

## Merit aid with financial need requirements (for high school students) Higher Education

Literature review updated December 2016.

As part of WSIPP's research approach to identifying evidence-based programs and policies, WSIPP determines "what works" (and what does not work) to improve outcomes using an approach called meta-analysis. For detail on our methods, see our [Technical Documentation](#). At this time, WSIPP has not yet calculated benefits and costs for this topic.

Program Description: Students receive merit aid in college based on prior academic achievement, such as SAT/ACT scores or high school GPA. Programs included in this review also require students to meet financial need requirements (e.g. meet Pell eligibility) to be eligible to receive the scholarship. The thresholds for academic and financial eligibility vary across included programs but all recipients must exhibit academic merit and financial need. Scholarship programs reviewed include Gates Millennium Scholarship, Dell Scholars Program, Susan Thompson Buffet Foundation Scholarship, and California's Cal Grant.

### Meta-Analysis of Program Effects

Outcomes measured	No. of effect sizes	Treatment N	Adjusted effect size and standard error			Unadjusted effect size (random effects model)	
			ES	SE	Age	ES	p-value
Graduate with 4-year degree	2	379	0.244	0.325	23	0.244	0.451
Enroll in 4-year college	4	13696	0.144	0.043	18	0.144	0.001
Enroll in 2-year college	1	991	-0.234	0.066	18	-0.234	0.001
College grade point average	2	525	0.110	0.077	22	0.110	0.152
Persistence into 2nd year	2	791	0.035	0.064	19	0.035	0.591
Persistence into 3rd year	2	735	0.218	0.069	20	0.218	0.002
Persistence into 4th year	2	578	0.139	0.091	21	0.139	0.128
Persistence into 5th year	1	210	-0.041	0.158	22	-0.041	0.796

Meta-analysis is a statistical method to combine the results from separate studies on a program, policy, or topic in order to estimate its effect on an outcome. WSIPP systematically evaluates all credible evaluations we can locate on each topic. The outcomes measured are the types of program impacts that were measured in the research literature (for example, crime or educational attainment). Treatment N represents the total number of individuals or units in the treatment group across the included studies.

An effect size (ES) is a standard metric that summarizes the degree to which a program or policy affects a measured outcome. If the effect size is positive, the outcome increases. If the effect size is negative, the outcome decreases.

Adjusted effect sizes are used to calculate the benefits from our benefit cost model. WSIPP may adjust effect sizes based on methodological characteristics of the study. For example, we may adjust effect sizes when a study has a weak research design or when the program developer is involved in the research. The magnitude of these adjustments varies depending on the topic area.

WSIPP may also adjust the second ES measurement. Research shows the magnitude of some effect sizes decrease over time. For those effect sizes, we estimate outcome-based adjustments which we apply between the first time ES is estimated and the second time ES is estimated. We also report the unadjusted effect size to show the effect sizes before any adjustments have been made. More details about these adjustments can be found in our [Technical Documentation](#).

### Citations Used in the Meta-Analysis

- Angrist, J.D., Autor, D.H., Hudson, S., & Pallais, A. (2014). *Leveling up: Early results from a randomized evaluation of post-secondary aid*. Cambridge, MA: National Bureau of Economic Research.
- Boatman, A., & Long, B.T. (2016). Does financial aid impact college student engagement?: Evidence from the Gates Millennium Scholars program. *Research in Higher Education*, 57(6), 653-681.
- DesJardins, S.L., & McCall, B.P. (2008). *The impact of the Gates Millennium Scholars program on the retention, college finance- and work-related choices, and future educational aspirations of low-income minority students*. Unpublished manuscript.
- DesJardins, S.L., & McCall, B.P. (2014). The impact of the Gates Millennium Scholars Program on college and post-college related choices of high ability, low-income minority students. *Economics of Education Review*, 38(2), 124-138.
- Kane, T.J. (2003). *A quasi-experimental estimate of the impact of financial aid on college-going*. Cambridge, MA: National Bureau of Economic Research.
- Page, L.C., Castleman, B.L., & Sahedewo, G.A. (2016). *More than dollars for scholars: The impact of the Dell Scholars Program on college access, persistence and degree attainment*. SSRN working paper.

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