Vincent Tinto, Ph.D.
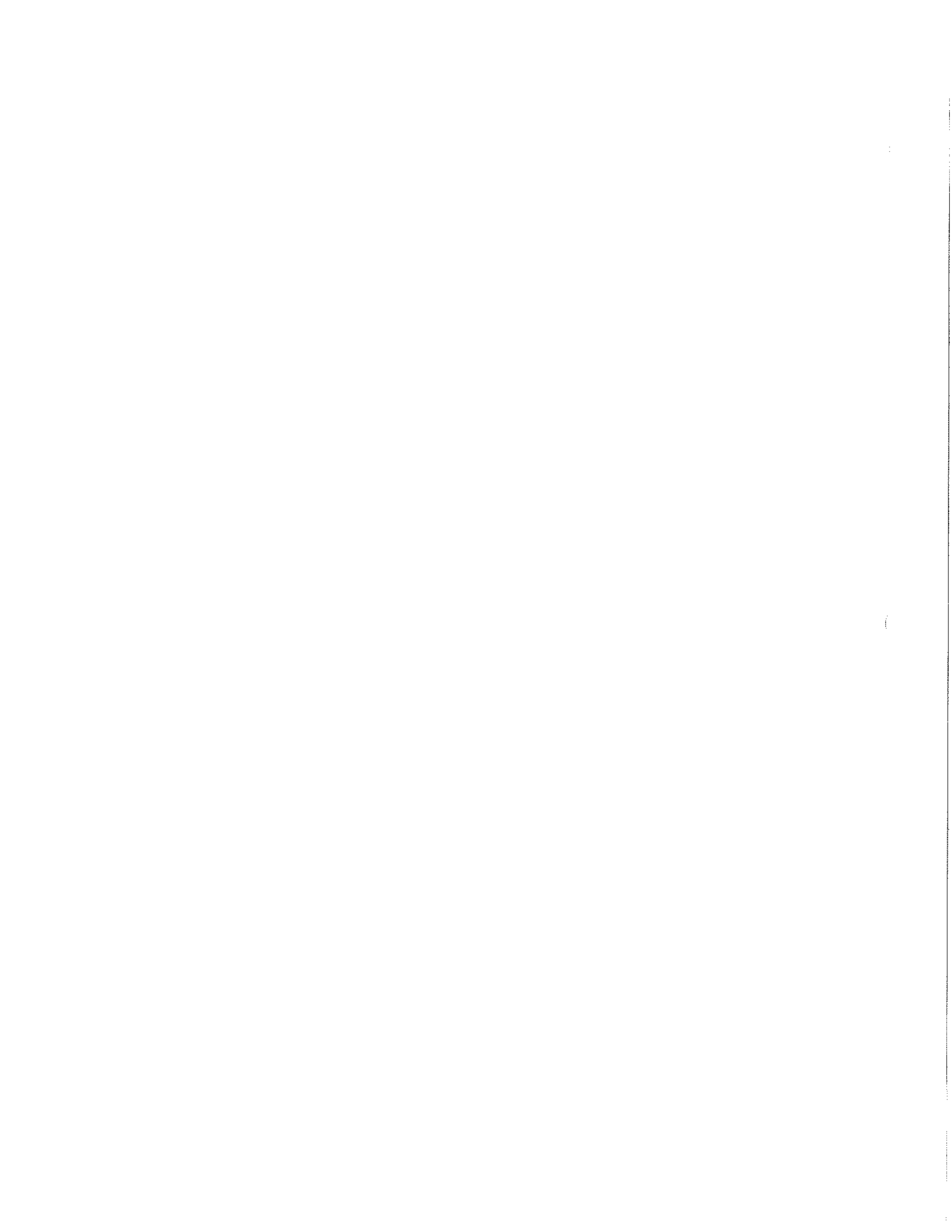**Distinguished Professor at Syracuse University
Chair, Higher Education Program**
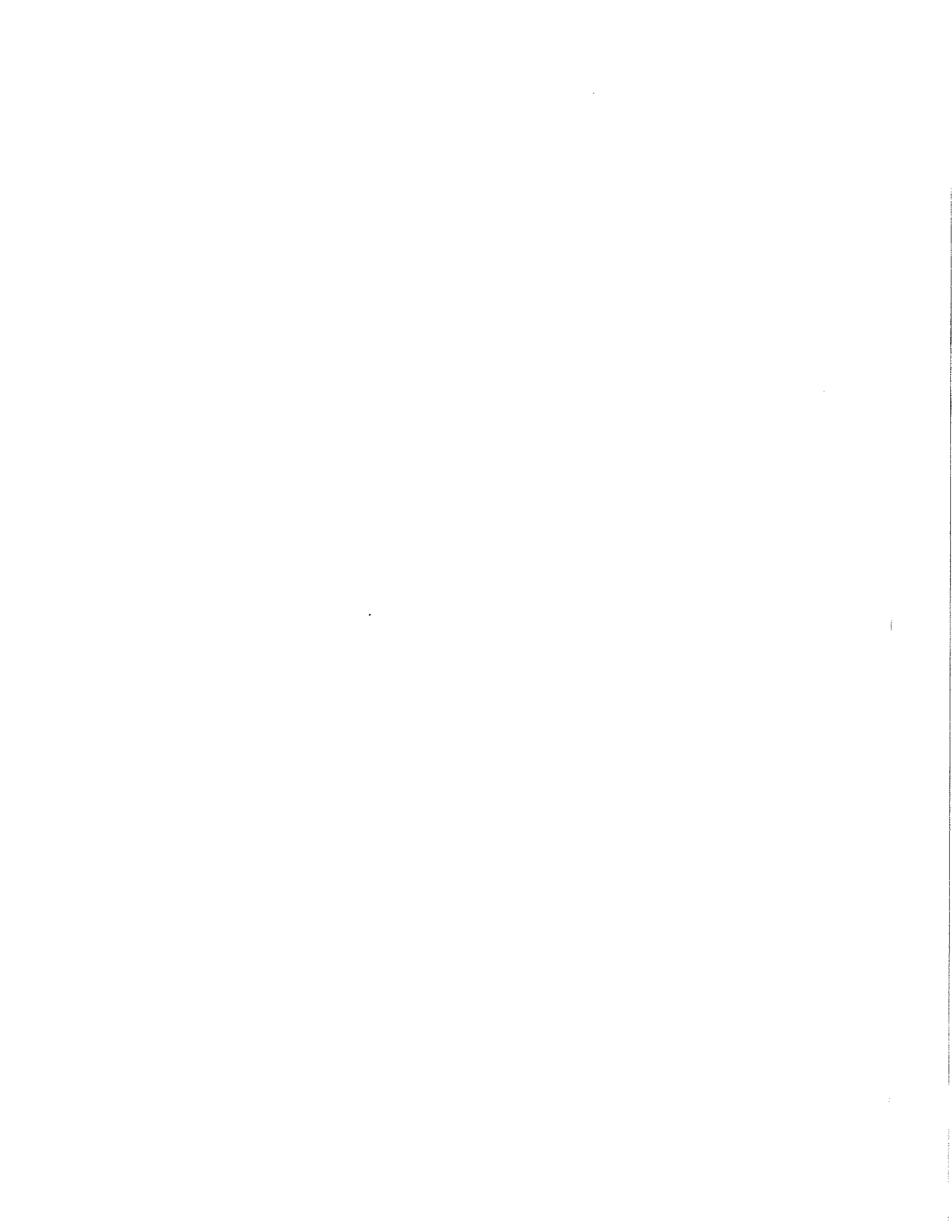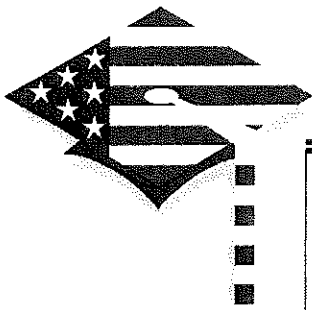
Nominated by
Dr. Kathryn M. Snead

Dr. Kathryn M. Snead (Kathy) serves as the President and Director of Servicemembers Opportunity Colleges (SOC), a consortium of national higher education associations and over 1850 institutional members. Prior to her appointment in SOC senior leadership position in March 2004, Dr. Snead has served SOC since 1995 in a number of capacities—as SOCAD Project Director, SOCMAR Project Director, and Senior Academic Consultant.

Higher education and the military culture have been inseparable parts of Dr. Snead's professional career for over twenty-five years. As the spouse of an Army careerist making frequent moves for military assignments, Dr. Snead's administrative experiences in higher education occurred within institutions with large contingents of active-duty military students, veterans, and military family members. She has held various academic, counseling, and key administrative positions with the following colleges and universities: Armstrong Atlantic State University, Syracuse University, Georgia Southern University, Leeward Community College, and the University of Central Texas.

Kathy earned a bachelor's degree with double major in Psychology and Anthropology from Wake Forest University, received her master's degree in Education with major in Counseling and College Student Personnel from the University of Georgia, and her doctorate in Higher Education Administration from Syracuse University.

Currently she serves on the Secretary of Veterans Affair's Advisory Committee on Education (appointed in 2007 for a two-year term), and the College Board's College Level Examination Program (CLEP) Advisory Board.

Servicemembers Opportunity Colleges

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July 30, 2007

Dr. Trent Gabert
Associate Dean
College of Liberal Studies
The University of Oklahoma
1610 Asp Avenue, Suite 108
Norman, OK 73072-6405

Dear Trent:

Enclosed are the documents in support of Vincent Tinto's nomination for the Brock Prize in International Education. Dr. Tinto has been highly involved in the field of college student retention and best practices for under-prepared students in higher education since 1975. He is currently Chair of the Higher Education Program at Syracuse University. Tinto is a Senior Scholar for the Pell Institute for the Study of Opportunity in Higher Education and has recently been selected as Visiting Scholar with the Carnegie Foundation for the Advancement of Teaching in Palo Alto, CA for Spring 2008.

Tinto's key contributions to the field of education can be distilled to three major roles: scholar, researcher, and change agent. For more than 20 years, Vincent Tinto has carried out scholarly research and written extensively on student persistence factors and institutional learning climates with an eye toward equality and inclusion of under-represented and under-prepared students in higher education. His life's work on student retention, institutional practices and conditions promoting student success, and learning communities has impacted college policy and scholarship at both the national and international levels. The list of presentations, keynote speeches, and workshops in his vitae is lengthy. He has contributed to conferences in Buenos Aires, Argentina; Melbourne, Australia; London, England; Oslo, Norway; Auckland, New Zealand; and Puerto Rico as well as the majority of states within the U.S.

It is exalted praise that John Braxton, renowned educator and Professor of Education in Vanderbilt University's Peabody College of Education, regards Vincent Tinto's research and writings on student retention as " a citation classic" in higher education research.
Tinto's research and publications on retention of students, especially those under-prepared and under-represented for post-secondary education, have touched the life of innumerable educators, practitioners and college students. Jan Swinton, National Learning Communities Project Fellow and retired English Instructor for Spokane Falls Community College (WA), reflects that Tinto's "research on student
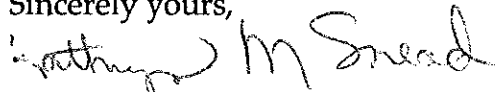
retention and the importance of learning assistance and learning communities for these students—and his books and articles have been invaluable in our profession. Because of Dr. Tinto, thousands of educators have a better understanding not only of how we might best serve and retain under-prepared students, but also build *institutional* support for student success at colleges and universities nationwide."

As one of a select group of twelve members of the Lumina Foundation's Research Advisory Committee, Tinto helps shape the Foundation's research agenda, identify established and emerging researchers, and communicates the findings to policymakers and practitioners in the field. As well, Vince chaired the national establishing
panel the first national center for research on teaching and learning. and served as Associate Director for the National Center on Postsecondary Teaching, Learning, and Assessment funded by the U.S. Office of Education. His current research focuses on the impact of learning communities on the academic achievements of under-prepared student in urban two- and four-year colleges.

Dr. Sharon Taylor, President of the College Reading and Learning Association astutely describes Tinto in a recent communication: "Dr. Tinto is an articulate communicator, gifted teacher and researcher, and mentor to developmental educators throughout the nation. He possesses a passion for disadvantaged students and is a true leader in the field of developmental education, student retention programs, learning assistance, and learning communities. He advocates for research in our field and continues to make a commitment to our mission".

It is with great enthusiasm that I nominate Dr. Vincent Tinto for the Brock Prize in International Education. I have not encountered any other educator in my career in higher education that is more passionate or more driven to engage educators in reforming education for greater inclusion and increased student success opportunities—for all students—than Vince Tinto. He is well deserving of such a prestigious honor.

Sincerely yours,

Kathryn McMurtry Snead, Ed.D.
President

Vincent Tinto Nomination Packet Contents

- Snead nomination letter

- Vincent Tinto Vitae

- "Classrooms as Communities", *Journal of Higher Education*, Vol.68, No. 6, November/December 1997.

- Moving Beyond Access: Closing the Achievement Gap in Higher Education, speech presented at the Achievement Gap Initiative, Harvard University, MA, June 21, 2005.

- Promoting Student Retention: Lessons Learned from the United States. speech presented at the 11th Annual Conference on the European Access Network, Prato, Italy, June 19, 2002.

- Letters of support from: Dr. John Braxton, Peabody College of Education, Vanderbilt University; Dr. Arnold Mitchum, President of the Council for Opportunity Education; and Dr. Alex McCormick, Senior Scholar for the Carnegie Foundation for the Advancement of Teaching.
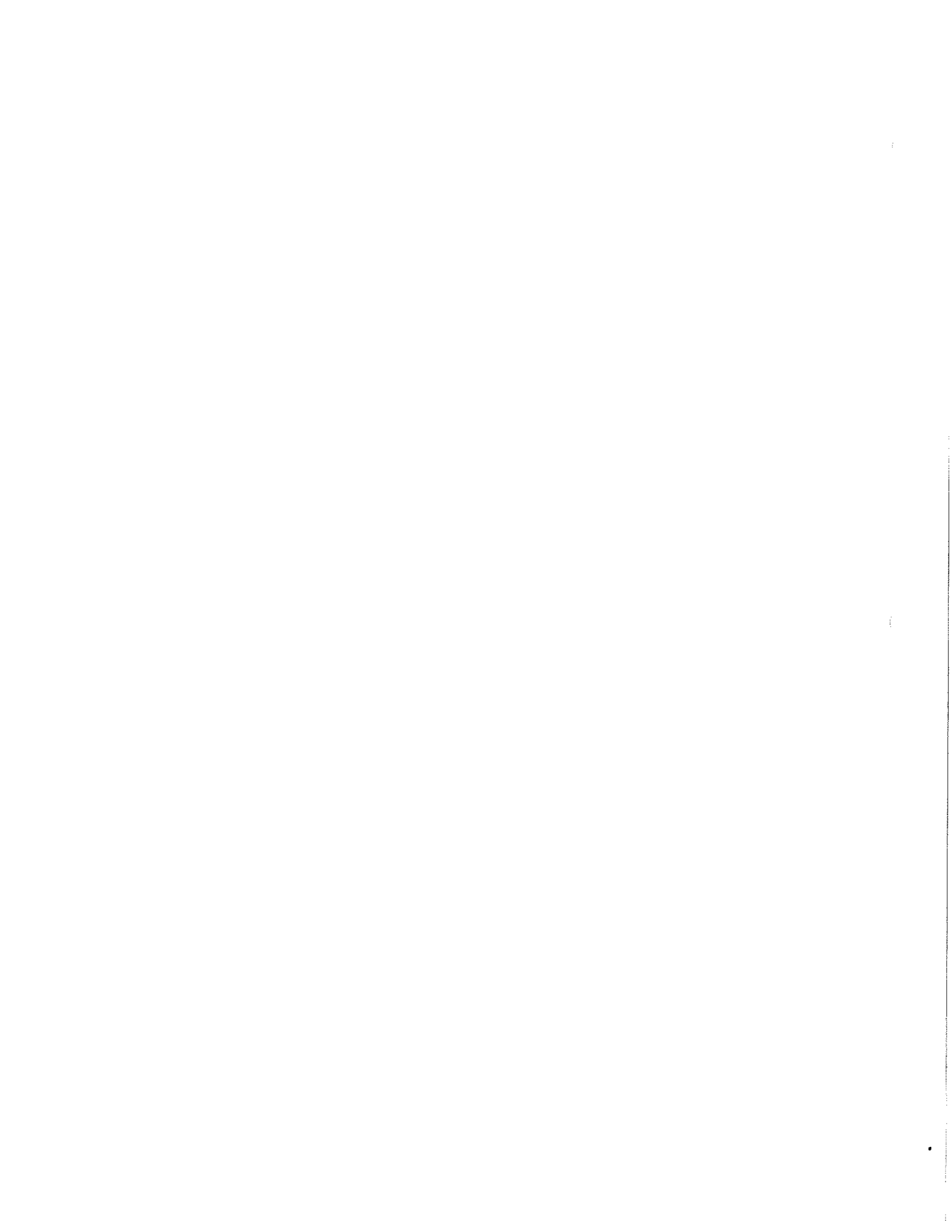
Vincent Tinto
Distinguished University Professor, Syracuse University

Professor Tinto received his Ph.D. in education and sociology from The University of Chicago. He is currently Distinguished University Professor at Syracuse University and has served as chair of the higher education program since 1999. He has carried out research and has written extensively on higher education, particularly on student persistence, retention and the impact of learning communities on student growth and attainment, especially for low-income, under-represented, and under-prepared students. Dr. Tinto has consulted widely with Federal and State agencies, with independent research firms, foundations, and with two and four-year institutions of higher education on a broad range of higher educational issues related to establishing institutional conditions for student success and closing the achievement gap for under-represented student populations. He serves on the editorial boards of several journals and with various organizations and professional associations concerned with higher education. Tinto chaired the national panel responsible for establishing the first national center for research on teaching and learning in higher education and served as Associate Director of the $6 million National Center on Postsecondary Teaching, Learning, and Assessment funded by the U.S. Office of Education. Tinto currently serves on the Lumina Foundation's Research Advisory Committee charged with assisting the Foundation in using research to improve policy and practice in higher education. He works with the Council for Opportunity in Education, the Pell Institute for the Study of Opportunity in Education, the European Access Network, and the Dutch government to develop programs to promote access to higher education for disadvantaged youth. His current research, funded by grants from the Lumina Foundation for Education and the William and Flora Hewlett Foundation, focuses on the impact of learning communities on the academic achievements of under-prepared college students in urban two- and four-year colleges. Dr. Tinto has recently been selected as Visiting Scholar with the Carnegie Foundation for the Advancement of Teaching in Palo Alto, CA in spring 2008.
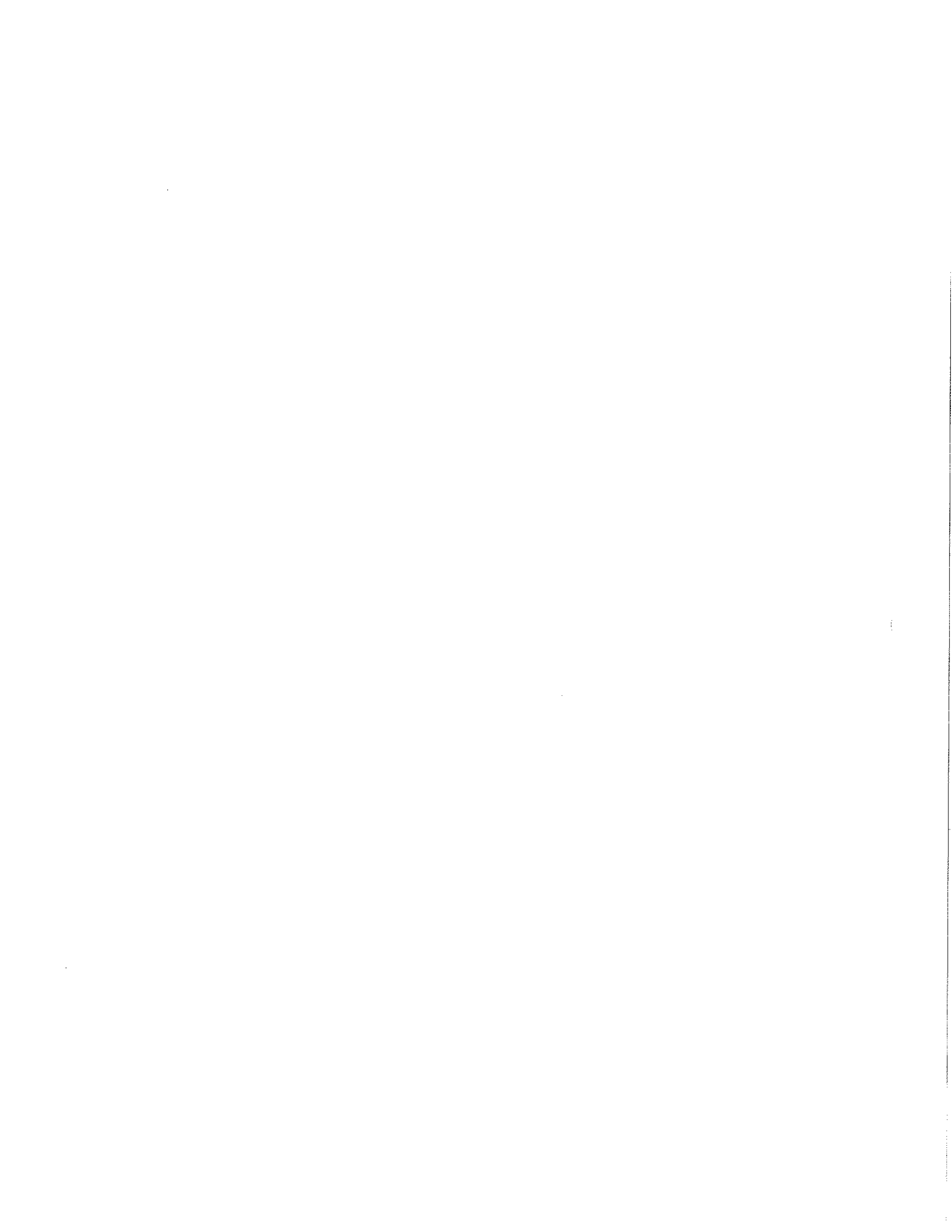
VINCENT TINTO

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Office: School of Education
Syracuse University
Syracuse, New York 13244
(315) 443-4763
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EDUCATION

Ph.D.   The University of Chicago, 1971: Education, Sociology
M.S.   Rensselear Polytechnic Institute, 1965: Physics, Mathematics
B.S.   Fordham University, 1963: Physics, Philosophy

PROFESSIONAL EMPLOYMENT

Chair, Higher Education Program, Syracuse University, Syracuse, New York
(September 1999 – 2006).

Led a reorganization of the higher education program and the development of a learning
community model of graduate education for our master's degree program in student
Affairs (see http://www.soeweb.syr.edu)

Senior Scholar, The Pell Institute for the Study of Opportunity in Higher Education, Washington,
D.C. (2004-present).

Distinguished University Professor, Syracuse University, Syracuse, New York
(June 1998 – Present).

Awarded Distinguished University Professor status in recognition of contribution to
the field of higher education and to university efforts at reform.

Professor of Education, Cultural Foundations of Education, Syracuse University, Syracuse,
New York (June 1985 – June 1998).

Associate Professor of Education, Cultural Foundations of Education, Syracuse University,
Syracuse, New York (September 1975 – June 1985).

Led a reorganization of the research methods curriculum and the development of a year
long required doctoral research methods course employing problem-based learning
strategies.

Assistant Professor of Education, Sociology of Education, Teachers College, Columbia
University, New York, New York. (September 1971 - June 1975).

Developed a sociology of education major within the Division of Philosophy and the
Social Sciences.

Visiting Lecturer, Physics, Middle East Technical University, Ankara, Turkey (1965-1967).

RESEARCH / POLICY INTERESTS

Theory and research on student persistence and attainment in higher education and on curricular and pedagogical innovations designed to enhance student attainment, especially for low-income, underrepresented, and under-prepared students in urban two and four-year colleges.

Program and policy efforts, state, national, and international, to enhance college graduation and close the gap between different groups in society. Actively involved with TRIO programs and the Council for Opportunity in Education, the Pell Institute for the Study of Opportunity in Higher Education, Pathways to College Network, Lumina Foundation for Education, National Learning Communities Project, the states of Colorado, New Hampshire, New York, and Texas, Dutch Ministry of Higher Education, and the European Access Network.

Current research includes a longitudinal study of the long-term impact of learning communities on the success of academically under-prepared, low-income students in urban two and four-year colleges.

SELECTED PUBLICATONS

2007   "Moving Beyond Access: Closing the Achievement Gap in Higher Education" (with Catherine Engstrom). *Opportunity Matters* (forthcoming).

"Access without Support is Not Opportunity" (with Catherine Engstrom). *Change* (forthcoming)

2006   "Moving From Theory to Action: Building a Model of Institutional Action for Student Success" (with Brian Pusser). National Postsecondary Education Cooperative. Washington D.C: U.S. Department of Education.

"Research and Practice of Student Retention: What Next?" *College Student Retention: Research, Theory, and Practice.* 8: 1-20

"Our Underachieving Colleges by Derek Bok"- A Review; *Academe.* 92: 114-118.

2005   "Reflections on Student Retention and Persistence: Moving to a Theory of Institutional Action on Behalf of Student Success" *Studies in Learning, Evaluation, Innovation and Development,* 2 (December 2005).

"Moving from Theory to Action" in *College Student Retention: Formula for Student Success.* (A. Seidman, ed.), Westport: Greenwood Publishing.

2004   *Student Retention and Graduation: Facing the Truth, Living with the Consequences.* Occasional Paper No. 1. Pell Institute for the Study of Opportunity in Higher Education. Washington, D.C..

2003   "Establishing Conditions for Student Success." In *Improving Completion Rates Among Disadvantaged Students.* (L. Thomas, M. Cooper, & J. Quinn, eds.) Stoke on Trent: Trentham Books.

2002 "Establishing Conditions for Student Success: Lessons Learned in the United States" in *Under-Privileged but Not Under-Achieving* (J. Astley, ed.), London: Trentham Books.

"Learning Communities in the Undergraduate Curriculum (with C. Engstrom), *Encyclopedia of Education* (2nd.edition). New York: Macmillan Press. Forthcoming.

2001 "Student Retention" *Higher Education in the United States: An Encyclopedia*. Santa Barbara: ABC-CLIO Publishers.

"Learning Communities in Higher Education" (with C.Engstrom, H. Hallock, & S. Riemer), *Higher Education in the United States: An Encyclopedia*. Santa Barbara: ABC-CLIO Publishers.

2000 "Looking at Universities Through a Different Lens" *About Campus*. 4,6 (January-February):

"Taking Retention Seriously: Rethinking the First Year of College" *NACADA Journal*, 19,2 (Fall). 5-10.

"Reflections on the State of Research: What Next?" in *Access Denied: Race, Ethnicity, and the Scientific Enterprise*. London: Oxford University Press.

"What Have We Learned about the Impact of Learning Communities on Students?" *Assessment Update*. March/April.

"Assessment of Innovative Efforts: Lessons from the Learning Community Movement" with Jean MacGregor and Jerri Holland Lindblad in *Assessment to Promote Deep Learning*, Linda Suskie (ed.), Washington D.C.: American Association of Higher Education.

"Linking Learning and Leaving: Exploring the Role of the College Classroom in Student Departure." In J. Braxton (ed.), *Reworking the Student Departure Puzzle* (pp. 81-94). Nashville, Vanderbilt University Press.

"Building Collaborative Partnerships with Student Affairs to Enhance Student Learning "(with C. Engstrom), in M. Barr (ed.) *Handbook for Student Affairs Administrators*. San Francisco, Jossey Bass).

1999 *The Role of Financial Aid in the Persistence of Doctoral Students.* (with Beatriz Chu Clewell). A final report for the National Science Foundation. Washington, D.C..

1998 "Colleges as Communities: Taking Research on Student Persistence Seriously." *Review of Higher Education*. 21,2 (Winter):167-78.

"Adapting Learning Communities to the Needs of Remedial Education Students", NCPI, National Center for Postsecondary Improvement, Stanford University.

1997 "Classrooms as Communities: Exploring The Educational Character of Student Persistence" *Journal of Higher Education*. 68,6 (November/December).599-623.

"Universities as Learning Organizations" *About Campus*. 1,6 (January/February): 2-4.

"Enhancing Learning Via Community" *Thought and Action.* 13,1 (Spring):53-59.

"Working Together for Service Learning" (with C. Engstrom) *About Campus.* 2,3 (July/August):10-16.

1996 "Learning Communities and the Reconstruction of the First Year of College" *Planning for Higher Education* . 25 (1): 1-7.

"Persistence and the First Year in the Community College" in J. Gardner and J. Hankin (Eds.). *Promoting New Student Success in Community Colleges* (pp. 97-10). Columbia: The Center for the Study of the Freshman Year Experience, The University of South Carolina.

"Learning Communities and Student Involvement in the Community College" (with P. Russo and S. Kadel). In J. Gardner and J. Hankin (Eds.). *Promoting New Student Success in Community Colleges* (pp. 135-141). Columbia: The Center for the Study of the Freshman Year Experience, The University of South Carolina.

1995 "Learning Communities, Collaborative Learning, and the Pedagogy of Educational Citizenship" *AAHE Bulletin.* 47 (7): 11-13.

"Academic Advising through Learning Communities: Bridging the Academic-Social Divide" (with Anne Goodsell Love). In M.L. Upcraft and G. Kramer (Eds.), *Freshman Academic Advising: Patterns in the Present, Pathways to the Future.* A monograph published jointly NACADA and the Natural Resource Center for the Freshman Year Experience.

1994 *Building Learning Communities for New College Students* (with A. Goodsell Love and P. Russo). A publication of the National Center on Postsecondary Teaching, Learning, and Assessment, Pennsylvania State University.

"Discovering the Sources of Student Success." In D. Floyd (Ed.), *From Vision to Reality: Student Affairs Agenda in the '90s.* Iowa City: American College Testing Program.

"Constructing Educational Communities: Increasing Retention in Challenging Circumstances." (with P. Russo and S. Kadel) *Community College Journal,* 64 (4): 26-30

"Freshman Interest Groups and the First Year Experience: Constructing Student Communities in a Large University." (with A. Goodsell) *The Journal of the Freshman Year Experience* 6 (1): 7-28.

"Coordinated Studies Programs: The Effect on Student Involvement at a Community College." (with P.Russo) *Community College Review,* 22 (2): 16-25.

"Assessment in Collaborative Learning Programs: The Promise of Collaborative Research." (with Anne Goodsell Love and Pat Russo) *Assessment in Collaborative Environments.* A Handbook by the Washington Center for Improving the Quality of Undergraduate Education, Evergreen State College.

"Collaborative Learning and New College Students." (with A. Goodsell and P. Russo) *Collaborative Learning and College Teaching,* 4 (1): 1-3.

1993   *Leaving College: Rethinking the Causes and Cures of Student Attrition* (2nd. edition). Chicago, The University of Chicago Press.

"Building Community Among New College Students." (with A. Goodsell and P. Russo) *Liberal Education*, 79 (4): 16-21.

1992   *Collaborative Learning: A Sourcebook for Higher Education* (with A. Goodsell and M. Maher), National Center on Postsecondary Teaching, Learning, and Assessment, Pennsylvania State University.

1991   "Student Attrition in Higher Education." In B. Clark and G. Neave (Eds.),*The Encyclopedia of Higher Education*. Oxford: Pergamon Press.

1990   "The Principles of Effective Retention." *The Journal of the Freshman Year Experience*, 2 (1): 35-48.

1989   "Sense and Nonsense in Student Retention." *Chronicle of Higher Education*, 36 (September 6): 82.

1988   "Stages of Student Departure: Reflections on the Longitudinal Character of Student Leaving." *Journal of Higher Education*, 59 (July/August): 438-455.

1987   *Leaving College: Rethinking the Causes and Cures of Student Attrition*. Chicago: The University of Chicago Press.

1986   "Theories of Student Departure Revisited." In J. Smart (Ed.), *Higher Education: Handbook of Theory and Research*, Volume II. New York: Agathon Press.

"Retention: An Admissions Concern." (with Diane Lebo Wallace) *College and University*, 61 (Summer): 290-293.

1985   "Dropping Out and Other Forms of Withdrawal from College." L.Noel (Ed.), *Improving Student Retention*. San Francisco: Jossey-Bass Inc.

"Studies of College Choice: A Review." (with Diane Lebo Wallace) *American Journal of Education*, 94 (November).

1984   "Patterns of Educational Sponsorship to Work: A Study of Modes of Early Attainment from College to Professional Work." *Work and Occupations*, 11 (August): 309-330.

1983   "Defining Dropout: A Matter of Perspective." In E. Pascarella (Ed), *Studying Student Retention*. San Francisco: Jossey-Bass Inc..

1982   "Limits of Theory and Practice in Student Attrition." *Journal of Higher Education*, 53 (December): 687-700.

1981   "Schooling and Occupational Attainment in Segmented Labor Markets: Recent Evidence from the United States." *Higher Education*, 10 (September): 499-516.

1980   "College Origins and Patterns of Status Attainment." *Sociology of Work and Occupations*, 7 (November): 457-486.

Education and Work: Differential Patterns of Occupational Attainment through Schooling. A final report to the National Institute of Education, Department of Education, Washington, D.C.

1979 "The Social Patterning of Deviant Behaviors in Schools." In K. Baker and R. Rubel (Eds.), *Violence and Crime in Schools,* Lexington: D.C. Heath and Company, pp. 151-166.

1978 "Reflections on Classroom Authority." *Education and Urban Society,* 11(November):107-118.

1977 "Does Schooling Matter? A Retrospective Assessment." In L. Shulman (Ed.), *Review of Research in Education,* Volume 5, Itasca: Peacock.

"Perceptions of Occupational Structure and Career Aspirations among the New Turkish Elite." *International Journal of Middle East Studies,* 8 (July): 329-338.

1976 *Assessment of a National Study of Special Service Programs in Higher Education.* A report prepared for the Office of Planning, Budgeting and Evaluation, U.S. Office of Education, Washington, D.C.

1975 "Dropout from Higher Education: A Theoretical Synthesis of Recent Research", *Review of Educational Research,* 65 (Winter): 89-125.

"The Distributive Effects of Public Junior College Availability", *Research in Higher Education,* 3 (September): 261-274.

1974 *The Effectiveness of Secondary and Higher Education Intervention Programs: A Critical Review of the Research.* A report prepared for the Office of Planning, Budgeting and Evaluation, U.S. Office of Education, Washington, D.C..

"University Productivity and the Organization of Higher Education in Turkey." *Higher Education,* 3 (August): 285-302.

1973 *Dropout in Higher Education: A Review of Recent Research.* A Report prepared for the Office of Planning, Budgeting and Evaluation, U.S. Office of Education, Washington, D.C..

"College Proximity and Rates of College Attendance." *American Educational Research Journal,* 10 (Fall): 274-294.

1972 *Where Colleges Are and Who Attends: Effects of Accessibility on College Attendance* (with C.A. Anderson and Mary Jean Bowman) A general report prepared for the Carnegie commission on Higher Education. New York: McGraw-Hill Book Company.

1971 *Accessibility of Colleges as a Factor in the Rates and Selectivity of College Attendance.* An unpublished Ph.D. dissertation, The University of Chicago, Department of Education. Chicago: Illinois.

Papers, Speeches, and Symposia

A variety of papers, symposia and invited speeches presented at various national association meetings and conferences on specific themes. The former include the American Association of Colleges and University, American Association of Collegiate Registrars and Admission Officers, American Educational Research Association, American Association of Higher Education, Association of College Personnel Administrators, Association for Institutional Research, Association for the Study of Higher Education, Comparative and International Education Society, the Education Commission for the States, National Association of Academic Advising, and the National Association of Developmental Education. The latter include presentations at the Council for Opportunity in Education, the National College Access Network (NCAN), the National Institute for Staff & Organizational Development, the National Institute of Education, the National Science Foundation, the American College Testing Program, the Educational Testing Service, and the American University of Beirut, University of Auckland (NZ), University of Amsterdam (NL), Hacettepe University, Turkey, Massey University (NZ), Melbourne University (AU), University of Wellington (NZ), Monash University (AU), University of Oslo (NO), Autonomous University of the Yucatan (MX), University of Puerto Rico and the InterAmerican University of Puerto Rico.

Professional Activities

A variety of professional and consulting activities with various colleges and universities, Federal and State agencies, national associations, foundations and research firms on a range of issues related to higher education, student retention, and issue of equity. Some of these are listed below:

2006   Member, Research Advisory Board, Lumina Foundation for Education.

Advisory Board, United Negro College Fund's Institute for Capacity Building.

Member, Research Advisory Board, Community College Survey of Student Engagement, University of Texas, Austin.

Technical Review Board – NPSAS Longitudinal Study, U.S. Department of Education.

Research Board, Social Science Research Council.

Keynote Speaker, Wayne State University Conference on Engaging the Urban Student.

Keynote Speaker, Higher Education Academy Conference on Innovations in Student Success, London.

2005   Editorial Board, *The Journal of College Student Retention.*

Keynote Speaker, National Conference on Student Retention, Washington D.C.

Senior Scholar, Pell Institute for the Study of Opportunity in Education, Washington D.C.

Keynote Speaker, Conference of Louisiana Colleges and Universities, New Orleans.

Keynote Speaker, Educating Intentional Learners, American Association of Colleges and Universities, Philadelphia, PA.

Keynote Speaker, The First-Year Experience Conference, Monash University, Melbourne   Australia.

Invited Speaker, Promoting Student Success, University of Oslo, Oslo, Norway.

Invited Speaker, Washington Higher Education Secretariat, National Press Club, Washington, D.C.

2003   Senior Scholar, Pell Institute for the Study of Opportunity in Education, Washington D.C..

2002   Advisory Board, Lumina Foundation for Education

Advisory Board, Community College Survey of Student Engagement Project, University of Texas at Austin.

Research Advisory Board, Pathways to College Network. A national alliance of foundations and educators working to improve college access for students.

Chair, Advisory Board, New York State Policy Committee on Higher Education.

Consultant, Colorado Commission on Higher Education.

Consultant, New Hampshire Commission on Higher Education.

Invited Speaker, University of Wisconsin System Office, Madison, Wisconsin.

Keynote Speaker, National TRIO Program Training Conference, Los Angeles, California.

Keynote Speaker, Annual conference of the National Institute for Staff and Organizational Development, Austin, Texas.

2001   Keynote Speaker, International Conference on Student Retention, Universidad Tres de Febrero, Buenos Aires, Argentina.

Keynote Speaker, ECHO National Invitational Conference on Student Retention, Rotterdam, The Netherlands.

Advisory Board, Lumina Foundation for Education.

Research Advisory Board, National Pathways to College Network. A national alliance of foundations and educators working to improve college access for students.

Advisory Board, Community College Survey of Student Engagement Project, University of Texas at Austin.

Chair, Advisory Board, New York State Policy Committee on Higher Education.

2000   Consultant, State of Texas Statewide Initiative to Improve College Graduation Rates.

Consultant, State of New Mexico Statewide Conference on Improving College Completion.

Keynote Speaker, ECHO Conference on Ethnic Minorities in Higher Education, Rotterdam, The Netherlands.

Advisory Board, UCLA/ACE Higher Education Research Institute Study of College Students.

1999   Member, National Postsecondary Education Cooperative Strategic Planning Committee.

Advisory Board, UCLA/ACE Higher Education Research Institute Study of College Students.

1998   Advisory Board, National Center for Developmental Education.

Member, National Postsecondary Education Cooperative Strategic Planning Committee.

Member, National Postsecondary Education Cooperative, Data Access Committee.

1997   Invited Presentation, "From Access to Participation," National Postsecondary Education Cooperative, U.S. Department of Education, Washington, D.C..

Invited Presentation, "Contextualizing Data on Graduate Persistence." National Science Foundation, Washington, D.C.

1996   Advisory Board, Southern Education Foundation-Pew Charitable Trusts Black Colleges Project.

Consultant, National Science Foundation, Model Institutions for Excellence Program.

Board of Contributors, *About Campus,* A journal of The American College Personnel Association.

Advisory Board, National Center for Educational Statistics, Beginning Postsecondary Education 96/98 Study.

Keynote Speaker, The Institute for College Student Values, Florida State University, Tallahassee.

Keynote Speaker, AAHE Conference on Assessment and Quality, Washington D.C.

1995   Consultant, American Association of State Colleges and Universities. National Project on Student Retention.

Keynote Speaker, The Annual Conference of the Freshman Year Experience, The University of South Carolina. Columbia.

Keynote Speaker, The Inaugural Pacific Rim Conference of the First Year Experience, Brisbane, Australia.

Keynote Speaker, American Association of State Colleges and Universities. National Conference on Student Retention.

Panelist, PBS/AASCU National Televideo Conference entitled "Building Inclusive Campus Communities."

1994 Consultant, American Association of State Colleges and Universities. National Project on Student Retention.

Participant, Pew Charitable Trusts Higher Education Roundtable.

1993 Consultant, Pew Charitable Trusts and The Southern Education Foundation Project to enhance retention at the historically Black colleges and universities.

Consultant, Sloan Foundation and the National Action Council for Minorities in Engineering project.

Consultant, American Association of State Colleges and Universities. National Project on Student Retention.

1992 Consultant, National Opinion Research Center, National Study of Student Attainment Beyond High School.

Consultant, State of Washington, Study of Transfer from Two to Four-Year Colleges. Keynote Speaker, State-wide Conference on Student Retention, Middlesex County College, New Jersey.

Advisory Board, American Association of State College and Universities and Student Loan Marketing Association national effort to enhance student achievement.

1991 Project Director, National Center on Postsecondary Teaching, Learning, and Assessment, A consortium of five universities funded by the U.S. Department of Education, Office of Educational Research and Improvement, Washington D.C..

Keynote Speaker, National Conference on Educational Research in Holland, Amsterdam, The Netherlands, May 16-17, 1991.

Advisory Board, National Study of Title III Programs, Westat Inc., Washington D.C..

1990 Keynote Speaker, Annual Conference of the Annual Conference of the Freshman Year Experience, Columbia, South Carolina.

Keynote Speaker, National Institute for Student Success, Austin, Texas.

1989 Vice-President, Division J - Postsecondary Education, American Educational Research Association.

Keynote Speaker, National Association of Minority Engineering Program Administrators, Atlanta, Georgia.

Invited Speaker, University of California System Retreat for Institutional Research Officers, Asilomar, California.

1988 Vice-President, Division J - Postsecondary Education, American Educational Research Association.

Advisory Board, National Institute for Independent Colleges and Universities. Advisor on a national study of student retention.

Advisory Board, National Center for the Study of the Freshman Year Experience, University of South Carolina.

Consultant, State of New York Two-Year College Development Center.

1987 Consultant, New Jersey Department of Higher Education. Consultant and keynote speaker at a State sponsored workshop on student retention in higher education.

Consultant, Council of Higher Education for the State of Virginia. Consultant and keynote speaker at a State sponsored workshop on Black student retention.

Consultant, InterAmerican University of Puerto Rico. Consultant and keynote speaker at a university sponsored workshop on student retention.

1986 Program Chair, American Educational Research Association, Division on Postsecondary Education.

Editorial Board, *Journal of Higher Education.*

Consultant, State University of New York, Deans of Student Affairs. Workshops on the design, implementation and assessment of student retention programs in higher education.

Consultant, Sommerset Community College, Sommerset, Kentucky. Consultant on the development of a program for student retention in a rural community college.

1985 Consultant on an Exxon Foundation project to enhance student retention in an urban community college.

Consultant, State University of New York, Faculty Committee on Student Life. A workshop on faculty impact upon student retention in the State University of New York.

1984 Participant, National Conference on Student Choice, Graduate School of Education, Harvard University, Cambridge.

Consultant, Westchester Community College. Research consultant on the establishment of student retention systems in two-year colleges.

1983 Consultant, American College Testing Program. Research consultant on the study and treatment of student attrition.

1980 Consultant, National Institute of Education and the American Federation of Teachers. Research consultant on a national study of teacher stress.

1979 Consultant, Systems Development Corporation, Santa Monica. Policy consultant on a three-year study of Special Service Programs in higher education

1978   Consultant, Research Triangle Institute. Research consultant on several national studies of intervention programs in higher education.

1976   Consultant, National Academy of Sciences, Committee on Minorities in Engineering. Washington, D.C.

1975   Consultant, Office of Budgeting, Planning and Evaluation, U.S. Office of Education. Consultant on a variety of research projects involving the study of retention and intervention in higher education.

1974   Participant, International Conference on the Development Trends in Turkey, Hacettepe University, Ankara, Turkey.

1971   Participant, Conference on University Development in the Middle East, American University of Beirut, Beirut, Lebanon.

Teaching and University Service

Chair, University Task Force on Assessment. University committee charged with the development of campus-wide assessments of classroom teaching and learning. Modeled after the Harvard Assessment Seminar, the committee's task is to encourage and support a diversity of faculty projects aimed as assessing student learning, improving classroom instruction, and enhancing student learning.

Member, University Task Force on Minority Student Retention. A two-year long study of minority student retention at Syracuse University. leading to a series of policy recommendations for university action.

Responsible for the development and teaching of the Doctoral Research Core Course in the School of Education. A two-semester course required of doctoral students in the School of Education that provides for (1) a grounding in the traditions and assumptions underlying the construction of knowledge in the social sciences; (2) a grounding in the diverse traditions and methods of qualitative, survey, and experimental design research; (3) training in statistics; and (4) training in the process of framing research questions and the construction of research proposals.

Teaching of The American School, an undergraduate course for education majors that focuses on the ways in which schools influence student learning at the elementary and secondary level. Specific emphasis on issues of equity and diversity and the successes and failures of recent policies to enhance equity in education. Course employs cooperative learning strategies and multimedia projects as a way of analyzing the relationship between culture and schooling.

Responsible for an assessment of the quality of research training of doctoral students in the School of Education. That assessment has resulted in major changes in the research training of doctoral students in the School of Education. Some of those changes include the development of a doctoral research core, the institution of a required research apprenticeship, and the inclusion of qualitative as well as quantitative research methods in the preparation of future educators.

Awards and Grants

2006 National Postsecondary Education Cooperative. Two-year grant to develop a model of institutional action for student success.

2003 William and Flora Hewlett Foundation. A three-year $140,000 grant to extend the reach of the Lumina Foundation for Education grant to community colleges in California.

2002 Lumina Foundation for Education. A three-year, $956,000 grant, for a national study of developmental education learning communities in two and four-year colleges and universities serving low-income students.

1999 Vision Grant. Development of graduate learning community in higher education.

Association for the Study of Higher Education, Research Achievement Award.

1996 National Science Foundation. Research grant to study doctoral persistence among majority and minority graduate students in different fields of study.

1992 Graduate Record Examination Board. Seed grant to obtain funding of a six year study of doctoral persistence in the United States.

1990 National Center for Research on Teaching and Learning in Higher Education, Office of Educational Research and Improvement, U.S. Dept. of Education. A $6.2 million Center consisting of a consortium of five universities.

1986 Exxon Foundation. Grant to The University of Chicago Press to support the publication of book on student dropout from higher education.

1983 Visiting Scholar, Institute of Finance and Governance, Stanford University.

Syracuse University, Senate Research Committee Grant for pilot study of student retention in two-year colleges.

1980 Syracuse University, Senate Research Committee Grant for study of patterns of occupational attainment in specific organizations.

1979 National Institute of Education. Two-year grant for the study of patterns of college attendance and occupational attainment among different occupational groups.

1977 Syracuse University, Senate Research Committee grant for pilot study of patterns of college sponsorship to work.

1971 The University of Chicago, Department of Education Prize for Dissertations.

1970 Ford Fellow, The University of Chicago.
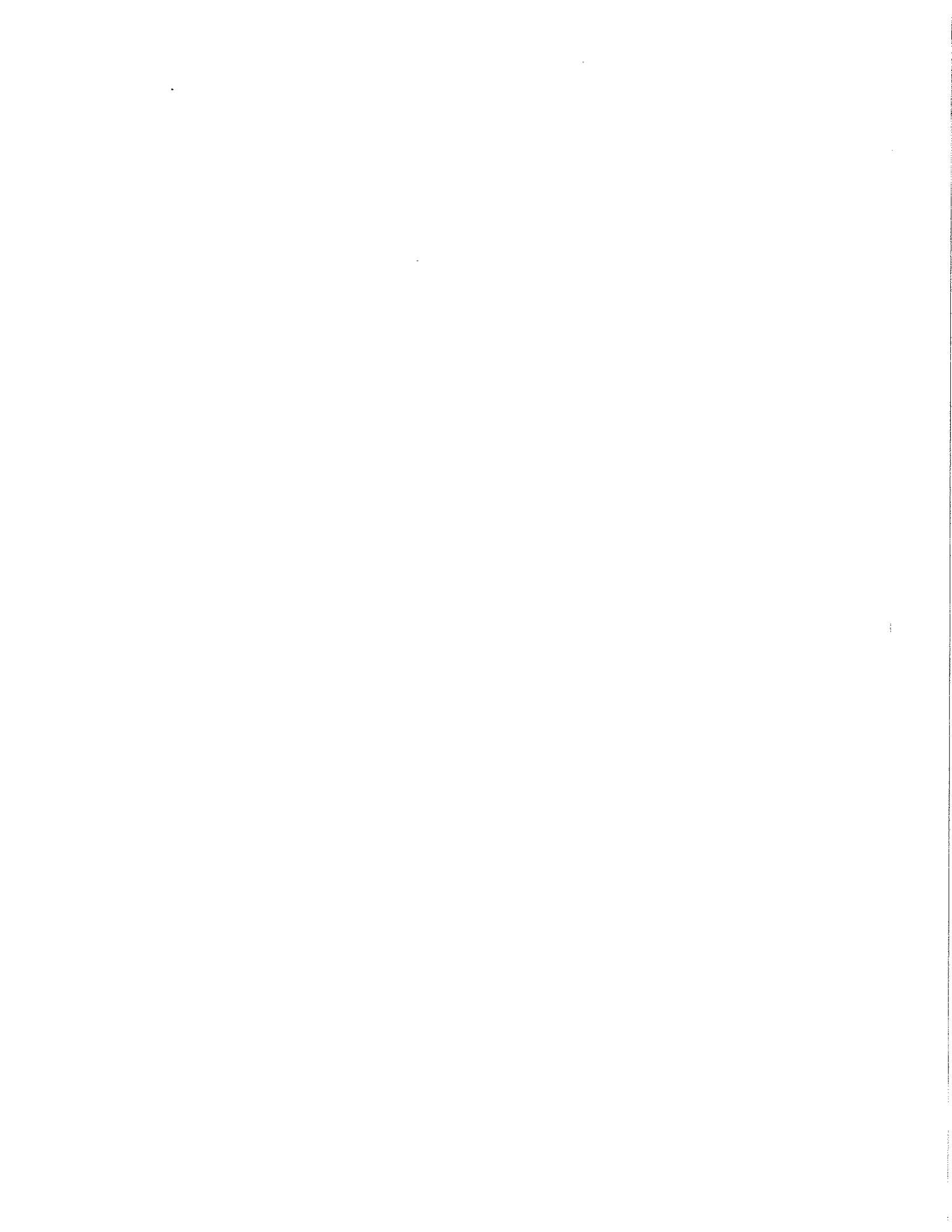
Classrooms as Communities

Exploring the Educational Character of Student Persistence

Introduction

The college classroom lies at the center of the educational activity structure of institutions of higher education; the educational encounters that occur therein are a major feature of student educational experience. Indeed, for students who commute to college, especially those who have multiple obligations outside the college, the classroom may be the only place where students and faculty meet, where education in the formal sense is experienced. For those students, in particular, the classroom is the crossroads where the social and the academic meet. If academic and social involvement or integration is to occur, it must occur in the classroom.

Seen in this light, it is surprising that the classroom has not played a more central role in current theories of student persistence (e.g., Bean, 1983; Cabrera, Castañeda, Nora, & Hengstler, 1992; Tinto, 1987). Though it is evident that classrooms matter, especially as they may shape academic integration, little has been done to explore *how* the experience of the classroom matters, how it comes, over time, to shape student persistence.[1] The same may be said of institutions of higher education. Though they have certainly not ignored the classroom, most have not seen it as the centerpiece of their efforts to promote student persistence, preferring instead to locate those efforts outside the classroom in the domain

of student affairs. Therefore while it is the case that student experience outside classrooms have changed, their experience within them has not.

This article presents the results of a multimethod, quantitative and qualitative, study of the efforts of one college, Seattle Central Community College, to alter student classroom experience through the use of learning communities and the adoption of collaborative learning strategies. The study seeks to ascertain to what degree such strategies enhance student learning and persistence and, if so, how they do so. Beyond its obvious policy implications, the study provides the context for a series of reflections on the ways in which current theories of student persistence might be modified to account more directly for the role of classroom experience in the process of both student learning and persistence.

Literature Review

We know that involvement matters. As numerous researchers have pointed out (e.g., Astin, 1984; Mallette & Cabrera, 1991; Nora, 1987; Pascarella & Terenzini, 1980; Terenzini & Pascarella, 1977) the greater students' involvement or integration in the life of the college the greater the likelihood that they will persist. We also know that involvement influences learning (e.g., Astin, 1984, 1993; Friedlander, 1980; Parker & Schmidt, 1982; Ory & Braskamp, 1988; Pascarella & Terenzini, 1991). Generally speaking, the greater students' involvement in the life of the college, especially its academic life, the greater their acquisition of knowledge and development of skills. This is particularly true of student contact with faculty. That engagement, both inside and outside the classroom, appears to be especially important to student development (Endo & Harpel, 1982; Astin, 1993). Even among those who persist, students who report higher levels of contact with peers and faculty also demonstrate higher levels of learning gain over the course of their stay in college (Endo & Harpel, 1982). In other words, high levels of involvement prove to be an independent predictor of learning gain. The same conclusion follows from the growing body of research on the quality of student effort; namely, that there is a direct relationship between the quality of student effort and the extent of student learning (e.g., Pace, 1984; Ory & Braskamp, 1988; Kaufman & Creamer, 1991). Quite simply, the more students invest in learning activities, that is, the higher their level of effort, the more students learn.[2]

What we do not yet know, or at least have not yet adequately documented, is *how* involvement is shaped within the context of differing institutions of higher education by student educational experiences. And though we have a sense of why involvement or integration should matter (e.g., that it comes to shape individual commitments), we have yet to explore the critical linkages between involvement in classrooms, student

learning, and persistence. In effect, we have yet to fully understand the educational character of persistence in higher education.

This is not to say that researchers have ignored the classroom experience. Quite the opposite is the case. In their reviews of the research on college teaching and student learning, for instance, McKeachie (1970, 1994) and Smith (1980, 1983) document the many studies that have sought to disentangle the multiple relationships between teacher behaviors and student participation in classroom discussion and learning. But those and other studies aside, the case remains that there is little empirical data on the impact of faculty members' behavior on student participation (Auster & MacRone, 1994). What we do know is that students' participation in college classrooms is relatively passive, that "learning appears to be a 'spectator sport' in which faculty talk dominates" (Fischer & Grant, 1983) and where there are few active student participants (Smith, 1983; Karp & Yoels, 1976; Nunn, 1996). Interestingly, both Fassinger (1995) and Nunn (1996) find that classroom traits, specifically a supportive atmosphere, is as important to student participation as are student and faculty traits.

The recognition of the importance of classroom environment is part of another area of inquiry, namely the role of classroom context, its educational activities and normative orientations, in student learning. Rather than focus on the behaviors of faculty, a number of researchers have focused on the role of pedagogy (e.g., Karplus, 1974; Lawson & Snitgen, 1982; McMillan, 1987) and, in turn, curriculum (e.g., Dressel & Mayhew, 1954; Forrest, 1982) and classroom activities (e.g., Volkwein, King, & Terenzini, 1986) as predictors of student learning. Generally speaking, these have led to a growing recognition that student learning is enhanced when students are actively involved in learning and when they are placed in situations in which they have to share learning in some positive, connected manner (Astin, 1987).

The issue, then, is not that researchers have ignored the classroom. Clearly they have not. Rather it is that the work they have done has yet to be connected to that in the field of student persistence. The two fields of inquiry have gone on in parallel without crossing. This study represents a beginning effort to bridge that gap.

Background

Though it is apparent that the college classroom is, for many if not most students, the only place where involvement may arise, it remains the case that most college classrooms are less than involving. At the same time, students continue to take courses as detached, individual units, one course separated from another in both content and peer group, one set of understandings unrelated in any intentional fashion, to what is

learned in another setting. There are however a growing number of exceptions. A range of institutions, both two- and four-year, have sought to redefine students' learning experience by restructuring the classroom, altering faculty practice, and linking courses one to another so that students encounter learning as a shared rather than isolated experience. One of these institutions, Seattle Central Community College, and its Coordinated Studies Program is the object of this study.

Coordinated Studies Programs at Seattle Central Community College

The Coordinated Studies Program (CSP) provides students the opportunity to share the curriculum and learn together.[3] Rather than enroll in separate stand alone courses, students in the CSP enroll together in several courses that are tied together by a unifying theme. The theme of the CSP, defined by its title (e.g., Ways of Knowing, Of Body and Mind), crosses disciplinary areas usually in the Humanities Division, but may extend to the Math-Science or Professional-Technical Divisions. During a quarter, CSPs meet for a total of 11 to 18 hours each week in four- to six-hour blocks over two to four days. Generally all instructors are present and active in all class meetings. In addition to sharing the curriculum, students are required to share the experience of learning. They participate in cooperative learning activities that call for them to be interdependent learners (e.g., the learning of the group depends on the learning of each member of the group). In this way, students experience a form of interdisciplinary learning that requires active involvement with their peers.

Methodology

The research project sought to answer two basic questions regarding the program. First, does the program make a difference? Second, if it does, how does it do so? To answer these questions, we used two forms of inquiry, survey (longitudinal panel) and qualitative case study, to study the experiences of a sample of first-year students. Though conducted separately, the two forms of inquiry were linked by a common concern, namely to understand not only what students experienced, but also how those experiences were associated over time with their behaviors and changing views of learning and their subsequent persistence. In this very important manner, the methods were complementary to one another, each yielding information that together provided a richer sense of the impact of program participation than any one method could provide on its own.

In this regard it is important for the reader to understand that as a collaborative research team we sought to uncover those findings that over-

lapped, that together provided deeper insight into the impacts of the program we studied. Therefore, although it is possible to see and report the study as two separate studies, one qualitative, one quantitative, we did not view, nor will we report, our collaborative work in that manner. Though we will describe our work in separate sections, the reader should understand our work as representing two dimensions of a larger, multidimensional study. Given space limitations, this will lead us to provide less information about each method than some readers might prefer. Readers are therefore urged to read the larger research reports from which this article is drawn for more complete details about our methods, sample, and analyses (Tinto & Russo, 1993).

Longitudinal Panel Study

Sampling. We sampled first-year students in both the Coordinated Studies Program and in the traditional curriculum. We did so by first selecting a sample of CSP and comparison classes and then sampling all students in those classes. We did so not only because classrooms served as logical units of analysis, but also because that procedure greatly simplified the task of reaching students.

We selected a total of four CSP classes in the Liberal Arts Division of the College and eleven comparison classes that, in the view of the program staff, best captured a representative sampling of first-year students enrolled in similar subjects but not enrolled in the CSP. Our selection of CSP classes was such that it captured a range of students, some of whom chose to enroll in the program because they had few other options or enrolled in the program for reasons that had little to do with the pedagogical character of the course. The significance of this fact is that it enables us to test for possible self-selection artifacts.[4]

Data collection. Questionnaires were administered in the beginning of the fall quarter and later at the end of that quarter. The first questionnaire collected information on a range of student attributes, prior education, current life situations (e.g., family and work responsibilities), educational intentions, learning preferences, perceptions of ability, and attitudes regarding education. The second questionnaire collected information on current life situations, a range of classroom and out-of-classroom activities, estimates of learning gains, perceptions of the institution, and expectations regarding subsequent enrollment.

Measures of student engagement in classroom and out-of-classroom behaviors were derived from Pace's (1984) Quality of Student Effort Scales. Rather than being adopted in its entirety, Pace's items were modified to suit the specific context of the institution and program being studied. While ruling out comparisons with prior research, the modifica-

tions allowed us to better capture both the intent and impact of program participation upon student behaviors.

The first questionnaire was administered during the second week of the fall quarter by the faculty of the selected classes. Only beginning students were included in the survey administration. We obtained a total of 517 usable questionnaires, 210 and 307 from the CSP and the comparison classes respectively. The second, follow-up, questionnaire was administered during the last two weeks of the fall quarter. Again the questionnaires were distributed in class by the respective faculty. In this instance, students who returned completed questionnaires became eligible for a drawing for a gift certificate to be used in the bookstore. A total of two $50 gift certificates were awarded by blind drawing. Of the 517 students who responded to the first questionnaire, we obtained a total of 287 usable responses (55.5 percent) to the second questionnaire; 121 from program students (57.6 percent) and 166 (53.5 percent) from students in the comparison group.[5]

In the following fall, information was obtained from institutional records about students' earned credits, grade point averages, and quarter to quarter enrollments (winter, spring, and fall of the following academic year). These data, together with students' estimates of learning gains, formed the outcome variable set. Estimates of learning gains, grade point averages and subsequent persistence, in that order, were seen to represent temporarily ordered outcomes that followed from college activities.

The final panel utilized in this study consisted of only those persons who responded to both questionnaires. The resulting panel therefore consisted of 121 program and 166 comparison group students for a total panel sample of 287 students. Comparisons of the attributes of program and comparison group students is provided below in Table 1. All analyses were carried out on this panel of students.[6]

Data Analysis. Several forms of quantitative analysis were carried out. First, descriptive statistics were employed to describe and compare the

TABLE 1

Characteristics of Program and Comparison Group Students

Characteristics	Program Group	Comparison Group
Age (mean years)	20.5	21.7
Gender (% female)	52.6	51.1
Marital status (% married)	2.5	11.5
Employment status (% working)	74.2	67.7
Parental education (% some college or more)	73.1	69.8
High-School GPA (A = 4.0; B = 3.0; etc.)	3.2	3.5

attributes, experiences, and outcomes of students in the program and comparison panels. Z-tests of difference between proportions were used to assess the presence of statistical significance. Second, regression analyses were used to ascertain how attributes and experiences were related, over time, to behaviors and, in turn, to outcomes over the course of the year. Since persistence was measured by a simple dichotomous variable, we used logit regression analysis in the study of persistence into the second year. Stepwise procedures were employed with variables added to the analysis according to a conceptual ordering system that places variables in order of their time occurrence.[7] In all instances, SAS, a statistical package for the mainframe, was employed in the statistical analyses.

Qualitative Case Study

The intent of the qualitative component of the study was to understand, from the students' point of view, how participation in a collaborative learning program influenced students' learning experiences and how those learning experiences fit in with their broader experiences as first-year students. In this case, we focused exclusively on the views of students in the CSP classes. In those classes, students were selected to be interviewed using a purposeful sampling (Bogdan & Biklen, 1992). Our sampling plan included talking to students who were diverse in many ways — age, gender, race, and attitude about the program.

Data collection. We visited each site for three one-week periods during the academic year. The first site visit took place during the early part of the fall quarter. It allowed us to become familiar with the institution. In addition we were able to see how the collaborative learning program was functioning at an early stage. The second site visit took place during the late part of the fall quarter. The program was ending, and the students were able to tell us about their experiences during the quarter. The third site visit was made during the middle of the spring quarter. At that time students were able to reflect upon experiences with and without the program.

Data collection consisted of participant observation, interviews, and document review. Participant observation was conducted in and around classrooms, and on campus and in the surrounding community, wherever possible. Interviews consisted of numerous informal conversations with students, faculty, and staff; over forty-five scheduled open-ended interviews with students and staff; approximately twenty informal telephone interviews with key informants; and thirty-six scheduled interviews with students which followed a semistructured protocol. These latter interviews lasted an average of forty minutes. Document review consisted of gathering school publications and class materials, course syllabi, and schedules.

Data analysis. Data analysis was conducted in an ongoing process that enabled us to explore themes as they emerged and to pursue unexpected leads during the second and third site visits. Data were analyzed by reading and rereading field notes and interview transcripts to familiarize ourselves with them, assigning codes to portions of the data, identifying emerging themes in the data, and generating working hypotheses based on these themes. The working hypotheses were checked against the data and modified, as necessary, before being presented as findings. This process of incorporating emerging themes from the data with hypotheses constructed during the study is characteristic of inductive analysis used in qualitative research (Bogdan & Biklen, 1992). The strength of inductive analysis is that it facilitates the "grounding" of new models or theories (Glaser & Strauss, 1967). To make the mechanical aspects of data analysis more manageable (retrieving and sorting the coded data), we used QUALOG, a qualitative data analysis program for the computer (Shelly & Sibert, 1987).

Results

Longitudinal Panel Study

Patterns of activity and perceptions. In response to survey questions that probed the range and extent of student activities, CSP students reported greater involvement in a range of academic and social activities and greater perceived developmental gains over the course of the year than did students in the comparison classes of the regular curriculum. These differences are reported in factor form in Table 2. Noticeably, the two largest differences between program and nonprogram students are in course and student activities (3.05% and 3.12% versus 2.46% and

TABLE 2

Activity Factor Scores for First-Year Students in CSP and Comparison Classes

Factor Score	CSP	Comparison
Course	3.05*	2.46
Library	2.15*	1.94
Faculty	2.25*	1.99
Students	2.81*	2.25
Writing	3.12*	2.85
Clubs	1.70	1.57
Arts	1.91*	1.60
Perceived gain	2.68*	2.46

NOTE: Variables are measured on a four-point scale from 1 to 4. For activity scores these range from 1 = Never to 4 = Very Often. For perceived gains, they range from 1 = very little to 4 = very much.
* Indicates a significant difference between groups at the 0.05 level.

2.85%). In both cases, students in the CSPs reported being substantially more involved in course (academic) activities and activities involving other students than did students in comparison non-CSP classes.

It is noteworthy that in response to a series of semantic differential questions on college and classroom environment, students in the CSPs also reported significantly more positive views of the college, its students and faculty, its classes and climate, and of their own involvement in the college (Table 3). This was particularly noticeable with student perceptions of their classes (6.03% versus 5.16%) and their own sense of involvement in learning (5.80% versus 5.01%). As we shall see, these differences were reflected in the way students talked about their classroom experiences.

Given these data, it is not surprising that students in the CSPs persisted to the following spring and fall quarters at a significantly higher rate than did similar students in the regular classes (Table 4). Interestingly, differences in persistence in the following fall quarter (66.7% versus 52.0% percent) were considerably greater than those for the spring quarter of that academic year (83.8% versus 80.9%). They were greater still when transfer to four-year institutions was included in our measure of persistence, that is, when we took account of the total rate of educational continuation of students.[8]

TABLE 3

Perceptions of College Environment of CSP and Comparison Class Students

Perceptions of:	CSP	Comparison
Classes	6.03*	5.16
Other students	5.64*	5.19
Faculty	6.00*	5.62
Administrators	4.86*	4.54
Campus climate	5.31*	5.17
Yourself	5.80*	5.01

NOTE: Variables are scored on a scale from 1 to 7, where higher scores indicate a more positive view of college environment. In each case a score of 4 represents a neutral response.
*Indicates a significant difference between groups at the 0.05 level.

TABLE 4

Spring and Fall Re-enrollment among First-year CSP and Comparison Class Students

Student Population	Spring Persistence	Fall Persistence
Coordinated studies program (N = 121)	83.8*	66.7*
Comparison classes (N = 166)	80.9	52.0

*Indicates a significant difference at the 0.05 level.

Multivariate analysis. Though informative, the above descriptive analysis does not demonstrate that participation in the CSP classes is independently associated with enhanced persistence. It merely suggests an association that is univariate in character. To test the question of independent association we carried out a step-wise logit regression analysis that sought to predict second-year persistence as a function of the independent and treatment variables. Table 5 indicates the variables used in each of the multivariate analyses. Logit regression was utilized because the dependent variable, persistence, is a categorical variable (1,0). One interprets parameters in a logistic regression as specifying how changes in an independent variable increases or decreases the likelihood of persisting onto the second year. The results of these analyses are presented in Table 6. Only those variables are shown that are significant at the 0.10 level.

Five variables proved to be significant predictors of persistence among students at Seattle Central Community College. These are participation in the CSP, college grade point average, hours studied per week, perceptions of faculty, and the factor score on involvement with other students. Again, being a member of a CSP proves, even after controlling for performance and other attributes and behaviors of students, an inde-

TABLE 5

Variables in a Multivariate Analysis of Persistence at Seattle Central Community College

AGE	= age.
MAR	= marital status.
HSGPA	= high-school grade point average.
WORK	= working while attending college.
AID	= receiving financial aid.
MED	= mother's educational level.
FED	= father's educational level.
HDEG	= degree aspiration.
HSTUDY	= hours per week studying.
COURSE	= course activity factor score.
FACULTY	= faculty activity factor score.
STUDENT	= student activity factor score.
WRITING	= writing activity factor score.
LIBRARY	= library activity factor score.
CLUBS	= involvement in clubs activity factor score.
ARTS	= involvement in arts activity score.
ENVIRON1	= perceptions of other students.
ENVIRON2	= perceptions of faculty.
ENVIRON3	= perceptions of administrators.
ENVIRON4	= perceptions of classes.
ENVIRON5	= perceptions of campus climate.
ENVIRON6	= perceptions of oneself.
GAIN	= perceptions of intellectual gain.
GPA	= college grade point average.

TABLE 6

Logistic Regression Analysis on Persistence among CSP and Comparison Class Students

Variable	Parameter Estimate	Standard Error	Wald Chi-Square	P > Chi-Square
CSP	1.557	0.539	8.331	0.004
GPA	0.753	0.361	6.482	0.038
HSTUDY	0.279	0.167	2.802	0.094
STUDENT	0.957	0.345	7.681	0.006
ENVIRON1	0.472	0.239	3.869	0.050

NOTE: CSP = participation in CSP
GPA = mean grade point average in college.
HSTUDY = hours studying per week.
STUDENT = student activities factor score.
ENVIRON1 = perceptions of students.

pendent predictor of persistence into the second year of college. It should be noted that similar and even more powerful results were obtained when the rate of total educational continuation was taken as the dependent variable.

Qualitative Case Study

While the quantitative analyses yielded evidence of the impact of learning communities on student persistence and suggested some possible ways of understanding that impact, the qualitative analysis provided direct insight in the ways in which those communities influenced persistence. The results of this analysis can best be summarized under three headings, each of which reveals something about the underlying forces that link classroom experiences to persistence. These are Building Supportive Peer Groups, Shared Learning-Bridging the Academic-Social Divide, and Gaining a Voice in the Construction of Knowledge.

Building supportive peer groups. Participation in a first-year learning community enabled students to develop a network of supportive peers that helped students make the transition to college and integrate them into a community of peers. This community of peers, formed in their learning communities, provided students with a small, knowable group of fellow students with whom early friendships were formed. Some friendships lasted; others faded. But in all cases students saw those associations as an important and valued part of their first-year experience.

Meeting people and making friends during the first year of college is a major preoccupation of student life, especially among younger students who have yet to establish families or acquire significant work obligations. Whereas making friends in smaller, more intimate residential colleges may be a relatively easy task, it is far more difficult in com-

muter institutions and in very large institutions. It is not surprising then that so many students talked of their learning communities as a place to meet new people and make new friendships; a way to make the large college a smaller, more knowable place. A student in the program put it this way: "That's why the cluster is really great, because right now I've made a lot of friends. In another school if I had different classmates, it would have been harder. I've made a lot of friends that I didn't know before, so that's good."

Not surprisingly, many students saw participation in the learning community as an important part of being able to manage the many struggles they faced in getting to and participating in class (see Russo, 1995). Through seminars, group projects, class discussions, and self-evaluation reports, the CSPs contributed not only to a high level of student participation in learning, but also to the development of supportive peer groups that helped students balance the many struggles they faced in attending college. The groups, which developed within the classroom, extended beyond it providing support that students saw as influencing their desire to continue college despite the many challenges they faced. One student, looking back on her experience in the prior fall's program, put it this way:

> In the cluster we knew each other, we were friends, we discussed and studied everything from all the classes. We knew things very, very well because we discussed it all so much. We had a discussion about everything. Now it's more difficult because there are different people in each class. There's not so much — oh, I don't know how to say it. It's not so much togetherness. In the cluster if we needed help or if we had questions, we could help each other.

It is important to note that students in the CSP often made friends who fell outside their prior social networks. In these settings, where students came from a great diversity of backgrounds and traditions, students spoke not only of making new friends, but also of the diversity of views and experiences they came to know through those friendships.

Shared learning: Bridging the academic-social divide. The shared learning experience of learning communities did more than simply cement new friendships; it served to bridge the academic-social divide that typically plagues student life. Often, social and academic concerns compete, causing students to feel torn between the two worlds so that students have to choose one over the other. Learning communities helped students draw these two worlds together.

The development of these interpersonal relationships was important, because it was against this backdrop of a supportive network of peers that academic engagement arose. And it did so both inside and outside the classroom. Groups that formed within the classroom often extended

beyond the classroom in informal meetings and study groups. Once these were in operation, students were able to turn toward the material presented in class and their assignments. A common perception among program students was captured in the following comment:

> You know, the more I talk to other people about our class stuff, the homework, the tests, the more I'm actually learning, . . . and the more I learn not only about other people but also about the subject, because my brain is getting more, because I'm getting more involved with the students. I'm getting more involved with the class even after class.

In this and other ways, participation in a shared learning experience enabled new college students to bridge the academic-social divide that typically confronts students in these settings. It allowed them to meet two needs, social and academic, without having to sacrifice one in order to meet the other. But more than simply allowing the social and academic worlds to exist side by side, the learning communities provided a vehicle for each to enhance the other. Students spoke of a learning experience that was different and richer than that with which they were typically acquainted. As one student noted "not only do we learn more, we learn better."

Little surprise then that in our quantitative data, students in the CSP had higher peer and learning activity scores. Their engagement with their peers in and outside the classroom served to involve them more fully in the academic matters of the classroom. They spent more time with their peers and more time with their peers on class matters. As a result, they spent more time studying. Not surprisingly, they also saw themselves as having gained more from participation in the CSPs.

Gaining a voice in the construction of knowledge. Learning communities at Seattle Central Community College met as one large class, and the faculty worked together as a collaborative team in the classroom. They consciously sought to model learning for the students and include students as active participants in the construction of classroom knowledge. Equally important, they sought to challenge student assumptions about how knowledge is constructed and have students take personal ownership over the learning process. It was an experience that required students to rethink what they knew and become personally involved in deciding what they knew and how they knew it. In that way, they sought to have students take ownership over the learning process. The result was not only a sense of personal involvement in learning that students saw as very different from past educational experiences, but also a type of learning that students saw as richer and, for some, empowering. As one student observed:

> So you're constantly having to think, rethink, and even re-rethink what's going on in light of all the feedback you're getting from all these different points of view, and what it does is shape and mold your own point of view to a much finer degree. . . . We not only learn more, we learn better.

Students appreciated the contrasting, though complementary, ideas from different instructors. They saw instructors grapple with and analyze their own content and synthesize it with the content from other disciplines into a course with one main theme. The continuity of course activities and assignments provided students with opportunities for guided practice in their own thinking across disciplines, in-depth exploration of key concepts, and relating course materials with their lived experiences. The result was high levels of discussion and activity within the CSP and a sense of personal involvement in learning that students saw as very different from past educational experiences.

The multidisciplinary approach also provided a model of learning that encouraged students to express the diversity of their experiences and world views. In doing so, it allowed age, ethnic, and life experience differences among students to emerge and become part of class content. Many students commented on the range of diversity as a way to learn more than just *about each other*. They saw student (and faculty) diversity as an important factor in their learning *about the content*. They appreciated the multiple perspectives that a diverse population provided in the CSP process and, in turn, felt comfortable expressing their own ideas and questions.

> I think more people should be educated in this form of education. I mean, because it's good. We learn how to interact not only with ourselves, but with other people of different races, different sizes, different colors, different everything. I mean it just makes learning a lot better.

The innovative approach of the CSP encouraged students consciously to address issues of their own learning. The diversity of learning experiences challenged students' understandings of what it means to attend college and to learn and their assumptions about how knowledge is constructed. The process of collaboration between students and faculty and with the course content provided a new model of learning that encouraged students to embrace an expanded picture of the learning process. The students reported that they learned concepts better by seeing them presented from perspectives that crossed content areas and found deeper appreciation of the many ways in which knowledge is created.

Before turning to the conclusions, it should be noted that these findings, both quantitative and qualitative, were the same regardless of when students enrolled in the CSP classes. Students who enrolled late in the CSP, that is to say for whom it was the only available option — indeed

some were not aware of the program prior to enrolling — showed similar outcomes and expressed similar views of their experience. Clearly, one could not dismiss the outcome of program participation as merely the result of the program having allowed particular types of students to self-select themselves into a program that permitted them to engage in behaviors they would have otherwise carried out elsewhere.

Conclusions

These results provide insight into two distinct, yet interrelated, issues: what impact learning communities have on student learning and persistence and what role classroom experience plays in the process of student persistence.

Learning Communities, Learning, and Persistence

The results of our studies lend support to some of the basic tenets of learning communities and the collaborative pedagogy that underlies them. First, it is evident that participation in a collaborative or shared learning group enables students to develop a network of support — a small supportive community of peers — that helps bond students to the broader social communities of the college while also engaging them more fully in the academic life of the institution. This community of classroom-based peers, formed in the CSP, served to support students and encourage their continued attendance and class participation. It did so both inside and outside the classroom. Groups that formed within the classroom often extended beyond the classroom in informal meetings and study groups — or as one student put it, "we are more involved with class after class." In this manner, collaborative learning settings enabled new students to bridge the academic-social divide that typically confronts students in these settings. They were able to meet two needs, social and academic, without having to sacrifice one in order to meet the other. In effect, these classrooms served as the academic and social crossroads out of which "seamless" educational activities are constructed.[9]

Second, it is apparent that students are influenced by participating in a setting in which sources of learning come from a variety of perspectives beyond that of one faculty member. The sharing of a curriculum and the use of collaborative pedagogy that brought students and faculty together to teach added an intellectual richness to student experience that the traditional pedagogy did not. Course activities allowed students to connect their personal experiences to class content and recognize the diversity of views and experiences that marked differing members of the classroom. In opening up the conversation about what is known to many voices, stu-

dent and faculty, the program led many students to discover, or better yet uncover, abilities they had not appreciated until then.

Third, though we did not obtain information about "learning" as measured by tests either of content or skills (e.g., critical thinking, etc.), we know that student perceptions of intellectual gain as well as academic performance as measured by GPA were greater in the learning community setting than in the more traditional learning settings and that these "gains" were independent of student attributes.[10] Just as important, we know from student comments that the quality of learning was seen to be different, indeed deeper and richer, in the collaborative learning settings. Again as one student told us; "we not only learn more, we learn better."

Finally, our findings reveal that it is possible to promote student involvement and achievement in settings where such involvement is not easily attained. Unlike many "involving" colleges that are small, private, and residential, the setting we studied was nonresidential. More importantly, the students we studied, unlike students in residential settings who typically devote most, if not all, of their time, in one form or another, to the life of the college, students in nonresidential settings, such as Seattle Central Community College, have to attend to a multiplicity of obligations outside of college. For them, going to college is but one of a number of tasks to be completed during the course of a day. Yet even in that setting, collaborative learning "works." Indeed, it may be the only viable path to greater student involvement (Tinto & Russo, 1993; Tinto, Russo, & Kadel, 1994).

In this manner, our research fills a critical gap in the work of Astin (1993), Tinto (1987, 1993) and others who have explored the importance of student involvement to student attainment. While reaffirming the fact that involvement matters, our research provides empirical documentation of at least one way in which it is possible to make involvement matter in an urban community college setting. In doing so, it moves our conversation about involvement beyond the recognition of its importance to the practical issue of how involvement can be generated in settings where involvement is not easily obtained, in this case by restructuring the student educational experience of the classroom.

Classrooms as Communities and Theories of Student Persistence

Our research also provides insight into the ways in which classroom experience shapes student persistence and, in turn, the manner in which current theories of student persistence might be modified to better reflect the educational character of college life. Specifically, it suggests important relationships, on one hand, between the educational activity

structure of the classroom, student involvement, and the quality of student effort and, on the other, between quality of student effort, learning, and persistence. And, again, it suggests that these relationships are likely to be especially important for those students and in those collegiate settings where involvement is not easy to achieve, namely, for commuting and working students and on nonresidential campuses, in particular those in urban settings.

Student social involvement in the educational life of the college, in this instance through the educational activity structure of the curriculum and classroom, provides a mechanism through which both academic and social involvement arises and student effort is engaged. The more students are involved, academically and socially, in shared learning experiences that link them as learners with their peers, the more likely they are to become more involved in their own learning and invest the time and energy needed to learn (Tinto, Goodsell, & Russo, 1993). The social affiliations that those activities provide serve as a vehicle through which academic involvement is engaged. Both forms of involvement lead to enhanced quality of effort. Students put more effort into that form of educational activity that enables them to bridge the academic-social divide so that they are able to make friends and learn at the same time. That increased effort leads to enhanced learning in ways that heighten persistence (Endo & Harpel, 1982; Tinto & Froh, 1992). Figure 1 graphically
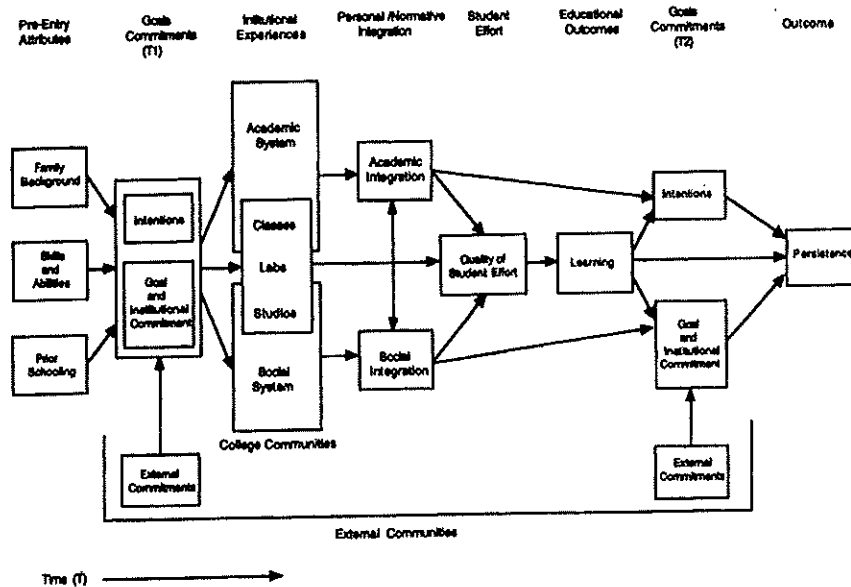

FIG. 1. Suggested Model Linking Classrooms, Learning, and Persistence

represents how a modified theory of student persistence, which links classrooms to effort and persistence, might appear.

It does not follow, however, that the linkage between involvement and learning, on one hand, and between learning and persistence, on the other, is simple or symmetrical. As to the impact of involvement upon learning, one has to ask about the specific nature of student involvement. Not all involvements lead to learning in the same fashion. Much depends on the degree to which student involvement is a meaningful and valued part of the classroom experience. Having a voice without being heard is often worse than having no voice at all. As to the linkage between learning and persistence, though learning is in general positively associated with persistence, it is not the case that learning guarantees persistence or that failure to learn, beyond the obvious case of academic failure ensures departure. Although for most, if not all, institutions academic involvement does matter more than social involvement, it is also true that both social and academic involvement influence persistence. For some students, even high levels of academic involvement and its consequent learning may not be enough to offset the effect of social isolation; for others, sufficient social integration or involvement may counterbalance the absence of academic involvement. These students stay because of the friendships they have developed. Of course, the absence of any academic involvement typically leads to academic failure and thus forced departure.

The informed observers might argue, at this point, that there has been little research to support this claim. Indeed they might note that measures of academic integration have not always been found to be associated with persistence. True enough. But issues of specification aside — that is, of the ways we have measured, or perhaps better yet, mismeasured the concept "academic integration" — it is very likely that what we have measured reflects the fact that most classrooms are not involving and therefore not a factor in student persistence. This does not mean that they *could not* play a role in persistence, only that they have typically *not yet* played that role. This research shows that they can.

Classrooms as learning communities. The results of our research lead us to speak, then, of classrooms as smaller communities of learning which are located at the very heart of the broader academic community of the college. Classrooms serve as smaller academic and social meeting places or crossroads that intersect the diverse faculty and student communities that mark the college generally. Membership in the community of the classroom provides important linkages to membership in communities external to the classroom. For new students in particular, engagement in the community of the classroom becomes a gateway for subse-

quent student involvement in the academic and social communities of the college generally (Tinto, Goodsell, & Russo, 1993).

Colleges can be seen as consisting not merely of multiple communities, but of overlapping and sometimes nested academic and social communities, each influencing the other in important ways. By extension, the broader process of academic and social integration (involvement) can be understood as *emerging from* student involvement with faculty and student peers in the communities of the classrooms. It is a complex multidimensional process, which links classroom engagement with faculty and student peers to subsequent involvement in the larger academic and social communities of the college. Thus the likely link exists between this research and that of Attinasi (1989), Kuh (1993, 1995), Kuh, Schuh, Whitt, & Associates (1991), and Rendon (1994) on the role of out-of-class experiences to student learning and persistence.

This view of the role of classrooms in student academic and social involvement leads us to the recognition of the centrality of the classroom experience and the importance of faculty, curriculum, and pedagogy to student development and persistence (see Pascarella & Terenzini, 1991). This is true not only because contact with the faculty inside and outside the classroom serves directly to shape learning and persistence, but also because their actions, framed by pedagogical assumptions, shape the nature of classroom communities and influence the degree and manner in which students become involved in learning in and beyond those settings. Faculty do matter and not only because of their out-of-classroom activities.

Thinking about the temporal process of learning and persistence. If we take seriously the notion argued above of the dynamic interplay between involvement, quality of effort, learning, and persistence, we can then postulate a more complex view of the longitudinal process of student persistence as it occurs over the course of the first year of college, if not the entire student career, than has thus far been described in the literature on student persistence (Tinto, 1989). Specifically, our preceding conversation suggests that the manner in which social and academic involvements (integration) shape learning and persistence will vary over the course of the college career and do so in differing ways for different students inside and outside the classroom.

During the first several weeks of the first-year of college, the work of Attinasi (1989) and, very recently, Tinto and Goodsell (1994) suggests that issues of social membership may be somewhat more important than those of academic membership, at least for younger students who leave home after high school to attend residential four-year institutions. Attinasi (1989) notes that new students — in this case Mexican American

students entering a large public university — talk about the need to attach themselves to relevant social groups as a way to cope with the difficulties of "getting in" to college. More importantly, this attachment and the social support it provides may be a necessary precondition for subsequent involvements.

The same observation can be made about the first-year experiences of students attending a large public university on the West Coast (Tinto & Goodsell, 1994). At first, new student attention is focused on the need to make social connections with their student peers. Though classes matter, students' concern regarding academic involvement appears to be played out against a broader backdrop of social issues and concerns they have over social membership. As students progress through the first year and toward their degree, their concerns appear to shift toward a greater emphasis on academic issues. Once social membership has been achieved, or at least once concerns over it have been addressed, student attention appears increasingly to center on academic involvements.

It is noteworthy, in this regard, that Neumann and Neumann's (1989) study of junior and senior persistence at a northeastern university indicates that students' progress from freshman to senior years is increasingly shaped by educational rather than social concerns and by their educational experiences in the institution. Their study emphasized what they refer to as a "Quality of Learning Experience" approach, wherein persistence is conceptually linked to student perceptions of the quality of their learning environments and their interaction with faculty about learning issues. The significant predictors of junior and senior persistence proved to be student involvement in learning activities, students' views of the quality of teaching, advising, and course work, and their contact with faculty.

The likelihood that persistence is marked over time by a changing balance of academic and social involvements leads us to consider the parallels between the longitudinal process of persistence we have just described and those that describe moral and intellectual development. Could it be that the process of persistence in being linked to that of learning is, like Chickering's (1969) or Perry's (1970) model of student development, also shaped by a shifting need in students for differing forms of social and intellectual engagements? Might it be that fulfilling one need, the social, is, for many students, a developmental precondition for addressing the need for intellectual engagement? We should, of course, be very cautious about pushing these parallels too far. By noting the possible parallel between our view of the temporal process of persistence and that of student development, we are forced to ask whether our impressions are merely a reflection of the types of students who have

thus far been studied, namely youthful students attending four-year institutions. Would the same results apply equally well to older students or to students in two-year institutions who are immersed in external communities of work, family, and friends? For older students who commute to school, for instance, early academic involvements may be more important, especially as they shape the person's sense of their own ability to cope with the academic demands of college or, to borrow Rendon's term, "validate" a student's presence on campus (Rendon, 1994). Clearly there is a much research to be done.

Closing Comment

What does all this mean for our existing models of student persistence? First it means that we need to remind ourselves that our current two-dimensional graphic representations of interaction, which depict social and academic systems of colleges as two separate boxes, mask the fuller relationship between these two spheres of activity. A more accurate representation would have academic and social systems appear as two nested spheres, where the academic occurs *within* the broader social system that pervades the campus. Such a depiction would more accurately capture the ways, noted here, in which social and academic life are interwoven and the ways in which social communities *emerge* out of academic activities that take place within the more limited academic sphere of the classroom, a sphere of activities that is necessarily also social in character.

As a methodological aside, this research reminds us that we would be well served by supplementing our use of path analysis to study the process of persistence with network analysis and/or social mapping of student interaction patterns. These will better illuminate the complexity of student involvements and the linkages that arise over time between classroom and out-of-class experiences. More importantly, they will shed important light on how interactions across the academic and social geography of a campus shape the educational opportunity structure of campus life and, in turn, both student learning and persistence.[11]

We have too long overlooked the essentially educational and developmental character of persistence as it occurs in most college settings. There is a rich line of inquiry of the linkage between learning and persistence that has yet to be pursued. Here is where we need to invest our time and energies in a fuller exploration of the complex ways in which the experience of the classroom comes to shape both student learning and persistence. Among other things, we need to pursue Braxton's (1995) lead and ask about the role of faculty teaching in persistence and more carefully

consider the notion, as we have here, that choices of curriculum structure (e.g., learning communities) and pedagogy invariably shape both learning and persistence on campus (e.g., cooperative teaching), because they serve to alter both the degree to which and manner in which students become involved in the academic and social life of the institution. As we do so, we will discover what many educators have been trying to tell us for years, namely, that at its core college is an educational experience and that conversations about persistence that ignore important questions of educational practice are conversations that are at best shallow.

Notes

[1]Perhaps this arises from the institutional lenses through which most researchers have looked at student persistence. We see the issue as it is conditioned by the settings in which we work, that is, large residential universities with relatively privileged students who have the luxury of being able to spend time on campus.

[2]It is perhaps telling that current versions of Quality of Student Effort Scales are relatively insensitive to the range and degree of educational experiences that arise within the classroom. For the most part, these scales tend to emphasize activities that arise outside the classroom.

[3]For a fuller description of the program at Seattle Central Community College the reader should refer to Tinto and Russo (1993).

[4]For the purposes of this study we took first-year college students as representing those persons who enrolled in the institution in question for the first time, regardless of prior enrollment.

[5]We compared student attributes and persistence outcomes for the initial response group as a way to testing whether the results of the study might have been shaped by the character of those who responded to the follow-up questionnaire. We found nothing to suggest that our results would not have applied to all students, had they all responded to the follow-up questionnaire.

[6]For a more complete discussion of the data (e.g., variables, measures, etc.) the reader is again urged to see Tinto and Russo (1993).

[7]In this case, variables were entered in a logical order as determined by the temporal sequence of events that describe the students' movement from entry through to the start of the second year of college, namely, from preentry attributes to experiences within the time frame of the study to outcomes as measured first by learning and second by persistence over subsequent time periods.

[8]We also developed a measure of educational continuation to capture the fact that a number of students in the CSP transferred to the nearby university after having participated in the CSP. Though subject to some error, logit regression analysis on continuation yielded similar but even stronger results.

[9]The term "seamless" is Kuh's (1995). It refers to that type of collegiate setting where the boundaries between the academic and social are blurred, where there is an integration of the academic and social. In this case, we argue that such seamless settings, from the students' perspective, can be constructed from the classroom experience. Indeed, in the case of nonresidential institutions, the great bulk of institutions of higher education, it may be the only viable mechanism through which seamless institutions are "constructed."

[10]At some point, the researchers run the risk of being excessively intrusive and placing themselves in the position of studying people who are very aware of being studied. We sought to avoid that situation.

[11]Much like the concept "opportunity structure," which sociologists have employed to study the dynamic aspects of social stratification, the term "educational opportunity structure" can be seen as describing the interconnected chains of relationships and inter-actions out of which personal affiliations are wrought and contextual learning arises.

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Moving Beyond Access: Closing the Achievement Gap in Higher Education[1]

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On the surface, America's public commitment to provide access to any individual who seeks a postsecondary education seems to be working. Our higher educational system enjoys one of the highest participation rates in the world. More than 16.3 million students currently enroll in US public and private two and four-year colleges. In the past twenty.years, enrollments have grown over 25 percent; the proportion of high school graduates entering college immediately after high school has increased from about 49 percent in 1980 to 66.7 percent in 2004. More importantly, the access gap for low-income youth has, until recently, shrunk as greater numbers of economically disadvantaged students have enrolled in college.

Stratification of Patterns of College Attendance

But scratch beneath the surface of this apparent achievement and the news about access and opportunity in American higher education is much more complex and a lot less hopeful (NPEC, 1997). Though access has increased and gaps between groups in overall access have decreased, sizable gaps in patterns of access remain. For too many students, especially those from low-income families, the door to higher education is only partially open because financial constraints limit their choices not only in how they attend, that is to say whether they work while in college and/or attend part-time, but also where they attend. Despite gains in access generally, marked economic stratification of patterns of access and participation remain. As importantly as access has increased so to has stratification of participation by income.

This is most noticeable in shifting patterns of attendance at two verses four-year institutions. In 1973-7, the first year of the Pell Grant program, 62.4 percent of Pell Grant recipients were enrolled in four-year colleges and universities. By 2001-02 the share of Pell Grant recipients enrolled in four-year colleges and universities had shrunk to 44.9 percent, a decline of 28 percent.[2] Strikingly the shift from four-year to two-year colleges among Pell Grant recipients has been most marked since the late 1990s. Between 1998-99 and 2001-02 the share of Pell Grant recipients enrolled in four-year

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[1] Presented at the Achievement Gap Initiative, Harvard University, June 21, 2005.
[2] The shift of low–income students from four–year to two–year colleges has occurred among both dependent (typically 18–24 years old) and independent students (typically 24 years and over). The percentage of dependent low–income undergraduates with Pell Grants enrolled in four–year institutions declined from a peak of 69 percent in 1980–81 to about 58 percent by 2001–02. The share of independent undergraduates with Pell Grants enrolled in four–year institutions has declined from 49.2 percent in 1977–78 to 34.8 percent in 2001–02.

institutions has dropped from 49.7 to 44.9 percent. In other words, nearly 28 percent of the twenty-eight year decline in enrollment in four-year institutions among Pell Grant recipients has occurred in just a three-year period. Notably this period coincides with economic recession, large job losses, state cutbacks in financial support for higher education, large tuition increases, and frozen Pell Grant maximum awards (St. John, 2002, 2005)[3].

Understandably, some measure, if not a large measure of differential participation can be attributed to well-documented differences in levels of academic preparation of low and high-income students and the impact of recent policies that have restricted access to four-year institutions for students who have substantial academic needs.[4] There is little question that academic preparation matters and that differences in preparation continue to pose daunting challenges to our ability to promote greater equality in patterns of access (Bowen, Kurzweil, and Tobin, 2005). But even among students with similar levels of academic "resources," low socioeconomic students are less likely to attend four-year institutions than are students from high socioeconomic backgrounds (Cabrera, Burkum, and La Nasa, 2005, p. 159-160, Figures 7.1 and 7.2).

It is also the case, as documented by Carnevale and Rose (2003), that low-income students who enter the four-year sector are substantially less likely to attend elite institutions than are high-income students. Indeed there is even less socioeconomic diversity than racial or ethnic diversity at the most selective colleges (see Table 1.1, page 69). Whereas "74 percent of the students at the top 146 highly selective colleges came from families in the top quarter of the SES scale (as measured by combining family income and the education and occupations of the parents), just 3 percent came from the bottom SES quartile, and roughly 10 percent came from the bottom half of the SES scale" (Carnevale and Rose, 2003. p.11). Bowen, Kurzweil, and Tobin (2005) reach the same conclusion (p.98).

Economic stratification in participation can also be observed in forms of participation, that is to say whether students attend full or part-time and/or work while attending college. Students from low-income families are considerably less likely to attend college full-time than are students from higher income families and more likely to work full-time while attending college. Among students who began college in the 1995-96 academic year, for instance, 57 percent of dependent students from families earning less than $25,000 per year were enrolled in college full-time for the entire academic year. This compared to 71 percent of those from families with incomes more than $75,000 (NCES 1999-030, Table 1.3). Again, income matters.

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[3] For a more detailed analysis of the impact of Pell Grants and other tuition assistance programs see Kane (2003, 2004).
[4] According to Cabrera, Burkum & La Nasa's (2005) recent study while only 7 percent of students from high socioeconomic status backgrounds begin college with "low academic resources" 22 percent of students from low–socioeconomic status backgrounds do so.

The College Completion Divide

Why does such stratification of participation matter? It matters because where and how one goes to college influences the likelihood of college completion.[5] Though access broadly understood has increased and gaps in overall access have decreased over time, gaps between high and low-income students in college completion generally and of four-year degrees in particular remain. Indeed they appear to have widened over time (NCES 2005-156, Table 5-B).

Understandably, this reflects the fact that a greater proportion of low-income youth enter two-year colleges rather than four-year colleges and in so doing reduce the likelihood of earning a four-year degree. Data from a recently completed six-year national longitudinal study of students who began college in 1995/96 bears testimony to this fact. Whereas nearly six in ten four-year college entrants earn a Bachelor's degree within six years, only a little over one in ten public two-year college entrants do so (NCES 2003-151, Table 2.1A). But even among those who began higher education in a two-year college, income matters. While nearly 25 percent of high-income students earn a four-year degree within six years, only 8 percent of low-income students do so (NCES 2003-151, Table 2.1C). In other words, the chances of a low-income student completing a Bachelor's degree within six years when beginning college in a two-year college is less than one fourth that for a high-income students who also being in a two-year college. And though some of this can be assigned to differences in prior academic preparation and educational aspirations, it is still the case that students from lower socioeconomic backgrounds are still less likely to transfer to a four-year institution (Dougherty and Kienzl, forthcoming).

Similar differences in likelihood of completion exist among four-year college entrants. Of those who began higher education in a public four-year college or university in 1995/96, only 48 percent of low-income students earn their four-year degree within six years while 67 percent of high-income students do so (NCES 2003-151, Table 2.2C). More telling still is the fact that even among those who began at a four-year college with the stated goal of obtaining at least a four-year degree, only a little over half of low-income students earn a Bachelor's degree (53 percent) as compared to over three quarters of high-income students (77 percent) (NCES, 2003-151, Table 8.6). Of course, some of these differences can be attributed to the fact that low-income students are considerably less likely to attend elite institutions where graduation rates are quite high. For instance, among the top tier of institutions, graduation rates are nearly 86 percent, where it is only 54 percent for the lowest tier of institutions (Carnevale and Rose, 2003, Table 2.1, p.69).

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[5] Understandably it also impacts the economic returns to one's investment in higher education (Long, 2004).

Again, it is undeniable that a good deal of these differences in college completion are a reflection of differences in levels of academic preparation of entering college students, two and four-year. But even when adjustment is made for student test scores, presumably related to student academic preparation, students who attend top tier institutions are still more likely to graduate (Carnevale and Rose, 2003, p.13). Even within these institutions, income matters. For instance among students attending the top tier of institutions, presumably among the most talented and motivated students in higher education, it proves to be the case that students from the lowest socioeconomic quartile are less likely to graduate (76%) than students from the highest quartile (90%) (Carnevale and Rose, 2003, p. 14).

The facts are unavoidable. Though access to higher education has increased and gaps between income groups decreased, greater equality in attainment of four-year college degrees has not followed suit. For too many low-income students the "open door" to American higher education has become a revolving door.

Moving Beyond Access: Enhancing Persistence of Low-Income Students

What is to be done? What issues must we address to close the gap in the attainment of four-year degrees? Clearly the most important of these is that of academic preparation. Unless we find a way of dealing with the quality of academic preparation we will never close the Achievement Gap. That being said, it is clear that we must also address the growing economic stratification of higher educational participation that increasingly places low-income students at the margins of our higher educational system. We must provide talented students the financial means to attend college in ways that promote, not hinder, their attainment. So too we must deal with the continuing failure of low-income students to successfully transfer between two and four-year institutions. For too many low-income students, even those who aspire to a four-year degree, the two-year college has become an educational dead end. The issue here is not simply one of articulation, but of the failure of transfer programs to promote the attainment of low-income students. Finally, we must attend to the fact that low-income students graduate from four-year institutions at lower rates than do high-income students even after controlling for institution and test-scores. At some point, all our efforts will not close the achievement gap unless institutions take it upon themselves to address the needs of low-income students.

Unfortunately, most universities are not serious in their pursuit of improved graduation rates, in particular those of low-income students. Despite much public posturing, they have been unwilling to change current practices and move beyond the provision of add-on services that are placed at the margins of institutional life. They have been unwilling to make enhancing student success the linchpin about which they

organize their actions and establish those educational conditions within the institution that we have long known promote student success.[6]

Rethinking the Learning Environment for Students

What are these conditions? What does research tell us about the nature of institutional environments that promote student success, in particular for low-income and under-represented students? Six conditions stand out, leadership/commitment, expectations, support, assessment/feedback, involvement, and connected learning.

Leadership/Commitment

First and perhaps most clearly, institutional commitment is a condition for student success. Simply put, institutions that are committed to the goal of increasing student success, especially among low-income and under-represented students, seem to find a way to achieve that end. But institutional commitment, especially from the leadership of the institution, is more than just words, more than just mission statements issued in elaborate brochures; it is the willingness to invest the resources and provide the incentives and rewards needed to enhance student success. It reflects as well a commitment on the part of the faculty as well as the staff of student affairs to see themselves as responsible for the success of their students (Muraskin & Lee 2004). Without such commitment, programs for student success may begin, but rarely prosper over the long-term.

Expectations

Second, expectations, specifically high expectations, are a condition for student success. Quite simply, no student rises to low expectations. Regrettably, it is too often the case that universities expect too little of students, especially during the critical first year of college. Indeed a recent national study by Kuh (2003) indicates that first year students spend less time on their studies out of class than what we deem necessary for successful learning. They simply do not study enough. It is my view that this is the case in part because we do not expect enough of them nor construct educational settings that require them to study enough.

At the same time, universities will sometimes hold differing expectations for differing students. This may be expressed in the labels we use to describe groups of students, as for instance contained in the term "remedial" students, or more subtly, but no less effectively, in the way we treat differing students as sometimes happens among faculty and students of different gender or ethnicity. However expressed, it is evident that students quickly pick up expectations and are influenced by the degree to

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[6] The Education Trust has produced a series of informative reports on improving graduation rates (Carey, 2005a, 2005b, 2005c).

which those expectations validate their presence on campus. This is precisely what Rendon (1994) was referring to in her research on validation and success of non-traditional, first-generation college students and what Solorzano, Ceja, and Yosso (2000) were referring to in their study of microaggressions.

Expectations can also be expressed in concrete ways through formal and informal advising. Knowing the rules and regulations and the informal networks that mark campus life are part and parcel of student success. Yet it remains the case that formal advising remains a "hit and miss" affair; some students are lucky and find the information they need, while others are not. The same can be said of the informal advising, the sharing of accumulated knowledge that goes on within a campus among and between faculty, staff, and students. Again some students are able to locate that knowledge, often through informal networks of peers, while others are not (Attinasi, 1989). Such mentoring, typically referred to a peer mentoring, is a particularly important to the success of low-income and first-generation college students for whom knowledge of the ins and outs of college is not a given.

Support

Third, support is a condition that promotes student success. Research points to three types of support that promote success; namely academic, social, and financial. As regards academic support, it is unfortunately the case that more than a few students enter the university insufficiently prepared for the rigors of university study. For them, as well as for others, the availability of academic support for instance in the form of developmental education courses, tutoring, study groups, and academic support programs such as supplemental instruction is an important condition for their continuation in the university. So also is the availability of social support in the form of counseling, mentoring, and ethnic student centers. Such centers provide much needed support for individual students and a safe haven for groups of students who might otherwise find themselves out of place in a setting where they are a distinct minority. For new students, these centers can serve as secure, knowable ports of entry that enable students to safely navigate the unfamiliar terrain of the university.

As regards the nature of academic support, it is most effective when it is connected to, not isolated from, the learning settings in which students are asked to learn. Supplemental instruction, for instance, provides academic support that is directly attached to a specific class in order to help students succeed in that class (Bowles and Jones, 2003). As a support strategy, it is most often used for key first-year "gateway" courses that are foundational to coursework that follows in subsequent years.

Assessment/Feedback

Fourth, monitoring and feedback is a condition for student success. Students are more likely to succeed in settings that provide faculty, staff, and students frequent feedback about their performance. Here I refer not only to entry assessment of learning skills and early warning systems that alert institutions to students who need assistance, but also to classroom assessment techniques such as those described by Angelo and Cross (1993) and those that involve the use of learning portfolios. These techniques are not to be confused with testing but with forms of assessment, such as the well-known "one-minute" paper, that provide both students and faculty information on what is or is not being learned in the classroom. When used frequently, such techniques enable students and faculty alike to adjust their learning and teaching in ways that promote learning. When implemented in portfolio form that requires continuous reflection, assessment can also deeply enrich learning.

Involvement

Fifth, involvement or engagement is a condition for student success (e.g. Astin, 1993; Kuh, in press; Tinto, 1993). Quite simply, the more students are academically and socially involved, the more likely are they to persist and graduate. This is especially true during the first year of university study when student membership is so tenuous yet so critical to subsequent learning and persistence. Involvement during that year serves as the foundation upon which subsequent affiliations and engagements are built.[7]

Nowhere is involvement more important than in the classrooms of the campus, again especially during the first year of college. This is the case for two reasons. First, the classroom may be the only place students meet each other and the faculty. Least we forget, most students commute to college and a majority work while in college. For them and for many others, the classroom is often the only place where they meet other students and the faculty. If involvement does not occur in those smaller places of engagement, it is unlikely it will easily occur elsewhere. Second, learning is central to the college experience and the root source of student success. Involvement in classroom learning, especially with other students, leads to greater quality of effort, enhanced learning, and in turn heightened student success (Tinto, 1997). Even among students who persist, students who are more involved in learning, especially with other students, learn more and show greater levels of intellectual development (Endo and Harpel, 1982; Carini, Kuh, & Klein, in press). It is for these reason that so much of the literature on institutional retention, student learning and development speaks of the importance of building educational communities that involve all, not just some, students.

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[7] For an informative view of how success is understood from the perspective of students see The Institute for Higher Education Policy (2001).

Connected Learning

Finally, students are more likely to persist and graduate in settings that foster learning especially that which is seen to be connected to, rather than isolated from, other domains of their lives (Tagg, 2003). Learning has always been the key to student persistence. Again, involvement seems to be the key. Students who are actively involved in learning and who see learning as relevant to their lives, will spend more time on task, learn more, and, in turn, stay and graduate (Tinto, 1997).

To sum up, students are more likely to succeed when they find themselves in settings that are committed to their success, hold high expectations for their success, provide needed academic, social, and financial support, assess and provide frequent feedback about their performance, and actively involve them, especially with other students and faculty in learning. The key concept is that of educational community and the capacity of institutions to establish educational communities that engage and validate their presence on our campuses and move them from the margins to the mainstream of institutional life.

Restructuring the Learning Environment for Low-Income Students

How might these concepts be applied to low-income students? Take the case of academically under-prepared low-income students, an increasing number of whom are either recent immigrants or children of immigrants whose language skills are limited. As part of a multi-year study of innovative developmental education programs funded by the Lumina Foundation for Education and the William and Flora Hewlett Foundation, we have been studying the impact of developmental education learning communities on the success of low-income students in both two and four-year colleges.[8][9]Our findings to date are telling. Contrary to public perceptions, it is possible to address student developmental education needs in college and enhance persistence.[10] But doing so requires both curricular and pedagogical changes and the willingness of faculty and staff to collaborate in ways that provide students a coherently linked set of activities and support that further student education. Three features stand out.

- First, the linking of developmental education courses (e.g. developmental English/writing) to content courses (e.g. History, Sociology). Such linkages make possible the immediate application of skills being learned in a developmental education course to what is being learned in the course to which it is linked. This is what practitioners in the field refer to as contextualizing academic support.

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[8] For more information on the research project see http://pathways.syr.edu.
[9] Also see Malnarich, et al. (2004) for a thoughtful discussion of learning communities for academically under-prepared students.
[10] See Bettinger and Long (2005).

- Second, the use of collaborative and/or cooperative pedagogies that require that student learn together in a coherent interdependent manner. The evidence in this regard is clear. Students who learn together become more academically and socially engaged (e.g. spend more time together and on task), learn more, and in turn persist more frequently (Tinto, 1997, 1998, 2003; Zhao and Kuh, 2004).

- Third, the linking up of classroom activities to support services on campus. In this way developmental education learning communities serve as conduits to other support services that low-income students might not otherwise access.

By describing some of our research at Syracuse I hope to make a rather simple point, namely to address the success of low-income students within our colleges and universities, especially those from underserved populations, we must stop tinkering at the margins of institutional life, stop our tendency to take an "add-on" approach to institutional innovation, stop marginalizing our efforts and in turn our students, and adopt efforts that restructure the learning environments in which we place them."

Nowhere does such restructuring matter more than during the critical first year of college when student persistence is so much in doubt. It is for that reason that there is much to be gained from a rethinking of the character of the first year and the development of coherent first-year programs whose purpose it is to ensure that all students are able to learn and persist beyond that year. For students who require additional academic assistance, such programs are particularly effective when they are connected to summer bridge programs.

Closing Thought:

Though we have made progress in providing low-income students increased access to higher education, we have been less successful in increasing their attainment of four-year degrees. If anything, the achievement gap between high-income and low-income students has increased over time. In part, this reflects that fact that most universities have not taken the task of promoting the persistence and graduation of low-income students seriously. It is not enough to provide low-income students access to our universities and colleges and claim we are providing opportunity if we do not construct environments that support their efforts to learn and succeed beyond access. Simply put, access without support is not meaningful opportunity.

" Such findings mirror other studies that document the impact of learning communities and other forms of collaborative learning environments on a range of student outcomes not the least of which is student persistence (e.g. Taylor, et al. 2004; MDRC, 2005). These environments prove to be particularly effective for students from under-served groups when they include additional supports such as peer mentoring and intrusive academic advising.

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Promoting Student Retention: Lessons Learned from the United States[1]

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Good morning. It is honor to be invited to speak to you today in the beautiful city of Prato about a matter of great importance, namely our mutual need to increase access and graduation from our universities, especially among those who have been historically excluded from our universities.

In the United States, slightly more than half of all students (51 percent) who begin university study complete their degree in their initial institution within six years. Though some students eventually earn their degrees via transfer to another university or college, it remains a fact that for many institutions in the United States dropout is often as frequent as graduation. Of course, universities and colleges vary considerably. Some elite private universities such as Harvard and Princeton graduate over 90% of their students and several very selective public universities such as the University of California at Los Angeles, the University of Virginia, and the University of Michigan, graduate over 80% of their students. On the other hand, many open-enrollment universities, especially those in the large cities, graduate less than 30% of their students.

Similar variation exists among our states. Some states, such as Conneticut and Rhode Island, report that over sixty-five percent of their students earn their four-year degrees within five years, while other states, such as Idaho and Utah, report that slightly less than 30 percent of their students do so. Clearly we still much to do to improve graduation rates in the United States.

Just as clearly there is still much to do to close the gaps in graduation rates between different groups in our society. Despite years of effort and not an inconsiderable degree of progress, students of color, specifically African-American, Hispanic-American, and Native American, still graduate less frequently than do majority students. Recent data from a six-year longitudinal study of beginning college students in the United States document differences as large as twenty percent in graduation rates.[2]

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[1] Presented at the 11th Annual Conference of the European Access Network, Prato, Italy. June 19, 2002.

[2] Black students graduate (over six years) at a rate that is roughly eighteen percent lower than White (non-Hispanic) students; Hispanic students at a rate that is roughly fourteen percent lower than White (non-Hispanic) students; but Asian Pacific Islander students graduate at a rate that is approximately eight percent higher than White (non-Hispanic) students.

It is not surprising therefore that there is so much interest not only in research on student retention generally and that of students of color in particular, but also in research that documents the effectiveness of institutional and state efforts to increase student retention. We all want to know what works.

In the US, there is a considerable body of research on the causes of student "dropout." It is one of the most widely studied issues in higher education over the past twenty-five years. But knowing why students dropout does not tells us what institutions can do to promote student retention, at least not directly. This is the case because retention is not the mirror image of dropout; the factors that help explain why students leave are not the same as those that explain an institution's ability to help students stay and graduate.

For that reason, I would like to first direct my comments this morning to what we know about the *conditions within universities* that promote student retention and in turn to what universities in the United States are now doing to enhance student retention, especially among excluded groups. Then I will turn to state and federal policy and what our national government and our states are doing to enhance student retention.

In doing so, I do not for a moment believe that what works in the United States will also work as well in other countries. But I do believe that we can learn from each other; that what works here in Italy, for instance, can shed new light on what else we might want to do in the United States.

Conditions for Student Retention

Let me now turn to institutional policy and what works in enhancing student retention in universities. Here I will focus on the conditions in which students are placed, not their attributes. I do so because even though it is true that one way to increase retention at any institution is to recruit more able and motivated students, that choice is not available to most universities in the United States. Most of our universities are open enrollment. For those institutions the only viable approach to increasing student retention, at least in the short-term, is to establish conditions within the university that promote student retention. Unlike the many forces that shape student dropout that are beyond our control, such as student personal lives, the conditions in which students are placed are under university control and can be changed if universities so wish.

What are these conditions? What does research on student retention tell us about the conditions within universities that promote student retention? First and perhaps most clearly institutional commitment is a condition for student retention. Simply put, institutions that are committed to the goal of increasing student retention, especially among excluded groups, seem to find a way to achieve that end. But institutional commitment is more than just words, more

than just mission statements issued in elaborate brochures; commitment is the willingness to invest the resources and provide the incentives and rewards needed to enhance student retention.

Institutional commitment translates in turn to expectations for student success. High expectations is a condition that promotes student retention. To borrow a commonly used phrase, no student rises to low expectations. Expectations are expressed in a variety of ways. In classrooms they are expressed in the level of intellectual work expected of students and in the degree to which students see learning in classroom as challenging. Regrettably, it is too often true that universities expect too little of students. At the same time, universities will sometimes hold differing expectations for differing students. This may be expressed in the labels we use to describe groups of students, as for instance contained in the term "remedial" students, or more subtly, but no less effectively, in the way we treat differing students as sometimes happens among faculty and students of different gender or ethnicity. However expressed, research is clear that students quickly pick up expectations and are influenced by the degree to which those expectations validate their presence on campus.

Second, support is a condition that promotes student retention. Research points to two types of support that promote retention, namely academic and social support. Unfortunately, more than a few students enter the university insufficiently prepared for the rigors of university study. For them, as well as for others, the availability of academic support for instance in the form of developmental education courses, tutoring, study groups, and academic support programs such as supplemental instruction is an important condition for their continuation in the university. So also is the availability of social support in the form of counseling, mentoring, and ethnic student centers. Such centers provide much needed support for individual students and a safe haven for groups of students who might otherwise find themselves out of place in a setting where they are a distinct minority. For new students, these centers can serve as secure, knowable ports of entry that enable students to safely navigate the unfamiliar terrain of the university.

Third, involvement is a condition for student retention. Educational theorists such as Alexander Astin, Ernest Boyer, and I have long pointed to the importance of academic and social integration or what is more commonly referred to as involvement to student retention. The more students are academically and socially involved, the more likely are they to persist and graduate. A wide range of studies in a variety of settings and for a range of students have confirmed that the more frequently students engage with faculty, staff, and their peers, the more likely, other things being equally, that they will persist and graduate. Simply put involvement matters.

Fourth and finally, learning is a condition for retention. The more students learn, the more value they find in their learning, the more likely they are to stay and graduate. This is particularly true for more able and motivated students who seek out learning and are, in turn, more likely to respond to perceived shortcomings in the quality of learning they experience on campus. Least we

forget the purpose of higher education is not merely that students are retained, but that they are educated. In the final analysis, student learning drives student retention.

Not surprisingly, an important condition for student learning is involvement. Even among students who persist, students who are more involved in learning, especially with others, learn more and show greater levels of intellectual development. It is for this reason that so much of the literature on institutional retention policy speaks of the importance of building educational communities that involve all, not just some, students. This is especially the case during the first year of university study when student membership is so tenuous yet so critical to subsequent retention.

To sum up, students are more likely to persist when they find themselves in settings that hold high expectations for their learning, provide needed academic and social support, and actively involve them with other students and faculty in learning. The key concept is that of educational community and the capacity of institutions to establish educational communities that involve all students as equal members.

Forms of Effective Practice

But getting students involved is no simple matter especially when students commute to campus, work while in college, or have substantial family responsibilities. Unlike students who reside on or very near campus who have few additional responsibilities, those students have little time to spend with their peers and faculty on campus. For them, the classroom may be the only place where they meet each other and the faculty, the only place where engagement in academic matters is possible. Unfortunately, most university classrooms are not involving. Most students experience classrooms, especially the large lecture halls that dominate the first year of our universities, as isolated learners whose learning is detached from that of other students in the class and from the content of other classes in which they are enrolled. For too many classrooms, the experience of learning is still one of isolation and passivity.

It is for this reason that a growing number of universities in the United States have turned their attention to the classroom and asked themselves how they can restructure those places of learning and redirect their support activities to assist students in those places in order to promote student involvement and in turn student learning and retention.

There are a number of reforms now underway in the United States. These include the use of summer bridge and first year transition programs such as the so-called Freshman Seminar; the use of cooperative or collaborative learning and problem-based learning strategies that require students to work together in cooperative groups; the use of learning communities that require students to enroll in courses together and share the experience of learning the curriculum; the use classroom assessment techniques that provide students and faculty frequent feedback about student learning;

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and the use of supplemental instruction strategies where academic assistance is connected to specific courses and to specific student academic needs.

Though these reforms are different, they share a number of common attributes that capture the underlying sources of their success. First, they all focus on student learning and the places in which students are asked to learn. They either are located in classrooms or are directed toward the task of learning in the classroom. Second, they all stress shared, connected learning and the importance of educational community. Students are asked to learn together in a coherent manner and form communities that provide social, as well as academic support. Third, when assistance is provided, it is typically connected to the classroom, not isolated from it. In this way, assistance is contextualized in ways that enable students to utilize assistance for learning in the settings in which they are attempting to learn.

What do we know about the effects of these reforms on students? My research and that of others reveal the following effects: First, students in settings that stress shared, connected learning tend to form their own self-supporting groups that extended beyond the classroom. Students spend more time together out of class than do students in traditional classes and they do so in ways which students see as supportive. Listen to the voice of one student who spoke of her experience in a learning community.

> "In the cluster we knew each other, we were friends, we discussed everything from all the classes. We knew things very well because we discussed it all so much. We had discussions about everything...if we needed help or if we had questions, we could help each other...and we did."

Second, students in settings that stress involvement in learning with others become more actively involved in classroom learning, even after class. They spend more time learning together both inside and outside the class and in doing so bridge the divide between academic classes and student social conduct that frequently characterizes student life. They tend to learn and make friends at the same time. Listen to this student as he speaks about being in a learning community that employs cooperative learning:

> "You know, the more I talk to other people about our class stuff, the homework, the tests, the more I'm actually learning ... and the more I learn not only about other people, but also about the subject because my brain is getting more, because I'm getting more involved with the other students in the class. I'm getting more involved with the class even after class."

The table below provides evidence of the significant differences in activity scores that one typically observes between these and more traditional forms of practice.

Table 1: Student Involvement in Educational Activities

Activity Score**	Learning Community	Comparison Group
Course	3.05*	2.46
Library	2.15*	1.94
Faculty	2.25*	1.99
Students	3.12*	2.85
Writing	2.81*	2.65
Perceived Gain	2.68*	2.46

*   indicates significant difference between groups at .05 level.
** scores derive from five point Likert scale.

Third, participation in shared, connected learning environments enhances the quality of student learning or as one student put it, they "not only learn more, they learn better." By learning together, everyone's understanding and knowledge is, in the eyes of the participants, enriched. Listen to this student who participated in a learning community with students from many different racial and ethnic backgrounds.

> *"I think more people should be educated in this form of education...We learn to interact with other people of different races, different sizes, different colors, different everything. I mean it just makes it better... not only do you learn more, you learn better."*

Fourth, as students learn more and see themselves as more engaged both academically and socially, they persist at a substantially higher rate than do comparable students in the traditional curriculum. And this is true for pass rates for remedial students taking the same courses and for retention to the following academic year.

Simply put, these reforms, when properly implemented, work. They enhance student learning and in turn student retention. They add another set of tools, beyond the traditional tools of advising, counseling and mentoring, that institutions can use to improve student retention.

State and Federal Policy Perspective

Now let me turn to state and federal policy. In doing so, let me observe that unlike most other nations, our federal (national) government plays a relatively minor role in higher education and its impact on student retention is largely indirect.[3] Its impact occurs directly through its funding of academic support programs such as the TRIO programs that many of you already know of and indirectly though its financial aid policies that influence both the amount and form of financial aid students can obtain to help pay for the cost of university attendance. The role of our states, however, is much closer to that of your governments and ministries of higher education. For that reason, I will limit my comments this morning to the ways state governments in the US have sought to enhance student retention.

Until recently, states have been willing to grant universities and colleges a great deal of autonomy at least as it regards student retention and graduation. That has clearly begun to change. Though states have differed in their approach to this issue, several initiatives are worthy of note. First, several states have instituted accountability systems (you use I believe the term quality assurance) that hold institutions and in turn institutional budgets accountable for their performance including increases in student retention and graduation. Some states, like South Carolina, have developed elaborate formulae to do so, while other states, like California and Kentucky, have used more informal agreements to encourage institutional action. Second, most states have instituted incentive programs that provide institutions incentive grants to encourage the development of innovative programs to increase student retention. Third, in conjunction with Federal funding of TRIO and similar programs for disadvantaged and other targeted groups, most states have provided additional funding for state supported assistance programs that are intended to serve the needs of disadvantaged students. In New York State, these are referred to as Higher Education Opportunity Programs. Fourth, and in my view most encouraging, several states, for instance Texas, have instituted multi-year initiatives designed specifically to address the continuing gap in access and graduation between majority and minority students.

Regardless of the specific attributes of these state initiatives, most share a common feature. They all recognize that improvement in student retention is ultimately an institutional issue. Though state policies can help, in particular those that provide funding for student support programs, universities ultimately bear the responsibility for improving student retention and graduation. That is why I have devoted so much of my time this morning to institutional policy and practice. If our institutions do not succeed, little is possible. But for our universities and colleges to succeed we as faculty and administrators must be willing to make changes in our institutions and in current forms of practice.

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[3] A recent speech by President Bush indicates that the Bush administration would like to do the same at a national level. Not surprisingly, response by universities has been less than enthusiastic.

Concluding Thoughts:

In closing, let me suggest several possible courses of action. First, we must take seriously the importance of classrooms to student retention and restructure those settings to promote greater student involvement in learning, especially with others. Second, we must also take seriously the task of faculty development and recognize that faculty are not, as a matter of prior education, trained to teach students. As a result, universities must provide faculty with the pedagogical and assessment skills they need to establish conditions in their classrooms that promote student involvement, learning, and retention. Third, we must reward faculty for effective teaching and provide incentives for faculty to innovate in their teaching and work with students. Fourth, our universities must be willing to assess their own actions as they pertain to student retention, in particular how their actions shape the retention of excluded groups. They must be willing to accept the fact that long cherished forms of practice may themselves be partly at fault for the problems we face. Finally, our governments, local and national, must finance student support programs and provide incentives for institutions to act. Without conceding the importance of institutional accountability, governments must be willing to invest resources the universities and provide them the flexibility to produce the reforms needed to achieve the goal of enhanced student retention. To that end, I hope my comments this morning are helpful.

Thank you.

July 24, 2007

Kathy M. Snead
President, SOC Consortium
1307 New York Avenue, NW
Fifth Floor
Washington, DC 20005-4701

Dear President Snead:

I greatly appreciate this opportunity to support your nomination of Professor Vincent
Tinto for the Brock International Prize in Education. Professor Tinto and I share similar
scholarly interests. These interests focus on the development of an understanding of why
undergraduate college students voluntarily depart from their initial college or university
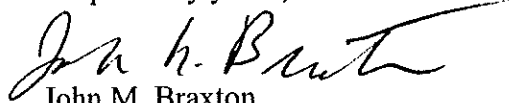of enrollment. Their departure has been called "the departure puzzle."

The "departure puzzle" has been the object of empirical attention for over 75 years.
During the past 30 years, considerable progress on understanding this puzzle has
occurred. Although other theoretical perspectives have been advanced, it is Tinto's
Interactionalist Theory that has enjoyed paradigmatic stature. Paradigmatic status
connotes the considerable consensus among scholars of college student departure
concerning the potential validity of Tinto's theory. Professor Tinto's theory first
appeared in an article titled "Dropout from Higher Education: A Theoretical Synthesis of
Recent Research" that was published in the Review of Educational Research in 1975.
This article is a citation classic as it has received over 775 citations (as of 2004). Because
of the volume of citations, one can assume paradigmatic status of his theory.

In addition to this important article, his other important works on understanding college
student retention include his 1993 book titled Leaving College: Rethinking the Causes
and Cures of Student Attrition published by the University of Chicago Press.

His most recent work focuses on learning communities and their role in fostering college
student success and on the need to translate research on college student departure into a
form amenable for action by individual colleges and universities.

Although this letter is brief, the contents speak volumes about the contribution of
Professor Vincent Tinto to the understanding of the college student experience. His
contributions make him a worthy recipient of the Brock International Prize in Education.

Respectfully yours,

John M. Braxton
Professor of Education

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July 26th, 2007

Dr. Kathy M. Snead
President
Servicemembers Opportunity Colleges
1307 New York Avenue, NW 5th Floor
Washington, DC 20005-4701

Dear Dr. Snead:

I am writing this letter of recommendation in support of Dr. Vincent Tinto's nomination for the Brock International Prize in Education. I consider myself very fortunate indeed to be able to call Dr. Tinto a colleague and a good friend.

Given the purpose of the Brock Prize—to recognize an individual who has made a specific contribution to the science and art of education that has resulted in significantly impacting how we understand education—I can think of few more worthy than Dr. Tinto. From his seminal piece *Leaving College* to his more recent work on learning communities for academically under-prepared students at urban two-year colleges, Dr. Tinto has done much to improve our understanding of retention. His work has caused higher education to rethink why students leave college, moving from blaming students for their deficits to examining what institutions can do to better support students as they face obstacles to retention. His work on learning communities has enabled colleges and universities to transform their practices, particularly for low-income and first-generation students.

As President of the Council for Opportunity in Education (COE)—the membership association of the federally-funded TRIO programs that provide pre-college and in-college support for low-income, first-generation, and disabled students—I have had the privilege of working with Dr. Tinto in several capacities. First and foremost, Dr. Tinto has been extensively involved in the training and professional development the Council provides to our members, which include the staff who administer the TRIO programs in the field. Dr. Tinto has been a very important and very inspirational member of our retention training faculty, and has also offered sessions at the Council's Annual Conference and other meetings. For members of the TRIO community, the opportunity to benefit from Dr. Tinto's experience has been invaluable as they seek to improve the chances of success for low-income, first-generation college students.

In addition, Dr. Tinto has served as a Senior Scholar with the Pell Institute for the Study of Opportunity in Higher Education, the research arm of the Council. In part, Dr. Tinto joined the Pell Institute because after so many years as a distinguished researcher, he is eager to ensure that our national policy on retention is being informed by what he and others have learned in the field. Since he joined the Pell Institute, he has been active in several projects on graduation and retention of low-income students. He has worked with our staff on several publications, including an upcoming piece in the Pell Institute's journal *Opportunity Matters* and a forthcoming publication on low-income first-generation graduation rates. More importantly though, Dr. Tinto has served as a

tremendous resource to the staff of the Pell Institute. He has been very supportive, offering advice and feedback on projects, and he has devoted significant time and energy to the continued development of the Pell Institute. Furthermore, he has been a wonderful mentor to our Director of the Pell Institute.

Finally, in more recent years, I have also been able to enjoy Dr. Tinto's knowledge and expertise as our paths have crossed in the arena of international education. As a member of the Board of Directors for the European Access Network, we have invited him to present his work to our members several times. Unlike other speakers, he immerses himself in the opportunity, participating in the conferences to the fullest, questioning and learning from others, just as they would seek him out for his thoughts and opinions. He does not take the view that the American system is best and that there is nothing to be learned from other nations. Rather, he tries to help others understand both the successes and the mistakes of U.S. higher education, while he gains a greater knowledge of how other countries and universities are tackling the problems facing low-income students.

Given the success that Dr. Tinto has achieved in research, it would be understandable to think that it is the only academic pursuit that drives him. But what I have come to realize about this man is that while he is truly intellectually curious, he has a passion to ensure that low-income, first-generation students have the same chance for access to and success in higher education that their more affluent peers enjoy. It was this passion that first brought him into contact with the Council and the Pell Institute, and it is this passion that drives him to give of his time tirelessly, traveling to colleges across the U.S no matter how big or how small. It is this passion that brings him to meetings and conferences of his colleagues to exhort them to remember that "access without support is not opportunity." And it is this passion that drives him time and time again back to research, seeking to continually increase our understanding of the barriers to success for all students, and what can be done to overcome these. It is this passion of his that drives me to join in support of nominating Dr. Vincent Tinto for the Brock International Prize in Education. It is an honor to do so.

Sincerely,

Arnold L. Mitchem
President

ALM/cob

THE CARNEGIE FOUNDATION
for the ADVANCEMENT *of* TEACHING

Brock Prize Selection Committee
c/o Kathy M. Snead
SOC Consortium
Fifth Floor
1307 New York Avenue, NW
Washington, DC 20005-4701

July 27, 2007

Members of the Selection Committee:

I am pleased to write in support of Vincent Tinto's nomination for the Brock International Prize in Education. Professor Tinto is one of those rare scholars whose work has had considerable impact not just within the research community, but also among practitioners. Indeed, it is abundantly clear that his research is motivated by an intense desire to improve educational processes and outcomes.

Although the Brock Prize is not intended to recognize a distinguished career, it is important to place my comments in perspective. Professor Tinto is surely among the five most-cited scholars of higher education, and it would not surprise me to learn that he tops the list. His scholarship has been enormously influential. His seminal work on student departure from higher education has informed a large volume of important research, as well as institutional interventions to improve student retention.

But it is Tinto's work on learning communities, and more generally his focus on the classroom as the critical locus of student success in higher education, that justify his selection for the Brock Prize. Tinto did not "invent" learning communities, of course. But by calling attention to pedagogical innovation, he reminds us that the structure and organization of teaching and learning experiences make a difference. His careful, multi-method empirical studies of learning communities offer persuasive evidence of their benefits. Tinto has shown that learning communities have the potential to change how students learn, how well they learn, and how they think about their learning. He has also found that these benefits carry over to students' persistence toward their educational goals. These are extremely important findings. Anecdotal accounts of the benefits of learning communities may be fairly common, but evidence accumulated from systematic study is essential to demonstrating the effectiveness of pedagogical innovations, and thus to supporting their adoption and diffusion.

Professor Tinto also appreciates the importance of America's community colleges, which enroll nearly half of all undergraduate students. Too few higher education researchers have focused on this vitally important sector. Leading scholars influence the scholarly discourse, and Tinto's work calls attention to the valuable role of America's community colleges and lends legitimacy to their study. Similarly, he has looked particularly at the use of learning communities in developmental education. Tinto's attention to critically important but undervalued or stigmatized elements of postsecondary education is extremely important.

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Professor Tinto's audience is not limited to the research community. He engages directly with policy makers and practitioners through publication in practitioner-focused venues, speaking engagements, and consulting work. He is committed to bringing the insights of scholarly research to bear on real-world educational problems. In this way, he is the model of an engaged scholar.

I enthusiastically endorse Vincent Tinto's nomination for the Brock International Prize in Education. Please feel free to contact me if you have any questions.

Sincerely,

Alexander C. McCormick
Senior Scholar