TECHNICAL PAPER

NCVER

Individual-based completion rates for apprentices

TOM KARMEL

NATIONAL CENTRE FOR
VOCATIONAL EDUCATION RESEARCH

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The National Centre for Vocational Education Research (NCVER) is an independent body responsible for collecting, managing and analysing, evaluating and communicating research and statistics about vocational education and training (VET).

NCVER's inhouse research and evaluation program undertakes projects which are strategic to the VET sector. These projects are developed and conducted by the NCVER's research staff and are funded by NCVER. This research aims to improve policy and practice in the VET sector.

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About the research

Individual-based completion rates for apprentices

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Low completion rates for apprenticeships and traineeships have been receiving considerable attention in recent times. The rates published by the National Centre for Vocational Education Research (NCVER) relate to contracts of training and do not take into account the fact that some individuals who fail to complete their apprenticeship or traineeship with one employer may continue their training with another employer. Therefore it has been argued that NCVER seriously understates the completion rates.

NCVER's approach is driven by the structure of the administrative data it collects. However, in recent times NCVER has collected some data on recommencements; that is, when an individual recommences his or her apprenticeship/traineeship with a new employer. These data have been used by Tom Karmel to estimate completion rates for individuals who commence and subsequently complete in the same occupation (as distinct from contract completion rates).

Key messages

- ✧ Around one-quarter of trade apprentices swap employers during their apprenticeship.
- ✧ Individual completion rates relating to individuals for the commencing cohort in 2005 are around 56.6% (on Karmel's estimate) compared with 45.6% on a contract-of-training basis. The completion rates for individuals range from 39.2% for the food trades, to 64.2% for electrotechnology and telecommunications trades workers.

While these new estimates show that completion rates for individuals are considerably higher than the rates calculated for contracts, they also show that employer churn is an issue, with the worst occupations being hairdressing and the food trades.

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Individual-based completion rates for apprentices

NCVER in its statistical publications (NCVER 2010a, 2010b) estimates the completion rates for apprenticeships and traineeships based on contracts of training. The practical reason for this is that, while we know that some apprentices or trainees change employers and are assigned new contracts of training, we do not know the quarter in which an individual commenced their initial contract. Thus these individuals, whom we label 'recommencers', undertake two contracts of training, although clearly they can only complete one. It follows that a completion rate based on training contracts will be lower than a calculation based on following individuals through a number of contracts of training.

In this note we look at the extent of recommencements and use these data to adjust contract completion rates so that they represent completion rates for individuals who may or may not have changed their employer during their apprenticeship.

Before presenting the analysis we should define what we mean by 'recommencers'. According to the Australian Vocational Education and Training Management Information Statistical (AVETMIS) Standard, the guidelines stipulate that a recommencement flag should be used where a contract has commenced as the continuation of an apprenticeship or traineeship in the same qualification. While the standard is clear, jurisdictions report recommencements differently. For example, South Australia does not use the recommencement code at all, as apprentices and trainees can move between employers without requiring the issue of a new contract. The same legislation applies in most jurisdictions, with the exception of Victoria and Tasmania; yet all other jurisdictions use the recommencement code.

There is also some inconsistency in the use of recommencement codes. For example, there were three contracts for 'old' (non-nationally accredited) qualifications which showed up in the last March 2010 quarterly data submission. The jurisdiction said that the qualifications were valid, because these apprentices were coming back to training to finish off training they had commenced previously. We would have expected all of these contracts to be recommencements in this instance; however, only two of the three were recorded as recommencements. The remaining one was recorded as a new commencement.

The data

Table 1 shows commencement data and recommencement data for 2009 at the major occupational group.

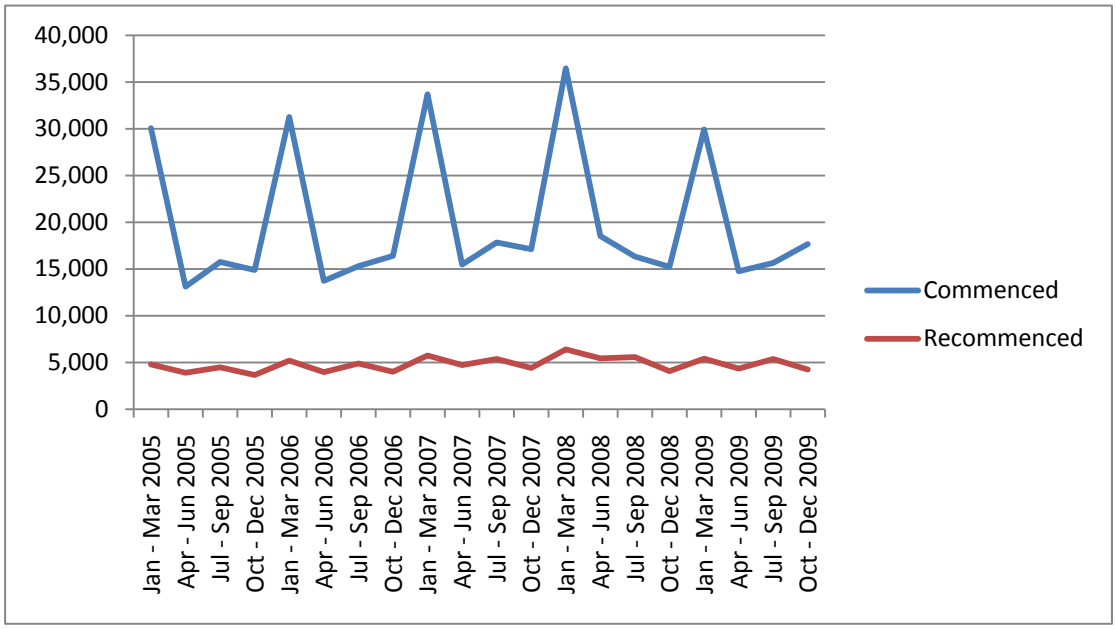
Table 1 Commencement and recommencement data, by major occupational group, 2009

ANZSCO		Jan–Mar 2009	Apr–Jun 2009	Jul–Sep 2009	Oct–Dec 2009
Managers	Recommencements	104	73	114	60
	Commencements	1,676	1,524	1,785	1,355
Professionals	Recommencements	6	14	94	23
	Commencements	2,410	1,909	2,022	1,258
Technicians and trades workers	Recommencements	5,363	4,284	5,136	3,766
	Commencements	28,230	13,338	13,637	16,344
Community and personal service workers	Recommencements	500	474	468	320
	Commencements	12,779	10,671	10,435	9,447
Clerical and administrative workers	Recommencements	318	260	243	199
	Commencements	14,986	14,049	14,674	12,645
Sales workers	Recommencements	156	157	166	111
	Commencements	10,524	9,700	10,629	9,372
Machinery operators and drivers	Recommencements	130	139	107	200
	Commencements	5,697	6,349	6,405	6,487
Labourers	Recommencements	262	224	239	160
	Commencements	5,887	5,153	5,434	4,632

Source: National Apprentice and Trainee Collection, March 2010 estimates (unpublished).

We see that the recommencements are only significant among the trades and technicians group, and this is the group that we concentrate on in the remainder of this paper. In figure 1 we provide a longer time series for this group. While the commencement data show marked seasonality, the recommencement data are fairly stable.

Figure 1 Commencements and recommencements, trades and technicians, 2005–09



Source: National Apprentice and Trainee Collection, March 2010 estimates (unpublished).

The adjustment factor

Our adjustment factor is derived as follows.

The contract completion rate can be conceptualised as:
completions/ (commencements + recommencements).

Similarly, the individual completion rate can be conceptualised as:
completions/ commencements.

Therefore the ratio of the individual completion rate to the contract completion rate is simply:
(commencements + recommencements)/ commencements.

A new set of completion rates

Based on 2005–09 data we have calculated adjustment factors for each of the trade occupations. They are presented in table 2, together with the contract completion rate for 2005 (for the latest data available see NCVER [2010a]) and the derived individual completion rate.

Table 2 'Recommencement' adjustment factor, contract and individual completion rates, trade occupations, commenced in 2005

	Average annual adjustment factor	Contract completion rate (%)	Individual completion rate (%)
31 Engineering, ICT and science technicians	1.04	60.8	63.2
32 Automotive and engineering trades workers	1.18	51.3	60.6
33 Construction trades workers	1.29	45.3	58.3
34 Electrotechnology and telecommunications trades workers	1.20	53.6	64.2
35 Food trades workers	1.42	27.7	39.2
36 Skilled animal and horticultural workers	1.09	48.3	52.6
39 Other technicians and trades workers	1.27	41.3	52.3
391 Hairdressers	1.45	36.5	52.8
392 Printing trades workers	1.08	54.1	58.3
393 Textile, clothing and footwear trades workers	1.07	46.5	49.7
394 Wood trades workers	1.20	45.3	54.4
399 Miscellaneous technicians and trades workers	1.05	52.2	55.0
3 Technicians and trades workers	**1.24**	**45.6**	**56.6**

We see that the individual completion rates are on average around a quarter higher than the contract completion rates, with considerable variation by trade. The largest adjustments are for hairdressing and the food trades, both of which have extremely low contract completion rates. Clearly, there is considerable employer churn going on in these occupations. The adjustment is smallest for engineering, ICT and science technicians, which in fact has the highest contract completion rate. However, when calculated for individuals, it loses this position to the electrotechnology and telecommunications trades workers.

The spread of completion rates is much narrower when calculated for individuals rather than contracts of training. At the contract level they range from 27.7% (food trades), to 60.8% (engineering, ICT and science technicians), while at the individual level the range is from 39.2% (food trades) to 64.2% (electrotechnology and telecommunications trades).

Conclusion

NCVER estimates of apprenticeship and traineeship completion rates have been criticised as being 'too low' for the trades. There has been a view that it makes more sense to calculate for an individual, who may change employers during the apprenticeship or traineeship. The apprenticeship and traineeship data collection does not allow this because of the difficulty of tracking individuals rather than contracts of training. However, analysis of recommencement data—dependent as they are on jurisdiction administrative processes—allows us to adjust estimates of contract completion rates to provide estimates of individual completion rates. These adjustments are of some substance in a number of the trades, although the trade most affected (food trades) still has the relatively low rate of completion, of just under 40% when calculated for an individual.

References

NCVER (National Centre for Vocational Education Research) 2010a, *Australian vocational education and training statistics: apprentices and trainees, annual, 2009*, NCVER, Adelaide.

——2010b, *Australian vocational education and training statistics: experimental completion and attrition rates for latest commencing apprentices and trainees,* NCVER, Adelaide.