Gap Year Research Consortium

Results of the Gap Year Surveys & Academic Achievement Models

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Academic Achievement Research

- Schools: Colorado College, Denison, Duke, Tufts
- Regression Models of First-Semester, First-Year, Sophomore, Junior GPA
- Models:

$$GPA = A + \beta_1 GapYear + e$$

$$GPA = A + \beta_1 GapYear + \beta_2 AcademicRating + e$$

$$GPA = A + \beta_1 GapYear + \beta_2 AcademicRating + \sum_{i=3}^{n} \beta_i SocioDemographics + e$$

First-Semester GPA Model Results:

	|---- School #1 ----|	|---- School #2 ----|	|---- School #3 ----|	|---- School #4 ----|
Variables	***Estimate***	***P-Value***	***Estimate***	***P-Value***	***Estimate***	***P-Value***	***Estimate***	***P-Value***
Gap Year	**0.14**	0.02	**0.12**	0.51				
R^2	*0.4%*		*0.01%*					
Gap Year	**0.16**	0.00	**0.14**	0.26			**0.14**	0.00
AR	0.21	0.00	0.20	0.00			0.02	0.00
R^2	*22%*		*17%*				*17%*	
*Gap Year**	**0.15**	0.00	**0.11**	0.37			**0.12**	0.00
*AR**	0.21	0.00	0.18	0.00			0.02	0.00
R^2	*23%*		*24%*				*24%*	

** From models with the full set of sociodemographic & curricular controls*

First-Year GPA Model Results:

	|---- School #1 ----|	|---- School #2 ----|	|---- School #3 ----|	|---- School #4 ----|
Variables	***Estimate***	***P-Value***	***Estimate***	***P-Value***	***Estimate***	***P-Value***	***Estimate***	***P-Value***
Gap Year	**0.12**	0.06	**0.08**	0.53	**0.10**	0.00		
R^2	*0.3%*		*0.02%*		*0.3%*			
Gap Year	**0.15**	0.01	**0.16**	0.23	**0.11**	0.00	**0.15**	0.00
AR	0.21	0.00	0.20	0.00	0.03	0.00	0.02	0.00
R^2	*20%*		*19%*		*17%*		*20%*	
*Gap Year**	**0.13**	0.02	**0.12**	0.30	**0.09**	0.00	**0.11**	0.00
*AR**	0.20	0.00	0.18	0.00	0.02	0.00	0.02	0.00
R^2	*22%*		*25%*		*21%*		*29%*	

** From models with the full set of sociodemographic & curricular controls*

Sophomore Year GPA Model Results:

	|---- School #1 ----|	|---- School #2 ----|	|---- School #3 ----|	|---- School #4 ----|
Variables	***Estimate***	***P-Value***	***Estimate***	***P-Value***	***Estimate***	***P-Value***	***Estimate***	***P-Value***
Gap Year	**0.12**	0.09	**-0.08**	0.63	**0.08**	0.10		
R^2	*0.2%*		*0.2%*		*0.2%*			
Gap Year	**0.15**	0.03	**0.02**	0.89	**0.05**	0.37	**0.005**	0.92
AR	0.18	0.00	0.16	0.00	0.03	0.00	0.02	0.00
R^2	*12%*		*13%*		*12%*		*13%*	
*Gap Year**	**0.13**	0.05	**0.01**	0.94	**0.07**	0.18	**-0.03**	0.52
*AR**	0.16	0.00	0.15	0.00	0.02	0.00	0.02	0.00
R^2	*14%*		*18%*		*18%*		*19%*	

** From models with the full set of sociodemographic & curricular controls*

Junior Year GPA Model Results:

	|---- School #1 ----|	|---- School #2 ----|	|---- School #3 ----|	|---- School #4 ----|
Variables	***Estimate***	***P-Value***	***Estimate***	***P-Value***	***Estimate***	***P-Value***	***Estimate***	***P-Value***
Gap Year	**0.09**	0.25	**0.46**	0.42	**0.02**	0.68		
R^2	*0.1%*		*0.1%*		*0.01%*			
Gap Year	**0.12**	0.13	**0.59**	0.31	**0.05**	0.40	**0.04**	0.54
AR	0.18	0.00	0.15	0.00	0.03	0.00	0.02	0.00
R^2	*9%*		*3%*		*12%*		*13%*	
*Gap Year**	**0.10**	0.22	**0.65**	0.26	**0.05**	0.39	**0.03**	0.70
*AR**	0.16	0.00	0.13	0.00	0.02	0.00	0.02	0.00
R^2	*11%*		*7%*		*17%*		*17%*	

** From models with the full set of sociodemographic & curricular controls*

Academic Research Take-Aways:

FS-GPA

- Strong evidence of gap year over performance in the first semester in 2 of 3 schools
- Over performance roughly .15 GPA units
- Relatively large effect (third of a grade) when compared to other estimates (gender effect, income effects, etc.)
- Academic rating consistently predictive across all schools

FY-GPA

- Strong evidence of gap year over performance in the first year in 3 of 4 schools
- Over performance ranges from .09 - .15 GPA units
- R^2 remain relatively high and similar to first-semester models

Soph.-GPA

- Gap year over performance only evident in 2 of the 4 schools, and in one the evidence is weaker
- Point estimates stay fairly stable compared to previous GPA models, effects still in the .08 - .15 range
- R^2 begin to fall relative to the first year models as other factors (not in the models) explain more of academic performance
- Academic rating continues to be predictive and estimates are similar to previous models.

Jr.-GPA

- Gap year effects have largely disappeared by the junior year, only weaker evidence in 1 of the 4 schools
- The magnitude of the estimated gap year effect has similarly dropped by the junior year
- R^2 continue to fall relative to the earlier models
- Academic rating continues to be predictive and estimates are similar to all previous models.

Questions?