16
6	39	51	196	0.17	0.21
7	40	59	204	0.16	0.22
8	56	41	206	0.21	0.17
9	47	51	209	0.18	0.20
10	43	44	214	0.17	0.17
11	58	55	260	0.18	0.17
12	52	55	265	0.16	0.17
				0.18	0.18

Table 8: Transition of Private School Teachers

	Te	Teachers in Wave:		Prop	ortion:
Wave (t)	(t)	t+1	(t & t+1)	(t)	(t+1)
1	28	32	46	0.38	0.41
2	22	37	55	0.29	0.40
3	19	21	72	0.21	0.23
4	23	25	73	0.24	0.26
5	27	37	75	0.26	0.33
6	32	22	77	0.29	0.22
7	33	28	62	0.35	0.31
8	18	29	69	0.21	0.30
9	31	31	69	0.31	0.31
10	26	29	68	0.28	0.30
11	50	30	69	0.42	0.30
12	29	37	71	0.29	0.34
				0.29	0.31

Table 9: Teacher mobility across sectors

	In Teaching Profession		
		No	Yes
	No	2,306	3,141
Move to Public School	Yes	423(80.57%)	102 (19.43%)
	No	2,556	3,107
Move to Private School	Yes	173(55.99%)	136 (44.01%)

Table 10: Educational Attainment of Teachers switching sectors

Education	N	%
	to Pul	blic School
Master/phd	16	15.69
Grad Dip	31	30.39
Bachelor	38	37.25
Diploma or lower	17	16.67
Total	102	
	to Priv	ate School
Master/PhD	23	16.91
Grad Dip	49	36.03
Bachelor	47	34.56
Diploma or lower	17	12.50
Total	136	

Table 11: Teaching Spells (of those ever-teacher)

All spells	N	Percent
0	3,107	38.56
1	4,093	50.80
2	741	9.20
3	106	1.32
4	10	0.12
Total	8,057	

Ever Teacher	N	Percent
Always teacher	1,796	22.29
Not always teacher	6,261	77.71

Table 12: Years between Teaching Spell

	Teaching Spell number			
Gap (years)	2	3	4	Total
1	1,293	389	25	1,707
2	330	61	38	429
3	130	39	0	169
4	48	25	13	86
5	64	12	0	76
6	26	13	0	39
7	24	0	0	24
8	37	0	0	37
9	13	0	0	13
Total	1,965	539	76	2,580

Sample of persons who are not always-teachers.

Table 13: Reason for gap among those who return to the teaching profession

On Paid Leave	N	Percent
No	940	44.01
Yes	1,196	55.99
Total	2,136	

Sample of persons who have more than one teaching spell.

Table 14: Reason for gap among those not returning

On Paid Leave	N	Percent
No	1,320	56.46
Yes	1,018	43.54
Total	2,338	

Sample of persons who are not always-teachers.

Table 15: Reason not returned to Teaching

	N	Percent
Not-retired	1,139	86.29
Retired	181	13.71
Total	1,320	
Labour Market St	atus (non:	-retirees)
Employed FT	411	36.08
Employed PT	452	39.68
Unemployed	25	2.19
NILF	245	21.51
Total	1133	
Reason left teach Job was temporary or seasonal	ing† (non- 16	retirees) 12.70
Got laid off/No work available/Retr	16	12.70
Not satisfied with job (eg. unhappy	24	19.05
To obtain a better job/Just wanted	43	34.13
Self employed: Business closed down	2	1.59
Self employed: Business closed down	1	0.79
Retired/Did not want to work any lo	5	3.97
Own sickness, disability or injury	3	2.38
Pregnancy/To have children	3	2.38
Travel/Have a holiday	5	3.97
Returned to study/Started study/Ne	5	3.97
Spouse/partner transferred	2	1.59
Too much travel time/Too far from	1	0.79
NEI to classify	1	0.79
Other	1	0.79
Total	126	

[†] Number of observations reflect the number of times they switched jobs after leaving teaching.

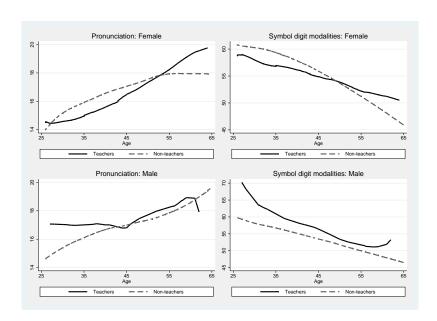


Figure 1: Cognitive Measure of Primary school Teachers and Non-teaching Professionals

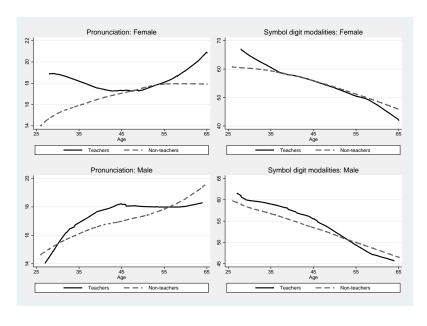


Figure 2: Cognitive Measure of Secondary school Teachers and Non-teaching Professionals

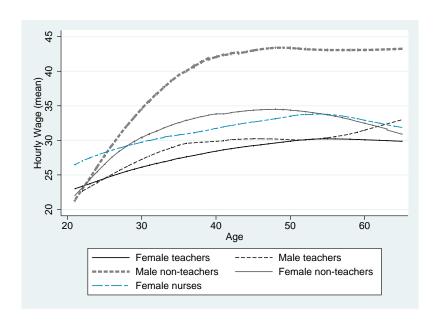


Figure 3: Age-earnings profile of Teachers and Non-teaching Professionals

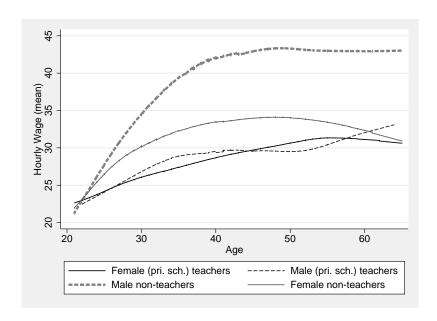


Figure 4: Age-earnings profile of Primary school Teachers and Non-teaching Professionals

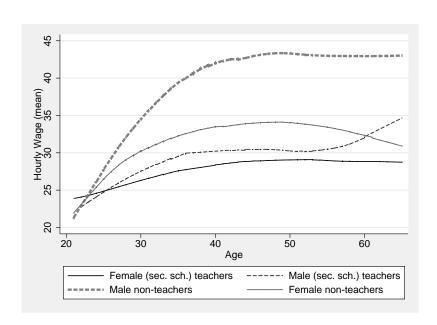
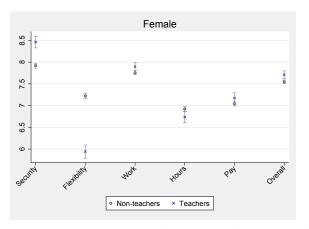
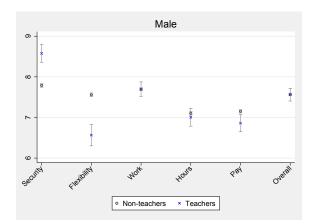


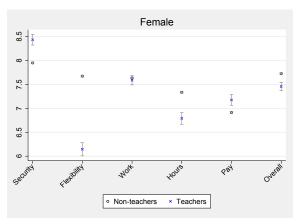
Figure 5: Age-earnings profile of Secondary school Teachers and Non-teaching Professionals

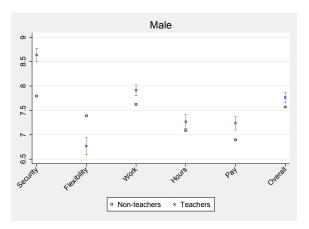




Lines around the points are the 95% confidence interval.

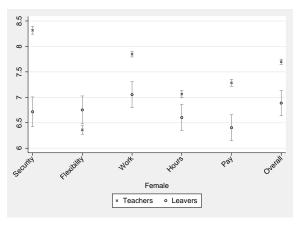
Figure 6: Job-satisfaction of Primary school Teachers and Non-teaching Professionals

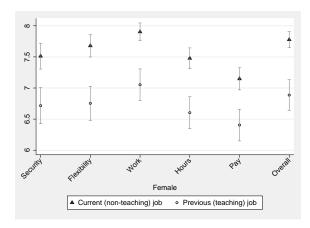




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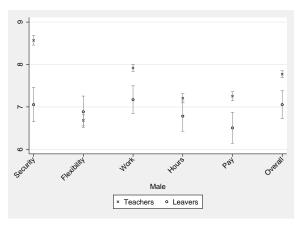
Figure 7: Job-satisfaction of Secondary school Teachers and Non-teaching Professionals

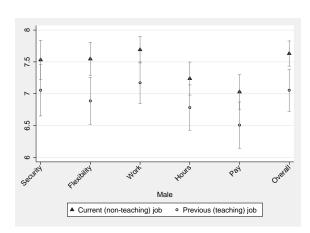




Lines around the points are the 95% confidence interval.

Figure 8: Job-satisfaction of Teachers (who remain teachers subsequently) and of "Leavers" (who leave teaching jobs subsequently): Females





Lines around the points are the 95% confidence interval.

Figure 9: Job-satisfaction of Teachers (who remain teachers subsequently) and of "Leavers" (who leave teaching jobs subsequently): Males



