

5 A Full Linear Analysis

Note Title

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- Today:
- Notes on Transformations
 - A full analysis answering a specific question.
 - Know your data
 - Select best research model
 - Check assumptions
 - Answer question

Notes

Assumptions violated?

Option 3: Transformations

- Done to fix violations:

- Normality

- Equal variance

- Functions must be "increasing"

Common transformations

	<u>function</u>	<u>inverse fctn</u>
two bounds :	logit	logistic
one bound :	log	exp
miscellaneous :	square	square-root

Box-Cox

Full analysis

1. **Know your data!**
2. Determine research model
 - which indep vars?
 - enter as additive?
 - enter as interaction?
 - enter as combination?
3. Check assumptions!
4. Answer question.

} adj
R²

Question

What is the probability the ballot measure passes in Maine?

Outline:

1. Determine our research model
2. Linear model ; check assumptions.
3. Make prediction & use MC to answer Q.