# Youth Allowance DiRDD

## Description of policy change (with documentation).

### Current policy

Transition from YA to JSS:

* Turn 22 and searching for work.
* Or turn 24 and a student.

Transition between YA and Astudy

* Going from 24 to 25 years old.

Two types of YA:

* JobSeeker (YA JSS)
* Education (YAA)

Four thresholds (and rates):

* JSS threshold
* YA JSS threshold
* YAA threshold
* Austudy threshold

*Earlier policy changes*

### Timeline

* **Pre-Jul 2012 %>%**: The “age” cut-off is 21 (so the transition to NewStart happens when 21), the YA threshold equals the NewStart threshold at $62 per year.
* **July 1 2012**.
  + **YA:** Increase the abatement threshold for YA to $140 per fortnight from $62 per fortnight, and increased the age you are kicked off from 21 to 22: (prior: https://www.servicesaustralia.gov.au/sites/default/files/documents/co029-1203.pdf, Jul: <https://www.servicesaustralia.gov.au/sites/default/files/documents/co029-1207en.pdf>)
  + **YAA**: Increase the Australian Apprentice threshold from $236 to $400 per fortnight [was there an age change here too?].
  + **AUSTUDY**: Increase in the threshold from $236 to $400 per fortnight. [was there an age change here too?]
* **20 March 2014**:
  + **NewStart**: First of the regular increases to the abatement rate for NewStart. This one takes it from $62 per fortnight to $100 [https://www.servicesaustralia.gov.au/sites/default/files/documents/co029-1403en.pdf]

In 2013 [discuss relative payments, thresholds, and terminal values for three payments]

FY2013 to FY2014 – abatement threshold change for YA payments but not JSS

**Data issue**: When people exit they no longer report income to DSS – as a result, will need our outcome variables to be relative to next FY or some such (or to limit to continuous recipients which has measurement bias due to the lower threshold determining eligibility)

[Anything about relative payments]

As a result, can consider relative incentives as follows.

*2013*

* Up to 24 there is higher payment if you are undertaking study, but you are subject to the same MTR schedule – the YA and JSS are equivalent.

*2014*

* For those already aged 22 to 24, the same incentive to study remains in terms of the payment level – but there is now a greater incentive to study in terms of the MTR schedule than in 2013.
* For those aged 21 or below, the MTR schedule has changed for both payments – as a result

## Identification

XXX

### Checks for identification

* Big issue for identification is that a lot of individual transition out of the unemployment benefit system in the two weeks at their birthday (looking at exits within the two weeks up to and including their birthday). [need to spend more time check “why” and testing longer standdown periods – as this is very surprising]
* Sharp drop is for 20 year olds when they turn 21. Those that take up a fortnight after 21 do stay more persistenly in NSA. So can compare this group to those a fortnight past 21 after the change (as they now receive the higher threshold YA). [this survival rates can be found in the YA folder]
* Look at whether there is a sharp drop in receipt following someone’s birthday – if not then we may argue that it is one continuous system, and so our interest is just in looking at the threshold change for those at 22.
  + If there is a sharp drop, then the “age cut-off” change is a real big pain for identification – as we can’t use the initial RDD to “difference” out that effect, so want to make the claim there is no effect and just look at the 21 to 22 transition.
* The RDD estimate in future years.
  + The NewStart threshold starts rising,
  + Selection into the schemes changes – with a number of disability type payments shifting to NewStart.

[Lit review of LS paper from Gianni] <https://onlinelibrary.wiley.com/doi/10.1111/joes.12479>

**Design**

The difference at 2012 tells us the impact of the reform – the reform both changed a series of factors around eligibility as well as the threshold.

However, in future years the threshold gap narrowed – as a result, we could use variation in that gap to identify the effect of the threshold separately from the effect of the other reforms.

Main concern with this is additional reforms in 2016 – which clearly had a huge impact on YA [worth looking further into those changes]

## What we want to do with the data April 3-14

#### YA project – extensive margin effects of tapering

For YA project – goal is to pull together the data and necessary contextual information about a possible RDD at 22 following the July 2012 changes.

* What proportion of individuals on YA transition onto JSP as at the relevant birthday. [check to see whether it is ok to treat it as one continuous payment option]
* Transition from YA to YAA in the year leading up to the birthday. [important alternative margin for these individuals – which will change the way we consider what we model].
* Formally we will want to merge to two payments in one, and show that there is no SS RDD result in prior years, and then “a” result in the year of the policy change.

*Transitions of interest are*:

1. Transition out of the payment.
2. Transition from no work to part time work
3. Transition from part time work to no work
4. Transition to other support

* Looking at YA age threshold.
  + Describe transition rates of pre and post change YA recipients over the year leading up to their birthday.
  + Describe transition rates of pre and post change YA recipients over the year after their birthday.
  + [Current results suggest a sharp drop in the “21” period for the month around birthday, need to dig into reasons and check code more to see if right]
* Looking at 22 age threshold.
  + Describe transition rates of pre and post change YA + NS recipients in the year leading up to their 22nd birthday.
  + Describe transition rates of pre and post change YA + NS recipients in the year after their birthday.
* One thought on age difference – there will be individuals who needed to transition “off” YA due to having an earlier birthday, who could then transition back on. This feels usable depending on the implementation.

*Initial implementation*

* I am sure this can be done in STATA, but we can also pull the data in R to undertake this.

[Working notes to Matt N]

* [just need to check which packages are cleared in the datalab] – choice rddtools is in the datalab! Write example both as a linear regression and with rddtools to give flexibility about how to interpret.
* [Also run an example for transition out of the payment before you leave – there should be time – and insert a link the to code]
* [Also link an age discontinuity tutorial. <https://rpubs.com/phle/r_tutorial_regression_discontinuity_design>]

#### COVID supplement removal project – extensive margin response to the supplement

For COVID supp removal project

* Transitions out of employment from STP.
  + Good to chat with Aaron about his identification of those transitioning out of work as part of their J2J work.
  + For our purposes can start with the following:
    - Identify end of employment from the STP Jobs dates – rather than the STP payment data itself.
    - For the population employed on March 20 (whenever the intro date is) and October 1 (I believe that is the reduction date) define weekly/fortnightly survival rates on the basis of the proportion of individuals still employed relative to this base (or do something a bit more rigorous with survival curves if wanted).
    - A couple of things come up here:
      * What about JobKeeper?
      * What about anticipation?
    - JobKeeper is a bit unavoidable for employment – but very relevant for flows in (given some people received JK even though they were starting a job), so will want to use the JK table to remove later.
    - For anticipation good to also look at transitions from the “announcement” date.
* Transitions into the benefit system from DOMINO.
* Calculation of hazard rates for employment and exit from income support.
* Importantly, **hazard rate for exit from “not-employed” – which includes IS recipients and non-recipients.**
  + Goal is to understand whether the hazard rate for recipients changed following the removal of the supplement, using non-recipients as a control group.
* Characteristics of both groups, pre-supp removal and post-supp removal.

#### Aussie v NZ project – labour supply responses to the entire benefit system

For NZ v Aussie project – a bunch of these checks have been performed by Gianni and Lachlan, but good to confirm and see what we can dig out.

* Identify NZers who are in STP.
* Identify the number who have STP gaps.
* Identify take-up of benefits (DOMINO)
* Comparison of characteristics of NZ and Australian individuals in the data.
* Characteristics of people who appear to be “receiving when they shouldn’t be” – is it explainable in some way? If so, we might be able to justify excluding individuals we could explain.

## The earnings disregard and the incentive to find work

YA method

* While away from data try applying this in HILDA
  + At a minimum can check to see if individuals “drop off” YA and don’t return to NSA as sharply as the microdata suggests.
* For HILDA group up years, 18-21 vs 22-25.
* We want to estimate the probability of exiting YA for 18 year olds and compare it to 22 year olds.
* The policy change was that the YA threshold jumped in July 2012.
  + However, can also use the later changes in the NSA threshold as additional ways to identify the effect.
* Need to calculate these probabilities for each HILDA wave, and compare the pre and post treatment difference between the two.
* Once HILDA version is completed can use similar code to implement in microdata [when back after two weeks]

## Will a higher JSP reduce the incentive for people to find work

STP linked with CVS data

**Write up on labour supply work so far**

*Bunching – intensive margin (pre-COVID and during COVID)*

* XXX
* XXX
* For the COVID bunching graphs, also aim to create a version that is “average payment by individual between June and September against their continued receipt of COVID supplement.

*YA effect – extensive margin (pre-COVID)*

* XXX

*NZ v Aus citizen – (pre-COVID)*

* XXX