Turning 25: A Systematic Review on the Social Impact of the Americans with

Disabilities Act

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DISSERTATION

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LIST OF ABBREVIATIONS

ADA	Americans with Disability Act of 1990
ADAA	Americans with Disabilities Act Amendments of 2008
DREDF	Disability Rights Education Defense Fund
EEOC	Equal Employment Opportunity Commission
КТ	Knowledge Translation
NCD	National Council on Disability
NIDILRR	National Institute on Disability, Independent Living, and Rehabilitation
	Research
NIDRR	National Institute on Disability and Rehabilitation Research
NOD	National Organization on Disability

ABSTRACT

The Americans with Disability Act (ADA) is the central pillar of civil rights laws for people with disabilities in the United States. Its significance is far-reaching and extends well beyond the court system; it is also a symbol of a paradigmatic shift to operationalize disability rights into culture and practice. Despite its significant and broad reach, there are frequent debates about the ADA's efficacy as a social policy due to disparate and fragmented sources of data, disagreements about indicators of change, and the lack of a systematic data collection mechanism to track the law's social progress. This dissertation includes a systematic review of research on the ADA and an exploration of its impact on social change. It also includes the design and execution of a novel approach to systematic review that can be used as a framework for future analyses of policy research. The dissertation is comprised of three separate papers, each of which is used to develop a descriptive knowledge base of the current state of evidence about the ADA. Findings from over 25 years of research reveal evidence of static, but positive, endorsements of disability inclusion across society, which are not necessarily interconnected with the embrace of disability rights principles such as the ADA's goal of equal opportunity. Results are explained to provide suggestions for practice, and to identify trends to inform future research, discourse, and policy implementation.

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I. INTRODUCTION

A. Background

Twenty-five years since its passage, the Americans with Disabilities Act (ADA) (Public Law 101-336) remains one of, if not the most, significant political advances in the ongoing struggle for the equal rights of people with disabilities. The passage of the ADA was necessitated by evidence that people with disabilities historically face discrimination, segregation, and marginalization (National Council on Disability [NCD], 1986). The ADA has come to symbolize the advanced progress of cross-disability coalitions that forged the disability rights movement. The significance of the ADA is more than symbolic in that it provides the most complete structure for advancing civil rights of people with disabilities to date (Yee & Golden, 2001). The ADA also reflects a monumental shift in the trajectory of disability policy. The law provides an antidiscrimination framework similar to the Civil Rights Act of 1964 (Public Law 88-352) that forbids discrimination based on "race, color, religion, sex, or national origin." The framework is indicative of the how US political systems are reshaping systems and supports for people with disabilities as a matter of civil rights (Scotch, 2000a).

While it is difficult to debate these significant advances, there are substantial disputes regarding the extent that the ADA is fully achieving its goals. The law provides an avenue to combat the discrimination of people with disabilities through the legal system, and also reflects a wider social goal, often referred to as the "Spirit of the ADA," to further the cultural and attitudinal acceptance of people with disabilities. There is uncertainty about the impact of the ADA in relation to its social goal across nearly all of the areas that the law impacts (NCD, 2007). Discordant accounts of the ADA's overall

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impact are replicated throughout much of the most cited research on the ADA (Parker Harris, Gould, Ojok, Fujiura, Jones, & Olmstead IV, 2014). There is a clear need to address ongoing debates about the ADA in order to assess the law's full impact.

Given such uncertainty, disability policy stakeholders have repeatedly called for the review of ADA research to improve understanding about discordant findings and to resolve related debates. Summative review of the ADA research is not a straightforward process where "there is a surprising absence of any ongoing, systematic data collection about the ADA from any source, and the result is significant knowledge gaps about many aspects of the impact of the ADA" (NCD, 2007, p.1). There have been few attempts to track the ADA's progress longitudinally and evidence is instead scattered and fragmented across a broad range of data sources (Parker Harris et al., 2014). In lieu of a central data mechanism, evidence on the effects of the ADA necessarily covers a myriad of topics, research questions, and stakeholder groups but is not necessarily reduced to directly quantifiable outcomes of the policy itself (Silverstein, 1999). Research evidence that comes from a gamut of published and unpublished literature provides vital information to lay a foundation for future policy research and practice, but requires comprehensive review, description, and synthesis to ensure its scholarly merit (Rumrill, Fitzgerald, & Merchant 2010).

Studies related to ADA research are found in academic databases, books and book chapters, theses, websites, think tanks, government departments, disability and other stakeholders' agencies, and ADA Regional Center. Each of these data sources present vital information for better understanding the impact of the ADA, but they have not yet been synthesized to provide a holistic account of the research findings. The current problem of fragmented ADA research requires both systematic inquiry, and the development of a methodological technique that can be used to analyze such a broad and diverse body of research.

B. Overview: Systematic Review of the ADA

To capture the proliferation of methods and content of available ADA-related research, this dissertation includes a systematic review of ADA research and the development of a novel approach to synthesize findings. The research will be used to map the landscape of how the ADA has been studied, and to bring more summative conclusions to the discordant state of evidence related to the ADA's progress in achieving its social change. The heterogeneity in method and content of ADA-related research requires an innovative approach to research synthesis in order to effectively meet the goals of the systematic review. To exhaustively review the existing literature on the ADA, it is necessary to use a methodological approach that is suitable for the diverse and broad body of evidence. This dissertation also includes the development of a novel approach to systematic review. It includes exploratory analysis regarding the merit and utility of various techniques for conducting systematic reviews, and discussion of the epistemological considerations that ensue from the creation of the new technique.

This dissertation that follows includes three papers generated as part of a systematic review of ADA research. These papers were drafted in conjunction with a project that aims to comprehensively review the full gamut of existing ADA evidence (a full description of the larger project in which this dissertation is a part of is available at http://adata.org/national-ada-systematic-review). The project, which is based at the University of Illinois at Chicago, entails a five-year systematic review of the ADA as part

of the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR) funded National ADA Knowledge Translation Center at the University of Washington (NIDILLR Grant 90DP0015, formerly NIDRR Grant #H133A11014).

Together, the three papers that make up this dissertation can develop a descriptive knowledge base of the current state of ADA evidence, guide methodological practices for systematic reviews, and provide a technical framework for the future synthesis of research on the impact of social policy. Results derived from the systematic review of ADA research can stimulate discussion and bring summative conclusion to 25 years of fragmented discourse and research that has resulted from the study of disability policy.

C. Overview of Papers

This dissertation is comprised of three separate papers that each has been or will be submitted for publication in an academic journal. Each of the included papers addresses a separate research question related to the systematic review of the ADA, and the law's influence on social change. Together, these papers aim to improve understand, consolidate findings, and generate a unified synthesis of the fragmented body of 25 years of ADA research.

1. Paper 1

The first paper of this dissertation is titled *Beyond the Law: A Review of Knowledge, Attitudes and Perceptions in ADA Employment Research*.¹ The primary purpose of this first paper is to explore the ADA's influence on knowledge, attitudes and

¹ Reprinted from: Gould, R., Parker Harris, S., Caldwell, K., Fujiura, G.T., Jones, R., Ojok, P., & Perez Enriquez, K. (2015). Beyond the Law: A Review of knowledge, attitudes and perceptions in ADA employment research. *Disability Studies Quarterly*, *35*(3). Available online at http://dsq-sds.org/article/view/4935/4095.

perceptions about the employment of people with disabilities. This paper first reviews the goals of the ADA and explores the theoretical promise of attitudinal change. Next, it considers prominent debates within ADA discourse and evidence. It lastly presents the process and findings of a rapid evidence review using a sample of ADA employment research. The review uses research on the ADA and employment to establish an assessment tool and baseline knowledge that can be used to explore the broader body of research that crosscuts different titles, topics, and themes of interest.

The secondary purpose of this paper is to create a framework that can be used for future systematic reviews. As the paper details, rapid evidence assessments explore theory and the anecdotal states of evidence about a topic area. They are frequently conducted with the end goal of developing a process, or research protocol, for full systematic reviews. The paper describes the framework that is to be used in the full systematic review of ADA research. The paper also further describes the ADA Knowledge Translation Center systematic review project and provides an overview of the steps that went into developing the process framework for the review. It describes how the rapid evidence review builds on results and feedback generated from an exploratory scoping review of the full body of ADA research (Parker Harris et al., 2014). It lastly comments on the growing potential for expert stakeholders to play a role in the development and overall knowledge translation of such reviews.

2. Paper 2

The second paper is titled *Systematic review and Knowledge Translation:* A framework for the synthesis of Disability Policy research.² The paper reports on the significant challenge of conducting a systematic review when studying a body of research as heterogeneous as the ADA's. The paper explores the epistemological challenge for reviews of diverse types of evidence, or in other words, the difficulty in simultaneously synthesizing findings generated from qualitative, quantitative, and mixed-methods techniques. It provides a methodological blueprint for the systematic synthesis of ADA research. It considers recent scholarship on the merit of mixed methods approaches alongside recent discussions about how evidence is used to inform practice, which is referred to as the *Knowledge Translation* (KT) process. KT research describes processes and theory for moving evidence to practice, and may be used as a tool for the systematic synthesis and dissemination of diverse policy evidence. The paper draws on such research throughout to suggest how to integrate knowledge translation into the process of conducing systematic reviews.

This paper presents a framework for systematic review, and also provides insight about the challenges, limitations, and barriers that are encountered along the way. Implications are taken as suggestions for the future review of ADA research, and also for future systematic reviews of disability policy more generally. As this research required the development of a novel approach to review, considerable research went into developing the review process in addition to ultimately conducting the review. The paper concludes with discussion on the utility of the mixed methods approach to

² Planned submission: Gould, R., Parker Harris, S., & Fujura, G.T. (2016) Systematic review and Knowledge Translation: A framework for the synthesis of disability policy research. Journal: TBD.

systematic review, while considering lessons learned from the review of ADA research. The issue of KT is considered as a process and a tool for advancing the existing scholarship on techniques for reviewing evidence on the impact of social policy.

3. Paper 3

The last paper describes a systematic synthesis of attitudinal research in the context of the ADA. It is titled *Disability rights in the Court of Public Opinion: A meta-synthesis of the ADA and attitudinal change.*"³ The purpose of this paper is to assess the ADA's influence on attitudinal change, and to synthesize the state of evidence from the last 25 years. It presents the findings from a meta-synthesis of ADA research that explores the law's influence on attitudes and disability. The synthesis involved abridging a process called meta-ethnography (Noblit & Hare, 1988), a systematic review technique that is most typically used for appraisals of qualitative research.

The paper first provides a descriptive content analysis that reveals trends across the ADA attitudinal research related to key themes, methodological techniques, stakeholder groups, and other key descriptors of the existing research. It next builds off of this descriptive analysis and offers summative conclusions about the ADA's influence. Lastly, new theory is generated to explore how the ADA is meeting its promise of social change. The core findings are presented to offer evidence-based suggestions to further enmesh disability into the framework of diversity. Discussion also

³ Planned Submission: Gould, R., Parker Harris, S., Fujiura, G.T., Ojok, P., Heyburn, B., & Jones, R. (2016). Disability rights in the court of public opinion: A meta-synthesis of the ADA and attitudinal change. Journal TBD.

includes the identification of key areas related to the ADA that shape attitudes about disability.

Together, the three papers of this dissertation explore the promise of the ADA across 25 years of research. The collective output provides a summative and configurative account of the ADA's influence on social change. It investigates the ADA's progress in achieving its social goals, and explores its legacy as the emblem of civil rights protection for people with disabilities. Findings and knowledge gaps are presented to provide evidence about the ADA's lasting influence on social change in discourse, research, and practice.

II. BEYOND THE LAW: A REVIEW OF KNOWLEDGE, ATTITUDES, AND PERCEPTIONS IN ADA EMPLOYMENT RESEARCH⁴

A. Introduction

The existing research about the Americans with Disabilities Act (ADA) provides considerable evidence about the law's impact, yet also yields disparate findings that span across a range of resources. On the ADA's 25th anniversary there is a need to consolidate this evidence to improve our understanding about the existing research and to assess the progress made in achieving the ADA's intended goals.

To address this need, the University of Illinois at Chicago is conducting a fiveyear multi-stage systematic review of the ADA as part of the NIDRR-funded ADA Knowledge Translation Center based at the University of Washington. This article details the second stage of the project – the rapid evidence review. The purpose of the rapid evidence review is to preliminarily assess the existing ADA research and to pilot a review process that can be used for subsequent full systematic reviews. Initial results respond to a research question that developed iteratively from the evidence and stakeholder feedback generated during the first stage of the project (Parker Harris, Gould, Ojok, Fujiura, Jones, & Olmstead IV, 2014): What evidence exists that the ADA has influenced knowledge, attitudes, and perceptions about the employment of people with disabilities?

⁴ Reprinted of: Gould, R., Parker Harris, S., Caldwell, K., Fujiura, G., Jones, R., Ojok, P., & Perez Enriquez, K. (2015). Beyond the law: A review of knowledge, attitudes and perceptions in ADA employment research. Disability Studies Quarterly. *35*(3). Available online at http://dsq-sds.org/article/view/4935/4095

This article first considers the broader goals of the ADA's employment provisions as it relates to attitudinal change. It then examines ongoing debates within the current state of evidence. Lastly, it presents the process and findings of the review.

B. Background: The ADA and Its Social Goals

The ADA provides a legal framework for individuals with disabilities to challenge discriminatory practices. In the employment context, the primary legal basis for claiming discrimination in the workplace is twofold. The ADA considers it discrimination in employment (1) when an individual is denied a position based on disability for which he or she is qualified (Section 101-8), and (2) when a qualified individual with a disability is prevented from reasonable accommodation (Section 101-9). By preventing unequal treatment and facilitating reasonable accommodations, the law provides a clear legal definition of how to prevent discriminatory practice.

The process of preventing discriminatory attitudes that may accompany or predicate such practice is a more complex task that requires inquiry beyond the legal framework. In addition to facilitating civil protections, policymakers and activists alike imagined that a cultural embrace of the law (what George Bush referred to as the "spirit" of the law during the ADA signing ceremony in 1990), would further enhance the implementation process. While the federal government would oversee the protection of rights through the legal system, policy players imagined that various entities within the public and private sector would stimulate and support change by increasing a culture of compliance and accessibility (NCD, 1986). Together, the cultural embrace of informing stakeholders about disability rights and changing prejudicial attitudes that often precede discriminatory practice (Mayerson, 1991).

The process of attending to the ADA's spirit goals in the area of employment has proven to be a challenge, as indicative of ongoing reports of disability discrimination in all aspects of the employment process (e.g., Robert & Harlan, 2006; National Organization on Disability [NOD], 2010); and the low employment participation rate of people with disabilities (about 33%) that has remained relatively stagnant since an initial decline following the ADA's implementation (Erickson, Lee, & Von Schrader, 2014). Although there is general scholarly consensus that the ADA's legal framework is meeting its intent following the 2008 ADA Amendments (Feldblum, Barry, & Benfer, 2008), a wide range of stakeholders claim that the ADA's social and attitudinal goals both as outlined in the law's preamble and as more broadly imagined as encompassing the spirit of the ADA- have not been fully achieved.

The passage of the ADA-Amendments was both imagined to reverse the trend of an increasingly narrowed legal definition of disability and to also re-embrace the goal of broadening social and attitudinal change (NCD, 2007). With this reinvigorated focus on the ADA's spirit, questions still remain on how to bring the policy goals into practice. Implementation gaps continue to mire the ADA's impact 25 years after its initial passage.

1. ADA research on knowledge, attitudes, and perceptions

A broad body of social science research on the ADA's impact highlights the gaps that continue to exist in attending to the ADA's spirit goals. This research, from 1990 onward, assesses the attitudes and perceptions about and by people with

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disabilities in relation to the changing policy context. Much of this research also analyzes how knowledge about the law by people with disabilities and other stakeholders impacts perceptions and practice (e.g., Carpenter & Paetzold, 2013; O'Day, 1998; Rumrill, 1999). This broad body of research is useful to document how attitudes have evolved with the ADA's implementation.

Although there is ample research exploring changes in attitudes, perceptions, and knowledge since the ADA's passage, there is considerable difficulty in drawing an answer as to the impact of the law's employment provisions. Even though many of these studies are commonly referred to when describing the continued prevalence of discriminatory attitudes, it is not always clear how study data relates to the ADA's implementation. Much of the research is based on single use surveys about attitudes or derived from one-on-one interviews and not always directly in relation to assessing the ADA's impact (Hernandez, Balcazar, & Keys, 2004). Similar to much of the research on the ADA, evidence on the impact of the law on attitudes, perception, and knowledge is fragmented across a wide volume of resources that presents an array of often-debated evidence without summative conclusions (Parker Harris et al., 2014). One of the primary factors contributing to ongoing knowledge gaps about the ADA's impact is the lack of longitudinal record keeping (NCD, 2007). Resources from various national disability rights, such as the National Council on Disability (NCD), Disability Rights Education and Defense Fund (DREDF) and others have provided summative evidence to suggest gaps in monitoring and implementation.

The NCD (2007, 2010), for example, has gathered and synthesized information on the impact of the ADA, which includes attitudes and employment as a subcategory. In regards to studying the ADA's impact on attitudes in employment, the NCD primarily uses data from a NOD (2010) report, which finds that more than 60% of people with disabilities perceived significant improvements in public attitudes. At the same time, the NOD (2010) also finds that nearly half of survey respondents believe employers had discriminated against them, in particular at the hiring stage. This evidence is primarily used to suggest need for further analysis of why continued accounts of discrimination exist. NCD acknowledges that their findings are "far from complete" and that there is "significant knowledge gaps about the impact of the ADA" (NCD, 2007). Instead of reconciling those gaps, NCD recommends further research. As such, our study begins to respond to this gap.

2. The ADA KT systematic review process

In response to results from such national reports, ongoing stakeholder feedback, and the purported evidence gaps on the ADA's influence, this research begins to consolidate the broad range of fragmented evidence on the ADA's impact. The systematic review project seeks to increase the utility of research on the ADA and thereby generate summative conclusions from the existing research evidence across three stages. The remainder of this article contains the results of the second stage of the process: the rapid evidence review.

Rapid evidence assessments examine what is known about a policy issue, and use systematic methods to search and critically appraise the available research evidence in a strategic and timely way. These reviews limit particular aspects of the full systematic review process (i.e., by using broader search strategies, extracting only key variables, and performing a simplified quality appraisal) (Grant & Booth, 2009). They are undertaken with the potential to be developed into full systematic reviews or use as protocols for future reviews.

This project does not seek to replace or refute evidence in such broad scale reporting. The consolidation of existing resources complements policymakers' and researchers' ongoing efforts by providing summative conclusions about often debated areas that have resulted in repeated and decisive evidence-based claims.

3. Overview of research to date

Before the rapid evidence review, this project conducted a scoping review of the full body of ADA research. The scoping review explored: What English-language studies have been conducted and/or published from 1990 onwards that empirically study the Americans with Disabilities Act? This question was answered via a literature search using the following parameters: (a) published or dated from 1990; (b) written in English; (c) carried out in the United States; (d) relate to the ADA; and (e) based on published studies reporting the gathering of primary or secondary data or the collating and synthesis of existing information to answer ADA-related research questions. Items that were not included were established facts about the ADA (i.e., court-case decisions, technical materials on compliance, general fact sheets), opinion pieces (i.e., by various stakeholders, lawyers, or academics), and anecdotal evidence research (see Parker Harris, Gould, & Fujiura, 2014 for full description of methods and findings from the scoping review).

The search yielded 34,995 records, of which 980 relevant records that met the inclusion criteria were included in the scoping review. Approximately 51% (499 records) of these were related to employment. Within the employment literature, the most

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prevalent types of records pertained to attitudes and knowledge, barriers and facilitators to implementation, assessments of compliance rate, and costs associated with the ADA. The research team combined these results with feedback from an expert panel of ADA stakeholders to identify research priorities for the rapid evidence review. The research team continuously collaborates with the key ADA stakeholders who have been instrumental in the drafting of policy, dissemination of research, and implementation of the ADA so that the research generated through this project is relevant and topical.

C. <u>Methodological Overview</u>

Following the scoping review, the research team refined the employment research to conduct the rapid evidence review using a methodology novel to this research project. A full overview of the methods is available in the ADA Knowledge Translation Center Rapid Evidence Review Technical Report, which is available at http://adata.org/research.

1. Data collection

Data collection for the rapid evidence review crosscuts three steps of the rapid evidence process: refining the protocol, coding and appraising the data; and extracting relevant records and evidence. Figure 1 provides a visual representation of the data collection process.

First, changes related to the inclusion criteria were made in response to stakeholder feedback about the scoping review. These changes helped distinguish ADA research from ADA-related research and only the most pertinent research was included. Articles included in the rapid evidence review:

• Were included in the scoping review.

- Specify the ADA, an ADA case decision, or one of the principal titles or guidelines within the law.
- Contain an explicit statement of the critical or theoretical framework and/or the method of analysis.
- Do not present duplicative reporting of a study that is already in the review.

The revised criteria yielded a total of 451 potentially relevant records that were identified for inclusion in the rapid evidence review. These records were categorically sorted according to various disability policy domains identified by the expert panel. During the second stage of data collection, 203 records relevant to employment were identified and met the inclusion criteria.

At this point, additional employment-specific records were identified by searching for organizational reports and books previously excluded and conducting an updated search of NARIC's (NIDRR's online library resource) database for records published since the completion of the scoping review. Ten additional records pertinent to employment were identified and included in the rapid evidence review.

Following the location of employment-related records, an abbreviated quality appraisal based on Dixon-Woods et al.'s (2006) tool was conducted to assess that included records adhered to a minimum standard of research reporting (see Figure 2 next page). As there is considerable debate and ambiguity when assessing rigor in theory/policy records (Kissam, 1988), the research team excluded this type of research from the rapid evidence assessment for future inclusion in the systematic reviews. Consequently, 85 records were excluded at this stage, which also included a number of organizational reports and dissertations. An additional ten records were excluded because they did not meet the minimum criteria for guality reporting.

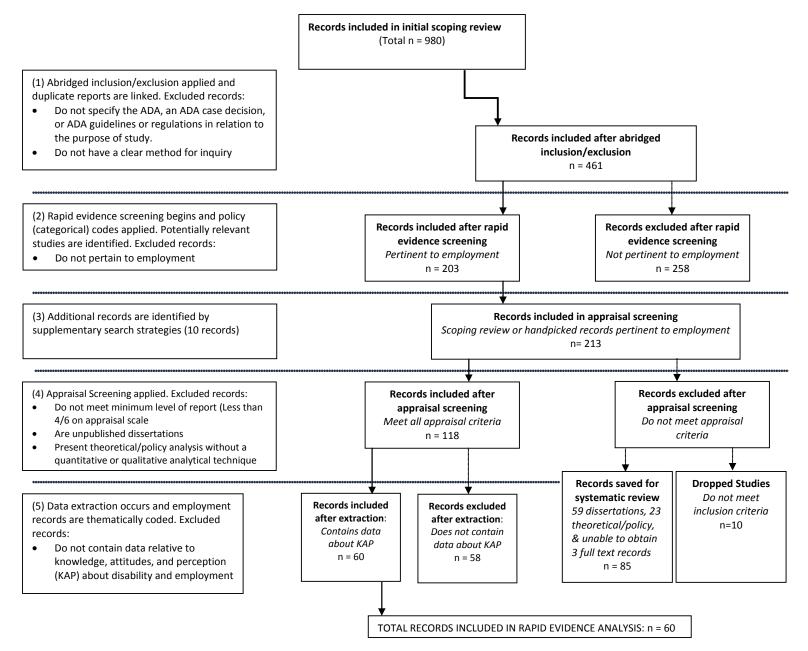


Figure 1. Rapid evidence decision tree.

The research team reviewed included articles, extracting key information. Data extraction occurred in two stages, initial data extraction (commonly called 'keywording') followed by a more detailed extraction of findings specific to the research question. After obtaining the appraisal score, full-text records were reviewed and key information was extracted into a database file (using EPPI Review 4.0 systematic review software).

Figure 2: Quality appraisal framework

		Yes	No
Scope and Purpose	Does the research explicitly state the method or framework of inquiry of the research?		
Method	Does the study include an explanation of the process used to conduct the inquiry? (i.e., includes description of the process for gathering primary or secondary data, and/or the collating and synthesis of existing information)		
Data Collection	Are data collection methods appropriate for the study's aims? (i.e., data collection methods explained/justified in a way that is directly pertinent to the study goals)		
Analysis	Is their clarity about analytical process? (i.e., includes discussion of how analysis was conducted, such as software, coding, statistical steps, theoretical framework, etc.)		
Reporting	Is there clear and coherent reporting? (i.e., discussion/results/conclusions links to aims/hypothesis/research questions, provides narrative/thematic accounts or recounts and connects data.		

Extracted information included descriptive data (e.g., bibliographic information) and content variables (e.g., study demographics, study design, research design).

Following this initial extraction phase, the research question was iteratively generated, as outlined in the following section, and a more detailed data extraction process occurred. The research team extracted evidence addressing the key research question using an open-coding procedure. This procedure extracts key concepts and findings from the data using a synthesis guide created in EPPI Review 4.0 to capture first-order (participant quotes/ direct data points) and second order (author analysis) constructs.

2. Creation of research questions

Following the thematic coding during the initial data extraction stage, a specific sub-topic was selected for the rapid evidence review using a three-step process: (1) identifying a sufficient body of evidence to generate a configurative assessment; (2) reviewing relevant research (i.e., NCD, 2007) to pinpoint existing knowledge gaps; and (3) assessing stakeholder needs by consulting with the ADA Expert Panel and representatives from the ADA National Network to refine the research topic. Soliciting stakeholder feedback is a knowledge translation process that enhances the utility and relevance of systematic reviews (Graham et al., 2006).

Following this process, the research team focused on knowledge, attitudes, and perceptions in relation to employment and the ADA for the rapid evidence review. This iterative process led to the development of the research question: What evidence exists that the ADA has influenced knowledge, attitudes, and perceptions about the employment of people with disabilities?

3. Study demographics

The database of records reporting on knowledge, attitudes, and perceptions within employment literature on the ADA included 13 mixed methods, seven qualitative, and 40 quantitative studies. The records reflect data collected between 1990 and 2007 and published between 1990 and 2013. There are nine records that have been published since 2007, but none report collecting data after 2007 (5 of the 9 records do not report when data was collected). The findings, therefore, exclude research on the ADA Amendments of 2008. Additionally, two records include data collected before the ADA that were used to compare to data collected after the ADA went into effect (Gerber, Batalo & Achola, 2011; Hazer & Bedell, 2000).

4. Data synthesis and analysis

The synthesis techniques for the rapid evidence review involved qualitative content analysis (generated from the data extraction) in addition to more advanced analysis techniques to explore the relationships and thematic components of the research literature. The process involved providing a descriptive numerical summary (e.g., overall number of studies included, types of study design, topics and/or titles studied, characteristics of disability sub-groups and/or stakeholders, years of publication) and thematic analysis using EPPI Reviewer 4.0 systematic review software.

Analysis was then conducted using an adapted mixed methods meta-synthesis technique (see Jesson, Matheson & Lacey, 2011 or Dixon-Woods et al.'s 2006 critical interpretive synthesis for similar procedures). Defining relationships between and across studies is a key component of analysis and is commonly referred to as 'third order interpretation' in review-based research. To do this, the research team first noted trends, related findings, and discordant evidence across the research studies. Specific to the research question, this included findings directly relevant to knowledge, attitudes, and perceptions. Once the research team established the third order interpretation (i.e., by noting key arguments repeated across studies), the next step was to develop higher-order themes.

The thematic findings were reviewed and critiqued by the ADA expert panel to improve the credibility of findings and to ensure rigor in analyzing the codes. One of the primary means to ensure credibility when conducting this type of review is to utilize feedback from outside experts or stakeholders that closely engage with and/or will closely be impacted by the research findings (Keown, Van Eerd, & Ervin, 2008). A strength of this approach is that the inherent biases of the review authors are addressed through open dialogue, member checking of findings, and inter-scholastic collaboration. The ADA expert panel was consulted to assess if any findings seemed inconsistent with their experience with the ADA in research and/or in practice. Respondents from the panel agreed or strongly agreed that all of the findings presented in this article were representative of the ADA's influence on knowledge, attitudes, and perceptions in employment.

The identification of higher order themes is a collaborative process, where members of the research team combine individual assessments of the synthesized data to generate a configurative analysis. Gough, Oliver, and Thomas's (2012) description of open-thematic coding for systematic review informed this process. Findings were divided across two higher-order themes of synthesis arguments (or thematic categories) related to how the evidence's about ADA's influence on knowledge, attitudes, and perceptions about the employment of people with disabilities has been studied, through (1) Individual Perspectives and (2) Employer Perspectives. A number of subthemes of related syntheses also emerged within each of these higher order themes.

The primary purpose of identifying the two thematic categories is to present research syntheses in a way that portrays how individual results are related to each other. These themes are not mutually exclusive, as the records may contribute to synthesis arguments found in multiple subthemes. The process of identifying subthemes allows for the grouping of similar findings across study contexts for analytical purposes.

D. <u>Results</u>

1. Individual perspectives

The first thematic category of evidence relates to individual perspectives. Evidence exists that the ADA has influenced knowledge, attitudes, and perceptions about the employment of people with disabilities from the individual perspective across four synthesized subthemes of findings.

a. Individual knowledge

The first two subthemes (rights/processes and services/service providers) pertain to individual knowledge about the ADA. The second two subthemes (accommodation requests and dispute resolutions) relate to individual perspectives about employment experiences.

Rights and Processes: The subtheme of rights and processes refers to an individual's knowledge about their rights under the ADA and how to apply the ADA. In this area, the synthesized findings of the research evidence show that

the ADA has influenced knowledge, attitudes, and perceptions about the employment of people with disabilities in relation to:

Self-Advocacy: People with disabilities' self-advocacy skills have developed in relation to knowledge about their rights under the ADA. There is evidence that individual knowledge has grown in relation to increased choice and access. There is also evidence that the growth of self-advocacy skills has come out of necessity due to limited knowledge of the ADA by employers (Blanck, 1996; Gerber, Batalo, & Acaolo, 2011; Thompson & Dickey, 1994).

Disclosure Decisions: Knowledge of the ADA facilitates the decision to disclose one's disability status. The evidence shows that a person is more willing to disclose when they are aware of their legal rights. Conversely, people who are less aware of their ADA rights are less likely to disclose (Goldberg, Killeen, & O'Day, 2005; Madaus, 2006, 2008).

Impairment Type & Complaint Process: People with cognitive impairments experience barriers while filing formal ADA complaints to the Equal Employment Opportunity Comission (EEOC) due to lack of knowledge about the complaint process. This evidence is derived from the notion that people with cognitive impairments are most likely (compared to other types of disability) to have formal ADA complaints dismissed due to improper filing before they have a chance to be reviewed in full (Unger, Campbell, & McMahon, 2005; Van Wieren, Armstrong, & McMahon, 2012).

Knowledge Barriers: People with stigmatized disabilities and/or more complex accommodation requirements have increased knowledge barriers to applying

their rights under the ADA during the job search process. This evidence comes from people with disabilities expressing difficulties or insufficient knowledge about how to apply the ADA to their individual job searches (Gioia & Brekke, 2010; Goldberg, Killeen, & O'Day 2005; O'Day, 1998; Price, Gerber, & Mulligan, 2003; Thompson & Dickey, 1994).

b. Services and service providers

The subtheme pertains to the role of the ADA on services and service providers primarily as it relates to rehabilitation counselors. In this area, the synthesized findings of the research evidence show that the ADA has influenced knowledge, attitudes, and perceptions about the employment of people with disabilities in relation to:

Increased Role of Service Providers: Rehabilitation counselors and other professionals can and should have an increased role in providing information/knowledge to people with disabilities on how to apply and use the ADA. The evidence is primarily derived from research in rehabilitation counseling that interrogates the changing roles of service providers since the ADA (Gordon, Feldman, Shipley & Weiss, 1997; Neath, Roessler, McMahon & Rumrill, 2007; Rumrill, 1999; Rumrill, Roessler, Battersby-Longden, & Schuyler, 1998). *Dispute Resolution*: When rehabilitation counselors inform people with disabilities about ADA processes prior to job placement they are more likely to prevent disputes that end in discharge. Evidence demonstrates that when training or information is provided early in employment processes, formal disputes are often avoided (Neath, Roessler, McMahon, & Rumrill, 2007; Rumrill, 1999; Rumrill, Roessler, Battersby-Longden & Schuyler, 1998).

c. Accommodation requests

This subtheme is in regards to the ADA's influence on accommodations requests. In this area, the synthesized findings of the research evidence show that the ADA has influenced knowledge, attitudes, and perceptions about the employment of people with disabilities in relation to:

Workplace Culture: Workplace culture impacts decisions to disclose and to request accommodation. The evidence is underpinned by the notion that anticipated disruption to routine workplaces continues to influence accommodation requests by individuals (Baldridge & Veiga, 2001, 2006; Gioia & Brekke, 2010; Madaus, 2006, 2008; Matt, 2008; Nachreiner, Dagher, McGovern, Baker, Alexander, & Gerberich, 2007).

Stigma: Perceived stigma influences the decision to disclose disability for accommodation requests. There is evidence that fear of both explicit and implicit discriminatory attitudes prevent decisions to request accommodations (Gioia & Brekke, 2010; Goldberg, Killeen, & O'Day, 2005; Price, Gerber, & Mulligan, 2003).

d. **Dispute resolutions**

The final subtheme is in regards to formal and informal dispute resolution processes. In this area, the synthesized findings of the research evidence show that the ADA has influenced knowledge, attitudes, and perceptions about the employment of people with disabilities in relation to:

Impairment Type: Outcomes of formal dispute resolution are affected by different types of impairment. Evidence for this finding is derived from secondary analyses of data generated from the EEOC integrated mission system. While secondary data does not provide direct evidence about knowledge, attitudes and perceptions in relation to the employment of people with disabilities, it does provide suggestions about potential relationships between individual knowledge and characteristics of plaintiffs (for example, descriptions about the industry types of businesses involved in the ADA disputes) (Convers, Boomer, & McMahon, 2005; Lewis, McMahon, West, Armstrong, & Belongia, 2005; McMahon, Shaw, West, & Waid-Ebbs, 2005; Moss, Swanson, Ullman, & Burris, 2002; Neath, Roessler, McMahon, & Rumrill, 2007; Snyder, Carmichael, Blackwell, Cleveland, & Thornton, 2010; Tartaglia, McMahon, West, & Belongia, 2005; Unger, Campbell, & McMahon, 2005; Unger, Rumrill, & Hennessey, 2005; Van Wieren, Armstrong, & McMahon, 2012). *Employer Size & Knowledge*: The number of disputes filed is jointly influenced by employer size and individual knowledge of the formal complaint process. There is evidence to suggest that the size of the business and the knowledge of its employees are interrelated factors that impact the frequency of disputes (McMahon, Rumrill, Roessler, Hurley, West, Chan, & Carlson, 2008; Tartaglia, McMahon, West, & Belongia, 2005; Van Wieren, Armstrong, & McMahon, 2012).

2. Employer perspectives

The second thematic category of evidence relates to employer perspectives. Evidence exists that the ADA has influenced knowledge, attitudes, and

perceptions about the employment of people with disabilities from an employer's perspective across four synthesized subthemes of findings. The first two subthemes (hiring/advancement and accommodation) relate to employers' perspectives about employing people with disabilities. The second two subthemes (knowledge about the ADA and employer concerns) relate to employers' responsibilities under the ADA.

a. Hiring and advancement

This subtheme manifested in regards to perceptions of disability in hiring or advancement decisions. In this area, the synthesized findings of the research evidence show that the ADA has influenced knowledge, attitudes, and perceptions about the employment of people with disabilities in relation to:

Perception of Support Needs: Hiring and advancement decisions are impacted by anticipated need for accommodation and on the job supports. The evidence demonstrates that employers take into account the potential complexity of an accommodation when making hiring decisions (Dowler & Walls, 1996; Hazer & Bedell, 2000).

Role of Disability: Employers report concerns about the abilities of people with disabilities while concurrently reporting that disability does not factor into hiring and advancement decisions. The evidence indicating that disability does not factor into employment decisions is explained as a potential indication of public perception bias, meaning that individuals may report what they anticipate should be the appropriate answer as respondents are unlikely to report non-compliance (Bruyère, 1999; Houtenville & Kalargyrou, 2012; Kaye, Jans, & Jones, 2011; McMahon, Shaw, West, & Waid-Ebbs, 2005).

b. Reasonable accommodations

The subtheme is in regards to the provision of reasonable accommodations. In this area, the synthesized findings of the research evidence show that the ADA has influenced knowledge, attitudes, and perceptions about the employment of people with disabilities in relation to one finding:

Prior Experience with Disability: Willingness to provide accommodation is influenced by previous experience with disability. The evidence shows that the more exposure that employers have/have had in the past to working with people with disabilities, the greater the willingness is to provide reasonable accommodations (Hernandez, Balcazar, & Keys, 2004; MacDonald-Wilson, Rogers, & Massaro, 2003; Popovich, Scherbaum, Scherbaum, & Polinko, 2003). The findings related hiring and advancement and reasonable accommodations together provide evidence about how the ADA has not been able to positively influence knowledge, attitudes and perceptions about the employment of people with disabilities. This evidence exemplifies how extralegal factors continue to impact decisions regarding implementation and compliance for some businesses.

c. Knowledge about the ADA

Employer knowledge of the ADA was also found to be a subtheme. In this area, the synthesized findings of the research evidence show that the ADA has influenced knowledge, attitudes, and perceptions about the employment of people with disabilities in relation to:

The Role of Technical Assistance: Lack of knowledge about the availability of technical assistance affects responsiveness to and compliance of reasonable

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accommodations. The evidence demonstrates how companies that have difficulties in providing accommodations often have limited knowledge of outside resources for assistance (Bruyère, 1999; Slack, 1996; Unger & Kregel, 2003; Wooten & Hayes, 2005).

Employer Size: The size of the employer impacts knowledge of and compliance with the ADA. There is no consensus in the research as to the direct relationship between company size and knowledge. Rather, the evidence shows that there is a relationship between business size and the *way* knowledge/compliance is achieved (Conyers, Boomer, & McMahon, 2005; Lewis, McMahon, West, Armstrong, & Belongia, 2005; McMahon, Rumrill, Roessler, Hurley, West, Chan, & Carlson, 2008; McMahon, Rumrill, Roessler, Hurley, West, Chan, 2008; Popovich, Scherbaum, Scherbaum, & Polinko, 2003; Waters & Johanson, 2001).

Perception of Disability: Knowledge of the ADA does not translate into changing attitudes about hiring people with disabilities. The evidence shows that there is no direct relationship between knowledge of the ADA and hiring decisions, nor is there any evidence that the way an employer gains knowledge about the ADA changes attitudes towards people with disabilities. There is only a minimal amount of evidence showing that there are overtly negative perceptions about people with disabilities in relation to the ADA (Hazer & Bedell, 2000; McMahon, Rumrill, Roessler, Hurley, West, Chan, & Carlson, 2008; Robert & Harlan, 2006; Scheid 1998; Slack, 1996; Thakker & Solomon, 1999).

d. Employer concerns

The final subtheme is regarding employer concerns of applying the ADA in the workplace. In this area, the synthesized findings of the research evidence show that the ADA has influenced knowledge, attitudes, and perceptions about the employment of people with disabilities in relation to:

Indirect Costs: Employers are concerned about decisions to hire and/or provide accommodations in relation to anticipated disruptions to workplace culture. The evidence shows that people in charge of hiring and accommodating workers weigh decisions about compliance against the potential for disrupting existing workplace practices (Florey & Harrison, 2000; Roessler & Sumner, 1997). *Perceived Direct Costs*: Employers are concerned about disability and/or people with disabilities in relation to the perceived costs of job restructuring and modification, accommodations, and workers compensation claims. This body of research is used to explain employers' hesitancy in employing people with disabilities (Florey & Harrison, 2000; Roessler & Sumner, 1997; Gilbride, Stensrud, & Connolly, 1992; Hernandez, Keys, & Balcazar, 2000; Houtenville & Kalargyrou, 2012; Kaye, Jans, & Jones, 2011; Roessler & Sumner, 1997; Soffer & Rimmerman, 2012).

Fear of Litigation: Employers are concerned about hiring people with disabilities due to the fear of potential litigation and the perceived cost of that litigation. In early ADA research, there were anecdotal claims about how employers' fear of litigation impacted the labor market participation of people with disabilities (Kaye, Jans, & Jones, 2011; Moore, Moore, & Moore 2007; Satcher & Hendren, 1992; Schartz, Hendricks, & Blanck, 2006).

The above findings jointly demonstrate that employers' initial fears of the ADA relate to concerns about job restructuring, modifying workplace culture and processes, and accommodations. Moreover, that this has changed very little in the past 25 years.

E. Discussion

The consolidated body of research evidence on ADA supports three key claims. These claims reflect how the findings configuratively relate to each other and to the broader research question. Configurative analysis in systematic reviews is used to translate the meaning of findings between and across studies (Gough, Oliver, & Thomas, 2012). From this process, there is substantial evidence to suggest that the ADA has influenced knowledge, attitudes, and perceptions in the area of employment with regards to: (1) knowledge of the law; (2) perception of employability; and (3) workplace culture.

1. Knowledge about the law

The ADA research evidence demonstrates that employers maintain baseline knowledge of compliance while leveraging this knowledge to avoid the spirit of the law. Concurrently, people with disabilities experience barriers to knowledge that affect development of their rights and processes under the ADA. For example, employers have widespread concern about people with disabilities' skill levels while also reporting that disability does not factor into their hiring and advancement decisions. For people with disabilities, increased knowledge of the ADA facilitates their ability to advocate for themselves with enhanced legal protections. Together, this evidence suggests the need for a different type of knowledge translation that better fits the spirit of the ADA.

2. <u>Perception of employability</u>

The ADA research evidence confirms that stigmatized perceptions of disability impact a variety of employment decisions, including hiring, advancement, and providing reasonable accommodation. For example, perceived origin of disability or type of disability has been used in determining the 'reasonableness' or perceived 'fairness' of accommodations. Correspondingly, people with disabilities who perceive stigma are less likely to disclose for the purpose of requesting accommodations. Together, this evidence suggests that although the ADA has made acting upon overtly prejudicial attitudes illegal, more implicit forms of discrimination continue to influence perceptions of employability.

3. Workplace culture

The ADA research evidence illustrates that fear of disrupting workplace culture prevents people with disabilities from exercising their rights and responsibilities under the ADA. For example, disclosure and requests for accommodation may affect workplace practices. Correspondingly, evidence exists that fear of disrupting workplace culture also impacts employer decisions about the perceived reasonableness of accommodations and making hiring decisions. Together, this evidence suggests that adherence to universal design and flexibility in employment practices – rather than meeting only the legal minimum of the law – can be conducive to both individual requests and employer responsiveness.

F. Limitations and Next Directions

The primary limitation involved the abridged search strategies used to identify research. A number of records (i.e., dissertations, theoretical articles, and organizational reports) were excluded due to time and resource constraints associated with conducting a rapid review. The search process for rapid evidence reviews is intentionally abbreviated to establish a rigorous process that can be expanded upon for future systematic reviews. It is not meant to detail the exhaustive body of literature on the subject. Supplementary topic-specific searches will be conducted in later stages of this project to provide a more complete overview of available research, which will span a smaller group of studies.

The rapid evidence review discussed here adds an important new component to the field, as it identifies and consolidates a sample of existing ADA research on knowledge, attitudes and perceptions in the area of employment. However, after 25 years of research on the ADA in general, we do not yet fully understand the legislative and cultural impact of this law. To help direct future systematic reviews of ADA research in subsequent stages of this project, and to ensure the utility of the findings of these reviews, the research team will continue to collaborate with the ADA expert panel and other key national ADA stakeholders. This collaboration is an essential component of increasing knowledge translation of research, deepening our understanding of the impact of the ADA, and ultimately enhancing the protection of rights for people with disabilities.

There are a multitude of stakeholders and resources that are necessary to consult when considering the ADA's impact in regards to both the *Spirit* and the *Letter*

of the law. It is also necessary to look beyond the existing research to understand the full impact of the law. Conducting a review of this type leaves a number of questions unanswered- as systematic reviews are less useful to identify the evidence that still needs to be collected. Many people with disabilities have experienced improved access to various domains of employment in way that have not been quantified and analyzed but are reflected in the improved transportation systems, public accommodations, and the overall visibility of many people with disabilities that was much smaller before the emergence of disability rights. Other anecdotal evidence in relation to the ADA's spirit goals in employment indicates that the ADA has made monumental stride in challenging damaging perceptions of disability (Yee & Golden, 2001). Simply because there has not fully documentation or evidence about changes in the social fabric of society does not necessary connote that the policy has failed to do so. Moving forward we can only hope the research grows to reflect the full progress of people with disabilities in pursing civil rights under the ADA.

III. SYSTEMATIC REVIEW AND KNOWLEDGE TRANSLATION: A FRAMEWORK FOR THE SYNTHESIS OF DISABILITY POLICY RESEARCH⁵

A. Introduction

In a previous issue of *Work*, Parker Harris, Gould, and Fujiura (2015) provided a worked example of an exploratory scoping review of Americans with Disabilities Act (ADA) research. It was suggested that there is a need to address concerns about rigor that are not typically met in such reviews, as they provide standalone evidence and also help guide more comprehensive systematic reviews. The article built on Rumrill, Fitzgerald, and Merchant's (2010) framework for conducting scoping reviews to suggest an approach more applicable to exploratory reviews. These same authors also responded to the worked example of the ADA to suggest the utility of mixed methods approaches for conducting systematic reviews in the social sciences (Fitzgerald, Rumrill, & Merchant, 2015). Considering these suggestions, this research team expanded on the initial scoping review to conduct a series of full systematic reviews on specific areas of ADA research that include evidence derived from qualitative, quantitative, and mixed methods techniques.

Fitzgerald, Rumrill, and Merchant (2015) explain that there are numerous wellestablished synthesis techniques available for the summation of evidence. The blanket term systematic review is used to describe a range of evaluation techniques developed for such purpose. Evidence generated from systematic review is considered the 'gold standard' of evidence and is often used for directing future research priorities, suggesting directions for policy, and guiding evidence-based practice (Levac,

⁵ Planned submission: Gould, R., Parker Harris, S., & Fujura, G. (2016) Systematic review and knowledge translation: A framework for the synthesis of disability policy research. Journal TBD.

Colquhoun, & O'Brien, 2010). A key challenge when applying such techniques to reviews in the social sciences, however, is that many of the well established processes are rooted in the medical sciences and are limited to studies within an interventionist framework (Sackett, Rosenberg, Haynes, & Richardson, 1996). Such reviews have traditionally favored quantitative research and are more conducive to conducting metaanalyses of randomized controlled trials (Witherspoon, 2003). Furthermore, systematic reviews that answer very narrow questions from well-established area of research (i.e., medicine and pharmacology) are typically limited to studies of directly observable relationships (Jesson, Matheson, & Lacey, 2011).

The development of review techniques that incorporate diverse and mixedmethods approaches has broadened the scholarship and application of systematic reviews into the social sciences. Mixed-methods techniques are similarly appropriate to summarize a broad range of findings, and their use indicates growing recognition that qualitative and quantitative evidence jointly contribute important evidence to research process. Although mixed-methods reviews begin to address concerns regarding the potential exclusion of less often utilized forms of evidence, the existing scholarship on the methodological process for mixed-methods reviews is similarly framed within interventionist research and is often confined to studies of "what works" (Suri, 2013). Emerging scholarship on the mixed-methods review process has evolved to the point where such reviews are relatively commonplace, but there is still considerable need to explore how to rigorously review research outside of the medical or interventionist framework.

Researchers interested in conducting reviews on the influence of social policy can benefit from an advanced knowledge of methodological review processes that incorporate both gualitative and guantitative data. This paper provides commentary about how reviews of disability policy challenge may epistemological assumptions about how to conduct systematic reviews by drawing on a synthesis of ADA research. In doing so, this paper consider Fitzgerald, Rumrill, and Merchant's (2015) commentary on the merit of mixed methods approaches alongside recent scholarship on how evidence informs practice to suggest a framework for the systematic synthesis and dissemination of diverse policy evidence. The science of moving evidence to practice is discussed within the framework of Knowledge Translation (KT). Knowledge translation, is "the exchange, synthesis and ethically-sound application of knowledge - within a complex system of interactions among researchers and users - to accelerate the capture of the benefits of research," (Graham et al., 2006, p.15) for key stakeholders including consumers, researchers, and policymakers. A key challenge in developing systematic review methodologies in the social sciences is to consider how to best achieve KT goals when reviewing large and diverse bodies of research, such as with the current state of ADA evidence.

B. Mixed-Methods Systematic Reviews in the Social Sciences

Research synthesis has an important contribution to make in terms of advancing knowledge in the social sciences, in particular by identifying, critically appraising and summarizing what is already known (Davis, 2003). One core challenge in regards to applying existing synthesis technique to assessing the impact of social policy, such as the ADA, is the extreme *heterogeneity* of research in the area. Heterogeneity in

systematic reviews typically refers to diversity in methodological techniques, and is typically seen as a barrier to aggregating data across studies through processes such as meta-analysis (Gough, Oliver, & Thomas, 2012). Heterogeneity in reviews of disability policy, however, extends beyond variation in technique or approach. Disability policy research covers a broad range of topic areas, and impacts a multitude of stakeholders including people with differing disabilities, service providers, the public and private sector, government entities amongst others. The fragmented nature of our nation's disability policy system across a range of inter- governmental institutions, departments, programs and services requires any summative claim to consider a multitude of confounding social factors that may impact evidence and findings (Silverstein, 1999). It is thus often necessary to use a range of methodologies, research questions, and approaches to adequately understand the broad reach of a policy's societal impact.

Although emerging scholarship on methods for systematic review has begun to consider how to approach such diversity in content and method, there is still need to further explore their application to reviews of disability research. Fitzgerald, Rumrill, and Merchant (2015) describe mixed-methods reviews as a range of techniques that can be used to synthesize evidence from a range of qualitative and quantitative sources. They explain that the development of these processes reflects the potential benefit of jointly analyzing qualitative, quantitative, and mixed-methods data when conducting systematic reviews in health and rehabilitation research. They also provide examples of intervention-based review that incorporates a diverse range of evidence to explore the impact of interventions (i.e., Babakus & Thompson, 2012). The use of mixed-methods

synthesis technique is used in these cases to combine commonly used systematic approaches, in order to create a more complete assessment about the state of evidence. In regards to reviewing research in the interventionist framework, the mixed methods approach is relatively straightforward and can employ relatively standardized techniques.

Such standardization can improve the rigor of more diverse non-intervention based reviews of disability policy research as well. In addition to the practical benefits of mixed methods syntheses for capturing the diversity of evidence available for review, there are conceptual reasons that may make a mixed-methods approach most suitable for conducting a review of disability policy research. There are often compounding social, political, and contextual factors that prevent a straightforward cause and effect or systematic analysis of the impacts of social policy (Davis, 2003). Traditional systematic review methods (namely meta-analysis) require a significant body of closely related studies and are more applicable to identifying correlational relationships rather than contextual or latent aspects of the topic area (Egger, Dickersin, & Smith, 2008). Reviews of disability policy research necessarily diverge from typical review processes to explore a more diverse range of findings and theory.

In spite of the growing recognition that mixed methods reviews offer similar benefit to more traditional techniques, scholarship has only recently considered how review techniques may differ from the medical sciences, where the epistemological roots of systematic review reside (Sackett et al., 1996). For example, Brown et al. (2012) recently analyzed processes for conducting reviews outside of the medical sciences and the authors offer strategies to apply systematic review techniques to the field of rehabilitation. They explain that researchers in the field of rehabilitation face specific challenges to reviewing research that are not fully considered in the scholarship about review processes developed in the medical sciences. The primary challenge is related to the complexity of rehabilitation research that often prevents well-controlled experimental research that has historically been thought of as a necessary component of high-quality evidence for systematic review. They go on to note if evidence is considered in such traditional means, "there are often few if any high quality studies to include in reviews" (Brown et al., 2012, p. 177).

The identification and appraisal of high quality evidence is more complicated when we move beyond rehabilitation research, to more broadly consider disability research across the social sciences. In particular, social science research on the effects of legislation is often used to monitor progress and understand problems in applying the policy to practice. Drawing on our experience in reviewing research on the ADA, there are often considerable challenges in using existing research in this way. In surveying the wide reach of the ADA, there is a relatedly wide body of research on its implementation that analyzes its impact - our initial scoping research located more than 900 records of evidence related to the ADA (Parker Harris et al., 2014). Much of this research is disregarded or under utilized by policy makers (Waterstone, 2005). The lack of application is particularly problematic because there seems to be a scholarly consensus that the ADA is not being implemented in a way that maximizes its effectiveness or fully reaching its legislative intent (National Council on Disability, 2007). There are few rigorous techniques available for summating such a broad range of research, in spite of the present need.

C. Knowledge Translation and Systematic Review

As noted in our previous scoping review, exploratory scoping reviews offer one set of techniques to descriptively synthesize policy evidence (Parker Harris, Gould, & Fujiura, 2015). However, informed policy decisions often require more than the descriptive form of evidence that such processes generate. There is additional need for systematic reviews to generate more explanatory, generalizable, and summative evidence. Systematic reviews include the various synthesis techniques used to critically appraise, aggregate, consolidate, or configure existing research to generate an empirically informed synthesis. The end result of a systematic review is a summative conclusion with greater predictive or analytical power than its individual parts (Gough, Oliver, & Thomas, 2012). Standardized systematic review methods are increasingly used in social science research to review and synthesize research with an added element of academic rigor.

The need for such standardization and rigor reflects heightened attention to knowledge translation in social science research, where the translation of evidence is considered an essential component of the research process. Within the KT framework, the systematic review of research findings reflects demand for transparency in policy and practice where decisions are informed by well-analyzed or sound research (Brown et al., 2012). This demand can be viewed as a call for accountability or ethical practice in policy research to utilize existing resources and to maximize the impact of research evidence (Bowen & Graham, 2013). The application of research that stands up to thorough academic analysis reflects social demand for evidence-based policy decisions and the maximization of resources. Bero et al. (1998) suggest that that the utility of

systematic reviews is ultimately in how they are able to transform research into policy into practice.

Scholarship on KT is useful to understand the multitude of barriers for this transformation to occur. For example, researchers' potential to support policy stakeholder priorities is often related to the frequency of interactions and discussions between the two entities. Successful KT requires addressing barriers related to this inadequate communication, and additionally reflecting on how to create avenues for assessment, partnership, and ongoing feedback (Sudsawad, 2007). The inclusion of stakeholders impacted by policy and practice into the research process is a vital part of facilitating successful KT. Incorporating KT processes into planning a systematic review involves decisions about what type of research to include in reviews, reflecting upon how to engage stakeholders in the research process, and soliciting critical feedback for the dissemination and application of research findings.

For this particular review, the research team engaged with various policy stakeholders at all stages of the research process – from development to data collection to synthesis. One of the primary means to ensure credibility of research syntheses is to utilize feedback from outside experts or stakeholders that will closely be impacted by the research findings. Expert stakeholders offer an "on-the-ground" perspective and often review research questions, assist with the location of evidence, and provide critical feedback throughout the review process (Keown, Van Eerd, & Ervin, 2008). This research team convened a panel that included people with and without disabilities who are key national stakeholders involved in the research, technical assistance, and political implementation of the ADA (see Parker Harris et al. [2014] for further

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description of the expert panel). Systematic reviews have tremendous potential to addressing KT barriers such as those discussed. This paper now turns to the worked example of a systematic synthesis of disability policy research that was conducted with careful consideration of the KT process.

D. Framework for Conducting Systematic Reviews

As part of the ADA National Network Knowledge Translation Center, the research team arrived at the current systematic synthesis as part of a three-stage process responding to a National Institute on Disability and Rehabilitation Research (NIDRR) call to "increase the use of available ADA-related research findings to inform behavior, practices, or policies that improve equal access in society for individuals with disabilities" (NIDRR, 2006). The first stage included an exploratory scoping review to provide a descriptive roadmap of existing ADA research (Parker Harris, Gould, & Fujiura, 2015). Next, a rapid evidence review was conducted to test a methodological framework and generate baseline findings on a sample set of ADA research related to employment (Gould et al., 2015). The description that follows is description of the review process used during the final stage of this project, a series of systematic reviews on the ADA. The conceptual goal of this review process is that a holistic analysis of the collective body of ADA research can provide a more substantive analysis than studies can individually. The review process also provides a more complete overview of existing research than a traditional review technique may offer, where a traditional review would more likely entail only reviewing a small body of homogenous research.

Instead of replicating protocols for the review of diverse literature sources that are available elsewhere, the analysis that follows primarily focuses on instances where our methodological approached diverged from well-established techniques for conducting systematic reviews (e.g., Dixon-Woods et al., 2006; Noblit & Hare, 1988). The synthesis process involved adapting well-established techniques for qualitative review such as meta-synthesis and meta-ethnography (e.g., Noblit & Hare, 1998). It also incorporated descriptive mapping techniques such as framework analysis in the analytical process (e.g., Dixon-Woods et al., 2006). We found the descriptive mapping stage, which is more typical of an exploratory or scoping review, to be an essential part of translating policy research of this sort into usable findings given the abundance and heterogeneity of evidence related to the research topic. Table I describes the framework our systematic review process

A key challenge in comprehensive reviews of this sort is maintaining a specific rigorous protocol while also allowing for a degree of flexibility to iteratively generate research questions and specific analytical techniques appropriate for the type of research evidence that is identified and included. As this section further explains, the specific analytical process was not finalized until the data extraction phase of this research. Conventional reviews (such as those conducted in the medical sciences) typically follow established protocols precisely with the end goal of a summative analytical technique, such as meta-analysis, in mind (Gough, Oliver, & Thomas, 2012). The core element that sets systematic review apart from non-evidence based review is adherence to a predesigned protocol. The use of a protocol brings transparency to the process of reviewing to decrease various biases in identifying literature, and subsequently appraising and synthesizing it (Petticrew & Roberts, 2008).

The protocol for reviews that incorporate diverse policy evidence may resemble more of a "choose-your-own-adventure" guide than a straightforward roadmap for the analytical process. A larger review of more heterogeneous or mixed-methods research often involve a more iterative process when deciding upon the appropriate synthesis techniques. The conceptual goals of mixed methods and qualitative reviews tend be "configurative" rather than summative (as in meta-analysis) meaning that the purpose is primarily to organize findings across studies where findings are compared to explore and create theory (Gough, Oliver, & Thomas, 2012). Dixon-woods et al. (2006) explain that configurative reviews of this sort require flexibility, and perhaps a less linear analytical process, in order to "to allow the definition of the phenomenon...to emerge from analysis of the literature" (p. 3).

The creation of a flexible protocol is not to say that we abandoned the rigorous process typical of systematic review. More so, we tailored our protocol so there were specific steps to facilitate active communication between stakeholders and the research team to suggest both thematic concepts and analytical processes that could meet stakeholder demand and provide analysis within the predictive power that the research allowed. As we will demonstrate, this relative flexibility greatly impacted our end products. Going into the synthesis with only baseline knowledge of the type of data that we would include required a secondary descriptive mapping (in addition to the mapping previously conducted during the scoping review) to adequately explore and explain the concepts we found in the existing evidence.

TABLE IFRAMEWORK FOR CONDUCTING SYSTEMATIC REVIEW OF DISABILITYRESEARCH

Stage		Description
Research Development		
1	Expert Panel Consultation	The initial development process is largely stakeholder need driven. The initial protocol is necessarily flexible to
2	Refine review protocol	
2 3 4	Develop research questions	allow for future input.
4	Screen previous searches (scoping review) for relevant lit	
Data collection		
5	Supplemental searches and expert panel consultation	Stakeholder feedback is woven throughout (e.g. developing areas of interest for coding and categorizing
<u>6</u> 7	Quality appraisal	data)
7	Data Extraction (inclusive of full	,
	paper) (UIC)	Decisions about the type and potential
8	Categorical coding (Framework analysis)	sources of data for extraction are decided after a thorough searching and preliminary scanning of the relevant
		literature.
Analysis		
9	Descriptive and conceptual mapping	The descriptive mapping and synthesis process are jointly informed. The two
10	Thematic synthesis	step process allows for: joint synthesis of diverse data points; the location of the most pertinent research data for the
12	Consult with Expert Panel	research question at hand; and, provides a useful conceptual tool for the explanation of concepts and eventual dissemination.
		Expert stakeholders confirm claims and identify potential findings of interest.
Dissemination		
14	Consult with Expert Panel (confirming findings)	Expert panel members can be consulted to compare findings to on- the-ground knowledge. They will make
15	Knowledge translation	suggestions based on their insider perspective about the best ways to disseminate findings and plain language summaries.
		Although listed as part of the final dissemination, the KT plan is ongoing in conjunction with larger project as a whole.

1. Research development, engaging ADA stakeholders, and KT

As Fitzgerald, Rumrill, and Merchant (2015) explain, the beginning stages of systematic review most always start with the "the searching, screening, and mapping of the studies in the research domain" (p. 338). As this example review built upon previously screened research identified through the scoping review, much of the searching had already been done. Additional searches for content specific resources related to the topic of interest are still necessary to ensure the saturation, or comprehensive inclusion, of pertinent research materials in review of this sort. Expert stakeholders can play a key role in this by identifying hard to find evidence or grey literature related to the research topic. Furthermore, they may make suggestions about the type or range of results to be reported when a large amount of materials is analyzed or collated. One of the primary differences when considering the review process within the KT framework as compared to a more typical reviews is the additional consideration of stakeholder needs that suggest directions for content, process, and the analytical framework.

Other systematic reviews that respond to previous research mapping projects may find themselves in similar positions with the potentially daunting task of deciding on a research topic that is pertinent to expert stakeholders, feasible in terms of content area expertise, and includes an 'answerable' question within the existing resources or evidence. Response to this question is partially dictated by availability of research – systematic reviews can only comprehensively assess evidence that which has already been collected. Given this project's particular focus on the KT process, the decisions of topics was also highly influenced by the key stakeholders that routinely use ADA

evidence who were involved with the project. We found the inclusion of these stakeholders as an essential part of this project where they helped to identify specific priority areas within the vast body of ADA research.

Following publication of the initial scoping review, the research team met with the Expert Panel and representatives from the ADA National Network to review the descriptive and exploratory findings from the initial scoping review. The stakeholder review process was used to identify, discuss or otherwise refine research topics and priorities. One output of this process of this process was a series of informal interviews and discussions about ADA knowledge gaps and emerging policy priorities related to future disability legislation. These conversations were honed to the representatives' personal experiences, focusing on 'on the ground' perspectives. After reviewing stakeholder input, the research team conducted member checks and an additional panel discussion to identify immediate priority areas for reviews. Systematic review priorities were related to the ADA and attitudes, healthcare, and disclosure.

This expert review process was also useful to identify key themes that informed the theoretical framework for this review. It was suggested to identify what we know about the ADA achieving its goals in relation to equal opportunity and the full participation of people with disabilities- two of the primary goals stated in the preamble of the ADA. Using a theoretical framework is useful to help focus the data extraction based on well-established theory (Harden & Thomas, 2005). It is also useful to focus coding efforts in relation to a review question. This method is also reflective of common practice within primary qualitative research, where coding frameworks are developed

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during the initial analytical process and then subsequently refined and applied (Noyes & Lewin, 2010).

2. Development of research questions

Following the identification of priority areas for systematic review Specific review questions were informed by three factors:

- Availability of Evidence: The topic was identified in area of research where there is a sufficient body of evidence that addresses a similar research problem. This is necessary to conduct a configurative assessment and evidence-based evaluation (Gough, Oliver, & Thomas, 2012).
- 2. Knowledge of Evidence: The topic selection was informed by anecdotal claims about knowledge gaps within the wider body of evidence. The research team is closely oriented with the body of research so the reviewers are informed about repeated claims (Grant & Booth, 2009). In this project, the research team also drew on key reports from National Council on Disability based on the suggestion of the expert panel that identified areas of ADA research that have been substantially researched, but with minimal conclusions.
- 3. *Stakeholder Feedback*: The research team again consulted with the ADA Expert Panel and representatives from the ADA National Network to refine the research topic. Soliciting stakeholder feedback on topic selection during the development of research questions is a knowledge translation process that enhances the utility and relevance of systematic reviews (Graham et al., 2006).

One example research question that developed from this process was "What evidence exists that the ADA has influenced attitudes and perceptions about disability?"

This question defers form what may be more typical of a question asked for a quantitative meta-analysis or even a mixed-methods review that may more typically ask "what works" or "what is thought to be known" in areas where there is substantive empirical data. The heterogeneity in evidence and KT Agenda necessitated this more

iterative review question, which involved working our way up from a preliminary review of the evidence to identify summative evidence rather than testing a specific problem from the start.

3. Data collection and extraction

The processes of data collection and synthesis for a review of this magnitude pose significant challenges, and may dictate the analytical process for review, as it did in this worked example. The primary challenge related to reviewing large sources of material is considering whether to favor *depth* or *breadth* during the review process. On one hand, there is need to comprehensively identify all pertinent findings and to capture related evidence (e.g., quotes and raw data) to assess its relevant and weight to make generalizable claims. On the other hand, the vastness of possible data to include can easily muddy the finalized product with oversimplified or unrelated findings when considering the influence of social policy evidence. Challenges related to this step are further considered in the discussion section where we suggest the potential of other synthesis techniques that may be viable for capturing both the breadth and depth of data and related heterogeneity in both content and process.

It was decided that the research problem at hand required scoping both the depth and breadth of ADA research. Attempting to answer the research question first required identifying all relevant research records within our existing database of ADA research generated during the scoping stage of this review. Next, additional searches specific to the topics of interest (e.g., attitudes and disability) were necessary to ensure that the concept was adequately explored. Location of studies in social science research is not as straightforward as with more standardized review processes. As well as journal articles, data can also be located in books, book chapters, unpublished full reports and theses, and reports from government, research institutes and websites. Research evidence across a gamut of published and unpublished literature sources can provide vital information to lay foundation for future policy research, but requires comprehensive review and exploration of the relationships between study characteristics and other contextual factors (Rumrill, Fitzgerald, & Merchant 2010).

Given that key terms and concepts vary greatly in relation to this topic, search strategies must augment electronic searches with more traditional methods of reviewing including back-tracking of references and engaging with key experts in the field (Petticrew & Roberts, 2008). For example, in reviewing research on the ADA's influence on attitudes there a number of field specific terms and theories, many of which are derived from the field of psychology. Content experts advised the team to expand searches to include terms such as "regarded as" (reflecting the ADA's definition of disability) which yielded a number of records from the area of legal and policy studies as well. These search strategies would similarly apply for other systemic reviews of policy findings that bridge disciplines. In reviews of this sort, extracted data and findings of interest go beyond thematic patterns, samples of primary evidence, or other data points that may typically be thought of as evidence in systematic reviews. We additionally located key evidence for synthesis that was found in author interpretations of the data, suggestions for research, policy, or practice, and the limitations of the studies. Using this approach allowed for additional explanatory power in the case of discordant or refuting findings. For example, in our systematic review of the ADA's influence on attitudes coding the limitation sections of included research revealed key findings

related to "perception bias" in the included research. Generally, the research evidence pointed to a blanket approval of the ADA across the various entities the law impacts, and reporting of extremely positive attitudes towards people with disabilities. This information contrasts with evidence, sometimes generated from the same study or data sets, that assumptions about disability causation often play a role in accommodation decisions (i.e., Gould et al., 2015). The shared limitations were used to confirm the role that bias plays in existing research where entities often are resistant to admit lack of compliance (Kaye, Jan, & Jones, 2011). This finding had substantial impact on the overall summative findings.

a. **Quality appraisal**

In determining a way to assess the wide variety of data included, we found quality appraisal to be an essential part of narrowing down relevant data. We previously argued in our analysis of scoping review that appraisal may be necessary to reduce the vast range of research in reviews of this sort (Parker Harris, Gould, & Fujiura, 2015). More convention processes that are used to conduct review of purely quantitative data involve applying predetermined standards to assess the quality of the research. There has been considerable debate about the need and process for quality assessment in qualitative research (see Campbell et al., 2003 for discussion of this debate), particularly in regards to assessing quality among unpublished and grey literature. Debates center on what counts as good quality, or whether quality should be a concern at all (Walsh & Downe, 2005). While there is now a large number of critical appraisal tools for qualitative research, there are no widely accepted criteria as to "the best" method for qualitative study appraisal, although there is ongoing work in developing this area (e.g., Petticrew & Roberts, 2008).

Configurative reviews, such as the one described, often do include quality assessments. We saw the appraisal as an essential step to enhance the confirmability of findings and to reduce bias by eliminating records that did not meet the minimal level of reporting. For the purpose of large scale review such this one, an abridged tool can be used to quickly and effectively assess quality of research. The appraisal stage involved the use of an abbreviated quality assessment tool based on Dixon-Woods et al.'s (2006) tool for critical interpretive synthesis. The tool uses a binary coding (i.e., yes/no assessment) for key study design elements, and is applicable to both qualitative and quantitative research by including comparable questions for the different types of methodology. The mixed-synthesis of qualitative and quantitative research can be conducted simultaneously when appropriate indicators for appraising different methodological types are included in the framework.

b. Extraction and coding

Studies that meet the quality criteria require a more thorough data extraction process. Ideally, only the 'highest' quality research is included in the final synthesis. Key concepts and findings were extracted from the data using EPPI reviewer 4.0 to capture, participant quotes, direct data points, and author interpretations of the data. Data were extracted from the literature using the "text in context" methodology (Sandelowski & Barroso, 2007) where extracted blocks of text can be understood without referencing raw data. Additionally, descriptive summaries (reviewer analyses) were added to describe these data to ease the categorization of findings (see Gough, Oliver, & Thomas, 2012, p. 50 for an examples of such summaries). Author interpretations are only included when they are directly supported by an evidential claim (typically a direct quotation or other data point). This approach is most commonly utilized where there are large swaths of data being collected. With a smaller synthesis of studies, it is less appropriate and less justifiable methodologically.

Techniques such as dual coding are often used in smaller reviews to ensure reliable extraction and entry. The dual coding of research is neither desirable nor necessary when using the text in context methodology and for a review that considers such breadth and depth of data as this example. There are other more approachable techniques that can similarly address researcher error or inclusion bias. For example, for this review once the first reviewer entered the findings into the database, a second reviewer examined the applied codes. Once the first reviewer coded the article data into EPPI, a second independent reviewer read the article and then validated the data entered by the first reviewer. If there were discrepancies or data omissions, then the second reviewer left comments as to these issues, but they did not edit or make changes to the original record. After the second reviewer finished reviewing an article record, the first reviewer made the appropriate edits as suggested by the second reviewer. Differences between the two reviewers were reconciled by consensus, but only the first reviewer could make edits or changes to the record. If consensus was not reached between the two reviewers, a third member of the research team was asked to validate the findings.

4. Analysis

The extraction process resulted in the collection of an extremely broad range of data related to the ADA research questions. The data represented viewpoints from a multitude of different stakeholder across a number of academic disciplines that relayed disparate findings about a number of different disability groups. Furthermore the included research covered findings derived from a range of methodological approaches and research sub-questions. Such diversity presented challenges for the identification of an appropriate analytical technique. Fitzgerald, Rumrill and Merchant's (2015) suggest an approach that involves separately coding gualitative data and summating guantitative findings through meta-analysis. However, the necessarily broad range of evidence in this example rendered a purely aggregative approach ineffectual, and findings were not conducive to a meta-analysis. The heterogeneity in content and method necessitated a synthesis process that could describe both quantitative and gualitative data simultaneously. It was determined that an additional descriptive mapping stage was necessary to allow for such joint synthesis and to locate the most pertinent research data for the research question at hand.

a. Descriptive and conceptual mapping

Fitzergerald, Merchant, and Rumrill (2015) explain "mapping exercises" as scoping processes to categorize literature and identify relevant literature, concepts, or policies. We found that conceptual mapping was also a critical component of the analytical process for the review of heterogeneous research. The importance of the conceptual mapping stage of the systematic review cannot be overstated. As they go on to explain: "[i]f one were conducting a full systematic review of the literature that did not include relevant literature from another discipline, because he or she was not aware of differences in the terms used, this could call into question the validity of such a review" (Fitzgerald, Rumrill, & Merchant, 2015, p. 336). We found additional significance in this exploratory review process. Descriptive mapping is usually conducted as a preliminary for first stage of a review. In a scoping review, the mapping stage is used to identify terms to confirm saturation of research. This review included a secondary mapping stage (in addition to the preliminary mapping conducted during the scoping review) that was useful to categorize literature and identify similarities for thematic analysis. We found that this process revealed pertinent findings for future research and systematic reviews.

The descriptive mapping involving framework analysis: a coding procedure, which combines both inductive and deductive coding techniques (Dixon-Woods et al., 2006). The procedure involves combining iterative coding with the deductive application of categorical codes, which were developed during the rapid review of this research project. Codes were developed to describe key process data including the purpose of the research studies, definitions of constructs, stakeholder groups, disability types, and study settings and context. Each of these variables can distinctly influence the type of conclusions that we eventually could draw from the data in the synthesis stage. The categorical codes were developed from preliminary suggestions from the expert panel, and expanded on based on the researchers' familiarity with the research. Following the mixed-coding procedures, similar or duplicitous themes were combined (Glaser & Strauss, 1965). The mixed coding approach (inductive and deductive) is meant to

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summarize key points for the purpose of consolidating similar findings across research studies (see Gough, Oliver, & Thomas, 2012, for further explanation of this process).

To enable the mixed method data to be descriptively analyzed and synthesized, an approach akin to content analysis is recommended (Arksey & O'Malley, 2005; Levac, Colquhoun, & O'Brien, 2010). Constant comparisons methods, using commonly listed checklist items, can provide a useful starting point for taking this descriptive evidence and developing iterative/comparative syntheses. Fitzgerald, Rumrill, and Merchant (2015) similarly suggest that mixed-methods syntheses benefit from constant comparative processes where quantitative findings are analyzed next to qualitative themes to holistically look at the meaning of the two parts together. To facilitate this process, this stage can include visual maps and/or numerical summaries of the data (e.g., overall number of studies included, types of study design, topics and/or titles studied, characteristics of disability sub-groups and/or stakeholders, years of publication); and a thematic analysis (i.e., using EPPI Reviewer 4.0 or qualitative coding software).

b. Thematic synthesis (Meta-ethnography)

Following the secondary mapping, synthesis could be completed and presented more clearly. Analysis for reviews of this type may choose to adapt from a range of synthesis techniques applicable to the review of both qualitative and quantitative data. Meta-synthesis and meta-ethnography are increasingly common techniques for the synthesis of methodologically heterogeneous research materials (Gough, Oliver, & Thomas, 2012). The goal of meta-ethnography is to identify relationship between concepts and findings to enhance the current stage of knowledge and also to develop new more summative understanding of the body of research as a whole. Meta-synthesis is commonly used to encapsulate this range of techniques, and refers to specific qualitative techniques, such as meta-narrative, meta-summary, and meta-ethnography (Jesson, Matheson, & Lacey, 2011). These techniques share common goals including: achieving a greater level of understanding of a field of knowledge, assessing how an area of research has been studied, or locating what empirical evidence there is across different research studies (Dixon-Woods et al., 2006). In all of these techniques, the term 'meta' is a reference to the end-goal of the research study. Meta-synthesis techniques do not seek to generate one generalized conclusion of something working or not working based on a shared finding across research studies, such as occurs through a meta-analysis. Rather, the 'meta' of metasynthesis refers to the analysis, conclusions, and thick description of varied relationships within studies. The relationships are synthesized while maintaining and pinpointing the unique individual interpretations of high quality research evidence that is carefully chosen for analysis (Thorne, Jensen, Kearney, Noblit, & Sandelowski, 2004).

These meta-techniques are conducted with the acknowledgement that alternative understanding and interpretation to the ones generated are possible (Thorne et al., 2004). Synthesis develops from a variety of individually selected connecting threads, variables, and written products are used to describe a number of shared synthesis arguments rather than from an exhaustive list of systematically appraised findings, causal connections, or claims about the magnitude of relationships between constructs. The end result is the creation of new constructs that build off the original themes and concepts of the reviewed studies. The final synthesis process for this sample review included comparative identification and analysis using a modified meta-ethnographic approach. In meta-ethnography, key concepts are compared, analyzed and translated within and across studies. The concepts were first identified through the scoping review, and finalized in collaboration with the priorities set out by the expert panel. The 'meta' in meta-synthesis does not refer to overall generalizations but to translations of studies with one another. This maintains the uniqueness of individual interpretations as well as reveals differences between varied accounts, which enables researchers to understand how studies relate to each other (Thorne et al., 2004).

While Fitzgerald, Rumrill, and Merchant (2015) suggest the efficacy of mixed methods both for inclusion criteria and for the analytical technique, we found that the vastness of the included research prevented a multi-modal synthesis at this time. That is not to say that the mixed methods process is unachievable with such large bodies of literature. Future research can additionally consider how to integrate quantitative (aggregative) techniques to complement more configurative meta-syntheses such as this paper describes. This suggestion is further explored in the discussion section of this paper.

5. **Dissemination**

This dissemination phase of this process draws on best practices in knowledge translation, including the involvement of research "end-users" throughout the research process to ensure that products are findings are relevant to different stakeholder groups (Pronovost, Berenholtz, & Needham, 2008). Findings can be translated through a variety of mechanisms, which often requires them to be tailored to

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specific research groups. For example, the dissemination of disability policy evidence through plain language summaries in alternative and accessible formats can have substantial use for a variety of disability stakeholders. Additionally, Infographics are effective tools to simply summarize and explain complicated research materials (Caldwell & Friedman, 2015). The theory, process, and practice of disability policy are complex, yet they need to be understood even by stakeholders outside of academic and policy-related professions.

E. Discussion: Utility of the Mixed Methods Approach

Fitzgerald, Rumrill, and Mercehant (2015) suggest that there is a need for systematic review techniques that can include a diverse range of research techniques and approaches. While Fitzgerald, Rumill, and Merchant (2015) suggest a multimodal analytical approach that incorporates meta-analysis, we found synthesis techniques traditionally used for reviews of qualitative data to be similarly effective in synthesizing mixed or heterogeneous research to understand the influence of social policy. The heterogeneity of research and the descriptive capability of meta-ethnographic techniques to include mixed methods research make it a suitable methodological approach for the synthesis of the ADA and disability policy research.

The overall synthesis goal of meta-ethnography is provide a greater conceptual understanding of a research area than which can be achieved through on singular study empirical study. Importantly for the study of disability social policy, meta-ethnography can incorporate and reflect changes over time and can be used to highlight key dimensions of successful and unsuccessful practices (Campbell et al, 2003). The inclusion of an interpretative approach offers an effective method to identify disability policy-related knowledge gaps, shape future research topics, and facilitate integration of research and practice.

It is also suggested that future reviews may similarly require more novel methodological approaches to account for the challenge of adequately describing such a broad range of research evidence. Even in this primarily qualitative analysis of the ADA, the use of meta-ethnographic approaches required adapting standardized techniques to incorporate a degree of aggregation through descriptive mapping to present findings across the broad research landscape. Meta-ethnographies are primarily configurative approaches to synthesis that are useful to generate an understanding of a broader understanding of relationship between studies (Grant & Booth, 2009). Configurative reviews focus on the latent narrative and interrelated findings of the topic studied (Gough, Oliver, & Thomas, 2012).

A primarily configurative review, such as the one describe in this paper, is often not entirely appropriate for research problems in disability and social policy. Systematic review to inform policy decision should be based on need, knowledge gaps, and reflects the suggestions of stakeholders that work closely with or are directly impacted by the implementation of an intervention or policy (Davis, 2003). While drawing primarily on such qualitative methods is useful to provide the thick contextual description requisite to comprehend the broad impact of the policy, there is still a substantial need and demand for systematic review of the ADA that can generate a more aggregated summary of review findings.

One of the core issues that suggest the need for systematic review in this case is the duplicative nature of much of the existing ADA research (NCD, 2007). There is little

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clarity in what factors and approaches are overly accounted for that makes this research duplicative. A further degree of aggregative analysis than typically imagined in configurative meta-ethnographic approaches thus may be useful in our future reviews to provide a summative account of what areas have been studied and what the results indicate. To enable such data to be adequately analyzed and synthesized, it is recommended to conduct additional aggregative explorations of the research (e.g., relationships and covariance between key variables explored in quality research) to complement the largely configurative methodological analysis.

While specific review question will dictate the process for aggregation, there are multiple aggregative techniques besides meta-analysis that can enhance qualitative analysis. Fitzgerald, Rumrill, and Merchant (2015) describe mixed-methods techniques such as vote counting (e.g., Voils et al., 2008) as standardized and rigorous techniques. Additionally more novel approaches such as cluster analysis (e.g., Stansfield, Thomas, & Kavanagh, 2013) have also been explored as viable strategies to map out large amounts of data. It is worth exploring how new aggregative techniques, such as clustering, may potentially enhance the analytical power of such reviews through automated or statistical processes. Given that systematic reviews are susceptible to human bias, where individuals are limited to creating constructs based on their own preexisting knowledge or schemas, it can be argued that there still is additional need to consider how synthesis processes may be enhanced for the purpose of identifying latent factors or underlying themes.

1. Epistemological concerns

Automating techniques or abridging standardized methods can raise several epistemological concerns, however, related to the rigor of conducting a systematic review. For example, methodological purists may argue that such process of analysis may add in additional reviewer bias or jeopardize the inherent strengths of assessing more homogenous bodies of research. The process of mixed-methods review often consists of turning qualitative data into quantitative data (and vice versa) through creating numerical codes that can be statistically analyzed or descriptively synthesizing quantitative data (Alise & Teddlie, 2010). Suri (2013) challenges the notion that mixed-syntheses that take similar approaches are inherently biased and suggests that transparency and critical self-awareness can enhance the credibility of a review project. She argues that openness regarding the theoretical influences of both the original research authors and the secondary research is important in the process of all research synthesis. Imagining differences between methodical preferences as concrete dividers in the review process is counter-productive to informing best practice. She considers that "no single method of synthesizing research could be comprehensive enough to synthesize research in ways that would be compatible with all epistemological positions" (Suri, 2013, p. 5). This commentary speaks to the challenge of finding appropriate methodological techniques to review heterogeneous studies across a variety of academic disciplines and philosophical worldviews.

One can interpret the argument with a degree of relativism to argue that there is no approach that can cohesively integrate multiple ontological positions at once and thus it should not be attempted. However, it also can be argued that multiple methods of synthesis can provide a more comprehensive synthesis to engage with varying and contrasting philosophical aims at once. Because there are not contiguous or clear boundaries between methodological approach and philosophical paradigm, synthesis can great benefit from drawing on ideas from multiple epistemological stances where "an interbreeding of positivist and participatory orientations can enhance the impact of the synthesis product" (Suri, 2013, p. 16). The framework provided for conducting this review of diverse methodological techniques was situated within the latter thinking, and considers a hybrid approach to systematic synthesis an effective methodology to analyze complex and multi-tiered impacts of social phenomena that have been studied using a broad range of perspectives and methods. The stated concerns about combining approaches and theories in mixed methods reviews warrant further consideration about techniques to address potential threats to validity.

2. <u>KT and stakeholder feedback to enhance validity and</u> confirmability

It is suggested that the KT platform, and the incorporation of outside stakeholder groups is one process that begins to combat criticisms of bias and transparency during the synthesis process, and also enhances the utility of findings or products for dissemination. The use of expert stakeholders to inform the research process is viewed as an essential part of reviews of broad ranges of research evidence on the impact of social policy. The KT process emphasizes the use of end user groups (individuals who may use or benefit from research) throughout the research process to enhance the utilization of findings in practice (Sudsawad, 2007). These experts engaged with the research team throughout the duration of the project. By involving end-user policy stakeholders in our systematic reviews of the ADA, we have tailored our research process to expedite time gaps in addressing stakeholders' need with research evidence. Lack of timely knowledge translation of research results is a key knowledge translation barrier to meet the information needs of government agencies, policy makers, and other user groups (Bowen & Graham, 2013).

The KT framework, which involves engaging users throughout the review process, is suggested as a suitable approach for review when presented with the problem of a diverse, fragmented, and multifaceted body of disability policy evidence. This approach aims to engage with potential audiences that can use such evidence in practice. The target audience of research in disability policy research often includes technical assistance providers, policymakers, and academics. Other stakeholder categories that may benefit or use such research are people with disabilities, disability advocates, practitioners, and governmental agencies as well as scholars outside of the academy. These other stakeholder groups often are unable to benefit from much of the disability research in its current form. To make such evidence accessible, this project was enhanced by its goal to increase the KT process. The descriptive focus of the review addresses key barriers to the knowledge translation process for non-academic professionals which includes lack of access to relevant literature, resources such as time or money to locate and source relevant research, and knowledge of criteria to ascertain whether research is worthwhile or valid (Pronovost, Berenholtz, & Needham, 2008).

F. Conclusions

Systematic reviews in the social sciences offer tremendous potential to maximize resources in policy research by building on and summating existing evidence. In efforts to bridge findings across different fields of research, the methodology is particularly useful to consolidate findings to describe the current state of knowledge in areas of research, provide summative assessments, and to organize findings for the purpose of creating new knowledge. In a further effort not to "recreate the wheel," this paper focused on how we can adapt well-established techniques to be more appropriate for a diverse and heterogeneous body of policy research in the social sciences.

The systematic synthesis of research from mixed methodical techniques is a potentially valuable technique to incorporate diverse forms of evidence into studies of social policy. Research on KT can help inform the development of reviews that use similar techniques. It was argued that conducting a systematic review from the framework of knowledge translation is a practical strategy to enhance the usability of findings. The KT approach also requires carefully crafting and responding to stakeholder feedback throughout the review process. This paper further described how stakeholder input can help with data collection, facilitate the organization and thematic coding of findings, and influence decisions about the analytical process. In conjunction with the recent scholarship in this journal on diverse approaches to systematic review, this article hopes to expand the technical blueprints available for research that incorporates a wider range of knowledge and evidence. Incorporating the KT framework into systematic review processes reflects stakeholder demand for evidence-based practice while also giving voice to those impacted by such research.

IV. DISABILITY RIGHTS IN THE COURT OF PUBLIC OPINION: A META-SYNTHESIS OF THE ADA AND ATTITUDINAL CHANGE.⁶

A. Introduction

Under the Americans with Disabilities Act (ADA) of 1990, disability is formally recognized as a source of discrimination similar to how "race, color, religion, sex, or national origin" is in the Civil Rights Act of 1964. The ADA established civil rights for people with disabilities in both the public and private sector over 25 years ago. In recognition of this anniversary, questions about the laws efficacy as a social policy are reemerging in scholarship and practice. Scholars of civil rights point towards the attitudinal and cultural embrace of the opportunities offered to the marginalized group as the penultimate indicator of progress towards meetings legislative intent (Collignon, 1997). Opinions about the ADA's progress in facilitating such cultural change have been mixed to say the least. The impact of civil rights law and policy on the cultural treatment and attitudes about people with disabilities in America remain a highly debated, contentious, and politicized topic- even within the disability communities that have long struggled for fair and equal treatment under the law.

Accounts about the ADA's social impact have been interpreted differently by the disability rights community and popular news outlets. Popular media opinions, news media, and op-eds on the law consistently frame the ADA as "attorneys' dreams answered" (Bovard, 2015, p.1), and similar critiques have persisted since the ADA's inception (Haller, 2009). Such accounts from the news and other media outlets reflect

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the *court of public opinion*, and demonstrate how popular beliefs can sway the efficacy and interpretation of law.

Outside of popular media, there is growing consensus that the increased legal protections offered by the ADA is an indicator of an undeniably improving civil rights situation for people with disabilities; or as Bob Burgdorf, drafter of the ADA, explains, that the ADA is having a "profound, albeit imperfect, impact in ameliorating discrimination against people with disabilities" (Burgdorf, 2015). At the national level, it is widely professed amongst key disability policy stakeholders that the ADA has "begun to transform the social fabric of our nation" (NCD, 2007), while the debate of exactly how remains fully intact. Regardless of the legislative impact, the extent that the ADA influences attitudinal and cultural change may be the key long-term indicators of the law's success as civil rights legislation. With such disparate interpretations of the ADA's legacy, the question remains what *do* we know about the ADA's long-term impact on social and cultural change?

B. Purpose

The purpose of this article is to review and assess the evidence about the ADA's impact on attitudinal change, 25 years after the law's passage. We present findings from a meta-synthesis of the ADA's influence on attitudes and disability. Such a review is useful to evaluate the state of scientific evidence of social and political phenomena, and to provide both a summative and configurative (synthesized) overview of disability policy research (Rumrill, Fitzgerald, & Merchant, 2010). Individual assessments, in particular single-use surveys, often lack weight in informing key stakeholder decisions and research agendas. A summative review of data across studies brings a heightened

attention to overlooked research approaches, conclusions, and potential areas of discordant knowledge about impact of the ADA for researchers and policy stakeholders.

C. Review of ADA Research

Policymakers and research experts often turn to research on the ADA's implementation to understand how and why problems and debates in implementation continue to exist. There is, however, a pronounced difficulty in using the existing evidence about the ADA's impact in this way. Part of the challenge lies in the difficulty of breaking down the impact of law through causal assessments due to the many confounding social factors that have impacted the law's potential reach (Silverstein, 1999). Additional factors including the lack of persistent and ongoing data collection, heterogeneity of existing research, and fragmentation of evidence across a multitude of resources all contribute to the general uncertainty of the ADA's influence (Parker Harris et al., 2014). These factors also reflect the ADA's status as an unfunded mandate with no central clearinghouse for data to track progress (Moss, Swanson, Ullman, & Burris, 2002). At the federal level, the National Council on Disability ([NCD], 2007) noted that the knowledge gaps about the ADA's impact create some of the most significant overall barriers to implementation. There is a great uncertainty when assessing the ADA's overall impact, and the existing research reflects, and perhaps even contributes, to this ambiguity.

The uncertainty carries over into the current state of knowledge on the ADA and attitudinal change. Attitudinal research in the field of disability primarily includes the replication of a few well known attitudinal scales, single use assessments of opinions, or questionnaires following experimentally testing responses to vignettes (Hernandez,

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Keys, & Balcazar, 2000). Validated scaled such as the Scale of Attitudes Toward Disabled Persons (Antonak, 1982) and the Attitudes Towards Disabled Persons scale originally developed by Yuker (1994) are two of the most common assessments of attitudes towards disability, and much of what we know about attitudes and disability is thus limited to how these or other similar scales interpret the constructs disability and attitude. This body of attitudinal research, which primarily comes from the field of psychology, does not provide a full assessment of the ADA's reach.

Within the broader body of research that has been conducted on the ADA and attitudes, a series of different research subtopics, methodological approaches, stakeholder groups, and attitudinal assessments are likely to emerge from this review. Additional evidence about attitudes towards disability can also be found in diverse areas of research such as media analysis (Haller, 2009), first-person narratives (Engel & Munger, 2001), and ethnographic research (Robert & Harlan, 2006). The inclusion of these other areas of social science research provides a more holistic understanding of the broad range of data that can be used to construct knowledge about the ADA, attitudes, and disability.

D. <u>Heterogeneity and Research Synthesis</u>

The assessment of heterogeneous research posits methodological challenges that prevent a typical summative synthesis of existing research. Typically, systematic reviews often are limited to assessment of "what works" in relation to specific medical or rehabilitation interventions (Jesson, Matheson, & Lacey, 2011; Littell, Corcoran, & Pillai, 2008). Research in the social science - particular in the field of disability- instead often includes a wider array of accepted methodological approaches; a more diverse range of perspectives and academic disciplines; and the interpretation or synthesis process often includes more contextual and political assessments that that do not easily fit into established frameworks or techniques for review (Parker Harris, Gould, & Fujiura, 2015; Witherspoon, 2003).

Through our previous research conducting a scoping review on the ADA, we have found that this assessment holds true (Parker Harris, Gould, & Fujiura, 2015). ADA research is extremely diverse, and covers topics ranging from areas such as social movements (e.g., Barnartt & Scotch, 2001) to industrial design (e.g., Sherman & Sherman, 2012). Stakeholder groups in this research include people with disabilities, family members, therapists, business owners and managers, and the research engages with multiple perspectives simultaneously. As this review will further show, this diversity in approach and content holds true for the ADA attitudinal research. The research includes perspectives of students, people with disabilities, educators, employers, and business owners. It also reflects on diverse topics such as perspectives about self-advocacy following the ADA (e.g., Price, Gerber, & Mulligan, 2003), assessments of quality of life (e.g., Kaufman-Scarborough & Baker, 2005), and responses to accommodation requests and disclosure (e.g., Frank & Bellini, 2005).

E. Methods

The heterogeneity of ADA attitudinal research necessitates a novel approach to systematic review. Qualitative review methods have emerged as a broad range of approaches to analyzing complex and diverse evidence. There is no standardized approach to qualitative review, although various rigorous qualitative techniques under the umbrella term of meta-synthesis have emerged with differing names but similar process (Thorne et al., 2004). Out of these techniques, meta-ethnography is likely the most widely accepted, standardized, and utilized process for qualitative synthesis (Grant & Booth, 2009). This review includes a three-step review process that abridges established meta-ethnographic techniques to more comprehensively review the breadth and depth of ADA research.

The review builds upon the findings from an initial scoping review that was conducted to assist in the categorization of the included research (Parker Harris et al., 2014). Once a scoping question has been answered, a more systematic review can be undertaken as a means of generating synthesized data and answering the primary research questions (Parker Harris, Gould, & Fujiura, 2015). The scoping review led to a more traditional synthesis undertaken during a rapid evidence review, which looked at the ADA employment research (see Gould et al., 2015 for further detail of the review process). The rapid evidence review provided a methodological framework for further systematic review across the full body of ADA research, and provided summative evidence to present to an expert panel of stakeholders to suggest a final path for full review. The expert panel was then consulted to create the research question for the third step of the project, which the rest of this article describes.

The three-step approach was seen as essential to create this overview of key research findings and topics and identify potential outcomes of interest because of the disparate state of ADA research. After reviewing the ADA's influences in employment during the rapid evidence process, the expert stakeholders suggested the need to expand this review to consider the results across all of the ADA's Titles and areas that the law impacts. The research question was created following consultation with expert

stakeholders and representatives of the ADA National Network: what evidence exists that the ADA has influenced attitudes and perceptions about disability?

1. <u>Theoretical framework</u>

To address this question, this review is informed by the notion that the efficacy of civil rights legislation and related policy is best understood within the extent that it extends the *equality of opportunity* to the protected class of people with disabilities. Equality of opportunity is a policy goal described in the ADA's preamble, and is a theoretical interpretation about how to best facilitate rights for US citizens. The promise of equality of opportunity is a critical component of key legislation such as the Civil Rights Act of 1964, and similarly was integral in the ADA's passage (NCD, 1986). As a policy principle, it can be conceptualized as the right to full and equal protection under the existing rules of law. Policy principles include both the framework and aspirational goals of social policy that often represent the overall intent of drafters and legislators. Policy principles may dictate a legislative trajectory, and moreover suggest the broader social change imagined as desirable and realizable following implementation.

In practice, the principle of equality of opportunity suggests a multifaceted response to disability discrimination through reasonable accommodation and the reorganization of institutional systems and structures. It is important because it reflects the ADA's legislative intent, and also suggests a radical social transformation to address the historical exclusion, or *un*equal opportunities, that people with disabilities face. Silverstein (1999) provides one of the most detailed accounts to date of the ADA's principle of equality of opportunity in practice. He suggests that the principle is

comprised of four separate, albeit linked, areas of social transformation:

individualization and interdisciplinary assessments; genuine, effective, and meaningful opportunity; genuine, effective, and meaningful treatment modifications of policies and procedure; and treatment in the most integrated setting appropriate (Silverstein, 1999, p. 1717). Evidence about the ADA's attitudinal influence is considered in relation to the ADA's progress towards achieving these goals in this paper's synthesis and discussion.

The concept of equality of opportunity and its application in practice informs this research by suggesting a number of areas to interrogate if the ADA's social goals are being met. Attitudes are examined in how they reflect the varying components of the change framework. For example, the goal of individualization and interdisciplinary assessments suggests that the ADA is applied on a case-by-case basis. Pertinent evidence regarding the ADA's influence thus must consider whether attitudes or decisions about accommodation are necessarily flexible to accommodate the participation of a broad and diverse protected class of people with disabilities (Scotch, 2000b). The principle further connotes that the promise of equality is more than receiving the same treatment, where it is at times necessary to adjust structures or processes to allow for alternative and more inclusive forms of participation. Achieving genuine, effective, and meaningful opportunities and treatment suggest that people with disabilities have the right to a number of accommodations, auxiliary aids and services, and program accessibility to facilitate their full and equal participation (Silverstein, 1999). Similarly, procedural changes are at time necessary to ensure that individuals are not adversely or disparately impacted by routine organizational policies or practices. For example, entities that holistically forbid animals have faced litigation by failing to

adjust policies or procedures to accommodate the legitimate use of service animals by a number of people with disabilities. Lastly, the application of equality of opportunity follows the trajectory of past civil rights legislation such as the Civil Rights act of 1964 (PI 88-352) and *Brown vs. Board of Education* (347 U.S. 483, 1954), and suggests that "the provision of unnecessarily separate or different services is discriminatory" (Silverstein, 1999, p. 1722). Evidence about people with disabilities' inclusion into appropriately integrated settings is a vital component of assessing the legacy of attitudinal change through the lens of equal opportunity. Full realization of the integration principle transcends token integration or participation, and requires disability to be considered as an aspect of diversity to be valued and accepted (e.g., Robert & Harlan, 2006). Included research records are reviewed and synthesized in relation to evidence of attitudinal shifts that reflect these four components of the ADA's goal.

2. Inclusion criteria

The research team searched within the full body of research assessing progress across the ADA's goals. Records included in this review were published after 1990; included the collection or collation of ADA research; and stated a research question or purpose, specifically about the ADA and attitudes. Research records were included in the initial scoping review, and new records after the initial review were screened up until June 26, 2015 (the 25th anniversary of the ADA's signing).

After the scoping and rapid evidence reviews were conducted, records were screened for their relevance to attitudinal research (a detailed overview of the full inclusion/exclusion and search process is available in Parker Harris et al., 2014). One hundred and eighteen records were initially identified as studying the ADA and attitudes. Next, a quality appraisal was conducted, and 75 of these records were excluded from the final review. Excluded records included: theoretical/policy analyses without a quantitative, qualitative, or mixed methods analytical techniques; unpublished dissertations; and records that did not meet a minimum level of reporting based on a quality assessment.

Forty-three records met the initial quality appraisal. During the synthesis stage of this review, an additional five records were excluded that made analytical claims outside of the study's capabilities (e.g., making claims about business entities while polling a student population) or were determined fatally flawed through further qualitative assessment. Figure 3 details a visual display (decision tree) of the inclusion process.

3. Quality assessment and reliability

Multiple steps were taken to maintain credibility in reviewing the research, including an abbreviated quality assessment of the evidence. Two areas that presents significant risk of researcher bias in qualitative reviews include the selection and categorization (grouping) of research materials (Petticrew & Roberts, 2008). The quality appraisal and the thematic coding stages reflect the selection and categorization processes for this review. Quality scores and themes were coded independently to address potential bias during these processes, and a reliability score was calculated for the appraisal process.

Quality was assessed using an abridged version of Dixon-Woods et al.'s (2006) tool for critical interpretive synthesis. Its suggested use is for a rapid appraisal of large amount of evidence to ensure that studies include adequate detail on the scope and purpose, research design, sample, data collection, analysis, and reporting.

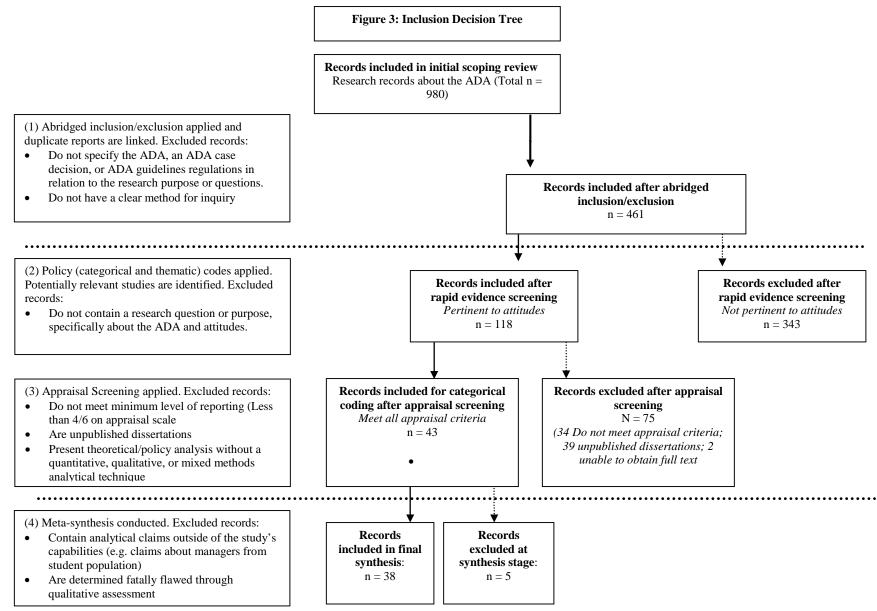


Figure 3. Decision tree for systematic review inclusion.

Only studies that adhered to a minimum standard of reporting (i.e., at least four of the six quality indicators) were included in the review as high levels of evidence. A reliability score for the appraisal was conducted based on the final assessment decision (include with adequate quality or exclude due to fatal flaws in the study). Initial agreement was reached on 115 out of 138 records that were tagged for potential inclusion (reliability score = 83%). Typically, 80% or higher is considered standard for adequate coding (Fujiura, Groll, & Jones, 2015). In the case of disagreements, differences between the two reviewers were reconciled by consensus until full agreement was reached on the quality of all items.

4. Data extraction and analytical process

Reliability was further accounted for during the extraction process. Given the breadth and depth of data collected in this review, an independent coding process was neither possible nor necessary for all the variables under consideration. The research team instead utilized a collaborative extraction and assessment process. The key findings were extracted from the records using the "text in context" process suggested by Sandelowski and Barros (2007), where findings reflect segments of data that are easy to comprehend independently of reviewer notes or extraction materials. Direct quotes and coded data were used to inform analysis and synthesis, where the research team summarized key findings and synthesized key data for dissemination and use.

Once the article data (including categorical themes) was entered into the database by the first reviewer, a second independent reviewer (this paper's second author) read the article and then validated the data entered by the first reviewer. If there were discrepancies or data omissions, then the second reviewer left comments as to these issues, but did not edit or make changes to the original record. After the second reviewer finished reviewing an article record, the first reviewer made the appropriate edits as suggested by the second reviewer. Differences between the two reviewers were reconciled by consensus, but only the first reviewer could make edits or changes to the record. This process allowed for much cleaner data entry, and is more efficient than reconciling two separate records as is often done in worksheet and spreadsheet data entry methods. Following the extraction of key article information, the research team convened to agree upon potential the final set of included codes.

a. **Descriptive coding (process data)**

A categorical coding scheme was used to organize the included research based on its purpose, research questions, and/or hypotheses. Additional data extracted included key information pertinent to understanding the study including information related to: demographics, study context, research questions and techniques, details about the attitudinal assessment used, stakeholder groups (whose attitudes were being analyzed), and information about specific impairment types being investigated. The researchers created an independent list of codes and then convened to create a collaborative list of potential codes. These codes were then reduced based on their presence in multiple research records (see findings related to purpose codes).

b. Thematic coding (outcomes) and synthesis of findings

Commonalities within the purpose codes informed the thematic coding and higher order synthesis. The team used a mixed coding procedure using both deductive and inductive coding techniques to thematically organize and analyze the findings across studies. The identification of higher order themes is a collaborative process, where members of the research team combine individual assessments of the synthesized data to generate a configurative analysis. Gough, Oliver, and Thomas' (2012) interpretation of open-thematic coding for systematic review informed this process. Members of the research team first individually appraised each full text article and identified key summative data that was then analyzed collaboratively. Using framework analysis, reviewers applied a plain text code to summarize key points for the purpose of consolidating similar findings across research studies. A table of the thematic findings and syntheses was created by the research team and informs this review's analysis and discussion (Appendix A).

Findings from multiple studies that shared traits discussed in the categorical coding section of this review were grouped together to make interpretative synthesis arguments, or analytical statements describing shared conclusions generated from the reviewed research. The descriptive synthesis made the creation of comparisons and shared conclusions across the heterogeneous body research possible. These conclusions are used to create synthesis arguments about what evidence exists to address the research question.

The analysis employed three analytic techniques used in meta-ethnography: "refutational synthesis" (used to reconcile contradictory explanations between studies); "reciprocal translations" (used to translate concepts of comparable studies); and "lines of argument synthesis" or "third order interpretation" (attempts to produce higher order interpretation) (Noblit & Hare, 1988). The analytical process is intended to confirm knowledge about the current state of evidence and to create new knowledge by exploring the relationship of study findings between and across a diverse group of studies. Given the heterogeneity and larger than typical body of research reviewed as compared to typical meta-ethnographies, the additional step for descriptive synthesis was first necessary to answer the research question at hand regarding the state of ADA attitudinal research.

F. Findings

1. <u>Descriptive synthesis (identification of second order</u> constructs)

Included records were published between 1991 and 2013. Only three studies were published after the ADA-Amendments Act of 2008 (ADAA) took effect, and only one study includes data that has been collected since its passage (i.e., Carpenter & Paetzold, 2013). Results should be interpreted to reflect this limitation. The applied codes are akin to 'second order constructs' or categories of raw data that can be used to identify shared synthesis arguments (Campbel et al., 2003)

a. Purpose codes

A categorical coding scheme was used to sort the included research based on each records stated purpose, research question, and/or hypothesis. Within these areas of the research, codes were applied to describe the different factors impacting attitudes that were studied within each record. Twenty-one different categories were included in the final synthesis. The categories referred to the different ways in which attitudes were explored. This can include attitudes about specific ADA issues (e.g., access, accommodation, advancement, advocacy), or how attitudes change in relation to various phenomena or processes (e.g., costs, exposure, or social contact with people with disabilities, or organizational demographics).

The most commonly applied codes include: knowledge (n = 22, occurring in 51.1% of the included research); skill, ability, and capability (n = 20, 46.5%); accommodation (n = 20, 46.5%); exposure and social contact (n = 15, 34.9%); the law (n = 14, 32.6%); hiring and pre-employment (n = 14, 32.6%); organizational culture (n = 12, 27.9%); fairness (n = 11, 25.6%); and organizational demographics (n = 10, 23.3%). The remaining themes reoccurred between one and eight times across the studies. Attitudes specifically about advancement, harassment, and retention - three major tenets of the ADA's nondiscrimination promise (Silverstein, 1999) - were each only coded once. Table II includes a frequency table of the 21 different codes and the frequency in which they appear in the studies.

b. Study settings and context

The setting, or the context in which the research takes place was also noted. This code was necessary to determine how findings may be applied to understand the research question across the different areas that the ADA addresses. Five different settings were identified within this body of research. Overwhelming, the ADA attitudinal research was considered in the context of employment related to assessing Title I of the ADA (36 records). Nine records pertained to social participation (covering the potential impact of Title III of the ADA). Of those nine records, six also considered factors related to employment. The other settings identified were education (six records), service provision and professionals (four records), and technical assistance (one record).

Theme: Attitudes about or studied in relation to	Frequency (included)	
	Ν	(%)
Knowledge	22	51.2%
Accommodation	20	46.5%
Skills, abilities, capabilities	20	46.5%
Exposure/Contact	15	34.9%
Hiring/ Pre-employment	14	32.6%
The law	14	32.6%
Organizational Culture	12	27.9%
Fairness	11	25.6%
Org demographics (size, industry, etc.)	10	23.3%
Management	8	18.6%
Disclosure	7	16.3%
Discrimination	6	14.0%
Compliance	5	11.6%
Costs	5	11.6%
Role of Service Providers	4	9.3%
Quality of life	3	7.0%
Access/Accessibility	2	4.7%
Advocacy	2	4.7%
Advancement	1	2.3%
Harassment	1	2.3%
Retention	1	2.3%
Total	43	(100.0)

TABLE IIFREQUENCY OF CATEGORICAL CODES

c. Methods and technique

Included records were published studies reporting the gathering of primary or secondary data or the collating and synthesis of existing information through quantitative, qualitative, or mixed-method (mixed qualitative and quantitative) approaches. Thirty records report quantitative data; seven records qualitative data, and six records use a mix of techniques. Describing the methods and techniques provides a glimpse into the wide variety of how different researchers are trying to understand the construct of attitudes. Twenty five records included a quantitative survey or questionnaire, including five out of the six mixed-methods records. The analytical approach employed in the 10 remaining quantitative studies that did not include a quantitative survey or questionnaire primarily included responding to experiments or vignettes (eight records) and two secondary data analyses of existing data sets (Chan, McMahon, Cheing, Rosenthal, & Bezyak, 2005; Kaufman-Scarborough & Menzel Baker, 2005). Only six of the 36 studies that use quantitative techniques (which includes 30 strictly quantitative and six mixed methods records) used comparative groups to contrast findings.

Two of the mixed-methods records included surveys with both quantitative and qualitative open-ended questions (Hartnett, Thurman, & Cordingly, 2010; Hayes, Wendt, & Craighead, 1993). The other three included quantitative surveys followed by surveys or focus groups (Chan et al., 2010; Kregel & Tomiyasu, 1994; Moore, Moore, & Moore, 2007). The remaining mixed-methods study included open-ended responses to an experimental scenario where students and business representatives were asked to respond to a hypothetical job candidate's application (Hazer & Bedell, 2000).

The analytical approached used in the qualitative analyses were in-depth interview (seven records), focus groups (three records), and open-ended survey responses (all six mixed methods studies). Five purely qualitative records included interviews, one of which included both a focus group and interviews (Sherman & Sherman, 2012). One qualitative secondary data analysis was included which used an interpretive policy analysis to identify different factors impacting the quality of life of people with disabilities following the ADA (Harrison, 2002).

d. Research stakeholder groups

ADA attitudinal research spans a variety of stakeholders as participants in the research. Reflective of the focus of the selected research on Title I and employment, 20 of the 43 records reported on the attitudes of employers, which in these studies include business owners, chamber of commerce members, managers, and human resource professionals. Fourteen records pertained to student perceptions. In these records, student attitudes were often used as a proxy to assess the impact of the ADA in business- a finding that has implications on the analysis of data that is further addressed in the limitations section. Eleven records included the perspectives of people with disabilities. Four records pertained to the views of service providers including occupational therapists and rehab professionals. Only one study looked at educators' perspectives.

It is of note that none of these categories are mutually exclusive. It is likely that people with disabilities were represented as participants in all of the other categories as well. For example, Chism and Satcher (1997), Carpenter and Paetzold (2013), and Walters and Baker (1996) specified that the research participants included people with disabilities. None of these studies, however, disaggregated the data to ascertain differences or specific attitudes by people with disabilities.

e. **Disability subgroups**

Thirty different disability classifications were identified as focal points of analysis across the research. There is extreme variation in the terms used, the definitions of disability and impairment used, and at time a lack of application of the ADA definition of disability that at times prevents the generation of shared

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findings related to a specific disability group. The largest similar category includes the various terms similar to "mental illness." Three records use the term, three used "psychiatric disability," and one referred specifically to schizophrenia. The term "mental disabilities" was used twice to include both people with mental illness and/or intellectual or developmental disabilities.

Twenty-two records did not mention specific disability types. These records presented attitudes across disability to express attitudes across the legal context; did not specify the disability of individuals expressing their perceptions, or included various disability groupings but did not disaggregate findings for specific impairment types.

f. Attitudinal assessments

The construct of attitudes is assessed and measured in a variety of different ways in the included research. Attitudes are most commonly assessed through single-use assessments or subsections of surveys created specifically for the purpose of the study (14 records). Eleven records used previously validated attitudinal scales. Ten records included the self-report of attitudes by people with disabilities. Nine records used similar open-ended questioning to ask perspectives about people with disabilities (e.g., from employers or service providers). Nine records assessed attitudes by looking at the perceived reasonableness of accommodations or the fairness of decisions impacting people with disabilities. The remaining six studies investigated the construct of attitudes used attribution theory, which pertains to assessing if an individual is seen to have been at fault for causing their own disability, and if this factor impacts attitudes towards the individual (Chan, McMahon, Cheing, Rosenthal, & Bezyak, 2005). These methods of assessing attitudes about disability

within the context of the ADA are consistent with the more general approaches and techniques used to understand the construct of attitude toward disability (see Hernandez, Keys, & Balcazar, 2000).

2. Synthesized findings (second order interpretation)

Across the 21 descriptive themes, a number of reputational and reciprocal translations emerged from the studies. The breadth and depth of these categories, and an abundance of data prevents the reporting of the full range of findings with any substantive analytical depth. Where a typical meta-synthesis includes between five and 15 studies (e.g., Gewurtz and Kirsh, 2009), the inclusion of 43 records is especially high and prevents a full summative analysis here. Therefore, four of the most prevalent coded categories are described that were considered especially pertinent to answering the research question and describing the current state of ADA evidence in relation to the concept of equality of opportunity across the different titles, settings, and contexts.

a. <u>Accommodation</u>

Perceptions about accommodations is a cross cutting issue that relates to how people perceive the overall content of the law, and more generally about the role of disability stereotypes. Accommodations were discussed in the purpose of 20 different records. In the majority of this research the study of accommodation was related to attitudinal factors that predict or prevent the provision of accommodation. The factors included the role of impairment, perceived fairness of accommodation, potential costs associated with the discrimination, and various stereotypes about disability.

In discussing the connection between the role of impairment and accommodations decisions, there is evidence to suggest that these decisions do not

always follow the spirit or letter of the law. "Disability origin" or how one's disability was obtained plays a role in accommodation decisions. These studies are primarily framed from "attribution theory" which suggests that the degree that an individual is seen at fault for their own impairment predicts attitudes of others (Florey & Harrison, 2000; Hazer & Bedell 2000; Mitchell & Kovera, 2006; Styers & Shultz, 2009). This theory is supported by the notion that accommodation decisions are often framed as moral assessments of disability causation. For example, there are more frequent discrimination allegations involving alcohol abuse than would be typically predicted, and substance abuse is less often seen as meriting accommodations as compared to other disabilities that are not typically attributed to personal cause (Chan et al., 2005; Mitchell & Kovera, 2006; Popovich, Scherbaum, Sherbaum, & Polinko, 2003).

Vignette-based experiments provide evidence that individuals who are seen as culpable for their conditions are also less likely considering an individual with a disability meriting ADA coverage (Carpenter, N.C. & Paetzold, 2013). Conditions including chronic headaches or migraines (Carpenter & Paetzold, 2013) back pain (Florey & Harrison, 2000) diabetes, and injuries caused by driving under the influence (Mitchell & Kovera, 2006) are studied as impairments that are individually caused. The overarching concern with the "origin" of one's impairment is an extralegal factor that hinders the ADA's potential influence on achieving equal rights.

Chan, McMahon, Cheing, Rosenthal, and Bezyak (2005) provide further evidence for the claim that individually attributed impairments are less likely to be perceived as meriting equal protection by investigating the full integrated management system of EEOC Title I case decisions. The researchers compare findings of ADA resolutions involving mental illnesses or substance abuse, and less attributable situations including spinal chord injuries and sensory impairments. They find that allegations involving attributable impairments occur at a significantly greater rate as compared to cases involving those with less stigmatized impairment types. However, the authors were unable to establish a link between highly stigmatized or "attributable" disabilities and *actual* discrimination or, cases being resolved with merit for the plaintiff. This finding suggests that there is little evidence about the likelihood or frequency of acting upon such discriminatory attitudes overall. Evidence is not sufficient to suggest a linkage between social stereotypes or prejudicial attitudes and behaviors considered discriminatory under Title I of the ADA based on attribution theory (Chan et al., 2005, p. 86).

In spite of the heightened frequency of allegations and other forms of evidence that support the notion that extralegal factors often influence accommodation decisions, empirical findings do not support that these situations are necessarily evidence of legal wrongs. This evidence contributes to the considerable discordance in research findings where there is evidence about prejudicial attitudes about disabilities, but a lack of evidence that such attitudes necessarily constitute discrimination under the ADA.

There are further mixed findings concerning the ADA's efficacy in combatting such stereotypes. Negative attitudes about accommodations are also linked to associated costs (Baldridge & Veiga, 2006; Davison, O'Leary, Schlosberg, & Bing, 2009; Florey & Harrison, 2000; Roessler & Sumner, 1997). However, attitudes related to cost are not necessarily strongly or universally held and are often influenced by "situational factors" such as information explaining the ADA in a negative light (Hernandez, Balcazar, & Keys, 2004; Kaye, Jans, & Jones, 2011; Moore, Moore, & Moore, 2007).

b. Organizational culture

Organizational culture refers to the ways in which the ADA shapes institutional responses to disability. One of the key issues impacting organizational culture is the concept of fairness. Fairness is linked to the study of accommodations as well. Anticipated responses to requests (whether they will be seen as fair a not) play a role in one's likeliness to request them (Baldridge & Veiga, 2006; Davison, O'Leary, Schlosberg, & Bing, 2009; Hartnett, Thurman, & Cordingly, 2010). Concerns with fairness are often internalized as anticipated negative responses is reported to impact disclosure and decisions to exercise one's ADA rights (Baldridge & Veiga, 2006; Davison, O'Leary, Schlosberg, & Bing, 2009). Perceptions about fairness also play a role in the willingness of individuals to provide accommodations (Carpenter. & Paetzold, 2013; Florey & Harrison, 2000; Murrmann, 1992; Paetzold, Garcia, Colella, Ren, Triana, & Ziebro, 2008). The issue of fairness is closely linked with the degree that the ADA is seen as special treatment (Robert & Harlan, 2006; Roessler & Summer, 1997; Styers & Shultz, 2009). Special treatment is primarily framed as a barrier to seeing disability as a barrier to diversity (Chan, Strauser, Maher, Lee, Jones, & Johnson, 2010; Roessler & Summer, 1997; Styers & Shultz, 2009). In first-hand accounts from people with disabilities, the perception of special treatment also is indicative of blatant discrimination and hostile work environments (Engel & Munger, 1996; Frank & Bellini, 2005; Harlan & Robert, 1998; Robert & Harlan, 2006). Robert and Harlan (2006) describe the potential detriment of the perception of special treatment by interviewing with people with disabilities in one large government organization:

[p]ejorative and prejudicial attitudes toward noncompetitive job incumbents were reportedly fortified by feelings of hatred and resentment, articulated by coworkers who believed workers with disabilities got 'special treatment,' a 'free ride,' or an 'easier job.' (p. 610)

Perceptions about the ADA's fairness play a role in organizational culture where hiring or accommodation of people with disabilities can be misconstrued as special treatment.

Addressing the issue of fairness is seen as an issue related to organizational leadership. "Organic" supports (e.g., job restructuring and re-delegating tasks) are seen as a part of the process to enhance acceptance in organizational settings (Baldridge & Veiga, 2006; Frank & Bellini, 2005; Scheid, 2005). Baldridge and Veiga (2006) explain the potential strain on the need for repeated concepts and "suggest[s] that managers within organizations need to improve the social environment more organically given the potential strain of recurring imposition [of repeated accommodation requests] on relationships with a supervisor and coworkers" (p. 175). Outside supports such as job coaches, rather than company-ran programs or policies are only seen as a partial solution to addressing the issue of fairness (Scheid, 2005). These outside resources are seldom seen as sufficient without significant organizational buy-in. Attitudinal change to support the ADA and use of outside resources comes from the top down relying on leadership from senior management or human resource administrators (Chan et al., 2010; Gallup Poll, 1992; Thakker & Solomon, 1999). These entities work together to initiate the broader institutional culture as a whole through companywide disability policies (Price & Gerber, 2001; Roessler & Sumner, 1997). Adherence to the ADA at the organizational level sometimes trickles down to management strategies and individual attitudes.

Attitudinal shifts are also discussed in relation to creating atmospheres that welcome the use of the ADA in the workplace. Regardless of leadership perspectives, open communication from managers and direct supervisors plays a key role in creating environments receptive to the ADA and the granting of accommodations (Carpenter & Paetzold, 2013; Frank & Bellini, 2005) and the "free exchange of information" that will not penalize employees for exercising their rights (Baldridge & Veiga, 2006, p. 177). Greater self-advocacy can play a role in facilitating organizational policy and culture shifts to support processes through open dialogues about sharing or shifting workplace duties (Price, Gerber, & Mulligan, 2003; Redick, McClain. & Brown, 2000), but this is an under-developed area within this body of research. There is a much greater level of detail on the negative impacts of exercise their ADA rights. Many people with disabilities are still reluctant to exercise their ADA rights or do not recognize that they have a disability as defined by the ADA (Engel & Munger, 2001; Frank & Bellini, 2005; Robert & Harlan, 2006).

c. Knowledge

The issue of knowledge related to individuals understanding of the law, rights principles, and disability and impairment issues. It is similarly a cross cutting issue explored in most of the attitudinal research, presented as part of the purpose in 22 of the included records. It is also raised in the majority of these studies as a way to explain key findings. The extent of individuals' exposure to disability and ADA legal knowledge are linked together and often explored simultaneously (e.g., Gregory,

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1997; Griffith & Cooper, 2002; Kregel & Tomiyasu, 1994; Martin & Ligon, 2000). The records that explore these two constructs show the interrelated benefits of personal and professional relationships with people with disabilities for effectuating attitudinal change. For example, Chism and Satcher (1997) found that students who had contact with people with disabilities and ADA training in school had significantly more positive perceptions of the workforce capabilities of individuals with disabilities when compared to those with no or slight to moderate preparation (low or no ADA training). This finding is supported through records that explore *contact theory* – or the belief that increased interaction leads to a greater of acceptance of a marginalized group – which is used to explain that positive attitudes towards people with disabilities and towards the ADA itself may be predicted by exposure to people with disabilities (Popovich, Scherbaum, & Polinko, 2003).

The benefits of exposure are shown in both social and professional settings, although these two categories are often not distinguished from each other (Hernandez, Balcazar, & Keys, 2004). When exposure and attitudes are studied broadly and thought of as "favorability" or "any previous contact" with people with disabilities, exposure is shown to have a positive influence on disability attitudes as indicated by viewing friends or colleagues more favorably (Kregel & Tomiyasu, 1994) or the enhancing likelihood of hiring people with disabilities (Chism & Satcher, 1997; Hayes, Wendt, & Craighead, 1993).

When the construct of attitudes is further interrogated beyond general favor towards people with disabilities, the results linking knowledge, attitudes, and exposure, become less straightforward. There is significant difficulty in ascertaining if increased social contact alone contributes to advancing the acceptance of ADA rights, including within individuals studies (Gregory, 1997; Murmman, 1992; Popovich, Scherbaum, Scherbaum, & Polinko, 2003). More frequently, exposure or more favorable attitudes about disability do not seem to connote further embrace of the ADA or suggest that such knowledge leads to improvements in practice. People who report high "awareness" of the ADA perceive more positive attitudes about disability (Kaufman-Scarborough & Baker, 2005) but there is little evidence to link components of disability knowledge such as "awareness" with compliance or the embrace of disability rights (Moore, Moore, & Moore, 2007; Murmman, 1992). Similarly, early ADA researchers, including, Satcher and Hendren (1992), find little or no support to claim that many of the factors assumed to influence acceptance of people with disabilities (including previous contact) "will also influence acceptance of the ADA" (p. 17). Replications, however, continue to result in mixed findings suggesting that exposure may have significant impact on advancing attitudes at times, but it cannot combat overtly stigmatic views about specific impairments (Murmann, 1992; Popovich, Scherbaum, Scherbaum, & Polinko, 2003).

Regardless of how attitudes are assessed, there are key aspects of how knowledge about the ADA is translated that is thought to impact an overall positive embrace of disability. The issue of "natural" contact, or exposure through personal lives and daily routines, is often thought of as an important issue for advancing overall favorable attitudes towards disability (Engel, & Munger, 1996; Hernandez, Balcazar, &, Keys, 2004; Price, Gerber, & Mulligan, 2003; Scheid, 2005).

The embrace of ADA rights is discussed in connection with initiatives that see "disability as diversity" and present information about the ways in which the ADA formally or informally suggests cultural change and acceptance (Chan et al., 2010; Engel & Munger, 1996). Material that goes beyond legislative description or a compliance-based framework (e.g., information on avoiding litigation) may include description and history of disability civil rights in addition to legal information (Hartnett, Thurman, & Cordingly, 2010; Kaye, Jans, & Jones, 2011).

d. Participation, skills, and capability

Attitudinal research on people with disabilities consistently purports the prevalence of positive attitudes and acceptance of people with disabilities in the workplace (Hernandez, Keys, & Balcazar, 2000). A cursory glance at the attitudinal research specific to the ADA reveals a similarly "rosy picture" (Kaye, Jans, & Jones, 2011) of attitudinal acceptance of the ADA's goals of full participation and inclusion. Service providers, individuals representing business of varying size and industry, educators, and administrators report valuing "equal access" for people with disabilities (Chan et al., 2010; Redick, McClain, & Brown, 2000; Scheid, 2005).

Refutational evidence about perspectives on inclusion reveals that attitudes about disability in the context of the ADA are also entwined in assessments regarding the capabilities of individuals with disabilities. Concerns about individual capabilities are often related to safety, productivity, and to a lesser extent, reliability of people with disabilities in various situations (Chan, et al., 2010; Chism & Satcher, 1997). There is evidence that stigmatic perceptions and extralegal assessments such as beliefs about the "cause" or "blame" of impairment plays a significant role in accommodation decisions, and also in assessments about the skills and capabilities of individuals in disabilities" (Florey & Harrison, 2000; Hazer & Bedell, 2000). These findings greatly contrast with the previously summarized survey research that uses attitudinal scales or open-ended question to ask directly about potential concerns of about the ADA, which reveals little evidence to suggest that such discriminatory attitudes exist.

The infrequent reporting of discriminatory practice or attitudes relates to the issue of perception bias, and is a critical factor that limits the weight of claims generated from the existing evidence about positive attitudes about the skills and capabilities of individuals of people with disabilities. Attitudinal research on the ADA seldom captures overtly discriminatory practices or what can be classified as a purely "negative" perspective of disability (Hazer & Bedell, 2000; Kaye, Jans, & Jones, 2011; Roessler & Sumner, 1997; Scheid, 2005). This is explained as an issue of social desirability where entities are unlikely to report noncompliance and discrimination (Hazer & Bedell, 2000; Scheid, 2005). Entities are unlikely to reveal their noncompliance, even in anonymous research meant to improve understanding of the law. This understanding reflects the limited predictive capability of common attitudinal scales in the context of the ADA, and has significant impact as we generate suggestions for future research on the ADA and attitudes.

G. Discussion (Third Order Interpretation)

Discussion thus far, or the previous summary of second order constructs, primarily pertains to how the ADA has shaped attitudes and perceptions about disability. Collectively, these constructs reveal that people with disabilities and other stakeholders often rely on valuations about fairness, ability, and preconceived notions or prejudices to interpret and apply the law. Additional synthesis, or third order interpretation, analyzes how such attitudes about disability can be understood within the framework of the ADA's promise of equal opportunity. Three main findings emerged from synthesizing the findings across the categories. These findings summarize the state of ADA attitudinal research into key issues of diversity, discordance, and individualization. Explanation of these findings is used to begin to address the research question, where evidence exists about the ADA's influence in discourse, research, and practice.

1. Disability as diversity (discourse)

People with disabilities face significant barriers related to misunderstandings about their ability and at times encounter stigmatic perceptions related to specific impairments. Other key stakeholders impacted by the law display preoccupations with perceptions of fairness, which misconstrues the concept of equality. This misunderstanding and preoccupation creates barriers to integration as protected rights such that accommodations may be seen as special treatment. To obtain both formal rights protections and informal benefits of the ADA's spirit goals people with disabilities must balance the matter of rights being seen as special treatment, while also pursuing equal opportunities by requesting full access and/or reasonable accommodations. Together this speaks to the value of continued discourse and practice placing disability within the framework of diversity - or a rhetorical approach that suggests its inclusion within initiatives that address inequality based on the notions that marginalized group share institutionalized disadvantages and discriminatory attitudes that prevent them from achieving full and equal participation in society (see Mackelprang & Salsgiver, 1999 for further explanation of the diversity framework in practice).

The integration of the ADA's principals are seldom reflected in accounts and attitudes about normative organizational practices created to enhance full and equal participation. Simply put, "disability is not high on the diversity agenda" (Chan et al., 2010, p. 416). While there has been considerable academic attention to moving beyond the framework of diversity and equity to advancing the cultural embrace of disability (e.g., Scotch and Schriner, 1997), practice does not align with discourse. There is value placed in inclusion efforts where diversity grown organically, such as through enhanced social contact with people with disabilities, without the need for legal intervention.

The evidence presented related to contact theory and disability suggests the greater cultural acceptance of equality for people with disabilities, although not necessarily for the wider cultural embrace of the ADA. This is significant when considering the broader body of evidence on *contact theory*, where the social acceptance of equality across race, culture, or social class is influenced by enhanced contact and exposure (Pettigrew, 1998). Contact theory is an evidence-based strategy for enhancing social acceptance of marginalized groups; it merits further exploration why exposure alone is not necessarily a conduit to ADA adherence. Given that disability is often excluded from various diversity efforts at all levels of society, it seems that disability rights have not received the same level of multifaceted exposure that other facets pf diversity or equality issues have attracted. With this knowledge, it is suggested to further saturate both disability and the ADA's principles into all facets of diversity initiatives where we may see enhanced social exposure and the natural facilitation of informal supports or contact which may include: media coverage, hiring, student funding, and cultural centers. Engel and Munger (1996) note "[e]fforts to improve

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implementation of the ADA should not be confined to facilitating the formal assertion of rights" (p. 22).

2. Discordance (research)

The collective evidence contrasts findings of overall acceptance of equality principles against accounts of extralegal valuations of capability or impairment. This refuting synthesis, together with the shared limitations of included research related to perception bias, describes an example of discordance in the ADA attitudinal research. Given the widespread acknowledgement of such bias across research, the included research provides only a baseline assessment about the prevalence of discriminatory beliefs that prevent full implementation. Kaye, Jans, and Jones (2011) explain that "employers with negative attitudes are not part of the survey samples, which might come about because such employers either decline to participate or, in surveys whose sample is selected from businesses expressing interest in hiring or accommodating people with disabilities" (p. 527). Given that minimal data has been collected on attitudinal change since the 2008 ADA Amendments went into effect, there is still considerable need to understand the context of continuing discriminatory attitudes that impact policy and practice.

This finding partially supports previous summative analyses of the current state of ADA research provided by the NCD (2007) and Percy's (2001) claim that "we currently lack systematic means to assess the overall effectiveness of ADA" (Percy, 2001, p. 639). Recognizing that such discordance continues even after considerable attention to best practices and "what works" in enhancing attitudes that support equal opportunities for people with disabilities further illuminates the limitation of existing strategies for identifying attitudinal barriers that prevent the full achievement of the ADA's goals. Analysis of how the ADA evidence has been generated demonstrates that it is mostly through vignette based experiments and attitudinal single-use surveys, which only presents a partial representation of the ADA's broader impact. This finding supports the need for more widespread use of analytical techniques and attitudinal assessment strategies that minimize perception bias.

3. Individualized response (practice)

The discordance is also partially explained by the findings that that no one strategy for attitudinal change is shown as a 'cure-all' framework to further the ADA's spirit goal. Instead, attitudinal responses are often *individualized* based on different social contexts. According to Silverstein (1999) a key component of realizing the promise of equality of opportunity in practice involves "individualization and Interdisciplinary Assessments." This goal refers to the idea that policies and programs in response to the ADA should be implemented and spanning "across disability types" and also that supports, such as trainings or accommodations, are personalized on a "caseby-case basis" (Silverstein, 1999, p. 1719).

The individualized approach is a crucial part of applying the ADA's legal framework in practice where support needs or accommodations vary greatly between individuals, even if they experience similar disability. To effectuate social or attitudinal change, however, a more collective approach may be more appropriate. Contact theory is the most evidence-based strategy presented within this data to achieve this goal, although exposure alone without knowledge ADA rights principles is not thought of as complete strategies for effectuating social change and achieving the promise of equal opportunity. Similarly, knowledge about disability or the law does not necessarily lead to improved attitudinal outcomes when it is presented in the framework of compliance. The discordance amongst findings can even be used to suggest that any one of these approaches on their own may even have an adverse impact, as acceptance of disability has not necessarily indicated an embrace of the ADA. A more multifaceted approach from stakeholders across all levels using a range of techniques has occurred to facilitate attitudinal change with the ADA.

Evidence has primarily focused on individual tools or pathways. To better understand attitudinal change and implementation of the ADA's collective spirit goal, there is a need to move beyond our understanding of individualized responses towards a broader understanding of how multifaceted multi-stakeholder initiatives contribute to improved attitude change. An example of research following this approach may be that which includes analysis of the collective actions of disabled people, social movements, and advocacy as it played a crucial role in both the ADA's passage (e.g., Barnartt & Scotch, 2001). In practice, this suggestion may be exemplified by substantive organizational culture change over periodic or one-off diversity trainings. By way of illustration, it has been suggested that the success of collective "ADA25" celebrations will be less felt in this anniversary year, and more in how entities commit to the continued integration of disability into all aspects of organizational culture (ADA Legacy, 2015).

H. Limitations

It is a noted limitation of this study (and of systematic review methodology in general) that this synthesis and the summative capabilities of this review are only as strong as that which was presented within the existing research (Gough, Oliver, & Thomas, 2012). Through an initial scoping review, we found over 900 sources of ADA research which represents an extremely heterogeneous body of grey literature, technical reports, unpublished papers and dissertations, and academic research records (Parker Harris et al., 2014). The included research only is that which had a primary purpose to assess the ADA and attitudes. The publication bias indicative of systematic review is an extremely cogent issue in this review given the third order finding that the generally positive picture of disability attitudes reported in some findings do not mesh with the overall state of knowledge about attitudes towards ADA rights.

The depth and breadth of included research presented two specific challenges for presenting findings from the research. First, the research question required the identification of findings across the different areas or titles of the ADA. Thirty-six of the included studies, however, were primarily related to employment and Title I. Synthesized findings presented in this review are those that crosscut the different titles of the ADA, as ascertained by interrogating the data closely to ensure that it was not specific to the ADA's employment provisions. Employment specific findings are discussed in greater detail during the rapid review conducted by the same research team (Gould et al., 2015). Second, the inclusion of an abbreviated quality appraisal was seen as a necessary step to reduce the range of included findings. While there is now a large number of critical appraisal tools for qualitative syntheses, there are no widely accepted criteria as to "the best" method for study appraisal, although there is ongoing work in developing this area (Petticrew & Roberts, 2008). The abbreviated appraisal tool provided some success in identifying records that met a minimum level of reporting and quality to generate findings from. Five additional records excluded from the second and third order interpretation. These studies met the abbreviated quality appraisal, but closer synthesis revealed that claims generated from the articles specific to the ADA and attitudes were beyond the scope of the claims they could make from the information presented.

I. <u>Conclusions</u>

This meta-synthesis provides summative evidence about the state of ADA attitudinal research. It is organized to suggest that attitudes about disability in the context of the ADA represents a complex multifaceted construct that is shaped by beliefs, organizational processes and culture, social institutions, and physical or verbal responses to disability and assertions of legal rights. In exploring the research question, the existing research about the ADA's influence on attitudes provides a partial answer. Evidence about the overall acceptance of disability is contrasted with accounts of extralegal considerations of disability causation, and resistance to civil rights principles.

Three key synthesis arguments were generated that explains how the ADA has influenced attitudes about disability related to: diversity, discordance, and individualization. These arguments were analyzed within the framework of equality of opportunity to suggest that the court of public opinion is swayed by a multitude of factors that shape responses to both the law and people with disabilities. Findings from this review support the notion that multifaceted and multi-stakeholder approaches that see disability with the framework of diversity are part of the ongoing attitudinal change process to further support the ADA's spirit goal. Diversity is itself a highly theorized and contentious concept. The use and potential overuse of the term in research and popular rhetoric is well documented, illustrated by a recent publication in the New York Times that posed the question "*Has Diversity Lost its meaning*?" (Holmes, 2015). Even within the field of disability, which is often overlooked in studies of marginalization and inclusion, there have been suggestions to move beyond the framework in political theory (e.g., Scotch & Schriner, 1997). This review, however, reveals substantial sluggishness in applying such theory to practice in relation to the ADA. Disability still remains at the periphery of being seen as an issue of diversity, especially in relation to being considered an issue of marginalization meriting civil rights protections. There is still substantial need for both research and practice to advance the ADA's spirit goals within the court of public opinion.

V. CONCLUSIONS

The primary purpose of this dissertation is to track the ADA's progress in facilitating social change. It explores the existing research in an attempt to better understand how disability rights have been embraced since the law's initial implementation. Significant changes to the nation's disability policy system over the last three decades that frame disability as an issue of civil rights issue largely reflect the tremendous social impact of the ADA. Assessing specific indicators of the law's influence does not lead to such a straightforward assessment. Social science research that traces the ADA's progress towards its social goals continues to yield discordant findings. In synthesizing this body of research, this dissertation supports the notion that the passage of the ADA has not yet prompted the social change that would be reasonable to expect following the creation of the law. Collectively, the three papers of this dissertation also reveal substantial limitations in many of the existing sources of evidence, which suggests that we also have not fully captured the changes that are occurring.

In spite of the noted limitations in much of the previous research, there are multiple findings of note regarding the ADA's influence on social change that can be drawn from this systematic review. Misperceptions about the law and disability are frequently described in the research, which points to potential shortfalls of the civil rights framework in practice. For example, there are continuing accounts of extralegal assessments of people with disabilities' capabilities. These assessments often play into decisions about the merit of civil rights protections, in addition to misguided beliefs of who might be covered under the law. The evidence is constant, spanning 25 years of

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research; and robust, in that it has been derived from a range of stakeholder groups, methodological approaches, study settings, and attitudinal assessments. This finding is particularly troubling where the main strength that we can expect from policy such as the ADA, as with antidiscrimination policy in general, is to provide a legislative framework to prevent overtly discriminatory practice. There is a clear need to explore and develop interventions beyond explanations of legal compliance to achieve the social change suggested by the ADA's spirit goals.

A. Significance and Discussion

Collectively, the three papers of this dissertation provide new insight to inform future ADA research and also guide future systematic reviews in disability and social policy. This dissertation contributes to the fields of disability and public policy by considering the process and outcomes of the systematic review of a heterogeneous body of ADA research evidence. First, this dissertation includes the creation and application of a novel analytical process for systematic review. Analysis generated from this review can guide significant methodological practice in the future synthesis of research on the impact of social policy. As with the research on the ADA, literature on the impact of social policy often remains disjointed and under-utilized until it is reviewed and analyzed as a more cohesive body of evidence.

In addition to the methodological process discussed in the three papers, this dissertation provides evidence about the ADA's influence on social change to illuminate its strengths, weaknesses, and information gaps. Knowing that the research only paints a partial picture of the long reaching impact of the ADA in areas such as attitudes and cultural practices, this dissertation still reveals and confirms substantial findings to

inform discourse and practice. In *Disability Rights in the Court of Public Opinion*, the existing ADA attitudinal research was analyzed through the framework of equal opportunity to reveal how concerns of fairness and misinformed notions of the ADA as "special" treatment have disrupted the cultural embrace of disability rights in the last 25 years.

These findings confirm previous anecdotal evidence that explain the limits of the minority or civil rights model of disability to attend to broader social change goals such as the promise of economic self-sufficiency or full employment for people with disabilities. For example, Bagenstos (2009) argues that one of the key barriers to the Disability Rights movement's claim of minority status is the movement's goal of rejecting the notion of charity and "special" support systems for people with disabilities. While we can reasonably expect the removal of substantial and overtly discriminatory barriers through the civil rights framework, few social policy interventions suggest means to replace outdated or diminishing systems of support. Popular rhetoric and misperceptions about disability civil rights often skew public perceptions about the law so that differentiated needs, including reasonable accommodations, are often seen as excessive, special, and beyond the promise of the law (Bagenstos, 2009).

These findings are indicative of the complex and often confounding evidence base about social change in the context of the ADA, where a growing overall acceptance of people with disabilities in different areas of daily life is not necessarily sparking or linked to the further recognition of disability civil rights. Furthermore, even growing recognition or attitudinal acceptance of people with disabilities as a marginalized group has not removed overtly stigmatic perceptions of disability. Evidence of ongoing stigma and extralegal attitudes about disability speaks to the need to further integrate disability into the framework of diversity and related initiatives. The diversity framework suggests that ongoing issues of equality and civil rights will not be addressed fully through the legislative framework. The legal framework is meant to deter acting upon discriminatory thoughts or prejudice, and there is additional need for training, exposure, and knowledge translation to facilitate changes in disparaging attitudes (Chan et al., 2010). Disability diversity trainings are not well researched, however, and researchers have only very recently begun to identify best practices for integrating disability into the diversity framework (i.e., Phillips, Deiches, Morrison, Chan, & Bezyak, 2015).

Findings from this dissertation provide some guidance to shape disability diversity trainings and practices. The evidence suggests that neither compliance-based trainings about the law nor initiatives meant to spur social contact are viable approaches to advance a wider embrace of disability civil rights. A more multifaceted approach is necessary to advance the ADA's social goals. It is suggested that framing such initiatives with knowledge about both the legal and social significance of civil rights initiatives is one possible pathway to integrate disability into discussions of diversity. This suggestion follows the trajectory of study and practice related to other groups and movements that are protected by civil rights laws. While women and ethnic or racial minorities still face substantial disparities in many domains of social living, civil rights laws have institutionalized a legislative framework that people with disabilities seek to replicate to successfully combat discriminatory attitudes and practices. It is reasonable to imagine that integrating disability into the diversity framework would present a similar

domain to further the attitudinal acceptance of civil rights protection for people with disabilities. Further comparison and inquiry is warranted to consider how different groups have advanced such acceptance throughout their respective struggles for equal rights.

B. Next Directions and Future Research

One noted limitation of this dissertation is that no studies included in this review were collected following the passage of ADAA or their statutory implementation. Results should be considered accordingly and findings are discussed as evidence of attitudinal change only up until the amendment's passage. The limitation is of note given that the ADAA was specifically implemented to advance and reinvigorate a collective embrace of the ADA's spirit goal, by clarifying the legal definition of the protected class to the intended range of people with disabilities (NCD, 2013). The results of the Sutton Trilogy and the increasingly narrowed interpretation of the definition of disability during the late 1990s prevented a range of legal questions from being asked, and also greatly limited the overall efficacy of the antidiscrimination framework (Befort, 2010). As the ADA nears the end of its 25th anniversary, it is exciting and perhaps disconcerting that through future research we only now will begin to understand, measure, and evaluate the impact of the law's influence within its full scope of people intended to benefit from its implementation. Future research can further explore if we do indeed perceive the social change that we would expect to see out of the ADA now that the legal conception of the protected class is fully intact.

Further attitudinal research, including replication studies, is recommended to expand our understanding of social change after the ADAA. However, future inquiry must carefully consider and account for the effect of perception bias as it limits the type of conclusions we can draw from such research. Research that openly acknowledges that individuals may not be willing to admit to noncompliance (e.g., Kaye, Jans & Jones, 2011) is one such way to account for such bias. Furthermore, future researchers can poll entities that embrace the social goals of the ADA, including those with strong disability diversity programming, to obtain a more nuanced understanding of how the ADA's goals are being met. This type of research may also further enhance understanding of complex constructs such as attitudinal or cultural change in the context of disability rights.

Future systematic reviews comparing changes observed following the ADAA to findings described in this dissertation would also provide more summative evidence regarding the ADA' progress in achieving its social goals. Additionally, systematic reviews in disability policy can build off the framework developed in this dissertation. Given the extreme heterogeneity and difficulty in collating disability policy evidence, future reviews may benefit from strategies used in this research, including soliciting expert stakeholder input. Additional epistemological reflection is warranted to understand how to apply techniques discussed in this dissertation such as the knowledge translation framework, and the integration of expert testimony into the systematic review process. As the first attempt to comprehensively review such a heterogeneous body of policy research within the framework of Knowledge Translation, there is still considerable need to hone and advance techniques across different research questions and fields of study.

C. Conclusions

The ADA, in both the spirit and the letter of the law, provides a framework to further the collective embrace of disability rights in society. The law's goals and ensuing plan for social change reflects the vision of policymakers, people with disabilities, and various business representatives and lobbyists that worked together to create the law. Many activists imagined that passing a unified disability policy would spearhead additional programmatic and policy changes to ensure full inclusion of people with disabilities in all aspects of community living. As this dissertation reveals, there is an abundance of research, but a dearth of confirmable findings, in regards to fully tracking and understanding such change. While the passage of the ADA itself is evidence of a substantial cultural evolution in how society views disability, there is also substantive, although conflicting, evidence of stigma and the reluctance to accept the broader social message of disability civil rights. There is still considerable need to better track and understand both the past and next generation of disability policy, scholarship, and practice. It remains to be seen how research can capture such broad social change, and what it will reveal regarding our progress in advancing the civil rights of people with disabilities.

APPENDIX

Appendix A Key thematic finding and syntheses

Author(s)	Year	Thematic/ Purpose Codes	Research purpose or question	Research Participants	Methods /approach	Key findings about the ADA and attitudes
Baldridge, D. & Veiga, J.	2006	 Accommodation Workplace Culture Costs Compliance Anticipated responses Fairness (normative appropriateness) 	To understand requester's willingness to ask supervisors for accommodation when recurring needs are involved. Assesses the role of likelihood of supervisory compliance, personal cost, and normative appropriateness (how others might perceive requests) in making accommodation requests.	229 hearing impaired employees	Quantitative- Descriptive (survey, questionnair e, or evaluation)	 Respondents were less likely to request accommodations because of higher costs, impositions on others, and the negative social consequences they perceived as a result of making such requests. PwD who perceive that supervisors are more likely to comply with accommodation requests are more likely to request accommodations: People with hearing impairments dissuaded from requesting accommodation due to fear of disrupting workplace culture d
Carpenter, N, & Paetzold, R.	2013	 Accommodation Role of impairment Fairness Workplace culture Disclosure Anticipated response 	Examines factors that influence responses to reasonable accommodation requests for an individual with a disability including: the cause of disability, the nature of the accommodation, and the perceived fairness of the accommodation.	240 student students in an introductory statistics course at a large southwestern university participated	Quantitative - experiment/v ignette	 Attitudes towards and perceptions of cause of impairment (if it's seen as an individual's own fault) play a role in the accommodation-granting process. Prior accommodation decisions also affect future intentions to provide accommodations. Reported feelings of empathy positively influenced responses and intentions to provide accommodations. Feeling distressed by a request positively influenced participants' intentions to provide extra time for a task.

	1. Role of impairment 2. Discrimination 3. Organizational structure	To document the actual discrimination of people with disabilities in the workplace and to deter-mine whether patterns of controllable/ unstable vs un- controllable/ stable impairments are consistent with the literature.	A total of 35,763 Title I allegations of discrimination	Quantitative - descriptive, comparative groups. Secondary data evaluation of EEOC IMS)	 Allegations of workplace discrimination center mainly on hiring, discharge, harassment, and reasonable accommodation issues. Perceived workplace discrimination (as measured by allegations filed with EEOC) occur at higher levels in "attributed group" especially when serious issues involving discharge and disability harassment are involved except for HIV/AIDS, however, actual discrimination (as measured by EEOC merit Resolutions) occurs at higher levels for more visible (less attributable) disabilities
Chan, F., Strauser, D., Maher, P., Lee, E. J., Jones, R., & Johnson, E.	1. Knowledge 2. Diversity 3. Hiring 4. Work place culture 5. Management 6. Accommodation	What is the relationship between demand-side employment factors (i.e., knowledge of ADA and job accommodations, concerns about disability management, negative attitudes, positive perceptions, diversity climates, and inclusion of disability in diversity efforts) and perceived commitment of the company and managers to hire people with physical and sensory disabilities?	138 human resources managers and line managers in the Midwest region of the United States Of these 138 participants, 62% are men, 91% are white, with an average age of 45 years old who are employed in the health-care industries (19%), finance (16%), information technology (15%), manufacturing (14%), other services (except public administration) (12%), and	Mixed methods: Qualitative - focus groups Quantitative- Descriptive (Survey, questionnair e, or evaluation)	 Managers rated reliability and capability of PwD between the neutral and positive range. Managers were neutral about their own ADA knowledge Managers perceived their company's effort to include disability as neutral in the company's diversity efforts. Knowledge of ADA and job accommodation and inclusion of disability in diversity efforts were found to be significantly associated with commitment of the company to hire people with disabilities

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Chima, F.	1998	1. Discrimination 2. The Law 3. Hiring 4. Capability/ ability 5. Role of impairment 6. Workplace culture 7. Management 1. Skills and	To ascertain perceptions that college students with disabilities have regarding their workplace entrance opportunities and their specific concerns related to organizational, interpersonal, and personal issues.	professional/techn ical (10%). The majority of these participants are employed by companies with 501 or more employees (64%), followed by companies with employees between 15 and 100 (16%), companies between 101 and 500 employees (12%), and companies with less than 15 employees (7%). Seventy-one percent indicated that they have hiring authority and 53% has hired people with 59 junior & senior students living in university dormitories.	Quantitative- Descriptive (Survey, questionnair e, or evaluation) Quantitative-	 Opinions were evenly split (re: significance of the ADA) in addressing employers' discriminatory practices against people with disabilities. 41% per- cent felt that ADA will reduce discrimination, another 41 percent had the opinion that ADA will not reduce discrimination. 18% percent were undecided. Students who reported that they
Satcher, J.		capability 2. Accommodation 3. Workplace culture 4. Knowledge	in how individuals with disabilities are perceived on a number of employment variables	resource management students	Descriptive (Survey, questionnair e, or	were more prepared (received a high amount of ADA training in school) had significantly more positive perceptions of employment factors and individuals

		5. Social contact 6. Management	To what extent do human resource management students' perceptions of persons with disabilities' productivity, interpersonal communications skills, coworker relations, need for worksite accommodation, need for job accommodation, level of required supervision, attendance, safety, and adaptability differ when compared by the extent to which their coursework had informed them about the ADA, the existence of personal disability, and if the students have a close relationship with someone having a disability?		evaluation)	 with disabilities when compared to those with no or slight to moderate preparation (low or no ADA education) 2. Students with higher degree of training ADA also had more favorable perceptions towards the specific disability types analyzed (blindness, mental retardation, epilepsy, mental illness, and spinal cord injury, and cardiovascular disabilities) when compared to people with less preparation. 3. People with no training more likely to hold negative and more stereotypical views, particularly as they relate to productivity, attendance, and safety issues. 4. Relationship with a person with disability does not impact ADA perceptions.
Culp Harrison, T.	2002	1. Quality of Life	The purpose of this article is to report the findings of a policy analysis of the ADA, which has been influenced by Yanow's theory of interpretive policy analysis (2000). This analysis focuses on how the ADA affected the quality of life of persons with disabilities.	(N/A policy analysis)	Qualitative - secondary data analysis (policy analysis)	 Inequity is deterrent to realizing many gains in quality of life Substantial social gains, while infrequent, are indicative of changes without need for civil suit
Davison, K., O'Leary, B., Schlosberg, J., Bing, M.	2009	 Accommodation Organizational culture Knowledge (about the ADA) Compliance Anticipated responses 	To investigate the experiences and concerns of students with disabilities who have and have not requested accommodations, and to propose and test a mediation model	89 individual at a university who reported requesting assistance or modifications	Quantitative- Descriptive (Survey, questionnair e, or evaluation)	1. 21 of 89 PwD (24%) indicated that they had ever requested accommodations. 58 respondents (66%) indicated that they were somewhat unlikely or very unlikely to request help in the future - participants appeared reluctant to request accommodations

Appendix A Key thematic finding and syntheses (continued)

						 Organization culture may be most likely to affect whether an individual is concerned about compliance when requesting an accommodation Knowledge of the ADA had significant negative correlations with perceptions of student helpfulness and university support of diversity, and the correlation with university helpfulness was also negative (not significantly though). Individuals who had more concerns about fairness, image cost, and usefulness were less likely to state that they would request help in the future. However, anticipated compliance concerns did not correlate significantly with the likelihood of requesting future help.
Florey, A. & Harrison, D.	2000	 Accommodation Compliance Costs (monetary, and indirect) Contact Management Fairness 	Investigating the mechanisms underlying managerial reactions to accommodation requests from employees with disabilities	131 managers from a large, southwestern metropolitan area	Quantitative - experiment/v ignette	 Psychological reactions were affected by the "controllability" of disability's onset, the employee's past performance, and the size of the requested accommodation." (p.224) Previous contact was not seen as an important factor in decisions Organizational policies about accommodation have a "neutralizing effect" on negative attitudes and also improve compliance
Frank, J., & Bellini, J.	2005	1. Accommodation 2. The law	To examine the ADA employment-related accommodation request process of individuals who are Blind, and to reveal difficulties in the request process	12 men and 8 women who are blind.	Qualitative - exploratory (in-depth interviews)	1.Experience within the ADA accommodation request process: "Betrayal and Broken Trust" describes what the informants regarded as the worst barriers to accommodation requests.

						2. "Multiplicity of Barriers" used to refers to the overall aversive effect of facing a multitude of barriers to the request process.
						3. "Fear of Retaliation" theme picked to describe the power discrimination. expresses
Gallup Poll	1992	 The Law Hiring Organizational culture Organizational structure Management Knowledge Skills/ capabilities 	Baseline measurement of businesses' awareness, attitudes, and reaction to the Americans with Disabilities Act (ADA).	Random national sample of 400 businesses who employed 25 or more individuals	Quantitative- (Survey, questionnair e, or evaluation)	 Widespread positive support for disability inclusion Low to no awareness or knowledge of the ADA's social or compliance goals
Gouvier, W.D., Sytsma- Jordan, S., Mayville, S.	2003	 Discrimination Role of impairment Social contact Hiring Skills/capabilities 	To: (a) assess the impact of access discrimination across four major categories of disabling conditions; (b) assess the inter- action between job complexity (lower intellectual requirement vs. higher intellectual requirement) and disability status on hiring decisions; and (c) assess the interaction between amount of public contact and disability the	272 undergraduate students taking upper division (3rd-year level or higher) business courses at a large southern university.	Quantitative - experiment/v ignette	 Individuals with back injury (disability that is not attributed to the individual) were perceived as most likely to be hired and applicants with mental illness (most likely to be attributed) are the least likely to be hired. Prejudicial stereotyping noted in responses to applicants with developmental disabilities and applicants with bacd injury.
Gregory, D.	1997	1. Knowledge 2. Contact	disability type Examines changes in knowledge, attitudes, and contact with people with disabilities from before and after the ADA	140 students. Subjects (N=140) were all students enrolled in the fall semester offering of a junior level Orientation to Music Education/ Therapy course in 1 of the 7	Quantitative- Descriptive (Survey, questionnair e, or evaluation) with comparative Groups	 applicants with head injury 1. Attitudes and knowledge about therapeutic or "normalization" techniques " did not change after the ADA, although contact with people with disabilities increased. 2. No correlation was found between experience and knowledge of behavior therapy/ "normalization techniques"

Redick, A., McClain, L. & Brown, C.	2000	1. Knowledge 2. Role of service providers	To determine whether occupation therapists value educating consumers about ADA, are Knowledgeable about Title III, and whether they implement the ADA in practice	academic years including 1987-89, 1992-93, and 1995-96. 152 occupational therapists randomly selected from AOTA membership who are: (a) registered	Quantitative- Descriptive (Survey, questionnair e, or evaluation)	 3. Students with more experience with disability had a slightly less favorable attitude to people with disabilities than those with less experience. 1. Overwhelming positive attitudinal scores reported amongst OTs: -94% agree persons with disabilities should have equal access to public accommodation -91% agree OTs have role in ADA
			with consumers who use wheelchairs.	OTs who were members of the Physical Disabilities or Home and Community Health Special Interest Sections; (b) worked in either a homecare health agency, general		advocacy -90% agree it is their role to help clients become ADA self advocates -87% agree they have role in providing clients ADA information -85% agree they have role in community and colleague ADA education -92% agree they have responsibility for growth and development in environmental accessibility
				hospital (rehabilitation unit only), outpatient clinic (freestanding), rehabilitation center or hospital, residential care		 2. Most respondents reported not implementing provisions of the ADA, but those who had done more had more positive attitudes toward the ADA. Those who had more knowledge of the ADA were more actively engaged
				facility, group home or independent living center, or vocational or prevocational program; and (c) provided direct		in implementation. - The correlation between attitude and knowledge was not significant - There is a significant correlation between implementation of Title II and positive attitude
Griffith, K. &	2002	1. Knowledge (of the	To assess the relationship	services to clients who use wheel- chairs. 127 individuals	Quantitative-	1. Both attitudes and knowledge of the

Cooper, M.		ADA) 2. Exposure/ social contact	between administrators' attitudes toward disabilities and their knowledge of the Americans with Disabilities Act	employed as educational administrators and/or educators completing educational administration certification requirements. Respondents employed mostly by rural school districts were enrolled in educational administration classes at two campuses of a selected southern university.	Descriptive (Survey, questionnair e, or evaluation)	 ADA were found to be lower for respondents in educational administration positions than educators 2. Relationships between attitudes toward persons with disabilitie and experience with individuals with disabilities are correlated. 3. No significant realtionship reported between experience with people with disabilites and more positive attitudes, however the length of time working with individuals with disabilities may be a factor in one's attitudes. 4. Staff working in support services and teacher/instructor respondents reported the highest attitudes toward individuals with disabilities.
Hartnett, H., Thurman, H., Cordingly, K.	2010	1. Accommodation 2. anticipated response	Explore how people with disabilities perceive their accomodation process in the workplace	Two hundred and one individuals with varying disabilities	Mixed methods - Quantitative- Descriptive (Survey, questionnair e, or evaluation) Qualitative - open ended survey questions	 Termination reported a variety of situations that resulted in termination, but most were not directly connected to disability. Technical assistance recipients report reported that they felt as though their condition was disregarded or minimized in their place of employment Self-reported experienced reflect misunderstanding and clarity about the accommodation process for all involved parties. It is not clear what attitudinal factors dissuade individuals to request accommodations.

Hayes , T. L, Wendt, A. , Craighead, R. A;	1993	1. Pre-employment/ Hiring 2. Knowledge 3. Fairness	To determine human resource professionals' perceptions about the fairness and job-relatedness about popular preemployment techniques in the context of the ADA	55 practicing professional Members of the Society for Human Resource Management in a medium-sized Midwestern city	Mixed methods - Quantitative- Descriptive (Survey, questionnair e, or evaluation) Qualitative - open ended survey responses	 Techniques were seen either as fair or unfair, job related or not, regardless of applicants disability status (disability does not change perceptions of fairness) Structured interview and work sample were rated as fair, while cognitive ability and personality were rated as the next most fair for any applicants. Unstructured interview, biographical data, clinical personality test, and medical evaluations were rated as less fair. The higher self-reported knowledge about the ADA, the more human resource professionals were likely to perceive techniques as fair only if they were job related
Hazer. J. & Bedell, K.	2000	 Accommodation Preemployment/Hi ring Knowledge The Law Role of impairment Disclosure 	Whether seeking accommodation and disability type influence the perceived suitability of hiring a job applicant and if the rater's employment as an HR professional knowledge of and attitudes toward the ADA impact the decision.	151 total participants, - 32 HR employees, - 112 undergraduate students - 7 did not indicate their HR or student status.	Mixed Quantitative - experiment/v ignette) with comparative groups, + qualitative analysis of open-ended survey questions	 Requesting accommodation had a negative effect on one's prospects for employment, whether being evaluated by an HR professional or not (across disability types). Asking for an accommodation reduced the overall suitability rating of applicants with disabilities Applicants with psychiatric disabilities were given the lowest scores of suitability ratings as compared to applicants with no disabilities. Unable to support the claim that people with psychiatric disability are deemed less suitable than people with other disability types

Hernandez,	2004	1. Knowledge/	Examine and compare attitudes	133	Quantitative-	1. Private sector participants were
B., Balcazar,	2004	educational	toward disability rights among an	representatives of	experiment/v	significantly less positive about the
F., & Keys,		attainment	ethnically diverse sample of	private and public	ignette with	ADA (Title I, II, and III) than public
C.		2. Social/work	public sector representatives.	sectors including	comparative	sector employees.
		contact		business owners,	groups	
		3. The Law.		managers,	•	2.Greater knowledge of the ADA
		 Organizational 		educators, and		indicated more positive attitudes
		structure		social service		towards the ADA.
		Accommodation		providers		Significant positive relationship were
				responsible for		associated between knowledge of the
				hiring and Title III		ADA and attitudes toward this law
				compliance.		
						3. Prior work experience associated
				Representatives		with more positive attitudes toward
				were spread		disability right. than those who did not
				across six Chicago		have this experience.
				communities with		4. Prior personal experience was not
				varied levels of		significantly associated with higher
				acculturation to		attitudinal scores.
				mainstream U.S.		
				culture (Filipino,		5. There is a non-significant
				Greek, Asian		relationship between attitudes towards
				Indian, Latino, and		disability rights and acculturation to US
				Lithuanian.		culture
Kaufman-	2005	1.	To examine whether people with	1,000 non-	Quantitative	1. Knowledge of the ADA does
Scarborough		Access/accessibility	disabilities perceive the ADA	institutionalized	 descriptive 	indicate a difference in perceptions of
, C., Menzel		2. Knowledge (of the	serves their interests and	persons with	(secondary	change (more knowledge means
Baker, S.		ADA)	improves marketplace	disabilities aged	data analysis	individuals are more likely to perceive
		3. Quality of life/	accessibility. Asks four primary	16 and over.	using 1998	and/or be aware of positive changes)
		Social participation	research questions:		NOD/Harrls	
			First de sensumere who are		Survey of	2. Respondents who are aware of the
			First, do consumers who are aware of the ADA actually		Americans with	ADA are more likely to perceive positive improvements in public
			perceive there have been		Disabilities)	transportation, public facilities,
			improvements in their lives since			theaters, and stores, public attitudes
			the enactment of the ADA?			toward people with disabilities,
						portrayal of disabled persons in the
			Second., what does the term			media, and inclusion of disabled in
			"marketplace accessibility" mean			advertising.
			to con-sumers with disabilities?			,

			What do they expect to find in the marketplace? Do they expect to find a disabling or an enabling environment? Third, what determines the extent of marketplace interaction for consumers with disabilities? How does the awareness of the ADA, the perception of market- place accessibility, the extent of marketplace interaction, and the attribution for access relate to a disabled consumer's satisfaction with life?			
Kaye, H. S., Jans, L. H. & Jones, E. C.	2011	 Hiring Retention Capability Accommodation 	Asked human resource professionals and managers why they thought other employers might not hire or retain people with disabilities. by interviewing known or reputed to be reluctant to complying with disability non- discrimination laws.	463 Human resource professionals from businesses reluctant to hire people with disabilities and comply with the ADA	Quantitative- Descriptive (Survey, questionnair e, or evaluation)	 Employers reported four reasons why they don't employ people with disabilities: lack of awareness of disability and accommodation issues; concerns of costs fear of legal liability job performance/qualifications (which was written in as an additionally important issue) More than half of respondents agreed that employers didn't hire workers with disabilities because they feel that workers with disabilities cannot perform essential job functions, and that employers discriminate against applicants with disabilities The cost common solutions to improve attitudes towards the ADA by respondents included: Increase and improve training for supervisors and managers on disability issues

						 Provide government subsidies for worker accommodations (Guarantee protections or exemptions from legal risks through mediation services and/or a trial employment period Organization wide systems for handling requests.
Kregel, J. & Tomiyasu, Y.	1994	 Social contact/previous experience Knowledge The Law Management Organizational structure Ability/capability 	To assess employers' knowledge of and attitudes toward the ADA, assess the attitudes of employers toward workers with disabilities, with particular emphasis on issues relevant to ADA implementation, assess the relationship between attitudes toward the ADA and attitudes toward people with disabilities, and investigate the effects of company size, company type, and previous experience with workers with disabilities on employer attitudes.	170 randomly selected employers representing public and private businesses in the greater Richmond, Virginia, metropolitan area.	Mixed: Quantitative- Descriptive (Survey, questionnair e, or evaluation)) Qualitative interviews	 Individuals who had more favorable attitudes towards the ADA were more likely to view coworkers with disabilities favorably. No significant relationships found between employer size, type of industry, and attitude towards the ADA Significant high scored attitudinal items included beliefs that prejudicial attitudes will dissipate over time, and the corollary that negative attitudes will not increase when individuals work together over time.
Larwood, L.	1995	 Role of Impairment Hiring Capability/ability Fairness 	To apply attribution theory to examine theoretical and practical issue	68 members of graduate and undergraduate introductory management sections at a eastern US university	Quantitative- experiment/v ignette	 Survey participants felt that person with a highly attributable disability were likely to perform worse than an "average person" Respondents felt that the person with a disability would need to put in greater efforts than average person to be considered an equal employee Description of woman with obesity resulted in person being seen as less deserving of "special treatment" (e.g. accommodations) than most women
Martin, R. & Ligon, J.	2000	 Knowledge. Contact/ exposure 	Assess attitudes towards people with disabilities amongst social work graduate students	19 graduate social work students in two sections of a	Quantitative- Descriptive (Survey,	1. "Strength-based" training about disability resulted in enhanced attitudes towards people with

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				foundation level policy course	questionnair e, or evaluation) with comparative groups	disabilities. 2. ADA based training did not significantly change attitudes about disability
Mitchell, T. & Kovera, M.B.	2006	 Accommodations Role of impairment Capability/ability Costs Skill/ capabilities 	Two studies conducted to investigate whether disability origin and/or prior work history impermissibly influence the granting of reasonable accommodations under the ADA. Hypothesis that impermissible factors (cost and cause of disability) influence decisions about reasonable accommodations .	Study 1: 80 practicing management professionals (working in the southeast United States. Titles included human resource managers and director of sales, marketing, and accounting departments. Study 2: 80 management professionals.	Quantitative- experiment/v ignette	 1.Disability origins influenced the granting of reasonable accommodations. Participants granted fewer accommodations to the individual who caused his own disability. The effect of disability origin on accommodations cost was not significant. Work history did not influence accommodation decisions. Participants granted more accommodations to an employee depicted as having an external cause for his disability than to the employee who was depicted as causing his own disability Study 2: confirmed that both disability origin and work history are shown to effect number and cost of accommodations received
Moore, T., & Crimando, W.	1995	 The Law Costs Role of service Providers Fairness 	To investigate and compare attitudes towards employment provisions held by rehab service providers, private sector rep, and people with disabilities towards Title I of the ADA	Rehabilitation service providers (n = 164), private sector representatives (n = 178), and people with disabilities (n = 186).	Quantitative- Descriptive (Survey, questionnair e, or evaluation)) with comparative groups	 Attitudinal differences found among the groups were in the level of agreement or disagreement, rather than differences in the direction of attitudes- except for in relation to cost Private sector reps reported that costs would be concern, while rehab professionals and PwD did not.

						3. All groups indicated agreement with the need for federal antidiscrimination legislation. PwD agreed most strongly, followed by rehab providers, followed by private sector reps who agreed, but the level of agreement was significantly less than for the other groups
Moore, D. P., Moore, J. W., & Moore, J. L.	2007	1. Accommodations 2. Costs 3. Compliance 4. Work contact 5. Knowledge (of the ADA) 6.Workplace structure	Examines small business owner and manager perceptions and reactions to the ADA.	219 Owners, managers, and CEOS of small businesses (for focus groups + 117 firms registered with entrepneur.com	Mixed - Qual/Quant Focus groups Quantitative- Descriptive (Survey, questionnair e, or evaluation)	 Owner/mangers do not believe workplace accommodations will create economic benefits. Compliance is significantly associated with seeing accommodation of people with disabilities seeing potential gains, and expressing positive attitudes toward the legislation Compliance is significantly associated with seeing accommodation of PwD as potential to increase market share Owner/manager knowledge and understanding of the ADA related to positive attitudes toward the legislation Positive owner/manager attitudes are predictor of providing accommodations for customers and employees The likeliness of willingness to comply or spend money on accommodation is independent of the presence of disabled employees or managers in the organization.
Enger., D. & Munger, F.	2001	 Discrimination The law Self advocacy/ 	Explore the social and cultural effects of the ADA on the lives and careers of individuals whose	60 individuals with disabilities (learning	Qualitative - phenomenol ogical (in-	Many individuals simply do not recognize that they have a disability as defined by the ADA-

"rights-	circumstances varied in	disabilities or	depth life	none of the eight individuals described
consciousness"	particular ways	impairments that	story	in this article—and none of the sixty
4. Quality of life/		required use of a	interviews)	individuals interviewed in our study—
social participation		wheelchair)		invoked his
eeela participation		(inconcinair)		or her rights under the ADA to resolve
		Interviewees were		a conflict with an employer. None
		divided equally		brought a formal claim under the ADA,
		along gender lines		none
		and came from		consulted a lawyer regarding an ADA-
		three different age		related dispute, and none invoked the
		and career		ADA in the course of discussion or
		groups: (1) high		debate with
		school seniors,		an employer.
		who were in the		
		early stages of		Individuals who recognize that they
		career planning;		have a disability are often reluctant to
		(2) persons in		reveal this fact to their employers or
		their early		co-workers.
		twenties, who had		co-workers.
		already acquired		3) Even when employers and co-
		some experiences		workers are aware that an employee,
		with employment		or potential employee, has a disability,
		and job-seeking;		the
		(3) persons in		individual in question may fear that the
		mid-life, who had		invocation of rights under the ADA will
		substantial		prove detrimental
				prove detimentar
		employment histories (or, in		(4) Individuals who do not know about
		some cases,		(4) Individuals who do not know about the ADA or are unfamiliar with the
		unemployment		
		histories) and		specific protections it provides are unlikely to
		,		
		whose careers began before the		assert their rights.
		0		E) Social along and roop interact in
		enactment of the ADA.		5) Social class and race interact in
		=		very complex ways with ADA rights
		Within each age		and with careers. Both of these social
		group, we		factors
		interviewed		may, in some cases, produce societal
		individuals with		expectations that are inconsistent with
		two quite different		high career aspirations. When career
		types of		aspirations

				disabilities: learning disabilities and physical disabilities requiring the use of a wheelchair		are low, the denial of rights is not perceived as unfair because the victim of discrimination, or the person who receives no on-the-job accommodations, is merely fulfilling very limited expectations. Social circumstances can lead employers, teachers, counselors, and even the individuals with disabilities themselves to assume that the ADA is simply irrelevant to these situations. In such cases, the denial of rights is like the sound of a
Murrmann , S.	1992	 Knowledge (of the ADA) Accommodations Workplace structure Exposure/ contact Capability/ ability Fairness Management 	Examines the influence of work experience, personal attitudes, and ADA knowledge on perceptions of reasonable accommodation by managers in the hospitality industry	209 undergraduate and graduate students enrolled in a hospitality program at a major regional university who reported manage- ment experience	Quantitative- Descriptive (Survey, questionnair e, or evaluation)	 No relationship between total work experience and the likeliness of providing accommodations Individuals expressing more positive views about individuals with mental physical, and serious illness disabilities viewed accommodations as more essential than those with more negative views.
Mutchnick, I., Blount, Maurie- Louise ;	1996	 Role of service providers Accommodations Knowledge - ADA training Role of impairment Work contact Disclosure 	To determine the reliability and validity of a newly developed questionnaire, (2) to determine whether occupational therapists have had training in the ADA, and (3) to explore the general attitudes of occupational therapy administrators regarding reasonable accommodations for occupational therapists with disabilities Are clinical supervisors who have worked for more than 3 years aware of the various provisions	11 practicing Occupational Therapists who identified themselves as a director/chief of an occupational therapy department.	Quantitative- Descriptive (Survey, questionnair e, or evaluation)	 The data indicated that people who are trained in the ADA have a more positive attitude about making accommodations Most of the OTs surveys were not aware of the provisions of the ADA. The data was inconclusive about the link between knowledge and attitudes: The data did not indicate a significant difference between attitudes towards different disability types (e.g., providing accommodations for an OT with a physical versus a psychiatric

			of the ADA? Do people who have training in the requirements of the law have a more positive attitude about giving accommodations than supervisors who have no training?			disability). 4. Almost all participants strongly agreed or agreed that they would be more receptive to make reasonable accommodations if he or she disclosed his or her needs prior to starting work, rather than waiting until the supervisor/director had to confront him or her about poor job performance.
Paetzold, R. L; Garcia, M, Colella, A.,Ren, L.R., Triana, M.; Ziebro, M.;	2008	 Accommodation Fairness Skills and capabilities 	Test of some of the factors that may influence perceptions of accommodations, and tests the conditions influencing fairness perceptions of accommodating people with disabilities	163 undergraduate students from a management class at a southwestern university in the United States	Quantitative- experiment (laboratory)	 Study participants perceive more unfairness accommodations are granted compared with when accommodations are denied. Participants perceived the most unfairness when accommodations are granted to an individuals who performs the best
Popovich, P., Scherbaum, C., Sherbaum, K., , & Polinko, N.	2003	 Role of impairment - (what constitutes a disability) Accommodation - Perceived. reasonableness of accommodation Work contact and Social contact Fairness/ reasonableness The law Work contact 	To examine and assess beliefs about what constitutes a disability, affective reactions to working with disabled individuals and beliefs about the reasonableness of workplace accommodations, in general, and within the context of the ADA.	First study: 118 undergraduate students enrolled in an introductory psychology course at a large Midwestern university. Second study: 147 undergraduates enrolled in an introductory psychology courses at a large Midwestern university.	Quantitative- Descriptive (Survey, questionnair e, or evaluation)	 Both studies provide evidence relationships between gender, work experience, affective reactions toward working with persons with disabilities, and the beliefs about the reasonableness of workplace accommodations Women more supportive of reasonable accommodations in Both studies. Gender was significant predictor of more positive affective attitudes in study 1, but not significant in study 2 Greater experience with disabled people was associated with more positive attitudes No relationship found between previous work experience and perceived reasonableness in either

						study.
						5. Psychological conditions (namely Schizophrenia and alcoholism) were least likely to be perceived as disabilities
Price, L. & 2 Gerber, P	2001	1. Accommodation 2. Knowledge 3. Ability/capability 4. Workplace culture 5. Hiring	To compare data collected by Gerber in 1992 and 1998. Addresses questions what do employers know about the ADA? How have they applied the requirements of the ADA to their companies? What are their beliefs and practices concerning employees with learning disabilities?	25 Supervisors, managers, or human resource administrators who had familiarity with ADA or disability in the workplace from Pennsylvania and Virginia 9 similar employers from Penn and Virginia in in 1998 comparison study	Qualitative - comparative groups	 Employers show agreement in both interviews about: Learning Disability is poorly understand and employers are reluctant to hire employees with disabilities in 1992, and in 1998 (after the ADA) Companies will hire individuals with good skills and who can socialize in 1992, and in 1998 employers are glad to hire employees with LD but know few applicants or current employees -Learning disabilities were misunderstood in 1992, and there still is much confusion in this area where people with LD are seen as "different" and LD is confused with other disabilities It is unclear how the role of disability as a matter of diversity has evolved: -In 1992 diversity was seen to include disability as well as race, gender, and culture In 1998 diversity was rarely discussed by employers. Race, gender, and culture were not mentioned Employers concerned about compliance during hiring in both years. However, in both years many reporting interest in hiring employee.
	2003	1. Disclosure	What are the issues for	25 adults with	Qualitative-	1. Most of the participants (individuals
Gerber, P., & Mulligan, 2	2007	 Workplace culture Hiring/ job entry 	employees with learning disabilities in job acquisition, job	learning disabilities	interviews	with LD) reported that their bosses did not have a reaction to their disability.

R.	4. Advancement5. Anticipatedresponses6. self-advocacy7. Knowledge	advancement, self-disclosure, and experiences with employer attitudes and beliefs?			 Many respondents either did not tell their bosses about their learning disability, or did not know what they would say if they did tell them. Participants' negative attitudes towards their own disabilities affected their decision not to self-disclose or use the ADA in their workplace
Robert, P. 199 and Harlan , 199 200 200 200	 Harassment Discrimination Organizational structure 	To use disability and organizational theory to explore employers' treatment of disability in the workplace Seeks to identify In the context of the 'Post-ADA workplace" interpersonal and organizational mechanisms of disability discrimination in and to explain how mechanisms help create workplace inequality. Traces experience of inequality through interviews with employees with disabilities about the implementation phase of the ADA	50 persons with disabilities working for a state government workforce.	Qualitative- grounded theory (in- depth interviews)	 use the ADA in their workplace. 1.Discrimination seen as functioning primarily in three ways: marginalization, fictionalization, and harassment :marginalization, fictionalization and harassment. Some workers felt ignored, Some felt like remain outsiders in all parts of work (segregated or left out of social situations) Some reported hostile environment, where accommodations actually sparked harassment rather than helping the employee. Discrimination is not always seen as "Illegal" -Marginalization is exemplified by segregated work settings and "hiding" people with disabilities Fictionalization: many disabled employees report social isolation where others frequently avoided them at work. In other instances, workplace isolation. Almost all employees reported feeling 'left out' of various workplace and support networks. Harassment exemplified in reports of inappropriate questioning, remarks,

						and more blatant things such as bullying 5. The law is often perceived as special treatment
Roessler, R. & Sumner, G.	1997	 Accommodation - perceptions about reasonableness in accommodation request Knowledge Role of impairment Hiring Fairness Organizational culture 	Explores employer opinions about accommodating employees with chronic illnesses. It asks questions about familiarity with chronic illness and the ADA, and how this impacts the perceived reasonableness of accommodation.	83 employers holding positions in personnel or human resources department.	Quantitative- Descriptive (Survey, questionnair e, or evaluation)	 Employers supported majority of routinely available accommodations, for people with chronic illness after the ADA Accommodations that are perceived as unfair or unreasonable accommodations include working at home, afternoon rest and nap periods, transportation to work, and provision of a support person. Major employer concerns about accommodations include cost, negative reactions of other employees, disruption of work schedules, and threats to supervisory control. Cost factors may fuel unfavorable
Satcher, J. & Hendren, G.	1991	 The law (acceptance of different titles) Social contact organizational structure 	To what extent race, gender, previous contact with PwD, anticipated occupation, anticipated size of job settings, and attitudes predict acceptance of the ADA Do students differ in acceptance towards employment, transportation, telecommunications, and public services and accommodations?	131 upper and graduate level personnel management students at three major Mississippi universities	Quantitative- Descriptive (Survey, questionnair e, or evaluation)	 views of accommodations in general 1. Attitudes towards disabled persons was only was the only variable that accounted for increased likelihood of acceptance of the ADA 2. Public services and accommodations accepted at a higher rate than employment, transit, or telecommunications provisions of the ADA 3. Study found little/no support to claim that variables historically proven to influence acceptance of PwD (gender, previous contact, occupational setting) will also influence acceptance of the

						ADA
Satcher, J. & Hendren, G.	1992	 The law (acceptance of different titles) Social contact Aorganizational structure 	The primary purpose of this study was to investigate the extent to which employers agree with the ADA and to identify possible predictors of their agreement. Secondary Question: Do employers differ in acceptance towards employment, transportation, telecommunications, and public services and accommodations?	85 randomly selected employers belonging to the Chambers of Commerce in three counties in the state of Mississippi.	Quantitative- Descriptive (Survey, questionnair e, or evaluation)	 Variables that have been shown to influence attitude and employment of people with disabilities do not predict agreement with the ADA. Variables with no impact included: contact (defined as having a friend, relative, or close acquaintance with a disability).occupation, size of occupational setting, and education of employer Employers display a moderate level of agreement with the ADA that is not predicted by having a disability, gender, size of occupational setting, type of occupation, or educational attainment.
Scheid, T.	1998 1999 2005	 Role of impairment Capability/ ability Discrimination Hiring Organizational structure Compliance 	Examines the response of employers to employment of people with mental disabilities (any mental or psychological disorder, including mental retardation, developmental disability, organic brain syndrome, emotional or mental illness or specific learning disabilities)) following the ADA. ADA research question: What role does stigma play in conformity to the ADA?	117 personnel managers or similar representatives of businesses	Quantitative- Descriptive (Survey, questionnair e, or evaluation)	 The most helpful policies for ADA implementation/ accommodations were perceived to be job coaches, rather than company-ran programs or policies Compliers tended to be larger companies, which also provided orientations for working with disabled employees. Attitudes towards disability were described as coercive i.e., (fear of a lawsuit) rather than a belief that it is the right thing to do Larger companies were more likely to have received information about the ADA (as we saw earlier), and those who had received information about the ADA were more likely to believe hiring is the ride thing do Stigma (overtly discriminatory

						attitudes) is negatively associated with compliance
Sherman, S. & Sherman, J.	2012	 Knowledge Accessibility Role of service providers 	To gain insight into the formation of interior designers' attitudes and beliefs about their roles in adhering to the ADA Standards	6 Interior designers in the state of Florida.	Qualitative- phenomenol ogical interviews and focus groups)	 While many designers know about its legal mandates, they lack any under- standing of the spirit of the ADA. Designers consistently perceive the ADA in punitive and legalistic terms. Most designers believe the ADA should be more clearly defined, since it leaves room for individual interpretation in its current form. Although several designers acknowledge benefits from the ADA, the interview revealed a lack of any real understanding of its intent or spirit.
Styers, B. & Shultz, K.	2009	 Hiring/ Pre- employment testing Role of impairment (Origin of disability/) Accommodation (perceived reasonableness) Fairness 	Conducted to examine how the origin of an applicant's disability, the status of the job being applied for, and the level of test accommodation to be provided influenced perceptions of what was a reasonable pre- employment testing accommodation.	62 human resources employees, predominantly from the public sector.	Quantitative- experiment/v ignette	 Accommodations were deemed more reasonable for a person with a disability that was not self-caused, whether the status of the job for which they were applying was high or low. For people who had disabilities that were self-caused, accommodations were deemed more reasonable when seeking low-status jobs than for the applicant applying for a high-status job. Unclear about the influence of job status and perceptions (preliminary finding shows accommodations more likely to be perceived reasonable when applying for lower status entry level jobs)
Thakker, D.	1999	1. Workplace culture	Examined the hypothesis that the	195	Quantitative-	1. Organization wide I adherence was
& Solomon,		2. Hiring	degree of a manager's	supervisors/mana	Descriptive	the most influential factor in

Appendix A Key thematic finding and syntheses (continued)

Ρ.		 Knowledge Role of impairment Capability/Ability Management 	adherence to the ADA in the process of hiring those with physical or psychiatric disabilities will be greater when the level of their knowledge about the principles and provisions of ADA is greater, their attitudes toward people with a disability, generally, and toward those with a mental illness.	gers representing 58 organizations who conducted job interviews with organization with 15 or more employees. Fifty- six of these respondents were from for-profits and 139 were non-profits	(Survey, questionnair e, or evaluation)	 determining if managers were adherent with the ADA: 2. Knowledge of the ADA had no impact on adherence 3. Disability status and race of the respondents (being white), perceived organizational adherence, and self- reported familiarity with ADA content were the three factors that significantly explained individual adherence 4. Negative attitudes toward disability in general and attitudes specifically towards mental illness were negatively related to adherence, although not significantly
Walters, M. & Baker, C.M.	1996	 Prior contact (social or work) The law knowledge organizational structure 	Examines whether employers who had prior contact with individuals with disabilities responded more positively towards the implementation of the ADA than those without prior contact.	100 employers/ recruiters: 69 employers in Jackson county, Illinois; 19 employers/recruite rs who may or may not employ persons with a disability; 12 employers/recruite rs from corporations who were recruiting persons with disabilities.	Quantitative- Descriptive (Survey, questionnair e, or evaluation)	 There was no significant differences in total score (attitudes towards disability plus ADA acceptance), based on gender. -No significant differences based on race. -No significant difference based on number of part-time employees with disabilities or type of business. -Significant difference based on number of full time- employees with disabilities with employers indicated in employing 15 - 24 employees with disabilities obtaining the highest mean scores, High level of education related to higher attitudinal score Prior contact did not reveal significant differences in acceptance of disability or the ADA

Appendix A Key thematic finding and syntheses (continued)

			4. No significant difference in
			attitudinal scores for people with more
			ADA awareness

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 Perpetuation of discrimination against employees with disabilities. *Behavioral Sciences & the Law, 23*(1), 123-141.
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Yuker, H. E. (1994). Variables that influence attitudes toward people with disabilities: Conclusions from the data. *Journal of Social Behavior & Personality, 9*(5), 3-22.

VITAE

ROBERT P. GOULD

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EDUCATION

PhD Candidate (expected defense Winter 2015) - Doctor of Philosophy in Disability Studies, College of Applied Health Science, University of Illinois at Chicago

Dissertation Title: The Americans with Disabilities Act at 25: A systematic review and meta-ethnography of research exploring the Spirit and Letter of the Law

Awards:

- UIC Award of Merit, 2015. University wide recognition for excellence in academic, professional, and civil Service
- Applied Health Sciences Award of Merit, 2015. Recognizing dedication to the college.
- Page-El Scholarship. 2015, in recognition of academic excellence in developmental disability research and service.
- President's Research in Diversity (travel award). 2013. University of Illinois system award for presentation of paper on the systematic review of the Americans with Disabilities Act
- President's Research in Diversity (travel award). 2012. University of Illinois system award for presentation and symposium on international law, policy, and disability held in Berkeley, CA)
- Outstanding Masters Student Graduate. 2012. Honor given to one graduating student in the department to recognize excellence in academic service and scholarship

Masters of Science - Disability & Human Development, College of Applied Health Science. University of Illinois at Chicago, 2011

Thesis Title: Global Trends of Welfare Policy: Private/Public Partnerships in Disability Employment Services

Bachelor of Arts - Secondary Education and English, College of Education. University of Iowa, 2007

Student Teaching: Glenbrook South High School, Glenview, IL. Taught both mainstreamed and special education classes in the English Department

ADDITIONAL TRAINING

International Disability Law Summer School (June 2015) Weeklong training training on law and policy related to Human Rights and Disability-Inclusive Development focusing and the UN Convention on the Rights of Persons with DIsabilites. Centre for Disability Law & Policy, National University of Ireland, Galway, Republic of Ireland.

The Second City's Creative Pedagogy for Teachers (October 2014) - Professional development training for educators explores the fundamentals of improvisation and comedy, the principal concepts of improvisational learning, and its integration into the teaching curriculum, The Second City Chicago Training Center, Chicago, IL

TEACHING

Current Teaching Activities

- 1. DHD 203 Disability in World Cultures (Co-taught Fall 2015) Course examines the ways in which different social, cultural, political, and economic systems shape experiences of disability by looking at disability in different contexts throughout the world.
- 2. DHD 563 Exploring the Promise of the Americans with Disabilities Act of 1990 (Cotaught Spring 2014-2016): Examines the history, implementation, and content of the Americans with Disabilities Act.

Curriculum Development Activities

- 1. DHD 563 Exploring the Promise of the Americans with Disabilities Act of 1990: Redesigning 500 level (doctoral) class to have undergraduate and MS sections
- Development of upper level undergraduate/MS student class: Work, Disability, and Society (To begin Fall 2016). Explores the labor and work experience of people with disabilities, including employment policy, evidence-based service delivery, and advocacy strategies to effect system change.

Guest lectures and teaching

- 1. *Employment, Policy, and Advocacy.* Panel presentation for LEND (Leadership Education in Neurodevelopmental & Related Disabilities. University of Illinois at Chicago, October 2015.
- 2. *Perspectives on justice*. Guest panel presenter for "DHD 501 Disability Studies" in the Department of Disability and Human Development, University of Illinois at Chicago, October 2015.
- 3. *Disability and the global political economy.* Guest Lecture for "DHD 501 Disability Studies" in the Department of Disability and Human Development, University of Illinois at Chicago, October 2015.
- Introduction to the Policy Process and Knowledge translation. Guest Lecture for "OT 594 Special Topics in Occupational Therapy: Knowledge Translation" in the Department of Occupational Therapy, University of Illinois at Chicago, February 2015.
- 5. Human rights and disability in the international context. Guest Lecture for "M4 594 Studying Disability(ies) in the Modern World" in the Department of Medicine, University of Illinois at Chicago, November 2014.
- The Disability Rights Movement: Advocacy and Action. Guest teacher for 11th grade special unit on disability and social movements. Francis W. Parker School. Chicago, IL November 2014.
- 7. The ADA and Social Change. Guest Lecture for "DHD 510 Research Methods" in the Department of Disability and Human Development, University of Illinois at Chicago, November 2014.
- 8. *Disability Civil Rights*. Guest Lecture for "DHD 401 Disability Studies" in the Department of Disability and Human Development, University of Illinois at Chicago, October 2014.
- 9. *Disability and the global political economy.* Guest Lecture for "DHD 501 Disability Studies" in the Department of Disability and Human Development, University of Illinois at Chicago, October 2014.
- 10. Poverty, Policy, and Employment in the International Context. Guest Lecture for "DHD 501 Disability Studies" in the Department of Disability and Human Development, University of Illinois at Chicago, November 2013.

- 11. *Disability Civil Rights*. Guest Lecture for "DHD 101 Disability in U.S. Society" in the Department of Disability and Human Development, University of Illinois at Chicago, October 2013
- 12. *Implementing Rights based policy and law at the Domestic Level.* Guest Lecture for "DHD 581: Foundations of Disability Policy" in the Department of Disability and Human Development, University of Illinois at Chicago, October 2013.
- 13. Disability Advocacy and Organizational partnerships. Guest Lecture for "DHD 581: Foundations of Disability Policy" in the Department of Disability and Human Development, University of Illinois at Chicago, September 2013.
- 14. Disability and the political economy: International social policy and development. Guest Lecture for "DHD 501 Disability Studies 1" in the Department of Disability and Human Development, University of Illinois at Chicago, November 2012.
- 15. *Implementing Rights based policy and law at the Domestic Level.* Guest Lecture for "DHD 581: Foundations of Disability Policy" in the Department of Disability and Human Development, University of Illinois at Chicago, October 2012.
- 16. Outcome based evaluation and inter-agency collaboration. Guest Lecture for "DHD 545: Organizations and the Non Profit Sector" in the Department of Disability and Human Development, University of Illinois at Chicago, April 2012.
- 17. *Employment Policy, Vocational Rehabilitation, and Human Rights.* Guest Lecture for DHD 582: Contemporary Issues in Disability Policy in the Department of Disability and Human Development, University of Illinois at Chicago, March 2011.

PRESENTATIONS

Peer-Reviewed conference presentations

- 1. Disability, Disclosure, and Work: examining the influence of anti-discrimination legislation in employment decisions. Research presentation given at Society for the Study of Social problems Annual Conference. Chicago, IL. August 2015.
- 2. The ADA's legacy: reflections across research, policy, advocacy and practice. Panel presentation with Andy Imparato, Mark Johnson, Robin Jones, Andy, and Richard Scotch, at the Society for Disability Studies Annual Conference, Atlanta, GA. June 2015.
- 3. *An analytical model for KT driven research.* Poster presentation given at NARRTC Annual Conference. Alexandria, VA. April 2015
- 4. A rapid evidence review of the ADA's impact on attitudes, perceptions, and knowledge in Employment. Research presentation given at Society for the Study of Social problems Annual Conference. San Francisco, CA. August 2014
- 5. Scoping Review methods in reviews of social policy. Paper presentation at the American Sociological Association Annual Conference, San Francisco, CA. August 2014
- 6. Implementing International Rights Domestically: Anti-discrimination, Employment Responsibilities, and the ADA. Panel presentation at the Society for Disability Studies Annual Conference, Minneapolis, MN. June 2014.
- 7. *Knowledge Translation and the Systematic Review of the ADA.* Panel presentation given at NARRTC Annual Conference. Alexandria, VA. April 2014
- 8. Rapid evidence reviews in social policy: Exploring the impact of the ADA on attitudes, knowledge, and perceptions in employment. Research paper presentation given at NARRTC Annual Conference. Alexandria, VA. April 2014

- Epistemological concerns of systematic review: The ADA. Research presentation given at Society for the Study of Social problems Annual Conference. New York, NY. August 2013
- 10. Systematic Review of the ADA Research: Project plan and findings. Research paper presentation given at American Sociological Association Annual Conference. Alexandria, New York, NY. August 2013
- 11. Systematic Review of the ADA Research: Year 1 Scoping Review Results. Research paper presentation given at NARRTC Annual Conference. Alexandria, VA. April 2013
- 12. Dominant Rhetoric of Disability and Development: Universalism and Diverse Citizenship Models. Panel Paper presentation at the Society for Disability Studies Annual Conference, Denver, CO. June 2012.
- 13. Social Justice through Private/Public Partnership in Vocational Rehabilitation Policy. Panel Paper presentation at the Society for Disability Studies Annual Conference, San Jose, CA. June 2011.
- 14. *Global Perspectives on Welfare to Work Policy*. Panel Paper presentation with Dr. Sarah Parker Harris (University of Illinois at Chicago), at the Society for Disability Studies Annual Conference in Philadelphia, May 2010.

Invited Research, Stakeholder, & Community Presentations

- 1. *Entrepreneurship for People with Disabilities.* Presentation to Northern Trust Bank's international disability working group. Chicago, IL. October, 2015
- 2. The Americans with Disabilities Act 25 years later: Evaluating participation opportunities and disparities with people with disabilities. Occupational therapy continuing education opportunity as part of Applied Health Sciences Continued Ed Day. Presentation with Lex Frieden, Joy Hammel, and Robin Jones. Chicago, IL. April, 2015
- 3. Implementing Rights Domestically through research on the ADA. Invited presenter and discussant with Dr. Victor Pineda at the University-California, Berkeley on the benefits of research on the implementation of rights-based policies. Berkley, CA. March, 2013
- The important of Disability in Diversity Management. Panel member for Chicagoland Disability Works (Chicago Chamber of Commerce) discussion on the importance of including people with disabilities in workplace diversity initiatives. Chicago, IL. October 2012.
- 5. Research Findings on Deinstitutionalization. Testimony prepared for the IL Commission on Government Forecasting and Accountability on hearing for the closing for Murray Development Center. Centralia, IL. April, 2012.
- 6. Supporting the Self-Advocacy of People with Disabilities. Workshop and panel presentation with Dr. Mitchell Clark (Mount Royal University, Calgary) given at the University of Malaysia Sabah, Borneo. June 2010.
- 7. Best Practices of Online-Classroom Web Accessibility. University of Illinois at Chicago, Staff training given at the Department of Disability and Human Development, University of Illinois at Chicago, December 2009.

RESEARCH AND RELATED EXPERIENCE

Employment

University of Illinois at Chicago

Department of Disability & Human Development

Disability Rights and Employment Initiatives

December 2011 - current

Project co-lead for National Institute on Disability Rehabilitation Research funded Knowledge Translation Systematic Review of research on the Americans with Disabilities Act: a research project to collect and synthesize all of the existing research evidence on the ADA and identify gaps for future policy and research to improve use and application of the law in practice.

Project Coordinator of Chicagoland Entrepreneurship Education for People with Disabilities (CEED) program funded by by the Coleman Foundation. Coordinate development of new program bridging entrepreneurship with disability by developing and providing a comprehensive entrepreneurship education and training program for people with disabilities and service providers working in Disability Community Agencies (DCAs) and Small Business Development Centers (SBDCs) in Illinois.

Visiting Research Specialist in Developmental Disabilities December 2011 - 2011

Managed two statewide grants to evaluate health care policies for people with disabilities: Evaluation of state's Managed Care Policy in the state of Illinois and SST (crisis interventions services for people with dual diagnosis of mental illness and developmental disability.

Research Assistant – Professor Sarah Parker

August 2010 - December

2010

Led interviews and data collection for assessment of resources for entrepreneurs with disabilities in the state of Illinois. Conducted extensive literature reviews in areas of employment and disability policies, entrepreneurial education, finance funding and micro lending, and small business startup.

Research Assistant – Professor and Head Tamar Heller August 2010– December 2010

Conducted statewide system evaluation of Service Support Teams program designed to provide community based medical and behavioral support for adults with intellectual disabilities in need of emergency and/or psychiatric care.

Research Assistant – Professor Rooshey Hasnain October 2008 to September 2010

Participated in research projects funded by the Department of Rehabilitation Services and the Campbell Collaboration on identifying rehabilitation resources for culturally diverse individuals with disabilities. Conducted Systematic Review and catalogued literature on culturally competent health care intervention and rehabilitation services for culturally diverse individuals, service issues for refugees and immigrants, and the availability of vocational rehabilitation services to minority populations.

Research Assistant– Professor Kiyoshi Yamaki August 2009 to July 2010

Conducted outreach, administration, and data collection for surveys on physical activity and health among adolescents with disabilities for successful application to Department of Education funded Disability Rehabilitation Research Project (DRRP) to assess and identify factors that contribute to the obesity of youth with disabilities.

Consulting, Contractual, and independent research

Associate Editor: Disability in American Life

Coordinating editorial responsibilities for forthcoming volume edited by Heller, T., Parker Harris, S., Gill, C. and Gould, R. (forthcoming, 2017) Disability in American Life: An Encyclopedia of Policies, Concepts, and Controversies. Santa Barbara, CA: ABC-CLIO.

World Enabled: The Victor Pineda foundation

Berkeley, CA Policy analysis and grant writing

Conducted literature reviews and policy analysis on disability rights in Cambodia. Prepared initial grant and background materials for the development of trainings to empower youths with disabilities in in South East Asia through advanced training on the United Nations Convention on the Rights of Persons with Disabilities.

Centre Seri Mengasih

Kota Kinabalu, Malavsia **Community Living System Evaluation**

Assisted with case study of the state's first independent living program for adults with disabilities. Provided overnight direct care support and conducted interviews with adults with disabilities transitioning to at-home care from institutionalized and group home setting. Taught findings to staff at community based rehabilitation program and to parents interested in helping their family member transition to community-based and independent living settings.

Supported Employment Program Evaluation

Interviewed local employers with center staff about the factors impacting paid employment opportunities for people with disabilities. Collaborated with employment services staff to develop outreach strategies for partnerships with local businesses. Met with state welfare office and local government officials throughout Malaysia to discuss the development and implementation of disability policies in the employment sector.

PUBLICATIONS

Peer-Reviewed Journal Articles and Refereed Book Chapters

- 1. Gould, R., Parker Harris, S., Caldwell, K. Fujiura, G., Jones, R. Ojok, P., Perez, K. (2015) Beyond the Law: A Review of Knowledge, Attitudes and Perceptions in ADA Employment Research Disability Studies Quarterly Special Anniversary Issue on the ADA.
- 2. Owen, R. Gould, R. & Parker Harris, S. Disability and employment in the United States: the intersection of healthcare reform and welfare to work policy. (2015) In. Grover & Linda Piggot (eds.) Work, welfare and disabled people: UK and international perspectives.

June to August 2011

June 2010

June 2014 -

June to July 2010

- Owen, R. Heller, T., Hseih, K. Bowers, A. & Gould, R. (forthcoming) The Impact of Support Services Teams: Community-Based Behavioral Health Support Interventions." *Journal of Policy and Practice in Intellectual Disabilities.*
- 4. Parker Harris, **Gould**, R., & Fujiura, G (2015) Enhancing rigor and practice of scoping reviews in social policy research: Considerations from a worked example on the Americans with Disabilities Act. *Work: A Journal of Prevention, Assessment, and Rehabilitation*
- 5. Parker, S., Owen, R., Fisher, K. and **Gould**, R. (2014). Human Rights and Neoliberalism in Australian Welfare to Work Policy: Experiences and Perceptions of People with Disabilities and Disability Stakeholders. *Disability Studies Quarterly*
- 6. Parker Harris, S., **Gould**, R. Ojok, P., Fujiura, G. Jones, R., & Olmstead. A (2014). Scoping Review of the Americans with Disabilities Act: what research exists, and where do we go from here. *Disability Studies Quarterly.*
- 7. Parker Harris, S & **Gould, R**. (2014). Implementing International Rights Domestically: Anti-discrimination, Employment Responsibilities, and the ADA. In. Keene and Johnson (eds.) *Disability Discrimination at Work..* Piraeus Books Williamstown, MA
- 8. Parker, S., Owen, R., and **Gould, R.** (2013). Equality through Difference: Policy Values, Human Rights and Social Justice in the Employment Participation of People with Disabilities. In: Wappett and Arndt (eds.) *Disability Studies: Critical Issues and Future Developments.*
- 9. **Gould, R**. & Parker Harris, S. (2012). Welfare Reform and Disability in Slovakia: exploring neoliberalism, social justice and employment policy. *Disability Studies Quarterly*.
- 10. Parker, S., Owen, R., and **Gould, R.** (2012). Parity of participation in liberal welfare states: human rights, neoliberalism, disability and employment. *Disability and Society.*
- 11. Hasnain, R., Kondratowicz, D., Borokhovski, E., Nye, C., Balcazar, F., Portillo, N., Hanz, K., Johnson, T., and **Gould, R**. (2011) Do Cultural Competency Interventions Work? A Systematic Review on Improving Rehabilitation Outcomes for Ethnically and Linguistically Diverse Individuals with Disabilities. *Focus Technical Briefs: A publication of the National Center for the Dissemination of Disability Research*

Reports, non-refereed (invited) book chapters, and other publications

- Parker Harris, S. & Gould. R. (forthcoming. 2017) The Americans with Disabilities Act. In: R. Rycroft (Ed.) *The American Middle Class: An Economic Encyclopedia of Progress and Poverty*. Santa Barbara, CA: ABC-CLIO.
- 2. **Gould, R.** (forthcoming, 2017) The Impact of the Americans with Disabilities Act. In: Heller, Parker Harris, Gill, and Gould (Eds.) *Disability in American Life: An Encyclopedia* of *Policies, Concepts, and Controversies*. Santa Barbara, CA: ABC-CLIO.
- 3. Parker Harris, S., Owen, R. & **Gould. R.** (forthcoming. 2017) Welfare to Work. In: Heller, Parker Harris, Gill, and Gould (Eds.) *Disability in American Life: An Encyclopedia of Policies, Concepts, and Controversies*. Santa Barbara, CA: ABC-CLIO.
- 4. Parker Harris, S., Gould, R. Caldwell, K., Fujiura, G. Jones, R., Ojok, P., Perez, K. & Olmstead. A (2014). A rapid evidence review of the Americans with Disabilities Act employment research. Submitted to the University of Washington as part of NIDRR's funded ADA National Network knowledge translation project
- Parker Harris, S., Gould, R. Fujiura, G. Jones, R., Ojok, P., & Olmstead. A (2013). A scoping review of the Americans with Disabilities Act. Submitted to the University of Washington as part of NIDRR's funded ADA National Network knowledge translation project
- 6. Hasnain, R., Kondratowicz, D., Portillo, N., Balcazar, F., Johnson, T. Gould, R. Borokhovski, E. and Bernard, R. (2010) *The Use of Culturally Adapted Competency*

Interventions to Improve Rehabilitation Service Outcomes for Culturally Diverse Individuals with Disabilities. Submitted to the Campbell Collaboration, Education Coordinating Group: A Systematic Review and Meta-Analysis of culturally competent rehabilitation interventions

- Gould, R., Heller, T. & Parker, S. (2011) Chapter 3: Chronology of Disability Events. In: G. Albrecht (Ed.) *Disability Through the Life Course*. Sage Publications: Thousand Oaks, CA.
- 8. **Gould, R.,** Heller, T. & Parker, S. (2011) Chapter 5: Disability Statistics. In: G. Albrecht (Ed.) *Disability Through the Life Course*. Sage Publications: Thousand Oaks, CA.
- 9. Heller, T., Mitchell, D. & Gould. (2011) Integrated care in Illinois: Status report for Illinois Department of Human Services
- 10. **Gould, R. (2011).** Disability, the Census, and Geographical Information Systems. In: R. Hasnain (ed.) *Asians with Disabilities Outreach Project Think-Tank Technical report.* A report for the Illinois Department of Rehabilitation Services
- 11. Heller, T., Hseih, K., and **Gould, R. (2011).** An Evaluation of Support Services Teams for People with Developmental Disabilities and mental Illness

PROFESSIONAL SERVICE AND MEMBERSHIPS

- The Illinois Employment First Initiative, 2011 ongoing, Part of disability service providers working group for the governor's Employment and Economic Opportunity for Persons with Disabilities Task Force. Employment First summit moderator and grant editor
- 2. African Journal of Disability, peer reviewer, 2012 2014
- 3. Somatechnics, peer reviewer, 2015
- 4. Alliance for Full participation, state action team representative, 2011-2013

Organizational and Board Memberships

- 1. US International Council on Disabilities, member, 2015 current
- 2. American Sociological Association, member, 2013- current
- 3. APSE (association of people supporting Employment First), IL board member, 2014 current
- 4. Illinois State wide Independent Living Council, Employment subcommittee board member, 2012- current
- 5. Society for Disability Studies, member, 2011- current
- 6. Society for the Study of Social Problems, member, 2013- current, 2013 newsletter editor