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# The New Forgotten Half and Research Directions to Support Them

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# Introduction

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In 1988, the William T. Grant Foundation issued “The Forgotten Half,” the final report of the Foundation’s Commission on Youth and America’s Future. Focusing on inequality in American society, specifically among non-college-bound 16–24 year olds, the report explored the challenges facing young people and the institutions that serve them. Twenty-four years later, using data on young adults in 2012, we seek to understand the composition of the forgotten half today, how educational institutions may inadvertently contribute to their disadvantage, and how these same institutions can improve their chances of success.

“The Forgotten Half” stands out from similar reports because it changed our conceptions about youth in America and affected national policy. Several recommendations from “The Forgotten Half” were included in the Carl D. Perkins Vocational and Applied Technology Education Act—notably the integration of academic and vocational education, and the development of Tech Prep, which links high schools and community colleges.

Many other reports have focused exclusively on the very poor, but “The Forgotten Half” alerted us to the reality that individuals who did not attend college—fully half the nation’s youth, not just those in poverty—were struggling in “the passage to adulthood.” The report showed that economic inequality had been steadily increasing since 1970, a trend that has accelerated in recent years and is widely recognized as being related to educational attainment (Goldin and Katz 2008; Duncan and Murnane,

2014). Moreover, “The Forgotten Half” showed that half of our nation’s youth were precluded from attaining responsible roles, positive career prospects, and ultimately “a respected place in the adult world.” Perhaps most notably, the report demonstrated that vital social mechanisms were malfunctioning, causing youth to get lost in the transition to productive adult roles. But “The Forgotten Half” also presented constructive remedies such as individual supports to at-risk youth, better institutional alignment, improved school–work pathways, increased institutional supports such as job training and social services, and better recognition of youth’s capabilities

For all its strengths, however, the report missed an important reality. Though it was not widely recognized in 1988, college access was increasing. As relevant data was not yet available, the authors of “The Forgotten Half” had not noticed that a dramatic increase in college attendance had already taken place and that certain college credentials were becoming ever more important. Indeed, in the two decades prior to the publication of the report, most high school graduates enrolled in college, and enrollment at community colleges had doubled (Adelman, 2003; NCES, 2008).

Increased college access over the past several decades reflects the influence of the widespread “college for all” ideal, which emphasizes the necessity and importance of a college education. Enrollment at four-year colleges continues to grow, but the expansion of community colleges—institutions that, since their inception, were

meant to reduce inequality by reducing barriers to higher education—is essential to the rise of college access in the era of college for all.

Today, bolstered by low tuition, convenient locations, and open admissions, community colleges enroll nearly as many students as public four-year colleges. But despite high enrollment, community colleges have notoriously low completion rates. Many students get stuck in remedial classes and ultimately drop out without transferring to four-year colleges or attaining a credential (Grubb, 2002). Because they serve so many young people, especially low-income youth, we must focus on improving community colleges as a part of the response to growing inequality.

This essay is meant as an update of the “The Forgotten Half,” not a critique. The original report presented a valuable analysis that described various institutional mechanisms that contributed to inequality, and used that analysis to recommend policy actions. This approach continues to be useful. However, many of the particular elements have changed, and this essay attempts to update the prior analysis.<sup>1</sup> To that end, we seek first to understand the new forgotten half—those youth who do not complete college and find themselves shut out of good jobs in the era of college for all. We then propose research that may help increase the new forgotten half’s chances at success in today’s labor market.

We do not attempt to provide a comprehensive review of prior research. Instead, we focus on a few key issues, illustrate them with recent data, indicate how the important issues raised in “The Forgotten Half” are still important today, and suggest new directions for research. We describe how young people’s difficulties now often occur after entering college, and how finding solutions to these challenges demands new thinking about the college experience and how students navigate it.

1 A subsequent report, “The Forgotten Half Revisited,” issued 10 years later, includes a whole chapter on postsecondary education, which considers degree completion. Yet only one table considers two-year colleges (Gladieux and Swail, 1998, 103), and it focuses only on attendance, not completion. The rest of the chapter focuses only on bachelor’s degree completion, which, as we’ll see, is only part of the completion story.

# “The Forgotten Half” in the Era of College for All

This report analyzes the nationally representative Educational Longitudinal Survey (ELS), which followed the high school class of 2004 for 10 years, from their sophomore more (2002) year until 2012. This survey can’t analyze high school dropout, which occurs mostly before 10th grade, so although it is important, that problem is not addressed here. Instead, we focus on new problems in the era of college for all, which affect many students who have recently gained college access but have radically different circumstances than traditional college students.

The US faces new hard-to-see obstacles that must be addressed with updated policies and expectations. Our goal is not to judge whether college for all is good or bad, but rather to describe how it has changed many aspects of young people’s experiences. We present six findings that challenge many of our assumptions:

1. We find that college access is no longer a major problem for high school graduates. Eighty-six percent of high school graduates attend college within the eight years following high school (Table 1). In other words, on-time high school graduates nearly always attend college. Thirty-six percent of college students attend two-year colleges, and these students are the focus of this report.

Increased college enrollments may reflect that labor market demands are pushing even reluctant students to attend. While researchers used to think that college plans were necessary for students to attend college, even 50 percent of high school seniors who don’t plan to attend college now attend in the next eight years.

**Table 1: College Attendance, College Type, and Highest Credential Attainment by SES and Test Score Tertiles, ELS (2004-2012)**

		All	Test Score			SES		
			Low Test	Middle Test	High Test	Low SES	Middle SES	High SES
	HS Diploma (On Time, No GED)	8,512	2,164	2,909	3,402	2,233	2,585	3,354
	Ever Attend College: 2004-2012	86%	73%	87%	95%	75%	86%	95%
First College Level	2 year	37%	61%	42%	19%	51%	41%	23%
	4 Year	59%	30%	56%	80%	42%	55%	75%
Started at 2 Year College	Some College	46%	51%	42%	44%	49%	47%	41%
	Certificate	17%	22%	17%	9%	21%	17%	11%
	Associate's Degree	16%	15%	18%	16%	16%	16%	15%
	Bachelor's Degree Plus	20%	11%	24%	31%	14%	19%	33%
Started at 4 Year College	Some College	22%	45%	26%	15%	36%	26%	15%
	Certificate	5%	12%	5%	4%	7%	6%	4%
	Associate's Degree	5%	9%	7%	3%	8%	6%	4%
	Bachelor's Degree Plus	67%	34%	61%	78%	49%	61%	76%

Source: ELS (2002-2012); Sample: On-time high school graduates, completed post-secondary education by June of 2012

2. Although most community college students report plans to attain a bachelor's degree, only 20 percent attain one within eight years of graduating high school (Table 1). However, even if most students intend to pursue a bachelor's degree, many discover that they can get other credentials. Thirty-three percent of students who start in two-year colleges complete sub-baccalaureate credentials, either associate's degrees or certificates.

Moreover, for community college students in the lowest third of academic achievement, although only 11 percent get bachelor's degrees, 37 percent get sub-baccalaureate credentials. These sub-baccalaureate credentials can take less than two years, and faculty report that they sometimes require only eighth-grade academic skills (Rosenbaum, Cepa, and Rosenbaum, 2013).

3. Our most striking finding is that many community college students attain no credentials. Researchers often call this "some college." Although many community college students have discovered and attained sub-baccalaureate credentials, almost half (46 percent) have no credential eight years after high school (Table 1). Since this sample includes only students who are no longer in college (in July of 2012), it indicates that these students are unlikely to get a credential soon. If we restrict the sample to students who enrolled in a two-year college

within the first two years after high school, 41 percent still have no certificate or degree six years later.

4. Employment rates have long been problematic for young adults, and they have been more problematic since 2008. We examine employment outcomes for various credentials (Table 2), looking at on-time high school graduates, who have more time for completion and are likely to have fewer academic problems. These individuals may pose a higher standard for judging credentials' payoffs. For the on-time high school graduates who report last being enrolled in college by the end of 2011 (n = 7,596), we ran logistic regression on whether individuals were employed or not. Compared with on-time high school graduates who do not attend college, we find that individuals with certificates, associate's degrees, and baccalaureate degrees were all significantly more often employed, and that each higher credential has increasingly higher odds of employment (1.53, 2.07, 3.32). However, individuals with "some college" but no credential were not more likely to be employed than on-time high school graduates who do not attend college (1.17, n.s.).

5. We also examine earnings payoffs. Regression analyses on earnings in 2011 (natural log) show that, compared with on-time high school graduates who do not attend college, bachelor's degree graduates had 34 percent higher

**Table 2: Logistic Regression of Employment Status 2012**

Employed 2012		
SES 2002	1.14	(1.80)
10th Grade Test Score	1.02***	(4.07)
Graduate Degree2	4.96***	(6.04)
Bachelor's Degree	3.32***	(8.19)
Associate's Degree	2.07***	(3.89)
Certificate	1.53**	(2.84)
Some College	1.17	(1.36)
Female	0.37***	(-10.91)
Black	1.11	(0.71)
Hispanic	0.82	(-1.63)
Other Race	0.76*	(-2.01)
N	7596	

Source: ELS (2002-2012); Sample: completed post-secondary education by the end of 2011, on-time high school graduates

T-statistics in parentheses;

\*significant at .05;\*\*significant at .01;\*\*\*significant at .001

1Employed (full time or part time) versus unemployed

2On-time high school graduates are the comparison for credential coefficients

**Table 3: OLS Regression on Log of Earnings 2011**

	Log Earnings 2011	
SES 2002	0.05**	(2.77)
10th Grade Test Score	0.01***	(4.83)
Graduate Degree1	0.46***	(8.58)
Bachelor's Degree	0.34***	(8.83)
Associate Degree	0.22***	(4.37)
Certificate	0.13**	(2.74)
Some College	-0.03	(-0.73)
Hours Worked Per Week in 2011	0.02***	(23.92)
Weeks Employed in 2011	0.03***	(29.97)
Female	-0.16***	(-7.52)
Black	-0.12**	(-3.23)
Hispanic	0.02	(0.50)
Other Race	0.06	(1.84)
Constant	7.49***	(86.94)
N	5,109	

Source: ELS (2002-2012); Sample: Completed post-secondary education by the end of 2010, on time high school graduates, report earnings

T-statistics in parentheses

\*significant at .05;\*\*significant at .01;\*\*\*significant at .001

1On-time high school graduates are the comparison for credential coefficients

earnings, and associate’s degree graduates had 22 percent higher earnings. Even certificates, which take about a year to complete, yielded 13 percent higher earnings, a significant improvement over a high school diploma alone (Table 3).

Of course, certificates and associate’s degrees have better payoffs in some occupational majors than in others (Jacobson and Mohker, 2008), but these results indicate substantial average payoffs across all majors. Although our data is more recent, our findings match results from many prior studies (Belfield and Bailey, 2011).

We also find that “some college” with no credential has no earnings payoffs. While having “some college” led to an economic payoff in a 1970s cohort (Kane and Rouse, 1995), most (but not all) recent studies from the 1990s suggest that this is no longer the case (Grubb, 2002), especially for workers under age 30 (Day and Newburger, 2002, figure 4; Carnevale et al. 2011). This may suggest that the labor market demand for credentials has increased (Carnevale, et al., 2012).

As Grubb (2002; 299) concludes, “the economic benefits of small amounts of coursework are often zero and at best small and uncertain.” Indeed, “some college” usually means that a student has taken remedial and general

education courses, which don’t have immediate payoffs. Students cannot count on college credits alone to lead to an earnings payoff, yet nearly half of community college students earn no credential.<sup>2</sup>

The same issue exists in four-year colleges: 22 percent of on-time high school graduates who begin in four-year colleges have no credentials eight years after graduation. Further analyses (unpublished) show that, among “some college” students, those who begin at four-year colleges earn no more than those who began at two-year colleges. This means that getting “some college” from a four-year college will not confer a greater payoff than getting “some college” from a two-year college.

6. We have discovered the new forgotten half: youth with “some college,” but no credential. Although we may assume that “some college” students have inferior prior qualifications than certificate graduates, we see little evidence of this. In fact, students with “some college” have similar or better characteristics on many dimensions as those who complete certificates or associate’s degrees (Table 4), but leave school before they attain a credential.

**Table 4: Characteristics of Individuals with Different Attainment Levels**

	Some College	Certificate <sup>1</sup>	Associate’s Degree	Bachelor’s Degree	Graduate Degree
Low High School GPA Third, Honors Weighted	0.36	0.34	21%***	6%***	2%***
Usually had Homework Done 10th Grade	71%	72%	78%**	84%***	88%***
Get in Trouble 3 or More Times 10th Grade	13%	12%	9%	6%***	4%***
Skip 3 or More Times 10th grade	12%	11%	11%	5%***	5%***
Low Sophomore Test Third	0.34	45%***	0.29	9%***	5%***
Low SES Third 2002	0.36	40%*	0.33	17%***	11%***
First Generation College Student	0.28	34%*	0.31	16%***	11%***

Source: ELS (2002-2012); Sample: Completed post-secondary education by June of 2012, on-time high school graduates

\*significant at .05; \*\*significant at .01; \*\*\*significant at .001

<sup>1</sup> Significance is compared to some college

2 Over 30 percent of students who attend college earn no college credits (Rosenbaum, 2001, p. 77), and many others earn very few credits (Grubb, 2002), often in general education courses, which rarely have job payoffs. However, if “some college” includes courses that teach valuable labor market skills, especially if the courses are relevant to students’ current or prior jobs, we suspect those students may get some payoffs. Students should not count on that, though. Credentials have more dependable payoffs. Many jobs explicitly require credentials, and won’t hire individuals without certificates or associate’s degrees, even if they have many credits. Nearly all studies agree that completing credentials has substantial additional

payoff beyond the underlying credits (Ibid.), so that is the only dependable strategy.

Some may wonder if age 26 earnings is important, and, while we’d like to know later earnings, age 26 earnings addresses the policy concern about whether college has helped young adults support a family at an age when many are becoming parents.

# Discussion

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Research mostly indicates that credentials yield employment and earnings payoffs, but students who don't attain college credentials get little or no payoff compared to those with only a high school diploma, whose earnings have been eroding for decades. The most alarming finding is that many youth who took society's advice to attend college, sacrificing time and often incurring debts, have nothing to show for their efforts in terms of credentials, employment, or earnings.

Like those young people who were the focus of the original "Forgotten Half" report, the new forgotten half are provided few pathways into productive adult roles, and, as students, often do not discover alternative credentials until after they drop out of college (Horn, 1999). This group of individuals may in fact be more forgotten than the traditional forgotten half, because they have successfully followed society's advice to attend college, mistakenly assuming that being a college student is an accomplishment that is ultimately rewarded. In reality, however, they may face similar barriers as those who never attend, with the additional burden of being saddled with new debts.

"The Forgotten Half" noted that we provide many supports to students to facilitate college attendance, but devote few resources to youth who never enroll (p. 100). Today, we rightly celebrate high rates of college attendance and subsidize college tuition for many, but policy does little to prevent dropout and practically ignores those who have already dropped out. When students falter in their pursuit of a bachelor's degree, our society offers no advice about alternative attainable credentials, and has only begun to acknowledge many of the difficulties students face after they make it into college, an issue that research has recently highlighted. We implicitly assume that dropouts lack academic skills or motivation, although, as stated above (finding 6), they don't appear much different than their peers who attain sub-baccalaureate credentials. These findings indicate that students with no credentials have no payoff, and that they waste scarce time and money, incurring substantial college debt—nearly as much as students who got certificates (\$15,664 v \$15,995).

Our college for all ideals are well-intentioned and benefit many youth, but there is more that can be done to help those who enter college but fail to complete a credential. Research can help us understand how to help these young people move beyond "some college," attain a credential, and achieve workforce success.<sup>3</sup>

<sup>3</sup> We also do not examine the full range of possible outcomes. Some students may have apprenticeships or jobs with training, although both are still rare.



# New Directions for Research

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The experience of students who enter college but fail to attain a credential demands attention. We need to understand in how, apart from lower employment and earnings, this group suffers in the labor market; why and how students attain credentials; what failure looks like; and how institutional procedures contribute to that failure.

Researchers studying community colleges often focus narrowly on earnings, test scores, and remedial courses, but other aspects should be considered. For instance, remedial programs are intended to be a gateway to a variety of programs, but for many students, they are a gateway to dropping out (Bailey, et al., 2010). Although remedial programs that lead to baccalaureate transfer programs are often presented as a new student's only option, other credentials that don't require remediation may be more likely to lead to success.

Studies must also seek to understand institutional procedures and how colleges can better meet students' needs. Schwartz (2014) advocates pathways that combine high schools and colleges, but admits the difficulty of getting these institutions to collaborate on a large scale. Our analysis suggests that community colleges alone might create career pathways. Although research should focus on ways to improve high schools and all levels of post-secondary education, to the extent that community colleges are crucial sources of opportunity, particularly for low-income students, their procedures must be a main focus.

## **We propose research objectives that can improve student experiences:**

- Describe the new college reality and its full range of options, odds, and outcomes.
- Understand how counseling and guidance can better help youth.
- Consider institutional reforms such as alignment, structured procedures, and school-work linkages.

## **1. Research should describe the new college reality**

Our findings demonstrate a need to further examine and understand youth's experiences during and after community college. Research can improve students' understanding of the options, odds, obstacles, and outcomes of the new college reality. Here we provide a few examples of issues that research could examine.

### *a. Credential Attainment in Community Colleges*

Research should study the perils of hidden time traps in community colleges and their impact on credential attainment. Although we think of a bachelor's degree as a four-year degree, most students take nearly six years to complete the degree (Bound et al. 2009), and many students take eight or more years (Stephan, et al. 2009). Yet colleges rarely warn students about these longer timetables, which are highly predictable and pose added costs on time and finances.

In ELS, about half of the "some college" group reports leaving college because of money. We need a better understanding of what students know about timetables,

**Table 5: Correlation between Job Satisfaction and Job Rewards within Education Levels**

Job Rewards	Highest Degree Attained by 2008					
	HS Graduate	Certificate	Associate's Degree	Bachelor's Degree	Graduate Degree	All
Personal Earnings	0.11	0.17	0.07	0.10	0.02	0.1
Perceived SES	0.21	0.2	0.22	0.22	0.11	0.21
Job Autonomy	0.29	0.37	0.32	0.33	0.33	0.32
Currently Employed	0.16	0.14	0.14	0.19	0.11	0.17
Job Related to Career Goals	0.31	0.32	0.36	0.35	0.28	0.33
Job Part of Career	0.35	0.36	0.35	0.38	0.37	0.37
Currently Employed	0.14	0.11	0.17	0.12	0.17	0.14
Achieved Desired Educational Level	0.12	0.11	0.11	0.12	0.01	0.12
N	4470	938	1058	2838	1155	10459

Source: Adolescent Health, 1995-2008

Sample: Restricted to high school graduates who are employed full time in one job in 2008

and how extended timetables (including six-year bachelor's degrees) impact college decisions and family commitments.

Many students also fall into the trap of delayed entry. Although colleges serve all ages, delayed college entry reduces success rates, especially for low-income youth, who are more likely to delay (DeLuca et al. 2012). In ELS, of the 28 percent who delay college entry, 66 percent are from low-income families, compared with 42 percent of those who do not delay. As “The Forgotten Half” argued, society must focus on helping youth get a good start right after high school. Research can help us understand better why students delay and help develop strategies to encourage enrollment immediately after high school graduation, including extensive college advising and application supports in high schools.

Research should also examine sub-baccalaureate degrees. Certificates (and some applied associate's degrees) can be completed quickly. We suspect that students might reduce the risk of prolonged enrollment and improve their chances of degree completion if they plan interim sub-baccalaureate credentials on the way to a bachelor's degree.

Sub-baccalaureate credentials are not necessarily dead-end credentials: among certificate holders, 19% also have associate's degrees and 12% have bachelor's degrees (Carnevale, 2012). Of the National Longitudinal Study of Adolescent Health (Add Health) sample of young adults, about 47% of bachelor's degree holders also have an associate's degree (Janet Rosenbaum, 2012). Research can help us understand better those attainment processes and help redesign institutional procedures to improve the completion of higher credentials.

***b. Quality of Job Outcomes for Various Credentials***

Although “The Forgotten Half” focused on earnings as its indicator of inequality, it was also concerned with larger issues, including the quality of jobs and their impact on youth and society. The report argued that the circumstances of the forgotten half prevented them from attaining responsible roles, positive career prospects, and “a respected place in the adult world.” How can sub-baccalaureate credentials help young people today achieve these outcomes? Associate's degrees and certificates prepare graduates for mid-skill jobs, many of which exist in industries with skill shortages. These jobs are often vital to the functioning of society: we depend on well-trained surgical assistants, x-ray technicians, airline mechanics, and elevator-repair technicians to keep us safe and healthy.

Our analyses focus on earnings, but this is not the only indicator of good jobs (Oreopoulos and Salvanes 2001). Indeed, some jobs with high earnings are not desirable. Employers sometimes offer higher earnings to compensate for jobs with undesirable attributes: dangerous, demanding, disagreeable, dead-end, and deceptive—what we call the five Ds. Moreover, despite researchers' neglect, non-monetary job rewards are highly meaningful to workers. In the Add Health survey, among young working adults (ages 25–32), job satisfaction is less strongly related to earnings than to certain nonmonetary job rewards (i.e., autonomy, career relevance, career preparation, Table 5, col 6), and these correlations persist within education categories (Table 5, col 1–5).

**Table 6: Multivariate Non-Monetary Regression Results (n=10582)**

Columns correspond to educational levels, and rows correspond to employment outcomes. The entries correspond to the multivariate regression coefficient predicting the outcome from the educational level.

	Certificate	Associate's Degree	Bachelor's Degree	Graduate Degree
<b>POISSON REGRESSION</b>				
<b>Job Relates to Career</b>				
Unrelated	0.59 (0.52, 0.67) ****	0.76 (0.68, 0.84) ****	0.51 (0.47, 0.56) ****	0.25 (0.21, 0.31) ****
Preparation	1.35 (1.21, 1.50) ****	1.18 (1.06, 1.32) **	1.22 (1.12, 1.33) ****	1.08 (0.96, 1.22)
Part of Career	1.36 (1.25, 1.49) ****	1.35 (1.24, 1.47) ****	1.60 (1.50, 1.71) ****	2.09 (1.94, 2.24) ****
<b>Benefits Offered</b>				
Health Benefits	1.01 (0.97, 1.06)	1.13 (1.09, 1.17) ****	1.18 (1.15, 1.22) ****	1.27 (1.22, 1.31) ****
Retirement Benefits	1.03 (0.97, 1.09)	1.15 (1.09, 1.20) ****	1.25 (1.21, 1.30) ****	1.34 (1.29, 1.40) ****
Vacation Benefits	1.01 (0.97, 1.06)	1.11(1.07, 1.15) ****	1.17 (1.13, 1.20) ****	1.22 (1.18, 1.27) ****
<b>Job Conditions</b>				
Day Shift	0.99 (0.94, 1.04)	1.08 (1.03, 1.13) **	1.23 (1.19, 1.27) ****	1.23 (1.18, 1.29) ****
Irregular Hours	1.06 (0.93, 1.22)	0.83 (0.72, 0.96) **	0.77(0.69, 0.86) ****	0.78 (0.68, 0.90) **
Work Hard Physically	0.90 (0.75, 1.09)	0.58 (0.46, 0.72) ****	0.28 (0.22, 0.35) ****	0.12 (0.07, 0.21) ****
Work Desk Job	0.96(0.85, 1.07)	1.20 (1.09, 1.32) ****	1.71 (1.60,1.83) ****	1.44(1.32, 1.58) ****
Supervise Managers	0.86 (0.68, 1.09)	1.18 (0.97, 1.44)+	1.28 (1.09, 1.50) **	1.05 (0.84, 1.32)
Supervise Others	0.97 (0.86, 1.10)	1.00 (0.89, 1.12)	0.96 (0.88, 1.05)	1.08 (0.97, 1.21)
<b>OLS Regression</b>				
Personal Earnings	2.25 (-0.79, 5.29)	4.35 (1.43, 7.27) **	12.9 (10.6, 15.1) ****	19.8 (16.7, 22.8) ****
Perceived Status (0-10)	0.13 (0.02, 0.24) *	0.27 (0.16, 0.37) ****	0.86 (0.78, 0.94) ****	1.48 (1.37, 1.59) ****
Job Satisfaction	0.03 (0.01, 0.04) **	0.02 (0.01, 0.04) **	0.01 (0.00, 0.03) *	0.05 (0.03, 0.07) ****
Job Autonomy	0.05 (0.03, 0.07) ****	0.03 (0.01, 0.05) **	0.04 (0.02, 0.06) ****	0.07 (0.05, 0.09) ****
Job Repetitive	-0.01 (-0.03, 0.01)	-0.04 (-0.06, -0.02) ****	-0.13 (-0.15, -0.12) ****	-0.19 (-0.22, -0.17)****
Number Times Fired	-0.01 (-0.11, 0.09)	-0.09 (-0.19, 0.00) *	-0.19 (-0.27, -0.12) ****	-0.32 (-0.42, -0.22) ****

Source: Adolescent Health, 1995-2008

Sample: Restricted to high school graduates who are employed full time in one job in 2008

Control variables: demographics (race/ethnicity (black, Latino, Asian), gender); educational factors (grade average, test score, grades not reported by respondent); acculturation (nativity, parent nativity, speak English versus another language at home); and parent's socioeconomic status (parent's self-reported educational level, household income, and whether they have enough money to pay bills.)

Confidence interval in parentheses

Although bachelor's degrees have higher earnings payoffs than associate's degrees (Grubb, 2002), both confer similar nonmonetary job rewards. Analyzing the Add Health survey, Janet Rosenbaum found that, compared with high school graduates, students who attain certificates and associate's degrees are more likely to have certain job rewards, including perceived status and autonomy, and also have rewards that suggest that their jobs are part of a career, such as career relevance and career preparation (Table 6). In addition, individuals with associate's degrees (but not certificates) report lower rates of various unpleasant job demands (i.e., physically hard, irregular hours, night shift, or repetitive). Indeed, Rosenbaum finds that associate's degrees have payoffs on virtually all job rewards for which baccalaureate degrees do, sometimes at the same magnitude (i.e., autonomy, health benefits, career preparation), and sometimes less (i.e., earnings, strenuous, night shift).

In earlier research on job desirability, Rosenbaum (2012) found that holders of associate's degrees may have health payoffs, such as lower risks of smoking and obesity, compared with matched high school graduates with similar high school backgrounds. Other research suggests that health payoffs of education may be mediated by better job conditions (Presser, 2005; Grandner 2010). Since earnings may not be the most important labor market outcome for young adults, research must expand its viewpoint to consider the full range of job attributes valued by young adults.

“The Forgotten Half” posed the issue of youth attainment in the most general terms. Society needs youth to attain responsible and respected roles with career prospects, and youth seek opportunities to do so. Yet the narrow research focus on earnings has limited our views of attainment in unfortunate ways. Many aspects of jobs

in the sub-baccalaureate labor market are still relatively unknown because of this narrow focus.

Finally, the implications of completing “some college” but not attaining a degree demands further research. For instance, research can examine the jobs that are available to young people with no credentials, whether these individuals eventually return to school, how they understand the usefulness of their time in college, and whether college offers other non-monetary rewards that do not require credentials.

## 2. Research can improve counseling prior to entering college

Improved information on the new college reality can better equip high school and college counselors to advise students and help them make more informed decisions. Many of the most important college decisions (i.e., what colleges to apply to, what specific programs to enter, and how to procure funding) are made before students ever enter college, usually when they are still in high school. Research can improve high school counseling about college so that students’ decisions are more likely to lead to degree attainment and labor market success.

### *a. Research on Counseling Procedures*

We need more studies that examine how counselors help youth to understand what college is, why they should care, how they can prepare, and what strategies (including incremental plans that combine multiple credentials) will improve their odds of success. Ultimately, we need studies of what counselors do to prevent students from falling into the “some college” trap.

Counselors are the main source of information about college for many high school students, particularly those of low-socioeconomic status, and their advice can dramatically impact student choices. Research can inform that advice by giving counselors relevant information and successful procedures targeted at low-income or academically struggling youth.

In a new study, Kelly Becker et al. (2013) examines how technology can supplement counselors’ work by monitoring high school seniors’ progress on their college applications. If students are not on schedule, counselors can contact them and help them get back on track. In other recent research, Claudia Zapata (2013) finds that some exemplary high schools simplify and improve the college application process by building it into routine procedures. These include required meetings, actions, and deadlines

for each stage (i.e., college search, college essays, early application, regular application, FAFSA, scholarships, and decisions).

Critics may note that college counselors can advise students’ degree plans, but while four-year colleges offer such counseling, community college counselors may not have the time. Community college counselors can have upwards of 1,500 student caseloads; during a two-week registration period, that amounts to three minutes per student if they serve every student. This is not enough time for advising students’ choices, yet the plans students declare in the first week of college often have lasting impact.

### *b. Research on Financial Counseling*

Research can also guide students’ efforts to pay for college. As noted, half of the students who attain no credentials in the ELS data cite financial problems as a main reason for dropping out of college. Pell Grants and state grants are intended to help low-income students, but the FAFSA application is a complex obstacle that parents often don’t understand (Bettinger, et al. 2012). College-provided scholarships are another good funding source, but in order for students to find the best “deal,” they must identify appropriate colleges, apply to several, get admitted, and analyze the different financial aid packages. Future research should examine programs that aim to help students and their families understand the financial aid system and secure appropriate funds. The following are examples of such research.

We studied an innovative program that facilitated both FAFSA completion and college applications. The College Coach program assigned a trained staff person to a diverse sample of 12 public high schools in Chicago. Unlike guidance counselors who have many tasks, college coaches focused specifically on increasing FAFSA and college applications by advising students in small groups and one to one meetings over several weeks. Our study found that coaches achieved both goals, which increased four-year college attendance compared with similar high schools that lacked coaches (Stephan et al. 2013). Moreover, unlike the Matthew effect whereby “the rich get richer,” coaches had the most benefit on outcomes in low-socioeconomic status high schools.

In another program, studied by Bettinger et al (2012), H&R Block filled out clients’ FAFSA forms with information acquired from their tax services. This study found that the program led to significant increases in Pell Grant funding and college enrollment. Future studies could examine other high school, college, and community programs that guide student actions with regard to financing college.

Finally, although we know that some educational institutions facilitate FAFSA completion prior to college entry, we don't know how students approach financial aid after their first year of college. For example, while the media has criticized for-profit colleges for taking a disproportionate share of Pell Grant funds, some of these colleges devise a financial plan for each student and closely monitor students' execution of this plan. Public college students may also benefit from creating such plans, and research can study how colleges devise such plans, whether students continue to follow them, what happens to FAFSA completion in the second and later years of college, and how students deal with prolonged college timetables. Research can also examine what community college students do if they receive no assistance with FAFSA. Such students are often on their own, and we know very little about what they do and what problems they experience. Future studies can also examine related issues, such as how students understand the promised "\$1 million dollar payoff," or how they understand loans and think about earnings potential when choosing degrees.

### *c. Updating Advising Information*

When nearly half of community college entrants fail to get a credential, our education system itself is failing. Colleges and high schools should explain the full range of options for students, including the costs, benefits, and odds of completion for each option (given their interests, prior achievement, and expected timelines). But although community college failures are frequent and predictable, some community college counselors suggest that students often receive no warning and no suggestions of alternatives (Rosenbaum, et al., 2015). Without such information, students can't make choices to reduce the predictable risks.

The numbers we've presented provide a general message to students that, despite the low odds of much-advocated bachelor's degree plans, there are desirable alternatives, and students must be aware of other credential options with good payoffs. We suspect that many students don't see the benefits of these other credentials, which may partly explain why so many community college entrants have no credential eight years after high school. This is an unfortunate outcome that better information might remedy.

## **3. Institutional Reforms: Alignment, Procedures, and Linkages**

"The Forgotten Half" stressed systematic institutional reforms for aiding youth and providing structure and guidance in navigating confusing new experiences. Researchers should continue this work and examine how educational institutions can create systematic reforms to improve college achievement and positive labor market outcomes. In particular, studies may examine how to improve high school-college alignment, structured college procedures, and school-work linkages.

Despite our focus on the community college experience, completing only "some college" without attaining a degree is a problem not only in community colleges, but in four-year colleges as well. We suspect that all students, not only those at community colleges, would benefit from research in each of these areas: better information, more effective counseling, and improved institutional structures.

### *a. Institutional Reforms: Align Standards*

To reduce inconsistencies and waste in a decentralized system, we need to better align high school and college standards, an area that research has often ignored. Future research should examine which academic standards are actually required for various programs, thereby facilitating better alignment between high schools and colleges.

For instance, having graduated from high school, many students think they are prepared for college. Yet over 60 percent of students who enroll in community colleges fail the placement exam (Bailey et al., 2010). They are then assigned to remedial courses, often called, "developmental education," a vague euphemism that doesn't help students understand their situation, make informed choices, or learn about alternative programs that don't require remedial courses.

Recent research raises doubts about whether some traditional academic courses (like Algebra II), which placement exams test, are required for college programs in many majors (Tucker, 2013). Occupational faculty report that sub-baccalaureate credentials in some majors require only eighth-grade math skills, which many students already have (Rosenbaum et al. 2013). In other words, high school graduates may be more prepared for some community college programs than we realize.

True alignment involves course content as well as testing, so students receive not only appropriate preparation, but also an accurate understanding of their college readiness. For example, early college high schools and dual-enrollment programs were created to bring entering students up to colleges' academic demands (Rosenbaum and Becker, 2011). However, small programs such as these reach few students, and enrollment is optional.

Other programs try to align high school curricula with college requirements. California's Early Assessment Program, for example, brought high school and college English instructors together to create a college success English course for students who were deemed not college-ready (Howell et al. 2010; California State University). But this program provided little assistance for math preparation, and used different remedial placement tests than many colleges use, thus limiting its applicability. Future research can help find more systematic ways to align high schools with colleges on a larger scale.

Since many seniors pass high school exit exams and then fail the college remedial exam just three months later, giving the college exam to juniors in high school might improve alignment between institutions (Rosenbaum, 2001, 276). This would allow students to know their level of readiness for college prior to completing high school, and give them time to remediate needed skills. Florida is one of a few states to adopt such statewide test alignment. The new Florida College and Career Readiness Initiative (FCCRI) gives the college remedial test to all 11th grade students, warns them if they require further preparation, and requires seniors to take college-prep classes to address their skill gaps before they enter college. Researchers are now studying this reform's implementation and effectiveness (Mokher, et al. 2013).

More research needs to study what states, high schools, and colleges are doing to improve testing and curriculum alignment, even if it is on a smaller scale than in Florida. Effective alignment will be difficult without a thorough understanding of its costs and benefits. Research should therefore also examine the pros and cons of decentralized standards and curricula, what high school staff know about college standards, and how high schools and colleges try to align standards.

### ***b. Institutional Reforms: Structured College Procedures***

Research should also study structured college procedures that may improve credential attainment and help students make choices that lead to dependable progress and success

within the institution, such as well-defined program options and technology to help students select courses.

College students could benefit from institutional procedures that provide information about credential options, their odds of success, and possible job outcomes, as we have discussed above. Some colleges (e.g., Arizona State University, Austin Peay University), use software similar to that which guides high school students' college choices (Becker et al., 2013) to guide students' course choices and provide warnings about courses that might pose serious difficulties based on students' prior achievement. Similar software could also be used to advise students about choices of first credential and major, as well as course selection at the community college level. However, as Becker et al. (2013) warned for high school software, one must consider how to make software useful and informative without unnecessarily precluding plausible choices.

College students could also benefit from systematic procedures that facilitate credit accumulation and credential completion. Some students report that community college is unnecessarily complex—they take courses without credits, acquire credits without credentials, and complete credentials without payoffs (Rosenbaum, et al., 2015).

Judging from the student stories we heard in interviews, navigating complex college rules for choosing courses poses cognitive challenges that stymie even the best students. Students discuss taking an excessively difficult course that they fail; taking an excessively easy course that doesn't count; taking the right course offered by the wrong department; taking the night school session when the only the day session counts; taking courses in the wrong order; and missing a required course, which in turn upsets their schedules for the next 12 months or even longer, etc. Even if students find the course they need, it may not be offered at a time that fits their schedule, or it may be oversubscribed and not available. Earned credits can even disappear if students take too long to complete the degree, as often happens for part-time students in fast-changing fields. These problems arise from the complexity of choosing courses—even if students are provided prior warning, the sheer complexity makes warnings prohibitively detailed and hard to follow.

Institutional mechanisms can reduce these problems, however. In other research, we have seen colleges devise institutional procedures that simplify the course choice process (Rosenbaum et al., 2006). Like a package deal vacation, students choose their goal, and structured

college procedures make success almost automatic by structuring efficient course sequences in pre-set time schedules, closely monitoring progress, and requiring frequent advising (Ibid.). Some colleges build peer cohorts, another institutional procedure that supports student progress, similar to learning communities. Although learning communities are often one-semester programs that have short-term impact, peer cohorts that last two years or longer may have a more durable impact (Ibid., Sommo, et al. 2012).

Research can examine where colleges use these types of systematic procedures, how they are combined, and how they impact student outcomes. These procedures can be powerful, but are sometimes hard to see, such as when colleges build course schedules that provide students with the exact curriculum they need to complete a program. They are also not necessarily employed on a large scale, so research must look into successful schools and even specific programs to find where such procedures exist, how they work, where they may function poorly, and how students perceive them. More specifically, research can also examine whether these procedures can reduce the adverse impact of family and work constraints and improve credential completion, especially for disadvantaged college students.

We may also learn from four-year colleges that have used systematic procedures to improve student progress. As noted, Arizona State and Austin Peay Universities use software to advise students' course choices and warn them about courses for which they are not prepared. St. John's College and Yale University's Directed Studies program create cohesive student cohorts to proceed through the same college curriculum for two years or more. Such structured procedures can create positive peer support, clear expectations, and shared experiences that may reduce the impact of inequalities in prior preparation. Above all, they may prevent students from making serious mistakes that can lead to expensive delays and even dropping out.

### *c. Institutional Reform: College-Work Linkages*

Lastly, research should examine systematic reforms that lead to employment linkages, which align training to employer needs and help employers and youth recognize students' capabilities.

Despite the usual emphasis on students' self-directed job search, youth are rarely prepared with useful information. Low-income students in particular often don't know which jobs will value their skills, or how to present their capabilities in resumes and job interviews. Research

indicates that occupational programs only benefit students if graduates get skill-relevant jobs. After a thorough review, Grubb (1996:98) concludes, "Placement in a related occupation is absolutely crucial to realizing the potential benefits of occupational education. While community colleges do have mechanisms to link their programs to employers," these linking mechanisms are often quite weak. Colleges may create effective employer linkages that signal youth's capabilities to employers, however. For instance, some college faculty report cultivating long-term relationships with employers to whom they connect students for internships and job opportunities (Rosenbaum et al. 2006). Employers trust faculty recommendations about hard-to-measure but highly valued student attributes, such as social skills and work habits (Zemsky, 1994; Shapiro and Goertz, 1998; Rosenbaum, 2001).

Future research should study not only how colleges or college faculty create linkages such as internship programs, career centers, and the use of employer visits to help employers see graduates' qualifications, but how they help students to recognize their valued skills and capabilities, understand different jobs, and prepare for interviews.

Improved employer linkages may provide incentives for students to persist to completion or might help them choose more appropriate majors and programs. These programs can help students find jobs after graduation, inform students about good occupational options, and motivate students by promising to assist in job searches. Future research can also help us identify which linkages benefit minority, low income, or younger students.

# Practical Implications

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This paper is about reforming institutions to respond to students' needs and using analyses of credential odds, obstacles, and outcomes to inform the important educational choices that young people make. Both of these should enable colleges to help all students—especially the new forgotten half—get something practical and worthwhile out of their time in college.

As some use it, the term college for all has negative connotations, implying that many students lack ability or motivation to complete college (Murray, 2008). Similarly, reforms that focus on remediation also blame individual deficiencies and assume that individuals must be repaired to benefit from college. But we ask a different question: which forms of college best serve which students? In other words, college success lies not only with individuals, but also with how institutions can lead students to success. Since college for all is now a reality (for at least 86 percent of high school graduates), the question is how can students make better choices and how can colleges can implement procedures that result in better outcomes for all students.

Although it is a major focus of educational research, the topic of degree completion is often ignored by educators. High school counselors and reform programs such as the National College Advising Corps (McDonough, 2005), for instance, focus primarily on college access. But while access to college is as important as it is complex, focusing solely on access leaves it up to colleges to take the reins when it comes to degree completion. As stated earlier, despite the importance and lasting impact of decisions that students make early in their college careers, many community college counselors simply may not have the time or information to assist students sufficiently.

When we presented some of these findings to reformers engaged in helping low-income students attend college,

they were surprised—particularly by the low odds and six-year timetables of baccalaureate plans, and the quick timetables, easy requirements, and substantial payoffs of sub-baccalaureate credentials. They had not considered “incremental strategies,” which combine interim credentials with later baccalaureate goals. Some confessed to feeling doubts about their advising low-achieving students to pursue bachelor's degrees, but stated that they had no information about what happened to these students, and they had no alternatives to suggest.

For practitioners, the dominant finding presented here is that the most frequent outcome for community college students is “some college”—no credentials, no earnings payoffs, and potentially substantial debts. These individuals, the new forgotten half, should be a major focus of research moving forward. The evidence indicates that these students are capable of completing their higher education, and we have indicated some procedures that might improve their chances of attaining credentials.

Of course, community colleges have multiple missions, and colleges tend to stress the baccalaureate-transfer mission over the workforce mission, which offers less prestige and has higher cost. Liberal arts faculty see prestige in preparing students for further academic work while administrators appreciate the lower costs of adding three new sections of psychology instead of launching an electronics program that requires equipment and small classes. Research needs to examine how some colleges manage to financially sustain a strong set of programs that lead to technical degrees and certificates, and, more importantly, manage to enroll, retain, and graduate many students in these programs (Jenkins and Cho, 2014; Schwartz et al., 2011; Shulock, 2007). Some states have separate technical colleges, which seem to have better graduation rates, but research needs to explore that



question as well as whether other institutional procedures explain variation in their completion rates.

Yet even in those states, students must be made aware of these technical colleges and certificate programs. Indeed, these institutions need a way to show students their options and likely professional outcomes. In every state, the risk of attaining no credential, and the strategies for getting valuable interim sub-baccalaureate credentials, are crucial issues. Community colleges and technical colleges are well-positioned to quickly move students through sub-baccalaureate occupational programs, which may lead to further degrees at a later time. We need to know much more about effective institutional practices in the realm of technical and occupational sub-baccalaureate programs.

Institutional reforms should focus on devising procedures that improve college outcomes for students who fail to attain a degree. Instead of focusing only on remedial programs that rarely work to fix student academic deficiencies, research can examine alternative college procedures that yield employment success and require only students' current skills. High schools need techniques and strategies for helping students find the best post-secondary path for their abilities, needs, and interests. Studies of structured college procedures can improve alignment between high schools and colleges, help programs build supports that facilitate credential completion, and smooth out the career-entry process. Such institutional reforms can ameliorate the difficulties experienced by the new forgotten half.

Research on college procedures may lead to improved student outcomes. In order to help nontraditional college students, some colleges have devised nontraditional college procedures, such as structured curricula,

convenient and dependable schedules, monitoring student progress, frequent and mandatory advising, quick interim credentials, and supportive job placement (Rosenbaum, et al. 2006). Following the goal of "The Forgotten Half" to discover institutional reforms that may help disadvantaged students, research needs to examine these institutional procedures and how they impact degree completion.

"The Forgotten Half" emphasized the importance of outcomes such as economic self-sufficiency, positive career prospects, and a respected place in the adult world. These are still important goals, and community colleges are in a good position to advance these goals for American youth (Sommo, et al. 2012; Rosenbaum et al. 2006).

# Conclusion

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We have presented a general overview of college completion patterns with new data, and the outcomes are eerily similar to those of non-college bound students in the original “The Forgotten Half” report. As Mortimer (2008) notes, “The Forgotten Half” focused on college enrollment. That focus was appropriate in earlier years, when college access was restricted to a select group, but it is no longer enough. Though the college reality has dramatically changed since 1988, it is probably more true today that improving educational opportunity may contribute to reducing inequality. Students, educators, and policymakers need to see that “some college” has little payoff; that baccalaureate degrees often have low odds and substantial obstacles; and that sub-baccalaureate options, such as associate’s degrees and certificates, have good payoffs and can provide a dependable path to a baccalaureate degree.

We are in a college-for-all world that we don’t fully understand. Young people are encouraged to think of college enrollment as a dependable pathway to a valuable bachelor’s degree. Even youth in jail and homeless shelters express college plans (Lansing, 2014), knowing that our society has made college a requirement for respected adulthood. Students are often advised that they should pursue a bachelor’s degree without considering alternatives or combinations. But this advice is often misleading. It is true that college enrollment is an important opportunity that can lead to various credentials with significant payoffs, but it is also true that we don’t always deliver on our promises that everyone will benefit from attending college. Unfortunately, our social institutions have not figured out how to respond to this reality, leaving half of community college students with monetary and time costs but no credentials or payoffs.

Far too often, young people are saddled with consequences of problems that they did not create. Rather than assuming that young people who don’t succeed lack direction, we should consider that, in fact, they lack

support—realistic goals and dependable career pathways simply aren’t available to many youth. Society pushes the dream of a four-year degree, but when high school graduates feel unsupported after twelve years of test-prep and narrow academic standards, school seems irrelevant to their lives. Instead of presenting young people with a lottery where nearly 50 percent of students fail, community colleges could provide dependable career pathways for those who need them most.

Reformers have proposed punishing colleges for low completion rates, but this is almost certainly a recipe for lower standards, lower payoffs, and the exclusion of low-income students. Instead, we can increase completion and credential attainment by improving counseling, guidance, alignment, systematic procedures, and school-employer linkages. Research can help develop these strategies, which, in turn, can increase completion outcomes without inadvertently providing incentives for lower standards.

We are proposing that research focus on the experiences of young adults and their families, just as in the original “Forgotten Half” report. We have seen that many youth rely on community colleges to attain self-sufficiency and career prospects, but that many ultimately fail in this pursuit. These young people need support, perhaps from procedures targeted at their demographics, so that they have a better chance of success. Youth must enter the labor market with skills that they can use to begin a career, and the proposed research can improve that process.

Young people need dependable pathways to productive adult roles. “The Forgotten Half” encouraged us to look beyond individuals and classrooms, and to see larger institutional contexts. Following that model, we first recommend that research describe the new college reality and its full range of options, odds, and outcomes. In examining how youth experience their college transitions, especially in two-year colleges, we still know very little

about the details of these transitions or what students understand about how college leads to careers. Research must understand the current college reality, including credential attainment and payoffs.

Second, we recommend that research improve our understanding of how counseling and guidance can better help youth think about college. Community colleges offer free choice, but not always informed choice. How can counselors help students understand college options, see an option that suits them, and support their efforts so they succeed? How can counselors inform students about careers, their monetary and nonmonetary job rewards, and which ones fit their interests and abilities? How can counselors help students persist in college? Three years after entry, often by age 23, many have fallen behind the four-year baccalaureate time schedule. How do students interpret that? Many students fail to attain a credential by age 26, so this is a critical age timetable. As we have outlined, educational institutions can do a great deal to reduce those initial failures. Schools and colleges need advising techniques to help students find the best path for their abilities, needs, and interests.

Third, like “The Forgotten Half,” we encourage institutional reforms such as alignment, structured procedures, and school-work linkages. In this area we are better off than in 1988. Unlike the original “Forgotten Half” report, which advocated promising programs that weren’t connected with existing schools, community colleges now offer career programs in more than 1,100 campuses across the United States. Yet, like the original report, we suggest that research should stress systematic institutional reforms aimed at aiding youth in community colleges—i.e., high school-college alignment, structured college procedures, and school-work linkages (see also Schwartz, 2014).

We propose policy reforms in these three areas to give students direction, purpose, and dependable pathways to success. Institutions can spell out exactly what youth must do to acquire requisite skills and knowledge, make dependable college progress, and enter productive adult roles. Without the aid of such procedures, youth must navigate a bewildering array of poorly understood options that may not fit their individual circumstances. Institutional reforms can improve high school-college

alignment, structured procedures that assure dependable progress and persistence, and trusted linkages that signal youth’s capabilities to employers, just as “The Forgotten Half” originally advocated.

The new forgotten half, those individuals who have followed advice to go to college but have failed to attain any credential, have lower labor market payoffs than individuals who attain a credential. Without systematic improvements, we suspect that these young people will continue to be deprived of good jobs and future careers, and will, perhaps, have a lower quality of life than those in similar positions in the past.

As “The Forgotten Half” stressed, our tasks are to recognize youth’s competencies, meet them where they are, and put them on a pathway to dependable progress. We see hopeful signs in the era of increased college access. Unlike in 1988, 86 percent of high school graduates now enter college and are thus in a position to reap the potential benefits of a college education..

However, we can’t forget that the objective is to expand opportunity for disadvantaged youth. Research should focus not only on the goals that colleges traditionally emphasize, which are often narrowly focused on academic achievement, bachelor’s degrees, and traditional college procedures. Instead, research should focus on young adults’ experiences, and consider how community colleges shape those experiences by preparing them to succeed in college and get good jobs. Young adults, not community colleges, should be the central focus of this research. As “The Forgotten Half” compellingly argued, our society’s future depends on them.

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