Report 5: Most active Judges (>30 Cases) & Sentences 3.0
A casual report

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Contents

What's new

- All the sentence and state analysis only include cases by the top judges
- Convicted vs Not
- other changes in bold

Judges

2637 out of the 3070 (85.9%) cases across Australia have a Judge recorded. There are 1026 unique inputs; way too many to go through manually. A lot of cleaning was done to end up with just one name, the details of which are in the code. In cases where multiple names were present, the last name mentioned was kept. (An exception being where I caught one time the first judge had (supreme court) after it whereas the second

judge had a different court, and I assumed that supreme court would be the one we should keep). Once 'clean', we end up with 413 unique judges. Some care was taken to fix obvious typos, but there may remain cases where a judge is meant to be the same but has different spelling. Let me know if you would like a list of these to review.

There are 20 judges that show up over 30 times. 30 is the magic number that makes a sample size 'large' and statistically valid. They are shown in the following table. These judges account for for nearly one third of all cases (0.31), despite only being 4.85% of the judges. Most cases of a certain judge names appear in the same state; in the off chance the name shows up in a different state, it only appears once. These one-off cases of a name in a different state were removed.'Freq' is the occurrence of the name in the given state. **The top judges come from only 4 states: there are no top judge in Tasmania or South Australia. There is only one top judge from Western Australia, and one from Queensland. The rest are split among NSW and Victoria.**

I did the rest of the report before coming back here and adding the year ranges for each judge. I had previously made the unconscious assumption that each judge name corresponded to the same judge, which may not be the case. **It may be possible for Cohen to have practiced for 34 years. (~~For example I don't think it's likely that Douglas practiced from 1864 to 1948, a range of 84 years~~; now that I removed one-off instances in different states, the range decreased to a reasonable 19 years).**

	judge_simple	Freq	first_year	last_year	range	state
1	markell	105	1929	1949	20	NSW
2	lowe	73	1927	1947	20	Victoria
3	duffy	72	1933	1947	14	Victoria
4	macfarlan	72	1922	1947	25	Victoria
5	martin	71	1935	1947	12	Victoria
6	barton	61	1933	1949	16	NSW
7	o'bryan	50	1939	1947	8	Victoria
8	cohen	42	1895	1929	34	NSW
9	shortland	41	1942	1948	6	NSW
10	curlewis	40	1925	1948	23	NSW
11	backhouse	39	1889	1921	32	NSW
12	mann	39	1919	1943	24	Victoria
13	scholes	35	1913	1928	15	NSW
14	holt	34	1939	1949	10	NSW
15	white	34	1921	1938	17	NSW
16	douglas	33	1929	1948	19	Queensland
17	hodges	33	1890	1919	29	Victoria
18	armstrong	30	1908	1932	24	NSW
19	dwyer	30	1931	1957	26	Western_Australia
20	edwards	30	1916	1936	20	NSW

The following graph shows the distribution of number of cases per judge, sorted in a decreasing manner. The lines indicate select percentiles: 25% of cases are attributed to top 11 judges, 50% to top 35 (I'm not sure why the number isn't showing up above the blue line), and 75% to top 95. We see that more than half of the judges have less than 2 cases associated with them, and nearly half have only 1.
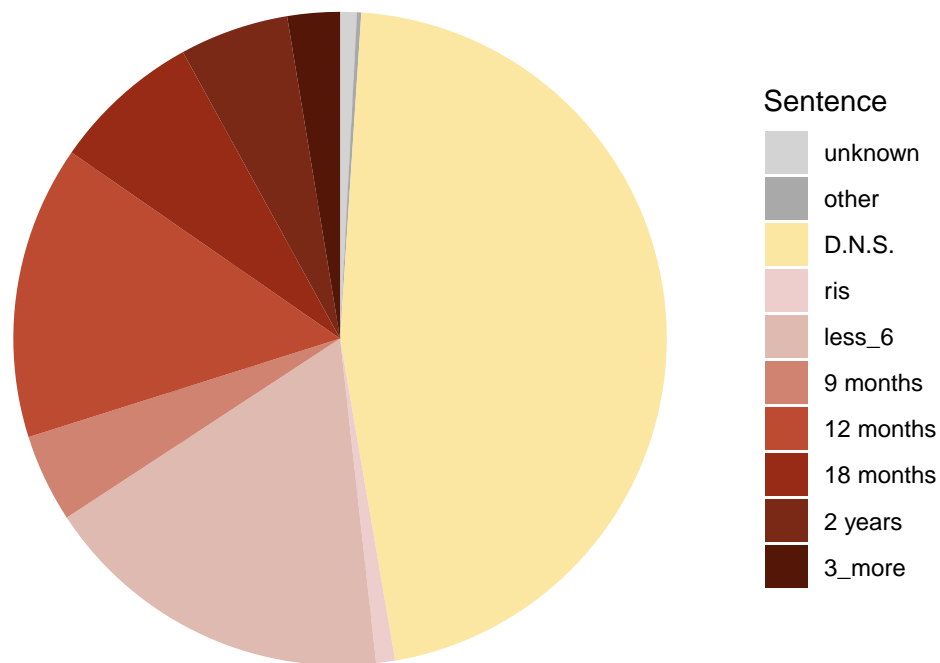
Number of cases per Judge

11   95
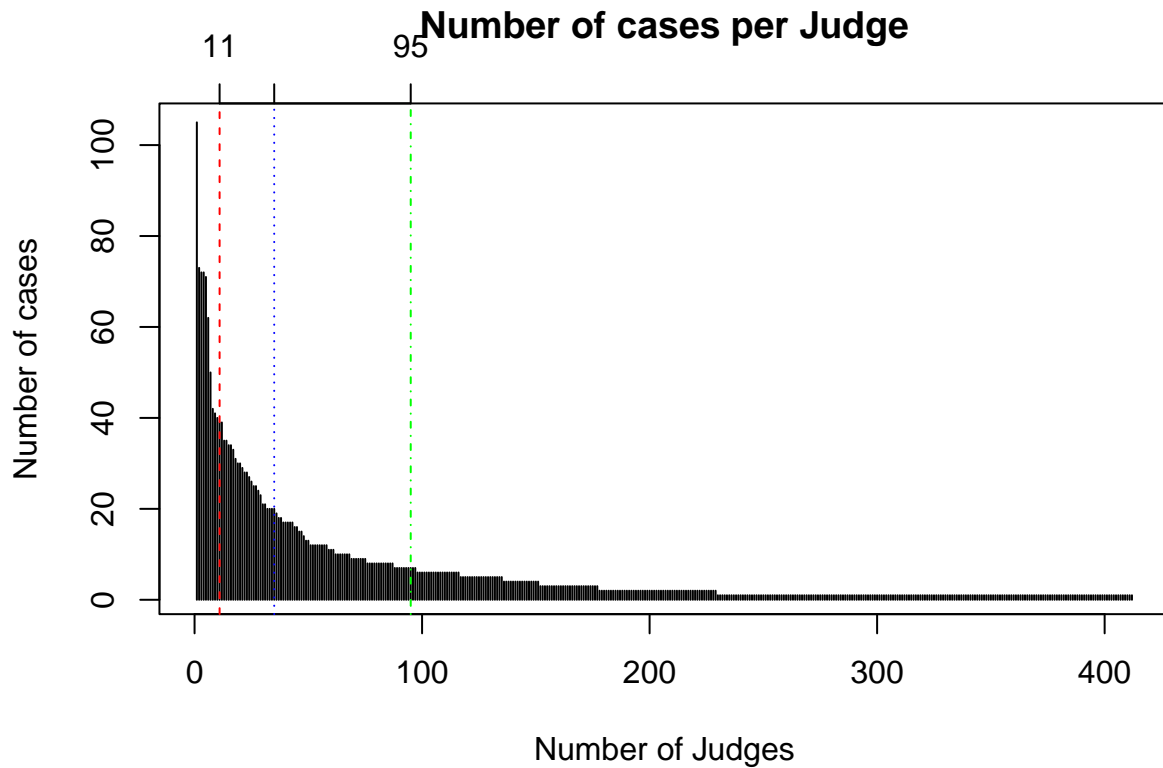
Sentences

3066 out of the 3070 (99.87%) total cases across Australia have an entry in the 'Sentence' column ('?' was reported when unknown). **964 out of the 964 (100%) out of the cases of the top judges do.** I've cleaned the sentences down to the same categories as we've dealt with before. It's worth noting that I put sentences that were 1 day or less under 'rising of the court'. **Cases under 'other' include deaths and escapes.** Months were rounded as I pleased - details are in the code and available upon request. The counts for each category **for the top judges** are shown in the following table. A classic pie chart **for the top judges** follows it, where I still need to figure out how to add value labels.

Var1	Freq
unknown	8
other	2
D.N.S.	446
ris	9
less_6	169
9 months	42
12 months	140
18 months	71
2 years	52
3_more	25

3

Classic Sentences Pie Chart: top Judges

Sentence

- unknown
- other
- D.N.S.
- ris
- less_6
- 9 months
- 12 months
- 18 months
- 2 years
- 3_more

Intersection

Tick plot

The following plot shows the distribution of top judges' sentence proportions. For example, you see that a sentence of 3 years or more (top row) never exceeds 10% of a judge's sentences, whereas the range for other sentences varies. Most of the 'unknown' sentence proportions lie near 0%, except for one case that lies nearer 10%. The range of D.N.S. sentences proportions varies much more: the first tick (belonging to Dwyer in this case) mark lies at 16%, whereas the last one (Markell's) at 85%. This means that 85% of Markell's sentencing are D.N.S, but only 16% of Dwyer's. You could be inclined to think that this may arguably be in part due to the number of cases each judge is mentioned in: Markell has 104, whereas Dwyer only had 31. But as the plot upcoming shows, that is not the case.

Distribution of judges' sentence proportions
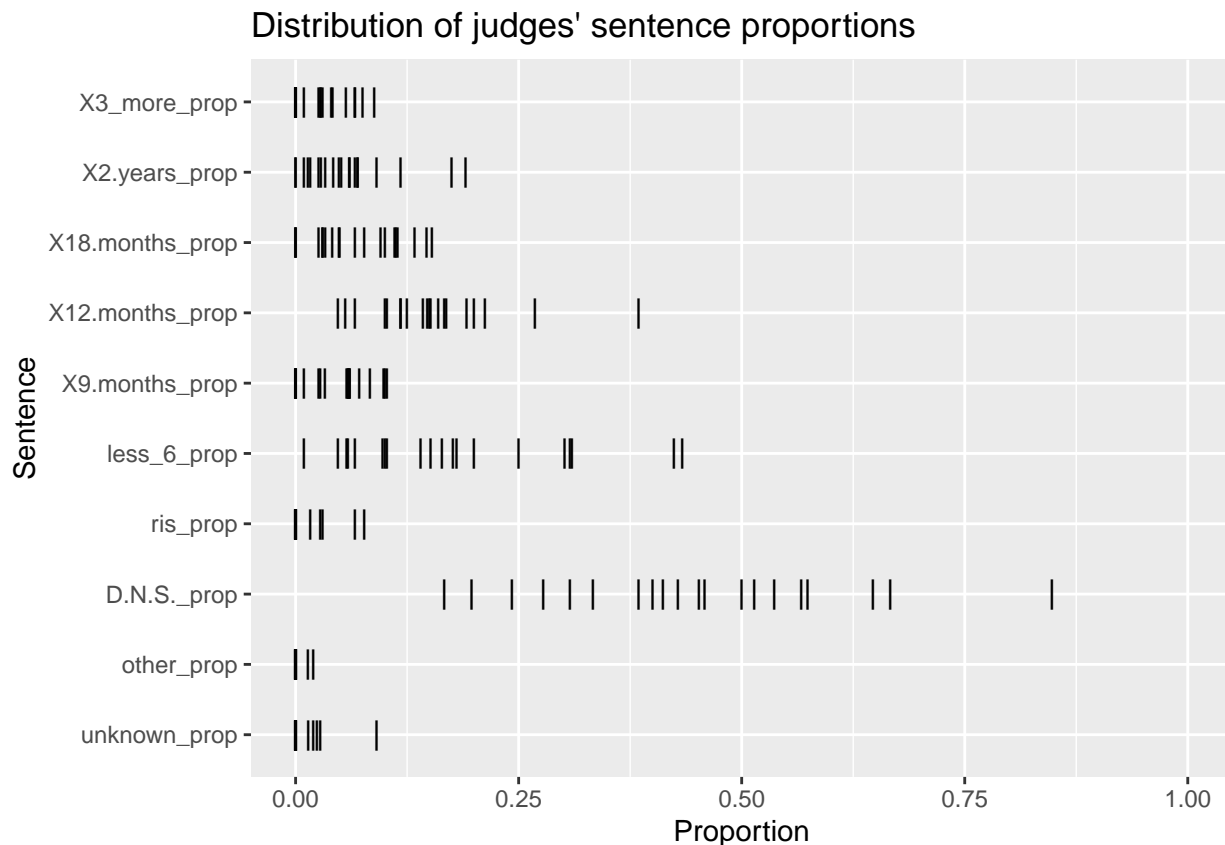
Color barplot

The next plot dissects each Judge's sentencing 'habits'. We see that proportions are not constant, and don't seem to follow a trend regarding the number of cases a judge is mentioned in, as the bars are sorted and the color lenghts seem to flip flop. You can see that although Edwards and Dwyer have similar number of cases mentioning them (30 and 31, respectively), their proportions are pretty dissimilar: Edwards has a much larger proportion of D.N.S. (67%), whereas Dwyer's is much smaller. Another difference is that Dwyer's proportion of sentences that are 6 months or less is much larger. It seems like their proportions of sentences that are greater than 3 years are about the same: around 6.5%. Although Lowe and Barton have 73 and 62 cases each, they both never gives the harshest sentence, which is also the case with Cohen, Shorthand, Mann, White, and Hodge. White's colorbar appears particularly light, never sentencing over 1 year. Let me know if you'd like more analysis regarding this graph or need more help to interpret it. Let me know if you'd like a table with the exact values.

Dissecting Judges' Sentencing

Proportions are not constant!
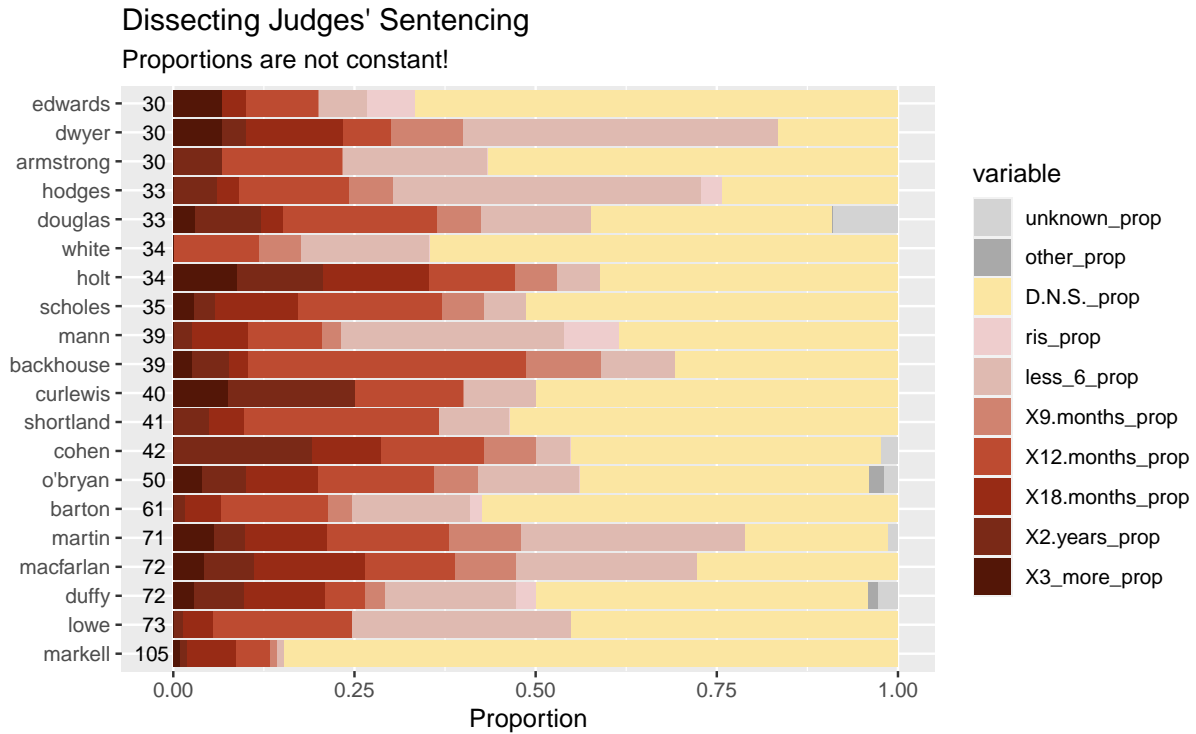
Sentences in Time

Count

Next we'll look into the time of the top judge's sentences: are there trends through the years? In the following plot, we can see where the cases for a certain sentence are dense, and where they are sparse. We can see that the 'rising of the court' are somewhat sparse throughout, and that the first instance is near 1862. A disadvantage of this plot is that the areas may become too dense, like in the case of D.N.S. where you can't see how many cases are present as the ticks all merge together.

Cases of Top Judges by Sentence through the Years
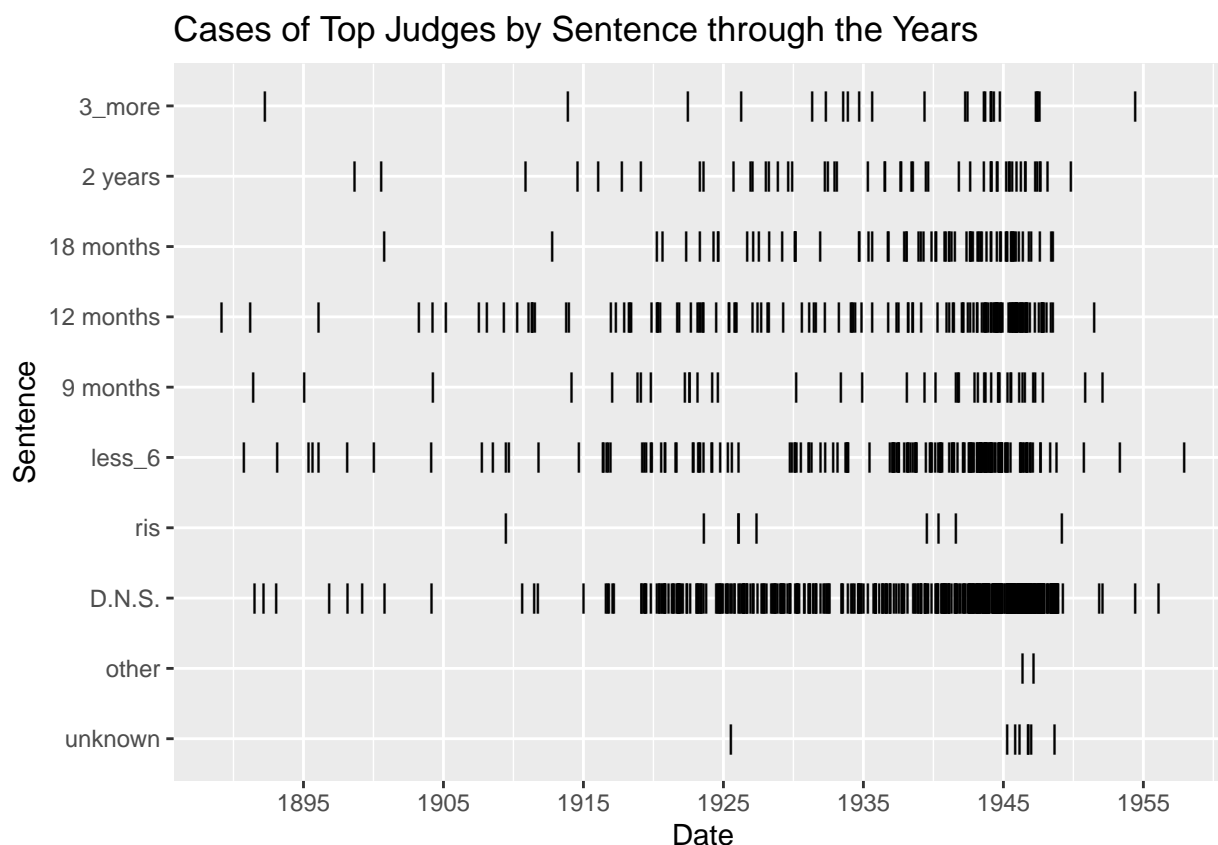
Figure 1 on the following page shows the line plot, but a failure of it is that it doesn't connect the line down to 0 when there are no values for a given year, but rather connects the points present across the years. This is very apparent in the 'other' plot; it seems like there is a constant value of '1' across all the years, but we know from the plot above that that is not the case. You can see that the D.N.S. peak aligns with the area most dense the in the plot above.

Proportions

Figure 2 upcoming shows the proportion of a sentence in a given year. You can read it as, for example, 100% of cases before 1930 were assigned a sentence of 3 years or more; but remember the sparsity of cases in those years. 1/1 is 100%. You can see how the proportion of D.N.S. sentences rises through the years, from 1890-1940.

In the plot after, Figure 3, the proportion for each decade is plotted. You can see how some proportions like 'other' and 'ris' (rising of the court) stay mostly low and constant, whereas 'D.N.S.' is pretty varied. There doesn't seem to be obvious trends. The proportion of sentences that are less than 6 months increases up to 25% in the 1890s, and appears to be around 13% in 1920s-1940s. The proportion of sentences that are more than 3 years appear to decrease from 15% in 1830s down to 1% in 1920-1940s.
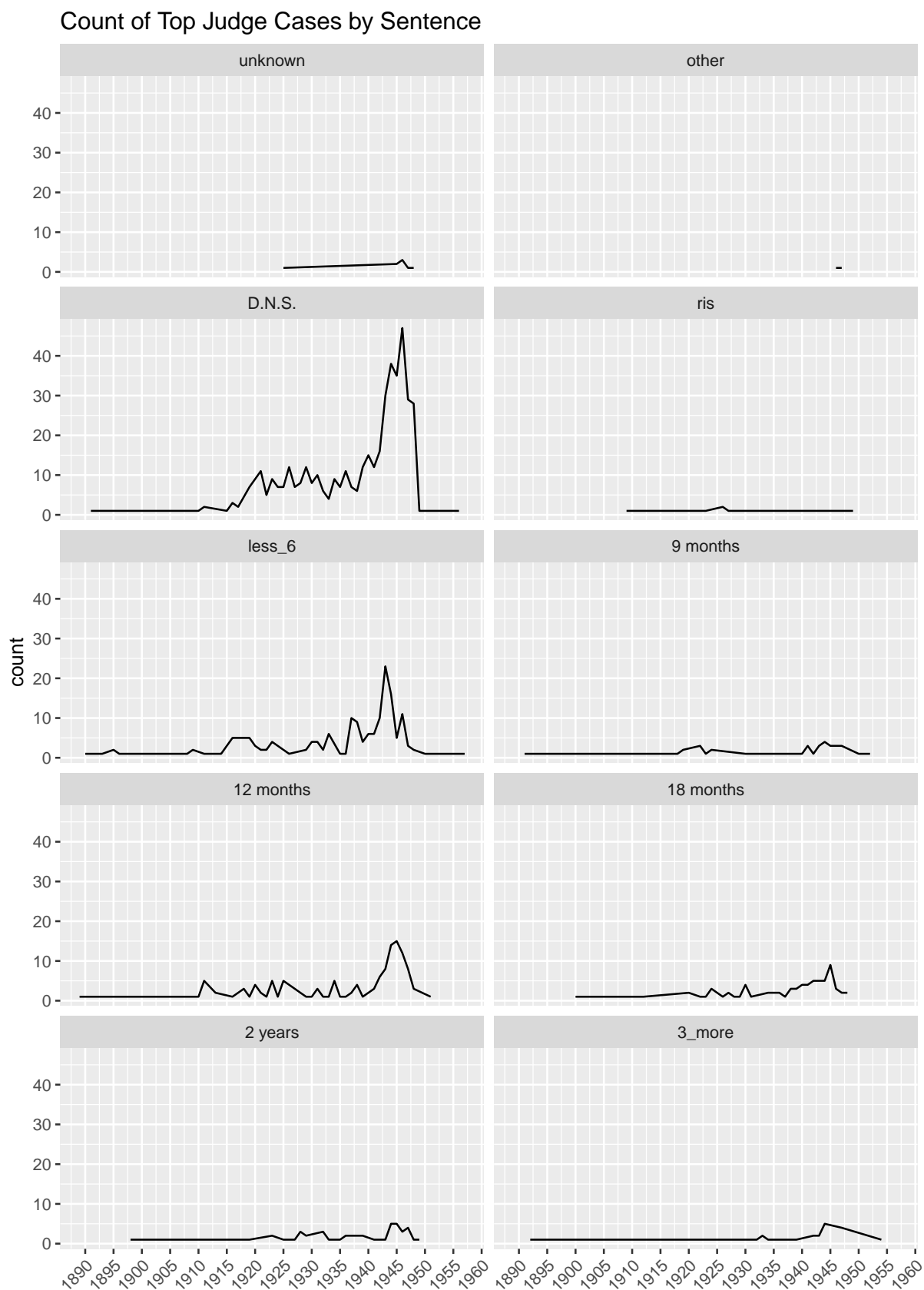
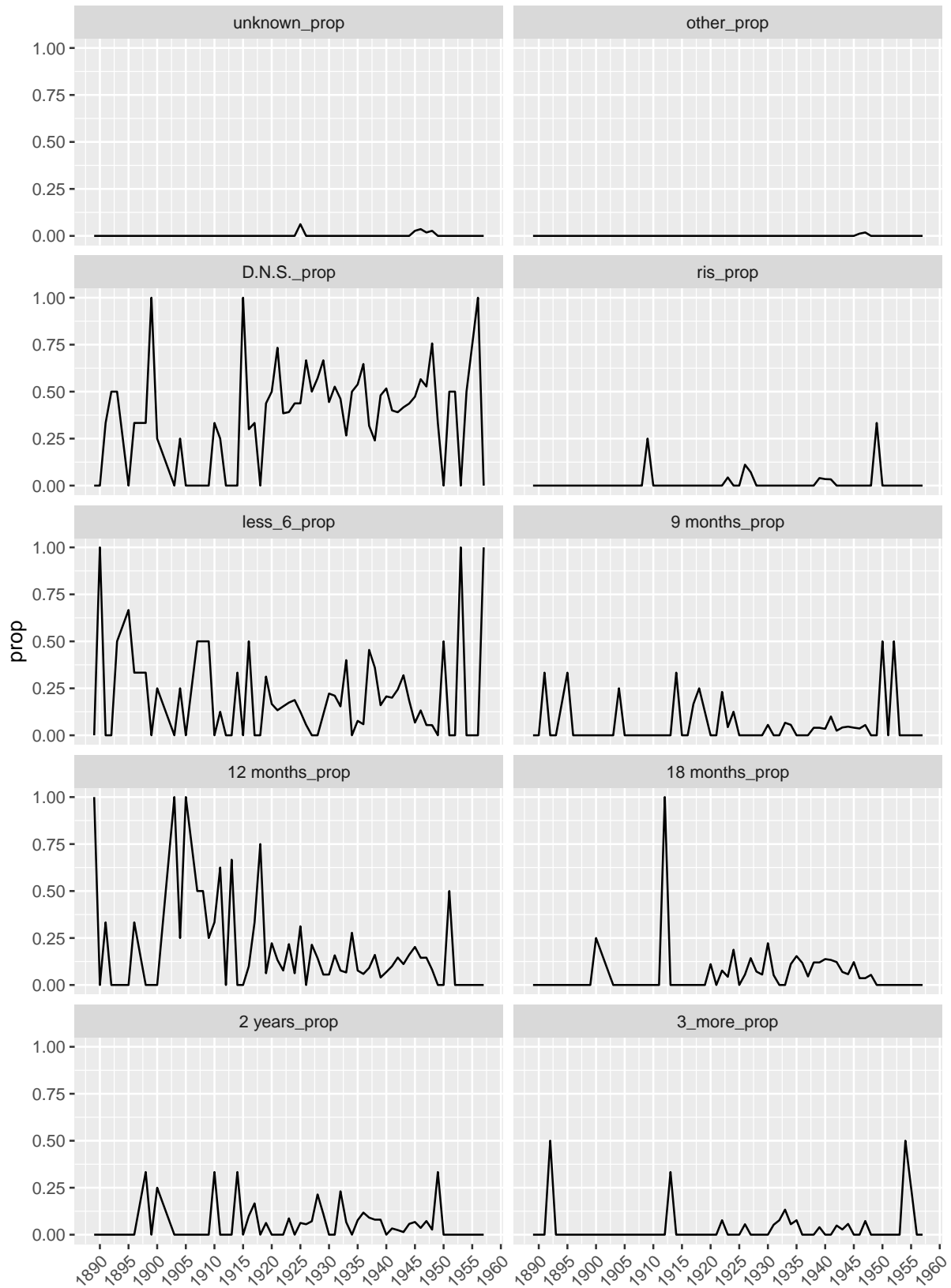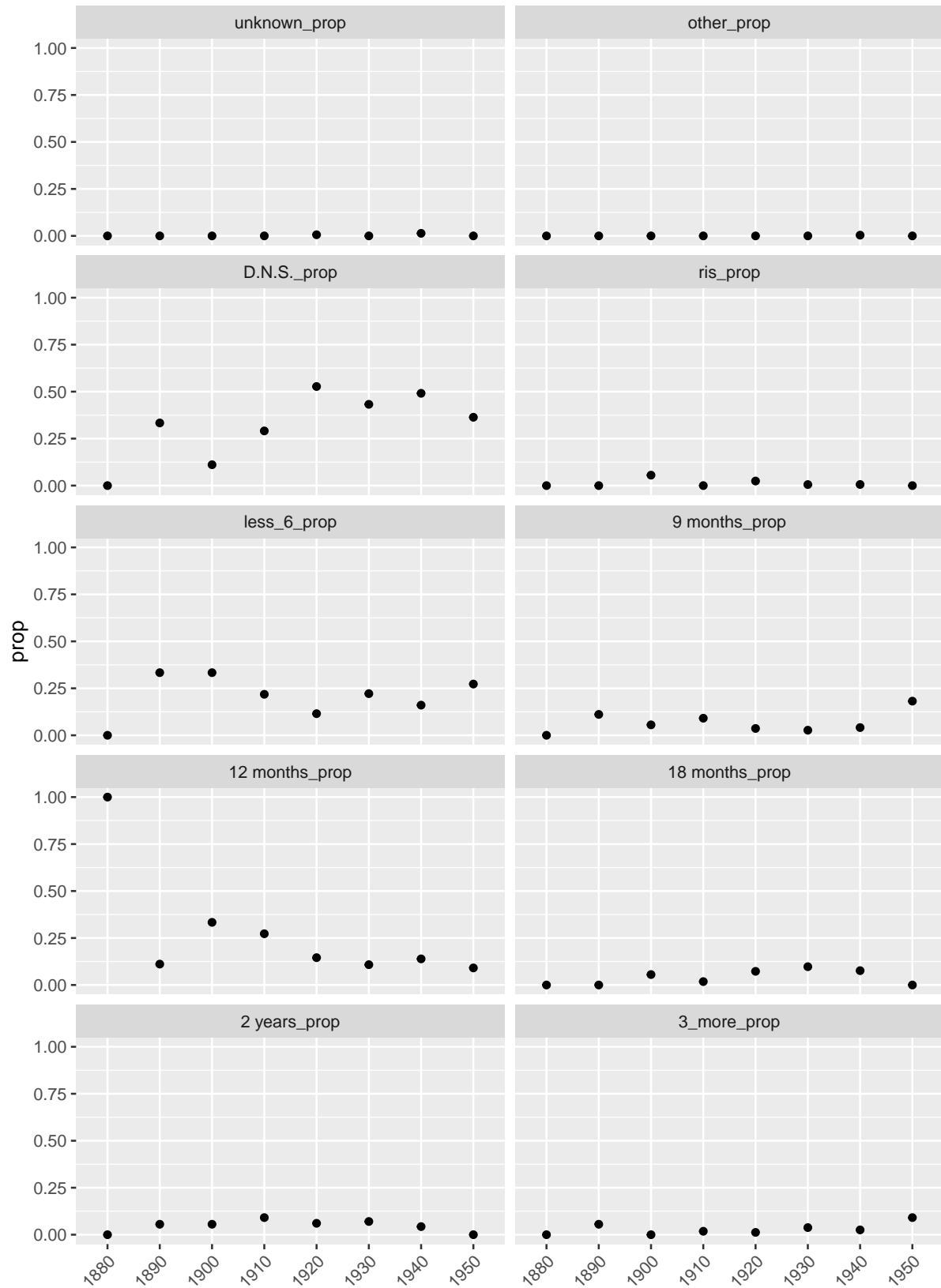# Count of Top Judge Cases by Sentence

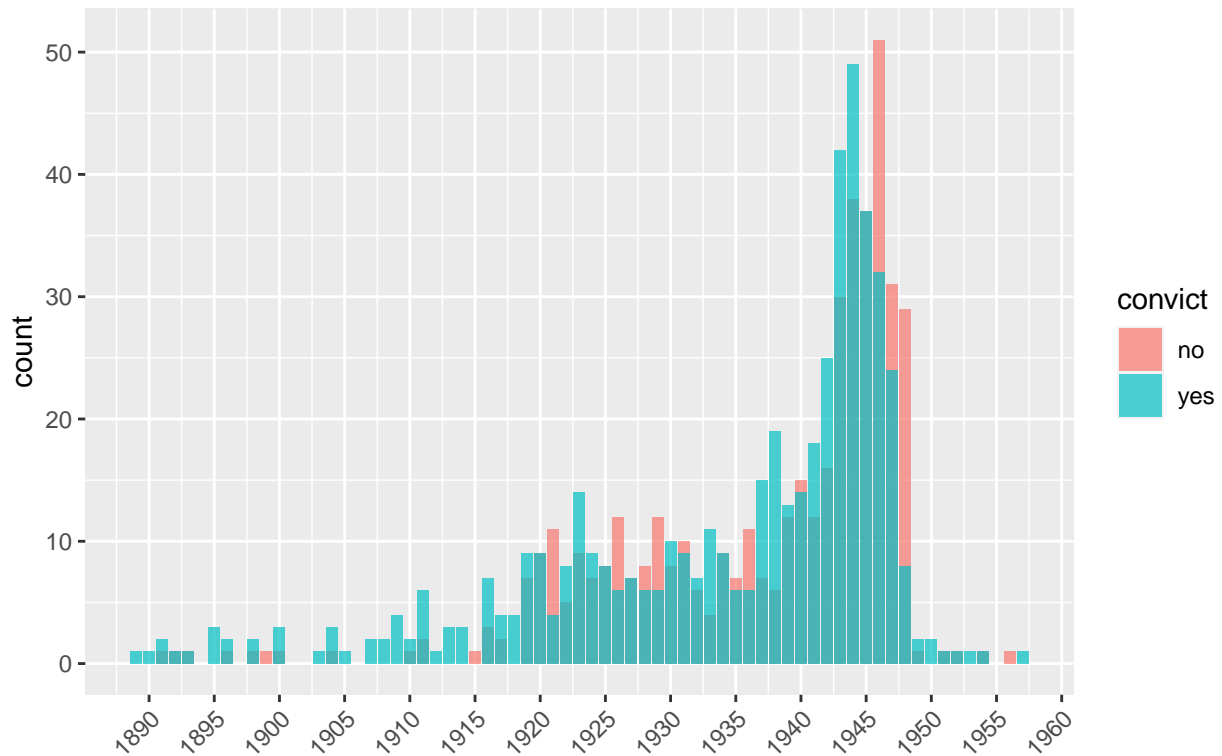Figure 2: Top Judge sentences proportions through the years

# Proportion of Top Judge Cases by Sentence by Decade

Prison vs Not

The next plot shows the counts through the years of conviced (prison time) vs not (D.N.S., other, unknown). It almost appears like the prison charges (blue) lead a pattern that not imprison charges (red) follow a few years late. Observe for example the blue peak at 1923, then the red peak 1926; blue peak 1933, red peak 1936; blue peak 1944, red peak 1946... the waves appear to somewhat follow each other. Is it a coincidence? What would be causing this?


The next plot shows the proportions per years; for example, in 1915, 100% of sentences were not imprisoned (whole red bar). Here you can also see somewhat of a pattern in the years from 1920-1945.

Dissecting Sentencing Proportions of Top Judges through the Years
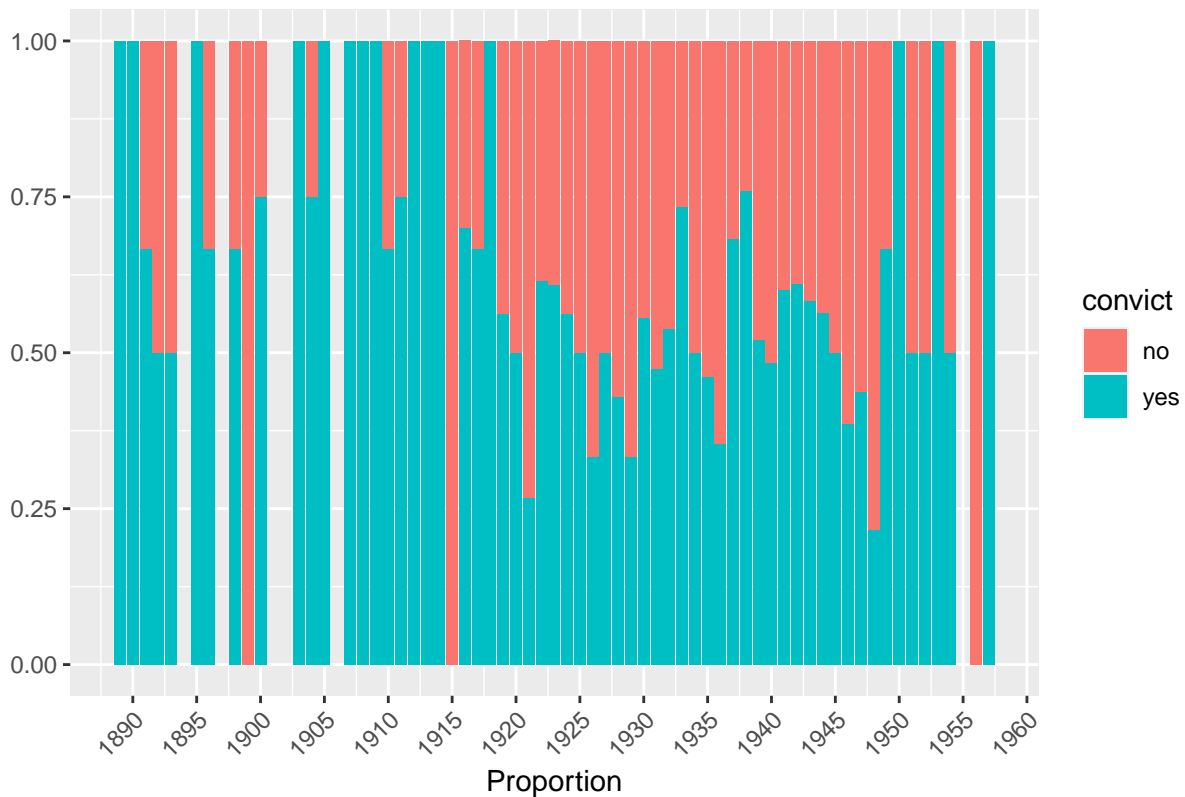
States

In the following plot, we get an idea of the split of top judge sentence proportions per state. **A reminder that there is only one top judge from Western Australia, and one from Queensland. These may thus not be useful in the analysis; you can refer to Report 5 2.0 version (report5_judge_sentences) for the analysis with all judges. Here I think only NSW and Victoria are safe to compare, since you have 11 and 7 judges in each respectively. You can see that more than half of NSW cases are D.N.S., whereas only nearly 1/3 are in Victoria. Victoria seems to sentence more light prison sentences (less than 6 months) to compensate.**

Dissecting Sentencing Proportions of Top Judges by State
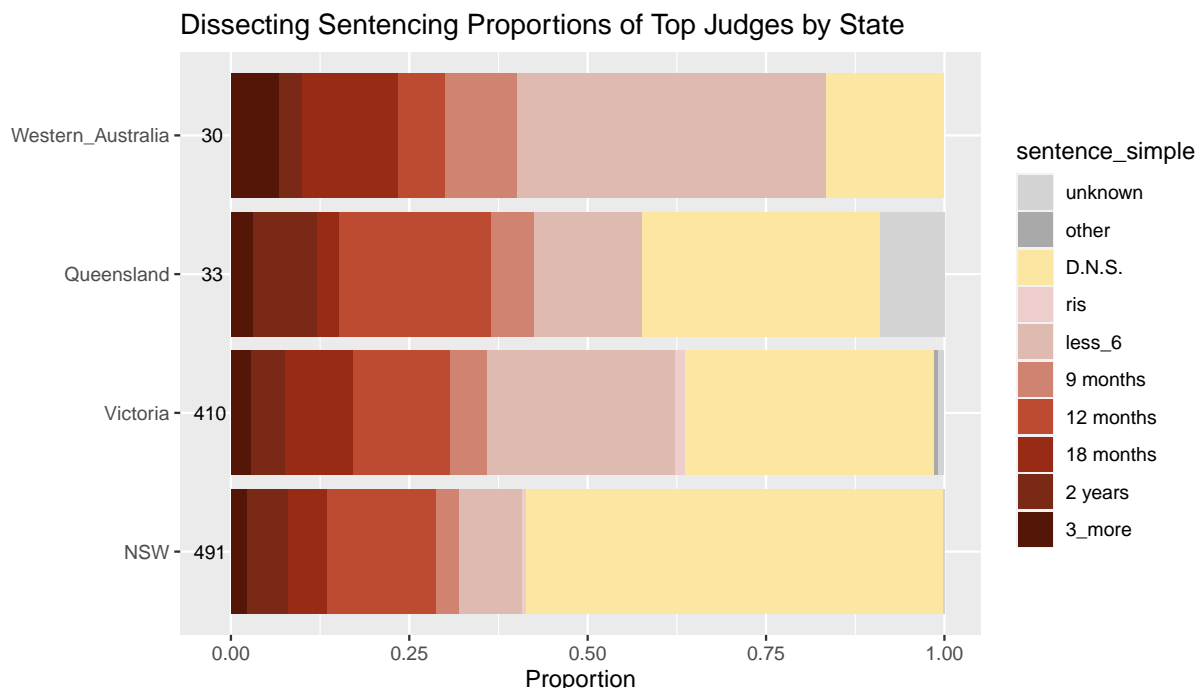
The next plot allows us to see exactly how proportion differs for each sentence. Here we can add color to each tick mark representing each **top judge** state because we only have 6 possible categories. We see that they proportions of sentences are mostly similar across states, but some proportions have wider ranges. **Keep in mind that Queensland and WA only have 1 top judge each. NSW and Victoria are the red and blue ticks, respectively. NSW only sentence near 10% of their cases to less than 6 months, whereas Victoria does over 25%. For D.N.S. NSW sentences (or rather doesn't convict prison) D.N.S. almost 60% of the time, whereas Victoria only 35%. The other sentence proportions appear close to each other (red and blue tick marks not far from each other)**

Distribution of top Judge Sentence Proportions by State