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Postsecondary Education Transition: A Summary of the Findings From Two Literature Reviews

U.S. Department of Education

Postsecondary Education Transition: A Summary of the Findings From Two Literature Reviews

U.S. Department of Education
Office of Vocational and Adult Education

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U.S. Department of Education

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February 2010

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Abbreviations

ABE	adult basic education
<i>AEFLA</i>	<i>Adult Education and Family Literacy Act of 1998</i>
ASE	adult secondary education
EL	English literacy
GED	General Educational Development
NRCCTE	National Research Center for Career and Technical Education
OVAE	Office of Vocational and Adult Education
WWC	What Works Clearinghouse

Table

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I ask every American to commit to at least one year or more of higher education or career training.

—President Barack Obama

Why Is the Transition to Postsecondary Education So Important?

The benefits of postsecondary education are compelling. For the individual, these include jobs with higher wages and career advancement potential. For society, they include a productive workforce, increased tax revenue, and less demand for selected public services. Postsecondary education provides individuals with opportunities throughout their lifetimes to develop the knowledge and skills needed to keep the United States competitive. As President Barack Obama noted in his address to a joint session of Congress (Feb. 24, 2009):¹

In a global economy where the most valuable skill you can sell is your knowledge, a good education is no longer just a pathway to opportunity—it is a prerequisite. ... I ask every American to commit to at least one year or more of higher education or career training. This can be community college or a four-year school, vocational training or an apprenticeship. But whatever the training may be, every American will need to get more than a high school diploma.

Some segments of the United States population, however, such as adults with low literacy skills and disadvantaged youths, face barriers in making the transition into and through postsecondary education, including community college and career training, and these barriers can keep them locked in low-wage jobs.² Can transition assistance help them enter and complete postsecondary education? If so, what specific transition interventions are most effective in doing so?

To begin to address these questions, the U.S. Department of Education's Office of Vocational and Adult Education (OVAE), commissioned two literature reviews to identify studies examining the nature and effectiveness of interventions designed to ease postsecondary education transition for specific groups: (1) out-of-school youths and adults with low literacy skills and (2) disadvantaged youths, including out-of-school youths, those from economically disadvantaged families, those who underperform academically, and those with disabilities and limited English proficiency.³ This summary is one of an intended series of three publications that

¹ For the complete remarks of President Barack Obama as delivered to the joint session of Congress on Feb. 24, 2009, go to http://www.whitehouse.gov/the_press_office/remarks-of-president-barack-obama-address-to-joint-session-of-congress.

² For the purposes of this publication, the term "transition" refers to: (1) transition into postsecondary education and (2) transition through to completion of postsecondary education.

³ The literature review on transition interventions designed for disadvantaged youths was conducted by OVAE's National Center for Career and Technical Education. MPR Associates, Inc., under contract ED-04-CO-0121/001, completed the literature review on transition interventions focused on out-of-school youths and adults with low literacy skills. The transition interventions discussed in this publication and evaluated by the two literature review efforts may focus on one or more of the paths to and through postsecondary education. The criteria interventions must meet to be considered effective are described at the end of this publication (see Next Steps: A Clear Definition and Further Research).

discusses the findings of these literature reviews and their implications for future research and policy development.⁴

Although many efforts are underway to assist youths and adults with their transitions to and through postsecondary education,⁵ led by the federal government, national foundations, and other organizations, only a few are conducting, or planning to conduct rigorous evaluations of such interventions. Moreover, a review of selected literature reveals that, to date, only a small number of evaluations of transition interventions have been completed using experimental methods or other rigorous research designs, and, even so, these studies have a number of weaknesses, such as relying on a small sample size or lacking a comparison group. In the absence of rigorous evidence, it was not possible for OVAE to identify research-based effective interventions. This summary, therefore, focuses on: (1) the barriers to successful transitions to and through postsecondary education, (2) the various types of transition interventions being implemented, (3) the limited rigorous research available on transition interventions, and (4) what additional research is needed to determine which, if any, might be considered effective.

Barriers to Successful Transition

Why do disadvantaged youths and adults with low literacy skills find it especially difficult to make the transition to and through postsecondary education? According to the literature, they face a number of individual, institutional, and policy

barriers. Individual barriers may include lacking: a high school or General Educational Development (GED) diploma, adequate academic preparation, the ability to successfully balance college studies with work and family responsibilities, and knowledge of helpful resources, such as child care and financial assistance (U.S. Department of Education 2002; Kelly 2005; U.S. Department of Education 2006; Matus-Grossman et al. 2002). Institutional barriers may include inconvenient course schedules, instruction and curricula not suited for adult learners, lack of support and counseling services, and low persistence rates in remedial education, where most low-skilled adults and youths are initially placed when they first enter postsecondary education (Bailey, Jeong, and Cho 2008; Bosworth et al. 2007; Calcagno and Long 2008; Pusser et al. 2007). Policy barriers may include limits on financial aid to part-time students, state postsecondary funding formulas that promote enrollment rather than course completion, and the lack of alignment among various levels of the education and workforce development systems and other government agencies, which results in gaps and overlaps in a student's educational path (Jenkins 2008; Mazzeo et al. 2006; McSwain and Davis 2007; U.S. Department of Education 2008a).

Types of Transition Interventions

Transition interventions are designed to address the individual, institutional, and policy barriers that make transition to and through postsecondary education difficult. These interventions vary along several key dimensions, including their preparatory or supportive purposes, target groups, educational systems addressed, and components (Valentine et al. 2009). Focusing specifically on

⁴ The other two companion publications are currently in production.

⁵ Federal efforts include the following: OVAE's Transitioning English Language Learners Project; Adult Basic Education Career Connections; Ready for College: Adult Education Transition Program; Beyond the GED: Community College Career Pathways; and Adult Basic Education to Community College Transition Project. Foundations that have invested in transition programs include the Bill and Melinda Gates Foundation, Lumina Foundation for Education, Nellie Mae Education Foundation, Joyce Foundation, Ford Foundation, and Charles Stewart Mott Foundation.

Table 1. Multiple Paths to and Through Postsecondary Education and to Employment

Path Number	Postsecondary Education Transition Path
1	High school to community or technical college
2	High school to four-year college/university
3	High school to adult education programs (ABE, ASE, EL, and workplace basic skills)
4	Retention in and completion of community or technical college
5	Retention in and completion of four-year college/university
6	Adult education programs to community or technical college
7	Adult education programs to four-year college/university
8	Community or technical college to four-year college/university
9	High school to employment
10	Adult education programs to employment
11	Community or technical college to employment
12	Four-year college/university to employment
13	Employment to adult education programs
14	Employment to community or technical college
15	Employment to four-year college/university

SOURCE: Valentine et al., 2009, and modified by OVAE.

NOTES: The OVAE literature reviews of transition intervention studies focused on paths that low-skilled adults and disadvantaged youths take to and through postsecondary education. These paths are 1, 2, 4, 5, 6, 8, 9, 11, and 12. The paths shaded in gray—3, 7, 10, 13, 14, and 15—were outside the scope of the literature reviews. ABE means adult basic education; ASE means adult secondary education; and EL means English literacy.

educational systems,⁶ table 1 lists the various paths to postsecondary education, including paths from high school, adult education programs (adult basic education, adult secondary education, and English literacy),⁷ and employment. Table 1 also includes the transition through postsecondary education to completion, because merely enrolling does not necessarily constitute a successful

⁶ For the purposes of this publication, the term “educational systems” refers to the following: high school, adult education (adult basic education, adult secondary education, and English literacy), and postsecondary education (two-year and four-year postsecondary institutions).

⁷ Adult basic education provides instruction in basic skills for adults 16 and over functioning at literacy levels below the secondary level. Adult secondary education provides instruction at the high school level for adults who are seeking to pass the GED or obtain an adult high school credential. English literacy instruction is for adults who lack proficiency in English and seek to improve their literacy and competence in English.

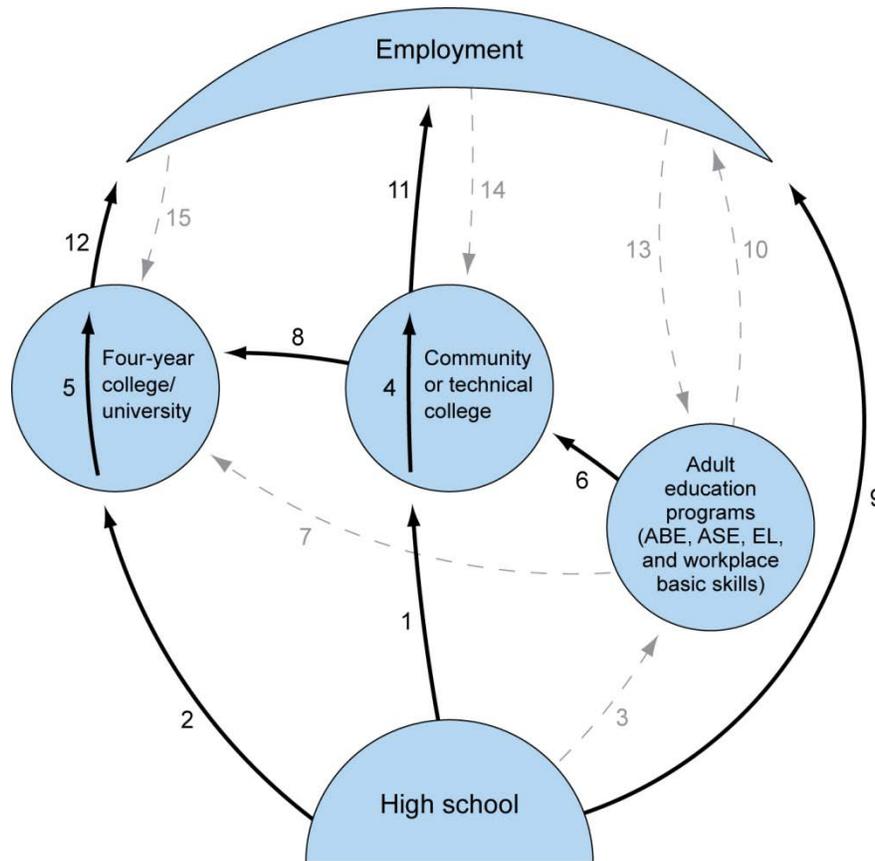
transition when many students do not persist in or complete their certificate or degree program.

OVAE’s literature reviews of transition intervention studies focused on the transition paths that low-skill adults and disadvantaged youths generally take to and through postsecondary education (see fig. 1):⁸

- High school to postsecondary education (paths 1 and 2);
- Retention in and completion of postsecondary education (paths 4 and 5);

⁸ The literature reviews did not focus on the following paths to and through postsecondary education: high school to adult education programs (path 3); adult education programs to four-year college or university (path 7); adult education to employment (path 10); and employment to adult education, community or technical college, or four-year college or university (paths 13, 14, and 15).

Figure 1. Postsecondary Transition Program Typology, With Emphasis on Paths of Literature Reviews for This Study



SOURCE: Figure from Valentine et al., 2009, and modified by OVAE.

NOTES: The figure illustrates 15 paths to and through postsecondary education as identified in Valentine et al. The solid lines represent the transition paths that were the focus of the literature reviews commissioned by OVAE. The dashed lines represent transition paths that were outside the scope of the literature reviews. ABE means adult basic education; ASE means adult secondary education; and EL means English literacy.

- Adult education program to community or technical college (path 6);
- Community college to four-year institution (path 8); and
- School (high school, community or technical college, and university) to career-related employment (paths 9, 11, and 12).

The most common transition interventions described in the studies range from small-scale interventions, such as academic advising or tutoring, to more comprehensive approaches

combining an array of services, such as bridge programs.⁹ Some bridge programs are designed to prepare low-skill adults with the basic skills needed for college-level course work. They generally employ a combination of the following interventions: competency-based curriculum; academic, technical, and cognitive skills instruction; learn-by-doing opportunities (e.g., simulations and internships) to develop academic skills and career awareness; flexible scheduling

⁹ Additional examples of transition interventions will be provided in two forthcoming companion publications.

of courses; and comprehensive support services (Jenkins 2004).¹⁰

Although many transition interventions are designed to strengthen or supplement curriculum or instruction, some are policy oriented, such as performance-based funding, which rewards programs for increasing the number of students advancing one or more educational levels in adult and postsecondary education.¹¹ Most of the interventions documented by the reviews focused on community colleges, the largest institutional provider of postsecondary education for nontraditional students.¹² All interventions were designed to address one or more of the barriers to successful transition noted above. In general, OVAE found that the literature review interventions fell into the following three categories.

- **Supportive interventions** are designed to support students as they transition to postsecondary education and complete their degrees or certificate programs. Examples include academic and financial advising, personal and career counseling, freshman orientation programs, and assistance with transportation and child care.
- **Academic preparation interventions** are designed to teach the content and skills needed to transition to and succeed in postsecondary

education. Examples include curriculum and instructional methods, such as integrated instruction, which pairs vocational instructors with adult basic or English literacy instructors, and contextualized curricula, which combine academic and vocational content.

- **Policy interventions** are designed to increase access to postsecondary education for nontraditional students. Examples include financial aid for low-income students ineligible for traditional financial aid and performance-based funding.

Searching for Evidence of Effectiveness

For the literature reviews that are the subject of this publication, there was a wide net cast in search of studies documenting the effectiveness of transition interventions that identified thousands of potential sources. When studies were screened according to criteria for inclusion in the reviews, however, only 24 studies met most of the criteria (see Criteria for Inclusion of Studies and Study Citations, at the end of this document, for a description of the inclusion criteria and list of studies). Based on these studies, the literature reviews were able to document some of the objectives, needs, and challenges involved in postsecondary transition, but there was insufficient evidence to determine which transition interventions could be considered effective or serve as models. As noted in one of the literature reviews assessed for this paper:

Perhaps the most striking finding from this systematic review is that many interventions to support transitions of public policy interest lack even one experimental evaluation, and most existing non-experimental evaluations are of undetermined inferential strength. ... The studies we did uncover

¹⁰ For more information on bridge programs, see the *Bridge Program Planning Guide* (<http://www.iwitts.com/html/083jenkins.pdf>).

¹¹ For the purposes of this paper, educational levels refer to the levels defined by a particular educational system. In the adult education system, for example, the education levels are either defined by the National Reporting System for Adult Education Programs (<http://www.nrsonline.org/reference/?chapter=2§ion=1&topic=1&subtopic=1>) or by the state. In the postsecondary education system, educational levels generally correspond with the award of credits, a degree, or other credential.

¹² Nontraditional students are defined as having one or more of the following characteristics: (1) enroll later in life, (2) attend part-time, (3) work full-time, (4) are financially independent, (5) have children, (6) are single parents, and (7) do not have a traditional high school diploma (U.S. Department of Education 2002).

provide a weak basis for public policy, since their designs tend not to be strong and lack reporting details that would allow us to assess the conditions under which and characteristics of students for whom the interventions might be effective. ... Taken together, these concerns suggest potentially serious gaps in our understanding of the effectiveness of specific program elements to support transitions (Valentine et al. 2009).

Some studies now underway likely will provide additional information on potentially successful transition practices. These include: Breaking Through (supported by the Charles Stewart Mott Foundation), a multiyear demonstration project of community college efforts to help low-literacy adults prepare for and succeed in postsecondary education; Bridges to Opportunity (supported by the Ford Foundation), which works with agencies in six states on a variety of policies and interventions to support transition; and MDRC's Opening Doors, a multiyear demonstration project that is evaluating the short- and long-term effects of a variety of interventions on student persistence in postsecondary education. The Nellie Mae Foundation also is conducting a five-year study of the educational and economic outcomes of adult students participating in the New England Adult Basic-Education-to-College Transition Project.¹³

¹³ For more information on these initiatives, visit the following Web sites: <http://www.breakingthroughcc.org> (Breaking Through), <http://www.communitycollegecentral.org/About/index.html> (Bridges to Opportunity), http://www.mdrc.org/project_31_2.html (Opening Doors), and <http://www.nmefdn.org> (Nellie Mae Foundation).

Next Steps: A Clear Definition and Further Research

DEFINING TRANSITION AND EFFECTIVENESS

A necessary step in determining what practices are effective in aiding transition is to develop a clear definition of "transition," particularly for the groups under consideration here. This step is essential to: (1) know specifically what is being evaluated and (2) be able to compare transition practices and their effects. The typology illustrated in figure 1 could serve as a useful starting point by helping researchers identify what interventions are being deployed for which education levels and toward what specific goal or outcome.

Next, "success" or the measure of an intervention's effectiveness needs to be defined. This depends on the goal of the transition intervention. Labeling an intervention as "successful" or "effective" also depends on the evidence considered acceptable to support that designation. For example, the What Works Clearinghouse (WWC), of the U.S. Department of Education's Institute of Education Sciences, specifies that studies documenting strong evidence of effectiveness must include randomized controlled trials that clearly describe the intervention and methodology, provide short- and long-term outcome data for both intervention and control groups using valid measures, be replicated with similar results at more than one site, and report effect sizes according to specified levels of statistical significance (U.S. Department of Education 2008b).¹⁴

In the absence of research meeting this high standard, however, policymakers often seek

¹⁴ To view or download the *What Works Clearinghouse Procedures and Standards Handbook*, go to <http://ies.ed.gov/ncee/wwc/references/docviewer/doc.aspx?docid=19&tocid=1>.

information about “promising practices,” those appearing potentially effective but lacking rigorous supporting evidence. The Promising Practices Network defines as “promising” a practice that shows a change in outcome of more than 1 percent, is at least marginally significant (“marginally” meaning at the 10 percent level), and has a comparison group and a sample size of more than 10 for both treatment and comparison groups, among several other criteria (RAND Corporation 2009).¹⁵ The National Research Center for Career and Technical Education offers this definition of promising practices: “Methods, techniques, programs, or strategies that are considered highly successful by practitioners and for which evaluation evidence is available indicating that such strategies will likely produce better student outcomes relative to current practice” (Stone 2007). Though a less stringent standard, these criteria could be used to help researchers identify promising transition practices that would benefit from further, more rigorous study.

THE NEED FOR BETTER EVIDENCE

If public policy and funds are to be devoted to promoting transition interventions, additional information about what works is essential. As the literature reviews demonstrate, rigorous research on transition is lacking. Future studies should:

- Clearly identify the purpose, components, target group, and expected outcomes for the transition intervention.
- Employ rigorous methodologies, such as longitudinal tracking of students based on student unit record data and experimental or quasi-experimental research methods.
- Examine specific components of transition interventions, as well as combinations of components, to determine which are most effective.
- Investigate outcomes relevant to policy, including student achievement and persistence, as well as rates of completion and employment.

Such research can begin to provide practitioners with information about useful strategies and enable program administrators and policymakers to make sound decisions about how best to deploy resources to support postsecondary education transitions.

¹⁵ To learn more about the Promising Practices Network’s promising practice criteria, go to <http://www.promisingpractices.net/criteria.asp>.

Appendix: Criteria for the Inclusion of Studies and Study Citations

Studies on Transition Intervention for Disadvantaged Youths

To be included in the literature review on transition interventions designed for disadvantaged youths, studies needed to meet the following criteria: (1) have a sample of students meeting the definition of “disadvantaged” as used in several federal laws (e.g., *Carl D. Perkins Career and Technical Education Act of 2006*); (2) describe a formal program or intervention addressing transition from secondary education to college or employment; (3) employ a rigorous methodology (i.e., random assignment); and (4) provide a quantitative evaluation of program effects. Citations of studies meeting these criteria follow.

Abadie, Margo. 1998. Comparison of Students Enrolled in an Alternative Academic Program with Regularly Enrolled Students in a Research I University (Ph.D. diss.). Louisiana State University. Source: ProQuest Dissertation and Thesis Database.

Alderman, Lee V. 1998. Student Support Services and Their Impact on Persistence of First-Year Students at a Rural Community College. (Ph.D. diss.). University of Kansas. Source: ProQuest Dissertation and Thesis Database.

Clark, J. Milton, and Diane F. Halpern. 1993. “The Million Dollar Question: Can an Intensive Learning Experience Help Lowest-Quartile Students Succeed in College?” *Journal of Instructional Psychology*, 20 (1): 29–39.

Cohen Goodman, M. 1998. The Effect of Journal Writing on the Reading Comprehension, Study Habits and Attitude of Underprepared College Students. (Ph.D. diss.) Source: ProQuest Dissertation and Thesis Database.

Cone, Al L. 1991. “Sophomore Academic Retention Associated with a Freshman Study Skills and College Adjustment Course.” *Psychological Reports*, 69: 312–314.

Cox, Frances W. 2002. The Relationship of Study Skills and Mathematics Anxiety to Success in Mathematics Among Community College Students. (Ph.D. diss.). Delta State University. Source: ProQuest Dissertation and Thesis Database.

Dees, Roberta L. 1991. “The Role of Cooperative Learning in Increasing Problem-Solving Ability in a College Remedial Course.” *Journal for Research in Mathematics Education*, 22: 409–421.

Esterbrook, Richard L. 2006. Introducing Russian Neuro-Linguistic Programming Behavior Modification Techniques to Enhance Learning and Coping Skills for High-Risk Students in Community Colleges: An Initial Investigation. (Ph.D. diss.). George Mason University. Source: ProQuest Dissertation and Thesis Database.

Fry, Mary K. 2007. The Relationship of Admission Type and Freshman Seminar Participation to Retention and Academic Success. (Ph.D. diss.). Northern Arizona University. Source: ProQuest Dissertation and Thesis Database.

- Hecker, Matthew J. 1995. Assessing the Effectiveness of a Developmental Educational Program Using GPA Attainment, Student Retention, and Student Involvement as Measurement Variables. (Ph.D. diss.). University of Northern Colorado. Source: ProQuest Dissertation and Thesis Database.
- House, J. Daniel, and Victoria Wohlt. 1991. "Effect of Tutoring on Voluntary School Withdrawal of Academically Underprepared Minority Students." *Journal of School Psychology*, 29 (2): 135–142.
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- Milligan, Jerilee H. 2007. The Efficacy of a Strengths-Based Study Skills and Strategies Program for Students on Academic Probation. (Ph.D. diss.). Texas A&M University-Corpus Christi. Source: ProQuest Dissertation and Thesis Database.
- Salinitri, Geri. 2005. "The Effects of Formal Mentoring on the Retention Rates for First-Year, Low Achieving Students." *Canadian Journal of Education*, 28: 853–873.
- Sanders, Elizabeth A. 2000. Project S.T.A.R.S.: A Program Evaluation of a Freshman Peer Support Retention Program. (Ph.D. diss.). Loyola University of Chicago. Source: ProQuest Dissertation and Thesis Database.
- Stovall, Martina L. 1999. Relationships Between Participation in a Community College Success Course and Academic Performance and Persistence. (Ph.D. diss.). University of Illinois at Urbana-Champaign. Source: ProQuest Dissertation and Thesis Database.

Studies on Transition Interventions for Out-of-School Youths and Adults With Low-literacy Skills

To be included in the literature review on transition interventions designed for out-of-school youths and adults with low literacy skills, studies needed to meet the following criteria: (1) pertain to adult education students as the term “adult education” is defined in Sec. 203(1) of the *Adult Education and Family Literacy Act of 1998 (AEFLA)*; (2) describe a formal program or intervention; (3) address transition to postsecondary education; (4) have been published within the last five years; and (5) employ rigorous methodology (i.e., random assignment). Citations of studies meeting these criteria follow.

Bragg, Debra, and Elisabeth Barnett.

Forthcoming. *High Leverage Strategies for Low-Skilled Adult Learners: Lessons for Higher Education from the Mott Foundation’s “Breaking Through” Initiative*. Boston: Jobs for the Future.

Bragg, Debra, Christine Bremer, Marisa Castellano, Catherine Kirby, Ann Mavis, Donna Schaad, and Judith Sunderman. 2007. *A Cross-Case Analysis of Career Pathway Programs that Link Low-Skilled Adults to Family-Sustaining Wage Careers*. St. Paul, MN: National Research Center for Career and Technical Education, University of Minnesota.

Richburg-Hayes, Lashawn, Thomas Brock, Allen LeBlanc, Christina Paxson, Cecilia Elena Rouse, and Lisa Barrow. 2009. *Rewarding Persistence: Effects of a Performance-Based Scholarship Program for Low-Income Parents*. New York: MDRC.

Scrivener, Susan, Dan Bloom, Allen LeBlanc, Christina Paxson, Cecilia Elena Rouse, and Colleen Sommo. 2008. *A Good Start: Two-Year Effects of Freshmen Learning Community Program at Kingsborough Community College*. New York: MDRC.

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