

## 10.5: Summary

---

Now you are in a position to employ diagnostics – both visual and statistical – to evaluate the results of your statistical models. Note that, once you have made your model corrections, you will need to regenerate and re-evaluate your model residuals to determine whether the problem has been ameliorated. Think of diagnostics as an iterative process in which you use the model results to evaluate, diagnose, revise re-run, and re-evaluate your model. This is where the real learning happens, as you challenge your theory (as specified in your model) with observed data. So – have at it!

---

17. Again, we assume only that the **means** of the errors drawn from repeated samples of observations will be normally distributed – but we will often find that errors in a particular sample deviate significantly from a normal distribution.↵
  18. Political scientists who study US electoral politics have had to account for unusual observations in the Southern states. Failure in the model to account for these differences would lead to prediction error and ugly patterns in the residuals. Sadly, Professor Gaddie notes that scholars have not been sufficiently careful – or perhaps well-trained? – to do this right. Professor Gaddie notes: “... instead of working to achieve better model specification through the application of theory and careful thought, in the 1960s and 1970s electoral scholars instead just threw out the South and all senate races, creating the perception that the United States had 39 states and a unicameral legislature.”↵
  19. Of note, observations 20, 30, and 90 and 1052 are returned as well. There doesn’t appear to be anything special about these four observations. Part of this may be due to the bivariate relationship and how the `influcencePlot` function weights the data. The results are included for your review.↵
- 

This page titled [10.5: Summary](#) is shared under a [CC BY 4.0](#) license and was authored, remixed, and/or curated by [Jenkins-Smith et al. \(University of Oklahoma Libraries\)](#) via [source content](#) that was edited to the style and standards of the LibreTexts platform.