

Annotated Bibliography of Future Trends in Academic Access, Developmental Education, & Learning Assistance

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Introduction

The following annotated bibliography provides an overview of selected recent publications related to issues that will impact postsecondary developmental education in the near future. The document is divided into six sections: (1) interviews of national leaders in the field; (2) changing values in higher education; (3) culture and demographics; (4) educational theory and its implications; (5) institutional, state, and national policies; and (6) model practices in developmental education. Many of the documents are available through the web as noted in the references. New citations will be added periodically to a searchable on-line database that can be retrieved at <http://www.tc.umn.edu/~arend011/bibdir.htm>

Based on the research model developed by John Naisbitt and other futurists (*co-author of Megatrends among other books*), future trends are often first detected in the following five states: California, Colorado, Connecticut, Florida, and Texas. For a variety of geographic and demographic reasons, these “*leading indicator*” states often are predictive of future trends in a wide variety of areas in American society. The reader is encouraged to be especially observant of events occurring in these states.

1. Interviews and Statements by National Leaders

The following documents are a sample of the current thoughts by regional and national education leaders regarding the future of education related to this topic area.

Callan, P. M. (2000, Fall). An interview: Robert McCabe. *National Crosstalk*, Retrieved July 4, 2004, from: <http://www.highereducation.org/crosstalk/ct1000/interview1000.shtml>
Robert McCabe, senior fellow with the League for Innovation in the Community College and former president of Miami-Dade Community College is the focus of this interview. Much of the interview revolves around McCabe's newest book, *No One to Waste*, a national study of community college remedial programs. McCabe employs a variety of arguments for the support and expansion of remedial education.

Damashek, R. (1999). Reflections on the future of developmental education, Part I. *Journal of Developmental Education*, 23(1), 18-20, 22, 35.

Interviews were conducted with a number of leaders within developmental education: David Arendale, Hunter Boylan, Kaylene Gebert, Martha Maxwell, Santiago Silva, and Diana Vukovich. Each responded to a common set of questions about the future of developmental education. The interview concludes in part II which was published in the succeeding issue of the JDE.

Damashek, R. (1999). Reflections on the future of developmental education, Part II. *Journal of Developmental Education*, 23(2), 18-20, 22. Retrieved July 4, 2004 from: <http://www.ced.appstate.edu/centers/ncde/reserve%20reading/V23-2damashek%20reflections.htm>

Interviews were conducted with a number of leaders within developmental education: David Arendale, Hunter Boylan, Kaylene Gebert, Martha Maxwell, Santiago Silva, and Diana Vukovich. The dialogue points to several emerging trends: (a) mainstreaming, (b) removal of developmental education from 4-year institutions, and c) increased professionalism of developmental educators. Mainstreaming developmental education courses into college-level, graduation-credit programs of study fits into the paradigm of learning assistance and enrichment for all students. The participants in the discussion were unanimous in proposing a comprehensive academic support program that would include elements such as a learning center, adjunct or paired courses, Supplemental Instruction, tutoring, student assessment, and program evaluation. Boylan advocates funds for professional development and Gebert proposes faculty, student, and staff recognition whereas Silva includes academic advising, counseling, career services, mentoring, and especially faculty training in his list of important program components. Arendale and Vukovich propose a complete paradigm shift away from the medical model to learning support for all students. By deferring to Maxwell's (1997) latest book *Improving Student Learning*, Vukovich gives Maxwell credit for providing insight into best practices based on years of experience and the best research resulting in the recommendation of a comprehensive learning assistance model. The value of such a model is that it is more easily integrated into the academic process because it is understood as service for all students. This model is not burdened by the stigma of serving only the least able students, who, for many academic, administrative, and political leaders, are seen as a drain on the institution's academic standards.

Gardner, J. N. (2000). The changing roles of developmental educators. *Journal of College Reading and Learning*, 31(1), 5-18.

Taken from his keynote address to a national CRLA conference, the author argues that developmental educators need to build upon their successful history of service to students by reinventing themselves with new language, programs, and partnerships with a wider audience both inside and outside of higher education. The author brings another perspective to developmental education from his former position as Director of the national Center for the Study of the First Year Experience and a national board member for organizations such as the American Association of Higher Education.

Stratton, C. B. (1998). Transitions in developmental education: Interviews with Hunter Boylan and David Arendale. In J. L. Higbee, & Dwinell, Patricia L (Eds.), *Developmental education: Preparing successful college students* (pp. 25-36). Columbia, SC: National Resource Center for The First-Year Experience & Students in Transition.

This chapter asks two leaders in developmental education to do some future forecasting. Commenting about the role of DE in the future, Hunter Boylan and David Arendale discuss influences on the profession, requirements for success, and a view of expanded missions to promote the cognitive and affective growth of all students.

2. Changing Values and Priorities in Higher Education

Understanding the broader values and priorities in education can provide insight on trends that may have a dramatic impact upon this field within education. When advocating for programs with upper-level administrators or other policy makers, it is

important to use language and concepts with which they are familiar. It helps to establish a common dialogue for more effective communication. As Dr. Steven Covey suggests in one of the Seven Habits of Highly Effective People, "first seek to understand, then to be understood." It is important to read some of the publications that upper level administrators often read at the institution such as the Chronicle of Higher Education and Change Magazine (official publication of the American Association of Higher Education).

Astin, A. W. (1998). Remedial education and civic responsibility. *National Crosstalk*, 6(2), 12-13. Retrieved July 4, 2004, from: <http://www.highereducation.org/crosstalk/pdf/ctsummer98.pdf>

The author, director of the Higher Education Research Institute at UCLA, argues that remedial education is the most important problem in education today and providing instruction in this area would do more to alleviate more social and economic problems than any other activity. Astin discusses the history and stigma of remedial education and how higher education has become focused on "*identifying smart students*" rather than "*developing smartness*" in all its students. Astin argues that it is for the benefit of society that remedial education, affirmative action, and other programs be highly supported and valued.

Astin, A. W. (1999, Spring). Rethinking academic "excellence". *Liberal Education*, 7-18. The author, director of the Higher Education Research Institute at UCLA, argues that more resources should be invested in improving the learning systems at colleges. Rather than measuring the quality of student freshmen, the focus should be on the value-added experience of the college and the degree to which it has been a "*talent developer*" of the students. This provides useful language in describing the current and future role of developmental education and learning assistance programs.

Barr, R. B., & Tagg, J. (1995). From teaching to learning: A new paradigm for undergraduate education. *Change Magazine*, 27(6), 13-25. Retrieved July 4, 2004, from: <http://critical.tamucc.edu/~blalock/readings/tch2learn.htm>

This is one of the most often cited articles on this topic and is credited by some as helping to influence higher education significantly since it was published in a journal that is frequently read by college presidents and chief academic and student affair officers. According to the authors, a paradigm shift is occurring in American higher education. Under the traditional, dominant "*Instruction Paradigm*," colleges are institutions that exist to provide instruction. Subtly but profoundly, however, a "*Learning Paradigm*" is taking hold, whereby colleges are institutions that exist to produce learning. This shift is both needed and wanted, and it changes everything. The writers provided a detailed matrix to compare the old instruction paradigm with the new learning paradigm in the following dimensions: mission and purposes; criteria for success; teaching/learning structures; learning theory; productivity/funding; and nature of roles.

Eaton, S. B., & Folstein, K. (1998). A national certification program for the developmental educator: What do we think? *Learning Assistance Review*, 3(2), 41-45. The authors discuss the current debate over development of a certification program for those employed in the developmental education and learning assistance field.

Considerable controversy surrounds the proposal since a sizeable portion of those currently employed in the field do not have formal credentials obtained through academic degree programs that relate to their current positions.

Lazerson, M., Wagener, U., & Shumanis, N. (1999). *What makes a revolution: Teaching and learning in higher education, 1980-2000*. Stanford, CA: National Center for Postsecondary Improvement, Stanford University. Retrieved July 4, 2004, from: http://www.stanford.edu/group/ncpi/documents/pdfs/5-11_revolution.pdf

The authors provide a review of the literature concerning trends and major writers on teaching and learning during the 1980s and 1990s. Some of the cited leaders are Alexander Astin, Derek Bok, Richard Light, Ernest Boyer, K. Patricia Cross, and Lee Shulman. The authors argue that a major paradigm shift occurred from the preoccupation from teaching to a focus on student learning and mastery. A summary of this long report was published by the authors in *Change Magazine*, May/June 2000, Volume 32, Number 3, pp. 12-19.

3. Culture and Demographics

The dramatic and swift demographic changes that are occurring within American society will have a profound impact upon postsecondary education in general and this particular area. These changes will require use of new theories of learning for the increasing diversity of the student body. For the most part, higher education has lagged far behind elementary and secondary education in the study and effective implementation of more effective and sensitive pedagogies of learning. This is especially true of multicultural education which has for a long time focused on celebrating differences rather than building upon that facet and actually transforming the learning environment.

Barajas, H. L. (2001). Is developmental education a racial project? Considering race relationships in developmental education spaces. In D. B. Lundell, & J. L. Higbee (Eds.), *Theoretical perspectives for developmental education* (pp. 65-74). Minneapolis, MN: Center for Research in Developmental Education and Urban Literacy, General College, University of Minnesota. Retrieved July 4, 2004, from: <http://www.gen.umn.edu/research/crdeul/publications.htm>

The author states in the preface to the article that as a sociologist teaching in a developmental education unit, it was clear that both disciplines, sociology and education, revolved around White theories, create spaces that are inherently White, and create a culture of Whiteness that is more apt to study persons of color than to utilize their skills, talents, and ideas. The theoretical arguments and empirical evidence in this article explore the possibility that schools are what critical theory terms a racial project in which everyday school experiences and the school process are racially organized. Often, participants in racial projects silences students of color , and creates barriers to resources much like gendered spaces silence and create barriers for women.

Boylan, H. R., Sutton, E. M., & Anderson, J. A. (2003). Diversity as a resource in developmental education. *Journal of Developmental Education*, 27(1), 12-14, 16-17. This article explores the impact of cultural diversity in developmental education programs and how it is a resource for higher achievement for all students in the class.

Research suggests higher intellectual development and persistence rates for students in such a classroom setting.

Bruch, P. L., & Higbee, J. L. (2002). Reflections on multiculturalism in developmental education. *Journal of College Reading and Learning*, 33(1), 77-90.

This article reports on an effort to better understand the impact of increasing demographic diversity and calls for accountability. The authors describe the conditions needed for constructive local discussions and reforms relating to multiculturalism. The authors report how a group of developmental education professionals in a large, interdisciplinary developmental education unit understand multiculturalism. They explore the potentials and challenges involved in initiating local conversations about multiculturalism.

Brunch, P. (2002). Toward a new conversation: Multiculturalism for developmental educators. In J. L. Higbee, D. B. Lundell, & I. M. Duranczyk (Eds.), *Developmental education: Policy and practice* (pp. 35-44). Auburn, GA: National Association for Developmental Education.

The author provides a review of the place of multiculturalism within developmental education and the impact, or lack thereof, that it has had. After exploring the various positions taken on multiculturalism, the author proposes a new conversation based on asymmetrical reciprocity. Following this discussion, the author makes several recommendations for transforming writing instruction to foster this model.

Higbee, J. L. (2001). Promoting multiculturalism in developmental education. *Research and Teaching in Developmental Education*, 18(1), 51-57.

The author describes the importance of multiculturalism being deeply embedded within the curriculum and culture of the institution in general and developmental education in particular. This is especially true since often such programs have the most culturally diverse student populations. Examples are provided for ways for the institution and the classroom instructor to incorporate multiculturalism.

Higbee, J. L., Bruch, P. L., Jehangir, R. R., Lundell, D. B., & Miksch, K. L. (2003). The multicultural mission of developmental education: A starting point. *Research and Teaching in Developmental Education*, 19(2), 47-51.

The authors describe the work of the Multicultural Awareness Project for Institutional Transformation (MAP-IT) and the development of ten guiding principles for institutions regarding changes in institutional governance, organization, and equity; faculty and staff development; student development; intergroup relations; and assessment. This work is based on *Diversity within unity: Essential principles for teaching and learning in a multicultural society* (Banks et al, 2001).

Higbee, J. L., Lundell, D. B., & Duranczyk, I. M. (Eds.) (2003). *Multiculturalism in developmental education*. Minneapolis, MN: Center for Research on Developmental Education, General College, University of Minnesota. Retrieved July 4, 2004, from: <http://www.gen.umn.edu/research/crdeul/publications.htm>

The first three chapters of this monograph provide models for integrating multiculturalism in developmental education. The remaining chapters focus on

conversations related to multiculturalism in developmental education, reported by our colleagues in the General College of the University of Minnesota. The work of these authors reflects the General College's efforts to implement its multicultural mission. The following chapters are included in this monograph: *The Centrality of Multiculturalism in Developmental Education* (Karen L. Miksch, Patrick L. Bruch, Jeanne L. Higbee, Rashné R. Jehangir, and Dana Britt Lundell); *Walking the Talk: Using Learning-Centered Strategies to Close Performance Gaps* (Donna McKusick and Irving Pressley McPhail); *Creating Access Through Universal Instructional Design* (Karen S. Kalivoda); *Multicultural Legacies for the 21st Century: A Conversation with James A. Banks* (Patrick L. Bruch, Jeanne L. Higbee, and Dana Britt Lundell); *Is there a Role for Academic Achievement Tests in Multicultural Developmental Education?* (Thomas Brothen and Cathrine Wambach); *The Triumphs and Tribulations of a Multicultural Concerns Committee* (David L. Ghere); *MultiCultural Development Center (MCDC): Sharing Diversity* (Ghafar A. Lakanwal and Holly Choon Hyang Pettman); *Summary Report on the Third National Meeting on Future Directions in Developmental Education: Grants, Research, Diversity, and Multiculturalism* (Dana Britt Lundell); *Report of the Future Directions Meeting Multicultural Themes Track* (Jeanne L. Higbee and Holly Choon Hyang Pettman); and appendices.

Jehangir, R. R. (2001). Cooperative learning in the multicultural classroom. In D. B. Lundell, & J. L. Higbee (Eds.), *Theoretical perspectives for developmental education* (pp. 91-99). Minneapolis, MN: Center for Research in Developmental Education and Urban Literacy, General College, University of Minnesota. Retrieved July 4, 2004, from: <http://www.gen.umn.edu/research/crdeul/publications.htm>

The author describes the role of cooperative learning in creating an inclusive, interactive classroom for fostering both developmental education and multicultural education. Key elements of cooperative learning include: value of learning, shared governance, group accountability, and student-generated construction of knowledge. All these elements permit a more open and even discussion of issues from a variety of perspectives and cultures rather than the learning setting being dominated by the course professor who may represent only one cultural perspective and often that of the dominant culture in society.

Miksch, K. L., Higbee, J. L., Jehangir, R. R., Lundell, D. B., Bruch, P. L., Siaka, K., & Dotson, M. V. (2003). *Multicultural Awareness Project for Institutional Transformation (MAP IT)*. Minneapolis, MN: Multicultural Concerns Committee and the Center for Research on Developmental Education and Urban Literacy, General College, University of Minnesota-Twin Cities. Additional copies available from the Center for Research on Developmental Education and Urban Literacy, General College, 128 Pleasant Street SE, Minneapolis, MN 55455. The MAP IT survey instruments, extended bibliography, and additional reports related to MAP IT were retrieved July 4, 2004 from <http://www.gen.umn.edu/research/crdeul/publications.htm>

The Multicultural Awareness Project for Institutional Transformation (MAP IT) was developed at the University of Minnesota's General College with the goal of integrating multicultural education within postsecondary education. MAP IT is an adaptation of *Diversity Within Unity: Essential Principles for Teaching and Learning in a Multicultural Society* (Banks et al., 2001). This publication contains the MAP IT set of 10 Guiding

Principles and four survey instruments designed to aid in measuring the extent to which institutions of higher education centralize multicultural education and incorporate the guiding principles. Instruments are provided for survey of the following four groups within the institution: administrator, faculty & instructional staff, student development and support services staff, and student.

Pedelty, M. H., & Jacobs, W. R. (2001). The place of "culture" in developmental education's social sciences. In D. B. Lundell, & J. L. Higbee (Eds.), *Theoretical perspectives for developmental education* (pp. 75-90). Minneapolis, MN: Center for Research in Developmental Education and Urban Literacy, General College, University of Minnesota. Retrieved July 4, 2004, from: <http://www.gen.umn.edu/research/crdeul/publications.htm>

The authors state in the preface to the article that a new trend within developmental education is to view students in their full complexities, rather than as "deficits" to be fixed. This position can be actualized in the social sciences by retheorizing "culture". The authors use a cultural studies framework to combine anthropological and sociological groundings into a model of culture that demands that first the students' pre-college lived experiences and understandings be accessed, and then work with them to expand, rather than replace, their knowledge with the formal discourses that they must master to negotiate academic spaces.

Swail, W. S. (2002). Higher education and the new demographics: Questions for policy. *Change Magazine*, 34(4), 15-23.

The author notes the changing demographics of higher education which lead to increasing diversity upon entry into the institution, but at the same time reveal that low-income, first generation, and students of color are less likely to graduate than their counterparts. The author asks many policy questions that will need to be answered as higher education is held accountable for producing an educated workforce from the rapidly growing diverse population of the country.

4. Theory and Implications

The impact of new emerging theories of learning and which students benefit from new practices in developmental education will have a natural impact upon the way that access programs are organized and the curriculum or services delivered. Many of the traditional learning theories were developed based on research of student populations that were primarily from the previously from the dominant culture in America, just graduated from high school, and attended college in residential settings.

Brothen, T., & Wambach, C. (2002). Developmental theory: The next steps. *The Learning Assistance Review*, 7(2), 37-44. Retrieved July 4, 2004, from: <http://www.eiu.edu/~lrnasst/nclca/nclcajoi.htm>

After providing a short summary of their theory of developmental education (self-regulation, demandingness, and responsiveness), the authors recommend several ways to implement the theory within general education courses. Such an integrated approach to developmental education, rather than the traditional separate track system, will

require institutional commitment as well as professional development in new learning pedagogies for those who instruct the new courses.

Chung, C. J. (2005). Theory, practice, and the future of developmental education. *Journal of Developmental Education*, 28(3), 2-4, 6,8, 10, 32.

This article forcefully argues that an overarching, shared theoretical framework is necessary for developmental education practitioners. Rather than importing theories and applying them with developmental education, an alternative approach that is practice-oriented is recommended for adoption. There are three stages in this practice-oriented approach: 1. Practitioners engage in reflection-in-action; 2. based upon their reflection-in-action, practitioners articulate a personal theory; and 3. Compare personal theories at different levels and find commonalities.

Higbee, J. L. (2000). Commentary: Who is the developmental student? *The Learning Assistance Review*, 5(1), 41-50.

The author writes in the conclusion, "Who is the developmental student? More appropriate question might be, 'Is there any student who would not benefit from courses, programs, and services designed to enhance academic achievement and promote the development of the individual to his or her full potential?'" The author argues for an expansion of the definition, mission, and service area of developmental education for a wider student body.

Higbee, J. L. (1996). Defining developmental education: A commentary. In J. L. Higbee, & P. I. Dwinell (Eds.), *Defining developmental education* (pp. 1-5). Morrow, GA: National Association for Developmental Education. Retrieved July 4, 2004, from: <http://www.umkc.edu/cad/nade/nadedocs/96monpap/jhmpap96.htm>

The author applies Chickering's *Seven Vectors of College Student Development* (1993) to understanding a theory of developmental education: developing competence, managing emotions, developing mature interpersonal relationships, establishing identity, developing purpose, developing integrity.

Kinney, D. P. (2001). Developmental theory: Application in a developmental mathematics program. *Journal of Developmental Education*, 25(2), 10-12, 14, 16, 18, 34.

The developmental theory concepts of self-regulation, demandingness, and responsiveness (Wambach, Brothen, and Dikel, 2000) are applied to a developmental mathematics program at the General College of the University of Minnesota.

Lundell, D. B., & Collins, T. (1999). Toward a theory of developmental education: The centrality of "discourse". In J. L. Higbee, & P. L. Dwinell (Eds.), *The expanding role of developmental education* (pp. 3-20). Morrow, GA: National Association for Developmental Education. Retrieved July 4, 2004, from: <http://nade.net/documents/mono99/mono99.1.pdf>

After a review of various theories that have been used to define developmental education, the authors critique them regarding them. They found that most were theoretically underdeveloped. The authors recommend the idea of "Discourse" as articulated by James Paul Gee as a theory to guide developmental education.

Lundell, D. B., & Higbee, J. L. Eds (2001). *Theoretical perspectives for developmental education*. Minneapolis, MN: Center for Research on Developmental Education, General College, University of Minnesota. Retrieved July 4, 2004, from: <http://www.gen.umn.edu/research/crdeul/publications.htm>

This monograph provides nearly 20 articles in four sections: new and revised theories for developmental education; culture and constructivism; literacy and composition; and theories for math and science.

Pedelty, M. (2001). Stigma. In J. L. Higbee, D. B. Lundell, & I. M. Duranczyk (Eds.), *2001: A developmental odyssey*. Warrensburg, MO: National Association for Developmental Education.

Thirty-eight students conducted ethnographic research among their peers at a developmental program within a large public university. The students found that many of their peers feel stigmatized. The author argues that stigmatization is an inevitable outcome of academic ranking and a result of the ideological narratives driving U.S. education. He proposes a "*justice model*" to deal with issues of academic stigma among students and faculty in developmental education programs.

Wambach, C., Brothen, T., & Dikel, T. N. (2000). Toward a developmental theory for developmental educators. *Journal of Developmental Education*, 24(1), 2-4, 6, 8, 10, 29. The authors propose a comprehensive theory of developmental education which is based on developmental psychology. There are three basic concepts in the theory: demandingness, responsiveness, and self-regulation. Rather than operating with a "*deficit model*," this theory is rooted in developmental psychology which focuses on building the strengths of all students. A number of recommendations are provided for practical implementation of this theory in the classroom.

5. Institutional, State, and National Policies

Comparing past and current policies concerning academic access, developmental education, and learning assistance programs helps to identify emerging trends that may have regional or national impact on the field. As suggested by the futuring model developed by John Naisbitt and others, it is important to observe activities and policies developed in California, Colorado, Connecticut, Florida, and Texas. For a variety of geographic and demographic reasons, these "leading indicator" states often are predictive of future trends in a wide variety of areas in American society. The reader is encouraged to be especially observant of events occurring in these states.

Barefoot, B. O. (2003). *Findings from the Second National Survey of First-Year Academic Practices, 2002*. Brevard, NC: Policy Center for the First Year of College. Retrieved July 4, 2004, from: <http://www.brevard.edu/fyc/survey2002/findings.htm>

These findings are based on a survey results received from 1,000 colleges concerning first-year programs for students. Several of the questions were related to developmental education. While developmental education courses are offered at nearly all two-year institutions, the percentage drops dramatically with public four-year institutions: 80%, baccalaureate general colleges; 40%, baccalaureate liberal arts colleges; 70%, master's I & II; 70%, research intensive; 60%, research extensive. In the past five years the

percentage of students taking developmental courses has increased most at public two-year institutions. In general, enrollment has remained even at four-year institutions though there are differences by type. About a third of baccalaureate-general colleges reported increases while an equal percentage reported decreases at research extensive institutions.

Barton, P. E. (2002). *The closing of the education frontier?* Princeton, NJ: Educational Testing Service. Retrieved July 4, 2004, from: <http://www.ets.org/research/pic/frontier.pdf>

The author makes an implicit analogy with a theory that early America was defined by the opportunity presented by Frederick Jackson Turner's thesis of the '*opening of the American west*'. The Turner thesis was, "Up to our own day American history has been in a large degree the history of the colonization of the Great West. The existence of an area of free land, its continuous recession, and the advance of American settlement westward explain American development". Accordingly, America changed when the West was closed and opportunity ended in 1893. Using this concept as a counterpoint, Barton questions whether the frontier of educational opportunity has already closed, and thereby changing American culture. He argues that there is empirical evidence that postsecondary educational opportunity has closed, and therefore changing the nature of American society. Barton's data challenges the conventional wisdom that educational attainment has continued to increase during the last quarter century. He paints a picture of an educational system that is not producing more high school graduates, that continues to display great social inequality, and that is not able to support greater proportions of students through to degree in four-year college programs.

Bastedo, M. N., & Gumport, P. J. (2003). Access to what? Mission differentiation and academic stratification in U.S. public higher education. *Higher Education: The International Journal of Higher Education and Educational Planning*, 46(3), 341-359. Retrieved July 4, 2004, from: <http://www.kluweronline.com/issn/0018-1560>

This article analyzes developmental education policy in Massachusetts and New York to examine recent policy decisions regarding the termination of academic programs, elimination of remedial education, promotion of honors colleges within each state system. A result of these policy decisions has been to increase stratification of programs and students within a public state higher education system as well as with individual institutions within the state system. The authors argue that more intense analysis needs to be conducted before systematic changes are made within education systems to avoid or at least forecast major changes in the stratification of student opportunity to attend postsecondary education.

Boylan, H. R., Saxon, D. P., & Boylan, H. M. (2002). *State policies on remediation at public colleges and universities*. Unpublished manuscript, National Center for Developmental Education, Appalachian State University, Boone, NC. Retrieved July 4, 2004, from: <http://www.ced.appstate.edu/centers/ncde/reserve%20reading/state%20Policies.htm>

The authors conducted a survey of higher education officials of all 50 states. States where developmental courses are restricted at state two and four-year institutions: California, Massachusetts, Mississippi, Missouri, New York, New Mexico, Texas, Utah, Washington, and Wisconsin. States where developmental courses are restricted to only

two-year institutions: Arizona, Colorado, Florida, Georgia, Montana, South Carolina, Tennessee, and Virginia. Other survey results include regulations concerning mandatory testing and placement, impact upon financial aid, type of academic credit awarded, and state efforts to reduce the need for developmental education coursework by changes with high school curriculum.

Cloud, J. (2002, October 14). Who's ready for college? [Sic] Conservatives want to get rid of remedial education. If so, only two-thirds of today's freshmen need apply. *Time Magazine*.

The article repeats previously reported research such as about one-third of entering students need to enroll in one or more developmental courses. Several states are reported to ban financial support for developmental education, even at the community college level.

Cunningham, A., Redmond, C., & Merisotis, J. (2003). *Investing early: Intervention programs in selected U.S. states*. Montreal, Canada: The Canada Millennium Scholarship Foundation. Retrieved July 4, 2004, from: http://www.millenniumscholarships.ca/en/research/investingeng_web.pdf

This study focused on 17 pre-college intervention programs offered in 12 states that are targeted for middle-school or high-school students. Effective programs had the following characteristics: they were comprehensive involving multiple areas (*college awareness, financial aid counseling, academic enrichment, financial incentives*); academic development (*tutoring, mentoring, coursework*) were important components; linkage with area postsecondary institutions. One of the biggest problems cited among the programs was that many eligible students did not participate in the programs for a variety of personal reasons and also that the programs limited their size due to budget constraints.

Furlong, T., & Fleishman, S. (2000). *College preparatory program agreements between state universities and community colleges: A Level 1 review*. Tallahassee, FL: Florida State Board of Community Colleges. (ERIC Document Reproduction Service No. ED440716).

This report reviews the long history of college preparatory programs offered to state university students in Florida through partnerships with local community colleges. Courses are offered either at the community college or by the community college on the university campus. Results of the study suggest that: (1) administration of the college-university agreements are sound; (2) communication between sectors is adequate; (3) there are not problems with delivery of services to students; (4) community colleges are perceived to be best suited for delivery of remedial instruction; and (5) the majority of students successfully perform college-level coursework after completing college preparatory courses.

Jehangir, R. R. (2002). Higher education for whom? The battle to include developmental education at the four-year university. In J. L. Higbee, D. B. Lundell, & I. M. Duranczyk (Eds.), *Developmental education: Policy and practice* (pp. 17-34). Auburn, GA: National Association for Developmental Education.

This chapter examines the debate regarding the role of developmental education at public four-year universities, and will focus on the following topics: discussion of the

historic and political forces that have shaped perceptions regarding DE; a description of DE and developmental students; an examination of the debate around its place in higher education with specific attention to current state legislative action against DE at the public four-year university; and recommendations for developmental educators who seek to challenge the merit of such legislation and create a paradigm shift around perceptions of DE.

Jenkins, D., & Boswell, K. (2003). *State policies on community college remedial education: Findings from a national survey*. Washington, D.C.: Center for Community College Policy, Education Commission of the States. Retrieved February 26, 2005, from <http://www.communitycollegepolicy.org/pdf/FINAL%20REMEDIAL%20POLICY.pdf>
Ten states currently prohibit or discourage remedial education at public four-year institutions: Arizona, Colorado, Georgia, Florida, Indiana, Kansas, New Mexico, South Carolina, Utah, and Virginia. Louisiana will prohibit such coursework beginning in 2005. Remedial education is being curtailed with the City University of New York System and the California State University System. Massachusetts restricts such enrollment to a smaller percentage. These changes have increased enrollment in remedial education at public community colleges. Most states have instituted evaluation programs to monitor such enrollment at the community college and transfer to four-year institutions.

Kipp, S. M., Price, D. V., & Wohlford, J. K. (2002). *Unequal opportunity: Disparities in college access among the 50 states*. Indianapolis, IN: Lumina Foundation for Education. Retrieved July 4, 2004, from: <http://www.luminafoundation.org>

This national study investigates academic access in all 50 states for students of varying levels of income and academic preparation. Two major dimensions were studied at the 2,800 postsecondary institutions in the study: admissibility and affordability. While most states provide low-income dependent students with access to public two-year institutions without borrowing, fewer states provide similar access to public four-year institutions. The major findings of the study include: the percentage of admissible institutions varies widely among states; the percentage of affordable institutions varies widely among states; low-income dependent and independent students have fewer accessible options than median-income students; and borrowing is more frequently required to achieve affordability for low-income dependent students than it is for median-income dependent students. Part of this variability in access is due to differences across and within states in students' academic preparation, selectivity of institutions, variations in tuition policies, and variations regarding state financial aid programs.

Lizotte, R. (1998). *Access and quality: Improving the performance of Massachusetts Community College developmental education programs*. Boston, MA: Massachusetts Community College System. Retrieved July 4, 2004, from: <http://cit.necc.mass.edu/mccdec/Access%20and%20Quality2.htm>

The Massachusetts Community College Developmental Education Committee was charged to identify practices and models for adoption by the state's community colleges. Some of the recommendations include the following four areas. *Assessment and Placement*: mandatory comprehensive assessment of all incoming students; mandatory placement into appropriate courses. *Curriculum Design and Delivery*: comprehensive developmental curriculum; exit criteria for each developmental course; conduct

continuous outcome research to measure program effectiveness. *Support Services*: monitor student success through intrusive advising; provide tutors and Supplemental Instruction program. *Organizational Structure*: professional development of faculty; fund full-time faculty to teach developmental courses.

Martinez, S., Snider, L. A., & Day, E. (2003). *Remediation in higher education: A review of the literature*. Topeka, KS: Kansas State Board of Education. Retrieved July 4, 2004, from: http://www.ksde.org/pre/postsecondary_remediation.doc

This national survey of developmental education dealt with the following issues: reason for DE enrollment levels; strategies to reduce need for DE; institutional type to provide DE; financial responsibility for DE; factors that make DE more effective; and suggested DE research topics. The report concludes with a state by state analysis of DE by identifying the following features: annual cost, enrollment percentage, state laws and policies or proposed changes, and restrictions on provision of DE.

NCPPE. (2004). *Measuring up: The national report card on higher education*. San Jose, CA: National Center for Public Policy and Higher Education. Retrieved October 10, 2004, from: <http://measuringup.highereducation.org>.

Although more high school graduates are prepared for college, most states, and the nation as a whole, have made few gains in college enrollment and completion over the last decade. And for most American families, paying for college has become more difficult. This report is the first to examine ten-year performance trends in the nation as a whole and in each of the 50 states. The achievement gains are not evenly spread through the population, the report also finds. Substantial racial, ethnic, income, and geographical disparities are hidden in the rising national averages in achievement. The findings suggest that the national standards movement, and other reforms at the elementary and secondary school levels, have produced larger numbers of college-ready students. More high school students are taking rigorous courses, such as upper-level math and science. In many states, however, smaller proportions of students are completing high school and going to college following graduation. Moreover, only slightly more of those who do enroll in college are completing two- and four-year degree programs than was the case a decade ago. The report evaluates the performance of each state in five areas: preparation for college; participation (do state residents enroll in college-level education?); completion (what percentage of those enrolled in higher education receive degrees or certificates?); affordability; and benefits (what economic and civic benefits accrue to a state that has a more highly-educated population?).

NERCHE. (2002). *Developmental education and college opportunity in New England: Lessons for a national study of state and system policy impacts*. Washington, D.C.: The Institute for Higher Education Policy and New England Resource Center for Higher Education. Retrieved July 4, 2004, from: <http://www.nerche.org/IHEP/FinalRep/NERCHEfinal.pdf>

This pilot project does not evaluate New England's state policies or compare New England public institutions, but rather provides important clues and lessons on how developmental education policies are being implemented in a specific geographic region, and what questions need to be considered in a national study or project. Common characteristics of developmental education (DE) programs were: formation of two-

year/four year partnerships; outsourcing of DE to local community colleges; transfer of priority of DE to two-year colleges; centralize DE programs at four-year colleges; providing summer bridge DE programs; and using ACT Accuplacer for assessment of students. Numerous recommendations were made for a national study on developmental education: examine both centralized and decentralized state system policy approaches to DE; financial implications of statewide DE policy; curriculum impacts of DE policies; admissions decisions and enrollment yields impacted by DE programs and policies; and examine student responses and perspectives as a consequence of changing statewide policies related to DE.

O'Brien, C. T. (2004). *Indicators of opportunity in higher education*. Washington, D.C.: The Pell Institute for the Study of Opportunity in Higher Education. Retrieved October 10, 2004, from: http://www.pellinstitute.org/statusreport/5b_Indicators_CvrsTxt.pdf
Most students from low-income families (below \$25,000 annual income) do not attend college since it appears unattainable. Those who do attend from this group generally attend public two year or proprietary colleges. Most of these students will not complete a four-year baccalaureate degree. Postsecondary education is becoming more stratified by students' income.

O'Brien, C., & Shedd, J. (2001). *Getting through college: Voices of low-income and minority students in New England*. Washington, D.C.: The Institute for Higher Education Policy. Retrieved July 4, 2004, from: <http://www.ihep.com/Pubs/Nelliemae.pdf>
This research study employed surveys and in-depth interviews with currently enrolled low-income and minority students in the New England region concerning their feelings about the obstacles they face in succeeding in college and what strategies they are employing to deal with the environment. Findings from the study include: 1. Pre-college academic preparation programs were rated highly as supporting current college success though only one-fourth of eligible students are able to participate at the high school level. 2. Financial aid was a key factor in college attendance though one-third indicated that their financial aid package was inadequate and caused other hardships in their lives. 3. Minority students were more likely to participate in pre-college programs than their counterparts. Recommendations offered by the report include: increased awareness of pre-college academic preparation programs; increased offerings of grants in lieu of loans; increased efforts to establish a "campus community" for students who live off-campus, have families, off-campus employment, and other responsibilities away from the campus.

Parsad, B., & Lewis, L. (2003). *Remedial education at degree-granting postsecondary institutions in Fall 2000 Statistical analysis report*. Washington, D.C.: U.S. Department of Education, National Center for Education Statistics. Retrieved July 4, 2004, from: <http://nces.ed.gov/pubs2004/2004010.pdf>
This study was conducted through the National Center for Education Statistics (NCES) Postsecondary Education Quick Information System (PEQIS). It was designed to provide current national estimates of the prevalence and characteristics of remedial courses and enrollments in degree-granting 2-year and 4-year postsecondary institutions that enrolled freshmen in fall 2000, and to report changes in remediation from fall 1995. For the purposes of this study, remedial education courses were defined as courses in reading,

writing, or mathematics for college-level students lacking those skills necessary to perform college-level work at the level required by the institution. This report presents data on remedial course offerings, student participation in remedial programs, institutional structure of remedial programs, and the delivery of remedial courses through distance education. This study examined two issues not covered in the 1995 survey types of technology used in the delivery of remedial education through distance education courses, and the use of computers as hands-on instructional tool for on-campus remedial education. The data are presented by institutional type: public 2-year, private 2-year, public 4-year, and private 4-year.

Ruppert, S. S. (2003). *Closing the college participation gap*. Washington, D.C.: Education Commission of the States. Retrieved July 4, 2004, from: <http://www.communitycollegepolicy.org/html/Issues/Access/pdf/ECSNationalReportComplete.pdf> and <http://www.communitycollegepolicy.org/html/Issues/Access/pdf/NCHEMSReport.pdf> This national report examines the college participation rates of each state. The policy implications of this report is that a higher percentage of Americans could benefit from college education and the requirements required of the publicly-funded institutions and the states. The report states that the challenge is not only to accommodate a greater number of students, but also to increase the proportion of the population that goes to college and successfully completes its learning goals. The consequences for academic access programs would dramatically increase with a corresponding increase in the entering student body which would naturally represent a wide range of academic preparation levels. Developmental education is one of the interventions recommended by a companion report, *Narrowing the gaps in educational attainment within states A policymaker's guide to assessing and responding to needs for community college services* available from <http://www.communitycollegepolicy.org/html/Issues/Access/pdf/NCHEMSReport.pdf>

Shaw, K. M. (1997). Remedial education as ideological battleground: Emerging remedial education policies in the community college. *Educational Evaluation and Policy Analysis*, 19(3), 284-296.

The author describes the current debate about the appropriate location of remedial education classes and their frequent placement with public community colleges. The ideological underpinnings for the debate are examined. Distinctions are drawn between developmental and remedial education and the appropriate implementation by community colleges. Some institutions are strongly controlled by state-level policy making that strictly dictates the implementation of policy down to the individual institution regarding testing, admissions, placement into remedial courses, and the curriculum of such courses. Other states provide guidelines that are open for interpretation by the individual institution. Still other states are not directive regarding such matters which are left for local control. This represents three distinct policy models used by public community colleges in the U.S.

Task Force on Remedial Education. (2001). *Collaborating to strengthen student preparation*. Springfield, IL: Illinois Community College System. Retrieved July 4, 2004, from: <http://www.hcc.cc.il.us/staff/padriacs/taskforcereport.pdf>

The Remedial Education Task Force identified priority needs for remedial education in Illinois. Strategies identified for implementation included further alignment of standardized student assessment instruments; agreement on student placement parameters; reinforce current P-16 collaborations; promote earlier awareness of rising academic and workplace standards; development of strategies for earlier intervention in P-12 pipeline; intervene with students while still in high school; align high school graduation and college entrance requirements; provide more feedback to high schools concerning their graduates needing remediation; provide alternatives to academic term length developmental courses to remediate weaknesses; coordinate Adult Education, ESL, and college developmental programs; track students who enroll in remedial courses to evaluate the effectiveness of the intervention; develop comprehensive student support systems that address both academic and nonacademic needs; provide remedial education via alternative educational delivery systems; provide professional development for full- and part-time remedial instructors to improve their skills and integrate technology within the classroom; and develop state-wide standards for remedial education courses.

Task Force on Remedial Education. (1997). *Report of the task force on remedial education*. Boston, MA: University of Massachusetts. Retrieved July 4, 2004, from: <http://cit.necc.mass.edu/mccdec/Report%20of%20the%20Task%20Force.htm>

In this document, the Task Force on Remedial Education examines the issue of remedial education, describes the scope of remedial education at the University, and offers recommendations for policies and administrative procedures that will foster student learning through remedial education: 1. The University of Massachusetts should continue to offer limited remedial programs to address the needs of its admitted students. 2. The University and the Community Colleges should explore additional avenues of collaboration that might improve or enhance the quality and cost-effectiveness of remediation available to students enrolled in both sectors. 3. All entering first-time freshmen and transfer students should continue to be assessed by each campus to determine appropriate course assignments for mathematics and writing. 4. Campus faculty and administrators responsible for remedial programs at UMass campuses should increase their levels of communication and collaboration with each other. 5. The University should develop better methods for assessing the outcomes of remedial instruction, working collaboratively with other sectors of higher education as necessary.

6. Model Practices

In response to many of the trends areas identified earlier in this paper, a number of model practices have been developed to meet the needs of students admitted through academic access programs and the newly recognized needs of the general student population. While the need for academic access, developmental education, and learning assistance programs appears to be stable, if not increasing, the form of such services will probably need to evolve to meet the needs and requirements of students, institutions, policy makers, and the general public. A review of the history of this topic has confirmed that the language and form of programs have changed over time. The following is a sample of some of the emerging practices that are being adopted for use.

Boylan, H. R. (1999). Exploring alternatives to remediation. *Journal of Developmental Education*, 22(3), 2-4, 6, 8, 10. Retrieved July 4, 2004, from: <http://www.ced.appstate.edu/centers/ncdereserve%20reading/V22-3alternatives%20to%20remediation.htm>

The article addresses issues related to the cost and time investment of providing remedial courses to college students and offers an overview of possible alternatives. Some criticisms of developmental education are examined and countered with evidence from research. Frequently employed current practices are outlined. More recent alternative approaches to course delivery and student support services are then reviewed, and their application to at-risk student needs is discussed. Recommendations for the actual implementation of alternatives are included. In addition to traditional approaches, developmental educators and developmental programs currently provide a variety of more innovative alternatives. Examples of these alternatives include freshmen seminar/orientation courses (Upcraft, Gardner, & Associates, 1989), Supplemental Instruction (Martin & Arendale, 1994), paired or adjunct courses (Commander, Stratton, Callahan, & Smith, 1996), collaborative learning communities (Tinto, 1997), and critical thinking courses and programs (Chaffee, 1992).

Boylan, H. R. (2002). *What works: Research-based best practices in developmental education*. Boone, NC: Continuous Quality Improvement Network with the National Center for Developmental Education. A summary of this document retrieved July 4, 2004, from: <http://www.ced.appstate.edu/centers/ncde/reserve%20reading/what%30works.htm>

This document reviews successful, research-based practices in developmental education. The following instructional practices were identified as best practices: learning communities; accommodation of diversity through varied instructional methods; use of Supplemental Instruction; provide frequent testing opportunities; use of technology in moderation; provide frequent and timely feedback; use of mastery learning; link developmental course content to college level requirements; share instructional strategies; teach critical thinking; teach learning strategies; use active learning techniques; and use classroom assessment techniques.

Koski, W. S., & Levin, H. M. (1998). *Replacing remediation with acceleration in higher education: Preliminary report on literature review and initial interviews*. Stanford, CA : National Center for Postsecondary Improvement. Retrieved July 4, 2004, from: http://www.stanford.edu/group/ncpi/documents/pdfs/4-01_remediation.pdf

The authors offer recommendations for alternative delivery systems for remedial and developmental education. Part of the recommendations are based on the successful model of the Accelerated Schools Movement that makes systematic changes within a school district resulting in improved the academic achievement of at-risk elementary and secondary students. Some of the recommended models are: linked/paired courses; Supplemental Instruction; learning communities; critical thinking programs; and student-centered instruction/individualized learning. A number of institutional success stories are cited included General College of UM. Another summary of the report can be retrieved from http://www.finarticles.com/cf_0/m1254/1_31/54051232/print.jhtml.

Martin, D. C., & Blanc, R. (2001). Video-based Supplemental Instruction. *Journal of Developmental Education*, 24(3), 12-14, 16, 18, 45. Retrieved July 4, 2004, from <http://www.umkc.edu/cad/si/sidocs/jbvsi94.htm>

Developed at the University of Missouri-Kansas City, Video-based Supplemental Instruction is an interactive information processing and delivery system that helps academically at-risk students master rigorous course content as they concurrently develop and refine reasoning and learning skills. Rather than requiring prerequisite enrollment in a traditional developmental course, VSI is a learning system that mainstreams the best practices of developmental education into historically-difficult core curriculum courses such as Western Civilization I, College Algebra, or General Chemistry.

Stansbury, S. (2001). Accelerated Learning Groups enhance Supplemental Instruction for at-risk students. *Journal of Developmental Education*, 24(3), 20-22, 24, 26, 28, 40. In order to both increase Supplemental Instruction (SI) attendance by a wider range of students and improve academic achievement, *Accelerated Learning Groups* (ALGs) were developed. A pilot study investigated whether at-risk students who participated in an ALG/SI combination demonstrated higher self-efficacy and SI attendance than those who participated in only SI. Results suggested that at-risk students were more likely to participated in 12 or more SI sessions if they attended an ALG/SI combination than if they attended only SI. In addition, the range of final grades was higher for those who attended an ALG/SI combination than for those who attended only SI. The development of prerequisite skills was essential for the efficacy of SI to serve academically underprepared students who may shun the very academic intervention that would be of most help to them. Additional research is warranted to investigate this area.

Tinto, V. (1998). Learning communities and the reconstruction of remedial education in higher education. *Journal of Higher Education*, 68(6), 599-623. A version of the document retrieved July 4, 2004, from: <http://soeweb.syr.edu/faculty/vtinto/files/%20Learning%20Better%20Together.pdf>

The author suggests that variations of learning communities are more effective than stand-alone remedial courses for underprepared students. A number of institutions have successfully concurrently enrolled developmental students in reading courses that are linked to an academic content course which result in higher student outcomes than students enrolled in classes where the curriculum is not coordinated.

Wilcox, K. S., delMas, R. C., Steward, B., Johnson, A. B., & Ghore, D. (1997). The "package course" experience and developmental education. *Journal of Developmental Education*, 20(3), 18-20, 22, 24, 26.

The effect of package courses-based on the learning community model-on several educational outcomes was investigated for linked courses: a content course; an academic success/study skills course; and, in some cases, a noncredit math course. Package course students earned higher student outcomes and additional qualitative benefits were observed at the General College of the University of Minnesota.