

# Enrollment and retention barriers adult students encounter

**Natasha  
Spellman**

*Ms. Spellman is currently serving as a doctoral fellow majoring in Adult Education and Professional Development at Regent University in Virginia Beach, Virginia.*

*By estimate, more than 47% of enrollees in U.S. higher education institutions can be classified as adult learners (Creighton & Hudson, 2002). Adults pursue higher education for various reasons including personal enrichment, change of career, or a requirement for promotion. The majority of adult students enroll in community colleges to fulfill educational and training needs. Adult students may face barriers when attempting to enroll in college. Program planners must understand characteristics of adult students, recognize social issues, and identify with cultural issues to effectively develop training and degree programs that not only attract students, but also encourage student retention. Community colleges have the ability to reduce or eliminate student barriers and subsequently prepare adults for the workforce.*

## Introduction

Though some adult students choose to begin postsecondary studies at community colleges, there is also an emerging pattern of adults returning to community colleges to complete programs or learn new skills. Community colleges serve the majority of students interested in upgrading skills or changing careers (Horn & Nevill, 2006). Adults interested in pursuing training, certificate, or degree programs often confront a variety of barriers such as lack of academic preparation, lack of finances, social issues, cultural issues, and overwhelming family responsibilities. The accurate identification of barriers for target groups assists community college administrators in planning programs that will reduce barriers

---

and meet the needs of adult students. When student needs are met, the likely outcome is increased student enrollment and retention rates.

## **The role of community colleges**

Community colleges have been providing opportunities to students for more than one hundred years and have become the largest sector of higher education (Boggs, 2004). The missions of community colleges are ever evolving because the communities served are changing. Community colleges play several roles in attempting to meet the varied needs of their constituents (Bragg, 2001). The primary purpose of public two-year schools is “to serve the social and cultural needs of the communities of which they are a part” (Hanson, 2006, p.132). Community colleges prepare students to be contributors to their communities by providing learning experiences beneficial to both the students and society. College programs in a multitude of communities connect cultural, social, psychological, economic, political, environmental, and technological elements (Galbraith, 1992). These programs must react to the elements present in the communities served. Preparing

students to enter or re-enter the workforce, providing language and citizenship courses, and educating low-income and first generation students are services that benefit both students and society (Boggs, 2004). Two niches have always been filled by community colleges: preparing transfer students for enrollment in four-year institutions and preparing students for the workforce (Geigerich, 2006).

Higginbottom and Romano (2001) declare that “community colleges see themselves as the workforce training centers of the 21<sup>st</sup> Century” (p.255). Some partner with the community by serving as contractors to job training and welfare programs and offer a variety of education, training, and economic development activities (Grubb, 2001). Ensuring that citizens have the capacity to fully participate in the American democratic system is also a goal of community colleges (Hanson, 2006). The democratic environment of community colleges appeals to students who seek to improve their lives through education (Laanan, 2000). They are a vital source of educational opportunity for millions of Americans and contribute to state and national economies (Bailey, 2005). Designed to be open-door institutions, community colleges

---

enroll a much wider variety of students than four-year colleges and universities (Bailey & Alfonso, 2005; Boggs, 2004). Most community colleges are committed to serving citizens through an open-access admissions policy, a comprehensive education program, a commitment to teaching, and a commitment to lifelong learning (Vaughan, 1995). The community college is viewed as a place where residents across a locality can join together in the pursuit of higher education. It is conveniently located and accessible to students who want to acquire labor market skills (Hanson, 2006).

### **Student characteristics and enrollment trends**

Community college students enter classes with different ethnic and social backgrounds, learning styles, communication styles, ways of thinking, and motivational cues (Palma-Rivas, 2000); however, several commonalities exist. Horn and Nevill (2006) describe characteristics of community college students. Students are likely to be female, Black or Hispanic, and from low-income families. Over 45% of students are first generation college students, and approximately 15% speak languages other than English at home (Bailey, 2005). Most com-

munity college students are age 24 or older and are considered to be nontraditional, or adult, students. People in their 30s or older account for almost half of the students enrolled in associate degree programs and are the majority of those in certificate programs. Nontraditional students are defined (Horn, 1996) as those having any of the following characteristics: (a) those who delayed enrollment into college, (b) part-time students enrolled in less than 12 credits a semester, (c) financially independent students, (d) those who work full-time, defined as more than 35 hours per week, (e) those with dependents other than a spouse, including children or other relatives, (f) single parents, or those responsible for more than 50% of their child's upbringing, and (g) those who did not receive a standard high school diploma. Horn suggests that students falling into one category are minimally nontraditional, students with two or three characteristics are moderately nontraditional, and those possessing four or more of the nontraditional characteristics are considered to be highly nontraditional. Adult community college students usually exhibit at least one of the above characteristics and have priorities that compete with educational attainment. Attending class is

---

just one part of life for students. Social factors, financial distress, and family obligations interweave with educational pursuits (Geigerich, 2006). One-third of adult students are married with children and one-fourth are single parents. Community college students often attend college part-time and work full-time. Fifty-seven percent of students work more than 20 hours per week and 36% care for dependents, while 21% of students spend at least six hours per week commuting to and from class (Community College Survey of Student Engagement, 2005).

Students typically underserved in higher education choose to attend community colleges. Forty-seven percent of the nation's Black undergraduates, 56% of Latinos, and 57% of Native Americans select community colleges as their provider of education (Geigerich, 2006). Students who delay postsecondary enrollment are more likely to attend public two-year colleges and to focus on vocational training and short-term programs than students who pursue higher education immediately following high school. A study of students delaying postsecondary enrollment suggests that over 50% of students waited five years or more before enrolling in college (Horn,

Cataldi, & Sikora, 2005). The decision to postpone the pursuit of a formal education program leads to a considerable presence of adult students on community college campuses where they are inclined to attend college on a part-time basis and continue working while enrolled (Horn et al., 2005).

Established working adults are pursuing course credit at community colleges in increasing numbers. Downsizing by both small and large employers has caused adults to re-evaluate their careers and pursue additional education (Milheim, 2005). O'Donnell's (2005) report of the findings of the National Household Education Surveys Program of 2003 showed that over the 12-month period from 2002-03, 40% of adults in the U.S. participated in one or more formal adult educational activities for work-related reasons. The activities include participation in college and university degree or certificate programs for work-related reasons, participation in vocational/technical school diploma or degree programs for work-related reasons, apprenticeships, and work-related courses. Of those participating in formal activities, 33% participated in work-related courses or training. Adult students under the age of

---

fifty comprise the majority of community college students enrolled in training and certificate programs (Kim, Hagedorn, & Williamson, 2004).

## **Enrollment barriers**

As enrollment trends illustrate, many adults over the age of 24 attend community college programs. When attempting to enroll in programs, adult students may face barriers that impede the enrollment process. The life roles of parent, spouse, and employee sometimes clash with college program expectations. Traditional college programs may not be designed to take into account life issues faced by low-skilled working adults with families. The training and support services of educational institutions are sometimes disconnected from the needs of adults. For those students unable to navigate through the obstacles of the enrollment process, training or degree completion may never become a reality. As many as 20% of students who begin their postsecondary education in community colleges complete less than ten credits (Bailey, 2005). Barriers to enrollment can be divided into three categories: situational, institutional, and dispositional. Cross (1981) explains that barriers resulting from one's circumstances in life

at a given time are considered situational. Institutional barriers involve policies and practices that prevent, or make difficult, participation in activities or courses. Institutional barriers may include a lack of evening or weekend courses for working students or a lack of financial assistance. Dispositional barriers include the students' self-perceptions and attitudes about their ability to succeed. With increasing enrollments of adult students, community college educators must understand the motivators prompting students to return to formal education and the barriers they face (Milheim, 2005). A lack of academic preparation, financial barriers, cultural barriers, and personal issues are common obstacles that may prevent students from enrolling in training, certificate, or degree programs.

Community colleges attempt to educate adult, or nontraditional, students who come to them academically unprepared. The students have often been separated from formal education for a number of years. Placement tests determine if they are ready to tackle curriculum courses or if additional help is needed on basic skills. Developmental courses in math, English, and reading may be required for students.

---

Minority students, with the exception of Asian Americans, often perform at levels below those of their white peers and are often required to enroll in developmental courses (Jalomo, 2000). Knowing that they need developmental courses may lead minority students to doubt their ability to perform at passing levels in curriculum courses and may discourage them from enrolling. Once students make the decision to enroll in a community college program, the next step probably involves determining program costs and finding ways to pay for them. Though community college tuition is considered inexpensive compared to rates at four-year colleges and universities, the majority of adult students are considered independent in terms of financial aid eligibility. Adult students who work full-time may not qualify for financial aid because financial need is the foundation of the federal aid system. Reed (2005) explains that financial aid rules were established decades ago when the majority of college students attended full-time and were in their late teens or early twenties. Bailey (2005) concurs that student loans and grants are intended to meet the needs of younger, full-time students.

Making a salary that exceeds

the financial aid guidelines does not necessarily translate into being able to afford college tuition (Hawley & Harris, 2005). Most adult students have families to support and may not have enough disposable income to pay tuition. For prospective students with limited income, such as welfare recipients, financial barriers are magnified. Limited income students interested in training and degree programs may be discouraged by registration and other related fees, may not be aware of the financial aid application process, or may feel intimidated by the process (Brock, Matus-Grossman, & Hamilton, 2001). With the rising cost of tuition, the number of students applying for financial assistance has understandably increased (Horn, 1996). If financial aid is not awarded, students are forced to delay enrollment until they can pay the tuition themselves.

Cultural barriers deter a number of adult students from enrolling in formal educational programs. Minority students, first-generation immigrants, and international students may encounter cultural stereotypes, immigration problems, and language limitations when attempting to enroll in community college programs (Poyrazli, Arbona, Nora, McPherson, & Pisecco,

---

2002). Even when colleges have services in place to assist students with cultural issues, students may hesitate to use them and instead suffer in silence to avoid the stigma associated with support services (Gary, Kling, & Dodd, 2004). For example, the influx of Spanish speakers into the United States has created a need for English as a Second Language (ESL) courses in formal educational programs. To assimilate within the college culture, Spanish speaking students must be able to communicate effectively. Yet they may not willingly participate in ESL courses for fear of being judged by others. Instead, they may sit silently in classrooms hoping to blend in with the rest of the students.

Potential adult students may also exhibit a variety of personal barriers. Health conditions, substance abuse, and volatile relationships prevent adults from enrolling in college programs. Past criminal records present legal barriers to employment in certain occupational areas (Brock, Matus-Grossman, & Hamilton, 2001). Even if there is a desire to learn a new skill, adults convicted of crimes may feel powerless and avoid college programs.

## **Barriers affecting student retention**

The barriers that deter students from enrolling in college are sometimes the same barriers that prevent them from remaining in programs until completion. Coley (2000) asserts that there are seven demographic factors that put students at risk of not attaining a degree or completing a program. These factors include delayed entry, part-time enrollment, full-time work, financial independence, dependents, single parenthood, and community college attendance without a high school diploma. These risk factors are common characteristics of adult students, which leads one to the assumption that adult students are destined to drop out of college programs. Yet they often leave programs before completion due to factors other than those cited by Coley. Academic failure, social isolation, and family responsibilities are also factors that put adult students at risk of giving up before program completion. Adult students juggle several roles everyday. Fitting in time to study and complete assignments can present major difficulties for students and may lead to academic failure. Though time constraints are one cause of academic failure, a more likely reason for adult stu-

---

dents is their approach to learning versus the teaching styles of their instructors.

Adult students are influenced by prior academic and life experiences and may differ from traditional students in their metacognitive knowledge and abilities (Donaldson & Graham, 1999). Older students are inclined to adopt a comprehension-focused approach to learning aimed at comprehending content material instead of using study strategies aimed at rote recall (Richardson, 1995). Students required to take developmental courses are also at risk of academic failure. They entered college at academic levels below their peers and are less likely to persist than other students. Assessments performed after students complete general education coursework can alert student service professionals to students who continue to be at risk of failure (Jalomo, 2000). Students entering college with limited English proficiency are at particular risk of academic failure (Hawley & Harris, 2005). If students are unable to understand fully material taught, mastery of that material becomes virtually impossible, and academic failure is inevitable. However, academic failure is not an issue for all students. Once enrolled in programs, adult students

may face social barriers that cause them to leave their course of study. For students separated from formal education for a number of years, the college environment may be intimidating. Since it is sometimes difficult to get to know other students and instructors, adult students may take a longer period of time to develop a sense of autonomy and self-efficacy than it takes younger students (Macari et al., 2005). Responsibilities outside of school limit the amount of time students are able to participate in the college environment or interact with faculty and peers (Graham, 1998). If students arrive on campus immediately before class and leave right after class, they will be excluded from the mutual understanding and support that adult students can provide each other (Macari et al., 2005) and may experience feelings of social isolation.

Married students and those responsible for the care of children have family responsibilities before enrolling in college. The responsibilities are not lessened after enrollment. The pressure to provide for families and concentrate on coursework is overwhelming for some students. Women are often laden with a disproportionate burden of household tasks and caregiver responsibilities when enrolled in

---

college courses (Carney-Crompton & Tan, 2002). Managing multiple roles is a source of stress for female students. Parents feel guilty about being unavailable when their children need them, with mothers of children under thirteen reporting the most conflict (Terrell, 1990). Women with older children may persist to graduation, whereas those with younger children may interrupt their education to fulfill family responsibilities (Carney-Crompton & Tan, 2002; Home, 1998). Unsuccessful resolution of stress factors may result in premature withdrawal from school (Burns, 1997).

## **Reducing student barriers**

Community colleges can play a critical role in the reduction or elimination of student enrollment and retention barriers. Instead of shifting the blame of failure to students, Zamani (2000) suggests that community colleges should be forerunners in recognizing barriers to success. Institutional factors contributing to the high attrition rate of students include insufficient financial aid, the perception of a hostile environment, few or no social activities, limited professional role models, and ignorance of the cultures and contributions of students (Mc-

Nairy, 1996). There may also be institutional factors that account for gender differentiation in enrollment and perception of adult programs. One factor may be the fields of study offered at particular institutions; another factor is whether programs require full-time study or can be completed as a part-time program. Women are more likely than men to enroll in part-time programs and continue to enroll in human service programs at a higher rate than men (Jacobs, 1999). An alignment between the espoused and lived mission of the college is important to the success of community colleges (Kezar & Kinzie, 2006). To fulfill their missions, colleges need to offer a range of student support services, create specialized programs, and form community collaborations to reduce student barriers.

Macari, Maples, and D'Andrea (2005) suggest that to promote student retention effectively, student development professionals must understand the academic characteristics and changing demographics of students. The daily interactions of students in the campus environment have the greatest impact on their decision to stay in or leave college (Stovall, 2000). Student support services personnel often are the first point

---

of contact for students. The attitudes, knowledge of programs and resources, and guidance received from the student services department give students their first impression of the college as a whole. Community colleges can ease student fears before applicants enter the classroom by implementing some of the following measures: on-site counselors prior to the start of registration to assist with enrollment issues, on-going tutorials on how to use the college website, and campus tours and orientation (Milheim, 2005). Students who have a sense of direction and a carefully designed plan of study before enrolling in courses are much further ahead in the quest toward program completion than those who do not (Hawley & Harris, 2005). Providing pre-enrollment counseling that involves taking the time to talk with students about their hopes, dreams, and reasons for considering enrollment gives students realistic expectations about the journey they are about to undertake. Developmental advising empowers students to explore all options and participate fully in the decision-making process (Bland, 2003). Empowering students to succeed will assist community colleges in their effort to effectively guide students and increase retention rates.

To help students of diverse cultural and ethnic backgrounds adjust to the college environment, Macari et al. (2005) recommend that multicultural and student development activities be incorporated into program curricula allowing students to participate in cultural activities during classes. Student support services can also assist students in the adjustment process by implementing a mentoring program. Students can be paired with mentors of similar cultural backgrounds to help them understand and use campus resources. Faculty can be mentors as well which gives students a sense of connection to at least one of their instructors. The student-faculty connection may indeed be the factor that keeps students from dropping out of college (Macari et al., 2005).

Work schedules and family responsibilities prevent most adult students from attending college full-time. To increase enrollment and retention rates, courses must be offered at times and in formats convenient to students. Vangen (1998) offers ideas for non-traditional delivery of courses including independent learning, open learning, contract programs, satellite classrooms, and distance learning centers. There are many examples of specialized programs

---

designed to meet the needs of adult students in non-traditional formats. Continuing education and professional development classes are examples. Programs that successfully address the educational needs of workers enhance their performance abilities and application of knowledge and skills to real-life situations faced on a daily basis. Education and training in continuing education programs must move beyond simply providing information and teaching technical procedures; it must help adult workers build their collaborative, judgmental, reflective, and integrative capabilities (Wilson & Hayes, 2000). Integrating prior learning and experiences with new concepts can enable learners in continuing education programs to function at a high level in personal and professional situations.

Distance education programs are common at most community colleges. In the 1990s, dramatic changes in the U.S. economy and technological innovations propelled distance education to the center of attention. The internet has presented higher education programs with “the largest megaphone in its history—the capacity to disseminate knowledge to an exponentially larger number of people than ever before” (Levine & Sun,

2002, p.1). Adult learners may opt to participate in distance education programs as a matter of convenience. Technology has changed tremendously during adult students’ lives and can pose problems for adults with little computer experience. If proper support is not given to adult students, distance education courses become a nightmare for them. For online learning to be effective, professors must shift from a teacher-centered to a student-centered learning environment. The online classroom depends on student interaction and dialogue. This social dimension reminds students that they are actually working with people and can help alleviate the dissonance inherent to online learning (Knowlton, 2000). Students need to feel a connection to the college and to other students in all program formats if an increase in retention is to occur.

Business leaders have recognized that an educated workforce is essential if they are to remain competitive in a global economy (Thompson, 2000). Partnerships between business and the education system have emerged as corporations become more involved in the education and training of their staffs. Zeiss (1999) argues that every community needs more skilled, productive workers,

---

and businesses are scrambling to develop dependable sources that provide new workers. Businesses are looking for certified occupational and workforce skills which community colleges can provide. Partnerships not only enhance programming efforts on college campuses, but also create a practical learning environment for students. Successful partnerships build trust and understanding among participants and require an investment of resources, energy, and commitment from everyone involved in program planning (Highum & Lund, 2000).

Partnering with local businesses helps community colleges train students for job opportunities in the community. Students have an incentive to complete training or degree programs if there is a chance to gain employment in the local community. Community colleges are at their best when working in symbiotic relationships with local agencies and the people they serve (Lang & Kneisley, 2005). Students may visit local social services or employment agencies on a regular basis. Distributing marketing materials such as posters, brochures, or videos in public agencies can lead to program referrals. Local agencies may include college marketing materials in planned

mailings to clients, and student services staff can follow-up by conducting orientations and question-and-answer sessions for potential students on-site at community agencies (Brock et al., 2001). Gathering information about the college programs in a familiar environment may spark interest in enrollment.

## **Summary and recommendations**

Adult students are confronted by a number of barriers threatening to block enrollment and retention efforts in community college programs. Academic, financial, social, cultural, and personal issues may hinder adult students from completing training or degree programs. It is the responsibility of community colleges to reduce or eliminate institutional barriers and assist students in overcoming barriers in their lives. Most adult students enroll in community colleges for work-related purposes. Offering programs in several formats—evening and weekend programs, distance learning, and specialized programs such as career pathways—permits students to pursue formal educational training or degree programs with minimal interruption of their lives. Reducing student and institutional barriers will increase enrollment

---

and retention numbers, thus preparing students to enter the workforce.

Characteristics of community college students and barriers discussed here are generalized. Further studies need to be conducted to determine if community college students embody the same characteristics and face the same general obstacles in specific settings. Another topic for further consideration is testing for differences in perceived student barriers in rural and urban settings. Urban areas are likely to have

more resources than rural areas. Adult students will likely have barriers in all settings, but the types of barriers may differ in rural and urban areas. A third research topic would compare perceptions of student barriers as identified by students to barriers identified by community college faculty and staff. Clear understanding between faculty and students can reduce the problem of low student retention rates.

## References

- Bailey, T. (2005). Student success: Challenges & opportunities. *Community College Journal*, 76(1), 16-19.
- Bailey, T. R., & Alfonso, M. (2005). Paths to persistence: An analysis of research on program effectiveness at community colleges [Monograph]. *Lumina Foundation for Education New Agenda Series*, 6(1), 1-38.
- Bland, S. M. (2003). Advising adults: Telling or coaching? *Adult Learning*, 14(2), 6-9.
- Boggs, G. R. (2004). Community colleges in a perfect storm. *Change*, 36(6), 6-10.
- Bragg, D. D. (2001). Opportunities and challenges for the new vocationalism in American community colleges. *New Directions for Community Colleges*, 115, 5-15.
- Brock, T., Matus-Grossman, L., & Hamilton, G. (2001). Welfare reform and community colleges: A policy and research context. *New Directions for Community Colleges*, 116, 5-20.

- 
- Burns, S. (1997). Assistance programs: A timely solution for the adult education setting. *Adult Learning*, 9(2), 26-28.
- Carney-Crompton, S., & Tan, J. (2002). Support systems, psychological functioning, and academic performance of nontraditional female students. *Adult Education Quarterly*, 52(2), 140-154.
- Coley, R. J. (2000). *The American community college turns 100: A look at its students, programs, and prospects*. Princeton, NJ: Educational Testing Service, Policy Information Center.
- Community College Survey of Student Engagement (2005). *Engaging students, challenging the odds*. Retrieved October 15, 2006 from <http://www.ccsse.org>.
- Creighton, S., & Hudson, L. (2002). *Participation trends and patterns in adult education: 1991 to 1999* (NCES 2002-119). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.
- Cross, K. P. (1981). *Adults as learners*. San Francisco: Jossey-Bass.
- Donaldson, J. F., & Graham, S. (1999). A model of college outcomes for adults. *Adult Education Quarterly*, 50, 24-40.
- Galbraith, M. W. (1992). *Education in the rural American community*. Malabar, FL: Krieger Publishing Company.
- Gary, J. M., Kling, B., & Dodd, B. N. (2004). A program for counseling and campus support services for African American and Latino adult learners. *Journal of College Counseling*, 7, 18-23.
- Geigerich, S. (2006, Winter). Barrier busters: Community colleges and their students embrace challenges. *Lumina Foundation Focus*, 4-25.
- Graham, S. W. (1998). Adult growth in college years: the effects of age and educational ethos. *Journal of College Student Development*, 39(3), 239-250.
- Grubb, W. N. (2001). From isolation to integration: Postsecondary vocational education and emerging systems of workforce development. *New Directions for Community Colleges*, 115, 27-37.
- Hanson, C.M. (2006). From learning to education: A new paradigm for the community college. *Community College Review*, 34(2), 128-138.

- 
- Hawley, T. H., & Harris, T. A. (2005-2006). Student characteristics related to persistence for first-year community college students. *J. College Student Retention*, 7(1-2), 117-142.
- Higginbottom, G., & Romano, R. (2001). SUNY general education reform and the community colleges: A case study of cross-purposes. In B. Townsend & S. Twombly (Eds.), *Community colleges: Policy in the future context* (pp. 243-259). Westport, CT: Ablex.
- Highum, A. C., & Lund, J. P. (2000). Partnerships in programming: Relationships that make a difference. *New Directions for Student Services*, 90, 35-44.
- Home, A. (1998). Predicting role conflict, overload and contagion in adult women university students with families and jobs. *Adult Education Quarterly*, 48, 85-98.
- Horn, L., Cataldi, E. F., & Sikora, A. (2005). *Waiting to attend college: Undergraduates who delay their postsecondary enrollment* (NCES 2005-152). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.
- Horn, L. J. (1996). *Nontraditional undergraduates: Trends in enrollment from 1986 to 1992 and persistence and attainment among 1989-90 beginning postsecondary students* (NCES 97578). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.
- Horn, L., & Nevill, S. (2006). *Profile of undergraduates in U.S. postsecondary education institutions: 2003-04: With a special analysis of community college students* (NCES 2006-184). Washington, DC: U.S. Government Printing Office.
- Jacobs, J. A. (1999). Gender and the stratification of colleges. *Journal of Higher Education*, 70(2), 161-187.
- Jalomo, R. J. (2000). Assessing minority student performance. *New Directions for Community Colleges*, 112, 7-17.
- Kezar, A., & Kinzie, J. (2006). Examining the ways institutions create student engagement: the role of mission. *Journal of College Student Development*, 47(2), 149-172.
- Kim, K., Hagedorn, M., & Williamson, J. (2004). *Participation in adult education and lifelong learning: 2000-01* (NCES 2004-050). U.S. De-

---

partment of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.

- Knowlton, D. S. (2000). A theoretical framework for the online classroom: A defense and delineation of a student-centered pedagogy. *New Directions for Teaching and Learning*, 84, 5-14.
- Laanan, F. S. (2000). Community college students' career and educational goals. *New Directions for Community Colleges*, 112, 19-33.
- Lang, J., & Kneisley, B. A. (2005). Why community colleges work: the answer is community. *Community College Journal*, 76(1), 52-54.
- Levine, A., & Sun, J. (2002). *Barriers to distance education*. Washington, D.C.: American Council on Education.
- Macari, D. P., Maples, M. F., & D'Andrea, L. (2005-2006). A comparative study of psychosocial development in nontraditional and traditional college students. *J. College Student Retention*, 7(3-4), 283-302.
- McNairy, F. G. (1996). The challenges for higher education: Retaining students of color. *New Directions for Student Services*, 74, 3-14.
- Milheim, K. L. (2005). Identifying and addressing the needs of adult students in higher education. *Australian Journal of Adult Learning*, 45(1), 119-128.
- O'Donnell, K. (2005). *Tabular summary of adult education for work-related reasons: 2002-03* (NCES2005-044). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.
- Palma-Rivas, N. (2000). Using technology to facilitate learning for minority students. *New Directions for Community Colleges*, 112, 73-83.
- Poyrazli, S., Arbona, C., Nora, A., McPherson, R., & Pisecco, S. (2002). Relation between assertiveness, academic self-efficacy, and psychosocial adjustment among international graduate students. *Journal of College Student Development*, 43, 632-642.
- Reed, S. (2005, Winter). Learning for life. *Lumina Foundation Focus*, 3-23.
- Richardson, J. (1995). Mature students in higher education: II. An investigation of approaches to studying and academic performance. *Studies in Higher Education*, 20, 5-17.

- 
- Stovall, M. (2000). Using success courses for promoting persistence and completion. *New Directions for Community Colleges*, 112, 45-54.
- Terrell, P. S. (1990). Adapting institutions of higher education to serve adult students' needs. *NASPA Journal*, 27(3), 241-247.
- Thompson, G. (2000). Unfulfilled prophecy: the evolution of corporate colleges. *Journal of Higher Education*, 71(3), 322-341.
- Vangen, C. (1998). The new golden rule. *Buildings*, 92(3), 68.
- Vaughan, G. B. (1995). *Community college story: A tale of American innovation*. Washington, DC: American Association of Community Colleges.
- Wilson, A. L., & Hayes, E. R. (2000). *Handbook of adult and continuing education*. San Francisco: Jossey-Bass.
- Zamani, E. (2000). Sources and information regarding effective retention strategies for students of color. *New Directions for Community Colleges*, 112, 95-104.
- Zeiss, T. (1999-2000). Community/Workforce development: A mandate for relevancy. *Community College Journal*, 70, 47-49.

**Copyright of *The Community College Enterprise* is the property of Schoolcraft College, and its content may not be copied or emailed to multiple sites or posted on a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.**