



# DEPARTMENT of HEALTH and HUMAN SERVICES

## National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR) **2020 Report to Congress**

Prepared by

ADMINISTRATION FOR  
COMMUNITY LIVING



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## Acronyms

<b>ADA</b>	Americans with Disabilities Act
<b>APR</b>	Annual Performance Reporting System
<b>ARRT</b>	Advanced Rehabilitation Research Training Project
<b>CL&amp;P</b>	Community Living and Participation
<b>DoC</b>	Disorders of Consciousness
<b>DRRP</b>	Disability and Rehabilitation Research Project
<b>EMP</b>	Employment
<b>FIP</b>	Field-Initiated Project
<b>FY</b>	Fiscal Year
<b>H&amp;F</b>	Health and Function
<b>HCBS</b>	Home and Community-Based Services
<b>HHS</b>	Department of Health and Human Services
<b>KT</b>	Knowledge Translation
<b>KTER</b>	Knowledge Translation for Employment Research
<b>LV</b>	Low Vision
<b>MM</b>	Mobility and Manipulation
<b>MSI</b>	Minority-Serving Institution
<b>NIDILRR</b>	National Institute on Disability, Independent Living, and Rehabilitation Research
<b>PAT</b>	Physical Access and Transportation
<b>POL</b>	Policy
<b>RERC</b>	Rehabilitation Engineering Research Center
<b>RRTC</b>	Rehabilitation Research and Training Center
<b>SBIR</b>	Small Business Innovation Research
<b>SMI</b>	Serious Mental Illness
<b>STI</b>	Strategies, Techniques, and Interventions
<b>TBI</b>	Traumatic Brain Injury
<b>TBIMS</b>	Traumatic Brain Injury Model Systems
<b>TBI-QOL</b>	Traumatic Brain Injury – Quality of Life

## Executive Summary

The Workforce Innovation and Opportunity Act (WIOA) of 2014 transferred the National Institute on Disability, Independent Living and Rehabilitation Research to the Administration for Community Living from the U.S. Department of Education. With this move, NIDILRR's mission remained unchanged -- to generate new knowledge and to promote its effective use to improve the abilities of individuals with disabilities to perform activities of their choice in the community as well as to expand society's capacity to provide full opportunities and accommodations for individuals with disabilities. As the primary research enterprise within ACL, NIDILRR's mission is highly complementary to the overarching mission of ACL — to maximize the independence, well-being, and health of older adults, people with disabilities across the lifespan, and their families and caregivers.

NIDILRR programs address a wide range of disabilities and impairments across all age groups and promote health and function, community living and participation, and employment. To accomplish these goals, NIDILRR invests in research, knowledge translation, and capacity-building activities through its discretionary grant-funding mechanisms.

### Funding and Grants Management

The allocation of NIDILRR grant funds for fiscal year (FY) 2020 totaled \$107,889,224. In addition, NIDILRR awarded \$4,862,027 in contracts and other support activities in FY 2020. These funds supported 220 grant awards in 2020.

NIDILRR's peer review process for grant competitions is highly rigorous, with 15.7 percent of applicants receiving new grant funding during FY 2020 (see Table 1).

### Productivity and Accomplishments

NIDILRR funds research toward the development of new knowledge and innovative technological devices, prototypes, measurement tools, interventions, and other informational products to enhance community living, health and function, and employment among people with disabilities. Grantees employ advanced methodologies to conduct research, including randomized controlled trials, longitudinal studies, and qualitative studies. These investments produce peer-reviewed publications, intervention protocols, software, databases, and a wide range of other outputs and outcomes. Selected examples of NIDILRR grantee accomplishments in FY 2020 include:

#### **CAREGIVING AND COVID-19 REPORT**

To better understand how the COVID-19 pandemic was affecting family caregivers, the [Rehabilitation Research and Training Center for People with Disabilities Across the Life Course](#)

conducted a [community-wide survey](#) of both caregivers and non-caregivers. Their study found that family caregivers reported more negative effects from the pandemic than non-caregivers and were more likely to experience social isolation, food insecurity, and financial hardship, among other issues. Family caregivers also reported that the pandemic had increased their caregiving responsibilities and that providing care was more physically, and emotionally difficult. A description and discussion of this report can be found in the [Sampling of Key Accomplishments by NIDILRR-Funded Researchers](#) section of this report.

### **PUBLICATION ON ASSISTIVE TECHNOLOGY ACCESS AND USAGE BARRIERS AMONG AFRICAN AMERICANS WITH DISABILITIES**

The Langston University Rehabilitation Research and Training Center on Research and Capacity-Building for Minority Entities published an article in the *Journal of Applied Rehabilitation Counseling* about the literature on assistive technology access and usage barriers among African Americans with disabilities. This article discusses access and usage disparities and their impact on employment for African Americans with disabilities. The Center calls for bridging the digital divide through public policy reform, digital literacy awareness, and enhanced capacity-building within vocational rehabilitation and assistive technology service delivery. This article urges vocational rehabilitation counselors in education and practice to examine ways to increase assistive technology access and bridge usage gaps for African Americans with disabilities in public policy, vocational rehabilitation service delivery, and institutional infrastructure systems. [The article can be accessed here.](#)

### **RESEARCH-BASED PUBLICATIONS USED BY STATE AND LOCAL AUTHORITIES TO IMPROVE COMMUNITY LIVING FOR PEOPLE WITH DISABILITIES**

A peer-reviewed publication from the Americans with Disabilities Act (ADA) Participation Action Research Consortium: Advancing Participation Equity for People with Disabilities, [Satisfaction, Safety, and Supports: Comparing People with Disabilities' Insider Experiences about Participation in Institutional and Community Living](#), was used by the State of Illinois Department of Human Services to evaluate whether their disability services and delivery systems complied with the Supreme Court's decision in *Olmstead v. L.C.* requiring states to provide services in the most integrated setting and to propose a new system using the methodology in the publication. This publication was also used by the Metropolitan Mayors Caucus of Illinois, which represents more than 250 mayors in Illinois, as part of a targeted series of community forums done with their policy stakeholders. In addition, transit maps and updated transit regional maps are research-based informational products that were used by the Metropolitan Transit Authority of Harris County (Houston, TX) to focus on improving sidewalks around the transit stops that serve people with disabilities. These maps showed where people with disabilities lived as well as the transportation lines and common resources or services that they used.

## Research Capacity-Building

Research capacity-building efforts under the Advanced Rehabilitation Research Training Projects, Switzer Fellowship Program, and NIDILRR's Center grant programs develop a diverse cadre of emerging disability and rehabilitation researchers. In addition, NIDILRR directs targeted resources to minority-serving institutions, such as historically black colleges and universities and tribal colleges and universities, to develop and implement programs to build disability and rehabilitation research capacity.

## Training and Technical Assistance on the Americans with Disabilities Act

NIDILRR sponsors the ADA National Network, which delivers training, technical assistance, and dissemination of materials for stakeholders with rights and responsibilities under the ADA. The ADA Participation Action Research Consortium complements the Network's activities through research on factors influencing the community living of individuals with disabilities at state, regional, and community levels.

## Knowledge Translation

NIDILRR is committed to ensuring that the products of its sponsored research and development are used to promote the independent living, health and function, employment, and community living outcomes of individuals with disabilities. Through its Knowledge Translation Centers and discrete knowledge translation projects, NIDILRR ensures that new knowledge and products gained through research and development are effectively communicated to stakeholders.

## Ongoing NIDILRR Activities

NIDILRR continues to focus its efforts on the implementation and integration of the vision as defined by the NIDILRR Director and the statutory missions of NIDILRR and the Administration for Community Living more broadly. The [NIDILRR FY 2018–2023 Long-Range Plan](#), which was published in March 2019, outlines the organizational and programmatic vision, and will frame NIDILRR's research agenda for the coming years.

Strategic partnerships and collaboration have been instrumental in advancing NIDILRR's mission. As such, NIDILRR will continue to leverage existing partnerships and seek out new opportunities to engage stakeholders within and outside of the Federal disability and rehabilitation research communities. NIDILRR's Director is the delegated Chair of the Interagency Committee on Disability Research (ICDR). The ICDR continues to build on its ongoing work toward the achievement of goals and objectives set forth in the government-wide disability and rehabilitation research strategic plan.

# 2020 Report to Congress

## Introduction

The National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR) is committed to improving independent living and community participation among people with disabilities by funding research and development in the areas of community living and participation, health and function, and employment. This Annual Report to Congress will describe NIDILRR's activities and accomplishments during fiscal year (FY) 2020. It begins with a summary of the organization's historical foundation, provides a description of its funding process and fiscal allocations, and follows with descriptions of programmatic outcomes impacting the community. This report concludes by describing ongoing initiatives and directions within the organization.

NIDILRR was established by Congress to conduct research that would lead to improved health and function, employment, and community living outcomes of individuals with disabilities. First constituted as the National Institute on Handicapped Research by the Rehabilitation, Comprehensive Services, and Developmental Disabilities Amendments of 1978 (P.L. 95–602), amending the Rehabilitation Act of 1973, the organization was originally housed in the Department of Health, Education, and Welfare, and later the Department of Education. The 1986 amendments to the Rehabilitation Act changed the agency's name to the National Institute on Disability and Rehabilitation Research. On July 22, 2014, the agency was renamed the National Institute on Disability, Independent Living, and Rehabilitation Research and transferred from the Department of Education to the Administration for Community Living within the Department of Health and Human Services (HHS). This change occurred with the passage of P.L. 113–128, the Workforce Innovation and Opportunity Act. NIDILRR personnel officially became HHS/Administration for Community Living employees on February 8, 2015.

NIDILRR'S mission is to generate new knowledge and promote its effective use to improve the abilities of individuals with disabilities to perform activities of their choice in the community as well as to expand society's capacity to provide full opportunities and accommodations for individuals with disabilities. To accomplish this mission, NIDILRR:

- Supports research, development, training, technical assistance, and related activities to build new knowledge.
- Promotes the transfer, use, and adoption of technology for individuals with disabilities to improve health and function, employment, and independent community living and participation outcomes.

- Provides for research training to increase the number of qualified researchers, including researchers with disabilities and from minority backgrounds.
- Fosters widespread dissemination and use of scientific and technological information to advance policy, practice, and services that improve outcomes for people with disabilities.

NIDILRR programs address community living and participation, health and function, and employment outcomes of people with disabilities. NIDILRR's investments in research, development, knowledge translation, and capacity-building activities are carried out through the following discretionary grant-funding mechanisms:

- **Rehabilitation Research and Training Centers (RRTC)** conduct advanced research and training on a wide variety of health, rehabilitation, employment, and community living topics.
- **Rehabilitation Engineering Research Centers (RERC)** conduct rehabilitation engineering research and development toward technological solutions to rehabilitation problems or environmental barriers.
- **Disability and Rehabilitation Research Projects (DRRP)** conduct research, development, technical assistance, training, and utilization activities on health, rehabilitation, employment, and community living topics.
- **Americans with Disabilities Act (ADA) National Network** projects conduct research and provide information, training, and technical assistance to ADA stakeholders.
- **Small Business Innovation Research (SBIR)** projects support small businesses to explore feasibility and develop or evaluate the commercialization potential of new technology products for people with disabilities.
- **Knowledge Translation (KT)** projects promote the use of research-based knowledge in NIDILRR's community of stakeholders.
- **Field-Initiated Projects (FIP)** conduct 3-year studies on topics proposed by applicants to address disability and rehabilitation issues in promising and innovative ways.
- **Model Systems** programs in spinal cord injury (SCI), traumatic brain injury (TBI), and burn injury (BI) conduct research on rehabilitation and long-term outcomes of individuals with these conditions. Research in these programs includes collaborative, multisite research and collection and analysis of longitudinal data.
- **Advanced Rehabilitation Research Training Projects (ARRT)** support institutions of higher education to provide advanced interdisciplinary research training to postdoctoral Fellows.
- **Research Fellowship Programs, or Mary E. Switzer Fellowships**, are awarded to qualified individuals to conduct 1-year independent research projects.
- **Section 21** projects focus on research capacity-building for minority-serving institutions, including historically black colleges and universities and other institutions with



significant racial/ethnic minority student populations. Section 21 of the Rehabilitation Act requires that 1 percent of NIDILRR appropriations be invested to address traditionally underserved populations.

## Grant Competitions – Year in Review

### Grant Competition and Peer Review Process

NIDILRR sponsors disability and rehabilitation research and development in the outcome domains of community living and participation, health and function, and employment. Funding is provided to the research community through its funding mechanisms, with priorities within these mechanisms determined by the agency. NIDILRR utilizes a rigorous peer review process, as required by federal regulation, and internal and external program evaluation to ensure the quality of its sponsored research and development activities. Subject matter experts with the appropriate credentials and content knowledge evaluate the scientific, technical, and management aspects of proposals submitted in response to NIDILRR funding opportunity announcements. This process generates an average score across reviewers, reducing bias and facilitating the ranking of projects by scientific merit. Only the highest-ranking proposals are recommended for NIDILRR funding.

### Grant Competitions

Table 1 describes NIDILRR’s FY 2020 grant competitions. The number of eligible applicants, review panels, reviewers, awards made, and percentage of applicants receiving funding are shown. A large percentage of applications receive high peer review scores that indicate strong technical merit and significant need. NIDILRR’s limited resources allow only a small percentage of these applicants to receive grants each year.

Table 1. NIDILRR Peer Review Process Overview, FY 2020

Grant Opportunity	# Eligible Applicants	# Panels	# Reviewers	# Awards Made	% Applicants Receiving Funding
ARRT - H&F	12	1	5	1	8%
ARRT - CL&P	3	1	5	1	33%
ARRT - EMP	5	1		1	20%
ARRT - POL	3	1		1	33%
SBIR - Phase 1	17	2	10	9	53%
SBIR - Phase 2	15	2	10	4	27%
Switzer	39	4	20	8	21%
FIP	146	15	60	17	12%
FIP - MSI	9	1	5	1	11%
Field-Initiated DRRP in CL&P	35	4	19	3	9%

Grant Opportunity	# Eligible Applicants	# Panels	# Reviewers	# Awards Made	% Applicants Receiving Funding
Field-Initiated DRRP in H&F	26	3	14	3	12%
DRRP - AT	43	5	24	4	9.3%
DRRP - KT	16	2	10	3	19%
DRRP - TBI	4	1	5	1	25%
DRRP - HCP	7	1	5	1	14%
DRRP - KTER	2	1	5	1	50%
DRRP - Pressure Injury	12	1	5	1	8%
DRRP - Expressive Com.	8	1	5	1	13%
-					
RERC - STI	7	1	5	1	14%
RERC - MM	7	1	5	1	14%
RERC - PAT	5	1	5	1	20%
-					
RRTC - Employment POL	2	1	5	1	50%
RRTC - H&F SMI	4	1	5	1	25%
RRTC - Blind LV	4	1	5	1	25%
RRTC - HCBS	2	1	5	1	50%
<b>TOTAL:</b>	<b>433</b>	<b>54</b>	<b>242</b>	<b>68</b>	<b>15.7%</b>

Source: U.S. Department of Health and Human Services, Administration for Community Living, National Institute on Disability, Independent Living, and Rehabilitation Research. These figures do not include FY 2020 awards made from 2019 slates.

## Monitoring and Oversight

NIDILRR uses its Annual Performance Reporting (APR) System, formative review mechanisms, and close monitoring of grant activities by NIDILRR staff to provide rigorous oversight of its funded initiatives. NIDILRR's APR is a web-based grants performance system grantees use to provide data about goals and objectives, staffing, budget, research and development methods, progress, outputs, and accomplishments. Data are used to determine whether continuation funding should be provided to a grantee. For a new grantee, the first reporting period begins on the start date of the award and extends until May 31 of the following year. Subsequent reporting periods begin June 1 and end May 31. Grantees submit their progress reports annually on July 1.

Formative evaluations of funded awards are used as supplemental oversight and technical assistance tools for grantees. Such reviews are conducted when NIDILRR program officers believe that a grantee could benefit from targeted technical assistance in addition to that available from the program officer. A panel of subject matter experts is chosen to provide the technical assistance and make recommendations for improvement if needed.

NIDILRR staff, as experienced program administrators and researchers, are highly adept at maintaining ongoing, routine communication with and oversight of grantees to help inform their scientific programs and ensure that they are meeting goals and objectives. Program officers use the HHS Grants Policy Administration Manual to provide consistent oversight across projects. Risk assessments are conducted to locate poor-performing grantees, with additional oversight and technical support provided as needed. Though rare, findings of ongoing poor performance can lead to a discontinuation of funding to a grantee.

## Funding Overview

The allocation of NIDILRR FY 2020 grant funds for the 11 funding mechanisms discussed above is shown in Table 2. For each funding mechanism, the table includes the number of new and continuation awards. NIDILRR’s overall grant allocations across all 11 funding mechanisms totaled \$107,889,224 for FY 2020. NIDILRR awarded \$4,862,027 in contracts and other support activities for FY 2020.

Table 2. NIDILRR-Funded Centers and Projects: Funding and Awards, FY 2020

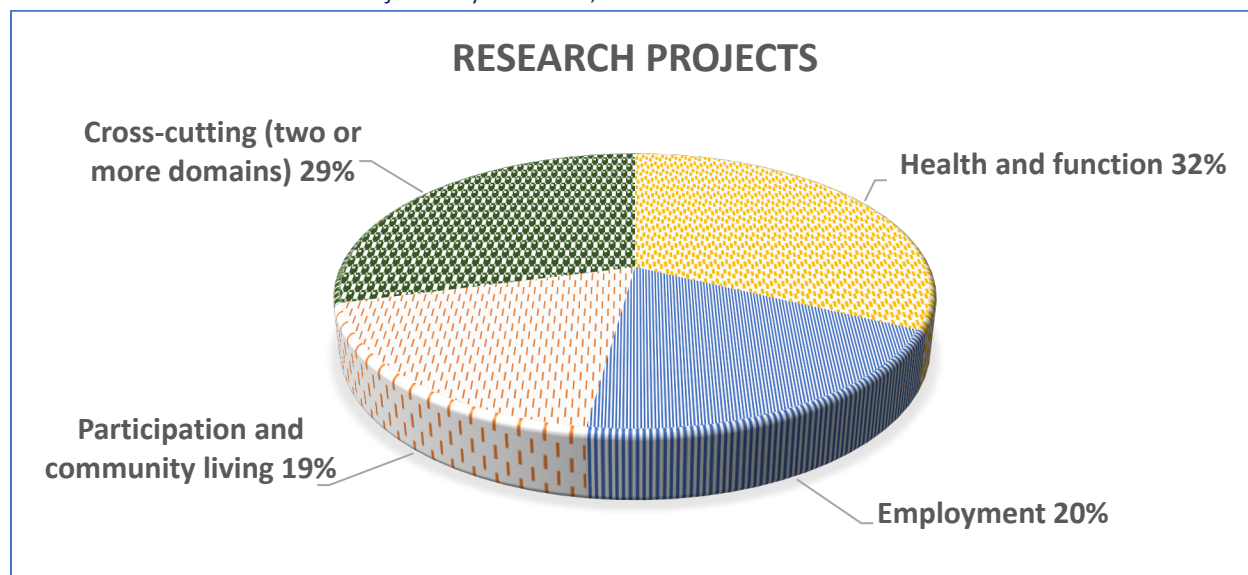
NIDILRR-Funded Centers & Projects		FY 2020		Grant Amount	
Funding Mechanism	Award Type	# of Awards	Total	In Thousands of \$	Total
RRTC	Continuations	17	22	19,246	19,246
	New Awards	5		4,372	
RERC	Continuations	14	17	12,288	15,662
	New Awards	3		2,774	
DRRP	Continuations	27	42	14,184	21,625
	New Awards	15		7,442	
ADA Network	Continuations	12	12	12,424	12,424
	New Awards	0		0	
SBIR	Continuations	4	17	1,182	3,283
	New Awards	13		2,101	
KT	Continuations	6	10	3,060	4,160
	New Awards	4		1,100	
FIP	Continuations	0	18	6,392	9,791
	New Awards	18		3,399	
<b>Model Systems</b>					
Spinal Cord Injury	Continuations	15	15	7,400	7,400
	New Awards	0		0	
TBI	Continuations	18	18	8,462	8,462
	New Awards	0		0	
Burn	Continuations	5	5	1,850	1,850

Funding Mechanism	Award Type	# of Awards	Total	In Thousands of \$	Total
	New Awards	0		0	
ARRT	Continuations	15	20	2,247	3,196
	New Awards	5		950	
Switzer Fellowships	New Awards (1-year grants)	8	8	590	590
Section 21	Continuations	0	1	0	200
	New Awards	1		200	
<b>Total</b>			<b>238</b>		<b>107,889</b>

Source: U.S. Department of Health and Human Services, Administration for Community Living, National Institute on Disability, Independent Living, and Rehabilitation Research.

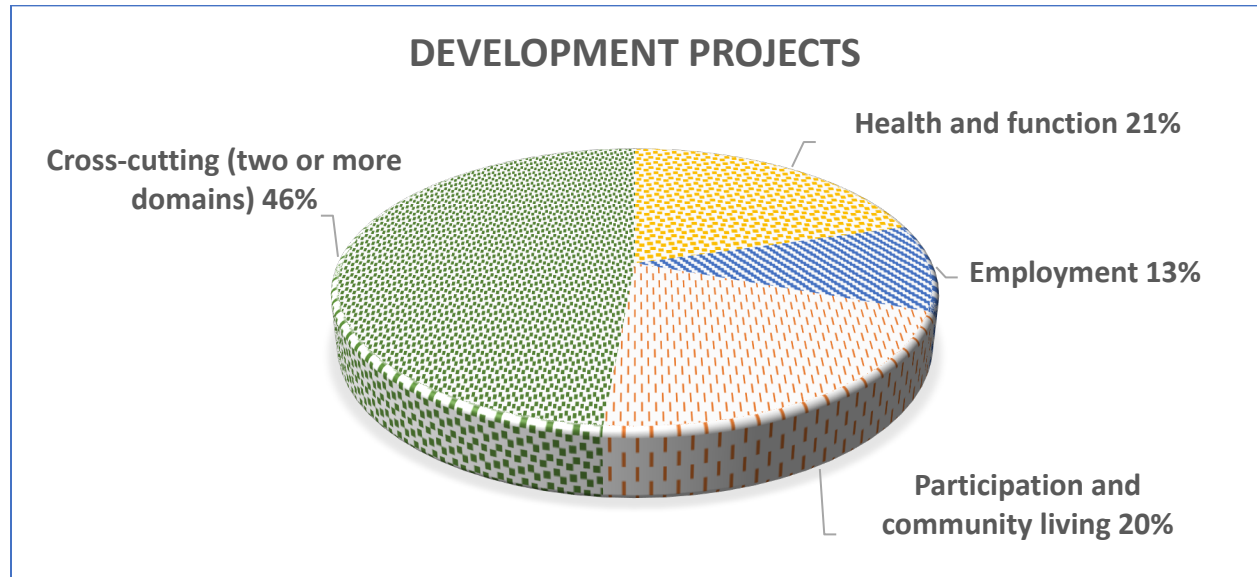
Exhibits 1 and 2 illustrate the distribution of funded research and development grant projects in FY 2020 across NIDILRR’s three outcome domains: health and function, community living and participation, and employment. “Cross-cutting” is a composite category used in the Annual Performance Report to describe projects that reflect two or more domains. Roughly 46 percent of development projects and about 29 percent of research projects were described as cross-cutting. “Research projects” are defined by NIDILRR as “an intensive systematic study, based on a clear hypothesis or research question that is directed toward producing new scientific knowledge about the subject or problem being studied.” “Development projects” are defined as “the use of knowledge and understanding gained from research to create materials, devices, systems, or methods beneficial to the target population, including design and development of prototypes and processes.”

Exhibit 1. Research Grant Projects by Domain, FY 2020



Source: U.S. Department of Health and Human Services, Administration for Community Living, National Institute on Disability, Independent Living, and Rehabilitation Research. *2020 Annual Performance Reports*. "Program Performance Report Table 9."

Exhibit 2. Development Grant Projects by Domain, FY 2020



Source: U.S. Department of Health and Human Services, Administration for Community Living, National Institute on Disability, Independent Living, and Rehabilitation Research. *2020 Annual Performance Reports*. "Program Performance Report Table 11."

## Grantee Activities and Progress

NIDILRR collects output data through the APR. Grantees are required to report each output from their funded activities in one of four categories: publications; tools, measures, and intervention protocols; technology products and devices; and informational products. A brief description of each category of output type follows:

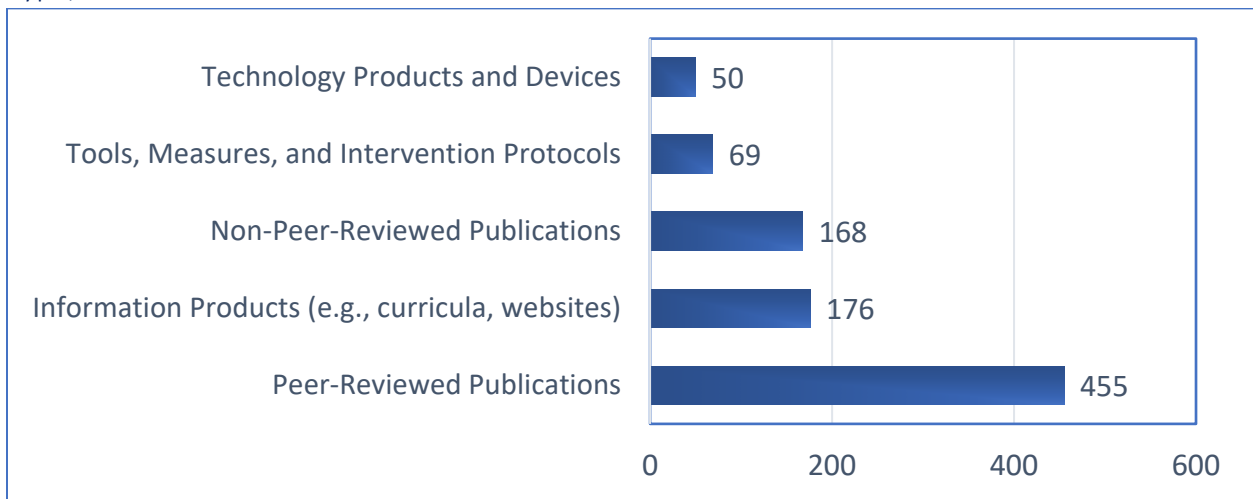
- **Publications** are documents directly funded by a grantee's current NIDILRR award. Publications include journal articles, periodicals, web journals, proceedings from meetings and symposia, books or book chapters, monographs, abstracts, technical or research reports, and reviews. Within this output category are peer-reviewed and non-peer-reviewed publications.
- **Tools, measures, and intervention protocols** include instruments or processes created to acquire quantitative or qualitative information, knowledge, or data on a specific disability or rehabilitation issue as well as research-based protocols for delivering interventions to specific target populations of people with disabilities.
- **Technology products and devices** are developed, modified, tested, or evaluated by the grantee. This category refers to any technology product or device developed under the

award that the grantee disseminated or delivered to external audiences during the current reporting period.

- **Information products** refer to items such as training manuals/curricula, fact sheets, newsletters, audiovisual materials, marketing tools, educational aids, websites, presentations, and other forms of disseminated information.

Exhibit 3 compares the number of output products produced by grantees within each category type in FY 2020. Additional detail has been provided for the category of publications, with peer-reviewed and non-peer-reviewed publications being reported separately.

Exhibit 3. Total Outputs Produced by All Grantees across All Program Mechanisms, by Product Type, FY 2020



Source: U.S. Department of Health and Human Services, Administration for Community Living, National Institute on Disability, Independent Living, and Rehabilitation Research. *2020 Annual Performance Reports*. "Program Performance Report Tables 18–22."

Data obtained through the 2020 APR show that NIDILRR supported 220 grantees during FY 2020, totaling \$107,889,224 across all program mechanisms. These projects reflect the breadth of disability and rehabilitation research within the agency's outcome domains of community living and participation, health and function, and employment. The knowledge and products that are generated by NIDILRR-sponsored research and development grants have a wide variety of important impacts in the field. The summaries that follow provide examples of the outcomes and impacts that resulted from NIDILRR's investments. Additional information concerning these projects is available through the National Rehabilitation Information Center website (<http://www.naric.com/>).

### Sampling of Key Accomplishments by NIDILRR-Funded Researchers

NIDILRR-funded researchers conduct myriad coordinated, integrated, and advanced programs of research, training, and information dissemination in content areas that are primarily

specified by NIDILRR. Areas of focus include the improvement of rehabilitation methodology and service delivery systems; the improvement of health and functioning; and the promotion of employment, independent living, family support, and economic and social self-sufficiency for individuals with disabilities. NIDILRR-funded training and capacity-building RRTCs provide training — including graduate, pre-service, and in-service training — to build capacity for disability and rehabilitation research. They also serve as centers of national excellence in rehabilitation research. Awards are normally made for a 5-year period.

The following are examples of accomplishments reported to NIDILRR grantees in FY 2020:

**Research-Based Publications Used by State and Local Authorities to Improve Community Living for People with Disabilities (Grant # 90DPAD0001)**

A peer-reviewed publication from the ADA Participation Action Research Consortium: Advancing Participation Equity for People with Disabilities, [\*Satisfaction, Safety, and Supports: Comparing People with Disabilities' Insider Experiences about Participation in Institutional and Community Living\*](#), was used by the State of Illinois Department of Human Services to evaluate whether their disability services and delivery systems complied with the Supreme Court's decision in *Olmstead v. L.C.* requiring states to provide services in the most integrated setting and to propose a new system using the methodology in the publication. This publication was also used by the Metropolitan Mayors Caucus of Illinois, which represents more than 250 mayors in Illinois, as part of a targeted series of community forums done with their policy stakeholders. In addition, transit maps and updated transit regional maps are research-based informational products that were used by the Metropolitan Transit Authority of Harris County (Houston, TX) to focus on improving sidewalks around the transit stops that serve people with disabilities. These maps showed where people with disabilities lived as well as the transportation lines and common resources or services that they used.

**Pocket Guide Provides Effective Communication Tips for Law Enforcement Personnel When Interacting with Individuals with Intellectual and Developmental Disabilities (Grant # 90DP0094)**

The Rocky Mountain ADA National Network Regional Center developed and made available a pocket guide, *Law Enforcement – Interacting with People with Intellectual and Developmental Disabilities*, as part of the information package on [police, law enforcement, and individuals with disabilities](#). This pocket guide contains information and tips for law enforcement personnel when interacting with people with intellectual and developmental disabilities, as well as information on how the ADA applies to law enforcement entities.

The need for this guide was identified and content developed based on research findings from their study [Disability and Law Enforcement Personnel: Perceptions from the Rocky Mountain](#)



[Region of the USA](#), which aimed to explore the perspectives of law enforcement personnel regarding interaction and communication with individuals with disabilities in order to enhance training and technical assistance; community stakeholders' input; and partnership with local law enforcement personnel. This pocket guide has been used by law enforcement agencies and other community stakeholders.

**New Manual on Supervision of Young Adult Peer Providers Adopted by the Massachusetts Department of Mental Health (Grant # 90RT5031)**

A NIDILRR-funded grantee at the University of Massachusetts Medical School developed a toolkit entitled [Effectively Employing Young Adult Peer Providers: A Toolkit](#). This toolkit disseminated research-based information designed specifically for provider organizations that employ or want to employ young adult peer providers. This toolkit serves as a guide to providers who have faced challenges integrating the young adult peer role into clinical and non-clinical services. To provide employers with tips on how to enhance their capacity to sustain and grow a young adult peer workforce, the toolkit addresses topics including supervising young adult peer providers, establishing a supportive organizational culture, hiring and training young adult peers, and significant job difficulties. The toolkit directly influenced and led to the development of another manual focusing specifically on supervision, [A Guide to Supervising Young Adult Peer Support Providers - 2nd Edition](#). The author of the supervision manual, Dr. Vanessa Klodnick, has been delivering technical assistance on supervision of young adult peer mentors to the Massachusetts Department of Mental Health and other states. Additionally, Dr. Klodnick has also given webinars on this topic based on the research completed for the toolkit.

**Touch-Responsive Models for Universal Access to Smithsonian Museums Exhibits (Grant # 90BISB0008)**

This project develops new methods for fabricating replicas of museum artifacts and other 3D objects that describe themselves when touched so that museums can create exhibits that are accessible to everyone, including visitors with visual impairments. Phase I demonstrated how ordinary capacitive touchscreens could be repurposed as sensors for determining locations of finger touches on 3D surfaces and objects that have been hand painted with a carbon-rich conductive coating. Phase II improves on these methods by showing how both conductive (graphene) filament and transparent insulating filament can be loaded into a standard, dual extruder 3D printer to create light-transmissive, inherently touch-responsive objects in one step, obviating the need for hand painting. The new translucent models can be illuminated from below by the touch screen, allowing dynamic lighting effects and visual feedback when models or parts of models are touched.

This NIDILRR grantee has completed several high-profile projects that relied on methods developed in their recent Phase 2 SBIR grant. The grant was crucial because it provided the



grantee resources to do extensive human subject testing. Once the grantee understood how actual visitors tend to respond to the touch-responsive models, they used that knowledge to create many more models for their museum customers. The research conducted through this grant was essential to their recent project entitled *Talking Tactile Brain* at the National Museum of Health and Medicine. More information about these touch-responsive models can be found at the grantee's website: <http://touchgraphics.com/portfolio/tactile-maps-and-guides/>.

### **The American Psychiatric Association and the Substance Abuse and Mental Health Services Administration Adopt Products from the Health and Recovery Solutions Suite in the Serious Mental Illness (SMI) Advisor Website (Grant # 90RT5038)**

There is a documented need among behavioral health practitioners and the people they serve for tools, manuals, curricula, and practice guidelines that are easy to obtain, highly accessible and engaging, based on evidence-based or promising practices, and clearly laid out for immediate implementation. Additionally, these resources are most impactful when they can be used without a large amount of specialized training or expertise, or expensive technology. To address this, the NIDILRR-funded RRTC on Integrated Health Care and Self-Directed Recovery at the University of Illinois at Chicago developed the Health and Recovery Solutions Suite. This suite is designed to provide the field with ready access to a variety of tools that promote recovery, wellness, and/or physical health, thereby equipping providers and consumers with a well-stocked toolbox from which to draw in their work and/or lives.

The American Psychiatric Association and the Substance Abuse and Mental Health Services Administration launched the national SMI Adviser Project to advance use of person-centered approaches to care that ensure people with mental illnesses find the treatment and support they need. SMI Adviser offers providers with access to education, data, and consultations in order to make evidence-based treatment decisions, with over 23,400 learners reached to date. In recognition of the need for evidence-based interventions to support physical health, wellness, employment, and recovery-oriented care, SMI Adviser adopted the majority of the Solutions Suite products, including: Nutrition and Exercise for Wellness and Recovery, Diabetes Education Toolkit, Wellness Activities Manual, Planning/Conducting a Health Fair Manual, Keeping Healthy After the Hospital, Building Financial Wellness Curriculum, Self-Directed Care Implementation Manual, This is Your Life Planning Guide, Express Yourself Self-Determination Assessment, Raising Difficult Issues with Your Service Provider Guidebook, and Seeking Supported Employment Workbook. The grantee's products are featured in the [Knowledge Base component](#) of their comprehensive website.

### **Clinical Practice Guideline is Now Required Reading for Neurological Subspecialties**

The 2018 publication titled [Practice Guideline Update Recommendations Summary: Disorders of Consciousness](#), developed with NIDILRR support, has been selected as one of the ten [required](#)

[reading articles for the Behavioral Neurology and Neuropsychiatry Continuous-Certification Examination](#). This certification is offered by the United Council of Neurologic Subspecialties, the only professional body that provides this subspecialty board certification for behavioral neurologists and neuropsychiatrists. The article provides recommendations to improve diagnosis, health outcomes, and care of people with disorders of consciousness (DoC).

This accomplishment did not stem from a grant-funded activity; instead, it was the result of work supported through a memorandum of understanding between NIDILRR, the American Academy of Neurology, and the American Congress of Rehabilitation Medicine. This effort was led by Joseph Giacino of the TBI Model Systems (TBIMS) Center at Spaulding Rehabilitation. This accomplishment illustrates NIDILRR's role in translation of research to clinical practice guidelines and professional medical training. More information about the development of this guideline, NIDILRR-funded DoC research, and additional resources is available at the following website: <https://naricspotlight.wordpress.com/2018/08/15/new-guideline-released-for-managing-vegetative-and-minimally-conscious-states/>.

### **Minimum Competency Recommendations for Programs That Provide Rehabilitation Services for Persons with Disorders of Consciousness**

This work is the second publication resulting from a memorandum of understanding between NIDILRR and the American Congress of Rehabilitation Medicine. This guidance document to the field, [Minimum Competency Recommendations for Programs That Provide Rehabilitation Services for Persons With Disorders of Consciousness: A Position Statement of the American Congress of Rehabilitation Medicine and the NIDILRR TBIMS](#), was co-chaired by Dr. Joseph Giacino, was co-authored by a technical expert panel comprised of members of the joint American Congress of Rehabilitation Medicine-NIDILRR DoC Task Force. This position statement provides recommendations for “minimum competency” for hospital-based programs that provide services to patients with DoC. The process yielded 21 recommendations on the essential services required for effective DoC-focused rehabilitation, organized into four categories: diagnostic and prognostic assessment, treatment, transitioning care/long-term care needs, and management of ethical issues. The recommendations provide a framework for institutional providers and payors to evaluate the quality of rehabilitation services administered to persons with DoC. This work is an excellent example of the NIDILRR-sponsored knowledge translation pipeline from research to clinical practice and clinical program evaluation.

### **Measure of Quality of Life in People with TBI (Grant #s [H133A070037](#) and [90DP0047](#))**

The Traumatic Brain Injury – Quality of Life (TBI-QOL) Measurement System is a comprehensive measurement system designed specifically to assess quality of life for individuals with TBI. NIDILRR funded a field-initiated grant and provided funding through several TBIMS grants to ensure collaboration between TBIMS scientists. This measurement development effort also

leveraged funding from several federal agencies. For example, TBI-QOL “optimized” several National Institutes of Health-funded PROMIS and Neuro-QOL item banks for individuals with TBI. The work also leveraged initiatives by the National Institutes of Health Common Fund and the National Institute of Neurological Disorders and Stroke. TBI-QOL developed new item banks specific for individuals with TBI. The Department of Veterans Affairs funded an Office of Rehabilitation Research and Development grant to develop military-related item banks. TBI-QOL has been incorporated in the Department of Defense 15-year longitudinal study to examine the effects of TBI incurred by service members serving in Operation Iraqi Freedom or Operation Enduring Freedom. This measurement development effort is an excellent example of multiyear collaborations and leveraging of federal funding to create a reliable and valid measure of quality of life following TBI. To learn more about the TBI-QOL, articles are available at: [https://www.archives-pmr.org/issue/S0003-9993\(19\)X0004-0](https://www.archives-pmr.org/issue/S0003-9993(19)X0004-0).

### **Caregiving and COVID-19 Report (Grant # 90RTGE0002)**

The RRTC for People with Disabilities Across the Life Course focuses research, training, technical assistance, and dissemination efforts under the theme of “caregiver support empowers the whole family.” The mission of this RRTC is to facilitate the rapid translation and dissemination of state-of-the-art research and training to inform direct services and support programs designed to improve care, health, and quality of life of people with disabilities and their families. To achieve this mission of increasing access to family support, the RRTC aims to: (1) advance state-of-the-science research in caregiving, rehabilitation, and e-health self-management support in people with disabilities and their family caregivers with the goal of maintaining independent living in the community; (2) train health and rehabilitation providers and researchers to support families caring for people with disabilities; (3) leverage findings from RRTC research projects to advance the capacity of health care and public health systems to deliver high-quality, tailored support to family caregivers of people with disabilities; and (4) utilize dynamic mechanisms to translate and disseminate knowledge to people with disabilities, family caregivers, policymakers, service providers, researchers, employers, and other key stakeholders.

The RRTC completed a community-wide survey to better understand how the pandemic was affecting family caregivers. They surveyed both caregivers and non-caregivers. They found that family caregivers reported more negative effects from the pandemic than non-caregivers. They were more likely to experience social isolation, food insecurity, and financial hardship, among other issues. Family caregivers also reported that the pandemic had increased their caregiving responsibilities and that providing care was more physically, and emotionally difficult. To learn more, the report is available at:

[https://ucsur.pitt.edu/files/center/covid19\\_cg/COVID19\\_Full\\_Report\\_Final.pdf](https://ucsur.pitt.edu/files/center/covid19_cg/COVID19_Full_Report_Final.pdf).

## **Publication on Assistive Technology Access and Usage Barriers Among African Americans with Disabilities (Grant # 90RTST0001)**

The Langston University RRTC on Research and Capacity-Building for Minority Entities published an article in the *Journal of Applied Rehabilitation Counseling* about the literature on assistive technology access and usage barriers among African Americans with disabilities. This article discusses the access and usage disparities and their impact on employment for African Americans with disabilities. The Center calls for bridging the digital divide through public policy reform, digital literacy awareness, and enhanced capacity-building within vocational rehabilitation and assistive technology service delivery. This article urges vocational rehabilitation counselors in education and practice to examine ways to increase assistive technology access and bridge usage gaps for African Americans with disabilities in public policy, vocational rehabilitation service delivery, and institutional infrastructure systems. The article can be accessed at the following link:

<https://connect.springerpub.com/content/sgrjarc/51/2/115>.

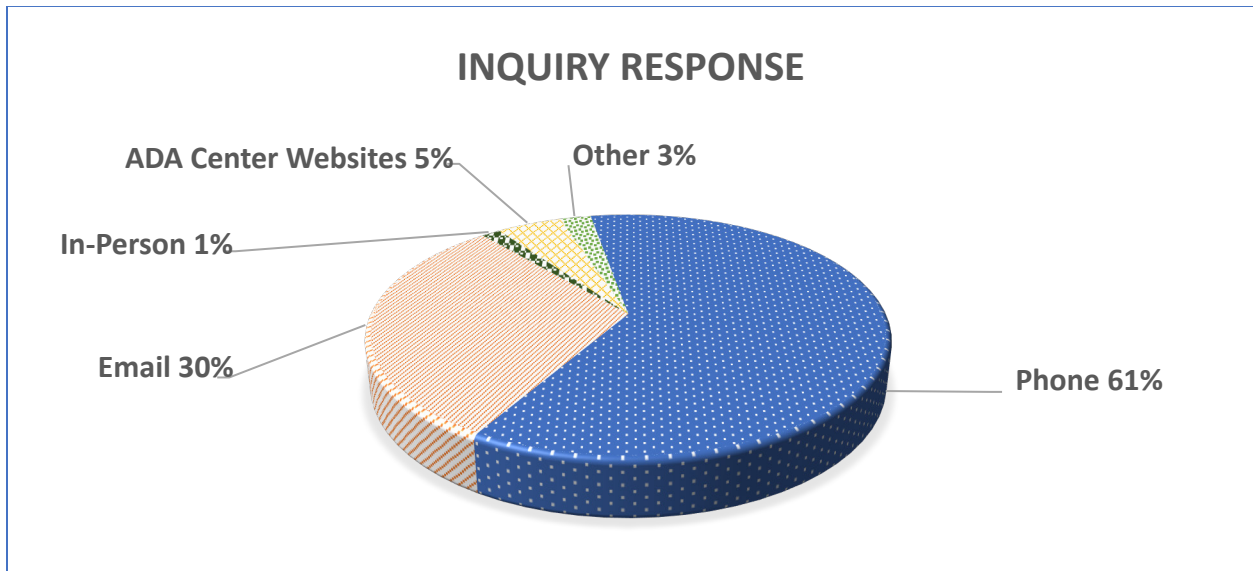
## ADA National Network

One of NIDILRR's largest investments is in the ADA National Network, which consists of 10 regional centers that provide information, training, and technical assistance to individuals, businesses, and agencies with rights and responsibilities under the ADA. The network also includes research and knowledge translation components, which are carried out by two network grantees: the ADA National Network Collaborative Research Project and the ADA National Network Knowledge Translation Center, respectively. The following are examples of ADA National Network accomplishments reported to NIDILRR for FY 2020.

Knowledge translation efforts in the ADA National Network are led by the ADA Knowledge Translation Center. The Center has three primary goals: (1) increase efficiency and impact by serving as a central resource to support the development, coordination, and deployment of ADA information, training, technical assistance, and capacity-building activities across the ADA National Network; (2) increase awareness and use of ADA research findings to inform practice; and (3) improve understanding of stakeholders' needs for and receipt of ADA services.

ADA National Network grantees are highly responsive to the community, providing advice, information, technical assistance, and training through multiple modalities. In FY 2020, the centers received more than 17,598 technical assistance inquiries from the public. Exhibit 4 presents the modalities used to provide technical assistance in response to these questions.

Exhibit 4. Inquiry Response



The 10 ADA National Network Centers conducted 1,238 training activities impacting 84,703 individuals, including customized training presentations, training courses, and conferences during the 2020 APR reporting period (June 1, 2019, – May 31, 2020). Audiences included service providers, individuals with disabilities and their families, business groups, state and local government agencies, architects and design professionals, and other professional groups.

In addition to training and technical assistance, the ADA National Network and its regional centers produce numerous products to aid in disseminating information to the public, employers, and individuals with disabilities about their rights and responsibilities. Table 3 shows the types and number of times a product was disseminated.

Table 3. Product Dissemination

Type	Number Disseminated
Journal Articles	1,356
Project Publications	276,803
Video and Audio Tapes	68,919
CDs and DVDs	0
Books or Book Chapters	600
Bulletins, Newsletters, or Factsheets	1,134,345
Research Reports and Conference Proceedings	222

## Research Fellowship Program (Mary E. Switzer Fellowship Program)

The Mary E. Switzer Fellowship Program seeks to increase capacity in rehabilitation research by giving qualified individual researchers, including individuals with disabilities, the opportunity to develop new ideas and further their research expertise. Awards go directly to individuals, not their institutions, enabling Fellows to pursue independent research and training activities. Distinguished Fellows are seasoned in their careers, must hold a doctorate or comparable academic status, and have had 7 or more years of experience relevant to rehabilitation research. Merit Fellowships are given to persons with rehabilitation research experience who do not meet the qualifications for Distinguished Fellowships, usually because they are in earlier stages of their careers. Fellows work for 1 year on an independent research project of their design. Individuals with disabilities are encouraged to apply for each of these Fellowships.

Six Switzer Fellowships were awarded in FY 2020, with a total of 13 Fellows submitting annual or final performance reports in 2020. Current Switzer Fellows are displayed in Table 4.

Table 4. Current Switzer Fellows and Project Titles

Name	Project Title
<b>Jennifer Sanchez</b>	Evaluating the Efficacy of a Group Intervention to Improve Workplace Soft Skills for Transition-Aged Youth with Psychiatric Disabilities
<b>Morris Huang</b>	Implementation of a Sensor Platform for Multi-day Measurement of Manual Wheelchair-User Mobility Patterns in Real-World Environments to Inform Clinical Training and Improved Contexts for Research
<b>Michelle Ballan</b>	Advancing Evidence-Informed Responses to Intimate Partner Violence among Women with Disabilities

## Ongoing NIDILRR Activities

The accomplishments presented are a small sample of the accomplishments realized as a result of the research and development sponsored by NIDILRR. The accomplishments were chosen to emphasize NIDILRR's broad impact on individuals with disabilities, the families and care communities that support them, and society writ large. Moving forward, the organization will continue to sponsor rigorous research that is relevant to the needs and experiences of individuals with sensory, mental, physical, and developmental/intellectual disabilities.

NIDILRR will also focus on implementing and integrating the visions of the appointed NIDILRR Director and the Administration for Community Living Administrator. NIDILRR's [FY 2018–2023 Long-Range Plan](#) was published in March 2019. The plan defines NIDILRR's organizational and programmatic framework and research agenda for the coming years.

Strategic partnerships with other agencies in HHS and across the federal government have been instrumental in advancing NIDILRR's mission. As such, NIDILRR will build on its historical

collaborations to identify best practices, conduct co-sponsored research, and address shared goals. NIDILRR's Director will continue to serve as the Chair of the Interagency Committee on Disability Research, a federal partnership charged to promote a cohesive, strategic federal program of disability, rehabilitation, and independent living research; broker partnerships; and facilitate coordination and collaboration among federal departments and agencies conducting such research. NIDILRR intends to continue to lead and contribute to the advancement of the goals and objectives set forth in the recently drafted government-wide disability and rehabilitation research strategic plan.