

SATISFACTION BY GUEST IN FACULTY HOME  
HAMILTON COLLEGE SENIORS 2000-2006

By Christopher Takacs

LINEAR REGRESSION FINDINGS:

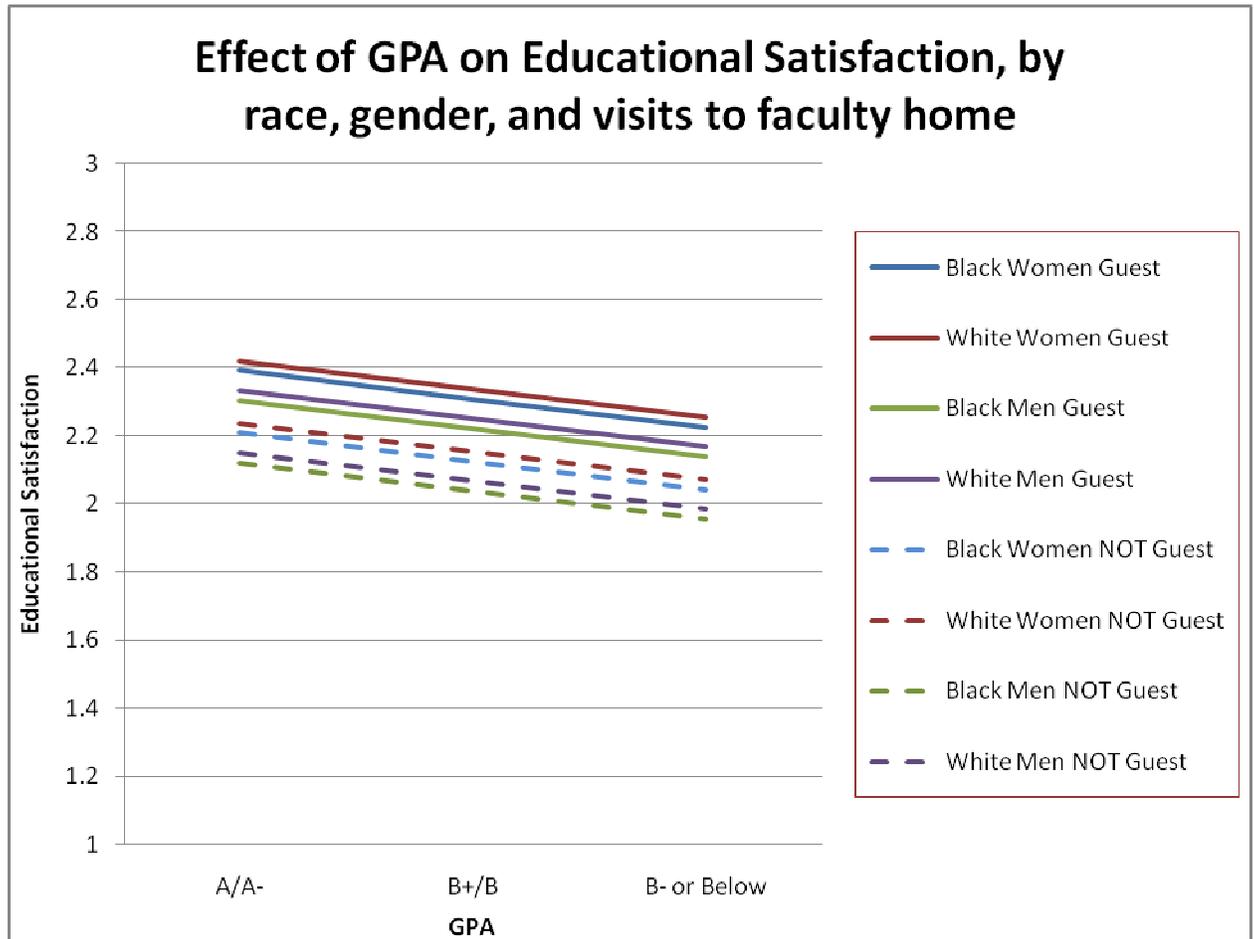
- Linear regression shows a **positive correlation between being a faculty guest and educational satisfaction, controlling for GPA, Gender and Race.**

- - (Regressed GPA, Gender, Race and Being a Faculty Guest on Educational Satisfaction):

Variable	Coef	SE	t	p-value	Beta (Stdz Coefficient)
Faculty Guest	0.183213	0.034613	5.29	0	0.119876
Race	-0.29363	0.045712	-6.42	0	-0.14493
Female	0.088726	0.028179	3.15	0.002	0.071226
Grade	0.08246	0.023682	3.48	0.001	0.079558
_cons	1.902148	0.064569	29.46	0	.

- - Faculty guest is significant at the .000 level, and the coefficient is larger than gender and grade, though not race, which is significant and negatively correlated
  - White/Asian students are more likely to be satisfied than Black/Hispanic/Other students.
  - Women are more likely to be satisfied than men.
  - Students with higher GPAs are more likely to be satisfied than students with lower GPAs.
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- A series of simulations from the OLS data shows that **regardless of educational, gender or race characteristics, those students who are faculty guests have higher educational satisfaction than those students who are not faculty guests.**

- We can graph these simulations as follows:



- Clearly, being a guest at a faculty home, regardless of race or gender, increases the chances that one will be satisfied with one's education.
- GPA is positively correlated with educational satisfaction as well, but regardless of the student's GPA, the positive benefit of being a guest at a faculty home holds.
- Regardless of race or gender, the **benefit of visiting a faculty home to one's probability of being satisfied with one's education is greater than the benefit of having an A/A- GPA compared to a B- or below GPA.**
- NOTES ABOUT THE GRAPH:
  - **The satisfaction ratings (y-axis) correspond to the following:**
    - 1= Very Dissatisfied or Dissatisfied
    - 2= Satisfied
    - 3= Very Satisfied
- NOTE THAT THE SCALE GOES FROM 1 to 3—this was done to be able to properly run the simulations.

## ORDINAL LOGIT RESULTS

- Running an ordinal logit shows similar results- the model fits better but is more complicated to explain.

edsat	Coef.	Std. Err.	z	P>z	[95% Conf.	Interval]
facguest	<b>0.607171</b>	0.114549	5.3	<b>0</b>	0.382658	0.831683
race	-0.96495	0.154636	-6.24	0	-1.26803	-0.66187
female	0.280122	0.092642	3.02	0.002	0.098546	0.461697
grade	<b>0.285307</b>	0.078444	3.64	<b>0</b>	0.131559	0.439054
/cut1	-1.11822	0.219696			-1.54881	-0.68762
/cut2	1.829881	0.217693			1.40321	2.256552

- This shows that **being a faculty guest has a larger effect on your likelihood of being satisfied (log odds) that does either gender or grades. Race has a large effect in the other direction.**

## SUMMARY

Visiting a faculty home is positively and significantly correlated with educational satisfaction, even when controlling for GPA, gender, and race, all of which independently also affect educational satisfaction. While we can never say for certain that this correlation is causal, all statistical analyses suggest a strong and significant relationship. Further, the positive benefits of being a faculty guest, in terms of educational satisfaction, actually outweigh those of having a high GPA—this is clear from both the regression and the ordinal logit. In policy terms, inviting students over is a **small cost** with comparatively **large rewards**. To put this in perspective, **the benefits students get to their educational satisfaction by achieving a high GPA—a process that takes four years—is smaller than the benefit students get from going to a faculty member’s home, controlling for GPA, race, and gender.**

## NOTES ON THE VARIABLES

-Race: The race variable is divided into White/Asian and Black/Hispanic/Other. This was done to increase the size of the reference group, which was the only way statistical significance could be achieved when measuring the effect of race (there simply weren't enough non-white students). There are empirical reasons these groupings were made—namely, the academic and social similarities between black and Hispanic students on the one hand, and white and Asian students on the other.

-Grade/GPA: divided into three categories, as there were very few cases below B-. Again, this was done to maximize statistical significance, and prevent severe outliers from interfering with the correlations.

-Faculty guest: This variable has two outcomes: Never/Occasionally, and Often/Very Often. Data sampling limited this variable to only two outcomes, but statistical significance and interpretive power can still be achieved with these.

-Educational Satisfaction: Students were asked to rank their educational satisfaction in the following way: “very dissatisfied” “dissatisfied” “satisfied” “very satisfied”. The first two categories were collapsed into one, as there were very few students who answered “very dissatisfied”. The categories were then coded along a 1 to 3 scale, as shown on the y-axis of the graph.