

Research on Early School Leaving: A US Perspective

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Outline of Presentation

The importance of high school

US interest in improving high school graduation rates

Research on dropouts

- Magnitude and trends

- Social and economic consequences

- Causes

- Strategies for improving high schools

What else is needed to improve high school completion?

Initial comments

Terminology: Dropout vs. Early School Leaver

My background

- “Dropping Out of High School” (AERJ, 1983)
- *Engaging Schools: Fostering High School Student’s Motivation to Learn* (NRC, 2005)
- California Dropout Research Project (started in 2006)
- *Dropout Prevention: A Practice Guide* (IES, 2008; revised 2017)
- *Dropping Out: Why Students Quit School and What Can be Done About It* (Harvard University Press, 2011)



New research with a focus on California (research studies, policy briefs, statistical briefs, city dropout profiles)

Policy recommendations from policy committee (policymakers, educators, researchers)

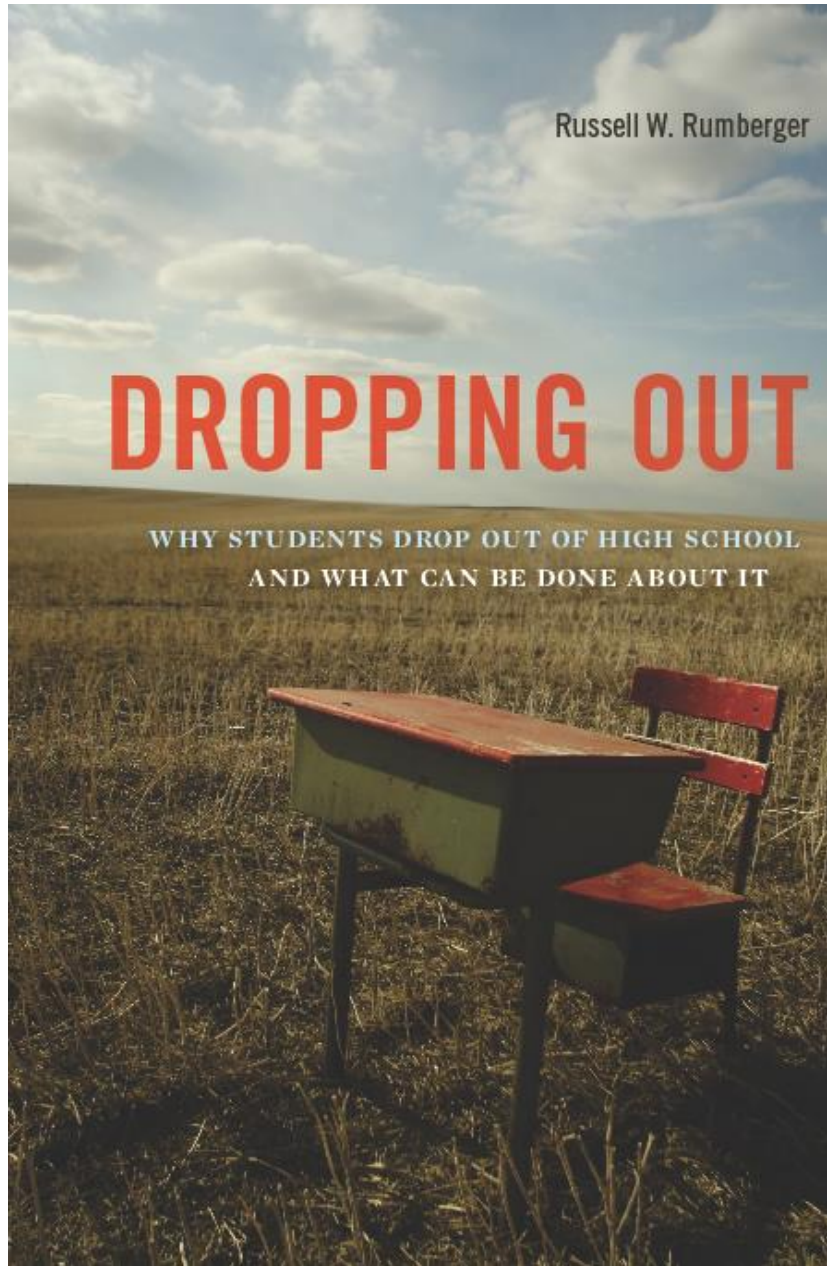
Dissemination through mailings, website, presentations, media

Website: cdrpsb.org

Russell W. Rumberger

DROPPING OUT

WHY STUDENTS DROP OUT OF HIGH SCHOOL
AND WHAT CAN BE DONE ABOUT IT



IES PRACTICE GUIDE

WHAT WORKS CLEARINGHOUSE

Dropout Prevention



NCEE 2008-4025
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Institute of Education Sciences



EDUCATOR'S PRACTICE GUIDE

A set of recommendations to address challenges in classrooms and schools

WHAT WORKS CLEARINGHOUSE™

Preventing Dropout in Secondary Schools



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The Importance of High School

Clausen study (1993)

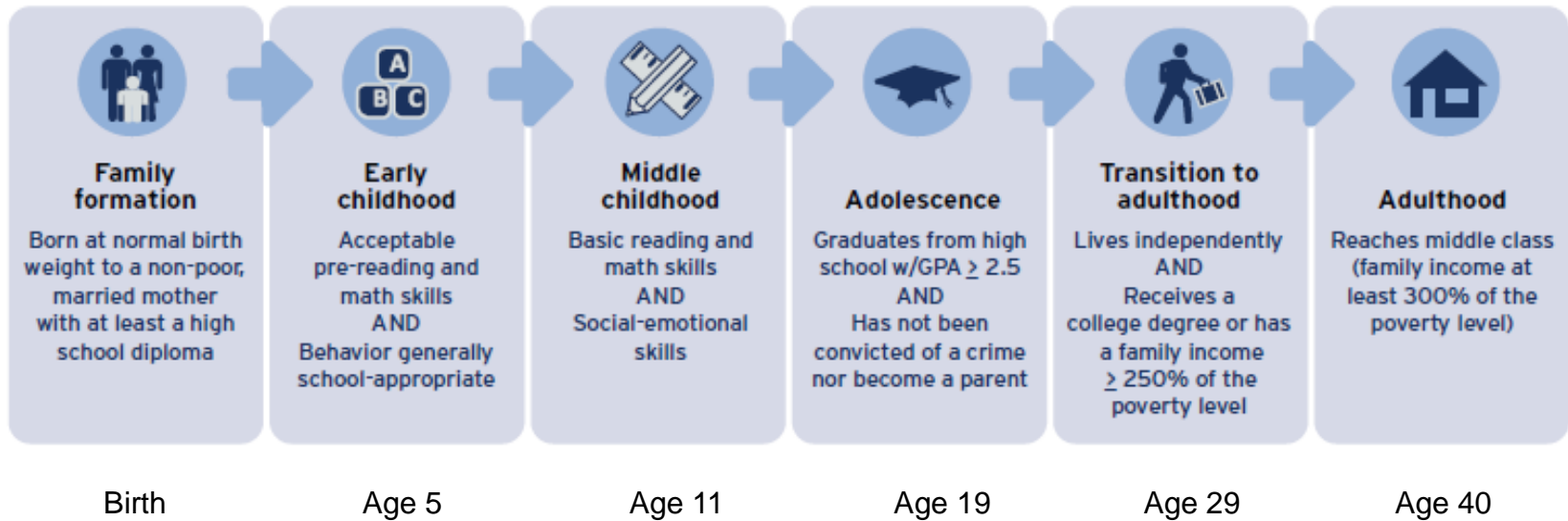
Cohort born in Great Depression and tracked until age 70

Adult success: obtained more education, had lower rates of divorce, had more orderly careers, achieved higher occupational status, and experienced fewer life crises, such as unemployment

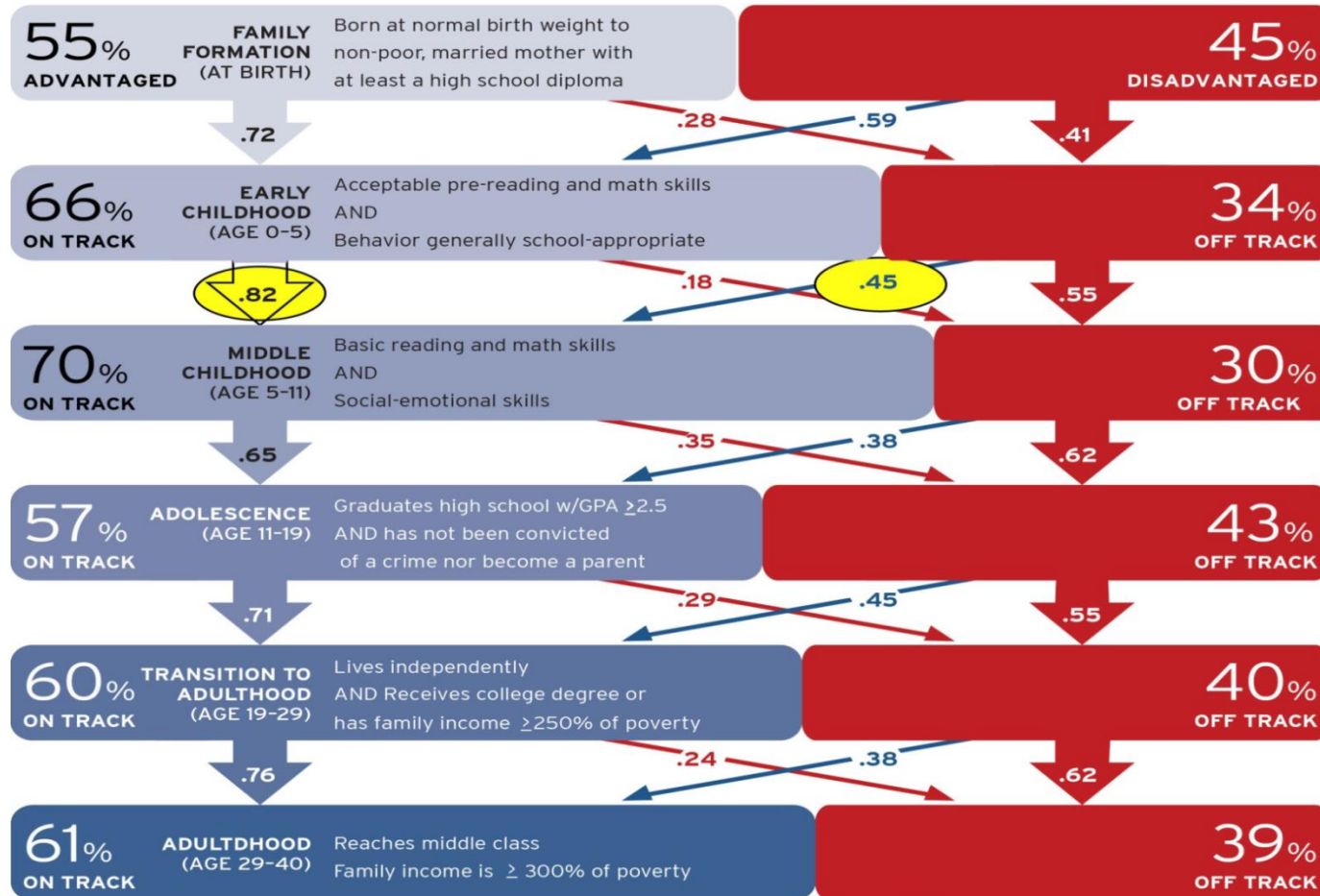
Best predictor: “planful competence,” a combination of dependability, intellectual involvement, and self-confidence, that was evident in high school

“Predicting to age 70, there’s nothing that predicts better than what they were like in high school”

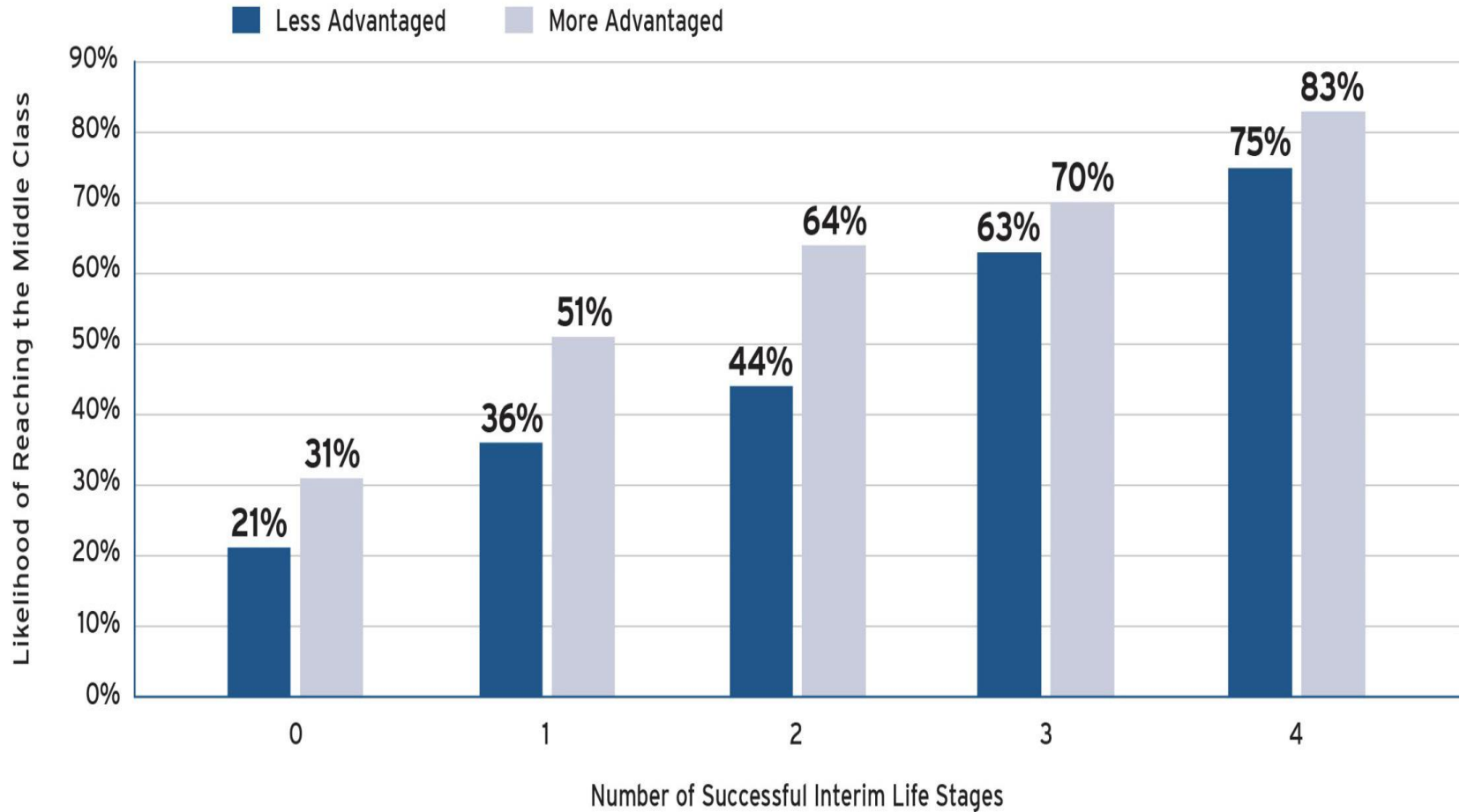
Benchmarks for Success



Probability of Being On/Off Track

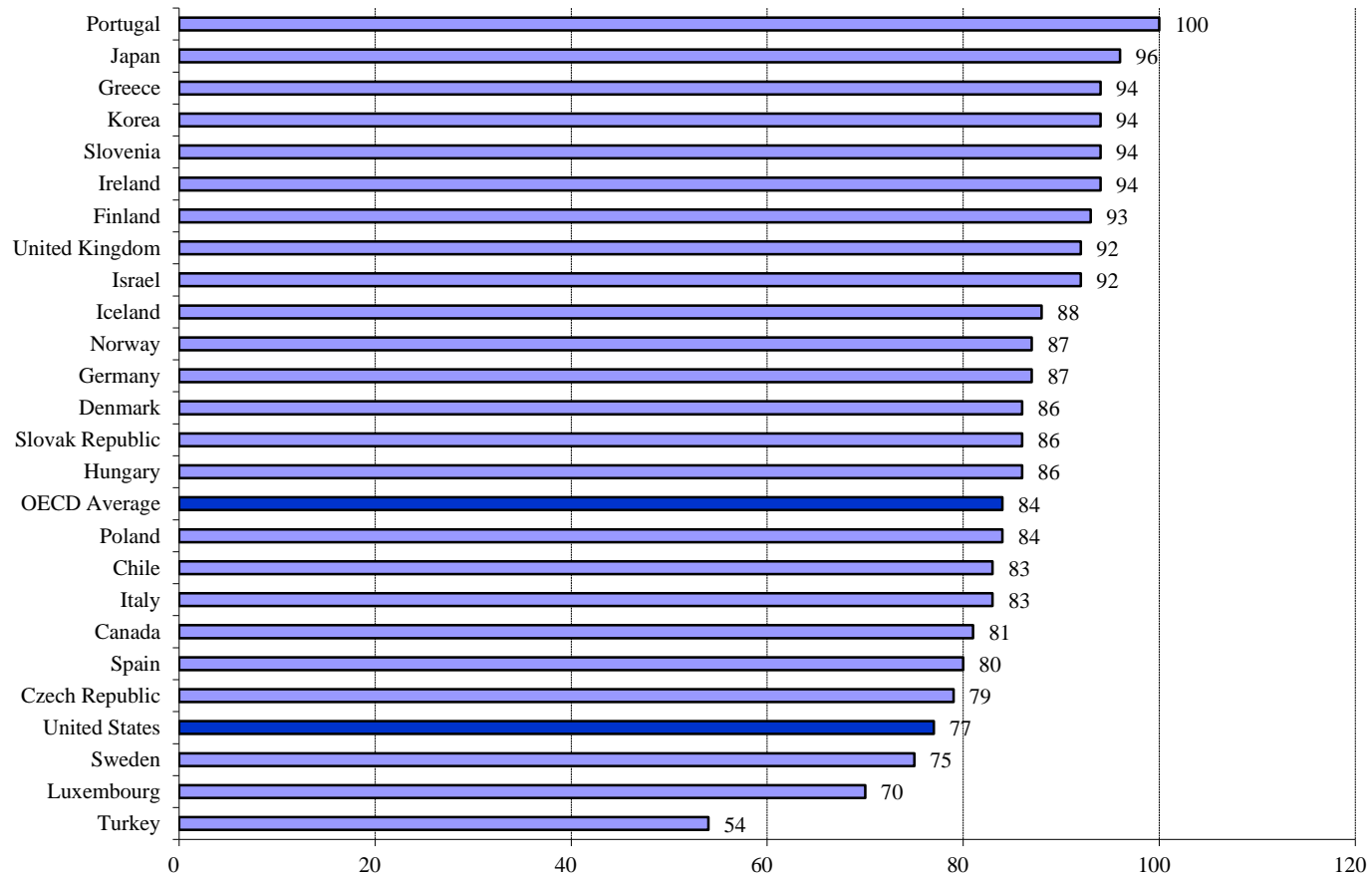


Likelihood of Reaching Middle Class



Interest in High School Graduation

US 22th worldwide in high school graduation rate



Urgency

So this is a problem we cannot afford to accept and we cannot afford to ignore. The stakes are too high—for our children, for our economy, and for our country. It's time for all of us to come together—parents, students, principals and teachers, business leaders and elected officials from across the political spectrum—to end America's dropout crisis.

—Barack Obama, February 24, 2009

Improving College Graduation Rates Requires Improving High School Graduation Rates

To produce 8.2 million new college graduates by 2020 requires raising the nation's high school graduation rate by 17.5 percentage points.

—Opportunity to Learn Campaign, *2020 Vision Roadmap* (2011)

Research on Dropouts

1. Magnitude and trends
2. Consequences
3. Causes
4. Solutions

Magnitude and Trends

What is a Dropout?

Dropout as a status

Dropout as an event

Dropout as a process:

Enroll → Attend → Progress → Graduate



Drop Out

What is a Graduate?

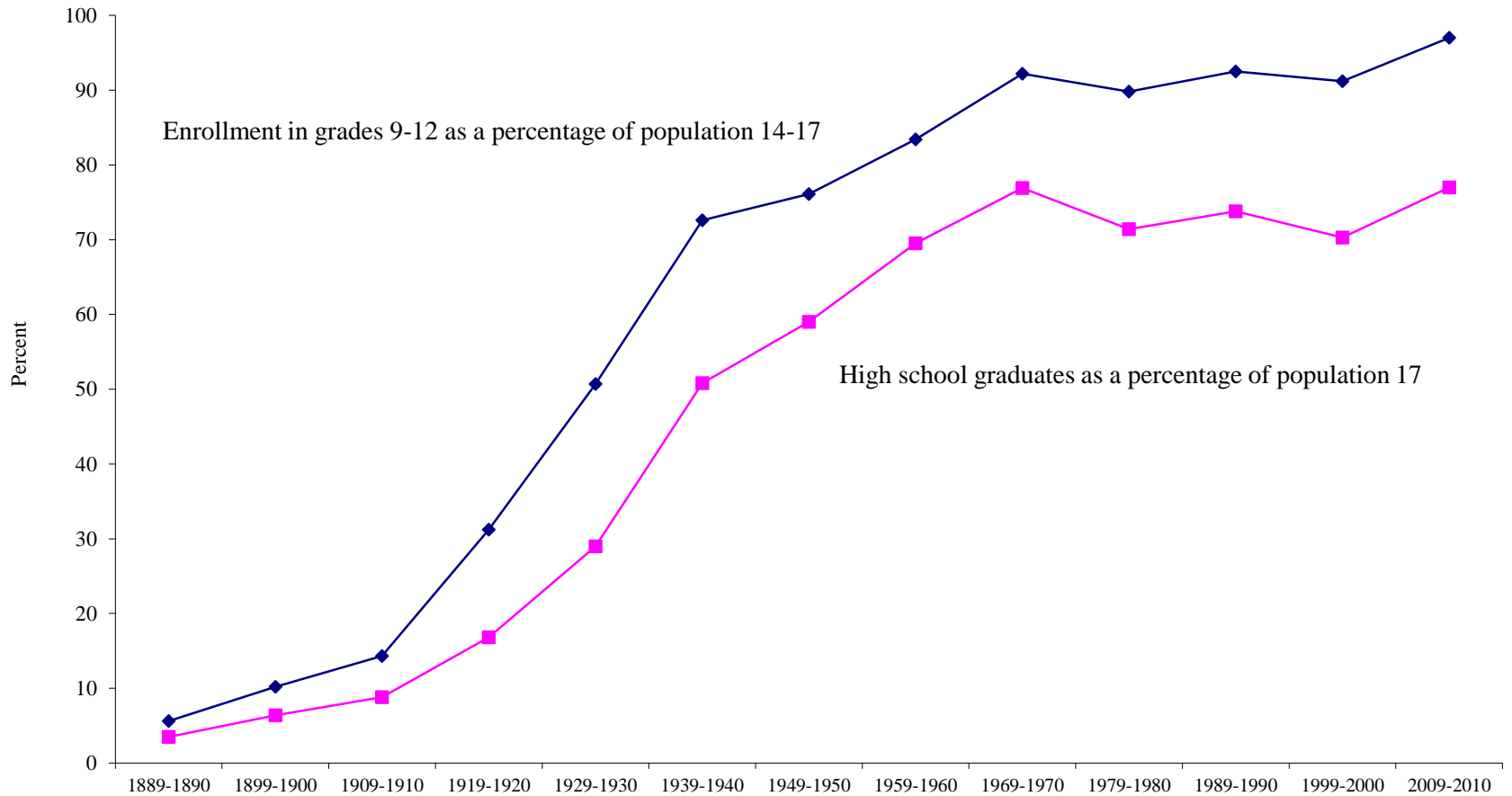
Types of Credential

- Diploma
- Equivalency diploma

Requirements determined by states and local districts

Changing Requirements

US Enrollment and Graduation Rates



SOURCE: Snyder, et al., *Digest of Education Statistics* (2011)

Dropout Factories

In US, 18% (2,007) of regular and vocational high schools account for 50% of the dropouts (“dropout factories”)

In California, 1% (25) of all high schools account for 21% of dropouts

Social and Economic Consequences

Consequences of Dropping Out

INDIVIDUAL CONSEQUENCES

- Lower wages
- Higher unemployment
- Increased crime
- Poorer health
- Reduced political participation
- Reduced intergenerational mobility



SOCIAL COSTS

- Reduced national and state income
- Reduced tax revenues
- Increased social services
- Increased crime
- Poorer health
- Reduced political participation
- Reduced intergenerational mobility

Consequences of Dropping Out

(Compared to High School Graduates)

Lifetime earnings half a million dollars lower

6 times more likely to be incarcerated

Life expectancy nine years less

2-3 times more likely to receive government healthcare

More likely to be poor—poor children 2-3 times more likely to become poor adults

Public Lifetime Economic Losses per Cohort of 20-year-old Dropouts, 2004

	Losses per dropout	Losses per cohort (Billions)
Taxes	\$139,000	\$98
Crime	\$26,000	\$19
Welfare	\$3,000	\$2
Health	\$40,500	\$29
TOTAL	\$209,200	\$148

SOURCE: Belfield and Levin (2007).

Causes

Understanding Causes

Causes vs. reasons vs. predictors

Individual

- Demographic (unalterable)
- Attitudes and behaviors (alterable)

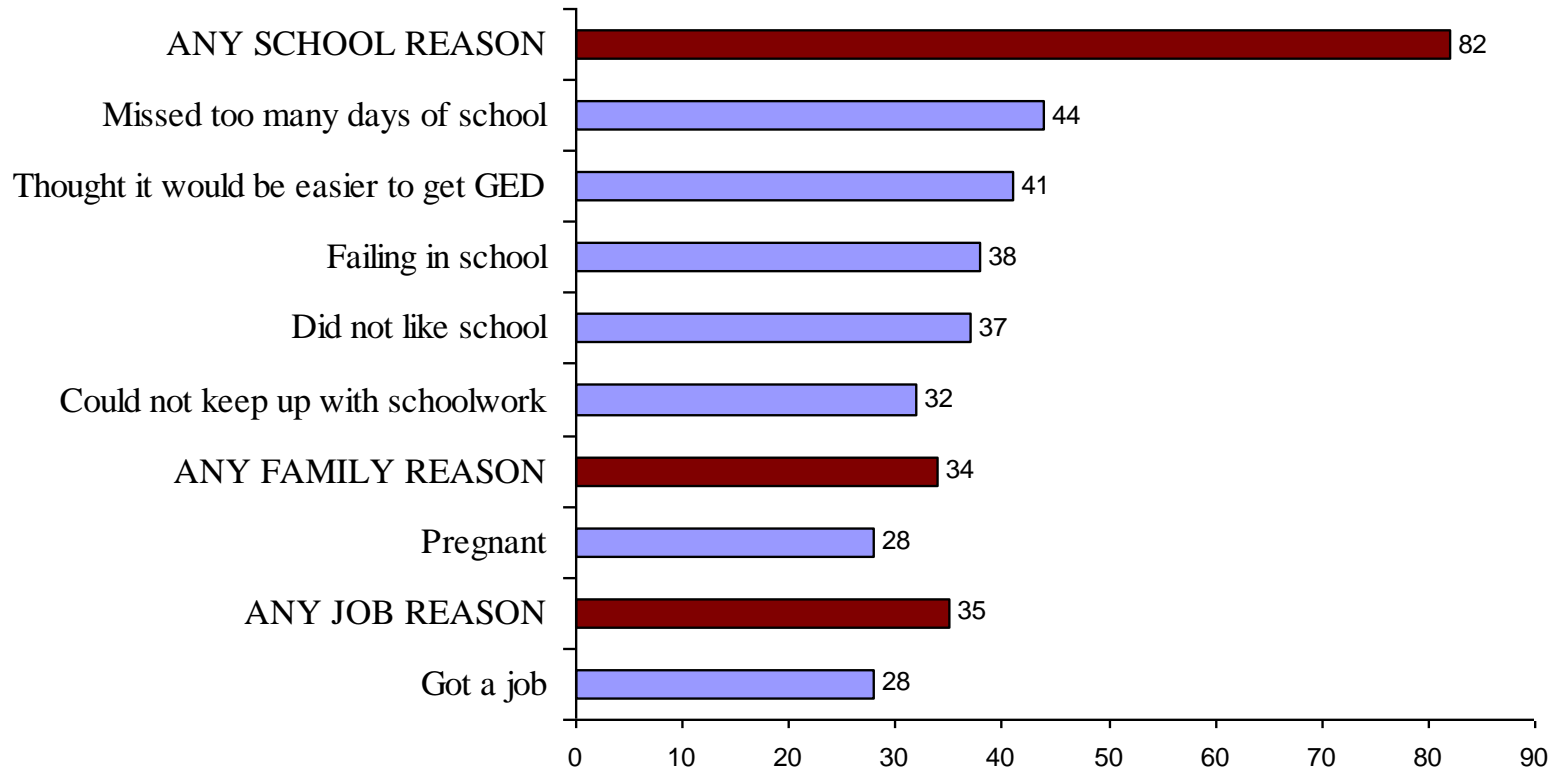
Contexts: Family, School, Community

- Resources
- Practices

Proximal (high school) vs. distal (before high school)

Dropout vs. achievement

Reasons for Dropping Out



SOURCE: CDRP Statistical Brief 2

Individual Predictors

Mobility

Academic achievement (failed classes)

Poor attendance

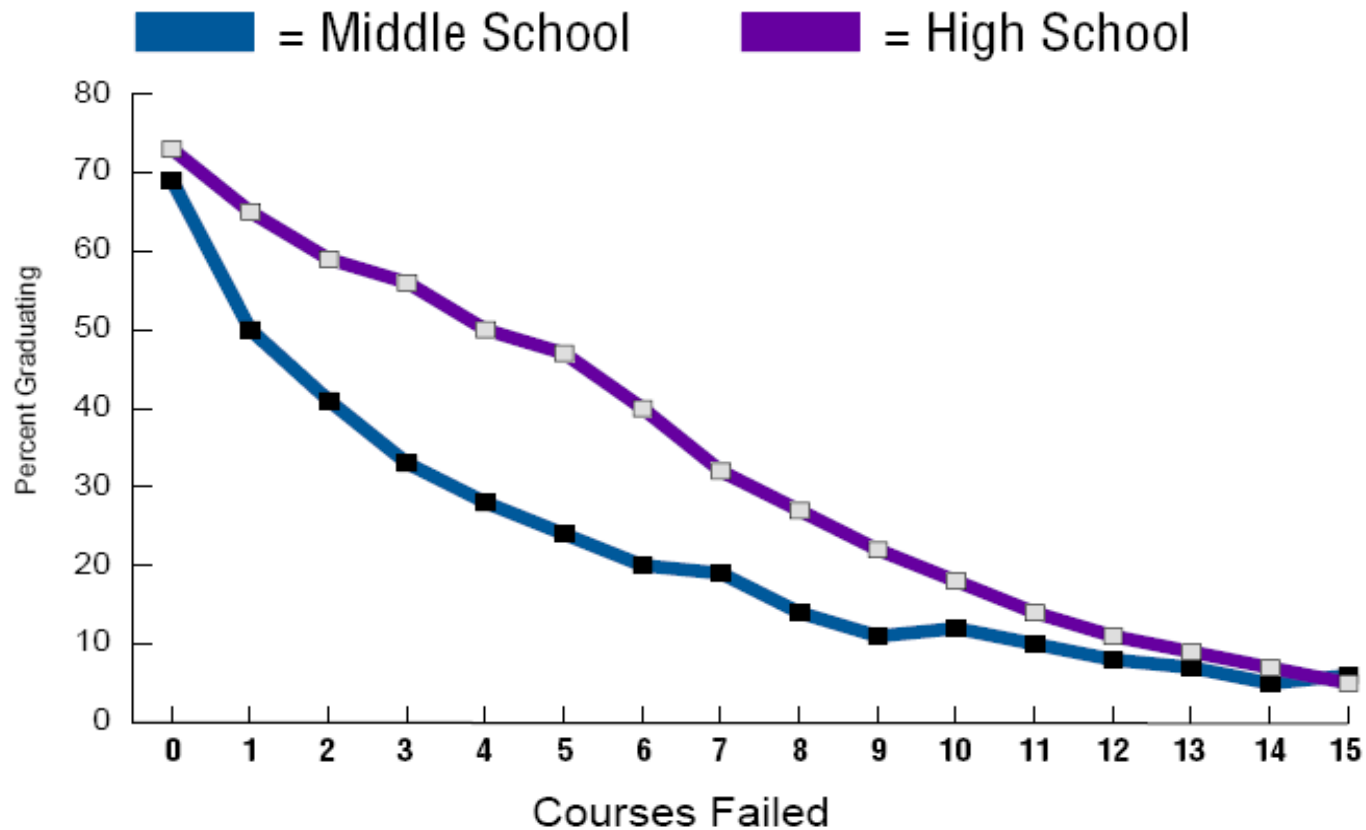
Misbehavior

Low educational aspirations

Retention

Risk Indicators

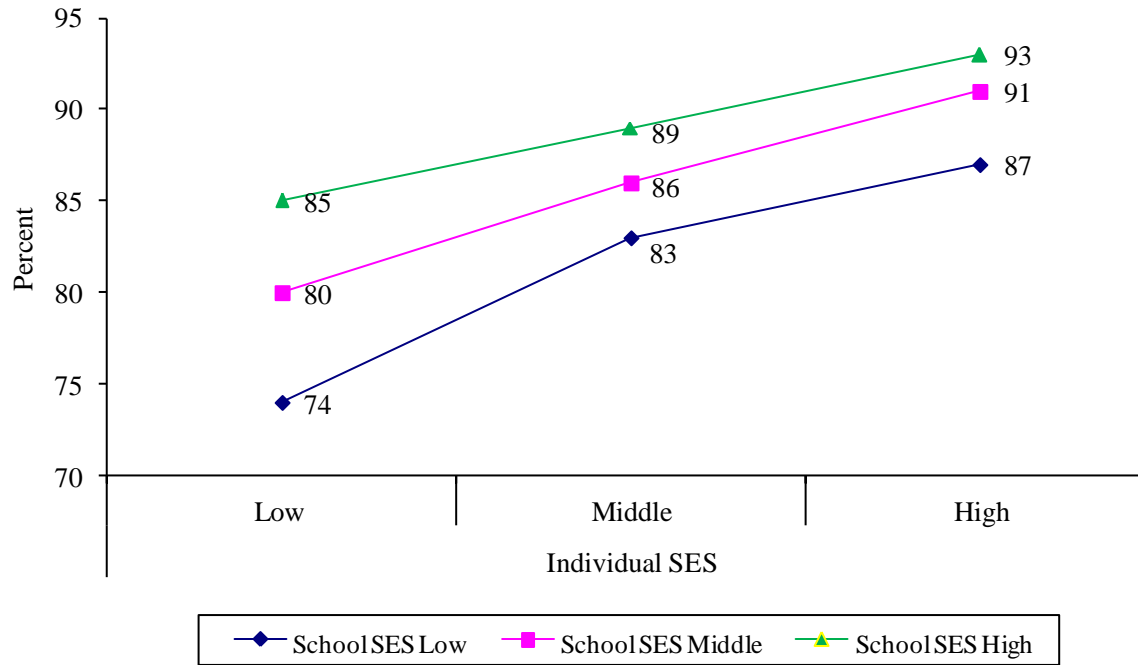
Graduation Rates by Courses Failed



SOURCE: CDRP Research Report 14

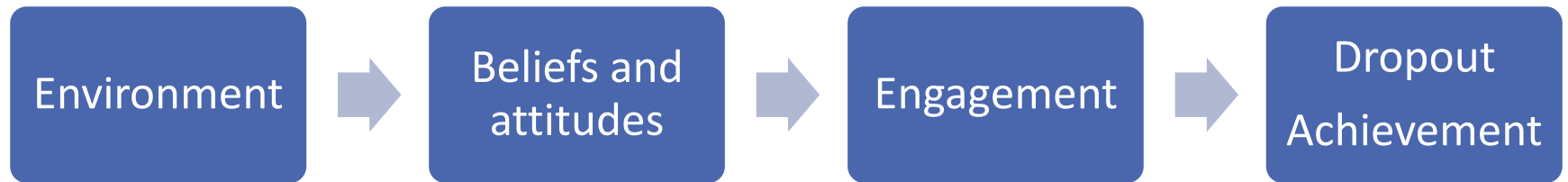
Student and School Predictors

(Predicted 10th grade graduation rates by student and school SES, 2002)



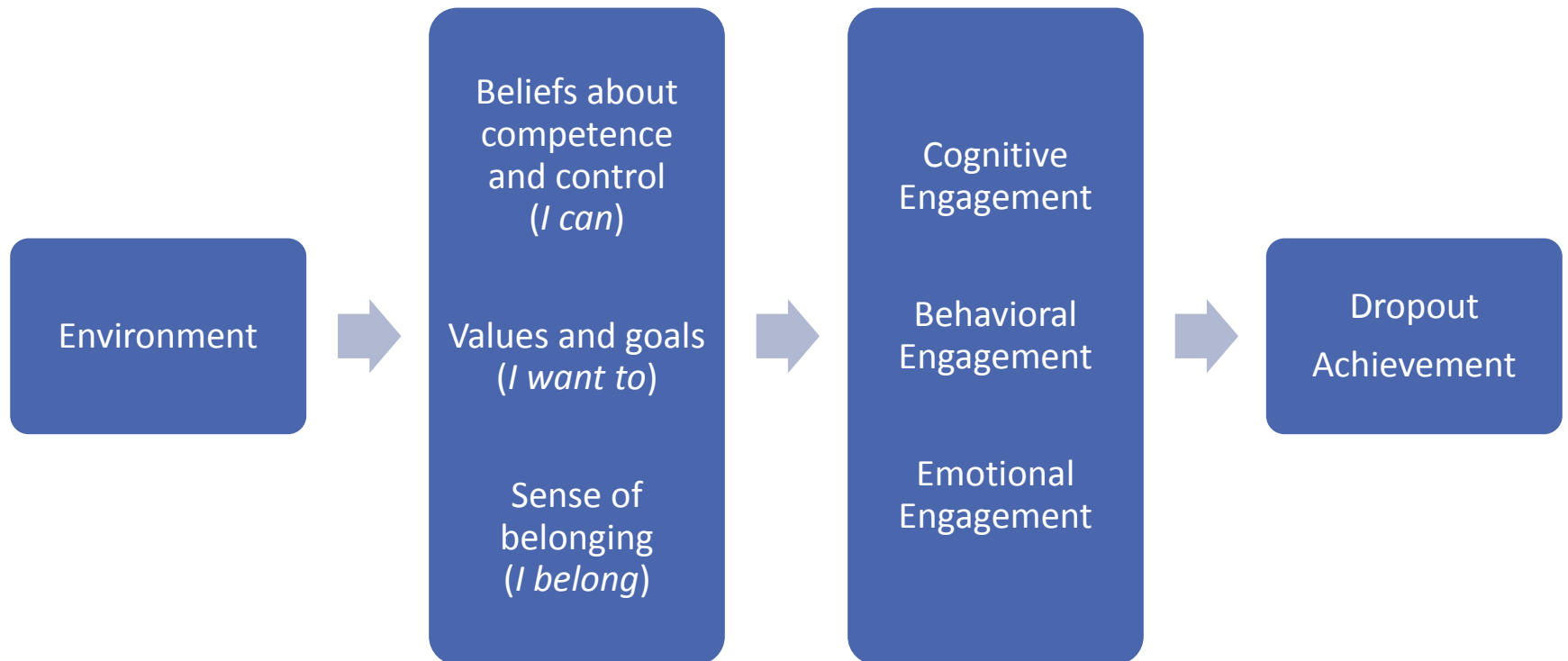
SOURCE: Preliminary analysis of data from Education Longitudinal Study: 2002

The Dropout Process



SOURCE: National Research Council, *Engaging Schools* (2005).

The Dropout Process

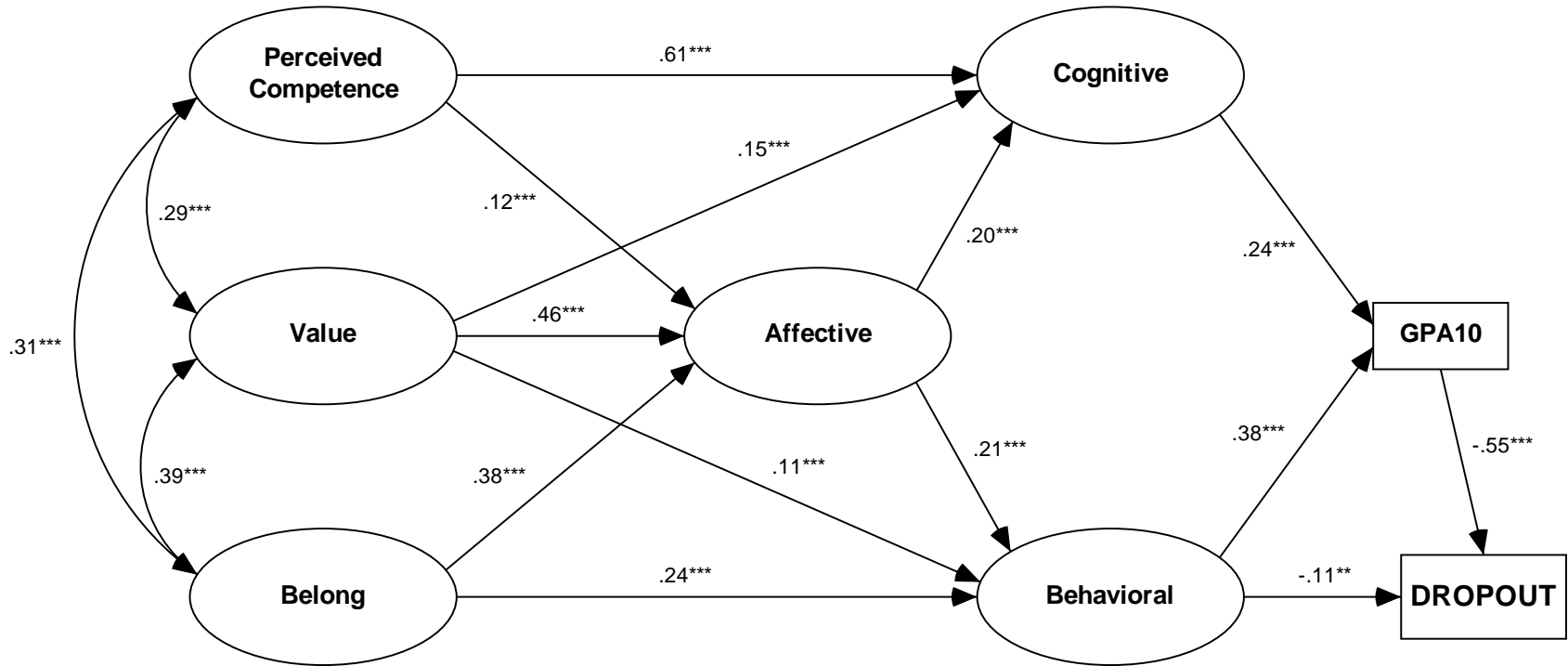


SOURCE: National Research Council, *Engaging Schools* (2005).

BELIEFS & ATTITUDES

ENGAGEMENT

ACHIEVEMENT



Chi-square = 765.308
 df = 60, p-value = .000
 CFI = .96, RMSEA = .037
 N = 8755

Rotermund, S. L. (2010). *The role of psychological antecedents and student engagement in a process model of high school dropout*. Ph.D. dissertation. Santa Barbara: University of California, Santa Barbara.

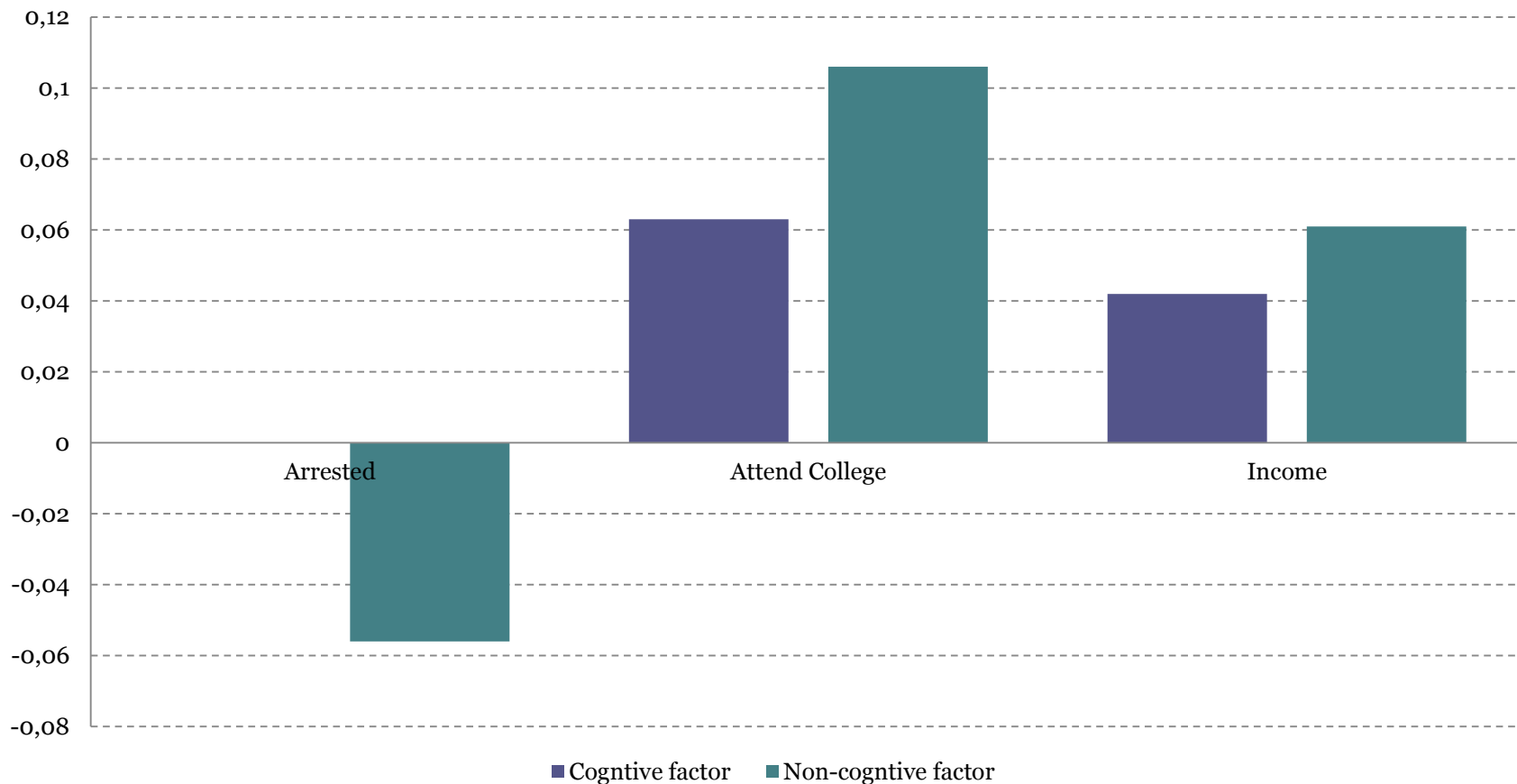
The Importance of Noncognitive Skills

Both types of skill [cognitive and noncognitive (motivation, tenacity, trustworthiness, perseverance)] are valued in the market and affect school choices... Our finding... demonstrates the folly of a psychometrically-oriented educational policy that assumes cognitive skills to be all that matter.

A more comprehensive evaluation of educational systems would account for their effects on producing the noncognitive traits that are also valued in the market.

—James Heckman, Nobel Laureate, Economics (2001)

Predictors of Adult Outcomes



SOURCE: Jackson (2013)

21st Century Competencies

Cognitive Competencies

- Cognitive processes and strategies
- Knowledge
- Creativity

Intra-Personal Competencies

- Intellectual openness
- Work ethic and conscientiousness
- Positive core self-evaluation

Inter-Personal Competencies

- Teamwork and collaboration
- Leadership

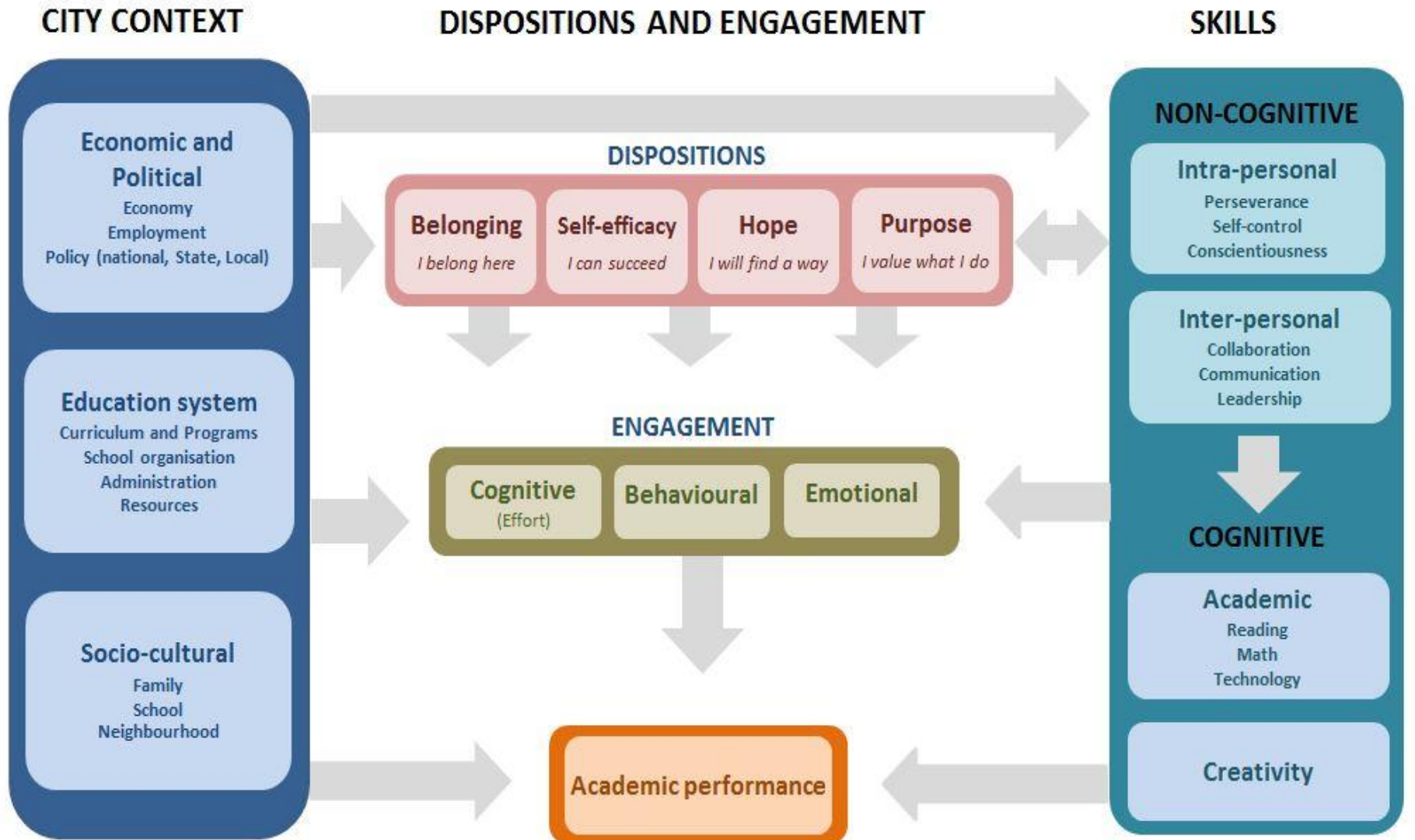
Which competencies matter?

Among interpersonal and intrapersonal competencies, conscientiousness (a tendency to be organized, responsible, and hardworking) is most highly correlated with desirable educational, career, and health outcomes (p. sum-4).

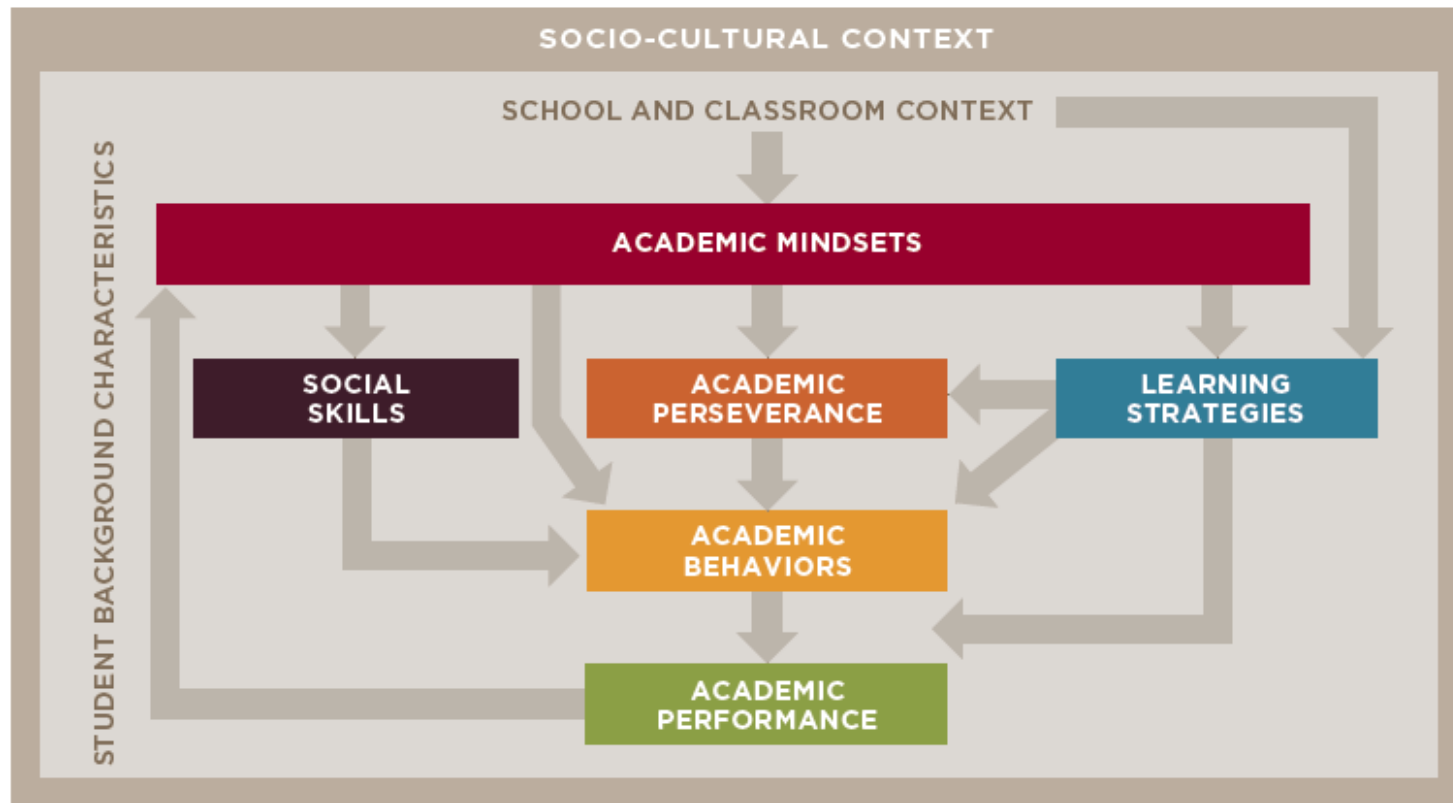
Educational attainment—the number of years a person spends in school—strongly predicts adult earnings and also predicts health and civic engagement. Moreover, individuals with higher levels of education appear to gain more knowledge and skills on the job than those with lower levels of education, and to be able, to some extent, to transfer what they learn across occupations (p. sum-4).

SOURCE: National Research Council, *Education for Life and Work: Developing Transferable Knowledge and Skills in the 21st Century* (2012).

ISCY Framework



Model of How Noncognitive Factors Affect Academic Performance



SOURCE: Farrington et al. (2012)

Educational Profile 1

Student 1:

2011-12 Grade 10		Days enrolled (DE) = 180; Days absent = 10 (5.6%) Credits earned (CE) = 60; AG credits earned = 50 GPA = 3.67	
DATE:	8/1	8/11	5/31 7/31

2012-13 Grade 11		Days enrolled = 180; Days absent = 10 (5.6%) Credits earned = 60; AG credits earned = 50 GPA = 3.33	
DATE:	8/1	8/8	5/30 7/31

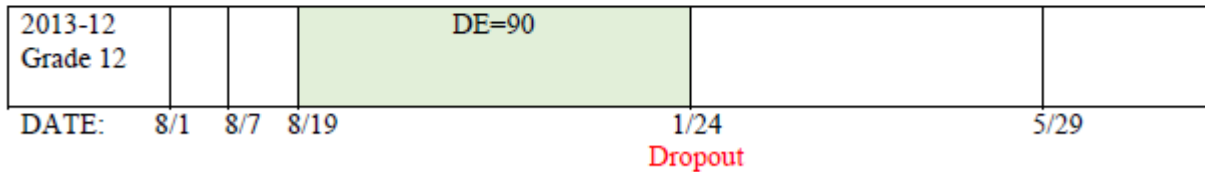
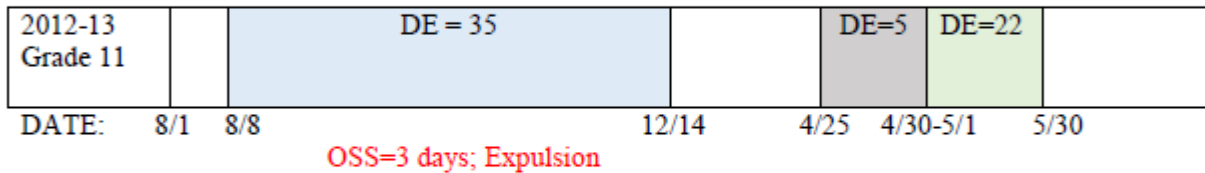
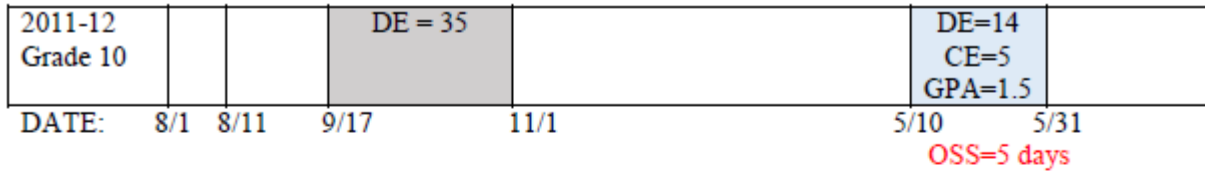
2013-12 Grade 12		Days enrolled = 180; Days absent = 10 (5.6%) Credits earned=60; AG credits earned = 50 GPA = 3.58	
DATE:	8/1	8/7	5/29 7/31

Diploma

School 1: Traditional High School

Educational Profile 2

Student 2:



School 1: Juvenile Court School	School 2: Traditional High School	School 3: County Community School
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Implications of Research Findings for Policy and Practice

Address both academic and social needs of students

Start before high school—more effective and less costly

Focus on both individual students and the institutions that support them (families, schools, communities)

Strategies for Improving High Schools

Intervention Strategies

1. Programmatic—focus on students
 - Support programs
 - Alternative programs and schools
2. Comprehensive—focus on schools
 - Comprehensive school reform
 - School/community partnerships
3. Systemic—focus on system
 - School/district capacity building
 - State policy (e.g., CCSS, LCFF, high school graduation requirements)

Programmatic Strategies

Advantages

- Easier to design, fund, implement, evaluate

Disadvantages

- Limited impact—on targeted students
- Few proven programs—What Works Clearinghouse

Examples

- Dropout prevention programs (Check & Connect)
- College preparation programs (AVID)
- Comprehensive guidance course (GFSF)
- Social-psychological interventions (Dweck--attribution)
- Tutoring and mentoring programs (BBBS)
- Instructional interventions

Comprehensive Strategies

Advantages

- Potential to impact more students
- Potential to impact multiple educational outcomes (test scores and dropout rates)

Disadvantages

- More difficult
- Few proven comprehensive school reform (CSR) models

Examples

- Career Academies, Talent Development High Schools, Linked Learning, First Things First

Systemic Strategies

Advantages

- Potential to impact all students across the system
- Potential to impact multiple educational outcomes (test scores and dropout rates)

Disadvantages

- Unclear what incentives, resources, and support are needed to improve district and state capacity

Examples

- District Partnerships (CORE, California Collaborative for School Reform)
- Research Partnerships (LAERI, SanDERA)
- Community Partnerships (Long Beach Promise, Strive Together)
- State Policy (School Improvement Grants, State Accountability System, CCSS, LCFF)

Proven Dropout Interventions

	Costs per Graduate	Benefits per Graduate	Benefit-Cost Ratio
Perry Preschool Program (pre-K)	\$90,700	\$209,100	2.31
Chicago Parent Child Centers (pre-K)	\$67,000	\$209,100	3.09
Class size reduction (15 to 1) (K-3)	\$143,600	\$209,100	1.46
Teacher salary increase (K-12)	\$82,000	\$209,100	2.55
First Things First (9-12)	\$59,100	\$209,100	3.54

SOURCE: Belfield and Levin (2007)

What Else is Needed to Improve High School Completion?

1. Redefine high school success
2. Provide incentives to educate all students
3. Build the capacity of the educational system
4. Desegregate schools
5. Strengthen families and communities

Recommendations

Redefine high school success

- Alter accountability system (e.g. College Ready Indicator System)

Provide incentives to educate all children

- Measure and reward 5-year and 6-year graduation rates
- Support and recognize dropout recovery

Develop more pathways to high school and college

- Alternative high schools (e.g. Big Picture Learning)
- High school/college schools (Early College High School)
- Three-year bachelor's degree pathway (dual enrollment, AP)

Develop, evaluate, and disseminate cost-effective student support programs

- Social-emotional programs
- College-career preparation and counseling programs
- Ninth grade basic skills classes

Recommendations

Build the capacity of the educational system

- Develop and support district partnerships and networked improvement communities
- Build inter-segmental data system (e.g., Cal-PASS Plus)
- Build local and state-level capacity to identify “evidence-based” (costs and effectiveness) programs and practices (e.g., Center for Benefit-Cost Studies in Education; Washington State Institute for Public Policy)

Desegregate schools

Strengthen families and communities

The Challenge

In some part, the difficulties and complexity of any solution derive from the premise that our society is committed to overcoming, not merely inequalities in the distribution of educational resources (classroom teachers, libraries, etc.), but inequalities in the opportunity for educational achievement. This is a task far more ambitious than has even been attempted by any society: not just to offer, in a passive way, equal access to educational resources, but to provide an educational environment that will free a child's potentialities for learning from the inequalities imposed upon him by the accident of birth into one or another home and social environment

James Coleman (1967)

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