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Repository Citation

Myhill, William N. and Blanck, Peter (2009) "Disability and Aging: Historical and Contemporary Challenges," *Marquette Elder's Advisor*: Vol. 11: Iss. 1, Article 4.

Available at: <http://scholarship.law.marquette.edu/elders/vol11/iss1/4>

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DISABILITY AND AGING: HISTORICAL AND CONTEMPORARY CHALLENGES

William N. Myhill and Peter Blanck*

INTRODUCTION

Older Americans and Americans with disabilities face challenges actively participating in the workforce and community, living independently, and aging in place.¹ The proportion of older adults in the U.S. population is growing rapidly.² Similarly, individuals with life-long or existing

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1. CHRISTINE BIGBY, AGEING WITH A LIFELONG DISABILITY: A GUIDE TO PRACTICE, PROGRAM AND POLICY ISSUES FOR HUMAN SERVICES PROFESSIONALS 131, 158-64 (2004).

2. Fed. Interagency Forum on Aging-Related Statistics, *Older American 2008*:

disabilities are experiencing increased life expectancy compared with previous generations due to advances in civil rights, medicine, rehabilitation, and technology.³ Also, as persons without disabilities age into middle and later life, they are at greater risk of acquiring impairments within the natural aging process.⁴ These trends reflect how "disability is a natural part of the human experience."⁵

Policy innovations in the twentieth century, notably the New Deal and Social Security Act, aimed to eradicate social problems associated with disability and aging.⁶ The origins of these policies trace back to an "expansive disability pension scheme" for northern veterans of the American Civil War that institutionalized a medical model of disability.⁷ These early pension laws set out a framework for classifying and compensating the disabling injuries of war veterans, and in time, the workplace injuries of the general public.⁸

In a body of studies, Blanck and colleagues examine the social

Key Indicators of Well-Being, 2 (2008), available at http://www.agingstats.gov/agingstatsdotnet/main_site/default.aspx.

3. Bigby, *supra* note 1, at 17-20, 36-37.

4. Roger C. Bland & Stephen C. Newman, *Mild Dementia or Cognitive Impairment: The Modified Mini-Mental State Examination (3MS) as a Screen for Dementia*, 46 CANADIAN J. PSYCHIATRY 506, 506 (2001); Greg O'Neill et al., *Hearing Loss: A Growing Problem that Affects Quality of Life*, CHALLENGES FOR THE 21ST CENTURY: CHRONIC AND DISABLING CONDITIONS SERIES, at 1-2 (Nat'l Acad. on an Aging Soc'y 1999), available at <http://ihcrp.georgetown.edu/agingsociety/pdfs/hearing.pdf>; Am. Found. for the Blind, *Aging and Vision Loss Fact Sheet*, <http://www.afb.org/seniorsite.asp?SectionID=68&TopicID=320&DocumentID=3374> (last visited July 15, 2009).

5. Marca Bristo, *Letter of Transmittal*, in REORIENTING DISABILITY RESEARCH, at i (Nat'l Council on Disability 1998), available at <http://www.ncd.gov/newsroom/publications/1998/pdf/reorienting.pdf>.

6. Peter Blanck, *"The Right to Live in the World": Disability Yesterday, Today, and Tomorrow*, 13 TEX. J. C.L. & C.R. 367, 367-68 (2008).

7. *Id.* at 368. Prior to the Civil War service pension program, Congress enacted the Revolutionary War Pension Act of 1818, the first such national system, providing lifetime pensions to those who served in the Continental Army, those "in need of assistance from [their] country for support," and disabled veterans. The Act provided pensions, however, to but a fraction of the number receiving pensions under the expanded Civil War system. John P. Resch, *Politics and Public Culture: The Revolutionary War Pension Act of 1818*, 8 J. EARLY REPUBLIC 139, 139 (1988); Theda Skocpol, *America's First Social Security System: The Expansion of Benefits for Civil War Veterans*, 108 POL. SCI. Q. 85, 86 (1993).

8. Blanck, *supra* note 6, at 371.

and political forces underlying contemporary views about the rights of persons with disabilities across the life course (from Civil War to present).⁹ Three themes weave through this time period. First, today's rights-based model of disability is set out in Federal laws like the Rehabilitation Act of 1973, the Individuals with Disabilities Education Act (IDEA), and the Americans with Disabilities Act (ADA) of 1990. However, many current healthcare, aging, welfare, and pension programs still reflect artifacts of the medical model in conflict with civil rights laws. Second, present day stigma toward individuals with disabilities bears resemblance to attitudes that denied northern Civil War veterans Federal pension benefits more than a century ago.¹⁰ Third, medical and technological advances for treating physical and mental impairments, and improved social and rehabilitation services, have been furthered with the return of injured veterans from every foreign conflict since the American Civil War.¹¹

This article explores these themes historically and today as they impact quality of life for persons with and aging into disability. Part I outlines the backdrop of these early pension schemes. Part II discusses the intersection of aging and disability issues. Part III examines the persistence of the medical model and stigma, and the role of medical and technological advances into the twenty-first century. Then, in Part IV, we present current initiatives and implications for research, policy and practice to advance equal opportunities, benefits, and quality of life through employment, cutting edge programs for veterans, and technology access for

9. CLAIRE H. LIACHOWITZ, *DISABILITY AS A SOCIAL CONSTRUCT: LEGISLATIVE ROOTS* 2, 19–41 (1988) (analyzing military pension laws and conceptions of disability); see generally RICHARD K. SCOTCH, *FROM GOOD WILL TO CIVIL RIGHTS* (2d ed. 2001) (reviewing history of American disability rights movement); Peter Blanck, *Civil War Pensions and Disability*, 62 OHIO ST. L.J. 109, 109 (2001) (examining the social construction of laws and policies affecting persons with disabilities); Jacobus tenBroek, *The Right to Live in the World: The Disabled in the Law of Torts*, 54 CAL. L. REV. 841, 843 (1966) (defining the policy of “integrationism” as entitling, encouraging, and supporting persons with disabilities to experience full social participation).

10. See *infra* Persistent and Novel Issues: The Medical Model.

11. See *infra* Persistent and Novel Issues: Improvements in Services, Programs, Medicine, and Technology.

persons aging with and into disability.

EARLIER SERVICES AND SYSTEMS FOR AMERICANS AGING WITH DISABILITIES

The American Civil War produced the largest class of persons with disabilities in early U.S. history.¹² More than 850,000 veterans of the 2.5 million-member Union Army, including almost 200,000 African-Americans, survived their injuries with a resulting disability.¹³ In 1862, Congress created a pension scheme under the General Law to provide medical care, monthly compensation for war-related disabilities to offset the inability to work, and similar care in the elder years.¹⁴ Congress established communal "Old Soldier" homes for aging and disabled Union veterans, who were otherwise living in poverty.¹⁵ Unlike the contemporary asylums and poorhouses, where many non-veterans aging and with disability lived, these homes gave dignity to tens of thousands and "were prominently integrated into the community."¹⁶

The General Law, in part, created a comprehensive medical evaluation system to determine levels of compensation.¹⁷ Claimants

12. Blanck, *supra* note 6, at 370-71.

13. *Id.* at 370; BENJAMIN A. GOULD, INVESTIGATIONS IN THE MILITARY AND ANTHROPOLOGICAL STATISTICS OF AMERICAN SOLDIERS 9 (1869) (discussing casualty statistics and noting UA war deaths totaled about 250,000); Larry Logue & Peter Blanck, "Benefit of the Doubt": *African-American Civil War Veterans and Pensions*, 38 J. INTERDIS. HIST. 377, 377 (2008).

14. DIGEST OF PENSION LAWS, DECISIONS, RULINGS, ORDERS, ETC. 1885 (Frank Curtis & William Webster eds., 1885) (referencing the General Law Act of July 14, 1862).

15. Blanck, *supra* note 6, at 383 (citations omitted).

16. *Id.* (citing PATRICK J. KELLY, CREATING A NATIONAL HOME: BUILDING THE VETERANS' WELFARE STATE, 1860-1900, at 91-93 (Harvard University Press 1997); Hugh Rockoff, *The Changing Role of America's Veterans* 11 (Nat'l Bureau of Econ. Research, Working Paper No. 8595, 2001), available at <http://www.nber.org/papers/w8595>.

17. Skocpol, *supra* note 7, at 93; ROBERT W. FOGEL ET AL., AGING OF VETERANS OF THE UNION ARMY: SURGEONS' CERTIFICATES VERSION S-1 STANDARDIZED, 1862-1940: CODEBOOK 334-36 (2001), available at http://www.cpe.uchicago.edu/data/sub_codebook.html (last visited Nov. 12, 2009); see WILLIAM H. GLASSON, FEDERAL MILITARY PENSIONS IN THE UNITED STATES 125 (David Kinley ed., 1918) (quoting statutory changes requiring that "[t]he claimant must show that his disability was

were rated "in their 'total disability' in the performance of labor," that is, their inability to work, and compensated using a standard scheme.¹⁸ In 1873, the Consolidation Act extended compensation to veterans for "service-related conditions or diseases that later caused disabilities,"¹⁹ such as noise induced hearing loss,²⁰ heart disease,²¹ and chronic bronchitis arising from pneumonia.²² The Consolidation Act, in part, produced confusion over how to rate and compensate these disabilities resulting not directly from war injuries,²³ and the classification system increasingly was questioned.²⁴

The 1879 Arrears Act amended the pension law to provide back payments to veterans who previously were denied pensions or had not applied for them.²⁵ As the law became more inclusive, African-American and immigrant veterans increasingly made disability pension claims.²⁶ By the late 1880s, pension payments for diseases resulting from the war exceeded those for war injuries.²⁷

incurred as the direct consequence of the performance of his military duty.")

18. Blanck, *supra* note 6, at 371 (citations omitted).

19. *Id.* at 372

20. Ryan Sewell et al., *Union Army Veterans with Hearing Loss and the Evolution of Disability in America During 1862–1920*, 114 LARYNGOSCOPE: J. TRILOGICAL SOC'Y 2147, 2151 (Dec. 2004) (illustrating noise-induced hearing loss occurring later in life as a result of wartime gun fire).

21. Blanck, *supra* note 6, at 120 n 35.

22. *Id.*

23. See *id.* at 119–20 (discussing related problems); see also DORA L. COSTA, *THE EVOLUTION OF RETIREMENT, AN ECONOMIC HISTORY 1880–1990*, at 61 (National Bureau of Economic Research, Inc. 1998) (stating that because nineteenth-century medicine could not cure chronic conditions, estimated disease rates for Union Army pension claimants were based on the assumption that a specified chronic condition was permanent).

24. Cf. DEBORAH A. STONE, *THE DISABLED STATE* 12 (1984) (noting difficulty by physicians in agreeing on the components of a disability and different definitions of disability by governmental programs).

25. GLASSON, *supra* note 17, at 150–53 (discussing Arrears legislation); see also *id.* at 144 fig. 3 (illustrating expenditures and numbers of pensioners from 1865 to 1915); *id.* at 164–65 (discussing the 1879 Arrears Act); STUART CHARLES MCCONNELL, *GLORIOUS CONTENTMENT: THE GRAND ARMY OF THE REPUBLIC, 1865–1900*, at 149 (University of North Carolina Press 1992) (noting that the Arrears Act did not alter the classification scheme for awarding pensions on the basis of war-related disability).

26. Logue & Blanck, *supra* note 13, at 397–98.

27. See GLASSON, *supra* note 17, at 138 (citing data on pensions granted from 1865 to 1888).

The 1890 Disability Pension Act further extended pension coverage to veterans with physical and mental disabilities that did not arise from their military service.²⁸ Together, the 1879 and 1880 Acts swelled the ranks of applicants before the Pension Bureau and fueled controversy over how deserving the growing numbers of recipients were of pensions.²⁹ By 1893 there were nearly one million veterans receiving pensions, accounting for forty-two percent of the annual federal budget.³⁰

Pension eligibility outcomes reflected a stigma-based distinction between mental and physical impairments.³¹ Soon after the Civil War, those veterans judged to be “war worthy”³²—with obvious, physical injuries such as from gunshot wounds—accounted for the majority of claims and were not likely to be rejected.³³ Veterans with less understood or less obvious impairments “were subject to particular attitudinal prejudice and skepticism, and were more likely to be denied pensions outright.”³⁴

Blanck explains:

[T]he identity and definition of disability was tied in the public’s mind to the character and moral fiber of veterans. Disabled pensioners with “legitimate” war wounds were cast as a “righteous core of a generation of men.” . . . The severely, physically war-disabled were particularly worthy beneficiaries, as compared to

28. FOGEL ET AL., *supra* note 17, at 140–41 (summarizing the 1890 law’s requirements of military service for ninety days during the Civil War); GLASSON, *supra* note 17, at 236 (the 1890 Act required the veteran be honorably discharged).

29. Blanck, *supra* note 6, at 374 (citation omitted); STONE, *supra* note 24, at 91–110 (discussing attitudes in late nineteenth century medical community about disability and deservingness, and the evolution of the concept of the “inability to work” as a means for developing a scheduled needs-based system of governmental compensation); see Blanck, *supra* note 6, at 124–25 (presenting findings on limited tendency by examining physicians to report vicious habits).

30. Blanck, *supra* note 6, at 374 (citations omitted); Maris A. Vinovskis, *Have Social Historians Lost the Civil War? Some Preliminary Demographic Speculations, in TOWARD A SOCIAL HISTORY OF THE AMERICAN CIVIL WAR* 25–26 (Maris A. Vinovskis ed., 1990) (42% equaled \$165.3 million).

31. Blanck, *supra* note 6, at 376–77.

32. *Id.* at 377.

33. *Id.*

34. *Id.* (citation omitted); see Michael Waterstone & Michael Stein, *Disabling Prejudice*, 102 NW U. L. REV. 1351, 1363–66 (2008) (discussing nature of disability stigma and prejudice associated with mental health impairments).

those with mental [or nervous] disabilities.³⁵

Claims of excess, fraud, and corruption were widespread. Pensions were said to be windfalls to the “undeserving” disabled. Stigmatized and less understood disabilities, mostly mental and infectious conditions, were harshly criticized. . . . Despite evidence to the contrary, many disabled veterans were portrayed as scamming the system, bilking the public treasury and trust. . . . Disabled pensioners were mocked in newspaper articles and editorials . . .³⁶

Through large, on-going investigations, Blanck and colleagues examined the lives of 42,000 Union Army veterans (36,000 white males, and 6000 African-American males of the Union Colored Troops) across the life course.³⁷ Robert Fogel, Nobel Laureate in Economics and director of the Center for Population Economics at the University of Chicago, and colleagues created this extraordinarily comprehensive dataset, in part, including the military, medical, pension, and census records for these Union Army Veterans.³⁸ Through extensive empirical analysis of the Chicago dataset, Blanck, Logue, and Salm identified a link between the shorter life expectancy of African-American veterans and the smaller, as well as fewer, pension payments received in comparison to white veterans.³⁹ Economist Dora Costa found, especially for African-American as

35. Blanck, *supra* note 6, at 375–76 (quoting THEDA SKOCPOL, PROTECTING SOLDIERS AND MOTHERS: THE POLITICAL ORIGINS OF SOCIAL POLICY IN THE UNITED STATES 149 (1992)); see ERIC T. DEAN, JR., SHOOK OVER HELL: POST-TRAUMATIC STRESS, VIETNAM, AND THE CIVIL WAR 144 (1987).

36. Blanck, *supra* note 6, at 374–75.

37. See generally LARRY LOGUE & PETER BLANCK, RACE, ETHNICITY, AND THE TREATMENT OF DISABILITY IN THE POST-CIVIL WAR ERA (forthcoming, Cambridge University Press 2009).

38. Robert W. Fogel et al., Aging of Veterans of the Union Army: Military, Pension, and Medical Records, 1820–1940, University of Chicago, Center for Population Economics (including samples), <http://www.cpe.uchicago.edu> (last visited July 22, 2009).

39. Larry Logue & Peter Blanck, “There Is Nothing That Promotes Longevity Like A Pension:” *Public Policy and Mortality of Civil War Union Army Veterans*, 39 WAKE FOREST L. REV. 49, 64 (2004); Martin Salm, *The Effect of Pensions on Longevity: Evidence from Union Army Veterans*, IZA Discussion Paper No. 2668 (Mar. 2007), at 22–23, available at <http://ssrn.com/abstract=977517>.

compared to white Union army veterans, pension incomes increased the chances of retirement and independent living prior to the advent of the Social Security system.⁴⁰

Social status, ethnicity, and race of veterans further impacted pension outcomes.⁴¹ Immigrants who fought with the Union forces, especially Irish immigrants, were less likely to make a disability pension claim.⁴² "Ethnicity was tied to views of deservingness and moral worth."⁴³ Racial discrimination disproportionately denied African-American veterans disability pensions.⁴⁴ For instance, pension examiners often subjected African-American veterans to "special examinations" in proving their worthiness.⁴⁵ By the time of the expanded 1890 law, they were "less than half as likely" to be granted a disability pension.⁴⁶

Historian David Gerber suggests present day attitudes about disability and providing for the needs of the elderly "may be found in an examination of the social construction of disability and veterans' pension programs historically."⁴⁷ Baack and Ray argue the "legislative history and administrative experience" of the Civil War pension scheme influenced public views of elder reform and government welfare, subsequently increasing "the likelihood that in the context of the Great Depression a coalition could be formed to enact a Social Security

40. Dora Costa, *The Rise of Retirement Among African Americans: Evidence from Union Army Records 3-6* (Sept. 12, 2008) (unpublished manuscript, on file with UCLA Dep't of Econ.), available at <http://www.econ.ucla.edu/costa/retireafam5.pdf>. After Social Security was enacted, from 1930 to 1950, these differences in black-white retirement rates and living arrangements declined, with concordant rises over time. *Id.* at 1.

41. Blanck, *supra* note 6, 378-79.

42. Peter Blanck & Chen Song, "With Malice Toward None: With Charity Toward All": *Civil War Pensions for Native and Foreign-Born Union Army Veterans*, 11 J. TRANSNAT'L LAW & CONTEMP. PROBS. 1, 54 (2001).

43. Blanck, *supra* note 6, at 378.

44. *Id.* at 379.

45. *Id.*

46. *Id.* (citation omitted).

47. *Id.* at 384 (citing David A. Gerber, *Disabled Veterans and Public Welfare Policy: Comparative and Transnational Perspectives on Western States in the Twentieth Century*, 11 J. TRANSNAT'L L. & CONTEMP. PROBS. 77, 80 (2001)).

Act.”⁴⁸ Ultimately, veteran and elder care in the United States have been shaped by these early initiatives.⁴⁹

Contemporary investigations show that veterans of the wars in Afghanistan and Iraq, who returned home with post-traumatic stress disorder (PTSD) and mental conditions, are among those with the highest war-related injuries and most stigmatized impairments.⁵⁰ Eligibility for various federal benefits still rests upon medical categorization of disease, disability, and severity.⁵¹ Today, the “inability to work” medical model of disability remains the primary tool in disability program eligibility and workers’ compensation decisions.⁵²

INTERSECTION OF THE AGING AND DISABILITY COMMUNITIES

The Civil Rights model views disability as “a natural part of the human experience.”⁵³ That is, disability is mainly ‘difference’ within the range of human experiences; and disability is a natural consequence of aging. This has significant implications for policy and practice due to the strong linkages between aging and disability, although the two traditionally have been viewed as distinct and unrelated.⁵⁴ Aging persons, especially of the Baby

48. Ben Baack & Edward John Ray, *Federal Transfer Payments in America: Veterans’ Pensions and the Rise of Social Security*, 26 ECON. INQUIRY 687, 701 (1988).

49. Blanck, *supra* note 6, at 383.

50. Press Release, Rand Corp., One in Five Iraq and Afghanistan Veterans Suffer from PTSD or Major Depression (Apr. 17, 2008), <http://www.rand.org/news/press/2008/04/17/> (last visited July 15, 2009).

51. Blanck, *supra* note 6, at 371-72.

52. *Id.* at 371 (citations omitted). Eligibility often turns on whether the applicant is “unable to engage in substantial gainful activity.” Soc. Sec. Admin., Substantial Gainful Activity, <http://www.ssa.gov/OACT/COLA/sga.html> (last visited July 22, 2009).

53. For instance, “Disability is a natural part of the human experience and in no way diminishes the right of individuals to participate in or contribute to society,” 20 U.S.C.A. § 1400(c)(1) (2006) (IDEA), “(A) live independently; (B) enjoy self-determination; (C) make choices; (D) contribute to society; (E) pursue meaningful careers; and (F) enjoy full inclusion and integration in the economic, political, social, cultural, and educational mainstream of American society,” 29 U.S.C. § 701(a)(3)(A)-(F) (2006) (Rehabilitation Act), “benefit from an education,” 29 U.S.C. § 3001(a)(2)(C) (2006) (Assistive Technology Act); 42 U.S.C. § 15001(a)(1) (2006) (Developmental Disabilities Assistance and Bill of Rights) (same).

54. Lois M. Verbrugge & Li-shou Yang, *Aging with Disability and Disability with*

Boom era, may reject the disability label.⁵⁵

The proportion of older adults and persons with disabilities in the U.S. population is rapidly growing.⁵⁶ More than 12% of the population in 2006 was age sixty-five and over,⁵⁷ and this figure is projected to grow to 20% (71.5 million people) in 2030,⁵⁸ almost twice that in 2000.⁵⁹ The number of individuals aged fifty-five and older will account for approximately 31% of the population,⁶⁰ again almost doubling from the current figure of 60 million to 107.6 million,⁶¹ mainly as a result of the aging Baby Boom generation.⁶² Individuals with life-long or existing disabilities are experiencing increased life expectancy rates.⁶³ A few decades ago, individuals who were born with a disability or acquired a disability in young adulthood commonly were not expected to live into or through their thirties;⁶⁴ those currently aging into mid- and later life are the first generation of individuals aging with disabilities.⁶⁵

As persons without disabilities age into middle and later life, they are at greater risk of acquiring disabilities in the aging process such as vision loss, hearing loss, cardiovascular diseases, cognitive impairments, and muscular skeletal conditions.⁶⁶ More than 42% of people age sixty-five and over reported

Aging, 12 J. DISABILITY POL'Y STUD., 253, 257 (2002); Albert L. Watson, *Transitions into Retirement: Aging Workers with Disabilities*, in SWITZER SEMINAR MONOGRAPH, October 17 & 18, at 34-40 (2003).

55. Richard K. Scotch, *Politics and Policy in the History of the Disability Rights Movement*, 67 MILBANK Q. 380, 397 (1989).

56. Fed. Interagency Forum on Aging-Related Statistics, *supra* note 2, at 2.

57. *Id.*

58. *Id.*

59. *Id.*

60. Experience Corps, Fact Sheet on Aging in America 1 (2007), available at <http://www.experiencecorps.org/images/pdf/Fact%20Sheet.pdf>.

61. *Id.*

62. *Id.*

63. BRYAN KEMP & LAURA ANN MOSQUEDA, AGING WITH A DISABILITY: WHAT THE CLINICIAN NEEDS TO KNOW 1 (2004).

64. *Id.*

65. *Id.*

66. Richard A. Ensor, *Collaborating to Integrate Persons with Disabilities and Older Workers into America's Workforce*, in SWITZER SEMINAR SERIES MONOGRAPH, October 17 & 18, at 18-21 (2003).

having a functional limitation in 2005,⁶⁷ with 30% reporting that they had difficulty in performing at least one Activity of Daily Living (ADL) or Instrumental Activity of Daily Living (IADL).⁶⁸ Census data in 2000 showed that among non-institutionalized civilians in the United States (sixty-five to sixty-nine years of age), almost 45% reported some level of disability, while more than 30% reported a severe disability and 8.1% required personal assistance.⁶⁹ The comparable numbers increased to 73.6%, 57.6%, and 34.9% for those eighty years and over.⁷⁰

Early observations also show that persons with disabilities do not age typically.⁷¹ They often face the onset of conditions related to normal aging, such as reduced strength and increased pain, twenty to twenty-five years earlier than their peers without disabilities, who experience similar conditions around the age of seventy to seventy-five.⁷² They are much more likely to be affected by secondary medical conditions, such as respiratory illnesses, diabetes, cardiovascular disease, fractures, and osteoporosis, depending on disability type, at rates greater than four times those for other individuals.⁷³

Persons with progressive or acquired disabilities, including those that result due to aging, typically believe they have the ability to maintain a high quality of life even if they need

67. Fed. Interagency Forum on Aging-Related Statistics, *supra* note 2, at 104 (Indicator 20 – Functional Limitations worksheet 2008-20a. ADLs include: “bathing, dressing, eating, getting in/out of chairs, walking, or using the toilet.” *Id.* at app. A, Indicator 20 – Functional Limitations, at worksheet 2008-20a, IADLs include: “using the telephone, light housework, heavy housework, meal preparation, shopping, or managing money.”) *Id.*

68. *Id.*

69. AARP PUB. POL’Y INST., BEYOND 50.03: A REPORT TO THE NATION ON INDEPENDENT LIVING AND DISABILITY 6-7 (2003), available at <http://www.aarp.org/research/housing-mobility/homecare/aresearch-import-752-D17817.html> (“Table of Contents and Executive Summary.”)

70. *Id.* at 41.

71. June Isaacson-Kailes, *Aging with Disability* (2001), available at <http://www.jik.com/awdrtcawd.html>.

72. Adrian Christian, *Aging with a Disability*, 16 PHYS. MED. & REHAB. CLINICS N. AM. xvii-xviii, xvii (2005); Isaacson-Kailes, *supra* note 71; Kathleen W. Wilson, *Aging with a Disability: Implications for a Person Centered Planning Framework*, in SWITZER SEMINAR SERIES MONOGRAPH, October 17 & 18, at 4-8 (2003).

73. Isaacson-Kailes, *supra* note 71.

accommodation and support. Almost 92% of older adults, including half of those aged seventy-five years or older, are living alone in apartments and homes, or in independent living and assisted living facilities.⁷⁴ The majority of older adults with disabilities want to continue living independently in their own homes, manage their in-home care and services themselves, and have control over decisions for long-term support services.⁷⁵ Older adults with disabilities continue to function and engage actively with their surroundings, provided their goals (i) are not focused solely on the elimination or reduction of the presence of a disability; (ii) are based on an understanding of the user and their needs, their surroundings and the related interactions; and (iii) balance the natural occurrence of gains and losses in the aging process.⁷⁶

However, the interaction between aging adults with

74. MAJD ALWAN & ROBIN FELDER, *Preface*, in *ELDERCARE TECHNOLOGY FOR CLINICAL PRACTITIONERS*, at v (Majd Alwan & Robin Felder eds., 2008); see U.S. Census Bureau, *Households, by Type, Age of Members, Region of Residence, and Age of Householder* (2008) (noting older adults are the most likely Americans to live alone, with 53% of the one-person households in the country containing a person 55 or older), available at <http://www.census.gov/population/www/socdemo/hh-fam/cps2008.html>.

75. AARP PUB. POL'Y INST., *supra* note 69, at 5, 8; Seniorresource.com, *Aging In Place*, <http://www.seniorresource.com/ageinpl.htm#place> (last visited July 17, 2009). Aging with a disability also impacts workforce participation and workplace independence. Both older adults with disabilities and those who develop functional limitations as a result of aging want to be productively engaged in the workforce despite their impairment. Norman C. Hursh, "Pro-Work" *Strategies for Older Workers with Disabilities: A Disability Management Approach*, in SWITZER SEMINAR SERIES: THE AGING AMERICAN WORKFORCE—THE IMPACT ON PERSONS WITH DISABILITIES 22 (Nat'l Rehab. Ass'n ed., 2003).

76. Rick J. Scheidt et al., *Successful Aging: What's Not to Like*, 18 J. APPLIED GERONTOLOGY 277, 277-78 (1999). For a general treatment of successful aging models, see John W. Rowe & Robert L. Kahn, *Successful Aging*, 37 GERONTOLOGIST 433, 433 (1997) (successful aging includes decreasing probabilities of acquiring diseases and related disabilities, maintaining high levels of cognitive and physical functioning, and remaining actively engaged in life and the community); Meredith Minkler & Pamela Fadem, *Successful Aging: A Disability Perspective*, 12 J. DISABILITY POL'Y STUD. 229, 230-31 (2002) (discussing the significant proportion of individuals aging with or into physical, cognitive, and psychosocial disabilities, and arguing individual choices and health related behaviors can be significantly impacted by socioeconomic characteristics such as poverty, and racial, ethnic, and gender disparities); Fed. Interagency Forum on Aging-Related Statistics, *supra* note 2, at 35 (presenting health consequences for life choices such as physical activity, diet, smoking, routine examinations, and vaccinations).

disabilities and their environment may hinder or facilitate their successful aging in place.⁷⁷ Proponents argue that there is a greater need for livable communities based on the principle of inclusion, with features to promote independence and participation within the home and community.⁷⁸ Moreover, people aging with disability are disproportionately dependent on Social Security Disability Income (SSDI) for cash assistance to cover basic living expenses.⁷⁹ The number of workers with disabilities on SSDI more than doubled since 1990 from 3 to 6.8 million in 2006.⁸⁰ “[Twenty-eight] percent of SSDI beneficiaries depend on these benefits for 100% of their income.”⁸¹ This latter group typically lives in chronic poverty, perpetuating poor mental and physical health, and experiences diminished quality of life within communities, choices and opportunities, civic participation, and increased segregation.⁸² It is critical to develop mechanisms and processes to promote successful aging from a disability perspective.

PERSISTENT AND NOVEL ISSUES

In Part III, we articulate and assess three central forces that transcend the lives of aging persons, persons with disabilities, and returning war veterans from the Civil War to present day. These are the persistence of the medical model, the persistence of stigma, and the role of medical and technological advances.

77. AARP PUB. POL’Y INST., *supra* note 69, at 86 (Chapters V–VIII).

78. *Id.* Functional capacity is dependent not on narrow definitions of medical pathology, but adaptability and modification of the environment to support changing physical and cognitive needs. Minkler & Fadem, *supra* note 76, at 230.

79. Ticket to Work & Work Incentives Advisory Panel, Soc. Sec. Admin., Building on the Ticket: A New Paradigm for Investing in Economic Self-Sufficiency for People with Significant Disabilities 21 (2007), *available at* http://www.ssa.gov/work/panel/panel_documents/FORMAT%20-%20Final%20Report--121707.pdf.

80. *Id.*

81. *Id.*

82. J. Larry Brown, Director of the Ctr. on Hunger & Poverty at Brandeis Univ., Building a Real “Ownership Society,” Address Before the Am. Pub. Human Servs. Adm’rs 1 (Mar. 22, 2005), *available at* <http://iasp.brandeis.edu/news-archive/pdfs/APHAS%20speech.pdf>.

THE MEDICAL MODEL

In the century following the American Civil War, public understanding, programs, and policies addressing disability predominantly arose from a medical perspective. Eligibility for public programs, services, and benefits required a medically-determined "incapacity to perform manual labor."⁸³ This medical model viewed the experience of disability, such as amputated limbs, vision, and hearing loss, as a "personal tragedy," which ensured low productivity or inability to work and condemned the individual to "the mercy and charity of society."⁸⁴ Through this linking of disability with the inability to work, public policy began to institutionalize the medical model.⁸⁵ One longstanding feature of the medical model has been the cataloging and valuing of body parts as they contribute to work and compensation in their absence or dysfunction.⁸⁶ The Civil War pension scheme created the first such standard value for specific losses and impairments:

The highest grade for a permanent disability, such as the loss of both hands or eyes, was compensated at \$31.25 per month for veterans totally disabled and rendered utterly helpless, or so nearly so as to require the constant personal aid of another person. The second grade for a permanent disability, such as the loss of both feet or one foot and one hand, was compensated at \$20 per month for those disabled as to be incapacitated for performing any manual labor, but not so much as to require constant personal aid and attention. The third grade, such as the loss of one foot or one hand, was compensated at \$15 per month for those disabled so to be unable to perform manual labor equivalent to the loss of a hand or a foot.⁸⁷

83. Tal Araten et al., *Labor and Employment*, in *ENCYCLOPEDIA OF AMERICAN DISABILITY HISTORY* (Susan Burch ed., forthcoming 2009).

84. *Id.*

85. *Id.*

86. The Worker's Compensation system is a prime example. Terry Thomason, *Permanent Partial Disability in Worker's Compensation: Probability and Costs*, 60 J. RISK & INS. 570, 573 tbl. 1 (1993).

87. Blanck, *supra* note 6, at 119–20 n.34 (internal quotations omitted).

Advent of workers compensation laws and the social security system adopted and perpetuated the medical model. The workers compensation system, established by 1920 in the majority of U.S. states, continued the pervasive categorization of body parts and functions for purposes of compensation.⁸⁸ Some states maintain a schedule of compensation for specific types of injuries.⁸⁹ Similarly, there remains a presumption inherent in the SSDI and Medicaid systems that benefits are for people who cannot work and otherwise have no income because of their disability.⁹⁰

Enacting the ADA in 1990, Congress intended to provide Civil Rights protections for all persons with disabilities and reject the paternalistic views of a medical model.⁹¹ Prior to the

88. Gregory P. Guyton, *A Brief History of Workers Compensation*, 19 IOWA ORTHOPAEDIC J. 106, 109 (1999).

89. *Id.* These practices may have had far reaching effects outside the United States as many U.S. legal structures were imposed during the occupation of Japan (1945-51) following the Second World War under the administration of the Supreme Commander for the Allied Powers, General Douglas MacArthur. For instance, in 1946 the Labour Relations Adjustment Law authorized labor commissions to mediate industrial conflicts quickly, equitably and without cost to the parties. Kazuhisa Nakayama, *The Characteristics of the Japanese Labour Law and its Problems*, 14 WASEDA BULL. COMP. L. 1, 3 (1995). Soon after 1947, the Labour Accident Compensation Act was enacted. *Id.* at 3. The Japanese disability pension system today similarly classifies lost or damaged body parts for compensation. JAPAN ORG. FOR EMPLOYMENT OF THE ELDERLY & PERSONS WITH DISABILITIES, MINISTRY OF HEALTH, LAB. & WELFARE, EMPLOYMENT GUIDE FOR EMPLOYERS AND PERSONS WITH DISABILITIES: SUPPORTING THE EMPLOYMENT OF PERSONS WITH DISABILITIES 47-48 tbl. 5 (2008) (presenting measurements of impairment in such terms as "loss of the thumbs and forefingers of both hands," "visual field diameter is no more than 10 degrees in either eye," and "inability to understand words spoken at a distance of 40 cm away,") available at <http://www.jeed.or.jp/english/supporting.html> (last visited July 14, 2009).

90. CTR. FOR MEDICAID & ST. OPERATIONS, U.S. DEP'T OF HEALTH & HUMAN SERVS., MEDICAID AT-A-GLANCE 2005: A MEDICAID INFORMATION SOURCE 2 (2005), available at <http://www.cms.hhs.gov/MedicaidEligibility/Downloads/MedicaidataGlance05.pdf>; Soc. Sec. Admin., How You Qualify for Social Security Disability Benefits, available at <http://www.ssa.gov/dibplan/dqualify.htm> (last visited July 14, 2009). SSDI arose in the 1930s "to insure those who could not work due to infirmities that were not work-related." Guyton, *supra* note 88, at 108.

91. BLANCK ET AL., DISABILITY CIVIL RIGHTS LAW AND POLICY: CASES AND MATERIALS 48 (2d ed. 2009) (quoting George H. W. Bush, President of the United States of America at the ADA signing ceremony, July 26, 1990).

Together we've begun to shift disability in America away from exclusion, towards inclusion; away from dependence, towards independence; away from paternalism, towards empowerment... And

2008 amendments to the ADA, however, courts regularly adopted medicalized approaches to determining eligibility for its protections, at times having the effect of excusing the most egregious discrimination.⁹² Plaintiffs in ADA Title I employment cases frequently have had to demonstrate their substantial limitations using medical testimony and exams, and physician's reports and diagnoses, to counteract defendant's arguments that the plaintiff's impairment did not substantially limit a major life activity.⁹³ Similarly, in *Bennet v. Dominguez*, the Equal Employment Opportunity Commission (EEOC) was permitted to subject job applicants, who qualified under the Veterans' Readjustment Act to apply for federal jobs on a noncompetitive basis, to medical testing for documentation of

we have made a commitment—a real commitment—to enforce the Americans with Disabilities Act, until all citizens with disabilities receive equal treatment under the law, whether in the workplace, or school, in government or in the courts.

Cf. William J. Clinton, President of the United States of America (quoted in NAT'L COUNCIL ON DISABILITY, *THE AMERICANS WITH DISABILITIES ACT: ENSURING EQUAL ACCESS TO THE AMERICAN DREAM* 3 (1995), available at http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/13/c5/5a.pdf); see 42 U.S.C.A. § 12101(a)(5) (West 2009) (finding, in part, "individuals with disabilities continually encounter various forms of discrimination, including ... overprotective rules and policies.")

92. See, e.g., *Johnson v. N.C. Dep't of Health & Human Servs.*, 454 F. Supp. 2d 467, 469-70, 474 (M.D.N.C. 2006) (discussing extensive employer imposed stress impacting employee's chronic migraines, depression, anxiety accompanied by increased emergency room visits, and threatened employee's maintenance of bipolar disorder; court found employee was not substantially limited in work because of conclusory nature of her evidentiary support, in effect requiring precise medical diagnosis and documentation). The case of Patricia Garrett is further illustrative. PETER BLANCK ET AL., *Individuals with Cancer in the Workforce and Their Federal Rights*, in *WORK AND CANCER SURVIVORS* 263-65 (Michael Feuerstein ed. 2009) (describing Ms. Garrett's thirteen-year legal saga alleging retaliation for a medical leave request during recovery from breast cancer); see *Garrett v. Univ. of Ala. at Birmingham Bd. of Trs.*, 507 F.3d 1306, 1309-10, 1312-13, 1312 n.10 (11th Cir. 2007) (reviewing medical evidence of surgery, radiation, chemotherapy and side effects, "deposition testimony and declaration of . . . treating physicians," and failing to establish a substantial limitation "in the major life activities of caring for herself, performing manual tasks, lifting, and working"); see generally, Eve Hill & Peter Blanck, *Future of Disability Rights Advocacy and "The Right to Live in the World,"* 14 TEX. J. C.L. & C.R. (forthcoming 2009) (noting "barriers to enforcement of disability rights continue to exist . . . and many courts remain committed to the old charity and medical models of disability") (citation omitted) (on file with authors).

93. *Philip v. Ford Motor Co.*, 328 F.3d 1020, 1025 (8th Cir. 2003); *Alifano v. Merck & Co., Inc.*, 175 F. Supp. 2d 792, 796-97 (E.D. Pa. 2001).

their disability.⁹⁴ The 2008 amendments to the ADA indicate a shift away from a stringent substantial limitation analysis,⁹⁵ though time is needed to bear this out.

STIGMA

The Civil War pension scheme arose before the evolution of social norms about disability, and when concepts of social justice and disability rights did not exist.⁹⁶ Social and political backlash to the pension system impacted popular conceptions of worthiness and advocacy for people with disabilities well into the twentieth century, "indeed perhaps until the beginnings of the rights-based approach embodied in the ADA."⁹⁷ Theda Skocpol's seminal analysis, *Protecting Soldiers and Mothers: The Political Origins of Social Policy in the United States*, concluded, "[b]ecause the very successes of Civil War pensions were so closely tied to the workings of patronage democracy, these successes set the stage for negative feedbacks that profoundly affected the future direction of U.S. social provision."⁹⁸

In particular, fear and misunderstanding about invisible disabilities, which often include mental health and intellectual impairments, learning disabilities, traumatic brain injury, cancer, and others, though understood better today than a century ago, perpetuate stigma throughout society.⁹⁹ Stigma deters people of all ages from seeking treatment and services, working, going to

94. *Bennet v. Dominguez*, 196 Fed.Appx. 785, 788 (11th Cir. 2006). *Bennet*, in part, claimed an "unlawful pre-employment inquiry, in violation of Rehabilitation Act of 1973 and 42 U.S.C. § 12112(d)(2)(A); and ... the failure to separate his medical records from other personnel records during the selection-screening process, in violation of the regulations promulgated under the ADA, 29 C.F.R. §§ 1614.203(e)(4) and 1630.14(c)."

95. *BLANCK ET AL.*, *supra* note 92, at 80.

96. *Blanck*, *supra* note 6, at 385 (citation omitted).

97. *Id.*

98. *Id.* (quoting SKOCPOL, *supra* note 7, at 59).

99. Job Accommodation Network, *Accommodation Issues for Employees with Hidden Disabilities* (2009), <http://breeze.jan.wvu.edu/p38549011/> (last visited July 15, 2009).

school, and fully participating in society.¹⁰⁰ Thousands of young men and women returning from the wars in Afghanistan and Iraq have survived physical and cognitive injuries only to become symptomatic of PTSD at unprecedented rates.¹⁰¹ In December 2006, National Public Radio broadcast one of the first comprehensive exposés of military intimidation, harassment, punishment, and discharge of soldiers who sought mental health counseling for PTSD and other severe emotional problems.¹⁰² For many of the same reasons, Civil War and contemporary veterans choose not to seek and do not receive essential mental healthcare because of stigma.

Furthermore, judicial interpretations of disability law and a "blame the victim" mindset continue to patronize or condemn individuals with disabilities "on the basis of their status."¹⁰³ Today's disability civil rights advocates often are portrayed as frivolous, fee-driven, serial litigators.¹⁰⁴ Professor Sam Bagenstos examined ADA litigation labeled "abusive and extortionate" and found: "[I]n a large majority of the cases . . . the defendants were in fact violating the statute," and in an increasingly large number of those cases, "judges have shown little concern for whether the defendants were violating the law," but dismissed the suits "on what they believe to be . . .

100. Rebecca Spirito Daldin & Dennis Gilbride, *Perspectives of People with Psychiatric Disabilities on Employment Disclosure*, 26 PSYCH. REHAB. J. 306, 306-08 (2003); Ellen D. S. López et al., *Quality-of-Life Concerns of African American Breast Cancer Survivors Within Rural North Carolina: Blending the Techniques of Photovoice and Grounded Theory*, 15 QUALITATIVE HEALTH RES. 99, 106-08, 111-13 (2005) (noting persistent misbeliefs of cancer as a contagion); Tonette S. Rocco, *Hesitating to Disclose: Adult Students with Invisible Disabilities and Their Experience with Understanding and Articulating Disability*, Proceedings of the Midwest Research-to-Practice Conference in Adult, Continuing and Community Education 157 (Mich. State Univ., Oct. 15-17, 1997), available at http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/14/ff/c0.pdf; Sarah Triano, "I'll Believe It When I See It: - with Non-Apparent Disabilities Living In-Between the Able/Disabled Divide, *Equity e-newsletter*, Oct. 2004, available at <http://www.wid.org/programs/access-to-assets/equity/equity-e-newsletter-october-2004>.

101. Press Release, *supra* note 50.

102. Daniel Zwerdling, *Soldiers Say Army Ignores, Punishes Mental Anguish*, NAT'L PUB. RADIO, Dec. 4, 2006, available at <http://www.npr.org/templates/story/story.php?storyId=6576505>.

103. Blanck, *supra* note 6, at 388 (citation omitted).

104. Peter Blanck & Chen Song, *Civil War Pension Attorneys and Disability Politics*, 35 U. MICH. J.L. REFORM 137, 213 (2002); Hill & Blanck, *supra* note 92.

abusive litigation practices"105 Moreover, studies indicate stigma toward individuals with disabilities, especially those with psychiatric impairments, is rising.¹⁰⁶ Whether during the peak of the Civil War pension system or in the twenty-first century office, school, factory, restaurant, or courtroom, stigma emerges toward persons with a disability and against their disability advocacy.

IMPROVEMENTS IN SERVICES, PROGRAMS, MEDICINE, AND TECHNOLOGY

Public policy in support of war efforts and the troops in harm's way historically has shifted resources into medical and technological research, program design, and service delivery to meet the needs of military personnel during conflict and post-conflict reintegration.¹⁰⁷ Consequent advances in medical treatment, technology, and program and service innovation have benefited the general public in countless ways.¹⁰⁸

105. Samuel R. Bagenstos, *The Perversity of Limited Civil Rights Remedies: The Case of "Abusive" ADA Litigation*, 54 UCLA L. REV. 1, 1, 5 (2006) (citations omitted).

106. Karen M. Markin, *Still Crazy After All These Years: The Enduring Defamatory Power of Mental Disorder*, 29 L. & PSYCHOL. REV. 155, 155 (2005) (citing U.S. Pub. Health Service Mental Health: A Report of the Surgeon General 8 (1999), available at <http://www.surgeongeneral.gov/library/mentalhealth/home.html> (last visited July 13, 2009)).

107. For a general treatment, see DESLEIGH DE JONGE ET AL., ASSISTIVE TECHNOLOGY IN THE WORKPLACE 23 (Mosby 2006) (discussing the origins of modern rehabilitation programs during the post-World War II rehabilitation and repatriation of veterans with disabilities); Richard Barton & Frank B. Cerra, *The Hypermetabolism: Multiple Organ Failure Syndrome*, 96 CHEST 1153, 1153 (1989) ("Unfortunately, modern warfare has been the impetus for many of these medical advances"); F. William Blaisdell, *Medical Advances During the Civil War: Presidential Address*, 123 ARCHIVES SURGERY 1045, 1045, 1050 (1988) (discussing medical advances during the American Civil War with impact and implications for mass casualty management and treatment into the Korean War era); Michael O. Hughes, *Eye Injuries and Prosthetic Restoration in the American Civil War Years*, 13 J. OPHTHALMIC PROSTHETICS 17, 19 (2008) available at http://artificialeyeclinic.com/HughesArticle_2008.pdf ("The period, 1850-1870, is sometimes considered the 'golden age' of ophthalmology in that knowledge and treatment methods developed at this time are reflected in patient care today") (citing D. M. ALBERT & D. D. EDWARDS, *THE HISTORY OF OPHTHALMOLOGY* 244-47, 305-20 (Blackwell Science 1996)).

108. E.g., Jennifer Cragg, *Military Medical Advancements Benefit Civilian Health Care*, AM. FORCES PRESS SERV., May 16, 2008, <http://www.af.mil/news/story.asp?storyID=123099100> (paraphrasing the statement of Dr. Michael E.

The American Civil War, in part, contributed to the invention of the ophthalmoscope (*i.e.*, the standard instrument for examining the retina) and corrective lenses for myopia, visual acuity testing, and correction for astigmatism.¹⁰⁹ Military demand for photography drove its popularity and advancement.¹¹⁰ Photographs became an essential component of "documenting battlefield casualties," "verify[ing] the severity of soldiers' injuries," "evidentiary documents to support disability and pension claims," and medical research.¹¹¹ Advancements in prosthetic limbs arose from the dissatisfaction of James Edward Hanger with a prosthetic leg he received following injury at the Battle of Phillipi.¹¹² Hanger designed and built a prosthetic better suited for his above-knee stump.¹¹³ He went on to establish what has become the Hanger Orthopedic Group, which fabricates, fits, and services prosthetics throughout the United States.¹¹⁴

World War I introduced "fracture immobilization and shock resuscitation."¹¹⁵ World War II advanced knowledge and use of blood banking, practiced "early evacuation and operative treatment of battlefield casualties,"¹¹⁶ initiated modern rehabilitative medicine and services,¹¹⁷ applied techniques of reconstructive dentistry "to create the modern-day ocular prosthesis,"¹¹⁸ and established plastic surgery and prosthetics as

Kilpatrick, deputy director for force health protection and readiness programs: "The contributions military medicine has made to the world are born out of the urgencies and contingencies encountered on the battlefield.")

109. Hughes, *supra* note 107, at 19 (citing R. W. Hertle, *Ophthalmic Injuries and Civil War Medicine*, 94 *DOC OPHTHALMOL* 123, 123-37 (1997)).

110. *Id.* at 21.

111. *Id.* (citations omitted).

112. *Id.* at 23.

113. *Id.*

114. *Id.* (citing M. M. Boltz, *Making First Artificial Leg: War-wound Amputation Leads to Crucial Invention*, *WASH. TIMES*, July 21, 2007, at D5).

115. Barton & Cerra, *supra* note 107, at 1153.

116. *Id.*

117. DE JONGE ET AL., *supra* note 107, at 23.

118. Hughes, *supra* note 107, at 23 (citations omitted).

medical specialties.¹¹⁹ During the Korean War, rapid evacuation improved medical outcomes,¹²⁰ and coupled with “definitive operative treatment,” specifically reduced acute renal failure—a leading cause of death.¹²¹ Surgeons began to repair “complex arterial wounds of the extremities and abdomen preventing countless amputations and deaths.”¹²²

In Vietnam, the medical community learned that adult respiratory distress syndrome was “a complication of circulatory shock [and] infection” and “part of a systemic injury-response pattern [] known as the hypermetabolism-organ failure syndrome.”¹²³ The modern Emergency Medical System arose from “[s]urgical airway[] [procedures], thoracic needle decompressions, and aggressive shock resuscitation, all performed by para-medical personnel prior to movement to a military field hospital.”¹²⁴ Together, these and other war-driven innovations shape medical knowledge, advance emergency preparation and response, and generate technological solutions that inform our choices for aging with and into disability.

Beyond these innovations, technological interventions to aid successful aging in current research include assistive devices that provide compensatory services for physical, cognitive, or sensory disabilities;¹²⁵ modifying the built environment including the design, furnishing and lighting in homes to facilitate independent living;¹²⁶ ergonomics and workplace

119. Carl D. Clarke, *Facial and Body Prosthesis*, 48 AM. J. NURSING 82, 82 (1948).

120. James P. Cole, *Medical Advances as a Result of War*, available at <http://74.125.93.132/search?q=cache:XiN3L8FrDjkj:www.advocatehealth.com/gsam/services/emergency/fall2008.pdf>.

121. Barton & Cerra, *supra* note 107, at 1153.

122. Cole, *supra* note 120, at 2.

123. Barton & Cerra, *supra* note 107, at 1153.

124. Cole, *supra* note 120, at 2.

125. Luis M. Verbrugge & Purvi Sevak, *Use, Type, and Efficacy of Assistance for Disability*, 57 J. GERONTOLOGY: SOC. SCI. S366, S367 (2002).

126. WILLIAM C. MANN & BRADLEY R. MILTON, *Home Automation and Smart Homes to Support Independence*, in SMART TECHNOLOGY FOR AGING, DISABILITY, AND INDEPENDENCE: THE STATE OF SCIENCE 33-34 (William Mann ed., Wiley-Interscience 2005).

modifications;¹²⁷ sensory devices, networking solutions, and "smart" environments to facilitate health and disease monitoring, trigger appropriate response services in case of falls and emergencies, and perform tasks such as opening doors, reading, and turning on lights;¹²⁸ transportation and community mobility;¹²⁹ and synchronous and asynchronous methods of social communication.¹³⁰ These technological innovations play a significant role in the successful aging of individuals with disabilities,¹³¹ such as facilitating the performance of ADLs and IADLs, aiding social communications, providing safety and monitoring features, compensating for functional limitations, improving workplace productivity,¹³² and averting premature decisions to move into a less integrated environment.¹³³

Studies of trends in the use of assistive technology (AT) among older Americans show a substantial increase in the independent use of technology offsetting the need for personal

127. John Finch & Mona Robinson, *Aging and Late-Onset Disability: Addressing Workplace Accommodation*, 69 J. REHAB. 38, 39-40 (2003); D.J. Hendricks et al., *Cost and Effectiveness of Accommodations in the Workplace: Preliminary Results of a Nationwide Study*, 25 DISABILITY STUD. Q. (2005) (non-paginated electronic journal), <http://www.ds-q-sds.org/article/view/623/800>.

128. Rita Cucchiara et al., *A Multi-camera Vision System for Fall Detection and Alarm Generation*, 24 EXPERT SYS. 334, 335 (2007); George Demiris et al., *Findings from a Participatory Evaluation of a Smart Home Application for Older Adults*, 16 TECH. & HEALTH CARE 111, 111, 117 (2008); Ilkka Korhonen et al., *Health Monitoring in the Home of the Future: Infrastructure and Usage Models for Wearable Sensors That Measure Health Data in the Daily Environments of the Users*, 22 IEEE ENG'G MED. & BIOLOGY 66, 66, 67 (2003); MARILYN RANTZ ET AL., *Using Technology to Enhance Aging in Place*, in SMART HOME AND HEALTH TELEMATICS 169 (Sumi Helal et al. eds., Springer 2008).

129. MICHAEL JUSTISS, *Transportation and Community Mobility*, in SMART TECHNOLOGY FOR AGING, DISABILITY, AND INDEPENDENCE: THE STATE OF SCIENCE 285 (William Mann ed., Wiley-Interscience 2005); DENNIS P. MCCARTHY, *Elder Drivers and Technology*, in SMART TECHNOLOGY FOR AGING, DISABILITY, AND INDEPENDENCE: THE STATE OF SCIENCE 247 (William Mann ed., Wiley-Interscience 2005).

130. ANN HORGAS & GREGORY ABOWD, *The Impact of Technology on Living Environments for Older Adults*, in TECHNOLOGY FOR ADAPTIVE AGING 230, 245-46 (Richard W. Pew & Susan B. Van Hemel eds., National Academies Press 2004).

131. See generally Alexandra Enders, *The Role of Technology in the Lives of Older People*, 19 GENERATIONS 7 (Spring 1995) (discussing the broader societal considerations of technology and aging).

132. HORGAS & ABOWD, *supra* note 130, at 236-37.

133. *Id.* at 235-37.

care services.¹³⁴ Freedman and colleagues asked participants about functional difficulties experienced without any assistance, formal and informal personal assistance, and the use of technology to aid in walking, transferring, bathing, dressing, toileting, and eating.¹³⁵ Findings show that among the population reporting existing difficulties, the chances of unaided usage of technology increased from 26% in 1992 to 32% percent in 2001, corresponding to declines in dependency on personal care.¹³⁶ This increase in technology use also is credited for the decline in dependency for care in performing daily living activities.¹³⁷

While there is sufficient evidence to support the need and utility of technology in facilitating successful aging for older adults with disabilities, there is still a significant gap in the access to, and acquisition of need-responsive and appropriate technology.¹³⁸ The elderly U.S. population is largely unaware of the AT available on the market.¹³⁹ Moreover, there is a lack of technology solutions customized to user need, appropriate for the user and environment, and involving the user in the design and delivery process.¹⁴⁰

Technological interventions should not depend only on the underlying scientific advancement and feasibility, but also be attuned and adapted to the needs of older adults with

134. Vicki A. Freedman et al., *Trends in the Use of Assistive Technology and Personal Care for Late-Life Disability, 1992–2001*, 46 GERONTOLOGIST 124, 124-25 (2006).

135. *Id.*

136. *Id.* at 125.

137. *Id.*

138. H. Stephen Kaye et al., *Mobility Device Use in the United States, Disability Statistics Report No. 14*, at 37 (2000), http://www.eric.ed.gov/ERICDocs/data/eric_docs2sql/content_storage_01/0000019b/80/16/65/48.pdf.

139. The results of a recent study showed that one-third of the participants in a sample of 113 adults more than fifty-five years of age who could benefit from the use of AT used no AT at all, suggesting that older adults had not been made aware of the multitude of assistive technology available to them. Mark L. Kueffler, *Awareness and Use of Assistive Technology Among Older Adults with Vision Impairments in the Midwestern United States* 33 (April 2003) (unpublished thesis, University of Wisconsin – Stout), available at <http://www.uwstout.edu/lib/thesis/2003/2003kuefflrm.pdf>.

140. Demiris et al., *supra* note 128, at 112.

disabilities.¹⁴¹ The lack of an appropriate match or customization between the technology and consumer may lead to the rejection or abandonment of technology solutions.¹⁴² This underlines the need for greater user-participation and involvement in the design and delivery of appropriate technology.¹⁴³

RESEARCH DIRECTIONS

Future examination of several key factors is essential to ensure equal opportunity, benefit, and social inclusion of persons aging with or into disability. We draw on our work at the Burton Blatt Institute (BBI) addressing veterans returning with disabilities, technology access, and corporate culture, to advance the economic, social, and civic empowerment of people with and aging into disability.¹⁴⁴

141. *Id.*

142. Marti L. Riemer-Reiss & Robbyn R. Wacker, *Factors Associated with Assistive Technology Discontinuance Among Individuals with Disabilities*, 66 J. REHAB. 44, 45 (2000). A variety of individual level factors impact the use of AT in an effective manner that enables active community participation. The primary factors found to impact AT use are: personal factors (*e.g.*, disability characteristics, age, expectations, motivation, and other psychosocial factors); Marcia J. Scherer et al., *Predictors of Assistive Technology Use: The Importance of Personal and Psychosocial Factors*, 27 DISABILITY & REHAB. 1321, 1321-22 (2005); technological factors (*e.g.*, appropriateness of equipment, ability of trial equipment, professional assessment, training and instruction on use of technology, etc.); Marcia J. Scherer & Laura A. Cushman, *Measuring Subjective Quality of Life Following Spinal Cord Injury: A Validation Study of the Assistive Technology Device Predisposition Assessment*, 23 DISABILITY & REHAB. 387, 388 (2001), environmental factors (*e.g.*, cultural context, funding access, family support, and attitudes of the consumer and individuals with whom the consumer interacts); Sajay Arthanat et al., *Conceptualization and Measurement of Assistive Technology Usability*, 2 DISABILITY & REHAB.: ASSISTIVE TECH. 235, 237 (2007); Naomi Schreuer et al., *Adjustment to Severe Disability: Constructing and Examining a Cognitive and Occupational Performance Model*, 29 INT'L J. REHAB. RES. 201, 206 (2006); and the activities the technology is supposed to impact, Arthanat, et al., *supra*, at 236.

143. Riemer-Reiss & Wacker, *supra* note 142, at 48.

144. Burton Blatt Institute, <http://bbi.syr.edu> (last visited Sept. 6, 2009). Burton Blatt was a pioneer of the disability rights movement. Blatt's seminal work—*Christmas in Purgatory*—arose from visits with colleague Fred Kaplan, who wore a hidden camera on his belt, to the back wards of state institutions for persons with mental retardation. Peter Blanck, *The Burton Blatt Institute: Centers of Innovation on Disability at Syracuse University*, 56 SYRACUSE L. REV. 201, 204 (2005); Burton Blatt Institute, *Entrepreneurship Boot Camp for Veterans with Disabilities* (2007),

VETERANS OF THE WARS IN IRAQ AND AFGHANISTAN

War creates a cohort of veterans with disabilities. Today, advances in medicine and technology preserve the lives of more wounded soldiers than ever before, increasing the percentage of veterans with disabilities in successive wars.¹⁴⁵ The new generation of American veterans with disabilities is faced with navigating the return to society, and the challenges of family, employment, housing, and stigma like generations of veterans before them.¹⁴⁶ The present cohort averages age twenty-five and has limited education and little or no employment experience outside the military.¹⁴⁷ The history of returning veterans with disabilities suggests their disability is likely to impact long-term employment opportunities, health, life expectancy, and social status.¹⁴⁸ Associated social and economic issues and stressors are substantial¹⁴⁹ and take a particularly high toll on younger, less-educated veterans.¹⁵⁰

The Civil War studies illustrate that less visible or understood impairments, such as those involving mental health, were subject to heightened criticism or scrutiny by the press and public.¹⁵¹ Studying the occurrence of PTSD and similar mental health impairments among returning veterans from the Civil to Vietnam War, Eric Dean finds these veterans' disability claims regularly were disfavored by the Pension Bureau and Veterans Administration (VA).¹⁵² Dean similarly found "a veteran who

http://bbi.syr.edu/projects/ebv_veterans_bootcamp.htm#applyebv (last visited Sept. 6, 2009).

145. Blanck, *supra* note 6, at 395.

146. *Id.*

147. *Id.*; see Linda Bilmes, *Soldiers Returning from Iraq and Afghanistan: The Long-term Costs of Providing Veterans Medical Care and Disability Benefits* 3 n.5 (Kennedy Sch., Working Paper No. RWP07-001, 2007), available at <http://web.hks.harvard.edu/publications/getFile.aspx?Id=237.11>.

148. Blanck, *supra* note 6, at 395 (citations omitted).

149. *Id.* at 393 (citing Markin, *supra* note 106, at 155) (citations omitted).

150. *Id.* at 395 (citation omitted).

151. *Id.* at 393 (citation omitted).

152. DEAN, *supra* note 35, at 144. Important parallels can be drawn between the symptoms of shell shock in World War I, combat stress (also known as battle

suffered no physical wounds or diseases and was anything short of stark raving mad and yet complained of mental problems originating in the war probably would have been regarded as a malingerer in this era."¹⁵³

More than 1.6 million American men and women in uniform have served in Afghanistan and Iraq since 2001.¹⁵⁴ One-third of returning U.S. veterans received treatment for mental health concerns within a year of returning, and PTSD was the leading diagnosis for mental health disorders in returning veterans.¹⁵⁵ One-fifth of all returned veterans (about 300,000) have reported PTSD symptoms or major depression.¹⁵⁶ In comparison, as of 2006 just over 50,000 soldiers have substantial physical war wounds.¹⁵⁷ Presently, more than two million U.S. veterans receive disability benefits.¹⁵⁸ As a nation, we are challenged to embrace and ensure the civil rights, community integration, and economic empowerment of veterans with disabilities, and to reject concepts of incapacity and stigma.

Since 2007, an innovative program for veterans with

exhaustion) in World War II and the Korean War, PTSD in Vietnam and the present wars in Afghanistan and Iraq, and Gulf War Syndrome. Edgar Jones & Simon Wessely, *Psychiatric Battle Casualties: An Intra- and Interwar Comparison*, 178 BRIT. J. PSYCHIATRY 242, 242-46 (2001); Edgar Jones et al., *Post-combat Syndromes from the Boer War to the Gulf War: A Cluster Analysis of Their Nature and Attribution*, 324 BRIT. MED. J. 1, 5 (2002); Nat'l Council on Disability, *Invisible Wounds: Serving Service Members and Veterans with PTSD and TBI* 18-19 (2009); Bilmes, *supra* note 147, at 11. Conducting a cluster analysis of primary data pulled from pension records, military records, medical investigations and others, across ten conflicts (from the Boer to Gulf War), Jones and colleagues concluded post-combat syndromes differ across the wars, and "propose that what has changed is not the symptoms themselves but the way in which they have been reported by veterans and interpreted by doctors." Jones et al., *supra* note 152, at 4-5 (2002).

153. DEAN, *supra* note 35, at 159.

154. *Veterans for Common Sense v. Peake*, 563 F. Supp. 2d 1049, 1062 (N.D. Cal. 2008). Among these just over 510,000 troops have been deployed to Iraq since 2003. Michael E. O'Hanlon & Jason H. Campbell, *Iraq Index: Tracking Variables of Reconstruction & Security in Post-Saddam Iraq* 28 (Brookings Inst. 2009), <http://www.brookings.edu/saban/-/media/Files/Centers/Saban/Iraq%20Index/index20090625.pdf>.

155. *Peake*, 563 F. Supp. 2d. at 1062.

156. Press Release, *supra* note 50.

157. Bilmes, *supra* note 147, at 2.

158. *Id.* at 5-6 (noting 11% of 24 million living veterans).

disabilities returning from Afghanistan and Iraq has been offered by the Whitman School of Management at Syracuse University in partnership with BBI.¹⁵⁹ The Entrepreneurship Bootcamp for Veterans with Disabilities (EBV) is a free program that “offers cutting edge, experiential training in entrepreneurship and small business management,” business planning and mentorship, focusing on return-to-work, economic self-sufficiency, social competencies, and integrated living.¹⁶⁰ The program’s success has led to its adoption by the UCLA Anderson School of Management, the Florida State University College of Business, the Texas A&M University Mays Business School, and the Purdue University Krannert School of Management, at no cost to the veterans.¹⁶¹

Like the EBV program, Syracuse University—home of the Burton Blatt Institute—enrolled 10,000 veterans following World War II under the G.I. Bill, tripling its enrollment.¹⁶² Now, Syracuse University has joined hundreds of private U.S. colleges and universities, including Marquette University, partnering

159. Burton Blatt Inst., *Entrepreneurship Bootcamp for Veterans with Disabilities* (2007), http://bbi.syr.edu/projects/ebv_veterans_bootcamp.htm#applyebv (last visited July 15, 2009).

160. Whitman Sch. of Mgmt., *The Entrepreneurship Bootcamp for Veterans with Disabilities*, <http://whitman.syr.edu/ebv/> (last visited Sept. 6, 2009). Key components of this program are financial literacy, benefits counseling, and asset accumulation strategies to prepare the students for informed decision making around health care, business loans, and personal savings. See generally, Larry Bennett et al., *“Inclusive Entrepreneurship” Curriculum and Field Work Practicum Model*, version 1-4 (July 22, 2009) (presenting the EBV learning objectives and outcomes) (on file with authors).

161. U.S. Army, *“Entrepreneurship Bootcamp for Veterans with Disabilities” Program*, <http://www.army.mil/news/2009/02/09/16644-entrepreneurship-bootcamp-for-veterans-with-disabilities-program/> (last visited Sept. 6, 2009).

162. Nancy Cantor, *The Two-Way Street of Scholarship in Action at 8–9* (Mar. 18, 2008) (transcript available at http://www.syr.edu/chancellor/speeches/2wayst_SIA_University_Address_031808.pdf). The G.I. Bill (Serviceman’s Readjustment Act of 1944), provided “educational benefits . . . to returning World War II veterans [and] presented a historically unparalleled federal subsidy for college enrollment, which was neither means tested nor ability tested.” John Bound & Sarah Turner, *Going to War and Going to College: Did World War II and the G.I. Bill Increase Educational Attainment for Returning Veterans?*, 20 J. LAB. ECON. 784, 789-90 (2002). Bound & Turner, in part, concluded the bill “dramatically reduced the cost of attending college” for World War II veterans and substantially increased their college attainment. *Id.* at 801-02, 809.

with the Veterans Administration (VA) to offer eligible veterans affordable private education through the Yellow Ribbon Program.¹⁶³ Pursuant to the Post-9/11 Veterans Educational Assistance Act of 2008, veterans with thirty-six months of service, or with a disability and thirty continuous days of service since September 10, 2001, may attend a public college or university with all tuition and fees paid by the VA.¹⁶⁴ Alternately, eligible veterans may attend a private school participating in the Yellow Ribbon Program, receive the same tuition and fee benefits (noted above) up to the maximum state rate, and receive up to 100% of the excess private tuition and fees under the Yellow Ribbon agreement between the VA and private school.¹⁶⁵ These benefits also are available to dependents of the eligible veteran.¹⁶⁶

Like the 2008 Act, how may we extend the EBV program across the country to not just hundreds, but thousands of returning veterans with entrepreneurial aspirations and innovative uses for their skills? How do programs like these—currently veterans admitted to the EBV program get a full scholarship—become sustainable? Will accessible distance education and technology help support these goals?

Furthermore, successful reintegration for many returning veterans with PTSD must include effective treatments and services for the veterans and understanding and meeting the needs of their families. What is known of the long-term impact of PTSD and related war syndromes for the aging veteran and family? These syndromes have followed every major conflict

163. Jaime Winne Alvarez, *Syracuse University, SU Offers Yellow Ribbon Program Benefits to Post-9/11 Veterans and Their Dependents Beginning This Fall*, SYRACUSE UNIV. NEWS, Dec. 9, 2008, http://sunews.syr.edu/story_details.cfm?id=6145; U.S. Dep't of Veterans Affairs, *WI State Yellow Ribbon Program Information*, http://www.gibill.va.gov/GI_BILL_Info/CH33/YRP/states/wi.htm (last visited Sept. 6, 2009).

164. 38 U.S.C.A. §§ 3311(b), 3313(a)-(c), 3319(a)-(c) (West 2009); U.S. Dep't of Veterans Affairs, *Yellow Ribbon Program*, http://www.gibill.va.gov/GI_BILL_Info/CH33/Yellow_ribbon.htm (last visited Sept. 4, 2009).

165. U.S. Dep't of Veterans Affairs, *supra* note 163.

166. *Id.*

involving the United States since at least the American Civil War, and would appear to be the experience of every nation at war throughout history.¹⁶⁷ Yet, to a large extent the nation again is unprepared for these returning veterans.

TECHNOLOGY ACCESS

New devices, technologies, and techniques of using existing technologies are continually developed through AT service delivery providers, research and development projects, and importantly by people with disabilities and their families.¹⁶⁸ Federal legislation such as the ADA, IDEA, Hearing Aid Compatibility Act of 1988, Assistive Technology Act of 1998, and Section 508 of the Rehabilitation Act include AT as an important part of increasing quality of life for people aging with disabilities through enhanced educational and vocational opportunities.¹⁶⁹ Moreover, the 2006 Convention on the Rights of Persons with Disabilities (CRPD) requires information and communications technology (ICT) to be accessible for people with disabilities, affirming "that disability rights and ICT are inextricably linked and . . . acknowledging ICT accessibility as a human rights issue."¹⁷⁰

Cost and methods of service delivery impact access to and acquisition of technology.¹⁷¹ Many persons aging with disability look to public funding to cover expenses associated with their

167. Jones et al., *supra* note 152, at 5.

168. Demiris et al., *supra* note 128, at 112.

169. Family Ctr. on Tech. & Disability, Assistive Technology Laws 1-3, http://www.fctd.info/resources/ATlaws_print.pdf (last visited Sept. 6, 2009).

170. WILLIAM N. MYHILL ET AL., *Distance Education Initiatives and Their 21st Century Role in the Lives of People with Disabilities*, in FOCUS ON DISTANCE EDUCATION DEVELOPMENTS 17 (Edward P. Bailey ed., Nova Science Publishers, Inc. 2007) (citing Convention on the Rights of Persons with Disabilities, art. 4, § 1(g), G.A. Res. 61/106, U.N. Doc. A/RES/61/106 (Dec. 6, 2006)).

171. See Nat'l Council on Disability, *The State of 21st Century Long-Term Services and Supports: Financing Systems Reform for Americans with Disabilities* 13-15 (2005), http://www.ncd.gov/newsroom/publications/2005/pdf/longterm_services.pdf; William N. Myhill et al., *Developing Accessible Cyberinfrastructure-Enabled Knowledge Communities in the National Disability Community: Theory, Practice, and Policy*, 20 ASSISTIVE TECH. 157, 158 (2008).

care in the absence of private insurance.¹⁷² In 2001, approximately \$5500 per person (for a total of about \$1.24 trillion) was spent on personal health care services, and \$151.2 billion (12%) of that was for long-term supports and services.¹⁷³ In 2003, \$276.1 billion was spent by Medicaid, and over half went to people who were aging or had disabilities.¹⁷⁴ High costs associated with serving these populations are often a function of the higher costs of nursing homes and staffing to support institutional arrangements.¹⁷⁵ AT use at home and work reduces costs by effectively increasing the independence and quality of community life of people with disabilities.¹⁷⁶

One central yet under addressed area of research and practice involves Universal Design.¹⁷⁷ "Universal Design (UD) refers to the creation of products and environments, as well as practices, programs, and services, that are accessible to and usable by all persons, including individuals with disabilities, without adaptation or specialized design."¹⁷⁸ Myhill, Blanck, and colleagues at BBI are investigating the role of UD for assistive and information technology, geographically-distributed collaboration, and distance education,¹⁷⁹ and design of the physical environment in collaboration with the Global Universal Design Commission (GUDC).¹⁸⁰ UD research is addressing the separate and intersecting needs of people with disabilities and those who are aging.¹⁸¹

172. Nat'l Council on Disability (2005), *supra* note 171, at 13-15.

173. CAROL O'SHAUGHNESSY, CONGRESSIONAL RESEARCH SERVICE, LONG-TERM CARE CHART BOOK: PERSONS SERVED, PAYORS AND SPENDING, at CRS-3 (2003), <http://digital.library.unt.edu/govdocs/crs/permalink/meta-crs-5015:1>.

174. Nat'l Council on Disability, *supra* note 171, at 15.

175. *Id.* at 46.

176. Cf. Nat'l Council on Disability, OVER THE HORIZON: POTENTIAL IMPACT OF EMERGING TRENDS IN INFORMATION AND COMMUNICATION TECHNOLOGY ON DISABILITY POLICY AND PRACTICE 20 (Dec. 19, 2006).

177. MYHILL ET AL., *supra* note 170, at 158.

178. *Id.*

179. *Id.* at 28, 163-71.

180. See Global Universal Design Commission, *Early Adopters Recognized at Summit*, GUDC Newsletter (noting adoption of UD standards for commercial buildings by Destiny USA, CONADIS, and Rehabilitation International), http://www.globaluniversaldesign.org/images/newsletter/gudcnews_v1.pdf.

181. See generally Philip Bors et al., *Community Design: The Next Step to an Active*

Perhaps the greatest challenges in technology access for persons aging with and into disability remain cost, awareness, and accessibility. How do we harness UD principles, federal law, technology manufacturing, and the programs and services that support community living to raise awareness, lower cost, and ensure maximum usability?

BBI is investigating these issues in partnership with the Institute for Matching Person and Technology, the Council for State Administrators for Vocational Rehabilitation, the Rehabilitation Engineering & Assistive Technology Society of North America (RESNA), and the National Council for Independent Living (NCIL) under the recently awarded "Center for Effective Delivery of Rehabilitation Technology" grant from the National Institute for Disability and Rehabilitation Research.¹⁸² Over five years, BBI and its partners seek to advance the effective delivery of rehabilitation technology and create new knowledge to be disseminated widely.¹⁸³

CORPORATE CULTURE

A growing area in disability and aging research involves organizational or corporate culture.¹⁸⁴ Corporate culture refers

Society?, J. ACTIVE AGING, Jan.-Feb. 35, 35 (2004) (providing ten strategies to promote active living among elder populations including UD for "creating and enhancing facilities"); Oya Demirelek & Halime Demirkan, *Universal Product Design Involving Elderly Users: A Participatory Design Model*, 35 APPLIED ERGONOMICS 361, 361-69 (2004) (including elderly participants as central to the design of a useable, safe and attractive entryway); Aaron Marcus, *Universal, Ubiquitous, User-Interface Design for the Disabled and Elderly*, INTERACTIONS, Mar.-Apr. 23, 23-27 (2003) (discussing improving human computer interaction for people aging with and into disability); John P. Marsden et al., *Therapeutic Kitchens for Residents with Dementia*, 16 AM. J. ALZHEIMER'S DISEASE & OTHER DEMENTIAS 303, 303, 310 (2001) (concluding "universal design features should be incorporated to a greater extent . . . [within] therapeutic kitchens" to facilitate heightened accessibility).

182. Press Release, Syracuse University, Burton Blatt Institute Receives Funding from U.S. Department of Education for Five-year Rehabilitation Technology Project (July 31, 2009) (on file with authors).

183. *Id.*

184. Richard V. Burkhauser & David C. Stapleton, *Introduction to THE DECLINE IN EMPLOYMENT OF PEOPLE WITH DISABILITIES: A POLICY PUZZLE 4* (David C. Stapleton & Richard V. Burkhauser eds., W.E. Upjohn Institute 2003); Susan Schwochau & Peter Blanck, *Does the ADA Disable the Disabled?: More Comments*, 42

to the beliefs, values and shared assumptions, the "stated strategies, goals, and philosophies that explicitly guide organizational policies," and the "artifacts of culture, which include the physical and social environment in a corporation."¹⁸⁵ Research at the intersection of corporate culture, disability, and aging investigates the policies and practices of an organization and how they are implemented, often in regard to the efficiency, diversity, or fairness of the resulting workplace and employee job satisfaction, tenure, loyalty, and turnover intention.¹⁸⁶ For instance, employees with disabilities experience significant disparities in the work place, including lesser benefits, lower pay, and greater job insecurity.¹⁸⁷ These gaps contribute to lower job satisfaction and higher job turnover.¹⁸⁸

Blanck and colleagues conducted the first large-scale study of corporate attitudes and experiences of employees with and without disabilities.¹⁸⁹ In pertinent part, they found:

[In workplaces] where employees . . . report high levels of company fairness and responsiveness, there are no significant differences between employees with and without disabilities on measures of job satisfaction, company loyalty, willingness to work hard, and turnover intention. In contrast, in worksites where employees . . . perceive lower levels of company fairness and responsiveness, employees with disabilities have especially low levels of job satisfaction, loyalty, and willingness to work hard, and express greater turnover intentions. . . .¹⁹⁰

BBi is leading a research consortium funded by the U.S. Department of Labor's Office of Disability Employment Policy

INDUS. REL. 67, 75 (2003).

185. Lisa Schur et al., *Corporate Culture and the Employment of Persons with Disabilities*, 23 BEHAV. SCI. LAW 3, 6 (2005) (quoting EDGAR H. SCHEIN, ORGANIZATIONAL CULTURE AND LEADERSHIP 12 (2d ed. 1992), citing EDGAR H. SCHEIN, THE CORPORATE CULTURE SURVIVAL GUIDE (1999)).

186. Lisa Schur et al., *Is Disability Disabling in All Workplaces?: Disability, Workplace Disparities, and Corporate Culture*, 48 INDUS. REL. 381, 383-84 (2009).

187. *Id.* at 401-402.

188. Blanck, *supra* note 6, at 391.

189. *Id.*

190. Schur et al., *supra* note 186, at 402.

(ODEP) that has developed and is validating a tool to assist companies benchmark corporate culture, policies, promotion, tenure, and hiring programs that benefit employees with disabilities and their employers.¹⁹¹ Preliminary data confirm corporate cultures that are supportive of employees with disabilities similarly benefit all employees and the company at large.¹⁹² For instance, fair employment practices toward employees with and without disabilities relate to organizational commitment, job satisfaction, citizenship behaviors, and turnover intentions.¹⁹³

Future investigations may examine the degree to which inclusive corporate cultures benefit aging employees generally, and those aging with a disability. Focus will need to be on older generations as they remain in the workforce and the kinds of jobs they perform. Certain jobs may better meet the needs of aging employees and benefit from personal supports, accessible technologies, and reasonable accommodation. Finally, examination of corporate cultures may help inform military organizational cultures and veterans programs for personnel with and without disabilities.

CLOSING

On July 30, 2009, the United States signed the Convention on the Rights of Persons with Disabilities (CRPD), becoming the 141st signatory to the treaty.¹⁹⁴ This event coincides with the July celebrations of the nineteenth anniversary of the ADA.¹⁹⁵ The CRPD and ADA aim to further community access, employment

191. Blanck, *supra* note 6, at 392.

192. *Id.*

193. Schur et al., *supra* note 186, at 401-02.

194. Press Release, Office of Public Engagement, Valerie Jarrett and Ambassador Rice at the U.S. Signing of the UN Convention on the Rights of Persons (July 30, 2009) available at <http://www.whitehouse.gov/blog/Valerie-Jarrett-and-Ambassador-Rice-on-the-UN-Convention-on-the-Rights-of-Persons>; United Nations, Rights and Dignity of Persons with Disabilities: Convention & Optional Protocol Signatories & Ratification, <http://www.un.org/disabilities/countries.asp?id=166> (last visited Sept. 8, 2009).

195. Press Release, *supra* note 194.

equality, and quality of life for all individuals, children, and families affected by disability.¹⁹⁶ Importantly, both landmark laws seek to improve attitudes and behavior toward the growing and aging population of individuals with disabilities.¹⁹⁷ These policy statements reflect a new global commitment to the rights of persons with disabilities.¹⁹⁸ It remains to be seen how these advances will be used to ensure equal opportunity, quality of life, and community and economic inclusion for the next generation of persons aging with and into disability.

196. *Id.*

197. *Id.*

198. *Id.*