

#### Background

- While many secondary students across America have expectations to enroll in college and attain postsecondary education, many do not meet those expectations.
- Nearly two-thirds of 10th grade students in 2002 did not meet their 10th grade educational expectations by 2012, 10 years later (Molefe et al., 2017).

Different factors play a role in whether students meet their educational expectations or not, including:

- Students' academic motivation and aspirations (Buzdar et al., 2017; Cham et al., 2014; Guo et al., 2015),
- Risk factors associated with socioeconomic status (SES) (Boxer et al., 2011; Pike et al., 2013),
- Parents' level of education (Messersmith & Scheulenberg, 2008),
- Parents' and teachers' expectations (Ou & Reynolds, 2008), and
- Race and gender (Andres et al., 2008)



Photograph of students graduating. Retrieved February 7th, 2022, from Stock Images on PowerPoint.

### **Research Questions**

- 1. To what degree do parental expectations of students' educational attainment predict whether students fulfill their expectations, controlling for race and gender?
- 2. To what degree is the relationship between parental expectations of students' educational attainment and students' fulfillment of expectations moderated by i) the number of academic risk factors a student reports, and ii) students' instrumental motivation, controlling for race and gender?

#### **Selected References**

Boxer, P., Goldstein, S. E., DeLorenzo, T., Savoy, S., & Mercado, I. (2011). Educational aspiration-expectation discrepancies: Relation to socioeconomic and academic risk-related factors. Journal of Adolescence, 34(1), pp. 609–617. https://doi:10.1016/j.adolescence.201.10.002 Buzdar, M. A., Mohsin, M. N., Akbar, R., Mohammad, N. (2017). Students' academic performance and its relationship with their intrinsic and extrinsic motivation. Journal of Educational Research 20(1), pp. 74–82. http://jer.iub.edu.pk/journals/JER Vol-20.N1/5\_Students\_Acadeic\_Performance.pdf Education Longitudinal Study of 2002 (ELS:2002): A First Look at 2002 High School Sophomores 10 Years Later (NCES 2014-363). U.S. Department of Education. Washington, DC: National Center for Education Statistics. http://nces.ed.gov/pubsearch.Predictors of educational attainment in the Chicago longitudinal study. School Psychology Quarterly, 23(2), pp. 199–229. https://doi.org/10.1037/1045-3820.23.2.199 Rojewski, J. W. (1995). Impact of at-risk behavior on the occupational aspirations and expectations of male and female adolescents in rural settings. Journal of Career Development, 22(1). Pp. 33-48. http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.878.2719& rep=rep1& type=pdf

# Risk Factors, Instrumental Motivation, and Students' Fulfillment of Academic Expectations: A Moderation Analysis

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#### Methods Results Data were obtained from the Educational Longitudinal Study of 2002. Dependent variable: Fulfillment of educational expectations, collected in the third wave (F3), conducted in 2012, eight years after participants

would have graduated from high school.

#### **Conceptual Model**



## Design, Sample, & Analysis

- Descriptive correlational
- 5,753 cases included in the analysis. Of these, 52.5% were female, and 47.5% were male.
- The race distribution was 9.7% Asian, 10.5% Black or African American, 12.9% Hispanic, 5.7% Multiracial, and 61.2% White.
- Multilevel binary logistic regression using AM Software

# **Reported Risk Factors by Expectation Fulfillment**



#### **Logistic Regression Coefficients Table**

#### Param

#### Asian

Black Ameri Hispar

#### Multir

Stude SES **Risk fa** 

Instru motiva Parent college Parent advan Motiv Degre

**RiskFa** Degree RiskFa

• The Adjusted Wald test showed good model fit: *F*(14, 366) = 12.006.

• Compared with students whose parents expected a college degree, those with parents who expected an advanced degree had significantly less (nearly 5%) odds of fulfilling expectations.

• The number of academic risk factors (t = -2.878, p < .01, Exp(B) = 0.966) was a significant predictor, with an increase in risk factors associated with a 3.4% decrease in the odds of expectation fulfillment.

High instrumental motivation coupled with low parental expectations was associated with a reduction in the odds of expectation fulfillment by more than 6% (t = -2.201, p < .05).

• As the number of risk factors decreases and parents' expectations increase, the odds of expectation fulfillment increase by 107.5% (t = 2.718, p < .01).

• Compared with the reference group of White students, Asian students had approximately 9.2% higher odds of success (p < .01), and Multiracial students had 6.5% lower odds of success (p < .05). A unit increase in SES was associated with a 5.3% increase in the odds of expectation fulfillment (p < .001)

 Neither gender nor instrumental motivation were significant predictors of success.

eter Name	В	Standard	t-Statistic	p >  t	Odds
		Error			Ratio
	0.09	0.031	2.85	0.005	1.092
or African can	-0.041	0.024	-1.68	0.095	0.96
nic	-0.017	0.02	-0.85	0.399	0.983
acial	-0.067	0.028	-2.37	0.018	0.935
nt's sex	0.02	0.014	1.44	0.150	1.02
	0.052	0.012	4.28	0.000	1.053
actors	-0.035	0.012	-2.88	0.004	0.966
mental	-0.015	0.011	-1.39	0.165	0.985
ation	0.000	0.042	0.20	0.040	1 000
ts expect no	0.008	0.042	0.20	0.840	1.008
ts expect	-0.049	0.02	-2.45	0.015	0.952
ced degree ation*NoCollege	-0.063	0.028	-2.20	0.028	0.939
e ation*AdvDegree	-0.01	0.015	-0.63	0.531	0.99
ctors*NoCollege	0.073	0.027	2.72	0.007	2.075
e ctors*AdvDegree	0.003	0.017	0.19	0.849	1.003

#### Interaction between Academic Risk Factors and **Parents' Expectations**



#### Interaction between Instrumental Motivation and **Parents' Expectations**

0.9 0.8 8 0.7 0.6 0.5 õ 0.4 0.3 0.2 0.1

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### Discussion

Findings from this study support past research regarding he significance of risk factors and parents' expectations predicting expectation fulfillment.

- nstrumental motivation was not found to be a significant redictor except when interacting with parents' xpectations. Further research could examine the elationship between parents' expectations and intrinsic notivation.
- Contrasting findings, such as a lack of significance in the redictive power of instrumental motivation or gender in xpectation fulfillment, warrant further examination of these variables over time and across context.