Paper 2 Regression Results

KN

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# Overall Sample Characteristics

| Characteristic | N = 3,5061 |
| --- | --- |
| Transgender | 112 (3.2%) |
| Gender (recoded across waves) |  |
| Female | 1,625 (47%) |
| Male | 1,775 (51%) |
| Other | 87 (2.5%) |
| Race (recoded across waves) |  |
| Black | 54 (1.5%) |
| Indigenous | 38 (1.1%) |
| Asian | 107 (3.1%) |
| Hispanic | 1,607 (46%) |
| Multiracial | 351 (10%) |
| White | 1,342 (38%) |
| Sexual Orientation (recoded across waves) |  |
| Gay/Lesbian | 82 (2.4%) |
| Bisexual | 400 (11%) |
| Questioning | 134 (3.8%) |
| Other | 156 (4.5%) |
| Straight | 2,714 (78%) |
| Grade |  |
| 9 | 1,594 (47%) |
| 10 | 1,307 (38%) |
| 11 | 518 (15%) |
| Age | 16.40 (0.96) |
| Tx | 2,093 (60%) |
| 1n (%); Mean (SD) | |

# Analysis 1

Analysis 1 includes all students in the sample and regresses SH and SV perpetration on sport, peer network, trusted adult, risky behavior, and demographic variables.

## Descriptive Statistics

### Listwise Deletion

| Characteristic | No sport, N = 7781 | Non, N = 2371 | Low, N = 3421 | High, N = 9651 | q-value3 |
| --- | --- | --- | --- | --- | --- |
| SH\_Perp\_W4\_di | 113 (15%) | 36 (15%) | 63 (19%) | 172 (18%) | 0.2 |
| SV\_Perp\_W4\_di | 36 (4.7%) | 13 (5.6%) | 26 (7.9%) | 74 (7.9%) | 0.050 |
| Prior SH Perpetration | 186 (27%) | 66 (29%) | 113 (35%) | 320 (36%) | 0.002 |
| Prior SV Perpetration | 57 (8.2%) | 16 (7.1%) | 45 (14%) | 125 (14%) | <0.001 |
| Indegree | 1.06 (1.22) | 1.50 (1.49) | 1.57 (1.62) | 1.32 (1.53) | <0.001 |
| Outdegree | 1.67 (1.98) | 2.08 (2.14) | 2.07 (2.12) | 1.84 (2.20) | 0.005 |
| Coreness | 0.48 (0.58) | 0.73 (0.74) | 0.72 (0.77) | 0.60 (0.71) | <0.001 |
| Egocentric Density | 0.05 (0.13) | 0.07 (0.15) | 0.09 (0.20) | 0.06 (0.15) | 0.007 |
| TA Total Nominations | 1.66 (1.95) | 1.97 (2.25) | 2.03 (2.17) | 1.93 (2.20) | 0.068 |
| TA - Administrator | 13 (1.7%) | 8 (3.4%) | 14 (4.1%) | 40 (4.1%) | 0.034 |
| TA - Counselor | 45 (5.8%) | 29 (12%) | 24 (7.0%) | 72 (7.5%) | 0.016 |
| TA - Health Worker | 73 (9.4%) | 7 (3.0%) | 16 (4.7%) | 56 (5.8%) | <0.001 |
| TA - Paraprofessional | 18 (2.3%) | 6 (2.5%) | 14 (4.1%) | 15 (1.6%) | 0.069 |
| TA - Support Staff | 51 (6.6%) | 8 (3.4%) | 28 (8.2%) | 83 (8.6%) | 0.043 |
| TA - Teacher | 370 (48%) | 123 (52%) | 174 (51%) | 463 (48%) | 0.5 |
| Substance Use | 0.21 (0.40) | 0.19 (0.38) | 0.28 (0.46) | 0.27 (0.44) | 0.002 |
| SV Dismissiveness | 0.49 (0.50) | 0.49 (0.57) | 0.54 (0.58) | 0.61 (0.56) | <0.001 |
| Girl | 404 (52%) | 118 (50%) | 236 (69%) | 345 (36%) | <0.001 |
| Other Gender | 21 (2.7%) | 10 (4.2%) | 8 (2.4%) | 15 (1.6%) | 0.085 |
| Hispanic | 387 (50%) | 46 (20%) | 127 (37%) | 478 (50%) | <0.001 |
| Person of Color | 518 (67%) | 79 (34%) | 187 (55%) | 628 (65%) | <0.001 |
| Sexual Minority | 201 (26%) | 49 (21%) | 87 (26%) | 139 (14%) | <0.001 |
| Intervention | 511 (66%) | 148 (62%) | 182 (53%) | 519 (54%) | <0.001 |

### 

### Multiple Imputation

Average n for each contact category: No Sports = 1310.06, Non-Contact = 389.36, Low Contact = 533.8, High Contact = 1233.42

| Variable | No Sports  n = 1310.1 | Non-Contact  n = 389.4 | Low-Contact  n = 533.8 | High-Contact  n = 1233.4 | *D1* | *p* |
| --- | --- | --- | --- | --- | --- | --- |
| Wave 4 SH Perpetration | 220.2 (16.8%) | 71.8 (18.5%) | 108.3 (20.3%) | 225.8 (18.3%) | 5.96 (3, 3270.7) | 0.001 |
| Wave 4 SV Perpetration | 87.3 (6.7%) | 34.2 (8.8%) | 50.3 (9.4%) | 98.2 (8.0%) | 2.32 (3, 3167.8) | 0.093 |
| Prior SH Perpetration | 378.2 (28.9%) | 126.2 (32.4%) | 189.8 (35.6%) | 431.9 (35.0%) | 7.22 (3, 3039.9) | 0.000 |
| Prior SV Perpetration | 128.9 (9.8%) | 41.8 (10.7%) | 79.4 (14.9%) | 165.5 (13.4%) | 1.55 (3, 3067.4) | 0.207 |
| Indegree | 1.03 (1.21) | 1.28 (1.40) | 1.36 (1.52) | 1.23 (1.47) | 12.08 (3, 3425.0) | 0.000 |
| Outdegree | 1.35 (1.89) | 1.63 (2.04) | 1.66 (2.04) | 1.61 (2.12) | 9.19 (3, 3424.9) | 0.000 |
| Coreness | 0.45 (0.58) | 0.60 (0.70) | 0.60 (0.72) | 0.55 (0.68) | 18.05 (3, 3425.0) | 0.000 |
| Egocentric Density | 0.04 (0.12) | 0.06 (0.14) | 0.07 (0.17) | 0.05 (0.14) | 4.73 (3, 3425.0) | 0.004 |
| TA Total Nominations | 1.32 (1.85) | 1.58 (2.11) | 1.64 (2.07) | 1.68 (2.13) | 12.57 (3, 3424.9) | 0.000 |
| TA - Administrator | 20.0 (1.5%) | 12.1 (3.1%) | 17.6 (3.3%) | 43.5 (3.5%) | 6.29 (3, 3424.4) | 0.001 |
| TA - Counselor | 60.1 (4.6%) | 34.7 (8.9%) | 30.7 (5.7%) | 79.5 (6.4%) | 5.77 (3, 3424.9) | 0.001 |
| TA - Health Worker | 90.6 (6.9%) | 15.0 (3.9%) | 25.1 (4.7%) | 64.4 (5.2%) | 1.63 (3, 3424.9) | 0.197 |
| TA - Paraprofessional | 21.4 (1.6%) | 7.7 (2.0%) | 15.7 (2.9%) | 16.8 (1.4%) | 2.18 (3, 3424.7) | 0.107 |
| TA - Support Staff | 66.7 (5.1%) | 14.1 (3.6%) | 35.9 (6.7%) | 90.2 (7.3%) | 2.00 (3, 3424.8) | 0.129 |
| TA - Teacher | 499.3 (38.1%) | 162.1 (41.6%) | 225.2 (42.2%) | 526.0 (42.6%) | 6.08 (3, 3424.9) | 0.001 |
| Substance Use Intent | 0.24 (0.41) | 0.24 (0.45) | 0.30 (0.48) | 0.26 (0.43) | 1.40 (3, 3250.5) | 0.240 |
| SV Dismissiveness | 0.51 (0.52) | 0.53 (0.60) | 0.55 (0.60) | 0.59 (0.57) | 18.73 (3, 3275.6) | 0.000 |
| Girl | 659.9 (50.4%) | 180.9 (46.5%) | 327.1 (61.3%) | 452.2 (36.7%) | 20.53 (3, 3423.8) | 0.000 |
| Other Gender | 35.4 (2.7%) | 16.5 (4.2%) | 15.0 (2.8%) | 20.0 (1.6%) | 2.56 (3, 3411.6) | 0.072 |
| Hispanic | 652.0 (49.8%) | 114.0 (29.3%) | 212.8 (39.9%) | 613.1 (49.7%) | 22.98 (3, 3424.5) | 0.000 |
| Person of Color | 860.2 (65.7%) | 170.4 (43.8%) | 304.4 (57.0%) | 801.4 (65.0%) | 21.72 (3, 3424.5) | 0.000 |
| Sexual Minority | 334.5 (25.5%) | 91.5 (23.5%) | 142.6 (26.7%) | 198.1 (16.1%) | 15.03 (3, 3423.3) | 0.000 |
| Intervention | 849.2 (64.8%) | 241.9 (62.1%) | 298.8 (56.0%) | 679.7 (55.1%) | 20.71 (3, 3425.0) | 0.000 |

## 

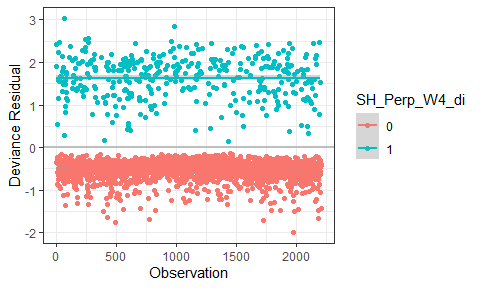
## Logistic Regression

Two models were run on each outcome (4 total models) - once including and once excluding prior perpetration.

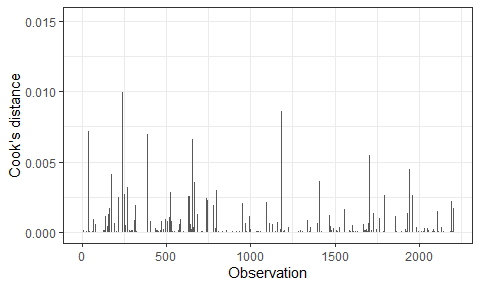
### Model Checks

Checks were only conducted on the listwise deleted models. Checks were conducted on all four models but only the checks for Sexual Harassment without prior perpetration are included here, with the exception of variance inflation factors > 5.

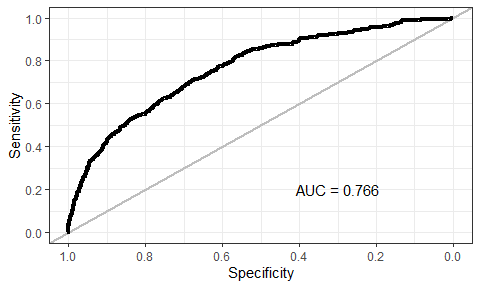
**Fitted and Residual Values**



**Cooks Distance**



**ROC Curve**



**Model Performance**

| obs | AIC | BIC | R2\_Tjur | RMSE | Sigma | Log\_loss | Score\_log | Score\_spherical | PCP |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 2,205 | 1,749.75 | 1,932.11 | 0.16 | 0.34 | 0.88 | 0.38 | -Inf | 0.00 | 0.77 |

**VIF**

| Parameter | VIF | SE\_factor | Model |
| --- | --- | --- | --- |
| Low\_Contact | 6.16 | 2.48 | Harassment\_RQ |
| High\_Contact | 6.01 | 2.45 | Harassment\_RQ |
| High\_ContactxDismiss | 6.31 | 2.51 | Harassment\_RQ |
| Low\_Contact | 6.28 | 2.51 | Harassment\_PP |
| High\_Contact | 6.01 | 2.45 | Harassment\_PP |
| High\_ContactxDismiss | 5.94 | 2.44 | Harassment\_PP |
| Non\_Contact | 5.19 | 2.28 | Violence\_RQ |
| Low\_Contact | 7.25 | 2.69 | Violence\_RQ |
| High\_Contact | 7.66 | 2.77 | Violence\_RQ |
| High\_ContactxDismiss | 7.32 | 2.71 | Violence\_RQ |
| Non\_Contact | 5.48 | 2.34 | Violence\_PP |
| Low\_Contact | 7.60 | 2.76 | Violence\_PP |
| High\_Contact | 7.86 | 2.80 | Violence\_PP |
| High\_ContactxDismiss | 6.85 | 2.62 | Violence\_PP |
| Low\_ContactxDismiss | 5.09 | 2.26 | Violence\_PP |

### 

### Listwise Deletion Parameters

| Variable | Sexual Harassment | | Sexual Violence | |
| --- | --- | --- | --- | --- |
| Model 1 | Model 2 | Model 1 | Model 2 |
| Intercept | 0.06 [0.03, 0.11]\* | 0.04 [0.02, 0.07]\* | 0.01 [0.00, 0.03]\* | 0.01 [0.00, 0.02]\* |
| Non-Contact | 1.20 [0.66, 2.19] | 1.39 [0.72, 2.68] | 1.61 [0.69, 3.78] | 1.60 [0.54, 4.72] |
| Low-Contact | 1.93 [0.88, 4.22] | 1.80 [0.79, 4.12] | 3.11 [0.95, 10.21] | 2.27 [0.61, 8.48] |
| High-Contact | 1.10 [0.64, 1.89] | 0.98 [0.54, 1.78] | 1.96 [0.53, 7.32] | 1.62 [0.33, 7.84] |
| Indegree | 1.10 [1.00, 1.22] | 1.12 [1.02, 1.23]\* | 0.89 [0.77, 1.02] | 0.88 [0.77, 1.01] |
| Outdegree | 1.00 [0.94, 1.06] | 0.99 [0.92, 1.07] | 0.95 [0.84, 1.08] | 0.96 [0.83, 1.11] |
| Coreness | 1.08 [0.86, 1.36] | 1.00 [0.78, 1.28] | 1.20 [0.77, 1.88] | 1.15 [0.72, 1.82] |
| Egocentric Density | 0.99 [0.41, 2.38] | 1.28 [0.50, 3.28] | 0.59 [0.18, 1.88] | 0.65 [0.19, 2.23] |
| TA Total Nominations | 1.01 [0.93, 1.09] | 1.03 [0.91, 1.16] | 1.00 [0.89, 1.12] | 1.00 [0.88, 1.14] |
| TA - Administrator | 0.83 [0.53, 1.32] | 0.78 [0.45, 1.32] | 1.03 [0.11, 9.64] | 1.11 [0.12, 9.87] |
| TA - Counselor | 1.07 [0.67, 1.72] | 1.06 [0.63, 1.80] | 1.02 [0.44, 2.33] | 0.98 [0.41, 2.35] |
| TA - Health Worker | 0.46 [0.28, 0.77]\* | 0.50 [0.29, 0.86]\* | 0.33 [0.05, 2.14] | 0.32 [0.05, 1.95] |
| TA - Paraprofessional | 0.62 [0.24, 1.61] | 0.48 [0.23, 1.01] | 0.52 [0.06, 4.51] | 0.40 [0.05, 3.45] |
| TA - Support Staff | 1.16 [0.84, 1.59] | 1.26 [0.88, 1.80] | 1.45 [0.66, 3.17] | 1.48 [0.64, 3.45] |
| TA - Teacher | 1.14 [0.77, 1.69] | 1.02 [0.58, 1.81] | 0.93 [0.51, 1.72] | 0.90 [0.46, 1.78] |
| Substance Use | 3.90 [2.67, 5.70]\* | 3.29 [2.28, 4.75]\* | 3.23 [1.54, 6.78]\* | 2.76 [1.36, 5.61]\* |
| SV Dismissiveness | 3.47 [2.32, 5.19]\* | 2.89 [2.00, 4.16]\* | 5.28 [3.45, 8.07]\* | 4.40 [2.63, 7.36]\* |
| Girl | 0.39 [0.23, 0.64]\* | 0.51 [0.30, 0.85]\* | 0.83 [0.26, 2.61] | 1.08 [0.35, 3.28] |
| Other Gender | 1.27 [0.69, 2.35] | 1.64 [0.84, 3.21] | 2.01 [0.99, 4.09] | 2.07 [0.86, 5.00] |
| Hispanic | 0.86 [0.66, 1.12] | 0.91 [0.68, 1.21] | 0.99 [0.48, 2.04] | 1.10 [0.51, 2.36] |
| Person of Color | 1.09 [0.86, 1.37] | 1.05 [0.82, 1.35] | 1.23 [0.63, 2.39] | 1.11 [0.55, 2.24] |
| Sexual Minority | 1.81 [1.38, 2.37]\* | 1.48 [1.14, 1.93]\* | 2.12 [1.41, 3.19]\* | 1.75 [1.17, 2.60]\* |
| Intervention | 1.06 [0.73, 1.53] | 0.99 [0.69, 1.43] | 0.92 [0.61, 1.39] | 0.85 [0.53, 1.35] |
| High-Contact x Girl | 1.53 [0.88, 2.68] | 1.40 [0.73, 2.66] | 1.04 [0.33, 3.29] | 1.08 [0.30, 3.82] |
| Low-Contact x Girl | 1.18 [0.42, 3.29] | 1.10 [0.38, 3.18] | 0.77 [0.19, 3.16] | 0.81 [0.19, 3.51] |
| Non-Contact x Girl | 1.11 [0.56, 2.23] | 0.77 [0.34, 1.74] | 0.99 [0.20, 4.92] | 0.85 [0.16, 4.52] |
| High-Contact x SVD | 0.89 [0.55, 1.42] | 0.96 [0.58, 1.57] | 0.82 [0.37, 1.80] | 0.86 [0.36, 2.04] |
| Low-Contact x SVD | 0.49 [0.31, 0.80]\* | 0.57 [0.34, 0.95]\* | 0.53 [0.28, 1.01] | 0.69 [0.33, 1.47] |
| Non-Contact x SVD | 0.67 [0.29, 1.52] | 0.79 [0.34, 1.84] | 0.86 [0.47, 1.59] | 1.02 [0.51, 2.05] |
| High-Contact x SU | 0.61 [0.36, 1.04] | 0.66 [0.37, 1.15] | 0.69 [0.32, 1.49] | 0.76 [0.37, 1.54] |
| Low-Contact x SU | 0.84 [0.35, 1.99] | 0.79 [0.32, 1.92] | 0.75 [0.36, 1.56] | 0.61 [0.27, 1.37] |
| Non-Contact x SU | 1.03 [0.36, 2.98] | 0.99 [0.40, 2.46] | 0.41 [0.13, 1.31] | 0.37 [0.12, 1.12] |
| Prior SH Perpetration |  | 3.69 [2.65, 5.13]\* |  | 2.02 [1.27, 3.21]\* |
| Prior SV Perpetration |  | 0.99 [0.67, 1.45] |  | 3.00 [1.92, 4.69]\* |

### 

### Multiple Imputation Parameters

| Variable | Sexual Harassment | | Sexual Violence | |
| --- | --- | --- | --- | --- |
| Model 1 | Model 2 | Model 1 | Model 2 |
| Intercept | 0.07 [0.03, 0.13]\* | 0.04 [0.02, 0.08]\* | 0.02 [0.00, 0.05]\* | 0.01 [0.00, 0.04]\* |
| Non-Contact | 1.25 [0.44, 3.53] | 1.26 [0.43, 3.69] | 1.45 [0.27, 7.68] | 1.44 [0.27, 7.79] |
| Low-Contact | 1.70 [0.66, 4.39] | 1.60 [0.61, 4.17] | 1.90 [0.38, 9.43] | 1.69 [0.34, 8.34] |
| High-Contact | 1.08 [0.42, 2.80] | 1.05 [0.39, 2.79] | 1.30 [0.21, 8.00] | 1.26 [0.18, 8.56] |
| Indegree | 1.07 [1.00, 1.16] | 1.09 [1.00, 1.19]\* | 0.92 [0.79, 1.06] | 0.92 [0.79, 1.06] |
| Outdegree | 0.97 [0.92, 1.03] | 0.97 [0.92, 1.03] | 0.92 [0.82, 1.04] | 0.92 [0.80, 1.06] |
| Coreness | 1.07 [0.86, 1.33] | 1.00 [0.79, 1.26] | 1.15 [0.76, 1.73] | 1.12 [0.72, 1.73] |
| Egocentric Density | 1.01 [0.47, 2.15] | 1.14 [0.52, 2.50] | 0.73 [0.19, 2.85] | 0.82 [0.22, 3.15] |
| TA Total Nominations | 0.99 [0.90, 1.09] | 0.98 [0.88, 1.08] | 1.03 [0.92, 1.15] | 1.02 [0.90, 1.15] |
| TA - Administrator | 1.09 [0.62, 1.92] | 1.06 [0.58, 1.95] | 1.27 [0.35, 4.63] | 1.14 [0.28, 4.66] |
| TA - Counselor | 1.20 [0.76, 1.91] | 1.23 [0.77, 1.96] | 1.12 [0.55, 2.29] | 1.21 [0.58, 2.50] |
| TA - Health Worker | 0.70 [0.47, 1.05] | 0.71 [0.47, 1.07] | 0.46 [0.19, 1.12] | 0.47 [0.19, 1.13] |
| TA - Paraprofessional | 0.64 [0.24, 1.71] | 0.62 [0.21, 1.80] | 0.37 [0.05, 2.99] | 0.32 [0.04, 2.52] |
| TA - Support Staff | 0.98 [0.72, 1.34] | 1.07 [0.76, 1.52] | 1.12 [0.51, 2.42] | 1.12 [0.47, 2.69] |
| TA - Teacher | 1.22 [0.77, 1.93] | 1.28 [0.80, 2.06] | 0.97 [0.59, 1.59] | 0.98 [0.57, 1.68] |
| Substance Use Intent | 3.29 [2.29, 4.74]\* | 2.74 [1.88, 4.00]\* | 2.95 [1.52, 5.73]\* | 2.49 [1.28, 4.87]\* |
| SV Dismissiveness | 3.49 [2.27, 5.36]\* | 3.28 [2.14, 5.03]\* | 4.53 [2.45, 8.38]\* | 4.22 [2.25, 7.91]\* |
| Girls | 0.49 [0.32, 0.77]\* | 0.57 [0.37, 0.89]\* | 0.63 [0.27, 1.50] | 0.75 [0.31, 1.82] |
| Other Gender | 1.16 [0.62, 2.15] | 1.37 [0.75, 2.53] | 1.19 [0.56, 2.57] | 1.33 [0.59, 2.99] |
| Hispanic | 0.95 [0.72, 1.27] | 1.04 [0.78, 1.37] | 1.02 [0.57, 1.84] | 1.15 [0.61, 2.19] |
| Person of Color | 0.99 [0.81, 1.22] | 0.94 [0.76, 1.17] | 1.09 [0.64, 1.86] | 1.00 [0.55, 1.82] |
| Sexual Minority | 1.72 [1.33, 2.22]\* | 1.55 [1.22, 1.98]\* | 1.79 [1.30, 2.46]\* | 1.60 [1.18, 2.15]\* |
| Intervention | 0.97 [0.71, 1.33] | 0.99 [0.74, 1.33] | 0.94 [0.68, 1.28] | 0.96 [0.69, 1.35] |
| High-Contact x Girls | 1.23 [0.60, 2.53] | 1.24 [0.58, 2.62] | 1.25 [0.36, 4.33] | 1.29 [0.34, 4.85] |
| Low-Contact x Girls | 0.99 [0.41, 2.41] | 0.98 [0.40, 2.43] | 0.89 [0.21, 3.78] | 0.89 [0.21, 3.82] |
| Non-Contact x Girls | 1.03 [0.39, 2.72] | 0.93 [0.35, 2.51] | 1.15 [0.26, 5.17] | 1.10 [0.22, 5.46] |
| High-Contact x SVD | 0.94 [0.47, 1.88] | 0.90 [0.44, 1.84] | 0.89 [0.31, 2.57] | 0.84 [0.28, 2.46] |
| Low-Contact x SVD | 0.59 [0.31, 1.12] | 0.58 [0.30, 1.10] | 0.64 [0.26, 1.59] | 0.65 [0.27, 1.60] |
| Non-Contact x SVD | 0.70 [0.31, 1.56] | 0.73 [0.31, 1.72] | 0.94 [0.38, 2.30] | 1.00 [0.39, 2.55] |
| High-Contact x SUI | 0.71 [0.41, 1.22] | 0.70 [0.39, 1.26] | 0.92 [0.41, 2.06] | 0.93 [0.41, 2.13] |
| Low-Contact x SUI | 1.04 [0.53, 2.01] | 1.06 [0.53, 2.13] | 1.29 [0.53, 3.15] | 1.26 [0.50, 3.18] |
| Non-Contact x SUI | 1.12 [0.39, 3.20] | 1.09 [0.42, 2.83] | 0.52 [0.15, 1.80] | 0.54 [0.14, 2.02] |
| Prior SH Perpetration |  | 3.34 [2.72, 4.10]\* |  | 1.68 [1.17, 2.40]\* |
| Prior SV Perpetration |  | 1.12 [0.84, 1.48] |  | 3.09 [2.09, 4.56]\* |
| Tjur’s R2 | 0.18 [0.15, 0.21] | 0.23 [0.20, 0.25] | 0.23 [0.19, 0.27] | 0.26 [0.22, 0.29] |

# 

# Analysis 2

Analysis 2 includes only students who named a friend. SH and SV perpetration are regressed on friend characteristics and some analysis 1 variables.

## Descriptive Statistics

### Listwise Deletion

| Characteristic | No sport, N = 4191 | Non, N = 1471 | Low, N = 2191 | High, N = 5241 | q-value3 |
| --- | --- | --- | --- | --- | --- |
| Reciprocation Rate | 0.22 (0.29) | 0.24 (0.29) | 0.29 (0.33) | 0.22 (0.28) | 0.091 |
| %Fr Same Gender | 68 (35) | 68 (35) | 71 (34) | 73 (31) | 0.4 |
| %Fr Same Race | 57 (41) | 62 (40) | 51 (40) | 57 (41) | 0.084 |
| %Fr Same Sexual Orientation | 58 (39) | 65 (37) | 62 (39) | 71 (37) | <0.001 |
| %Fr Prior SH Perpetration | 23 (29) | 28 (31) | 27 (30) | 29 (31) | 0.029 |
| %Fr Prior SV Perpetration | 7 (17) | 7 (18) | 10 (21) | 11 (22) | 0.016 |
| %Fr W4 SH Perpetration | 12 (22) | 13 (20) | 14 (24) | 16 (24) | 0.032 |
| %Fr W4 SV Perpetration | 4 (13) | 5 (14) | 5 (16) | 5 (14) | 0.4 |
| Avg. Fr SV Dismissiveness | 0.34 (0.30) | 0.38 (0.29) | 0.40 (0.39) | 0.48 (0.41) | <0.001 |
| Avg. Fr Substance Use | 0.18 (0.28) | 0.20 (0.30) | 0.20 (0.24) | 0.22 (0.29) | 0.032 |
| %Fr No Sports | 30 (30) | 17 (25) | 16 (28) | 14 (27) | <0.001 |
| %Fr Non-Contact | 6 (16) | 20 (25) | 8 (18) | 6 (15) | <0.001 |
| %Fr Low-Contact | 8 (17) | 10 (20) | 20 (26) | 12 (22) | <0.001 |
| %Fr High-Contact | 17 (25) | 24 (26) | 27 (27) | 40 (33) | <0.001 |

### Multiple Imputation

Average n for each contact category: No Sports = 572.4, Non-Contact = 192.6, Low Contact = 274.82, High Contact = 618.26

| Variable | No Sports  n = 572.4 | Non-Contact  n = 192.6 | Low-Contact  n = 274.8 | High-Contact  n = 618.3 | *D1* | *p* |
| --- | --- | --- | --- | --- | --- | --- |
| Reciprocation Rate | 0.22 (0.30) | 0.24 (0.30) | 0.28 (0.33) | 0.22 (0.28) | 2.24 (3, 1648.0) | 0.110 |
| %Fr Prior SH Perpetration | 23.54 (29.16) | 26.85 (30.54) | 26.07 (30.22) | 28.61 (30.67) | 3.51 (3, 1495.2) | 0.026 |
| %Fr Prior SV Perpetration | 7.55 (17.38) | 7.51 (18.74) | 9.63 (20.63) | 10.76 (21.03) | 3.00 (3, 1485.5) | 0.046 |
| %Fr W4 SH Perpetration | 12.94 (22.62) | 14.34 (22.13) | 13.99 (24.06) | 15.78 (24.04) | 2.20 (3, 1535.5) | 0.110 |
| %Fr W4 SV Perpetration | 4.27 (14.04) | 5.43 (15.11) | 5.10 (15.65) | 4.91 (14.09) | 0.19 (3, 1482.2) | 0.905 |
| Avg. Fr SV Dismissiveness | 0.36 (0.32) | 0.39 (0.32) | 0.41 (0.39) | 0.47 (0.40) | 11.07 (3, 1439.2) | 0.000 |
| Avg. Fr Substance Use Intent | 0.18 (0.28) | 0.20 (0.30) | 0.20 (0.25) | 0.21 (0.29) | 1.98 (3, 1534.0) | 0.134 |
| %Fr Same Gender | 67.08 (35.32) | 66.95 (35.10) | 69.29 (34.92) | 72.15 (31.35) | 5.55 (3, 1648.0) | 0.002 |
| %Fr Same Race | 57.30 (40.37) | 61.01 (39.88) | 52.66 (39.89) | 57.30 (40.35) | 1.43 (3, 1648.0) | 0.250 |
| %Fr Same Sexual Orientation | 58.12 (39.16) | 63.16 (38.06) | 60.46 (39.27) | 69.45 (37.05) | 11.06 (3, 1648.0) | 0.000 |
| %Fr No Sports | 30.34 (30.95) | 20.96 (28.08) | 19.67 (29.23) | 17.24 (27.83) | 20.92 (3, 1241.7) | 0.000 |
| %Fr Non-Contact | 6.23 (15.90) | 16.99 (24.86) | 7.51 (17.92) | 5.52 (14.30) | 17.57 (3, 1174.4) | 0.000 |
| %Fr Low-Contact | 7.96 (17.65) | 9.63 (19.41) | 18.01 (25.90) | 11.12 (20.88) | 10.49 (3, 1271.9) | 0.000 |
| %Fr High-Contact | 18.76 (26.08) | 22.14 (26.33) | 25.20 (27.91) | 37.51 (32.76) | 40.59 (3, 1302.7) | 0.000 |

## 

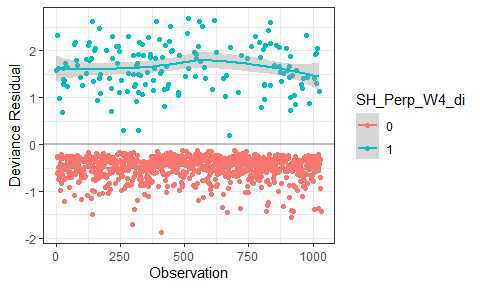
## Logistic Regression

Two models were run on each outcome (4 total models) - once including and once excluding prior perpetration.

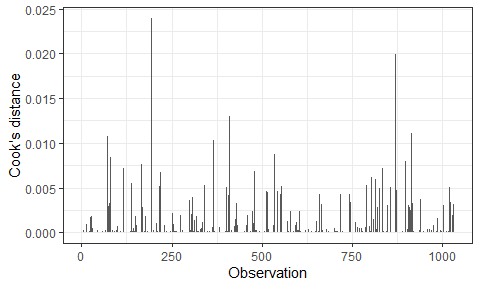
### Model Checks

Checks were only conducted on the listwise deleted models. Checks were conducted on all four models but only the checks for Sexual Harassment without prior perpetration are included here, with the exception of variance inflation factors > 5.

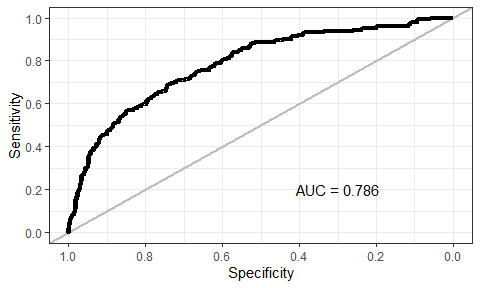
**Fitted and Residual Values**



**Cooks Distance**



**ROC Curve**



**Model Performance**

| obs | AIC | BIC | R2\_Tjur | RMSE | Sigma | Log\_loss | Score\_log | Score\_spherical | PCP |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1,032 | 785.50 | 904.04 | 0.17 | 0.33 | 0.86 | 0.36 | -31.10 | 0.01 | 0.78 |

**VIF**

| Parameter | VIF | SE\_factor | Model |
| --- | --- | --- | --- |

### 

### Listwise Deletion Parameters

| Variable | Sexual Harassment | | Sexual Violence | |
| --- | --- | --- | --- | --- |
| Model 1 | Model 2 | Model 1 | Model 2 |
| Intercept | 0.10 [0.04, 0.23]\* | 0.08 [0.03, 0.24]\* | 0.03 [0.01, 0.08]\* | 0.02 [0.01, 0.07]\* |
| Non-Contact | 1.48 [0.81, 2.69] | 1.47 [0.79, 2.76] | 0.83 [0.29, 2.39] | 0.73 [0.26, 2.01] |
| Low-Contact | 1.59 [0.92, 2.74] | 1.60 [0.92, 2.76] | 1.18 [0.48, 2.89] | 1.16 [0.44, 3.09] |
| High-Contact | 1.12 [0.71, 1.79] | 0.92 [0.57, 1.49] | 1.18 [0.53, 2.62] | 0.98 [0.41, 2.32] |
| Substance Use | 4.50 [2.98, 6.78]\* | 3.98 [2.77, 5.72]\* | 2.16 [1.31, 3.56]\* | 1.60 [0.93, 2.76] |
| SV Dismissiveness | 3.27 [1.90, 5.63]\* | 2.96 [1.76, 5.00]\* | 3.72 [2.56, 5.40]\* | 3.58 [2.18, 5.89]\* |
| Girl | 0.47 [0.31, 0.70]\* | 0.47 [0.32, 0.70]\* | 0.71 [0.38, 1.34] | 0.84 [0.42, 1.65] |
| Other Gender | 1.78 [0.56, 5.64] | 2.10 [0.70, 6.32] | 2.40 [0.61, 9.45] | 2.50 [0.47, 13.23] |
| Sexual Minority | 1.16 [0.66, 2.01] | 0.99 [0.57, 1.72] | 0.84 [0.33, 2.12] | 0.84 [0.37, 1.95] |
| Indegree | 1.11 [0.93, 1.32] | 1.11 [0.92, 1.33] | 1.03 [0.83, 1.27] | 1.04 [0.85, 1.28] |
| Reciprocation Rate | 1.05 [0.50, 2.18] | 1.05 [0.47, 2.38] | 0.47 [0.15, 1.49] | 0.40 [0.12, 1.38] |
| %Fr Same Gender | 1.00 [0.99, 1.00] | 1.00 [0.99, 1.01] | 1.00 [0.99, 1.01] | 1.00 [0.99, 1.01] |
| %Fr Same Race | 1.00 [1.00, 1.00] | 1.00 [0.99, 1.00] | 0.99 [0.99, 1.00] | 0.99 [0.99, 1.00] |
| %Fr Same Sexual Orientation | 0.99 [0.99, 1.00]\* | 0.99 [0.99, 1.00]\* | 1.00 [0.99, 1.00] | 1.00 [0.99, 1.00] |
| %Fr Prior SH Perpetration | 1.01 [1.00, 1.02]\* | 1.01 [1.00, 1.02] | 1.00 [1.00, 1.01] | 1.01 [1.00, 1.01] |
| %Fr Prior SV Perpetration | 0.99 [0.98, 1.00] | 0.99 [0.98, 1.00] | 0.98 [0.96, 1.00] | 0.98 [0.95, 1.01] |
| %Fr W4 SH Perpetration | 1.01 [1.00, 1.01] | 1.01 [1.00, 1.02]\* | 1.00 [0.98, 1.01] | 1.00 [0.98, 1.01] |
| %Fr W4 SV Perpetration | 1.01 [1.00, 1.02]\* | 1.01 [1.00, 1.02]\* | 1.02 [1.00, 1.04] | 1.02 [1.00, 1.04] |
| Avg. Fr SV Dismissiveness | 0.50 [0.28, 0.89]\* | 0.44 [0.23, 0.84]\* | 0.81 [0.32, 2.04] | 0.80 [0.36, 1.76] |
| Avg. Fr Substance Use | 0.75 [0.44, 1.30] | 0.70 [0.35, 1.37] | 0.87 [0.27, 2.79] | 0.79 [0.17, 3.70] |
| %Fr No Sports | 0.99 [0.98, 1.01] | 0.99 [0.98, 1.00] | 1.00 [0.98, 1.03] | 1.00 [0.98, 1.02] |
| %Fr Non-Contact | 1.01 [0.99, 1.02] | 1.01 [1.00, 1.02] | 1.01 [0.99, 1.03] | 1.02 [1.00, 1.04] |
| %Fr Low-Contact | 1.00 [0.99, 1.01] | 1.00 [0.99, 1.01] | 1.02 [1.00, 1.03]\* | 1.01 [1.00, 1.03] |
| %Fr High-Contact | 1.01 [1.00, 1.01] | 1.01 [1.00, 1.01] | 1.01 [0.99, 1.03] | 1.01 [0.99, 1.03] |
| Prior SH Perpetration |  | 2.69 [1.95, 3.71]\* |  | 1.84 [0.80, 4.27] |
| Prior SV Perpetration |  | 1.27 [0.73, 2.23] |  | 3.50 [1.78, 6.88]\* |

### 

### Multiple Imputation Parameters

| Variable | Sexual Harassment | | Sexual Violence | |
| --- | --- | --- | --- | --- |
| Model 1 | Model 2 | Model 1 | Model 2 |
| Intercept | 0.10 [0.05, 0.22]\* | 0.09 [0.04, 0.20]\* | 0.02 [0.01, 0.04]\* | 0.01 [0.01, 0.04]\* |
| Non-Contact | 1.18 [0.59, 2.37] | 1.12 [0.54, 2.29] | 0.90 [0.26, 3.14] | 0.81 [0.22, 2.92] |
| Low-Contact | 1.41 [0.76, 2.63] | 1.25 [0.66, 2.39] | 1.33 [0.46, 3.86] | 1.08 [0.37, 3.18] |
| High-Contact | 1.04 [0.59, 1.82] | 0.94 [0.53, 1.67] | 1.31 [0.54, 3.18] | 1.06 [0.43, 2.62] |
| Substance Use | 3.06 [2.22, 4.21]\* | 2.44 [1.75, 3.42]\* | 2.66 [1.67, 4.24]\* | 1.94 [1.12, 3.35]\* |
| SV Dismissiveness | 3.05 [2.18, 4.27]\* | 2.49 [1.81, 3.44]\* | 4.09 [3.01, 5.54]\* | 3.09 [2.03, 4.69]\* |
| Girl | 0.49 [0.38, 0.64]\* | 0.54 [0.42, 0.69]\* | 0.71 [0.43, 1.17] | 0.77 [0.46, 1.29] |
| Other Gender | 1.47 [0.59, 3.64] | 1.56 [0.62, 3.94] | 1.86 [0.55, 6.32] | 1.86 [0.53, 6.57] |
| Sexual Minority | 1.51 [0.92, 2.48] | 1.30 [0.81, 2.10] | 1.01 [0.49, 2.10] | 0.79 [0.41, 1.52] |
| Indegree | 1.04 [0.89, 1.22] | 1.03 [0.88, 1.22] | 1.02 [0.85, 1.22] | 1.02 [0.86, 1.22] |
| Reciprocation Rate | 1.05 [0.59, 1.88] | 1.05 [0.58, 1.89] | 0.49 [0.16, 1.49] | 0.47 [0.16, 1.40] |
| %Fr Prior SH Perpetration | 1.01 [1.00, 1.01] | 1.00 [1.00, 1.01] | 1.00 [1.00, 1.01] | 1.01 [1.00, 1.01] |
| %Fr Prior SV Perpetration | 1.00 [0.99, 1.00] | 1.00 [0.99, 1.01] | 0.99 [0.97, 1.01] | 0.99 [0.98, 1.01] |
| %Fr Wave 4 SH Perpetration | 1.00 [1.00, 1.01] | 1.00 [0.99, 1.01] | 1.00 [0.99, 1.01] | 1.00 [0.99, 1.01] |
| %Fr Wave 4 SV Perpetration | 1.01 [1.00, 1.02] | 1.01 [0.99, 1.02] | 1.02 [1.00, 1.03]\* | 1.02 [1.00, 1.03] |
| Avg. Fr SV Dismissiveness | 0.59 [0.31, 1.10] | 0.59 [0.32, 1.10] | 0.54 [0.23, 1.30] | 0.50 [0.22, 1.15] |
| Avg. Fr Substance Use Intent | 0.64 [0.36, 1.13] | 0.64 [0.34, 1.20] | 0.67 [0.24, 1.85] | 0.68 [0.21, 2.17] |
| %Fr Same Gender | 1.00 [0.99, 1.00] | 1.00 [0.99, 1.00] | 0.99 [0.99, 1.00]\* | 0.99 [0.99, 1.00] |
| %Fr Same Race | 1.00 [1.00, 1.00] | 1.00 [1.00, 1.00] | 1.00 [0.99, 1.00] | 1.00 [0.99, 1.00] |
| %Fr Same Sexual Orientation | 1.00 [0.99, 1.00] | 1.00 [0.99, 1.00] | 1.00 [0.99, 1.01] | 1.00 [0.99, 1.01] |
| %Fr No Sports | 1.00 [0.99, 1.01] | 1.00 [0.99, 1.01] | 1.01 [1.00, 1.02] | 1.01 [0.99, 1.02] |
| %Fr Non-Contact | 1.00 [0.99, 1.01] | 1.00 [0.99, 1.01] | 1.00 [0.98, 1.03] | 1.01 [0.98, 1.03] |
| %Fr Low-Contact | 1.01 [1.00, 1.02] | 1.00 [0.99, 1.01] | 1.02 [1.00, 1.03]\* | 1.02 [1.00, 1.03]\* |
| %Fr High-Contact | 1.01 [1.00, 1.01]\* | 1.01 [1.00, 1.01]\* | 1.01 [0.99, 1.02] | 1.01 [0.99, 1.02] |
| Prior SH Perpetration |  | 3.40 [2.70, 4.29]\* |  | 2.89 [1.63, 5.11]\* |
| Prior SV Perpetration |  | 1.19 [0.83, 1.69] |  | 3.16 [1.76, 5.65]\* |
| Tjur’s R2 | 0.15 [0.11, 0.19] | 0.20 [0.16, 0.24] | 0.12 [0.08, 0.16] | 0.17 [0.13, 0.21] |