

MDRC Working Paper

**Helping Low-Wage Workers Persist in
Education Programs**

**Lessons from Research on Welfare Training
Programs and Two Promising Community
College Strategies**

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Abstract

Employment has long been held to be an important deterrent against poverty, and work is a core component of a range of federal efforts to improve the economic well-being of low-income families. However, recent trends in earnings and research both confirm that work alone is not sufficient to prevent poverty. While there is compelling evidence that additional years of schooling and advanced education credentials are associated with higher earnings, evaluations of education and basic skills training programs have yielded mixed results concerning their ability to increase earnings among low-income populations. This paper summarizes what is known from evaluations about the effectiveness of education acquisition to advance the earnings and careers of low-wage workers. The paper then discusses two popular community college strategies intended to increase academic success among this population: enhanced student services and performance-based scholarships. Recent research about performance-based scholarships suggests that they can have a large, positive effect on academic achievement among a predominately female, single-parent student population that faces multiple barriers to completing college.

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The Policy Context

Employment has long been held to be an important deterrent against poverty, and work is a core component of a range of federal efforts to improve the economic well-being of low-income families. However, full-time and/or stable work alone is not sufficient to alleviate poverty: more than half of the families with children with incomes below 200 percent of the federal poverty line (a standard commonly used to define low income) have at least one full-time, year-round worker, implying that low wages are a problem for many. One study that followed prime-age workers who earned less than \$12,000 per year for three consecutive years found that most of these low earners enjoyed earnings growth in subsequent years, but only about a fourth consistently earned over \$15,000 per year at the end of the period — a figure that still placed them firmly in poverty (Anderson, Holzer, and Lane, 2005).

While there is some debate about the relative importance of such factors as globalization, technological change, declining union membership, and immigration on the labor market, most experts agree that the dominant labor market trends have been quite unfavorable to less-skilled workers. One of the clearest detrimental trends is that real wages have risen much more for workers with greater education, resulting in a growing disparity in hourly wages between workers with and without postsecondary education. For example, between 1979 and 2005, real hourly wages for people with advanced degrees rose by 28 percent, wages for college graduates rose by 22 percent, wages for high school graduates remained stagnant, and wages for high school dropouts fell by 16 percent (Mishel, Bernstein, and Allegretto, 2007). This is particularly damaging for low-income workers with children since less than a third of them have more than a high school degree and about a third are high school dropouts (Acs and Nichols, 2007).

This paper summarizes what is known from welfare reform evaluations about the effectiveness of education acquisition to advance the earnings and careers of low-wage workers. The paper then reviews several popular community college strategies intended to increase academic success among low-wage workers and discusses the impacts for two such strategies in detail. Finally, the paper concludes with a discussion of future research to advance knowledge of what works for this population.

What Is Known About Education Acquisition Among Low-Wage Workers

There is compelling evidence that additional years of schooling and advanced education credentials are associated with higher earnings. Individuals who complete an associate's degree or certificate program earn more than those with a high school diploma or General Educational

Development (GED) certificate (Grubb and Associates, 1999), and those obtaining about a year of college study appear to reap increased earnings (although not as much as with the completion of a degree) (Kane and Rouse, 1995; Grubb and Associates, 1999).

Yet evaluations of education and basic skills training programs have yielded mixed results concerning their ability to increase earnings. The most reliable findings are in the welfare context, where the most experimental evaluations have been conducted. For example, the National Evaluation of Welfare-to-Work Strategies — a random assignment demonstration — found that “education-first” programs that required people to participate initially in education or training (typically, remedial reading and math, GED exam preparation, or English as a Second Language classes) did not increase the likelihood of participants becoming employed in “good” jobs or produce more earnings growth when compared with “job search-first” programs that emphasized getting people into jobs as quickly as possible (Hamilton, 2002). However, the program that had the largest effect on stable employment and earnings growth in this study was one that allowed some individuals to participate in short-term training or education before they searched for work. Nevertheless, in most cases, recipients dropped out of education programs quickly.

One site in the Employment Retention and Advancement demonstration, another random assignment study, is currently testing two strategies for promoting participation in education and training among welfare recipients who are employed. Thus far, the results show that neither approach has been able to induce many people to enroll in education or training who would not have enrolled on their own (Navarro, Freedman, and Hamilton, forthcoming). New Visions, a community college bridge program that sought to increase the job retention and advancement of welfare recipients in California, also had difficulty increasing college enrollment above the levels of the control group and ensuring persistence among the enrolled recipients. After a two-and-a-half year period, the program resulted in slightly higher college-going (6 percentage points) but reduced total earnings (about \$2,300) among participants relative to a control group that attended other employment and training services (Fein and Beecroft, 2006).

Other studies of voluntary education and training programs outside the welfare system have shown similarly mixed results. The National Job Training Partnership Act evaluation found some modest earnings impacts for adult women, with on-the-job training producing larger gains than classroom training (Orr et al., 1996). Similarly, a meta-analysis of studies of voluntary training programs found larger effects for women than for men or youth, particularly for classroom skills training, on-the-job training, and mixed classroom and workplace training (Greenberg, Michalopoulos, and Robins, 2003). Another project that tested voluntary training, the Minority Female Single Parent Project, found positive results at one of four sites, the Center for Employment Training (CET), which was known for integrating vocational and basic skills instruction and maintaining tight links to employers (Burghardt et al., 1992). However, an

evaluation of a multisite replication of CET's model found few positive effects (Miller et al., 2005).

In sum, while the link between skills and wages suggests education and skills training may offer the best hope for substantial wage growth, encouraging people to enroll in education and training, to persist in it, and to complete it may be a key challenge. Further, to operationalize the linkage between education and advancement for low-wage workers, several barriers to higher education will need to be addressed: access to postsecondary education, affordability, and academic success (McSwain and Davis, 2007; Clymer, Roberts, and Strawn, 2001). Of all higher education institutions, community colleges may be best situated to address the diverse barriers of low-wage workers (Kazis et al., 2007).

The Role of Community Colleges

Community colleges play a critical role in American higher education. According to the U.S. Department of Education, nearly half of all students who begin postsecondary education start at a community college (U.S. Department of Education, 2002). Because they have open admissions policies and relatively low tuition and fees, community colleges are particularly important to the millions of adults who lack academic preparation or may be unable to afford college. In addition, their flexible schedules and long history as sponsors of employment and training programs targeting both disadvantaged populations and local industries make them a key player in the development of a more-skilled workforce (Melendez et al., 2004).

Despite the accessibility and relative affordability of community colleges, however, many students who begin programs at these institutions end their formal education prematurely. One study of adult undergraduates who were employed found that 62 percent of students who considered themselves workers first (and students second) had not completed a certificate or degree after six years and were no longer enrolled, compared with 39 percent of adults who described themselves as students first (and who were working only to cover minor expenses) (Berker, Horn, and Carroll, 2003). Longitudinal studies of postsecondary student populations indicate that 46 percent of those who begin at community colleges do not complete a degree or enroll elsewhere within a six-year timeframe (U.S. Department of Education, 2002). Clearly, persistence and retention are not issues isolated to low-wage workers. However, characteristics of low-wage jobs (including a lack of paid leave, inflexible work hours, and unpredictable hours or shift work) in addition to the limited financial aid available for independent persons with dependents, academic under-preparedness, and family obligations all contribute to low enrollment and completion rates for low-wage workers (Levin-Epstein, 2007; Matus-Grossman & Gooden, 2001; Golonka and Matus-Grossman, 2001).

In recent years, several notable programs have been designed at community colleges to serve the unique needs of low-wage workers. For example, the New Visions program discussed above was designed and operated by Riverside Community College and Riverside County's Department of Public Social Services to build on earlier welfare reform approaches that resulted in increased employment and earnings. As noted earlier, this program did not meet its intended goals, perhaps because the intervention was less beneficial than other education and training programs available. Another example is the ACCESS program at Hamilton College in New York, which serves welfare-eligible single mothers. This program has reported student retention levels in excess of 90 percent and completion rates comparable to rates of the college's traditional students — even though the single-mother participants were all working as well (Adair, 2003). Findings from the Parents as Scholars program in Maine suggest that the program increased wages among welfare-eligible students who graduated (Butler, Deprez, and Smith, 2003). There are similar findings from other programs in Boston and California (Polakow, Butler, Deprez, and Kahn, 2004). While these findings suggest that targeted programs with wrap-around services can work, most of these programs were very small and not rigorously evaluated, so one should not apply a causal interpretation to the positive associations.

Two Strategies to Improve Persistence and Retention

MDRC launched the Opening Doors demonstration to learn how community colleges can implement reforms that may help greater numbers of students achieve their academic and career goals and that may lead to longer-term success in the labor market and in life (Brock and LeBlanc, 2005). Specifically, the demonstration is examining the effects of various interventions that represent enhancements to community college teaching, student services, and financial aid on student persistence and other outcomes, including degree attainment, labor market experiences, and personal and social well-being. Opening Doors is measuring the effects of these interventions by randomly assigning students to either a program group that receives the enhanced services or to a comparison group that receives the standard services offered by the college. By comparing the experiences of both groups over a period of several years, MDRC is able to measure the difference, or impact, that the interventions make in students' lives, both in the short and long term. In sum, the experimental design ensures that differences can be attributed to the interventions themselves, effectively eliminating alternative explanations.

The Opening Doors project is evaluating four strategies, two of which are widely implemented in community colleges, that are intended to increase student success and retention: learning communities, enhanced counseling with a small scholarship, incentive-based scholarships, and enhanced student services. Table 1 provides a summary of the interventions and the target populations. The evaluations of the enhanced student services and the incentive scholar

Table 1
Opening Doors Interventions and Students' Eligibility Determinants,
by Community College

	Kingsborough (NY)	Lorain County and Owens (OH)	Delgado and Louisiana Tech- nical – West Jef- ferson (LA)	Chaffey College (CA)
<u>Intervention</u>	Learning Com- munities and a Book Voucher: Groups of students assigned to take three linked credit courses together; students received enhanced advising and tutoring and vouchers to pay for textbooks.	Enhanced Stu- dent Services and a Modest Schol- arship: Students assigned to a dedi- cated adviser with whom they had to meet frequently; students eligible for \$150 scholar- ship for each of two semesters after meetings with adviser.	Incentive Schol- arship: Students eligible for \$1,000 scholarship for each of two se- mesters; scholar- ship tied to main- taining at least half-time enroll- ment and a grade point average of 2.0 (C).	College Survival Skills and En- hanced Student Services: Students assigned to a two- semester guidance course that pro- vided instructional support as well as advising; students required to visit the college's Suc- cess Centers for extra academic support.
<u>Eligibility Criteria</u>				
Age	17-34	18-34	18-34	18-34
Household Income	Not screened. ^a	Below 250 percent of federal poverty level.	Below 200 percent of federal poverty level.	Below 250 percent of federal poverty level.
Other	Only new fresh- men. English as a Second Language (ESL) students are excluded.	Continuing stu- dents must not have completed more than 12 cred- its; must have shown indications of academic diffi- culty (determined by low grades or withdrawal from courses).	Must be a parent of at least one dependent under age 19. Must have a high school di- ploma or GED and have passed a col- lege entrance exam. Must not have an occupa- tional certificate or college degree.	Only continuing students; students must be on proba- tion due to grade point average be- low 2.0 or com- pleting less than half of attempted credits.

NOTES: ^aThe majority of students enrolled at Kingsborough Community College were low income, so the Opening Doors study did not impose additional income screening. See Bloom and Sommo (2005), Richburg-Hayes, Visser, and Bloom (2008), and Scrivener et al. (forthcoming) for more information on the Opening Doors program at Kingsborough Community College.

ship are particularly relevant to this discussion because the program participants were largely low-wage workers. Findings from these two interventions are discussed in more detail below.

Enhanced Student Services

The Opening Doors project at Lorain Community College and Owens Community College in Ohio targeted new and continuing students who had completed fewer than 13 credits.⁴ The linchpin of the program was an adviser with whom students were expected to meet at least once a month for two semesters to discuss academic progress and any issues that may be affecting their schooling. The advisers carried a caseload of no more than 125 students, which stood in sharp contrast to the academic advising services available to students in the comparison group, where the ratio of counseling staff to students was about 1 to 1,000. In addition, designated staff members from other student services departments — including financial aid and career services — functioned as a team so that at least one staff member from each department served as a point person for the Opening Doors program. While students in the comparison group could access these same departments, such contact would have generally been made on their own initiative rather than through a direct referral. Finally, students in the Opening Doors group were given a \$150 scholarship for each of two consecutive semesters that they could use for any purpose. The scholarship payments were approved by the academic adviser and were made at the beginning and middle of the semester as a way of making sure that students stayed in contact with the adviser. Students in the comparison group did not receive these scholarships.

Even though academic guidance and counseling may arguably be the most important student service, most students receive minimal help. Nationally, the average community college employs one adviser for approximately every 1,000 students (Grubb, 2001). While colleges differ in how their advisers deliver services and in what topics they cover in advising sessions, the necessity of working with many students tends to drive them toward a traditional problem-solving approach in which a student presents an issue and the adviser offers a quick response. The National Academic Advising Association urges community colleges and four-year colleges and universities to provide sufficient staffing, so that students and advisers can have ongoing, interactive relationships, and to adopt a developmental approach whereby advisers help students clarify personal goals and objectives, rather than simply approving their choice of courses (Gordon, Habley, and Associates, 2000). Research suggests that this is even more important for low-wage workers, who may need more help than their younger counterparts in navigating their way to a credential (Kazis et al., 2007).

⁴See Scrivener and Au (2007) and Scrivener and Pih (2007) for more detail on the study at Lorain County Community College and Owens Community College, respectively.

Incentive Scholarships

The Opening Doors project at Delgado Community College and the Louisiana Technical College-West Jefferson campus in Louisiana offered a \$1,000 scholarship for each of two semesters (for a total of up to \$2,000) to parents with children under age 18 whose family incomes were below 200 percent of the federal poverty level.⁵ The scholarships were tied to academic performance: each semester, an initial payment of \$250 was made after students enrolled at least half time; a second payment of \$250 was made after midterms for students who remained enrolled at least half time and earned at least a C average; and a final payment of \$500 was made after students passed all their courses. The scholarship was paid in addition to any other financial aid students were already receiving. Each student was assigned to a counselor who monitored the student's grades, arranged tutoring or other help as needed, and approved scholarship disbursements.

This intervention was developed in response to focus groups with low-income parents who were attending or wanted to attend community college and to interest among Louisiana state officials in a financial incentive plan, similar to those implemented to move welfare recipients into employment (Brock and Richburg-Hayes, 2006). Many of the focus group students worried about the cost of tuition, books, and child care (Matus-Grossman et al., 2002). While most students in the focus groups may have qualified for the federal Pell Grant program — the primary need-based financial aid program for college students in the United States — and for loan programs, worries about how to pay for college inevitably led some students to reduce their hours of attendance (thereby increasing the time it takes to earn a degree) or to drop out altogether. Given the high cost of attending college, many Pell Grant recipients have a significant amount of unmet need, especially those recipients who are independent and working (Mercer, 2005). The incentive-based scholarship was intended to meet some of those needs, while being accessible to large group typically missed by scholarship programs.

Findings on the Two Types of Interventions

Table 2 presents some background characteristics of the students in the Opening Doors studies of enhanced student services (Owens and Lorain) and incentive scholarships (Delgado and Louisiana Technical-West Jefferson). The table shows that the samples consisted largely of women and older adults, which mirrors the national community college population, since adults over the age of 24 comprise close to 45 percent of all enrollments (Berker, Horn, and Carroll, 2003). A large proportion of the sample were parents and low-wage workers at the point of random assignment, with more than half of the students who worked earning about \$8.00 per hour

⁵Although the scholarships were paid for with Temporary Assistance for Needy Families funds, students did not need to be receiving welfare benefits to be eligible for the program.

Table 2
Characteristics of Community College
Sample Members at Baseline in the Opening Doors Project

	Owens Community College (OH)	Lorain County Community College (OH)	Delgado Community College (LA)	Louisiana Technical - West Jefferson (LA)
Male (%)	28.1	20.5	5.5	15.8
Age (%)				
18-20 years old	38.0	16.1	19.8	10.4
21-25 years old	32.4	39.6	37.6	28.2
26-30 years old	19.5	27.9	29.1	35.1
31 and older	10.2	16.4	13.5	26.2
Average age (years)	23.3	25.4	24.9	27.0
Number of children (%)				
None	48.7	17.8	--	--
One	24.4	36.7	53.9	38.8
Two	15.3	24.1	26.3	30.8
Three or more	11.6	21.4	19.8	30.3
Among sample members with children:				
Average age of youngest child (years)	3.0	3.3	3.0	3.6
Financially dependent on parents (%)	23.4	10.3	17.9	14.4
Currently employed (%)	57.1	54.0	51.4	52.5
<i>Among those currently employed:</i>				
<i>Number of hours worked per week in current job (%)</i>				
1-10 hours	5.1	4.6	4.8	4.9
11-20 hours	22.7	21.9	16.8	15.5
21-30 hours	29.4	26.9	25.6	20.4
31-40 hours	32.6	33.1	47.0	51.5
More than 40 hours	10.2	13.6	5.8	7.8
Average hourly wage at current job (\$)	8.1	8.6	8.0	7.1
Highest grade completed (%)				
8th grade or lower	1.3	1.1	0.6	1.5
9th grade	3.3	4.6	3.2	1.5
10th grade	5.0	6.7	4.9	4.5
11th grade	6.6	12.2	7.6	5.5
12th grade	83.8	75.5	83.7	87.1
Date of high school graduation/GED receipt (%)				
During the past year	27.8	13.5	11.7	6.8
Between one and five years ago	32.8	30.8	33.7	23.4
Between five and ten years ago	23.9	29.5	33.7	31.3
More than ten years ago	15.5	26.2	20.9	38.5
Main reason for enrolling in college (%)				
To complete a certificate program	8.9	11.1	10.8	24.5
To obtain an associate's degree	44.0	55.7	60.4	39.5
To transfer to a 4-yr college/university	27.5	20.7	17.9	6.0
To obtain/update job skills	14.3	9.8	9.7	28.0
Other	8.4	4.8	5.7	7.5
Sample size	1,241	477	817	202

SOURCE: MDRC calculations using data from a baseline information survey.

NOTES: Characteristics shown in italics are calculated for a proportion of the full sample. Distributions may not add to 100 percent because of rounding or because categories are not mutually exclusive.

— in fact, more than 80 percent worked at least half time in the preceding 12 months (not shown). Again, this is similar to the population of community college students nationally, as close to 80 percent balance their studies with full-time or part-time work (Phillippe and Patton, 2000). Most of the students in the samples were financially independent, and more than half received their high school diploma or GED five or more years prior to the study. In short, the sample may be representative of the pool of low-wage workers discussed at the beginning of this paper.

Table 3 shows selected impacts for each intervention during the first three semesters since random assignment. Each entry shows the difference in outcomes, or the impact, between the treatment group and the control group. (The outcomes from the control groups represent what would have happened in the absence of the interventions.) The asterisks show the statistical significance of the differences between the two groups. In other words, the stars indicate that the difference was a result of the program.

The first panel shows outcomes in the first Opening Doors semester. The first row shows no difference in registration rates in any of the samples. This result is expected given that random assignment was conducted for those students who had already matriculated at the college or showed considerable interest in enrolling. While there are no differences in the remaining outcomes for the enhanced student services intervention, the performance-based scholarship intervention resulted in treatment group students passing slightly more courses (0.4 of a course), earning more total credits (1.1 more), and withdrawing from courses at lower rates (6.9 percentage points lower).

The second panel shows academic performance for the second Opening Doors semester. Encouragingly, the programs had a positive effect on student retention in two of the three studies. While the proportion registering in college in the second semester dropped somewhat compared with the first semester figures among both Opening Doors students and the control group (not shown), the Opening Doors program results in a 5.6 percentage point increase in registrants at Owens Community College and a 18.2 percentage point increase in the two Louisiana schools. This latter result is quite large, and effects of this magnitude are seldom seen in program evaluations that use rigorous random assignment designs. In addition to registration gains, Opening Doors students are more likely than their control group counterparts to attempt more courses (and thus register for more credits) and earn more developmental credits in one Ohio site and in the Louisiana sites. In Louisiana, Opening Doors students also passed more courses and earned more regular credits (the latter outcome is not shown in table).

The third panel shows a few results from the first post-program semester, or the first semester that the intervention was not in place. The first two columns show small, in-

Table 3
Impacts on Academic Performance During the First Three Semesters
Since Random Assignment in Selected Opening Doors Sites

	Owens Community College (OH)	Lorain County Community College (OH)	Delgado and Louisiana Technical West Jefferson
<u>First Opening Doors semester</u>			
Registered for any courses (%)	0.7	1.7	4.5
Number of courses attempted	0.1	0.0	0.2
Number of courses passed	0.1	0.1	0.4 ***
Total credits registered (regular + developmental)	0.3	0.2	0.4
Total credits earned (regular + developmental)	0.3	0.2	1.1 ***
Developmental credits earned	0.2	0.3	0.2
Withdrew from 1 or more courses (%)	3.5	6.4	-6.9 *
<u>Second Opening Doors semester</u>			
Registered for any courses (%)	5.6 **	10.5	18.2 ***
Number of courses attempted	0.2 **	0.4	0.5 ***
Number of courses passed	0.1	0.2	0.4 ***
Total credits registered (regular + developmental)	0.7 **	1.4	1.4 ***
Total credits earned (regular + developmental)	0.4	0.7	1.2 ***
Developmental credits earned	0.2 *	0.3	0.4 ***
Withdrew from 1 or more courses (%)	3.8 **	5.3	4.3
<u>First post-program semester</u>			
Registered for any courses (%)	3.2	3.6	11.2 ***
Number of courses attempted	0.2	0.1	0.5 ***
Total credits registered (regular + developmental)	0.5	0.4	1.4 ***
<u>Summary outcomes</u>			
Total number of semesters enrolled	0.1	0.3 **	0.3 ***
Total credits earned (regular + developmental)	0.7	1.1	3.3 ***
Sample size	1,241	478	537

SOURCES: MDRC calculations from college transcript data.

NOTES: Data for the Ohio sites uses all observations. Data from the Louisiana sites consist of the two earliest cohorts, which represents 53 percent of the full sample of 1,019 students. Each column entry represents the regression-adjusted difference in treatment and control means for the specified outcome. A two-tailed t-test was applied to differences between the research groups. Statistical significance levels are indicated as *** = 1 percent, ** = 5 percent, and * = 10 percent.

significant impacts, which indicate that the outcomes for the treatment group largely mirrors those for the control group. In contrast, the last column shows continued effects for the incentive scholarship intervention.

Overall, the interventions seem to have affected outcomes related to academic success in the semesters in which they operated. With the exception of the performance-based scholarship, the impacts appear to fade after the program ends. Nevertheless, there may be delayed effects in subsequent semesters, and future work will examine these outcomes in addition to others that may be affected by education acquisition in the longer term, such as social and psychological outcomes, health behaviors, and labor market outcomes.

Implications for Future Work

In light of the long-term labor market trends that have resulted in stagnant wage growth for those in the lowest quintile of the income distribution, it appears that most low-wage workers will need to increase their skill levels in order to raise their earnings substantially. While results from previous studies of education and training programs for adults have been mixed at best, several new strategies emerging in the field offer the possibility of better results. For example, there are several promising efforts to provide employer-focused training to low-wage earners that, in some cases, operate on a large scale (Martinson, 2007). These include incumbent worker training programs (state grants to businesses to collaborate with training providers to train existing workers) and sectoral initiatives (providing training to a cluster of employers in one segment of the labor market).

While it is far too early to conclude that the Opening Doors performance-based scholarship program in Louisiana is an unequivocal success, the early impacts are large, suggesting that the approach may represent another promising strategy. For example, the third-semester retention impact of 11.2 percentage points is larger than most nonexperimental analyses of other scholarship programs would have predicted.⁶ Clearly, the Louisiana results suggest that a performance-based scholarship can have a large, positive effect on academic achievement among a predominately female, single-parent student population that faces multiple barriers to completing college.

Nonexperimental research has also associated student aid programs with higher enrollment in postsecondary education (Abraham and Clark, 2003; Turner, 2007). However, the ex-

⁶While not directly comparable to this retention estimate, Bettinger (2004) finds that a \$1,000 increase in Pell Grant eligibility increases persistence between the first and second year of college attendance by 2 to 4 percentage points. Dynarski (2005) finds that merit aid of about \$3,000 increases the probability of persistence by 5 percent to 11 percent among those who would have gone to college in the absence of the financial aid.

isting research is far from definitive, and more tests are needed. Several states have developed innovative financial assistance programs for nontraditional students — such as those without a high school diploma or who attend college part time — who pursue postsecondary education or skills training (Martinson and Holcomb, 2007).

The research to date clearly shows that the success of community college-based programs largely depends on addressing the barriers to education acquisition faced by low-wage adults. The current system of instruction and financial aid is largely based on “traditional” students — those entering postsecondary education out of high school — where employment is of secondary importance. Future research in this area will need to examine the implications of relaxing some of the barriers the current system imposes.

References

- Abraham, K., and Clark, M. 2003. "Financial Aid and Students' College Decisions: Evidence from the District of Columbia's Tuition Assistance Grant Program," Working Paper #2, Education Research Section, Princeton University.
- Acs, G., and Nichols, A. 2007. "Low-Income Workers and Their Employers: Characteristics and Challenges." Paper prepared for an Urban Institute Roundtable, "Public and Private Roles in the Workplace: What Are the Next Steps in Supporting Working Families?" Washington, DC: The Urban Institute.
- Adair, V. 2003. The ACCESS Project at Hamilton College 2003. Retrieved on September 14, 2007, from <http://my.hamilton.edu/college/access/2003Report.pdf>.
- Anderson, F., Holzer, H., and Lane, J. (2005). *Moving Up or Moving on: Workers, Firms, and Advancement in the Low-Wage Labor Market*. New York: Sage Press.
- Berker, A., Horn, L., and Carroll, C. 2003. *Work First, Study Second: Adult Undergraduates Who Combine Employment and Postsecondary Enrollment*. Washington, DC: U.S. Department of Education, Institute of Education Sciences.
- Bettinger, E. 2004. "How Financial Aid Affects Persistence." Pages 207-333 in Caroline Hoxby (ed.), *College Choices: The Economics of Where to Go, When to Go, and How to Pay for It*. Chicago: University of Chicago Press.
- Bloom, D., and Sommo, C. 2005. *Building Learning Communities: Early Results from the Opening Doors Demonstration at Kingsborough Community College*. New York: MDRC.
- Brock, T., and LeBlanc, A. 2005. *Promoting Student Success in Community College and Beyond: The Opening Doors Demonstration*. New York: MDRC.
- Brock, T., and Richburg-Hayes, L. 2006. *Paying for Persistence: Early Results of a Louisiana Scholarship Program for Low-Income Parents Attending Community College*. New York: MDRC.
- Burghardt, J., Rangarajan, A., Gordon, A., and Kisker, E. 1992. *Evaluation of the Minority Female Single Parent Demonstration: Vol. 1, Summary Report*. Princeton: Mathematica Policy Research, Inc.
- Butler, S., Deprez, L., and Smith, R. 2003. *Parents as Scholars: A Model Post-Secondary Education Program for Low-Income Women in the New Welfare Landscape*. Retrieved on September 14, 2007, from http://www.iwpr.org/pdf/Butler_Deprez_Smith.pdf.

- Clymer, C., Roberts, B., and Strawn, J. 2001. *States of Change: Policies and Programs to Promote Low-Wage Workers' Steady Employment and Advancement*. New York: Public/Private Ventures.
- Dynarski, S. 2005. *Finishing College: The Role of State Policy in Degree Attainment*. Working Paper. Cambridge, MA: Harvard University, John F. Kennedy School of Government.
- Fein, D., and Beecroft, E. 2006. *College as a Job Advancement Strategy: Final Report on the New Visions Self-Sufficiency and Lifelong Learning Project*. Bethesda, MD: Abt Associates, Inc.
- Golonka, S., & Matus-Grossman, L. 2001. *Opening Doors: Expanding Educational Opportunities for Low-Income Workers*. New York: MDRC.
- Gordon, V., Habley, W., and Associates. 2000. *Academic Advising: A Comprehensive Handbook*. San Francisco: Jossey-Bass.
- Greenberg, D., Michalopoulos, C., and Robins, P. 2003. "A Meta-Analysis of Government-Sponsored Training Programs," *Industrial & Labor Relations Review* 57, 1: 31-53.
- Grubb, W. N., and Associates. 1999. *Honored But Invisible: An Inside Look at Teaching in Community Colleges*. New York and London: Routledge.
- Grubb, W. N. 2001. 'Getting into the World': *Guidance and Counseling in Community Colleges*. Working Paper 1. New York: Community College Research Center.
- Hamilton, G. 2002.. *Moving People from Welfare to Work: Lessons from the National Evaluation of Welfare-to-Work Strategies*. New York: MDRC.
- Kane, T., and Rouse, C. 1995. "Labor Market Returns to Two- and four-Year Colleges." *American Economic Review* 85: 600-614.
- Kazis, R., Callahan, A., Davidson, C., McLeod, A., Bosworth, B., Choitz, V., and Hoops, J. 2007. *Adult Learners in Higher Education: Barriers to Success and Strategies to Improve Results*. Boston: Jobs for the Future.
- Levin-Epstein, J. 2007. "Responsive Workplaces: The Business Case for Employment that Values Fairness and Families," *The American Prospect*, February 19, 2007.
- Martinson, K. 2007. *Building Skills and Promoting Job Advancement: The Promise of Employer-Focused Strategies*. Washington, DC: The Urban Institute.
- Martinson, K., and Holcomb, P. 2007. *Innovative Employment Approaches and Programs for Low-Income Families*. Washington, DC: The Urban Institute.
- Matus-Grossman, L., and Gooden, S. 2001. *Opening Doors to Earning Credentials: Impressions of Community College Access and Retention from Low-Wage Workers*. New York: MDRC.

- Matus-Grossman, L., Gooden, S., Wavelet, M., Diaz, M., and Seupersad, R. 2002. *Opening Doors: Students' Perspectives on Juggling Work, Family, and College*. New York: MDRC.
- McSwain, C., and Davis, R. 2007. *College Access for the Working Poor: Overcoming Burdens to Succeed in Higher Education*. Washington, DC: Institute for Higher Education Policy.
- Melendez, E., Falcon, L., Suarez-Boulangger, C., McCormick, L., and Montrichard, A. 2004. "Community Colleges, Welfare Reform, and Workforce Development." In Edwin Melendez (ed.), *Communities and Workforce Development*. Kalamazoo, MI: W.E. Up-John Institute for Employment Research.
- Mercer, C. 2005. *Federal Pell Grants: Implications of Increasing the Maximum Reward*. Washington, DC: Congressional Research Service.
- Miller, C., Bos, J., Porter, K., Tseng, F., and Abe, Y. 2005. *The Challenge of Repeating Success in a Changing World: Final Report on the Center for Employment Training Replication Sites*. New York: MDRC.
- Mishel, L., Bernstein, J., and Allegretto, S. 2007. *The State of Working America, 2006/2007*. Ithaca, NY: Cornell University Press.
- Navarro, D., Freedman, S., and Hamilton, G. Forthcoming. *The Employment Retention and Advancement Project: Results from Two Education and Training Models for Employed Welfare Recipients in Riverside, California*. New York: MDRC.
- Orr, L., Bloom, H., Bell, S., Doolittle, F., and Lin, W. 1996. *Does Training for the Disadvantaged Work? Evidence from the National JTPA Study*. Washington, DC: The Urban Institute.
- Phillippe, K. A., and Patton, M. 2000. *National Profile of Community Colleges: Trends and Statistics 3rd Edition*. Washington, DC: Community College Press.
- Polakow, V., Butler, S., Deprez, L., and Kahn, P. (eds.) 2004. *Shut Out: Low-Income Mothers and Higher Education in Post-Welfare America*. Albany, NY: State University of New York.
- Richburg-Hayes, L., Visher, M., and Bloom, D. 2008. "Do Learning Communities Affect Academic Outcomes? Evidence from an Experiment in a Community College." *Journal of Research on Educational Effectiveness* 1: 1-33.
- Scrivener, S., and Au, J. 2007. *Enhancing Student Services at Lorain County Community College: Early Results from the Opening Doors Demonstration in Ohio*. New York: MDRC.
- Scrivener, S., Bloom, D., LeBlanc, A., Paxson, C., Rouse, C., and Sommo, C. with Au, J., Teres, J., and Yeh, S. Forthcoming. *A Good Start: Two-Year Effects of a Freshmen*

Learning Community Program at Kingsborough Community College. New York: MDRC.

Scrivener, S., & Pih, M. 2007. *Enhancing Student Services at Owens Community College: Early Results from the Opening Doors Demonstration in Ohio*. New York: MDRC.

Turner, S. 2007. "Higher Education: Policies Generating the 21st Century Workforce." In Harry Holzer and Demetra Nightingale (eds), *Workforce Policies for a Changing Economy*. Washington, DC: Urban Institute Press.

U.S. Department of Education, National Center for Education Statistics. 2002. *Descriptive Summary of 1995-96 Beginning Postsecondary Students: Six Years Later*. Washington, DC: U.S. Department of Education.

About MDRC

MDRC is a nonprofit, nonpartisan social and education policy research organization dedicated to learning what works to improve the well-being of low-income people. Through its research and the active communication of its findings, MDRC seeks to enhance the effectiveness of social and education policies and programs.

Founded in 1974 and located in New York City and Oakland, California, MDRC is best known for mounting rigorous, large-scale, real-world tests of new and existing policies and programs. Its projects are a mix of demonstrations (field tests of promising new program approaches) and evaluations of ongoing government and community initiatives. MDRC's staff bring an unusual combination of research and organizational experience to their work, providing expertise on the latest in qualitative and quantitative methods and on program design, development, implementation, and management. MDRC seeks to learn not just whether a program is effective but also how and why the program's effects occur. In addition, it tries to place each project's findings in the broader context of related research — in order to build knowledge about what works across the social and education policy fields. MDRC's findings, lessons, and best practices are proactively shared with a broad audience in the policy and practitioner community as well as with the general public and the media.

Over the years, MDRC has brought its unique approach to an ever-growing range of policy areas and target populations. Once known primarily for evaluations of state welfare-to-work programs, today MDRC is also studying public school reforms, employment programs for ex-offenders and people with disabilities, and programs to help low-income students succeed in college. MDRC's projects are organized into five areas:

- Promoting Family Well-Being and Child Development
- Improving Public Education
- Raising Academic Achievement and Persistence in College
- Supporting Low-Wage Workers and Communities
- Overcoming Barriers to Employment

Working in almost every state, all of the nation's largest cities, and Canada and the United Kingdom, MDRC conducts its projects in partnership with national, state, and local governments, public school systems, community organizations, and numerous private philanthropies.