Chi-squared test for Independence

Example: coffee and mortality

Observed data:

	Did not die	Died	Total
No coffee	5438	1039	6477
Occasional coffee	29712	4440	34152
Regular coffee	24934	3601	28535
Total	60084	9080	69164

H_0:

H_A:

Table of expected counts

	Did not die	Died	Total
No coffee			6477
Occasional coffee			34152
Regular coffee			28535
Total	60084	9080	69164

Our observed test-statistic:

Distribution of our test-statistic:

P-value (code and picture):

Conditions (better late than never!):

1.
2.

Termites

Observed data:

	Unharmed	Paralyzed	Dead	Total
Blue	3	11	26	40
White	31	4	5	40
Blue w/o crystals	26	8	7	41
White w/ crystals	17	5	18	40
Total	77	28	56	161

H_0:

H_A:

Check conditions

Table of expected counts

	Unharmed	Paralyzed	Dead	Total
Blue				40
White				40
Blue w/o crystals				41
White w/ crystals				40
Total	77	28	56	161

Are conditions for inference satisfied?

Our observed test-statistic:

Distribution of our test-statistic:

P-value (code and picture):