

3_chi_sq_us

Maiko Hata

Chi-Square for all the races and all the exit reasons

```
# A tibble: 7 x 9
  race          area exit_total withdrawal_by_parent attempts_to_contact_~1
<chr>          <chr>      <dbl>          <dbl>          <dbl>
1 Alaska Native or~ US a~      23783            3155            3262
2 Asian          US a~      146252           21737           6559
3 Black or African~ US a~      415873           48699          56155
4 Hispanic or Lati~ US a~      905971          109469          79951
5 Two or More Races US a~      135841           19195          11676
6 Pacific Islander US a~       10654            1467            977
7 White          US a~     1672185          242489          99922
# i abbreviated name: 1: attempts_to_contact_unsuccessful
# i 4 more variables: moved_out_of_state <dbl>,
#   part_b_eligible_exiting_part_c <dbl>, complete_or_not_eligible <dbl>,
#   part_b_eligibility_not_determined <dbl>
```

Pearson's Chi-squared test

```
data: race_us_2[, 4:9]
X-squared = 88194, df = 30, p-value < 2.2e-16
```

Chi-square with residuals for all the races and all the exit reasons

	withdrawal_by_parent	attempts_to_contact_unsuccessful	moved_out_of_state
[1,]	-2.234095	32.841369	4.903254
[2,]	18.267561	-47.216930	38.237805
[3,]	-31.865184	150.672278	-4.860364
[4,]	-46.871821	41.512674	-45.704335

[5,]	4.759969	9.210151	19.711489
[6,]	1.784885	5.970013	8.939672
[7,]	53.637330	-126.955744	18.662621
	part_b_eligible_exiting_part_c	complete_or_not_eligible	
[1,]	3.306337	-11.24173880	
[2,]	3.739375	-23.74837150	
[3,]	-30.371562	-85.23775119	
[4,]	-25.437796	-76.56320235	
[5,]	4.206750	-0.05338682	
[6,]	-3.855291	-6.76085084	
[7,]	39.362366	136.85244266	
	part_b_eligibility_not_determined		
[1,]	-17.265174		
[2,]	20.370145		
[3,]	58.876881		
[4,]	163.439764		
[5,]	-28.271052		
[6,]	1.954419		
[7,]	-178.918581		

	Dismissed	Moved Out	Not Determined	Not Eligible	Part B Eligible	Withdrawn
AI/AN	32.841369	4.903254	-17.265174	-	3.306337	-2.234095
				11.2417388		
Asian	-47.216930	38.237805	20.370145	-	3.739375	18.267561
				23.7483715		
Black	150.672278	-4.860364	58.876881	-	-30.371562	-
				85.2377512		31.865184
Hispanic	41.512674	-	163.439764	-	-25.437796	-
		45.704335		76.5632024		46.871821
NH/PI	5.970013	8.939672	1.954419	-6.7608508	-3.855291	1.784885
Two+	9.210150	19.711489	-28.271052	-0.0533868	4.206750	4.759969
Races						
White	-	18.662621	-178.918581	136.8524427	39.362366	53.637330
	126.955744					

	Dismissed	Moved Out	Not Determined	Not Eligible	Part B Eligible	Withdrawn
AI/AN	32.841369	4.903254	-17.265174	-11.24173880	3.306337	-2.234095
Asian	-47.216930	38.237805	20.370145	-23.74837150	3.739375	18.267561
Black	150.672278	-4.860364	58.876881	-85.23775119	-30.371562	-

Hispanic	41.512674	-45.704335	163.439764	-76.56320235	-25.437796
NH/PI	5.970013	8.939672	1.954419	-6.76085084	-3.855291
Two+ Races	9.210151	19.711489	-28.271052	-0.05338682	4.206750
White	-126.955744	18.662621	-178.918581	136.85244266	39.362366

6/12/25: Checking to see if I can run corrplot() on stdres_matrix_2 ##### never mind that doesn't work.

Odds ratio for each racial group to be dismissed, compared to the national average.

```
[1] "race"                                "area"
[3] "exit_total"                        "withdrawal_by_parent"
[5] "attempts_to_contact_unsuccessful" "moved_out_of_state"
[7] "part_b_eligible_exiting_part_c"   "complete_or_not_eligible"
[9] "part_b_eligibility_not_determined"
```

Race	Odds Ratio	P Value
Alaska Native or American Indian	1.85	< .001
Asian	0.55	< .001
Black or African American	2.13	< .001
Hispanic or Latino	1.20	< .001
Pacific Islander	1.22	< .001
Two or More Races	1.10	< .001
White	0.59	< .001
National Average	1.00	NA

Race	Odds Ratio	P Value
Alaska Native or American Indian	1.85	< .001
Asian	0.55	< .001
Black or African American	2.13	< .001
Hispanic or Latino	1.20	< .001
Pacific Islander	1.22	< .001
Two or More Races	1.10	< .001
White	0.59	< .001
National Average	1.00	NA

Calculate cohen's h

Race	Dismissed N	Total N	Dismissed %	National Avg %	Cohen's h
Alaska Native or American Indian	3262	23783	13.72%	7.81%	0.192
Asian	6559	146252	4.48%	7.81%	-0.140
Black or African American	56155	415873	13.50%	7.81%	0.186
Hispanic or Latino	79951	905971	8.82%	7.81%	0.037
Two or More Races	11676	135841	8.60%	7.81%	0.029
Pacific Islander	977	10654	9.17%	7.81%	0.049
White	99922	1672185	5.98%	7.81%	-0.073

Forrest Plot for Odds ratio

```
# A tibble: 8 x 3
  Race                `Odds Ratio` `P Value`
  <chr>                <dbl> <chr>
1 Alaska Native or American Indian    1.85 < .001
2 Asian                               0.55 < .001
3 Black or African American           2.13 < .001
4 Hispanic or Latino                   1.2  < .001
5 Pacific Islander                     1.22 < .001
6 Two or More Races                    1.1  < .001
7 White                               0.59 < .001
8 National Average                     1    <NA>
```

```
[1] "Race"      "Odds Ratio" "P Value"
```

