

Merit aid (for college 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: Undergraduate students receive merit aid based on prior academic achievement, such as SAT/ACT scores or high school grade point average. Students may be able to renew their merit aid awards each year if they continue to reach certain academic benchmarks. Merit aid rewards students for past achievements and encourages them to continue meeting high academic standards. Merit aid for college students focuses on the effects of merit aid for those already enrolled in college. In this meta-analysis, effects on 2-year graduation and transfer from 2-year to 4-year college were based on a single study focusing on 2-year institutions.

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
Employment	3	12122	-0.007	0.018	26	-0.007	0.711
Earnings*	3	12122	0.040	0.021	26	0.040	0.056
Graduate with 4-year degree	4	14059	0.149	0.057	23	0.149	0.009
College grade point average	5	21120	0.028	0.014	23	0.029	0.040
Graduate with 2-year degree	1	9518	0.077	0.280	21	0.077	0.783
Transfer from 2- to 4-year college	1	11898	0.042	0.273	22	0.042	0.878

*The effect size for this outcome indicates percentage change, not a standardized mean difference effect size.

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

- Binder, M., & Ganderton, P.T. (2002). *Musical chairs in higher education: Incentive effects of a merit-based state scholarship program*. Working paper, Department of Economics, Albuquerque: The University of Mexico.
- Lee, J. (2014). *Does merit-based aid promote degree attainment?* Unpublished manuscript.
- Scott-Clayton, J. E. & Zafar, B. (2016). *Financial aid, debt management, and socioeconomic outcomes: Post-college effects of merit-based aid*. (NBER Working Paper 22574). Cambridge, MA: National Bureau of Economic Research.
- Scott-Clayton, J. (2011). On money and motivation: A quasi-experimental analysis of financial incentives for college achievement. *Journal of Human Resources*, 46(3), 614-646.
- Welch, J.G. (2015). *Three essays on the economics of higher education: How students and colleges respond to financial aid programs* (Unpublished doctoral dissertation). Knoxville, TN: University of Tennessee-Knoxville.

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