

The Association Between Parent Education and Descendant Financial Well-Being



Jay Lee, Quantitative Analysis Center, Wesleyan University

Introduction

- Financial mobility is affected by parental income - similarly, education is affected by parent education.
- Race is related to the generational passing of education and financial well-being.
- Labor market attachment, health, and marital status have relatively little explanatory power in understanding the linkage between parental income and offspring earnings (Blanden, J., Haveman, R., Smeeding, T., & Wilson, K., 2014).
- When examining educational groups, parental income was less predictive of child income levels (Bloome, D., Dyer, S., & Zhou, X., 2018). However, this relation has not yet been studied enough to claim anything.

Methods

Sample

- Research was conducted by CFPB staff and a team of research contractors led by Abt Associates and including University of Wisconsin-Madison's Center for Financial Security and GfK.
- The sample included 6394 participants (age 18+), 395 of whom were race/ethnicity and poverty oversampling and 999 of whom were age 62+ oversampling.

Measures

- Parent education level was surveyed under "PAREDUC", which was coded by numerical values indicating the level of education.
- Financial well-being of the individual was surveyed under "PPINCIMP", which is a metric that was computed through a combination of survey responses and background information for each individual.
- Race/Ethnicity was categorized under "PPETHM".

Research Questions

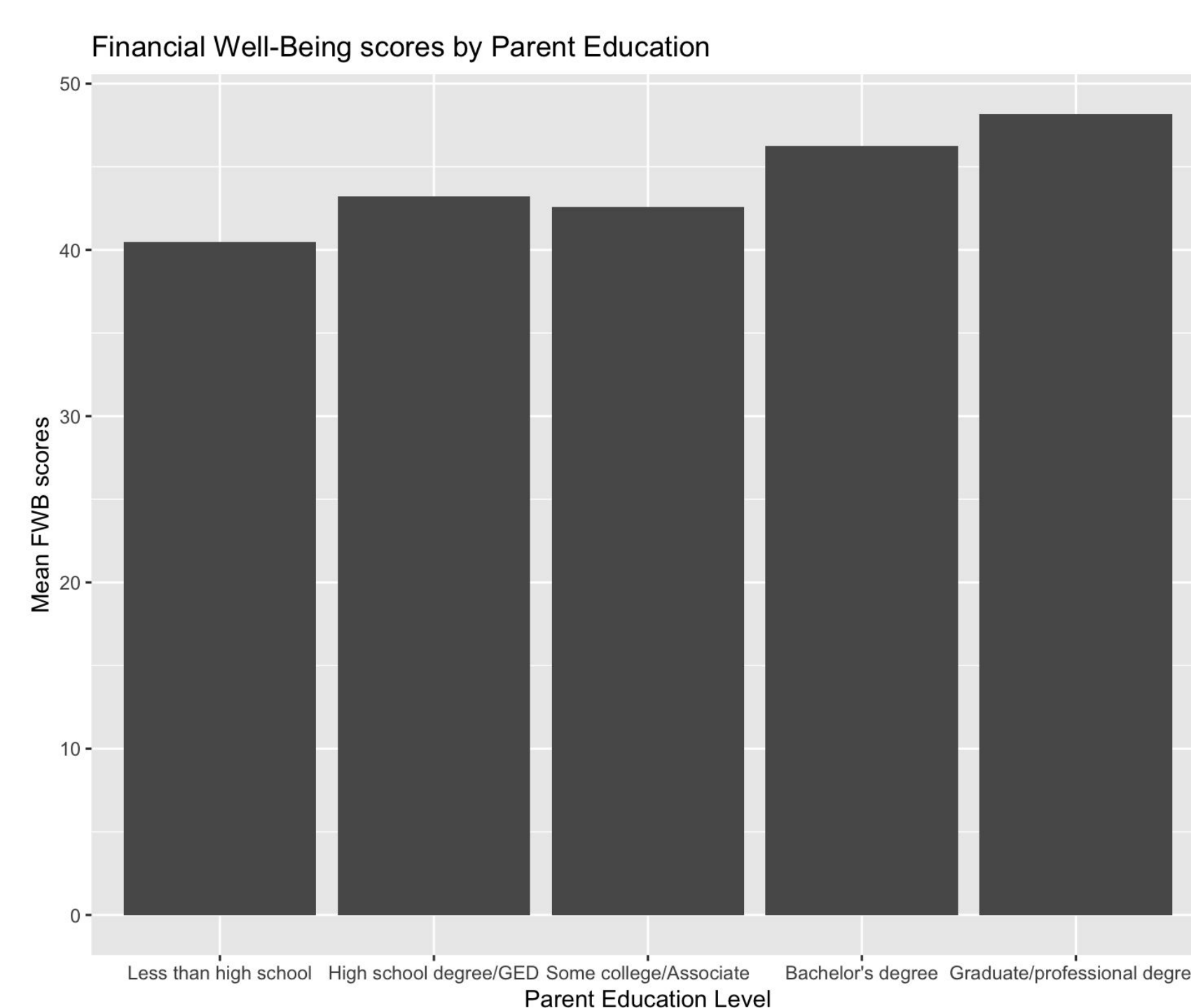
- Is there an association between parent education and financial well-being? Which levels of education show the most/least drastic statistical significance?
- If there is an association, how does the association differ across races?

Results

Bivariate graphs

- With a p-value of $2e-16$ (<0.05) and F value of 46.46, the Anova test shows **that there is a statistically significant association between parent education levels and financial well-being scores**. The lowest FWB score category was "Less than high school" while the highest category was "Graduate/professional degree".
- Because there are more than 2 categories in our explanatory variable, it is not immediately clear which categories are significantly different, as our null hypothesis is that the means across all categories are the same. By running the TukeyHSD test, we can see that every pair of categories have significantly different FWB scores (barring "High school degree/GED" and "Some college/Associate").

Figure 1. The Association between Financial Well-Being scores and Parent Education

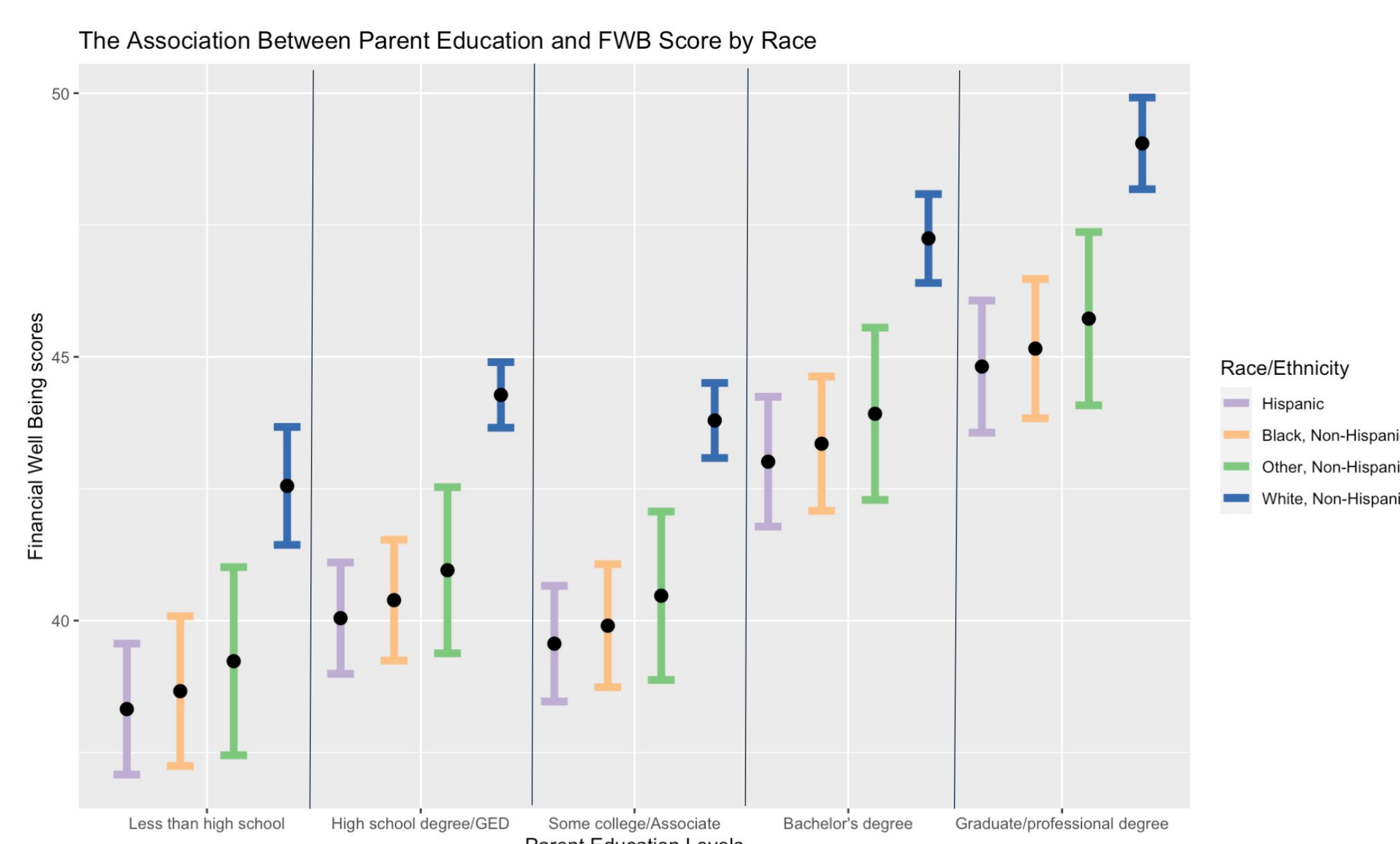


\$PEducation				
	diff	lwr	upr	p adj
2-1	2.7692500	1.0891578	4.449342	0.0000686
3-1	2.1240257	0.3830505	3.865001	0.0078115
4-1	5.7924540	3.9326965	7.652212	0.0000000
5-1	7.6987624	5.8119134	9.585611	0.0000000
3-2	-0.6452243	-1.9014117	0.610963	0.6267184
4-2	3.0232040	1.6069730	4.439435	0.0000001
5-2	4.9295124	3.4778887	6.381136	0.0000000
4-3	3.6684283	2.1804784	5.156378	0.0000000
5-3	5.5747367	4.0530613	7.096412	0.0000000
5-4	1.9063084	0.2500476	3.562569	0.0146210

Multivariate graphs

- By considering Race/Ethnicity as a covariate, the initial association is opened up to other observations.
- When considering a linear regression to model the association between our variables, fixing race still shows that there is a significant difference between parent education levels, barring "Some college/Associate", whose p value of 0.0530 was just shy of the cutoff.
- Because the statistical significance for all education levels excluding "Some college/Associate" are retained, race/ethnicity is not a confounding variable but contains confounding properties.

Figure 2: The Association between Financial Well-Being scores and Parent Education by Race



Discussion

- "White" is the only Race/Ethnicity category whose confidence interval does not overlap with any other Race/Ethnicity category.
- Across all education levels, the order of FWB scores in ascending order by Race/Ethnicity is "Hispanic", "Black, Non-Hispanic", "Other, Non-Hispanic", "White".
- There is a relation between race/ethnicity and the association between parent education and financial well-being scores as the confidence intervals do not all necessarily overlap.
- When examining the linear regression by also including how race/ethnicity and parent education, there is no significance for any of the corresponding race*parenteducation variables, so race is likely not a moderator variable.

Beckles, G. L., & Truman, B. I. (2013). Education and Income - United States, 2009 and 2011. *MMWR. Morbidity and Mortality Weekly Report*, 62(3), 9-19.

Blanden, J., Haveman, R., Smeeding, T., & Wilson, K. (2014). Intergenerational Mobility in the United States and Great Britain: A Comparative Study of Parent-Child Pathways. *The Review of Income and Wealth*, 60(3), 425-449. <https://doi.org/10.1111/roiw.12032>

Bloome, D., Dyer, S., & Zhou, X. (2018). Educational Inequality, Educational Expansion, and Intergenerational Income Persistence in the United States. *American Sociological Review*, 83(6), 1215-1253. <https://doi.org/10.1177/0003122418809374>

Kang, S. (2023). Severe and persistent housing instability: examining low-income households' residential mobility trajectories in the United States. *Housing Studies*, 38(9), 1615-1641. <https://doi.org/10.1080/02673037.2021.1982871>

Chetty, R. (2022). *Measuring distribution and mobility of income and wealth* (R. Chetty, Ed.). The University of Chicago Press.

Behrman, J. R., Pollak, R. A., & Taubman, P. (1995). *From parent to child: intrahousehold allocations and intergenerational relations in the United States*. University of Chicago Press.