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

Unannotated Bibliography of Publications Using B&B Data
Arranged alphabetically by year

National Center for Education Statistics (NCES) 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.

2012

Bryan, M. & Simone, S. (2012). *2010 College Course Map: Technical Report* (NCES 2012-162). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

Feng, L. (forthcoming). Teacher Placement, Mobility, and Occupational Choices after Teaching. *Education Economics*.

Hilmer, M.J. & Hilmer, Christina, E. (2012). On the Relationship between Student Tastes and Motivations, Higher Education Decisions, and Annual Earnings. *Economics of Education Review, 31*(1), 66-75

2011

Cataldi, E.F., Green, C., Henke, R., Lew, T., Woo, J., Shepherd, B., & Siegel, P. (2011). *2008-09 Baccalaureate and Beyond Longitudinal Study (B&B:08/09). First Look* (NCES 2011-236). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

2010

Ingersoll, R. M., and Perda, D. (2010). Is the Supply of Mathematics and Science Teachers Sufficient? *American Educational Research Journal, 47*(3): 563–594.

Liu, X., Thomas, S., and Zhang, L. (2010). College Quality, Earnings, and Job Satisfaction: Evidence from Recent College Graduates. *Journal of Labor Research, 31*(2): 183–201.

Snyder, T.D., and Dillow, S.A. (2010). *Digest of Education Statistics, 2009* (NCES 2010-013). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

2009

Ingersoll, R. M., and Perda, D. (2009). *The Mathematics and Science Teacher Shortage: Fact and Myth*. CPRE Research Report #RR-621. Madison, WI: Consortium for Policy Research in Education.

Ionescu, F. (2009). The Federal Student Loan Program: Quantitative Implications for College Enrollment and Default Rates. *Review of Economic Dynamics, 12*(1): 205–231.

McAnulty, K.G. (2009). Predictors of Graduate Enrollment in Hard and Soft Academic Disciplines and the Impact of Sex and Ethnicity. Doctoral dissertation, University of Louisville.

Olbrecht, A. (2009). Do Academically Deficient Scholarship Athletes Earn Higher Wages Subsequent to Graduation? *Economics of Education Review, 28*(5): 611–619.

Snyder, T.D., Dillow, S.A., and Hoffman, C.M. (2009). *Digest of Education Statistics, 2008* (NCES 2009-020). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

Wei, C.C., and Horn, L. (2009). *A Profile of Successful Pell Grant Recipients: Time to Bachelor's Degree and Early Graduate School Enrollment* (NCES 2009-156). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

Zhang, L. (2009). A Value-Added Estimate of Higher Education Quality of US States. *Education Economics, 17*(4): 469–489.

2008

Anderson, S.E. (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.

Bosshardt, W., and Watts, M. (2008). Undergraduate Students' Coursework in Economics. *Journal of Economic Education, 39*(2): 198–205.

Choy, S., and Bradburn, E. (2008). *Ten Years After College: Comparing the Employment Experiences of 1992–93 Bachelor's Degree Recipients With Academic and Career-Oriented Majors* (NCES 2008-155). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

Hill, J.L. (2008). *The Ambiguous Effects of Undergraduate Debt: Extending the Human Capital Model of Graduate School Enrollment. Doctoral dissertation*, North Carolina State University.

Ionescu, F. A. (2008). Consolidation of Student Loan Repayments and Default Incentives. *The B.E. Journal of Macroeconomics, 8*(1): Article 22.

Mittapalli, K. (2008). What Makes Public School Teachers Stay, Leave or become Non-teachers? An In-depth Understanding of their Personal Characteristics, Beliefs and Perceptions.

Kurt, M.R. (2008). *Essays on the Inter-industry Wage Differential, Human Capital, and Directed search*. Doctoral dissertation, The University of Iowa.

Lowe, S. K., Borstorff, P. C., and Landry III, Robert J. (2008). An Empirical Examination of the Phenomenon of Grade Inflation in Higher Education: A Focus of Grade Divergence Between Business and Other Fields of Study. *Academy of Educational Leadership Journal, 12*(1): 15–33.

Mittapalli, K. (2008). Understanding Classroom Teacher Attrition: Characteristics of Three Groups. *ERS Spectrum, 26*(3): 21–33.

Sasser, A. (2008). *The Future of the Skilled Labor Force in New England: The Supply of Recent College Graduates*. Boston: New England Policy Center, Federal Reserve Bank of Boston.

Strayhorn, T. (2008). Influences on Labor Market Outcomes of African American College Graduates: A National Study. *Journal of Higher Education, 79*(1): 28–57.

Zhang, L. (2008). Gender and Racial Gaps in Earnings Among Recent College Graduates. *Review of Higher Education, 32*(1): 51–72.

Zhang, L. (2008). The Way to Wealth and the Way to Leisure: The Impact of College Education on Graduates' Earnings and Hours of Work. *Research in Higher Education, 49*(3): 199–213.

2007

Alt, M.N., and Henke, R.R. (2007). *To Teach or Not to Teach? Teaching Experience and Preparation Among 1992–93 Bachelor's Degree Recipients 10 Years After College* (NCES 2007-163). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

Bacolod, M. (2007). Who Teaches and Where They Choose to Teach: College Graduates of the 1990s. *Educational Evaluation and Policy Analysis, 29*(3): 155–168.

Bartlett, C.L. (2007). *Essays on the Links between Education, Ability, and Income.* Doctoral dissertation, University of Texas at Austin.

Freeman, M.L. (2007). *Selected Characteristics Related to Persistence to the Baccalaureate Degree for Vertical Transfer Students: Geography, Age, Gender, and Risk*. Doctoral dissertation, Ohio University.

Lowe, S.K. (2007). *Grade Inflation and Market Benefits: A Higher Education Analysis*. Doctoral dissertation, The University of Alabama

Masuo, D.M., Kutara, P., Wall, R., and Cheang, M. (2007). Financial Information Project: Assessing the Financial Interests of College Students. *Journal of Family and Consumer Sciences, 99*(3): 29–36.

Nevill, S.C., and Chen, X. (2007). *The Path Through Graduate School: A Longitudinal Examination 10 Years After Bachelor's Degree* (NCES 2007-162). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

Tsupryk, G. (2007). *Job Match Quality: Measurement and Applications*. Doctoral dissertation, State University of New York at Stony Brook.

2006

Bradburn, E.M., Nevill, S., and Cataldi, E.F. (2006). *Where Are They Now? A Description of 1992–93 Bachelor's Degree Recipients 10 Years Later* (NCES 2007-159). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

Choy, S.P., and Li, X. (2006). *Dealing With Debt: 1992–93 Bachelor's Degree Recipients 10 Years Later* (NCES 2006-156). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

Feng, L. (2006). *Combating Teacher Shortages: Who Leaves, Who Moves, and Why*. Doctoral dissertation, Florida State University.

Fong, A.B. (2006). *Essays on Sorting, Mobility, and Attrition in the Teacher Labor Market*. Doctoral dissertation, Columbia University.

Goyette, K., and Mullen, A. (2006). Who Studies the Arts and Sciences? Social Background and the Choice and Consequences of Undergraduate Field of Study. *Journal of Higher Education, 77*(3): 497–538.

Joy, L. (2006). Occupational Differences Between Recent Male and Female College Graduates. *Economics of Education Review, 25*(2): 221–231.

Lowry, K.S. (2006). *The Paths to Becoming a Mathematics Teacher*, Doctoral dissertation, The University of Central Florida.

Strayhorn, T. (2006). Factors Influencing the Academic Achievement of First-Generation College Students. *NASPA Journal, 43*(4): 82–111.

2005

Bosshardt, W., and Watts, M. (2005). Teachers' Undergraduate Coursework in Economics in the Baccalaureate and Beyond Longitudinal Study. *Journal of Economic Education, 36*(4): 400.

Bradburn, E.M., Nevill, S., and Cataldi, E.F. (2005). *1992–93 Bachelor's Degree Recipients and Their Opinions About Education in 2003* (NCES 2005-174). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

Choy, S.P., and Li, X. (2005). *Debt Burden: A Comparison of 1992–93 and 1999–2000 Bachelor's Degree Recipients a Year After Graduating* (NCES 2005-170). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

Henke, R.R., Peter, K., Li, X., and Geis, S. (2005). *Elementary/Secondary School Teaching Among Recent College Graduates: 1994 and 2001* (NCES 2005-161). 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.

Peter, K., and Cataldi, E.F. (2005). *The Road Less Traveled? Students Who Enroll in Multiple Institutions* (NCES 2005-157). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

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.

Strayhorn, T. L. (2005). *More than Money Matters: An integrated Model of Graduate Student Persistence*. Doctoral dissertation, Virginia Polytechnic Institute and State University.

Wine, J.S., Cominole, M.B., Wheeless, S., Dudley, K., and Franklin, J. (2005). *1993/03 Baccalaureate and Beyond Longitudinal Study (B&B:93/03) Methodology Report* (NCES 2006-166). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

Zhang, L. (2005). Advance to Graduate Education: The Effect of College Quality and Undergraduate Majors. *Review of Higher Education, 28*(3): 313–338.

Zhang, L. (2005). Do Measures of College Quality Matter? The Effect of College Quality on Graduates' Earnings. *Review of Higher Education, 28*(4): 571–596.

2004

Conn, R.E. (2004). *The Relationship between Non-Employment and Respondent Personal Characteristics, College Major, GPA and Work Experience among 1992--1993 College Graduates.* Doctoral dissertation, The Pennsylvania State University.

Heuer, R. (2004). *Migration of Recent College Graduates*. Doctoral dissertation, North Carolina State University.

Perna, L.W. (2004). Understanding the Decision to Enroll in Graduate School: Sex and Racial/Ethnic Group Differences. *Journal of Higher Education, 75*(5): 487–527.

Price, D.V. (2004). Educational Debt Burden Among Student Borrowers: An Analysis of the Baccalaureate and Beyond Panel, 1997 Follow-Up. *Research in Higher Education, 45*(7): 701–737.

Shen, J., Mansberger, N., and Yang, H. (2004). Teacher Quality and Students Placed at Risk: Results from the Baccalaureate and Beyond Longitudinal Study, 1993–97. Educating Students Placed at Risk. *Educational Horizons, 82*(3): 226–235.

2003

Bradburn, E.M., Berger, R., Li, X., Peter, K., and Rooney, K. (2003). *A Descriptive Summary of 1999–2000 Bachelor's Degree Recipients 1 Year Later, With an Analysis of Time to Degree* (NCES 2003-165). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

Charleston, S., Riccobono, J., Mosquin, P., and Link, M. (2003). *Baccalaureate and Beyond Longitudinal Study: 2000–01 (B&B:2000/01) Methodology Report* (NCES 2003-156). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

Millett, C.M. (2003). How Undergraduate Loan Debt Affects Application and Enrollment in Graduate or First Professional School. *Journal of Higher Education, 74*(4): 386–427.

Mustafa, S. (2003). *Three Essays on College Enrollment, Completion and Labor Market Returns*. Doctoral dissertation, Ohio State University.

Zhang, L. (2003). *How College Affects Students: Toward the Reconciliation of Theory With Empirical Evidence*. Doctoral dissertation, University of Arizona.

2002

Bradburn, E.M., and Berger, R. (2002). *Beyond 9 to 5: The Diversity of Employment Among 1992–93 College Graduates in 1997* (NCES 2003-152). National Center for Education Statistics, U.S. Department of Education. Washington, DC.

LaTurner, R.J. (2002). Teachers' Academic Preparation and Commitment To Teach Math and Science. *Teaching and Teacher Education, 18*(6): 653–663.

2001

Clune, M.S., Nunez, A.-M., and Choy, S.P. (2001). *Competing Choices: Men's and Women's Paths After Earning a Bachelor's Degree* (NCES 2001-154). National Center for Education Statistics, U.S. Department of Education. Washington, DC.

Heller, D.E. (2001). *Debts and Decisions: Student Loans and Their Relationship to Graduate School and Career Choice.* New Agenda Series™ (Vol. 3, No. 4). Indianapolis, IN: Lumina Foundation for Education.

Henke, R., and Zahn, L. (2001). *Attrition of New Teachers Among Recent College Graduates: Comparing Occupational Stability Among 1992–93 College Graduates Who Taught and Those Who Worked in Other Occupations* (NCES 2001-189). National Center for Education Statistics, U.S. Department of Education. Washington, DC.

Henry, D.P. (2001). *Student Debt and Debt Burden of Graduate and First Professional Students: A National and Institutional Analysis*. Unpublished doctoral dissertation, The College of William and Mary.

Horn, L.J., and Zahn, L. (2001*). From Bachelor's Degree To Work: Major Field of Study and Employment Outcomes of 1992–93 Bachelor's Degree Recipients Who Did Not Enroll in Graduate Education by 1997* (NCES 2001-165). National Center for Education Statistics, U.S. Department of Education. Washington, DC.

Lasiewski, D.K. (2001). *An Examination of the Factors by Gender and Race/Ethnicity Influencing Science, Mathematics, and Engineering Undergraduate Degree Recipients to Enroll in Graduate Study*. Doctoral dissertation, University of Massachusetts Boston.

Perry, K.K. (2001). *Where College Students Live After They Graduate.* National Center for Education Statistics, U.S. Department of Education. Washington, DC.

2000

Choy, S.P. (2000). *Debt Burden Four Years After College* (NCES 2000-188). National Center for Education Statistics, U.S. Department of Education. Washington, DC.

Henke, R.R., Chen, X., and Geis, S. (2000). *Progress Through the Teacher Pipeline: 1992–93 College Graduates and Elementary/Secondary School Teaching as of 1997* (NCES 2000-152). National Center for Education Statistics, U.S. Department of Education. Washington, DC.

Redd, K.E. (2000). *HBCU Graduates: Employment Earnings and Success After College*. New Agenda Series™ (Vol. 2, No. 4). Indianapolis, IN: USA Group, Inc.

1999

Boe, E.E., Cook, L.H., Paulsen, C.A., Barkanic, G., and Leow, C.S. (1999). *Productivity of Teacher Preparation Programs: Surplus or Shortage in Quantity and Quality of Degree Graduates*. Data Analysis Report No.1999-DAR2. Philadelphia: University of Pennsylvania Center for Research and Evaluation in Social Policy.

Fabiano, L. (1999). *Measuring Teacher Qualifications* (NCES 1999-04). National Center for Education Statistics, U.S. Department of Education. Washington, DC.

Green, P., Myers, S., Veldaman, C., and Pedlow, S. (1999). *Baccalaureate and Beyond Longitudinal Study: 1993/97 Second Follow-up Methodology Report* (NCES 1999-159). National Center for Education Statistics, U.S. Department of Education. Washington, DC.

Horn, L.J., and Berktold, J. (1999). *Students With Disabilities in Postsecondary Education: A Profile of Preparation, Participation, and Outcomes* (NCES 1999-187). National Center for Education Statistics, U.S. Department of Education. Washington, DC.

McCormick, A.C., Nunez, A.-M., Shah, V., and Choy, S.P. (1999). *Life After College: A Descriptive Summary of 1992–93 Bachelor's Degree Recipients in 1997, With an Essay on Participation in Graduate and First-Professional Education* (NCES 1999-155). National Center for Education Statistics, U.S. Department of Education. Washington, DC.

Salvucci, S., Wenck, S., and Tyson, J. (1999). *Development of a Prototype System for Accessing Linked NCES Data* (NCES 98-15). National Center for Education Statistics, U.S. Department of Education. Washington, DC.

Shafer, L.L. (1999). *Data Sources on Lifelong Learning Available From the National Center for Education Statistics. Working Paper* (NCES 1999-11). National Center for Education Statistics, U.S. Department of Education. Washington, DC.

Syverson, P.D. (1999). Part-Time Study Plus Full-Time Employment: The New Way to Go to Graduate School. Invited Commentary. *Education Statistics Quarterly, 1*(3): 13–15.

Terkla, D.G. (1999). Baccalaureate and Beyond: Tracking Long-Term Outcomes for Bachelor's Degree Recipients. Invited Commentary. *Education Statistics Quarterly, 1*(3): 16–17.

1998

Nunez, A.-M., and Cuccaro-Alamin, S. (1998). *First-Generation Students: Undergraduates Whose Parents Never Enrolled in Postsecondary Education* (NCES 98-082). National Center for Education Statistics, U.S. Department of Education. Washington, DC.

Thomas, S.L. (1998). *Deferred Costs and Economic Returns to College Major, Quality, and Performance: Recent Trends*. Paper presented at the annual meeting of the Association for the Study of Higher Education, Miami, FL.

1997

Choy, S.P., and Geis, S. (1997). *Early Labor Force Experiences and Debt Burden* (NCES 97-286). National Center for Education Statistics, U.S. Department of Education. Washington, DC.

Dey, E.L., Hurtado, S., Rhee, B.-S., Inkelas, K.K., Wimsatt, L.A., and Guan, F. (1997). *Improving Research on Postsecondary Student Outcomes: A Review of the Strengths and Limitations of National Data Resources*. NCPI–5–01. Stanford, CA: National Center for Postsecondary Improvement.

Henke, R.R., Choy, S.P., Chen, X., Geis, S., and Alt, M.N. (1997). *America's Teachers: Profile of a Profession, 1993–94* (NCES 97-460). National Center for Education Statistics, U.S. Department of Education. Washington, DC.

Veldman, C., Green, P.J., Myers, S., Chuchro, L., and Giese, P. (1997). *Baccalaureate and Beyond Longitudinal Study: Second Follow-up Field Test Report, 1996* (NCES 97-261). National Center for Education Statistics, U.S. Department of Education. Washington, DC.

1996

Green, P.J., Meyers, S.L., Giese, P., Law, J., Speizer, H.M., Tardino, V.S., and Knepper, P. (1996). *Baccalaureate and Beyond Longitudinal Study: 1993/94 First Follow-up Methodology Report* (NCES 96–149). National Center for Education Statistics, U.S. Department of Education. Washington, DC.

Henke, R.R., Geis, S., and Giambattista, J. (1996). *Out of the Lecture Hall and Into the Classroom: 1992–93 College Graduates and Elementary/Secondary School Teaching* (NCES 96-899). National Center for Education Statistics, U.S. Department of Education. Washington, DC.

McCormick, A., and Horn, L.J. (1996). *A Descriptive Summary of 1992–93 Bachelor's Degree Recipients: 1 Year Later, With Essay on Time to Degree* (NCES 96-158). National Center for Education Statistics, U.S. Department of Education. Washington, DC.

1995

McGrew, K. (1995). *Disability Summary Analyses of Select National Data Collection Programs*. Technical Report 11. Minneapolis, MN: National Center on Educational Outcomes, University of Minnesota.

1994

Knepper, P. (1994). *Field Test Methodology Report, Baccalaureate and Beyond First Follow-up (B&B:93/94)* (NCES 94-371). National Center for Education Statistics, U.S. Department of Education. Washington, DC.

Appendix B
Technical Review Panel Contact List

TECHNICAL REVIEW PANEL

Eric Bettinger
Stanford School of Education
CERAS 522, 520 Galvez Mall
Stanford, CA 94305
Voice: (650)736-7727
Email: ebettinger@stanford.edu

Bryan Cook
American Council on Education
One Dupont Circle, NW, Suite 800
Washington, DC 20036
Voice: (202)939-9381
Email: bcook@acenet.edu

Daniel Goldhaber
University of Washington
425 Pontius Avenue North, Suite 410
Seattle, WA 98109
Voice: (206)685-2214
Email: dgoldhab@u.washington.edu

Sara Goldrick-Rab
University of Wisconsin-Madison
1025 West Johnson Street, 575K
Madison, WI 53706
Voice: (608)265-2141
Email: SRab@education.wisc.edu

Jason Grissom
Vanderbilt University
118 Middlebush Hall
Columbia, MO 65211
Voice: (573)884-3632
Email: GrissomJA@missouri.edu

Tammy Halligan
Association of Private Sector Colleges and Universities
1101 Connecticut Ave. NW
Suite 900
Washington, DC 20036
Voice: (202)336-6839
Email: tammyh@career.org

Young Kim
American Council on Education
One Dupont Circle NW
Washington, DC 20036
Voice: (202)939-9707
Email: young_kim@ace.nche.edu

Laura Perna
University of Pennsylvania, Graduate School of Education
3700 Walnut
Room 424
Philadelphia, PA 19104
Voice: (215)746-2522
Email: lperna@gse.upenn.edu

Kent Phillippe
American Association of Community Colleges
One Dupont Circle, NW
Suite 410
Washington, DC 20036
Voice: (202)728-0200
Email: kphillippe@aacc.nche.edu

Michael Podgursky
University of Missouri
233 Professional Building
Columbia, MO 65211
Voice: (573)884-7741
Email: PodgurskyM@missouri.edu

Steven Rivkin
Amherst College
P.O. Box 5000
Amherst, MA 1002
Voice: 413-542-2106
Email: sgrivkin@amherst.edu

Harold Salzman
Rutgers University
30 Livingston Avenue
Heldrich Center for workforce Development
New Brunswick, NJ 8901
Voice: (978)929-9503
Email: hsalzman@rci.rutgers.edu

Judith Scott-Clayton
Columbia University
525 West 120th Street, Box 174
International & Transcultural Studies,
Teachers College
New York, NY 10027
Voice: (212)678-3478
Email: Scott-Clayton@exchange.tc.columbia.edu

Jeff Strohl
Georgetown University
37th and O Streets, NW
5000 Harris Building
Washington, DC 20057
Voice: (202)687-4945
Email: js787@georgetown.edu

Paul Umbach
North Carolina State University
College of Education
300 Poe Hall, Box 7801
Raleigh, NC 27695
Voice: (919)515-9336
Email: paul_umbach@ncsu.edu

Robert Yin
Cosmos Corporation
3 Bethesda Metro Center
Suite 420
Bethesda, MD 20814
Voice: (301)215-9100
Email: ryin@cosmoscorp.com

FEDERAL PANELIST

Nabeel Alsalam
Congressional Budget Office
Ford House Office Building
Room 423A
Washington, DC 20515
Voice: (202)225-2639
Email: nabeel@cbo.gov

Shane Ball
United States Department of Agriculture,
National Institute of Food and Agriculture
1400 Independence Avenue SW, Stop 2201
Washington, DC 20250
Voice: (202)720-6346
Email: sball@nifa.usda.gov

David Bergeron
U.S. Department of Education, Office of
Postsecondary Education (OPE)
1990 K Street, NW
Room 8022
Washington, DC 20006
Voice: (202)502-7815
Email: david.bergeron@ed.gov

Mark Feigener
National Science Foundation
4201 Wilson Boulevard, Suite 965
Division of Science Resources Statistics
Arlington, VA 22230
Voice: (703)292-4622
Email: mfiegene@nsf.gov

Daniel Goldenberg
U.S. Department of Education, Office of
Planning, Evaluation and Policy
Development (OPEPD)
Budget Service, Cost Estimation and Analysis
Division
400 Maryland Avenue SW - Room 5W308
Washington, DC 20202
Voice: (202)401-3562
Email: daniel.goldenberg@ed.gov

Kashka Kubzdela
U.S. Department of Education
Institute of Education Sciences
1990 K Street, NW, Room 9014
Washington, DC 20006
Voice: (202)502-7411
Email: kashka.kubzdela@ed.gov

Flora Lan
National Science Foundation
4201 Wilson Boulevard, Suite 965
Division of Science Resources Statistics
Arlington, VA 22230
Voice: (703)292-4758
Email: flan@nsf.gov

Rochelle Martinez
Office of Management and Budget
725 17th Street, NW
Room 10202 NEOB
Washington, DC 20503
Voice: (202)395-3147

Email:Rochelle_W._Martinez@omb.eop.gov

Hiromi Ono
Institute of Education Sciences, NCER
555 New Jersey Ave. NW
Room 617A
Washington, DC 20208
Voice: (202)208-2174
Email: Hiromi.Ono@ed.gov

Emilda Rivers
National Science Foundation
4201 Wilson Blvd. Suite 965 S
Arlington, VA 22230
Voice: (703)292-7773
Email: erivers@nsf.gov

Allen Ruby
Institute of Education Sciences, NCER
555 New Jersey Ave. NW
Room 611B
Washington, DC 20208
Voice: (202)219-1591
Email: allen.ruby@ed.gov

David Smole
Congressional Research Service
101 Independence Ave., SE
Washington, DC 20540
Voice: (202)707-0624
Email: dsmole@crs.loc.gov

John Wirt
U.S. Department of Education, NCES
El/Sec Sample Survey Studies Program-ESLSD
1990 K Street, NW, Room 9028
Washington, DC 20006
Voice: (202)502-7478
Email: john.wirt@ed.gov

Ex Officio Members
U.S. Department of Education, NCES
Postsecondary, Adult and Career Education Division (PACE)

Sharon Boivin
U.S. Department of Education, NCES
1990 K Street, NW
Room 9022
Washington, DC 20006
Voice: (202)502-7627
Email: sharon.boivin@ed.gov

Sarah Crissey
U.S. Department of Education, PACE
1990 K Street, NW
Room 8123
Washington, DC 20006
Voice: 202-502-7395
Email: sara.crissey@ed.gov

Elise Christopher
U.S. Department of Education, NCES
1990 K Street NW, Room 9021
Washington, DC 20006
Voice: (202)502-7899
Email: Elise.Christopher@ed.gov

Lisa Hudson
U.S. Department of Education, NCES
1990 K Street, NW
Room 8104
Washington, DC 20006
Voice: (202)502-7358
Email: lisa.hudson@ed.gov

Tracy Hunt-White
U.S. Department of Education, NCES
1990 K Street, NW
Room 8132
Washington, DC 20006
Voice: (202)502-7438
Email: tracy.hunt-white@ed.gov

Elise Miller
U.S. Department of Education, NCES
1990 K Street, NW
Room 8113A
Washington, DC 20006
Voice: (202)502-7318
Email: Elise.Miller@ed.gov

Isaiah O'Rear
U.S. Department of Education
Institute of Education Sciences
1990 K Street, NW
Washington, DC 20006
Voice: (202)502-7378
Email: Isaiah.orear@ed.gov

Sean Simone
U.S. Department of Education, NCES
1990 K Street NW
Room 8125
Washington, DC 20006
Voice: (202)502-7367
Email: sean.simone@ed.gov

Ted Socha
U.S. Department of Education, NCES
1990 K Street, NW
Room 8130
Washington, DC 20006
Voice: (202)502-7383
Email: Ted.Socha@ed.gov

Matthew Soldner
U.S. Department of Education, NCES
1990 K Street, NW
Room 8121
Washington, DC 20006
Voice: (202)219-7025
Email: Matthew.Soldner@ed.gov

Tom Weko
U.S. Department of Education, NCES
1990 K Street, NW
Room 8099
Washington, DC 20006
Voice: (202)502-7643
Email: tom.weko@ed.gov

CONSULTANTS & SUBCONTRACTORS

Cynthia Decker
2216 East 26th Place
Tulsa, OK 74114
Voice: (918)728-8380
Email: cynthiadecker@yahoo.com

Andrea Sykes
Laurium Evaluation Group
6032 Holland Court
Columbia, MD 21044
Voice: (240)593-4842
Email: asykes@lauriumevaluation.com

KFORCE GOVERNMENT SOLUTIONS

Daniel Heffron
KGS
2750 Prosperity Ave., Suite 300
Fairfax, VA 22031
Voice: (703)245-7388
Email: DHeffron@kforcegov.com

MPR ASSOCIATES

Emily Forrest-Cataldi
MPR Associates, Inc.
2150 Shattuck Avenue, Suite 800
Berkeley, CA 94704
Voice: (515) 270-8457
Email: ecataldi@mprinc.com

Robin Henke
MPR Associate, Inc.
2150 Shattuck Avenue, Suite 800
Berkeley, CA 94704
Voice: (510)849-4942
Email: rhenke@mprinc.com

RTI INTERNATIONAL

Melissa Cominole
RTI International
P.O. Box 12194
3040 East Cornwallis Road
Research Triangle Park, NC 27709
Voice: (919)990-8456
Email: mcominole@rti.org

Jeffrey Franklin
RTI International
P.O. Box 12194
3040 East Cornwallis Road
Research Triangle Park, NC 27709
Voice: (919)485-2614
Email: jwf@rti.org

Dionne McLean
RTI International
P.O. Box 12194
3040 East Cornwallis Road
Research Triangle Park, NC 27709
Voice: (919)541-6166
Email: dmclean@rti.org

John Riccobono
RTI International
P.O. Box 12194
3040 East Cornwallis Road
Research Triangle Park, NC 27709
Voice: (919)541-7006
Email: jar@rti.org

Bryan Shepherd
RTI International
P.O. Box 12194
3040 East Cornwallis Road
Research Triangle Park, NC 27709
Voice: (919)316-3482
Email: bshepherd@rti.org

Peter Siegel
RTI International
P.O. Box 12194
3040 East Cornwallis Road
Research Triangle Park, NC 27709
Voice: (919)541-6348
Email: siegel@rti.org

Jennifer Wine
RTI International
P.O. Box 12194
3040 East Cornwallis Road
Research Triangle Park, NC 27709
Voice: (919)541-6870
Email: jennifer@rti.org

Appendix C
Confidentiality Agreements

CONFIDENTIALITY AGREEMENT
2007-2008 National Postsecondary Student Aid Study (NPSAS:08)
Option 7 – Baccalaureate & Beyond Longitudinal Study 2008/12 (B&B:08/12)
(RTI Under Contract No. ED-05-CO-0033)

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 perturbated 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)
_____	_____	___/___/___/

(Supervisor's Signature) (RTI Employee ID Number) (Date)

AFFIDAVIT OF NONDISCLOSURE

2007-2008 National Postsecondary Student Aid Study (NPSAS:08)
Option 7 – Baccalaureate & Beyond Longitudinal Study 2008/12 (B&B:08/12)
(RTI Under Contract No. ED-05-CO-0033)

_____
(Name)

_____
(Job Title)

_____
(Date of Assignment to B&B:2008/09 Project)

_____
(Organization, State, or Local Agency or Instrumentality)

_____
(Address)

I, _____, do solemnly swear (or affirm) that when given access to any **Baccalaureate & Beyond Longitudinal Study 2008/12 (B&B:2008/12)** 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 D
Letters and Contacting Materials

Study Brochure....D-3
Baccalaureate and Beyond Longitudinal Study Initial Contact Letter –Parent....D-5
Address Update Information....D-6
Initial Contact Letter - Student....D-7
Data Collection Announcement Letter....D-9
Reminder Postcard....D-11
Reminder Letter....D-12
Thank You/Reminder Postcard....D-13
Thank You/Incentive Letter....D-14
Data Collection Announcement E-mail....D-15
First Early Reminder E-mail....D-16
Second Reminder E-Mail....D-17
Example Text for Brief Reminder E-mails....D-18
Brief E-mail Reminder 2....D-19
Brief E-mail Reminder 3....D-20
B&B:08/12 CATI Consent Text....D-21

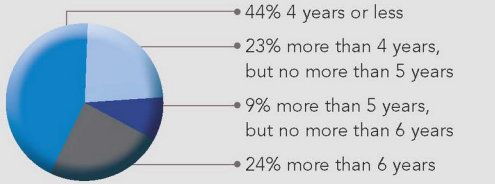
NOTE: The materials included in this appendix reference the field test study conducted in 2011. These materials will also be used for the full-scale study. Materials will be updated to reflect full-scale sample sizes and dates. Emails and letters providing similar content to those shown in this appendix will be sent throughout data collection to encourage participation. In addition, sample members that request follow-up reminders via text message will receive text message prompts to complete the survey.

Study Brochure

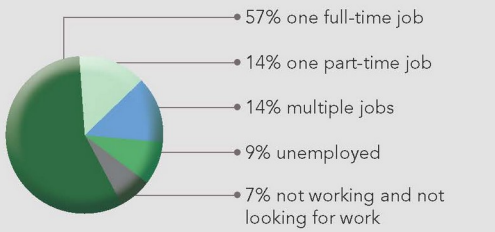
What has been learned from previous studies?

College graduates who received bachelor's degrees in 2007-08 were interviewed again in 2009. A few selected findings from the first follow-up are presented below.

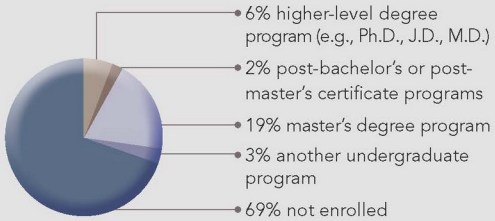
Time to complete degree



Employment in 2009



Additional education and enrollment



SOURCE: U.S. Department of Education, National Center for Education Statistics, 2008/09 Baccalaureate and Beyond Longitudinal Study (B&B:08/09).

To see more results, go to
http://nces.ed.gov/pubs2011/2011236.pdf

B&B

B&B Help Desk
1-877-262-4440

bbemail@rti.org
https://surveys.nces.ed.gov/bb/

For questions about the study, please contact:

Melissa Cominole
B&B Project Director (RTI)
mcominole@rti.org
1-866-662-8227

Ted Socha
U.S. Department of Education
B&B Project Officer (NCES)
ted.socha@ed.gov
1-202-502-7383

National Center for Education Statistics
Institute of Education Sciences
U.S. Department of Education

B&B

2008/12 BACCALAUREATE AND BEYOND LONGITUDINAL STUDY

ies NATIONAL CENTER FOR EDUCATION STATISTICS
Institute of Education Sciences

NCES 2012-072

What is B&B?

The Baccalaureate and Beyond Longitudinal Study (B&B) will survey about 17,000 graduates from U.S. colleges and universities, to find out about their experiences approximately 4 years after earning a bachelor's degree.

The survey will collect information on graduate and other education, experiences in the labor market, earnings and expenses, family status, and personal and professional goals. In addition to survey responses, we collect related information from sources such as student loan and enrollment databases. There is a particular focus on careers in teaching and careers in science, technology, engineering, and mathematics (STEM) fields.

B&B is sponsored by the National Center for Education Statistics (NCES) in the U.S. Department of Education's (ED) Institute of Education Sciences (IES). The study is conducted under contract by RTI International, a nonprofit research organization based in North Carolina.

Why was I asked to participate?

You have been asked to participate in B&B because you completed a bachelor's degree in the 2007-08 academic year. You may have also participated in previous studies, such as the National Postsecondary Student Aid Study (NPSAS) and the first B&B follow-up study in 2009. You are one of approximately 17,000 individuals selected as part of the 2012 sample.

When will the study be conducted?

Beginning in summer 2012, a sample of 2007-08 baccalaureate recipients will be contacted to complete a B&B survey online or by telephone with a professionally trained interviewer.

RTI International is a trade name of Research Triangle Institute.

How long will it take?

On average, the survey lasts 35 minutes. Your time will vary, depending on your answers and your internet connection speed, if completing online.

Are there any benefits or risks?

The risk of participation in this study relates to data security. Given the strict security procedures in place, risks to participation are minimal.

While there are no specific benefits to you for participating in B&B, your participation will help ensure the success of the study and help educators, researchers, and policymakers better understand the experiences of recent bachelor's degree recipients.

How can I get a copy of the results?

Publications from previous studies are available free of charge on the B&B website at **http://nces.ed.gov/surveys/b&b/**. Results from the current study are scheduled to be released in spring 2014 and will be posted on the B&B website as soon as they are available.

How will my information be protected?

Federal law requires that we protect your privacy. Your responses may be used only for statistical purposes and will not be disclosed, or used, in identifiable form for any other purpose, except as required by law (20 U.S.C. § 9573).

Data security procedures are reviewed and approved by NCES/IES and ED data security staff and by RTI's Institutional Review Board in the Office of Research Protection. Your answers are secured behind firewalls and are encrypted during internet transmission using Secure Sockets Layer (SSL) protocol. All data entry modules are password protected and require the user to log in before accessing confidential data. Project staff are subject to large fines or imprisonment if individual responses are disclosed.

The 2008/12 Baccalaureate and Beyond Longitudinal Study (B&B:08/12) is conducted under the authority of the Education Sciences Reform Act (ESRA) of 2002 (20 U.S.C. § 9512), which authorizes NCES to collect and disseminate information about education in the United States. Collection is most often done through surveys.

NCES is required to follow strict procedures to protect the confidentiality of persons in the collection, reporting, and publication of data. All individually identifiable information supplied by individuals or institutions to NCES may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose, unless otherwise compelled by law (20 U.S.C. § 9573).

How do I participate?

You may complete the B&B survey in one of two ways:

1. Online.

Go to the study website at **https://surveys.nces.ed.gov/bb/**. Then, simply enter your Study ID and password and select login.

2. By telephone.

If you prefer to complete the B&B survey by telephone, call the B&B Help Desk at **1-877-262-4440** to speak with a professionally trained interviewer.

If you need assistance,
call the B&B Help Desk at **1-877-262-4440**
or contact us via e-mail at **bbemail@rti.org**.

Your participation is very important to the success of B&B.

Baccalaureate and Beyond Longitudinal Study Initial Contact Letter –Parent
(To be sent to low propensity/difficult cases only)

May 9, 2026

«Cpfname» «Cpmname» «Cplname»
«CAddr1»
«CAddr2»
«Ccity», «Cstate» «CZip» «CZip4»

«caseid» (Study ID number)
«panelinfo» (RTI use only)

Dear «Cpfname» «Cplname»:

The U.S. Department of Education's National Center for Education Statistics (NCES) is conducting an important study of students who graduated from college during the 2007-08 school year. The Baccalaureate and Beyond Longitudinal Study (B&B) will help educators, researchers, and policymakers better understand how earning a bachelor's degree affects students' lives and choices about further education and work. Out of all 2007-08 college graduates in the United States, «fname» was selected to participate in B&B. The enclosed brochure provides information about the study and our strict confidentiality procedures.

We will be contacting «fname» and other study participants in **«**start_month**»** to ask questions about «pronoun3» education and work experiences after graduation. We are asking for your help in updating our records so that we will be able to get in touch with «pronoun2». Only a limited number of people are selected for this study so it is extremely important that we be able to contact «pronoun2». **If «fname» completes the survey by the date provided in the announcement letter we will be sending in «start month», «pronoun1» will receive a «IncAmt» incentive as a token of our appreciation.**

Before data collection can begin, we need your help to update our records for «fname» «lname». ***Please take a few minutes right now to update the enclosed Address Update Information sheet and return it in the enclosed postage-paid envelope. As a token of our appreciation for providing «fname»'s contact information, «pronoun1» will receive <<UPDATE_INC_AMT>>.***

NCES has contracted with RTI International to conduct the B&B study on its behalf. Please be assured that both NCES and RTI follow strict confidentiality procedures to protect the privacy of study participants. If you would like more information about the B&B study, please visit http://surveys.nces.ed.gov/bb/ or call the RTI study director, Melissa Cominole at 1-866-662-8227.

We sincerely appreciate your assistance and thank you in advance for helping us conduct this important study.

Sincerely,

Jack Buckley
Commissioner
Postsecondary Studies Division
National Center for Education Statistics
Enclosure

Address Update Information

Study ID number: «caseid»

1. *Please review your current address and phone numbers displayed on the left side of the box below. Check here if all information preprinted in this section is* ***entirely correct***..... ☐

If your address is not entirely correct or current, ***please update*** *it in the space provided on the right side of the box. If you prefer to update your locating information online, visit our secure website at* https://surveys.nces.ed.gov/bb/ *and refer to your Study ID number* **«caseid»**.

«fname» «mname» «lname» «suffix» «addr1» «addr2» «city», «state» «zip» «zip4» («area1») «phone1» «panelinfo»	Name: _____ Address: _____ _____ Home phone: ( ) _____ Work phone: ( ) _____ Cell phone: ( ) _____

2. *We will send an e-mail to let you know that data collection has begun. Please provide an e-mail address that we can use to contact you.*

Primary e-mail address: _____

Alternate e-mail address: _____

3. *Would you like us to send you a text message on your cell phone when data collection is about to begin? Please check one*.....Yes ☐ No ☐

*If yes, what cell number should we use?*_____

What is your cell phone service provider (e.g. AT&T, Verizon, etc.)?[1]_____
_____

Thank you for your assistance.

Please return this page in the enclosed postage-paid envelope or return to:

RTI International
ATTN: Jeff Franklin (0209777.700.332)
PO Box 12194
Research Triangle Park, NC 27709-9935

[1] We ask for your cell phone service provider to enable us to identify the format of the text message we send.

Initial Contact Letter - Student

May 9, 2026

«fname» «mname» «lname» «suffix» Study ID: «caseid»
«addr1»
«addr2»
«city», «state» «zip»«zip4»

Dear «fname»,

You have been randomly selected to participate in the Baccalaureate and Beyond Longitudinal Study (B&B), sponsored by the National Center for Education Statistics (NCES) in the U.S. Department of Education's Institute of Education Sciences. B&B will collect education, employment, and other information from you and others like you who graduated from college during the 2007–08 school year. Data collected from B&B will help educators, researchers, and policymakers better understand how earning a bachelor's degree impacts choices about further education and work. This is the second round of B&B. Whether or not you have participated in prior rounds of B&B, your participation now is critically important.

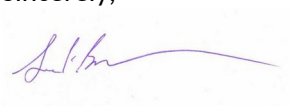
When B&B data collection begins in «start_month» 2012, you will receive a letter in a large white envelope that will provide specific information about how to participate. **The letter will explain that if you complete the approximately 35 minute survey on the Web by the date indicated, you will receive <<INC_AMT>> as a token of our appreciation. In the meantime, we need to update our contact information for you.**

Please help us now by providing your mailing address, telephone number(s), and e-mail address (es) online at https://surveys.nces.ed.gov/bb/. You will also find out more about B&B at this website. As a token of our appreciation for providing your contact information, you will receive **<<UPDATE_INC_AMT>>.**

NCES has contracted with RTI International to conduct B&B on its behalf. The enclosed brochure provides a brief description of B&B, findings from past studies, and a summary of our strict confidentiality procedures. If you have additional questions or concerns about the study after reviewing this material, please call the RTI study director, Melissa Cominole at 1-866-662-8227.

We thank you in advance for your participation in this important study. Your cooperation is greatly appreciated.

Sincerely,



Jack Buckley
Commissioner
Postsecondary Studies Division
National Center for Education Statistics
Enclosure

To update your contact information online: Go to:
https://surveys.nces.ed.gov/bb/
Enter Study ID number: «caseid»

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this voluntary information collection is 1850–0729. The time required to complete this information collection is estimated to average 35 minutes per response, including the time to review instructions, gather the data needed, and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate or suggestions for improving this survey, please write to: U.S. Department of Education, Washington, DC 20202–4537. If you have any comments or concerns regarding the status of your individual submission of this survey, write directly to: The 2008-12 Baccalaureate and Beyond Longitudinal Study (B&B:08/12), National Center for Education Statistics, 1990 K Street, NW, Washington, DC 20006.

Data Collection Announcement Letter

May 9, 2026

«fname» «mname» «lname» «suffix» Study ID: «caseid»
«addr1»
«addr2»
«city», «state» «zip»-«zip4»

Dear «fname» «lname»:

Surveys for the Baccalaureate and Beyond Longitudinal Study (B&B) are now being conducted. The survey will take about 35 minutes to complete. As a token of our appreciation, **once you complete the survey, we will mail you $«IncAmt» check.**

You may access the survey by logging on to our secure website at https://surveys.nces.ed.gov/bb/ using the Study ID and password provided below. ***The password is case sensitive; you will need to enter it exactly as it appears here.***

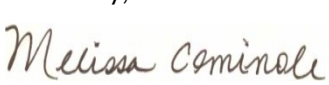
Study ID = «caseid»
Password = «password»m

Enclosed you will find a brochure with a brief description of findings from prior B&B studies and our strict security procedures. Federal law requires that we protect your privacy. Your responses will be secured behind firewalls and will be encrypted during internet transmission. Your responses will 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 (20 U.S.C. § 9573). If you have questions, problems completing your survey online, or prefer to complete the survey over the telephone, simply call the **B&B Help Desk at 1-877-262-4440**. Your participation, while voluntary, is critical to the study's success. **You can learn more about B&B by watching a brief informational video, featuring ED, on** our **study website,** https://surveys.nces.ed.gov/bb/**.**

If you have any other questions or concerns about the study, please contact the B&B Project Director, Melissa Cominole, at 1-866-662-8227, mcominole@rti.org, or the NCES Project Officer, Mr. Ted Socha, at 1-202-502-7383, ted.socha@ed.gov.

Thank you in advance for making B&B a success.

Sincerely,



Melissa Cominole	Ted Socha
B&B Project Director	NCES Project Officer
Education Studies Division	National Center for Education Statistics
RTI International	U.S. Department of Education

Enclosure

RTI USE ONLY: «panelinfo»

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this voluntary information collection is 1850–0729. The time required to complete this information collection is estimated to average 35 minutes per response, including the time to review instructions, gather the data needed and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate or suggestions for improving this survey, please write to: U.S. Department of Education, Washington, DC 20202–4537. If you have any comments or concerns regarding the status of your individual submission of this survey, write directly to: The 2008-12 Baccalaureate and Beyond Longitudinal Study (B&B:08/12), National Center for Education Statistics, 1990 K Street, NW, Washington, DC 20006

Reminder Postcard

Reminder Letter

Just a reminder...

Dear <<fname>>,

Recent college graduates face many opportunities and challenges as they transition into the next phase of their lives. The Baccalaureate and Beyond Longitudinal Study (B&B) is collecting information from recent college graduates about their lives, careers, and further education pursuits to help better understand the benefits of earning a bachelor's degree. You are one of only <<school_sample>> students selected to represent the 2007-08 senior class at the <<SchoolFill>>. Although participation in B&B is voluntary, we hope you will decide to complete the survey about your experiences.

For participating, you will receive a $<<INCAMT>> check as a token of our appreciation. The survey will take, on average, about 35 minutes to complete. Please access the B&B survey by logging on to our secure website at https://surveys.nces.ed.gov/bb/ using the Study ID number and password provided below.

STUDY ID: <<CASEID>>

The password is case sensitive; you will need to enter it exactly as it appears here.

PASSWORD: <<PASSWORD>>A

Study ID = <<CASEID>> Password = <<PSWD>>H

Federal laws require that we protect your privacy. Your responses will 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 (20 U.S.C. § 9573).

If you have questions, problems completing your survey online, or prefer to complete the survey over the telephone, simply call the B&B Help Desk at 1-877-262-4440.

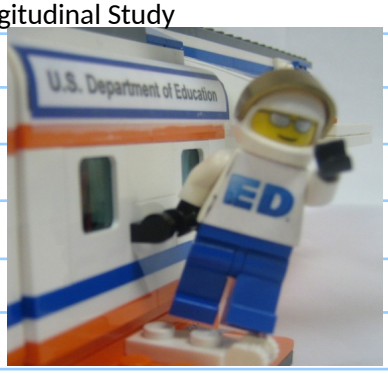
To complete the survey by phone, call the B&B Help Desk at 1-877-262-4440.

Thank you, in advance, for your participation.

Sincerely,

Melissa Cominole

Melissa Cominole
Director, Baccalaureate and Beyond Longitudinal Study



The Baccalaureate and Beyond Longitudinal Study (B&B) is a survey about the education and employment experiences of

Thank You/Reminder Postcard

ACCALAUREATE AND BEYOND LONGITUDINAL STUDY

og in to the B&B website and complete your surv y

Study ID: «caseID»
Password: «passwd»A

To learn more B&B, check out our informat n

Recently, we sent you information about the Baccalaureate and Beyond Longitudinal Study (B&
If you have not yet completed the survey, we would like to remind you that **if you complete the**

To complete the online survey over our secure website, log on to .

If you have any questions or problems while completing the online survey or would like to com
RTI International is conducting this study for the National Center for Education Statistics (NCES)

Thank you.

Baccalaureate and Beyond Longitudinal Study (B&B) is a survey about the education and employment experiences of students four
«stage301panelinfo»

Thank You/Incentive Letter

(Date)

«fname» «mname» «lname» «suffix» Study ID: «caseid»
«addr1»
«addr2»
«city», «state» «zip» «zip4»

Dear «fname» «lname»:

On behalf of the National Center for Education Statistics (NCES) in the U.S. Department of Education's Institute of Education Sciences and the staff of B&B, we would like to thank you for participating in the B&B survey. Your participation in B&B is very important in helping to ensure the success of the study.

Enclosed you will find a check for $«IncAmt» as a token of our appreciation.

If you have any questions, please do not hesitate to contact us at 1-866-662-8227.

Sincerely,

Melissa Cominole
B&B Project Director
Education Studies Division
RTI International

Ted Socha
NCES Project Officer
National Center for Education Statistics
U.S. Department of Education

Enclosure

Data Collection Announcement E-mail

SUBJ: The B&B Survey Has Begun!

Dear <<fname>>,

In recent years you may have participated in the National Postsecondary Study Aid Study (NPSAS) and/or the prior round of the Baccalaureate and Beyond Longitudinal Study (B&B). Surveys for the next round of B&B are now being conducted. The survey will take about 35 minutes to complete and the data collected from it will help researchers and policymakers to better understand individuals' education and work experiences after completing a bachelor's degree.

If you complete your B&B survey by [INCDATE], you will receive a **$[INCAMT]** check as a token of our appreciation. To access the online survey, just click here to get started!

You can learn more about B&B by watching a brief informational video, featuring ED, on the study website: https://surveys.nces.ed.gov/bb/**.**

If you have questions or problems completing your survey, or would like to complete the survey over the telephone, please call the B&B Help Desk at 1-877-262-4440.

Your participation is voluntary but critically important to the success of the study. To ensure confidentiality, your responses will be secured behind firewalls and will be encrypted during internet transmission. Federal law requires that we protect your privacy. Your responses will be used only for statistical purposes and will not be disclosed, or used, in identifiable form for any other purpose, except as required by law (20 U.S.C. § 9573).

RTI International is conducting B&B on behalf of the National Center for Education Statistics (NCES) in the U.S. Department of Education's Institute of Education Sciences. If you have any questions about the study, please contact me at 1-866-662-8227, e-mail: mcominole@rti.org, or the NCES Project Officer, Ted Socha, at 1-202-502-7383, e-mail: ted.socha@ed.gov.

Thank you for helping to make B&B a success.

Melissa Cominole

Melissa Cominole
B&B Project Director

To complete your survey:
https://surveys.nces.ed.gov/bb/
Study ID: <caseid>
Password: <password>e

First Early Reminder E-mail

Subject: Don't Forget to Complete Your B&B:12 Survey!
Dear [FIRSTNAME],

I would like to remind you that your participation in the Baccalaureate and Beyond Longitudinal Study (B&B) is still needed, and that I hope that you will participate in the study soon.

If you complete the B&B survey, you will receive a $[INCAMT] check as a token of our appreciation.

To access the online survey, just click here!

If you need help accessing the online survey, or if you prefer to complete the survey by telephone, please call our Help Desk at 1-877-262-4440.

RTI International is conducting this study for the National Center for Education Statistics (NCES) in the U.S. Department of Education's Institute of Education Sciences. If you have any questions or concerns about the study, please contact me at 1-866-662-8227 (e-mail: mcominole@rti.org), or the NCES Project Officer, Ted Socha, at 1-202-502-7383 (e-mail: ted.socha@ed.gov).

You can learn more about B&B by watching a brief informational video, featuring ED, on the study website: https://surveys.nces.ed.gov/bb/**.**

Thank you in advance for your participation in this very important study.

Sincerely,

Melissa Cominole

Melissa Cominole
B&B Project Director

To complete your survey:
https://surveys.nces.ed.gov/bb/
Study ID: <caseid>
Password: <password>a

Second Reminder E-Mail

Subject: Don't Delay - Complete Your B&B:12 Survey Today!

Dear [FIRSTNAME],

I would like to remind you that the early response period for the Baccalaureate and Beyond Longitudinal Study (B&B) is drawing to a close. I hope that you will participate in the study soon.

If you complete your survey, you will receive a **$[INCAMT]** check as a token of our appreciation.

To access the online survey on our secure website, click here!

If you need help accessing the online survey, or if you prefer to complete the survey by telephone, please call our Help Desk at 1-877-262-4440.

RTI International is conducting this study for the National Center for Education Statistics (NCES) in the U.S. Department of Education's Institute of Education Sciences. If you have any questions or concerns about the study, please contact me at 1-866-662-8227 (e-mail: mcominole@rti.org), or the NCES Project Officer, Ted Socha, at 1-202-502-7383 (e-mail: ted.socha@ed.gov).

You can learn more about B&B by watching a brief informational video, featuring ED, on our study website: https://surveys.nces.ed.gov/bb/.

Thank you in advance for your participation in this very important study.

Sincerely,

Melissa Cominole

Melissa Cominole
B&B Project Director

To complete your survey:
https://surveys.nces.ed.gov/bb/
Study ID: <caseid>
Password: <password>b

Example Text for Brief Reminder E-mails

<FirstName>,

Don't forget that we still need you to participate in the Baccalaureate and Beyond Longitudinal Study (B&B) for the U.S. Department of Education. It takes about 35 minutes and, once you've completed the survey, we'll send you a check for **$<incamt>!**

Data collection ends on <<date>>, so you only have a few days left to participate! It's easy to do on our secure website. You can click here to get started right away!

Or, you can complete the survey by phone by calling **1-877-262-4440**.

If you have questions or problems completing your survey, please call the **B&B Help Desk at 1-877-262-4440** or visit the study website at https://surveys.nces.ed.gov/bb/.

Thanks!

Melissa Cominole

Melissa Cominole
Project Director, B&B
RTI International
mcominole@rti.org
1-866-662-8227

To complete your survey:
https://surveys.nces.ed.gov/bb/
Study ID: <caseid>
Password: <password>c

Brief E-mail Reminder 2

<FirstName>,

It's time to complete the Baccalaureate and Beyond (B&B) Survey and receive your check for $<incent>! The survey takes 35 minutes and can be completed online or over the phone.

It's easy to participate in B&B on our secure website. Just click here to get started right away!

Or, you can complete the survey by phone by calling **1-877-262-4440**.

If you have questions or problems completing your survey, please call the **B&B Help Desk at 1-877-262-4440** or visit the study website at https://surveys.nces.ed.gov/bb/.

Thanks!

Melissa Cominole

Melissa Cominole
Project Director, B&B
RTI International
mcominole@rti.org
1-866-662-8227

To complete your survey:
https://surveys.nces.ed.gov/bb/
Study ID: <caseid>
Password: <password>d

Brief E-mail Reminder 3

<FirstName>,

B&B data collection ends on <<Date>>, which means you only have [x] days left to participate! Complete your B&B survey by the deadline and receive $<incent> as a token of our appreciation.

The survey takes 35 minutes and can be completed online or over the phone. B&B is easy to do on our secure website – just click here to get started!

Or, you can complete the survey by phone by calling **1-877-262-4440**.

If you have questions or problems completing your survey, please call the **B&B Help Desk at 1-877-262-4440** or visit the study website at https://surveys.nces.ed.gov/bb/.

Thanks!

Melissa Cominole

Melissa Cominole
Project Director, B&B
RTI International
mcominole@rti.org
1-866-662-8227

To complete your survey:
https://surveys.nces.ed.gov/bb/
Study ID: <caseid>
Password: <password>f

B&B:08/12 CATI Consent Text

LTR_S

IF OUTBOUND CALL AND NOT ALREADY MENTIONED, READ: Hello, this is _____. I am calling for the U.S. Department of Education about the Baccalaureate and Beyond Longitudinal Study of students who finished their bachelor's degree requirements during the 2007-2008 school year.

READ VERBATIM: Recently, we sent you material about the U.S. Department of Education's Baccalaureate and Beyond Longitudinal Study, or B&B. This survey is being conducted to better understand the education, employment, financial, and personal choices and issues facing college graduates in the four years since earning their bachelor's degrees. Have you had a chance to read the material?

If yes, read the material:

(Good.) The survey takes about 35 minutes and may be monitored or recorded for quality assurance purposes. Your participation is voluntary and will not affect any aid or other benefits that you may receive. You may decline to answer any question or stop the survey at any time. If you have any questions about the study, please let me know. May we begin the survey now?

(You can contact the study's director, Melissa Cominole, at 1-866-662-8227. For questions about your rights as a study participant, please contact RTI's Office of Research Protection at 1-866-214-2043.)

TI: IF ENTIRE CONSENT WASN'T READ AND THE INTERVIEW ISN'T STARTED, PRESS THE BREAK BUTTON.

If no, did not read the material (or did not receive it):

(At your request we can remail the material to you.) (If you can bear with me for a moment, I am required to read the following information about your rights as a participant.) The B&B survey takes about 35 minutes and may be monitored or recorded for quality assurance purposes. Your responses, combined with student record information (such as financial aid data), may be used only for statistical purposes and may not be disclosed, or used, in personally identifiable form for any other purpose, unless otherwise required by law. (You are one of approximately 17,000 students who will be taking part in this study.)

Your participation is voluntary and will not affect any aid or other benefits that you may receive. You may decline to answer any question or stop the survey at any time. The risk of participating in this study is small and relates to data security. However, there are strict security procedures in place. If you would like us to remail the material to you, please let me know. May we begin the survey now? (You may contact the study's director, Melissa Cominole, at 1 866-662-8227. For questions about your rights as a study participant, please contact RTI's Office of Research Protection at 1-866-214-2043.)

TI: IF THE SURVEY ISN'T STARTED AND THE ENTIRE CONSENT WASN'T READ, PRESS THE BREAK BUTTON BELOW.

Appendix E
Linkages to Administrative Data Sources

E.1 Develop Linkages with Administrative Data Sources

RTI will develop linkages with existing data sources to supplement the Baccalaureate and Beyond Longitudinal Study (B&B:08/12) interview data. RTI recognizes the great value added to the B&B:08/12 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. Through our experience providing data for many National Center for Education Statistics (NCES) postsecondary studies, including previous B&B studies, Beginning Postsecondary Student (BPS), and National Postsecondary Study Aid Study (NPSAS), we have gained considerable knowledge performing 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 propose to perform file merges with the following datasets: CPS, NSLDS, 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 B&B:08/12 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. B&B:08/12 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.

B&B:08/12 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.

Secure Data Transfers. NCES has set up a secure data transfer system, using their NCES member site with Secure Sockets Layer (SSL) technology, described above. We 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. We will receive data 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.

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

RTI proposes to perform file merges with the CPS data containing federal student aid application information. 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. RTI sends a file to CPS and receives in return a large data file containing all students who applied for federal aid. We already have existing programs and procedures in place to prepare and submit files according to rigorous CPS standards. Similarly, we have already developed programs and procedures to receive and process data obtained from CPS.

RTI will electronically upload a file 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).

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

RTI will also conduct a file merge with the NSLDS to collect federal loan and Pell grant data for the 2010–2011 award year. 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. We have programs to create the files for the merge and also programs to read the data we receive. All matching processes are initiated by RTI staff providing a file with one record per sample member to be merged.

E.6 File Merge with the National Student Clearinghouse

RTI will use the National Student Clearinghouse to obtain the *Student Tracker* data on institutions attended, enrollment dates, and degree completions for the B&B:08/12 sample.

RTI 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 RTI using the same secure FTP site. This file merge will only be conducted during the full-scale study.

Appendix F
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 mediaso 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.