

Appendix C: Sensitivity Analysis for Imputed Missing Data

Predictors		Model derived using lasso regression
Individual (Demographic)		
1	Gender	
	Male	-0.13
	Female	x
2	Gender Minority Status	
	Cisgender	-0.08
	Transgender	x
3	Sexual Minority Status	
	Heterosexual	-0.21
	Non-Heterosexual	x
Individual (Behavioral)		
4	Academic Performance	-0.5
5	Lifetime use of Alcohol	0.09
6	Lifetime use of Cigarettes	0.00
7	Lifetime use of Vapes	0.11
8	Lifetime use of Cannabis	0.04
9	Lifetime use of other Drugs	x
Emotional-Social		
10	Foster Care Placement	
	No	-0.03
	Yes	x
11	Parent Education Level	0.09
12	Positive Substance Use Education	x
13	School-Based Victimization	0.47

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14	Access to Drugs and Alcohol	0.04
Mental-Political		
15	Depressive Symptoms	
	No	-1.09
	Yes	x
Physical-Economic		
16	Homeless	
	No	x
	Yes	x
17	Breakfast Consumption	
	No	0.11
	Yes	x
Intercept		-2.78
Total number of predictors retained from the 17 in the model		14

Table 4 – Penalized Regression Coefficients of Predictors Retained in the Lasso Model (Adjusted for Imputed Missing Data)

APPENDIX

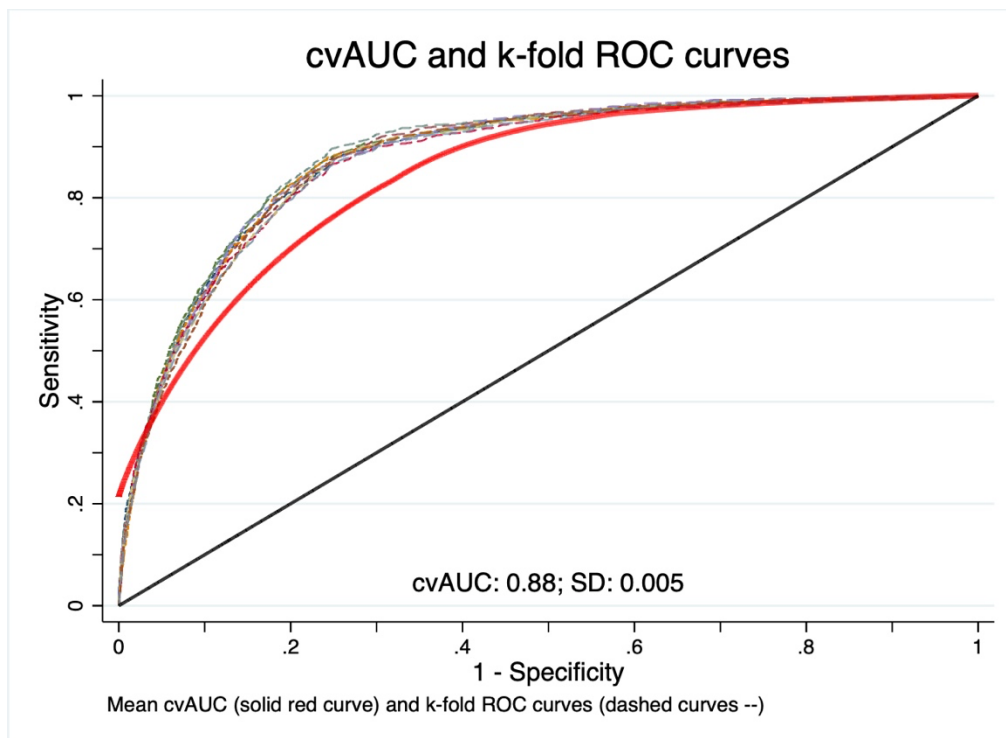


Figure 7 – Model Discrimination: ROC Curve Showing Mean Cross-Validated Area Under the Curve (AUC), Adjusted for Imputed Missing Data

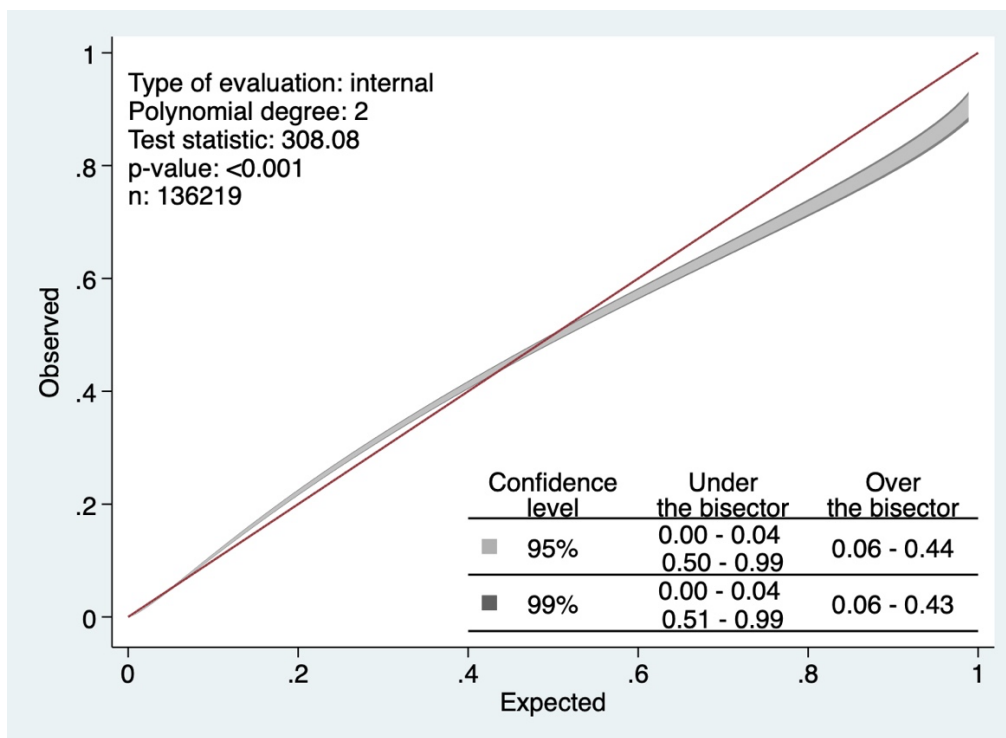


Figure 8 - GiViTI Calibration Belt Showing Deviations from the Bisector (45° Line of Perfect Calibration) at the 95% (Inner Belt: Light Grey) and 99% (Outer Belt: Dark Grey) Confidence Levels, Adjusted for Imputed Missing Data