Social Security Administration Disability Research Consortium

DRC Annual Meeting

Washington, DC

August 5-6, 2015

MATHEMATICA
CENTER FOR
STUDYING DISABILITY POLICY

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AGENDA

DAY 1 – AUGUST 5, 2015

8:00 – 8:30 Coffee and Registration

8:30 – 8:45 Welcoming Remarks

- David Stapleton, Mathematica
- Virginia Reno, Deputy Commissioner of Retirement and Disability Policy, Social Security Administration

8:45 – 10:15 Return to Work and Early Intervention

Moderator: David Stapleton, Mathematica

- ***The Role of Acute Health Shocks in the Evolution of Permanent Disability***

  Mark Cullen, Stanford University School of Medicine and Amal Harrati, Stanford University

  Discussant: David Wittenburg, Mathematica
- ***Medical Care, Work and Income before Disability Application***

  David Cutler, Harvard University and NBER

  Discussant: David Autor, MIT and NBER
- ***Transitions from Workers' Compensation and State Disability Insurance to Social Security Disability Insurance: Predictive Characteristics and Options for Early Intervention***

  Yonatan Ben-Shalom, Mathematica

  Discussant: Jennifer Christian, Webility Corporation

10:15 – 10:30 Break

10:30 – 12:00 Health and Health-Related Supports

Moderator: David Wise, NBER Disability Research Center

- ***The Effect of Disability Insurance on Beneficiaries' Mortality***

  Alexander Strand, Social Security Administration

  Discussant: Robert Moffitt, Johns Hopkins University
- ***Unmet Need for Workplace Accommodation***

  Kathleen Mullen, RAND Corporation

  Discussant: Harold Pollack, University of Chicago
- ***Estimating the Cost and Utilization of Wrap-Around Coverage for Employed and Potentially Employed People with Disabilities***

  Alexis Henry, Center for Health Policy and Research, University of Massachusetts Medical School

  Discussant: Henry Claypool, Claypool Consulting

12:00 – 1:15 Lunch

- Alan Cohen, Social Security Advisory Board Member and Senior Fellow, Center for American Progress
- Jagadeesh Gokhale, Social Security Advisory Board Member and Director of Special Projects, Penn Wharton Public Policy Initiative

1:15 – 2:45 Household Composition and Income

Moderator: Denise Hoffman, Mathematica

- ***Characteristics of SSI and SSDI Beneficiaries Who Are Parents***

  Gina Livermore, Mathematica

  Discussant: Jeffrey Hemmeter, Social Security Administration
- ***Household Composition, Earned Income Tax Credit Benefits and Explaining Spatial Variation in Disability Benefit Claiming***

  Day Manoli, University of Texas, Austin

  Discussant: Robert Moffitt, Johns Hopkins University
- ***Disability Receipt, Consumption Insurance, and Family Labor Supply***

  David Autor, MIT and NBER

  Discussant: Philip Armour, RAND Corporation

2:45 – 3:00 Break

3:00 – 4:30 Beneficiary Work and Program Participation

Moderator: Gina Livermore, Mathematica

- ***State Variation in Benefit Receipt and Work Outcomes for SSI Child Recipients after the Age 18 Redetermination***

  David Mann, Mathematica

  Discussant: Jack Gettens, University of Massachusetts Medical School
- ***Nonmarket Work among Working-Age Disability Beneficiaries: Evidence from the American Time Use Survey***

  Carrie Shandra, Department of Sociology/Program in Public Health, State University of New York at Stony Brook

  Discussant: John Kregel, Virginia Commonwealth University
- ***Social Security Administration Payments to State Vocational Rehabilitation (VR) Agencies for Beneficiaries Who Work: Evidence from Linked Administrative Data***

  Jody Schimmel Hyde, Mathematica

  Discussant: James Smith, Vermont Division of Vocational Rehabilitation

DAY 2 – AUGUST 6, 2015

8:00 – 8:30 Coffee and Registration

8:30 – 11:45 Federal Disability Agency Panel Discussions

8:30 – 10:00 Panel Discussion with the Social Security Administration and Department of Health and Human Services

- Moderator: Gina Livermore, Mathematica
- David Weaver, Associate Commissioner of the Office of Research, Demonstration and Employment Support, Social Security Administration
- Jamie Kendall, Acting Director, Independent Living, Administration for Community Living, U.S. Department of Health and Human Services
- Marlene Simon-Burroughs, Associate Division Director, Research to Practice Division, U.S. Department of Education Office of Special Education Programs

10:00 – 10:15 Break

10:15 – 11:45 Panel Discussion with the Departments of Labor and Veterans Affairs

- Moderator: Yonatan Ben-Shalom, Mathematica
- Jennifer Sheehy, Acting Assistant Secretary, Office of Disability Employment Policy, U.S. Department of Labor
- Raun Lazier, Director of Policy, Office of Policy and Planning, U.S. Department of Veterans Affairs
- Ruth Katz, Deputy to the Deputy Assistant Secretary for the Office of Disability, Aging and Long-Term Care Policy, Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services

11:45 – 1:00 Lunch

- Doug Walker, Deputy Commissioner, Office of Communications, Social Security Administration

1:00 – 4:15 Special Topic Panel Discussions

1:00 – 2:30 Workers at Older Ages with Disabilities

- Moderator: Jody Schimmel Hyde, Mathematica
- Kathleen Mullen, RAND Corporation
- Lauren Hersch Nicholas, Johns Hopkins University
- David Stapleton, Mathematica
- Judith Cook, University of Illinois, Chicago

2:30 – 2:45 Break

2:45 – 4:15 The Labor Market and People with Disabilities

- Moderator: David Wittenburg, Mathematica
- David Neumark, University of California, Irvine
- David Autor, MIT and NBER
- Jeff Strohl, Georgetown University

4:15 – 4:30 Closing Remarks

- David Stapleton, Mathematica

SPEAKER BIOGRAPHIES

Philip Armour is an associate economist at the RAND Corporation in Santa Monica and a professor at the Pardee RAND Graduate School. He received his Ph.D. in economics from Cornell University in 2014, with fields in labor, public, and behavioral economics. His primary research interests are in disability, retirement, trends in income inequality, and the intersections of behavioral economics with public policy. His dissertation examined the effect of the introduction of the Social Security Statement on Social Security Disability Insurance (SSDI) application behavior and the labor supply of older Americans. He previously worked in research positions at the Federal Reserve Bank of San Francisco, the London School of Economics, and the Congressional Budget Office. Within the field of disability, he researches extensively on workers' compensation claiming and usage patterns, interactions between SSDI and Supplemental Security Income (SSI), disability program policy toward individuals reporting mental health conditions and their resulting labor supply, disability discrimination legislation, and interactions between the disabled and retired populations. Outside of his disability research portfolio, he studies public program literacy, the consumption patterns of public program recipients, pension cash-out behavior, and the changing ways that U.S. public policy affects the income distribution.

David Autor is professor and associate head of the MIT Department of Economics, and faculty research associate of the National Bureau of Economic Research. His research analyzes the labor market impacts of technological change and globalization, earnings inequality, and disability insurance and labor supply. Autor is an elected fellow of the Econometrics Society, the Society of Labor Economists, and the American Academy of Arts and Sciences. He received an NSF Career award, an Alfred P. Sloan Foundation Fellowship, the Sherwin Rosen Prize for outstanding contributions in the field of labor economics, and MIT's James A. and Ruth Levitan Award for excellence in teaching. Autor earned a B.A. in psychology from Tufts University and a Ph.D. in public policy from Harvard's Kennedy School of Government in 1999. Before his graduate study, he spent three years directing computer skills education for economically disadvantaged children and adults in San Francisco and South Africa.

Yonatan Ben-Shalom's research focuses on policies and programs related to the employment and income of people with disabilities. He directs the Stay-at-Work/Return-to-Work Policy Collaborative for the Office of Disability Employment Policy at the U.S. Department of Labor, and he serves as principal investigator for several studies funded by the Social Security Administration (SSA) and the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR). Since joining Mathematica in 2009, Ben-Shalom's work has focused primarily on SSA's disability programs and return-to-work outcomes among beneficiaries. Examples include a study of characteristics and employment outcomes among people who first received Social Security Disability Insurance (SSDI) benefits before age 40, a study of factors associated with the achievement of return-to-work milestones by SSDI beneficiaries, and an analysis of long-term statistics on the employment and use of work incentives among people receiving Supplemental Security Income. He has a Ph.D. in economics from the Johns Hopkins University.

Jennifer Christian is co-founder, president, and chief medical officer of Webility Corporation as well as founder and chair of the nonprofit 60 Summits Project. She also founded and moderates the Work Fitness and Disability Roundtable, a free, web-based, multidisciplinary e-group devoted to work disability prevention and management with more than 1,000 members. She is a physician and is board-certified in occupational medicine. Christian has an M.D. and a master's degree in public health from the University of Washington in Seattle. A leader in the American College of Occupational & Environmental Medicine (ACOEM), Christian has served as chair of the Work Fitness and Disability Section of the ACOEM since 2001. Before founding Webility, Christian served as vice president and chief medical officer for ManagedComp, a multi-state workers' compensation care management organization, where she headed health care operations. Before that, Christian worked with Milliman & Robertson Actuaries and Consultants, where she consulted in managed care workers' compensation and 24-hour integrated products. Previously, she led a new business development team within CIGNA's California HMO to create a managed care workers' compensation product. She is also the former president of the Alaska Medical Association and a former physician of the year.

Henry Claypool is the founder of Claypool Consulting. Before founding Claypool Consulting, Claypool worked as the executive vice president for policy at the American Association of People with Disabilities. Claypool has spent his career advocating for the rights and needs of people living with disabilities. He served as the senior advisor for disability policy to Kathleen Sebelius, secretary of the Department of Health & Human Services. Previously, Claypool served on Virginia's Health Reform Commission and as a senior advisor in the Social Security Administration's Office of Disability and Income Support Programs. Claypool has over 25 years of professional and personal experience in the nation's health care system and the federal, state, and local level.

Alan L. Cohen was confirmed by the U.S. Senate in September 2014 to be a member of the Social Security Advisory Board. He is also a senior fellow with the Center for American Progress. Cohen served as the chief counselor for Social Security and the senior budget advisor for the Democratic staff of the U.S. Senate Committee on Finance from 2001 to 2012. From 1993 to 2001, he served as senior advisor for budget and economics to the secretary of the treasury. For six months in 1999 and 2000, he was detailed from the Treasury Department to the Domestic Policy Office in the Office of the Vice President to serve as the budget advisor. From 1992 to 1993, he served as the budget economist for the U.S. Senate Committee on Finance. From 1983 to 1992, Cohen was first a senior economist and then the assistant staff director for budget priorities for the U.S. Senate Budget Committee. From 1979 to 1983, he worked as a policy analyst/economist at the Office of the Assistant Secretary for Planning and Evaluation at the U.S. Department of Health and Human Services. Cohen received a B.A. in physics from Grinnell College in 1972, an M.P.P. from the University of Michigan in 1975, and a Ph.D. in economics from the University of Wisconsin in 1979, majoring in public finance.

Judith Cook is a professor of psychiatry in the University of Illinois at Chicago's Department of Psychiatry, where she directs the Center on Mental Health Services Research and Policy. Cook leads several DRC research projects related to workers with chronic conditions. She also directs a federally funded research center studying co-occurring psychiatric disability and chronic medical conditions. Her work involves the development, implementation, and study of innovative programs to enhance the health and mental health of vulnerable populations. She consults with federal, state, and local authorities on behavioral health service system redesign and alternative financing strategies. Her recent work focuses on randomized controlled trials of evidence-based practice treatments and longitudinal services research on the medical and rehabilitation outcomes of individuals with serious mental illness. Cook holds a Ph.D. in sociology from Ohio State University.

Mark Cullen received his B.A. from Harvard College in 1971 and his M.D. from Yale University School of Medicine in 1976. After residency in internal medicine and graduate training in clinical epidemiology at Yale, he joined the medicine faculty in 1980. Early in his career, Cullen forged novel methods for the study of workplace toxic substances. Cullen was later invited to form a unique academic/private partnership with Alcoa, Inc., eventuating in a transdisciplinary team from multiple institutions to study the physical, economic, psychosocial, and biomedical contributors to disease, disability, and death in this large, diverse Alcoa work force. The "Alcoa Study" has produced over 60 manuscripts, multiple NIH grants, and career development awards, and provided the research setting for the pre- and post-doctoral training of 30 biomedical and social scientists. He was elected to the Institute of Medicine in 1997. Since his move to Stanford in 2009, Cullen's work has expanded further into areas of health disparities, studying population-wide social and environmental determinants of health, and the role of epigenetic change as a pathway by which these determinants "get under the skin." As a department chief, he has played a central role in the development of Stanford's health care network. This year, he was selected to be the inaugural director of the new Stanford Center for Population Health Sciences.

David Cutler is currently the Otto Eckstein professor of applied economics in the Department of Economics and was named Harvard College professor in 2014. Cutler holds secondary appointments at the Kennedy School of Government and the School of Public Health. He served on the Council of Economic Advisers and the National Economic Council during the Clinton administration and has advised the presidential campaigns of Bill Bradley, John Kerry, and Barack Obama as well as being senior health care adviser for the Obama presidential campaign. Among other affiliations, Cutler has held positions with the National Institutes of Health and the National Academy of Sciences. Currently, Cutler is a research associate at the National Bureau of Economic Research, a member of the Institute of Medicine, and a fellow of the Employee Benefit Research Institute. Cutler was a key advisor in the formulation of the recent cost control legislation in Massachusetts and is one of the members of the Health Policy Commission created to help reduce medical spending in that state.

Jack Gettens is an assistant professor in the Department of Family Medicine and Community Health at the University of Massachusetts Medical School and a research scientist at the Center for Health Policy and Research. His research interests include the health care and employment of persons with disabilities and public health. Gettens's recent research includes assessments of the effects of the Affordable Care Act on persons with disabilities, studies of the health care and support service needs of persons with disabilities, examination of the geographic variation in Social Security Disability Insurance and Supplemental Security Income participation, and studies of smoking behaviors and tobacco cessation service utilization among Medicaid members.

Jagadeesh Gokhale is director of special projects at the U-Penn-Wharton Public Policy Initiative and is a member of the Social Security Advisory Board. He has published many studies on fiscal policy covering issues in Social Security, health care, labor productivity, national saving, life insurance, financial planning, and the redistributive effects of government fiscal policies within and across generations. His work has appeared in top-tier economics journals, and he has testified on those topics before committees in the U.S. Congress and state legislatures. Gohkale has also contributed op-eds to popular print and online media outlets such as *The Wall Street Journal*, *The Financial Times*, *American Spectator*, and *Forbes*. Gohkale's reform proposal on SSDI was recently incorporated into a legislative proposal submitted to the U.S. Congress by Senator Coburn.

Amal Harrati is a demographer and a current post-doctoral fellow in the general medical disciplines at Stanford University Medical School. Her research interest lies in better understanding the relationship between health and work, with an emphasis in older ages. Current projects include understanding the role of cognitive decline on early retirement decisions as well as characterizing transitions between work, disability, and retirement for working-age individuals across different occupational domains. Harrati also works extensively with genetic data and has published papers integrating genetic data into social science research. Harrati has a B.A. and M.A. in economics and a Ph.D. in demography from University of California, Berkeley.

Jeffrey Hemmeter is the deputy director of the Office of Program Development in the Office of Research, Demonstration, and Employment Support at the Social Security Administration (SSA). He is an economist whose research focuses on the employment and program participation of Supplemental Security Income (SSI) recipients, especially that of children and youth. He is the project officer for SSA's Promoting Readiness of Minors in SSI evaluation and was the alternate project officer for SSA's Youth Transition Demonstration project.

Alexis Henry, Sc.D., is a research associate professor in the Department of Psychiatry and director of the 20-person Disability, Health, and Employment Policy (DHEP) Unit at the Center for Health Policy and Research at University of Massachusetts Medical School. Henry has over 30 years of experience in the disability field as a provider, educator, and researcher. As director of the DHEP Unit, she leads a team of researchers and program staff examining the impact of health and social policies on the working lives of people with disabilities and working to create solutions to maximize employment opportunities and improve well-being of people with disabilities served by public programs. Henry's expertise includes quantitative and qualitative research methods, including participatory research approaches involving all stakeholders. Henry is author or co-author of over 50 peer-reviewed journal articles, books, and book chapters. Recent publications include studies of the impact of Massachusetts health reform on people with disabilities; the relationship of unmet health care needs to employment among working age Medicaid enrollees with disabilities; the effect of perceived benefit loss on employment participation among people in public disability benefit programs; the employment-related health insurance and service delivery needs of people with disabilities; and a study of the early experiences of working-age dual-eligible (Medicare and Medicaid) individuals enrolled in Massachusetts integrated care demonstration.

Denise Hoffman is a senior researcher at Mathematica Policy Research and an affiliate of the Center for Studying Disability Policy. Hoffman's research focuses on the employment, program participation, health insurance, and housing of adults with disabilities. She has experience in policy analysis, program evaluation, and qualitative research. Hoffman has evaluated several initiatives designed to improve the well-being of people with disabilities, including the Demonstration to Maintain Independence and Employment, the Medicaid Buy-In, the Benefit Offset National Demonstration, and the Independence at Home Demonstration. Hoffman, who joined Mathematica in 2010, holds a Ph.D. in economics from the University of North Carolina at Chapel Hill.

Jody Schimmel Hyde is a senior researcher at Mathematica and its Center for Studying Disability Policy. She directs Mathematica's DRC summer experiential learning fellowship program, providing an opportunity for graduate students to learn about the current state of the disability policy debate. Schimmel Hyde has researched the loss of cash benefits due to returns to work of Social Security Administration (SSA) disability beneficiaries, the relationship between vocational rehabilitation and the receipt of disability benefits, the health insurance status and health care utilization of individuals with disabilities, and the impact of disability onset on the financial well-being of older workers. She is currently leading several studies under the DRC in addition to the one being presented, including work assessing the Affordable Care Act Medicaid expansions on applications to Supplemental Security Income and Social Security Disability Insurance, and implications of obesity trends on disability applications. Her recent work has appeared in the *Journal of Disability Policy Studies*, *Social Security Bulletin*, *IZA Journal of Labor Policy*, and *Inquiry*. Previously, she was involved in Mathematica's evaluations of the Ticket Act for both SSA and the Centers for Medicare & Medicaid, exploring the implementation of the Ticket to Work and Medicaid Buy-In programs.

Ruth Katz is the deputy to the deputy assistant secretary for the Office of Disability, Aging and Long-Term Care Policy, in the Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services. She oversees a range of policy and research activities related to disability and aging. With over 25 years of experience with disability and long-term care issues, these include: managed care and other health and long-term care delivery systems--financing, structure and quality; home and community-based services; nursing home and post-acute care financing and quality; Medicare, Medicaid and private insurance policy related to people with disabilities and chronic conditions; alternative residential systems; and health information technology as it relates to post-acute and long-term care.

Jamie Kendall is the acting director of independent living at the Administration for Community Living, U.S. Department of Health and Human Services. She also serves as the director of the Office of Policy Analysis and Development at the Center for Policy and Evaluation, Administration for Community Living. Kendall began her federal career working at the Administration for Children and Families and has also worked at the Social Security Administration, developing policies for low-income families and for people with disabilities. She served as the deputy commissioner at the Administration on Intellectual and Developmental Disabilities between December 2010 and March 2013, where she provided leadership to the programs authorized under the Developmental Disabilities Assistance and Bill of Rights Act of 2000 and the Help America Vote Act of 2002. Kendall holds an M.P.P. from Georgetown University.

John Kregel is currently professor of special education at Virginia Commonwealth University (VCU) and research director at the VCU Rehabilitation Research and Training Center (RRTC). He is principal investigator on the Work Incentives Planning and Assistance (WIPA) National Training Center (NTC) and is a subcontractor to Abt Associates on the Social Security BOND contract and to Booz Allen Hamilton on the Ticket to Work BASS contract. In his role with the VCU-RRTC, he is currently focused on investigating return-to-work services for Social Security beneficiaries, transition from school to work for adolescents with significant disabilities, and asset development and financial literacy for persons with disabilities. He has testified before Congress four times on employment and return-to-work issues for Social Security disability beneficiaries.

Raun Lazier is the director of policy at the U.S. Department of Veterans Affairs' (VA) Office of Policy and Planning. He has a lead role in enterprise-wide policy, strategy, and planning. Lazier manages the Veterans Policy Research Agenda. He served on the White House Community Partnership Interagency Policy Committee and made key contributions to the development of the White House's Building Partnerships Best Practices Guide. Before joining VA, he worked at the U.S. Government Accountability Office, where he supervised assessments of executive branch agency operations and made recommendations about ways to improve agency operations and save the government and taxpayers money. His work focused on education, workforce, and income security issues. He also has experience in the local government and nonprofit sectors. Lazier served as the executive project manager for the nonprofit Three Rivers Workforce Investment Board and as an employment and training supervisor for the Montgomery County Department of Economic and Workforce Development. Lazier currently serves on the boards of two nonprofit associations focused on executive leadership and public policy. He was also appointed to the National Bureau of Economic Research's "Panel of Outside Scholars." Lazier holds an M.P.A. and M.S.W. from the University of Pittsburgh and a B.S. in psychology from Ursinus College. He has been awarded the Meritorious Civilian Service Award for his outstanding contributions.

Gina Livermore is an expert in employment policy and health insurance issues for people with disabilities. Livermore, who joined Mathematica in 2007, is deputy director of Mathematica's Center for Studying Disability Policy. She is co-director of the Mathematica center that is part of the Social Security Administration (SSA) Disability Research Consortium, and she is deputy director of the SSA Promoting Readiness of Minors in Supplemental Security Income (PROMISE) demonstration national evaluation. Her work focuses on issues related to improving the economic well-being and self-sufficiency of transition-age youth and working-age people with disabilities and has included research on the prevalence of long-term poverty and material hardship and access to health care among people with disabilities. Her work also focuses on improving the quality of national disability data and has included describing limitations and suggesting improvements in the national disability data system. Livermore has a Ph.D. in economics from the University of Wisconsin-Madison and a M.P.H. in epidemiology from Tulane University.

David R. Mann is a researcher for Mathematica's Center for Studying Disability Policy. His primary research interests include the labor force participation, human capital accumulation, and benefit receipt of youth and adults with disabilities. He also has expertise in disability policy reform. Mann has participated in several projects for the Social Security Administration (SSA); National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR); and Department of Labor (DOL), where he examined employment and benefit receipt outcomes of people with disabilities. His SSA- and NIDILRR-funded research studies have examined the outcomes of vocational rehabilitation customers, Supplemental Security Income (SSI) and Social Security Disability Insurance (SSDI) beneficiaries, and young adults with childhood onset disabilities, such as former child SSI recipients. Mann has helped develop and evaluate multiple SSA initiatives that promote employment among SSI and SSDI beneficiaries, including Ticket to Work, the Benefit Offset National Demonstration, and the Work Incentive Simplification Pilot. He was the disability employment policy topic area principal investigator for DOL's Clearinghouse for Labor Evaluation and Research, which is improving the accessibility of labor research evidence to policymakers and stakeholders. Mann has also co-authored papers developing and analyzing approaches for reforming the nation's disability support system that could both achieve fiscal objectives and improve outcomes for people with disabilities.

Day Manoli is an assistant professor in the Economics Department at the University of Texas at Austin. Day's research focuses generally on theoretical and empirical analyses of government policies, and more specifically, his research has focused on Social Security, education, and income tax policy. He received his Ph.D. in economics from the University of California, Berkeley, in 2008.

Robert A. Moffitt is Krieger-Eisenhower professor of economics at Johns Hopkins University and holds a joint appointment with the Bloomberg School of Public Health. Moffitt's research is on the economics of poverty and welfare programs for the poor and the economics of the labor market. He is a member of the American Academy of Arts and Sciences, a national associate of the National Academy of Sciences, a fellow of the Econometric Society, a recipient of a MERIT Award from the National Institutes of Health, and a past Guggenheim fellow and past chief editor of the *American Economic Review*.

Kathleen J. Mullen is an economist at the RAND Corporation and director of the RAND Center for Disability Research. Her work addresses the economics of retirement, health, and disability, with an emphasis on the incentive effects of social insurance programs such as Social Security and Social Security Disability Insurance (SSDI). In her research, Mullen has employed a variety of research designs applying both reduced form and structural econometric methods. She has pursued research on, among other things, the effects of SSDI receipt on labor supply; the effects of long waiting times on the subsequent labor force participation and earnings of rejected SSDI applicants; how changes in eligibility requirements affect SSDI or Social Security claiming; and the effects of changes in Social Security or disability insurance incentives in other countries on labor supply for workers at older ages, and what those findings suggest about potential evaluations of reforms in the United States. Mullen received her Ph.D. in economics from the University of Chicago.

David Neumark is chancellor's professor of economics and director of the Center for Economics & Public Policy at the University of California, Irvine. He is also a research associate of the National Bureau of Economic Research and a research fellow of IZA. He has held prior positions at the Public Policy Institute of California, Michigan State University, the University of Pennsylvania, and the Federal Reserve Board. He is a labor economist who also works in urban economics, with broad public policy interests, including age, sex, and race discrimination; the economics of aging; affirmative action; minimum wages, living wages, and other anti-poverty policies; the economics of education; youth labor markets; and local economic development. Neumark is the editor of the *IZA Journal of Labor Policy* and a co-editor of the *Journal of Urban Economics*.

Lauren Hersch Nicholas is a health economist whose research focuses on the role of public policy in improving health care quality and physical and mental health for older adults. She is an assistant professor of health policy & management and surgery at the Johns Hopkins Bloomberg School of Public Health and School of Medicine and a faculty affiliate of the University of Michigan Survey Research Center. Hersch Nicholas received her Ph.D. in 2008 from Columbia University and was a National Institute on Aging postdoctoral fellow at the University of Michigan. Her current research combines survey, administrative, and clinical data to study the interaction between health care utilization, health, and economic outcomes, including disability and labor force participation. She has received several awards for her research, including the National Academy of Social Insurance John Heinz Dissertation Award, the AcademyHealth Article-of-the-Year Award, and the HCUP Most Outstanding Article Award.

Harold Pollack is the Helen Ross professor at the School of Social Service Administration at The University of Chicago. He is also co-director of the University of Chicago Crime Lab and an executive committee member of the Center for Health Administration Studies (CHAS) at the University of Chicago. He has published widely about the interface between poverty policy and public health. His recent research concerns HIV and hepatitis prevention efforts for injection drug users, drug abuse and dependence among welfare recipients and pregnant women, infant mortality prevention, and child health. His research appears in such journals as *Addiction*, *Journal of the American Medical Association*, *American Journal of Public Health*, *Health Services Research*, *Pediatrics*, and *Social Service Review*. A 2012–14 Robert Wood Johnson Investigator in Health Policy Research, Pollack has been appointed to three committees of the National Academy of Sciences. He received his undergraduate degree, magna cum laude, in electrical engineering and computer science from Princeton University. He holds master's and doctorate degrees in public policy from the Kennedy School of Government, Harvard University. Before coming to the School of Social Service Administration, Pollack was a Robert Wood Johnson Foundation scholar in health policy research at Yale University and taught health management and policy at the University of Michigan School of Public Health.

Virginia P. Reno is the deputy commissioner for retirement and disability policy at the Social Security Administration (SSA). She directs and manages policy and operational instructions for the retirement, survivors, disability, and Supplemental Security Income programs as well as programs promoting the employment of beneficiaries with disabilities. She is also the principal advisor to the commissioner of Social Security on strategic policy planning, policy research and evaluation, statistical programs, and overall policy development and analysis. Previously, Reno served as vice president for income security policy at the National Academy of Social Insurance, where she led the academy's work on Social Security, retirement policy, disability insurance, workers' compensation, and related programs. She directed the academy's landmark study, Uncharted Waters: Paying Benefits from Individual Accounts in Federal Retirement Policy, which was highly regarded by experts on all sides of Social Security policy debates. She also directed the academy's comprehensive review of Social Security disability programs, culminating in a final report that became the blueprint for many of the changes enacted in the Ticket to Work and Work Incentive Improvement Act of 1999. Before joining the Academy, Reno held research and policy positions at SSA and worked for four major commissions on Social Security, including serving as a senior advisor to the 1983 Greenspan Commission. She received her B.A. from the Honors College of the University of Oregon and served in the Peace Corps in Liberia.

Carrie L. Shandra is assistant professor of sociology and public health at the State University of New York at Stony Brook. She received her Ph.D. from Brown University. Her DRC project focuses on nonmarket work among disability beneficiaries, specifically as it is allocated through daily time use and how it is conditioned by health and social capital. Other research focuses on functional limitations and the transition to adulthood, including risky sexual behaviors, delinquency, and participation in school-to-work programs. In addition to her DRC award, she has also held fellowships from the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR) and the National Academy of Education/Spencer Foundation.

Jennifer Sheehy is the acting assistant secretary in the Office of Disability Employment Policy, U.S. Department of Labor. Before her current position, Sheehy spent 10 years at the U.S. Department of Education in many roles, including director of policy and planning in the Office of Special Education and Rehabilitative Services (OSERS), acting director of the National Institute on Disability and Rehabilitation Research (NIDRR), acting deputy commissioner of the Rehabilitation Services Administration, and special assistant to the assistant secretary of OSERS. Before that, Sheehy staffed the Presidential Task Force on Employment of Adults with Disabilities, where she was senior policy advisor and served a detail as associate director in the White House Domestic Policy Council. Before she joined the task force staff, Sheehy was vice president of the National Organization on Disability and director of its CEO Council. Sheehy earned a B.A. from Cornell University and graduated with honors from Georgetown University, where she received her M.B.A.

Marlene Simon-Burroughs is an associate division director in the Research to Practice Division of the U.S. Department of Education's Office of Special Education Programs (OSEP). In this position, she provides leadership to develop and administer OSEP's investments in model demonstrations, technical assistance, technology, personnel development, and parent training, related to improving outcomes for youth with disabilities in secondary education, transition, and postsecondary education and training. Prior to joining OSEP, she worked for the National Transition Network as a technical assistance provider implementing community-based vocational programs and San Francisco State University as a research associate conducting studies on inclusion and community-based instructional programs. She has over a decade of experience working as a special education teacher and guidance counselor in public schools in Oakland, California and Oklahoma City, Oklahoma. Simon-Burroughs holds a Ph.D. in special education from the University of California at Berkeley with emphasis in special education policy.

James Smith is the deputy to the director for the Vermont Division of Vocational Rehabilitation. As budget and policy manager, he oversees the division budget ($25 million in FY 15). Smith oversees the Vermont Division of Vocational Rehabilitation's Work Incentives Initiative (VWII). This includes a statewide benefits counseling program for Supplemental Security Income (SSI) and Social Security Disability Insurance (SSDI) beneficiaries across programs. The VWII project also implemented a $1 for $2 Benefit Offset Pilot for SSDI beneficiaries. This pilot implemented an SSDI earned income offset for employment above SGA. The results from the Vermont study demonstrated that beneficiaries with a gradual offset were more likely to earn above SGA. These results were published in the *Journal of Rehabilitation* (volume 77, number 2.) Smith also served on the Adequacy of Incentives Advisory Group for the SSA Ticket to Work program in 2004. In 2004, Smith was co-author of a research article that demonstrated a link between benefits counseling and increased earnings for Social Security Disability beneficiaries (*Journal of Rehabilitation*, volume 70, number 2). In 2012, Smith participated on the technical advisory panel for the SSA Work Incentive Simplification Project (WISP). Before his involvement in work incentive issues, Smith worked for 14 years in the supported employment arena in Vermont and New York City.

David Stapleton, a senior fellow at Mathematica, directs Mathematica's Center for Studying Disability Policy as well as Mathematica's Social Security Administration (SSA) Disability Research Consortium. Since 1991, Stapleton's research has focused on the impacts of public policy on the employment and income of people with disabilities. After joining Mathematica in 2007, he became co-leader of SSA's BOND evaluation and has also served as principal investigator for the HHS Center of Excellence for Comparative Effectiveness Research on Disability Services, Coordinated Care, and Integration. In addition, he has led SSA's Ticket to Work evaluation and the Rehabilitation Research and Training Center on Disability Statistics and Demographics. Stapleton was director of Cornell University's Institute for Policy Research, senior vice president at the Lewin Group, and an associate professor at Dartmouth College and the University of Maryland, College Park. He has a Ph.D. in economics from the University of Wisconsin–Madison.

Alexander "Alexi" Strand is an economist at the Social Security Administration. His current research focuses on measuring the effects of disability insurance on beneficiaries' well-being and work capacity using administrative data. He holds a Ph.D. in economics from American University and a B.A. from Earlham College.

Jeff Strohl is director of research at the Georgetown University Center on Education and the Workforce, where he continues his long involvement in the analysis of education and labor market outcomes and policy. He leads the center's research investigating the supply and demand of education and how education enhances career opportunities for today's workforce. Strohl also focuses on how to quantify skills and how to better understand competencies given the evolving nature of the U.S. workplace. Before moving to the center, Strohl was a senior analyst and project director at Westat, Inc. While at Westat, Strohl was primarily involved in program evaluation and analysis of education outcomes. He helped design and direct several projects that investigated socioeconomic diversity in American education and sought to affect postsecondary admissions policies. Strohl also helped design a model that predicts occupational risks to offshoring as a function of workplace competencies. Strohl received his B.A. from the University of Massachusetts at Amherst and his M.A. and Ph.D. in economics from American University. His dissertation was a cross-country study of how education can enhance overall economic flexibility in times of economic crisis and structural shift.

Doug Walker is the deputy commissioner for communications, where he directs the Social Security Administration's (SSA) external and internal communications activities nationwide. He is responsible for planning and coordinating the agency's relationships and communications with other Federal agencies, State and local governments, special interest and advocacy groups, and the general public. Walker has a broad background in association and public sector relations, government relations, marketing and outreach, with expertise in message development, digital marketing, and crisis management and communication. Prior to his appointment with SSA, Walker was the executive vice president for operations at Integrated Media, Inc. From 1999 to 2012, Walker held several positions at the National Education Association. His federal sector experience includes communications positions with the U.S. Office of Personnel Management (1993-1998) and the Department of Labor (1999), as well as staff positions in the U.S. House of Representatives and the U.S. Senate (1987-1990). Walker earned a bachelor's degree in communications from Howard University and completed the Senior Executive Fellows program at Harvard University's John F. Kennedy School of Government.

David Weaver is the associate commissioner for research, demonstration, and employment support at the Social Security Administration (SSA). He oversees key agency initiatives, including efforts to replace the aging *Dictionary of Occupational Titles* (used for disability determinations), to maintain and further develop the Quick Disability Determination process, to conduct research on issues affecting the nation's disability programs, and to administer the agency's employment support programs. From 2004 through 2011, Weaver was the deputy associate commissioner for retirement policy, overseeing SSA's use of microsimulation models to analyze the effects of Social Security options and proposals on the American public. Weaver began his service with SSA in 1992. He has authored several articles in peer-reviewed professional journals and in agency publications on the economic well-being of Social Security beneficiaries and the effects of alternative policy proposals on this population. He holds a Ph.D. in economics from Duke University.

David A. Wise is the John F. Stambaugh professor of political economy at the Kennedy School of Government at Harvard University. He is also the area director of health and retirement programs, director of the Program on the Economics of Aging, and director of the Disability Research Center and the Retirement Research Center at the National Bureau of Economic Research. He has written extensively about the saving effect of personal retirement programs—such as individual retirement accounts and 401(k) plans in the United States—and more recently has been evaluating the implications of the rapid spread of these programs, which are now the dominant form of saving for retirement in the United States. He is currently engaged in an ongoing analysis of the retirement incentives in public social security programs around the world. He has recently begun work on the drawdown of personal retirement account assets. He has also written extensively on the retirement incentives of defined benefit pension programs in the United States and has been analyzing the financial implications of housing wealth for the elderly, Social Security reform, and other economics of aging issues.

David Wittenburg, a director of health research at Mathematica, is an expert in interventions promoting employment for people with disabilities and in the analysis of disability statistics. He is principal investigator for a random assignment study of the Accelerated Benefits Demonstration for the Social Security Administration (SSA), which focuses on whether short-term investments in medical benefits for certain Social Security Disability Insurance beneficiaries will increase their likelihood of returning to work. He is also working on several other evaluations for SSA, including the Benefit Offset National Demonstration, the Youth Transition Demonstration, and the Consultative Examinations project. Wittenburg publishes widely and has authored chapters in *The Decline in Employment of People with Disabilities: A Policy Puzzle* and *Paying for Results in Vocational Rehabilitation: Will Provider Incentives Work for Ticket to Work?* He served as an expert reviewer for NIDRR and publishes in journals such as the *Social Services Review*, *Journal of Vocational Rehabilitation*, *Journal of Disability Policy Studies*, and *Journal of Labor Economics*. He has a Ph.D. in economics from Syracuse University.

RESEARCH SUMMARIES

The Role of Acute Health Shocks in the Evolution of Permanent Disability

Mark Cullen
Stanford University School of Medicine

Amal Harrati
Stanford University

James Hill
University of North Carolina at Chapel

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Although the evidence is overwhelming that retirement decision is multifactorial in origin, the contribution of adverse health as a predictor of early exit from the workplace has been established beyond debate. Overall health status, injury and hospitalization have all been shown to hasten the exit once economic incentives, baseline work status, demographic features and job characteristics are accounted for Efforts to address the impact of adverse health on prolonged productive work-life have been hampered by limited information on how these factors conspire and interact to impact the work outcome, and even less is known about interventions that might alter their negative impact; in theory wellness programs to improve overall health, rehabilitation strategies to mitigate the negative impact of a shock, or altered incentives for return to work could offer benefit. New evidence that a sizeable fraction of even acute hospitalizations might be directly preventable by better primary care—so-called ambulatory sensitize conditions—offers yet another theoretical approach to prolonging productive work assuming such admissions are as responsible for bad outcomes as hospitalizations in general.

In a recent study availing exceptional linked administrative records of health and employment in Holland, Garcia-Gomez and others have demonstrated how the economic impact of an acute health shock persists, resulting in drops in future employability and income, as well as substantial household impact as long as 6 years subsequent to an event, and in a system with a strong personal safety net. However this work involves a very diverse sample of workers, and little is known about how much of this difference in outcome may be explained by differences in baseline health between those with health shocks and those without. Comparable data are not generally available in the US, so most work has relied either on self-reported health or income data or both from surveys, and follow-up has been limited. Although limited to one firm, the Alcoa Study of all workers since 1985 at multiple US locations, with a large diverse workforce and heavy representation of (likely more vulnerable) manual workers offers several potential strengths for exploring this question: First, the entire workforce faces almost identical incentives and carry identical health benefits; where there is choice in levels of coverage (eg deductibles; wage replacement rates for STD etc) these are observed prospectively. Second, all records regarding employment, health, work conditions, absenteeism, compensation, overtime and the like are derived from administrative data recorded contemporaneous with the events themselves. Third, these datasets have been updated continuously through the present, and because we have employee and spouse SSN's are directly linkable to SSA and IRS records of workers and their spouses (about which more shortly). Various observations and methodologic advances have been previously reported using these data in the environmental and social epidemiology, health services, and welfare economics literatures

Previous work by our group has yielded several important clues regarding the impact of health shocks. First, we have confirmed that hospitalization results in a substantial loss of work, with almost 12% out of work at 12 months after a hospitalization from any cause. This effect spans the range of medical reasons for the admission, though musculoskeletal conditions and cancer confer the worst prognoses, GI conditions the best and others intermediate. Worse pre-shock health status, female sex, older age, lower education and income and higher wage-replacement while on STD all augur delayed or diminished probability of return or both. Looking at determinants of early retirement, we also find that higher physical work demand and workplace injury contribute to early exit, while workers who have chosen to reduce the demands of their work at an earlier age appear likely to stay at work longer. Notably in this study of older workers nearing retirement age the impact of acute hospitalization was not substantial compared to other determinants, but this may reflect the limited sample studied

In this series of studies we focus specifically on the role of acute health shocks because they would appear from an intervention perspective to be “low hanging fruit”. Unlike the very insidious evolution of chronic disease and declining health status more generally, acute events are readily characterized and timed, not subject to patient preference given the very high-bar for admission to hospital in the US, and some—given increased research in health services—potentially preventable altogether through effective ambulatory health care.

Overview of study approaches

With the objective of estimating the consequences of an acute health shock for future work function, income and health, conditional on pre-shock demographic, socioeconomic, health, family and job demands, we present four preliminary analyses—preliminary because several key indicators cannot presently be identified in the data pending future SSA collaboration.

In the first, we examine work status, income and health as outcomes in a cohort of men and women having at least one hospitalization between 2004 and 2012. Covariates include health status, income, demographics, job demands (pre-event) and location-related variables that are time invariate such as union status, business group, worker engagement at location level etc. Time varying covariates include regional unemployment and other aspects of the location whose variation may impact outcome such as layoffs, sale or closing.

In the second study we examine the same outcomes comparing two groups—the above cohort and a control group matched pre-event based on as many of the pre-event characteristics as possible, using a difference in difference approach. Controls will be selected each year for cases that occurred that year, and will include all available employees who have not had a hospitalization from 2004 up to that year; they must have been working the year the case was hospitalized.

In the third study we use mutli-stage life tables to assess the role of transitions from regular work into short-term disability as determinants of future work status, conditional on all of the available covariates measured on the employee, spouse, location etc, using the entire workforce since 1996 when health records first became available.

In the fourth study we develop a predictive algorithm for long term disability—typically the immediate antecedent of disability retirement-- using an unsupervised, machine-learning approach that takes into account all of the available data on each employee, with the aim of identifying covariates of potential relevance which may not been chosen as part of the structured analyses described above based on a prior hypothesis. Recognizing such approaches do not differentiate causality from other relationships among covariates, we seek evidence of clues that might appear early in work-life as well as support for the hypothesized role of hospitalization and other health shocks.

Transitions from Workers’ Compensation and State Temporary Disability Insurance to Social Security Disability Insurance: Predictive Characteristics and Options for Early Intervention

Frank Neuhauser
University of California, Berkeley

Yonatan Ben-Shalom
Mathematica Policy Research

David Stapleton
Mathematica Policy Research

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Washington, D.C.

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1. Introduction

In its 2006 report on a “Disability System for the 21st Century,” the Social Security Advisory Board (SSAB) suggested providing employment services, training, and other early interventions to people before providing them disability benefits (SSAB 2006). SSAB also recommended studying the potential for early interventions to stem the flow of workers out of the labor force and into Social Security Disability Insurance (SSDI) in the five states with mandatory short-term disability insurance (STDI). Presumably a very large share of SSDI entrants from these states claim either STDI or workers’ compensation (WC) benefits first, while they are still connected to an employer. Hence, for early intervention purposes, it might be possible to use the STDI and WC benefit systems to identify those workers most likely to enter SSDI soon after they experience a significant medical problem but before they are separated from their employer. As a first step, it would be useful to identify people in such programs who may benefit from early intervention and to understand the services and supports available to them now.

The prospect of identifying STDI or WC claimants who are likely to enter SSDI while still connected to their employers is intriguing—numerous studies point to employer cooperation as key to keeping the worker in the labor force.[1]In this paper, we examine this prospect specifically for California, which has the largest mandatory STDI program, simply called State Disability Insurance (SDI). According to the annual report on the SSDI program, over 70,000 California residents began receiving SSDI benefits as disabled workers in 2013—over 8 percent of all awards that year, and more than any other state (SSA 2014a). In addition, more than 60,000 Californians began receiving Supplemental Security Income (SSI) (SSA 2014b). Many SSDI beneficiaries from California remain connected to WC or California’s STDI program for some period after SSDI entry. In December 2008, over 17 percent of the 617,080 SSDI disabled worker beneficiaries from California were receiving WC, STDI, or both, or they had a pending application to receive those benefits (Parent et al. 2012). Other Californians presumably entered SSDI sometime after they had exhausted their WC or STDI benefits.

Identifying the characteristics and medical conditions of workers who transfer from STDI and WC to SSDI and SSI, as well as improving our understanding of the services and supports available to them, can help policy makers develop early interventions designed to help such workers stay in the labor force rather than enter SSDI.

2. California’s WC and STDI Programs

California’s WC program, which is financed by employers, pays temporary disability benefits to workers who cannot work due to an occupational injury or illness. Benefits are two-thirds of the worker’s average weekly wage over the past 12 months. In 2015, the minimum and maximum weekly benefits are $161 and $1,075, respectively. Benefits in most cases are paid for up to two years (104 weeks), with certain conditions eligible for up to five years of payments (260 weeks). WC also pays all medical costs related to an injury, and a worker can receive other indemnity benefits, such as permanent disability, job training, and job placement. In 2013, across all industries and government agencies in California, close to 470,000 nonfatal occupational

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[1] See, for instance, the review by Bevans (2015).

injuries were reported, with about 150,000 of them resulting in one or more days away from work (U.S. Bureau of Labor Statistics 2014).

California's STDI program was established in 1946 and is financed through employee payroll deductions. The program pays temporary disability benefits for nonoccupational conditions. It pays for up to 52 weeks at 55 percent of a worker's base period wages—a lower replacement rate than for WC and for a shorter period. In 2015, the minimum and maximum weekly benefits are $50 and $1,104, respectively. The program does not pay medical benefits. If a worker with an occupational condition exhausts the 104 weeks of WC benefits, he or she can qualify for up to an additional 52 weeks under the STDI program. From July 1, 2013, through June 30, 2014, close to 470,000 nonpregnancy STDI claims where paid.

To better understand the nature of California's WC and STDI programs, the extent to which they already provide return-to-work services, and the potential for early intervention, we interviewed, in person, representatives of the following organizations in California:

- Employment Development Department (STDI administrator)
- Department of Industrial Relations (WC administrator)
- Department of Rehabilitation
- State Compensation Insurance Fund
- World Institute on Disability
- Integrated Benefits Institute

Based on these interviews, we conclude no return-to-work services are systematically provided to California's STDI claimants—the program just administers the payments. In WC, the State Fund (the WC insurer of last resort) is implementing an innovative and promising approach to early intervention, but otherwise there is very little in terms of supporting or encouraging return to work beyond efforts to control the cost of temporary disability indemnity.

3. Preliminary Quantitative Findings

To effectively identify WC and STDI claimants who are likely to enter SSDI, we would ideally have access to administrative records for WC and STDI claimants that are matched to their SSA records.[2]In lieu of such data, we used WC and STDI administrative data to identify the characteristics and medical conditions associated with three proxy measures: receipt of benefits for at least 3 months, 6 months, and 12 months.[3]Because we are waiting to receive the STDI administrative data, we can only present results for WC claimants.

The file we received from the California Division of Workers' Compensation contains 3.7 million WC claims with months of injury from January 2007 to June 2012. Of these, close to 650,000 (17.7 percent) received temporary disability payments for lost time, with mean durations of 139 days for men and 152 days for women. Mean durations were highest for those ages 45–54

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[2] At this point, due to legal impediments, we have stopped pursuing data match agreements between WC and SSA or SDI and SSA.

[3] Three months is likely the earliest point at which early intervention is possible without including many who would return to work without assistance.

and for those with musculoskeletal or psychiatric conditions; mean durations generally fell with the weekly wage.

Preliminary descriptive statistics suggest the following:

- Musculoskeletal or psychiatric conditions are associated with relatively long periods of disability and are much more likely than than other medical conditions to exceed 12 months of temporary disability payments.
- Within each of those two categories, certain subdiagnoses (such as lower-back pain illnesses, depression, or post-traumatic stress disorder) are associated with much longer periods of disability than other subdiagnoses.
- Having a secondary psychiatric condition is associated with much longer-lasting disability and a 50 percent higher chance that the disability will exceed12 months.
- Some traumatic conditions, notably burns and concussions, are associated with short periods of disability on average, but the probability of exceeding 12 months is much greater once the duration exceeds 3 months.

4. Conclusions

WC and STDI programs in California and other states area promising venue for identifying people who (1) would benefit from early intervention to prevent SSDI entry and (2) are still connected to their employers. Although California is making a systematic effort to help more WC claimants return to work, it is not doing the same for STDI claimants. The state might benefit from such an effort, presumably via better economic outcomes for workers, increases in state tax revenues, and lower Medicaid spending, but the costs might well exceed the gains to the state. The federal government may have a larger incentive to support an early intervention effort: the potential savings in terms of SSDI/SSI benefits and Medicare/Medicaid expenditures. In either case, successful early intervention will require timely identification and effective targeting, recruiting, and provision of services and supports. Our findings suggest that timely identification and effective targeting are possible. Access to state administrative records matched with SSA records would help design even more effective identification and targetingstrategies.

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The Effect of Disability Insurance on Beneficiaries' Mortality

Alexander Gelber
UC Berkeley and NBER

Timothy Moore
George Washington University and NBER

Alexander Strand
Social Security Administration

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1. Introduction

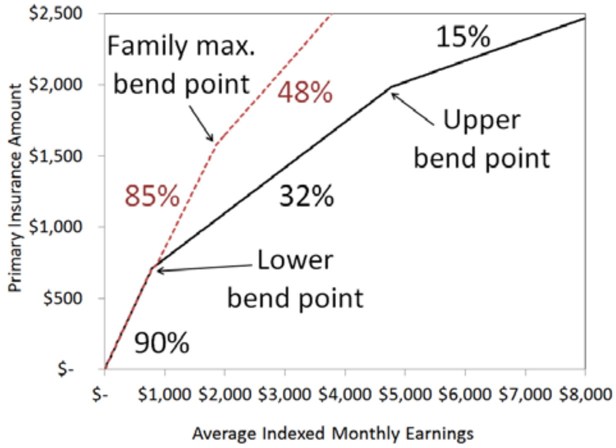
A sizeable body of research has established that Disability Insurance (DI) has substantial work disincentive effects (recent studies include Borghans, Gielen and Luttmer 2014, Gubits et al. 2014, Kostøl and Mogstad 2014, Autor, Maestas, Mullen and Strand 2015, Coile 2015, Moore 2015, and Gelber, Moore, and Strand 2015). This raises the possibility that DI has not only direct costs through transfer payments but also indirect costs via these disincentive effects.

Much less work has documented the potential benefits of DI, especially in terms of whether DI improves health outcomes. Weathers and Stegman (2012) use the Accelerated Benefits demonstration project to examine the effects of expanding the health insurance coverage of newly entitled DI beneficiaries, finding positive impacts on self-reported health and no impact on mortality. Garcia-Gomez and Gielen (2014) find that stricter eligibility criteria for DI in the Netherlands led to more frequent hospitalizations and higher mortality among women, but lower mortality among men. However, none of this work has examined the effects of the size of DI payments on health outcomes. One reason is the difficulty in identifying causal effects on health for a program that specifically targets people whose health is poor.

We estimate the effect of DI payments on mortality using the details of the formula that determines benefit amounts. Figure 1 summarizes the relationship between Average Indexed Monthly Earnings (AIME) and the Primary Insurance Amount (PIA). The rate at which monthly DI benefits (PIA) replace past earnings (AIME) changes around several "bend points." Below the first bend point, the marginal replacement rate is 90 percent; between the two bend points; the rate is 32 percent; and above the second bend point, the rate is 15 percent.

In addition, the rules for the maximum benefits a family can receive imply that the marginal replacement rate for a family’s combined worker and dependent benefits changes from 85 percent to 48 percent at an AIME value that lies between the two bend points discussed above. We refer to this point as the "family maximum bend point" and show it using the dotted line in Figure 1. This bend point is different from the bend points in the family maximum formula for retirement benefits.

Figure 1 Primary insurance amount and average indexed monthly earnings



Using these bend points, we implement a “Regression Kink Design (RKD)” (Nielsen, Sorensen and Taber 2010, Card, Lee, Pei and Weber 2012). Intuitively, the technique is based on observing changes in the slope of the relationship between mortality and the AIME values that determine the size of DI payments around the bend points. Any abrupt change in the relationship between mortality and AIME that occurs at a bend point suggests that DI payments affect the health of beneficiaries. We focus on claimants that are close to the bend points, as they should be similar to each other. The RKD method requires that claimants are not easily able to control on which side of a bend point they fall. In this sense, each bend point creates an experiment that can be used to estimate a causal effect relevant to that group of beneficiaries (i.e., a Local Average Treatment Effect (LATE)).

We investigate whether the data support this quasi-experimental interpretation. First, we show that the population that is not affected by the bend points – that is, non-beneficiaries – does not experience a shift in mortality around the bend points (placebo tests). This suggests that there is not some pre-existing relationship between average earnings and mortality that changes at the bend points. Second, we show that the population characteristics and population counts do not shift around the bend points (covariate balance tests). This gives indirect support to the idea that claimants do not manipulate their position relative to the bend points. Third, we show that shifts in mortality of similar magnitude do not occur at other points in the distribution of AIME away from the bend points (placebo kink tests).

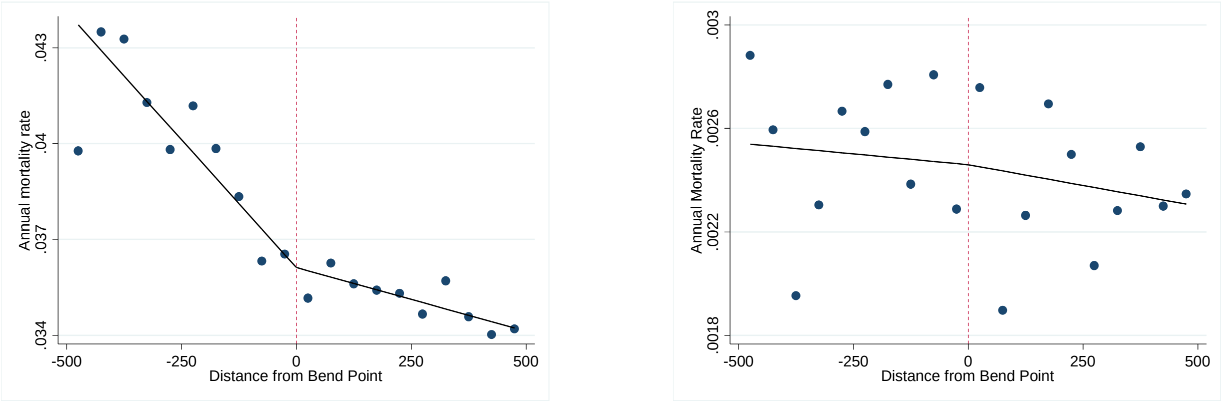
2. Data

We use administrative data from the 2010 version of the Disability Analysis File (DAF) (previously called the Ticket Research File). The DAF is a compilation of multiple administrative data sources from the Social Security Administration, including the Master Beneficiary Record, Supplemental Security Record, 831 File, Numident File, and Disability Control File. We updated the mortality data up to the end of 2013. We choose a sample of individuals who entered DI between 1997 and 2009 and who were aged 21 to 61 years at the time of filing. The program rules were largely consistent throughout this time period, and we are able to observe whether these individuals died within four years of beginning to receive DI payments. The upper age restriction to those under 61 avoids interactions with rules associated with the Social Security Old Age and Survivors Insurance program. We also limit the sample to DI claimants who did not receive Supplemental Security Income at any point in the sample period. For comparisons to non-beneficiaries, we use the Continuous Work History Sample.

3. Results

We begin by plotting the mean yearly mortality rate in the four years after DI allowance against AIME with claimants grouped in $50 bins. If higher income is protective against mortality, we would expect a positive change in slope in the region above a bend point relative to the region below it. We observe this for the lower bend point in Figure 2A, where the negative slope becomes flatter. Intuitively, as the marginal replacement rate decreases, additional income becomes less protective. Equivalently, a higher replacement rate is associated with lower mortality.

Figure 2 Mortality rates around the lower bend point



A: Analysis sample

B: Non-beneficiaries (placebo)

We estimate the magnitude of the effect using RKD methods. Because the functional form of the relationship of mortality and AIME is unknown, we estimate linear, quadratic and cubic forms. Also, we test specifications with and without discontinuities at the bend points, and with and without controlling for covariates.

At the lower bend point, we find consistent evidence across all these specifications that increased DI benefits leads to a substantial reduction in mortality. We scale the results to represent a $1,000 increase in annual DI benefits, compared to average annual DI benefits of $8,268 near the lower bend point. For our preferred specification, the corresponding decrease in annual mortality is 0.47 percentage points on a basis of a mortality rate of 3.61 percentage point. The resulting elasticity is -1.11.

At the upper and family maximum bend points, the results are not robust to different specifications. In our preferred specification at the family maximum bend point, the elasticity is -0.60. At the upper bend point, the estimate is not statistically or economically significant.

We test whether the data support interpreting the magnitudes as the effect of DI benefit amounts on mortality. First, we test whether the effect appears among the population that is not subject to bend points in the PIA formulas. In Figure 2B, we show the relationship between mortality and AIME for the population that is DI-insured but has not applied for benefits. There is no increase in slope at the lower bend point—in fact, if anything, the slope modestly decreases at the bend points, though not sharply. This suggests that no population-level phenomena cause the kink in mortality. Second, we show that a number of claimant characteristics that can be observed in the administrative data do not show kinks or discontinuities at the bend points. This suggests that individuals are not able to locate their AIME in relation to the bend points strategically. Third, we show that—at least for the lower bend point—the magnitude of the kink is statistically significant at the bend point and is not significant away from there.

These tests suggest that RKD methods are appropriate for estimating causal local treatment effects. We present strong evidence of an effect at the lower bend point and mixed evidence of an effect at both the family maximum and upper bend points.

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Unmet Need for Workplace Accommodation

Nicole Maestas
Harvard University and NBER

Kathleen J. Mullen
RAND and IZA

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A number of recent disability insurance reform proposals focus on ways to incentivize employers to retain employees after they experience the onset of a disability. For employers to retain disabled workers, they must accommodate their disabilities in some way so they can continue to be productive despite the existence of a health impairment that would otherwise impede work by, for example, modifying job requirements or work schedules. However, there is limited evidence on the prevalence of workplace accommodations relative to need and on the effectiveness of such accommodations in prolonging employment. In addition to the limited evidence base, measurement issues confound interpretation of existing prevalence and need estimates for the simple reason that people select in and out of the population "at-risk" for accommodation depending on their employment status, which itself may depend on having received accommodation. On the one hand, people with disabilities who are not successfully accommodated may be more likely to leave the labor force, dropping out of the denominator of accommodation prevalence estimates. On the other hand, people with disabilities who *are* successfully accommodated may be more likely to continue working and *less likely to report* that they have a work limitation. Surveys often use the standard self-reported work limitation question to determine whether or not respondents are asked about workplace accommodation. When this is the case, people who would benefit from workplace accommodations for serious health problems but who are reluctant to self-identify as "work limited" are also excluded from questions about workplace accommodation.

To demonstrate the importance of these issues, we collected new data on the prevalence of work-limiting health problems and workplace accommodations in a nationally representative sample of U.S. workers ages 18-70 in the RAND American Life Panel (ALP). Using experimental techniques to vary question ordering, we show that we can improve prevalence and need estimates, as well as identify a sub-population of individuals who are accommodation-sensitive—that is, whether or not they work depends crucially on whether or not they obtain accommodations for their health problems.

Data and Methods

In May 2014, we fielded a survey containing questions on whether one's health limits the kind or amount of paid work they can do, as well as whether respondents received any special accommodation from their employer for health reasons (if working) or whether a special accommodation for their health would make it easier for them to work (if not working or if working but not receiving accommodation). Importantly, unlike other surveys (such as the Health and Retirement Study), we asked *all* respondents about employer accommodation rather than limit these questions to those who first report a work-limiting health problem. Our hypothesis was that employees who are being accommodated for a health problem may not consider their health problem to limit their ability to work *because* it is being accommodated. We also randomized half the sample to receive questions about workplace accommodations *before* they were asked whether their health limits their work to test the hypothesis that being asked about work-limiting health problems first decreases the fraction reporting a workplace accommodation, for example, by requiring respondents to first self-identify as work limited and by priming them to focus on only the most severe health problems.

Findings

Table 1 presents estimates of the proportion of the population reporting a work-limiting health problem, plus those reporting a workplace accommodation for health reasons, plus those reporting that an accommodation for their health would make it easier for them to work, overall and by current work status, for the random half of the sample who were asked the work-limiting health question (WLHQ) first vs. last. We find that receiving the WLHQ first does not affect the fraction reporting a work-limiting health problem, but it does significantly reduce the fraction reporting that they are accommodated for a health problem or who say they would benefit from an accommodation.

In either case, a significant fraction of those who do *not* say their health limits their work *do* report that they receive an accommodation for their health at work. Including those with work disabilities to include those with workplace accommodations increases the measured prevalence of work disability by 4.3 percentage points or 26 percent (from 16.3 to 20.6 percent of the population) using the standard question order, and increases the prevalence of work disability by 9.4 percentage points or 52 percent (from 18 to 27.4 percent) if respondents are asked about accommodation first. Further including those who are not being accommodated but who say an accommodation for their health would make it easier for them to work increases the prevalence of work disability to 25.4 percent, or 34.7 percent, of the population, using the standard vs. non-standard question order respectively. Virtually all of the increase is from respondents who are currently working for an employer.

Table 1. Estimated Proportion of Population with Work-Limiting or Accommodation Sensitive Health Problems

	WLHQ asked…			
	First	**Last**	**Diff.**	**p-val.**
A. Overall				
% Report work-limiting health problem	16.3%	18.0%	1.7%	0.241
+ Accommodated at workplace	20.6%	27.4%	6.8%	<0.001
+ Accommodation would help	25.4%	34.7%	9.3%	<0.001
No. observations	1,233	1,246		
B. Working for Someone (63.4%)				
% Report work-limiting health problem	5.9%	8.0%	2.0%	0.132
+ Accommodated at workplace	12.6%	21.9%	9.3%	<0.001
+ Accommodation would help	18.4%	32.0%	13.6%	<0.001
No. observations	688	729		
C. Self-Employed (7.3%)				
% Report work-limiting health problem	14.8%	15.2%	0.5%	0.935
+ Accommodated at workplace	19.2%	18.5%	-0.7%	0.908
No. observations	96	96		
D. Not Working (29.3%)				
% Report work-limiting health problem	39.2%	40.6%	1.4%	0.622
+ Accommodation would help	43.2%	43.9%	0.7%	0.823
No. observations	449	421		

Note: WLHQ="work limiting health question." Estimates are population-weighted.

Not surprisingly, measures of unmet need for employer accommodation are quite sensitive to the definition of the "at risk" population (see Table 2). Among those who report a work-limiting health problem and then are asked about employer accommodation, we find that 14.1 percent report being accommodated by an employer (note that less than a third currently work, which would make them eligible for accommodation). At the other end of the spectrum, if we instead select individuals who are "accommodation sensitive," that is they are either accommodated or say an accommodation would help (regardless of whether they later say that their health limits their work), we find that 46.1 percent are accommodated and 77.8 percent are working. Thus, even after refining the "at risk" population, we find that less than half of those who could benefit from employer accommodation receive it.

Table 2. Estimates of Employer Accommodation Rates for Health Problems

Subpopulation	**% of Pop.**	**% Accomm.**	**% Working**
Health limits work, WLHQ asked first	16.3	14.1	31.3
Health limits work, WLHQ asked last	18.0	10.2	32.6
Health limits work and/or accom-sensitive, WLHQ asked last	34.7	31.7	51.7
Accommodation-sensitive only, WLHQ asked last	24.4	46.1	77.8

Estimating the Cost and Utilization of Wrap-Around Coverage for Employed and Potentially Employed People with Disabilities

Alexis D. Henry
University of Massachusetts Medical School

Jack Gettens
University of Massachusetts Medical School

Denise Hoffman
Mathematica Policy Research

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Washington, D.C.

Introduction

The low employment rate among people with disabilities might be reversed if workers with disabilities could access the health care services they need in order to work. The Affordable Care Act (ACA) expands access to private health insurance for millions of Americans, including people with disabilities (Gettens 2011; Levy 2012). However, new ACA marketplace-based coverage may not meet all the needs of people with disabilities who want to stay employed and need extra support to do so (Corlette 2013; Hyde 2014). Medicaid provides services that support independent living, including employment; however, these services are typically only available to those with low income and limited assets. Such services are generally not covered by private insurance. Additionally, those privately insured may pay high out-of-pocket costs for health care that helps them stay employed, which may serve as an incentive to limit earnings or stop working to qualify for and Medicare or Medicaid. “Wraparound” coverage could provide services that are not covered by primary insurance. In this study, we quantify the costs and use of care for employed people with disabilities who use the Massachusetts (MA) Medicaid Buy-In program, CommonHealth Working (CHW), to supplement their primary insurance through Medicare or a private plan.

CHW provides Medicaid coverage to people who meet a disability standard similar to Social Security Administration’s; who work at least 40 hours per month; and have household income at or above 133% of the federal poverty level (FPL). There are no upper limits on income or assets. About 77% of CHW enrollees have primary coverage from Medicare or private insurance and thus use CHW as wraparound coverage. CHW is comparable to standard MA Medicaid, and covers both medically necessary inpatient and outpatient services, as well as community-based services that support independent community living, such as personal assistant services (PAS) and home health services which are generally not covered by Medicare or private insurance. CHW also covers behavioral health care, durable medical equipment, and medications, which may be covered, but limited, by Medicare and private plans. CHW may also pay balances, including deductibles or co-payments, on services covered by primary insurance.

Methods

Participants included people (ages 21-64) with disabilities who were enrolled in CHW at any time during calendar year 2012 and who also had private insurance, Medicare, or both. MA Medicaid eligibility data provided information on participants’ age, gender, and other insurances; monthly earnings; monthly Old-Age, Survivors, and Disability Insurance (OASDI) income; and family income as a percentage of FPL. Participants’ characteristics were determined monthly; participants who were not eligible for CHW in a given month were not included in the analysis for that month.

We used CHW claims data to generate cost and utilization statistics for participants who use CHW as wraparound coverage, analyzing fee-for-service claims for services rendered in the months in which the person was included in the sample. We classified services into the following categories: community-based services and supports (non-behavioral health); behavioral health services; inpatient and outpatient services (non-behavioral health); professional services; pharmacy; non-emergency transportation; durable medical equipment and supplies; dental and other services. We further categorized community-based services and supports as: personal assistant services (PAS), home and day health care, adult foster care, and day habitation, and categorized behavioral health services as: community-based mental health services, outpatient and inpatient psychiatric treatment, and substance abuse services. For these service categories, we calculated total Medicaid costs, cost per member per month, cost per user per month (for those using the service), and unduplicated counts of the number of participants using the service (users), and generated statistics for the total sample and subgroups defined by earnings level and insurance type.

Results

Participant Characteristics

Participants included 15,338 CHW members between ages 21 and 64, enrolled for one or more months during 2012, who had primary coverage through Medicare or private insurance (77% of all CWM enrollees). On average, participants used CHW as wraparound insurance for 8.5 months of the year; 84% of participants had Medicaid, 9% had private insurance, and 8% had both Medicare and private insurance. Characteristics of participants are shown in Table 1.

Table 1: CommonHealth Working Participant Characteristics by Insurance Type

		All (n = 15,338)	Medicare (n = 12,950)	Private (n = 1,433)	Both (n = 1,195)
Male (%)		48	48	49	49
Age Group (%)	21 to 29	4	3	7	8
	30 to 49	33	33	32	43
	50 to 64	62	64	60	49
Earned Income Recorded (%)		94	95	92	86
Maximum Monthly Earnings Amount (%)					
	Up to $999	77	83	31	66
	$1,000 to $1,999	14	13	22	16
	$2,000 or more	9	5	47	18
Received OASDI Income (%)		88	95	31	86
Maximum OASDI Monthly Amount (%)					
	Up to $999	31	30	30	41
	$1,000 to $1,399	37	38	24	27
	$1,400 or more	32	32	46	32
Maximum Monthly FPL (%)					
	133% to 150%	12	13	7	8
	150% to 299%	73	77	52	62
	300% or more	15	10	42	30

Slightly less than half the participants were male and nearly two-thirds were between ages 50 and 64. Overall, earnings were relatively low; 77% of all participants earned under $1,000 per month; earnings were higher for those with private insurance. Administrative records of OASDI income were available for 88% of participants; it is likely that nearly all the OASDI income was disability insurance payments. Fewer participants with private insurance only (no Medicare) had records of OASDI income; only 31% were known beneficiaries of OASDI. These were likely SSDI beneficiaries in the 24-month Medicare waiting period.

Medicaid Expenditures and Utilization

MA Medicaid expenditures and utilization by service categories are shown in Table 2. Expenditures for all CHW participants totaled $55 million in the 2012 calendar year, or $427 per member per month (PMPM). As 90% of participants had a claim during 2012, their costs were only slightly higher than the full sample's at $448 per user per month.

Table 2: Expenditures and Utilization by Service Categories for CHW Participants in 2012

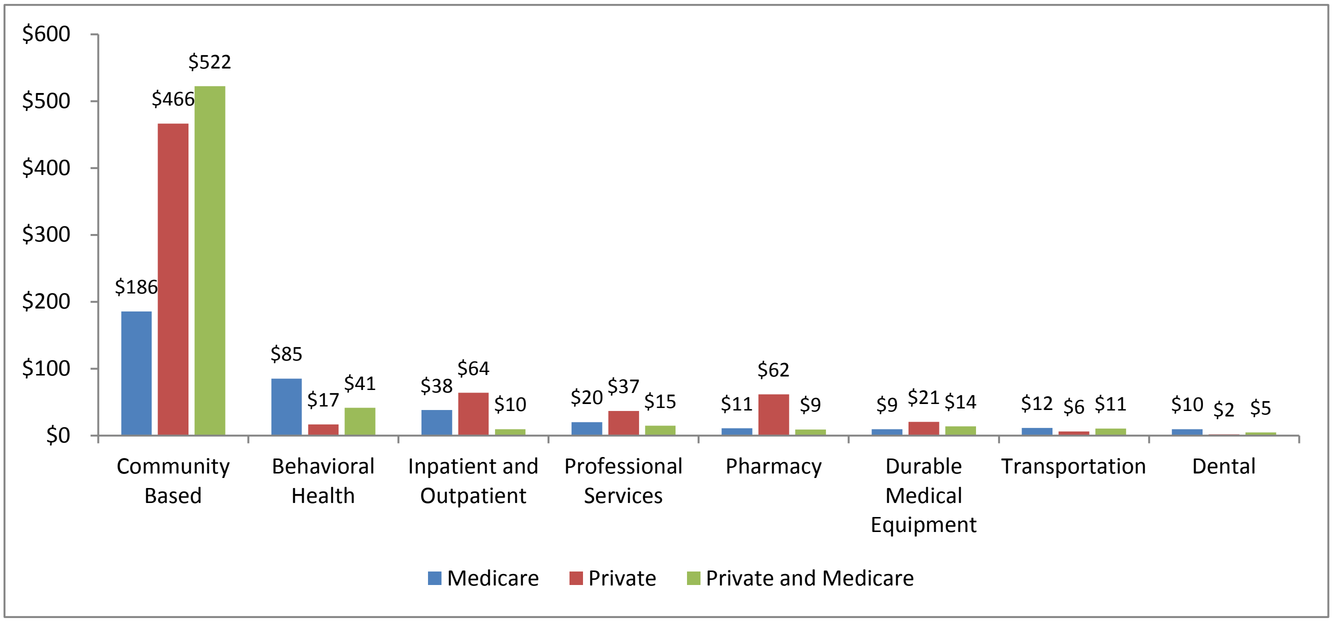
Service Category	Total Expenditures (Million $)	Per Member Per Month Expenditures ($)	Per User Per Month Expenditures ($)	Unduplicated Users (%)
Community-Based Services (Non-Mental Health)	30.0	231	1,957	10.7
Personal Assistant Services	20.8	160	2,260	6.4
Home and Day Health	5.4	42	1,224	3.1
Adult Foster Care	3.2	25	1,310	1.7
Day Habitation	0.5	4	814	0.5
Behavioral Health	10.0	77	170	41.3
Community-Based Mental Health	5.0	38	444	7.8
Psychiatric Treatment (In/Outpatient)	4.2	33	78	37.7
Substance Abuse	0.8	6	256	2.2
Inpatient and Outpatient Services (Non-Behavioral Health)	4.9	38	58	58.4
Professional Services	2.7	21	27	69.6
Pharmacy	1.9	15	22	61.7
Durable Medical Equipment/Supplies	1.4	11	49	18.2
Non-Emergency Transportation	1.4	11	122	8.2
Dental	1.1	9	24	30.2
Other	1.9	15	36	35.8
Total	55.4	427	448	90.1

MA Medicaid expenditures were highest for two kinds of services: non-mental health community-based services and behavioral health services. The former accounted for over $30 million in expenditures, driven by $20.8 million spent on PAS. Home and day health and adult foster care services also accounted for a large portion of the expenditures at $5.4 million and $3.2 million, respectively. Only 11% of participants used these community-based services, but average costs were high among users. For example, only 6% used PAS, but their average costs totaled $2,260 per user per month. Conversely, over 40% of the participants used a behavioral health service, but costs were more at $170 per user per month. Behavioral health spending totaled $10 million; half was for community-based mental health services and $4.2 million for inpatient and outpatient psychiatric treatments.

Medicaid Expenditures by Primary Insurance Provider and Earnings

Expenditures were highest for CHW participants with private insurance at $692 PMPM; slightly less for those with private insurance and Medicare ($637), and markedly less for those with Medicare only ($386). The average expenditures for different service categories varied by participants' primary insurance type (see Figure 1).

Figure 1: Per Member Per Month Medicaid Expenditures by Service and Insurance Type



Note: Services categorized as "other" were omitted.

For all types of insurance, the highest total expenditures were for non-mental health community-based services, but PMPM expenditures for these services and supports were substantially higher for those with private insurance (with or without Medicare) than those with Medicare and no private insurance. This pattern is, in part, driven by use; 10% of Medicare participants used these services compared to 14% of those with private insurance and 20% of those with both Medicare and private insurance. Behavioral health services were the second highest expenditures for those with Medicare, but expenditures were less than half that amount for those with private insurance and Medicare and even lower for those with private insurance.

Across all participants, expenditures had a U-shaped relationship to participants' earnings (data not shown). PMPM expenditures were above $500 for both those earning less than $100 per month and those earning $2,000 or more per month. Expenditures were lowest, around $260 PMPM, for those earning between $500 and $2,000 per month. This U-shaped relationship was most pronounced for those with private insurance. For these participants, expenditures were $958 PMPM for those earning less than $100 per month and $757 PMPM for those earning $2,000 per month or more.

Discussion

Many working people with disabilities in MA use CHW as wraparound coverage to access services that are not covered by their primary insurance and to pay the balance on services partially covered by private insurance or Medicare, highlighting that private insurance and Medicare do not fully meet the demands of workers with disabilities. A substantial portion of total expenditures was for services that are generally not covered by private insurance or Medicare. Indeed, the largest expenditure category, non-mental health community-based services, includes services such as PAS, which is rarely covered by insurance other than Medicaid, the most significant provider of PAS and PAS in the workplace (LeBlanc 2001; Ellison 2010). CHW expenditures were also significant for community-based mental health services, which were generally not covered by primary insurance. Unlike private insurance or Medicare, MA Medicaid covers community-based psychiatric rehabilitation services to support people with severe mental illness who meet eligibility requirements of the MA Department of Mental Health. The costs for these account for half of all CHW's spending on behavioral health services. Overall, the use of high cost services was relatively low. Fewer than 9% of participants used non-mental health community-based services, community-based mental health, or transportation services. Nonetheless, for those who did, these services may have been vital to maintaining employment (Dowler 2011).

MA Medicaid spent a significant amount of money on services covered by private insurance and Medicare, including psychiatric treatment, pharmacy, professional services, durable medical equipment and medical supplies, and non-mental health inpatient and outpatient services. For these services, expenditures included cost-sharing (for example, copayments or deductibles) or more comprehensive coverage than available through Medicare or private insurance; for example, drugs in the Medicaid formulary that are not in primary insurance formularies, or medical equipment that is not covered by primary insurance. Across all services, expenditures varied by primary insurance, likely reflecting differences in both the relative generosity of Medicare and private insurance and characteristics of beneficiaries.

CHW provides coverage for services that support employment but generally are not covered by other types of insurance. Some workers with disabilities would likely stop working or reduce their hours without the services that support their employment. Thus, without the wraparound coverage CHW provides, there might be fewer employed people with disabilities in MA and more people on the SSDI or SSI rolls as their earnings dropped below the threshold for eligibility.

Implications for Wraparound Plans

The findings from this analysis can help inform a policy or program to provide wraparound services for workers with disabilities. Based on total expenditures, two main issues drive the need for wraparound services: 1) primary insurance limits or does not cover community-based services and supports and 2) some workers have high out-of-pocket costs for services that primary insurance does cover. Community-based services were used by a relatively small number of people, but they were high in cost. Costs for services covered by primary insurance were more moderate and the services were used by the majority of CHW participants. Addressing both wraparound needs would assist many working people with disabilities.

Conclusion

We examined cost and use of wraparound health insurance for people with disabilities. Wraparound insurance can support employment of people with disabilities directly, by covering services such as PAS, or indirectly, by reducing the number of people who limit working to qualify for safety net benefits and associated public health insurance. There is a need for policy analysis to further assess the feasibility and design options for a new wraparound program.

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Characteristics of SSI and SSDI Beneficiaries Who Are Parents

Gina Livermore
Mathematica Policy Research

Maura Bardos
University of Michigan

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Introduction

The Social Security Disability Insurance (SSDI) and Supplemental Security Income (SSI) programs provide vital income support to working-age individuals with significant disabilities. A non-trivial share of SSI and SSDI beneficiaries are parents of children under age 18. Under SSDI, the children of beneficiaries may receive auxiliary benefits. Under SSI, no additional payments are provided for recipients with children. Parent beneficiaries may face a host of issues that differ from those of other beneficiaries without dependent children and that have implications for their employment and economic well-being.

In this summary, we present information from a data brief that describes the personal characteristics, employment, and income sources of SSI and SSDI beneficiaries who are parents of minor children, and compare these characteristics with those of other beneficiaries (Livermore and Bardos 2015). The brief is one in a series and is intended to make descriptive statistics available on specific subgroups of SSI and SSDI beneficiaries, thus providing a better understanding of the many faces of disability.

Data and Methods

We used data from four waves of the National Beneficiary Survey (NBS) fielded in 2004, 2005, 2006, and 2010,[4] and pooled these data to obtain a larger sample of beneficiaries who are parents. We classified beneficiaries as parents if they reported having biological, foster, or adopted children under the age of 18, regardless of whether the children lived with them or resided elsewhere. Here, the term “parent” refers only to parents of children under age 18. Parents of adult children are not considered in the analysis. We also grouped parent and nonparent beneficiaries into three subgroups based on their disability program participation status at the time of sampling: SSDI-only, concurrent (participating in both SSI and SSDI), and SSI-only.

We report statistics for sample members who were age 18 to 64 (working age) at the time of the NBS interview. All statistics were derived using the relevant survey weights, and all standard errors used to compute tests of statistical significance account appropriately for the complex NBS sampling design. Dollar values are expressed in 2010 dollars. All noted differences between parents and nonparents are statistically significant at the 0.05 level.

Summary and Implications of the Findings

Overall, 20 percent of SSI and SSDI beneficiaries are parents, with the highest rate of parenthood among SSI-only recipients (24 percent). About half of all parent beneficiaries (51 percent) have just one child, and about 20 percent have three or more. Most parents (69 percent) live with their minor children and most (61 percent) are unmarried. About one-fifth of parents (21 percent) have children under the age of six.

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[4] The NBS was developed and implemented as part of an evaluation of the Social Security Administration’s Ticket to Work program. The survey collects cross-sectional data from a national sample of SSI and SSDI beneficiaries age 18 to full retirement age. The cross-sectional beneficiary sample sizes ranged from approximately 2,500 to 6,500 across the four rounds. The samples for each round are representative of beneficiaries on the SSI and SSDI rolls as of June of the calendar year before each survey year. The primary purpose of the survey is to provide information on the work-related activities of SSI and SSDI beneficiaries. For more information about the 2004, 2005, 2006, and 2010 NBS, see Thornton et al. (2006), Stapleton et al. (2008), Livermore et al. (2009), and Wright et al. (2012), respectively.

Parents differ significantly from nonparent beneficiaries in many respects. Other characteristics held constant, parents are more likely to be under age 50, female, nonwhite, in poverty, and married. They are also more likely to have held a job for pay at any time, to have less than a high school level of education, and to have a sensory impairment. Parents are significantly less likely to be in excellent or very good health, to have experienced the onset of disability in childhood, to be beneficiaries of SSDI only, to have been on the disability rolls for 10 or more years, and to be currently employed.

Parents also differ from other beneficiaries in terms of their work expectations and barriers, job characteristics, and income sources.

Work goals and employment. Parents are significantly more likely than other beneficiaries to have work goals or expect to work in the near future (53 percent versus 39 percent). Although parents are more likely to want to work, they are as likely as other beneficiaries to have worked during the previous calendar year (12 percent), and less likely to have been employed at the time of their NBS interview (7 percent versus 9 percent).

Employment barriers. Parents who want to work but are not employed generally report the same reasons for not working that their nonparent counterparts do. Among all beneficiaries with work goals, the most common reasons reported include poor health (92 percent), being discouraged by previous attempts to work (40 percent), inaccessible workplaces (34 percent), and inability to find a job for which they are qualified (33 percent). Not surprisingly, parents were markedly more likely than other beneficiaries to report caring for children or others as a reason for not working (25 percent versus 7 percent).

Job characteristics. Although parents were less likely to be employed than other beneficiaries, those who were employed worked at notably higher levels. Employed parents were about twice as likely as other employed beneficiaries to be working full time (35 hours or more per week)—31 percent versus 16 percent. Relative to other employed beneficiaries, parents also had higher average hourly wages ($10.63 versus $7.56) and average monthly earnings ($1,110 versus $668). A large share of employed parents were earning above the monthly substantial gainful activity level (44 percent compared with 19 percent of other employed beneficiaries). The higher average earnings is likely because employed parents are markedly less likely to work in sheltered or supported employment settings relative to nonparents (16 percent versus 41 percent).

Income sources. Compared with nonparent beneficiaries, parents receive higher average monthly SSA disability ($945 versus $893) and non-SSA government ($244 versus $186) benefits. This is not surprising, because children likely qualify parent beneficiaries for additional income assistance. Parents are more likely to receive means-tested support from food stamps (36 percent versus 24 percent) and public cash assistance or welfare (9 percent versus 3 percent). Parents are less likely to receive income from pensions, private disability insurance, workers' compensation, unemployment insurance, or retirement (9 percent versus 14 percent).

Poverty. Despite receiving relatively high levels of government support, and the fact that those who are employed work at comparatively robust levels, parents experience poverty at high rates compared with other beneficiaries. The extra income they receive, on average, does not appear to cover the needs, in terms of the federal poverty standard, of the additional family members in the household.

Employment is the primary means by which people in our society escape poverty. Programs and policies that promote work for beneficiaries who are parents might therefore be important tools for reducing poverty in this population. Given the health conditions of SSI and SSDI beneficiaries, employment may not be a realistic option for many of them, but it may be for some. Most parents who receive SSI or SSDI have worked at some time in their lives. Further, and in contrast with nonparents, many have work goals and expect to work. However, the difference between their expectations and reality may be partly due to employment barriers that could be addressed with new policies—for example, by providing better access to child care and job training. Because parents are younger, on average, than other beneficiaries, investments in human capital development and work supports for members of this population have the potential for long-term disability program savings. Improving the economic well-being of beneficiaries who are parents might also enhance the long-term well-being of their children.

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Disability Benefits, Consumption Insurance, and Household Labor Supply

David Autor
MIT Department of Economics; NBER

Andreas Ravndal Kostol
Research Department, Statistics Norway; Department of Economics, University of Bergen

Magne Mogstad
Department of Economics, University of Chicago; Statistics Norway; NBER

3rd Annual Meeting of the Disability Research Consortium

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Abstract

While a mature literature finds that Disability Insurance (DI) receipt discourages work, the welfare implications of these findings depend on two rarely studied economic quantities: the value that individuals and families place on disability benefits; and the full cost of DI allowances to taxpayers, summing over DI transfer payments, benefit substitution to or from other transfer programs, and induced changes in tax receipts. We comprehensively assess these missing margins in the context of Norway's DI system, drawing on two strengths of the Norwegian environment. First, Norwegian register data allow us to characterize the household impacts and fiscal costs of disability receipt by linking employment, taxation, benefits receipt, and assets at the person and household level. Second, random assignment of DI applicants to Norwegian judges who differ systematically in their leniency allows us to recover the causal effects of DI allowance on individuals at the margin of program entry. Accounting for the total effect of DI allowances on both household labor supply and net payments across all public transfer programs substantially alters our picture of the consumption benefits and fiscal costs of disability receipt. While DI denial causes a significant drop in household income and consumption on average, it has little impact on income or consumption of married applicants; spousal earnings and benefit substitution entirely offset the loss in DI benefit payments. To develop the welfare implications of these findings, we estimate a structural model of household labor supply that translates employment decisions of both spouses into revealed preferences for leisure and consumption. We find that the welfare benefit of DI receipt is considerably larger for single and unmarried individuals as compared to married couples, suggesting that it might be efficient to lower replacement rates or impose stricter screening on married applicants.

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Introduction

Over the past 50 years, disability insurance (DI) rolls have risen dramatically in many OECD countries. In the U.S., SSDI benefits receipt has risen from less than 1 percent to nearly 5 percent of the non-elderly adult population. In many European countries, the increases are even more striking, from 1 percent to 7 percent in the U.K and from 2 percent to almost 10 percent in Norway. These increases have made DI one of the largest transfer programs in most OECD countries. In the U.S., for example, outlays for DI exceed those for food stamps, traditional cash welfare, or the EITC.1 For families without small children, DI is often the primary cash benefit available after unemployment benefits run out and it has therefore become an increasingly important component of the social safety net.

To limit DI program growth, several countries have significantly tightened disability screening criteria, and many others are considering similar policies.2 These enhanced gatekeeping policies can reduce the fiscal burden of disability insurance, both by lowering the DI caseload and, if rejected applicants return to work, by increasing tax revenue. At the same time, stricter screening may result in net welfare losses for individuals and families that value public disability insurance at more than its fiscal cost.3 To assess the costs of disability allowances to taxpayers and the benefits to disability recipients requires information on two economic quantities that are rarely measured: the economic value that individuals and families place on receipt of disability benefits; and the full cost of DI allowances to taxpayers, summing over DI transfer payments, benefit substitution to or from other transfer programs, and induced changes in tax receipts. Credibly estimating these quantities is typically hindered both by a lack of comprehensive linked data measuring these many outcomes, and by the difficulty of distinguishing the causal effects of DI receipts from the many unobserved factors that simultaneously determine disability status, earnings, tax payments and transfer receipts, and consumption.

This paper overcomes both the measurement and the identification challenge in the context of Norway's DI system to offer empirical evidence on the fiscal costs, consumption benefits and welfare implications of DI receipt. Our work draws on two strengths of the Norwegian environment. First, Norwegian register data allow us to characterize the household impacts and fiscal costs of disability receipt by linking employment, taxation, benefits receipt, and assets at the person and household level. Our measure of fiscal costs includes virtually all forms of government cash transfers and revenues from (direct) taxes, accounting for changes in labor supply and substitution to other transfer programs. Our measures of household impacts of DI receipt include net government transfer payments from all sources, employment and earnings of DI applicants (both allowed and denied) and their spouses, and household consumption expenditure imputed from successive annual observations of income and wealth. Second, we address the threats to identification by exploiting the random assignment of DI applicants to Norwegian judges who differ systematically in their leniency. This approach recovers the causal effects of DI allowance on individuals at the margin of program entry. As a measure of judge leniency, we use the average allowance rate in all other cases a judge has handled. This leniency measure is highly predictive of judicial rulings in incumbent cases but uncorrelated with case characteristics.

Our first set of analyses estimating the causal effects of DI receipt on earnings, consumption, and fiscal costs yields three main findings. First, denying DI benefits to applicants on the margin of program eligibility induces an increase in annual earnings of approximately $6,600, which is about 40 percent of the annual DI transfer benefit denied. Second, DI denial lowers average household income and consumption by 15 and 16 percent—a reduction of more than 60 cents for every dollar in net government spending averted—implying that DI receipt provides partial consumption smoothing. Third, DI denials have starkly different impacts on applicants according to marital status. Among single and unmarried (though possibly cohabiting) applicants, DI-induced changes in net government spending have large direct impacts on household income and consumption: each public dollar saved through DI denial reduces household income by nearly 90 cents. Conversely, DI denials do not decrease the household income or consumption of married applicants. The reason is that household labor supply and benefit substitution entirely offset the loss in DI benefit payments. While DI benefits do not affect consumption of married applicants, they impose considerable costs on other taxpayers through higher transfers and reduced payroll tax revenues. Thus, accounting for the total effect of DI allowances on household labor supply and net payments across all public transfer programs alters our picture of the consumption benefits and fiscal costs of disability receipt.

To develop the welfare implications of these findings, we estimate a structural model of household labor supply that translates employment decisions of both spouses into revealed preferences for leisure and consumption. The model allows for non-separable preferences between labor supply and consumption and the utility of leisure among spouses. Brought to the data, the model provides a good fit to the causal estimates of the impact of DI allowances on employment and total household income obtained non-structurally, and moreover, provides plausible parameter estimates for labor supply elasticities. We use the estimated model to compute the welfare benefits of DI receipt—by which we mean the cash equivalent value of receiving a DI allowance—and to perform counterfactual analyses that help us infer the extent to which spousal labor supply and reapplication attenuate the welfare loss from being denied DI at the appeal.4 Among married couples, there is a small but positive welfare benefit of DI receipt, due to increased leisure of applicants and their spouses. By comparison, the gains in welfare of single and unmarried applicants are relatively large, and almost entirely due to increased disposable income. These results suggest that it might be efficient to lower replacement rates or impose stricter screening on married applicants. Of course, any policy that conditioned disability screening and benefits on marital status would have to account for likely policy-induced shifts in marriage formation and dissolution.

Our paper contributes to a growing literature on the causes and consequences of the growth in DI rolls (for a review, see Autor & Duggan, 2006; Autor, 2011; Liebman, 2015). While the mature literature on the causal impacts of disability benefits focuses primarily on the employment and earnings effects of DI allowance, little is known about the fiscal costs or consumption benefits.5 Meyer & Mok (2013) and Kostol & Mogstad (2015) over to our knowledge the only prior study that comprehensively documents changes in income and consumption that follow self-reported changes in health and disability. Low & Pistaferri (2012) provide simulations from a calibrated life-cycle model to compare the insurance value and incentive costs of DI benefits. Our identification strategy, which uses judge assignments to isolate quasi-experimental variation in disability allowances, builds on three recent studies using U.S. data to estimate labor supply impacts of DI receipt. Exploiting quasi-experimental variation in DI allowances stemming from differences in disability examiner leniency, Maestas et al. (2013) and Autor et al. (2014a) find that DI receipt substantially reduces earnings and employment of applicants. French & Song (2013) pursue a similar strategy—exploiting variation in the leniency of appeal judges rather than initial examiners—and find comparable labor supply effects of DI receipt among appellants. Our study makes two contributions to this active literature. It combines quasi-experimental variation in judicial disability determinations with extensive register data on disability applicants and household members to provide novel evidence on the consumption benefits and fiscal costs of DI receipt in a setting where we can credibly address concerns about omitted variables bias.6 Second, by integrating causal impact estimates along multiple dimension, the subsequent structural model estimation offers a welfare assessment of these findings.

Our paper also contributes to a rich literature assessing the response of consumption to both anticipated and unanticipated income changes.7 Most work in this literature assumes exogenous labor supply, focuses on a single earner, or imposes restrictions on the nature and type of insurance available to families. A notable exception is Blundell et al. (2012), who estimate a life cycle model with two earners making consumption and labor supply decisions.8 Consistent with our findings, Blundell et al. find an important role for consumption insurance through household labor supply, while self-insurance through savings and borrowing matter less.9 A related literature tests for the added worker effect, i.e., an increase in spousal labor supply induced by negative income shocks to the other spouse (Lundberg, 1985). Cullen & Gruber (2000) review this literature and highlight the difficulty in drawing credible inferences from observational data. One challenge is to locate a plausibly exogenous income shock to one spouse that does not directly affect the labor supply of the other spouse, thus overcoming the problem of reflection or simultaneity. Another difficulty is to control for correlated unobserved spousal heterogeneity in earnings capacity, health, and the taste for work, all of which might bias estimates of an added worker effect. A third challenge is to avoid or model correlated shocks across spouses. If, for example, a general economic downturn causes a negative income shock to a primary earner, his or her spouse's market wage will likely fall concurrently, thus biasing downward the estimated added worker effect. Our research design overcomes these challenges by identifying a plausibly exogenous income shock (DI denial) that directly affects only one one member of the household (the DI applicant), thereby providing a strongly confirmatory test of the added worker effect in the DI context.

When considering the interpretation and generality of these findings, we emphasize two caveats. First, our structural model permit us to estimate the economic value of the transfer component of DI benefits—that is, the cash equivalent value of a DI award—but do not encompass the ex ante insurance value of the DI system for potential applicants. Since this insurance value is doubtless positive and potentially large, our estimates should not be interpreted as a full accounting of the welfare value of the DI system. Second, the estimates obtained by the quasi-experimental variation in judicial disability determinations correspond to the local average treatment effect of DI allowance or denial for individuals who could have received a different allowance decision in the appeal process had their case been assigned to a different judge. Since the work capacity of individuals at the margin of program entry is likely to differ from that of inframarginal individuals, we are cautious in extrapolating the causal estimates obtained here to the broader population at large or to other programmatic settings.

Nevertheless, the economic consequences of DI receipt for marginal DI claimants are relevant for policy. In both Norway and the U.S., the rise in DI rolls in recent decades appears driven in significant part by de jure or de facto changes in the screening criteria applied to claimants reporting diffcult-to-verify disorders, such as back pain or mental disorders (Autor & Duggan, 2006; Kostol & Mogstad, 2014). Logically, reforms aimed at altering DI screening criteria will likely have the largest impacts on applicants on the margin of program entry, a substantial share of whom are applicants with difficult-to-verify disorders. Not coincidentally, this description also corresponds closely to the marginal appellants whose outcomes identify the causal effects estimates and model-based welfare calculations above. These observations suggest that while the estimates provided by this paper are not directly generalizable to the full DI population, they are likely to be informative for policymaking.

Notes

1 In 2011 the U.S. paid out $129 billion to 10.6 million disabled workers and their families, with an additional $33 billion worth of disability benefits from the SSI program for poor Americans and $90 billion in Medicaid for disabled workers (OASDI Trustees Report, 2012). In 2009, DI payments constituted 1.8 percent of GDP in the U.S. and 2.3 percent of GDP across the European OECD-countries (OECD, 2010).

2 For example, the U.S. tightened the criteria for new disability awards in the late 1970s and introduced an aggressive program of continuing disability reviews in 1980; however, Congress responded by halting the reviews and, in 1984, liberalizing the program's screening criteria along several dimensions. Another example is the Netherlands; in 1994, the eligibility criteria were tightened and the growth in DI rolls reversed.

3 In the U.S., all private disability insurance is provided through employer-based group policies. These policies 'wrap-around' the public SSDI system, so that most of the wage insurance risk and all of the medical cost risk is ultimately borne by the public program (Autor et al. , 2014b). There is not a strong standalone private market in disability insurance, likely because of adverse selection.

4 While our structural analysis estimates the cash equivalent value of the transfer component of the DI system, it does not seek to estimate the ex ante insurance value of the DI system (that is, the value of reallocating income between different health states) since our research setting does not provide credible identification for the relevant parameters.

5 This literature includes Parsons (1980), Bound (1989), Gruber (2000), Chen & van der Klaauw (2008), and Kostol & Mogstad (2014) as well as the methodologically related papers on DI discussed immediately below. See also Autor & Duggan (2003) and Borghans et al. (2014) for empirical evidence on the interaction between disability insurance and other transfer programs in the U.S. and Netherlands.

6 Our analysis uses the same identification strategy as Dahl et al. (2014) though applied to a distinct question and set of outcomes.

7 The literature is reviewed in Blundell et al. (2008), Meghir & Pistaferri (2011) and Blundell et al. (2012).

8 A complementary exception is Finkelstein et al. (2015), who directly estimate the insurance value of Medicaid in-kind public health plan benefits using variation from a randomized controlled trial. Distinct from our focus, their work (a) abstracts from labor supply considerations since labor supply appears unaffected by Medicaid provision in their setting (Baicker et al. , 2014); and (b) estimates both the transfer and ex ante insurance values of public benefits provision, whereas we estimate only the first component.

9 See also Fadlon & Nielsen (2015) who find that wives offset income losses following the death of a spouse through increased labor supply.

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State Variation in Benefit Receipt and Work Outcomes for SSI Child Recipients After the Age 18 Redetermination

Jeffrey Hemmeter
Social Security Administration

David R. Mann
Mathematica Policy Research

David Wittenburg
Mathematica Policy Research

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Introduction

As they approach adulthood, children who receive Supplemental Security Income (SSI) benefits face an important decision regarding their continued program participation. In addition to the issues that all transition age youth typically encounter, at age 18 child SSI recipients must have their eligibility for SSI redetermined under the adult eligibility criteria. Approximately one-third of child SSI recipients lose their SSI eligibility as they enter adulthood because they either do not meet the adult SSI disability criteria or leave the program for other reasons (Social Security Advisory Board 2006). Hence, the age 18 redetermination is a significant event in the lives of child SSI recipients and their families and is a source of controversy given the relatively poor outcomes of former child SSI recipients, whether they stay on SSI as adults or not (Hemmeter, Kauff, and Wittenburg 2009).

Though previous research has not directly examined state variation in age 18 redetermination rates and subsequent outcomes, that research suggests that state variation in the child SSI program may have an important role in explaining former child SSI recipient outcomes. Although SSI is a federal program, child SSI program growth has varied across states and regions, with the greatest caseload growth occurring in Texas, Pennsylvania, Florida, and California (Wittenburg et al. 2015). National redetermination rate statistics do not vary much across time, but do vary across demographic characteristics (Hemmeter and Gilby 2009). In addition, Hemmeter and Gilby (2009) found that relative to the beginning of their study period, youth nearing the redetermination during the end of their study period were less likely to be employed.

For this study, we examined state variation in age 18 redetermination decisions and both benefit receipt and employment outcomes of former child SSI recipients. State variation in child SSI caseload growth and the implications of age 18 redetermination decisions on key young adult outcomes generates several policy relevant research questions: to what extent do age 18 redetermination decisions vary across states; how different are the employment and Social Security disability benefit receipt outcomes of former child SSI recipients by age 18 redetermination status; and to what extent do young adult employment and benefit receipt outcomes vary by state among former child SSI recipients, conditional on age 18 redetermination status? Our examination of redetermination decisions and other outcomes by state explored these research questions.

Data and Methods

The analysis sample consisted of former child SSI recipients who turned 18 and received their final age 18 redetermination decision by age 24. The sample included all child SSI recipients who received an age-18 redetermination between 1998 and 2006 because they represent almost all former child SSI recipients who can be observed in the data through at least age 24. Outcome statistics were presented by state, showing what percentage of former child SSI recipients (1) had their benefits ceased because of the age 18 redetermination decision, (2) received SSI or Social Security Disability Insurance (SSDI) benefits at age 24, (3) were employed in the calendar year they turned age 24, and (4) earned above the annualized substantial gainful activity (SGA) amount in the calendar year they turned age 24.[5] All results were regression adjusted to control for state variation in caseload characteristics.

We used linked administrative data to conduct the analysis because these data allowed us for the first time to track state variation for the sample universe of all redeterminations. Using data from the Office of CDR Support within SSA's Office of Operations, we obtained a data extract identifying those who met our sample inclusion criteria. This file provided date of birth, gender, state of residence, primary impairment, and other variables of interest (such as whether a consultative examination was requested and when the youth began receiving SSI). The Supplemental Security Record was used to identify the gender of those sample members. The Numident file was used to identify the date of death, if applicable. Outcome data were drawn from the Supplemental Security Record, Master Beneficiary Record, and Master Earnings File.[6]

Summary and Implications of the Findings

The age 18 redetermination cessation rate results revealed regional patterns and substantive state variation in redetermination decisions (Figure 1). Specifically, relative to the rest of the nation, states in the southeast of the United States had the highest age 18 redetermination cessation rates. The four states with the highest cessation rates—Mississippi (46.9 percent), South Carolina (44.0 percent), Arkansas (42.2 percent), and Louisiana (41.8 percent)—were in this region, and most of the other states in the southeast had cessation rates at or above 36.0 percent. Some Midwest and Mid-Atlantic states, such as Ohio (39.0 percent) and New Jersey (37.0 percent), also had relatively high cessation rates. The remainder of the country—the west (excluding Colorado), New England (excluding New York), and the non-contiguous states—had cessation rates below 25.2 percent. The unadjusted cessation rate results, including the regional patterns, look quite similar to the regression adjusted results presented in this summary.

Substantive differences exist in young adult benefit and employment outcomes at age 24 by their age 18 redetermination decision (ceased and continued). Not surprisingly, former child SSI recipients who received a continuation decision at age 18 were much more likely than those who were ceased to be receiving SSI benefits at age 24 as adults (81.1 percent vs 15.8 percent). Additionally, continued former child SSI recipients were over four times more likely than ceased former SSI recipients to receive SSDI benefits at age 24 (22.3 percent compared to 5.4 percent). These patterns of receipt indicate that the age 18 redetermination outcome has important long-term outcomes for program participation in both SSI and SSDI.

Child SSI recipients who were continued at age 18 were substantially less likely than those ceased to be employed at age 24 (20.4 vs. 49. percent) or earning above SGA (6.5 percent vs 22.4 percent). This is consistent with prior evidence of long term effects on program participation for those who received age-18 redeterminations in the mid-1990s (Deshpande 2014).

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[5] We defined employment as earnings in excess of $1,160—a quarter of coverage in 2013—during the calendar year the person turned age 24. That earnings measure includes all earnings during the calendar year a person turned age 24. The annualized SGA amount was defined for the study as $1,040—the 2013 non-blind SGA amount.

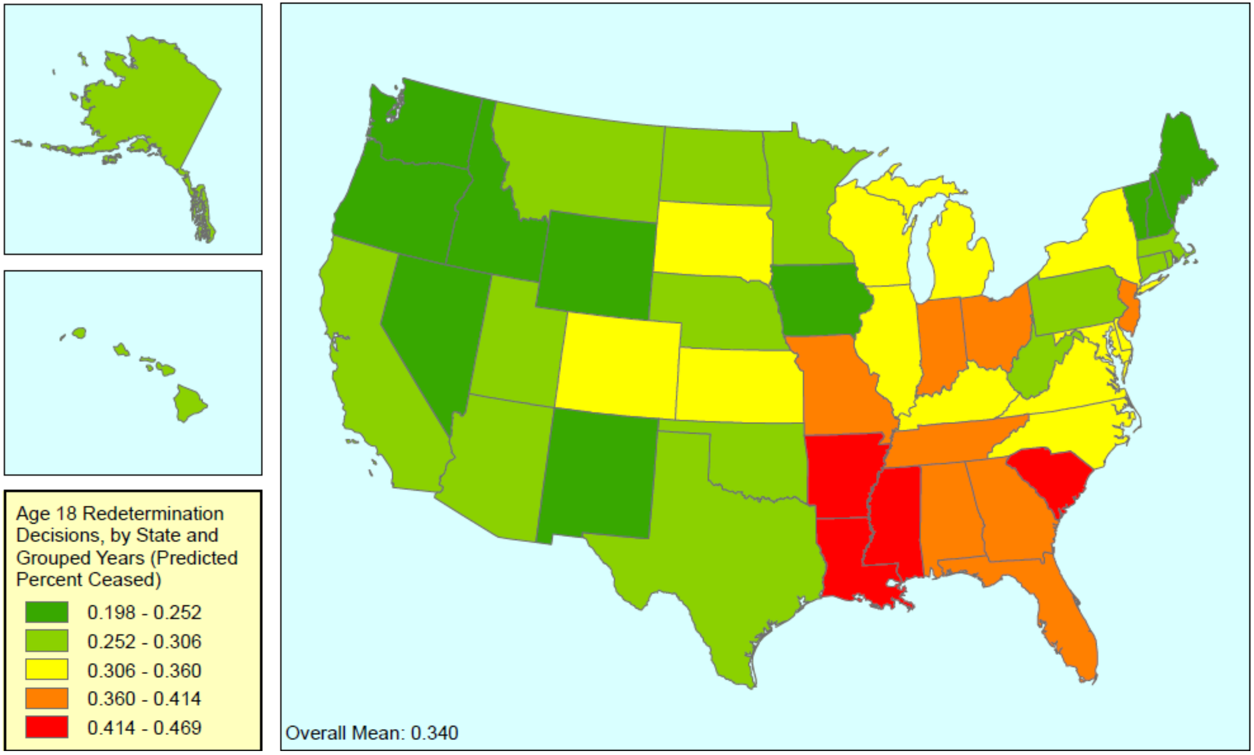
[6] Because access to several of the analysis data files is restricted to SSA staff with the proper security clearances, Jeffrey Hemmeter performed all data manipulations for this project.

We also observed large benefit and employment outcome differences in all states by redetermination status. Specifically, within every state, ceased former child SSI recipients had higher employment rates and lower benefit receipt rates at age 24 relative to continued former recipients.

However, we have not yet determined whether the state cessation rate variation shown in Figure 1 drove cross state differences in outcomes at age 24. Several potential factors, such as differences in SSI caseload characteristics and state labor market environments, may also have influenced these outcomes and therefore must be controlled for before we can link inter-state variation in cessation rates and outcomes. We are currently exploring how to best control for these factors.

Our findings to date provide new evidence on the long-term outcomes of child SSI recipients following the age 18 redetermination. The regression adjusted findings showing cross-state differences in redetermination rates, with particularly high rates in the southern region, are somewhat surprising, given that SSI is a federal program, though there is evidence elsewhere of state variations in SSA administrative process (Social Security Advisory Board 2012). Some variations are to be expected given that disability determinations are made by state disability determination systems. However, given the potential long-term employment and program trajectories following redetermination, some further examination of these paths is potentially warranted, particularly to better understand how the different systems and administrative processes might influence long-term outcomes.

Figure 1. Age 18 redetermination cessation rate by state



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Nonmarket Work among Working-Age Disability Beneficiaries: Evidence from the American Time Use Survey

Carrie L. Shandra
State University of New York at Stony Brook

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1. Introduction

Over 8 million adults in the United States in 2012 had work disabilities severe enough to qualify them for income maintenance in the form of Social Security Disability Insurance (SSDI) (Social Security Administration, 2013). However, a lack of attachment to the paid labor market does not mean that SSDI beneficiaries do not engage in other forms of labor inputs that contribute to economic production. Activities such as housework, care work, volunteering, and the coordination of services related to household production all have exchange value (National Research Council, 2005). Additionally, like transactions measured in the market, they have the potential to increase the value of purchased goods and services and help develop and maintain human capital (Chadeau, 1992). Previous research has used time diary data to document and estimate the economic value of nonmarket work (Landefeld, Fraumeni, & Vojtech, 2009; Frazis & Stewart, 2011)—particularly as contributed by populations that may be less attached to the labor market, including mothers (Folbre & Yoon, 2008) and retirees (Moen & Flood, 2013). However, less is known about how disability beneficiaries spend their time, how much of this time contributes to production, or the market value of this production.

This study uses data from the 2003-2012 American Time Use Survey (ATUS), matched to the Annual Social and Economic Supplement of the Current Population Survey (CPS), to provide the first nationally representative analysis of time use among working-age disability beneficiaries in the United States. The objectives of this analysis are three-fold: to estimate nonmarket time use among SSDI recipients; to calculate replacement wages that could be earned if nonmarket activities were compensated in the market; and to compare the relative contribution of nonmarket labor inputs to Gross Domestic Product (GDP) and aggregate SSDI payments.

2. Data and Methods

Individual-level nonmarket time use is estimated from the ATUS, a nationally representative survey sponsored by the U.S. Bureau of Labor Statistics (Hofferth, Flood, & Sobek, 2013). Respondents were chosen randomly from households that had undergone their final interview for the CPS, and therefore can be matched to the March Supplement to identify SSDI receipt. The final sample consists of 32,619 individuals aged 18-64—1,028 (3.15%) of whom report receiving SSDI as a result of their own disability. Nonmarket work includes household activities, caring for household and nonhousehold members, consumer purchases, volunteering, obtaining services, and most government services and civic obligations.

Occupation-level replacement wages calculate wages that could be earned if beneficiaries' nonmarket activities were compensated in the market. Generalist, specialist, and adjusted specialist wages are estimated from hours-weighted mean wages for corresponding occupations from CPS Outgoing Rotation Group (Frazis & Stewart 2011).

National-level GDP and SSDI payments compare beneficiaries' nonmarket labor inputs to GDP and aggregate SSDI payments. These are collected from the World Bank's (2015) World Development Indicators and the Social Security Administration (2013).

3. Results

Nonmarket time use (Figure 1). Of all types of nonmarket work, beneficiaries spend the most daily time, on average, in household activities (114 minutes). Most of this time (37 and 36 minutes) is spent in housework and food and drink preparation. Beneficiaries spend over an hour and one-half in all types of care work, each day—including 56 minutes in secondary child care.

More time is spent caring for non-household members (20 minutes) than for household members (17 minutes). Types of care work also vary across household context, with the majority of household care (11 minutes) directed toward children, and the majority of non-household care (9 minutes) directed toward adults. Of the remaining categories, little time is spent on average in volunteer activities (5 minutes) and other services (2 minutes). Sixteen minutes per day are spent in professional and personal care services and 32 in consumer purchases.

Nonmarket labor inputs, GDP, and SSDI Payments (Table 1). Even when all nonmarket time is considered general labor (compensated at housekeeping cleaner rate), labor inputs are valued at $150.2 billion in 2012. Assigning a specialist wage category increases this estimate to $153.6 billion, while adjusting specialist rates for differences in efficiency leads to the lowest valuation of $139.7 billion. As the number of beneficiaries on the rolls increases, so will their total labor inputs—but the relative contribution of these inputs to GDP and as compared to SSDI payments need not. Regardless of year and estimation approach, beneficiaries' nonmarket production is valued between .69% (2003) and .98% (2011) of annual GDP. Labor inputs are valued between 123% (2012) and 146% (2003) of total average SSDI payments.

4. Implications

Results indicate that beneficiaries make substantial contributions to production, with labor inputs valued at nearly 1% of GDP and exceeding the costs of aggregate average SSDI payments. Relative to other industries' value added as a percentage of GDP over the same period, beneficiaries' labor inputs are comparable in size to that of farms, educational services and nursing facilities (U.S. Bureau of Economic Analysis, 2015). In other words, beneficiaries' labor inputs surpass the value of many industries with substantial market power. Beneficiaries' nonmarket work is also valued at 23-46% more than the aggregate average monthly SSDI payment. While the size of SSDI rolls and the rate of take-up depends on many factors, these results suggest SSDI payments cover only a portion of beneficiaries' contributions to production.

At the individual level, these results indicate that SSDI beneficiaries spend a significant portion of their time in productive work. Their total average nonmarket time adds to 4 and one-third hours per day; more than 30 hours per week. While the majority of this daily time (114 minutes) goes toward household activities, much (36 minutes) is additionally devoted to care for others. While the ATUS data are unable to address the extent of disablement, or how disablement might affect the translation of nonmarket labor into market production, time use data indicates that SSDI beneficiaries report a substantial amount of work—albeit not in the market.

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Figure 1. Average daily nonmarket time use (aggregate categories)

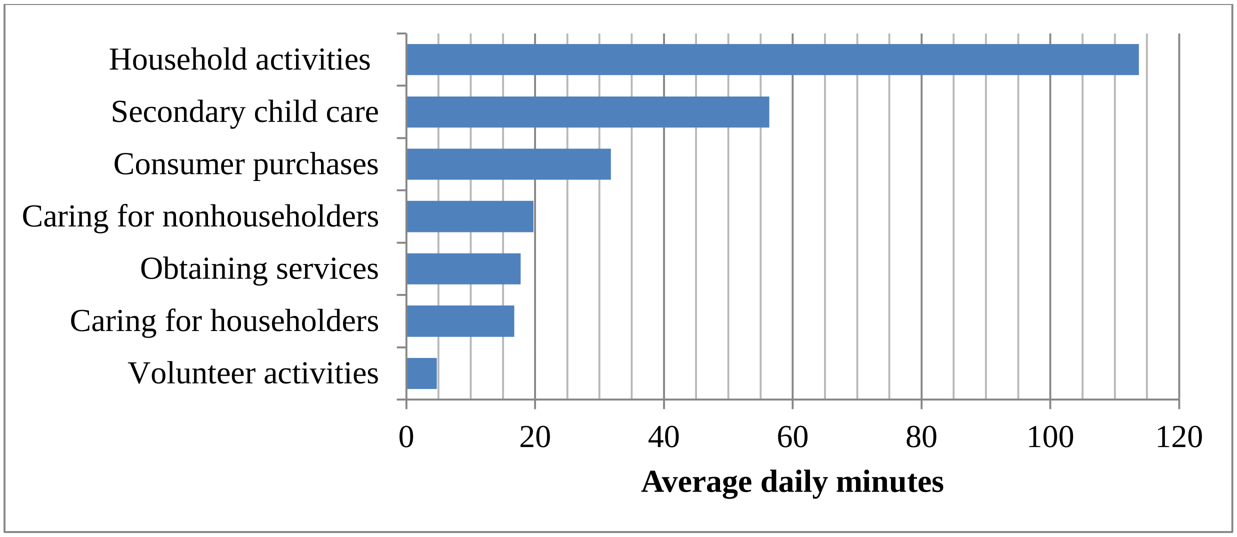

Table 1. Nonmarket Labor Inputs as % of GDP and SSDI Expenditures

	Total Labor Inputs (in billions of dollars)			*Labor Inputs as % GDP*			*Labor Inputs as % SSDI Expenditure*		
Year	*G*	*S*	*AS*	*G*	*S*	*AS*	*G*	*S*	*AS*
2004	$88.3	$93.4	$85.0	0.72	0.76	0.69	134.6	142.3	129.5
2006	$102.1	$107.0	$97.3	0.74	0.77	0.70	131.6	137.8	125.4
2008	$119.9	$124.8	$113.5	0.81	0.85	0.77	132.6	138.0	125.5
2010	$135.0	$142.8	$130.0	0.90	0.95	0.87	134.0	141.7	129.0
2012	$150.2	$153.6	$139.7	0.93	0.95	0.86	132.3	135.3	123.0

Notes: G = generalist wage, S = specialist wage, AS = adjusted specialist wage. Select years shown.

SSA Payments to State Vocational Rehabilitation Agencies for Beneficiaries Who Work

Jody Schimmel Hyde
Mathematica Policy Research

Paul O'Leary
Social Security Administration

DRC Annual Meeting

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Recognizing that many Social Security disability beneficiaries want to work, and knowing that advances in technology, supportive services, and social attitudes have improved opportunities for workers with disabilities, the Social Security Administration (SSA) has emphasized helping beneficiaries return to work and exit the rolls. The Ticket to Work (TTW) program, implemented in phases from 2002 through 2004, offered new financial incentives to expand the network of providers offering return-to-work services to beneficiaries. Although many new organizations began to function as employment networks under TTW, most beneficiaries still receive employment services through the federal/state vocational rehabilitation (VR) program that existed before TTW.

In this study, we seek a better understanding of the extent to which SSA disability beneficiaries who apply for services from state VR agencies (SVRAs) work at a substantial enough level to generate payments from SSA to SVRAs, and how these payments compare to the accrued benefit reductions to beneficiaries who generate the payments. Since the implementation of TTW, SVRAs that provide services to SSDI and SSI beneficiaries may potentially receive reimbursement from SSA under one of the payment schemes of the TTW program, or under the more traditional reimbursement mechanism that existed before TTW. SVRAs can choose which payment applies on a case-by-case basis, and most SVRAs serve most or all SSA beneficiaries under the cost reimbursement system. Under that scheme, SSA will reimburse the SVRA for qualifying service costs once the beneficiary achieves earnings at or above the level of substantial gainful activity (SGA; $1,070 per month in 2014) in 9 of 12 consecutive months. TTW payments are not tied to the actual cost of serving a beneficiary, but are predetermined and accrue in months when beneficiaries achieve specified earnings outcomes relative to SGA.

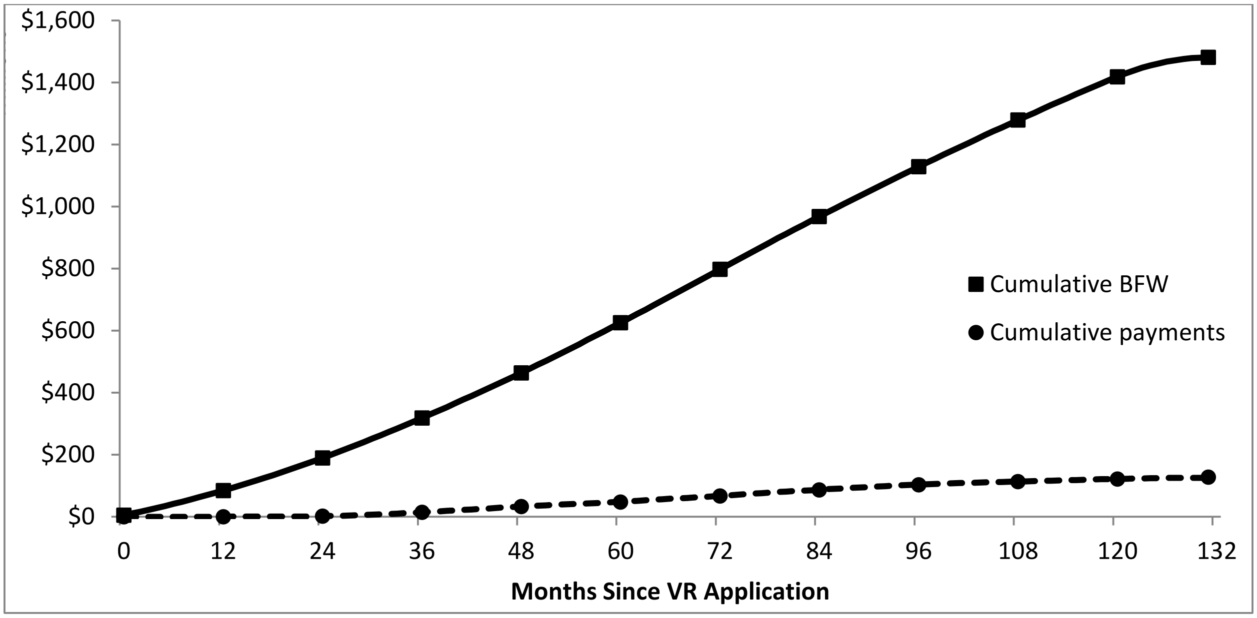
Our analysis is based on linked administrative data from SSA and the Rehabilitation Services Administration (RSA). In particular, we used the RSA's Case Service Report (RSA-911) data linked to SSA's Disability Analysis File (DAF) to identify the first time that SSDI and SSI beneficiaries whose case was closed by the end of the 2012 fiscal year had applied for services from an SVRA during the 2002–2007 period while they were beneficiaries. Using these selection criteria, and limiting the data to applications to SVRAs in the 50 United States and the District of Columbia, we identified 1.28 million "beneficiary VR applicants," representing about one-quarter to one-third of all applications to SVRAs during this time. We are able to follow the benefit and work experiences for these applicants for 5 to 10 years after VR application, using monthly information contained in the DAF. For purposes of this summary, we highlight the experiences of the 2002 applicants, which we believe to be largely representative of what we would observe if we were able to follow later applicant cohorts over a similar length of time.

Our first objective was to determine the frequency with which payments were made. We found that payments from SSA to SVRAs were relatively rare during our period of study. Among all beneficiaries who first applied for VR services from 2002 through 2007, approximately one in 20 beneficiary applicants had work activity that triggered a payment from SSA to an SVRA. About 10 percent of the payments made by SSA were on behalf of beneficiary applicants who were not served when they first applied for VR services. In these instances, beneficiaries must have reapplied, received services, and ultimately earned enough to make the SVRA eligible for payment.

Our next objective was to determine how the payments made by SSA on behalf of beneficiary VR applicants compared to cash benefits forgone for work (BFW) during the same period. We found that the total BFW accrued among beneficiaries who applied for services from

SVRAs dwarfed the payments SSA made to the SVRAs for serving those beneficiaries. For example, among the 2002 beneficiary VR applicant cohort, BFW accumulated through the end of 2012 is 11.5 times higher than the payments SSA made to SVRAs for their services (Figure 1; $1.48 billion in BFW compared to $1.28 million in payments). When limiting follow-up to the end of the fourth calendar year after closure to consider a shorter follow-up period after receiving VR services, the ratio of BFW to payments is still substantial at 7.9:1.

Figure 1. Accumulation of SSA payments to SVRAs and beneficiary BFW following to VR application, 2002 beneficiary VR applicant cohort



Source: Authors' calculations using DAF12 linked to RSA-911 closure files.

Note: Month 132 includes all payments made in December 2012 and later (through June 2013), provided the spell closure date was in December 2012 or earlier. Payments and BFW are adjusted to 2012 dollars using the SSA's COLA.

We also considered whether BFW accrual and SVRA payments vary by the beneficiary's characteristics or by the agency providing services. Young beneficiaries, those with higher levels of education, and those with sensory impairments generate disproportionate shares of BFW and payments (Figure 2).[7]

There is also wide SVRA-level variation in the share of beneficiaries for whom SSA makes a payment to an SVRA. Some agencies collect a low share of payments given the number of beneficiary applicants they serve, whereas others collect a disproportionately high share of

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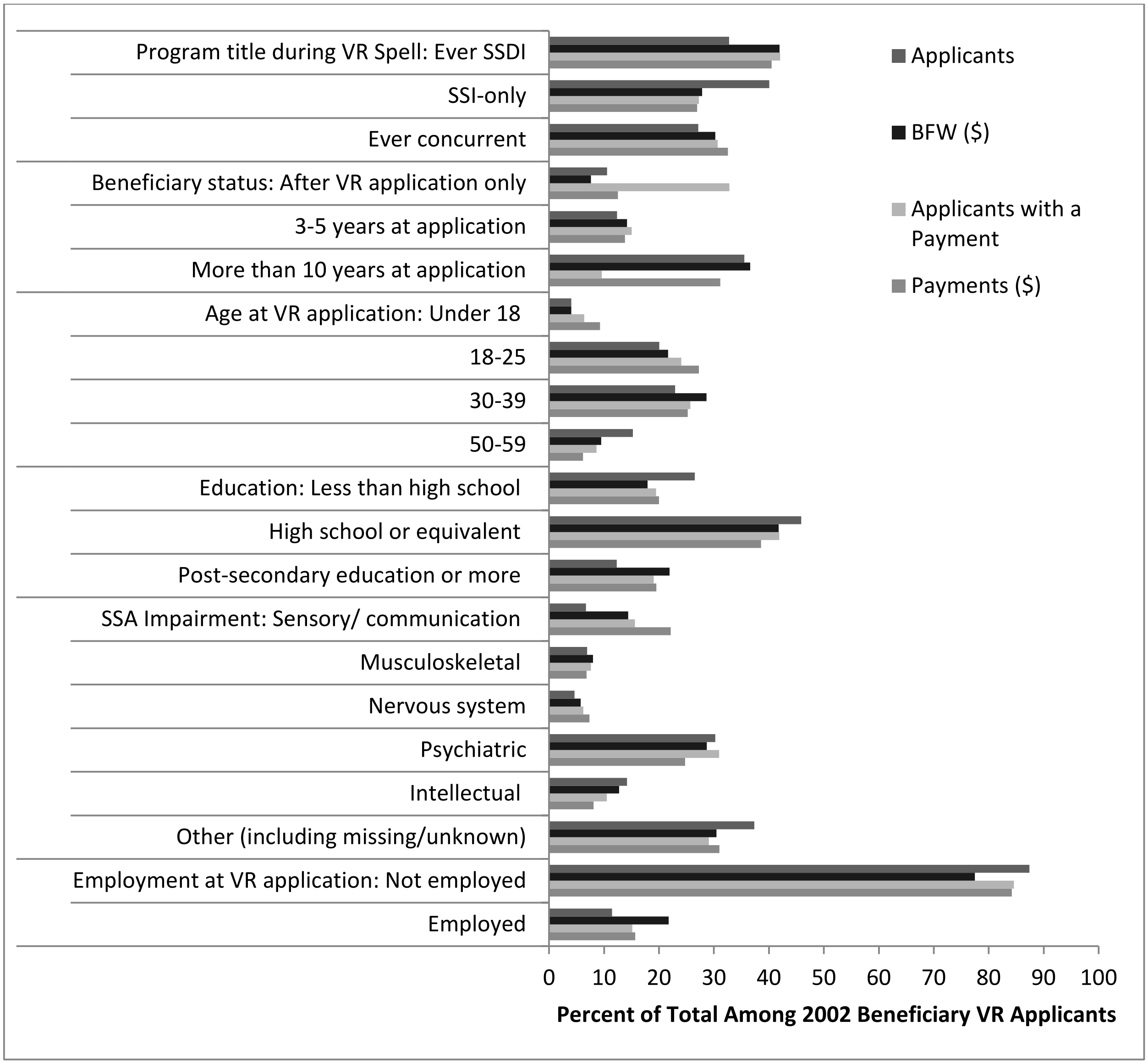
[7] For each group, we calculate the share of applicants it represents, as well as the share of the group with a payment, its share of total payment dollars, and its share of total BFW. The share of applicants (top bar for each subgroup) can be compared with the corresponding share for each of the three outcomes. When the applicant share is lower than the share with the relevant outcome, applicants in that subgroup had a disproportionately high outcome. Conversely, when the applicant share is above the share with the relevant outcome, applicants in that subgroup had a disproportionately poor outcome.

payments. This variation does not seem to be directly tied to BFW among applicants, suggesting that agencies vary in the extent to which they seek payment (not shown).

Figure 2. Proportion of applicants, beneficiary BFW, and SSA payments to SVRAs by subgroup: 2002 beneficiary VR applicants



Source: Authors' calculations using DAF12 linked to RSA-911 closure files. Program title, time as a beneficiary, age, and SSA impairment code derived from DAF12; all remaining characteristics drawn from RSA-911. SSA impairment group defined in the first month during the VR spell that an individual met the definition of beneficiary.

Note: Payments and BFW are calculated at the end of the fourth calendar year after VR case closure and adjusted to 2012 dollars using the SSA's COLA.

Since the time period of our study, changes to the traditional payment process from SSA to SVRAs have led to substantial growth in payments, but our study cannot assess the implications of those changes. Nonetheless, our finding that some SVRAs seem to collect disproportionately high levels of payments whereas others collect disproportionately low ones, combined with our findings on beneficiaries who are not served initially and go on to generate payments, suggest that SSA may want to consider whether additional improvements to the payment process could yield a higher rate of service provision to beneficiaries and/or improve their employment outcomes.

PARTICIPANT LIST

Abay Asfaw
National Institute for Occupational Safety and Health, Centers for Disease Control and Prevention

Solomon Afro
Int.Social Research

Shai Akabas
Bipartisan Policy Center

Priyanka Anand
Mathematica Policy Research

Philip Armour
RAND Corporation

David Autor
MIT Economics and The National Bureau of Economic Research

Shelley Bailey
Social Security Administration

Peter Baird
MDRC

Julia Baller
Mathematica Policy Research

David Barnes
Advanced Policy Solutions

Leslie Barrett
MAXIMUS

Cheryl Bates-Harris
National Disability Rights Network

Francoise Becker
Social Security Administration

Donna Bejian
U.S. Department of Veterans Affairs

Danny Bellamy
Health Services for Children with Special Needs

Yonatan Ben-Shalom
Mathematica Policy Research

Crystal Blyler
Mathematica Policy Research

Caroline Bolas
Behavioral Health Administration

Diane Brandt
National Institutes of Health

Dale Brown
Dale S. Brown @ Associates

Steve Bruns
Mathematica Policy Research

David Burk
Congressional Budget Office

Alice Burns
Congressional Budget Office

Robert Burns
University of Massachusetts, Boston

Kate Caldwell
University of Illinois at Chicago

Iden D. Campbell McCollum
The Campbell Center

William Carpluk
Government Accountability Office

Camille Castro
District of Columbia Retirement Board

Rachael Chamberlin
Government Accountability Office

Richard Chard
Social Security Administration

Sharmila Choudhury
Congressional Research Service

Jennifer Christian
Webility Corporation

Jeannette Clark
Social Security Administration

Sarah Clark
House Committee on Ways and Means

Henry Claypool
Claypool Consulting

Stacy Cloyd
National Organization of Social Security Claimants' Representatives

Alan Cohen
Social Security Advisory Board and Center for American Progress

Bill Congdon
Ideas42

Judith Cook
University of Illinois at Chicago

Ada Cornell
Congressional Research Service

Jackson Costa
Social Security Administration

Mark Cullen
Stanford University School of Medicine

Paul Cullinan
Independent Consultant

Nathan Cunningham
Office of Disability Employment,
U.S. Department of Labor

David Cutler
Harvard University

Kim Cutler
MAXIMUS

Paul Davies
Social Security Administration

Amber Davis
Howard University

Daniel Davis
Administration for Community Living,
U.S. Department of Health and Human Services

Jennifer de Vallance
Mathematica Policy Research

Lionel Deang
Social Security Administration

Danielle DeCarlo
U.S. Department of Veterans Affairs

Yuanyuan Deng
Stony Brook University

Lisa Derx
Best Buddies International, Inc.

Manasi Deshpande
The National Bureau of Economic Research and University of Chicago

Stephanie Desrochers
Maine Medical Center Department of Vocational Services

Judy Dey
Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services

Bryandt Dickerson
Bureau of Labor Statistics, U.S. Department of Labor

Steve Dunphy
Association for Public Policy Analysis and Management

Lisa Ekman
Health & Disability Advocates

Itzik Fadlon
The National Bureau of Economic Research

Joel Feinleib
Social Security Advisory Board

Carmen Ferro
Mathematica Policy Research

Jason Fichtner
Mercatus Center @ George Mason

Lynn Fisher
Social Security Administration

Peter Fitzgerald
National PACE Association

David Forgoshd
Government Accountability Office

Morgan Foy
The National Bureau of Economic Research

Elaine Fultz
JMF Research Associates

Chishio Furukawa
MIT Economics Department

Alexander Gelber
University of California, Berkeley

Shif Gesesse
MAXIMUS

Jack Gettens
University of Massachusetts Medical School

Sharon Gibson
Office of Inspector General, U.S. Postal Service

Elaine Gilby
Social Security Administration

Jade Gingerich
Maryland PROMISE, Maryland Department of Disabilities

Jagadeesh Gokhale
Social Security Advisory Board and University of Pennsylvania Penn Wharton Public Policy Initiative

Jeffrey Goode
U.S. Department of Labor

Nanette Goodman
National Disability Institute

Heather Gordon
Mathematica Policy Research

Steve Goss
Social Security Administration

Claire Green
Social Security Advisory Board

Adriane Griffen
Association of University Centers on Disabilities

Michel Grosz
University of California, Davis

Thomas Hale
Social Security Administration

April Hall-Hough
Office of Income Security Programs,
Social Security Administration

Amal Harrati
Stanford University

Molly Hawkins
University of Michigan

Jeffrey Hemmeter
Social Security Administration

Alice Henriques
Federal Reserve Board of Governors

Alexis Henry
Center for Health Policy and Research,
University of Massachusetts Medical School

Lauren Hersch Nicholas
John Hopkins University

Keitra Hill
MAXIMUS

Denise Hoffman
Mathematica Policy Research

Ted Horan
Social Security Administration

Dalmer Hoskins
Social Security Administration

Thomas Hungerford
Social Security Administration

Cherise Hunter
U.S. Department of Labor

Howard Iams
Social Security Administration

Lindsay Jacobs
Federal Reserve Board

Matthew Janicki
University of Illinois at Chicago

David Jones
MAXIMUS

Emily Jones
Office of the Assistant Secretary for Planning
and Evaluation, U.S. Department of Health
and Human Services

John Jones
Social Security Administration

Kristen Jones
Government Accountability Office

Nicole Jorwic
The Arc

Jeannette Kah Le Guil
MODELCI

Arie Kapteyn
University of Southern California – CESR

Marsha Katz
The National Bureau of Economic Research
Advisory Committee

Ruth Katz
Office of the Assistant Secretary for Planning
and Evaluation, U.S. Department of Health
and Human Services

Tracey Keene
Bureau of Labor Statistics, U.S. Department of
Labor

Jamie Kendall
Administration for Community Living,
U.S. Department of Health and
Human Services

Julie Kerksick
Community Advocates Public Policy Institute

Geena Kim
Congressional Budget Office

Jongsung Kim
Bryant University

Oliver Kim
Mousetrap

Laura Kosar
Mathematica Policy Research

John Kregel
Virginia Commonwealth University

Marina Kutyavina
Congressional Budget Office

Marianna LaCanfora
Office of Retirement and Disability Policy,
Social Security Administration

Michelle Laisure
MAXIMUS

Sharice Lane

Kate Lang
Justice in Aging

Jennifer Laszlo Mizrahi
RespectAbility

Chris Laurence
U.S. Department of Health and Human Services

Raun Lazier
U.S. Department of Veterans Affairs

Teri Leavens
Goodwill Industries International

Jae Chul Lee
University of Delaware

Anne Leopold
JBS International

Barbara LeRoy
Wayne State University

Kendall Leser
The National Association of County and City Health Officials

Jing Li
University of Baltimore

Yue Li
SUNY Albany

Gina Livermore
Mathematica Policy Research

Patricia Lloyd
National Center for Health Statistics,
U.S. Centers for Disease Control and Prevention

Nick Love
Social Security Administration

Natalie Lu
Social Security Administration

Nicole Maestas
Harvard University and RAND Corporation

Arif Mamun
Mathematica Policy Research

David Mann
Mathematica Policy Research

Dayanand Manoli
University of Texas, Austin and The National Bureau of Economic Research

Renee Marshall
Bureau of Labor Statistics,
U.S. Department of Labor

Robert Matyas
MAXIMUS

Devon Mayer
Maryland Department of Health
and Mental Hygiene

Heather McCabe
Department of Healthcare Finance,
D.C. Government

Sharon Milberger
Wayne State University

Royce Min
Social Security Administration

Robert Moffitt
John Hopkins University

Kristen Monaco
U.S. Bureau of Labor Statistics, U.S.
Department of Labor

Ana Morales
MAXIMUS

Jeanne Morin
National Association of Disability
Representatives

Monique Morrissey
Economic Policy Institute

William Morton
Congressional Research Service

Kathleen Mullen
RAND Corporation

Roger Naoroji
MAXIMUS

Nicole Nestoriak
Bureau of Labor Statistics,
U.S. Department of Labor

Frank Neuhauser
University of California, Berkeley

David Neumark
University of California, Irvine

Sara Newell
Administration on Intellectual and
Developmental Disabilities (AIDD)

Lisa Newman
MAXIMUS

Shelia Newman
New Editions Consulting, Inc.
Joyce Nicholas
Social Security Administration

Lauren Nicholas
John Hopkins University

Xiaotong Niu
Congressional Budget Office

Ellen O'Brien
AcademyHealth

Patricia Owens
Consultant

Philip Pauli
RespectAbility

Teresa Pfender
Social Security Advisory Board, on detail from
Office of Appellate Operations

Charles Pineles-Mark
Congressional Budget Office

Harold Pollack
University of Chicago

Tabia Pope
Mathematica Summer Fellow

David Price
Stanford University

Virginia Raney
Centers for Medicare and Medicaid Services

Jane Rath
New Editions Consulting, Inc.

Lakshmi Raut
Social Security Administration

Michael Reed
North American Spine Foundation

Nanette Relave
National Association of States United for Aging and Disabilities

Stephanie Rennane
University of Maryland

Virginia Reno
Social Security Administration

Christopher Rodriguez
National Disability Institute

Emily Roessel
Social Security Administration

Oscar Ruiz
U.S. Department of Transportation

Kalman Rupp
Social Security Administration

Matthew Rutledge
Boston College

Preston Rutledge
Senate Finance Committee

Laszlo Sandor
The National Bureau of Economic Research

Jody Schimmel Hyde
Mathematica Policy Research

Lucie Schmidt
Williams College

Jo Anne Schneider
Chrysalis Collaborations

Jason Schultz
Social Security Administration

Martin Scire
Government Accountability Office

James Sears
Social Security Administration

Jason Seligman
U.S. Department of Treasury

Purvi Sevak
Mathematica Policy Research

Soosan Shahrokh
Social Security Administration

Carrie Shandra
State University of New York at Stony Brook

Annette Shea
U.S. Department of Health and Human Services

Jennifer Sheehy
U.S. Department of Labor

William Shiflett
Student

Amy Shuart
Committee on Ways & Means

Marlene Simon-Burroughs
Office of Special Education Programs, U.S. Department of Education

Pragya Singh
Mathematica Policy Research

Blake Smith
PAHO/WHO

James Smith
Vermont Division of Vocational Rehabilitation

Lynne M. Smith
D.C. Department of Behavioral Health

Michael G. Smith
BeneTrkr

Anne Stahl
Health Resources and Services Administration

David Stapleton
Mathematica Policy Research

Janet Stein
The National Bureau of Economic Research

Emily Stern
Congressional Budget Office

Melissa Stipa
MAXIMUS

Christal Stone Valenzano
Mathematica Policy Research

Alexander Strand
Social Security Administration

Jeff Strohl
Georgetown University

T.J. Sutcliffe
The Arc

Savi Swick
Office of Disability Employment Policy,
U.S. Department of Labor

John Tambornino
Office of the Assistant Secretary for Planning
and Evaluation, U.S. Department of Health
and Human Services

Kuna Tavalin
Washington Partners, LLC

Betsy Tewey
New Editions Consulting, Inc.

Linda Toms Barker
IMPAQ International

Patricia Tong
U.S. Department of the Treasury

Brad Trenkamp
Office of Management and Budget

James Trout
RespectAbility

Boris Vabson
Wharton School

Paul Van de Water
Center on Budget and Policy Priorities

Benjamin Veghte
Social Security Works

Matthew Vile
Goodwill Industries International

James Wackerbarth
MAXIMUS

Doug Walker
Social Security Administration

Laura Walling
Goodwill Industries International

Mary Dale Walters
Allsup Inc.

Robert Weathers
Social Security Administration

David Weaver
Social Security Administration

Michelle Welch
Laura and John Arnold Foundation

Sharon White
D.C. Department of Behavioral Health

Susan Wilschke
Social Security Administration

Jamie Wilson
Office of Management Budget

David Wise
The National Bureau of Economic Research
Disability Research Center

David Wittenburg
Mathematica Policy Research

Dick Woodbury
The National Bureau of Economic Research

Jeff Wrase
U.S. Senate Committee on Finance

April Yanyuan Wu
Mathematica Policy Research

Na Yin
Baruch College University of New York

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