Civil War Pensions and Disability

PETER BLANCK*

Following the tenth anniversary of the Americans with Disabilities Act (ADA), this article explores the social and political forces influencing disability civil rights one hundred years ago and today. After the Civil War, disabled veterans seeking protection under the law were often portrayed as shirkers, malingerers, and freeloaders. Similarly, passage of the ADA has sparked widespread criticism that the law is aiding "gold diggers" with illegitimate disabilities.

The author analyzes data from news articles and other sources available after the Civil War to empirically illustrate the profound influence that public attitudes have had on disability civil rights. The author suggests that the skepticism toward persons with disabilities is part of a growing ideology that, knowingly or unknowingly, perpetuates attitudinal barriers and unjustified prejudice toward disabled Americans in employment, education, housing, and daily life activities. The study provides a better understanding of these social, political and economic forces and lays the groundwork for public policies that foster greater inclusiveness for persons with disabilities.

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I. INTRODUCTION

This article examines the social construction of laws and policies affecting persons with disabilities. Investigating societal views and reactions to evolving laws and policies—whether politically, culturally, or judicially motivated—that affect the rights of persons of color, women, the elderly, or other groups is not new. What is relatively new is the study of the public attitudes about the civil rights of persons with disabilities. The purpose of this investigation is to explore the ways in which public acceptance and inclusion of disabled persons into society is at least as much driven by political, economic, social, and attitudinal factors regarding conceptions of disability, as by law and policy themselves. Viewed in this way, an enriched analysis emerges of the historical forces affecting the civil rights movement of persons with disabilities in American society.

In the past ten years, disability law and policy have attracted widespread attention from the media, academics, social science researchers and disability advocates. The magnitude and tenor of the debate is not surprising. Since its passage in 1990, the Americans with Disabilities Act (ADA) has become America’s prominent national policy statement affecting disabled persons. Despite the far-reaching implications of the ADA and related policy developments, examination of the actual effects of the law on disabled persons has been limited.

The program of historical and contemporary research described in this article is meant to contribute to the examination of disability law, policy and corresponding public reaction. This investigation examines the ways in which empirical study helps

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3 See, e.g., *Susan E. Marshall, Splintered Sisterhood: Gender and Class in the Campaign Against Woman Suffrage* (1997) (examining the efforts for and against the women’s suffrage movement); *Susan Faludi, Backlash: The Undeclared War Against American Women* (1991) (examining backlash against the women’s movement).


6 For a review of the program of empirical research, see *Peter David Blanck, The Americans with Disabilities Act and the Emerging Workforce* (1998) [hereinafter EMERGING WORKFORCE] (describing the related work of other researchers). The studies described in this
substitute information for unsupported views toward disabled persons in American society. Parts II and III of this article explore attitudes toward disabled veterans during the operation of the Civil War pension scheme from 1862 to 1907. Part IV concludes with a discussion of the implications of this historical study for the examination of contemporary attitudes toward disabled persons and the ADA.

II. CONCEPTIONS OF DISABLED VETERANS AND THE EVOLUTION OF THE CIVIL WAR PENSION SYSTEM

What are disabilities? . . . There are very few men who could not have got a certificate of disability. . . . The door of fraud was thrown wide open to let in those who were not incapacitated for self-support, and to make this virtually a service pension for all who would testify that they had some kind of a disease in their system. . . . It is safe to say that only a fraction of these "disabilities" were such as were intended by the law, loose and liberal as it was, to give title to a pension.

—Editorial, New York Times, 1894

I fear . . . that many able-bodied Americans are latching onto the Americans with Disabilities Act. If these parasites keep filing lawsuits claiming eligibility under a law designed to remedy discrimination against people with genuine shortcomings—and winning—how soon before there's a national backlash that unfairly encompass the blind, the lame, and others with serious handicaps.

—Editorial, Chicago Sun Times, 1998

Among its most profound effects, the Civil War dramatically changed conceptions of disabled persons in American society. To a large extent, attitudes toward the large numbers of returning Union Army veterans with disabilities were shaped by political and economic forces coinciding with the growth of the Civil War pension system. The empirical information with respect to attitudes and behavior article are part of a program of research on the ADA designed to help generate hypotheses and a theoretical approach to assessment of the law. Cf. BD. OF SCIENTIFIC AFFAIRS, AM. PSYCHOLOGICAL ASS'N, TASK FORCE ON STATISTICAL INFERENCE INITIAL REPORT (Dec. 1996), available at http://www.apa.org/science/tfsi.html (discussing need for exploratory hypothesis generating research in the social sciences).

7 See Figure 1, infra p. 115 (illustrating overview of present research model); see also Frederick Collignon, Is the ADA Successful? Indicators for Tracking Gains, 549 ANNALS AM. ACAD. POL. & SOC. SCI 129 (Jan. 1997) (suggesting that reductions on welfare dependency programs by persons with disabilities may be one important indicator of effective ADA implementation over time).


10 For extensive discussion of the political and social forces behind the growth of the Civil
toward disability presented in this article is part of a larger investigation exploring the lives of these Union Army veterans.11

Figure 1 provides an overview of the present investigation, illustrating the two major studies on the lives of disabled Civil War veterans. Study I examines the portrayal in the press of the Civil War pension system and of veterans with disabilities. Study II examines the actual workings of the pension system over time and the extent to which the system performed disability screening and gatekeeping functions.

More specifically, Study I involves a media content analysis of several hundred news and magazine stories written between the years 1862 and 1907 that commented on the operation of the Civil War pension system. Study I examines the extent to which criticism in the press targeted against disabled veterans in particular, and against the pension system in general, was associated as much with partisan politics of the day as with the actual workings of the pension system. Findings are presented based on the content analysis of news stories and editorials identified from various sources that were tabulated and rated independently on dimensions such as their stated party affiliation, portrayal the pension system, and opinions toward veterans’ disabilities.

Study II examines factors that are hypothesized to help in the prediction of pension awards during the time period 1862–1907. The research model’s outcome measures are presented in the right column of Figure 1. The measures used to predict pension awards, identified in the left column of Figure 1, include the type and severity of a claimant’s impairment and his occupation and age. The examining surgeon’s medical screening process used to calculate awards is illustrated in the middle column of Figure 1 as an intervening factor in the pension decision making process. Study II


11 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, VERSION S-0 (ADVANCE RELEASE), SURGEON’S CERTIFICATES, OHIO, PENNSYLVANIA, NEW YORK AND ILLINOIS REGIMENTS, 1860–1940, DATA USER’S MANUAL (1996) [hereinafter DATA USER’S MANUAL]. The central goal of Dr. Fogel’s research is to examine social, legal, historical, medical, and economic factors affecting the aging process.
reports findings from the first wave of data collected involving approximately 6,600 veterans from four Northern states, derived from a larger data set of approximately 36,000 White, male, Civil War veterans from nineteen states and 331 Union Army Companies.

Figure 1: Study of Civil War Pension Awards and Conceptions of Disability

<table>
<thead>
<tr>
<th>Predictor Measures</th>
<th>Intervening Factors</th>
<th>Outcome Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partisan Politics</td>
<td>Funding System</td>
<td>Pension Decision</td>
</tr>
<tr>
<td>Portrait in the Press</td>
<td>1862 General Law</td>
<td>Zero Rating or Monthly Award</td>
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<tr>
<td></td>
<td>1879 Arrears Act</td>
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<td></td>
<td>1890 Disability Pension Act</td>
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<tr>
<td>Study II</td>
<td></td>
<td></td>
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<tr>
<td>Disability</td>
<td>Surgeon's Evaluation</td>
<td></td>
</tr>
<tr>
<td>Service-Related</td>
<td>Disability Rating Rules</td>
<td></td>
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<tr>
<td>Type</td>
<td>Personal Attitudes</td>
<td></td>
</tr>
<tr>
<td>Severity</td>
<td>Diagnostic Capabilities</td>
<td></td>
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<tr>
<td></td>
<td>Treatment Capabilities</td>
<td></td>
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<tr>
<td></td>
<td>Age</td>
<td></td>
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<tr>
<td>Claimant's Age at First Pension Exam</td>
<td></td>
<td></td>
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<tr>
<td>Social Stigma</td>
<td></td>
<td></td>
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<tr>
<td>Perceived Legitimacy of Disability</td>
<td></td>
<td></td>
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<tr>
<td>Social Class</td>
<td></td>
<td></td>
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<tr>
<td>Claimant's Occupation</td>
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</tbody>
</table>
Studies I and II explore three initial hypotheses that are illustrated by the research model presented in Figure 1 and discussed in detail later in this article:

1. the tenor and magnitude of criticism in the press directed against disabled veterans in particular, and against the pension system in general, will have at least as much to do with party politics of the day as with the actual workings of the pension system (Study I);

2. the perceived legitimacy of and stigma toward veterans’ disabilities will be predictive of pension awards, independent of the actual severity of the disabilities themselves (Study II);

3. the socio-economic characteristics of the veterans, in particular occupational status, will contribute substantially to the prediction of pension awards (Study II).

Examination of these hypotheses using the research model in Figure 1 helps to illustrate that views about disability historically and, as discussed later in the article, today often have less to do with the operation of law and policy than with underlying attitudinal and politicized views toward disabled persons. Claire Liachowitz has concluded that such examination of laws and politics affecting disabled persons is in fact a primary way “to understand disability as a social creation.” The present investigation of disability as a social concept is attempted through historical and empirical analysis of the Civil War pension system in the context of evolving perceptions in American society toward a then new class of disabled persons. The following overview of the Civil War pension system is set forth to ground the investigation in the social and political context of nineteenth-century America.

Secondary questions to be studied include: what are the prevailing medical, social, economic, and legal conceptions of mental and physical disabilities incurred by Northern soldiers during and after the Civil War?; what impact did a veteran’s disability have on re-inclusion or enfranchisement in society (e.g., through employment or other means)?; and, what historical, social, and legal factors influenced conceptions of actual versus feigned (i.e., malingering) disability during the time period of study?

Claire H. Liachowitz, Disability as a Social Construct: Legislative Roots 2, 19–41 (1988) (commenting that “the formal response of legislation reflects not only a history of what society defines as problems, but also a history of how laws have affected and shaped those problems.”). Liachowitz also analyzes military pension laws and conceptions of disability. Id.

A description of the Civil War data set and methods of study are provided in detail in Data User's Manual, supra note 11.
A. Disability After the Civil War and the Growth of the Pension System

We confront historical practices giving particular significance to traits of difference. . . . Why do we encounter this dilemma about how to redress the negative consequences of difference without reenacting it?

–Martha Minow

The development of the Civil War pension laws has been the subject of extensive commentary but little empirical study. Theda Skocpol has examined the ways in which social and political forces behind the growth of the pension system led to federal government involvement in social welfare programs of the twenty-first century. Extensive discussion of the Civil War pension system and its social and political legacy is beyond the scope of this article. An overview of the evolution of the system, however, illustrates the ways in which public portrayals, and economic and partisan forces shaped attitudes toward disabled veterans and the pension system.

There are two primary time periods in the evolution of the Civil War pension system. The first time period extends over the years 1862 to 1890, under which “Disability Pension System” awards were based on war-related impairments. During the subsequent period from 1890 to 1907, the “Service-Based Pension System” linked awards first to length of military service and later to age.

1. The Disability Pension System: 1862–1890

The need to raise an army and bolster nationalist sentiment was responsible for Congress’s passage of the Civil War pension system in 1861, shortly after commencement of the war. The 1861 Act provided pensions for disabled veterans and for the widows and minor children of slain soldiers. As the war progressed and recruits were needed, a comprehensive pension system became necessary. In 1862, Congress passed the “General Law System.” The General Law prescribed that

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17 For extensive discussions, see generally Skocpol, Social Security, supra note 10; Skocpol, Soldiers, supra note 10.


19 Digest of Pension Laws, Decisions, Rulings, Orders, Etc. 1885 (Frank Curtis &
pension benefits were to be awarded to veterans with war-related disabilities and established a medical screening system for rating and compensating disabilities.\textsuperscript{20}

Under the General Law, claimants were rated with respect to their "total disability for the performance of manual labor requiring severe and continuous exertion."\textsuperscript{21} The definition of total disability in relation to the ability to perform manual labor was interpreted subsequently to include other types of labor that required "education or skill."\textsuperscript{22} The Pension Bureau retained physicians to screen and rate claimants' disabilities, completing standard "surgeon's certificates."

One primary measure of the severity of a claimant's disability therefore was the surgeon's ratings of the claimant's degree of "total disability."\textsuperscript{23} Medical screen ratings were categorized for diseases and disabilities, including those resulting from battle wounds, infectious diseases, and nervous system disorders.\textsuperscript{24} Awards for particular disease and disability categories were increased by various acts of Congress.

Under the General Law, a Northern army private in 1862 received a maximum of $8 per month for being rated as "totally disabled."\textsuperscript{25} A veteran whose disability was rated as less than "total" received a proportion of the total amount of $8. For purposes of compensation, the system defined fractional rates of total disability for specific diseases or conditions. For instance, a war-related lost finger or small toe was compensated by a prescribed rating of 2/8 totally disabled, with a corresponding

\begin{footnotesize}
\begin{itemize}
  \item William Webster eds., 1885) [hereinafter DIG. OF PENSION LAWS] (referencing Act of July 14, 1862—General Law System).
  \item Skocpol, Social Security, supra note 10, at 93; DATA USER'S MANUAL, supra note 11, at 135–36; see also GLASSON, supra note 16, at 125 (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") The General Law also provided for the widows, children, and other dependents of soldiers who died in military service. Id.
  \item Skocpol, Social Security, supra note 10, at 93; DATA USER'S MANUAL, supra note 11, at 135.
  \item DATA USER'S MANUAL, supra note 11, 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 ECONOMIC HISTORY 1880–1990, at 36 (1998) [hereinafter COSTA] (noting that inability to participate in the labor force became the standard means for compensation in subsequent American pension and support programs).
  \item See infra note 249 and accompanying text (discussing definition of total disability as a measure of inability to perform manual labor and that pension ratings greater than 100% total disability, though relatively uncommon, could be awarded in circumstances requiring attendant and personal care services for severely disabled veterans and could change over time and with age).
  \item 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 infra notes 257–71 (discussing data analysis).
  \item DATA USER'S MANUAL, supra note 11, at 135–36 (officers were compensated at a higher proportional rate). See also infra notes 305–06 and accompanying text (discussing present value of average wages of Civil War pensioners).
\end{itemize}
\end{footnotesize}
pension allotment of $2 per month. A war-related 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.26

Given the need for recruits, the duration of the war, and the magnitude of the injuries received by veterans, 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.27 The modifications to the General Law increased the rate of compensation for severe disabilities that were neither self-evident nor easily ascertainable by the existing medical practices.28

By 1866, conditions and diseases such as malaria, measles, and sunstroke were compensated based on their “equivalence in disability” to physical war-related wounds.29 Veterans who lost both feet received $20 monthly pension compensation, whereas those who lost both hands or both eyes received $25.30 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.31

By the early 1870s, a complex system of pension ratings for war-related disabilities had evolved.32 In fiscal year 1870, the government spent $29 million on pensions, doubling the $15 million that had been spent on pensions in 1866.33 Partly in response to the dramatic 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.34

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26 Data User’s Manual, supra note 11, at 136–37 (providing other examples); Skocpol, Social Security, supra note 10, at 93.
27 Skocpol, Social Security, supra note 10, at 93.
28 Glasson, supra note 16, at 130 (citing statutory changes).
29 Data User’s Manual, supra note 11, at 136–37 (listing examples of surgeons’ disability ratings examined).
30 Id. (providing examples).
31 Id. at 136 (citing Dig. of Pension Laws, supra note 19, at 501, and noting that the Act of June 8, 1872, further increased monthly pension allocations to a maximum of $31.25).
32 Id. at 136–37 (summarizing changes in monthly sums awarded for specific conditions and disabilities).
33 See Glasson, supra note 16, at 123, 273 (presenting statistical tables on pension expenditures); see also Figure 2, infra p. 121. (Illustrating pension expenditures and number of claimants over time).
34 See Data User’s Manual, supra note 11, 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
Controversy stemmed from the fact that the 1873 Act compensated veterans for conditions or diseases contracted in military service that subsequently caused disabilities. After the 1873 Act, even though a veteran might not have been disabled for years after his military discharge to prevent him “from earning his living by his ordinary occupation,” a disability shown to have originating causes from military service was pensionable.

Given medical diagnostic knowledge of the day, the 1873 Act created challenges involving the consistency and fairness in the screening ratings regarding the progression of disease and subsequent disability. Soon after implementation of the 1873 Act, newspapers began to run stories on alleged “pension frauds,” claiming exaggerated and faked disabilities were being diagnosed by biased surgeons. Stories referred to “bogus” pension applicants and their collaborator pension claim agents.

By 1888, the number of pensions granted under the General Law was greater for diseases claimed to be the result of earlier war-related conditions such as rheumatism and cardiovascular disease, than for injuries received in battle such as gunshot wounds, shell injuries, and amputations. Although no official statistics were available at that time, Figure 2 illustrates the number of pensions granted from 1862 to mid-1888 by disease and disability category according to the 1888 Commission of Pensions Report to Congress.

at $15 per month for those disabled so to be unable to “perform manual labor equivalent to the loss of a hand or a foot.” Id.

For example, claimants have suffered from heart disease or chronic bronchitis caused by pneumonia while in the army. See GLASSON, supra note 16, at 136. 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). Id. at 137 (citing other examples); see also Figure 10, infra p. 160. (showing that for the present sample, first time claims peaked immediately after passage of the 1890 Disability Pension Act).

See GLASSON, supra note 16, at 136–39 (discussing related problems). See also infra notes 177–85 (discussing related issues affecting the method of the research). See also COSTA, supra note 22, at 61 (stating that because nineteenth-century medicine could not cure chronic conditions, estimated disease rates for Union Army pension claimants were based on the assumption that a specified chronic condition was permanent).

See, e.g., A Movement for Pension Reform, N.Y. TIMES, Sept. 8, 1875, at 5.


See GLASSON, supra note 16, at 138 (citing data describing nature of pensions granted from 1865 to 1888).
**Figure 2: Classification of All Disabilities for Which Pensions Were Granted During the Years 1862 to Mid-1888***

<table>
<thead>
<tr>
<th>Disability</th>
<th>No. of Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gunshot and shell wounds</td>
<td>117,947</td>
</tr>
<tr>
<td>Chronic diarrhea</td>
<td>55,125</td>
</tr>
<tr>
<td>Incised &amp; contused wounds &amp; other injuries</td>
<td>41,049</td>
</tr>
<tr>
<td>Rheumatism, including muscular</td>
<td>40,790</td>
</tr>
<tr>
<td>Disease of heart</td>
<td>25,994</td>
</tr>
<tr>
<td>Disease of lungs</td>
<td>23,471</td>
</tr>
<tr>
<td>Disease of rectum</td>
<td>22,517</td>
</tr>
<tr>
<td>Disease of eyes</td>
<td>15,251</td>
</tr>
<tr>
<td>Single hernia</td>
<td>15,043</td>
</tr>
<tr>
<td>Varicose veins</td>
<td>10,932</td>
</tr>
<tr>
<td>Amputations</td>
<td>9,159</td>
</tr>
<tr>
<td>Partial deafness</td>
<td>8,267</td>
</tr>
<tr>
<td>Disease of stomach</td>
<td>7,745</td>
</tr>
<tr>
<td>Malarial poisoning</td>
<td>7,151</td>
</tr>
<tr>
<td>Nervous prostration</td>
<td>5,320</td>
</tr>
<tr>
<td>Disease of liver</td>
<td>4,813</td>
</tr>
<tr>
<td>Chronic bronchitis</td>
<td>3,932</td>
</tr>
<tr>
<td>Disease of throat</td>
<td>3,671</td>
</tr>
<tr>
<td>Nasal catarrh</td>
<td>3,320</td>
</tr>
<tr>
<td>Blood poisoning</td>
<td>3,104</td>
</tr>
<tr>
<td>Disease of kidneys</td>
<td>3,029</td>
</tr>
<tr>
<td>Varicocele</td>
<td>2,887</td>
</tr>
<tr>
<td>Disease of spinal cord</td>
<td>2,619</td>
</tr>
<tr>
<td>Muscular disease of the leg</td>
<td>2,255</td>
</tr>
<tr>
<td>Asthma</td>
<td>2,203</td>
</tr>
<tr>
<td>Disease of mouth</td>
<td>2,177</td>
</tr>
<tr>
<td>Neuralgia</td>
<td>2,144</td>
</tr>
<tr>
<td>Disease of scrotum and testes</td>
<td>2,119</td>
</tr>
<tr>
<td>Results of fevers</td>
<td>1,729</td>
</tr>
<tr>
<td>Disease of bladder</td>
<td>1,523</td>
</tr>
<tr>
<td>Epilepsy</td>
<td>1,512</td>
</tr>
<tr>
<td>Sun-stroke, results of</td>
<td>1,454</td>
</tr>
<tr>
<td>Total deafness</td>
<td>1,420</td>
</tr>
<tr>
<td>Ulcers</td>
<td>1,242</td>
</tr>
<tr>
<td>Muscular diseases of the foot</td>
<td>1,225</td>
</tr>
<tr>
<td>Disease of brain, including insanity</td>
<td>1,098</td>
</tr>
<tr>
<td>Double hernia</td>
<td>1,090</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>11,600</td>
</tr>
<tr>
<td><strong>Total Pensions Granted</strong></td>
<td><strong>406,702</strong></td>
</tr>
</tbody>
</table>

*See GLASSON, supra note 16 at 138 (citing REPORT OF THE COMMISSIONER OF PENSIONS FOR 1888, 12 H.R. EXEC. DOC., at 68–69 (50th Cong., 2d Sess. 1888)). During the years 1862 to 1888, of the 406,702 pensions granted, 168,155 (approximately 41%) involved war-related injuries (i.e., gunshot and shell wounds, incised and contused wounds and other injuries, and amputations). Approximately 29% of the total pensions granted were for gunshot and shell wounds.
During the years 1862–1888, of the 406,702 pensions granted, 168,155 pensions—approximately 41%—were awarded for gunshot and shell wounds, amputations, and battlefield wounds. During the same period, 238,547 pensions—59% of the total—were granted for diseases and disabilities not incurred in wartime conditions. Figure 2 illustrates also that 14% of the claimants suffered from chronic diarrhea and 10% from muscular conditions, such as rheumatism. Evident in these statistics is that the majority of claimants were not disabled as a direct result of battle injuries.

Another significant development that fostered the growth of the pension system was the use of arrears—or back pension payments—as a means to attract “deserving” veterans who had not applied for pensions. Prior to 1879, proponents of arrears advocated that payments should be paid dating back to the veteran’s discharge, at the rate that the pension would have been granted, rather than commencing from the date of filing the claim. Advocates argued that arrears payments should apply to pension claims that already had been allowed, as well as to new claims. 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.

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. The 1879 Act provided pension arrears to future applicants who could establish disability claims, regardless of the date when presenting the claim.

The immediate effect of the Arrears Act was threefold: first, the Act increased the

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41 Id.
42 Id. However, additional study is required to examine the ties among disability claims, battle injuries and camp activities.
43 See also Figure 2, supra p. 121 (showing that less than 5% of claimants were pensioned for apparent nervous disorders).
44 See GLASSON, supra note 16, at 150–53 (discussing Arrears legislation); see also Figure 3, infra p. 128 (illustrating expenditures and numbers of pensioners from 1866 to 1907).
45 See GLASSON, supra note 16, at 151 (discussing issues and providing examples of application of arrears).
46 Id.; see also Figure 3, infra p. 128 (illustrating expenditures and numbers of pensioners from 1866 to 1907).
47 See GLASSON, supra note 16, at 152–53 (noting that prior to 1879 Arrears Act there was a five year statute of limitation to establish a pension claim, and related limitations to application of arrears by widows and dependents of veterans).
48 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) [hereinafter McCONNELL, GLORIOUS CONTENTMENT] (noting that the Arrears Act did not alter the classification scheme for awarding pensions on the basis of war-related disability).
49 GLASSON supra note 16, at 166, 174–75 (discussing the flood of claims brought by attorneys and agents who received a fee for their services).
number of veterans applying for and receiving disability-based pensions; second, the influx of new claims associated with the Arrears Act galvanized the interests of this new political constituency that was recognized quickly by the Republican and Democratic parties; and third, the Act ignited a political debate in the press on purported abuses of the system and the illegitimacy of large numbers of disability claims. A common view of the day, as exemplified in an 1887 editorial in the Chicago Tribune, was that the Arrears Act placed "a premium upon, fraud, imposition, and perjury" with regard to the nature of claimed disabilities.

By 1885, under the General Law, 54% of all disability pension requests were granted. Yet questions in the press were raised about whether the General Law had led to its intended effect that awards met the requirements of proof that the claimant's disability or death was war-related. Little empirical study has been conducted on whether the General Law served such an effective pension screening or gatekeeping function.

By 1887, political forces directed by the lobby of the Grand Army of the Republic (G.A.R.) were engaged in a movement to replace the General Law with pensions based solely on military service, regardless of the origin of the disability.

50 See Figure 3, infra p. 128 (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).


52 GLASSON, supra note 16, at 164–65, 167, 202–04 (also 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 11, at 135–36 (describing rise in number of pensioners and related expenditures over time); Skocpol, Social Security, supra note 10, at 102 (arguing that the Arrears Act originated from a strong lobby by pension attorneys who collected $10 pension application fees and noting that before 1879 average claim filing was 1,600 per month, after 1879 Arrears Act average filing was more than 10,000 per month). For newspaper stories, see Arrears of Pensions, N.Y. Times, Nov. 12, 1881, at 4; The Time's Pension Articles: The Plundering by Greedy Pensioners and Speculators Should Stop, N.Y. Times, May 2, 1894, at 4.

53 A Serpent of Temptation, CHI. TRIB., cited in 2(44) PUB. OPINION 369 (Feb. 12, 1887). See also N.Y. TRIB. cited in 2(44) PUB. OPINION 371 (Feb. 12, 1887) (concluding that the Arrears Act "offers a premium to fraud.").

54 GLASSON, supra note 16, at 204 (showing that, by 1885, of 555,038 pensions claimed for war-related disability, 300,204 were granted; during this period roughly 45% of claims by widows, minor children, and dependent relatives were granted (220,825 of 335,296 claims). Skocpol estimates that the Pension Bureau refused about 28% of the pension applications received between 1862 and 1875. See Skocpol, Social Security, supra note 10, at 94–95.

55 GLASSON, supra note 16, at 204.

56 See infra notes 121–55 and accompanying text (describing findings from analysis of news stories during the period).

57 GLASSON, supra note 16, at 204 (describing social and political forces, and legislative
Democratic President Grover Cleveland vetoed a bill that would have provided such "service-based" pensions in 1887. In his veto message, Cleveland stated:

In the execution of this proposed law under any interpretation, a wide field of inquiry would be opened for the establishment of facts largely within the knowledge of the claimants alone; and there can be no doubt that the race after the pensions offered by this bill, would not only stimulate weakness and pretended incapacity for labor, but put a further premium on dishonesty and mendacity.\(^{58}\)

Cleveland's subsequent unpopularity with the G.A.R. was a leading cause in his defeat and the election of the Republican Party candidate Benjamin Harrison in 1888.\(^{59}\) Two years later, Harrison signed into law the Service-Based Pension System set out in the Disability Pension Act of 1890.\(^{60}\)

2. The Service-Based Pension System: 1890–1907

On June 27, 1890, almost one hundred years prior to the passage of the Americans with Disabilities Act, Congress passed the Disability Pension Act.\(^{61}\) The 1890 Act was a service-based pension system, setting forth new requirements related to length of military service and expanding eligibility to include physical and mental disabilities not related to wartime experience and regardless of origin.\(^{62}\) The definition of disability in the 1890 Act, as in earlier laws, was based largely on an individual's incapacitation in the performance of labor. The 1890 Act, however, did

\(^{58}\) GLASSON, supra note 16, at 210–11 (emphasis added) (quoting President Cleveland's veto message, and noting that Cleveland believed that the tax revenues needed to fund the law would obstruct his plan for reform of the federal taxation system).

\(^{59}\) McCONNELL, GLORIOUS CONTENTMENT, supra note 48, at 149 (noting that in the 1880s electoral support for the two major parties was equally divided and the presidential elections of 1880 and 1884 were decided by small margins—9,464 and 23,005 votes—with the G.A.R. votes crucial to the outcomes). See also id. at 152 (commenting that Harrison campaigned on the pledge that this was "no time to be weighing the claims of old soldiers with apothecary's scales").

\(^{60}\) GLASSON, supra note 16, at 204, 225 (describing legislative history of 1890 Act and commenting on the political advantage gained by the Republicans on the pension debate).

\(^{61}\) The law is referred to as the Disability Pension Act of 1890 or the Dependent Pension Act of 1890. See Sanders, supra note 51, at 141–42 (commenting that during the passage of the 1890 Act the Republicans controlled both houses of Congress and the Presidency).

\(^{62}\) DATA USER'S MANUAL, supra note 11, at 140–41 (summarizing the 1890 law's requirements of military service for ninety days during the Civil War); GLASSON, supra note 16, at 236 (the 1890 Act required the veteran be honorably discharged).
not require the claimed disability to be related to military service,\textsuperscript{63} as long as it was not the product of "vicious habits or gross carelessness."\textsuperscript{64} In addition to incapacitation, subsequent modifications to the 1890 Act provided compensation to veterans who required periodic personal aid or the attendance of another person.\textsuperscript{65}

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."\textsuperscript{66} The numbers of pensioners and federal expenditures swelled after 1890 and the amount the government spent on pensions that year was $106 million.\textsuperscript{67} In his often cited work, Progressive-era scholar William Glasson commented that:

For the favored class, the act of 1890 provided what was practically a species of paid-up insurance against bodily disability of a permanent character caused by accident or chronic disease. The premium was a service of ninety days or more during the Civil War. Pensions were provided for the highly paid but rheumatic lawyer, for the prosperous business man hurt in a street accident, for the ex-soldier public official with heart disease, and for the mechanic who had lost a hand in an industrial accident.

[The 1890 Act] was a measure calculated to bring about dependence on public aid and the simulation of bodily ills on the part of those who were in ordinary physical condition for their time of life and well able to care for themselves. There was every encouragement to the ex-soldiers to discover in themselves, and magnify, ailments which would have been little noticed but for the pension laws.\textsuperscript{68}

Glasson's conclusions regarding the impact of the 1890 Act were stark:

The propriety of this use of the power of taxation to redistribute wealth depends upon the justification of the act of 1890 as a military pension law. . . . To a great extent the necessities and comforts of the poor were taxed, and the resulting funds paid out in gratuities to persons who were better off than a large proportion of the taxpayers.\textsuperscript{69}

\textsuperscript{63} See GLASSON, \textit{supra} note 16, 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); Skocpol, \textit{Social Security, supra} note 10, at 96 (stating that old age became sufficient for disability and discussing the political ramifications of the passage of the 1890 Act).

\textsuperscript{64} For findings from the analysis of claimants' "vicious habits" (e.g., alcohol, drug, and tobacco use, as coded from the examining surgeons' medical notes), see \textit{infra} note 224 and accompanying text.

\textsuperscript{65} \textsc{DATA USER'S MANUAL, supra} note 11, at 140–41 (providing examples); see also GLASSON, \textit{supra} note 16, 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 husband's death).

\textsuperscript{66} Skocpol, \textit{Social Security, supra} note 10, at 114; GLASSON, \textit{supra} note 16, at 233.

\textsuperscript{67} GLASSON, \textit{supra} note 16, at 123.

\textsuperscript{68} Id. at 236–37 (emphasis added).

\textsuperscript{69} Id. at 238–39 (emphasis in original).
The number of pensioners increased from 300,000 in 1885, to 1 million in 1893, consuming 42% of the federal government’s income. The growth in the system after 1890 led to new claims in the press of excess, fraud, and corruption. Pension awards increasingly were portrayed publicly as windfall payments to “undeserving” individuals who exaggerated their disabilities. Impairments that were “different,” less visible, or less understood at the time, such as those related to mental conditions, were the subject of particular criticism.

In 1904, progressive Republican President Theodore Roosevelt broadened the scope of the 1890 Act with the issuance of Executive Order No. 78. Order No. 78 provided that old-age itself was a “disability” covered by the 1890 Act, even if no medically disabling cause was claimed and regardless of the claimant’s level of income, provided the claimant showed ninety days service and an honorable discharge. Roosevelt used his executive power to transform the 1890 Act into a service-and-age pension law.

In 1907, the 1890 Act was replaced formally by the Service and Age Pension system—referred to as old-age pensions—that granted pensions based on a veteran’s age and length of military service. The 1907 law provided that veterans over the age of sixty-two years were to receive pensions, with graduated increases in payments with age. Most veterans pensioned under the 1890 Act eventually transferred to the

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70 Skocpol, Social Security, supra note 10, at 114; DATA USER’S MANUAL, supra note 11, at 147–51 (charts summarizing growth in the pension system); see also Maris A. Vinovskis, Have Social Historians Lost the Civil War? Some Preliminary Demographic Speculations, in TOWARD A SOCIAL HISTORY OF THE AMERICAN CIVIL WAR 1, at 25 (Maris A. Vinovskis ed., 1990) (finding that about 1% of the White population received veterans’ pensions in 1870 and about 4% in 1900; however, in 1870, 56% of White males aged 25–29, and 34% aged 30–34 were Union Army veterans; and concluding, therefore, that in 1870 about 1% of White males age 25–34 received pensions while by 1900, 30% of White males aged 55–59 received pensions).

71 Skocpol argues that, after 1890, the pension system became a negative policy precedent for reformers who perceived fraud in the system, and thereby led to obstruction of general pension reforms of the early twentieth century in the areas of workmen’s social insurance and elderly programs. See SKOCPOL, SOLDIERS, supra note 10, at 151.

72 See, e.g., Donald Lee Anderson & Godfrey Tryggve Anderson, Nostalgia and Malingering in the Military during the Civil War, 28(1) PERSP. IN BIOLOGY AND MED. 156–66 (1984) (citing sources of the time, such as W. Keen, et al., On Malingering, Especially in Regard to Simulation of Diseases of the Nervous System, 48 AM. J. MED. SCI. 367 (1894)); cf infra note 224 and accompanying text (analyzing claimants’ “vicious habits”).

73 GLASSON, supra note 16, 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).

74 Id. at 248–49.

75 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).
rolls under the 1907 Act to receive higher rates.\textsuperscript{76} Congress passed subsequent legislation in 1908, 1912, 1917, 1918, and 1920 that increased the Civil War pension rates based on age and length of military service.\textsuperscript{77}

In 1907, it was estimated that the 1890 Act had cost the taxpayers over $1 billion.\textsuperscript{78} Between 1870 and 1910, the proportion of veterans receiving pensions rose from 5\% to 93\%.\textsuperscript{79} Figure 3 summarizes Civil War pension expenditures and numbers of pensioners during the years 1866 to 1907.\textsuperscript{80} By 1907, the General Law had been transformed from "a provision for compensation of combat injuries into a de facto system of old age and disability protection."\textsuperscript{81}

\textsuperscript{76} Id. at 250.

\textsuperscript{77} For a review of legislation relevant to the research project, see DATA USER'S MANUAL, \textit{supra} note 11, at 140–42; GLASSON, \textit{supra} note 16, at 258–74.

\textsuperscript{78} See GLASSON, \textit{supra} note 16, 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); \textit{cf.} William H. Glasson, \textit{The South's Care for Her Confederate Veterans}, 36 \textit{AMER. MONTH. REV. REV.} 40–47 (1907) [hereinafter Glasson, \textit{South's Care}] (discussing and comparing Confederate pension system, for instance, that 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 dollars for those with most severe disabilities, but only 127 $60 payments and more than 14,000 $30 awards; finding that 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; in 1906 South Carolina disbursed roughly $198,000 to 7,800 Confederate veterans at approximately $26 annual rate); \textit{see also} William H. Glasson, \textit{The South and Service Pension Laws}, 1(4) \textit{So. ATLANTIC Q.} 351–60 (1902) (discussing inequities in support of federal versus Confederate pension systems).


\textsuperscript{80} See also ISAAC M. RUBINOW, SOCIAL INSURANCE 405 (1913) (discussing similar findings).

\textsuperscript{81} ORLOFF, \textit{supra} note 79, at 134 (discussing the evolution of the Civil War pension system and presenting chart using Glasson's data).
Figure 3: Civil War Pension Expenditures and Number of Pensioners (1866–1907)*

III. CONCEPTIONS OF DISABILITY AND THE POLITICS OF THE CIVIL WAR PENSION SYSTEM

It is pretended that, the soldiers were sound and hearty when they went into the army, they were enfeebled by hardship and disease when they came out of it . . . [Veterans] at the close of the war were not composed of sickly and vitiated men. They were fairly rollicking with health, they were full of "lusty life." Yet we are told they carried millions of mortal microbes in their knapsacks and all manner of diseases latent in their blood—diseases which needed only pension laws to develop them into activity.

—General M.M. Trumbull

The cripple is simply not attractive enough, either in his physical presence, which is embarrassing to host and viewers, or in his rhetoric, which simply cannot afford the bombastic luxuriance characteristic of confessional militancy.

—Leonard Kriegel

A. The Politics of Disability after the Civil War

The preceding section described the political forces behind the shift from the General Law to the Service-Based Pension system. Glasson concluded that the 1890 Act simply "was a bid for the political support of the 450,000 G.A.R. men and other ex-soldiers, with both the Republican and Democratic parties bidding." As compared to the General Law, the 1890 Act redistributed federal tax dollars to states from which the Union Army was recruited and "the reasonableness and propriety of the act as a pension measure depend[ed upon] the justice of such a distribution."

In many ways, the controversy surrounding the Civil War pension system parallels the public debate today over evolving disability law and welfare policy.

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82 M.M. Trumbull, Pensions for All, 39 POPUL. SCIENCE MONTHLY 721, 723 (1889) ("Veteran diseases" are those miraculous ailments which rage unsuspected in the bodies of old soldiers until seductive pension laws bring them to the notice of the sufferers"); cf. Green B. Raum, U.S. Commissioner of Pensions, Pensions and Patriotism, 153 N. AM. REV. 205, at 211 (1891) (arguing the need for pensions for the many deserving disabled veterans).

83 Kriegel, supra note 1, at 413.

84 ORLOFF, POLITICS OF PENSIONS, supra note 79, at 231 (describing that from the late 1870s to the 1890s, electoral competition in the North was fierce among the Republicans and Democrats, and a few hundred votes could make the difference in an election in states like those sampled in the present investigation).

85 GLASSON, supra note 16, at 238; see also Sanders, supra note 51, at 138 (commenting that the G.A.R. membership grew from 31,000 in 1878, to 295,000 in 1885, and to 409,000 in 1890).

86 GLASSON, supra note 16, at 239. Glasson taught political economics at Trinity College (now Duke University) in North Carolina. The influence of Glasson's background on his views toward the federal pension system is unknown.
Certainly, the nature of the debate was different one hundred years ago. Yet, each period reflects politicized attitudes about targeted disabled persons, often detached from the workings of law and policy themselves and from the needs of the disabled persons that the laws were designed to assist.

Later in this article, Study I will examine how the political bidding by the Republican and Democratic parties for the votes of ex-soldiers was portrayed in news stories and editorials and based on stereotypic images of disabled Union veterans. In a similar vein, Michele Landis has discussed how the origins and criticisms of the American welfare state, to which persons with disabilities were intimately tied, are founded on historical narratives of “blame and fate” related to the moral worthiness of needy disabled persons. Claire Liachowitz has argued likewise that the devaluation of disabled persons in American society historically may be traced to social conceptions of personal responsibility and individual potential for economic usefulness.

To what extent did partisan rhetoric in the press about the legitimacy and deservingness of veterans’ disabilities bear relation to the actual operation of the pension system? An 1887 article in the Philadelphia Times, an independent paper, illustrated the tenor of the debate: “We appeal to the honest soldiers of the Republic to be honest with themselves and honest with the free government they saved to mankind, by a prompt and bold protest against the recognized equality of soldiers and

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87 For instance, Harvard University’s President Eliot, a prominent social reformer, “mugwump,” and Republican turned Democrat, criticized the expansion of the pension system as an outgrowth of Republican patronage politics and corruption. See SKOCPOL, SOLDIERS, supra note 10, at 1. Eliot described the Civil War pension system as “a wrong inflicted upon the republic” and attacked disabled veterans: “one cannot tell whether a pensioner of the United States is a disabled soldier or sailor or a perjured pauper who has foisted himself upon the public treasury.” ORLOFF, supra note 79, at 232.

88 See, e.g., U.S. COMM’N ON CIVIL RIGHTS, HELPING EMPLOYERS COMPLY WITH THE ADA, at 6 (1998) (finding that criticism of the ADA in the news media has played an important role in shaping negative public attitudes about the ADA). Another illustration of politicized attitudes toward the disabled may be seen in the Medicaid/Medicare fraud debates, suggesting with little empirical support, widespread abuse by the “undeserving” disabled.


90 Liachowitz, supra note 13, at 9 (commenting that these conceptions became justifications for treating disabled people in cost effective ways).
pretenders on the pension records of the nation.91

President Cleveland’s speech, following his veto of the proposed 1887 Disability Pension Act,92 illustrates that reformers and critics alike focused on the purported sham and “dead beat” practices by veterans, their claim agents and examining surgeons.93 Veterans with disabilities were marked in newspapers either as not in need of pension benefits or as taking advantage of the system.94 As late as 1910, World’s Work magazine published a series of articles entitled “The Pension Carnival” with titles such as “Staining a Nation’s Honor-Roll with Pretense and Fraud” and “Favorite Frauds for Tricking the Treasury: Particular Cases of Masqueraders, Rogues, Perjurers, Fake-Veterans, and Bogus Widows in the Merry Game of Swindling the Government.”95 John Oliver reported the prevalent view at the time that at least one quarter of pension claims filed involved non-legitimate or fraudulent disabilities.96

Did public views about pension abuses by disabled veterans reflect the operation of the system or were they a mask for dominant partisan politics and underlying attitudes about disability? Based on a review of the limited studies available, Theda Skocpol concludes that many of the claims of disability fraud were “polemically motivated overestimates.”97 Oliver finds that approximately one third of the pensions granted proved to be without merit, based on an 1874 investigation of 1,263 pension claims.98 Another investigation between the years of 1876 and 1879 found that less
than one third—28%, or 1,425 of 5,131—of the claims were fraudulent. Yet an 1877 investigation of 491 medical and surgical pension examinations revealed that only 5% of the pensioners should have been dropped from the rolls for fraudulent claims, although 36% of the pension rates were inflated.

Skocpol estimates that "the less than 2,000 cases dropped for disability fraud in 1874 and between 1876 and 1879 constituted less than 1% of the 314,991 pension applications granted between the years 1861 and 1876." Most claimants, their lawyers, agents, and surgeons were honorable, in large part because relationships among ex-soldiers made it difficult to feign disabilities.

Skoepol concludes:

Obviously, the results of the intermittent fraud investigations by the Bureau of Pensions depended on the set of cases chosen for reexamination, the resources and zeal of the examiners, and the political motivations of the Pension Bureau officials in power at particular historical junctures. I have reluctantly concluded that nothing exact can be said about the proportions of illegitimate pensioners or expenditures.

In the final analysis, we must guard against over categorizing the discussion of who benefited from the pension system versus who did not. For of course Civil War pensioners were not determined by categorical social characteristics of any kind.

In short, individual gumption, social connections, and a good deal of outreach by party politicians shaped the specific destinations, timing, and generosity of Civil War pensions.

Despite the lack of evidence for widespread abuses of the system, disabled pensioners accused of fraud were vilified in scores of newspaper articles and editorials. Exposés of pensioners who were "physically normal and capable" but receiving pension awards appeared as the case of the dance-instructor, the bicyclist, and the "strongest man in town." One editorial argued that claimants drawing the

through intentional violation of the law).

99 Id. at 41.
100 Id. at 46.
101 SKOCPOL, SOLDIERS, supra note 10, at 143–44 (citing sources).
102 Id. at 144.
103 Id. at 144–48 (italics in original) (citing sources in support).
104 See also COSTA, supra note 22, at 38 (conducting an independent analysis of the total Union Army data set, and concluding that "[b]ecause neither demographic nor occupational characteristics nor the lawyer through whom the pensioner applied predicts either the ratings of the examining surgeon or the pension amount, we can be sure that our results are not tainted by past fraud." (emphasis added)).
105 See GLASSON, supra note 16, at 210 (commenting that the New York Times was a leader in denouncing the Disability Pension Act of 1890); see also infra notes 122–165 (describing analysis of newspaper reactions to the Civil War pension system and potential bias in sampling of clippings related to political affiliation of newspaper cited).
106 Some Unique Pensioners, N.Y. TIMES, Apr. 11, 1894, at 1–2; cf. infra Part IV (discussing contemporary critiques of the ADA based on non-typical individual cases).
maximum pensions “have for years been drunken loafers, indulging in all sorts [of]
excesses, [and] are drawing disability which is the result of [their] own vicious
habits.”  

Similarly, another editorial stated:

The scramble is not being made by men who did most of the fighting, but by the
camp-followers, the coffee-coolers and the bummers, who reflected on the good name
of the real soldier during the war and who now by their unceasing demands for more
pensions are endangering the pensions of the worthy and deserving . . . . [T]he skulkers
who had suffered neither hardships, danger nor disease, became more powerful
numerically, and they began to clamor for their rights, more liberal pensions, back
pensions, re-rating laws and service pensions regardless of the question whether pensions
were deserved or needed.

Another editorial distinguished pensioners from “true soldiers”: “The true soldier is
proud. He would rather a thousand times feel that the people owe him an unpayable
debt than to have them feel that he is a leech or a burden.” Writers also questioned
pensioners moral claim to Treasury funds:

Instead of being a roll of honor, containing only the names of those who earned a
claim upon the nation’s special consideration by casualties of service which disabled
them from earning a living, the list of pensioners already contains thousands of men who
are in no sense disabled, and who therefore have no moral claim to an allowance from
the Treasury.

The legitimacy of disability was often linked to the moral character of veterans
electing to receive pensions. Stories characterized legitimate pensioners as a

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107 The Time’s Pension Articles: the Plundering by Greedy Pensioners and Speculators
Should Stop, N.Y. TIMES, May 2, 1894, at 4 (emphasis added).

108 Further Views of Pension List Revision, 156 N. AM. REV. 618 (1893) (emphasis added).
Edwin Godkin, founder of The Nation, wrote that the result of pension lobbying “has been to
sprinkle knaves and loafers throughout villages, to make fraud, and perjury, and malingering seem
harmless and even soldierly.” Edwin Godkin, The Sanctity of the Grand Army, NATION, Apr. 25,
1895, at 318–19, quoted in Stuart Charles McConnell, A Social History of the Grand Army of the
[hereinafter McConnell, Grand Army].

109 Rutland, VT. HERALD, cited in 2(44) PUB. OPINION 370 (1887).

110 An Unpleasant Contrast, NATION, May 15, 1890, at 386 (emphasis added).

111 Cf. Landis, supra note 89, at 968 (arguing that the ability of welfare claimants to portray
themselves as morally blameless victims of a disaster determined the success or failure of their
claim); Mark Kelman & Gillian Lester, Jumping the Queue: An Inquiry into the Legal
themes in conservative conceptions of the “welfare state” that society must serve the “deserving”
poor and in liberal conceptions of the “needy” as victims of class bias); Michael B. Katz, in The
tension in American history to assist the able-bodied poor); David Matza & Henry Miller, Poverty
and Proletariat, in Contemporary Social Problems 641–73 (R. Merton & R. Nisbet eds., 4th
“righteous core of a generation of men.” Upright pensioners with disabilities were portrayed as deserving men and not in need of charity or public support. Popular sentiment espoused that only the most severely physically disabled were worthy beneficiaries. In 1893, the North American Review commented:

Any soldier who applies for, or accepts a pension that he does not justly deserve for disability incurred, or received a reward for service when he is too old to labor, is guilty of conduct likely to injure the men who were and are willing, without any reward beyond the approval of their own consciences and that honorable fame which is dear to every patriot, to give their blood and their lives for their country.

With the growth of the pension program after the 1890 Act, the system was increasingly portrayed as "a morass of fraud, a bottomless pit of extravagance." The practices objected to included feigning of disability, malingering, fraud by pension examiners and certifying surgeons, and fraud in the ex parte evidentiary system allowing applications to be made by claim agents who secured affidavits prepared for their clients.

Congress took no formal action to address these concerns, and expenditures and numbers of pensioners grew. In 1892, a writer in Forum warned that "eventually a reaction will take place and honest and deserving pensioners will suffer with the undeserving." A reaction or legacy would occur indeed. Despite the lack of evidence for the disability fraud problem, as illustrated by Study II below, public

ed. 1976) (discussing stigma associated with "undeserving poor" and "welfare chiseling" imputed to the poor, and that the "deserving poor" constantly have to prove their worth).

SKOCPEI, SOLDIERS, supra note 10, at 149.

Id. at 143.

Arnrears of Pensions, N.Y. TIMES, Nov. 12, 1881, at 4; Charles W. Shields, Pensions and Socialism, 42 CENTURY 179 (1891).

See generally R.P.C. Wislon et al., How Shall the Pension List be Revised? 156 N. AM. REV. 416 (1893).

The Democrats and the Pensions, N.Y. TIMES, Dec. 9, 1898, at 6; see also Spoils Unevenly Divided, N.Y. TIMES, Mar. 27, 1894, at 1–2 (arguing that the system perpetuates "wimpyness"). For general views that only those honorable veterans, despite their disability, would choose not to accept pensions, see generally Degradation by Pensions—the Protest of Loyal Volunteers, 12 FORUM 423 (1891); Half a Million Dollars a Day for Pensions, 15 FORUM 439 (1893); Our Pension System, 150 N. AM. REV. 663 (1890); Pensions: Time to Call a Halt, 12 FORUM 646 (1892); Pensioner's Diseases, N.Y. TIMES, Apr. 2, 1894, at 4; Pensions for Everybody, N.Y. TIMES, July 11, 1895, at 4; Pensions: The Law and Its Administration, 86 HARPER'S MONTHLY 235 (1893); The New Pension Raid, 69 NATION 1779 (1899); Their Pensions Increase, N.Y. TIMES, Mar. 31, 1894, at 1–2. Cf Landis, supra note 89, at 988 (discussing "the ideology of fault" in the provision of welfare support).

Id. at 49–50.

Henry W. Slocum, Pensions: Time to Call a Halt, 12 FORUM 646, 650 (1892) (emphasis added).
attitudes toward disabled veterans were expressly tied to stereotyped themes in news accounts alleging illegitimacy, malingering, unworthiness, and undeservedness. In the next section, Study I describes the investigation of conceptions of disability in the press and Study II then explores the operation of the pension system after the Civil War.

B. Research Methods and Preliminary Findings

The cripple, then, is a social fugitive, a prisoner of expectations molded by a society that he makes uncomfortable by his very presence.

—Leonard Kriegel

Thus far, this article has explored attitudes toward disabled Civil War veterans within the evolution of the pension system, the most costly social welfare program of nineteenth-century America. Studies I and II next examine the degree to which criticisms in the press directed toward disabled veterans corresponded to the actual operation of the pension system.

1. Study I: News and Magazine Stories, 1862–1907

The expansion and politicization of the pension system brought calls for reform, that were primarily targeted at eliminating purported illegitimate claims. The reform cause was both promoted and criticized by newspapers throughout the country, with prominent and local papers reflecting their affiliated partisan views.

The period after the Civil War also saw the rise of “personal journalism,” with leading figures in the press such as Horace Greeley of the New York Tribune occupying a prominent role in party politics. For the most part, “the party press treated the news in partisan terms,” and the evolution of the pension system was an issue tied directly to patronage politics. Study I examines the extent to which

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121 Kriegel, supra note 1, at 416.

122 See MICHAEL MCGERR, THE DECLINE OF POPULAR POLITICS: THE AMERICAN NORTH 1865–1928, at 14 (1986) (describing how newspapers were the principal means of mass communication in the North at the end of the Civil War). Virtually all Northern newspapers of the day reflected their party affiliation in news coverage and thereby established the tenor of the discussion in their local communities. Id.

123 See id. at 16.

124 Id. at 19.
criticism targeted against disabled veterans in particular, and against the pension system in general, had as much to do with partisan politics of the day as with the workings of the pension system.

a. News Search and Ratings

To assess the content and party affiliation of news and magazine stories commenting on the pension system, a content analysis was conducted between the years of 1862 and 1907. Term words and source indices were searched using words such as "arrears," "disabilities," "pension," "soldier," "United States Pension Bureau," and "veteran."

For the years 1862–1885, the analysis includes news articles from the following sources: (1) the Independent or Democratic affiliated New York Times; (2) the Republican affiliated New York Tribune; and (3) progressive liberal periodicals, including The Nation, Harper's Weekly, North American Review, and Atlantic Monthly. For the years 1886 through 1904, the analysis includes news clippings from around the world, published in the weekly periodical, Public Opinion.

Relevant articles and editorials were collected by searching the periodicals and, when available, their indices. The content analysis was conducted to generate themes in opinions toward disabled veterans. The findings are limited by factors related to the completeness of the search and the index accompanying the source.

The New York papers were chosen for several reasons. First, veterans from New York accounted for the largest proportion of the data set (roughly one third of the sample). Second, because the sources Public Opinion and Literary Digest did not begin publication until the 1880s, the study needed a baseline sampling of news stories from 1862, yet prior to the major expansions of the pension system (e.g., beginning with the 1879 Arrears Act). Third, the New York newspapers reflect good examples of Republican and Democratic/Independent affiliated dailies of the time period. See McGerr, supra note 122, at 292–93 (commenting that in research like the present, "[t]he usefulness of great New York papers like the Times and the Tribune is to be expected"). Study is underway examining stories in other papers in different cities beginning in 1862 to explore the applicability of the findings from the New York papers to attitudes in other parts of the country.

These magazine sources were identified primarily as liberal and reform-oriented. See id. at 44. The analyses of these magazine sources were conducted during the years 1862–1887, before the weekly periodical Public Opinion was available. The Nineteenth-Century Reader's Guide to Periodical Literature, 1890–99 (Helen Grant Cushing & Adah V. Morris eds., 1944) was also used to focus the media search.

Beginning with the 1890 volumes, The Literary Digest was searched for relevant articles on the Civil War pension system. This source provided many of the articles that were excerpted in Public Opinion. See infra note 130 (discussing the search of Public Opinion volumes). For secondary resources consulted, see Norman Dain, Concepts of Insanity in the United States, 1789–1865 (1963); Eric T. Dean, Jr., Shook Over Hell: Post Traumatic Stress, Vietnam and the Civil War (1997); Albert Deutsch, The Mentally Ill: A History of Their Care
Stories and editorials identified from the sources were rated independently as to their date, stated party affiliation, and location. The location of the stories was designated as Northern or Southern, and urban or rural. Each clipping was rated on a nine-point scale with regard to the negative or positive portrayal of the following: (1) the pension system itself; (2) the veterans' claimed disabilities; and, (3) character of veterans claiming pensionable disabilities.\(^\text{130}\)

b. Findings

i. Frequency of Coverage

The number of clippings identified with views of the pension system during the years 1862–1904 are illustrated in Figure 4.\(^\text{131}\) The frequency of clippings is

\(^{130}\) Two independent raters, blind to the hypotheses of this study, categorized news clippings in terms of their stated views on Civil War veterans' purported disabilities under the pension system in the following manner: (1) all volumes from Public Opinion between the years 1886 and 1906 were reviewed by a rater independently (to establish the degree of inter-rater reliability, the two raters evaluated a randomly selected volume (Volume IX), which contained sixty-one stories about the pension system); (2) ratings of relevant stories were made on a nine-point scale with regard to opinions of the Civil War pension system, to determine the extent to which: (a) the system was portrayed as negative or positive (e.g., critical or supportive of the pension system), (b) the disabilities were portrayed as illegitimate (i.e., faked or exaggerated for purposes of pension awards) or legitimate, and (c) the veterans claiming disability lacked moral worth or showed moral worth (e.g., were honorable and worthy). The analyses enabled tabulation of the type and magnitude of stories over time on the dimensions of interest, with additional categorization possible by the newspapers' state of origin and political affiliation. Additional study is required to assess the usefulness of the nine-point rating scale in this research context versus alternative rating approaches. See Letter from Mario Sanchez, Researcher, Center for Population Economics, University of Chicago, to Peter David Blanck, author (Nov. 11, 1999) (on file with author). Nevertheless, researchers have used Public Opinion in historical research, noting the breadth and geographical diversity of opinions provided. See Letter from Michael Millender to Peter David Blanck, author (Jan. 15, 1999) (on file with author); see also David Pritchard, The News Media and Public Policy Agendas, in PUBLIC OPINION, THE PRESS, AND PUBLIC POLICY at 103, 107–12 (J. David Kemmerer ed. 1992) (discussing the role of the media in partisan politics and in shaping public policy in twentieth-century America).

\(^{131}\) Although the graphs in Study I reflect “opinion” at different periods in time tracking the development of the pension system, more fine-grained study conducted over annual time periods is needed to confirm the magnitude of the general trends in opinion. See Letter from Mario Sanchez, supra note 130.
presented: (1) during the years 1862–1885 for the Republican affiliated *New York Tribune*, the Democratic affiliated *New York Times*, and the four magazines identified; and (2) during the years 1886–1904 for the clippings identified in *Public Opinion*.132

There were 298 clippings identified during the years 1862–1885 and 488 clippings from 1886 to 1904. The frequency distribution in Figure 4 shows that the majority of the clippings appeared between 1886 and 1890, before the 1890 Disability Pension Act. During this period the Republican-oriented Grand Army of the Republic lobbied to replace the General Law with awards based solely on military service, regardless of the origin of the disability.133 In 1887, President Cleveland had vetoed a bill that would have provided such service-based pensions. Reflecting the policy and economic debates of the 1880s and the partisan bidding for votes of ex-soldiers, Republican and Democratic-affiliated papers carried high numbers of stories on pensions during the period before the 1890 Disability Pension Act.134 Fewer stories appeared prior to 1886 and after 1892.

132 Analyses showed that almost all of the Southern papers cited in *Public Opinion* were affiliated with the Democratic party. Analysis of Northern versus Southern Democratic papers yielded the following: (1) for ratings of negative or positive portrayal of the pension system, Northern papers were rated as somewhat more positive, $F(1, 169) = 2.29, p = .13$ [mean rating for North = 3.10, for South = 2.66]; (2) for negative or positive portrayal of veterans' claimed disabilities, there was no difference, $F(1, 81) = 1.46, p = .23$ [mean rating for North = 2.78, for South = 2.43]; and (3) for negative or positive portrayal of the character (i.e., "moral worthiness") of veterans claiming disabilities, Northern papers tended to be more positive, $F(1, 87) = 3.11, p = .08$ [mean rating for North = 2.80, for South = 2.24].

133 See GLASSON, supra note 16, at 204 (describing social and political forces, and legislative history of 1890 Disability Pension Act).

134 See MCCONNELL, GRAND ARMY, supra note 108, at 15 (noting that in 1890 Civil War veterans represented about 10% of potential voters); see also MCCONNELL, GLORIOUS CONTENTMENT, supra note 48, at 15–16 (1992) (noting that by 1900 only one President was elected who had not been a member of the Grand Army of the Republic).
Figure 4: Frequency of Opinions about Civil War Pensions Published in News Sources* (Sample Size = 298) and Public Opinion (Sample Size = 488)

ii. Portrayal of the System

Figure 5 shows the degree of positive or negative portrayal of the pension system as rated from the news sources. The ratings are illustrated separately for the 298 clippings from 1862 through 1885 and the 488 clippings from 1886 through 1904. They also are illustrated separately by party affiliation.\(^{135}\)

As predicted, party affiliation is related to the newspapers’ portrayal of the system. From 1862 to 1885, articles in the Republican *New York Tribune* were substantially more positive toward the pension system than either the Democratic *New York Times* or the four liberal magazine sources.\(^{136}\) Similarly, during the years 1886 to 1904,\(^{137}\) and particularly during the years preceding and after passage of the 1890 Disability Pension Act,\(^{138}\) Republican sources were substantially positive in portrayal of the system, while Democratic and Independent sources were increasingly negative.\(^{139}\)

The tenor of the views expressed in the news sources identified support findings from other studies linking pension awards to local political party dominance and loyalty. Larry Logue finds that under a Republican administration in the early 1880s, Republican dominated counties evidenced a higher proportion of pensioners.\(^{140}\) In contrast, in the mid-1880s under President Cleveland’s administration prior to passage of the 1890 Act, Democratic dominated counties evidenced greater numbers of pensioners.

\(^{135}\) The inter-rater reliability tested on a sub-set of 61 of the 488 clippings identified from *Public Opinion* was significant, \(r = .85, p = .000\).

\(^{136}\) Main effect for party affiliation average over time is \(F(2, 287) = 663.20, p \leq .0004\). In addition, the ratings are significantly more positive for the *New York Tribune* as compared to those for the *New York Times* and the liberal magazines combined, \(n = 296, r = .89, p \leq .001, R^2 = .781\) (suggesting that party affiliation accounts for 78% of the variance in explaining opinions about the pension system).

\(^{137}\) Main effect for party affiliation averaged over time is \(F(2, 476) = 108.71, p \leq .0004\). In addition, the ratings are significantly more positive for the Republican papers as compared to those for the Democratic and Independent papers combined, \(n = 488, r = .55, p \leq .001, R^2 = .298\) (suggesting that party affiliation is linked to the opinions that newspapers express regarding the pension system).

\(^{138}\) Interaction effect for party affiliation and year is \(F(6, 476) = 4.73, p \leq .0004\). This finding shows that over time, Republican sources were rated as more positive relative to Democratic sources.

\(^{139}\) The opinions between the Democratic and Independent papers differed significantly only during the 1889–1891 time period surrounding passage of the 1890 Act, with Independent papers more positive (mean rating = 3.73) than Democratic papers (mean rating = 2.56).

Figure 5: Ratings of Opinions about Civil War Pensions Published in News Sources* (Sample Size = 298) and Public Opinion (Sample Size = 488)

In another study, Gerald McFarland and Kazuto Oshio find that Civil War veterans were disproportionately loyal to the Republican Party in the mid-1880s.\footnote{See generally Gerald W. McFarland & Kazuto Oshio, Civil War Military Service and Loyalty to the Republican Party: 1884, 15(2) His. J. MASS. 169 (1987) (examining party loyalty in Massachusetts and New York in the 1884 election).} Civil War military service therefore was an important link to veterans’ post-war political behavior and to Republican Party strategy.\footnote{See Sanders, supra note 51, at 137 (arguing that pension policies played a central part in Republican party strategy for ensuring continuing party loyalty).} Yet by the mid-1890s, at a time when virtually all veterans were receiving pension awards under the 1890 Disability Pension Act, Dora Costa finds that pension awards did not vary according to the strength of the dominant political party in a claimant’s county of residence.\footnote{See COSTA, supra note 22, at 164–65 (commenting on the resulting de-politicization of the pension system by the late 1800s).}

### iii. Legitimacy of Disability

After the war, news sources increasingly questioned the legitimacy of pension claimants’ disabilities.\footnote{See also Logue, supra note 140, at 413–14 (citing urban newspapers identifying negative attributes of ex-soldiers in their crime reports and characterizing many ex-soldiers as “knives” who seek to live on charity and claiming their wounds as giving them the right to pension support).} In Figure 6, opinions about the legitimacy of pension claimants’ disability are illustrated by party affiliation.\footnote{The analysis reviewed 139 news clippings from 1862 through 1885, and 206 news clippings from 1886 through 1904. The inter-rater reliability tested on a sub-set of 9 of the 206 clippings identified from Public Opinion was significant, $r = .90, p = .000$.} From 1862 to 1885, the Republican New York Tribune was substantially more positive about the legitimacy of claimants’ disabilities than either the Democratic New York Times or the liberal magazines.\footnote{The main effect of party affiliation averaged from 1862 to 1885 is $F(2, 130) = 162.22, p \leq .0004$. In addition, the ratings are significantly more positive for the New York Tribune as compared to those for the New York Times and the liberal magazines combined, $n = 139, r = .83, p \leq .001, R^2 = .687$ (suggesting that party affiliation accounts for 69% of the variance in opinions about the pension system).} Likewise, from 1886 to 1904, Republican affiliated sources, were significantly more positive in their views about the legitimacy of claimed disabilities.\footnote{The main effect for party affiliation averaged from 1886 to 1904 is $F(2, 194) = 38.26, p \leq .0004$. Democratic and Independent papers did not differ significantly in their opinions over this time period. The ratings are significantly more positive for the Republican sources as compared to those for the Democratic and Independent papers combined, $n = 206, r = .52, p \leq .001, R^2 = .266$ (suggesting party affiliation accounts for 27% of the variance in opinions of the pension system).} Party affiliation of the news source was a primary determinant of opinion about the legitimacy of claimants’ disabilities.\footnote{Findings indicate that Republican sources become more favorable: Fisher’s LSD (194) = 1.77, $p \leq .05$; Democratic sources became less favorable: Fisher’s LSD (194) = 2.06, $p \leq .05$; while opinions in independent papers did not change significantly over time.}
Figure 6: Ratings of Opinions about the Validity of Disabilities by Civil War Pensioners from News Sources (Sample Size = 139)* and Public Opinion (Sample Size = 206)

iv. Deservingness of Claimants

The findings regarding the depiction of the moral worthiness and "deservingness" of claimants seeking and accepting pension awards are set out in Figure 7 by party affiliation. The study reviewed 253 clippings from 1862 through 1885 and 258 clippings from 1886 through 1904.149

Consistent with the prior results, from 1862 through 1885, the Republican affiliated New York Tribune was more positive about the character or "deservingness" of claimants accepting awards, than was the Democratic affiliated New York Times or the magazine sources.150 From 1886 to 1904, Republican sources, as compared to Democratic and Independent sources, were more positive in views about the character of claimants.151 The difference in views over character became pronounced over time, with Republican sources becoming more positive, and Democratic and Independent sources more negative, in the years surrounding the passage of the 1890 Act.152

As in the prior analyses, a primary determinant of negative and positive opinion about the moral worth of claimants and their disabilities was the media sources' party affiliation. Subsequent public attitudes about disabled veterans as "deserving" and "legitimate" recipients of pension awards in particular, and about the operation of the pension system in general, were linked closely to partisan views of the social construction of disability in late twentieth-century America.153

149 The inter-rater reliability tested on a sub-set of 21 of the 258 clippings identified from Public Opinion was significant, r = .66, p ≤ .001.

150 The main effect of party affiliation averaged from 1862 to 1885 is F(2, 244) = 384.59, p ≤ .0004. In addition, the ratings are significantly more positive for the New York Tribune as compared to those for the New York Times and the liberal magazines combined, n = 253, r = .86, p ≤ .001, R² = .733 (suggesting that party affiliation accounts for 73% of the variance in opinions about the pension system).

151 The main effect of party affiliation averaged from 1886–1904 is F(2, 246) = 65.50, p ≤ .0004. The ratings are significantly more positive for the Republican papers as compared to those for the Democratic and Independent papers combined, n = 258, r = .57, p ≤ .001, R² = .325 (suggesting that party affiliation accounts for 32% of the variance in opinions about the pension system).

152 The interaction effect for party affiliation and year is F(6, 246) = 2.48, p = .024. This finding shows that over time, Republican sources became more positive relative to Democratic sources.

Figure 7: Ratings of Opinions about the Moral Worthiness of Civil War Pension Claims from News Sources (Sample Size = 253)* and Public Opinion (Sample Size = 258)

Public attitudes about the deservingness of pension claimants also were colored by a growing number of public officials confronted with the new class of disabled Americans "whose character they did not fully trust." The final part of this article re-examines the potential legacy of these stigmatizing perceptions of disability that were reinforced in the press for partisan gain.

v. Summary

The trends in the news sources identified with opinions of the pension system correspond predictably to the political rhetoric of the period; in particular, the partisan lobbying associated with passage of the 1890 Disability Pension Act. Although the impact of the news sources on public opinion, pension policy, and partisan politics cannot be derived with specificity from the content analysis alone, Study I illustrates the process contributing to the social construction of disability in late nineteenth-century America.

The findings from Study I also highlight the opinions about the operation of the pension system, and resultant opinions about the legitimacy of claimants' disabilities and their moral character. The findings suggest that the characterization of disabled veterans correspond closely to the party affiliation of the news source. Opinions about claimants' disabilities were amplified during periods coinciding with major expansion of the system, particularly with passage of the 1890 Disability Pension Act. By the 1890s, the Republicans believed it to be in their party's interest to advocate broader and more generous pension awards. Heywood Sanders aptly portrays the Democrats during this time as a party that was "left to protect the pension list as a 'roll of honor,' protesting improper decisions by previous administrations, and searching out and publicizing fraud and abuse." As found in Study I, Democrats and later Progressives directed the thrust of the partisan-spurred criticism about the pension system through their affiliated news sources.

The pattern of findings in the media analysis is consistent with studies showing the role of the press in the development and expression of public attitudes toward disabled persons in late nineteenth century America. Studies show that persons with disabilities historically have been portrayed negatively in the press through "medicalized" models depicting an illness as incapacitating; "social pathology" models depicting the disability as source for harboring undeserving dependency on others; "supercrip" models depicting honorable individuals enduring great suffering; and "business" models showing ways in which illegitimate disabilities create

154 See Logue, supra note 140, at 415 (commenting in the context of the development of ex-soldiers' asylums and homes).

155 See COLIN BARNES ET AL., EXPLORING DISABILITY: A SOCIOLOGICAL INTRODUCTION 199 (1999) (discussing the effects of media imagery on social construction of disability). See generally Helen Meekosha & Leanne Dowse, Distorting Images, Invisible Images: Gender, Disability and the Media, 84 MEDIA INT'L AUSTL. 91 (1997) (stating that the results of media analyses must be placed in their social context).

156 See Sanders, supra note 51, at 149.
burdensome costs for society. Baldwin has shown that such stereotyping in news sources varies with impairment type and does not necessarily correspond to the severity of an individual's disability.

To examine further the social construction of disability after the Civil War, study is underway on the attitudes reflected in the Southern press of the day toward disabled Confederate veterans. Less research has been conducted on the post-war lives of disabled Confederate veterans, who were ineligible for Union Army pension programs. The average pension, or "honorarium," provided to Southern veterans by Confederate states was estimated by Costa to be $47 per year with less than 30% of Confederate veterans receiving a pension. In contrast, by 1910, Union pensioners were receiving an average pension of $171 per year, with 90% of Union veterans collecting a pension. Study of the portrayal in Southern news sources of Confederate disabled veterans may help to illuminate and contrast evolving conceptions of the legitimacy of disabilities and link them to partisan politics after reconstruction. This analysis may be illuminating to the present investigation with regard to the relationship between the

157 See Baldwin, supra note 120, at 44 (summarizing research and providing research basis for categorization); Beth Haller, Rethinking Models of Media Representation of Disability, 15 Dis. STUD. Q. 26 (1995) (same); see also Cary LaCheen, Achy Breaky Pelvis, Lumber Lung and Juggler's Despair: The Portrayal of the Americans with Disabilities Act on Television and Radio, 21 BERKELEY J. EMP. & LAB. L. 223, 227, 239–40 (2000) (reviewing focus in media on disabilities portrayed as "undeserving" and lacking merit).

158 See Baldwin, supra note 120, at 44.


160 See COSTA, supra note 22, at 49–53 (comparing Union and Confederate veterans' pension rates); SKOCPOL, SOLDIERS, supra note 10, at 139 (making comparable estimates that less than 20% of Confederate veterans received pensions in 1905); see also M. B. Morton, Federal and Confederate Pensions Contrasted, 16 FORUM 68 (1893) (concluding that in 1886 the average annual pension rate for Confederate veterans was $41—approximately $1,151,000 for 27,000 veterans, including payments for veterans homes—and for Union veterans living in ex-Confederate states was $165—approximately $9,161,000 for 55,000 veterans).

161 See COSTA, supra note 22, at 49–53 (comparing Union and Confederate pension rates).

162 See e.g., SKOCPOL, SOLDIERS, supra note 10, at 139–40 (noting that Georgia was the most generous state in providing pensions to Confederate soldiers, yet, for total loss of sight, a Confederate veteran in Georgia received an annual payment of $150, while a Union Army veteran with the same disability received $1,200); id. at 149 (stating that Confederate soldiers who had served honorably as U.S. soldiers in previous wars were stricken as traitors from the pension roles); GLASSON, supra note 16, at 269 (charting the state per capita receipts in federal pensions in 1910); An Unpleasant Contrast, NATION, May 15, 1890, at 386 (stating that Confederate veterans "built up a new prosperity on the ruins of the old by working hard and depending on themselves," and "the ex-Union soldier is coming to stand in the public mind for a helpless and greedy sort of person, who says that he is not able to support himself, and whines that other people ought to do it for him").
predictor variables set forth in Figure 1—such as age, occupation, and disability stigma—and pension awards. This is because the disability rates were substantially higher and awards substantially lower among Confederate as compared to Union Army veterans.\(^{163}\)

To what extent do public opinions about the legitimacy and moral character of disabled Union Army veterans correspond to the actual workings of the federal pension system? Was the system an open-ended public spending program with partisan underpinnings? And, was the system used to the primary advantage of shirkers and malingerers?\(^{164}\) These questions are explored next in Study II, using the Civil War data set to examine the degree to which pension awards were related to the perceived legitimacy of claimants’ disabilities and to their social characteristics.\(^{165}\)

2. Study II: Civil War Data Set, 1862–1907

The content analysis in Study I provides support for the view that a legal and social transformation of the pension system occurred after 1890, from a system of compensation for war injuries into a system of service and old age.\(^{166}\) The analyses of the Civil War data set in Study II focus on information from the years 1862 to 1907. One goal of Study II is to examine the pension system over time to determine the extent to which it performed screening and gatekeeping functions. For example, as illustrated in Figure 1, Study II explores the degree to which surgeons’ medical evaluations predict pension awards. A subsidiary issue, more difficult to assess

\(^{163}\) See Costa, supra note 22, at 49-53 (discussing pension rates, and finding corresponding higher retirement rates among Union relative to Confederate veterans receiving pensions); Vinovskis, supra note 70, at 4–6 (concluding that young Confederate soldiers were more than three times as likely to die in the Civil War than young Northern soldiers); SKOCPOL, SOLDIERS, supra note 10, at 139–40 (discussing that, given the limited financial resources of the Southern states after the Civil War, pensions provided for Confederate veterans were for service-related disabilities, as compared to the more expansive service-based approach in the North after the 1890 Disability Pension Act); cf. Glasson, South’s Care, supra note 78, at 46 (stating that the Confederate pension system was purportedly subject to many of the same abuses as the Federal pension system, and quoting in support a 1902 Georgia Commissioner of Pensions Report that the Confederate pension rolls “are fastening upon the State a class of unworthy beneficiaries”) (emphasis added); id. (concluding that certain examining surgeons would verify claimants’ illegitimate disabilities).

\(^{164}\) See infra notes 220–24 and accompanying text (finding that in less than 1% of the cases studied did examining surgeons question the legitimacy of claimants’ purported disabilities); see also Our Standing Army of Pensioners, NATION, February 3, 1887 (characterizing pension claimants as “the shirks who tried to keep out of harm’s way, all the men who entered the army not from motives of patriotism, but because they were either attracted to it by the great bounties offered or were forced into it by draft—in short, ‘the rubbish of the army’”).

\(^{165}\) See supra notes 11–12 and accompanying text (describing major hypotheses of inquiry, numbers two and three listed); cf. SKOCPOL, SOLDIERS, supra note 10, at 144–48 (concluding that Civil War pensioners were not determined by social characteristics of claimants).

\(^{166}\) ORLOFF, supra note 79, at 134–35 (discussing the evolution of the pension system).
directly from the data set, is the extent to which medical screening ratings and awards were influenced by public and partisan views of the pension system as “out of control.”

In Study II, the total sample of Civil War veterans consists of 35,747 White males, from 19 states in 331 Union Army Companies. The companies were chosen randomly from the Union Army’s Regimental Books, which include information such as the recruit’s name, birth place, age at enlistment, rank, and occupation. The present findings are reported on the first wave of data collected on approximately 6,600 veterans from four Northern states, comprising 25% from Illinois, 33% from New York, 21% from Ohio, and 20% from Pennsylvania. The findings are based on the sub-set of enlisted privates in the Union Army.


168 These books were created by the regimental clerks during the Civil War and contain more than 20,000 companies. See DATA USER’S MANUAL, supra note 11. See generally COSTA, supra note 22 (researching the economic history of retirement in America employing the Data User’s Manual).

169 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 this sample is representative of the contemporary White male population who served in the Union Army. See SKOCFOL, SOLDIERS, supra note 10, at 138 (describing anecdotal accounts suggesting that certain groups of Northern free Blacks fared as well as their White counterparts in the pension application process). See generally Sven E. Wilson & Louis L. Nguyen, Secular Trends in the Determinants of Disability Benefits, 88 A. ECON. REV. 227 (1998); Robert William 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 (1993) (finding that the sample is representative of White Northern males after the Civil War).

170 SKOCFOL, SOLDIERS, supra note 10, at 123 (citing statistics that in 1882 a large proportion of existing and pending pension claims came from the electorally crucial states of Illinois, Indiana, New York, Ohio, and Pennsylvania); see also supra notes 131–155 and accompanying text (discussing pension politics and demographics; also noting differences between Northern and Southern pension systems). Mario Sanchez also has suggested that in future analyses of the present data set it may be possible to examine other predictors of zero and disability pension ratings. See infra notes 176–201; Letter from Mario Sanchez, supra note 130. For instance, additional study may be conducted on the predictors of pension awards in different states. Id. Sanchez is studying the internal mobility of veterans after the war, finding that there was more pensionable information on veterans who were enlisted in Northeast states compared to veterans in the Midwest. Id. He predicts that Northern pension politics (and party power and demographics) of New York, for instance, were very different than that of Ohio. Id. In the present investigation, preliminary examination of the sample of veterans revealed that approximately 98% of recruits from the Midwest resided in the Midwest at the time of their first pension exam; by comparison, approximately 79% of recruits from the Northeast resided in the Northeast at the time of their first pension exam. Thus, migration appears greater for recruits from the Northeast as compared to those from the Midwest.

171 Subsequent analyses will be conducted exploring differences in pension outcomes and
Additional measures in Study II are derived from several data sets based on information collected before and after the Civil War.\textsuperscript{172} Military, pension, and medical records are collected from military archives in Washington, D.C.\textsuperscript{173} Other data sources include: (1) Union Army pension applications and eligibility determinations, including medical screening information from surgeon's certificates, which are reports of physical examinations that assess a claimant's pension application;\textsuperscript{174} (2) veterans' health, medical, and demographic information before and after the war, including information from U.S. Census records; and (3) veterans' military records.

\textbf{a. Outcome Measures: Pension Awards}

The analysis in Study I above documented that a major critique of the pension system was its purported inability to screen out frivolous and fraudulent claimants and allow appropriate awards for deserving claimants. One measure of the efficacy of the system, therefore, is to assess over time its sensitivity to allowing legitimate claims and screening-out illegitimate fraudulent claims. Assessment of this gatekeeping sensitivity is one indicator of the actual operation of the system. Nevertheless, the gatekeeping function of the system may be related to changes in the law over time, for instance after 1890 to the enactment of service and age-based pension requirements.\textsuperscript{175}

For purposes of this investigation, the first measure of the system's gatekeeping function is attained by tabulating the extent to which pension claimants presenting themselves for an initial medical screening were designated as having no disability

\begin{itemize}
  \item[\textsuperscript{172}] The size and scope of the data set is being expanded and standardized over time. Subsequent analyses will examine data involving greater numbers of claimants from other states.
  \item[\textsuperscript{173}] This includes war time records and applications for veterans from: Connecticut, Delaware, District of Columbia, Illinois, Iowa, Kansas, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New York, Ohio, Pennsylvania, Vermont, and West Virginia. \textit{See DATA USER'S MANUAL, supra} note 11, at 11.
  \item[\textsuperscript{174}] Roughly 40\% of the sample had at least one physical exam, and therefore is part of the surgeons' data set. \textit{See DATA USER'S MANUAL, supra} note 11, app. A (describing in detail the rating system of surgeons' certificates). For research purposes, surgeons' certificates are coded by disease screens, which have been developed by medical experts on the \textit{Early Indicators} research team, and are organized primarily by physiological systems (e.g., cardiovascular, respiratory, nervous systems); the disease screens code aspects of impairment severity and cite specific relevant comments provided by the examining surgeon. \textit{See DATA USER'S MANUAL, supra} note 11, at 12; \textit{see also} Wilson & Nguyen, \textit{supra} note 169, at 228 (describing expert coding of surgeons' certificates whereby major disease categories are given a rating which corresponds to allotted pension dollar awards); \textit{COSTA, supra} note 22, at 207 (describing that the medical examination process often involved a board of three surgeons).
  \item[\textsuperscript{175}] \textit{See COSTA, supra} note 22, at 40 (exploring health proxy measures for this cohort, e.g., good, fair, or poor health, and Body Mass Index, based on the surgeons' ratings).
\end{itemize}
whateverssoever, that is, given a "zero disability rating." Prior to Order No. 78 issued in 1904, a zero rating meant that a claimant was rejected outright and not awarded compensation. In this research, zero ratings are assessed for disease and disability categories and related to the predictor measures identified in Figure 1, such as claimants' ages and occupational status.

Using a similar approach to assess the partisan nature of Civil War pension awards over time, Sanders analyzed the ratio of awards approved to those rejected. Consistent with the findings from Study I, Sanders found higher approval for the pension system among Republican-affiliated news sources. But Sanders also found that during Republican control, from 1881 to 1885, the annual pension award approval rate was 75% and the corresponding rejection rate was 25%. By contrast, during the Democratic Cleveland administration, from 1886 to 1890, annual approval rates averaged 69% with a corresponding 31% rejection rate. With the election of Republican President Harrison and passage of the 1890 Disability Pension Act, approval rates surged to 79%, with a 21% rejection rate. Sanders concludes that the trends reflect partisan influence on pension administration.

The current study was designed to examine the association between pension awards—as measured by zero and disability ratings—and the potential influence of partisan politics, while controlling for possible intervening factors such as claimants' ages or occupations. The second outcome measure of awards in this investigation is assessment of claimants' actual "disability ratings." For purposes of the present analyses, the fractional-disability rating score was standardized by dividing the dollar amount received by the total possible award. Under the General Law, for instance, the most severe disabilities were rated as "total," entitling a veteran to an allotted amount of $8. Therefore, a total disability rating of $8 would correspond to a disability severity rating of 1.0. A rating less than "total" received a corresponding proportion of the maximum award.

The two outcome measures—zero and disability ratings—serve as exploratory proxies for assessing the pension system's determinations of whether claims are legitimate and worthy of compensation. Several limitations on the use of these

176 For purposes of analysis here, a zero rating is derived from medical diagnostic ratings based on the relative severity of the claimant's condition, including but not solely determined by his ability to perform manual or skilled labor. See infra notes 186-201 and accompanying text (describing relation of severity ratings and occupational category).
177 Sanders, supra note 51, at 148-49 (commenting that the rejection of a claim was not necessarily fatal, as claimants could reapply). In the present research, however, examination is made only of first time pension applications.
178 Id. at 148-50 (commenting that the Republicans and Democrats used their "administrative control to shape the outcomes of pension decisions").
179 GLASSON, supra note 16, at 130 (citing statutory changes in pension laws with regard to military rank). For purposes of compensation, the General Law defined fractional rates of total disability for particular disabilities. Id. Pension rates were increased subsequently by the 1873 Consolidation Act and the 1890 Disability Pension Act. See supra notes 19–82 and accompanying text (describing pension compensation changes over time).
measures should be noted.\textsuperscript{180} First, limitations in medical diagnostic capabilities of the period may have impacted physicians’ ability to rate accurately the severity of different impairments.\textsuperscript{181} Thus, more visible impairments such as battle wounds and hernias may have been rated as more severe relative to others that were less visible such as nervous and internal disorders.\textsuperscript{182} This pattern may be found even though the less visible impairment may be in fact more severe. Without additional information about the examiners it is difficult to determine the effects of the medical diagnostic capabilities of the day on disability ratings for purposes of pension awards.\textsuperscript{183}

Second, to assess accurately the system’s gatekeeping function, other information is needed about the examiners’ backgrounds, party affiliations, training, attitudes about “genuine” disabilities—as assessed by views toward one’s inability to work—versus “feigned” disabilities, as well as background information on veterans claiming and those not claiming pensions. The few studies available suggest that the critical views of the system and of biased examiners were exaggerated by the partisan motivations behind pension reform.\textsuperscript{184}

\textsuperscript{180} Nevertheless, the outcome measures are developed primarily for hypothesis generation rather than hypothesis testing.

\textsuperscript{181} Cf. COSTA, supra note 22, at 38 (concluding that pension awards were often influenced by incorrect medical theories of the day).

\textsuperscript{182} For related exploratory analyses, see infra note 195; cf. COSTA, supra note 22, at 209 (commenting that given that many diseases/disabilities might go undetected because they were not visible or easily diagnosed, the average health of the present sample may have been worse than the surgeons’ ratings indicated); Harlan Hahn, \textit{Accommodations and the ADA: Unreasonable Bias or Biased Reasoning}, 21 BERKELEY J. EMP. & LAB. L. 166, 167, 174 (2000) (discussing research on stigma associated with visible and non-visible impairments).

\textsuperscript{183} Study is underway of the disease category screens and the nature of the diagnostic techniques, considering the medical diagnostic capabilities of the day. There is some evidence that the descriptive distinction between battle wounds and disability for purposes of a successful pension application may have been important. Disability, as described on a surgeons’ certificate, might mean battle wounds or illness or injury suffered in camp. See GRAND ARMY, supra note 134, at 124 n.66. Moreover, work is underway to develop standardized health and disability indices to aid in comparisons across impairment types. Blanck & Song, supra note 39.

\textsuperscript{184} SKOCPOL, SOLDIERS, supra note 10, at 143–48; cf. STONE, supra note 89, at 91–110. THE DISABLED STATE 91–110 (1984) (discussing attitudes in the medical community in late nineteenth-century America about disability and deservingness, and the evolution of the concept of the “inability to work” as a means for developing a scheduled needs-based system of governmental compensation).
b. **Predictor Measures: Disability Severity, Age, Stigma, and Occupation**

In Study II, several independent measures are used to predict the two outcome measures. The predictor measures identified in Figure 1 include information on the pension claimant's:

1. disability/disease category and severity screening scores;
2. age;
3. disability stigma, defined by the degree to which the impairment claimed was subject to attitudinal prejudice;
4. occupational status, providing a proxy for social class; and,
5. year and location where the examination occurred, providing a proxy for the pension law under which award was made.

**i. Disability Category**

Based on a review conducted by medical experts on the *Early Indicators* research team of the surgeons' certificates, the analyses are broken down by disability category. Disability categories then are coded for diagnostic severity of the condition and claimants' ability to perform manual labor. Appendix 1 describes the categories rated and their diagnostic screening sub-components.

By way of example, Appendix 1 shows that for purposes of compensation cardiovascular disease is derived from a physical exam based on diagnostic screening characteristics such as pulse/heartbeat characteristics, palpitations, and murmurs. Injury/gunshot wound disability is derived from examination of the body part or organ affected and complications associated with the injury. Nervous system disorders are rated on balance and movement problems, headaches, reported anxiety, and mental illness. The ratings for the disability categories were made by examining physicians using instructions prescribed in advance by the pension office.

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185 As discussed supra Part II.A., it was possible for a veteran to receive a pension award under various systems (e.g., the General Law, Consolidation Act, the Arrears Act, or the Disability Pension Act). Veterans often applied multiple times for pensions, for instance, if they were denied an award for a particular claimed disability based on a first exam but awarded a pension for another disability during a second exam. In the data set, pension application type is coded as an original, seeking increase, renewal (or restoration), or additional application. See DATA USER'S MANUAL, supra note 11, at 74; COSTA, supra note 22, at 203 (finding that, by 1910, a typical claimant filed 12–14 pension applications).

As noted, for purposes of the initial analyses herein, claimants' first recorded pension applications and resultant disability ratings are analyzed. Additional analyses have been conducted examining trends based on information from all the pension exams for these particular claimants. See infra notes 284–316 and accompanying text.

186 See DATA USER'S MANUAL, supra note 11, at 12 (noting that although there may be variations in the content of the examinations, part of the variation is due to increased diagnostic abilities over time and to the idiosyncratic tendencies of the particular examining physician; the notation of a condition in the exam did not mean necessarily that the condition was pensionable);
Other studies of the present data set have demonstrated the validity of the
disability severity screens and their diagnostic sub-categories.187 Appendix 2
illustrates for the present data sub-set the relation between the screening items, and
zero and disability ratings.188 This relationship is illustrated in Figure 1 as the arrow
from “Surgeon’s Evaluation” to “Pension Decision” and reflects one measure of the
validity of the disease screens as predictors of ratings for purposes of making pension
awards.

Lastly, in Study II the medical notes made by the examining surgeons regarding
the claimants’ purported disabilities were coded and analyzed. A content analysis was
performed on medical notes having terms that indicated a claimant’s: (1) “vicious
habits” such as alcoholism, drug addiction, sexually transmitted diseases, and
smoking; and (2) fraudulent behavior such as “malingering,” “deadbeat,” “fake,” and
“fraud.”189

ii. Age

In addition to the collection of other background information, a pension
claimant’s age was recorded at the time of each medical examination.190 The present
study examines the association of the claimant’s age at the time of his first medical
exam to other variables in the research model.191 The study explores associations in
the research model—among disability type, claimants’ occupational status and
pension awards—statistically controlling for the effects of aging, that is accounting
for the strong relation between age and the onset of disability type and severity.

see also Robert I. Goler & Michael G. Rhode, From Individual Trauma to National Policy:
Tracking the Uses of Civil War Veteran Medical Records, in DISABLED VETERANS IN HISTORY 163

187 Id. at 12–13 (discussing validation of groupings and use of medical experts); see also
Chen Song, Justice or Politics: New Evidence on Surgeon’s Performance during the United States
Civil War Pension Process, (Jan. 2000) (unpublished manuscript, on file with the author) (a
proposal submitted to the Cliometric Society testing the validity of surgeons’ ratings, and showing
for hernias that ratings accurately reflected severity ratings).

188 See DATA USER’S MANUAL, supra note 11, at 109–33 (describing data collection screens
and noting that the disease screens contain different types of information—e.g., yes/no questions
and descriptive data—and different numbers of variables).

189 Two raters reviewed independently the surgeons’ notes (based on the actual pension
certificates) in tabulating the use of the targeted terms.

190 See DATA USER’S MANUAL, supra note 11, at 75 (discussing other background measures).

191 See infra notes 213–225 and accompanying text (discussing Figure 11, infra p. 163, and
illustrating the distribution of claimants’ ages by disability category).
iii. Prejudice/Stigma

Prior research shows that disability types may be arranged into those that are more and less subject to stigma and attitudinal prejudice. Marjorie Baldwin and others find that individuals with disabilities subject to more prejudice are seriously disadvantaged in the labor market in terms of employment discrimination and wage rates. Mental illnesses and infectious diseases, for instance, are ranked as impairments particularly subject to severe prejudice, while orthopedic injuries and more visible conditions such as hernias are subject to less prejudice.

Based on contemporary studies, such as those of Baldwin, the top half of Figure 8 classifies disability categories into those subject to more and less prejudice and stigma. The bottom half of Figure 8 separates the disability types derived for purposes of making pension awards into the analogous two categories. The degree of prejudice associated with a particular disability category is used then as a predictor of zero and disability ratings.

192 See Baldwin, supra note 120, at 45 (summarizing research and providing research basis for categorization). The disability categories may be grouped in a variety of ways, from those that are more apparent or visible to those that are less apparent. Future study will address this impact on the findings of other groupings; see also Michelle Fine & Adrienne Asch, Disability beyond Stigma: Social Interaction, Discrimination, and Activism, 44 J. Soc. Issues 3 (1988) (discussing sources of disability stigma).

193 Baldwin, supra note 120, at 45 (summarizing research findings); see also Harlan Hahn, Antidiscrimination Laws and Social Research on Disability: The Minority Group Perspective, 14 BEHAV. SCI. & L. 41 (1996) (finding that stigmatizing attitudes are the primary source of discrimination against disabled persons).

194 Baldwin, supra note 120, at 45 (summarizing research findings).

195 Studies with sub-samples of the Civil War data set are underway with independent raters to assess the validity of these ranking schemes. For instance, in the lower half of Figure 8, liver problems were coded as subject to more prejudice, given their general relation to prior alcohol abuse, and genito-urinary problems coded as subject to more prejudice, given their general relation to sexually-transmitted diseases. For qualitative support of this empirical approach, see McConnell, Grand Army, supra note 108, at 150 (noting that the 1890 Act required that a claimant's disability not be the result of "vicious habits or gross carelessness," "a restriction that in practice ruled out almost no one save drunkards and syphilitics").
Figure 8: Summary of Studies Classify Impairments/Disabilities into Categories Subject to More and Less Attitudinal Prejudice (top) and as Applied to Disease/Disability Categories Derived from the Surgeons' Certificates (bottom)*

<table>
<thead>
<tr>
<th>Impairments Subject to Less Prejudice</th>
<th>Impairments Subject to More Prejudice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Back or spine problems</td>
<td>Missing legs, arms, hands, or fingers</td>
</tr>
<tr>
<td>Broken bone or fracture</td>
<td>Blindness or vision problems</td>
</tr>
<tr>
<td>Head or spinal cord injury</td>
<td>Deafness or hearing impairment</td>
</tr>
<tr>
<td>Hernia or rupture</td>
<td>Speech disorder</td>
</tr>
<tr>
<td>High blood pressure</td>
<td>Stroke</td>
</tr>
<tr>
<td>Learning disability</td>
<td>Paralysis</td>
</tr>
<tr>
<td>Stiffness or Deformity of Limb</td>
<td>Epilepsy</td>
</tr>
<tr>
<td>Thyroid trouble or goiter</td>
<td>Cerebral palsy</td>
</tr>
<tr>
<td>Tumor, cyst, or growth</td>
<td>Mental retardation</td>
</tr>
<tr>
<td>Stomach trouble</td>
<td>Alcohol or drug problem</td>
</tr>
<tr>
<td>Arthritis or rheumatism</td>
<td>Mental or emotional problem</td>
</tr>
<tr>
<td>Lung or respiratory trouble</td>
<td>Acquired immunodeficiency syndrome</td>
</tr>
<tr>
<td>Diabetes</td>
<td></td>
</tr>
<tr>
<td>Heart trouble</td>
<td></td>
</tr>
</tbody>
</table>

Categorization of Disease Categories From Surgeon’s Certificates

<table>
<thead>
<tr>
<th>Less Prejudice</th>
<th>More Prejudice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiovascular</td>
<td>Ear diseases</td>
</tr>
<tr>
<td>Diarrhea</td>
<td>Eye disorders</td>
</tr>
<tr>
<td>Endocrine</td>
<td>General appearance</td>
</tr>
<tr>
<td>Gastrointestinal</td>
<td>Genito-urinary</td>
</tr>
<tr>
<td>Hernia</td>
<td>Infectious diseases/Fevers</td>
</tr>
<tr>
<td>Injury/Gunshot wound</td>
<td>Liver</td>
</tr>
<tr>
<td>Rectum/Hemorrhoids</td>
<td>Nervous system</td>
</tr>
<tr>
<td>Respiratory</td>
<td></td>
</tr>
<tr>
<td>Rheumatism/Musculo-Skeletal</td>
<td></td>
</tr>
<tr>
<td>Tumor</td>
<td></td>
</tr>
<tr>
<td>Varicose Veins</td>
<td></td>
</tr>
</tbody>
</table>

* Baldwin, supra note 120, at 37; 45 (describing research on categorization).
iv. Occupation

The data set contains a description of the claimants' occupational status, such as agriculturalist, manual laborer, semi-skilled tradesman, and skilled professional. Figure 9 illustrates the range of occupations in these groupings.

Veterans with higher occupational skill levels, such as the level III occupations in Figure 9, have diverse jobs, including attorneys, physicians, salesmen, jewelers, policemen, and trainmen. Those in agriculture work primarily as farmers and farm hands. Those in manual labor jobs include cartmen, coal miners, paper carriers, and stone pavers.

The investigation explores the degree to which a claimant's occupational status relates to the outcome measures of zero and disability ratings. Rather limited study has been conducted on the occupational status and associated incomes of Civil War veterans. The lack of research is surprising, given the findings from Study I illustrating the portrayal of the war as a "rich man's war but a poor man's fight" and of pensions as a premium for a favored economic class.

In one empirical study of two Northern towns, Thomas Kemp did not find support for the theory of "a poor man's war," when sorting the participating soldiers by age, occupational class, and income. Instead, Kemp found that skilled and unskilled workers and individuals across socioeconomic lines participated in the conflict. Similarly, in his study of Civil War pensions, Sanders found that awards were distributed predominantly to rural farming areas with high population stability, relatively lower wealth, and Republican party strongholds.

Analyses are underway to explore trends for claimants from urban versus rural settings, as well as to separate veterans with regard to their political affiliation.

Additional study is required to assess whether claimants with higher occupational status attain higher levels of income and status in society. Cf. COSTA, supra note 22, at 73 (concluding that among Union Army veterans, occupation was a proxy for income level).

See Thomas R. Kemp, Community and War: The Civil War Experience of Two New Hampshire Towns, in TOWARD A SOCIAL HISTORY OF THE AMERICAN CIVIL WAR 31, 48 (Maris A. Vinovskis ed., 1990) (discussing controversy related to the practice of substitution and the commutation clause in the Enrollment Act and whether average laborers were over-represented in the Union Army). Democratic President Cleveland had employed a substitute to serve in the War, a point noted by the Grand Army of the Republic in opposition to his election. See GLASSON, supra note 16, at 123.

See Kemp, supra note 198, at 74-77 (discussing empirical findings).

See Sanders, supra note 51, at 150-52 (describing empirical findings).
Figure 9: Claimants' Occupational Status: Illustrative Job Categories

<table>
<thead>
<tr>
<th>I. Agriculturalist, Agricultural Labor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculturalist</td>
</tr>
<tr>
<td>Farmer</td>
</tr>
<tr>
<td>Gardener</td>
</tr>
<tr>
<td>Agricultural Labor</td>
</tr>
<tr>
<td>Farm Laborer</td>
</tr>
<tr>
<td>Farm Worker</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>II. Manual Labor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cartman</td>
</tr>
<tr>
<td>Coal Miner</td>
</tr>
<tr>
<td>Hostler</td>
</tr>
<tr>
<td>Ice House Worker</td>
</tr>
<tr>
<td>Janitor</td>
</tr>
<tr>
<td>Laborer</td>
</tr>
<tr>
<td>Miner</td>
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<tr>
<td>Motorman</td>
</tr>
<tr>
<td>Paper Carrier</td>
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<tr>
<td>Sailor</td>
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<tr>
<td>Stone Paver</td>
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<td>Teamster</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>III. Professionals and Proprietors, Artisans, Service, and Semi-skilled</th>
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</thead>
<tbody>
<tr>
<td>Professionals and Proprietors I</td>
</tr>
<tr>
<td>Attorney</td>
</tr>
<tr>
<td>Druggist</td>
</tr>
<tr>
<td>Engineer</td>
</tr>
<tr>
<td>Merchant</td>
</tr>
<tr>
<td>Physician</td>
</tr>
<tr>
<td>Preacher</td>
</tr>
<tr>
<td>Teacher</td>
</tr>
<tr>
<td>Professionals and Proprietors II</td>
</tr>
<tr>
<td>Agent</td>
</tr>
<tr>
<td>Barber</td>
</tr>
<tr>
<td>Bookkeeper</td>
</tr>
<tr>
<td>Clerk</td>
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<tr>
<td>Grocer</td>
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<tr>
<td>Hatter</td>
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<tr>
<td>Peddler</td>
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<tr>
<td>Photographer</td>
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<tr>
<td>Real Estate</td>
</tr>
<tr>
<td>Salesman</td>
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<tr>
<td>Saloonkeeper</td>
</tr>
<tr>
<td>Artisans</td>
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<tr>
<td>Blacksmith</td>
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<tr>
<td>Brick Mason</td>
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<tr>
<td>Bricklayer</td>
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<tr>
<td>Cabinetmaker</td>
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<tr>
<td>Carpenter</td>
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<td>Carriage Maker</td>
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<td>Cobbler</td>
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<tr>
<td>Cooper</td>
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<tr>
<td>Jeweler</td>
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<tr>
<td>Machinist</td>
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<tr>
<td>Mason</td>
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<tr>
<td>Mechanic</td>
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<tr>
<td>Mill Wright</td>
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<td>Molder</td>
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<tr>
<td>Painter</td>
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<td>Paper Hanger</td>
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<td>Plasterer</td>
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<tr>
<td>Printer</td>
</tr>
<tr>
<td>Sawyer</td>
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<tr>
<td>Stonemason</td>
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<tr>
<td>Tailor</td>
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<tr>
<td>Tinsmith</td>
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<tr>
<td>Weaver</td>
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<tr>
<td>Service and Semi-skilled</td>
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<tr>
<td>Bartender</td>
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<tr>
<td>Boatman</td>
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<tr>
<td>Car Inspector</td>
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<tr>
<td>Cigar Packer</td>
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<tr>
<td>Cook</td>
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<tr>
<td>Dairyman</td>
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<tr>
<td>Driver</td>
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<tr>
<td>Fire Engineer</td>
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<tr>
<td>Forerunner</td>
</tr>
<tr>
<td>Foundry Man</td>
</tr>
<tr>
<td>Galvanizer</td>
</tr>
<tr>
<td>Glassworker</td>
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<tr>
<td>Longshoreman</td>
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<tr>
<td>Lumberman</td>
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<tr>
<td>Machine Wood Worker</td>
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<tr>
<td>Machinist</td>
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<tr>
<td>Mail Route</td>
</tr>
<tr>
<td>Night Watchman</td>
</tr>
<tr>
<td>Policeman</td>
</tr>
<tr>
<td>R.R. Repairman</td>
</tr>
<tr>
<td>Runs Peanut Stand</td>
</tr>
<tr>
<td>Saw Grinder</td>
</tr>
<tr>
<td>Stationary Engineer</td>
</tr>
<tr>
<td>Stonecutter</td>
</tr>
<tr>
<td>Track hand</td>
</tr>
<tr>
<td>Trainman</td>
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<tr>
<td>Trapper</td>
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<tr>
<td>Truck Driver</td>
</tr>
<tr>
<td>Watchman</td>
</tr>
<tr>
<td>Wire Worker</td>
</tr>
<tr>
<td>Yarn Winder</td>
</tr>
</tbody>
</table>
3. Study II: Civil War Data Set, Findings

The findings in this section illustrate relationships in the research model among the predictor and outcome measures. Several types of statistical analyses are used, including descriptive statistics, correlational, partial correlation, and multivariate tests.

a. Descriptive Statistics

Descriptive statistics illustrate trends involving the two outcome measures—the proportion of zero ratings and the disability ratings—derived from claimants' first medical exams. Figure 10 shows the distribution of the first medical exams from 1862 through 1907 for the sample of 6,596 claimants.

There is a slight increase in first-time claimants at the end of the war in 1865, and great surges in first-time claimants immediately after the 1879 Arrears Act and the 1890 Disability Pension Act. Approximately 21%—1,400 of claimants studied—presented claims in 1890. The distribution reflects a relatively older cohort of first time claimants for most conditions. The claimants generally were in their mid-40s to mid-50s, except those seeking awards related directly to combat wounds and injuries during and immediately after the war.

201 Interpretation of the preliminary findings focuses on the general magnitude and direction of the trends in the data. Where appropriate, statistical testing techniques provide an estimate of the relationships between the independent and dependent measures. At this point, causal inferences and generalizations of the findings to other data sets may be made only tentatively. See Peter David Blanck, Employment Integration, Economic Opportunity, and the Americans with Disabilities Act: Empirical Study from 1990–1993, 79 Iowa L. Rev. 853, 887 (1994) (discussing data analytic techniques and resulting conclusions regarding disability).

202 For purposes of the initial analyses, findings from veterans' first medical examinations are tabulated, separately for each of the major disability categories, which are further subdivided into those disabilities subject to less and more attitudinal prejudice. However, over the course of their lives veterans undergo multiple exams to update their conditions. As mentioned, the sample explored veterans at the rank of private. Figure 10 infra p. 160, illustrates the distribution of the sample of 6,596 veterans for purposes of the initial analyses here. Disabilities related to ear conditions are not tabulated in the initial analysis, as they were subject to a separate rating system for purposes of pension awards. See DATA USER'S MANUAL, supra note 11, at 139 (discussing Act of August 27, 1888, granting special pensions for war-related deafness, with awards for total deafness granted at $30 per month and fractional amounts for partial deafness).

203 See GLASSON, supra note 16, at 123.

204 See Figure 11 infra p. 163 (illustrating average ages of claimants sampled). Analyses of all pension exams for the present data set, containing information on approximately 25,000 medical exams, shows a similar trend, with a substantial jump in claims, of roughly 3,000 or 12% of the total, immediately after passage of the 1890 Act (i.e., original, increase, restoration, or additional benefits sought). Study is underway on the sample of all pension exams.
Figure 10: Number of First Exams for Civil War Pensions (1862–1907)*

* Sample size equals 6,596.
i. Validity of Disease Screens

One major question of the present data set is the usefulness or validity of the individual disease screens for predicting surgeons' disability ratings for purposes of pension awards. As illustrated in Figure 1, the relation between disease screen evaluations and pension award decisions was hypothesized to be influenced by other independent factors such as the claimant's social status or age, or the degree of prejudice associated with a particular condition.

Appendix 2 illustrates for the present data sub-set the degree of association between the disease screen categories and subsequent disability ratings and proportion of zero ratings. The findings in Appendix 2 are consistent with the hypothesis and the operational premise of the pension system that disease screen ratings should be strong predictors of zero and pension ratings. Appendix 2 shows for each of the major disability groupings the correlations among the disease screening items and disability and zero ratings, as well as the median and aggregate correlations for all screening items in the disease category.

The findings in Appendix 2 illustrate, for instance, that the majority of disease screening items for the category cardiovascular impairment predicted zero and pension ratings. As would be expected, a claimant diagnosed with a heart murmur or impaired breathing was more likely than a claimant without such a diagnosis to receive a higher disability rating for cardiovascular impairment and less likely to receive a zero rating. The median and aggregate correlations across the disease screening items for cardiovascular impairment support this conclusion.

The findings from the present validity test are consistent with other independent studies of the data set. Chen Song has tested the degree of empirical support for the charges levied in the press that examining surgeons intentionally skewed disability severity measures to bias pension compensation. She finds no evidence that examining surgeons skewed or exaggerated their diagnoses of medical symptoms to match pension ratings awarded for purposes of compensation.

In sum, although different screening items across the disability categories are better predictors of disability and zero ratings than others, the overall predictive

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205 See infra notes 207-212 and accompanying text (discussing correlational and regression analyses predicting pension awards).

206 See infra notes 212-224 and accompanying text (discussing correlational analysis between screening severity scores and degree of prejudice toward disability).

207 Appendix 2, infra p. 226; see DATA USER'S MANUAL, supra note 11, at 109-33 (describing data collection screens).

208 See Song, supra note 187, at 1 (studying approximately 2,300 pension claimants); see also supra Study I, at Part III.A.1 (analyzing news and magazine stories from 1862-1907).

209 Id. at 2 (studying hernia claimants and concluding that "the Board of Pensions had administered the UA pension program in a just manner and that examining surgeons carried out their duties accurately and fairly."); id. (finding using regression analysis that hernia symptoms explained 44% of the variation in hernia ratings).

210 The variation in predictive capability across the disability categories likely is due to
trend across the categories appears consistent and strong. As will be illustrated, other multivariate or regression analyses examining the predictability of the screening items further support the general validity of the gatekeeping function of the medical screening items as predictors of pension awards. Thus, even when statistically controlling for the effects of claimant’s age and occupation, and for the effect of exam year and its applicable pension law period, the medical screening items remain the strongest predictors of pension awards.211

ii. General Trends for Disability and Zero Ratings

Aggregated over the years 1862–1907, Figure 11 sets forth:

1. the average proportion of examinations that resulted in a zero disability rating—cases in which it was determined there was no basis for compensation;
2. the average disability rating—the proportion of total disability for purposes of awards;212
3. the sample sizes for each cell, and their proportion of the total sample; and,
4. the average ages for each disease/disability category.

factors related to: (1) differing numbers, quality, and types of screens; and (2) the diagnostic capabilities of the day. See DATA USER'S MANUAL, supra note 11, at 109–33 (describing quality of data collection screens).

211 See infra note 246 and accompanying text (describing regression analyses). The conclusion is supported from the regression analyses, using the outcome measures of disability rating and proportion of zero ratings, and the predictor measures of severity of impairment within a disability category (e.g., total score of screening items illustrated in Appendix 2, infra p. 226), exam year, claimant age, and claimant occupation. By way of illustration, the findings of the regression analysis for the overall test of proportion of zero ratings for the cardiovascular disability was $R^2 = .285$, $F(8, 351) = 17.52$, $p < .0001$; and for the corresponding individual test of severity rating, $r = .25$, $t = -11.08$, $p = .0001$ (controlling for the other independent measures), with none of the other independent measures producing a substantial main effect. See also Song, supra note 187, at 2 (finding that there were no regional discrepancies in hernia ratings, nor discrepancies over time during the different pension laws).

212 See supra notes 180–85 (discussing the definition of “total” disability for purposes of compensation by the pension system; for purposes of the present research, average disability rating was multiplied by $8 per month to estimate initial average monthly award under the General Law).
Figure 11: Ratings for Civil War Pensions (1862–1907)
Military Rank–Private, First Exams

<table>
<thead>
<tr>
<th>Disease/Disability Category</th>
<th>Percent Rated Zero</th>
<th>Average Rating</th>
<th>Number Rated</th>
<th>(Percent of Total)</th>
<th>Average Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiovascular</td>
<td>15%</td>
<td>.63</td>
<td>803</td>
<td>(12%)</td>
<td>52</td>
</tr>
<tr>
<td>Diarrhea</td>
<td>21%</td>
<td>.46</td>
<td>731</td>
<td>(11%)</td>
<td>50</td>
</tr>
<tr>
<td>Endocrine</td>
<td>8%</td>
<td>.66</td>
<td>12</td>
<td>(.2%)</td>
<td>52</td>
</tr>
<tr>
<td>Gastrointestinal</td>
<td>20%</td>
<td>.49</td>
<td>275</td>
<td>(4%)</td>
<td>51</td>
</tr>
<tr>
<td>Hernia</td>
<td>5%</td>
<td>.81</td>
<td>474</td>
<td>(7%)</td>
<td>52</td>
</tr>
<tr>
<td>Injury/Gunshot Wounds</td>
<td>15%</td>
<td>.52</td>
<td>1,563</td>
<td>(24%)</td>
<td>44</td>
</tr>
<tr>
<td>Neoplasm, Tumor</td>
<td>32%</td>
<td>.49</td>
<td>28</td>
<td>(.4%)</td>
<td>52</td>
</tr>
<tr>
<td>Rectum/Hemorrhoids</td>
<td>13%</td>
<td>.52</td>
<td>727</td>
<td>(11%)</td>
<td>51</td>
</tr>
<tr>
<td>Respiratory</td>
<td>19%</td>
<td>.52</td>
<td>760</td>
<td>(12%)</td>
<td>50</td>
</tr>
<tr>
<td>Rheumatism/Musculo-Skeletal</td>
<td>16%</td>
<td>.56</td>
<td>1,724</td>
<td>(26%)</td>
<td>52</td>
</tr>
<tr>
<td>Varicose Veins</td>
<td>6%</td>
<td>.58</td>
<td>174</td>
<td>(3%)</td>
<td>52</td>
</tr>
</tbody>
</table>
** Average for Less Prejudicial** | 13% | .58 | 4,628 | (70%) | 49 |
| Eye Disease                 | 22%                | .59            | 493          | (7%)               | 52          |
| General Appearance          | 26%                | .59            | 449          | (7%)               | 55          |
| Genito-Urinary              | 53%                | .27            | 305          | (5%)               | 52          |
| Infectious Diseases         | 44%                | .35            | 187          | (3%)               | 50          |
| Liver                       | 21%                | .39            | 121          | (2%)               | 50          |
| Nervous System              | 27%                | .72            | 287          | (4%)               | 51          |
** Average for More Prejudicial** | 26% | .53 | 1,761 | (27%) | 52 |

* Total sample of claimants is 6,596. A zero rating indicates that the claimant received no compensation.

** Less/more prejudicial as defined by Figure 8, supra p. 156.

† Significant differences were found between more and less prejudicial disease categories for average ratings (t = 2.63, p = .01), the percentage of zero ratings (t = 11.90, p = .001), and age of claimants (t = 12.70, p = .001).
Figure 11 illustrates several interesting trends. First, in terms of zero ratings for particular impairments, a lower proportion of zero ratings tended to be found for those disabilities listed in the top relative to the bottom portion of the Figure 11. These disabilities include hernias, varicose veins, endocrine disorders, and hemorrhoids, which had 5, 6, 8, and 13% rejection rates respectively.

Claimants having injuries from gunshot wounds and from rheumatism or musculo-skeletal conditions together account for approximately 50% of all claims.\textsuperscript{213} The proportion of zero ratings for war injuries from gunshot wounds is 15% and for rheumatism and musculo-skeletal conditions is 16%. The trends comport with Costa’s findings that musculoskeletal, as well as cardiovascular and digestive disorders, were the major chronic pensioned conditions among elderly Civil War veterans and among the elderly today.\textsuperscript{214}

Conditions with a higher proportion of zero ratings include genito-urinary claims (53%), infectious diseases (44%), and nervous impairments (27%). Figure 11 shows that disability categories subject to less attitudinal prejudice received a substantially lower proportion of zero ratings, relative to those subject to greater prejudice (i.e., 13% versus 26% average zero ratings, respectively).\textsuperscript{215} As confirmed by the correlational analyses presented in Figures 12 and 13, claimants with conditions subject to more attitudinal prejudice therefore were more likely to be denied pension awards outright.

Figure 11 also illustrates the average disability ratings as a percentage of total disability for the impairment categories. Claimants with hernias not only show a low proportion of zero ratings (5%) but tend to have higher disability ratings (.81). Claimants with gastrointestinal conditions have a higher proportion of zero ratings (20%) and moderate disability ratings (.49).

\textsuperscript{213} The analysis included 1,563 claimants with gunshot wounds and 1,724 claimants with rheumatism and musculo-skeletal conditions. In some cases, the claimants received disability ratings in multiple disability categories. The overall proportion of individuals sampled in the present study and illustrated in Figure 11 is comparable to Glasson’s analysis during the years 1862 to mid-1888 (described in Figure 2, supra p. 121, surveying a relatively younger group than the present sample) for particular disease/disability categories. In the present sample, for instance, 24% of veterans claimed injuries due to gunshot wounds as compared to 29% found by Glasson; 11% claimed chronic diarrhea as compared to 14% found by Glasson; 26% claimed musculo-skeletal impairments as compared to 10% found by Glasson; 7% involved claimants with hernias in both samples; and 4% claimed nervous system disorders as compared to roughly 3% found by Glasson for nervous prostration, neuralgia, and diseases of the brain.

See also Costa, supra note 22, at 42 (finding in this cohort a high proportion of claims of rheumatism, gastrointestinal disorders, and hernias by claimants without service-related disabilities—i.e., by those making claims after the 1890 law).

See id. at 62–63 (finding that related chronic conditions could not be cured in 1900 and today can be effectively treated).

\textsuperscript{215} The disabilities that are subject to less prejudice had 13% zero ratings, while the categories subject to greater prejudice had 26% zero ratings. The test of statistical significance for the difference in the proportion of zero ratings for disabilities subject to less versus more prejudice is $t = 11.90, p = .001$. See Figure 11.
Claimants with gunshot and battle wounds show a relatively low proportion of zero ratings (15%) and moderate severity ratings (.52). Slightly more than one out of four claimants with nervous disorders (27%) receive zero ratings, yet those who received awards had relatively high disability ratings (.72). Consistent with the findings for zero ratings, the magnitude of disability ratings has a substantial relationship with the attitudinal prejudice against the disability. The average rating for conditions subject to more prejudice (.53) is substantially less than for conditions subject to less prejudice (.58).

Thus, the determination of whether a claimant received a zero rating was strongly associated with measures of prejudice toward particular disabilities. Moreover, once a first-time claimant was determined to have some level of a compensable impairment, disability pension ratings tended to be affected by potential stigma associated with a particular impairment.

The right column of Figure 11 shows that claimants with disabilities subject to more prejudice tended to be older. This finding is consistent with the trend illustrated in Figure 10 showing that after passage of the 1890 Disability Pension Act, large numbers of first-time claimants presented claims twenty-five years after the end of the Civil War. In accord, first time claimants with war injury/gunshot wounds tended to be younger and subjected to less attitudinal prejudice, as compared to those with other impairments.

Lastly, as suggested earlier, it is possible that the degree of prejudice toward a particular disability might have been related to the surgeons’ conceptions of whether the claimed impairments were susceptible to feigning or malingering. To examine this possibility, a content analysis was performed on the surgeons’ notes for these

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216 Cf. DEAN, supra note 130 (discussing mental disorders associated with the Civil War); Albert Deutsch, Military Psychiatry: The Civil War, 1861–1865, in ONE HUNDRED YEARS OF AMERICAN PSYCHIATRY 367 (J.K. Hall ed., 1944) (stating that the Civil War gave rise to the neurological profession in America).

217 The test of statistical significance for the difference in the rating of severity of disease/disability for conditions subject to less versus more prejudice is statistically significant (t = 2.63, p = .01).

218 Claimants with disabilities that were subject to greater prejudice averaged 52 years of age, while claimants having disabilities subject to less prejudice averaged 49 years old. The test of statistical significance for the difference in age for disabilities subject to less versus more prejudice is t = 12.70, p = .001.

219 The test of statistical significance for the difference in age for those with gunshot injuries versus others is t = 13.09, p ≤ .0001 (average age claiming gunshot wounds was 44 years versus 48 years for claimants in the sample not claiming gunshot wounds). In other disability categories besides gunshot wounds, the average age of claimants was significantly older than those not claiming that category.

220 See, e.g., Anderson & Anderson, supra note 72, at 156–66 (citing sources of the time, such as W. Keen, S. Mitchell, and G. Morehouse); see also Deutsch, supra note 216, at 371 (commenting that in 1864 influential works were published on malingering among soldiers, particularly of nervous disorders, and related the problems associated with the bounty system for purchasing “substitutes” to go to war).
roughly 6,600 claimants, searching for reference to the terms "malingering," "deadbeat," "fake," and "fraud." The results of this search revealed that these terms were used by examining surgeons in only six of the 6,596 cases studied, representing .09% of the present sample. These findings comport with Theda Skocpol's estimates that the pension cases dropped for disability fraud in 1874 and between 1876 and 1879 constituted less than 1% of applications granted between the years 1861 and 1876. Separate analysis of the surgeons' notes regarding claimants' "vicious habits" such as alcoholism, drug addiction, sexually transmitted diseases, and smoking, revealed comparably low levels.

iii. Occupational Status

Figure 12 illustrates over the years 1862–1907, claimants' occupational status at the time of their first claim, disability ratings, proportion of zero ratings, and sample sizes. A sub-sample of 3,091 claimants was identified (47% of the entire sample) with their occupational status known at the time of their first examination.

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221 See supra notes 188–89 and accompanying text (describing rating process); supra note 39 (research on pension appeals).

222 The six cases found were: (1) "He seems very inclined to dissipation and very much inclined to malingering" [#1310005023]; (2) "We have every reason to believe this man is a deadbeat." [#1314908125]; (3) "He is very much a malingeringer." [#1406106072]; (4) "This man is a fake." [#1409702068]; (5) "Is very intemperate and a regular deadbeat. Utterly unreliable and untruthful. I believe his claim to be a fraudulent one." [#2408002058]; and (6) "Have great doubt if he really deserves anything for he looks dead beat and is one I believe." [#2101207037].

Michael Millender has suggested to me that because pension determinations could be appealed, even if an examining surgeon believed that a claimant was a fraud he might be reluctant to report this belief and describe other reasons for a zero or low rating. Analysis of patterns and correlations in pension appeals is an interesting area for subsequent review. See Blanck & Song, supra note 39 (discussing research on pension appeals).

223 SKOCPOI, SOLDIERS, supra note 10, at 143–44 (citing sources for the estimates).

224 These terms were identified in 118 of 6,596 cases or 1.8% of the cases examined. The categorization of notes regarding vicious habits was broken down as follows: alcohol use 73 cases, tobacco use 25 cases, drug use 8 cases, sexually contracted disease or sexual behavior 4 cases, malingering behavior 8 cases, other 4 cases. Claimants with vicious habits and less prejudicial impairments, tended to have lower pension ratings (mean disability rating of .40 versus .57; $r = .27$, $p = .02$). No differences emerged among the three occupational categories or in relation to claimants' ages in regard to ratings of vicious habits.
Figure 12: Ratings for Civil War Pensions (1862–1907)
Military Rank–Private, First Exams

<table>
<thead>
<tr>
<th>Average Rating (Percent Zero Rating)</th>
<th>Occupation*</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Agriculture (n = 1256)</td>
<td>Manual Labor (n = 622)</td>
<td>Professional, Skilled or Service (n = 1213)</td>
</tr>
<tr>
<td>Cardiovascular</td>
<td>.58 (15%) 132</td>
<td>.60 (22%) 68</td>
<td>.53 (25%) 160</td>
</tr>
<tr>
<td>Diarrhea</td>
<td>.45 (18%) 174</td>
<td>.37 (35%) 69</td>
<td>.43 (22%) 143</td>
</tr>
<tr>
<td>Endocrine</td>
<td>1.0 (0%) 1</td>
<td>.50 (0%) 2</td>
<td>.50 (0%) 1</td>
</tr>
<tr>
<td>Gastrointestinal</td>
<td>.43 (24%) 54</td>
<td>.51 (5%) 19</td>
<td>.51 (22%) 73</td>
</tr>
<tr>
<td>Hemia</td>
<td>.75 (6%) 65</td>
<td>.82 (8%) 51</td>
<td>.68 (7%) 74</td>
</tr>
<tr>
<td>Injury/Gunshot Wounds</td>
<td>.47 (14%) 254</td>
<td>.49 (13%) 155</td>
<td>.45 (20%) 270</td>
</tr>
<tr>
<td>Neoplasm, Tumor</td>
<td>.19 (50%) 4</td>
<td>.30 (40%) 5</td>
<td>.25 (40%) 5</td>
</tr>
<tr>
<td>Rectum/Hemorrhoids</td>
<td>.46 (14%) 144</td>
<td>.46 (16%) 77</td>
<td>.49 (18%) 158</td>
</tr>
<tr>
<td>Respiratory</td>
<td>.46 (15%) 135</td>
<td>.47 (30%) 66</td>
<td>.46 (23%) 159</td>
</tr>
<tr>
<td>Rheumatism/Musculo-Skeletal</td>
<td>.53 (15%) 316</td>
<td>.49 (18%) 195</td>
<td>.51 (21%) 341</td>
</tr>
<tr>
<td>Varicose Veins</td>
<td>.54 (4%) 26</td>
<td>.56 (0%) 11</td>
<td>.54 (14%) 35</td>
</tr>
<tr>
<td>Average for Less Prejudicial</td>
<td>.53 (13%) 849</td>
<td>.53 (17%) 451</td>
<td>.52 (17%) 871</td>
</tr>
<tr>
<td>Eye Disease</td>
<td>.59 (20%) 85</td>
<td>.64 (16%) 50</td>
<td>.51 (34%) 102</td>
</tr>
<tr>
<td>General Appearance</td>
<td>.40 (29%) 69</td>
<td>.35 (46%) 46</td>
<td>.44 (33%) 85</td>
</tr>
<tr>
<td>Genito-Urinary</td>
<td>.26 (51%) 51</td>
<td>.21 (56%) 25</td>
<td>.18 (64%) 64</td>
</tr>
<tr>
<td>Infectious Diseases</td>
<td>.32 (51%) 35</td>
<td>.24 (65%) 20</td>
<td>.21 (63%) 30</td>
</tr>
<tr>
<td>Liver</td>
<td>.43 (27%) 30</td>
<td>.48 (23%) 13</td>
<td>.24 (38%) 24</td>
</tr>
<tr>
<td>Nervous System</td>
<td>.36 (28%) 54</td>
<td>.40 (35%) 17</td>
<td>.62 (34%) 50</td>
</tr>
<tr>
<td>Average for More Prejudicial</td>
<td>.42** (27%) 318</td>
<td>.43† (31%) 158</td>
<td>.39†† (40%) 338</td>
</tr>
</tbody>
</table>

* Of the 6,596 claimants rated, occupation information was available for 3,091 (47%).
** Average ratings differed between more and less prejudicial diseases for persons in agriculture (t = -3.28, p = .002); and for percentage of zero ratings (t = 5.19, p = .001).
† Average ratings differed between more and less prejudicial diseases for persons in manual labor (t = -2.51, p = .02); and for percentage of zero ratings (t = 3.60, p = .001).
†† Average ratings differed between more and less prejudicial diseases for skilled persons (t = -4.23, p = .001); and for percentage of zero ratings (t = 8.12, p = .001).

Consistent with Kemp’s findings that did not support the popularized concept of
“a poor man’s war,” approximately 41% of the claimants were engaged in agriculture, 20% engaged in manual labor, and 39% in skilled, semi-skilled, or service professions. The 1900 Census Bureau findings for White males born in the United States over sixty-five years of age and in gainful occupations—a Census year corresponding to the average age of claimants in the present sample—show that roughly 57% of those surveyed were in agriculture, 25% were in manual labor, and 18% were engaged in skilled, semi-skilled or service professions.

The first row of Figure 12 shows that first-time claimants with cardiovascular impairments working in agricultural had a lower proportion of zero ratings, relative to claimants working in manual labor and skilled occupations. Similarly, claimants with war-related gunshot wounds working in agriculture or in manual labor had lower zero ratings, relative to those in more skilled occupations.

The findings suggest that claimants of the same military rank from agricultural occupations with battle wounds were screened from awards at a lower rate, relative to those from skilled occupational categories. They comport with the findings of Costa that claimants with service-related disabilities who were compensated under the General Law were more likely to have been rural, native born, and farmers, and less likely to have been semi-skilled or skilled professionals. Moreover, the relatively low zero ratings for farmers is consistent with Costa’s analysis showing that, among Union Army veterans, they were in slightly worse health compared to those in other professions. The present findings suggest further that once a veteran was

225 See Kemp, supra note 198, at 74–76 (discussing empirical findings).
226 See supra notes 196–200 and accompanying text (Figure 9, supra p. 158, describing types of occupations in the three general categories of work).
227 See supra note 213 and accompanying text (describing age of the present sample of first time claimants).
228 See I.M. RUBINOW, SOCIAL INSURANCE 408 (1913) (discussing census findings); see also COSTA, supra note 22, at 86–87 (reviewing studies of occupational distribution of men older than 64 in 1880–1890, and finding that approximately 60% were farmers, 28% were manual laborers, and 12% worked in semi-skilled or skilled professions).
229 Fifteen percent of agriculturally employed claimants of cardiovascular impairments had zero ratings, while claimants working in manual labor and skilled professions had 22% and 25% zero ratings respectively. The findings for cardiovascular claims show no discernible trends related to occupational status and subsequent disability severity ratings.
230 The proportion of zero ratings for agriculture is 14%, in manual labor 13%, and in skilled/service professions 20%. In addition, of those working in agriculture, claimants with gunshot wounds tended to be younger relative to claimants of other disease/disability categories (in agriculture, average age of a claimant having gunshot wounds was 42 years as compared to 46 years claiming other disease/disabilities).
231 See COSTA, supra note 22, at 42 (commenting on the impact of these trends on subsequent retirement rates). The present findings show a relatively close representation of claimants under the General Law in agricultural occupations (n = 254) and in professional occupations (n = 270).
232 See id. at 95 (finding that farmers were in worse health and somewhat older than other veterans). Costa notes that when examining more objective measures of Union Army veterans’
determined to have a pensionable disability related to a gunshot wound, disability ratings did not vary as a function of claimants’ occupations.233

The second row from the bottom of Figure 12 shows that claimants with nervous disorders who worked in agriculture tended to have lower zero ratings (28%), relative to those in manual labor (35%) and skilled professions (34%). In contrast to the findings for gunshot wounds, disability ratings for nervous disorders tended to increase as a veteran’s occupational status became more skilled.234 Claimants with nervous disorders working in skilled professions had disability ratings almost twice as high as those working in agriculture.235

Consistent with the findings illustrated in Figure 11, Figure 12 shows that the determination of whether a claimant received a zero rating and the magnitude of the pension rating, were strongly associated with measures of prejudice toward particular disabilities. The findings in Figure 12 suggest further that zero ratings and disability ratings may vary as a function of the claimants’ occupation and wealth. For instance, the relative proportion of zero ratings is higher for claimants in more skilled professions and particularly so for those conditions subject to more prejudice.236 The next set of analyses examines these more complex relationships.

iv. Summary

The proportion of zero ratings is higher and disability ratings are lower for impairments subject to more prejudice. The trend also is found as a function of the claimants’ occupational status. Claimants in skilled professions with impairments subject to more prejudice were more likely to receive zero ratings and lower disability ratings. Although social class appears to be a factor in the assessment and awarding of pensions, a claimant’s class may correspond to other forces that impact awards, such as partisan politics. For instance, as mentioned earlier, Sanders found that over time pension benefits were distributed unequally to Republican strongholds that were

health (e.g., body mass index, “BMI”), farmers in their twenties were relatively healthier than other occupational groups. However, by the time farmers reached their fifties, they were the least healthy group (i.e., in terms of BMI), perhaps because of the physical demands on their bodies from non-mechanized farming. Id.; see also Letter from Dora Costa, Professor of Economics, M.I.T., to Peter Blanck, author (October 25, 1999) (on file with author).

233 Mean rating of severity of disability for gunshot wounds are .47 for agriculture, .49 for manual labor, and .45 for skilled/service professions; F(2, 629) = 0.45, p = .64, not significantly different. Cf. supra notes 212–18 and accompanying text (illustrating that severity ratings did vary as a function of prejudice associated with particular conditions).

234 Mean rating of severity of disability for nervous disorders are .36 for agriculture, .40 for manual labor, and .62 for skilled/service professions; F(2, 111) = 2.34, p = .10.

235 Claimants of nervous disorders who worked in skilled professions averaged a .62 rating, while those in agriculture averaged .36. Additional study is needed on the relation among the claimants’ actual incomes, perceived social class, impairment types and pension awards.

236 See infra notes 256–76 and accompanying text (discussing complex relationships among the measures in the research model).
predominantly located in rural and nativist areas of the country.\textsuperscript{237}

The current findings also illustrate that social and attitudinal prejudice, independent of the claimant's disability, predicted surgeons' medical evaluations when making first-time pension awards. Examiners may have exhibited an intuitive sense of equity and perceived social justice in the allocation of their awards.\textsuperscript{238} Regardless of their motivations and attitudes, the findings suggest that a large share of pension dollars may have been influenced by the social marker of disability and by the claimants' class status, more than heretofore acknowledged.\textsuperscript{239}

Future study is necessary to determine the ways in which examining surgeons' ratings were influenced by their views of the claimants' social status, background characteristics, party affiliation, and other non-disability related factors.\textsuperscript{240} Additional study may suggest interpretations of the present findings that might lead to other lessons for contemporary disability policy.\textsuperscript{241} Future analyses may help to isolate the manner in which the findings provide support for the conclusion that the operation of the pension system was influenced by developing societal prejudice toward the new class of persons with disabilities.\textsuperscript{242}

More detailed study of the bases for the relatively higher zero ratings for more stigmatized impairments may reveal underlying suspicions held by examiners about impairments, such as nervous disorders, that at the time were difficult to diagnose. This latent bias may be true, despite the present finding that examining surgeons commented on the possibility of the claimant as a malingerer or fraud in less than 1% of the cases studied.

Additional study may show that prior to the liberalized approach to disability pension awards reflected in the 1890 Act, high zero ratings were particularly indicative of examiners' doubts about how to rate impairments when presented with conditions such as infectious diseases that might not be permanently disabling. Moreover, the trend illustrated in Figure 11, that examining surgeons tended to give higher disability ratings to claimants with legitimate, yet stigmatized impairments, suggests that there may have been other social forces at work besides a generalized

\textsuperscript{237} See Sanders, supra note 51, at 154–55 (discussing findings).

\textsuperscript{238} Additional research is necessary on whether the examiners' ratings and the subsequent pension awards were influenced by perceptions of claimants' abilities to perform certain types of occupations, given that the definition of disability was closely tied to the ability to perform labor.

\textsuperscript{239} See Rubinow, supra note 228, at 406 (commenting that, although satisfactory statistics did not exist at the time, an aspect of the operation of the Civil War pension system more important than the alleged cases of fraud is that a large proportion of pension awards went to claimants with no economic need whatsoever).

\textsuperscript{240} Cf Mark S. Stein, Rawls on Redistribution to the Disabled, 6 GEO. MASON L. REV. 997, at 1000–01 (1998) (examining egalitarian and utilitarian approaches to the redistribution of wealth to the disabled in the context of Rawls' work on justice).

\textsuperscript{241} See infra notes 315–61 and accompanying text (discussing relevance of historical research for contemporary study of the ADA).

\textsuperscript{242} I am indebted to Michael Millender for this suggestion.
prejudice toward particular impairments. The continuing study of the process of physician pension examinations may illustrate that, in certain situations, the concept of disability is not imposed by experts upon passive individuals who are then socially constructed as disabled. Instead, the emerging meaning of disability after the Civil War was contested terrain—an evolving social construct articulated in the press and in local communities through a myriad of encounters among pension claimants, examining surgeons, pension lawyers, and G.A.R. period politicians.

b. Simple and Complex Relationships in the Research Model

The prior section illustrated trends in pension ratings as a function of disability category, social stigma associated with the impairment, and the claimants' occupational status. This section examines the predictive value of the independent measures over time using correlational and multivariate analyses.

i. Simple Relationships

Simple (bivariate) correlational analyses are used to identify the direction and magnitude of the relationships illustrated in Figure 1. The outcome measures have

243 For instance, the claimants of "legitimate" stigmatized impairments did not receive initial zero ratings in Figure 11, supra p. 163. The highest zero ratings in Figure 11 are for genito-urinary problems. It is possible that examiners confronted with complex diagnostic problems in this area treated these claims with greater suspicion because many veterans rejected for genito-urinary complaints were believed to have venereal disease, a condition not coded in the present investigation, but documented in the content analysis of surgeon's notes. See supra note 224 (finding sexually contracted disease or sexual behavior noted only in four cases). Perhaps incorrectly, this condition was stigmatized as the product of "vicious habits or gross carelessness" and thereby prohibited as a compensable award under the pension laws. See supra notes 192-95 and accompanying text.

244 Michael Millender articulated this point to me. See Blanck & Millender, supra note 159 (discussing the meaning of disability after the Civil War); see also supra Study I, at Part III.A.1 (discussing journalists' characterizations of disability pensions from 1862 to 1907).

245 For purposes of the correlational and regression analyses, years were nested in three defined time periods, corresponding to the primary pension system operating at the time. Thus, the years 1862-1878 were defined primarily by the operation of the General Law (as modified by the 1873 Consolidation Act), the years 1879-1890 were influenced by the operation of the Arrears Act, and the years 1890-1907 were defined by the operation of the Disability Pension Act. See infra note 248 and accompanying text (discussing regression analysis variable parameters and definitions); see also DATA USER'S MANUAL, supra note 11, at 147-48 (showing the numbers of pensioners applying under different pension laws).

246 Figure 1, supra p. 115. A positive correlation indicates that an increase on one measure corresponds to an increase in another measure, a negative correlation indicates an inverse relationship, and a zero correlation indicates no relationship between the two measures. Correlations do not support inferences about the cause and effect relationship between two variables. Regression analyses are used to explore, over time, the overall predictive power of the
been defined as the proportion of zero ratings and the magnitude of disability ratings. A positive correlation between an outcome measure and an independent measure suggests that a higher proportion of zero ratings or disability ratings are associated with a higher score on the predictor variable, while a negative correlation suggests an inverse relation.

Figure 13 displays the correlations between the predictor and outcome measures across the disability categories. The right most column of Figure 13 shows that there were several substantial predictors of first time claimants receiving a higher proportion of zero ratings. First, those with a higher proportion of zero ratings tended to be older \( r = .03 \). Moreover, individuals with a higher proportion of zero ratings were more likely to have been examined during the later years of the pension system \( r = .12 \). In particular, these individuals were more likely examined during the years after passage of the 1879 Arrears Act \( r = .05 \) and the 1890 Disability Pension Act \( r = .04 \), as compared to after the passage of the 1862 General Law \( r = -.13 \). The trends comport with the Study I findings that the most active political and social debates questioning the operation of the pension system and the legitimacy of claimants’ disabilities occurred during the years immediately after passage of the 1879 Arrears Act and before passage of the 1890 Disability Pension Act.\(^{247}\)

\(^{247}\) See supra Study I, at Part III.A.1 (measuring partisan differences in news stories by discrepancy in attitudes toward the pension system and disabled veterans).
Figure 13: Civil War Pension Ratings and Percentage of Zero Ratings—First Exams for Privates (1862–1907)
Simple Correlations

<table>
<thead>
<tr>
<th></th>
<th>Average Rating Composite†</th>
<th>Percent of Zero Ratings Composite‡†</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>.10****</td>
<td>.03***</td>
</tr>
<tr>
<td>Exam Year</td>
<td>.06****</td>
<td>.12****</td>
</tr>
<tr>
<td>Applied Under:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Law Years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1862–1878)</td>
<td>.03***</td>
<td>-.13****</td>
</tr>
<tr>
<td>Arrears Act Years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1879–1890)</td>
<td>-.16****</td>
<td>.05****</td>
</tr>
<tr>
<td>Disability Pension Act</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1891–1907)</td>
<td>.14****</td>
<td>.04****</td>
</tr>
<tr>
<td>More Prejudicial Diseases</td>
<td>-.04***</td>
<td>.17****</td>
</tr>
<tr>
<td>Occupation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture</td>
<td>.006</td>
<td>-.07****</td>
</tr>
<tr>
<td>Manual Labor</td>
<td>.02</td>
<td>.005</td>
</tr>
<tr>
<td>Professional, Skilled or Service</td>
<td>-.02</td>
<td>.07****</td>
</tr>
<tr>
<td>Agri.-Manual-Prof./Skilled (linear)</td>
<td>-.01</td>
<td>.08****</td>
</tr>
</tbody>
</table>

*p ≤ .10, **p ≤ .05, ***p ≤ .01, ****p ≤ .001.

† Composite is the average severity rating over all disease categories rated for each claimant.
‡† Composite is the proportion of zero ratings received over all disease categories rated for each claimant.
Those individuals with a substantially higher proportion of zero ratings had disabilities that were subject to more prejudice \( r = .17 \). These people tended to be employed in more skilled occupations \( r = .07 \) than in agriculture who have the lowest zero ratings \( r = -.07 \).248

Consistent with the findings for zero ratings, the middle column of Figure 13 shows that first-time claimants receiving higher disability ratings tended to be older \( r = .10 \). These first-time claimants tended to be examined in later years during the time period 1862–1907 \( r = .06 \), and, in particular, were examined after passage of the 1862 General Law \( r = .03 \) and the 1890 Disability Pension Act \( r = .14 \). Consistent with the findings for zero ratings, disability ratings were lower for conditions subject to greater prejudice \( r = -.04 \).

Figure 13 also illustrates that the claimants’ occupational status did not predict disability pension ratings. In contrast to suggestions by Skocpol,249 the findings for zero ratings do suggest that the gatekeeping or screening function of the pension system may have been affected by social and attitudinal forces independent of impairment (e.g., attitudinal prejudice). Yet once a claimant was determined to have a “legitimate” impairment based on his first time medical exam, extra-system forces specifically related to social class (e.g., in this study occupational status) did not predict pension awards. The trends in the findings over time suggest that the better likelihood of not receiving a zero rating (and a relatively higher disability rating) was associated with the extent to which a claimant could trace his disability to wartime service (e.g., to a battle injury or to the long-term effects of disease contracted while in the army).250

ii. Controlling for Age

The simple correlations presented above were used to assess disability pension assessments based on first time medical exams (i.e., not accounting for claimants’ age). One limitation of the simple correlational analyses is that older claimants would be expected to evince higher disability ratings as compared to younger claimants. In other research contexts, the strongest evidence of discrimination against workers with disabilities is derived from research models that control for the effects of disability related to the aging process.251

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248 Total disability for purposes of pension awards was defined initially in terms of the ability to perform manual labor, subsequently the definition was expanded to include other forms of skilled labor. See supra notes 179–82 and accompanying text (describing definition of total disability). Figure 13 shows that although occupational status may have acted as a screening mechanism in the making of any award, occupational status did not predict screening severity ratings and thereby pension compensation. Study is needed of the extent to which the statutory definition of disability impacted the findings for zero and disability ratings.

249 Cf. Skocpol, Soldiers, supra note 10, at 144–48 (generally concluding that Civil War pensions were not influenced by claimants’ social characteristics).

250 See Costa, supra note 22, at 35–41 (finding similar trend).

251 See Marjorie L. Baldwin, Estimating Wage Discrimination Against Workers with
A partial correlation analysis was performed to explore the extent to which the findings were influenced by the claimants’ age. This kind of correlation describes the relationship between an independent variable and a dependent variable, statistically controlling for the effects of another designated variable in the research model. The partial correlations among the proportion of zero and disability ratings and the predictor variables were calculated controlling for claimants’ ages. These findings are presented in Figure 14.

Examination of the partial correlations reveals a pattern of findings consistent with those of the simple correlations above. The right column of Figure 14 shows that, even when holding age constant, claimants who received a higher proportion of zero disability ratings tended to be examined in later years during the time period from 1862 to 1904 \( r = \cdot011 \), particularly during the years after passage of the 1879 Arrears Act \( r = \cdot03 \), as compared to after the passage of the General Law \( r = \cdot11 \). When controlling for age, again claimants receiving a higher proportion of zero ratings had disabilities subject to more prejudice \( r = \cdot24 \). These individuals also were more likely to have been employed in more skilled occupations \( r = \cdot07 \). Those in agriculture had the lowest zero ratings \( r = \cdot07 \), and those in skilled/service occupations had the highest zero ratings \( r = \cdot07 \).

The middle column of Figure 14 shows that, independent of the claimants’ age at the time of their first exam, veterans receiving higher ratings were more likely to be examined during the years after passage of the 1862 General Law \( r = \cdot11 \) and after the 1890 Disability Pension Act \( r = \cdot09 \), as compared to after passage of the 1879 Arrears Act \( r = \cdot14 \); and, they were awarded higher compensation for impairments subject to less prejudice \( r = \cdot13 \).

When holding age constant, therefore, claimants tended to receive a higher proportion of zero ratings and lower disability ratings for those impairments subject to more prejudice. Even when statistically controlling for age (e.g., the potential effects of age on work productivity), disability ratings were not predicted by a claimant’s occupational status. The partial correlational analyses support the suggestion that the likelihood of zero ratings was related more to the stigma associated with a claimant’s disabilities and their occupational status than to a claimant’s age at the time of their first application. When statistically adjusting for age (i.e., accounting for the relation of age and disability ratings), claimants received lower ratings for disabilities subject to more prejudice.\(^{253}\)

\(^{252}\) See COHEN & COHEN, supra note 247, at 83, 181–82 (explaining that partial correlation is the relationship between two variables, with other independent variables held constant).

\(^{253}\) See also COSTA, supra note 22, at 36–37 (finding for the present sample that health conditions worsened with age).
Figure 14: Civil War Pension Ratings and Percentage of Zero Ratings—First Exams for Privates (1862–1907)  
Partial Correlations Adjusted for Age

<table>
<thead>
<tr>
<th>Exam Year</th>
<th>Average Rating Composite†</th>
<th>Percent of Zero Ratings Composite‡†</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Law Years</td>
<td>.11****</td>
<td>-.11****</td>
</tr>
<tr>
<td>(1862–1878)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arrears Act Years</td>
<td>-.14****</td>
<td>.03*</td>
</tr>
<tr>
<td>(1879–1890)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disability Pension Act</td>
<td>.09****</td>
<td>.03</td>
</tr>
<tr>
<td>(1891–1907)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>More Prejudicial Diseases</td>
<td>-.13****</td>
<td>.24****</td>
</tr>
<tr>
<td>Occupation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture</td>
<td>.007</td>
<td>-.07****</td>
</tr>
<tr>
<td>Manual Labor</td>
<td>.01</td>
<td>.00</td>
</tr>
<tr>
<td>Professional, Skilled, or Service</td>
<td>-.02</td>
<td>.07****</td>
</tr>
<tr>
<td>Agri.-Manual-Prof./Skilled (linear)</td>
<td>-.01</td>
<td>.07****</td>
</tr>
</tbody>
</table>

*p ≤ .10, **p ≤ .05, ***p ≤ .01, ****p ≤ .001.

† Composite is the average severity rating over all disease categories rated for each claimant.
‡† Composite is the proportion of zero ratings received over all disease categories rated for each claimant.
The findings to this point can be summarized as follows: (1) a claimant's age at their first exam relates to higher zero and disability ratings, as shown in the top line of Figure 13; and, (2) claimants evaluated for more prejudicial diseases, and those in more skilled professions, tended to receive a higher proportion of zero ratings, as also illustrated in Figure 13. When statistically adjusting for the effect of age, Figure 14 shows that claimants with more prejudicial diseases were even more likely to receive zero ratings and lower disability ratings, relative to those with impairments subject to less stigma.

iii. Complex Relationships

The prior analyses examined simple relationships in the research model. Regression analyses are used next to explore the extent to which the outcome measures may be predicted from a set of independent variables. Several regression analyses are conducted to assess relationships among: (1) the different time periods corresponding with the expansion of the pension system; (2) the degree of prejudice associated with disability categories; (3) claimant's occupational status; and, (4) the outcome variables proportion of zero ratings and disability ratings.

254 When correlating the predictor variables in the model with screening severity scores (i.e., the individual medical diagnostic queries with "yes/no" responses identified in Appendix 2, supra p. 226), a similar pattern of findings emerges. Specifically, those claimants with higher screening severity scores (sample size = 3,776) were: (1) older at the time of their first medical exam \( r = .03, p \leq .10 \); (2) individuals with disabilities subject to greater attitudinal prejudice, \( r = -.36, p \leq .01 \); and (3) individuals examined during the Disability Pension Act period \( r = .19, p \leq .01 \), as compared to those examined during the General Law period \( r = -.10, p \leq .01 \), and the Arrears Act period \( r = -.15, p \leq .01 \). A similar pattern appears when performing partial correlations adjusting for claimants' ages. Claimants' occupational status at the time of their first exam was not related to their screening severity scores \( r = -.01, p\text{-value not significant (n = 1,794)} \).

255 See COHEN & COHEN, supra note 247, at 7 (describing regression analysis).

256 Many combinations of the measures may be employed as variables in regression equations. The over-arching purpose of the initial analysis is to illustrate how the independent measures are useful for modeling pension outcome ratings over time. For exploratory purposes, the regressions are designed to focus on linear changes over time. Other statistical models may be explored in the future to better explain and "fit" the data trends over time, such as those using quadratic or cubic equations. In this research, Windows SAS statistical software was used for the correlations, partial correlations, and regression analyses.

The independent variable of "time" or year is nested within a pension law time frame (e.g., 1862 Act period, 1879 Act period, 1890 Act time period). The initial regression equations specified an intercept term that adjusted for the overall mean zero rating or disability rating within each pension law period, and also three separate linear time effects. The models presented in Figures 15 through 22 further constrain the analyses so that the three line segments meet at 1879 and 1890. This is done by adjusting the parameters in the regression equation, with a final model that includes only one intercept term and three separate linear time effects for the three separate pension law periods. For those regressions involving the independent measures of degree of prejudice or occupational status, a main effect (for either degree of prejudice or occupation) and three interaction terms (e.g., degree of prejudice by time nested within General Law Period) were
Illustration 1: Overall Changes with Time

The first set of regression tests examines the overall changes in the proportion of zero ratings from 1862 to 1907. Figure 15 illustrates that the proportion of zero ratings increased over time, corresponding to the numbers of pensioners seeking awards. From 1865 to 1879, immediately after the war until passage of the 1879 Arrears Act, growing numbers of applications caused a predictable rise in the proportion of zero ratings, from approximately 0% in 1862 to 17% by 1879. During the initial period after the war when Republicans were in control, the level of zero ratings is consistent with Sanders’ findings described earlier regarding the ratio of approved to rejected pension claims. Sanders found that during periods of Republican control, annual pension award rejection rates (i.e., proportion of zero ratings in the present investigation) average about 25%.

As mentioned, disability ratings have been standardized to reflect changes over time in the pension compensation. A positive relationship between the dependent variable and an independent measure suggests that a higher proportion of zero ratings or disability ratings is associated with the independent variable. It also should be noted that because the zero disability ratings in the present investigation were not always dichotomous, logistic regression analyses were not employed. For instance, in Figures 12 and 13, supra pp. 167 & 173, the “Percent Zero Ratings Composite” defined in the footnote reflects the proportion of zero ratings received over all the disease categories rated for each claimant. Thus, the zero rating indicator for claimants being rated for multiple diseases is the proportion of zero ratings the claimant received for all diseases rated. The dependent measure of “proportion of zero ratings” ranges from zero to one and is non-dichotomous in nature whenever more than one type of disease was considered.

The Multiple R (or $R^2$) associated with the regression equation represents the relationship between the outcome measure and the set of predictor measures. The explained variance for each independent variable (i.e., “$r^2$”) presented in Figures 14 through 21, and its corresponding level of statistical significance “p” represents the contribution of each variable in the model, holding constant the effects of the other variables. The Multiple R takes on values between 0 and 1, with the former indicating no relationship and the latter indicating a perfect relationship between the variables. The F and t tests describe the level of confidence for the assertion that the linear relationship between the set of predictor and criterion variables is not zero in the sample population. See COHEN & COHEN, supra note 247, at 7 (describing regression analysis).

Sanders, supra note 51, at 148 (commenting that the rejection of a claim was not necessarily fatal, as claimants could reapply). Again, in the present research, examination is made only of first time pension applications.
Figure 15: Percentage of Zero Ratings for Civil War Pensions (1862–1907)*—Average for All Diseases

* Estimated from a regression model adjusting for year of exam. See supra note 257.
After passage of the Arrears Act, from 1880 until 1890, there was an insubstantial decline in the proportion of zero ratings. Sanders found that during the mid-1880s, with a Democratic administration in place, there were relatively higher rejection rates, averaging about 31% during that period. With passage of the 1890 Act and huge numbers of new pensioners joining the pension rolls, the findings show a substantial rise in zero ratings, from approximately 15% to 23%. During this period, Sanders found average rejection rates of approximately 21%.

Figure 16 illustrates a regression model that uses disability ratings as the outcome measure. Corresponding with the findings for zero ratings during and immediately after the war and in the initial years of the General Law, first-time claimants received high ratings, ranging from approximately .81 to .73 for total disability during the years of 1862 through 1865. Starting in 1862 and spilling sharply downward until the 1879 Arrears Act, ratings decline by more than half, from .81 average ratings in 1862 to .35 in 1879. Starting in 1879 and until passage of the 1890 Act, ratings increase from .35 to .64. From the enactment of the 1890 Act until passage of the 1907 Service and Age Pension Act, ratings show a modestly increasing trend, from roughly .64 in 1890 to .73 in 1907.

258 Id. at 148–50 (commenting that the Republicans and Democrats used their "administrative control to shape the outcomes of pensions decisions").

259 For the overall test of proportion of zero ratings over time, \( R^2 = .022, F(3, 5039) = 38.58, p = .0001 \). The tests for the individual time periods are as follows: for the General Law period (1862–1878), \( r = .13, t = 9.13, p = .0001 \); for Arrears Act period (1879–1889), \( r = -.02, t = -1.32, p = .19 \); and for Disability Pension Act period (1890–1907), \( r = .03, t = 1.81, p = .07 \).

260 Analogous regression analyses were performed with two outcome measures of zero and disability ratings, adding the variable in the model of screening severity scores. The screening severity scores are defined here as "low" when claimants scored below the median screen severity score and "high" when claimants scored above the median screen severity score using the individual medical diagnostic queries with "yes/no" responses identified in Appendix 2. The expected pattern of findings shows that generally, over time, claimants with relatively lower screening severity scores received a higher proportion of zero ratings and lower disability pension ratings. For the test of zero ratings over time period, \( R^2 = .104, F(7, 3779) = 62.87, p \leq .0001 \); for the test of disability ratings over time period, \( R^2 = .100, F(7, 3611) = 57.57, p \leq .0001 \).

261 For the overall test of disability ratings over time period, \( R^2 = .045, F(3, 4697) = 72.96, p = .0001 \). The tests for the individual time periods are as follows: for the General Law period (1862–1878), \( r = -.16, t = -10.79, p = .0001 \); for the Arrears Act period (1879–1889), \( r = .18, t = 12.80, p = .0001 \); and for the Disability Pension Act period (1890–1907), \( r = .02, t = 1.23, p = .22 \).
Figure 16: Severity Ratings for Civil War Pensions (1862–1907)*
Average for All Diseases

*Estimated from a regression model adjusting for year of exam. See supra note 257.
Together, the findings from the regression analyses illustrate the system’s
gatekeeping response to the major policy shifts associated with pension laws and
perhaps partisan control. The findings illustrate, for instance, the rise in zero ratings
over time for first-time claimants. The present findings also are consistent with
Costa’s conclusions that claimants under the 1862 General Law (i.e., claimants that
could trace their impairment directly to the war) tended to receive higher pensions
than claimants with comparable health conditions under the 1890 Disability Pension
Act.\footnote{262
See COSTA, supra note 22, at 36–37 (finding differences in pension amounts controlling
for the claimants’ health status).}

Illustration 2: Gunshot Wounds Versus Nervous Disorders

The second set of exploratory regressions examines changes in zero and
disability ratings over time, for injuries and gunshot wounds, which were
hypothesized to be less subject to attitudinal stigma, and nervous conditions, which
were hypothesized to be more subject to attitudinal stigma.\footnote{263
See Figure 10, supra p. 160 (showing differences in overall prevalence of gunshot
wounds and nervous disorders).} The findings for zero ratings are illustrated in Figure 17, while the findings for disability ratings are illustrated in Figure 18.

Gunshot wounds and nervous disorders show different trends over time in the
proportion of zero ratings. Throughout the period, gunshot wounds show a relatively
low occurrence of zero ratings that level out at approximately 17% around 1879. As
mentioned, the trend likely occurs because claimants with the most serious and visible
battle gunshot wounds first presented themselves for awards during and immediately
after the war under the General Law.

Beginning in 1879, increasing numbers of older first-time claimants with non-
battle related disorders such as nervous disorders, presented themselves for awards.
After the 1879 Arrears Act, the proportion of claimants with nervous disorders who
had zero ratings increased from 7% in 1879, to approximately 29% in 1890, and 58% in
1907.\footnote{264
For the overall test of the proportion of zero ratings over time for gunshot wounds versus
nervous impairments, $R^2 = .061, F(7, 1842) = 17.00, p = .0001$. The tests for the individual time
periods are as follows: for the General Law period (1862–1878), $r = .13, t = 5.75, p = .0001$; for
the Arrears Act period (1879–1889), $r = .03, t = 1.12, p = .26$; and for the Disability Pension Act
period (1890–1907), $r = .003, t = .14, p = .89$. Figure 17 illustrates the interaction effects with a
higher score for nervous disorders relative to gunshot wounds during the Arrears Act period,
$r = .04, t = 1.90, p = .06$, and the Disability Pension Act period, $r = .03, t = 1.49, p = .14$.}
Figure 17: Percentage of Zero Ratings for Civil War Pensions (1862–1907)*—Injuries/Gunshot Wounds and Nervous Disorders

* Estimated from a regression model adjusting for year of exam and type of disease screen.
Figure 18: Severity Ratings for Civil War Pensions (1862–1907)*
Injuries/Gunshot Wounds and Nervous Disorders

* Estimated from a regression model adjusting for year of exam and type of disease screen.
Once it was determined that a first-time claimant was entitled to an award (i.e., received a rating and not a zero rating), the trends in Figure 18 in disability ratings during and immediately after the war were particularly high for those few numbers of claimants with serious nervous disorders or gunshot wounds. Thus, to receive a disability rating for a nervous disorder, a claimant likely was seen as being severely impaired.

From the end of the war until roughly 1879, ratings for gunshot wounds and nervous disorders declined; but in 1879, ratings began increasing. For those claimants with nervous disorders who received awards, the awards approached levels associated with maximum payments for “total” disability awards. After passage of the 1890 Act, ratings for claimants with nervous disorders, presumably not directly related to a war injury but to old age, declined substantially relative to ratings for gunshot wounds. Yet claimants whose impairments might not have been severe enough to gain a rating for nervous disorders before 1890 were now eligible for pensions on the basis of their length of military service.

Illustration 3: Degree of Prejudice

As previously illustrated in Figures 13 and 14, over time the proportion of zero ratings for all types of disabilities increased. The following analyses examine over time the zero and disability ratings for disabilities associated with more and less prejudice.

Beginning in 1879 and through 1907, there was a relative increase in the proportion of zero ratings for those conditions subject to more prejudice, with a corresponding decline for those conditions subject to less prejudice. These findings are illustrated in Figure 19, while the parallel findings for disability ratings are illustrated in Figure 20. These analyses illustrate the strong relative difference associated with degree of prejudice after the 1890 Pension Act.

\(^{265}\) Deutsch, supra note 216, at 377 (explaining that nervous disorders ranked tenth among the major causes of disease among Northern troops but were given little attention in the literature of military medicine during the war).

\(^{266}\) The ratings for claimants with nervous disorders declined from .81 in 1890 to .16 in 1907. For the overall test of severity ratings for gunshot wounds versus nervous impairments, \(R^2 = .043, F(7, 1686) = 10.94, p = .0001\). The tests for the individual time periods are as follows: for the General Law period (1862–1878), \(r = -.14, t = -6.01, p = .0001\); for the Arrears Act period (1879–1889), \(r = .09, t = 3.58, p = .0003\); and for the Disability Pension Act period (1890–1907), \(r = .02, t = .71, p = .48\). Figure 18 illustrates the interaction effects for the Disability Pension Act period with a higher score for nervous disorders relative to gunshot wounds, \(r = -.06, t = -2.34, p = .02\).

\(^{267}\) For the overall test of the proportion of zero ratings over time and degree of prejudice, \(R^2 = .045, F(7, 6381) = 43.06, p = .0001\). The tests for the individual time periods are as follows: for the General Law period (1862–1878), \(r = -.10, t = 7.77, p = .01\); for the Arrears Act period (1879–1889), \(r = -.03, t = -2.31, p = .02\); and for the Disability Pension Act period (1890–1907), \(r = .01, t = .98, p = .33\). Figure 19 illustrates the interaction effects of the Arrears Act and Disability Pension Act periods, with relatively higher scores for impairments subject to more prejudice. For the Arrears Act Period, \(r = .03, t = 2.44, p = .02\). For the Disability Pension Act Period, \(r = .03, t = 2.26, p = .03\).
Figure 19: Percentage of Zero Ratings for Civil War Pensions (1862–1907)*

* Estimated from a regression model adjusting for year of exam and type of disease screen.
Figure 20: Severity Ratings for Civil War Pensions (1862–1907)*
Average for All Diseases

* Estimated from a regression model adjusting for year of exam and type of disease screen.
As suggested earlier, beginning around the period of the 1879 Arrears Act, claimants with disabilities subject to more prejudice received a higher proportion of zero ratings and lower disability ratings. Even with changes in pension policy after 1890, that in effect created an insurance program for older veterans against disabilities caused by non-war related accidents or chronic disease, first-time claimants having disabilities subject to more prejudice still were more likely to receive zero ratings and lower overall awards. The trend illustrates 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 regardless of disability severity.

Illustration 4: Claimants' Occupational Status

A final set of analyses explore zero and disability ratings as predicted by the claimants’ occupational status. For purposes of this analysis, occupation is bifurcated into agriculture and manual labor versus service, semi-skilled, and skilled occupations.

During the war and until 1879, there is virtually no difference in zero ratings as a function of claimants’ occupational status. Beginning in 1879, and expanding sharply after passage of the 1890 Act, zero ratings increase substantially for those in skilled occupations with a corresponding decline for those engaged in agriculture and manual labor. The findings for zero ratings are illustrated in Figure 21, while the corresponding trend for disability ratings and occupational status is found in Figure 22.

---

268 For the overall test of disability ratings over time and degree of prejudice, $R^2 = .036$, F (7, 5860) = 32.01, $p = .0001$. The tests for the individual time periods are as follows: for the General Law period (1862–1878), $r = -.12$, t = -9.57, $p = .01$; for the Arrears Act period (1879–1889), $r = .14$, t = 10.92, $p = .01$; and for the Disability Pension Act period (1890–1907), $r = - .03$, t = -2.62, $p = .01$. Figure 20 illustrates the interaction effects for the Disability Pension Period with a relatively higher score for a more prejudiced disorder, $r = - .04$, t = -3.14, $p = .01$.

269 For the overall test of proportion of zero ratings over time period and higher occupational skill level, $R^2 = .025$, F(7, 2344) = 8.72, $p = .0001$. The tests for individual time periods are as follows: for the General Law period (1862–1878), $r = -.004$, t = -.18, $p = .86$; for the Arrears Act period (1879–1889), $r = .01$, t = .70, $p = .48$; and for the Disability Pension Act period (1890–1907), $r = .03$, t = 1.47, $p = .14$. Figure 21 illustrates the interaction effects for the Disability Pension Act period, $r = .03$, t = 1.47, $p = .14$. 
Figure 21: Percentage of Zero Ratings for Civil War Pensions (1862–1907)*

*Estimated from a regression model adjusting for year of exam and occupational category.
Figure 22: Average Severity Ratings for Civil War Pensions (1862–1907)*

*Estimated from a regression model adjusting for year of exam and occupational category.
Figure 22 shows that after 1890, claimants in skilled professions attained relatively lower ratings.\textsuperscript{270} The trends involving occupational status do not comport with prior suggestions and claims in news sources that the war pension system disproportionately aided middle and upper-middle class veterans.\textsuperscript{271} Glasson’s long-accepted view that “[p]ensions were provided for the highly paid but rheumatic lawyer, for the prosperous business man hurt in a street accident, [and] for the ex-soldier public official with heart disease,” while probably true in limited cases profiled in the press, may not have reflected the broader trends in awards for claimants from a range of socio-economic backgrounds.\textsuperscript{272}

To the contrary, the findings suggest, but do not prove, that across the disability categories, and particularly after 1890, the gatekeeping function of the pension system appears to have screened with greater frequency older first-time claimants from higher socio-economic classes. These findings are in accord with those of Sanders that over time pension benefits were distributed unequally to predominantly rural, nativist areas of the country.\textsuperscript{273} In the present study, claimants from lower social classes received relatively higher pension awards.\textsuperscript{274}

The trends in the findings are consistent with the partisan expansion of the system toward a service and age-based program that benefited disabled working-class individuals living in Republican strongholds, regardless of the origins of their disabilities. As the final part suggests, this trend coincided with the beginning of the Progressive Era, the growth of the American labor movement, and national and state policies directed toward workingmen’s and social insurance programs.\textsuperscript{275}

\textbf{iv. Independent and Additive Effects of Disability and Stigma}

An additional set of analyses were conducted to illustrate the substantial magnitude of the findings regarding the effects of the examining surgeons’ screening scores and attitudinal prejudice toward claimants. Analysis of Variance (ANOVA)

\textsuperscript{270} For the overall test of disability ratings over time and higher occupational skill level, $R^2 = .052$, $F(7, 2193) = 17.19$, $p = .0001$. The tests for the individual time periods are as follows: for the General Law period (1862–1878), $r = -.02$, $t = -.99$, $p = .32$; for the Arrears Act period (1879–1889), $r = .02$, $t = 1.13$, $p = .26$; and for the Disability Pension Act period (1890–1907), $r = -.06$, $t = -2.63$, $p = .01$.

\textsuperscript{271} ORLOFF, supra note 79, at 137 (citing RUBINOW, supra note 82, at 408–09); SKOCPOL, SOLDIERS, supra note 10, at 135 (concluding that, for veterans, employment status, income levels, and social class did not impact pension awards; rather, primary factors affecting awards included location of residence and political connections).

\textsuperscript{272} GLASSON, supra note 16, at 236–37.

\textsuperscript{273} See Sanders, supra note 51, at 154–55 (discussing findings).

\textsuperscript{274} Cf. Kemp, supra note 198, at 58–66 (discussing his empirical findings in support of the view that commutation practices did not necessarily result in an over representation of poor unskilled workers in the Union Army).

\textsuperscript{275} See SKOCPOL, SOLDIERS supra note 10, at 154–59 (discussing beginnings of the Progressive Movement from the early 1900s until the end of World War I).
tests were used to help to identify the independent and additive effects of screening scores and attitudinal prejudice for predicting zero and disability ratings.\textsuperscript{276}

The top portion of Figure 23 shows, for the 1890 Disability Pension Act period, the proportion of zero ratings found when separated by a median split into four categories defined by screen severity scores (i.e., low and high) and degree of prejudice toward disability type (i.e., less or more). The middle portion of Figure 23 shows the statistical effects associated with this analysis. The bottom portion shows the theoretical basis for this analysis, as defined \textit{a priori} by the contrast weights (i.e., -3, -1, +1, +3) associated with the predicted outcomes for each of the four cells.\textsuperscript{277}

\textsuperscript{276} As illustrated in Appendices 1 and 2, infra pp. 219–34, each disease and disability category in the present analysis had a unique set of screening items that were coded. Some of the screening items were descriptive and some were coded as yes/no responses. For the screening items with yes/no responses, a “screen severity score” was computed using the sum of all the yes responses (see Appendix 2 for a listing of scoring items), with yes coded as a 1 and no coded as a 0. For each disease and disability category, the resulting screen severity scores were split into “high” and “low” severity scores using a median split procedure. It was possible to compare different disease categories (e.g., Figures 17 and 18, supra pp. 183 & 184) and to consolidate types of diseases into those more or less susceptible attitudinal prejudice (e.g., Figure 8, supra p. 156).

Figures 23 and 24 illustrate the claimants’ proportion of zero ratings and average disability pension ratings broken down by screen score severity (high/low) and the degree of prejudice (high/low) for the disease categories that had yes/no responses. Approximately 35\% (1,320 of 3,787) of the claimants at their first medical exam were screened for diseases in both high and low prejudice categories. In addition, 10\% (364 of 3,787) of the claimants were rated only for high prejudice categories and 56\% (2,103 of 3,787) for low prejudice categories.

The analyses illustrated in Figures 15 through 22 use the GLM (General Linear Models) procedure in SAS. This more conservative model uses the Type III sums of squares (for unbalanced cells sizes) and associated statistical tests. See 1 SAS/STAT USER’S GUIDE, 120–22 (4th ed., 1990) (describing Type III sums of squares procedures). In GLM, Analyses of Variance (ANOVA) procedures were conducted, with the three-way analysis including the independent measures of law period, screen severity score, degree of prejudice. For purposes of clarity, Figures 23 and 24 present only the results for the two-way ANOVA for the Disability Pension period. The findings for the other law periods are presented in Appendix 3, infra p. 235. In addition to the overall $R^2$ for the model, these figures present the associated F tests, p-values, and the effect/size correlation, $r = \sqrt{F / (F + \text{degrees of freedom for error})}$. The findings of the three-way analyses associated with Figures 23 and 24 suggest substantial differences among the time periods (the main effect for the time period for zero ratings was $F = 13.78$, $p = .0001$; the main effect for the time period for disability pension ratings was $F = 49.99$, $p = .0001$). In general, the findings for the Disability Pension Act period and the Arrears Act period are more similar to each other than to those of the General Law period.

\textsuperscript{277} See ROBERT ROSENTHAL & RALPH L. ROSNOW, CONTRAST ANALYSIS: FOCUSED COMPARISONS IN THE ANALYSIS OF VARIANCE 1–2 (1985) (describing that contrasts are statistical significance tests of focused research questions in which specific predictions may be evaluated).
Figure 23: Civil War Pension Study
Zero Ratings for Disability Pension Period (1890–1907)

<table>
<thead>
<tr>
<th>Percentage of Zero Ratings</th>
<th>Less Prejudicial Diseases</th>
<th>More Prejudicial Diseases</th>
<th>All Diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Screen Severity Score</td>
<td>24% (171/723)</td>
<td>39% (254/648)</td>
<td>31% (425/1,371)</td>
</tr>
<tr>
<td>High Screen Severity Score</td>
<td>1% (6/173)</td>
<td>10% (28/277)</td>
<td>3% (34/990)</td>
</tr>
<tr>
<td>All Screen Scores</td>
<td>12% (177/1,436)</td>
<td>30% (282/925)</td>
<td>19% (459/2,361)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variable</th>
<th>effect-size r</th>
<th>t (2,357)</th>
<th>p-value</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Screen Severity Score</td>
<td>.25</td>
<td>12.41</td>
<td>.0001</td>
<td>.16</td>
</tr>
<tr>
<td>More Prejudicial Disease</td>
<td>.17</td>
<td>8.32</td>
<td>.0001</td>
<td></td>
</tr>
<tr>
<td>Interaction</td>
<td>.04</td>
<td>2.07</td>
<td>.04</td>
<td></td>
</tr>
<tr>
<td>Theoretical Prediction*</td>
<td>.40</td>
<td>20.99</td>
<td>.0001</td>
<td>.16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Theoretical Prediction Weights*</th>
<th>Less Prejudicial Disease</th>
<th>More Prejudicial Disease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Screen Severity Score</td>
<td>+1</td>
<td>+3</td>
</tr>
<tr>
<td>High Screen Severity Score</td>
<td>-3</td>
<td>-1</td>
</tr>
</tbody>
</table>

* See supra note 277.
Figure 23 confirms the prediction that the proportion of zero ratings was significantly greater for claimants with low as compared to high screen severity scores (i.e., 31% versus 3%, and the magnitude of this main effect is shown in the middle portion of the figure with an associated effect size r of .25). In addition, the proportion of zero ratings is greater for claims made for disabilities subject to more as compared to less attitudinal prejudice (i.e., 30% versus 12%; again the magnitude of this effect is shown in the middle portion of Figure 23 with an associated effect size r of .17).

As predicted by the use of the theoretical model (reflected in the assigned contrast weights shown in the bottom of Figure 23), the highest proportion of zero ratings appear in the cell for claimants with low screening severity scores and high prejudice disability type (i.e., 39% in the +3 cell), while the lowest proportion appears in the cell for claimants with high severity scores and low prejudice type (i.e., 1% in the -3 cell). At the same time, there is a relatively high proportion of zero ratings for claimants with low severity scores and low prejudice disability type (i.e., 24% in the +1 cell) as compared to claimants with high severity scores and high prejudice disability type (i.e., 10% in the -1 cell).

The overall magnitude of the additive effect of screen severity ratings and attitudinal prejudice toward a claimant's condition on the likelihood of receiving a zero rating is reflected by the effect size r of .40, shown on the bottom line of the middle portion of Figure 23.278 The combined effect of screen severity and prejudice is substantial and greater than the independent effects of either factor.279 As discussed earlier,280 the determination of whether a claimant had at least some level of compensable impairment, therefore, was associated independently with a measure of prejudice toward particular disabilities.

Figure 24 provides comparable analysis to illustrate the magnitude of the independent and additive effects of severity screen ratings and prejudice on disability ratings during the period after the 1890 Disability Pension Act.

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278 See ROBERT ROSENTHAL & RALPH L. ROSNOW, ESSENTIALS OF BEHAVIORAL RESEARCH 22 (1984) (describing that the effect size of the phenomenon under study is the degree to which the relationship studied differs from zero; the correlation or "r" is one effect size indicator); see also ROBERT ROSENTHAL & RALPH L. ROSNOW, BEGINNING BEHAVIORAL RESEARCH 130 (1996) (inferring an effect size r of .40 to be a moderately large effect with strong practical consequences, in this study, for determining who and who would not receive a pension).

279 The interaction effect identified in Figure 23 (r = .04) reflects relative differences among the proportion of zero ratings in the less and more prejudicial cells as related to screen severity scores.

280 See supra notes 213–16 and accompanying text (discussing findings associated with Figure 11).
Figure 24: Civil War Pension Study
Pension Ratings for Disability Pension Period (1890–1907)

<table>
<thead>
<tr>
<th>Average Pension Rating</th>
<th>Less Prejudicial Disease</th>
<th>More Prejudicial Disease</th>
<th>All Diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Screen Severity Score</td>
<td>.53 (n = 706)</td>
<td>.49 (n = 629)</td>
<td>.51 (n = 1335)</td>
</tr>
<tr>
<td>High Screen Severity Score</td>
<td>.84 (n = 677)</td>
<td>.82 (n = 264)</td>
<td>.83 (n = 941)</td>
</tr>
<tr>
<td>All Scores</td>
<td>.68 (n = 1383)</td>
<td>.59 (n = 893)</td>
<td>.64 (n = 2276)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variable</th>
<th>effect-size r</th>
<th>t (2272)</th>
<th>p-value</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Screen Severity Score</td>
<td>.21</td>
<td>10.31</td>
<td>.0001</td>
<td></td>
</tr>
<tr>
<td>More Prejudicial Disease</td>
<td>.03</td>
<td>1.20</td>
<td>.23</td>
<td>.08</td>
</tr>
<tr>
<td>Interaction</td>
<td>.01</td>
<td>.46</td>
<td>.65</td>
<td></td>
</tr>
<tr>
<td>Theoretical Prediction*</td>
<td>.26</td>
<td>12.85</td>
<td>.0001</td>
<td>.07</td>
</tr>
</tbody>
</table>

* See Figure 23, supra p. 193, for the weights associated with the theoretical prediction value.
The bottom portion of Figure 24 shows the effect for screen severity score on disability ratings (i.e., effect size $r$ of .21, associated with an average rating of .83 versus .51). Yet, here there is no independent effect associated with disability prejudice type (i.e., as reflected by the effect size $r$ of .03, associated with no difference in average ratings, .68 and .59). A moderately large and non-additive effect associated with the theoretical prediction emerges (i.e., effect size $r$ of .26), but is primarily the result of the overall difference between low and high screening severity ratings. The pattern of findings suggests that once a first-time claimant was determined to have some level of compensable impairment (i.e., did not receive a zero rating), actual awards were not affected by potential stigma associated with a particular impairment.

v. Summary

The multivariate analyses, as opposed to the correlational analyses alone, provide an enriched view of the operation of the pension system over time. The findings

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281 Appendix 3, infra p. 235, provides parallel findings for Figures 23 and 24 for the two other major time periods of study, the General Law Period and the Arrears Act period. Further comparison of the findings across the three time periods (i.e., the interaction effect of time period, severity rating, and prejudice type) may illustrate the potential linear effect over time of the influence of severity scores and attitudinal prejudice on zero ratings and disability pension ratings. Preliminary comparison of Figures 23 and 24 with those in Appendix 3 illustrate, as predicted, that trends during the Arrears Act period and the Disability Pension Act period were more similar to each other than to those from the General Law period. Over time the sample sizes in the present study increased substantially, thereby limiting the strength of related conclusions.

282 The model for the regression equations used to illustrate Figures 15 through 22 provided for one overall intercept term and three separate linear terms (one per period) for each regression line presented. See supra note 257 (describing the regression model). The plots illustrated in the figures, therefore, result in three “smoothed” connected line segments that are designed to illustrate general trends over time. An alternative method is to perform three separate regression analyses for each of the following pension law time periods: the General Law Period, 1862–1878; the Arrears Act Period, 1879–1889; and the Disability Pension Act Period, 1890–1907. Performing a regression analysis specific to each law period avoids the artificial constraints built into the combined regressions found in Figures 15 through 22. In such an analysis, the separate regression equations may each specify an intercept to adjust for the overall level of severity ratings or percentage of zero ratings for the period. Each regression equation also may specify a linear time effect. For instance, for Figures 17 and 18, a term for more/less prejudicial disease type may be added, as well as a more/less prejudicial type by year linear interaction term (allowing differing slopes for the regression lines). Similarly, for Figures 21 and 22, a term for professional/skilled occupational status may be included, as well as a professional/skilled occupation by year linear interaction term.

By way of illustration, the findings for Figure 15 showed $R^2 = .022$, with an associated $F(3, 5039) = 38.58, p = .0001$. Increases over time in the General Law Period were significantly positive (e.g., the percentage of zero ratings increased over time, $t = 9.13, p = .0001$) and in the Disability Pension Period ($t = 1.81, p = .07$). Comparable trends are found using three separate regressions, resulting in $R^2 = .027$. Changes over time were substantial during the General Law Period ($t = 3.27, p = .001$) and the Disability Pension Period ($t = 2.85, p = .004$). Similarly,
suggest that pension awards tended to be influenced by claimants' social class characteristics and public attitudes toward their impairments in ways that corresponded with the major policy changes associated with the pension system after passage of the 1879 Arrears Act and the 1890 Disability Pension Act. The findings from Study II support those of the content analysis in Study I, illustrating the potential intervening influence of attitudinal prejudice on the operation of the pension system after 1879.

The findings illustrate that attitudinal prejudice and stigma associated with disability categories and claimants' occupational status may have influenced pension awards more than previously documented, even when statistically adjusting for the effect of claimants' age and even within the operation of the liberal 1890 Disability Pension Act under which awards were made regardless of disability severity. Yet, despite partisan influence on the operation of the pension system, the strongest overall predictor of pension awards was the actual disease severity screen ratings made by the examining surgeons. This finding supports the suggestion that the gatekeeping and evaluative functions of the pension system were effectual and not used widely to the advantage of shirkers and malingerers with purported disabilities.

The sharpened focus on attitudinal and social characteristics sheds light on aspects of the evolution of the pension system not previously documented. The present findings highlight the need for further study of the social construction, as reflected in the press and elsewhere, of the stigma associated with claimants' disabilities and social class as factors associated with awards during the operation of the Civil War pension system and later social welfare programs. In a related line of study, Susser and Watson have concluded that:

findings for Figure 16 showed $R^2 = .045$, with an associated $F(3, 4697) = 72.96$, $p = .0001$. Disability ratings decreased over time in the General Law Period ($t = -10.79$, $p = .0001$), but increased during the Arrears Period ($t = 12.80$, $p = .0001$). Using three separate regressions resulted in $R^2 = .052$. Changes over time were significant for the General Law Period ($t = -3.07$, $p = .002$), showing a decrease in ratings over time, and an increase in ratings over time within the Arrears Period ($t = 7.29$, $p = .0001$).

283 Cf. SKOCPOL, SOLDIERS, supra note 10, at 144–48 (suggesting that social characteristics did not have an impact on the provision of pension awards). Nevertheless, the overall magnitude of the findings (e.g., the simple correlational relationships or the explained variance in the regression equations for predicting zero ratings and disability severity ratings) are relatively small when compared to the potential information about pension awards that may be derived from the diagnostic categories themselves. In addition, analyses involving the findings from all pension exams for these claimants reveal a similar pattern of findings as described above. For instance, when statistically adjusting for claimants' age, the correlation between degree of prejudice associated with disability category and (a) zero ratings is .20, $p \leq .001$; and (b) disability severity ratings is -.11, $p \leq .001$. Thus, across all exams, claimants with conditions associated with greater prejudice tend to have more zero ratings and lower disability ratings.

284 See supra notes 174–211 and accompanying text (analyzing the validity of the disease screens for specific disease/disability categories from the surgeons' certificates); cf. COSTA, supra note 22, at 165 (finding claimants' demographic and socioeconomic characteristics did not predict pension awards, and those who were in worse health received higher pensions).
Social and economic forces cause disorder directly; they redistribute the proportion of people at high or low risk of being affected; and they create new pathways for the transmission of disorders of all kinds through travel, migration, and the rapid diffusion of information and behaviour by the mass communication media. Finally, social forces affect the conceptualisation, recognition and visibility of disorders.\footnote{Mervyn W. Susser & William Watson, Sociology in Medicine 35 (2d ed. 1971) (italics added); see also Paul K. Longmore & David Goldberger, The League of the Physically Handicapped and the Great Depression: A Case Study in the New Disability History, 87 J. AM. HIST. 888 (2000) (analyzing the historical politicizing of disability). Michael Oliver, The Politics of Disablement 13 (1990) (noting that social class is an important factor in the social construction of disability).}

As Susser and Watson suggest, not only is it necessary to investigate the social construction of disability, but also it is necessary to study the economic incentives associated with implementation of the pension laws and their effects on pension applications.\footnote{These ideas were derived from the insightful comments of Mario Sanchez on an earlier version of this article. See Letter from Mario Sanchez, supra note 130.} Parts II and III of this article commented that the economic incentives to apply for a pension were changing dramatically over time, as were pensionable conditions. It is conceivable, therefore, that the sample of pension applications over time (and as reflected in the present data set) were not drawn randomly from the total distribution of all possible disabilities and diseases associated with veterans, or with what I have described earlier as essentially reflective of their overall "moral character."

Future study will need to assess sample selection issues associated with those who chose to apply for Civil War pensions and those who did not. In this regard, Mario Sanchez has suggested that under any one of the pension laws, it may be possible to classify applicants into the following two groups: those who privately knew that they "deserved" a pension, and those who knew that they did not deserve a pension.\footnote{See id.} It could then be hypothesized that the individuals initially applying after the war for pensions were from the first group ("the knowing deserved"). For this first group, particularly under the more narrowly defined General Law, the proportion of applicants receiving a zero rating should have been relatively low.

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 had greater economic incentives to do so under the Disability Pension Act. The influx of applications, and higher zero ratings, therefore, is consistent with the findings from Study II that more veterans with less-apparent disabilities may have taken the risk of rejection and of being "morally exposed." Thus, the proportion of zero ratings may have been driven by economic factors that were independent of the negative conceptions of disability portrayed by the press and analyzed in Study I. These zero ratings may be a function of the moral quality of the pensioners that was not fixed over time, but was responsive to the economic incentives provided in the changing
pension laws. These ideas regarding the evolution of pension and social welfare programs in general, and of related disability laws and policies in particular, are developed further in the final part.

IV. IMPLICATIONS: CONCEPTIONS OF DISABILITY AND OF THE ADA
100 YEARS LATER

If pension laws are potent in the making of diseases, pensions themselves have the opposite effect—they cure them. There is nothing that promotes longevity like a pension.

   —General M.M. Trumbull

[The law of the ADA] symbolizes the irresponsibility and arrogance of Congress and the federal bureaucracy and is a disservice to many of America's handicapped.

   —James Bovard

We can understand why the United States has elaborated distinctive sorts of social policies at different phases of its history only by situating the politics of social policymaking within a broader, organizationally grounded analysis of American political development.

   —Theda Skocpol

The investigation of the Civil War pension scheme confirms and refines prior suggestions about the profound influence of political, economic, and social forces on the evolution of that system. Theda Skocpol has characterized the Civil War pension system as "an unabashed system of national public care, not for all Americans in similar work or life circumstances, but for the deserving core of a special generation. No matter how materially needy, the morally undeserving or less deserving were not the nation's responsibility."

The present findings support the contention that after 1890 the pension system was transformed into a service-based subsidy, and in 1907 the pension system

288 Trumbull, supra note 82, at 724.
290 SKOCPOL, SOLDIERS, supra note 10, at 526 (emphasis in original). Skocpol concludes therefore that disability pensions for Union veterans became central to the politics of late nineteenth-century America. Id. at 528.
291 For extensive discussion, see Skocpol, Social Security, supra note 10, at 85–115; SKOCPOL, SOLDIERS, supra note 10, at 143–51. See also DEERING, supra note 50, at 365–93 (analyzing the role of the G.A.R. on the evolution of the pension program); ORLOFF, supra note 79, at 215–16 (discussing the role of class in awarding of Civil War pensions).
292 SKOCPOL, SOLDIERS, supra note 10, at 151 (emphasis added) (citing sources in support); see also Dana M. Muir, Contemporary Social Policy Analysis and Employee Benefit Programs: Boomers, Benefits, and Bargains, 54 WASH. & LEE L. REV. 1351, 1357 (1997) (discussing the evolution of American politics and pension system).
became a service and age-based program, unrelated to the workings of governmental welfare support programs for the poor and non-veterans with serious disabilities. Nevertheless, the findings indicate that biased attitudes about disability may have influenced pension awards even during the operation of the service and age-based system.

A. Conceptions of Disability and Disabled Civil War Veterans

The findings from this investigation illustrate the ways in which nineteenth-century patronage politics may have, either purposefully or unknowingly, contributed to negative attitudes toward an emerging social category of individuals with disabilities. Targeted criticisms in the press, particularly in Democratic affiliated news sources, labeled disabled veterans as "illegitimate" and "unworthy" despite evidence that the pension system was performing gatekeeping functions. Subsequent public perceptions of the worthiness of disabled veterans were distorted from the actual operation of the pension law. The partisan-based negative public attitudes occurred at a time when social norms about disability had not developed and advocacy for the disabled was non-existent or, at most, in its infancy.

Skocpol's analysis is insightful in explaining the underlying partisan attacks on the credibility of disabled Civil War veterans. She writes: "Because the very successes of Civil War pensions were so closely tied to the workings of patronage democracy, these successes set the stage for negative feedbacks that profoundly affected the future direction of U.S. social provision." Skocpol's negative feedbacks of the late 1800s were promoted under the flag of progressive reform, endorsed by liberal mugwumps (Progressive Republicans) and targeted toward "undeserving" veterans with certain disabilities, their agents, and local patronage

293 For analysis of the long-term implications of the Civil War pension system on American social welfare policy, see SKOCPOL, SOLDIERS, supra note 10, at 531-34. See also DEBORAH A. STONE, THE DISABLED STATE 172–79 (1984) (arguing the importance of the social construction of disability to the development of the workforce in early industrializing America as a capitalist measure to control labor supply and as legitimizing the social status of those "classified" as unable to work; and that disability is a social construct reflecting the dominant political view about distributive policy and the defined recipients of social aid); cf. OLIVER, supra note 287, at 47, 58 (1990) (arguing that disability was socially constructed under the capitalist medical model approach and targeted persons subjected to exclusion and oppression, and stating that "the disabled individual is an ideological construction related to the core ideology of individualism and the peripheral ideologies related to medicalization and normality").

294 See also Sharon L. Harlan & Pamela M. Robert, The Social Construction of Disability in Organizations, 25(4) WORK & OCCUPATIONS 397, 401 (1998) (commenting that disability has been assigned different social meanings in particular periods of American history); OLIVER, supra note 286, at 12–13 (concluding that social meaning of disability is influenced by economics and public opinion of the historical period); STONE, supra note 294 (stating that the essence of the modern welfare state's approach is to define categories of persons, such as the elderly and the disabled, to determine who should be allowed to make need-based claims for public support).

295 SKOCPOL, SOLDIERS, supra note 10, at 59.
The investigation confirms the view that partisan, attitudinal, and social factors unrelated to disability contributed to the legacy of the social programs for the disabled. Harlan Hahn’s seminal articulation of the minority group model is instructive in this regard. Hahn suggests that negative social attitudes are the primary source of barriers confronted by disabled people to equal participation in society. He writes, “[t]he covert hostility and paternalism that permeates public and judicial perspectives has, of course, tended to perpetuate the unequal status of disabled persons.” Hahn therefore believes that society’s conception of disability is “defined by public policy.”

In-depth historical and empirical study has yet to be conducted on the role of dominant and minority partisan motives on the evolution of underlying prejudicial attitudes and stigma toward disabled Civil War veterans. Close analysis of the longer term policy effects of political and economic motivations may shed light on the evolution of views (and social backlash) of the stigma associated with disability and conceptions of illegitimacy, undeservedness, and blameworthiness in areas such as American health care and welfare reform.

296 Id. at 117 (commenting that the end of the Reconstruction brought close competition between the two major political parties from the mid-1870s onward); see also COSTA, supra note 22, at 203 (finding no evidence that pension agents influenced surgeon’s ratings or pension awards).

297 See supra notes 237–45 and accompanying text (discussing related hypotheses numbers two and three in the present investigation); see also generally Longmore & Goldberger, supra note 286 (noting lack of historical study on disability); Lauri Umansky & Paul K. Longmore, Disability History, from the Margins to the Mainstream, in THE NEW DISABILITY HISTORY: AMERICAN PERSPECTIVES (LAURI UMANSKY & PAUL K. LONGMORE EDS., 2000).


299 Hahn, supra note 182, at 167.

300 Harlan Hahn, Disability Policy and the Problem of Discrimination, 28(3) AM. BEHAV. SCI. 293, 294 (1985).

301 Cf. ORLOFF, supra note 79, at 306 (concluding that the social characteristics of policy legacies—in this research, attitudes toward disability—shape subsequent policy debates and outcomes; McCONNELL, supra note 134, at 126 (suggesting that the G.A.R. platform focused on three areas: (1) the relief of disabled and indigent veterans; (2) the popular portrayal of the Civil War; and (3) a focus on American nationalism); Green B. Raum, Pensions and Patriotism, 153 N. AM. REV. 205, 213–14 (1891) (arguing that the soldiers of the Union brought peace and prosperity to the country and were deserving of pensions regardless of the cost); see also RECHARTING THE COURSE: FIRST REPORT OF THE PRESIDENTIAL TASK FORCE ON EMPLOYMENT OF ADULTS WITH DISABILITIES (Nov. 15, 1998), available at http://www.dol.gov/dol/sec/public/programs/ptfecd/1998rpt/index.htm (modern review of stigma and disability) [hereinafter RECHARTING THE COURSE].

302 Cf. OLIVER, supra note 286, at 65 (discussing the ways in which stigma about disability implies blameworthiness and moral failing). Additional study of the present data set is warranted on pension awards across other states, as well as within urban and rural areas (e.g., to assess trends in relation to the degree of the partisan stronghold of the claimants’ residence); see also SKOCPOL,
From a macro-economic point of view, the expansion of the Civil War pension system as reflected in the passage of the 1890 Act was made possible by a federal budget surplus accumulating from the preceding twenty-five years.\(^3\) The economic environment of the time therefore may be linked in subsequent research to evolving pension policy and corresponding attitudes toward the target group of disabled beneficiaries.

In this last regard, Dora Costa finds that Union Army pensions replaced an extremely high proportion of the recipients' income.\(^4\) Costa finds that by 1900 the annual value of the average Civil War pension was $135, equating to roughly 53% of the annual income of farm laborers, 36% of manual laborers, 20% of semi-skilled workers, and 12% of skilled workers.\(^5\) Civil War pensions thereby dramatically influenced disabled veterans' labor force participation, wealth accumulation, and retirement trends in ways that, in turn, impacted evolving public attitudes about this unique cohort and the pension system generally.

The findings from the present investigation also suggest that conceptions of disability held by examining surgeons applying late nineteenth-century diagnostic methods may have been a factor in developing public prejudice toward disabled veterans.\(^6\) At the same time, only in less than 1% of the cases studied did examining surgeons even question the legitimacy of claimants' purported disabilities. Yet the medical model approach was not without question in the press of the day, as reflected by news stories claiming pervasive and underlying abuses of the system by examining surgeons, (\supra\ note 10, at 149 ("Institutional and cultural oppositions between the morally deserving and the less deserving run like fault lines through the entire history of American social provision.").)

\(^3\) See SKOCPOL, SOLDIERS, supra note 10, at 107–15 (analyzing federal budget surplus trends from 1866 to 1920 and their relation to Civil War pension laws); see also COSTA, supra note 22, at 22–23, 35 (commenting that high tariffs on imports produced the federal budget surplus); Vinovskis, supra note 70, at 26–27 (calculating Civil War pension benefits from 1866 to 1905 as a function of the federal budget and finding that in 1893 pensions constituted 40% of the overall federal budget, far more than the approximate 3% spent on veterans today); Sanders, supra note 52, at 143–44 (commenting that the Republicans’ constant support for high tariffs to protect American industries led to increased income from the customs houses which led to the governmental surplus).

\(^4\) See COSTA, supra note 22, at 33 (discussing the economics of retirement for Union Army veterans).

\(^5\) See id. at 22–23 (finding declining labor force participation rates for men after 1880, with men living on farms having relatively higher participation rates); see also Vinovskis, supra note 70, at 27 (calculating value in 1990 dollars of average pensions in 1866 to be $122 and in 1900 to be $139; in 1900, average earnings of all employees was $375; therefore concluding that pensions may have accounted for about 37% of supplemental income for many veterans).

\(^6\) See, e.g., Figures 13 and 14, supra pp. 173 & 176 (illustrating findings related to disability stigma and pension awards); cf. Logue, supra note 141, at 413 (commenting that medical diagnostic views of the day were influenced primarily "by a mistrust of the poor and by suspicions about the effects of military service," while not acknowledging directly the effect of social class on diagnostic views). In addition, it is possible that public attitudes about disability also influenced examining surgeons' views with regard to the worthiness and legitimacy of claimed disabilities.
By the end of the Civil War pension system and with the onset of American industrialization, however, the dominance of the medical model approach to disability law and policy was firmly established. Contemporary social scientists and legal scholars have described how conscious and unconscious negative media portrayals, such as those related to the medical model of disability after the Civil War, led to subsequent negative public attitudes toward persons with disabilities. Pervasive attitudinal bias was reinforced in the news stories of veterans feigning disabilities for the benefit of a social or monetary outcome. The branding news stories reinforced existing biases arising out of what contemporary social psychologists call a “blame the victim” mindset, which condemns disabled people on the basis of their medical status. Blaming individuals for their disabilities has been shown to result in a negative self-image that is compounded by the skepticism for disability held in the general public. Further study of these issues is needed to help illuminate the underpinnings for the social

307 See generally Hahn, supra note 193 (discussing approaches to disability including the medical model, a charity model, a rights-based model, and a sociopolitical approach); Jonathan C. Drimmer, Cripples, Overcomers, and Civil Rights: Tracing the Evolution of Federal Legislation and Social Policy for People with Disabilities, 40 UCLA L. REV. 1341 (1993) (same); see also Mary Crossley, The Disability Kaleidoscope, 74 NOTRE DAME L. REV. 621, 709–10 (discussing ADA definition of disability and courts tendency to “medicalize” the understanding of impairment).

308 See Barnes, supra note 155 at 19 (discussing the corresponding rise of the medical profession and industrialization in the late nineteenth century).


310 Blanck & Marti, supra note 4, at 399–402 (discussing research on attitudes toward disability).

311 Id. at 375–80 (discussing this conclusion in the context of research on individuals with hidden mental disabilities).

312 Id. at 388 (reviewing studies and discussing that people who have experienced such unjustified discrimination report a loss of self-esteem, alienation from family members and others and alterations in family dynamics); see also generally Robert Rosenthal, Interpersonal Expectations: Some Antecedents and Some Consequences, in INTERPERSONAL EXPECTATIONS: THEORY, RESEARCH, AND APPLICATIONS (Peter David Blanck ed., 1993) (discussing attitudinal expectation and self-fulfilling prophecies).
construction of disability in America and comparatively in other countries both historically and today.\textsuperscript{313}

B. \textit{Is the Past a Prologue to the Future of People with Disabilities?}\textsuperscript{314}

\textit{Uncle Tom and Tiny Tim are brothers under the skin.}

\textsuperscript{313} For an example of a comparative analysis, see Stone, supra note 294, at 56–58 (discussing the evolution of the German pension laws and social insurance programs in the late 1900s).

\textsuperscript{314} See Edward H. Yelin, \textit{The Employment of People with and Without Disabilities in an Age of Insecurity}, in Collignon, supra note 7, at 127 (raising a similar problem).

\textsuperscript{315} Kriegel, supra note 1, at 414.

\textsuperscript{316} See Redenbaugh, supra note 167 (Commissioner of the U.S. Commission on Civil Rights arguing that the implementation and enforcement of the ADA has harmed the interests of persons with disabilities and calling the ADA “The Americans with Minor Disabilities Act”); Editorial, \textit{Americans with Minor Disabilities Act}, \textit{WASH. TIMES}, Feb. 20, 1999, at C2 (quoting Redenbaugh’s remarks on the ADA). But cf. Albert R. Hunt, \textit{The Disabilities Act Is Creating a Better Society}, \textit{WALL ST. J.} (Mar. 11, 1999) at A23 (commenting that ADA “doomsayers were almost totally wrong” and that the ADA “has won widespread acceptance from the public and most businesses, and has significantly elevated the awareness of, and respect for, millions of Americans with disabilities.”).

\textsuperscript{317} See, e.g., Guckenberger v. Boston Univ., 974 F. Supp. 106, 118 (D. Mass. 1997). In the context of an ADA lawsuit by students with learning disabilities, the court quotes a speech made by Boston University President Jon Westling: “The disability movement is a great mortuary for the ethics of hard work, individual responsibility, and pursuit of excellence, and also genuinely for human social order”;

by ‘seiz[ing] on the existence of some real disabilities and conjur[ing] up other alleged disabilities in order to promote a particular vision of human society,’ the learning disabilities movement cripples allegedly disabled students who could overcome their academic difficulties with ‘concentrated effort,’ demoralizes non-disabled students who recognize hoaxes performed by their peers, and wreak[s] educational havoc. . . . The policies that have grown out of learning disabilities ideology leach our sense of humanity.

\textit{Id.} (alterations in original).

\textsuperscript{318} Andrew Batavia, \textit{Ideology and Independent Living: Will Conservatism Harm People with Disabilities}, 549 Collignon, supra note 7, at 14–15 (suggesting that there is no consensus on the best allocation of funds for disability programs).
Proponents argue that negative trends in the labor force participation of people with disabilities to date have less to do with ADA implementation than with macro-economic trends present when the law was passed and structural inefficiencies and disincentives in existing disability and health insurance policies. Critics respond that a decline or lack of growth in the labor force by persons with disabilities, combined with an increase in applications for entitlement benefits, suggests that the ADA may not be helping those it was intended to serve.

Whatever the empirical reality of these claims, the themes articulated by critics in the press suggest that initiatives like the ADA are not serving, and indeed are hurting, the interests of disabled Americans. A 1999 San Francisco Chronicle article concludes that "history is littered with laws that not only did not work, but did exactly the opposite of what was intended. The Americans with Disabilities Act appears, sadly, to be one." A 1998 Reader’s Digest article describes the ADA as "A good law gone bad." Andrew Batavia comments that some critics believe that...
people with disabilities, like union army pensioners, "have done something morally wrong to deserve their predicament and that they should be assisted only through charity." 324

The debate thus pits supporters who stress the civil rights guaranteed by the ADA's anti-discrimination provisions against critics who cast disability laws as overly broad, inefficient, and as preferential treatment initiatives. 325 The debate is cast in ideological terms, as liberal efforts to enlist the federal government in the inclusion of the disabled into society confront conservative attempts to allow the power of economic markets to assist disabled persons. 326 The debate, like that generally over social welfare programs, reflects views about the role of the federal government in the lives of disabled citizens. 327

This historical investigation illustrates that attitudinal, economic, and political forces in combination affected public views about disability one hundred years ago, as they do today. The study of the Civil War pension system lends itself to other lessons for present-day analysis of disability law and policy. For instance, the relatively high disability ratings for more stigmatized impairments prompts the observation that society may both stigmatize a disability and yet be willing to pursue public policies that fund programs for persons with such conditions. 328

Although stigma may more likely tend to be expressed in interpersonal contact, beneficial programs such as the Civil War pension system were funded via public

1999, at A10, available at 1999 WL 3749474 (commenting that "History may record the Americans with Disabilities Act as one of the most costly and abused pieces of legislation ever brought forth."); OPED, Bureaucracy; Creating Disabilities Where None Existed, DAYTON DAILY NEWS, Apr. 30, 1999, at 19A (stating that the ADA "seems at times more like a prescription for absurdity than an effort to redress injustices for those less fortunate"); Editorial, The Horrors of the ADA, N.Y. POST, May 1, 1999, at 16 (quoting Senator Armstrong's view of the ADA as "a legislative Rorschach test, whose meaning and significance will be determined by years of costly litigation").

324 Batavia, supra note 319, at 17.

325 See, e.g., Peter David Blanck, The Economics of the ADA, in EMPLOYMENT, DISABILITY, AND THE AMERICANS WITH DISABILITIES ACT: ISSUES IN LAW, PUBLIC POLICY, AND RESEARCH 201, 201-02 (Peter David Blanck ed., 2000) (discussing need for interdisciplinary study of the ADA).

326 See KELMAN & LESTER, supra note 111 (discussing this dichotomy).

327 Batavia, supra note 319, at 14-17; OVERWHELMING MAJORITY OF AMERICANS CONTINUE TO SUPPORT THE AMERICANS WITH DISABILITIES ACT, THE HARRIS POLL NO. 30 (1999) (findings from telephone survey of 1,000 adult Americans show 87% support the ADA overall, 85% support workplace accommodations for the disabled, and 75% report that ADA benefits outweigh its costs); see also Walter Olson, Under the ADA, We May All Be Disabled, WALL ST. J., May 17, 1999, at A27 (commenting that the ADA has been a policy "disaster"); Robert J. Samuelson, Dilemmas of Disability, WASH. POST, June 30, 1999, at A31 (commenting that the ADA "exudes grand ambitions and vague language. . . . The problems of the seriously disabled aren’t easily solved; and the problems of the mildly disabled aren’t very serious.").

328 In other words, as a general matter claims subjected to more prejudice were more likely to be rejected unless they were extremely severe, at least relative to less stigmatized impairments. Thus, future study will explore the ways in which claimants with nervous disorders would have to be more "impaired" to receive a pension, relative to conditions subjected to less social prejudice.
processes after politicized debate. Thus, in 1887, Democratic President Cleveland may have conveyed publically a general skepticism toward veterans then claiming disabilities as indicative of "weakness and pretended incapacity for labor" but he still was willing to support a system of awards for "deserving" individuals. Likewise today, a Congresswoman might vote for a large appropriation for HIV disease prevention and treatment programs but be uncomfortable around persons with HIV disease.

What then is the contemporary significance of the historical findings? First, they may suggest that nineteenth-century examining physicians did not harbor a general bias and prejudice toward the new social category of disabled veteran. Nevertheless, examiners did not hesitate to reject claimants whose conditions placed them in a then diagnostic gray zone. Perhaps analogously, today proponents of the ADA need not label all critics of the law as harboring biased expressions toward disabled people. There are ADA critics who may not want the government (versus the free markets) to help disabled citizens become fully integrated into the economy and society. Yet there are other critics who are committed to the goal of equality, but opposed to the specific provisions and scope of the law.

In light of the debate over the ADA, and because study on conceptions of disabilities is lacking, much of the current criticism of the law has focused narrowly on whether certain defined groups of disabled persons are a "deserving" class. As illustrated by Study I's content analysis of the operation of the Civil War pension system, today's media coverage reflects skepticism and cynicism about the definition and legitimacy of disabilities claimed and covered by the law. Some commentators have interpreted the negative press as an ideological effort to intentionally deflect meaningful discussion of disability law and policy. As compared to the analysis of the Civil War pension system and its progeny,

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329 GLASSON, supra note 16, at 210–11; see also, supra notes 58–63 and accompanying text.

330 In addition, support for such beneficial programs may result from many other intra-personal forces (e.g., feelings of guilt) and other independent political and social forces.

331 Cf. L.C. v. Olmstead, 528 U.S. 581 (1999) (concluding that, in certain circumstances, ADA Title II obligates state governmental agencies to provide health related services for persons with disabilities in the most integrated community setting possible).

332 Cf. David Matza & Henry Miller, Poverty and Disrepute, in CONTEMPORARY SOCIAL PROBLEMS 601 (R. Merton & R. Nisbet eds., 4th ed. 1976) (discussing stigma associated with "undeserving" poor). During its 1999 term, the U.S. Supreme Court examined the definition of disability for purposes of the ADA, finding in three cases that a person whose impairment is mitigated (e.g., by wearing glasses or by medicine) is not a person with a disability covered by the law. See Blanck, supra note 7, at 20–21 (reviewing disability cases).


Some people seem to think that evaluating the impact of the ADA is irrelevant, given that its purpose is to establish certain rights and protections. But I believe we have an obligation to make sure our laws are working. At the very least, we need to know that people affected by the ADA are aware of their rights and responsibilities and that its remedies are in fact available and effective.
what has been learned about conceptions of disability from contemporary study? In the area of hiring,334 my colleagues and I have conducted a case study of Manpower Inc., the nation's largest staffing employer.335 The study examined job opportunities available to persons with serious disabilities, exploring how hiring and job training opportunities provide a bridge to employment. The findings suggest that a critical element in hiring and retaining workers with disabilities is related to skills assessment and career development strategies. The costs of accommodating workers with disabilities was found to be low.336

In another study begun in 1990, we have examined labor market trends of persons with mental disabilities, exploring the contention that the ADA has had a negative effect on labor market trends of workers with disabilities.337 This study follows longitudinally more than 5,000 persons with mental retardation and other disabilities. The study examines the participants' employment status during ADA implementation, including educational backgrounds, wages, job qualifications, and views of ADA effectiveness.338 The findings show that, over the time period 1990 to 1998, more than 90% of the participants remained in the same type of employment or were engaged in more integrated employment settings. The incomes of participants increased, with younger participants showing substantial increases in earned income.339 Relative unemployment levels declined.340 The findings documented gains in employment, income, independent living, and awareness of the law.341

334 Cf. Olson, supra note 310, at 114:

Employers' biggest accommodation challenge [under the ADA] may arise less from the gravely disabled, who are relatively few in number and often far from keen on forcing their services on reluctant hirers, than from the general working population—people who manifest or announce less profound disabilities after they've already been at a job for a while.


336 In addition, for the employees with disabilities studied, there were no incidences of work site injury and no related costs to employers due to workplace safety issues. Id. at 7.

337 See, e.g., Olson, supra note 310, at 86–87:

The history of other discrimination laws and the past course of disabled employment both made it predictable that the [ADA] would miss the mark in moving the disabled to jobs from idleness. Far from being any rational step toward integrating this group into the productive economy, ADA was a venture into freelance social reconstruction.

338 Blanck, supra note 7, at 135–42.

339 Id. at 97–110 (finding that participants improve substantially in their job capabilities and qualifications, live in more integrated settings, become more involved in self-advocacy and citizenship activities, and report enhanced accessibility to society as defined by the ADA).

340 Yet, almost three out of four participants not employed or employed in segregated or nonintegrated settings in 1990, remained in these settings in 1998. Id. at 98.

341 See Dole, supra note 334, at 927 (stating that such findings make an important and
Another prominent criticism is that the ADA has increased costs associated with the workplace accommodation of persons with disabilities. Critics suggest the accommodation provision creates an employment privilege or subsidy, and imposes upon employers an affirmative obligation to retain less economically efficient workers. Others argue that the costs of accommodations are high for large employers who may be held accountable for modifications due to their greater financial resources.

To address these issues my colleagues and I have conducted a series of studies that find that companies effectively implementing the ADA demonstrate the ability to look beyond minimal legal compliance in ways that enhance their economic bottom lines. The low direct costs of accommodations for employees with disabilities produces substantial economic benefits, in terms of increased work productivity and reduced workers' compensation costs. At Sears, Roebuck and Co., a company with more than 300,000 employees, we have examined hundreds of accommodations provided over a ten-year period. The findings show that most

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342 Olson, supra note 310, at 114–15:

Without ever debating it as such, Congress seems to have devised a general federal law [the ADA] allowing workers to challenge uncomfortable working conditions—factories that are too hot or cold or drafty, schedules that are too demanding, jobs that involve too much heavy lifting or noise, exposure to bad weather, and so forth—provided the worker interprets the discomfort as an aggravation of an existing disability.

343 See generally, Blanck, supra note 4.

344 Cf. Harlan & Robert, supra note 295, at 399 (arguing that social constructionist theory predicts that organizations create a work environment that reflects the culture of society); see also Hunt, supra note 317 (commenting that the ADA has not produced a rash of legal actions that has intimidated or bankrupted businesses).


accommodations required little or no cost. The indirect costs of not retaining qualified workers is high, with the average cost at Sears per employee replacement at roughly forty times the average of the direct costs of accommodations.

Yet another criticism of the ADA is that the law has fostered frivolous litigation. Reminiscent of President Cleveland’s 1887 veto message warning of the “race after pensions” as placing “a premium on dishonesty and mendacity,” and the scores of news articles reviewed in Study I that were critical of the pension system, James Bovard writes in the *Washington Times*:

> [The ADA] has turned disabilities into prized legal assets, something to be cultivated and flourished in court rooms to receive financial windfalls. The ADA creates a powerful incentive to maximize the number of Americans who claim to be disabled, since the claim of disability amounts to instant empowerment in the eyes of the law.

The Sears studies examined the ADA charges filed with the EEOC against Sears from 1990 to mid-1995 and the informal disputes raised by employees. Virtually all of the formal charges filed with the EEOC (98%) were resolved without resort to trial litigation. More than three quarters of the disability-related disputes were resolved through informal dispute processes, often enabling employees with disabilities to return to work. Of the formal ADA charges studied, the average settlement cost to Sears was slightly more than $6,000, exclusive of claimant’s attorney fees.

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347 *Id.* (finding more than 75% required no cost, somewhat less than one quarter cost less than $1,000, and less than 2% cost more than $1,000; during the years 1978–1998, the average direct cost for accommodations was less than $30). *See also generally* Thomas N. Chirikos, *Will the Costs of Accommodating Workers with Disabilities Remain Low?*, 17(1) BEHAV. SCI. & L. 93 (1999) (finding that the likelihood and extent of workplace accommodations for older workers are influenced by cost factors); *Society for Human Resource Management, The ADA at Work: Implementation of the Employment Provisions of the Americans with Disabilities Act* (1999) (surveying 1,400 employers and finding that accommodations generally were “easy” to implement).

348 *See supra* notes 58–63 and accompanying text (discussing the implications of Cleveland’s veto message).

349 James Bovard, Editorial, *Disability Intentions Astray*, WASH. TIMES, May 20, 1996, at A16, *available at* 1996 WL 2955317; *see also* Editorial, *Cleaning Up the Mess*, LAS VEGAS REV. J., Jan. 12, 1999, at 6B (arguing that the ADA has generated more litigation than predicted, mostly by persons with questionable disabilities); *Olson, supra* note 310, at 134 (“Few laws have done as much as the Americans with Disabilities Act to make a note from your doctor something you can take to the bank.”).

350 *See generally supra* BLANCK, SEARS FOLLOW-UP REPORT, note 347 (studying 141 formal EEOC charges and 20 informal disputes); *see also* Kathryn Moss et al., *Different Paths to Justice: The ADA, Employment, and Administrative Enforcement by the EEOC and FEPA*, 17(1) BEHAV. SCI. & L. 29 (1999) (finding a lack of uniformity in charge outcomes under the ADA and FEPA).

351 *Cf.* Ruth Colker, *The Americans with Disabilities Act: A Windfall for Defendants*, 34 HARV. C.R.-C.L. L. REV. 100 (1999) (empirical study finding that, contrary to media portrayals, defendants have won the vast majority of ADA cases to date). The ADA provides attorneys’ fees
A last critical theme is that the ADA has had negative unintended economic consequences for society.\textsuperscript{352} We have conducted studies of economic activity in the assistive technology (AT) market during the years 1990–1999.\textsuperscript{353} The results show that over the past decade the ADA has fostered unanticipated technological innovation and positive economic activity.\textsuperscript{354} A new market for goods has emerged that has improved accessibility to society for consumers with disabilities. The AT market is creating profit-making opportunities for inventors, manufacturers, and employers that were not predicted at the time the ADA was passed.

Despite the positive results highlighted above, it is fair to say that across existing empirical studies of disability policy and ADA implementation the results are mixed.\textsuperscript{355} As has been discussed herein in regard to the controversy over the operation of the Civil War pension laws, reports of ADA successes frequently coincide with media reports that claim few improvements have been realized for the majority of those covered by the law.\textsuperscript{356} It is unlikely that one factor or political phenomenon explains the existing pattern of empirical results regarding ADA implementation and emerging conceptions in society of persons with disabilities. It for prevailing parties as an incentive for the plaintiffs’ bar to pursue ADA claims. Certainly, the possibility of a fee award has affected many attorneys in their decision to take ADA cases, as well as the magnitude and type of claims pursued (e.g., those that seek to expand the law’s definition of disability). An interesting parallel incentive effect was that Civil War pension laws provided that pension agents, usually attorneys, received a set fee for each case that they handled. See Skocpol, Soldiers, supra note 10, at 114 (discussing effects of fees for pension agents); Costa, supra note 23, at 162 (same).

\textsuperscript{352} See Olson, supra note 310, at 117 (If the disabled can demand high-tech gear, training, or job redesign, the question arises: why shouldn’t everyone be allowed to demand those things—especially if they’d make the difference between losing and holding onto a job?). See also generally Debate: Blanck-Olson, The Unintended Consequences of the ADA, 85 Iowa L. Rev. 1811 (2000) (discussing the impact of the ADA).


\textsuperscript{354} See Joshua Harris Prager, Media: Radio Host is “On a Roll” with Show for Disabled, Wall St. J., Feb. 25, 1999, at B1 (The decade since the passage of the Americans with Disabilities Act in 1990 has been an age of opportunity for the disabled.").

\textsuperscript{355} For a review, see National Council on Disability, Promises to Keep: A Decade of Federal Enforcement of the Americans with Disabilities Act (June 27, 2000) available at http://www.ncd.gov/newsroom/publications/promises_1.html (noting significant challenges faced in the implementation of the ADA).

\textsuperscript{356} See Schwuchow \\& Blanck, supra note 322, at 295–304 (reviewing studies and criticisms of studies of labor force participation of disabled persons).
may well be that a combination of historical, economic, political, and social factors (and incentives and disincentives) explains attitudes and behavior toward and by disabled persons.

There are other differences, of course, between the implications of the contemporary research on the ADA that I have highlighted and the historical analysis of the Civil War pension system. These differences are worthy of future study, particularly as societal and medical views of disability evolved from the passage of the first civilian national Vocational Rehabilitation Act in 1920 to passage of the ADA in 1990. Other innovations after 1920—such as working persons’ insurance, the New Deal, the GI Bill, desegregation, the women’s movement—ultimately won public support because they articulated a common national interest in eradicating a social problem.

The social programs after 1920 attempted to identify their beneficiaries as deserving individuals who, like Civil War veterans, had made sacrifices for the national interest or insisted that past oppression of a minority group violated American notions of equality. Certainly, there were vocal critics of these social changes. A prominent issue facing the modern disability movement, at the tenth anniversary of the ADA, and a question for historians and contemporary researchers, is why the modern disability movement has not yet been able to position itself in these traditions of social change.

Joseph Shapiro has written of the challenge facing the modern disability movement:

Never has the world of disabled people changed so fast. Rapid advances in technology, new civil rights protections, a generation of better-educated disabled students out of “mainstreamed” classrooms, a new group consciousness, and political activism means more disabled people are seeking jobs and greater daily participation in American life. But prejudice, society’s low expectations, and an antiquated welfare and social service system frustrates these burgeoning attempts at independence. As a result, the new

357 There likely are differences worthy of future study in social conceptions of disabled soldiers and civilians. Cf. Liachowitz, supra note 13, at 9 (discussing possible differences); Deborah Cohen, Will to Work: Disabled Veterans in Britain and Germany after the First World War, in GERBER, supra note 186, at 295 (discussing conditions of disabled World War I veterans).

358 Such a study may examine the close of the Civil War pension system and the next generation of disabled veterans returning from World War I. See generally C. ESCO OBERMANN, A HISTORY OF VOCATIONAL REHABILITATION IN AMERICA (1965) (describing development of rehabilitation system and relation of system to provision of services for veterans, and noting that prior to 1920 “rehabilitation” meant payment of pensions); Adam A. Milani, Living in the World: A New Look at the Disabled in the Law of Torts, 48 CATH. U. L. REV. 323, 330 (1999) (concluding that the 1920 vocational rehabilitation act remains the focal point of federal disability policy). Study is underway in the present project to examine media portrayals of disability and deservingness before and after passage of the 1920 act, as well as parallels in the public debate over passage of the 1920 act and the ADA.

359 I am again indebted to Michael Millender for suggesting this line of analysis.
aspirations of people with disabilities have gone unnoticed and misunderstood by mainstream America.\textsuperscript{360}

The modern disability movement, unlike prior social change movements, is unique—it has had no single leader, its group members and coalitions are extremely diverse, and its composition is constantly changing. The present investigation illustrates that contemporary study of the modern disability rights movement and emerging conceptions of disability culture is enhanced by analysis of its similarities and differences to historical events in American society.

C. Closing

\textit{Attitudinal barriers are extensive, persistent and pervasive. Stigma is a primary reason for the staggering nonemployment of adults with severe disabilities. Many existing federal laws and policies \ldots were developed when the view of people with disabilities was one of eternal dependence and accompanied by the need for segregation, charity, and care. The segregation resulting from these programs has contributed to deeply ingrained attitudes and prejudices that are pervasive throughout society.}

---

- Presidential Task Force on Employment of Adults with Disabilities, 1998\textsuperscript{361}

Widespread skepticism toward persons with disabilities and criticism of the ADA illustrates a growing ideology that, knowingly or unknowingly, perpetuates attitudinal barriers and unjustified prejudice toward disabled Americans in employment, education, housing, and daily life activities.\textsuperscript{362} The historical investigation in this article illustrates that these attitudes profoundly influenced the development of laws and policies toward disabled Civil War veterans, which, in turn, affected the social construction of disability.

This article has attempted to further the study of the evolving social construction of disability and its long-term impact on the inclusion into society of disabled persons.\textsuperscript{363} As Cary LaCheen has commented, the disability community has yet to

\textsuperscript{360} Shapiro, supra note 2, at 4.

\textsuperscript{361} Re-Charting the Course, supra note 302.

\textsuperscript{362} See generally Blanck, supra note 6, at 3–10 (discussing attitudinal biases and myths toward persons with disabilities); Peter David Blanck, Civil Rights, Learning Disability, and Academic Standards, 2(1) J. GENDER, RACE, & JUST. 33, 53 (1998) (same). See also Douglas Martin, Disability Culture: Eager to Bite the Hand that Would Feed Them, N.Y. TIMES, June 1, 1997, § 4, at 1, 6 (discussing the view that it is offensive to disabled persons to argue that “cure” would integrate them into society).

\textsuperscript{363} See Richard K. Scotch & Kay Schriner, Disability as Human Variation: Implications for Policy, in Collignon, supra note 7, at 148, 155 (commenting that disability is a social construction that is the product of an impairment and the environment); Skocpol, Soldiers, supra note 10, at 58–59 (discussing policy feedback effects on social groups and attitudes). With similar goals in mind, the 1998 Presidential Task Force on Employment of Adults with Disabilities is aimed at broadening national policy to enhance attitudes toward equal opportunities for disabled persons.
effectively use history as a tool to "persuade people about why disability rights matters." \(^3\)^6

In addition to historical study of disability, evaluation of attitudes about disability and the operation of related law and policy is needed. First, study of the equal participation in society of persons with disabilities will aid in evaluation of emerging policies in areas of welfare, educational, and health care reform. Second, study of the extent to which disability laws and policies has enabled those with severe disabilities to enter the mainstream of society is needed particularly in the areas of education and employment. Third, research from a variety of disciplines is needed to inform policymakers, members of the disability community and others about issues related to attitudinal prejudice and long-term policy implementation.

In his classic article *The Right to Live in the World*, Jacobus tenBroek argued that in areas such as employment, health insurance coverage, education, housing, and daily life activities. See *Re-Charting the Course*, supra note 302.

\(^3\)^64 See LaCheen, supra note 157, at 242–43 (citing Anthony G. Amsterdam & Jerome Bruner, *Minding the Law: Culture, Cognition and the Court* (2000) (discussing the history of the Court's school desegregation decisions)).

\(^3\)^65 See Costa, supra note 22, at 165 (commenting that all social programs affecting the disabled and the elderly have been criticized on the grounds of abuse, and that while some fraud may have existed in the Civil War pension program, by the 1890s the system had been professionalized and "the pension records themselves provide no evidence that corruption was common").

\(^3\)^66 A 1998 survey by the National Organization on Disability (N.O.D.) and the Harris Organization found significant participation gaps between people with and without disabilities in employment and other aspects of life. See the 1998 N.O.D./HARRIS SURVEY OF AMERICANS WITH DISABILITIES (1998) (finding of the persons with severe disabilities surveyed, more than two-thirds (67%) were unemployed and out of the workforce compared to less than 10% of all Americans); see also Peter David Blanck, *Empirical Study of Disability, Employment Policy, and the ADA*, 23(2) Men. & Phys. Dis. L. Rep. 275 (1999) (discussing future research agenda); Peter David Blanck et al., *The Emerging Workforce of Entrepreneurs with Disabilities: Preliminary Study of Entrepreneurship in Iowa*, 85 Iowa L. Rev. 1583, 1588–91 (2000) (reviewing studies of labor force participation of persons with severe disabilities); Futurework: Trends and Challenges for the 21st Century (1999), available at http://www.dol.gov/dol/asp/public/futureworkreport.htm (examining the diversification of the American labor force and its relevance to high quality employment opportunities for workers with disabilities and others).

\(^3\)^67 See generally Employment, Disability, and the Americans with Disabilities Act, supra note 326 (discussing various research models for study of the ADA). For a seminal discussion of social stigma, see Erving Goffman, *Stigma: Notes on the Management of Spoiled Identity* (1963). See also Sim Linton, *Claiming Disability: Knowledge and Identity* 2, 147 (1998) (discussing emerging field of disability studies as "an interdisciplinary field based on sociopolitical analysis of disability and informed both by the knowledge base and methodologies used in the traditional liberal arts, and by conceptualizations and approaches developed in areas of the new scholarship"); Teresa L. Scheid, *Employment of Individuals with Mental Disabilities: Business Response to the ADA’s Challenge*, 17(1) Behav. Sci. & L. 73–91 (1999) (studying mental illness, employment and stigma, and finding that few employers studied had a comprehensive ADA plan in place).
the disabled have a right to live under a national policy of "integrationalism," which calls for full and equal participation in society. Integration as a national policy may have commenced formally as early as 1920, when Congress adopted the national Vocational Rehabilitation Act. The gradual shift toward integration may be one legacy of the Civil War pension system, from its early beginnings as a policy of compensation to the medicalization of disability.

The post–Civil War shift toward the recognition and classification of the then new socially and politically constructed category of disability laid the groundwork for subsequent need-based governmental assistance programs targeting the disabled. The evolution of the Civil War pension system thereby contributed to the normative debate that disabled Americans—initially a select group of Northern White native-born male veterans—had a moral and political claim to certain rights. In 1990, the modern view of disability civil rights was articulated in passage of the ADA. This new paradigm also has been characterized as emphasizing an individualized, flexible, and socially contextual approach to civil rights enforcement.

369 Id. at 843.
370 Id.; Orloff, supra note 79, at 158 (quoting Massachusetts Representative Huddell, Commissioner on Old Age Pensions, the Civil War pension system has "built up the American family"); see also Drimmer, supra note 308, at 1362–63 (discussing evolution of rehabilitation programs from social pathology, charity, and medical models, and toward present civil rights model reflected in the ADA); K. Walter Hickel, Medicine, Bureacracy and Social Welfare: The Politics of Disability Compensation for American Veterans of World War I, in THE NEW DISABILITY HISTORY, supra note 298 (discussing beginnings of a disability rights movement).
371 See generally OBERMANN, supra note 359 (describing the development of the rehabilitation system); Yelin, supra note 315, at 118. See also Silvers, supra note 15, at 82 (discussing changes in American disability policy over the past twenty-five years from the medicalization of disability to a social constructionist account); Harlan & Robert, supra note 295, at 402 (commenting on the historical trend for the state to call on physicians to certify the legitimacy of disabilities "to separate those who have authentic impairments from those who might take undeserved advantage of public aid for the purpose of avoiding work"); STONE, supra note 294 (discussing this historical trend).
372 An area worthy of study is analysis of conceptions of disability in the North and South after the Civil War and thereafter, given that Union pensions were extremely generous compared to Southern "honorariums." Blanck & Millender, supra note 24, at 1–5; R.B. Rosenberg, "Empty Sleeves and Wooden Pegs": Disabled Confederate Veterans in Image and Realty, in GERBER, supra note 186, at 204 (discussing post-war conceptions of Confederate veterans); see also COSTA, supra note 22, at 49–50 (discussing differences in pension awards for Northern and Southern veterans and resulting impact on retirement trends; and noting that, in 1910, 90% of all Union veterans were collecting a pension and the average award was $171.90 per year, compared to less than 30% of Confederate soldiers collecting a pension with average award of $47.24 per year); id. at 183 (commenting that the South, the young, and recent immigrants bore the costs of the Civil War pension system).
373 Paul Steven Miller, Disability Civil Rights and a New Paradigm for the Twenty-First Century: The Expansion of Civil Rights Beyond Race, Gender, and Age, 1(2) U. PA. J. LAB. &
Another legacy, beyond the monetary awards paid to disabled Civil War veterans, was that the war pension system stimulated a political and social dialogue of the problems of old age and widowhood in nineteenth and early twentieth-century America. Skocpol has articulated the reasons why related governmental assistance policies were long in coming, developing well after the Civil War pension system had died out. Yet in today’s dollars, the average Union Army pension award in 1900 and 1910 (to veterans, their widows, and their dependents) was comparable to the average Social Security retirement benefit almost one hundred years later.

The economic, social, and political lessons learned from the Civil War pension system, as articulated initially by Professors Rubinow and Henderson, and later by Skocpol, also stimulated discussion on early workingmen’s pension systems. These early benefit programs assisted older Civil War veterans (and their families) who may have become disabled as a result of a workplace injury in industrializing America. In these complex ways, the legacies of the Civil War pension system were mixed among the social, political, and economic dynamics of nineteenth century America. They also were mixed amidst new social and labor reform movements, often voicing concerns about prior partisan-based spending on “non-deserving” classes of individuals in society, including the disabled, widows, and the elderly.

374 See RUBINOW, supra note 80, at 408–09 (commenting that “the system of war pensions represents a very important entering wedge for a national system of old-age pensions); SKOCPOL, SOLDIERS, supra note 10, at 141, 157 (discussing the implications of Rubinow’s analysis and that during the 1880s and 1890s the G.A.R. lobbied successfully for the establishment of old-age homes for veterans in twenty-eight states). See generally Amy E. Holmes, “Such is the Price We Pay”: American Widows and the Civil War Pension System, in TOWARD A SOCIAL HISTORY OF THE AMERICAN CIVIL WAR, supra note 198, at 171 (discussing overview of Civil War pension system).

375 See COSTA, supra note 22, at 55–56 (calculating comparability of Civil War pension awards and Social Security retirement benefits; implying that one reason why the legacy of the Civil War pension system may have been muted at the beginning of the twentieth century was due to the lack of political organization of the elderly [and, I would add, of the disabled]).

376 See RUBINOW, supra note 80, at 407 (consistent with the present findings, commenting that since the majority of veterans came from agricultural and manual labor occupations, the military pension system ultimately acted as a workingmen’s insurance system for old soldiers; but concluding that older White Civil War veterans, relative to older immigrating White males and Black native-born males, economically were less in need of old-age pensions); SKOCPOL, SOLDIERS, supra note 10, at 157, 262 (same, and commenting that the nineteenth-century patronage-politics were not suited for coping with social problems associated with industrialization). See also generally Fogel, supra note 169 (finding that Civil War veterans who survived the war and reached their fifties had life expectancies similar to the general population); COSTA, supra note 22, at 198, 212 (same, and that pensions enabled Union Army veterans to be more likely to retire and head their own households due to economic position).

377 SKOCPOL, SOLDIERS, supra note 10, at 533 (making this point, and commenting that the legacy of open-ended Civil War pensions influenced New Deal policymakers to seek contributory forms of unemployment and Social Security insurance); see also EDWARD E. BERKOWITZ, DISABLED POLICY: AMERICA’S PROGRAMS FOR THE HANDICAPPED (1987) (discussing “deservingsness” of disabled Americans); Patricia E. Dilley, The Evolution of Entitlement:
One hundred years ago, and today, at the tenth anniversary of the ADA, disabled people are portrayed by some as shirkers, malingerers, and free-loaders. Then and now, some claim that disabled people seeking protection under the law pose a moral challenge to notions of fairness in American society. Over the course of the twenty-first century, our challenge is to strive toward national policies that promote inclusion of all persons, with and without disabilities, based on values of individual worth, fairness, and justice.

Retirement Income and the Problem of Integrating Private Pensions and Social Security, 30 LOY. L.A. L. REV. 1063, 1102 (1997) (discussing similarities in public perceptions between Civil War pensions and Social Security Retiree benefits in terms of presumed and deserving need); Morris D. Bernstein, Social Security Reform and the Growth of Inequality, 8(2) KAN. J.L. & PUB. POL’Y 57, 61 (1999) (noting that the Civil War pension system is often overlooked in historical accounts of the development of the social security system).

378 See, e.g., Michelle Stevens, High Court Must Define Disability, CHI. SUN TIMES, May 2, 1999, at 35 (stating that “[a]ll manner of malingerers have jumped onto the ADA bandwagon,” and that the ADA protects “shameless shirkers”).

379 Compare Ruth Shalit, Defining Disability Down, NEW REPUBLIC, Aug. 25, 1997, at 16 (discussing remarks concerning students with disabilities by President of Boston University), with Orloff, supra note 79, at 224 (noting that late nineteenth-century America was characterized by a distrust of the activist federal government); compare Hunt, supra note 317, at A23 (commenting that “the most significant contribution of the ADA is that it has clearly changed the perception of the disabled”), with Mona Charen, Frenetic Guidelines Straight from the EEOC, WASH. TIMES, July 31, 1997 (commenting that the ADA “has gone far beyond the benevolent intentions of its designers . . . [and] has accomplished nothing less than to undermine our traditional understanding of character, behavior, and personal responsibility”).
V. APPENDICES

APPENDIX 1: Disease Data Collection Categories Derived From Examining Surgeons' Certificates

APPENDIX 2: Examining Surgeons' Screening Evaluation for Pension Decision: Simple Correlations and Sample Sizes

APPENDIX 3: Civil War Pension Study Zero and Disability Ratings for General Law Period (1862–1878), and for Arrears Act Period (1879–1889)
APPENDIX 1

Disease Data Collection Categories Derived From Examining Surgeons’ Certificates

This appendix illustrates the disease/disability data collection categories and their primary diagnostic components derived from the analysis of the examining Surgeon’s Certificates.*

1. **Cardiovascular**
   - Pulse/Heartbeat Characteristics
   - Palpitations
   - Murmurs
   - Valve Description
   - Dilation, Displacement, Enlargement, Hypertrophy (increased size)
   - Anasarca, Dropsy, Oedema, Puffiness, Swelling
   - Cyanosis (bluing from lack of oxygen)
   - Dyspnoea (impaired breathing, shortness of breath)
   - Arteriosclerosis/Atherosclerosis, Bruit (abnormal sounds), Hardening of Vessels
   - Impaired Circulation
   - Length of Cardiovascular Condition

2. **Diarrhea**
   - Diarrhea or Dysentery
   - Length of Diarrhea or Dysentery Condition
   - Season of Diarrhea or Dysentery Condition
   - Episodes: Frequency
   - Episodes: Length
   - Stools per day
   - Blood, Mucopus (containing white blood cells), Mucous, Pus, Slime, or Undigested Food in Stools
   - Severity of Diarrhea or Dysentery (including pain information)

* For extensive discussion of the disease/disability categorization procedure, see DATA USER’S MANUAL, *supra* note 11, at 110–33.
APPENDIX 1 (CONT.)

3. **Ear Disease**
   - Which Ear
   - Total Deafness
   - Capabilities/Defects/Limitations
   - Inflammation of the Middle Ear
   - Eustachian Tubes Blocked
   - Tympanic Membrane/Ear Drum
   - Mastoid (ear bone)
   - Abscess, Draining, Purulence (pus), Suppuration (pus formation)

4. **Endocrine**
   - Enlarged Thyroid (goiter)
   - Nodules
   - Diabetes Insipidus, Polydipsia (excessive thirst)

5. **Eye Disorders**
   - Which Eye Impaired
   - Responsive to Light/Shade; Is Response Equal
   - Total Blindness
   - Sight Capabilities/Limitations
   - Information About Conjunctiva (mucous membrane)
   - Corneal Inflammation, Scarring, or Ulceration
   - Infection or Inflammation
   - Cataract
   - Arcus Senilis (white line around cornea with age)
   - Chalazion (sty), Coloboma (cleft), Pannus (growth from irritation), Pterygium (growth)
   - Ectropion (eyelid turned outward) or Trichiasis (eyelashes turned inward)
   - Astigmatism, Myopia/Nearsightedness, Paralysis, Presbyopia/Farsightedness
   - Strabismus (cross-eyed)
6. **Gastrointestinal**

- Dyspepsia (digestive problem), Gastritis, Gastrointestinal Catarrh, Indigestion
- Frequency of Problem
- Poor Assimilation, Poor/Weak Digestion, Malassimilation, Malabsorption
- Diet Restrictions
- Nausea after Eating
- Spit-Up or Vomit Foods
- Vomit Blood
- Bloated, Distended, Enlarged, Protuberant, Swollen, Tympanitic Abdomen
- Location of Tenderness
- Dysphagia (difficulty swallowing)

7. **General Appearance**

- General Health, Appearance, Blood Nutrition, Skin Appearance
- Condition of Skin (Abscesses, Blotches, Cysts, Ichthyosis, Lesions, Psoriasis, Rashes, Skin Ulcers)
- Scurvy
- Condition of Gums and Alveolar Process (jaw bone)
- Condition of Teeth
- Posture
- Gait/Ability to Walk
- Muscle Condition/Strength
- Condition of Hands/Palms
- Ability to do Manual Labor
8. **Genito-Urinary**

- Urine Description/Urinalysis (Acid, Albumin, Alkali, Blood, Color, Deposits, Mucus, Pus, Sugar)
- Frequency of Urination
- Pain/Difficulty of Urination
- Use of Catheter
- Tenderness, Pain, Sensitivity in Bladder, Kidneys, Prostate, or Urethra
- Nephritis or Pyelitis (inflammation)
- Cystitis (inflammation of bladder), Infection of Bladder, Catarrh of Bladder
- Bladder Stones, Calculi
- Uraemia (blood accumulation)
- Urethral Structure, Obstruction
- Prostate Enlargement, Prostatitis
- Description of Testes

9. **Hernia**

- Type of Hernia/Rupture
- Hernia Inflamed, Irreducible, Obstructed, Reducible/Returnable, Retainable, Strangulated
- Size of Tumor/Mass
- Length of Time Claimant has had Hernia
- Hydrocele (fluid in scrotum), Varicocele (veins distended)
- Hernia enters Scrotum (Testicles or Testicular Sac)

10. **Infectious Diseases & Fevers**

- Type Infectious Disease or Fever
- Where (geographically) Contracted
- When Contracted
- Currently Suffering
- Complications, Effects, Severity
11. Injury/Gunshot Wound

- What Caused Injury
- Body Part/Organ Affected
- Current Complications, Deformities, Disabilities, or Impaired Functionality
- When Did Injury Occur
- Where (geographically) Did Injury Occur

12a. Liver

- Liver Enlarged, Congested, Palpable
- Describe Enlargement
- Liver Painful (Sensitive, Sore, Tender)
- Liver Atrophied, Contracted, Hardened or Swollen
- Fluid in Abdomen
- Jaundice, Icterus, Yellowness of Skin/Eyes
- Urine Dark
- What Caused Liver Disorder

12b. Spleen

- Spleen Enlarged/Palpable
- Describe Enlargement
- Spleen Painful (Sensitive, Sore, Tender)

13. Neoplasm

- Type Cancer (Carcinoma), Neoplasm, Tumor is Described
- What Said about Cancer/Neoplasm/Tumor
- Thought to Be Malignant
APPENDIX 1 (CONT.)

14. **Nervous System**

- Difficulty with Balance at Rest
- Difficulty with Balance on Movement/Lack of Coordination, or Ataxia (difficulty keeping balance while walking)
- Aphasia (difficulty speaking)
- Palsy, Paralysis, Weakness (what part of body)
- Reflexes Affected (Increase or Decrease, Unilateral or Bilateral)
- Paralysis Agitans (Parkinson's Disease), Tremors, Tremulous Tongue
- Hyperaesthesia (excessive sensibility) or Neuralgia (nerve pain)
- Sensory Paralysis (Anaesthesia, Hypaesthesia, Numbness)
- Vertigo, Dizziness
- Headaches (frequency, location, duration)
- Anxious (Excitable, Irritable, Nervous)
- Attacks, Convulsions, Epilepsy, Fits, Seizures, Spasms
- Memory Loss
- Indications of Mental Illness/Loss of Mental Power/Senility
- What Caused Condition
- Nervous Condition Make Claimant Dependent on Others for Help

15. **Rectum/Hemorrhoids**

- Hemorrhoids/Piles, or Enlarged Rectal Veins
- Hemorrhoids Ulcerated (Excoriated, Fissured)
- Hemorrhoids Bleeding, Prolapsed/Protruding, Tender (Burning, Congested, Containing Pus, Inflamed, Painful, Swollen)
- Rectum Abnormal/Irritated
- Rectum Ulcerated (Excoriated, Fissured)
- Rectum Bleeding
- Rectum Prolapsed/Protruding (Tender, Burning, Congested, Engorged, Exuding Pus, Inflamed, Painful)
- Anal Sphincter Scarred (Constricted)
- Anal Sphincter Enlarged/Loose/Patulous/Relaxed
- Pruritus Ani (Itching)
16. **Respiratory**

- Where in Upper Respiratory Tract is there Inflammation
- Lung Dullness on Percussion, Consolidation, Hepatization (solidified)
- Respiratory Sounds (Rales, Respiratory/Vesicular Murmur, Tubular/ Bronchial Breathing)
- Cough or Expectoration
- Apnea, Congestion, Dyspnoea (Shortness of Breath), Impaired Breathing
- Lower Respiratory Disease (Asthma, Bronchitis, Emphysema, Pleuritis, Pneumonia, Tuberculosis/Consumption)
- Claimant Pigeon/Chicken-Breasted (Pectus Carinatum)
- Chest Sunken/Depressed/Excavated (Pectus Excavatum)
- Chest Measurements

17. **Rheumatism/Musculo-Skeletal**

- Where is Problem Manifested
- Pain/Tenderness in Region
- Enlargement, Swelling, Thickening
- Crackling, Crepitation
- Atrophy, Wasting
- Severity of Motion Restriction
- Spinal Curvature or other Deformity (Kyphosis, Scoliosis)

18. **Varicose Veins**

- Varicose Veins in Lower Extremities
- Varicose Veins Cause Skin Problems (Ulcers, Dermatitis, Ruptures, Ulcerations)
- Chronic Scarring or Thickening
- Brown Spots, Discoloration, Hyperpigmentation
- Oedema (Edema, Pitting Oedema), or Swelling in Lower Extremities
- Cyanosis (bluing) of Feet or Lower Extremities
- Pain, Soreness, Sensitivity, Tortuousness
- Impaired/Impeded Motion, Lameness
Examining Surgeons' Screening Evaluation for Pension Decision: Simple Correlations and Sample Sizes

This appendix illustrates the disease/disability screening items having a "yes/no" response and used by the examining surgeons for diagnosis and evaluation of claimants requesting pensions. Individual screening items appear in their order of presentation. The table for each disability screen presents (1) individual item correlations, (2) the median of all individual item correlations, and (3) the correlation with the total screen score (number of "yes" responses for each claimant).

<table>
<thead>
<tr>
<th>Cardiovascular Disability Screen</th>
<th>Number &quot;Yes&quot; (803 Rated)</th>
<th>Correlation (p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Rating Value</td>
</tr>
<tr>
<td>1. Palpitations?</td>
<td>24</td>
<td>-.07 (.04)</td>
</tr>
<tr>
<td>2. Murmurs?</td>
<td>317</td>
<td>.33 (.0001)</td>
</tr>
<tr>
<td>3. Dilation, displacement,</td>
<td>359</td>
<td>.31 (.0001)</td>
</tr>
<tr>
<td>enlargement or hypertrophy?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Anasarca, dropsy, oedema,</td>
<td>39</td>
<td>.17 (.0001)</td>
</tr>
<tr>
<td>puffiness or swelling?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Cyanosis (bluing from lack of</td>
<td>60</td>
<td>.20 (.0001)</td>
</tr>
<tr>
<td>oxygen)?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Dyspnoea, impaired breathing</td>
<td>167</td>
<td>.27 (.0001)</td>
</tr>
<tr>
<td>or shortness of breath?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Arteriosclerosis/</td>
<td>19</td>
<td>.12 (.0009)</td>
</tr>
<tr>
<td>atherosclerosis, bruit or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>hardening of vessels?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Circulation impaired?</td>
<td>11</td>
<td>.03 (.34)</td>
</tr>
<tr>
<td>Median correlation of screening</td>
<td>—</td>
<td>.185 (.0001)</td>
</tr>
<tr>
<td>items</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correlation for total screen</td>
<td>—</td>
<td>.48 (.0001)</td>
</tr>
<tr>
<td>score</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Diarrhea/Dysentery Disability Screen

<table>
<thead>
<tr>
<th>Number Correlation (p-value)</th>
<th>Rating Value</th>
<th>Zero Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>No “yes/no” screening questions.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Endocrine Disability Screen

<table>
<thead>
<tr>
<th>Number Correlation (p-value)</th>
<th>Rating Value</th>
<th>Zero Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Enlarged thyroid (goiter)?</td>
<td>-.36 (.29)</td>
<td>-.17 (.59)</td>
</tr>
<tr>
<td>2. Symptoms of diabetes (diabetes insipidus, excessive thirst, polydipsia, polyuria, etc.)?</td>
<td>.63 (.04)</td>
<td>-.43 (.17)</td>
</tr>
<tr>
<td>Median correlation of screening items</td>
<td>.135 (.68)</td>
<td>-.30 (.35)</td>
</tr>
<tr>
<td>Correlation for total screen score</td>
<td>.50 (.12)</td>
<td>-1.0 (.0001)</td>
</tr>
</tbody>
</table>

### Eye Disorders Disability Screen

<table>
<thead>
<tr>
<th>Number Correlation* (p-value)</th>
<th>Rating Value</th>
<th>Zero Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pupils responsive to light?</td>
<td>.13 (.006)</td>
<td>-.07 (.13)</td>
</tr>
<tr>
<td>2. Is response of both eyes equal?</td>
<td>.04 (.38)</td>
<td>-.06 (.20)</td>
</tr>
<tr>
<td>3. Totally blind (amblyopia)?</td>
<td>.20 (.0001)</td>
<td>-.02 (.61)</td>
</tr>
<tr>
<td>4. Cataract?</td>
<td>.27 (.0001)</td>
<td>-.11 (.02)</td>
</tr>
<tr>
<td>5. Arcus senilis?</td>
<td>.08 (.09)</td>
<td>-.07 (.13)</td>
</tr>
<tr>
<td>Median correlation of screening items</td>
<td>.13 (.006)</td>
<td>-.07 (.13)</td>
</tr>
<tr>
<td>Correlation for total screen score</td>
<td>.24 (.0001)</td>
<td>-.16 (.0003)</td>
</tr>
</tbody>
</table>

* Correlations for second listed diagnosis only (worse eye is generally evaluated second).
### APPENDIX 2 (CONT.)

<table>
<thead>
<tr>
<th>Gastrointestinal Disability Screen</th>
<th>Number “Yes” (275 Rated)</th>
<th>Correlation (p-value)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Rating Value</td>
<td>Zero Rating</td>
</tr>
<tr>
<td>1. Poor assimilation/weak digestion, malassimilation or malabsorption?</td>
<td>26</td>
<td>.02 (.76)</td>
<td>-.13 (.03)</td>
</tr>
<tr>
<td>2. Follow diet restrictions?</td>
<td>26</td>
<td>.004 (.95)</td>
<td>-.07 (.26)</td>
</tr>
<tr>
<td>3. Nausea after eating?</td>
<td>5</td>
<td>-.02 (.75)</td>
<td>-.07 (.26)</td>
</tr>
<tr>
<td>4. Vomit foods?</td>
<td>20</td>
<td>-.03 (.66)</td>
<td>-.14 (.02)</td>
</tr>
<tr>
<td>5. Vomit blood?</td>
<td>2</td>
<td>.002 (.97)</td>
<td>-.04 (.48)</td>
</tr>
<tr>
<td>6. Abdomen bloated, distended, enlarged, protuberant, swollen, tympanic, etc.?</td>
<td>117</td>
<td>.11 (.09)</td>
<td>-.25 (.0001)</td>
</tr>
<tr>
<td>Median correlation of screening items</td>
<td>—</td>
<td>.003 (.96)</td>
<td>-.10 (.10)</td>
</tr>
<tr>
<td>Correlation for total screen score</td>
<td>—</td>
<td>.07 (.27)</td>
<td>-.31 (.0001)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>General Appearance Disability Screen</th>
<th>Number “Yes” (449 Rated)</th>
<th>Correlation (p-value)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Rating Value</td>
<td>Zero Rating</td>
</tr>
<tr>
<td>1. Have scurvy?</td>
<td>21</td>
<td>-.05 (.26)</td>
<td>-.13 (.006)</td>
</tr>
<tr>
<td>2. Ever had scurvy?</td>
<td>36</td>
<td>-.06 (.24)</td>
<td>-.04 (.37)</td>
</tr>
<tr>
<td>3. Ability for manual labor impaired?</td>
<td>584</td>
<td>.38 (.0001)</td>
<td>-.22 (.0001)</td>
</tr>
<tr>
<td>4. Require aid of another person?</td>
<td>27</td>
<td>.12 (.02)</td>
<td>-.05 (.31)</td>
</tr>
<tr>
<td>Median correlation of screening items*</td>
<td>—</td>
<td>-.055 (.25)</td>
<td>-.085 (.08)</td>
</tr>
<tr>
<td>Correlation for total screen score</td>
<td>—</td>
<td>-.07 (.13)</td>
<td>-.10 (.03)</td>
</tr>
</tbody>
</table>

* Composites only use scurvy items, since others are not medical diagnoses.
### Genito-Urinary Disability Screen

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Number “Yes” (Rating Value)</th>
<th>Correlation (p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Painful/difficult urination?</td>
<td>28 (.16 (.006))</td>
<td>-.27 (.0001)</td>
</tr>
<tr>
<td>2. Catheter used?</td>
<td>6 (.07 (.21))</td>
<td>-.10 (.08)</td>
</tr>
<tr>
<td>3. Nephritis or pyelonephritis?</td>
<td>4 (.06 (.33))</td>
<td>-.12 (.04)</td>
</tr>
<tr>
<td>4. Cystitis/infection/catarrh of bladder?</td>
<td>41 (.32 (.0001))</td>
<td>-.34 (.0001)</td>
</tr>
<tr>
<td>5. Bladder stones/calculus?</td>
<td>3 (.08 (.19))</td>
<td>-.11 (.07)</td>
</tr>
<tr>
<td>6. Uraemia?</td>
<td>1 (.07 (.24))</td>
<td>-.06 (.30)</td>
</tr>
<tr>
<td>7. Urethral stricture or obstruction?</td>
<td>1 (.10 (.08))</td>
<td>-.06 (.30)</td>
</tr>
<tr>
<td>Median correlation of screening items</td>
<td>— (.08 (.19))</td>
<td>-.11 (.07)</td>
</tr>
<tr>
<td>Correlation for total screen score</td>
<td>— (.33 (.0001))</td>
<td>-.41 (.0001)</td>
</tr>
</tbody>
</table>

### Hernia Disability Screen

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Number “Yes” (Rating Value)</th>
<th>Correlation* (p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Hydrocele/varicelle present?</td>
<td>96 (-.30 (.0001))</td>
<td>-.02 (.59)</td>
</tr>
<tr>
<td>2. Does hernia enter scrotum?</td>
<td>474 (.24 (.0001))</td>
<td>-.12 (.0007)</td>
</tr>
<tr>
<td>Median correlation of screening items</td>
<td>— (-.03 (.52))</td>
<td>-.07 (.13)</td>
</tr>
<tr>
<td>Correlation for total screen score</td>
<td>— (-.01 (.76))</td>
<td>-.12 (.02)</td>
</tr>
</tbody>
</table>

* Correlations for first listed diagnosis only.
### Infectious Diseases Disability Screen

<table>
<thead>
<tr>
<th>Question</th>
<th>Number &quot;Yes&quot; (187 Rated)</th>
<th>Correlation* (p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Currently suffering from this disease?</td>
<td>15</td>
<td>.10 (.19)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-.26 (.0003)</td>
</tr>
</tbody>
</table>

### Injury/Gunshot Wound Disability Screen

<table>
<thead>
<tr>
<th>Question</th>
<th>Number &quot;Yes&quot; (1,563 Rated)</th>
<th>Correlation (p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No “yes/no” screening questions.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Liver Disability Screen

<table>
<thead>
<tr>
<th>Question</th>
<th>Number &quot;Yes&quot; (121 Rated)</th>
<th>Correlation (p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Liver enlarged, congested or palpable?</td>
<td>68</td>
<td>.24 (.01)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-.54 (.0001)</td>
</tr>
<tr>
<td>2. Liver painful (sensitive, sore, tender)?</td>
<td>56</td>
<td>.19 (.05)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-.39 (.0001)</td>
</tr>
<tr>
<td>3. Liver atrophied, contracted, hardened, indurated, necrotic or torpid?</td>
<td>19</td>
<td>.18 (.05)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-.16 (.08)</td>
</tr>
<tr>
<td>4. Is there ascites or fluid in the abdomen?</td>
<td>1</td>
<td>.03 (.78)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-.05 (.62)</td>
</tr>
<tr>
<td>5. Jaundice, icterus, yellowness of skin or eyes?</td>
<td>28</td>
<td>.15 (.11)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-.28 (.002)</td>
</tr>
<tr>
<td>6. Urine unusually dark?</td>
<td>4</td>
<td>-.02 (.80)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-.09 (.31)</td>
</tr>
<tr>
<td>Median correlation of screening items</td>
<td>—</td>
<td>.165 (.07)</td>
</tr>
<tr>
<td>Correlation for total screen score</td>
<td>—</td>
<td>.35 (.0001)</td>
</tr>
</tbody>
</table>

*Correlations for first listed diagnosis only.*
### APPENDIX 2 (CONT.)

<table>
<thead>
<tr>
<th>Neoplasm/Tumor Disability Screen</th>
<th>Number “Yes” (28 Rated)</th>
<th>Correlation (p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Rating Value</td>
</tr>
<tr>
<td>1. Thought to be malignant?</td>
<td>0</td>
<td>xx</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Nervous Disability Screen</th>
<th>Number “Yes” (287 Rated)</th>
<th>Correlation (p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Rating Value</td>
</tr>
<tr>
<td>1. Trouble with balance at rest?</td>
<td>10</td>
<td>.09 (.12)</td>
</tr>
<tr>
<td>2. Difficulty with balance on movement/inco-ordination or ataxia (balance while walking)?</td>
<td>31</td>
<td>.29 (.0001)</td>
</tr>
<tr>
<td>3. Aphasia (difficulty speaking)?</td>
<td>13</td>
<td>.24 (.0001)</td>
</tr>
<tr>
<td>4. Palsy, paralysis, paresis or weakness?</td>
<td>37</td>
<td>.30 (.0001)</td>
</tr>
<tr>
<td>5. Paralysis agitans (Parkinson’s), tremors, or tremulous tongue?</td>
<td>47</td>
<td>.26 (.0001)</td>
</tr>
<tr>
<td>6. Sensory paralysis (anaesthesia, hypaesthesia, numbness)?</td>
<td>30</td>
<td>.08 (.18)</td>
</tr>
<tr>
<td>7. Attacks of vertigo or dizziness?</td>
<td>34</td>
<td>.006 (.92)</td>
</tr>
<tr>
<td>8. Headaches?</td>
<td>23</td>
<td>-.05 (.40)</td>
</tr>
<tr>
<td>9. Anxious (excitable, irritable, nervous, etc.)?</td>
<td>27</td>
<td>.13 (.04)</td>
</tr>
<tr>
<td>10. Attacks, convulsions, epilepsy, fits, seizures, spasms, etc.?</td>
<td>23</td>
<td>.13 (.04)</td>
</tr>
<tr>
<td>11. Memory loss present?</td>
<td>14</td>
<td>.11 (.08)</td>
</tr>
<tr>
<td>12. Does condition make claimant dependent on others for help?</td>
<td>11</td>
<td>.38 (.0001)</td>
</tr>
</tbody>
</table>

**Median correlation of screening items**

|                         |                         | .13 (.04) | -.13 (.03) |

**Correlation for total screen score**

|                         |                         | .42 (.0001) | -.39 (.0001) |

* Composites omit last item, which is not a medical diagnosis
### APPENDIX 2 (CONT.)

<table>
<thead>
<tr>
<th>Rectum/Hemorrhoids Disability Screen</th>
<th>Number “Yes” (727 Rated)</th>
<th>Correlation (p-value)</th>
<th>Rating Value</th>
<th>Zero Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Hemorrhoids/piles or enlarged rectal veins?</td>
<td>601</td>
<td>.33 (.0001)</td>
<td>-.58 (.0001)</td>
<td></td>
</tr>
<tr>
<td>2. Hemorrhoids ulcerated?</td>
<td>82</td>
<td>.17 (.0001)</td>
<td>-.13 (.0006)</td>
<td></td>
</tr>
<tr>
<td>3. Hemorrhoids bleeding?</td>
<td>118</td>
<td>.18 (.0001)</td>
<td>-.16 (.0001)</td>
<td></td>
</tr>
<tr>
<td>4. Hemorrhoids prolapsed/protruding?</td>
<td>168</td>
<td>.15 (.0001)</td>
<td>-.18 (.0001)</td>
<td></td>
</tr>
<tr>
<td>5. Hemorrhoids tender (burning, congested, containing pus, inflamed, painful, sore, swollen)?</td>
<td>207</td>
<td>.20 (.0001)</td>
<td>-.20 (.0001)</td>
<td></td>
</tr>
<tr>
<td>6. Rectum abnormal/irritated?</td>
<td>309</td>
<td>.25 (.0001)</td>
<td>-.23 (.0001)</td>
<td></td>
</tr>
<tr>
<td>7. Rectum ulcerated?</td>
<td>101</td>
<td>.19 (.0001)</td>
<td>-.12 (.0009)</td>
<td></td>
</tr>
<tr>
<td>8. Rectum bleeding?</td>
<td>36</td>
<td>.22 (.0001)</td>
<td>-.09 (.02)</td>
<td></td>
</tr>
<tr>
<td>9. Rectum prolapsed/protruding?</td>
<td>84</td>
<td>.30 (.0001)</td>
<td>-.10 (.006)</td>
<td></td>
</tr>
<tr>
<td>10. Rectum tender (burning, congested, engorged, exuding pus, inflamed, painful, proctitis, rectitis, sore)?</td>
<td>285</td>
<td>.23 (.0001)</td>
<td>-.23 (.0001)</td>
<td></td>
</tr>
<tr>
<td>11. Anal sphincter scarred?</td>
<td>7</td>
<td>.03 (.47)</td>
<td>.003 (.95)</td>
<td></td>
</tr>
<tr>
<td>12. Anal sphincter enlarged/loose/patulous/relaxed?</td>
<td>79</td>
<td>.07 (.07)</td>
<td>-.05 (.22)</td>
<td></td>
</tr>
<tr>
<td>13. Rectal fistulas?</td>
<td>19</td>
<td>.08 (.04)</td>
<td>-.06 (.08)</td>
<td></td>
</tr>
<tr>
<td>14. Pruritus ani (itching)?</td>
<td>11</td>
<td>-.03 (.42)</td>
<td>-.05 (.19)</td>
<td></td>
</tr>
<tr>
<td>Median correlation of screening items</td>
<td>—</td>
<td>.185 (.0001)</td>
<td>-.125 (.0008)</td>
<td></td>
</tr>
<tr>
<td>Correlation for total screen score</td>
<td>—</td>
<td>.50 (.0001)</td>
<td>-.48 (.0001)</td>
<td></td>
</tr>
</tbody>
</table>
### Respiratory Disability Screen

<table>
<thead>
<tr>
<th>Description</th>
<th>Number “Yes” (760 Rated)</th>
<th>Correlation (p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Lung dullness on percussion, consolidation, hepatization?</td>
<td>142</td>
<td>.35 (.0001) -.21 (.0001)</td>
</tr>
<tr>
<td>2. Cough or expectoration?</td>
<td>153</td>
<td>.19 (.0001) -.20 (.0001)</td>
</tr>
<tr>
<td>3. Pigeon/chicken breasted?</td>
<td>6</td>
<td>.06 (.13) -.04 (.23)</td>
</tr>
<tr>
<td>4. Chest sunken/depressed/excavated?</td>
<td>36</td>
<td>.17 (.0001) -.09 (.01)</td>
</tr>
</tbody>
</table>

**Median correlation of screening items**

- .18 (.0001) -.145 (.0001)

**Correlation for total screen score**

- .38 (.0001) -.27 (.0001)

### Rheumatism Disability Screen

<table>
<thead>
<tr>
<th>Description</th>
<th>Number “Yes” (1,724 Rated)</th>
<th>Correlation* (p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pain/tenderness in the region?</td>
<td>627</td>
<td>.14 (.0001) -.23 (.0001)</td>
</tr>
<tr>
<td>2. Enlargement, swelling or thickening?</td>
<td>135</td>
<td>.06 (.01) -.10 (.0001)</td>
</tr>
<tr>
<td>3. Crackling or crepitation of the joints, muscles, etc.?</td>
<td>450</td>
<td>.17 (.0001) -.21 (.0001)</td>
</tr>
<tr>
<td>4. Muscular atrophy (wasting) or weakness?</td>
<td>139</td>
<td>.12 (.0001) -.11 (.0001)</td>
</tr>
<tr>
<td>5. Sciata?</td>
<td>181</td>
<td>.15 (.0001) -.14 (.0001)</td>
</tr>
</tbody>
</table>

**Median correlation of screening items**

- .15 (.0001) -.14 (.0001)

**Correlation for total screen score**

- .39 (.0001) -.36 (.0001)

* Correlations for first listed diagnosis only.
### APPENDIX 2 (CONT.)

<table>
<thead>
<tr>
<th>Varicose Veins Disability Screen</th>
<th>Number “Yes” (174 Rated)</th>
<th>Correlation (p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Rating Value</td>
</tr>
<tr>
<td>1. Varicose veins present in lower extremities?</td>
<td>169</td>
<td>.08 (.29)</td>
</tr>
<tr>
<td>2. Have varicose veins caused skin problems such as acute ulcers, dermatitis, eczema, ruptures or ulcerations?</td>
<td>41</td>
<td>.35 (.0001)</td>
</tr>
<tr>
<td>3. Chronic scarring or thickening?</td>
<td>12</td>
<td>.07 (.38)</td>
</tr>
<tr>
<td>4. Have varicose veins caused brown spots, discoloration or hyperpigmentation?</td>
<td>16</td>
<td>.29 (.0001)</td>
</tr>
<tr>
<td>5. Is there oedema or swelling of the lower extremities?</td>
<td>20</td>
<td>.08 (.33)</td>
</tr>
<tr>
<td>6. Is there cyanosis (bluing) of the feet or lower extremities?</td>
<td>1</td>
<td>.08 (.28)</td>
</tr>
<tr>
<td>7. Pain, soreness, sensitivity, tortuousness, etc.?</td>
<td>31</td>
<td>.13 (.09)</td>
</tr>
<tr>
<td>8. Impaired/impeded motion or lameness associated with the varicose veins?</td>
<td>12</td>
<td>-.07 (.36)</td>
</tr>
<tr>
<td><strong>Median correlation of screening items</strong></td>
<td>—</td>
<td>.08 (.30)</td>
</tr>
<tr>
<td><strong>Correlation for total screen score</strong></td>
<td>—</td>
<td>.36 (.0001)</td>
</tr>
</tbody>
</table>
### APPENDIX 3

**Civil War Pension Study**  
**Zero Ratings for General Law Period (1862–1878)**

<table>
<thead>
<tr>
<th>Percentage of Zero Ratings</th>
<th>Less Prejudicial Diseases</th>
<th>More Prejudicial Diseases</th>
<th>All Diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Low</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Screen Severity Score</td>
<td>6% (4/62)</td>
<td>3% (1/36)</td>
<td>5% (5/98)</td>
</tr>
<tr>
<td><strong>High</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Screen Severity Score</td>
<td>2% (1/52)</td>
<td>4% (1/23)</td>
<td>3% (2/75)</td>
</tr>
<tr>
<td>All Screen Scores</td>
<td>4% (5/114)</td>
<td>3% (2/59)</td>
<td>4% (7/173)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variable</th>
<th>effect-size $r$</th>
<th>$t$ (169)</th>
<th>p-value</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Screen Severity Score</td>
<td>.09</td>
<td>1.21</td>
<td>.23</td>
<td>.01</td>
</tr>
<tr>
<td><strong>More</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prejudicial Disease</td>
<td>.07</td>
<td>.88</td>
<td>.38</td>
<td></td>
</tr>
<tr>
<td>Interaction</td>
<td>.07</td>
<td>.94</td>
<td>.35</td>
<td></td>
</tr>
<tr>
<td>Theoretical Prediction</td>
<td>.04</td>
<td>.57</td>
<td>.57</td>
<td>.002</td>
</tr>
</tbody>
</table>

*See Figure 23, *supra* p. 193, for the weights associated with the theoretical prediction value.*
APPENDIX 3 (CONT.)

Pension Ratings for General Law Period (1862–1878)

<table>
<thead>
<tr>
<th>Average Pension Rating</th>
<th>Less Prejudicial Diseases</th>
<th>More Prejudicial Diseases</th>
<th>All Diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Low Screen Severity Score</strong></td>
<td>.54 (n = 47)</td>
<td>.72 (n = 29)</td>
<td>.61 (n = 76)</td>
</tr>
<tr>
<td><strong>High Screen Severity Score</strong></td>
<td>.73 (n = 43)</td>
<td>.72 (n = 19)</td>
<td>.73 (n = 62)</td>
</tr>
<tr>
<td>All Screen Scores</td>
<td>.63 (n = 90)</td>
<td>.72 (n = 48)</td>
<td>.66 (n = 138)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variable</th>
<th>effect-size r</th>
<th>t (134)</th>
<th>p-value</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High Screen Severity Score</strong></td>
<td>.17</td>
<td>1.97</td>
<td>.05</td>
<td>.04</td>
</tr>
<tr>
<td><strong>More Prejudicial Disease</strong></td>
<td>.14</td>
<td>1.63</td>
<td>.11</td>
<td></td>
</tr>
<tr>
<td>Interaction</td>
<td>.09</td>
<td>1.10</td>
<td>.28</td>
<td></td>
</tr>
<tr>
<td>Theoretical Prediction*</td>
<td>.08</td>
<td>.89</td>
<td>.37</td>
<td>.006</td>
</tr>
</tbody>
</table>

*See Figure 23, supra p. 193, for the weights associated with the theoretical prediction value.
APPENDIX 3 (CONT.)

Zero Ratings for Arrears Period (1879–1889)

<table>
<thead>
<tr>
<th>Percentage of Zero Ratings</th>
<th>Less Prejudicial Diseases</th>
<th>More Prejudicial Diseases</th>
<th>All Diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Screen Severity Score</td>
<td>25% (149/599)</td>
<td>36% (104/290)</td>
<td>29% (253/889)</td>
</tr>
<tr>
<td>High Screen Severity Score</td>
<td>3% (11/420)</td>
<td>12% (17/147)</td>
<td>5% (28/567)</td>
</tr>
<tr>
<td>All Screen Scores</td>
<td>16% (160/1019)</td>
<td>28% (121/437)</td>
<td>19% (281/1456)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variable</th>
<th>effect-size r</th>
<th>t (1,452)</th>
<th>p-value</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Screen Severity Score</td>
<td>.24</td>
<td>9.47</td>
<td>.0001</td>
<td>.10</td>
</tr>
<tr>
<td>More Prejudicial Disease</td>
<td>.11</td>
<td>4.23</td>
<td>.0001</td>
<td></td>
</tr>
<tr>
<td>Interaction</td>
<td>.01</td>
<td>.42</td>
<td>.67</td>
<td></td>
</tr>
<tr>
<td>Theoretical Prediction*</td>
<td>.32</td>
<td>12.84</td>
<td>.0001</td>
<td>.10</td>
</tr>
</tbody>
</table>

* See Figure 23, supra p. 193, for the weights associated with the theoretical prediction value.
APPENDIX 3 (CONT.)

Pension Ratings for Arrears Period (1879–1889)

<table>
<thead>
<tr>
<th>Average Pension Rating</th>
<th>Less Prejudicial Diseases</th>
<th>More Prejudicial Diseases</th>
<th>All Diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Low</strong> Screen Severity Score</td>
<td>.41 (n = 572)</td>
<td>.36 (n = 280)</td>
<td>.40 (n = 852)</td>
</tr>
<tr>
<td><strong>High</strong> Screen Severity Score</td>
<td>.63 (n = 404)</td>
<td>.64 (n = 137)</td>
<td>.63 (n = 541)</td>
</tr>
<tr>
<td>All Screen Scores</td>
<td>.50 (n = 976)</td>
<td>.45 (n = 417)</td>
<td>.49 (n = 1,393)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variable</th>
<th>effect-size r</th>
<th>t (1,389)</th>
<th>p-value</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Screen Severity Score</td>
<td>.20</td>
<td>7.51</td>
<td>.0001</td>
<td>.07</td>
</tr>
<tr>
<td>More Prejudicial Disease</td>
<td>.05</td>
<td>1.72</td>
<td>.09</td>
<td></td>
</tr>
<tr>
<td>Interaction</td>
<td>.03</td>
<td>1.23</td>
<td>.22</td>
<td></td>
</tr>
<tr>
<td>Theoretical Prediction*</td>
<td>.33</td>
<td>12.84</td>
<td>.0001</td>
<td>.10</td>
</tr>
</tbody>
</table>

* See Figure 23, supra p. 193, for the weights associated with the theoretical prediction value.