"With Malice Toward None; with Charity Toward All": Civil War Pensions for Native and Foreign-Born Union Army Veterans

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^{1.} Abraham Lincoln, Second Presidential Inaugural Address (Mar. 4, 1865), in Inaugural Addresses of the Presidents of the United States 142 (1989).

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I. Introduction

With malice toward none; with charity toward all;... let us strive on to finish the work we are in, to bind up the nation's wounds, to care for him who shall have borne the battle....²

In a series of empirical studies, we have examined the lives of Union Army (UA) Civil War veterans. Our primary focus has been on the nature of UA veterans' impairments and how the Civil War pension system compensated their disabilities. We also have explored how public acceptance—"malice toward none"—and inclusion into society of disabled UA veterans—"charity toward all"—in late nineteenth century American society were as much driven by political, economic, social, and attitudinal factors regarding conceptions of disability, as by the pension laws themselves.³

Undoubtedly, the Civil War forever changed public and medical conceptions of the then new class of disabled citizens in American society. Yet attitudes toward the pension worthiness and deservedness of UA veterans with disabilities were largely shaped by factors external to disability. In prior studies, we have documented the ways in which views about veterans' disabilities, and hence UA pension compensation, were shaped by partisan forces, the emerging administrative and bureaucratic state, attorney advocacy and lobbying, veterans' social class and occupation, and economic factors in late nineteenth century America.⁴

examine social, legal, historical, medical, and economic factors affecting the aging process.

^{2.} Lincoln, supra note 1.

^{3.} See generally Center for Population Economics, University of Chicago, Investigation of the Aging of the Union Army, available at http://www.cpe.uchicago.edu (last visited Feb. 4, 2002) (describing the project and data files). See also http://www.its.uiowa.edu/law for a description of research on disability and Civil War pensions. The historical data set is called "Early Indicators of Later Work Levels, Disease, and Death," and research related to the data is sponsored by grants to the Center for Population Economics (CPE), University of Chicago, and Department of Economics, Brigham Young University. University of Chicago professor Robert Fogel is the principal investigator. Dr. Fogel and his colleagues (including Peter Viechnicki and others) have graciously provided us access to and assistance with their data for our analyses herein. For information on Dr. Fogel's program of research, see Robert W. Fogel, Public Use Tape on the Aging Veterans of the Union Army: Data User's Manual: Surgeon's Certificates, Ohio, Pennsylvania, New York and Illinois Regiments, 1860–1940, Version S-0 (Advance Release) (1996) [hereinafter Data User's Manual]. The central goal of Dr. Fogel's research is to

^{4.} See Peter Blanck, Civil War Pensions and Disability, 62 OHIO ST. L.J. 109, 112-16 (2001) (discussing prior studies) [hereinafter Civil War Pensions and Disability]; Peter Blanck & Michael Millender, Before Disability Civil Rights: Civil War Pensions and the Politics of Disability in America, 52 Ala. L. Rev. 1, 1-50 (2000) [hereinafter Before Disability Civil Rights]. For extensive discussion of the political and social forces behind the growth of the Civil War Pension System, see Theda Skocpol, America's First Social Security System: The Expansion of Benefits for Civil War Veterans, 108 POL. SCI. Q. 85 (1993) [hereinafter Social Security]; THEDA SKOCPOL, PROTECTING SOLDIERS AND MOTHERS: THE POLITICAL ORIGINS OF SOCIAL POLICY IN THE UNITED STATES (1992) [hereinafter PROTECTING SOLDIERS AND MOTHERS]; MARY KLAGES, WOEFUL AFFLICTIONS: DISABILITY AND SENTIMENTALITY IN VICTORIAN AMERICA 10 (1999) (concluding that the cultural meaning of disability depends largely on social and political context).

Among the ranks of returning UA soldiers were large numbers of foreign-born veterans. Indeed, at the start of the Civil War, almost 15% of U.S. residents were foreign-born, with the majority migrating to Northern states where the demand for manual labor was strong.⁵ In contrast to the sizable proportion of foreign migrants, relatively fewer foreign-born veterans were on the pension rolls.⁶ This was true even at the height of the Civil War pension system in the late 1800s and early 1900s, when upwards of 90% of UA veterans received pensions.⁷ As progressive-era statistician Isaac Rubinow wrote: "The most singular feature of the [Civil War] American pension system is that it primarily rebounds to the advantage of a class least in need of old-age pensions." That beneficial class was primarily white, native UA veterans residing in rural Republican strongholds.⁹

Limited empirical study of the experiences of UA soldiers from different ethnic and cultural backgrounds has been conducted. Historian David Gerber notes that "links to culture and society, beyond politics, welfare policy, and statebuilding initiatives, [have been] neglected, especially when it comes to thinking about the complex problem of disability [and] the Civil War pension scheme." ¹⁰ Moreover, understanding of the cultural, political, economic, and social forces that influenced the UA Civil War pension system lays the groundwork for comparative and transnational analyses of other nations' experiences with war pension schemes, and with those experiences, conceptions of disability in society.

During the first year of the Civil War, demographic data were not collected on recruits' birthplaces. ¹¹ Based on information collected thereafter, Benjamin Gould, Civil War-era statistician of the Sanitary Commission,

^{5.} See WILLIAM L. BURTON, MELTING POT SOLDIERS: THE UNION'S ETHNIC REGIMENTS (1988) (citing 1860 census counting 34 million U.S. residents of which 4 million (13%) were foreignborn); see also Thomas Walker Page, The Distribution of Immigrants in the United States Before 1870, 20 J. Pol. Econ., 678-80 (1912).

^{6.} Although no good estimates exist for the proportion of foreign-born UA veterans receiving pensions, existing estimates are low. See ISAAC M. RUBINOW, SOCIAL INSURANCE WITH SPECIAL REFERENCE TO AMERICAN CONDITIONS 406-07 (1913) (estimating that in 1910, nearly two-thirds of white, native UA veterans over age 65 were receiving a pension).

^{7.} Civil War Pensions and Disability, supra note 4, at 126-27 (citing pension statistics).

^{8.} RUBINOW, supra note 6, at 408 (emphasis omitted).

^{9.} Civil War Pensions and Disability, supra note 4, at 196-97 (discussing findings in accord).

^{10.} 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) (discussing limitations of prior empirical study of war pension schemes).

^{11.} See ELLA LONN, FOREIGNERS IN THE UNION ARMY AND NAVY 90 (1951); BENJAMIN A. GOULD, INVESTIGATIONS IN THE MILITARY AND ANTHROPOLOGICAL STATISTICS OF AMERICAN SOLDIERS 15 (1869) (noting that early in the war the place of recruit residence was frequently provided instead of place of birth). In this Article, we use the word recruit, as used by Gould, to mean those who volunteered or were drafted and then served in the UA, although before 1863 the UA was made up of mostly volunteers and regular army, and after 1863 enlistment was supplemented by the draft. Id. at 26.

estimated the nativity of 1,200,000 of the 2,500,000 (48%) UA veterans. ¹² Gould found that foreigners made up a higher proportion of UA regiments in eastern relative to western states. ¹³ Foreign-born UA soldiers tended to be younger than native recruits because relatively younger individuals tended to migrate to the United States. ¹⁴

Ella Lonn's seminal work *Foreigners in the Union Army and Navy* chronicles the important contribution of foreign-born UA veterans to the successful outcome of the Civil War.¹⁵ Lonn finds that in 1860, more than 85% of the foreign-born soldiers in the United States lived in the North. She also contends that the Irish UA soldiers were particularly healthy compared to other groups.¹⁶ It is likely, however, that during the later years of the war, a relatively higher proportion of the UA was foreign-born. As Gould has described, the first million UA volunteers were primarily born in the United States, enlisting "under the immediate stimulus of the first patriotic emotions."¹⁷

Systematic examination of the UA foreign-born soldiers' experiences after the war and in regard to the federal pension program is sparse. Earlier historians expressed optimistic views about the Civil War's role in assimilating immigrants into American society. Historian John Higham wrote: "The war completed the ruin of organized nativism by absorbing xenophobes and immigrants in a common cause. Now the foreigners had a new prestige; he was a comrade-at-arms. The clash that alienated sections reconciled their component nationalities." ¹⁸

It is the case, however, that little, if any, empirical study has been devoted to assessment of the degree to which native and foreign-born UA disabled veterans enjoyed equal access to and benefited from the pension scheme after the war. Indeed, if inequality of access to the pension system existed on the basis of ethnicity, we can attribute this inequality to disability and non-disability (e.g., discriminatory) factors that may have accounted for such a disadvantage.

16. Id. at 646.

^{12.} GOULD, *supra* note 11, at 15. Moreover, given language and literacy barriers, demographic information such as nativity is not contained in many military and pension data files. *See* LONN, *supra* note 11, at 90; BURTON, *supra* note 5, at 52.

^{13.} See LONN, supra note 11, at 582 (discussing statistics); see~also GOULD, supra note 11, at 3 (calculating immigrant UA military population to be approximately: 46,000 in 1860; 32,000 in 1861; 56,000 in 1863; and 63,000 in 1864, for a total of 230,000 through the end of 1864).

^{14.} See LONN, supra note 11, at 573 (discussing age and migration trends and noting the demand in the North during the war for laborers, given the drain of native recruits from the labor force)

^{15.} Id. at 1.

^{17.} GOULD, supra note 11, at 16 (discussing changing reasons for enlistment during the war).

^{18.} See John Higham, Strangers in the Land: Patterns of American Nativism, 1860-1925, at 13 (1955) (discussing nativism before and after the Civil War). "The war forged between American ethnic groups the ties of common economic need." Id. at 14.

This Article continues our broader examination of the lives of disabled UA veterans, with particular focus on the crucial, yet often overlooked group of foreign-born UA veterans and their experiences with the federal pension scheme. In his study of disabled World War I veterans, Gerber suggests that untapped links to the evolution of culture and society in the United States may be found in such historical examinations of the social construction of disability and veterans' pension programs. ¹⁹ Gerber writes: "The story of disabled veterans is not complete without analyzing the ways representation and discourse transform functional impairments into fixed handicaps or disabilities in various historical environments." ²⁰

We investigate here the social and cultural forces that influenced the quest for and access to Civil War pensions and which thereby dramatically changed forever conceptions of disability in American society. Part II overviews the operation of the Civil War pension scheme from 1862 to 1907 and highlights the role immigrants played in the UA. Part III presents empirical findings describing the characteristics of the sample of UA veterans and the degree to which pension outcomes were influenced by claimants' ethnicity and other factors independent of disability. Part IV concludes with implications for comparative and contemporary attitudes and behavior toward disabled persons.

II. EVOLUTION OF THE CIVIL WAR PENSION SYSTEM

A. Pension Scheme

During the 48 months of the Civil War, there were roughly 860,000 casualties incurred by the nearly 2.5 million members of the UA.²¹ Of these casualties, Civil War-era statistician Gould estimated that nearly 400,000 occurred before July 1863 (July 1863 being the month of the Gettysburg battle). The need to maintain an army and national support for the war had led to Congress's passage of the Civil War pension system in 1861, shortly after commencement of the war. The 1861 Act provided pensions for UA veterans' war-related injuries, as well as for widows and minor children of slain soldiers.²² However, as the war progressed and more recruits were needed, a comprehensive pension system became necessary.

There are two primary periods in the evolution of the Civil War pension system. The first extended over the years from 1862 to 1890, under which

^{19.} See generally Gerber, supra note 10.

²⁰. Gerber, supra note 10, at 80 (discussing the need for study of many of the factors explored in our research model, such as class, race, ethnicity, and disability severity).

^{21.} GOULD, supra note 11, at 9 (discussing casualty statistics and noting UA war deaths at about 250,000).

^{22.} For extensive discussion of the political and social forces behind the growth of the Civil War Pension System, see PROTECTING SOLDIERS AND MOTHERS, *supra* note 4. *See also Data User's Manual*, *supra* note 3, at 135-36; Hugh Rockoff, The Changing Role of America's Veterans (NBER Working Paper Series No. 8595, 2001) (reviewing American war pension schemes).

"Disability Pension System" awards to UA veterans were based on war-related injuries and impairments. During the subsequent period from 1890 to 1907, the "Service-Based Pension System" linked veterans' awards to length of military service and later to age.

In 1862, Congress passed the "General Law System," which established the Pension Bureau.²³ The General Law prescribed that the Bureau award pensions to UA veterans with war-related disabilities through a medical screening system for rating and compensating disabilities.²⁴ Under the General Law, claimants were rated with respect to their "total disability for the performance of manual labor requiring severe and continuous exertion."²⁵ The definition of disability in relation to the ability to perform manual labor was interpreted later to include other types of labor that required "education or skill."²⁶

The Pension Bureau retained local physicians to screen and rate claimants' disabilities as well as complete standard "surgeon's certificates." The examining surgeon's ratings of the claimant's degree of "total disability" determined its severity, such as the loss of a leg or an arm from a gunshot wound.²⁷ Medical screen ratings were categorized for different diseases and disabilities, including those resulting from battle wounds, infectious diseases, and nervous system disorders.²⁸ Awards for particular disease and disability categories were increased over time by various acts of Congress.

Under the General Law, an army private in 1862 received a maximum of \$8 per month for being rated as "totally disabled." A veteran whose disability was

^{23.} DIGEST OF PENSION LAWS, DECISIONS, RULINGS, ORDERS, ETC. 1885 (Frank Curtis & William Webster eds., 1885) [hereinafter DIGEST OF PENSION LAWS] (referencing Act of July 14, 1862—General Law System).

^{24.} Social Security, supra note 4, at 93; Data User's Manual, supra note 3, at 135-36; see also WILLIAM H. GLASSON, FEDERAL MILITARY PENSIONS IN THE UNITED STATES 125 (1918) [hereinafter FEDERAL MILITARY PENSIONS] (quoting statutory changes requiring that "[t]he claimant must show that his disability was incurred as the direct consequence of the performance of his military duty" and explaining that the General Law also provided for the widows, children, and other dependents of soldiers who died in military service).

^{25.} Social Security, supra note 4, at 93; Data User's Manual, supra note 3, at 135.

^{26.} Data User's Manual, supra note 3, at 135-36 (citing H.R. REP. No. 43-1, pt. 5, at 661 (1874)); see also DORA L. COSTA, THE EVOLUTION OF RETIREMENT, AN AMERICAN ECONOMIC HISTORY 1880-1990, 936 (1998) (noting that inability to participate in the labor force became the standard means for compensation in subsequent American pension and support programs).

^{27.} See Civil War Pensions and Disability, supra note 4, at 150-51 (discussing total disability as a measure of inability to perform manual labor). Pension ratings greater than 100% total disability, though relatively uncommon, could be awarded in circumstances requiring attendant care services for severely disabled veterans. *Id.* Also, ratings could change over time and with age. *Id.*

^{28.} *Id.* For data analytic purposes, the disability ratings have been standardized to control for differences in the magnitude of ratings made by different surgeons and under different pension laws. *See also id.* at 178-91 nn.257-71 (discussing data analysis).

^{29.} Data User's Manual, supra note 3, at 135-36 (officers were compensated at a higher proportional rate).

rated less than "total" received a proportion of that \$8. The system defined fractional rates of total disability for diseases or conditions; for instance, a warrelated lost finger or small toe was compensated by a prescribed rating of 2/8 totally disabled, with a corresponding pension allotment of \$2 per month. A warrelated lost eye or thumb, or a single hernia, resulted in a 4/8 rating of total disability with a corresponding award of \$4 per month.³⁰

Given the need for recruits, the duration of the war, and the sheer numbers of injuries and diseases, Congress supplemented the General Law in 1864 and again in 1866 to allow for increased pension benefits for total disability and added conditions not covered by the 1862 Act. Modifications to the General Law increased the rate of compensation for severe disabilities that were neither self-evident nor easily ascertainable by existing medical practices. By 1866, conditions and diseases such as malaria, measles, and sunstroke were compensated based on their "equivalence in disability" to physical war-related wounds. Veterans who lost both feet received \$20 monthly pensions, whereas those who lost both hands or eyes received \$25.34 The maximum monthly compensation of \$25 required that the claimant need "regular aid and attendance of another person" as a result of war-related disabilities.

By the early 1870s, a complex system of pension ratings for war-related disabilities had evolved.³⁶ In fiscal year 1870, the government spent \$29 million on pensions, doubling the \$15 million spent on pensions in 1866.³⁷ In response to the growth of the system, Congress passed the "Consolidation Act" in 1873, which assigned grades of severity to the rating of impairments in awarding pensions to war-related conditions.³⁸ Controversy and inequities in diagnosis and

^{30.} Data User's Manual, supra note 3, at 136-37 (providing other examples); Social Security, supra note 4, at 93.

^{31.} Social Security, supra note 4, at 93.

^{32.} FEDERAL MILITARY PENSIONS, supra note 24, at 210-11.

^{33.} Data User's Manual, supra note 3, at 136-37 (listing examples of surgeons' disability ratings examined).

^{34.} Id. (providing examples).

³⁵. Id. at 136 (citing DIGEST OF PENSION LAWS, supra note 23, at 501, and noting that the Act of June 8, 1872, further increased monthly pension allocations to a maximum of \$31.25).

 $^{36. \ \} Id.$ at 136-37 (summarizing monthly sums awarded for specific conditions and disabilities).

^{37.} See FEDERAL MILITARY PENSIONS, supra note 24, at 121-23, 273 (presenting statistical tables on pension expenditures and illustrating pension expenditures and number of claimants over time).

^{38.} See Data User's Manual, supra note 3, at 136-38 (summarizing grades and monthly sums awarded for specific conditions and disabilities). 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." Id. 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." Id. 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

compensation resulted because the 1873 Act compensated veterans for conditions or diseases contracted in military service that *subsequently* caused disabilities. After the 1873 Act, a veteran who was impaired years after his military discharge could still receive a pension, provided that he showed, usually with the help of an attorney, that his disability had its originating causes in military service. On The Pension Bureau allowed UA veterans to hire lawyers to navigate their cases through the application process. Attorneys' fees were limited to \$10 per application and paid regardless of whether the Bureau approved the application.

Another significant development that fostered the growth of the pension system was the use of arrears—back pension payments—as a means to attract veterans who had not applied for pensions. ⁴² Prior to 1879, proponents of arrears advocated that payments should be paid dating back to the veteran's discharge, at the rate the pension would have been granted, rather than commencing from the date of filing the claim. ⁴³ Advocates also argued that arrears payments should apply to pension claims that already had been allowed, as well as to new claims. ⁴⁴ Concern emerged that an arrears system would tempt large numbers of older veterans to claim they had incurred a disability that originated in military service. ⁴⁵

When passed into law, the 1879 Arrears Act provided that veterans could receive lump sum pension back payments that should have been granted as a result of their military service during the Civil War. 46 The 1879 Act also provided

loss of a hand or a foot." Id

loss of a hand or a foot." Id.

^{39.} See FEDERAL MILITARY PENSIONS, supra note 24, at 136. For example, some claimants suffered from heart disease or chronic bronchitis caused by pneumonia while in the army. Id. The highest grade for a permanent, specific disability remained at \$31.25 per month, the second grade was pensionable at \$24, and the third grade at \$18. Id. at 134-37. The 1873 Act provided for a new statutory rate of \$13 per month for total deafness that may have been the gradual result of earlier war-related conditions. See id. at 135 (citing other statutory changes, including that the discretionary powers of the Pension Bureau were increased under the 1873 Act, and under the subsequent 1888 Act).

^{40.} *Id.* at 137 (citing other examples); Peter Blanck & Chen Song, *Civil War Pension Attorneys and Disability Politics*, 35 MICH. J.L. REF. (forthcoming 2002) (discussing pension attorney usage rates) [hereinafter *Civil War Pension Attorneys*].

^{41.} See Civil War Pension Attorneys, supra note 40 (noting that the mean ruling amount per month over 16,996 applications sampled was \$9.52, and showing, in Figure 10, that the \$10 application fee was more than the median monthly pension award).

^{42.} See FEDERAL MILITARY PENSIONS, supra note 24, at 128, 150–53 (discussing Arrears legislation and illustrating expenditures and numbers of pensioners from 1866 to 1907).

^{43.} *Id.* at 151 (discussing issues and providing examples of application of arrears).

^{44.} Id.

^{45.} *Id.* at 152-53 (noting that prior to the 1879 Arrears Act there was a five-year statute of limitations to establish a pension claim, and there were related limitations to application of arrears by widows and dependents of veterans).

^{46.} Id. at 164-65 (discussing the 1879 Arrears Act); STUART CHARLES MCCONNELL, GLORIOUS CONTENTMENT: THE GRAND ARMY OF THE REPUBLIC 1865-1900, at 149 (1992) (noting that the Arrears

pension arrears to future applicants who could establish disability claims, regardless of the date when presenting the claims. ⁴⁷ The Arrears Act increased the number of veterans applying for and receiving disability pensions. ⁴⁸ It galvanized interests of the political constituency of disabled UA veterans and their advocates, which was increasingly important to the Republican and Democratic parties in the upcoming close national elections. ⁴⁹

The second period of the Civil War pension scheme began in 1890, when Congress passed the Disability Pension Act.⁵⁰ Unlike the "invalid" scheme under the General Law, the 1890 Act was a service-based pension system, compensating veterans on the basis of their length of military service. The 1890 law expanded pension eligibility to include physical and mental disabilities not related to wartime experience.⁵¹ Although the definition of disability in the 1890 Act, as in earlier laws, was based on an individual's incapacity to perform manual labor, it did not require disability to be related to military service,⁵² as long as the disability was not the product of "vicious habits or gross carelessness." ⁵³

Act did not alter the classification scheme for awarding pensions on the basis of war-related disability).

^{47.} FEDERAL MILITARY PENSIONS, *supra* note 24, at 166, 174-75 (discussing the flood of claims brought by attorneys and agents who received a fee for their services).

^{48.} See infra fig.3 (illustrating expenditures and numbers of pensioners from 1866 to 1907); see also MARY DEERING, VETERANS IN POLITICS: THE STORY OF THE G.A.R. (1952) (noting that the Arrears Act also enhanced the political importance of the Pension Bureau).

^{49.} See Heywood T. Sanders, Paying for the "Bloody Shirt": The Politics of Civil War Pensions, in Political Benefits: Empirical Studies of American Public Programs 137, 139-40 (Barry S. Rundquist ed., 1980) (discussing how the emergence of the G.A.R. may be traced to Republican and Democratic party platforms); see also Federal Military Pensions, supra note 24, at 164-65, 167, 202-04 (noting that Arrears Act repealed the provision in General Law placing a limitation on the use of parole evidence in establishing a pension claim); Data User's Manual, supra note 3, at 135-36 (describing a rise in number of pensioners and related expenditures over time); Social Security, supra note 4, at 102-04 (arguing that the Arrears Act originated from a strong lobby by pension attorneys who collected \$10 pension application fees and noting that before 1879 the average claim filing was 1,600 per month; after the 1879 Arrears Act the average filing was more than 10,000 per month). For newspaper stories, see, e.g., Arrears of Pensions, N.Y. TIMES, Nov. 12, 1881, at 4; and The Time's Pension Articles: The Plundering by Greedy Pensioners and Speculators Should Stop, N.Y. TIMES, May 2, 1894, at 4.

^{50.} The law is referred to as the Disability Pension Act of 1890 or the Dependent Pension Act of 1890. *See* Sanders, *supra* note 49, at 141-42 (commenting that during the passage of the 1890 Act the Republicans controlled both houses of Congress and the Presidency).

^{51.} Data User's Manual, supra note 3, at 140-41 (summarizing the 1890 law's requirements of military service for ninety days during the Civil War); FEDERAL MILITARY PENSIONS, supra note 24, at 236 (noting that the 1890 Act required the veteran be honorably discharged).

^{52.} See FEDERAL MILITARY PENSIONS, supra note 24, at 208-25 (discussing that President Grover Cleveland had vetoed an earlier version of the bill because he believed that it was subject to abuses and that the pension issue may have been the deciding factor in Benjamin Harrison's defeat of Cleveland in the presidential election of 1888); Social Security, supra note 4, at 96 (stating that old age became sufficient for disability and discussing the political ramifications of the passage of the 1890 Act).

^{53.} For findings from the analysis of claimants' "vicious habits" (alcohol, drug, and tobacco use, as coded from the examining surgeons' medical notes), see *Civil War Pensions and Disability*, supra note 4, at 154. In addition to incapacitation, subsequent modifications to the 1890 Act provided compensation to veterans who required periodic personal aid or the attendance of

UA pensioners and federal expenditures swelled after 1890 and the amount the government spent on pensions that year alone was \$106 million. ⁵⁴ The 1890 Disability Pension Act was, up to that time, the most costly and liberal pension measure "ever passed by any legislative body in the world." ⁵⁵ In 1904, the scope of the 1890 Act was broadened with the issuance of Executive Order No. 78. That Order provided that old-age itself was a "disability" covered by the 1890 Act, regardless of the claimant's income level and health condition, provided that the claimant showed ninety days of service with an honorable discharge. ⁵⁶

In 1907, the 1890 Act was replaced by the Service and Age Pension system that granted pensions based solely on a veteran's age and length of military service. The 1907 law provided that veterans over the age of 62 were to receive pensions, with graduated increases in payments with age.⁵⁷ Most veterans pensioned under the 1890 Act transferred to the rolls under the 1907 Act to receive higher rates.⁵⁸ In 1907, it was estimated that the 1890 Act had cost taxpayers over \$1 billion.⁵⁹ Between 1870 and 1910, the proportion of veterans receiving pensions rose from 5% to 93%.⁶⁰ Congress passed subsequent legislation in 1908, 1912, 1917, 1918, and 1920. The new laws increased the Civil War

another person. See Data User's Manual, supra note 3, at 140-41 (providing examples); see also FEDERAL MILITARY PENSIONS, supra note 24, at 235 (noting that the 1890 law also provided that widows of veterans covered by the law were entitled to pensions regardless of the cause of their husbands' deaths).

59. See id. at 238 (stating that in 1907, the 1890 Act was superseded by the "Service and Age Pension" law, which based pensions on a veteran's age and length of service); cf. William H. Glasson, The South's Care for Her Confederate Veterans, 36 Am. Monthly Rev. 40, 44-47 (1907) (discussing and comparing Confederate pension system, for instance, in 1906, Alabama disbursed roughly \$462,000 to 15,000 Confederate veterans at approximately \$30 average annual rate, with range of payments from \$30 to \$60 for those with most severe disabilities, but only 127 \$60 payments and more than 14,000 \$30 awards; in 1906, Mississippi disbursed roughly \$250,000 to 7,900 Confederate veterans at approximately \$31 annual rate, with range of annual award from \$28 to \$125; and in 1906, South Carolina disbursed roughly \$198,000 to 7,800 Confederate veterans at approximately \$26 annual rate); see also William H. Glasson, The South and Service Pension Laws, 1 S. Atlantic Q. 351, 351–60 (1902) (discussing inequities in support of federal versus Confederate pension systems).

^{54.} FEDERAL MILITARY PENSIONS, supra note 24, at 123.

^{55.} Social Security, supra note 4, at 114; FEDERAL MILITARY PENSIONS, supra note 24, at 233.

^{56.} FEDERAL MILITARY PENSIONS, *supra* note 24, at 246-47 (stating that the provisions of Order No. 78 classified 62-year-old claimants as being one-half disabled in their ability to perform manual labor and noting that 62-year-old claimants received a pension of \$6 per month, while those over 65 received \$8 per month, those over 68 received \$10 per month, and those over 70 received \$12 a month).

^{57.} *Id.* at 250-51 (explaining that by 1907, a 62-year-old's pension was worth \$12 per month, while a 70-year-old's pension was worth \$15 per month, and a 75-year-old's pension was worth \$20 per month).

^{58.} Id.

^{60.} Ann Shola Orloff, The Politics of Pensions: A Comparative Analysis of Britain, Canada, and the United States 1880-1940, at 136 (1993) (describing related data derived from Federal Military Pensions, supra note 24).

pension rates based on age and length of military service. 61

B. Foreign-Born and Native UA Veterans: Descriptive Findings

The data used in this study were derived from Civil War records stored at the U.S. National Archives. A random sample of white male recruits with enlistment papers, henceforth referred to as "M-5," was drawn from the National Archives, representing 331 companies mustered into the UA during the Civil War. ⁶² Approximately two-thirds of the recruits were linked to the Pension Bureau data set. ⁶³

We obtained records on 8,054 UA recruits from the pension records,⁶⁴ which provided information such as name, birthplace, age at enlistment, occupation at enlistment, application date, state of residence at the time of application, primary disability claimed, and attorney usage information.⁶⁵ In addition, approximately 14,000 recruits were linked to the 1850 census, 11,500 to the 1860 and 1900 censuses, and 6,500 to the 1910 census.⁶⁶

1. Birthplace

Figure 1A lists the birthplace of 34,216 recruits corresponding to the 331

61. For a review of legislation relevant to the research project, see *Data User's Manual*, *supra* note 3, at 140-42; FEDERAL MILITARY PENSIONS, *supra* note 24, at 258-74.

^{62.} These books were created by the regimental clerks during the Civil War and contain more than twenty thousand companies. See Robert W. Fogel, Military, Pension, and Medical Records Dataset, 1820-1940, Version (M-5) (2000).

^{63.} For a review of the various data sets, see generally $\mathit{Civil\ War\ Pensions\ and\ Disability}$, supra note 4

^{64.} We maintain a recruit in our sample if he had applied for pension at least once, and if at least one application of his had a non-missing application date.

^{65.} The sample was restricted to white volunteer infantry regiments—officers, black recruits, and other branches of the military were not sampled. Other research by Fogel indicates that the sample is representative of the contemporary white male population who served in the UA. See Robert W. Fogel, New Sources and New Techniques for the Study of Secular Trends in Nutritional Status, Health, Mortality and the Process of Aging, 26 Hist. Methods 5, 22-43 (1993) (finding the sample representative of white Northern males after the Civil War); Sven E. Wilson & Louis L. Nguyen, Secular Trends in the Determinants of Disability Benefits, 88(2) AEA PAPERS & PROC. 227-31 (1998) (also finding the sample representative of white Northern males after the Civil War). For proposed study of black UA recruits and their subsequent pension outcomes, see Robert Fogel, Principal Investigator, Early Indicators of Later Work Levels, Disease, & Death (N.I.H. Grant Proposal, Mar. 1, 2001) (on file with authors). Cf. Protecting Soldiers and MOTHERS, supra note 4, at 138 (describing anecdotal accounts that certain groups of Northern free blacks fared as well as their white counterparts in the pension application process); DAVID W. BLIGHT, RACE AND REUNION: THE CIVIL WAR IN AMERICAN HISTORY 193-94 (2001) (discussing lower survival rates of black relative to white veterans); C.N. BLISS, A TREATISE ON THE PRACTICE OF THE PENSION BUREAU, GOVERNING THE ADJUDICATION OF ARMY AND NAVY PENSIONS 51-69 (1898) (discussing separate pension claims by UA veterans widows, minors, dependent relatives, and mothers).

^{66.} Linkage to the 1870 census is currently under way. At the time of this study, we are able to retrieve approximately 1,600 recruits for our analyses.

companies in the UA military sample. More than one-quarter, or 9,115 recruits sampled, were foreign-born. Foreign-born UA recruits came from countries throughout Western and Eastern Europe, Scandinavia, and the Caribbean. Recruits emigrated from counties ranging from Russia, Egypt, and Mexico. The Irish were the largest immigrant group in the UA sample, as shown in the left column of Figure 1A, comprising approximately 34% of foreign recruits. The next largest group of immigrant recruits was Germanborn. Including those from the various German states, such as Prussia and Bavaria, they accounted for more than one-quarter of enlisted foreign-born recruits. Canada, England, and to a lesser extent Scotland, had a sizable representation of UA recruits next to Ireland and Germany. Canada, England, and Scotland contributed approximately 26% of the recruits sampled.

The heterogeneous nature of the foreign-born UA recruits was to reflect the "melting pot" of the United States for years to come. We observe in Figure 1B the acceleration in immigration rates in our sample between the years 1845 and 1861. In accord with Lonn's analysis, over half of the more than four million immigrants in the United States in 1860 immigrated between 1850-1860, mostly to the Northern states.⁶⁷

Figure 1A shows that almost three-quarters (73% or 25,101 recruits) were native to the United States. Taken together, Figures 1A and 1B illustrate that (1) the majority of foreign-born UA recruits were of European descent; (2) strong migration rates existed before and during the early years of the Civil War; and (3) the majority of native recruits sampled were born in the North, mostly in politically important states such as Ohio, New York, and Pennsylvania (see right column of Figure 1A). 68

^{67.} LONN, supra note 11, at 1-2 (detailing immigration statistics of the period).

^{68.} Civil War Pension Attorneys, supra note 40 (showing relation of political inclination of a Northern state—Republican, Democratic, and swing—and pension award outcomes).

FIGURE 1A

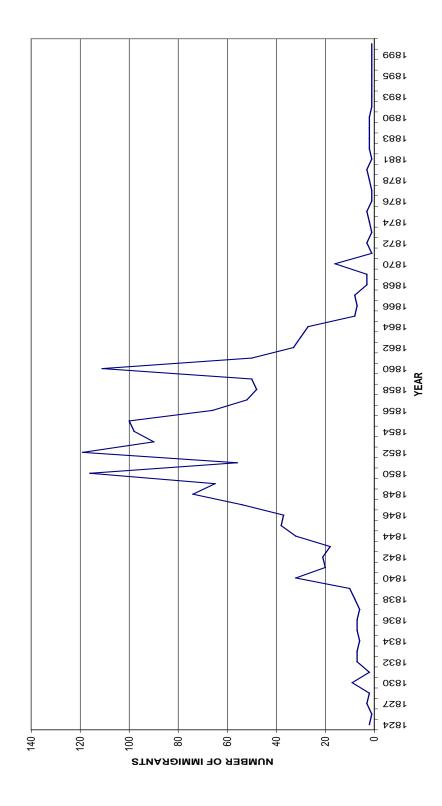
BIRTHPLACE OF 34,216 RECRUITS IN THE MILITARY DATA SET EXCLUDING 1,351 RECRUITS WITH UNKNOWN NATIVITY

FOREIGN COUNTRY	RECRUIT S	% OF FOREIG N-BORN	U.S. STATES	RECRUIT S	% OF NATIV ES
Ireland	3,080	33.8	Ohio	5,701	22.7
Germany	2,258	24.8	New York	5,261	21.0
Canada General	1,052	11.5	Pennsylvania	4,016	16.0
England	1,031	11.3	Indiana	1,520	6.1
Scotland	298	3.3	Illinois	1,301	5.2
France	234	2.6	Kentucky	913	3.6
Prussia	226	2.5	Vermont	628	2.5
Switzerland	162	1.8	Massachusetts	614	2.4
Norway	136	1.5	New Jersey	555	2.2
Sweden	98	1.1	Virginia	529	2.1
New Brunswick	73	0.8	Michigan	517	2.1
Bavaria (German State)	49	0.5	Maryland	424	1.7
Nova Scotia	45	0.5	New Hampshire	424	1.7
Wales	38	0.4	Maine	423	1.7
Holland	35	0.4	Connecticut	418	1.7
Denmark	30	0.3	Missouri	376	1.5
Mexico	29	0.3	Tennessee	308	1.2
Hanover	24	0.3	Delaware	297	1.2
Belgium	22	0.2	Wisconsin	174	0.7
Italy	22	0.2	West Virginia	162	0.6
Württemberg (German State)	21	0.2	Iowa	130	0.5
Austria	20	0.2	North Carolina	102	0.4
Baden (German State)	15	0.2	New Mexico	65	0.3
Poland	13	0.1	Rhode Island	48	0.2
Aboard Ship	11	0.1	Louisiana	28	0.1
Bohemia	9	0.1	Georgia	25	0.1
Europe General	9	0.1	South Carolina	23	0.1
Hungary	7	0.1	Alabama	20	0.1
Russia	7	0.1	District of Columbia	19	0.1

FIGURE 1A (Continued) BIRTHPLACE OF 34,216 RECRUITS IN THE MILITARY DATA SET EXCLUDING 1,351 RECRUITS WITH UNKNOWN NATIVITY

FOREIGN COUNTRY	RECRUIT S	% OF FOREIG N-BORN	U.S. STATES	RECRUIT S	% OF NATIV ES
Cuba	6	0.1	Kansas	18	0.1
Puerto Rico	6	0.1	Mississippi	18	0.1
Channel Islands	5	0.1	Arkansas	13	0.1
Newfoundland	5	0.1	USA General	13	0.1
Spain	5	0.1	Florida	5	0.0
Ontario	4	0.0	California	3	0.0
South America General	3	0.0	Texas	3	0.0
Bangladesh	2	0.0	Nebraska	2	0.0
Bermuda Islands	2	0.0	Wyoming	2	0.0
Finland	2	0.0	Colorado	1	0.0
Great Britain	2	0.0	Hawaii	1	0.0
Netherlands	2	0.0	Utah	1	0.0
Portugal	2	0.0			
Egypt	1	0.0			
Greece	1	0.0			
Guernsey Island	1	0.0			
Holstein (German State)	1	0.0			
Hesse (German State)	1	0.0			
Haiti	1	0.0			
Ionian Isles	1	0.0			
Manitoba	1	0.0			
Northwest Territories	1	0.0			
Prince Edward Island	1	0.0			
Quebec	1	0.0			
Saxony	1	0.0			
(German State)				1	
Schleswig (German State)	1	0.0			
Virgin Islands	1	0.0			
TOTAL FOREIGN- BORN RECRUITS	9,114	100.0	TOTAL NATIVE RECRUITS	25,101	100.0

IMMIGRATION BY YEAR FOR 1,592 RECRUITS - INFORMATION FROM 1900 CENSUS



2. Residence at Enlistment

In 1860, more than nine out of ten (94%) of the more than four million foreign-born immigrants lived in states adhering to the Union.⁶⁹ At that time, the Irish and German comprised the largest immigrant groups, settling in states such as New York, Pennsylvania, Ohio, and Illinois. 70 The foreign-born migrated heavily to cities such as New York, Chicago, Philadelphia, and Milwaukee, with Irish immigrants tending to settle in industrial centers working manual labor jobs for low wages, and Germans tending to settle in agricultural communities.⁷¹

Historian William Burton has found that, for the most part, UA recruiting tactics were the same for native and foreign-born citizens, as most ethnic Americans joined non-ethnic units. 72 Yet, especially early on in the war before the draft was instituted, many foreign-born men preferred to join UA regiments comprised of and led by men from their native country. 73 The early organization of the UA along ethnic lines contributed to the growth of the party patronage system within the UA military, and later with the Pension Bureau. 74

Figures 2A and 2B tabulate data from enlistment states and regions for foreign-born recruits sampled. 75 UA recruits typically traveled to the military enlistment post closest to their residence. William Burton writes:

A common practice of the time was that of recruiting an entire regiment in a small area—a city neighborhood, a county, or a congressional district. If the local area was already populated heavily with members of a single ethnic group (such as St. Louis neighborhoods in 1861), an ethnic regiment had a natural attraction.76

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^{69.} See LONN, supra note 11, at 663 (compiling Appendix based on census figures showing that in 1860, 3,903,672 of 4,136,175 foreign-born persons in the United States lived in states adhering to the Union).

^{70.} Id. at 2-3, 663-64 (discussing data derived from 1860 Census). British and Canadian immigrants tended to settle in the Atlantic seaboard states, and without language barriers, merged with natives often without being regarded as foreign. Id. at 5.

^{71.} Id. at 3-5 (discussing migration patterns). Id. at 8 (explaining that the German-born most widely distributed across the Northern states); BURTON, supra note 5, at 21 (in 1860, New York City was the largest Irish city in the world); see also Ella Lonn, Foreigners in the CONFEDERACY 30-31 (1940) (discussing that foreigners migrated north to the manual labor jobs that were lacking in the South); HIGHAM, supra note 18, at 15, 45 (noting settlement patterns of Irish and Germans, and impoverished circumstances of many immigrants).

^{72.} BURTON, supra note 5, at 51 (discussing UA recruiting appeals).

^{73.} See LONN, supra note 11, at 92-93 (discussing enlistment patterns).

^{74.} See Burton, supra note 5, at 48 (discussing party patronage issues in enlistment); Civil War Pension Attorneys, supra note 40 (discussing party patronage in pension awards).

^{75.} Cf. GOULD, supra note 11, at 26-28 (describing similar findings regarding place of enlistment of native and foreign UA recruits).

^{76.} BURTON, supra note 5, at 56-57 (discussing recruiting practices but noting that the most important element of successful recruiting was a charismatic leader).

FIGURE 2A ENLISTMENT STATES FOR FOREIGN RECRUITS

ENLISTMENT STATE	NUMBER OF ENLISTED FOREIGN MEN	AS A % OF TOTAL ENLISTED FOREIGN MEN
New York	2,758	44.9
Illinois	689	11.2
Ohio	615	10.0
Pennsylvania	415	6.8
Michigan	326	5.3
Connecticut	147	2.4
Missouri	147	2.4
New Hampshire	138	2.2
Massachusetts	133	2.2
Kentucky	115	1.9
Maryland	115	1.9
Iowa	109	1.8
Delaware	88	1.4
Maine	87	1.4
Minnesota	87	1.4
Virginia	41	0.7
Kansas	40	0.7
Vermont	30	0.5
District of Columbia	20	0.3
Louisiana	20	0.3
West Virginia	7	0.1
Tennessee	6	0.1
Alabama	2	0.0
Arkansas	2	0.0
Indiana	2	0.0
North Carolina	2	0.0
South Carolina	2	0.0
Florida	1	0.0
Mississippi	1	0.0
New Jersey	1	0.0
TOTAL	6,146	100.0

FIGURE 2B

ENLISTMENT REGION FOR FOREIGN RECRUITS BORN IN GERMANY, IRELAND, BRITAIN, AND CANADA:

THE FOUR LARGEST IMMIGRANT GROUPS, AND THOSE BORN IN OTHER NON-U.S. COUNTRIES

	ENLISTMENT REGION ¹					
BIRTH COUNTR Y	Northeast	Midwes t	South	State Missing	Country Total	
Ireland	1,559	429	190	12	2,190	
Germany	741	686	92	6	1,525	
Other Non- U.S.	544	429	41	2	1,016	
Canada	499	239	37	2	777	
Britain	366	232	62	2	662	
Region Total	3,709	2,015	422	24	6,170	

^[1] Enlistment region reflects where each individual came from at enlistment.

City and state of enlistment, therefore, were good approximations for the recruit's residence at the time of enlistment. Figure 2A shows that almost half of foreign-born recruits sampled lived in New York (45%), with the majority likely to have enlisted in New York City. 77 Other popular states for foreign recruits were Illinois (11.2%, mostly from Chicago), Ohio (10%, mostly from Cincinnati), and Pennsylvania (6.8%, mostly from Philadelphia).

A breakdown of major immigrant groups by enlistment region is set out in Figure 2B. Almost three-quarters or 1,559 of the Irish who enlisted resided in the Northeast. In comparison, German enlistment was split between the Northeastern (49% or 741) and the Midwestern (45% or 686) states. Again, across all immigrant groups sampled, the most popular region to settle around the beginning of the war was the Northeast, and most likely in New York City.

3. Occupation at Enlistment

There are several sources in the Civil War data set from which we obtain information about recruits' occupations. A starting place is notation in the military and census records of occupation at enlistment. Figure 3A provides a distribution of recruits' occupational categories at enlistment, presented separately by nativity with the top panel showing information for the foreignborn and the bottom panel for the U.S.-born.

Comparing foreign-born with native recruits, we find that the agriculture/farming occupation was less than half as likely for foreign-born (21.7% versus 56.2%, respectively). Py contrast, immigrant newcomers at enlistment were almost three times as likely as natives to work manual jobs (32.1% versus 12.2%, respectively). As Lonn has written in regard to Irishborn recruits: "Most of them reached our shores in such dire poverty Almost their only asset was physical brawn and the resulting ability to do manual labor." Manual labor was most available in the larger urban areas such as New York City.

^{77.} See LONN, supra note 11, at 5 n.7 (showing that almost 50% (1) of New York's foreign-born lived in New York City, (2) of Illinois' foreign-born lived in Chicago, and (3) of Ohio's foreign-born lived in Cincinnati, and that roughly one-third (30%) of Pennsylvania's foreign-born lived in Philadelphia).

^{78.} Enlistment occupation was classified using Wilcox's definition. N. Wilcox, A Note on the Occupational Distribution of the Urban United States in 1860, in 2 WITHOUT CONSENT OR CONTRACT: THE RISE AND FALL OF AMERICAN SLAVERY, EVIDENCE AND METHODS (Robert W. Fogel, et al. eds., 1992) (classifying enlistment occupations); see also GOULD, supra note 11, at 208-17 (presenting statistics for UA recruits' occupations).

^{79.} Excluded from Figure 3A are data for those whom nativity was not recorded (data on file with authors).

^{80.} LONN, *supra* note 11, at 14.

F]	IGURE 3A
ENLISTMENT O	CCUPATION BY NATIVITY

FOREIGN					
ENLISTMENT OCCUPATION	RECRUITS IN OCCUPATION	AS A % OF TOTAL ENLISTED FOREIGN MEN			
Farmer/Agriculturalist	1,329	21.7			
Farm/Agricultural Labor	3	0.0			
Professionals and Proprietors I	164	2.7			
Professionals and Proprietors II	503	8.2			
Artisans	1,695	27.7			
Service, Semiskilled, and Operative	430	7.0			
Manual	1,964	32.1			
Unidentifiable	1	0.0			
Not Classifiable	23	0.4			
TOTAL	6,112	100.0			

NATIVE

ENLISTMENT OCCUPATION	RECRUITS IN OCCUPATION	AS A % OF TOTAL ENLISTED NATIVE MEN
D (A : 1: 1: 1: 1: 1: 1: 1: 1: 1: 1: 1: 1: 1	0.000	F 0.0
Farmer/Agriculturalist	9,069	56.2
Farm/Agricultural Labor	17	0.1
Professionals and Proprietors I	442	2.7
Professionals and Proprietors II	791	4.9
Artisans	2,988	18.5
Service, Semiskilled, and Operative	714	4.4
Manual	1,968	12.2
Unidentifiable	6	0.0
Not Classifiable	143	0.9
TOTAL	16,138	100.0

In comparison to working in farming and manual labor jobs, at enlistment foreign-born and native recruits showed an equal representation (2.7%) in higher paying "professionals and proprietors I" jobs (attorney, engineer, physician, merchant, and teacher). However, foreign-born recruits were almost twice as likely to hold lower paying "professionals and proprietors II" jobs (8.2% versus 4.9%, respectively; barber, clerk, peddler, and saloonkeeper). 81 The proportion of recruits sampled working as artisans (blacksmith, carpenter, mason, and painter) was somewhat higher for foreign-born than native men (27.7% versus 18.5%, respectively). Similarly, the proportion in service and semi-skilled jobs (bartender, cigar packer, cook, and trainman) was higher for immigrant recruits (7.0% versus 4.4%, respectively).

Our findings illustrate that the industrialization process of the mid-1800s was supported by an influx of immigrant labor and talent. Like native recruits, immigrants with a high level of human capital became skilled professionals, whereas those foreign-born men without job skills or those with some skills but with language barriers joined the manual labor force.⁸²

To compare further the relative social and economic status among different immigrant groups, we separate the occupational categories of foreign-born recruits into five major countries of origin, as Figure 3B illustrates: Ireland, Germany, Canada, Great Britain, and other foreign nations. Farmers comprised one-quarter to one-third of all foreign-born groups except for the Irish who tended to have lower rates of farming. As Gould and Lonn found, almost half (47.1%) of the Irish recruits sampled tended to be manual laborers, a much higher proportion than German (17.2%), Canadian (32.2%), and British recruits (26.8%).83

German immigrants had the highest proportion of representation in professional occupations. The categories of proprietors I and II together accounted for 16.1% (5.2% and 10.9%, respectively) of their sample. In contrast, Irish immigrants had a much lower proportion (7.2%) represented in the professions. Again, nearly half of the Irish were engaged in manual labor, with almost another quarter (22.6%) working as artisans.

^{81.} For a description of these job categories, see *Civil War Pensions and Disability*, supra note 4, at 158 fig.9 (illustrating jobs).

^{82.} Based on data for the occupational composition of those recruits who did not report their birthplace. We conclude that recruits with missing nativity information were likely natives, because the proportion in each occupational category was quite similar between the native panel and the nativity-missing panel.

^{83.} See GOULD, supra note 12, at 217 (presenting statistics of occupation by nativity); LONN supra note 11, at 118-28 (describing occupational characteristics of Irish UA recruits); see also id. at 571 (presenting statistics on levels of UA recruits' education by nativity, showing high proportion of sub-group with no, slight, or limited education was the Irish).

FIGURE 3B

ENLISTMENT OCCUPATION FOR MAJOR IMMIGRANT GROUPS

IRISH				
ENLISTMENT OCCUPATION	RECRUITS IN OCCUPATION	AS A % OF TOTAL ENLISTED IRISH MEN		
Farmer/Agriculturalist	318	14.7		
Farm/Agricultural Labor	1	0.0		
Professionals and Proprietors I	23	1.1		
Professionals and Proprietors II	132	6.1		
Artisans	490	22.6		
Service, Semiskilled, and Operative	179	8.2		
Manual	1,021	47.1		
Not Classifiable	6	0.3		
TOTAL	2,170	100.0		

GERMAN

ENLISTMENT OCCUPATION	RECRUITS IN OCCUPATION	AS A % OF TOTAL ENLISTED GERMAN MEN
Farmer/Agriculturalist	371	24.6
Farm/Agricultural Labor	78	5.2
Professionals and Proprietors I	164	10.9
Professionals and Proprietors II	560	37.1
Artisans	71	4.7
Service, Semiskilled, and Operative	260	17.2
Manual	1	0.1
Not Classifiable	6	0.4
TOTAL	1,511	100.0

CANADIAN

ENLISTMENT OCCUPATION	RECRUITS IN OCCUPATION	AS A % OF TOTAL ENLISTED CANADIAN MEN
Farmer/Agriculturalist	263	34.0
Professionals and Proprietors I	11	1.4
Professionals and Proprietors II	35	4.5
Artisans	162	21.0

Service, Semiskilled, and Operative	51	6.6
Manual	249	32.2
Not Classifiable	2	0.3
TOTAL	773	100.0

FIGURE 3B (Continued)

ENLISTMENT OCCUPATION FOR MAJOR IMMIGRANT GROUPS

BRITISH					
ENLISTMENT OCCUPATION	RECRUITS IN OCCUPATION	AS A % OF TOTAL ENLISTED BRITISH MEN			
Farmer/Agriculturalist	140	21.3			
Farm/Agricultural Labor	1	0.2			
Professionals and Proprietors I	18	2.7			
Professionals and Proprietors II	58	8.8			
Artisans	206	31.4			
Service, Semiskilled, and Operative	52	7.9			
Manual	176	26.8			
Not Classifiable	6	0.9			
TOTAL	657	100.0			
OTHER FOREIGN					
ENLISTMENT OCCUPATION RECRUITS IN OCCUPATION TO					

ENLISTMENT OCCUPATION	RECRUITS IN OCCUPATION	AS A % OF TOTAL ENLISTED OTHER FOREIGN MEN	
Farmer/Agriculturalist	237	23.7	
Farm/Agricultural Labor	1	0.1	
Professionals and Proprietors I	34	3.4	
Professionals and Proprietors II	114	11.4	
Artisans	277	27.7	
Service, Semiskilled, and Operative	77	7.7	
Manual	258	25.8	
Not Classifiable	3	0.3	
TOTAL	1,001	100.0	

Relatively few Canadian immigrants became professionals (5.9%). Instead, one-third (34%) of them chose to be farmers and agriculturalists, perhaps because they could readily apply their knowledge of the soil and climate to the neighboring United States. Another one-third (32.2%) of the Canadians joined the manual labor workforce. British immigrants had a relatively high proportion of professionals (11.4%) next to German immigrants. The British had the advantage of inheriting a similar social structure, language, and culture.

It is additionally useful to observe occupational composition by nativity at different periodical snapshots. This strategy helps capture structural changes in the economy due to industrialization or technological breakthroughs, intergenerational mobility, and market conditions. Census occupational information provides us with this opportunity for analysis.

Figure 4 lists the primary occupational categories as a proportion of the total number of foreign-born and native recruits, separately for the 1850, 1860, 1870, 1900, and 1910 censuses. All but the 1870 census occupations were classified using the 1950 occupational code. Standard Similar to the categorization for enlistment occupations, the 1870 census occupations were coded using Wilcox's definition. At the time of this stage in our research process, the final verification and standardization of the 1870 census information were underway. As a result, for that census period we were only able to retrieve information for 1,430 native soldiers and 163 foreign-born soldiers (see third panel in Figure 4).

Nonetheless, comparison between the first two panels in Figure 3A and the third panel in Figure 4 reveals a striking trend; namely, variation in occupational composition between the foreign-born and native recruits narrowed from 1860 to 1870. This decline in job differences likely was due to many factors, not the least of which was the occupational sorting that occurred after the war, but before the full-blown effects of industrialization experienced in the latter part of 1800s were to take hold.⁸⁵

^{84.} See Wilcox, supra note 78 (discussing occupational coding).

^{85.} In the cross-time study of occupational composition presented in Figure 4, it is important that occupations are defined consistently. The panels in Figure 4 that list the 1850, 1860, 1900, and 1910 census occupations are comparable because we applied the 1950 classification occupational codes. *See* Wilcox, *supra* note 78.

FIGURE 4 OCCUPATION BY NATIVITY

1850 OCCUPATION USING 1950 OCCUPATIONAL CODE	FOREIGN RECRUITS	AS A % OF TOTAL FOREIGN RECRUITS	
Clerical and Kindred	5	0.9	
Craftsmen, Foremen, and Kindred	69	12.9	
Workers			
Farmers and Farm Managers	63	11.8	
Laborers, Except Farm and Mine	98	18.4	
Managers, Officials and Proprietors, except Farm	6	1.1	
Non-occupational Responses	3	0.6	
Operatives and Kindred Workers	48	9.0	
Professional, Technical, and Kindred Workers	2	0.4	
Sales Workers	1	0.2	
Service Workers	5	0.9	
n.a.(blank)	233	43.7	
TOTAL	533	100.0	
1850 OCCUPATION USING 1950 OCCUPATIONAL CODE	NATIVE RECRUITS	AS A % OF TOTAL FOREIGN RECRUITS	
Clerical and Kindred	24	0.2	
Craftsmen, Foremen, and Kindred Workers	356	3.3	
Farm Laborers and Foreman	4	0.0	
Farmers and Farm Managers	1.019	9.4	
Laborers, Except Farm and Mine	441	4.1	
Managers, Officials and Proprietors, except Farm	26	0.2	
Non-occupational Responses	36	0.3	
Operatives and Kindred Workers	147	1.4	
Professional, Technical, and Kindred Workers	13	0.1	
Sales Workers		0.0	
	3	0.0	
	3 4	0.0	
Service Workers n.a.(blank)			

1860 OCCUPATION USING 1950 OCCUPATIONAL CODE	FOREIGN RECRUITS	AS A % OF TOTAL FOREIGN RECRUITS
Clerical and Kindred	23	1.4
Craftsmen, Foremen, and Kindred Workers	260	15.4
Farm Laborers and Foreman	132	7.8
Farmers and Farm Managers	213	12.6
Laborers, Except Farm and Mine	358	21.3
Managers, Officials and Proprietors, except Farm	27	1.6
Non-occupational Responses	17	1.0
Operatives and Kindred Workers	179	10.6
Professional, Technical, and Kindred Workers	7	0.4
Sales Workers	5	0.3
Service Workers	25	1.5
n.a.(blank)	438	26.0
TOTAL	1,684	100.0
1860 OCCUPATION USING 1950 OCCUPATIONAL CODE	NATIVE RECRUITS	AS A % OF TOTAL FOREIGN RECRUITS
Clerical and Kindred	121	1.0
Craftsmen, Foremen, and Kindred Workers	868	7.3
Farm Laborers and Foreman	1,306	11.0
Farmers and Farm Managers	2,039	17.1
Laborers, Except Farm and Mine	1,142	9.6
Managers, Officials and Proprietors, except Farm	75	0.6
Non-occupational Responses	81	0.7
Operatives and Kindred Workers	569	4.8
Professional, Technical, and Kindred Workers	107	0.9
Sales Workers	17	0.1
Service Workers	71	0.6
n.a.(blank)	5,509	46.3
TOTAL	11,905	100.0

1870 OCCUPATION USING WILCOX'S	FOREIGN	AS A % OF
OCCUPATIONAL CODE	RECRUITS	TOTAL
		FOREIGN
		RECRUITS
Farmer/Agriculturalist	82	50.3
Professionals and Proprietors I	4	2.5
Professionals and Proprietors II	8	4.9
Artisans	26	16.0
Service, Semiskilled, and Operative	10	6.1
Manual	19	11.7
Unidentifiable	2	1.2
Not Classifiable	2	1.2
Farm/Agricultural Labor	10	6.1
TOTAL	163	100.0
1870 OCCUPATION USING WILCOX'S	NATIVE	AS A % OF
OCCUPATIONAL CODE	RECRUITS	TOTAL
		FOREIGN
		RECRUITS
Farmer/Agriculturalist	761	53.2
Professionals and Proprietors I	47	3.3
Professionals and Proprietors II	114	8.0
Artisans	193	13.5
Service, Semiskilled, and Operative	26	1.8
Manual	135	9.4
Unidentifiable	7	0.5
Not Classifiable	15	1.0
Farm/Agricultural Labor	132	9.2
TOTAL	1,430	100.0

1900 OCCUPATION USING 1950 OCCUPATIONAL CODE	FOREIGN RECRUITS	AS A % OF TOTAL FOREIGN RECRUITS	
Clerical and Kindred	24	1.4	
Craftsmen, Foremen, and Kindred	188	11.4	
Workers			
Farm Laborers and Foreman	27	1.6	
Farmers and Farm Managers	352	21.3	
Laborers, Except Farm and Mine	166	10.0	
Managers, Officials and Proprietors, except	98	5.9	
Farm			
Non-occupational responses	90	5.4	
Operatives and Kindred Workers	99	6.0	
Professional, Technical, and Kindred	34	2.1	
Workers			
Sales Workers	18	1.1	
Service Workers	42	2.5	
n.a.(blank)	518	31.3	
TOTAL	1,656	100.0	
1900 OCCUPATION USING 1950	NATIVE	AS A % OF	
OCCUPATIONAL CODE	RECRUITS	TOTAL FOREIGN RECRUITS	
Clerical and Kindred	178	2.0	
Craftsmen, Foremen, and Kindred	838	9.3	
Workers			
Farm Laborers and Foreman	260	2.9	
Farmers and Farm Managers	2,388	26.6	
Laborers, Except Farm and Mine	755	8.4	
Managers, Officials and Proprietors, except	521	5.8	
Farm			
Non-occupational Responses	367	4.1	
Operatives and Kindred Workers	438	4.9	
Professional, Technical, and Kindred	335	3.7	
Workers			
Sales Workers	162	1.8	
Service Workers	148	1.6	
n.a.(blank)		00.0	
TOTAL	2,585	28.8 100.0	

1910 OCCUPATION USING 1950	FOREIGN	AS A % OF
OCCUPATIONAL CODE	RECRUITS	TOTAL FOREIGN
		RECRUITS
Clerical and Kindred	13	1.6
Craftsmen, Foremen, and Kindred	55	6.8
Workers		
Farm Laborers and Foreman	6	0.7
Farmers and Farm Managers	111	13.8
Laborers, Except Farm and Mine	55	6.8
Managers, Officials and Proprietors, except	24	3.0
Farm		
Non-occupational Responses	328	40.7
Operatives and Kindred Workers	39	4.8
Professional, Technical, and Kindred	10	1.2
Workers		
Sales Workers	9	1.1
Service Workers	19	2.4
n.a.(blank)	136	16.9
TOTAL	805	100.0
1910 OCCUPATION USING 1950	NATIVE	AS A % OF
1910 OCCUPATION USING 1950 OCCUPATIONAL CODE	NATIVE RECRUITS	TOTAL
		TOTAL FOREIGN
OCCUPATIONAL CODE	RECRUITS	TOTAL FOREIGN RECRUITS
OCCUPATIONAL CODE Clerical and Kindred	RECRUITS	TOTAL FOREIGN RECRUITS 2.5
Clerical and Kindred Craftsmen, Foremen, and Kindred	RECRUITS	TOTAL FOREIGN RECRUITS
Clerical and Kindred Craftsmen, Foremen, and Kindred Workers	132 358	TOTAL FOREIGN RECRUITS 2.5 6.7
Clerical and Kindred Craftsmen, Foremen, and Kindred Workers Farm Laborers and Foreman	132 358 54	TOTAL FOREIGN RECRUITS 2.5 6.7
Clerical and Kindred Craftsmen, Foremen, and Kindred Workers Farm Laborers and Foreman Farmers and Farm Managers	132 358 54 919	TOTAL FOREIGN RECRUITS 2.5 6.7 1.0 17.2
Clerical and Kindred Craftsmen, Foremen, and Kindred Workers Farm Laborers and Foreman Farmers and Farm Managers Laborers, Except Farm and Mine	132 358 54 919 322	TOTAL FOREIGN RECRUITS 2.5 6.7 1.0 17.2 6.0
Clerical and Kindred Craftsmen, Foremen, and Kindred Workers Farm Laborers and Foreman Farmers and Farm Managers Laborers, Except Farm and Mine Managers, Officials and Proprietors, except	132 358 54 919	TOTAL FOREIGN RECRUITS 2.5 6.7 1.0 17.2
Clerical and Kindred Craftsmen, Foremen, and Kindred Workers Farm Laborers and Foreman Farmers and Farm Managers Laborers, Except Farm and Mine Managers, Officials and Proprietors, except Farm	132 358 54 919 322 217	TOTAL FOREIGN RECRUITS 2.5 6.7 1.0 17.2 6.0 4.1
Clerical and Kindred Craftsmen, Foremen, and Kindred Workers Farm Laborers and Foreman Farmers and Farm Managers Laborers, Except Farm and Mine Managers, Officials and Proprietors, except Farm Non-occupational Responses	132 358 54 919 322 217	TOTAL FOREIGN RECRUITS 2.5 6.7 1.0 17.2 6.0 4.1
Clerical and Kindred Craftsmen, Foremen, and Kindred Workers Farm Laborers and Foreman Farmers and Farm Managers Laborers, Except Farm and Mine Managers, Officials and Proprietors, except Farm Non-occupational Responses Operatives and Kindred Workers	132 358 54 919 322 217 1,704 180	TOTAL FOREIGN RECRUITS 2.5 6.7 1.0 17.2 6.0 4.1 31.9 3.4
Clerical and Kindred Craftsmen, Foremen, and Kindred Workers Farm Laborers and Foreman Farmers and Farm Managers Laborers, Except Farm and Mine Managers, Officials and Proprietors, except Farm Non-occupational Responses Operatives and Kindred Workers Professional, Technical, and Kindred	132 358 54 919 322 217	TOTAL FOREIGN RECRUITS 2.5 6.7 1.0 17.2 6.0 4.1
Clerical and Kindred Craftsmen, Foremen, and Kindred Workers Farm Laborers and Foreman Farmers and Farm Managers Laborers, Except Farm and Mine Managers, Officials and Proprietors, except Farm Non-occupational Responses Operatives and Kindred Workers Professional, Technical, and Kindred Workers	132 358 54 919 322 217 1,704 180 140	TOTAL FOREIGN RECRUITS 2.5 6.7 1.0 17.2 6.0 4.1 31.9 3.4 2.6
Clerical and Kindred Craftsmen, Foremen, and Kindred Workers Farm Laborers and Foreman Farmers and Farm Managers Laborers, Except Farm and Mine Managers, Officials and Proprietors, except Farm Non-occupational Responses Operatives and Kindred Workers Professional, Technical, and Kindred Workers Sales Workers	132 358 54 919 322 217 1,704 180 140	TOTAL FOREIGN RECRUITS 2.5 6.7 1.0 17.2 6.0 4.1 31.9 3.4 2.6
Clerical and Kindred Craftsmen, Foremen, and Kindred Workers Farm Laborers and Foreman Farmers and Farm Managers Laborers, Except Farm and Mine Managers, Officials and Proprietors, except Farm Non-occupational Responses Operatives and Kindred Workers Professional, Technical, and Kindred Workers Sales Workers Service Workers	132 358 54 919 322 217 1,704 180 140	TOTAL FOREIGN RECRUITS 2.5 6.7 1.0 17.2 6.0 4.1 31.9 3.4 2.6 1.2 1.5
Clerical and Kindred Craftsmen, Foremen, and Kindred Workers Farm Laborers and Foreman Farmers and Farm Managers Laborers, Except Farm and Mine Managers, Officials and Proprietors, except Farm Non-occupational Responses Operatives and Kindred Workers Professional, Technical, and Kindred Workers Sales Workers	132 358 54 919 322 217 1,704 180 140	TOTAL FOREIGN RECRUITS 2.5 6.7 1.0 17.2 6.0 4.1 31.9 3.4 2.6

Two other observations are worthy of attention. First, demographic information on UA recruits became more available in later census years as compared to earlier ones. For instance, 43.7% of foreign recruits and the majority of natives (80.8%) did not report their occupations to 1850 census takers. Those percentages were reduced significantly by 1910 (e.g., to 16.9% and 21.9%, respectively).

Second, occupational composition between the foreign-born and native recruits converged over longer periods of time. We observe that in 1850, among those with reported occupations, 63 out of 300 (20%) foreign recruits were identified as farmers whereas 1,019 of 2,000 (51%) of the native recruits with occupational information reported being farmers. By 1910, less than one percent (0.7%) of the foreign and 1% of the native UA recruits were farmers. The drastic reduction in the proportion of UA veterans working as farmers or farm managers likely reflects structural changes in occupational choices due to aging, coinciding with the increased ability to retire as a result of economic subsidies from UA pensions.

As Figure 6 will show below, the average enlistment age of foreign-born UA recruits was between 27 and 28, whereas it was between 24 and 25 for the native recruits. 86 Therefore, by 1900, an average veteran would have reached the age of 65, and by 1910, the age of 75. The implication for the converging occupational composition in 1900 and 1910, as shown in Figure 4, is that those foreign recruits who were younger at enlistment, and who therefore remained in the labor force by 1900 and 1910, spent the post-war decades catching up economically and socially with native recruits. It likely was easier for younger foreign men to overcome cultural and language barriers in their new country. And, the war itself offered a unique opportunity for foreign-born men to assimilate with the native recruits. As mentioned, most foreigners served in regiments mixed with natives.

Associations made between native and foreign-born veterans during the war established long-standing social networks. These contacts were embodied in UA veterans' Grand Army of the Republic (G.A.R.), a national organization that would prove valuable in securing post-war pensions and employment contacts and support. Union Army veterans eventually transformed the G.A.R. into a political machine whose activities kept the veterans' wartime sacrifices in the public consciousness, and whose lawyers and lobbyists advocated the expansion of the pension system.⁸⁷

^{86.} Cf. GOULD, supra note 11, at 114-15, 123, tbl.X (discussing statistics on UA recruit age by nativity).

^{87.} See RICHARD FRANKLIN BENSEL, SECTIONALISM AND AMERICAN POLITICAL DEVELOPMENT 1880-1980, at 60-64 (1984) (discussing pension and other policies related to the development of industrialization in the United States, and the link of the G.A.R. to Republican party politics and the pension scheme); Gerber, supra note 10, at 99-100 (discussing important role of veterans' organizations after World War I in political process and in the pension scheme). See generally Civil War Pension Attorneys, supra note 40.

4. Enlistment Trends and Age During the War

With growing recognition of a prolonged war and the need for new recruits, the foreign-born were in demand, especially after 1863 when the major draft laws were instituted. Historian Lonn claimed that later-year recruits were physically, morally, and intellectually inferior to the caliber of the early volunteers, and that many at the time ascribed these characteristics to foreign-born recruits.⁸⁸

Prior scholars have estimated that, over the course of the war, 20% to 25% of the UA was foreign-born. Figure 5 displays the percentage of enlisted foreign men every year from 1861 to 1865. We observe that enlistment of foreign recruits reached a peak of 39% in 1863, during the mid-point of the war. By the last full year of the war, one out of three enlisted men (31%) was foreign-born. Although there was a higher proportion of foreign recruits in the later years of the war relative to the early years, we are not in a position to assess the quality of the recruits over time.

Figure 6 summarizes the distribution of enlistment age distribution by nativity. On average, foreign-born recruits were three years older than natives. This age difference was relatively stable throughout the war. We observe that native recruits who enlisted in 1863 on average were younger by a year or two than those natives who enlisted in other years, though the same trend is not as strong for immigrant recruits. The relative drop in age evidenced in 1863 was likely a function of the 1863 Conscription Act, the law drafting thousands of young men into the UA.

^{88.} LONN, *supra* note 11, at 644 (noting claims of the "inferior foreign element" in the UA in the later years of the war).

^{89.} Id. at 581 (citing sources).

^{90.} Yet, for foreign-born recruits, average enlistment age was 28.62 in 1862 and 27.60 in 1863.

^{91.} See LONN, supra note 11, at 442-46 (discussing the draft).

F	FIGURE 5				
NATIVITY BY	NATIVITY BY ENLISTMENT YEAR				
ENL	ISTED IN 1861				
NATIVITY	RECRUITS	AS A % OF 1861 RECRUITS			
Foreign-Born	1,595	29.9			
Native	3,735	70.1			
TOTAL	5,330	100.0			
ENL	 ISTED IN 1862				
NATIVITY	RECRUITS	AS A % OF 1862 RECRUITS			
Foreign-Born	1,562	21.7			
Native	5,627	78.3			
TOTAL	7,189	100.0			
NATIVITY	NATIVITY RECRUITS AS A % OF 1863				
		RECRUITS			
Foreign-Born	540	39.0			
Native	846	61.0			
TOTAL	1,386	100.0			
ENL	ENLISTED IN 1864				
NATIVITY	RECRUITS	AS A % OF 1864 RECRUITS			
Foreign-Born	1,605	27.8			
Native	4,173	72.2			
TOTAL	5,778	100.0			
ENL	ENLISTED IN 1865				
NATIVITY	RECRUITS	AS A % OF 1865 RECRUITS			
Foreign-Born	867	31.4			
Native	1,891	68.6			
TOTAL	2,758	100.0			

FIGURE 6					
ENLISTMENT AGE BY NATIVITY					
		OVE	RALL		
NATIVITY	RECRUIT	AVERAG E ENLISTM ENT AGE	STANDA RD DEVIATI ON ENLISTM ENT AGE	MAXIMU M ENLISTM ENT AGE	MINIMUM ENLISTMENT AGE
Foreign	6,169	27.56	7.58	57	14
Native	16,272	24.81	7.39	60	12
		ENLISTE	D IN 1861		
NATIVITY	RECRUIT	AVERAG E ENLISTM ENT AGE	STANDA RD DEVIATI ON ENLISTM ENT AGE	MAXIMU M ENLISTM ENT AGE	MINIMUM ENLISTMENT AGE
Foreign	1,595	27.37	7.31	50	14
Native	3,735	24.18	7.13	60	12
		ENLISTE	D IN 1862		
NATIVITY	RECRUIT	AVERAG E ENLISTM ENT AGE	STANDA RD DEVIATI ON ENLISTM	MAXIMU M ENLISTM ENT AGE	MINIMUM ENLISTMENT AGE
Foreign	1,562	28.62	8.06	57	14
Native	5,627	25.22	7.44	60	13
	,	ENLISTE			
NATIVITY	RECRUIT	AVERAG E ENLISTM ENT AGE	STANDA RD DEVIATI ON ENLISTM ENT AGE	MAXIMU M ENLISTM ENT AGE	MINIMUM ENLISTMENT AGE
Foreign	540	27.60	7.35	48	15
Native	846	23.97	6.65	50	14
	ENLISTED IN 1864				
NATIVITY	RECRUIT	AVERAG E ENLISTM ENT AGE	STANDA RD DEVIATI ON ENLISTM ENT AGE	MAXIMU M ENLISTM ENT AGE	MINIMUM ENLISTMENT AGE
Foreign	1,605	27.44	7.52	47	15
Native	4,173	25.15	7.66	55	15
	ENLISTED IN 1865				

NATIVITY	RECRUIT S	E ENLISTM	STANDA RD DEVIATI ON ENLISTM ENT AGE	MAXIMU M ENLISTM ENT AGE	MINIMUM ENLISTMENT AGE
Foreign	867	26.18	7.19	56	17
Native	1.891	24.42	7.33	46	16

5. Wealth and Nativity

The foreign-born were presented with a variety of economic and social incentives to enlist in the UA. Undoubtedly, many immigrants arrived in their adopted country with no accumulated wealth and little chance for economic or social advancement. Bounties, clothes, food, and the promise of pensions were strong inducements to join the UA.⁹² Moreover, Civil War-era statistician Benjamin Gould estimated that almost 87,000 men drafted after 1863 paid commutation so that others, many of whom likely were poorer foreign-born substitutes, would serve in the war.⁹³

To begin to estimate the wealth and holdings of UA recruits, Figure 7A displays the distribution of real estate or property value by nativity. Property value information was available from the 1850, 1860, and 1870 censuses, but for relatively few recruits. Therefore, definitive conclusions are not possible at this point.

During the period immediately before the war, captured by the 1850 and 1860 census records, foreign-born recruits evidenced lower average real estate wealth values. By the 1870 census, however, foreign-born UA veterans' real estate wealth actually surpassed that of natives, with values of \$1,356 versus \$1,104, respectively. Nevertheless, we observe in Figure 7A that from 1850 to 1870, foreign-born veterans had substantially lower standard deviations of wealth (STD Value). This finding implies that relative to the native recruits, there was less dispersion and greater equality among the foreign-born. Put differently, the wealth of native recruits tended to be more concentrated in fewer people.

In Figure 7B, wealth information in 1900 and 1910 censuses took the form of "yes" or "no" answers to several ownership questions: "Do you own a farm? (If not, own a house?);" "Are you free of mortgage?;" and "Do you own or rent your home?" We have illustrated the convergence of economic and social status between foreign-born and native veterans at the turn of the nineteenth century, where social status was estimated by type of occupation (see Figure 4).

^{92.} Id. at 75 (noting other enlistment incentives to the foreign-born).

^{93.} See GOULD, supra note 11, at 5 (calculating numbers of enlisted UA men).

^{94.} Wealth, as measured by real estate or property value, suffers inaccuracy due to three primary reasons. First, property value varies by location, and standard of living differs among different locations. Therefore, it is useful to compare property value in the context of a standard of living adjustment. Second, there are different ways to value property. Property may be valued at sale or with physical structures at time of completion. Third, there exists the possibility of a reporting error. The potential inaccuracy of the wealth measure is illustrated by the gap found between the maximum and minimum values. In addition, as data collection on the 1870 census has started recently, we may later find that current information on the approximately 1,600 recruits might not be representative of the entire sample.

	FIGURE 7A				
F	REAL ESTATE VALUE BY NATIVITY				<i>Y</i>
		1850 C	ENSUS		
NATIVITY	RECRUI TS	1850 REAL ESTATE MEAN VALUE	STD VALUE	MAXIMU M VALUE	MINIMUM VALUE
Foreign	61	\$817.87	\$1,616.59	\$12,000.00	\$20.00
Native	498	\$976.45	\$3,811.69	\$82,500.00	\$0.00
		1860 C	ENSUS		
NATIVITY	RECRUI TS	1860 REAL ESTATE MEAN VALUE	STD VALUE	MAXIMU M VALUE	MINIMUM VALUE
Foreign	356	\$789.96	\$1,078.57	\$142,000.0 0	\$12.00
Native	2,018	\$1,288.06	\$2,737.64	\$902,000.0 0	\$20.00
		1870 C	ENSUS		
NATIVITY	RECRUI TS	1870 REAL ESTATE MEAN VALUE	STD VALUE	MAXIMU M VALUE	MINIMUM VALUE
Foreign	165	\$1,356.91	\$1,980.03	\$14,000.00	\$0.00
Native	1,446	\$1,104.23	\$2,189.55	\$30,965.00	\$0.00
NATIVITY	RECRUI TS	1870 PROPER TY MEAN VALUE	STD VALUE	MAXIMU M VALUE	MINIMUM VALUE
Foreign	165	\$477.15	\$635.49	\$4,500.00	\$0.00
Native	1,446	\$620.08	\$2,814.43	\$100,000.0	\$0.00

FIGURE 7B					
WEALTH BY NATIVITY					
	1900 CENSUS				
FARM/HOUSE	FOREIGN RECRUITS	AS A % OF TOTAL FOREIGN RECRUITS			
Foreign	466	33.0			
Native	949	67.0			
FARM/HOUSE	NATIVE RECRUITS	AS A % OF TOTAL OF NATIVE RECRUITS			
Own Farm	3,491	40.7			
Own House	5,085	59.3			
FREE OF MORTGAGE/MORTG AGE	FOREIGN RECRUITS	AS A % OF TOTAL FOREIGN RECRUITS			
Free of Mortgage	684	71.0			
Mortgage	279	29.0			
FREE OF MORTGAGE/MORTG AGE	NATIVE RECRUITS	AS A % OF TOTAL NATIVE RECRUITS			
Free of Mortgage	4,089	69.7			
Mortgage	1,777	30.3			
OWNS/RENTS HOME	FOREIGN RECRUITS	AS A % OF TOTAL FOREIGN RECRUITS			
Owns Home	994	71.4			
Rents Home	397	28.6			
OWNS/RENTS HOME	NATIVE RECRUITS	AS A % OF TOTAL NATIVE RECRUITS			
Owns Home	6,015	70.9			
Rents Home	2,464	29.1			

FIGURE 7B (Continued)				
WEALTH BY NATIVITY				
	1910 CENSUS			
FARM/HOUSE	FOREIGN RECRUITS	AS A % OF TOTAL FOREIGN RECRUITS		
Own Farm	149	23.8		
Own House	476	76.2		
FARM/HOUSE	NATIVE RECRUITS	AS A % OF TOTAL NATIVE RECRUITS		
Own Farm	1,449	31.2		
Own House	3,208	68.8		
FREE OF MORTGAGE/MORTG AGE	FOREIGN RECRUITS	AS A % OF TOTAL FOREIGN RECRUITS		
Free of Mortgage	415	85.7		
Mortgage	69	14.3		
FREE OF MORTGAGE/MORTG AGE	NATIVE RECRUITS	AS A % OF TOTAL NATIVE RECRUITS		
Free of Mortgage	2,929	81.2		
Mortgage	680	18.8		
OWNS/RENTS HOME	FOREIGN RECRUITS	AS A % OF TOTAL FOREIGN RECRUITS		
Owns Home	493	79.8		
Rents Home	125	20.2		
OWNS/RENTS HOME	NATIVE RECRUITS	AS A % OF TOTAL NATIVE RECRUITS		
Owns Home	3,656	79.1		
Rents Home	966	20.9		

Figure 7B supports the convergence of economic and social status when measured by the other wealth-related questions. For instance, in 1900, both 71% of native and foreign-born veterans owned their homes. Also, in 1900, 71% foreign-born and 70% of native veterans were free of mortgage. Similar proportions in 1900 owned a farm or farmhouse.

Figure 7B (bottom half) shows that in 1910, roughly 80% of all veterans sampled owned a home. Similarly, 86% of foreign-born and 81% of native veterans were free of mortgage. We see a somewhat larger proportion of native veterans who owned farms rather than homes in the 1900 and 1910 census years, mostly because there was a substantially higher representation of farmers among the native veterans during this period.

The findings in Figures 7A and 7B support the view that when the Civil War started, distinctive economic and social gaps existed between foreign-born and native UA recruits. However, the war itself created an economic and social melting pot in which foreign recruits, mostly situated in the same regiments as the native recruits, assimilated to their new country and countrymen. The wartime experiences of the foreign-born recruits accelerated their ability to advance economically during the post-war industrializing years.

Lastly, as mentioned, often because of ethnic politics, the foreign-born were offered the opportunity to serve in companies and regiments comprised of and led by men of the same nationality. The Germans of New York joined the Eighth New York Infantry First German Rifles and the Irish joined New York's Irish Brigade. In Pennsylvania, Mannerchor Rifle Guards were made up of the German Home Guard, and Second Regiment Irish Reserves was the Hibernian Target Company. Similar patterns developed in other Northern states with other nationality groups—in Minnesota the Scandinavian Guards, in Missouri the Swiss Rifles.

Historian William Burton has described the characteristics of ethnic regiments in the UA. First, at recruitment and organization, the majority of members were, by definition, foreign-born of the same ethnic group, and recruited from the same local area. Second, members identified themselves and their regiments as ethnic organizations. And third, the UA and society viewed the regiment as an ethnic unit. 99 In future analyses, we will explore the characteristics, demographics, economic and social assimilation, and

^{95.} BURTON, supra note 5, at 57.

^{96.} See LONN, supra note 11, at 666-75 (listing foreign-born companies and regiments in the UA).

^{97.} Id.

^{98.} *Id*.

^{99.} Burton, supra note 5, at 44-45, 56-57. Burton also discusses the importance of a charismatic leader. Id.

pension outcomes separately for foreign-born UA recruits serving in ethnic versus mixed units.

No doubt, the ethnic, economic, and social identification of foreign-born recruits with their UA unit profoundly influenced their activities during the war and assimilation into American life after the war. Although ethnic units formed, the majority of the foreign-born served in mixed regiments with many ethnic and native groups. 100

An immediate economic and social benefit to the foreign-born enlisted in the UA was the automatic grant of citizenship. Foreign-born veterans thereby earned the right to receive a pension under the 1862 General Law and later pension laws. ¹⁰¹ We now examine the association between UA veteran nativity and access to and compensation from the Pension Bureau.

III. CIVIL WAR PENSIONS FOR NATIVE AND FOREIGN-BORN UA VETERANS

This Part examines empirically the experiences of disabled native and foreign-born veterans with the UA pension scheme. We hypothesize that foreign-born veterans generally, or as sub-groups from different countries, were at a disadvantage in benefiting from the Civil War pension system on at least two levels. First, the foreign-born might have faced unequal access to entry into the system. Second, once admitted into the scheme, the foreign-born may have been rewarded less on average than the native recruits due to attitudinal prejudice, or due to social, health-related, and cultural disadvantages.

Although historians such as Ella Lonn postulate that foreign-born UA veterans "shared fully" in Civil War pensions, ¹⁰² there is no previous research that has verified empirically the notion of "equal treatment" by the Pension Bureau regardless of national origin. To address the issue of "equal treatment" by nativity, we develop and present two theoretical models: the "Pension Access Model" and the "Pension Outcome Model."

^{100.} LONN, supra note 11, at 577. According to Lonn's analysis, roughly 17% of Germans served in purely German units. Id.

^{101.} See LONN, supra note 11, at 72; BLISS, supra note 65, at 10-11 (1898) (noting that to receive a pension, a claimant must prove he was an enlisted soldier); see also The Homestead Act, 12 Stat. 387 (1862) (providing foreign-born residents citizenship after one year's residence with honorable service in the UA; also providing free farms to aliens who filed declarations of intent to become citizens).

^{102.} LONN, *supra* note 11, at 613 (concluding, without empirical support, that pensions were paid even when the UA veteran returned to his native land after the war).

A. Research Models

1. Pension Access

In the Pension Access Model, we assume that access and application to the pension scheme were the result of several individual and social factors, such as the claimant's disability, claim type, age, geographic location, year of application, and attorney usage. If nativity did not influence the likelihood of access to pension, one would observe that two claimants, one native and another foreign-born, should have the same chance of access to pensions, assuming their background characteristics were otherwise identical.

If, by contrast, foreign nativity did adversely and significantly affect the odds of being admitted to the pension system, we should observe a "penalty" on the foreign-born claimant in the form of a lower likelihood of pension access. Lower access rates could have resulted from self-selection on the part of foreign-born recruits who believed (or who came to believe over time) that they would not succeed, and thus they took less initiative in applying. A form of decreased initiative to apply could have included a lower probability of retaining pension lawyer advocates, even when we statistically control for (or hold constant) factors such as the applicant's wealth, levels of education, or disability type.

Decreased access to the pension scheme for foreign-born veterans also could have resulted from the discriminatory attitudes and practices of the Pension Bureau or by its administrators and examining surgeons, especially if they were to systematically screen out foreign-born recruits at a higher rate than native recruits with similar background characteristics.

What might be the reasons for such discriminatory attitudes? One prominent view of the pension-era related those attitudes to perceived "moral worthiness" of foreign-born UA veterans for pensions. The 1869 comments of Civil War-era statistician Benjamin Gould, who was charged by the Sanitary Commission—the public health and welfare vehicle for the UA—to study the nativity of the UA, among other areas, are illustrative:

Most of the patriotic men who could go to the war had already gone [by 1863], and the chief available source for new troops, beside the annual supply of young men attaining military age, consisted in that class of men who could be tempted by the large bounties, or were influenced directly or indirectly by the pressing danger of conscription. It is to troops raised under these latter circumstances . . . that most of the official records of nativity belong. 103

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^{103.} GOULD, *supra* note 11, at 16. Gould also writes: "Another fruitful source of apparent excess of the foreign element in the army is to be found in the large numbers of foreigners, who, attracted by the large local bounties frequently offered, enlisted for the purpose of obtaining the bounty-money, and then deserted without serving." *Id.* at 28; *see also* DORA L. COSTA &

In a similar vein, UA General Fry commented in the 1866 UA Provost Marshall General's Report on the crime of desertion in the UA:

It is probable that a more minute examination of the statistics of the army than has yet been made, would reveal the fact that desertion is a crime of foreign, rather than native birth, and that but a small proportion of the men who forsook their colors were Americans. It is a notorious circumstance that the great mass of professional bounty-jumpers were Europeans. 104

In prior studies, we have illustrated the strong effects of attitudinal bias in the operation of the pension scheme, particularly with regard to the stigma associated with certain claimed impairments. ¹⁰⁵ After passage of the 1879 Arrears Act, and through 1907 to the Service and Age Pension Laws, there was a substantial increase in the proportion of pension rejections ("zero ratings") for those with conditions subject to more prejudice. There was a corresponding decline for those conditions subject to less prejudice.

Even with changes in the pension policy after 1890 which in effect created an insurance program for older veterans against disabilities caused by non-war related accidents or chronic diseases, first-time claimants having disabilities subject to more prejudice were more likely to receive zero ratings and lower awards. The trend illustrated the developing attitudinal prejudice toward individuals with certain impairments, even within the operation of the most liberal pension system to date under which awards were made often regardless of disability severity. We return later to this concept of growing attitudinal bias after passage of the liberal 1890 Act in the context of our present study of UA veteran nativity.

In our studies, we define pension access by creating a linkage between claimant information from the UA military records and the Pension Bureau records. When we are able to find at least one pension record for a UA recruit who survived the war, we assume that he had gained access to the pension. If we fail to link him to any pension records, we assume that he had not gained access to the pension. This definition of access does not allow us to distinguish between recruits' own decisions to apply and the Bureau's attitudes and practices towards applicants if we were to detect unequal access on the basis of recruits' nativity.

We are able to rule out two factors that might have been responsible for the appearance of unequal access on the basis of nativity, but would not

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MATTHEW E. KAHN, COWARDS AND HEROES: GROUP LOYALTY IN THE AMERICAN CIVIL WAR (NBER Working Paper Series No. 8627, 2001) (finding relative to native soldiers, the Irish were more likely to desert the UA).

^{104.} GOULD, *supra* note 11, at 29 (quoting General Fry, *in* PROVOST MARSHALL GENERAL'S REPORT 75 (1866)).

^{105.} See generally Civil War Pensions and Disability, supra note 4, at 108, 153 (discussing concept of disability stigma in the operation of the UA pension scheme).

necessarily be related to behavioral (self-selecting or attitudinal bias) causes. First, if foreign-born relative to native recruits tended to apply for pensions during different time periods, their odds of admission (and then success) could have been related to legal changes and restrictions in the pension laws that were in effect at the time.

To investigate this possibility of such confounding "timing effects," we have chosen to study only the year of the first pension application for those with at least one pension application on record. Unfortunately, we have not collected the year of application information for those UA veterans who applied but who were not accepted. We may assume, however, that given the economic incentives of the pension scheme over time, the application by time distribution was similar between those accepted and those not accepted to the pension.

We have examined the usefulness of related assumptions regarding the application by time rates in our prior studies. 106 We have considered the possibility of general sample selection issues associated with those who chose to apply for Civil War pensions and those who did not. In this regard, economist Mario Sanchez suggests that hypothetically under any one of the pension laws, it is possible to classify applicants into two groups: those who privately knew that they "deserved" a pension and those who knew that they did not deserve a pension. 107 It then could be hypothesized that the individuals initially applying for pensions after the war were from the first group ("the knowing deserved"). For this group, particularly under the narrowly defined General Law, the proportion of applicants receiving a zero rating should have been relatively low. Indeed this is what we have found.

It is clear, however, that pension rates and the types of pensionable impairments increased over time. Veterans who did not apply for pensions under the General Law, or who lacked access to the system for whatever reason, had greater economic incentives to do so under the later and more liberal Disability Pension Act. The observed influx of applications, and concomitant higher rejection rates, is consistent with our prior findings that more veterans with less-apparent disabilities may have taken the risk of rejection and of being "morally exposed." The access rate, therefore, as measured by pension rejections, may have been influenced by economic factors that were independent of negative attitudes about certain disabilities. Access to, or rejection from, the system increasingly may have been a function of the moral quality of the pensioners, which was not fixed over time but responsive to the economic incentives provided in the changing pension laws.

To examine the proportion of UA veterans applying for pensions, we plot in Figure 8 the distribution of first time pension applications sampled from

^{106.} Id. at 198-99.

^{107.} See id. (considering that the sample of pension applications over time changed dramatically).

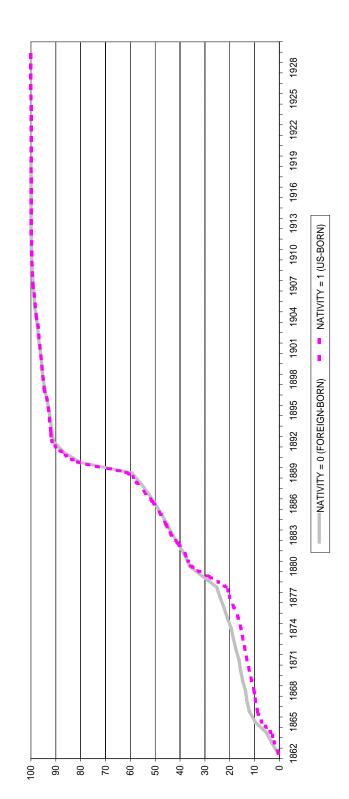
1862 to 1930 separately by nativity. From 1862 (with passage of the General Law) to 1878, we observe a gradual and similar rise in the proportion of first time applications for foreign-born and native veterans (about 20% applied by 1878). With the passage of the Arrears Act in 1879, we see a steeper and still similar rise until 1889, when 60% of veterans had applied for a pension at least once.

From 1890 to 1892, we observe a dramatic climb in application rates coinciding with the liberalized pension law, so that more than 90% of all recruits sampled had applied. Over time, however, there is no apparent difference observed (in fact, there is striking similarity) in the distribution of applications for foreign-born and native recruits. By 1907, with passage of the service and age pension laws, almost all veterans sampled had applied for a pension, regardless of birthplace. The important observation is that the time distribution was essentially the same for the foreign-born and the native recruits.

FIGURE 8

CUMULATIVE PERCENTAGE OF RECRUITS WHO HAD APPLIED FOR PENSION SINCE 1862





Another factor that could have produced the appearance of unequal pension access by nativity might have been differences in mortality (health) rates between the groups. If a relatively higher proportion of foreign veterans died younger, then a lower proportion would have lived to apply for pensions, particularly under the more liberal 1890 Act. Figure 9 plots the percentage of recruits who died since 1861. As a preliminary matter, we observe that from 1861 to the end of the war in 1865, 21.8% of foreign recruits and 19.8% of native recruits had died. Also, from 1866 to about 1890, with passage of the liberal pension law, there remain fairly comparable proportions of mortality by nativity.

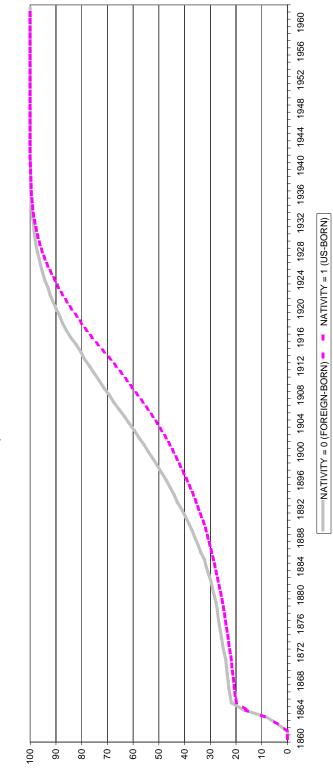
Between 1890 and roughly 1929, foreign recruits died at a faster rate than natives, resulting in a 54.0% versus a 44.1% death rate by 1900. After 1929, 98% of UA veterans had died, regardless of nativity. We conclude that there exists some difference in the mortality pattern experienced by nativity, particularly during the expansion of pensions after 1890. 108 Foreign recruits were relatively disfavored because a lower proportion of them lived to 1890 and 1907 when the much more comprehensive and generous Service and Age Pension Acts were passed. It would follow that differences in pension access rates by nativity would need to consider the mortality rates of the two groups.

108. It is possible that mortality rates were also a function of social class, and particularly occupation, given that foreign-born were more likely to work in manually demanding and more dangerous occupations. This was particularly so for the Irish relative to the German UA veterans.

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FIGURE 9

CUMULATIVE PERCENTAGE OF RECRUITS WHO HAD DIED SINCE 1861 THOSE RECRUITS WITH NON-MISSING NATIVITY INFORMATION STARTING FROM 1861 WHERE THERE WERE 799 RECRUITS WITH NATIVITY MISSING, 4,737 FOREIGN-BORN RECRUITS, AND 19,377 US-BORN RECRUITS



2. Pension Outcomes

The Pension Outcome Model examines the distribution of pension awards for those UA veterans who gained access to the system. The model explores how awards varied with factors individually and in combination, such as the applicant's nativity, disability type, class or occupational level, degree of advocacy, attorney involvement, and the politics surrounding the pension system at the time of application. ¹⁰⁹

As in the logic behind the Pension Access Model, if nativity did not influence pension outcomes, we would expect to observe two claimants, one native and another foreign-born enjoying equal benefits, to the extent that their background characteristics were otherwise identical. If foreign nativity did adversely affect pension outcomes significantly, we would observe a "penalty" in compensation for the foreign-born claimant. We test these questions with two pension outcome measures: the likelihood of being granted an increase in pension and the monthly pension dollar award.

Given that we have specified the role of nativity in the Pension Access and Pension Outcome Models, the regression method allows us to statistically separate the nativity effect from other factors impacting pension decisions—for instance, economic, political, and social factors—that we have explored and developed in earlier studies. ¹¹⁰ These factors have included variables such as the UA pension applicant's application period, application state, occupation, attorney's involvement, disability type and related stigma, and visibility.

We have shown that application rates coincided with expansion of the pension laws, as illustrated in Figure 10. 111 The spikes in Figure 10 indicate influxes of applications that coincide with the passage of the 1879 Arrears Act, the 1890 Disability Pension Act, and the 1912 Age and Service Pension Act. We observe that of 112,625 pension applications with non-missing application dates sampled, 2,555 were processed in 1879 when the Arrears Act became effective and 2,293 were processed the following year. By comparison, there were 747 applications filed in 1878. Substantially larger application rates occurred after passage of the 1890, 1907, and 1912 pension laws.

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^{109.} See Sanders, supra note 49, at 150-56, 323-29.

^{110.} Civil War Pensions and Disability, supra note 4, at 153 (describing research variables).

^{111.} Civil War Pension Attorneys, supra note 40 (discussing these trends).

FIGURE 10

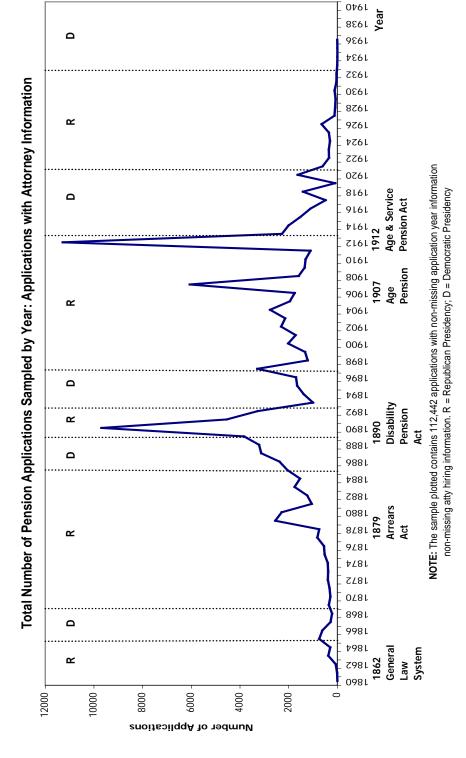


Figure 10 suggests that a large number of veterans who applied for pensions at least once survived until at least age 65, although in Figure 9 we saw some variations in the mortality rates as a function of nativity after 1890. But when the Age and Service Pension Law was implemented in 1907, the average age of surviving veterans was between 65 and 70. In our sample, we captured 6,076 such applications (or 5.4% of total number of applications).

The 1912 Age and Service Pension Act consolidated the 1907 Law, and our sample identifies that 11,301 applications (10.0% of the total) were filed during 1912. This number of claimants exceeds the number filed under the 1890 Act, showing a spike in Figure 10 of 9,705 applications. The general high survival rate of the UA veterans Pension File sample, within and across disability types, bolsters our ability to conduct a representative investigation with a sufficiently large sample over the primary period of the pension scheme from 1862 to 1907. This capability is important, given that sociologist Theda Skocpol and other researchers have estimated that in 1910 roughly one in three (35%) of Northern men and 10% of men over age 65 years old who had migrated to the South were receiving UA pensions. 112

We also note, as discussed in our prior studies, that access to the system generally, and pension outcomes in particular, likely was influenced by a claimant's residence because of the partisan inclinations and political climates in particular states. In the 1860 presidential election prior to the war, primarily due to their opposition to the slavery question, large numbers of foreignborn gravitated away from the Democrats and toward the party of Lincoln. 113 As Lonn has noted:

[T]he general shift in the attitude of the majority of the Germans may be best stated in the following terms: Before 1850 they saw in the Democratic party the best exponent of the liberties for the sake of which they had exiled themselves.... But when the issue of secession or union became the compelling question, the Germans recognized the whole befogged question for what it was—freedom or slavery for a certain class of people—and swung over to the party which stood for the freedom of all classes in the Union. 114

Other foreign-born recruits—the Irish, British, Canadian, Scandinavian—followed suit and enlisted. After the Civil War, political swing states, such as New York, Ohio, and Illinois that were not solid Republican or Democratic

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^{112.} PROTECTING SOLDIERS AND MOTHERS, supra note 4, at 135-36.

^{113.} *Id.* at 43-44 (describing political inclinations of foreign-born at the time of the Civil War). At the same time, there were large anti-draft riots by German and Irish foreign-born, many of whom identified with anti-war Democrats. *Id.* at 47. At the outbreak of the war, most Irish-born were Democrats. Burton, *supra* note 5, at 112.

^{114.} Id. at 48.

states, had large numbers of resident foreigners. ¹¹⁵ Foreign-born voters were courted by both major parties, who were often headed by ethnic leaders who knew the patronage system. ¹¹⁶ Indeed, many G.A.R. posts were organized by ethnicity post-war. ¹¹⁷ The posts provided strong social and economic ties for their members, with their direct links to pension officials who made decisions about access to and compensation from the Pension Bureau. We re-examine here in the context of our study of nativity the influence of partisan forces on pension outcomes.

We additionally examine the relevance to pension outcomes of the occupations of native and foreign-born veterans at enlistment and during the 1870, 1900, and 1910 census years. For the regression analysis, we measure claimant occupation at enlistment. In likely the only analysis of its kind, progressive-era labor statistician Isaac Rubinow has examined the general distribution of American white men over age 65 according to their occupations, separately for native and foreign-born individuals in 1900. Figure 11 presents Rubinow's findings, from which several conclusions may be drawn, foremost that native, relative to foreign-born, white men 65 years or older enjoyed a higher economic status in later life.

FIGURE 11

OCCUPATIONAL DISTRIBUTION OF WHITE MEN OVER AGE 65

TAKEN FROM THE RUBINOW SAMPLE: NATIVE v. FOREIGN

OCCUPATI ON	NATIVE		FOREIGN-BORN	
	NUMBER	PERCENT	NUMBER	PERCENT
	NUMBER	FERCENI	NUMBER	FERCENI
Agriculture	364,552	56.9	125,289	40.9
Profession	36,149	5.7	8,219	2.7
al				
Domestic	47,798	7.5	49,594	16.2
Trade/Tran	81,026	12.6	41,356	13.5
sportation				
Manufactu	111,626	17.3	82,204	26.7

^{115.} PROTECTING SOLDIERS AND MOTHERS, supra note 4, at 3 (using information derived from census figures).

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^{116.} BURTON, supra note 5, at 29.

^{117.} LONN, supra note 11, at 605 (providing examples of German posts).

^{118.} Rubinow, supra note 6, at 408.

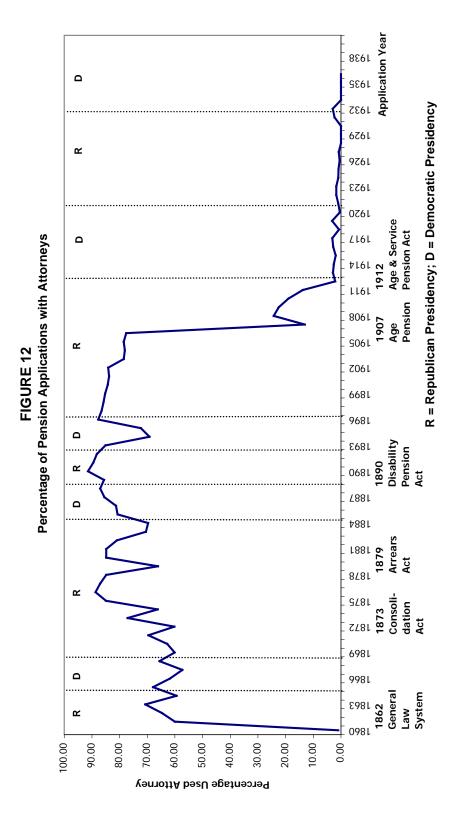
ring				
Totals	641,151	100.0	306,662	100.0

In Rubinow's analysis we see that in 1910, the majority of the native recruits were employed in agricultural and professional occupations (62.6%), as compared to 43.6% for the foreign-born. The foreign-born were more likely to be employed in manual labor, particularly in domestic and manufacturing jobs, with 42.9% for foreign-born and 24.8% for native. Rubinow further concludes that: "The foreign-born whites on the one hand and the Negroes on the other, who, after all, constitute a very large majority of the wage-working class, get very little of the war pension, the bulk of which must reach the middle-class American." One complex question for another day is whether occupational stress evidenced in manual labor jobs was more prevalent for foreign-born—in part because of the lack of economic resources from pensions—and thereby was related to relatively higher mortality rates.

In prior studies we have also identified that UA claimants, regardless of their occupation or social class, hired pension lawyers at high rates. 120 Figure 12 shows the high proportion of all claimants (84.65%) assisted by attorneys between 1862 and 1907. We observe a substantial reduction in pension attorney usage during years when a Republican (or neutral) majority vote was present in the state of the claimant's application, presumably because of the strong support for pensions in the Republican administration which reduced the need for pension advocates or lawyers. Yet, despite the strong influence of partisan forces on pension awards, we still found that extradisability forces affecting attorney use and pension outcomes varied by disability type and by whether the claimed condition was subject to attitudinal stigma. Claimants with more visible (less obscure) disabilities, such as musculo-skeletal conditions, were less likely to use attorneys and enjoyed better pension outcomes. And, there was a substantial dollar premium in claiming under a more visible disability type. Strikingly, claimants with visible conditions actually lowered their probability of being granted a pension ruling increase when they used attorneys.

120. Civil War Pension Attorneys, supra note 40.

^{119.} Id. at 408-09.



Our previous research, therefore, indicated that not only does disability stigma matter in the decision to hire attorneys, but more visible or less stigmatized disabilities such as gunshot wounds on average were compensated with higher monthly pension awards relative to severe "hidden" disabilities such as nervous disorders. ¹²¹ In this earlier work, we have found that the relative dollar premium for applicants with certain visible disabilities is statistically independent of the other factors in our research model, such as the applicant's occupation, age, and date of application. ¹²²

Additionally, veterans claiming more stigmatized diseases and disabilities were twice as likely to be rejected outright by pension doctors and thereby denied access to the system. However, applicants who persuaded examiners that they possessed a stigmatized yet pension-worthy disability received, on average, comparably higher disability awards than those with less prejudicial conditions. 124

Having documented several important forces other than nativity previously found to impact pension access and outcomes, we return the focus of inquiry to testing whether veterans with particular disabilities and backgrounds more successfully navigated the Bureau's application process. In the present study, discussion of access to the pension system, and later of awards, must be tempered by assessing attitudinal prejudice toward the foreign-born, as well as the nature or visibility of particular disabilities. Thus, Lonn describes the animus facing foreign-born recruits from natives and from other nationalities when she writes: "Before we can properly discuss the rewards accorded to the foreign-born, it is proper, indeed necessary, to learn how meagerly rewards were passed out to the foreign-born citizens during the war and to discuss frankly the degree to which prejudice entered into the matter." ¹²⁵

As historian Burton writes: "On both a causal and profound level racism and nativism pervaded the thinking of most people of the Civil War generation." 126 Our next task is to assess, as best we can and for the first time, the extent to which these attitudes were reflected in the operation of the UA pension system.

124. See id. at 160-66, fig.10.

^{121.} To address this question, we would examine the estimated coefficient on the variable that measures the visibility of disabilities in the linear regression model where the monthly dollar amount is the dependent variable.

^{122.} Civil War Pensions and Disability, supra note 4, at 10-12 (discussing findings).

^{123.} *Id*.

^{125.} LONN, supra note 11, at 585-86.

^{126.} Burton, supra note 5, at 201, 211.

B. Results - Pension Access Model

Figure 13 presents the results of the regression on the likelihood of access to the pension system. The sample in this analysis consists of 22,449 UA men who survived the war. As noted, we detect "access" through data linkage from military records to the pension records. When a recruit applied for a pension, the Pension Bureau usually collected information such as application date, application place, and occupation at the time of application. Therefore, we assign a value of one to a recruit whose file exists in the military data and the pension data, and a value of zero to a recruit whose file only exists in the military data.

As the column titled "Mean Value" indicates, about 61% of the recruits who survived the war applied for a pension at least once. Out of those 22,449 men, almost three-quarters (72.5%) were native to the United States. The foreign-born veterans are separated into five representative groups: Germans, Irish, British, Canadians, and the remainder, with Irish being the largest sub-group (9.76%). We see that the birth cohort centers toward those born between 1837 and 1844 with 49% of the recruits born during this period. We observe that almost half (46%) of the recruits came from agricultural occupations at enlistment, with most of them enlisting in the Northeast or the Midwest regions.

The third column in Figure 13 is titled "Marginal Effect at the Mean." This shows, on average, within each category such as nativity, birth cohort, enlistment occupation, and enlistment region, the additional likelihood of gaining access to the pension system by belonging to a certain defined group relative to a reference group in that category. For instance, under nativity, the U.S.-born had a significantly higher probability of pension access than did the foreign-born. That access premium is 19.09%. In other words, if on average, 61.57% of the recruits chose to apply for pension at any time, nativity contributed to 19.09% of the 61.57% likelihood.

The right column of Figure 13 is titled "Significance." This indicates whether the average influence from each category, quantified as the "Marginal Effect," is due to random sampling or is substantial enough that we would likely achieve the same result had we performed this analysis on another sample as representative as the current one. The number of asterisks increases with the degree of statistical significance of the marginal effect, with three being the most significant, and one asterisk being the least significant but still substantially noticeable. The three asterisks beside the marginal effect on nativity mean that the access premium of 19.09% is extremely substantial from a statistical standpoint.

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^{127.} See infra fig.13, note [1].

FIGURE 13

LOGISTIC REGRESSION ON THE ODDS OF APPLYING VERSUS NOT APPLYING FOR PENSION FOR 22,449 RECRUITS WHO SURVIVED THE WAR AND WHOSE YEAR OF BIRTH INFORMATION IS NON-MISSING

VARIABLES	MEAN VALUE (%)	MARGINAL EFFECT AT THE MEAN	SIGNIFICAN CE ¹
Ever applied for pension	61.57		
Intercept		-0.1077	***
NATIVITY			
Native	72.52	0.1909	***
Foreign-born			
German-born	6.79	Omitted	
British-born	2.95	0.0009	
Irish-born	9.76	-0.0810	***
Canadian-born	2.46	0.0196	
Other foreign-born	4.53	-0.0504	***
BIRTH COHORT			
Born between 1801 and 1830	19.53	-0.003	
Born between 1831 and 1836	17.68	0.0368	***
Born between 1837 and 1841	26.75	0.0411	***
Born between 1842 and 1844	22.59	0.0303	***
Born between 1845 and 1849	13.45	Omitted	
ENLISTMENT OCCUPATION			
Enlistment occupation agricultural	46.41	0.1197	***
Enlistment occupation manual	17.52	-0.0154	
Enlistment occupation professional	34.42	omitted	
Enlistment occupation missing	1.66	-0.1434	***
ENLISTMENT REGION			
Enlistment region Northeast	44.47	-0.0302	**

Enlistment region Midwest	46.08	omitted	
Enlistment region South	8.74	0.0510	***
Enlistment region missing	0.71	0.3862	***
[1] "***" = significant at the 1% level. "**" = significant at the 5% level.			

Given that recruits were immigrants, the additional pension access "punishment" of being an Irish-born was 8.1% (i.e., see Figure 13, Marginal Effect column for Irish). This means that relative to natives, Irish-born veterans had 28.0 percentage points less (19.09% plus 8.1%) in the probability of gaining access to the pension system. If immigrant recruits originated from countries other than Germany, Britain, Ireland, and Canada, they would have 24.1 percentage points less (19.09% plus 5.04%) in the probability of access to pensions relative to the natives. Because the German group formed our reference point, its access probability was exactly 19.09 percentage points less than the natives. Relative to the Germans, the British and the Canadians had slightly better odds, although the effects were not statistically significant.

We note in Figure 13 that belonging to an earlier birth cohort increased the propensity to apply for pension during the initial years of the General Law, mostly because these disabilities likely worsened with age. However, it is possible that earlier cohorts (e.g., older groups) were outlived by later ones and might not have survived long enough to enjoy their pensions. Figure 13 shows that except for the oldest cohort born between 1801 and 1830, where there was a small negative effect on access probability overall relative to the youngest cohort born between 1845 and 1849, there was a significantly positive access premium of between 3 and 4 percentage points. In other words, those who were relatively younger, and probably not severely injured in the war, had the greatest access to the system.

Lastly, Theda Skocpol contends that pensioners appeared sooner and received payment premiums in Republican dominated states because they were politically friendly to pensioners, and we have documented this effect empirically elsewhere. ¹²⁸ It may follow that this partisan effect would have had greater impact on the larger numbers of natives relative to foreign-born veterans. ¹²⁹ Put differently, the question is whether service in the war by foreigners impacted their subsequent access to the pension system, and particularly so in swing states that were politically important to the Republican party.

Thus, according to Lonn, the Germans of Missouri, particularly St. Louis, saved that state to the Union: "Without the Germans who fought under Sigel, Governor Jackson would probably have succeeded in wrenching Missouri from the Union and taking it into the Confederacy." And, many German loyalists in Kentucky helped to secure that border swing state to the Union. 131 Yet, did these veterans reap the rewards of the pension system? We turn to these sorts of questions next.

^{128.} See Civil War Pension Attorneys, supra note 40 (documenting partisan influences on pensions).

^{129.} PROTECTING SOLDIERS AND MOTHERS, supra note 4, at 595 n.125.

^{130.} LONN, supra note 11, at 653.

^{131.} *Id*.

C. Results—Pension Outcome Model

The next step in the investigation examines factors affecting the probability of a pension ruling increase and monthly pension dollar award. Nativity is included as an independent variable in this analysis to examine the degree to which this factor influenced the pension application outcomes. We restrict the analysis to those recruits who applied for pensions. Figure 14 displays the birthplace of 8,054 such recruits. Compared with Figure 1, which includes the entire 34,216 recruits from the military records, we observe that from enlistment to pension application, immigrant representation fell markedly from 26.6% (i.e., 9,115/34,216) to 18.7% (i.e., 1,505/8,054). Results from the Pension Access Model in the previous section have addressed some of the possible reasons for this phenomenon.

Despite limited representation of the foreign-born in the system, we find that within the nativity foreign category, the proportion of representation within all the major immigrant groups in Figure 14 is quite similar to the findings in Figure 1. At enlistment, 33.8% of the immigrants were Irish-born (Figure 1). At pension application, the Irish veterans accounted for 31% of the immigrants. Similar percentages are observed in the other groups: the Germans (22.4% in Figure 1 versus 24.8% in Figure 14) and the British (11.9% in Figure 1 versus 11.5% in Figure 14).

Overall, except for the Canadians whose representation among immigrants fell from enlistment to pension application (17.6% in Figure 1 versus 11.5% in Figure 14), proportions of representation in the immigrant groups remain stable. This observation implies that, at first glance, the Pension Bureau did not discriminate among the immigrant groups with regard to admissions into the pension system. But, of course, there still might have existed more subtle differentials in treatment by nativity. Figures 15, 17A, and 17B examine this possibility.

FIGURE 14

BIRTHPLACE OF 8,054 RECRUITS WHO APPLIED FOR PENSION IN THE SAMPLE FOR REGRESSION ANALYSES EXCLUDING 226 RECRUITS WITH UNKNOWN NATIVITY

		AS %			
FOREIGN	RECRUIT	OF	U.S. STATES	RECRUITS	AS % OF
COUNTRY	S	9.115	C.S. SIMILS	MECKETTS.	25.101
000111111	~	FOREI			NATIVES
		GN-			
		BORN			
Ireland	467	31.0	New York	1,515	23.1
Germany	337	22.4	Ohio	736	11.2
Canada General	265	17.6	Pennsylvania	593	9.1
England	179	11.9	Illinois	533	8.1
Sweden	40	2.7	Kentucky	370	5.6
Scotland	37	2.5	Indiana	323	4.9
France	35	2.3	Vermont	255	3.9
Prussia	26	1.7	Massachusetts	226	3.5
Norway	23	1.5	Maine	195	3.0
Switzerland	23	1.5	New Hampshire	195	3.0
New Brunswick	19	1.3	Michigan	191	2.9
Bavaria	14	0.9	Connecticut	185	2.8
(German State)					
Holland	8	0.5	New Jersey	181	2.8
Wales	5	0.3	Virginia	181	2.8
Nova Scotia	4	0.3	Delaware	172	2.6
Aboard Ship	3	0.2	Maryland	172	2.6
Denmark	3	0.2	Missouri	167	2.6
Italy	3	0.2	Tennessee	118	1.8
Europe General	2	0.1	West Virginia	95	1.5
Austria	1	0.1	Iowa	56	0.9
Belgium	1	0.1	North Carolina	21	0.3
Baden	1	0.1	Wisconsin	19	0.3
(German State)					
Channel Islands	1	0.1	Rhode Island	14	0.2
Great Britain	1	0.1	Arkansas	7	0.1
Holstein	1	0.1	Georgia	6	0.1
(German State)					
Mexico	1	0.1	Alabama	5	0.1
Netherlands	1	0.1	Louisiana	5	0.1
Ontario	1	0.1	South Carolina	4	0.1
Portugal	1	0.1	Mississippi	3	0.0
Poland	1	0.1	Florida	2	0.0
Württemberg	1	0.1	Kansas	2	0.0
(German State)					
			Nebraska	1	0.0
			USA General	1	0.0
TOTAL FOREIGN-	1,505	100.0	TOTAL NATIVE	6,549	100.0
BORN RECRUITS			RECRUITS		

FIGURE 15

BY NATIVITY, FIRST CLAIMED DISABILITY IN EACH APPLICATION WHERE A RECRUIT COULD HAVE MORE THAN ONE APPLICATION INCLUDING 704 RECRUIT-APPLICATION OBSERVATIONS WITH UNKNOWN NATIVITY

FIRST CLAIMED DISABILITY FOR APPLICATIONS FROM FOREIGN- BORN	APPLICATIONS IN EACH DISABILITY CATEGORY	AS % OF 4,747 APPLICATIONS FROM FOREIGN-BORN RECRUITS
Injury & GSW	1,614	34.0
Rheumatism & Musculo- skeletal	1,116	23.5
Diarrhea	351	7.4
Ear	311	6.6
Hernia	257	5.4
Respiratory	208	4.4
Eye	200	4.2
Infectious & Parasitic	179	3.8
Nervous System	106	2.2
Gastrointestinal	99	2.1
General Appearance	73	1.5
Varicose Veins	72	1.5
Genito-urinary	59	1.2
Hemorrhoids	49	1.0
Neoplasms	22	0.5
Liver	20	0.4
Skin & Tissue	9	0.2
Blood	1	0.0
Endocrine	1	0.0
TOTAL FOREIGN- BORN RECRUITS	4,747	100.0

FIGURE 15 (Continued)

BY NATIVITY, FIRST CLAIMED DISABILITY IN EACH APPLICATION WHERE A RECRUIT COULD HAVE MORE THAN ONE APPLICATION INCLUDING 704 RECRUIT-APPLICATION OBSERVATIONS WITH UNKNOWN NATIVITY

FIRST CLAIMED DISABILITY FOR APPLICATIONS FROM NATIVES	APPLICATIONS IN EACH DISABILITY CATEGORY	AS % OF 21,966 APPLICATIONS FROM NATIVE RECRUITS
Injury & GSW	6,006	27.3
Rheumatism & Musculo- skeletal	4,438	20.2
Diarrhea	2,921	13.3
Respiratory	1,409	6.4
Ear	1,335	6.1
Infectious & Parasitic	1,002	4.6
Eye	843	3.8
Hernia	840	3.8
Nervous System	555	2.5
Gastrointestinal	529	2.4
Genito-urinary	515	2.3
Hemorrhoids	407	1.9
General Appearance	404	1.8
Varicose Veins	277	1.3
Neoplasms	215	1.0
Liver	187	0.9
Skin & Tissue	39	0.2
Spleen	13	0.1
Accidents	11	0.1
Blood	9	0.0
Endocrine	8	0.0
Cardiovascular	3	0.0
TOTAL NATIVE RECRUITS	21,966	100.0

FIGURE 15 (Continued)

BY NATIVITY, FIRST CLAIMED DISABILITY IN EACH APPLICATION WHERE A RECRUIT COULD HAVE MORE THAN ONE APPLICATION INCLUDING 704 RECRUIT-APPLICATION OBSERVATIONS WITH UNKNOWN NATIVITY

FIRST CLAIMED DISABILITY FOR RECRUITS WITH MISSING NATIVITY	RECRUITS WITH MISSING NATIVITY IN EACH DISABILITY CATEGORY	AS % OF 704 RECRUITS WITH MISSING NATIVITY
Injury & GSW	191	27.1
Rheumatism & Musculo- skeletal	167	23.7
Diarrhea	94	13.4
Infectious & Parasitic	58	8.2
Ear	48	6.8
Respiratory	39	5.5
Eye	21	3.0
Genito-urinary	20	2.8
Hernia	19	2.7
General Appearance	14	2.0
Nervous System	12	1.7
Hemorrhoids	8	1.1
Gastrointestinal	6	0.9
Neoplasms	4	0.6
Liver	1	0.1
Spleen	1	0.1
Varicose Veins	1	0.1
TOTAL RECRUITS WITH MISSING NATIVITY	704	100.0

Figure 15 provides a breakdown, by nativity, of the first-claimed disability from all applications. Before we study the pension outcome, however, we first may examine the types of disabilities recruits claimed. We have described how under Bureau rules different disabilities received fractional ratings toward the condition of "totally disabled." Based on a systematic review of hundreds of news articles and editorials written during the pension years, we found that UA veterans with certain disabilities were perceived by the public as "less deserving." We hypothesized that this was because of their remote connection to war activities and their association with vicious habits (drinking, smoking, sexual promiscuity). Indeed, pension claims that were the product of such socially questionable behaviors were more likely to be rejected by the Bureau. 132

To examine this issue, based on other rating studies, we divided claimed disease categories into two groups: those associated with less and those with more attitudinal stigma (Figure 16). More visible conditions include gunshot wounds, diarrhea, ear defects, eye defects, gastrointestinal disorders, hernias, and musculo-skeletal problems. Less visible conditions include infectious and parasitic, nervous system, genito-urinary, and blood system impairments. We then found that more visible conditions had a higher probability, around eight percentage points, of being granted an increase in pension awards over time. There was a modest dollar premium, in the amount of \$.46 per month, received by those with more visible conditions.

We might have expected to find that recruits of different nativity would not have an equal footing toward favorable outcomes if, in fact, one group tended to apply for disability claims that were rated as less deserving by the Bureau or under conditions that were subject to prejudice. But Figure 15 ruled out this possibility, at least at this point. We see that the top three most prevalent disabilities claimed for foreign and native recruits were injuries and gunshot wounds, rheumatism and musculo-skeletal conditions, and diarrhea. These impairments captured 65% of the applications for the foreign veterans and 61% of the applications for the natives. Using a "visibility" categorization, those prevalent disabilities each may be considered of the more visible type.

Still, applications claimed for disabilities that may have been deemed "less visible" (or more obscure to use the Bureau's terminology) did not differ by nativity. For instance, 3.8% of these pertained to infectious and parasitic diseases from immigrants' applications and 4.6% for the natives. When we tabulate the distribution of the first claimed disability for those applications with nativity unknown (last panel of Figure 15), that distribution looks more similar to that of the applications from the native recruits. 134

134. It may have been that native recruits tended to leave their nativity entry blank in their

^{132.} See generally Civil War Pensions and Disability, supra note 4 (discussing findings).

^{133.} *Id*

FIGURE 16

SUMMARY OF STUDIES CLASSIFYING IMPAIRMENTS/DISABILITIES INTO CATEGORIES SUBJECT TO MORE AND LESS ATTITUDINAL PREJUDICE (TOP) AND AS APPLIED TO DISEASE/DISABILITY CATEGORIES DERIVED FROM THE SURGEON'S CERTIFICATES (BOTTOM)

Impairments Subject to Less Prejudice	Impairments Subject to More Prejudice
Back or Spine Problems	Missing Legs, Arms, Hands, or Fingers
Broken Bone or Fracture	Blindness or Vision Problems
Head or Spinal Cord Injury	Deafness or Hearing Impairment
Hernia or Rupture	Speech Disorder
High Blood Pressure	Stroke
Learning Disability	Paralysis
Stiffness or Deformity of Limb	Epilepsy
Thyroid Trouble or Goiter	Cerebral Palsy
Tumor, Cyst, or Growth	Mental Retardation
Stomach Trouble	Alcohol or Drug Problem
Arthritis or Rheumatism	Mental or Emotional Problem
Lung or Respiratory Trouble	Acquired Immunodeficiency Syndrome
Diabetes	
Heart trouble	

Categorization of Disease Categories From Surgeon's Certificates

Less Prejudice	More Prejudice
Cardiovascular	Ear Diseases
Diarrhea	Eye Disorders
Endocrine	General Appearance
Gastrointestinal	Genito-urinary
Hernia	Liver
Injury/Gun-shot Wound	Infectious Diseases/Fever
Rectum/Hemorrhoids	Nervous System
Respiratory	
Rheumatism/Musculo-Skeletal	
Tumor	
Varicose veins	

pension applications because they assumed a non-response would indicate native status.

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Figure 17A presents the results of the logistic regression on the probability of a pension ruling increase. Figure 17B then shows the Ordinary Least Squares (OLS) regressions on the monthly pension amount granted. There are several findings from the regression analyses common across most claimed disabilities. First, all else equal, native and foreign-born claimants did not experience different rates of pension increases or dollars granted per month. Put differently, there is no premium for natives, relative to foreign-born, in the administration of the pension scheme. One modest exception is found in the sample of the native versus the German-born; where relative to natives, German UA veterans had a greater likelihood of being granted an increase, in the value of fourteen percentage points.

Scanning across the rows "Republican" and "Attorney" in Figures 17A and 17B, we see that these categories did have a strong impact on the probability of a ruling increase or on monthly pension awards. Consistent with the fact that Republicans supported a more generous pension program, we find predictably that relative to applications in states with Democratic majority votes, applications filed in states with Republican majorities enjoyed a higher probability of being granted a ruling increase and a higher average dollar award per month. In the regression sample of natives versus all foreigners, the Republican premium for the probability of pension increases across disability types was 9.61%, and pension dollars awarded was \$1.63.

We see some evidence of a penalty—consistent with our earlier studies—in the probability of a ruling increase and a pension award when claimants used attorneys. In the regression sample of natives versus all foreigners, the attorney discount was a 4.91% decrease in the probability of pension increases, and the pension amount was on average \$2.04 less. However, this result repeats only in two other samples: the sample of natives versus the British-born when pension outcome is measured by the probability of an increase (Figure 17A), and the sample of natives versus all other immigrant groups excluding the other major four categories (Figures 17A and 17B).

The premium for visible disability types observed in our earlier work is present when pension outcome is measured by the probability of ruling increases (Figure 17A). But this effect appears only within the samples of natives versus all foreigners (premium probability of 11.12%), natives versus the Irish-born (premium probability of 13.58%), and natives versus the German-born (a weak tendency, premium of 10.90%).

^{135.} See infra Methodological Appendix for a description of Ordinary Least Squares (OLS) regression models with robust standard error corrections. Thanks to Dean Hyslop for helping us in the explanation.

	FIG	FIGURE 17A	4			
LOGISTIC PROCEDURE EXPLAINING SUCCESS, ALL DISA DEPENDENT VARIABLE = 1 IF AN INCREASE WAS GRANTE	EDURE E ABLE = 1	EXPLAINING: 1 IF AN INCR	NG SUC	SUCCESS, ALL DISABILITI EASE WASGRANTED, 01F	L DISA	BILITIE D, OIF N
2	IATIVE v. AL	NATIVE V. ALL FOREIGNERBATIVE V. IRISH	ERISATIV	E v. IRISH	NATIVE	NATIVE V. GERM A
		MARGINAL		MARGINAL		MARGINA
VARIABLES IN THE LOGISTIC REGRE	VARIABLE ESSINCENANS		VARIABL	EFFECT ATVARIABLEEFFECT ATVARIABLEEFFECT ATTHE MEANS THE MEA	V ARIABL	EFFECT A. THE MEAL
		-0.2628* * *		-0.2789* * *		-0.3874
Nativity	82.23%	0.0070	93.78%	0.0308	95.50%	0.1406*
Agricultural	60.02%	0.0229	62.07%	0.0319	83.36%	0.0303
Manual Labor	12.11%	0.0004	11.07%	-0.0080	%89.6	-0.0283
Republican	75.62%	0.0961***	75.26%	0.0605*	75.23%	0.1320* * *
Neutral	2.13%	0.0458	2.12%	0.0097	2.04%	0.0382
Y ear 1879-1889	33.10%	0.0134	32.92%	0.0303	32.94%	-0.0597
Y ear 1890-1907	54.88%	0.0070	55.19%	0.0178	25.60%	-0.0229
Attorney	84.68%	-0.0491*	84.59%	-0.0302	84.62%	0.0829
Disability Visible	81.14%	0.1112* * *	80.46%	0.1358* * *	80.43%	0.1090*
	0.4784	-0.0167	0.4920	-0.0198	0.5033	-0.0173
Interaction b/w visible & manual labor	0.1021	-0.0290	9060.0	-0.0444	0.0783	-0.0264
Interaction b/w visible & republican	0.6172	-0.0041	0.6092	0.0029	0.6092	-0.0022
Interaction b/w visible & neutral	0.0180	0.1084*	0.0176	0.0880	0.0170	0.1088*
Interaction b/w visible & Year 1879-1889	0.2619	0.0087	0.2579	0.0185	0.2582	0.0172
Interaction b/w visible & Year 1890-1907	0.4466	-0.0089	0.4452	-0.0034	0.4480	-0.0078
	0.6843	-0.0412*	0.6776	-0.0390*	0.6772	-0.0340
Interaction b/w native born & agricultural	0.5276	-0.0199	0.6016	-0.0263	0.6127	-0.0268
Interaction b/w native born & manual labor	0.0772	0.0220	0.0881	0.0430	0.0897	0.0487
2001 2001 2001 2001 2001 2001 2001 2001	0.0160	0.00.0	0.70	0.0267	0.71.0	0.0363
		0.0530	0.0192	0.0203	0.0193	0 1338* * *
born &	_	0.0226	0.5194	0.0071	0.5289	0.0514
born &	0.6943	0.0054	0.7918	-0.0156	0.8063	-0.1327***
Interaction b/w native born & visible	0.6586	-0.0229	0.7511	-0.0573	0.7648	-0.0319
Number of Applications	26,713	.13	23,	23,424	23,	23,002
Dependent Variable Mean	0.3453	153	0.0	0.3470	6.0	0.3466
(b- v alue) -zrogr	0.00	- 2	0.0	- 8	0.0	- 00

FIGURE 17A (Continued)

	FIGURE 17A (Continued)	17A (CC	ontinue	0		
LOGISTIC PROCEDURE EXPLAINING SUCCESS, ALL DISABILITIES DEPENDENT VARIABLE = 1 IF AN INCREASE WAS GRANTED, 0 IF NO	CEDURE E RIABLE =	EXPLAINING SUCCESS, ALL DISA = 1 IF AN INCREASE WAS GRANTE	ING SUC	SCESS, A	LL DISA BRANTE	BILITIES D, O IF NO
	NATIVE v.	NATIVE v. CANADIAN		v. BRITISH	NATIVE V.	NATIVE V. BRITISHNATIVE V. OTHER FORE
		MARGINAL		MARGINA		MARGINAL
	VARIABLE	EFFECT A	WARIABLI	EFFECT AWARIABLEFFECT AWARIABL	WARIABLE	_
VARIABLESIN THE LOGISTIC REGRESSIONANS	SSIMORIANS	THE MEAN MEANS	MEANS	THE MEAN -0 2000*	MEANS	THE MEAN
Nativity	95.87%	-0.0381	97.41%	-0.0466	96.82%	-0.0706
Agricultural	63.33%	0.0428	63.60%	0.0497	63.60%	-0.0248
Manual Labor	10.03%	0.0360	9.55%	-0.0680	9.84%	0.0402
Republican	75.55%	0.0637	75.36%	0.1318**	75.47%	0.1216* *
Neutral	2.08%	0.0358	2.05%	0.3349* *	2.02%	-0.1512
Year 1879-1889	33.20%	0.0234	33.06%	-0.0636	33.15%	0.0511
Year 1890-1907	55.28%	-0.0133	55.38%	-0.0166	55.22%	0.0642
Attorney	84.55%	-0.0412	84.36%	-0.1285* * *	84.37%	-0.1860* * *
Disability Visible	80.31%	9060.0	80.22%	0.0448	80.30%	0.0938
Interaction b/w visible & agricultural	0.5026	-0.0245	0.5031	-0.0229	0.5041	-0.0219
Interaction b/w visible & manual labor	0.0820	-0.0290	0.0773	-0.0286	0.0800	-0.0207
Interaction b/w visible & republican	0.6107	-0.0015	0.6086	-0.0015	0.6103	-0.0009
Interaction b/w visible & neutral	0.0173	0.1184*	0.0171	0.1014	0.0169	0.1013
Interaction b/w visible & Year 1879-1889	0.2597	0.0152	0.2586	0.0196	0.2597	0.0207
Interaction b/w visible & Year 1890-1907	0.4451	-0.0127	0.4452	-0.0070	0.4438	-0.0068
Interaction b/w visible & attorney	0.6755	-0.0416*	0.6731	-0.0314	0.6737	-0.0386*
Interaction b/w native born & agricultural	0.6151	-0.0335	0.6250	-0.0416	0.6212	0.0320
Interaction b/w native born & manual labor	0.0900	-0.0134	0.0915	0.0903	6060.0	-0.0243
Interaction b/w native born & republican	0.7205	0.0292	0.7321	-0.0392	0.7277	-0.0292
		-0.0317	0.0199	-0.3166**	0.0198	0.1699
-	9 0.3172	0.0528	0.3224	0.1358**	0.3204	0.0205
Interaction b/w native born & Year 1890-1907	7 0.5310	0.0461	0.5395	0.0444	0.5362	-0.0366
Interaction b/w native born & attorney	0.8095	-0.0025	0.8225	0.0765	0.8175	0.1398* * *
Interaction b/w native born & visible	0.7678	0.0008	0.7802	0.0323	0.7754	-0.0127
Number of Applications	22,913	13	22,	22,550	22	22,688
Dependent Variable Mean	0.3479	62	0.3	0.3466	0.0	0.3481
(p-Value) -2LogL	0.0001	01	0.0	0.0001	0.0	0.0001

		FIGURE 17B	17B			
OLS REGRESSION WITH ROBUST STANDARD ERRORS EXPLAINING PEIFOR SUCCESSFUL APPLICATIONS, ALL DISABILITIES DEPENDENT VARIABLE = PENSION DOLLARS GRANTED PER MO CORRECTED FOR TIME SERIES CORRELATIONS BETWEEN ADJACENT FOR THE SAME RECRUITS	VITH RO ICCESSF VARIAB ME SER FOR	ESSION WITH ROBUST STANDARD ERRORS EXPLAINING PENSIFOR SUCCESSFUL APPLICATIONS, ALL DISABILITIES ENDENT VARIABLE = PENSION DOLLARS GRANTED PER MONTED FOR TIME SERIES CORRELATIONS BETWEEN ADJACENT APFOR THE SAME RECRUITS	NDARD ERRO CATIONS, ALION DOLLAR ELATIONS BI E RECRUITS	ERRORS S, ALL DI LLARSGF NS BETW UITS	EXPLAIN SABILITI RANTED I	ING PENSI ES PER MONT ACENT AP
	NATIVE v.	NATIVE V. ALL FOREIGNERSNATIVE V. IRISH	VER SNATIV	/E v. IRISH	NATIVE	NATIVE V. GERMAN
VARIABLES IN THE LOGISTIC RE	VARIABLI EGWEBSNDI	VARIABLECOEFFICIEN	TV ARIABL MEANS	ECOEFFICIENT ESTIMATES	NVARIABLE S MEANS	VARIABLECOEFFICIENTVARIABLECOEFFICIENTVARIABLECOEFFICIEN COMPESSION ESTIMATES MEANS ESTIMATES MEANS ESTIMATES
		8.9126* * *		9.7812* * *		7.0096***
Nativity	82.23%	-1.2149	93.78%	-1.6880	95.50%	1.2860
Agricultural	60.02%	0.6258	62.07%	0.7363	63.36%	0.3426
Manual Labor	12.11%	-0.5746	11.07%	-0.8918	9.63%	-1.3914
Republican	75.62%	1.6305* * *	75.26%	0.9126	75.23%	2.4710* * *
Neutral	2.13%	-0.5077	2.12%	-1.2666	2.04%	1.8320
Year 1879-1889	33.10%	0.5245	32.92%	0.4877	32.94%	0.3943
Year 1890-1907	54.88%	2.7858* * *	55.19%	2.5359* *	22.60%	3.7097* * *
Attorney	84.68%	-2.0403* *	84.59%	-1.2335	84.62%	-1.4949
Disability Visible	81.14%	0.6635	80.46%	-0.1884	80.43%	-0.0598
Interaction b/w visible & Agricultural	0.4784	0.3059	0.4920	0.1301	0.5033	0.0364
Interaction b/w visible & manual labor	0.1021	0.7657	9060.0	0.5239	0.0783	1.0102
Interaction b/w visible & Republican	0.6172	-0.2420	0.6092	-0.2157	0.6092	-0.3066
		0.9859	0.0176	0.8802	0.0170	0.9281
	_	0.7516	0.2579	1.0486	0.2582	1.4117* *
		0.5450	0.4452	0.9047	0.4480	1.1546* *
Interaction b/w visible & Attorney		-1.8890* * *	0.6776	-1.5615**	0.6772	-1.5036* *
Interaction b/w native born & Agricultural	ral 0.5276	-1.1337**	0.6016	-1.1007	0.6127	-0.6340
	bor 0.0772	0.1032	0.0881	0.6190	0.0897	0.7231
		-0.3089	0.7048	0.3852	0.7177	-1.0994**
	0.0168	0.3745	0.0192	1.2217	0.0195	-1.9293
	9-18 89 721	0.5663	0.3103	0.3460	0.3160	0.1355
	Year 1890-1900 #1554	0.8377	0.5194	0.7796	0.5289	-0.6114
Interaction b/w native born & Attorney	0.6943	1.0793	0.7918	-0.0040	0.8063	0.2083
Interaction b/w native born & visible	0.6586	0.0088	0.7511	0.4067	0.7648	0.0500
Number of Applications	-	16,548	7	14,541	17	14,290
Dependent Variable Mean	0)	\$9.52	€	\$9.48	ĕ	\$9.44
Adjusted R Square	7	7.29%	7	7.34%	7.	7.78%

	FIGUI	FIGURE 17B (Continued)	ontinue	(þé		
OLSREGRESSION WITH ROBUST STANDARD ERRORS EXPLAINING FOR SUCCESSFUL APPLICATIONS, ALL DISABILITIES DEPENDENT VARIABLE = PENSION DOLLARS GRANTED PER	H ROBU	SSION WITH ROBUST STANDARD ERRORS EXPLAINING FOR SUCCESSFUL APPLICATIONS, ALL DISABILITIES NDENT VARIABLE = PENSION DOLLARS GRANTED PEF	ARD EF TIONS, N DOLL	RORSE) ALL DISA	KPLAINII ABILITIE	ST STANDARD ERRORS EXPLAINING PENSION APPLICATIONS, ALL DISABILITIES = PENSION DOLLARS GRANTED PER MONTH
CORRECTED FOR TIME SERIES CORRELATIONS BETWEEN ADJACENT APP FOR THE SAME RECRUITS	E SERIE FOR T	ES CORRELATIONS BI THE SAM E RECRUITS	ATION	SBETWEI TS	EN ADJA	CENT APP
	NATIVE	NATIVE V. CANADIAN		: v. BRITISH	NATIVE V.	NATIVE V. BRITISH NATIVE V. OTHER FORE
VARIABL	ARIABLE SERTANUS	COEFFICIENT FSTIMATES	VARIABLE	EOEFFICIENTARIABL ESTIMATES MEANS	WARIABLE MFANS	VARIABLECOEFFICIENTVARIABLEOEFFICIENTARIABLECOEFFICIENT
		13.5330* * *		6.3583* * *		9.2203* * *
Nativity	95.87%	-5.3366	97.41%	1.8656	96.82%	-0.9135
Agricultural	63.33%	0.8698	63.60%	0.6075	63.60%	2.0916*
Manual Labor	10.03%	-1.3636	9.55%	-1.8929**	9.84%	1.0499
Republican	75.55%	1.0355	75.36%	3.0459* * *	75.47%	1.6995*
Neutral	2.08%	-3.4325	2.05%	4.9224	2.02%	-3.4886
Year 1879-1889	33.20%	-1.2605	33.06%	1.7248	33.15%	-0.2907
Year 1890-1907	55.28%	2.0814	55.38%	3.7663* * *	55.22%	0.3572
Attorney	84.55%	-4.5747	84.36%	-2.5203	84.37%	-2.8248*
	80.31%	-0.4894	80.22%	0.1568	80.30%	0.7821
	0.5026	0.1990	0.5031	0.0456	0.5041	0.1489
Interaction b/w visible & manual labor	0.0820	1.2324*	0.0773	0.9148	0.0800	1.0574
Interaction b/w visible & Republican	0.6107	-0.2770	0.6086	-0.2996	0.6103	-0.3081
Interaction b/w visible & Neutral	0.0173	0.8976	0.0171	0.8277	0.0169	0.7756
Interaction b/w visible & Year 1890-1907	0.4451	0.9553	0.4452	1.0689*	0.4438	1.0885*
Interaction b/w visible & Attorney	0.6755	-1.6586* *	0.6731	-1.5217**	0.6737	-1.5606* *
	0.6151	-1.2950	0.6250	-0.9060	0.6212	-2.4758* *
	0.0900	0.5136	0.0915	1.3026	6060.0	-1.7575
	0.7205	0.3141	0.7321	-1.6802	0.7277	-0.3268
		3.3611	0.0199	-4.9339**	0.0198	3.5184
≪		1.8551	0.3224	-1.1365	0.3204	0.7817
∞		1.1850	0.5395	-0.5947	0.5362	2.7951**
ૹ	0.8095	3.4187	0.8225	1.2492	0.8175	1.5860
Interaction b/w native born & visible	0.7678	0.5881	0.7802	-0.0838	0.7754	-0.8061
Number of Applications	,	14,226	13	13,982	4	14,117
Dependent Variable Mean	€	\$9.47	8	\$9.44	₩	\$9.47
Adjusted R Square	7	7.66%	7.	7.74%	7.	7.68%

What might be the reason behind the differences in these findings and those of our studies pertaining to the penalty in outcomes with attorney usage and with the disability being visible? Do the pattern of results change when we apply otherwise similar regression models but add the nativity factor? Scanning across the columns titled "Variable Means" under each sample in Figures 17A and 17B, the percentage of applications with attorney assistance and the percentage of applications under visible disabilities are similar across samples (i.e., around 85% for attorney usage and 81% for visible disabilities). One possibility for this result is that attorney usage and claims for more visible disabilities influenced pension outcomes for certain immigrant groups such as the Irish, the Germans, and others, excluding the Canadians and the British. But additional study is required to isolate the reasons for these complex effects.

Figures 17A and 17B also present the interaction effects between nativity and other variables in the research model. First, in Figure 17A we see that natives relative to foreign-born, during the time period after passage of the 1879 Arrears Act but before the more liberal 1890 Disability Pension Law, evidenced a higher probability of receiving a pension increase by 6.76%. That premium increases substantially to 13.38% in the native and German sample, and to 13.58% in the native and British sample. We observe no such effects after passage of the 1890 Law.

As the pension system expanded after 1890, and probably with the continued assimilation of the foreign-born into American society, nativity became less associated with pension outcomes. Lastly, we observe in Figure 17B that natives who worked in agriculture, relative to foreign-born, experienced relatively lower average monthly pensions by \$1.34. This finding suggests that the relatively fewer foreign-born men in rural farming settings fared particularly well in their pension outcomes.

IV. CONCLUSION

Did the UA Civil War pension system contribute to a proportionately larger share of income for native relative to foreign-born UA veterans? And, did pension income thereby disproportionately impact the economic stability, health, work lives, and retirement trends over time of these two groups? To adequately address such questions, information on many economic, political, and social factors, alone and in combination, is needed.

This Article continues our examination of disabled UA veterans. We have presented new information on native and foreign-born disabled UA veterans, and the impact of social, economic, and partisan politics on access to and rewards from pension policies aimed at the then new class of disabled Americans. Like many contemporary disability policies, the Civil War

^{136.} Civil War Pension Attorneys, supra note 40 (setting forth a study of pension attorney usage and outcomes).

pension scheme disproportionately benefited those disabled whom society, politicians, and courts deemed "worthy." We have noted that such conceptions of moral worth often were tied to nativistic and patriotic views related to foreign-born participation in UA during the latter years of the war.

Many factors besides nativity influenced pension access and outcomes. According to historian Ann Orloff, pensions helped men maintain their own households, particularly in rural Republican strongholds where large numbers of native pensioners resided. Second, family size and co-residence were lower among native men, perhaps thereby increasing the relative economic value to these pensioners. Third, during the latter years of the war and with changes in the draft laws, large numbers of relatively older foreign-born entered the UA and gained potential access to the pension system. Yet, these years, especially 1863, were marked by draft riots in New York City, driven by "the discontents of the city's Irish working class." 140

Our empirical investigation supports historian William Burton's view that the Civil War pension scheme is portrayed as "a clash between native and immigrants" which "gravely distorts a more complex social reality." ¹⁴¹ In a similar vein, Ella Lonn has questioned: "What was the effect of the [Civil] War on the foreign-born soldier in his relation to the United States as an American citizen?" ¹⁴² We have focused that question toward the experiences of foreign-born UA veterans with access to and compensation by the Civil War pension scheme.

Our findings suggest no apparent disparate treatment by nativity once recruits were accepted. We have shown that neither the odds of being granted a pension increase nor monthly pension awards depended on national origin. However, we do find that foreign recruits were significantly less likely to apply for a pension in the first place. Compared to the natives, the Germans, Canadians, and British had a lower probability in the amount of 19 percentage points in applying. Irish immigrants had a lower probability in the amount of 27 percentage points in applying, and the rest of the foreign immigrants in the amount of 24 percentage points.

Certainly, as Burton concludes, the Civil War experience affected

^{137.} See DEBORAH A. STONE, THE DISABLED STATE 85 (1984); Matthew Diller, Entitlement and Exclusion: The Role of Disability in the Social Welfare System, 44 UCLA L. REV. 361, 416-17, 433 (1996) (noting SSDI's "emphasis on disability as a status that can be objectively determined through scientific and uniform methods").

^{138.} ORLOFF, *supra* note 60, at 137-38 (discussing the impact of Civil War pensions on immigrants, women, and the elderly).

^{139.} *Id*.

 $^{140.\} See\ Higham,\ supra$ note $18,\ at\ 13$ (discussing distrust during and after the war of immigrant UA soldiers).

^{141.} Burton, supra note 5, at 230.

^{142.} LONN, *supra* note 11, at 658.

German and Irish UA veterans differently, with "the triumph of the melting pot for America's Germans," and the continuation of nationalism for the Irish. ¹⁴³ Perhaps these differences were reflected in the ways in which each group gained access to and received rewards from the pension scheme.

We are pursuing several lines of study in our continuing examination of the extra-disability forces on the lives of UA veterans. One future route, that is an extension of our work on nativity, comes with the expansion of the Civil War data set whereby we intend to compare white and African-American UA pension claimants' access to the system, disability types and severity, attorney usage, and pension outcomes. 144 Estimates suggest that roughly 186,000 African-Americans served in the UA. Most of them were freed from Southern states and they joined the UA in the later years of the war. 145

Carrie Kiewitt, in a study of seventy-three African-American UA veterans in Baltimore, found that one unethical pension attorney overcharged and preyed on these veterans while defrauding the pension bureau, 146 In a more recent study, Donald Shaffer compared the pension experiences of 1,100 white and black UA veterans. 147 He finds, like our results for nativity, that a substantially smaller proportion of black veterans received access to pensions. Shaffer contends that racial inequality in receipt of UA pensions did not stem from the laws, which were written to apply to white and black veterans equally. Rather, discrimination in pensions against African-American UA veterans was the result of social, attitudinal, and economic forces. These negative forces included that black veterans were more likely to face poverty and illiteracy, lack of support in access to the application process, prejudice by pension bureaucrats, and inability to retain honorable attorney advocates. As Shaffer found for African-American UA veterans, we find that the use of pension attorneys by certain types of claimants, such as those with obvious visible disabilities, actually hindered pension outcomes.

Nevertheless, as we have suggested generally, ¹⁴⁸ Shaffer illustrates that many African-American UA veterans successfully exerted their pension

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^{143.} Burton, supra note 5, at 219.

^{144.} See Dora Costa, Memorandum, Early Indicators of Later Work Levels, Disease, and Death, grant site visit response, Feb. 13, 2001 (on file with authors) (discussing study of black UA veterans).

^{145.} See Social Security, supra note 4, at 138 n.128 (citing estimates).

^{146.} Carrie Kiewitt, A Study of Fraud in African-American Civil War Pensions: Augustus Parlett Lloyd, Pension Attorney, 1182-1909, 73-78 (1996) (unpublished M.A. thesis, University of Richmond) (on file with authors); see also Before Disability Civil Rights, supra note 4, at 31-32 (discussing pension attorneys).

^{147.} Donald R. Shaffer, "I Do Not Suppose that Uncle Sam Looks at the Skin": African Americans and the Civil War Pension System, 1865-1934, 46 Civ. WAR HIST. 132, 133-36 (2000) (describing empirical findings).

^{148.} Before Disability Civil Rights, supra note 4, at 49.

rights and proved their "worthiness." ¹⁴⁹ These individuals pursued their rights "in an era that held little other hope of fair treatment for African Americans." ¹⁵⁰ So too, the disabled, foreign-born, and other Americans from under-represented groups have asserted their rights historically in the context of political, social, and economic adversity. Future historical and comparative study is one way to learn more about how the Civil War pension scheme influenced subsequent conceptions of disability, individual "worthiness," and policymaking in the United States, as well as in other societies.

149. Shaffer, *supra* note 147, at 145.

 $^{150.\} Id.$ at 147; see also Gerber, supra note 10, at 85 (noting that one significant omission in the comparative and transnational study of military pension schemes has been veterans' advocacy on their own behalf and by pension lawyers and advocates).

METHODOLOGICAL APPENDIX

A. Ordinary Least Squares (OLS) Models with Robust Standard Errors

A critical assumption required for the OLS standard errors to be correct (unbiased and consistent) is that we have a random and representative sample (the sample observations are independent). Although it is reasonable to assume that the pension applications are independent across different UA veterans, the assumption of independence is inappropriate for different applications on the same veteran. The assumption of independence implies that a veteran's application in one year is unrelated to his applications in other years, which is almost surely false.

One way to think about the breakdown of this assumption of independence for applications on the same veteran is that there is not as much independent information in the sample as implied by the total sample size. The magnitude of the problem depends on the degree of correlation between applications for the same individual. It is an artifact that year-to-year applications for the same veterans are highly correlated, in which case ignoring the non-independence will lead to substantial understatement of the true standard errors and incorrect statistical inference.

The statistical package we use, STATA, enables the standard errors to be adjusted for correlations within veterans. The command "regress" used together with the "cluster" option gives OLS estimates, while allowing the dependent variable to have between-year correlations for a given individual. The standard error adjustment is achieved by assuming an individual-specific random effect that is normally distributed. The correlation between any two different years is assumed to be constant for an individual.

B. Logistic Models (LOGIT)

When we attempt to explain a decision or an outcome measure that is discrete rather than continuous, we can use binary choice models that explain a binary (0/1) dependent variable. For example, we can model the decision for hiring an attorney by creating a variable called "attorney" that consists of only veteran hiring (attorney=1) versus not hiring (attorney=0). Likewise, we can measure a pension ruling outcome by a variable called "ruling increase," which assumes the value of 1 if the applicant received an increase in the monthly pension award, and 0 if the monthly pension award stayed the same or was reduced. To link a binary variable to a set of socioeconomic factors, we can construct a regression model where the probability of an event occurring (e.g., getting a pension increase) is a function of the set of socioeconomic factors. Although the actual values of the dependent variable are either 1 or 0, the predicted values of the dependent variable from the regression model are viewed as probabilities with values between 0 and 1.

The problem with using the Ordinary Least Squares (OLS) method to explain a discrete dependent variable is that OLS suffers a major conceptual flaw. There is no assurance that predictions from the OLS model will reflect probabilities because we cannot constrain the predictions to the zero-one interval. This effect produces nonsense probabilities and negative variances. A minor flaw of OLS is that the error terms are not independent of the explanatory variables. OLS produces non-biased estimates only if the error terms are independent of the explanatory variables. If the error terms are correlated with the explanatory variables, as is the case with a binary dependent variable, OLS estimates are biased.

The Logistic model (LOGIT) produces predictions, expressed as probabilities. In the LOGIT, the probability that a veteran used an attorney or the probability that a ruling increase was granted has a logistic distribution. Unlike the OLS model that is a linear model, LOGIT models are nonlinear. Therefore, the parameters of the LOGIT are not necessarily the marginal effects. Instead, the marginal effects vary with levels of the explanatory variables. In interpreting the estimated model, a common practice is to present the marginal effects at the mean of the explanatory variables. In Figures 13, 17A, and 17B, "marginal effect at the mean" measures the impact of any factor on pension access or pension outcome, evaluated at the mean of all the factors. For example, in Figure 13, the coefficient on the agricultural enlistment occupation is 0.1197. This means that if a recruit was a farm owner or a farm laborer, his odds of applying for pension was on average 0.1197 higher than a recruit who was a skilled worker (omitted occupational category), everything else being equal.

Standard errors of the LOGIT estimates are calculated using the maximum likelihood (MLE) method. One can use the Wald statistics to test the hypothesis that a subset of the coefficients are zero. If the subset consists of only one coefficient, say the coefficient estimate on the k-th factor, the Wald statistics carries the similar interpretation as the t-statistics of an OLS regression coefficient. For example, in Figure 13, the coefficient estimate on the factor "agricultural" is significantly different from zero at the 1% level. The symbol "***" indicates significance at the 1% level. This means that if the true coefficient on "agricultural" would be zero, there is a very slim chance of less than 1% of obtaining the current coefficient of 0.1197. It follows that the true coefficient on "agricultural" must be different from zero.

Although we use in the current study the adjusted R squared as a measure of goodness of fit of an OLS regression model, for the LOGIT model a likelihood ratio (LR) is used to achieve a similar goal. The LR test hypothesizes that all the explanatory factors in the LOGIT regression are irrelevant. In other words, the true coefficients on those factors are jointly zero. To implement the LR test, the log likelihood of a LOGIT specification containing only a constant as the right-hand-side variable (restricted model) is compared with the log likelihood of a LOGIT specification containing both a constant and a set of socioeconomic factors as the right-hand-side variables (unrestricted model). If the difference in the log likelihood between those two specifications is sufficiently large, then it must be that the set of socioeconomic factors provide significant explanatory power to the LOGIT regression.

Following convention, we present $-2\log L$, which is equal to -2 times the difference between the log likelihood of the restricted model and the log likelihood of the unrestricted model. A "p" value of 0.0001 for $-2\log L$ means that if all the socioeconomic factors were irrelevant, there would be a very slim chance of 0.01% that we would obtain the current value for $-2\log L$. In other words, it must be correct to include all the socioeconomic factors because they are not irrelevant.¹⁵¹

^{151.} For a more detailed technical explanation of the regression techniques, see WILLIAM H. GREENE, ECONOMETRIC ANALYSIS ch. 21 (1993).