

# NSW Gov Internship

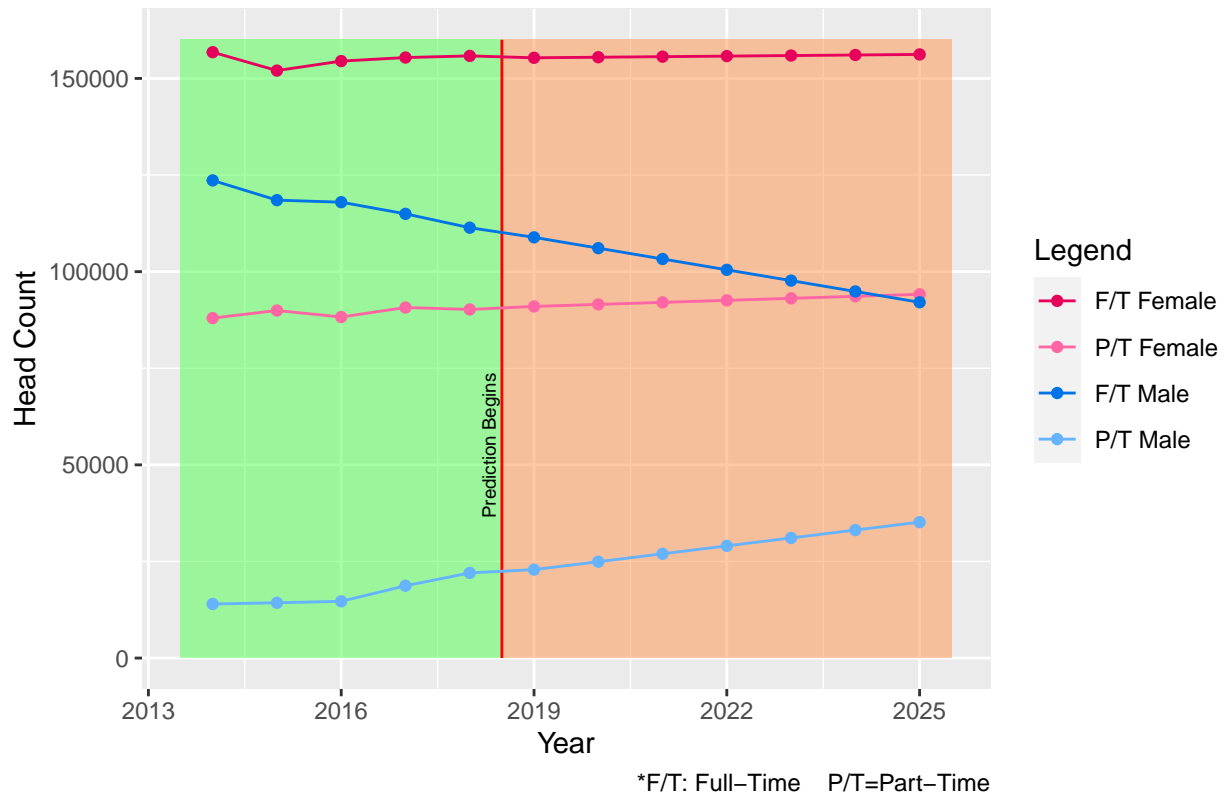
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## Prediction Analysis

Representation Trends between Job Type and Gender through the year 2025

### Employment Type Prediction (2014–2025)



As seen above, 'Full-Time Males' are exhibiting a decline.

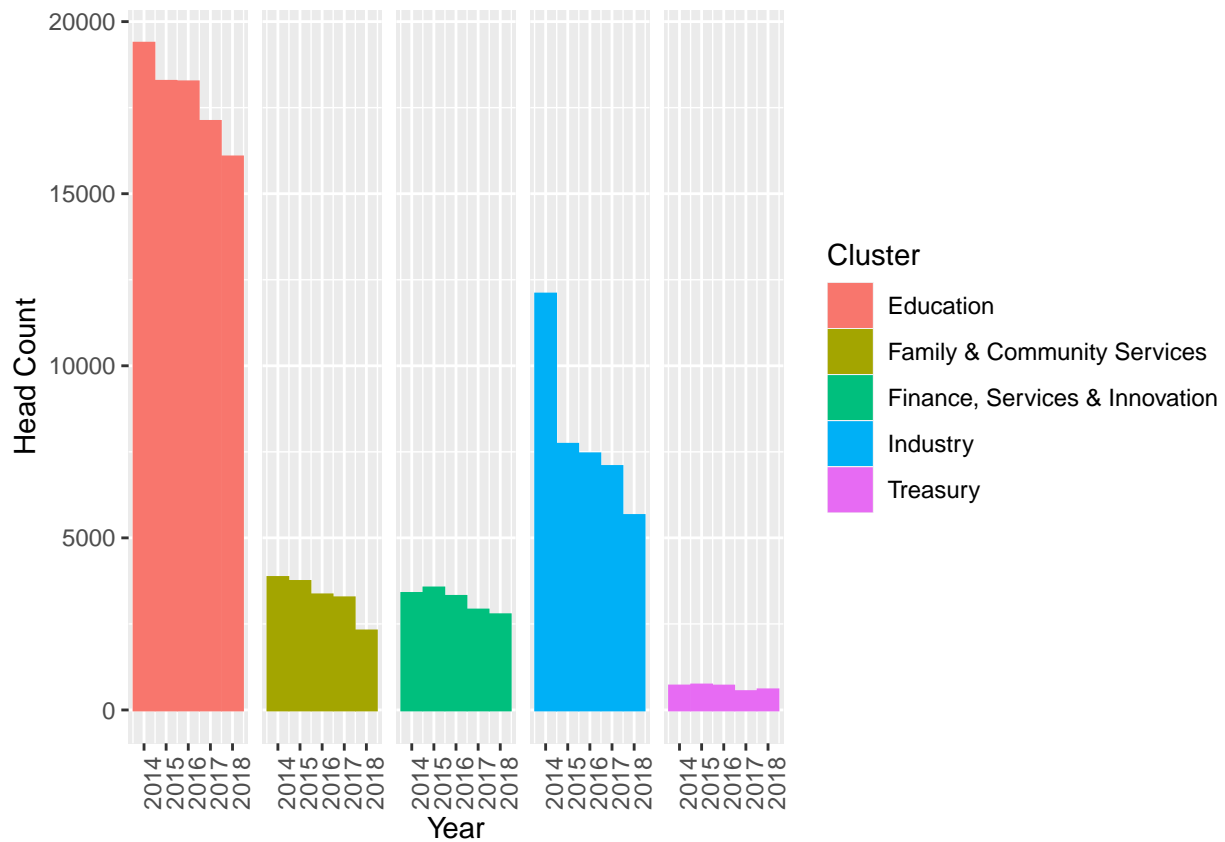
## Male Full-Time Cluster Trends



Each cluster plotted without a relative y-axis, gives insight into each trend. As seen from the plot, clusters with the greatest notable decline:

- Education
- Family & Community Services
- Finance, Services & Innovation
- Industry
- Treasury

## Specified Cluster Examinations

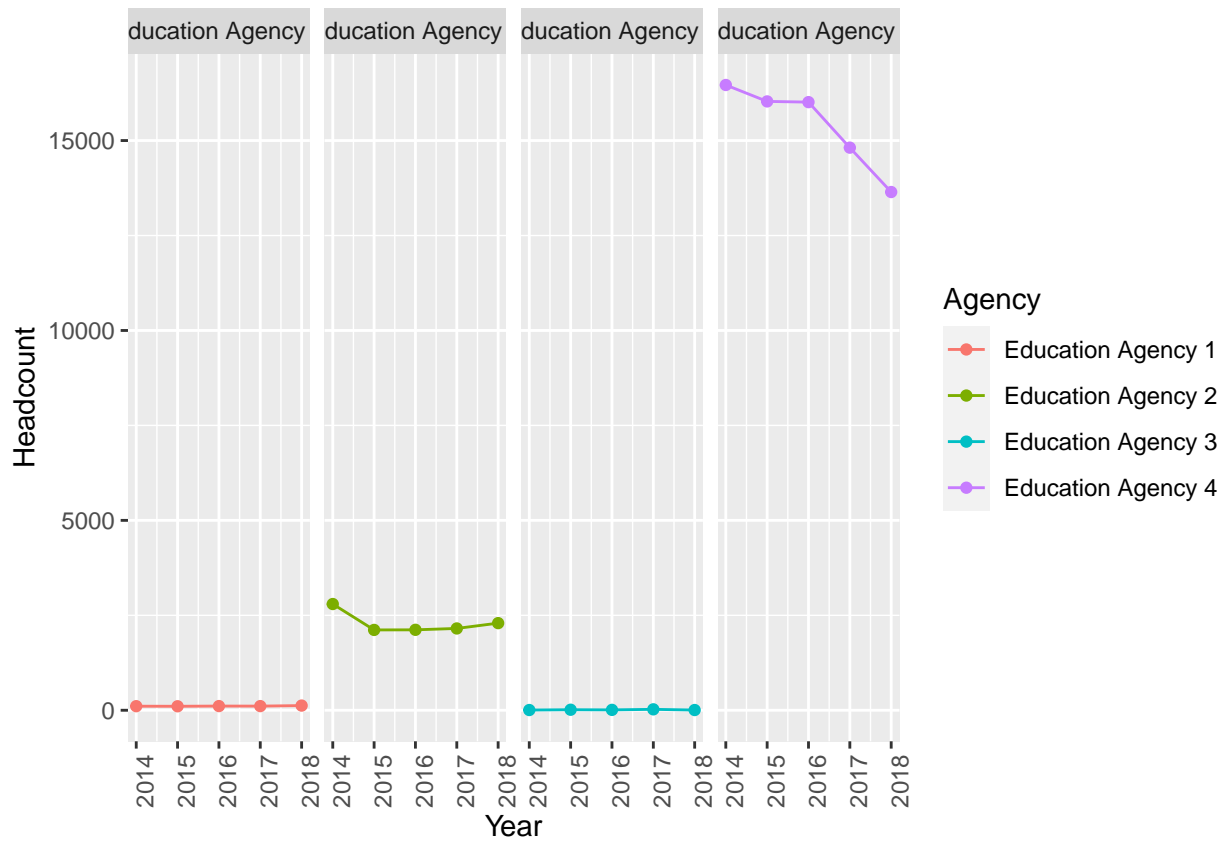


Another look at the specified clusters through a relative scale signifies which clusters are most at effect. Tabling these results will give mathematical insurance to significance:

```
## # A tibble: 5 x 3
## # Groups:   Cluster [5]
##   Cluster                `Total HC Change` `Total % Change`
##   <chr>                  <dbl>          <dbl>
## 1 Education              -3305           17.1
## 2 Family & Community Services -1553           40.3
## 3 Finance, Services & Innovation -619           18.3
## 4 Industry               -6434           53.2
## 5 Treasury                -112           16.1
```

The tabling of the results, through Headcount change and percentage change, indicates which clusters are in need of focus. Looking at percentage change, clusters 'Family & Community Services' and 'Industry' must be analyzed. The total change also draws in the cluster 'Education'.

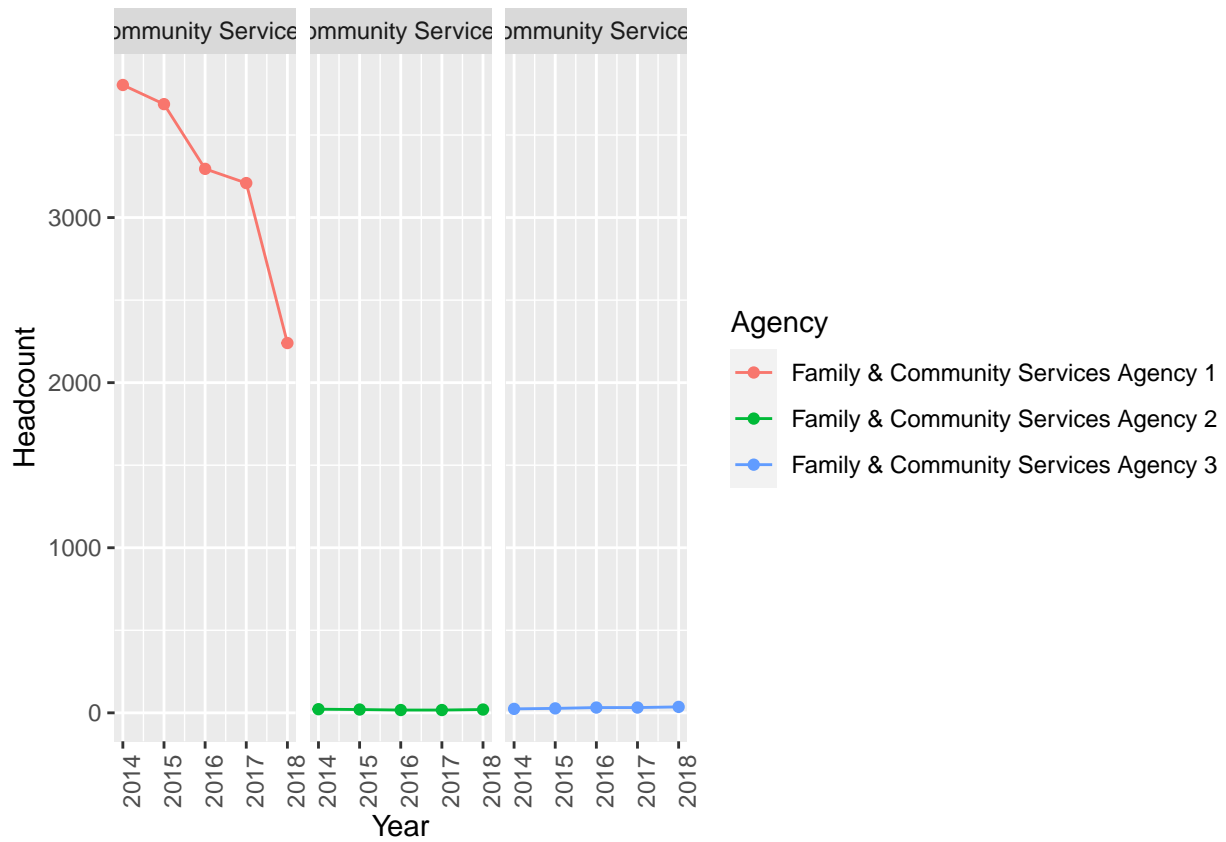
## Education Agency Analysis



This plot indicates which agency, within its respective cluster, has the greatest size as well as decline, from this it can be determined:

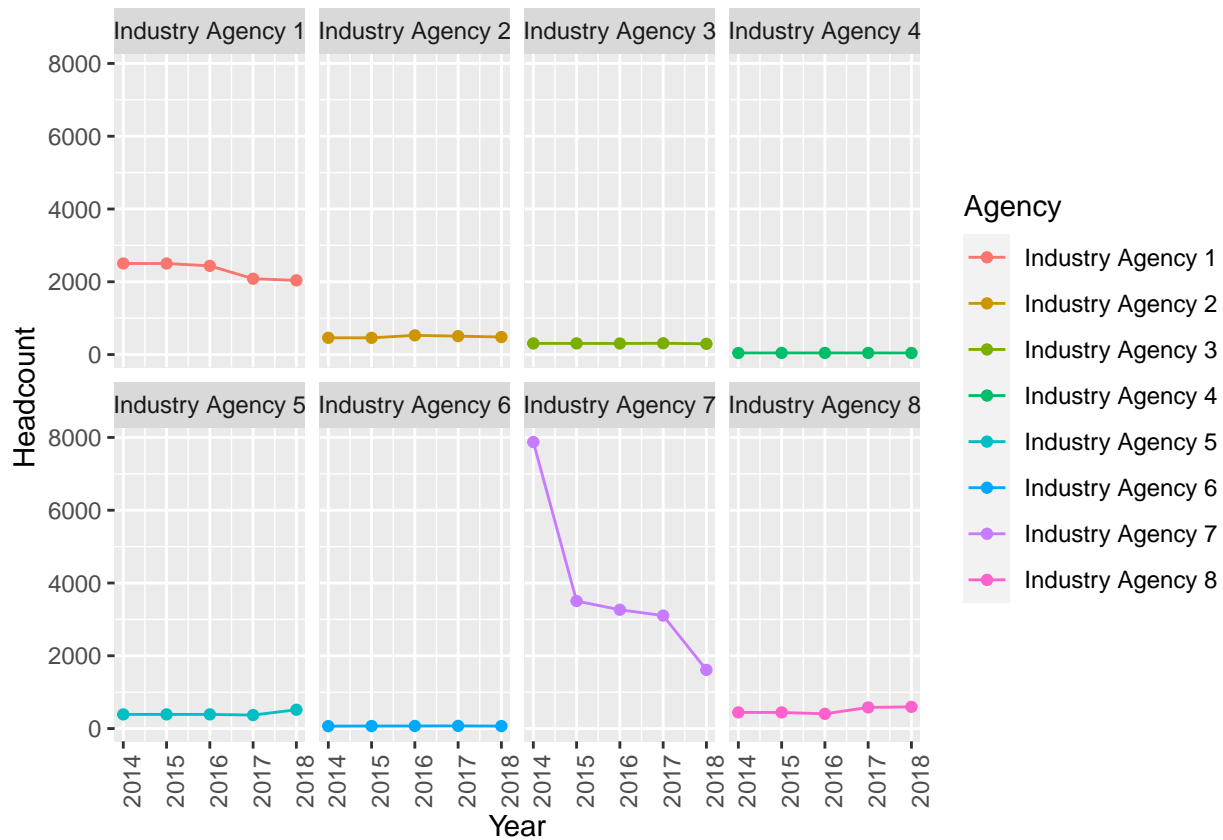
- Education Agency 4 has the highest headcount and the greatest loss of people over the years

## Family & Community Services Agency Analysis



- Family & Community Services Agency 1 has the highest headcount and the greatest loss of people over the years

## Industry Agency Analysis



- Industry Agency 7 has the highest headcount and the greatest loss of people over the years

## Conclusion

When comparing representation of Job-Type and Gender, it can be identified that Male's working Full-Time are at a decline and will continue to do so, as seen through the prediction analysis.

A proposed solution, drawn from in-depth analysis, is to examine the following agencies with the highest decline in Male Full-Time Employees:

- Education Agency 4
- Family & Community Services Agency 1
- Industry Agency 7