Five Principles to Improve Quantitative Research and Assessment About College Students with Disabilities (Practice Brief)

Bradley E. Cox[1]
Brett Ranon Nachman[2]

Abstract

This paper provides practical guidance for scholars and practitioners looking to develop more rigorous, comprehensive, and inclusive research that could guide proactive efforts to improve access, experiences, and outcomes for college students with disabilities. To do so, we (a) identify critical challenges affecting research and assessment related to college students with disabilities and the programs that serve them; (b) describe five broad principles and a variety of specific suggestions that could help overcome those problems; and (c) highlight the manner in which implementation of these strategies can be facilitated by the development of collaborative relationships and proactive partnerships.

Keywords: disability, assessment, quantitative research, college students with disabilities

Simply put, studying college experiences and outcomes for students with disabilities, or assessing the programs that serve them, is difficult. Researchers conducting quantitative analyses, in particular, often face a variety of problems that have thus far limited the utility of such analyses. Therefore, we use this paper to provide practical guidance for scholars and practitioners looking to use quantitative data to guide proactive efforts that improve access, experiences, and outcomes for college students with disabilities. Accordingly, we (a) identify critical challenges affecting research and assessment related to college students with disabilities and associated programs; (b) describe five broad principles and a variety of specific suggestions that could help overcome those problems; and (c) highlight the manner in which implementation of these strategies can be facilitated by the development of collaborative relationships and proactive partnerships.

The topics presented in this paper derive from three sources. First, we gleaned some ideas from discussions held among 20 leading disability scholars at a Spencer Foundation-sponsored workshop. Second, we identified other issues while conducting a systematic review of 15 years' worth of articles published in 16 leading journals (Cox et al., in press). Finally, we share insights from our research involving partnerships with two- and four-year institutions.

Common Problems Affecting Quantitative Analyses

In this section, we identify three overarching problems that currently limit the volume, quality, and utility of quantitative data analyses about students with disabilities.

Minimal Data and Small Samples

Effective quantitative analysis about students with disabilities depends on the data being analyzed. Unfortunately, work in this area often relies on limited data drawn from small, unrepresentative samples. Few large-scale data sets allow for the analysis of experiences and outcomes for students with disabilities. The only nationally representative dataset focused on students with disabilities (the National Longitudinal Transition Study-2 [NLTS2]) identified its participants roughly 20 years ago, requires special permission to access most raw data, has limited information about postsecondary experiences, and has already been heavily mined for insights (e.g., Newman et al., 2011; Wagner et al., 2005).

Moreover, unlike several other basic demographic indicators (e.g., race, gender), questions about disability status are often overlooked on surveys college students are asked to complete. Although several prominent national student surveys (e.g., National

Survey of Student Engagement [NSSE], Cooperative Institutional Research Program [CIRP]) have begun including questions about disabilities in recent years, some include the questions only every-other year while others do not ask about one's specific type of disability. Because scholars have long noted difficulties in gathering large-scale quantitative data about students with disabilities (McGrew et al., 1993), analysts must often turn to other sources.

The most common approach, for academic researchers and institutional administrators alike, is to collect data through institutions' Disability Service Offices (DSOs; e.g., Brown & Coomes, 2016; Collins & Mowbray, 2005; Harbour, 2009). However, concerns about student privacy and legal responsibility (e.g., Health Insurance Portability and Accountability Act [HIPAA] & Family Educational Rights and Privacy Act [FERPA]) make some DSO staff reluctant to share data outside their offices. Even then, because only 28% of students with disabilities disclose their disability to their postsecondary institutions (Newman et al., 2011), the resulting samples are often so small as to allow only basic quantitative analyses. Taking more creative approaches may increase sample sizes but is also likely to introduce new sources of problematic bias.

Inconsistent Data of Uncertain Quality

Inconsistencies in the clarity and quality of data related to college students with disabilities threatens to undermine the utility of any related analyses. Varied stakeholders define disability differently (e.g., consider the difference between the definitions employed in the Americans with Disabilities Act (ADA, 1990) statutes and those used by the *Diagnostic and Statistical Manual of Mental Disorders* [American Psychiatric Association, 2013]), and minor variations in terminology can have vastly different meanings. Asking a student whether they have any "functional limitations" (ADA definition) will likely elicit a different response than a question that asks about whether the student receives "disability accommodations" (institutional service usage) than would a question that asks about a student's "disability identity status" (individual self-perception). Moreover, standard quantitative data collection procedures may not be equally accessible to students with various physical, psychological, developmental, and/or learning disabilities.

Capturing information from the entire spectrum of students with disabilities might require widely varying adaptations of otherwise standardized assessment instruments. Imagine the time, expertise, and resources needed to simultaneously collect good data from a student with a hand tremor (no answer sheets using tiny bubbles), one with low vision (a large-print or screen-readable version), and another whose ADHD limits attention span (several short sessions to administer instrument).

Limited Time and Mismatched Expertise

Many of the postsecondary professionals who are best positioned to address the challenges identified above, and contribute to the development of a rigorous, robust, and inclusive body of evidence on the topic, lack the time, resources, expertise, and/or incentives to engage in such work. For example, staff who focus on the day-to-day provision of services likely have key insights to share and critical questions to ask, but must rely on Institutional Research (IR) offices or faculty researchers to collect data and generate statistics. In contrast, IR offices likely have analytic expertise, but are often so focused on satisfying federal, state, or institutional oversight requirements that they lack the time and resources to engage in unguided exploratory analyses (*Cutting Edge Series*, 2012). Scholars looking to conduct multi-institutional research struggle to justify the time it would take to navigate the complexities of campus politics, Institutional Review Boards (IRB), administrative requirements, and data management systems at several institutions. Collectively, these problems limit the volume, quality, and application of quantitative analyses to student disability data.

Overcoming Problems Affecting Quantitative Analyses

Although we differentiate among three types of challenges, each contributes to others, creating a cascading effect that undermines efforts to advance both scholarly research and institutional understanding about college students with disabilities. Efforts to address these problems, therefore, can only be addressed effectively through complementary changes made by many stakeholders. In this section, we present five principles to guide those changes, weaving examples from our experiences as disability scholars throughout. Table 1 provides recommendations on translating these principles to practice.

Make Data Meaningful: Clarify Purpose to Align Efforts

Data only matters if it means something to the people who are to use it. Postsecondary institutions may collect disability-related data for at least three reasons. First, efforts to satisfy external accountability requirements likely require the collection and analy-

ses of data that adhere to specific protocols, definitions, and measures/instruments set forth by federal, state, or other governing bodies. Second, summative evaluation processes – often associated with issues of internal accountability or resource allocation—may be tied to generic student outcome indicators (e.g., retention, graduation) or program-specific goals/benchmarks (e.g., number of students served). Third, formative assessments likely require more granular data that can be used by program staff to help them understand the needs of their students, identify appropriate support mechanisms, assess the effectiveness of their services, and/or plan for the future. Clarifying the purpose of any assessment activities is critically important, as that purpose should inform all other data-related decisions (e.g., definitions, instrumentation, sampling, analyses, reporting).

Too often, however, answers to the "why" questions are an afterthought, considered only after a mandate has been delivered, a request has been made, or a problem has arisen. When this occurs, assessment processes must be retrofitted to address the unique interests of specific stakeholders using data in ways not originally intended. This reactive approach diminishes programs' agency to shape their own narrative and frequently results in a stressful, distracting, inefficient, and ineffective scramble to collect and analyze data.

In contrast, a proactive approach begins by identifying which data matter to each critical stakeholder. For example, for one of Brad's large projects, he facilitated a series of conversations with the Director of Institutional Research and the Director of the Disability Services Office. These discussions helped clarify which data the IR office had available and which analyses the DSO would find most useful. They also helped establish a stronger relationship between the two offices, which in turn has facilitated subsequent coordination between the two offices. With this greater understanding of each other's interests, the two offices can begin actively embedding consistent data collection as part of their standard operating procedures (Banta & Blaich, 2011).

Obtain Clear Data: Be Intentional About Definitions and Labels

Developing clarity regarding the purpose of assessment activities may come first, but ensuring the clarity of the data collected during those activities reaches a close second. Although there are a wide variety of disabilities with a multitude of definitions, we advise IR researchers and administrators to employ a consistent set of language for describing "disability" on all platforms, both internally (e.g., student surveys, educational records/databases) and externally (e.g., websites, promotional brochures). Adopting a specific definition of disability allows for apples-to-apples comparisons over time and across various instruments; it also conveys a consistent message about the climate for students with disabilities on campus. Therefore, the choice about what specific language to use requires careful consideration of both the intent of the terminology and its impact on multiple stakeholders. For example, while the question "Do you have a disability?" implicitly minimizes student agency regarding their disability status, the question "Do you consider yourself to have a disability?" empowers students to define their disability status on their own terms.

While standardized terminology may appear to obscure the inherent complexity of disability, complementary data collection techniques can be used to unravel the complexities of students' characteristics, behaviors, perceptions, and experiences. For example, in one recent study Brad asked students to provide a binary indicator of whether they were autistic while also embedding a 10-question version of the Autism Spectrum Quotient (AQ-10; Allison et al., 2012) to estimate the intensity of their autism-related characteristics. These indirect indicators (like the AQ-10) can be used *in conjunction* with survey items that unveil the effects of disability on students' lived experiences. For example, the AQ-10 could be paired with items about students' service usage, scales indicative of students' challenges navigating daily activities on campus, and open-ended questions about students' perceptions of campus climate.

We recommend conducting a disability definition audit that could help create common understandings. As Brett discovered while studying how community college website content described autism (Nachman & Brown, 2020), inconsistent framing of the disability both within and across websites revealed how baseline comprehension of disabilities may translate to relaying deficit-based language. Through IT staff working alongside administrators to identify disability-related keywords on institutional websites, they possess the opportunity to employ a social justice approach in reframing disability (Evans et al., 2017). Engaging in this process will not only help shift the paradigm in how disability is described, but also enable institutional researchers to more precisely and positively draw on these definitions when developing campus surveys.

Gather Trustworthy Data: Improve Instrumentation by Employing Universal Design

To ensure students with disabilities can effectively engage in data collection processes, assessment

activities must embrace Universal Design principles (UD; Bednar, 1977; Izzo et al., 2008; Lombardi et al., 2018; Mace, 1985). UD tenets can easily be adapted to maximize the likelihood that all students have equitable access to fully participate in efforts involving the curation of disability-related data. For example, UD promotes students having options in how they express, engage with, and represent knowledge (e.g., writing, talking, drawing, presenting; Izzo et al., 2008). Survey designers should offer various opportunities for students to express how disability impacts their lives (e.g., rating factors on a scale, creating a visual, selecting keywords).

Following the UD principle of "flexible use," Brett's dissertation research on autistic community college students provided students with agency in how they communicated about their experiences. Additionally, at the study's onset, Brett offered opportunities for students to obtain clarification on Qualtrics survey questions before filling them out, in order to ease their comfort and confidence in study participation. Qualtrics' survey accessibility checks enabled Brett to ensure that items were framed clearly and would be compliant with respondents who use screen readers. Participants could also complete the survey on various devices, including their computers, tablets, and phones.

Survey designers should streamline instruments by removing extraneous items, thereby minimizing discomfort for students who may otherwise provide poor-quality data if they become tired, frustrated, or confused by long, complicated instruments. The Community College Survey of Student Engagement (CCSEE) is eight pages long with over 115 bubbles to fill in; the National College Health Assessment's assessment asks students to respond to over 400 individual items. Such long assessments are especially problematic when students increasingly experience "survey fatigue" (Porter et al., 2004, p. 63), the result of almost incessant requests for them to complete surveys. Adding a "pause" button for students to rest before continuing to the next page or offering text-to-speech software for students who might have difficulty reading digital text likewise would improve accessibility, allow data from all students to be included in analyses, and help ensure the quality of responses.

Knowing *why* you are collecting the data becomes critically important here. Without that clarity, it is easy to fall into the trap of just adding "one more question" in case the results *might* be interesting and/or conducting "one more survey" because critical data were not gathered through previous efforts. Another way to avoid this phenomenon is to expand the sources from which we collect data that can inform assessments related to college students with disabilities.

Expand Data Sources: Include Disability Indicators Among Demographic Questions

Perhaps the easiest way to collect a greater volume of data related to students with disabilities is to insert questions about disability into a wider range of already-existing data collection activities. Can you imagine a student survey that did *not* ask about race or gender? Of course not. Questions about race and gender are effectively required for any study about college students. In contrast, questions about disability status are frequently omitted. Indeed, Brad and colleagues' review of more than a dozen higher education assessment instruments from Educational Benchmarking Inc., Indiana University's Center for Postsecondary Research, UCLA's Higher Education Research Institute (HERI), and Noel-Levitz revealed that barely more than half explicitly asked about disability in 2017/18; fewer still allowed disaggregation by type of disability. For example, NSSE's publicly available data tables do not allow any breakdowns by disability status—despite enabling that function for race, sex, major, first-generation status, and participation in online coursework. Our experiences on several campuses suggest that questions about disability status are even more uncommon in home-grown or institution-specific student surveys.

Yet these campus-specific and home-grown surveys present unique opportunities to explore issues related to disability. For example, including a question about disability status on a feedback form following participation in some campus event (e.g., orientation, speaker series) could surface issues related to physical accessibility of an event space. A survey of campus climate could help administrators recognize how specific policies, practices, or environments cause students with disabilities to feel disconnected with or marginalized by the institution. What's more, the very act of incorporating disability questions into multiple assessment initiatives demonstrates to students with disabilities that the institution is invested in their success. It also helps to bring a wider range of disability-related issues to the attention of stakeholders whose interests in the topic may have been largely restricted to the consideration of legal requirements.

Integrate Data Sets: Combine Data from Multiple Sources

Although each of these data sources may provide useful information when analyzed independently, their real power to generate actionable insights grows from their potential integration. Because varied as-

sessment efforts target different student populations, combining data from multiple sources likely increases the size and diversity of the sample to be analyzed. This phenomenon is particularly likely to occur when data collected from students registered with a DSO are paired with data collected from the broader campus population, including the 60% of students with disabilities who do not formally disclose their disability to their postsecondary institutions (Wagner et al., 2005). One of Brad's recent projects accomplished just that.

Through coordination with several campus stakeholders, Brad integrated students' data from the CIRP Freshman Survey, transcripts, the DSO, and a survey of autism-related characteristics. As a result, he has been able to explore whether autism-related characteristics were linked to student performance in gateway STEM courses and whether those effects differed based on students' demographics, expectations for college, and/or involvement with the DSO. The results of these analyses will help STEM instructors better understand their students, institutional leaders identify student populations to target for support, and the DSO to assess the effectiveness of its services.

Integrating datasets also increases the variety of experiences and outcomes that can be linked to students' disability status. Imagine the types of insights that could be gained from analyses of student engagement (e.g., from NSSE), course evaluations, student grades, or perceptions of campus climate that compare responses from students with disabilities (or with specific types of disabilities) to those of other student populations. These types of comparative analyses can be particularly persuasive when senior administrators make decisions to allocate resources for initiatives targeting specific student populations.

Using Creative Collaborations to Put Principles into Practice

We opened this paper with a simple statement: Studying college experiences and outcomes for students with disabilities, or assessing the programs that serve them, is difficult. Implementing the suggestions we have offered in this paper could, likewise, prove challenging. We use the remainder of this section to highlight how creative collaborations might be leveraged to overcome some of the practical challenges you may encounter when trying to apply the five principles outlined in this paper or acting on any of the 13 specific suggestions outlined in Table 1.

Gaining access to student disability data is perhaps the most persistent challenge we have heard about—and experienced ourselves—while engaging

in this work. While DSO staff likely have easy access to a variety of student disability information, the extent to which those data are shared with others (e.g., researchers, institutional researchers) can be affected by many legal and ethical considerations. Although indicators of students' involvement with a DSO are considered "educational records" by the U.S. Department of Education (Rooker, 2004) that can be shared with other institutional personnel who have a "legitimate educational interest" (FERPA; §99.31, paragraph a,1,i,A), legal intricacies related to FERPA and HIPAA laws (Bower & Schwartz, 2010) may make people or institutions reluctant to disclose the information with other offices.

Such hesitation to share data is also reflective of the often-constraining influence of institutional inertia born from prior institutional policies, assessment practices, survey instruments, and personal perceptions. If members of the campus community believe the DSO has exclusive responsibility to support students with disabilities, they surely also believe *assessment* related to those students is likewise the DSO's responsibility. Educational professionals with such an attitude likely will not be eager to add new disability-related questions to their student satisfaction surveys or end-of-course assessments. Moreover, limited time and mismatched expertise can curtail even proactive efforts by institutional stakeholders eager to conduct assessment about students with disabilities. Few practitioners who work directly with students have the time, inclination, or expertise required to conduct complex quantitative analyses. Educational researchers, on the other hand, likely feel far more comfortable running analyses than implementing disability programming.

Overcoming these challenges to implementation requires collaboration between a variety of stakeholders who have complementary expertise, access, and influence. Administrators must involve faculty, student services, and other campus personnel in determining *what* type of data to gather, *who* should collect and analyze the data, and *how* to leverage these findings to improve practice. Establishing institutional procedures that prioritize relationship-building among units and consensus-building about what matters on campus can help ensure that assessment related to students with disabilities does not turn into an extra burden or an empty promise.

Partnerships between disability services practitioners and faculty members or other researchers are particularly noteworthy (Scott et al., 2016). Individuals working with students with disabilities on a regular basis are uniquely positioned to identify student experiences or institutional activities that have the

potential to substantially influence student outcomes, precisely the topics worthy of further examination by scholars. Likewise, staff from DSOs or IR offices may be able to facilitate access to disability-related data that is often hard for researchers to procure. Such collaborations promote widespread distribution of findings and help ensure empirical findings get translated into actionable insights. DSO staff can use the results to shape their own practice and to build awareness among other units within the institution (e.g., housing, IR, admissions); researchers can share results with other faculty members to help colleagues develop instructional habits that support students with disabilities. These campus-specific collaborations close the assessment loop by linking students with services, resources, people, and tools that can help them succeed in college (Akkaraju et al., 2019).

Indeed, much of what is learned through local assessment activities can be quite valuable to the broader audiences of educational researchers, public policy-makers, on-the-ground practitioners, and students with disabilities themselves. Because outside researchers often have difficulty accessing confidential student records that might contain students' disability indicators and academic outcomes (e.g. GPA, persistence, graduation), it is likely through the accumulation of institution specific analyses—rather than a single study using some multi-institutional data set—that we will begin to uncover patterns related to experiences and outcomes for students with disabilities. Dissemination of findings from these institutional analyses to policy-makers would encourage them to consider students with disabilities when evaluating the effects of potential legislation, rules, or requirements. Sharing with professional colleagues who work in similar roles at other institutions is particularly important, for these colleagues can simultaneously respond to the findings by tweaking their own practices and adapting the methods to promote more effective assessment at their home institution. Finally, sharing with the general public would help prospective students and their families make informed decisions about where to go to college, how to prepare ahead of time, and what to do once enrolled.

Conclusion

Despite the best efforts of well-intended scholars and practitioners, quantitative research and assessment on postsecondary students with disabilities remains limited in both quality and quantity. Such limitations are inevitable when professionals with limited time and mismatched expertise attempt to analyze inconsistent data of uncertain quality that are drawn from small, biased samples. Educational researchers, postsecondary staff, and institutional administrators can collaborate to overcome these challenges by making conscientious changes throughout the assessment process. By integrating clear, trustworthy, and meaningful data from multiple sources, perhaps we can all begin to leverage quantitative analyses to develop robust, inclusive, and actionable insights about college students with disabilities.

References

Akkaraju, S., Atamturktur, S., Broughton, L., & Frazer, T. (2019). Ensuring student success: Using formative assessment as the key to communication and compassion among faculty, students, and staff. *New Directions for Community Colleges, 2019*(186), 71-79.

Allison, C., Auyeung, B., & Baron-Cohen, S. (2012). Toward brief "red flags" for autism screening: The short autism spectrum quotient and the short quantitative checklist in 1,000 cases and 3,000 controls. *Journal of the American Academy of Child & Adolescent Psychiatry, 51*(2), 202-212.

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (DSM-5). American Psychiatric Association Publications.

Americans With Disabilities Act of 1990. Pub. L. No. 101-336, 42 U.S.C. § 12101.

Banta, T. W., & Blaich, C. (2011, January/February). Closing the assessment loop. *Change,* 22-27.

Bednar, M. (1977). *Barrier-free environments.* Dowden, Hutchinson & Ross.

Bower, K., & Schwartz, V. (2010). Legal and Ethical Issues in College Mental Health. In J. Kay & V. Schwartz (Eds.), *Mental health care in the college community* (pp. 113-141). Wiley-Blackwell.

Brown, K. R., & Coomes, M. D. (2016). A spectrum of support: Current and best practices for students with autism spectrum disorder (ASD) at community colleges. *Community College Journal of Research and Practice, 40*(6), 465-479.

Collins, M. E., & Mowbray, C. T. (2005). Higher education and psychiatric disabilities: National survey of campus disability services. *American Journal of Orthopsychiatry, 75*(2), 304-315.

Cox, B. E., Nachman, B. R., Thompson, K., Dawson, S., Edelstein, J. A., & Breeden, C. (2020). An Exploration of Actionable Insights Regarding College Students with Autism: A Review of the Literature. *The Review of Higher Education, 43*(4), 935-966.

Cutting Edge Series: Building Institutional Capacity for Data-Informed Decision Making. (2012). https://www.achievingthedream.org/sites/default/files/resources/ATD_CuttingEdge_No3.pdf

Evans, N. J., Broido, E. M., Brown, K., & Wilke, A. (2017). *Disability in higher education: A social justice approach.* Jossey-Bass.

Harbour, W. S. (2009). The relationship between institutional unit and administrative features of disability services offices in higher education. *Journal of Postsecondary Education and Disability, 21*(3), 138-154.

Izzo, M. V., Murray, A., & Novak, J. (2008). The faculty perspective on universal design for learning. *Journal of Postsecondary Education and Disability, 21*(2), 60-72.

Lombardi, A., McGuire, J. M., & Tarconish, E. (2018). Promoting inclusive teaching among college faculty: A framework for disability service providers. *Journal of Postsecondary Education and Disability, 31*(4), 397-413.

Mace, R. L. (1985). Universal design, barrier free environments for everyone. *Designers West, 33*(1), 147–152.

McGrew, K. S., Thurlow, M. L., & Spiegel, A. N. (1993). An investigation of the exclusion of students with disabilities in national data collection programs. *Educational Evaluation and Policy Analysis, 15*(3), 339-352.

Nachman, B. R., & Brown, K. R. (2020). Omission and othering: Constructing autism on community college websites. *Community College Journal of Research and Practice, 44*(3), 211-223.

Newman, L. A., Wagner, M., Knokey, A.-M., Marder, C., Nagle, K., Shaver, D., & Wei, X. (2011). *The post-high school outcomes of young adults with disabilities up to 8 years after high school: Key findings from the National Longitudinal Transition Study-2* (NLTS2). US Department of Education's National Center for Special Education Research.

Porter, S. R., Whitcomb, M. E., & Weitzer, W. H. (2004). Multiple surveys of students and survey fatigue. *New Directions for Institutional Research, 2004*(121), 63-73.

Rooker, L. S. (2004). *Letter to University of North Alabama re: disability office records.* Retrieved from https://www2.ed.gov/policy/gen/guid/fpco/ferpa/library/copeuna.html.

Scott, S., Markle, L., Wessel, R. D., & Desmond, J. (2016). Disability services partnerships with faculty members. *Journal of Postsecondary Education and Disability, 29*(3), 215-220.

Wagner, M., Newman, L. A., Cameto, R., Garza, N., & Levine, P. (2005). *After high school: A first look at the postschool experiences of youth with disabilities. A report from the National Longitudinal Transition Study-2* (NLTS2). US Department of Education's National Center for Special Education Research.

About the Authors

Dr. Bradley E. Cox received his Ph.D. in higher education from Pennsylvania State University. He is an Associate Professor of Higher Education at Florida State University (FSU), where he is also a Senior Research Associate with the Center for Postsecondary Success (CPS). Dr. Cox is also the Founder of the College Autism Network (CAN), a nonprofit organization linking varied stakeholders engaged in evidence-guided efforts to improve access, experiences, and outcomes for postsecondary students with autism. His most recent scholarship examines the systemic, institutional, and personal conditions that shape college success for students on the autism spectrum. He can be reached by email at: brad.cox@fsu.edu.

Brett Ranon Nachman is a doctoral candidate in Educational Leadership and Policy Analysis at the University of Wisconsin-Madison. He also serves as a graduate student researcher with College Autism Network. His research interests center on several areas, including how community college students and autistic college students navigate higher education and how campuses can foster more welcoming and inclusive climates for students with LGBTQ+ and/or autistic identities. Brett can be reached by email at bnachman@wisc.edu.

Table 1

Immediate Actions to Begin Enacting the Five Principles

Principle	Specific Steps
Make Data Meaningful	1. Use your next meetings with various stakeholders to ask them what matters to them and why. 2. Determine from the Institutional Research office what data they are required to report. 3. Ask your supervisor(s) how they might determine whether your office is being successful. 4. Find out from your staff what problems they are encountering, what they want to learn more about, what they consider the most important outcome of their work, and what informal measures they use to evaluate the effectiveness of your office's services.
Obtain Clean Data	5. Conduct a disability definition audit. Begin by searching your institution's website for the word "disability" to see how it is described and/or defined by various offices (e.g., admissions, orientation, human resources, housing, DSO). 6. Review your own materials (e.g., policy statements, application materials, intake forms, accommodation letters, student surveys). 7. Ask your institutional research office for copies of any surveys or assessment instruments students are asked to complete. Compare the different definitions/descriptions and talk with other administrators about how to consolidate them.
Gather Trustworthy Data	8. Locate the most recent reports generated by/about your office or students with disabilities at your institution. 9. Map the information presented in those reports back to their original data sources (e.g., institutional record, student survey). Use the results to shorten the data collection instrument. If the data wasn't important enough to be included in your reports, it probably is not worth asking about. 10. Review the recruitment materials and data collection processes for any recent questionnaires students have been asked to complete. Check to see whether the email invitation or first page of the instrument provides one-click access to alternate forms.
Expand Data Sources	11. Count the number of times data collection instruments at your institution ask about disability. For those that mention disability, contact the survey's owner/sponsor to request access to the data. For those that don't, ask the owner/sponsor to add a disability question to the next administration. Simultaneously identify any current data collection efforts that appear to include student-specific identifiers (e.g., ID number, email address).
Integrate Data Sets	12. Develop a list of questions you think might be answerable if you were able to link data from your office with data from other sources (e.g., student academic records, results from national or local surveys). Start simple: Do students with disabilities have similar GPAs or persistence rates to their peers? 13. Contact your IR office to see if they could merge data from multiple sources to answer those questions.