

Appendix A
Studies Addressing Issues Relevant to NCES'
Postsecondary Longitudinal and Sample
Surveys Studies Program

UNANNOTATED BIBLIOGRAPHY

Arranged alphabetically by year

This bibliography is derived from computer searches of online bibliographic databases such as Education Resources Information Center (ERIC), Project MUSE, and the NCES.ED.GOV website.

National Center for Education Statistics (NCES), ERIC Document (ED), and ERIC Journal (EJ) publication numbers are indicated in brackets. Publications with an NCES number may be accessed from the National Center for Education Statistics (NCES) at <http://nces.ed.gov>. Publications with ED or EJ numbers are indexed in ERIC at <http://www.eric.ed.gov>.

2011

John, J. C. and P. H. Rodney (2011). "Differences Across States in Higher Education Finance Policy." *Journal of Education Finance* 36(4): 369-393.

Karikari, J. A. and H. Dezhbakhsh (2011). "Are selective private and public colleges affordable?" *Education Economics*.

Snyder, T. D. and S. A. Dillow (2011). Digest of Education Statistics, 2010. [NCES 2011-015], National Center for Education Statistics.

Turley, R. N. L. and M. Desmond (2011). "Contributions to College Costs by Married, Divorced, and Remarried Parents." *Journal of Family Issues* June vol. 32 no. 6 767-790

Wei, C. C. a. P. Ho (2011). Trends in the Receipt of Pell Grants: Selected Years, 1995-96 to 2007-08. Web Tables. [NCES 2011-155], National Center for Education Statistics.

Woo, J. and P. Skomsvold (2011). Trends in Student Financing of Graduate and First-Professional Education: Selected Years, 1995-96 to 2007-08. Web Tables. [NCES 2011-217], National Center for Education Statistics.

2010

Bersudskaya, V. and C. C. Wei (2011). Trends in Student Financing of Undergraduate Education: Selected Years, 1995-96 to 2007-08. Web Tables. [NCES 2011-218], National Center for Education Statistics.

Boureiko, N. V. (2010). Factors influencing the academic success of second generation immigrant college students. University of Arkansas at Little Rock. Ed.D.: 160.

Cataldi, E. F. and P. Ho (2010). Student Financing of Graduate and First-Professional Education: 2007-08. Web Tables. NCES 2011-172, National Center for Education Statistics.

Chen, Rong, and Stephen L. DesJardins. "Investigating the Impact of Financial Aid on Student Dropout Risks: Racial and Ethnic Differences." *The Journal of Higher Education* 81, no. 2 (2010): 179-208.

- Chen, X. (2010). Profile of Graduate and First-Professional Students: Trends from Selected Years, 1995-96 to 2007-08. Web Tables. NCES 2011-219, National Center for Education Statistics.
- Cominole, M., John Riccobono, Peter Siegel, and Lesa Caves (2010). 2007-08 National Postsecondary Student Aid Study (NPSAS:08) Full-scale Methodology Report. [NCES 2011188], National Center for Educational Statistics.
- Dezhabksh, Harshem, and John A. Karikari. "Enrollment at Highly Selective Private Colleges: Who is Left Behind?" *Contemporary Economic Policy* 28, no. 1 (2010): 94-109.
- Goldrick-Rab, Sarah, and Kia Sorensen (2010). "Unmarried Parents in College." *The Future of Children* 20(2): 179-203.
- Hillman, N. W. (2010). "Who Benefits from Tuition Discounts at Public Universities?" *Journal of Student Financial Aid* 40(1): 17-30.
- Hornak, A. M., P. L. Farrell, et al. (2010). "Making It (or Not) on a Dime in College: Implications for Practice." *Journal of College Student Development* 51(5): 481-495.
- Perna, L. W., R. Fester, et al. (2010). "Exploring the College Enrollment of Parents: A Descriptive Analysis." *Journal of Student Financial Aid* 40(1): 6-16.
- Pontes, M. C. F., C. Hasit, et al. (2010). "Variables Related to Undergraduate Students Preference for Distance Education Classes." *Online Journal of Distance Learning Administration* 13(2).
- Staklis, S. (2010). Profile of Undergraduate Students: 2007-08. Web Tables. NCES 2010-205, National Center for Education Statistics.
- Turley, R. N. L. and G. Wodtke (2010). "College Residence and Academic Performance: Who Benefits from Living on Campus?" *Urban Education* 45(4): 506-532.
- Turner, Nick. (2010). Who Benefits From Student Aid? The Economic Incidence of Tax-Based Federal Student Aid. UC San Diego: Department of Economics, UCSD. Retrieved from: <http://www.escholarship.org/uc/item/7g0888mj>
- Vienne, K. L. (2010). Differences in debt levels among undergraduate students as a function of gender, ethnicity, and parental education levels. Sam Houston State University. Ed.D.: 466.
- Wei, C. C. (2010). Student Financing of Undergraduate Education: 2007-08. Web Tables. NCES 2010-162, National Center for Education Statistics.
- Wei, C. C. (2010). Trends in Undergraduate Stafford Loan Borrowing: 1989-90 to 2007-08. Web Tables. NCES 2010-183, National Center for Education Statistics.
- Wei, C. C. (2010). What Is the Price of College? Total, Net, and Out-of-Pocket Prices in 2007-08. Stats in Brief. [NCES 2011-175], National Center for Education Statistics.

2009

- Ambrose, Allison S. "Student Characteristics of Merit Aid Recipients: Structural and Human Agency Determinants." Dissertation, Illinois State University, 2009.
- Babcock, Philip. "Real Costs of Nominal Grade Inflation? New Evidence from Student Course Evaluations." 1-31. Santa Barbara: Department of Economics, University of California, Santa Barbara, 2009.
- Babiarz, Patryk, and Tansel Yilmazer. "The Impact of College Financial Aid Rules on Household Portfolio Choice." 1-44: National Tax Journal, 2009.
- Chen, X. (2009, July). *Students Who Study Science, Technology, Engineering, and Mathematics (STEM) in Postsecondary Education* (NCES 2009-161). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.
- Cheslock, John J. "A Nonparametric Examination of the Prices Low-Income Students Face." 1-32: Center for the Study of Higher Education, Penn State University, 2009.
- Choy, S.P., Berkner, L., Lee, J., and Topper, A. (2009). *Academic Competitiveness and SMART Grant Programs: First-Year Lessons Learned*. Washington, DC: US Department of Education.
- Doyle, W.R., Delaney, J.A., and Naughton, B.A. (2009). Does Institutional Aid Compensate for or Comply with State Policy? *Research in Higher Education*, 50(5): 502-523.
- Ferguson, Chris D. , and Greg Gilpin. "Wage Frictions and Teacher Quality: An Empirical Analysis of Differential Effects Across Subject Areas." 1-39. Bloomington: Indiana University Bloomington, 2009.
- Foraker, Matthew J. "State Appropriations: Implications for Tuition and Financial Aid Policies." Dissertation, University of Arizona, 2009.
- Radford, A.W., and Wun, J. (2009). Issue Tables: A Profile of Military Servicemembers and Veterans Enrolled in Postsecondary Education in 2007-08 (2009-182). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.
- Shao, Ling. "The Financial Aid Tax and Student Work Incentives." 1-44. Stanford: Department of Economics, Stanford University, 2009.
- Wei, C.C., Berkner, L., He, S., Lew, S., Cominole, M., and Siegel, P. (2009). *2007-08 National Postsecondary Student Aid Study (NPSAS:08): Student Financial Aid Estimates for 2007-08. First Look* (NCES2009-166). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.
- Wei, C.C., and Wun, J. (2009). *Undergraduate Financial Aid Estimates for Six States: 2007-08* (NCES 2010-181). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

Wei, C.C., and Wun, J. (2009). Web Tables: Undergraduate Financial Aid Estimates by Type of Institution in 2007–08 (NCES 2009-201). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

2008

Anderson, S. (2008). *Teacher Career Choices: Timing of Teacher Careers among 1992-93 Bachelor's Degree Recipients* (NCES 2008-153). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

Archibald, Robert B., and David H. Feldman. "How to Think About Changes in Higher Education Affordability." 1-33. Williamsburg: Department of Economics, College of William and Mary, 2008.

Berkner, L., and Choy, S. (2008). Descriptive Summary of 2003-04 Beginning Postsecondary Students: Three Years Later (NCES 2008-174). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

Chen, Stacey H. "Estimating Effective Subsidy Rates of Student Aid Programs." 1-25. Albany: University at Albany-SUNY, 2008.

Chung, Anna S. "For-Profit Student Heterogeneity." University of Michigan (Ann Arbor), 2008.

Dynarski, Susan M., and Judith E. Scott-Clayton. "Complexity and Targeting in Federal Student Aid: A Quantitative Analysis." In *Tax Policy and the Economy*, edited by James M. Poterba, 109-150: University of Chicago Press, 2008.

Fergus, Meredith, Tricia Grimes, Emily Kissane, Lesley Lydell, Mark Misukanis, and Jack Rayburn. "Enrollment Patterns of Students from Low-Income Families." In *The Minnesota Office of Higher Education*. St. Paul: Minnesota Office of Higher Education, 2008.

McSwain, Courtney. "Window of Opportunity: Targeting Federal Grant Aid to Students with Lowest Incomes." 1-26. Washington, DC: Institute for Higher Education Policy, 2008.

The Advisory Committee on Student Financial Assistance. "Apply to Succeed: Ensuring Community College Students Benefit from Need-Based Financial Aid." In *US Department of Education*. Washington DC: The Advisory Committee on Student Financial Assistance, 2008.

Wei, C.C., and Berkner, L. (2008). *Trends in Undergraduate Borrowing II: Federal Student Loans in 1995-96, 1999-2000, and 2003-04* (NCES 2008-179). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

2007

Chen, X. (2007). *Part-Time Undergraduates in Postsecondary Education: 2003-04* (NCES 2007-165). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

Cominole, M., Wheeless, S., Dudley, K., Franklin, J., and Wine, J. (2007). *2004/06 Beginning Postsecondary Students Longitudinal Study (BPS:04/06)* (NCES 2008-184). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

Epple, Dennis, Richard Romano, and Holger Sieg. "Diversity and Affirmative Action in Higher Education." 1-34, 2007.

Lang, David M. "Financial Aid and Student Bargaining Power." *The B. E. Journal of Economic Analysis & Policy* 7, no. 1 (2007): 1-21.

Wasley, P. (2007). Part-Time Students Lag behind Full-Time Peers, Study Finds. *Chronicle of Higher Education*, 53(45): 25.

2006

Berkner, L., and Wei, C.C. (2006). *2003-04 National Postsecondary Student Aid Study (NPSAS:04). Undergraduate Financial Aid Estimates for 12 States: 2003-04* (NCES 2006-158). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

Berkner, L., and Wei, C.C. (2006). *Student Financing of Undergraduate Education: 2003-04. With a Special Analysis of the Net Price of Attendance and Federal Education Tax Benefits* (NCES 2006-168). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

Choy, S., and Cataldi, E.F. (2006). *Student Financing of Graduate and First-Professional Education: 2003-04. Profiles of Students in Selected Degree Programs and Part-Time Students* (NCES 2006-185). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

Cominole, M., Siegel, P., Dudley, K., Roe, D., and Gilligan, T. (2006). *2004 National Postsecondary Student Aid Study (NPSAS:04)* (NCES 2006-180). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

Epple, Dennis, Richard Romano, and Holger Sieg. "Admission, Tuition, and Financial Aid Policies in the Market for Higher Education." *Econometrica* 74, no. 4 (2006): 885-928.

Heller, Donald E. "Merit Aid and College Access." Paper presented at the Symposium on the Consequences of Merit-Based Student Aid, Madison, WI, March 2006.

Horn, L., Nevill, S., and Griffith, J. (2006). *Profile of Undergraduates in U.S. Postsecondary Education Institutions, 2003-04: With a Special Analysis of Community College Students. Statistical Analysis Report*. (NCES 2006-184). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

Murphy, K.B. (2006). *Factors Affecting the Retention, Persistence, and Attainment of Undergraduate Students at Public Urban Four Year Higher Education Institutions*. Chicago, IL: Association for Institutional Research (AIR).

2005

Berkner, L., He, S., Lew, S., Cominole, C., and Siegel, P. (2005). *2003-04 National Postsecondary Student Aid Study (NPSAS:04): Student Financial Aid Estimates for 2003-* (NCES 2005-158). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

Berkner, L., Wei, C.C., He, S., Lew, S., Cominole, M., and Siegel, P. (2005). *National Postsecondary Student Aid Study (NPSAS:04), 2003-04: Undergraduate Financial Aid Estimates for 2003-04 by Type of Institution* (NCES 2005-163). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

Horn, L., Cataldi, E., and Sikora, A. (2005). *Waiting to Attend College: Undergraduates Who Delay Their Postsecondary Enrollment* (NCES 2005-152). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

Hurst, D., and Hudson, L. (2005). *Estimating Undergraduate Enrollment in Postsecondary Education Using National Center for Education Statistics Data* (NCES 2005-063). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

Minicozzi, A. (2005). The Short Term Effect of Educational Debt on Job Decisions. *Economics of Education Review*, 24(4): 417-430. (EJ697552)

Peter, K., and Horn, L. (2005). *Gender Differences in Participation and Completion of Undergraduate Education and How They Have Changed Over Time* (NCES 2005-169). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

Riccobono, J., Siegel, P., Cominole, M., Dudley, K., Charleston, S., and Link, M. (2005). *2004 National Postsecondary Student Aid Study (NPSAS:04) Field Test Methodology Report* (NCES 2005-02). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

Santiago, Deborah A. , and Alisa F. Cunningham. "How Latino Students Pay for College: Patterns of Financial Aid in 2003-04." In *Excelencia in Education*. Washington DC: Excelencia in Education, 2005.

Settersten, Richard A. Jr., Frank F. Jr. Furstenberg, and Ruben G. Rumbaut. *On the Frontier of Adulthood: Theory, Research, and Public Policy*. 2005 ed. Chicago: University of Chicago Press, 2005.

St. John, Edward P. , Michael B. Paulsen, and Deborah Faye Carter. "Diversity, College Costs, and Postsecondary Opportunity: An Examination of the Financial Nexus between College Choice and Persistence for African Americans and Whites." *The Journal of Higher Education* 76, no. 5 (2005): 545-569.

Wei, C., Nevill, S., and Berkner, L. (2005). *Independent Undergraduates: 1999-2000* (NCES 2005-151). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

2004

Heuer, Ruth E. (2004). *Migration of recent college graduates*. Ph.D. dissertation North Carolina State University.

Hoef, Ted F. (2004). *Within-year persistence of four-year college students by gender*. Ph.D. dissertation University of Missouri, Saint Louis.

Hudson, L. and Shafer, L. (2004). *Undergraduate Enrollments in Academic, Career, and Vocational Education* (NCES 2004-018). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

Kim, M.H. (2004). *The determinants of institutional financial aid and its effect on degree completion: The difference between students at public and private four-year institutio*. Ph.D. dissertation Columbia University.

McManus, R.A. (2004). *Special education and college enrollment: A secondary analysis of the National postsecondary student aid data*. Ph.D. dissertation Morgan State University.

Wei, C.C., Li, X., and Berkner, L. (2004). *A Decade of Undergraduate Student Aid: 1989-90 to 1999-20* (NCES 2004-158). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

2003

Ashby, C.M. (2003). *Student financial aid: Monitoring aid greater than federally defined need could help address student loan indebtedness*. Report to the honorable Rod Paige, Secretary of Education GAO-03-508. Washington, DC: General Accounting Office.

Below, D.L. (2003). *The First-to-Second-Year Persistence of Public, Four-Year College Students by Ethnicity*. Unpublished Ph.D. Dissertation, University of Missouri, Saint Louis

Berker, A., and Horn, L. (2003). *Work First, Study Second: Adult Undergraduates Who Combine Employment and Postsecondary Enrollment* (NCES 2003-167). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

Choy, S., and Berker, A. (2003). *How Families of Low- and Middle-Income Undergraduates Pay for College: Full-Time Dependent Students in 1999-2000* (NCES 2003-162). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

Clark, Carlos Remereious. "The Influence of Student Background, College Experience, and Financial Aid on Community College Within-Year Retention." (Ph.D. Dissertation, The University of Mississippi, 2003.)

Clinedinst, M.E., Cunningham, A.F., and Merisotis, J.P. (2003). *Characteristics of Undergraduate Borrowers: 1999-2000* (NCES 2003-155). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

Clinedinst, M.E., Cunningham, A.F., and Merisotis, J.P. (2003). Characteristics of undergraduate borrowers: 1999-2000. *Education Statistics Quarterly*, 5(1): 57-61.

Congressionally Mandated Studies of College Costs and Prices. Washington DC: National Center for Education Statistics, September 2003. Brochure. [NCES-2003-171]

Flowers, L.A., and Zhang, Y. (2003). Racial differences in information technology use in college. *College Student Journal*, 37(2): 235-241.

Hoachlander, G., Sikora, A., and Horn, L. (2003). *Community College Students: Goals, Academic Preparation, and Outcomes* (NCES 2003-164). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

Hoezee, Larry D. "The influence of academic and financial variables on within-year persistence by first-year undergraduates attending public four-year colleges and universities: An analysis of the National Postsecondary Student Aid Survey, 1995-1996." (Ph.D. dissertation, Indiana University, 2003).

Horn, L., and Peter, K. (2003). *What Colleges Contribute: Institutional Aid to Full-Time Undergraduates Attending 4-Year Colleges and Universities* (NCES 2003-157). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

Langrehr, Andrew M. "The persistence of adult students in two-year colleges." (Ph.D. dissertation, University of Missouri, Saint Louis, 2003).

Minicozzi, Alexandra. "The Short Term Effect of Educational Debt on Job Decisions." *Economics of Education Review* 24 (2003): 417-430.

Wegmann, C.A., Cunningham, A.F., and Merisotis, J.P. (2003). *Private loans and choice in financing higher education*. Washington, DC: Institute for Higher Education Policy. [ED478298]

2002

- Berkner, Lutz, Ali Berker, Kathryn Rooney, and Katharin Peter. *Student Financing of Undergraduate Education: 1999-2000*. Washington DC: National Center for Education Statistics, July 2002. Statistical Analysis Report. [NCES-2002-167]
- Chang Wei, Christina and Laura Horn. *Persistence and Attainment of Beginning Students with Pell Grants*. Washington DC: National Center for Education Statistics, May 2002. Statistical Analysis Report. [NCES-2002-169]
- Choy, Susan P. *Findings from the Condition of Education 2001: Students Whose Parents Did Not Go to College*. Washington DC: National Center for Education Statistics, January 2002. Brochure. [NCES-2001-126]
- Choy, Susan P. *Findings from the Condition of Education 2002: Nontraditional Undergraduates*. Washington DC: National Center for Education Statistics, August 2002. Brochure. [NCES-2002-012]
- Choy, Susan P. and Sonya Geis. *Student Financing of Graduate and First-Professional Education, 1999–2000*. Washington DC: National Center for Education Statistics, June 2002. Statistical Analysis Report. [NCES-2002-166]
- Horn, Laura, Christina Chang Wei, Ali Berker. *What Students Pay for College: Changes in Net Price of College Attendance Between 1992-93 and 1999-2000*. Washington DC: National Center for Education Statistics, September 2002. Statistical Analysis Report. [NCES-2002-174]
- Horn, Laura, Katharin Peter, and Kathryn Rooney. *Profile of Undergraduates in U.S. Postsecondary Education Institutions: 1999-2000*. Washington DC: National Center for Education Statistics, May 2002. Statistical Analysis Report. [NCES-2002-168]
- Riccobono, John A., Melissa B. Cominole, Peter H. Siegel, Tim J. Gabel, Michael W. Link, and Lutz Berkner. *National Postsecondary Student Aid Study 1999-2000 [NPSAS:2000] Methodology Report*. Washington DC: National Center for Education Statistics, June 2002. Technical Report. [NCES-2002-152]
- Siegel, Peter H., Roy W. Whitmore, Ruby E. Johnson, and Di Yu. *National Postsecondary Student Aid Study 1999–2000 (NPSAS: 2000), CATI Nonresponse Bias Analysis Report*. Washington DC: National Center for Education Statistics, March 2002. Working Paper. [NCES-2002-03]
- Sikora, Anna. *A Profile of Participation in Distance Education*. Washington DC: National Center for Education Statistics, October 2002. Statistical Analysis Report. [NCES 2003-154]

2001

- Cofer, James, and Patricia Somers. "What Influences Student Persistence at Two-Year Colleges?" *Community College Review* 29, no. 3 (2001): 56-76.

- Duggan, Michael. *Factors Influencing the First-Year Persistence of First Generation College Students*. (Paper presented at the Annual Meeting of the North East Association for Institutional Research, Cambridge, MA, November 17-20, 2001) [ED460140]
- Henry, Daina P. "Student Debt and Debt Burden of Graduate and First Professional Students: A National and Institutional Analysis." (Ed.D. Dissertation, The College of William and Mary, 2001).
- Lee, John. B. *Undergraduates Enrolled with Higher Sticker Prices*. Washington DC: National Center for Education Statistics, March 2001. Statistical Analysis Report. [NCES-2001-171 ED450678]
- Malizio, Andrew. G. "National Postsecondary Student Aid Study: Student Financial Aid Estimates for 1999-2000." *Education Statistics Quarterly*, 3 (3) (Fall 2001): 82-83. [EJ640237]
- Mbadugha, Loretta Nkeiruka A. "The Financial Nexus between College Choice and Persistence for Community College Students: A Financial Impact Model." (Ph.D. Dissertation, University of New Orleans, 2001). [ED459884]
- Presley, Jennifer B., and Suzanne B. Clery. *Middle Income Undergraduates: Where They Enroll and How They Pay for Their Education*. Washington DC: National Center for Education Statistics, August 2001. Statistical Analysis Report. [NCES-2001-155 ED456686]

2000

- Berkner, Lutz, and Larry Bobbitt. *Trends in Undergraduate Borrowing: Federal Student Loans in 1989-90, 1992-93, and 1995-96*. Washington DC: National Center for Education Statistics, March 2000. Statistical Analysis Report. [NCES-2000-151 ED440562]
- Choy, Susan P. *Low-Income Students: Who They Are and How They Pay for Their Education*. Washington DC: National Center for Education Statistics, March 2000. Statistical Analysis Report. [NCES-2000-169 ED440189]
- Cofer, James, and Patricia Somers. "Within-Year Persistence of Students at Two-Year Colleges. Community College" *Journal of Research and Practice*, 24 (10) (December 2000): 785-807. [EJ618564]
- Cofer, James, and Patricia Somers. "A Comparison of the Influence of Debtload on the Persistence of Students at Public and Private Colleges." *Journal of Student Financial Aid*, 30 (2) (Spring 2000): 39-58. [EJ620059]
- DeAngelis, Susan L. "Tuition, Financial Aid, Debt, and Dental Student Attrition." *Journal of Student Financial Aid*, 30 (2) (October 2000): 7-21. [EJ620057]
- Heller, Donald E. *Institutional Scholarship Awards: The Role of Student and Institutional Characteristics*. (Paper presented at the Annual Meeting of the Association for the Study of Higher Education, Sacramento, CA, November 16-19, 2000). [ED448637]
- Heller, Donald E. *The Role of Race and Gender in the Awarding of Institutional Financial Aid*. (Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans, LA, April 24-28, 2000). [ED442444]

- Hergenrother, Dianne S. "Gender Bias: An Analysis of the Distribution of Institutional Student Aid." (Ed.D. Dissertation: St. John's University, School of Education and Human Services, 2000).
- Hurst, David, and Becky Smerdon. *Postsecondary Students with Disabilities: Enrollment, Services, and Persistence*. Washington DC: National Center for Education Statistics, Stats in Brief. June 2000. [NCES-2000-092 ED444329]
- King, Jacqueline E. *Status Report on the Pell Grant Program*. Washington DC: American Council on Education, Center for Policy Analysis, 2000. [ED448627]
- Lang, David M. *Financial Aid and Student Bargaining Power*. (Paper presented at the Annual Forum of the Association for Institutional Research, Cincinnati, OH, May 21-24, 2000). [ED445636]

1999

- "Trends in Student Borrowing." *Education Statistics Quarterly*, 1 (3) (Fall 1999): 69-70. [EJ600480]
- Choy, Susan P. *College Access and Affordability*. Washington DC: National Center for Education Statistics, March 1999. Brochure. [NCES-1999-108]
- Cofer, James, and Patricia Somers. *Deeper in Debt: The Impact of the 1992 Reauthorization on Student Persistence*. (Paper presented at the Annual Forum of the Association for Institutional Research, Seattle, WA, May 30-June 3, 1999). [ED433784]
- Cofer, James, and Patricia Somers. "An Analytical Approach To Understanding Student Debtload Response." *Journal of Student Financial Aid*, 29 (3) (Fall 1999): 25-44. [EJ614953]
- Geddes, Claire. *Learning about Education through Statistics. Second Edition*. Washington DC: National Center for Education Statistics, April 1999. [NCES-1999-028 ED429127]
- Heller, Donald E., and Thomas F.Nelson Laird. *Trends in the Use of Need-based and Non-need Financial Aid in American Colleges and Universities*. (Paper presented at the Annual Forum of the Association for Institutional Research, Seattle, WA, May 30-June 3, 1999). [ED433757]
- Heller, Donald E., and Thomas F.Nelson Laird. "Institutional Need-Based and Non-Need Grants: Trends and Differences among College and University Sectors." *Journal of Student Financial Aid*, 29 (3) (Fall 1999): 7-24. [EJ614952]
- Horn, Laura, and Jennifer Berktold. *Students with Disabilities in Postsecondary Education: A Profile of Preparation, Participation, and Outcomes*. Washington DC: National Center for Education Statistics, June 1999. Statistical Analysis Report. [NCES-1999-187 ED431268]
- King, Jacqueline E. *Money Matters: The Impact of Race/Ethnicity and Gender on How Students Pay for College*. Washington DC: American Council on Education, Center for Policy Analysis, 1999. [ED443364]

Lee, John B., and Suzanne B. Clery. *State Aid for Undergraduates in Postsecondary Education*. Washington DC: National Center for Education Statistics, March 1999. Statistical Analysis Report. [NCES-1999-186 ED430484]

Mulugetta, Yuko. *Possible Long-Term Effects of Awarding Merit Aid*. (Paper presented at the Annual Forum of the Association for Institutional Research, Seattle, WA, May 30-June 3, 1999). [ED433755]

Redd, Kenneth E. *Is There Still a Need for Perkins Loans? Differences in the Demographic Characteristics and Income Levels of Perkins and Stafford Loan Borrowers*. Washington DC: Sallie Mae Education Institute, 1999. [ED426683]

Shafer, Linda L. *Data Sources on Lifelong Learning Available from the National Center for Education Statistics*. Washington DC: National Center for Education Statistics, March 1999. Working Paper. [NCES-WP-1999-11 ED431892]

Somers, Patricia, James Cofer, Margaret Martin Hall, and Jim Vander Putten. *A Comparison of the Persistence of African American and White Students Using NPSAS: 96*. (Paper presented at the Annual Meeting of the Association for the Study of Higher Education, San Antonio, TX, November 18-21, 1999). [ED437872]

1998

Berkner, Lutz. *Student Financing of Undergraduate Education: 1995-96. With an Essay on Student Loans. Statistical Analysis Report*. Washington DC: National Center for Education Statistics, November 1998. Descriptive Analysis Report. [NCES-98-076 ED424835]

Choy, Susan P., and Ron Moskovitz. *Student Financing of Graduate and First-Professional Education, 1995-96. With Profiles of Students in Selected Degree Programs*. Washington DC: National Center for Education Statistics, May 1998. Descriptive Analysis Report. [NCES-98-083 ED419452]

Choy, Susan P., Ron Moskovitz, and Andrew G. Malizio. *Graduate and First-Professional Students. National Postsecondary Student Aid Study, 1996*. Washington DC: National Center for Education Statistics, July 1998. [NCES-98-139 ED421038]

Choy, Susan P., and Cecilia Ottinger. *Choosing a Postsecondary Institution*. Washington DC: National Center for Education Statistics, November 1998. Statistical Analysis Report. [NCES-98-080. 107 ED424830]

Cuccaro-Alamin, Stephen, and Susan P. Choy. *Postsecondary Financing Strategies: How Undergraduates Combine Work, Borrowing, and Attendance*. Washington DC: National Center for Education Statistics, February 1998. Statistical Analysis Report [NCES-98-088 ED418097]

DeAngelis, Susan. "The Influence of Price and Price Subsidies on Within-Year Persistence of Graduate and Professional Students." *Journal of Student Financial Aid*, 28 (3) (Fall 1998): 41-57. [EJ584136]

Horn, Laura J. *Undergraduates Who Work. National Postsecondary Student Aid Study, 1996*. Washington DC: National Center for Education Statistics, July 1998. [NCES-98-137 ED421042]

Horn, Laura J., and Jennifer Berkthold. *Profile of Undergraduates in U.S. Postsecondary Education Institutions: 1995-96. With an Essay on Undergraduates Who Work*. Washington DC: National Center for Education Statistics, May 1998. Statistical Analysis Report. [NCES-98-084 ED419461]

Kojaku, Lawrence K., and Anne-Marie Nunez. *Descriptive Summary of 1995-96 Beginning Postsecondary Students, with Profiles of Students Entering 2- and 4-Year Institutions*. Washington DC: National Center for Education Statistics, November 1998. Descriptive Analysis Report. [NCES-1999-030 ED425684]

Volkwein, J. Fredericks, Bruce P. Szelest, Alberto F. Cabrera, and Michelle R. Napierski-Prancl. "Factors Associated with Student Loan Default Among Different Racial and Ethnic Groups." *Journal of Higher Education*, 69 (2) (March-April 1998): 206-237. [EJ561345]

1997

Dey, Eric L., Sylvia Hurtado, Byung-Shik Rhee, Karen Kurotsuchi Inkelas, Leslie A. Wimsatt, and Fenghua Guan. *Improving Research on Postsecondary Student Outcomes: A Review of the Strengths and Limitations of National Data Resources*. , NCPI501 California: 1997. [ED429519]

Flint, Thomas. "Intergenerational Effects of Paying for College". *Research in Higher Education*, 38 (3): June 1997. [EJ547652]

Flint, Thomas A. "Predicting Student Loan Defaults". *Journal of Higher Education*, 68 (3): May-June 1997. [EJ546176]

Ignash, Jan M.Ed. "Implementing Effective Policies for Remedial and Developmental Education." *New Directions for Community Colleges*, 25 (4): Winter 1997. [ED413965]

Lee, John B., and Suzanne B. Clery. *Institutional Aid 1992-93*. Washington DC: National Center for Education Statistics, 1997. Statistical Analysis Report. [NCES-98-104 ED413853]

Perna, Laura Walter. "The Contribution of Financial Aid to Undergraduate Persistence." *ASHE Annual Meeting Paper*. Virginia: 1997. [ED415818]

Riccobono, John A., Roy W. Whitmore, Timothy J. Gabel, Mark A. Traccarella, Daniel J. Pratt, Lutz K. Berkner, and Andrew G. Malizio. *National Postsecondary Student Aid Study, 1995-96 (NPSAS:96), Methodology Report*. Washington DC: National Center for Education Statistics, 1997. Technical Report. [NCES-98-073 ED414341]

Wenglinsky, Harold. *Students at Historically Black Colleges and Universities: Their Aspirations & Accomplishments. Policy Information Report*. New Jersey: Policy Information Center, 1997. [ED415239]

1996

- Choy, Susan P., and Mark D. Premo. *How Low Income Undergraduates Financed Postsecondary Education: 1992-93*. Washington DC: National Center for Education Statistics, May 1996. Statistical Analysis Report. [NCES-96-161 ED394473]
- Geddes, Claire. *Learning about Education through Statistics*. Washington DC: National Center for Education Statistics, 1996. [NCES-96-871 ED403329]
- General Accounting Office, Washington, DC. General Government Division. *Tax Expenditures. Information on Employer-Provided Educational Assistance. Report to the Chairman, Committee on Ways and Means, House of Representatives*. Washington DC: National Center for Education Statistics, December 1996. [ED403419]
- Horn, Laura J., and C. Dennis Carroll. *Nontraditional Undergraduates: Trends in Enrollment from 1986 to 1992 and Persistence and Attainment among 1989-90 Beginning Postsecondary Students*. Washington DC: National Center for Education Statistics, November 1996. Statistical Analysis Report. [NCES-97-578 ED402857]
- Malizio, Andrew A. *National Postsecondary Student Aid Study, 1995-96: Student Financial Aid Estimates for Federal Aid Recipients, 1995-96*. Washington DC: National Center for Education Statistics, October 1996. [NCES-97-937]
- Millett, Catherine M., and Susan MacKenzie. "An Exploratory Study of College Purchase Options: How Financial Aid Widens Minorities' Choices." *ASHE Annual Meeting Paper*, Michigan: November 1996. [ED402829]
- Perna, Laura W. "The Contribution of Financial Aid to the Price of Four-Year Institution Attended by 1989/90 Freshmen." *ASHE Annual Meeting Paper*, Virginia: November 1996. [ED402820]
- St. John Edward P, et. al. "The Nexus Between College Choice and Persistence". *Research in Higher Education*, 37 (2): April 1996. [EJ523071]
- Wells, Eleanor Dixon "The Influence of Student Aid and Prices on Within-year Persistence in the Health Care Professions" (Ph.D. Dissertation, The University of New Orleans, 1996.)

1995

- Boschung, Milla Dailey. "Title IV Student Loans Assumed by Students Enrolled in Four-year Institutions: A National Study of the Factors Predicting Amounts Borrowed." (Ph.D. Dissertation, The University of Alabama, 1995.)
- Choy, Susan P., and Mark Premo. *Student Financing of Graduate and First-Professional Education, 1992-93 with an Essay on Student Borrowing. National Postsecondary Student Aid Study: 1992-93*. Washington DC: National Center for Education Statistics, November 1995. Statistical Analysis Report. [NCES-96-235 ED389241]
- Choy, Susan P., and Mark K. Premo. *Profile of Older Undergraduates: 1989-90*. Washington DC: National Center for Education Statistics, April 1995. Statistical Analysis Report. [NCES-95-167 ED382122]

- Education Resources Institute, and Institute for Higher Education Policy. *College Debt and the American Family*. Massachusetts: Education Resources Institute, 1995. [ED420228]
- Flint, Thomas. "Legacies of Paying for College." *AIR 1995 Annual Forum Paper*, Illinois: May 1995. [ED387012]
- Horn, Laura J., and Mark Premo. *Profile of Undergraduates in U.S. Postsecondary Education Institutions: 1992-93. With an Essay on Undergraduates at Risk*. Washington DC: National Center for Education Statistics, October 1995. Statistical Analysis Report. [NCES-96-237 ED392852]
- Horn, Laura, and Carlyle Maw. *Minority Undergraduate Participation in Postsecondary Education*. Washington DC: National Center for Education Statistics, June 1995. Statistical Analysis Report. [NCES-95-166 ED383276]
- Lee, John B., and Suanne B. Clery. *Packaging of Undergraduate Student Financial Aid: 1989-90*. Washington DC: National Center for Education Statistics, June 1995. Statistical Analysis Report. [NCES-95-313 ED386083]
- Malizio, Andrew G.. *Methodology Report for the National Postsecondary Student Aid Study, 1992-93*. Washington DC: National Center for Education Statistics, November 1995. Technical Report. [NCES-95-211 ED392849]
- Malizio, Andrew G. *National Postsecondary Student Aid Study: Estimates of Student Financial Aid 1992-93. E.D. TABS. , NCES95746* Washington DC: National Center for Education Statistics, June 1995. U.S. Government Printing Office. [NCES Report: ISBN-0-16-048084-1 NCES-95-746. 43 ED384292]
- McCormick, Alexander C., and Sonya Geis. *Profile of Part-Time Undergraduates in Postsecondary Education: 1989-1990*. Washington DC: National Center for Education Statistics, July 1995. Statistical Analysis Report. [NCES-95-173. ED386117]
- Merisotis, Jamie P. *The Next Step: Student Aid for Student Success*. Washington DC: Education Resources Institute. June 1995. [ED387069]
- Millett, Catherine M., and Susan MacKenzie. "An Exploratory Study of the Role of Financial Aid in Minority Doctoral Education." *ASHE Annual Meeting Paper*, Michigan: November 1995. [ED391411]
- National Center for Education Statistics. *Net Cost of Attending Postsecondary Education. Indicator of the Month*. Washington DC: National Center for Education Statistics, June 1995. [NCES-95-786 ED387026]
- National Transition Network. *Provisions for Youth with Disabilities in Higher Education*, Minnesota: 1995. [ED385043]
- Persell, Caroline Hodges, and Harold Weglinsky. *Comparing Proprietary and Non-Profit Vocational Schools: Implications for Educational Privatization*. American Sociological Association, 1995.
- St John, Edward P., Johnny B. Starkey, Michael B. Paulsen, and Loretta M. Mbaduagha. "The influences of prices and price subsidies on within-year persistence by students in proprietary schools." *Educational Evaluation & Policy Analysis*, 17 (2): Summer 1995. [EJ511049]

Tuma, John.. *Student Financing of Undergraduate Education, 1992-93, with an Essay on the Costs of Undergraduate Education before and after Student Financial Aid.* Washington DC: National Center for Education Statistics, November 1995. [NCES-95-202 ED389240]

Volkwein, J. Fredericks. "Characteristics of Student Loan Defaulters among Different Racial and Ethnic Groups." *AIR 1995 Annual Forum Paper* , New York: May 1995. [ED386972]

1994

Choy, Susan B. *Characteristics of Students Who Borrow To Finance Their Postsecondary Education.* Washington DC: National Center for Education Statistics, November 1994. Statistical Analysis Report. [NCES-95-310 ED377778]

Dynarski, Mark. "Who Defaults on Student Loans? Findings from the National Postsecondary Student Aid Study." *Economics of Education Review*, 13 (1): March 1994. [EJ483390]

Fitzgerald, Robert, and Others. *Descriptive Summary of 1989-90 Beginning Postsecondary Students: Two Years Later.* Washington DC: National Center for Education Statistics, July 1994. [NCES-94-386 ED372691]

Flint, Thomas Alvin. "Legacies of Paying for College: The Intergenerational Effects of Financial Support to Attend College." (Ph.D. Dissertation, University of Illinois at Chicago, 1994.)

Horn, Laura, and Carlyle Maw. *Undergraduates Who Work While Enrolled in Postsecondary Education: 1989-90.* Washington DC: National Center for Education Statistics, September 1994. Statistical Analysis Report. [NCES-94-311 ED374727]

Trammell, Mary Louise. "Estimating the Enrollment Effects of a Mid-Year Surcharge: Using National Price Response Measures in Institutional Planning." *AIR 1994 Annual Forum Paper*, Louisiana: June 1994. [ED373660]

St. John, Edward P., and Johnny B. Starkey. "The Influence of Costs on Persistence by Traditional College-Age Students in Community Colleges." *Community College Journal of Research and Practice* 18, no. 2 (1994): 201-213.

Starky, Johnny Burton. "The Influence of Prices and Price Subsidies on the Within-year Persistence by Part-time Undergraduate Students: A Sequential Analysis." (Ph.D. Dissertation, University of New Orleans, 1994.)

Tuma, John. "Patterns of Enrollment in Postsecondary Vocational and Academic Education." *Journal of Vocational Education Research*, 19 (3): 1994. [EJ507747]

Volkwein, J.Fredericks, and Bruce P. Szelest. "The Relationship of Student Loan Default to Individual and Campus Characteristics." *AIR 1994 Annual Forum Paper*, New York: May 1994. [ED373616]

1993

Byce, Chuck, and Carl Schmitt. *Financing Undergraduate Education: 1990.* Washington DC: National Center for Education Statistics, May 1993. Statistical Analysis Report. [NCES-93-201 ED357728]

Byce, Chuck, and Carl Schmitt. *Quality of Responses in the 1987 National Postsecondary Student Aid Study*. Washington DC: National Center for Education Statistics, April 1993. [NCES-93-446 ED356718]

Byce, Chuck, and Aziza Khazzoom. *Changes in Undergraduate Student Financial Aid: Fall 1986 to Fall 1989*. Washington DC: National Center for Education Statistics, August 1993. Statistical Analysis Report. [NCES-93-157 ED360902]

Horn, Laura and Aziza Khazzoom. *Profile of Undergraduates in U.S. Postsecondary Education Institutions: 1989-90*. Washington DC: National Center for Education Statistics, March 1993. Statistical Analysis Report. [NCES-93-091]

Kaltenbaugh, Louise Sauerland. "By African American Students: An Analysis of the National Postsecondary Student Aid Survey of 1987." (Ph.D. Dissertation, University of New Orleans, 1993.)

Lyn, Darren Sean. "The Impact of Living in University Residential Housing on Within-year Persistence by Undergraduate Students Attending Postsecondary Institutions." (Ph.D. Dissertation, University of New Orleans, 1993.)

Lyn, Janice Genene. "The Influence of Being Disabled on Within-Year Persistence by Students Attending Four-year Postsecondary Institutions." (Ph.D. Dissertation, University of New Orleans, 1993.)

Tynes, Susan Fournet. "The Relationship of Social, Economic, Academic, and Institutional Characteristics to Persistence of Nontraditional Age Students in Higher Education: Implications for Counselors." (Ph.D. Dissertation, University of New Orleans, 1993.)

Wenglinsky, Harold Heidt, and Caroline Hodges Persell. *The Paradoxes of Educational Privatization: The Case of the Proprietary Schools*. American Sociological Association, 1993.

1992

Byce, Chuck, and Carl M. Schmitt. *Students at Less-Than-4-Year Institutions*. Washington DC: National Center for Education Statistics, November 1992. Statistical Analysis Report. [NCES-92-206 ED351957]

Choy, Susan P., and Robin R. Henke. *Parental Financial Support for Undergraduate Education*. Washington DC: National Center for Education Statistics, May 1992. Statistical Analysis Report. [NCES-92-390 ED345623]

Malizio, Andrew G. *Who Gets Financial Aid? And Why Low-Income Students Don't Apply for Student Aid?: Key Findings from the National Postsecondary Student Aid Study*. Washington DC: National Center for Education Statistics, August 1992. [ED362969]

Shepherd, Jane, and Andrew G. Malizio. *Methodology Report for the 1990 National Postsecondary Student Aid Study*. Washington DC: National Center for Education Statistics, May 1992. Technical Report. [NCES-92-080 ED347206]

Scmitt, Carl. *National Postsecondary Student Aid Study, 1987: Parental Financial Support for Undergraduate Education*. Washington DC: National Center for Education Statistics, May 1992. Statistical Analysis Report. [NCES-92-390]

1991

American Association of Community and Junior Colleges, and Association of Community College Trustees. *Toward Human Resource Development: Position Statement on the Reauthorization of the Higher Education Act*. Washington DC: 1991. [ED330404]

Boyd, Laura Ann. "Federally Subsidized Student Loans and the Economics of Default (Loan Defaults)." (Ph.D. Dissertation, The Ohio State University, 1992.)

Center, David B., and Melvin E. Kaufman. *A Study of the Present and Future Needs for Leadership Personnel To Train Educators in Behavioral Disorders*. Georgia: 1991. [ED343308]

Congress of the U.S., Washington, D.C. Congressional Budget Office. *Student Aid and the Cost of Postsecondary Education. A CBO Study*. , Washington DC: National Center for Education Statistics, January 1991. [ED329158]

Dynarski, Mark. *Analysis of Factors Related to Default*. New Jersey: April 1991. [ED354801]

Malizio, Andrew G. *National Postsecondary Student Aid Study: Estimates of Student Financial Aid, 1989-90*. Washington DC: National Center for Education Statistics, October 1991. Statistical Analysis Report. [NCES-92-003]

Shepherd, Jane Comp. *National Postsecondary Student Aid Study: Preliminary Estimates on Student Financial Aid Recipients, 1989-90*. Washington DC: National Center for Education Statistics, March 1991. [NCES-91-335 ED331378]

Yankosky, Richard E., and Loyd Andrew. *The Proprietary School Sector: A Demographic and Financial Aid Profile*. Maryland: April 1991. [ED330269]

Zito, Eileen H. "Student Financial Aid and Choice of Undergraduate Major." *ASHE Annual Meeting Paper*, November 1991. [ED339334]

1990

Choy, Susan P., and Antoinette G. Gifford. *Profile of Undergraduates in American Postsecondary Institutions*. Washington DC: National Center for Education Statistics, September 1990. [NCES-90-353 ED325483]

Malitz, Gerald. *Methodology Report for the National Postsecondary Student Aid Study, 1987*. Washington DC: National Center for Education Statistics, March 1990. Technical Report. [NCES-90-309 ED315460]

Ross, Laurent, and Others. *Federal Student Aid Packages: Academic Year 1986-87*. , Washington DC: National Center for Education Statistics, July 1990. American Council on Education. [ED323829]

Stowe, Peter. *Undergraduate Financial Aid Awards: A Report of the 1987 National Postsecondary Student Aid Study. Analysis Report*. Washington DC: National Center for Education Statistics, September 1990. [NCES-90-332 ED326145]

Stowe, Peter, and Linda Zimbler. *Characteristics of Stafford Loan Recipients, 1988*. Washington DC: National Center for Education Statistics, June 1990. [NCES-90-349 ED322859]

1989

Andrew, Loyd D., and Rocco Russo. *Who Gets What? Impact of Financial Aid Policies.*, March 1989. [ED309717]

Bishop, Kristina O’Kane. “Student Financial Aid: Comparison by Sector.” (Ph.D. Dissertation, Virginia Polytechnic Institute and State University, 1989.)

Brick, J. Michael. *Comparison of Fall and Academic Year Student Aid Estimates*. Washington DC: National Center for Education Statistics, May 1989. [NCES-89-313 ED311834]

Greene, Bernard, and Linda Zimbler. *Profile of Handicapped Students in Postsecondary Education, 1987*. Washington DC: National Center for Education Statistics, June 1989. [NCES-89-337 ED310616]

Korb, Roslyn. *Student Financing of Graduate and Professional Education*. Washington DC: National Center for Education Statistics, March 1989. [NCES-89-303 ED309721]

National Center for Education Statistics, and Westat Research, Inc.. *Student Education Expenses, 1987*. Washington DC: National Center for Education Statistics, April 1989. [NCES-89-245 ED309711]

Westat Research, Inc. *End of Academic Year Student Financial Aid Update Report. 1987 National Postsecondary Student Aid Study*. Washington DC: National Center for Education Statistics, May 1989. Technical Report [NCES-89-310 ED311833]

Appendix B
Linkages to Administrative Data Sources

B.1 Develop Linkages with Administrative Data Sources

Linkages will be developed with existing data sources to supplement the 2012 National Postsecondary Student Aid Study (NPSAS:12) interview data. NCES recognizes the great value added to the NPSAS:12 data file with the addition of data from specific administrative data sources. Certain data (for example, specific financial aid amounts and associated dates) can only be accurately obtained from sources other than the student or parent. Our postsecondary studies, including previous NPSAS studies, Beginning Postsecondary Student (BPS), and Baccalaureate and Beyond (B&B), have included file merges with many existing sources of valuable data, including Department of Education’s (ED) Central Processing System (CPS) for Free Application for Federal Student Aid (FAFSA) data, the National Student Loan Data System (NSLDS), and ACT. For this study, we plan to perform file merges with the following datasets: CPS, NSLDS, American College Testing (ACT), SAT (the College Board), and National Student Clearinghouse.

The Family Educational Rights and Privacy Act (FERPA), (34 CFR Part 99) allows the disclosure of information without prior consent for the purposes of NPSAS:12 according to the following excerpts: 99.31 asks “Under what conditions is prior consent not required to disclose information?” and explains in 99.31 (a) “an educational agency or institution may disclose personally identifiable information from an education record of a student without the consent required by 99.30 if the disclosure meets one or more specific conditions. NPSAS:12 collection falls under:

Sec. 99.31 (a)(3). The disclosure is, subject to the requirements of Sec. 99.35, to authorized representatives of--

- (i) The Comptroller General of the United States;
- (ii) The Attorney General of the United States;
- (iii) The Secretary; or
- (iv) State and local educational authorities.

NPSAS:12 is collecting data under the Secretary’s authority. The personally identifiable information is collected from student record systems with adherence to the security protocol detailed in 99.35: “What conditions apply to disclosure of information for Federal or State program purposes?”

(a)(1) Authorized representatives of the officials or agencies headed by officials listed in Sec. 99.31(a)(3) may have access to education records in connection with an audit or evaluation of Federal or State supported education programs, or for the enforcement of or compliance with Federal legal requirements that relate to those programs.

(2) Authority for an agency or official listed in Sec. 99.31(a)(3) to conduct an audit, evaluation, or compliance or enforcement activity is not conferred by the Act or this part and must be established under other Federal, State, or local authority.

(b) Information that is collected under paragraph (a) of this section must:

(1) Be protected in a manner that does not permit personal identification of individuals by anyone other than the officials or agencies headed by officials referred to in paragraph (a) of this section, except that those officials and agencies may make further disclosures of

personally identifiable information from education records on behalf of the educational agency or institution in accordance with the requirements of Sec. 99.33(b); and

(2) Be destroyed when no longer needed for the purposes listed in paragraph (a) of this section.

(c) Paragraph (b) of this section does not apply if:

(1) The parent or eligible student has given written consent for the disclosure under Sec. 99.30; or

(2) The collection of personally identifiable information is specifically authorized by Federal law.

As part of initial sampling activities, we will ask participating institutions to provide SSNs for all students on their enrollment list. Having an initial list of all student SSNs minimizes the time and burden on both the institutions and the data collection contractor. Institutions will only have to provide one enrollment list; if the SSNs were provided only for those students selected, the institutions would have to provide two separate enrollment lists. Immediately after the student sample is selected, the SSNs for non-selected students will be securely discarded.

Secure Data Transfers. NCES has set up a secure data transfer system, using the NCES member site with Secure Sockets Layer (SSL) technology, described above. The contractor will use this electronic system for submitting data containing potentially identifying information (such as SSNs, names, and dates of birth of our sample members) along with their survey ID (not the same ID that is available on the restricted-use data). Before being transmitted, files will be encrypted using FIPS 140-2 validated encryption tools. Data will be received from the NCES system as well. The system requires that both parties to the transfer be registered users of the NCES Members Site and that their Members Site privileges be set to allow use of the secure data transfer service as described above. This process will be used for all file matching procedures described below, except in instances when the vendor already has a secure data transfer system in place.

B.2 File Merge with ED Central Processing System (CPS)

File merges will be performed with the CPS data containing federal student aid application information by the data collection contractor. The merge with CPS can occur at any time for any number of cases, provided that the case has an apparently valid SSN associated with it. A file will be sent to CPS and in return a large data file containing all students who applied for federal aid will be received. The data collection contractor has programs and procedures in place to prepare and submit files according to rigorous CPS standards, and to receive and process data obtained from CPS.

A file will be electronically uploaded on the FAFSA secure web-site for matching which contains SSN and the first 2 letters of the sample member's last name (but no other information). Access to the site for the upload is restricted to authorized users who are registered and provide identification/authentication information (SSN, DOB, and personal identification number [PIN]) to the FAFSA data site. The file is retrieved by the Central Processing System or CPS (the FAFSA contractor data system) for linkage. The linked file, containing student aid applications for matched records, is then made available to us only through a secure connection (EdConnect)

which requires username and password. All CPS files will be processed, edited, and documented for inclusion on the analytic data files.

The CPS data obtained for the NPSAS:12 data collection will cover academic years beginning with 2010–2011. All CPS files will be processed, edited, and documented for inclusion in the Electronic Codebook (ECB).

B.3 File Merge with National Student Loan Data System Disbursement

A file merge will be conducted with the NSLDS to collect federal loan and Pell grant data for the 2010–2011 award year by the data collection contractor. The resulting file will contain cumulative amounts for each student’s entire postsecondary education enrollment. NCES has set up a secure data transfer system that uses their NCES member site and Secure Sockets Layer (SSL) technology. The system requires that both parties to the transfer be registered users of the NCES Members Site and that their Members Site privileges be set to allow use of the secure data transfer service. These privileges are set up and carefully controlled by the ED’s Institute of Education Sciences (IES) NCES Chief Technology Officer (CTO). This service has been designed by ED/NCES specifically for the secure transfer of electronic files containing personally identifying information (i.e., data protected under the Privacy Act or otherwise posing risk of disclosure) and can be used for NCES-to-Contractor; Contractor-to-Subcontractor; Subcontractor-to-Contractor; and Contractor-to-Other-Agency data transfers. The party uploading the information onto the secure server at NCES is responsible for deleting the file(s) after the successful transfer has been confirmed. Data transfers using this system will include notification to the ED/IES, the NCES CTO, and the NCES Deputy Commissioner as well as the ED/NCES project officer. The notification will include the names and affiliations of the parties in the data exchange/transfer and the nature and approximate size of the data to be transferred. Programs have been developed to create the files for the merge and also to read the data receive. All matching processes are initiated by the data collection staff providing a file with one record per sample member to be merged.

B.4 File Merge with ACT

To obtain valuable admissions test data, a file merge will be performed with American College Testing (ACT) data by the data collection contractor. The approach for this file matching will be similar to those described in the sections on CPS and NSLDS file merging. This matching process has been used for NPSAS since NPSAS:96.

Matching of students to ACT requires Social Security number (SSN), name and date of birth to assist the data vendor in performing confirmatory data quality checks. This process will be initiated by providing a file with one record per SSN. The same procedures will be used as described above for the NSLDS linkage: creating a password-protected, encrypted file using FIPS 140-2 validated encryption tools; uploading the electronic file on the NCES server for pick-up by ACT. ACT will process the data on their database and provide the matched data on the NCES server for our secure download. This file merge will only be conducted during the full-scale study.

B.5 File Merge with the College Board

To obtain SAT data, a file merge will be performed with the College Board by the data collection contractor. Matching of students to SAT data requires Social Security number (SSN),

name and date of birth to assist the data vendor in performing confirmatory data quality checks. This process will be initiated by providing a file with one record per SSN. The same procedures will be used as described above for the NSLDS linkage: creating a password-protected, encrypted file using FIPS 140-2 validated encryption tools; uploading the electronic file on the NCES server for pick-up by the College Board. The College Board will process the data on their database and provide the matched data on the NCES server for our secure download. This file merge will only be conducted during the full-scale study.

B.6 File Merge with the National Student Clearinghouse

The National Student Clearinghouse will be used to obtain the *Student Tracker* data on institutions attended, enrollment dates, and degree completions for the NPSAS:12 sample.

The data collection contractor will first set up an account with the Clearinghouse which will enable sending and receiving of files securely over encrypted FTPS connections. The file containing sensitive student identifiers (name, date of birth, and Social Security number) will be encrypted using FIPS 140-2 validated encryption tools then submitted to the Clearinghouse using their secure FTP site. All files received by the Clearinghouse will be securely stored using FIPS 140-2 validated AES encryption, the US federal encryption standard. Matched files, containing data on enrollment dates, institution names, and degrees completed, will be returned to the data collection contractor using the same secure FTP site. This file merge will only be conducted during the full-scale study.

B.7 Processing Administrative Data

With the exception of the early matching activities to improve FTB identification and one initial merge with CPS data prior to computer assisted data entry (CADE), we propose to send files for matching after CADE data collection to ensure the availability of the maximum number of verified Social Security numbers and to facilitate the batch mode processing that is suitable to many of these resources. We may need to match to a source (for example, CPS or NSLDS) more than once.

The data from all of these sources, as allowed by the vendor, will be delivered in the ECB and will be useful for creating derived variables. These derived variables will also be available on Powerstats and Quickstats. Both direct-pull and derived variables will be documented thoroughly for the ECB, Powerstats, and Quickstats.

Appendix C
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Appendix D
Data Security Language for Vendor Contracts

Data Security Requirements

- a) Contractor shall use data supplied to them by Company for the specific purpose included in the corresponding Statements of Work only.
- b) Contractor will protect all data supplied to them by Company as specifically stated in Exhibit C, attached.
- c) Unless otherwise agreed to, Contractor will promptly and properly destroy data supplied to them by Company upon the Statement of Work completion date.

EXHIBIT C
COMPANY INFORMATION SECURITY REQUIREMENTS

A. Definitions.

“Business Contact Information” is defined as name, job title, department name, company name, business telephone, business fax number, and business email address.

“COMPANY Confidential Information” as defined in the Agreement.

“Information Processing System(s)” is defined as the individual and collective electronic, mechanical, or software components of CONTRACTOR operations that store and/or process COMPANY Confidential Information.

“Information Security Event” is defined as any situation where COMPANY Confidential Information is lost; is subject to unauthorized or inappropriate access, use, or misuse; the security, confidentiality, or integrity of the information is compromised; or the availability of CONTRACTOR Information Processing Systems is compromised by external attack.

“Security Breach” is defined as an unauthorized access to CONTRACTOR’s facilities, Information Processing Systems or networks used to service, store, or access COMPANY Confidential Information, provided such unauthorized access exposes COMPANY Confidential Information or provided CONTRACTOR is required to report such unauthorized access to appropriate legal or regulatory agencies or affected COMPANY members.

“Industry best practice” is defined by the information security guidelines prepared by the PCI Security Standards Council and documented in the PCI DSS requirements as well as standards and guidelines prepared by the Federal Financial Institutions Examination Council (FFIEC)

B. Security and Confidentiality.

Before receiving, or continuing to receive, COMPANY Confidential Information, CONTRACTOR will implement and maintain an information security program that ensures: 1) COMPANY’s Confidential Information and CONTRACTOR’s Information Processing Systems are protected from internal and external security threats; and 2) that COMPANY Confidential Information is protected from unauthorized disclosure.

C. Security Policy.

- a. Formal Security Policy. Consistent with the requirement of this Attachment, CONTRACTOR will create an information security policy that is approved by CONTRACTOR's management, published and communicated to all CONTRACTOR's employees. Such information security policy may be reviewed by COMPANY at CONTRACTOR's place of business pursuant to confidentiality obligations.
- b. Security Policy Review. CONTRACTOR will review the information security policy at planned intervals or if significant changes occur to ensure its continuing suitability, adequacy, and effectiveness.

D. Asset Management.

- a. Asset Inventory. CONTRACTOR shall have the ability to identify the location of all CONTRACTOR Information Processing Systems and media containing COMPANY Confidential Information.
- b. Acceptable Use. CONTRACTOR will implement rules for the acceptable use of information and assets which is no less restrictive than industry best practice and consistent with the requirements of this Attachment.
- c. Equipment Use While on COMPANY Premises. While on COMPANY's premises, CONTRACTOR will not connect hardware (physically or via a wireless connection) to COMPANY systems unless necessary for CONTRACTOR to perform Services under this Agreement. This hardware must be inspected / scanned by COMPANY before use.
- d. Portable Devices. COMPANY Confidential Information, with the exception of Business Contact Information, may not be stored on portable devices including, but not limited to, laptops, external hard drives, Personal Digital Assistants, MP3 devices, and USB devices.
- e. Personally-owned Equipment. COMPANY Confidential Information, with the exception of Business Contact Information, may not be stored on personally-owned equipment.

E. Human Resources Security.

- a. Security Awareness Training. Prior to CONTRACTOR employees receiving access to COMPANY Confidential Information, they will receive security awareness training appropriate to their job function. CONTRACTOR will also ensure that recurring security awareness training is performed.
- b. Removal of access Rights. The access rights of all CONTRACTOR employees to CONTRACTOR Information Processing Systems or media containing COMPANY Confidential Information will be removed immediately upon termination of their employment, contract or agreement, or adjusted upon change.

F. Physical and Environmental Security.

- a. Secure Areas. CONTRACTOR will secure all areas, including loading docks, holding areas, telecommunications areas, cabling areas and off-site areas that

contain Information Processing Systems or media containing COMPANY Confidential Information by the use of appropriate security controls in order to ensure that only authorized personnel are allowed access and to prevent damage and interference. The following controls will be implemented:

- i. Access will be controlled and restricted by use of a defined security perimeter, appropriate security barriers, entry controls and authentication controls. A record of all accesses will be securely maintained.
 - ii. All personnel will be required to wear some form of visible identification to identify them as employees, contractors, visitors, et cetera.
 - iii. Visitors to secure areas will be supervised, or cleared for non-escorted accessed via an appropriate background check. Their date and time of entry and departure will be recorded.
- b. Environmental Security. CONTRACTOR will protect equipment from power failures and other disruptions caused by failures in supporting utilities.

G. Communications and Operations Management.

- a. Protections Against Malicious Code. CONTRACTOR will implement detection, prevention, and recovery controls to protect against malicious software, which is no less than current industry best practice and perform appropriate employee training on the prevention and detection of malicious software.
- b. Back-ups. CONTRACTOR will perform appropriate back-ups of CONTRACTOR Information Processing Systems and media containing COMPANY Confidential Information as required in order to ensure services and service levels described in this Statement of Work.
- c. Media and Information Handling. CONTRACTOR will protect against unauthorized access or misuse of COMPANY Confidential Information contained on media by use of a media control management program and provide a copy of the program to COMPANY.
 - i. COMPANY input and result code data can be stored as Audit Data in a SQLServer table. All Audit Data on this SQLServer table can only be accessed for up to 180 days. After 180 days the Audit Data in the SQLServer table is automatically destroyed.
- d. Media and Information Disposal. CONTRACTOR will securely and safely dispose of COMPANY Confidential Information that resides on media (including but not limited to hard copies, disks, CDs, DVDs, optical disks, USB devices, hard drives) upon the Statement of Work completion date using establishment of procedures to include, but not be limited to:
 - i. Disposing of COMPANY Confidential Information on media so that it is rendered unreadable or undecipherable, such as by burning, shredding, pulverizing or overwriting in compliance with DoD Standard 5220.22-M.
 - ii. Maintaining a secured disposal log that provides an audit trail of disposal activities.

- iii. Purging COMPANY Confidential Information from all CONTRACTOR's physical storage mediums (filing cabinets, drawers, et cetera.) and from all Information Processing Systems, including back-up systems, within thirty (30) days of the latest occurrence of following: upon termination of this agreement; or as soon as the COMPANY Confidential Information is no longer required to perform services under this Statement of Work.
- iv. Providing a Certificate of Destruction to COMPANY certifying that all COMPANY Confidential Information was purged. The certificate will be provided to COMPANY within ten (10) business days after the information was purged.
- e. Exchange of Information. To protect confidentiality and integrity of COMPANY Confidential Information in transit, CONTRACTOR will:
 - i. Perform an inventory, analysis and risk assessment of all data exchange channels (including but not limited to FTP, HTTP, HTTPS, SMTP, modem, and fax) to identify and mitigate risks to COMPANY Confidential Information from these channels.
 - ii. Monitor and inspect all data exchange channels to detect unauthorized information releases.
 - iii. Ensure that appropriate security controls using approved data exchange channels are employed when exchanging COMPANY Confidential Information.
 - iv. If COMPANY Confidential Information can only be sent to CONTRACTOR electronically, then CONTRACTOR must employ industry standard encryption security measures (minimum standard of NIST's FIPS 140-2) to encrypt COMPANY Confidential Information prior to transmitting via the Internet. Otherwise, COMPANY Confidential Information can only be sent to CONTRACTOR using an encrypted (minimum standard NIST's FIPS 140-2) CD-ROM sent via courier service with a tracking number.
 - v. Ensure that information (including persistent cookies) about COMPANY customers, members or employees is not harvested by CONTRACTOR web pages except for purposes of this Agreement.
- f. Monitoring. To protect against unauthorized access or misuse of COMPANY Confidential Information residing on CONTRACTOR Information Processing Systems, CONTRACTOR will:
 - i. Employ current industry best practice security controls and tools to monitor Information Processing Systems and log user activities, exceptions, unauthorized information processing activities, suspicious activities and information security events. Logging facilities and log information will be protected against tampering and unauthorized access. Logs will be kept for at least 90 days.
 - ii. Perform frequent reviews of logs and take necessary actions to protect against unauthorized access or misuse of COMPANY Confidential Information.

- iii. At COMPANY's request, make logs available to COMPANY to assist in investigations of security breaches.
- iv. Comply with all relevant legal requirements applicable to monitoring and logging activities.
- v. Ensure that the clocks of all relevant information processing systems are synchronized using a national or international time source.

H. Access Control.

- a. User access Management. To protect against unauthorized access or misuse of COMPANY Confidential Information residing on CONTRACTOR Information Processing Systems, CONTRACTOR will:
 - i. Employ a formal user registration and de-registration procedure for granting and revoking access and access rights to all CONTRACTOR Information Processing Systems.
 - ii. Employ a formal password management process.
 - iii. Perform recurring reviews of users' access and access rights to ensure that they are appropriate for the users' role.
- b. User Responsibilities. To protect against unauthorized access or misuse of COMPANY Confidential Information residing on CONTRACTOR Information Processing Systems, CONTRACTOR will:
 - i. Ensure that CONTRACTOR Information Processing Systems users follow current security practices in the selection and use of strong passwords.
 - ii. Ensure that unattended equipment has appropriate protection to prohibit access and use by unauthorized individuals.
 - iii. Ensure that COMPANY Confidential Information contained at workstations, including but not limited to paper and on display screens is protected from unauthorized access.
- c. Network access Control. access to internal, external, and public network services that allow access to CONTRACTOR Information Processing Systems shall be controlled. CONTRACTOR will:
 - i. Ensure that current industry best practice standard authentication mechanisms for network users and equipment are in place and updated as necessary.
 - ii. Ensure electronic perimeter controls are in place to protect CONTRACTOR Information Processing Systems from unauthorized access.
 - iii. Ensure authentication methods are used to control access by remote users.
 - iv. Ensure physical and logical access to diagnostic and configuration ports is controlled.
- d. Operating System access Control. To protect against unauthorized access or misuse of COMPANY Confidential Information residing on CONTRACTOR Information Processing Systems, CONTRACTOR will:

- i. Ensure that access to operating systems is controlled by a secure log-on procedure.
 - ii. Ensure that CONTRACTOR Information Processing System users have a unique identifier (user ID).
 - iii. Ensure that the use of utility programs that are capable of overriding system and application controls are highly restricted and tightly controlled.
 - iv. Ensure that inactive sessions are shut down when technically possible after a defined period of inactivity.
 - v. Employ restrictions on connection times when technically possible to provide additional security for high risk applications.
- e. Mobile Computing and Remote Working. To protect COMPANY Confidential Information residing on CONTRACTOR Information Processing Systems from the risks inherent in mobile computing and remote working, CONTRACTOR will:
 - i. Perform a risk assessment to identify and mitigate risks to COMPANY Confidential Information from residing on mobile computing and remote access systems.
 - ii. Develop a policy, operational plans and procedures for managing mobile computing and remote access systems to ensure that COMPANY Confidential Information does not reside on or are used on these systems.
- I. Information Systems Acquisition, Development and Maintenance.
 - a. Security of System Files. To protect CONTRACTOR Information Processing Systems and system files containing COMPANY Confidential Information, CONTRACTOR will ensure that access to source code is restricted to authorized users who have a direct need to know.
 - b. Security in Development and Support Processes. To protect CONTRACTOR Information Processing Systems and system files containing COMPANY Confidential Information, CONTRACTOR will:
 - i. Ensure that the implementation of changes is controlled by the use of formal change control procedures.
 - ii. Employ industry best practice security controls to minimize information leakage.
 - iii. Employ oversight quality controls and security management of outsourced software development.
- J. Information Security Incident Management.

Reporting Information Security Events and Weaknesses. To protect CONTRACTOR Information Processing Systems and system files containing COMPANY Confidential Information, CONTRACTOR will, in the event that Contractor becomes aware of (or reasonably suspects) that any information and data obtained pursuant to the Services has been compromised in any manner, immediately notify Company via email or telephone

call and follow-up on the incident in writing and provide all requested information about the event. For purposes of this obligation, “compromise” includes suspected or known incidents without limitation: (i) any unauthorized access to information and data obtained pursuant to the Services, (ii) any inadvertent disclosure of information and data obtained pursuant to the Services to any third party, (iii) any known or suspected misuse of information and data obtained pursuant to the Services by any person (even if such person was authorized to access such information or data), (iv) any suspected use of information and data obtained pursuant to the Services by any person outside of the scope of that person’s authority, and (v) any known or suspected alteration of information and data obtained pursuant to the Services other than as required or permitted by this Agreement.

- a. Information Security Events and Security Breaches: Contractor shall
 - i. Implement a process to ensure that Information Security Events and Security Breaches are reported through appropriate management channels as quickly as possible.
 - ii. Train all employees of information systems and services how to report any observed or suspected Information Security Events and Security Breaches.
 - iii. Notify COMPANY by email (JDavis@RTI.org or by phone (800-334-8571) immediately of all suspected Information Security Events and Security Breaches. Following any such event or breach, CONTRACTOR will promptly notify COMPANY as to the COMPANY Confidential Information affected and the details of the event or breach.

K. Business Continuity Management.

- a. Business Continuity Management Program. In order to ensure services and service levels described in this agreement, CONTRACTOR will:
 - i. Develop and maintain a process for business continuity throughout the organization that addresses the information security requirements needed for the CONTRACTOR’s business continuity so that the provision of products and/or services provided under the Agreement to COMPANY is uninterrupted.
 - ii. Identify events that can cause interruptions to business processes, along with the probability and impact of such interruptions and their consequences for information security.
 - iii. Develop and implement plans to maintain or restore operations and ensure availability of information at the required level and in the required time scales following interruption to, or failure of, critical business processes and provide COMPANY a copy of the same.
 - iv. Test and update Business Continuity Plans regularly to ensure that they are up-to-date and effective.

L. Security Assessments.

- a. Initial and Recurring Security Assessments. CONTRACTOR will permit COMPANY representatives to perform an on-site physical and logical Security Assessment of CONTRACTOR's data processing and business facilities prior to the release of COMPANY Confidential Information and each year thereafter. Security Assessments will be performed during regular business hours, at a date and time agreed to by both parties, and will not require online access to CONTRACTOR's Information Processing Systems.
- b. Security Assessments Following Information Security Events and Security Breaches. Following the occurrence of an Information Security Event or Security Breach, CONTRACTOR will permit COMPANY representatives to perform an on-site physical and logical Security Assessment of CONTRACTOR's data processing and business facilities to assess the impact of the event or breach even if a Security Assessment has been completed within the year.
- c. Security Assessment Findings. Upon completion of a Security Assessment, COMPANY will provide CONTRACTOR with a Security Assessment completion letter that summarizes COMPANY's Security Assessment findings. These findings may identify critical security deficiencies identified as "Mandatory" that require immediate correction before COMPANY can release, or continue to release, COMPANY Confidential Information to CONTRACTOR. CONTRACTOR will implement and continue to maintain all mutually agreed upon "Mandatory" security findings. If mutual agreement to "Mandatory" security findings cannot be reached, then these issues may be escalated using the dispute resolution provisions within this Agreement.

Appendix E
Confidentiality



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CONFIDENTIALITY AGREEMENT
2011-12 National Postsecondary Student Aid Study (NPSAS:12)
(RTI Under Contract No. ED-IES-09-C-0039)

Safeguards for Individuals Against Invasion of Privacy: In accordance with the Privacy Act of 1974 (5 United States Code 552a), the Education Sciences Reform Act of 2002 (Public Law 107-279), the Federal Statistical Confidentiality Order of 1997, the E-Government Act of 2002 (Public Law 107-347), the Computer Security Act of 1987, and the National Center for Education Statistics' (NCES') *Restricted Use Data Procedures Manual*, RTI International (RTI) and all its subcontractors are required to comply with the applicable provisions of the legislation, regulations, and guidelines and to undertake all necessary safeguards for individuals against invasions of privacy.

To provide this assurance and these safeguards in performance of work on this project, all staff, consultants, and agents of RTI, and its subcontractors who have any access to study data, shall be bound by the following assurance.

Assurance of Confidentiality

1. In accordance with all applicable legislation, regulations, and guidelines, RTI assures all respondents that their responses may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law [Education Sciences Reform Act of 2002 (ESRA 2002), 20 U.S. Code, § 9573].
2. The following safeguards will be implemented to assure that confidentiality is protected as allowable by law (20 U.S.C. § 9573) by all employees, consultants, agents, and representatives of RTI and all subcontractors and that physical security of the records is provided:
 - a. All staff with access to data will take an oath of nondisclosure and sign an affidavit to that effect.
 - b. At each site where these items are processed or maintained, all confidential records that will permit identification of individuals shall be kept in a safe, locked room when not in use or personally attended by project staff.
 - c. When confidential records are not locked, admittance to the room or area in which they reside shall be restricted to staff sworn to confidentiality on this project.
 - d. All electronic data shall be maintained in secure and protected data files, and personally identifying information shall be maintained on separate files from statistical data collected under this contract.
 - e. All data files on network or multi-user systems shall be under strict control of a database manager with access restricted to project staff sworn to confidentiality, and then only on a need-to-know basis.
 - f. All data files on single-user computers shall be password protected and all such machines will be locked and maintained in a locked room when not attended by project staff sworn to confidentiality.
 - g. External electronically stored data files (e.g., tapes on diskettes) shall be maintained in a locked storage device in a locked room when not attended by project staff sworn to confidentiality.
 - h. Any data released to the general public shall be appropriately masked or perturbed such that linkages to individually identifying information are protected to avoid individual identification in disclosed data.
 - i. Data or copies of data may not leave the authorized site for any reason.
3. Staff, consultants, agents, or RTI and all its subcontractors will take all necessary steps to ensure that the letter and intent of all applicable legislation, regulations, and guidelines are enforced at all times through appropriate qualifications standards for all personnel working on this project and through adequate training and periodic follow-up procedures.

By my signature affixed below, I hereby swear and affirm that I have carefully read this statement and fully understand the statement as well as legislative and regulatory assurances that pertain to the confidential nature of all records to be handled in regard to this project, and will adhere to all safeguards that have been developed to provide such confidentiality. As an employee, consultant, agent, or representative of RTI or one of its subcontractors, consultants, agents, or representatives, I understand that I am prohibited by law from disclosing any such confidential information to anyone other than staff, consultant, agents, or representatives of RTI, its subcontractors, or agents, and NCES. I understand that any willful and knowing individual disclosure or allowance of disclosure in violation of the applicable legislation, regulations, and guidelines is punishable by law and would subject the violator to possible fine or imprisonment.

 (Signature)

 (RTI Employee ID Number)

 (Date)

 (Signature)

 (RTI Employee ID Number)

 (Date)

AFFIDAVIT OF NONDISCLOSURE

**2011-12 National Postsecondary Student Aid Study (NPSAS:12)
(RTI Under Contract No. ED-IES-09-C-0039)**

(Name)

(Job Title)

(Date of Assignment to NPSAS:12 Project)

(Organization, State, or Local Agency or Instrumentality)

(Address)

I, _____, do solemnly swear (or affirm) that when given access to any **2011-12 National Postsecondary Student Aid Study (NPSAS:12)** project-related data bases or files containing individually identifiable information, I will not:

- (i) use or reveal any individually identifiable information furnished, acquired, retrieved or assembled by me or others, under the provisions of Section 183 of the Education Sciences Reform Act of 2002 (PL 107-279) and Title V, subtitle A of the E-Government Act of 2002 (PL 107-347) for any purpose other than statistical purposes specified in the NCES survey, project or contract;
- (ii) make any disclosure or publication whereby a sample unit or survey respondent could be identified or the data furnished by or related to any particular person under this section could be identified; or
- (iii) permit anyone other than the individuals authorized by the Commissioner of the National Center for Education Statistics to examine the individual reports.

(Signature)

(The penalty for unlawful disclosure is a fine of not more than \$250,000 [under 18 U.S.C. 3571] or imprisonment for not more than 5 years [under 18 U.S.C. 3559], or both. The word "swear" should be stricken out wherever it appears when a person elects to affirm the affidavit rather than to swear to it.)

State of _____

County of _____

Subscribed and sworn/affirmed before me, _____, a Notary Public in and for
_____ County, State of _____, on this date,

_____.

Notary Public

My commission expires: _____.

Appendix F
Endorsing Associations for NPSAS:12

Endorsing Associations

American Association of Collegiate Registrars and Admissions Officers
American Association of Community Colleges
American Association of State Colleges and Universities
American Council on Education
Association for Institutional Research
Association of American Colleges and Universities
Association of Catholic Colleges and Universities
Association of Private Sector Colleges and Universities
Association of Public and Land-grant Universities
Association of Schools of Allied Health Professions
The Carnegie Foundation for the Advancement of Teaching
The College Board
Council of Graduate Schools
The Council of Independent Colleges
Hispanic Association of Colleges and Universities
Midwestern Higher Education Compact
National Accrediting Commission of Cosmetology Arts and Sciences
National Association of College and University Business Officers
National Association for Equal Opportunity in Higher Education
National Association of Independent Colleges and Universities
National Association of Student Financial Aid Administrators
New England Board of Higher Education
Southern Regional Education Board
State Higher Education Executive Officers
The United Negro College Fund
Western Interstate Commission for Higher Education