

**Exploring Variation in College Counselor Effectiveness**  
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**Online Appendix**

## 1 Quasi-random Counselor Assignment

We explore the notion of random assignment of students to counselors more formally by conducting a set of randomization tests. In Table A1, we explore the relationship between a number of counselor characteristics and baseline student characteristics. Formally, we estimate the following specification:

$$C_i = \alpha + \beta X_i + \sum_j \gamma_j l_{ij} + \varepsilon_i \quad (1)$$

where  $C_i$  are observable demographic characteristics of the counselors and measures of the extent to which a counselor meets with his or her assigned students, and  $X_i$  includes baseline demographic student characteristics. The  $l_{ij}$  are site by cohort fixed effects which control for site by cohort variation in the pool of students randomized across counselors.

The counselor interaction measures (in columns (6) through (9)), indicate the average number of meetings of each type that a counselor holds over the course of the program. For example, the dependent variable in column (6) is the average number of meetings about applications that a counselor has had with each of his or her students. We follow a leave-one-out procedure to eliminate the possibility that a particular student could influence his or her counselor's score via their own behavior; thus, our variable of interest takes the form  $X_{-i,s}$ . The estimates in Table A1 suggest little relationship between counselor observables characteristics (or behavior) and baseline individual student characteristics, supporting the argument that counselors are as good as randomly assigned. F tests for the joint significant of all the pre-determined variables are generally insignificant, illustrating that particular types of students do not appear to be assigned to particular types of counselors.<sup>1</sup> Similarly, columns (6)-(9) indicate that particular types of students do not appear to be assigned to counselors who exhibit different counseling tendencies. This suggests that students are as good as randomly assigned to counselors.

In Table ??, we explore whether our measures of counselor characteristics and behavior are predictive of college enrollment and success. There are no statistically significant relationships between counselor observables or behavior and student access, with the point estimates on application meetings suggesting that counselors that hold more application meetings may be more effective.<sup>2</sup>

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<sup>1</sup>The lone exception is for white counselors, a result that appears to be driven by white counselors adjusting verified GPAs rather than non-random assignment. If we exclude verified GPA from the regression, the remaining variables are not predictive of having a white counselor.

<sup>2</sup>As further evidence of random assignment to counselors, we present estimates of the relationship between counselor characteristics and a predicted index in Table A2. The predicted indexes are constructed by regressing the outcome measure indicated on the full set of baseline student characteristics as well as site by cohort indicators. In contrast to the effect on actual outcomes, there is no effect of application meeting behavior on any our predicted indexes.

Table A1: Tests of Random Counselor Assignment

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Couns. Chars.	Female	Black	White	Hispanic	# of App.	# of Fin. Aid	# of Office	# of Contacts
<u>Baseline Covariates:</u>								
Parent AGI	-0.000 (0.001)	0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)	-0.000 (0.000)	-0.000 (0.000)	-0.001 (0.001)	-0.001 (0.001)
Household Size	0.006 (0.007)	-0.002 (0.006)	0.012** (0.006)	0.001 (0.007)	0.005 (0.005)	-0.001 (0.005)	0.006 (0.010)	-0.002 (0.015)
Verified GPA	-0.008 (0.020)	0.014 (0.018)	-0.022 (0.018)	-0.014 (0.020)	-0.021 (0.014)	-0.002 (0.013)	-0.057* (0.030)	-0.120*** (0.045)
Female	0.013 (0.024)	-0.006 (0.021)	0.032 (0.021)	-0.030 (0.023)	0.030* (0.016)	0.018 (0.016)	0.072** (0.036)	0.087 (0.053)
White or Asian	-0.006 (0.042)	-0.037 (0.038)	0.023 (0.038)	0.034 (0.042)	0.030 (0.029)	0.025 (0.028)	0.057 (0.063)	0.108 (0.094)
Black	-0.062 (0.041)	0.027 (0.036)	0.015 (0.036)	-0.016 (0.040)	-0.038 (0.028)	0.013 (0.026)	-0.021 (0.061)	-0.014 (0.090)
Hispanic	-0.053 (0.041)	0.002 (0.037)	0.007 (0.037)	-0.008 (0.041)	-0.018 (0.028)	-0.006 (0.027)	-0.051 (0.062)	-0.036 (0.091)
Observations	1,596	1,596	1,596	1,596	1,596	1,596	1,596	1,596
R-squared	0.007	0.008	0.013	0.005	0.010	0.004	0.010	0.009
Prob>F	0.362	0.262	0.0208	0.702	0.0912	0.728	0.106	0.155
Mean	0.727	0.228	0.281	0.282	3.591	2.121	9.151	13.58

Each column contains a regression of a different counselor characteristic on the full set of covariates, controlling for site by cohort indicators. The average # of meetings variables are constructed using a leave one out procedure, so that each individual is assigned the average number of meetings occurring between every other student with the same counselor. Robust standard errors in parentheses. \* (p<0.10) \*\* (p<0.05), \*\*\* (p<0.01).

Table A2: Placebo Checks: Relationship Between Counselor Characteristics and *Predicted\** Enrollment Outcomes

	Index Enrolled (1)	Index Enrolled 4-Year (2)
<u>Counselor Characteristics</u>		
Female	-0.001 (0.002)	0.001 (0.006)
Black	-0.001 (0.003)	-0.003 (0.007)
White	-0.004 (0.003)	-0.006 (0.007)
Hispanic	-0.002 (0.003)	-0.007 (0.007)
<i>Avg. App Meetings<sub>-i</sub></i>	0.001 (0.003)	-0.002 (0.007)
<i>Avg. Fin Aid Meetings<sub>-i</sub></i>	0.002 (0.003)	0.004 (0.006)

The predicted indexes are constructed by regressing the outcome measure indicated on the full set of baseline covariates as well site by cohort indicators. Each column contains estimates from a separate regression of a dependent variable (in columns) on a set of counselor characteristics. Application meetings and financial aid meetings variables provide a measure of the average number of meetings of each type per student for each counselor. The variable is constructed using a leave one out procedure, so that each individual is assigned the average number of meetings occurring between every other student with the same counselor. Robust standard errors in parentheses. \* (p<0.10) \*\*(p<0.05), \*\*\*(p<0.01).