

Promoting Health Equity through Education Programs and Policies: High School Completion Programs

Summary Evidence Tables

Cost-effectiveness Measures: Environmental Change

Study	Program	Pop. size	Time Horizon (Year)	Cost per student	Baseline HS compl rate	Pct point gain in HS compl.	\$/add'l HS grad (ICER)*	Pop** status	Scale National /state/ local	Program Description
School or Class Restructuring										
Levin et al. 2007	Project STAR -TN	12k	3 y	\$14.5k	77.5%	11%	\$131.8k	G IN	State (TN)	Student Teacher Achievement Ratio Project, 4 years of schooling (grades K–3) with class size reduced from 25 to 15.
Belfield et al. 2007	Project STAR –adj. CA price	NR	3 y	\$16k	77.5%	11%	\$145.1k	G IN	State (CA)	Same with above
Belfield et al. 2007	Project STAR-CA free lunch eligible	NR	3y	\$16k	77.5%	18%	\$89.3k	G IN	State (CA)	Same with above
Bloom et al. 2010	Small schools of Choice (SSCs), 05-08	21k	4y	\$6k	61.9%	6.8%	\$88.2k	G IN	Local (New York City, NY)	Small, academically nonselective, 4 years public high schools , serving approximately 100 students per grade in grade 9-12
Bloom et al. 2012	Small schools of Choice (SSCs), 07-10	13k	4y	\$6k	59.3%	8.6%	\$69.8k	G IN	Local (New York City, NY)	Same with above
Levin et al. 2007	First Thing First	25k	5y	\$6.1k	31.4%	16%	\$38.1k	G IN	Local (KS, TX, MO,	Comprehensive school reform of: small learning communities with

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	demonstration - KS, TX, MO, MS								MS)	dedicated teachers; family advocates; and instructional improvement efforts.
Belfield et al. 2007	First Thing First -adj. CA price	NR	5y	\$6.8k	31.4%	16%	\$41.9k	G IN	State (CA)	Same with above
Belfield et al. 2007	Career Academies	1.8k	3y	\$2.2k	21%	11%	\$20.1k	G IN	State (CA)	School-within-school program intended to promote employment readiness. Students are instructed with career-related materials and supported to gain work experience at local employers.
Stern et al. 1989	California Peninsula Academies	327	3y	\$7.1k	81.7%	8.9%	\$80.4k	G IN	State (CA)	11 academy programs in California high schools. Combining academic and vocational courses in a program designed to reduce dropout rates.
Alternative Schools										
WWC report 2007	High School Redirection	1.6k	2y	\$5.2k	32%	4%	\$128.8k	G MIX	Local (CA, KS, OH)	Alternative high school program emphasizes basic skills development (with a particular focus on reading skills) and offers limited extra-curricular activities.
Dynarski et al. 1998	Middle School Academy (Atlanta)	73	2y	\$1.7k	86%	8%	\$21.1k	G MIX	Local (Atlanta, GA)	Alternative middle school for students who were two or more grade levels behind. Curriculum compressed 2y of middle school learning into 1y, so that successful participants could enter HS with their age peers.

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Dynarski et al. 1998	Accelerated Academics Academy (Flint,MI)	40	3y	\$7.8k	83%	14%	\$55.7k	G MIX	Local (Flint, MI)	Similar to Middle School Academy. Located in Flint, Michigan.
Dynarski et al. 1998	Project ACCEL	187	2y	\$12.9k	81%	4%	\$322.8k	G MIX	Local (Newark, NY)	Teaching and extra counseling within school for those behind grade level

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Learning Skills, Monitoring, and Development

Study	Program	Pop. size	Time Horizon (Year)	Cost per student	Baseline compl. rate	Pct point gain in HS compl.	\$/add'l HS grad (ICER)*	Pop** status	Scale National / state/ local	Program Description
Social-Emotional Skills Training										
Eggert et al. 1990	Interpersonal Relations Class (IPR)	264	4.5m	\$1.1k	61%	13%	\$8.6k	G IN	Local (not reported)	Designed to prevent drug use and school dropout among high school students identified as at high risk of school failure, provide study-skills training, peer tutoring, resistance skills training, and systematic decision-making skills training.
Dynarski	Early	155	3y	\$7.2k	84%	4%	\$178.8k	G	Local	One course period per day to work

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et al.1998	Intervention Project							IN	(Rockford , IL)	on student's basic skills and homework, and provide counseling service. Participants took regular courses with other students during rest of the day.
Attendance Monitoring and Contingencies										
Belfield et al. 2007	Achievement for Latinos through Academic Success (ALAS)	81	3y	\$3.5k	27%	5%	\$70.9k	G IN	State (CA)	Achievement for Latinos through Academic Success. Program that assigns counselors to monitor attendance, behavior and achievement
Belfield et al. 2007	Check &Connect	144	4y	\$5.7k	39%	17%	\$33.6k	G IN	State (MN)	Program to monitor and assess student performance and mentor students to improve behaviors and academic outcomes.
Bloom et al. 1993/ Long et al. 1996	Ohio's Learning, Earning, and Parenting Program (LEAP)	913	3y	\$2.1k	31.9%	2.1%	\$99.8k	SP MIX	State (OH)	Ohio's Learning, Earning, and Parenting Program. Financial incentives for attendance monitoring. only direct cost (base \$274, bonus+\$62, sanction-\$62)
Dearden et al. 2009	Conditional Cash Transfers	4.5k	2y	\$2.8k	54.3%	6.7%	\$41.8k	G IN	National (UK)	Weekly payment (£30 or £40), achievement bonus on successful completion of their course examination for young people whose parents' incomes were £13,000 or below
Mentoring, Counseling										
Belfield	Twelve	219	3y	\$4.5k	87%	5%	\$90.4k	G	State	Program offering peer support and

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et al. 2007	Together							IN	(CA)	mentoring in middle school and high school.
Dynarski et al. 1998	Middle School Leadership Program	120	1y	\$558	77%	5%	\$11.2k	G IN	Local (Albuquerque, NM)	Weekly leadership workshop in regular middle school for 8th graders with low grades, high absenteeism.
Case Management										
Schirm et al. 2006	Quantum Opportunity Program	1k	5y	\$22.8k	60%	0	∞	G IN	Local (Philadelphia, PA; Saginaw, MI; Oklahoma City, OK; San Antonio, TX; Milwaukee, WI)	The Quantum Opportunity Program Demonstration, after-school program providing case management and mentoring, supplemental education, developmental activities, community service activities, supportive services, and financial incentives.

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Academic and Professional Development

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Supplemental Academic Services										

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Gardner et al. 2011	Computer-assisted GED program	164	65 days/13 weeks	\$780	25%	0	∞	G IN	Local (TX)	Computer-assisted GED preparing program, 20-30 hours study time per test, 6 tests total, 150 hour
Levin et al. 2012	National Guard Youth Challenge (NGYC)	9k	22 weeks	\$14.1k	44.1%	29.2%	\$48.3k	G OUT	National (US)	22-week non-school-based residential program targeting 16- to 18-year old youths who have dropped out or been expelled from school, following discipline routines similar to the military, take GED courses, leadership development, job skills and community service.
College-Oriented Programming										
Myers et al. 2004	Upward Bound Regular	52k	1y	\$5.8k	93%	0	∞	G IN	National (US)	Federal program. Designed to help economically disadvantaged students prepare for, enter and succeed in college, provide instruction, tutoring and counseling service.
Olsen et al. 2007	Upward Bound Math	7k	1y	\$5.3k	97%	2%	\$265.7k	G IN	National (US)	Same as above, specific for math courses
Levin et al. 2012	Talent Search	320k	4-6y	\$3.4k	73.1%	11.7%	\$30.6k	G IN	Local (TN, FL)	Program of academic support intended to raise the graduation rate and motivate low-income students to attend college.
Vocational Training										
Levin et al. 2012	JOBSTART	1.1k	2y	\$10.5k	25.9%	15.1%	\$69.5k	G OUT	Local (Multiple sites in US)	Non-residential alternative to Job Corps. Basic education, vocational education, training related support services, job placement assistance

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Bloom et al. 1997	JTPA Title II-A programs	21k	2.5y	\$2.1k	26.2%	6.9%	\$30.3k	G OUT	Local (Multiple sites in US)	Job Training Partnership Act program for economically disadvantaged adults and out-of-school youths

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Miscellaneous

Study	Program	Pop. size	Time Horizon (Year)	Cost per student	Baseline compl. rate	Percentage point gain in HS compl.	\$/add'l HS grad (ICER)*	Pop** status	Scale National / state/ local	Program Description
Multi-Service Package										
Belfield et al. 2007	I Have a Dream	161	6.5y	\$22.5k	37%	34%	\$66.3k	G IN	Local (Multiple sites in US)	Program for inner-city low-income children from 6-12 grade, provide mentoring and financial support.
Levin et al. 2012	Job Corps	9.4k	2y	\$22.3k	34.4%	17%	\$131.1k	G OUT	Local (Multiple sites in US)	Non-school based, residential program for 16-24 year olds, already left school, and come from low SES youth. Basic education, vocational training, job placement assistance, residential living, social skill training, health education, health care and counseling and driver education.

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Dynarski et al. 1998	Up with Literacy	58	3y	\$9k	92%	0	∞	G IN	Local (Long Beach, CA)	In-class and after school tutoring, homework assistance and counseling for middle school students with low test scores
Solomon et al. 1998	Family Support Center	63	3y	\$14.8k	72%	22%	\$67.2k	SP IN	Local (not reported)	Home visits, parenting classes, school advocacy and case management service
Levin et al. 2012	New Chance	2.3k	1.5y	\$17.8k	49.5%	9.2%	\$194.6k	SP OUT	Local (Multiple sites in US)	Basic education and GED preparation, employment-related services, health and personal development, case management for teen mothers
Quint 1991	Project Redirection	805	2y	\$15.1k	11%	9%	\$167.8k	SP OUT	Local (Multiple sites in CA, NY, MA, etc.)	The program linked enrollees with existing educational and health services and supplemented these with workshops on parenting, employability, and life management, and with group and individual counseling for teen mothers who were 17 or younger, lacked a high school diploma, and were receiving or eligible for AFDC.
Hawkins et al. 1999	Social Development Project (Seattle)	596	6y	\$4.1k	73.8%	7.3%	\$56.5k	G IN	Local (Seattle, WA)	Intervention combining teacher training, parent education, and social competence training for children during the elementary grades on adolescent health-risk behaviors at age 18 years.

Community Service

Study	Program	Pop. size	Time Horizon (Year)	Cost per student	Baseline compl. rate	Percentage point gain in HS compl.	\$/add'l HS grad (ICER)*	Pop** status	Scale National / state/ local	Program Description
Cárdenas et al. 1992	The Coca-Cola Valued Youth Program	14k	2y	\$328	88%	11%	\$3k	G IN	Local (San Antonio, TX)	Secondary students at risk of dropping out serve as tutors of elementary students who have also been identified as being in at-risk situations

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Benefit Measures (in 2012 U.S.Dollars)

Study	Pop.	Productivity Loss Averted	Healthcare Cost Averted	Crime Cost Averted	Welfare Cost Averted	Indirect Education cost	Lifetime Benefits per add'l HS grad
Governmental Perspective (N=4)							
		Tax payments estimated using TAXSIM, derived by the National Bureau of Economic Research; including income taxes, sales taxes, corporate tax and other 112k	Effect of education on Medicaid and Medicare enrollments, weighted for CA health costs 65.2k	Cost averted for criminal justice system, supervision of CA department of Corrections, crime prevention ,restitution for victims, etc.; Census and FBI data 35.4k	Receipt of TANF (Temporary Assistance for Needy Families) cash assistance; housing assistance; food stamps 8.4k	Assumed each new graduate spends 2 more years in HS than a dropout does (34k)	187.0k

Study	Pop.	Productivity Loss Averted	Healthcare Cost Averted	Crime Cost Averted	Welfare Cost Averted	Indirect Education cost	Lifetime Benefits per add'l HS grad
Belfield et al. 2007 (NY)	HS/ GED	TAXSIM model (version 7) derived by the National Bureau of Economic Research 115.6k	Effect of education on Medicaid and Medicare enrollments, weighted for New York state prices and controlling for demographic differences between New York and the rest of the U.S 53.9k	Criminal justice system (policing and the courts), imprisonment for offenders (as well as parole and probation), crime prevention costs (e.g. budgets for the DHS, DEA, and ATF); Census and FBI data 27.7k	Receipt of TANF cash assistance; safety net assistance; food stamps; children on Medicaid, including the State Children's Health Insurance Program(SCHIP) 5.6k	--	202.8k
Levin et al. 2007 (US)	HS/ GED	Current Population Survey (CPS) data; income taxes, property taxes and sales taxes 154.0k	Data from a nationally representative sample of over 40,000 non-institutionalized civilian subjects, the Medical Expenditure Panel Survey (2004); health-related quality of life scores and public insurance enrollments 44.9k	Multiply the unit cost by the reduction in crime; including policing, government programs to combat crime, and state-funded victim costs 29.5k	Being a HS graduate is associated with a lower probability of TANF receipt by 40%, of housing assistance by 1%, and food stamps by 19%. 3.3k	Include extra high school costs assuming two extra years are needed to graduate. (27k)	204.7k
Belfield et al. 2012 (US)	Opp. Youth	Current Population Survey (CPS) data; federal and state income/consumption taxes 115.6k	Medicare, Medicaid, CHIP, DoD, DVA, other federal, state, and local programs 54.1k	Criminal justice system, policing, and corrections expenditures (federal, state, and local); fiscal burdens, as well as costs directly imposed on victims and	Receipt of TANF, housing assistance, food stamps and, for females, WIC; National Longitudinal Survey of Youth 1997 (NLSY97) 13.6k	Add up all the public expenditures on HS, weighted according to the respective enrollment rates of opportunity youth	240.3k

Study	Pop.	Productivity Loss Averted	Healthcare Cost Averted	Crime Cost Averted	Welfare Cost Averted	Indirect Education cost	Lifetime Benefits per add'l HS grad
				avoidance costs by victims and potential victims 68.1k		and all youth (11.1k)	
Societal Perspective (N=6)							
Hankivsky 2008 (Canada)	HS	Earning; Tax revenue; Revenue in employment insurance premium; assuming lifetime earnings from age 20-54 121.1k	Cost of health=QALYs gained * QALY valuation; estimated 1.0369 QALY gain by completing HS, assumed discount rate of 3.5%; census population data 226.3k	--	--	--	347.4k
Belfield et al. 2007 (CA)	HS/ GED	Labor market status data from Current Population Survey (CPS), more likely to be working, higher hourly wages 315.6k	Effect of education on Medicaid and Medicare enrollments, weighted for CA health costs; out-of-pocket spending 32.8k	Victim cost averted in lost property and impaired quality of life; criminals not participating in the formal labor market 112.4k	Receipt of TANF cash assistance; housing assistance; food stamps 4.1k	Assumed each new graduate spends 2 more years in HS than a dropout does (29.8k)	435.1k
Lewis et al. 2005 (LA)	HS	Census Bureau median earnings data; Job Vacancy Survey 374.9k	--	Simulated impact of dropping out of high school on the probability of criminal activity and arrests; Bureau of Justice Statistics	--	--	442.3k

Study	Pop.	Productivity Loss Averted	Healthcare Cost Averted	Crime Cost Averted	Welfare Cost Averted	Indirect Education cost	Lifetime Benefits per add'l HS grad
				67.4k			
Catterall 1987 (US)	HS/ GED	Total lost earnings; Loss of tax revenues 436.4k	--	--	Estimated roughly 2.5% of overall social cost 20.2k	--	456.6k
Belfield et al. 2007 (NY)	HS/ GED	Labor market status data on New York State residents from the Current Population Survey 433.0k	Effect of education on Medicaid and Medicare enrollments, weighted for New York state prices and controlling for demographic differences between New York and the rest of the U.S; out-of-pocket spending 53.9k	Criminal justice system, imprisonment for offenders, parole and probation, crime prevention costs, restitution for victims, publicly-provided medical care, and from lost tax revenues when victims are off work; add'l victim costs for crime not reported 124.7k	Receipt of TANF cash assistance; safety net assistance; food stamps; children on SCHIP 5.6k	--	617.2k
Belfield et al. 2012 (US)	Opp. Youth	Current Population Survey (CPS); Gross income including fringe benefits (health and pension); American Community Survey (ACS) data median earnings across all high school dropouts; federal	Medicare, Medicaid, CHIP, DoD, DVA, other federal, state, and local programs; Private expenditures on medical treatments 54.1k	Fiscal burdens, as well as costs directly imposed on victims and avoidance costs by victims and potential victims 181.7k	Receipt of TANF, housing assistance, food stamps and, for females, WIC; National Longitudinal Survey of Youth 1997 (NLSY97) 16.8k	Add up all the public expenditures on HS, weighted according to the respective enrollment rates of opportunity youth and all youth; Lower fees and expenses for	718.1k

Study	Pop.	Productivity Loss Averted	Healthcare Cost Averted	Crime Cost Averted	Welfare Cost Averted	Indirect Education cost	Lifetime Benefits per add'l HS grad
		and state income/consumption taxes 487.1k				families (21.6k)	

*Opportunity Youth: 16-24 age group, already dropped out of school, currently unemployed, may have been involved in the criminal justice system; may have mental or health conditions that have inhibited their activities