2014

Summary of 2014 Annual Performance Reports from NIDRR Grantees

February 26, 2015

National Institute on Disability and Rehabilitation Research
Office of Special Education and Rehabilitative Services
U.S. Department of Education

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Arne Duncan
Secretary

Office of Special Education and Rehabilitative Services (OSERS)
Michael Yudin
Acting Assistant Secretary

National Institute on Disability and Rehabilitation Research
John Tschida
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Content contact:
Timothy Muzzio
Phone: 202-245-7458; Email: Timothy.Muzzio@ed.gov

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Introduction

The purpose of this report is to present selected key data from the National Institute on Disability and Rehabilitation Research (NIDRR) 2014 grantee Annual Performance Report (APR). Grant funding presented in this report is for the APR reporting period June 1, 2013 through May 31, 2014. The report also compares data for 2010 through 2014 on some variables.

New for 2014

Beginning with the 2014 APR, grantees were asked to designate a stage of research for each project and Exhibit 13 presents the results from this new question. 2014 was also the first year that the APR collected *primary impairment group* at the project level. Previously this variable was collected at the grant level. However, the *primary impairment group* question does not apply to projects conducted by ADA grants. Exhibits 14 and 19 present *primary impairment group* for research and development projects, respectively. Following the adoption of the NIDRR Long-Range Plan, the domains have changed. The domains of *Health and function*, *Employment*, and *Participation and community living* were retained, while the three domains of *Technology*, *Demographics,* and *Knowledge translation, including tech transfer* were removed. In addition, ARRT grants no longer report research, development, and training projects.

Mission

NIDRR's mission is to generate new knowledge and promote its effective use to improve the abilities of people with disabilities to perform activities of their choice in the community, and also to expand society's capacity to provide full opportunities and accommodations for its citizens with disabilities.

Statutory Mandate

NIDRR was established by the 1978 amendments to the Rehabilitation Act of 1973. NIDRR's purpose is to

> … provide for research, demonstration projects, training, and related activities to maximize the full inclusion and integration into society, employment, independent living, family support, and economic and social self-sufficiency of individuals with disabilities of all ages …; promote the transfer of rehabilitation technology to individuals with disabilities through research and demonstration projects …; ensure the widespread distribution, in usable formats, of practical scientific and technological information …; identify effective strategies that enhance the opportunities of individuals with disabilities to engage in employment …; and increase opportunities for researchers who are members of traditionally underserved populations, including researchers who are members of minority groups and researchers who are individuals with disabilities (29 USC §760).

Funding Mechanisms

NIDRR uses eight grant funding mechanisms defined by Catalog of Federal Domestic Assistance (CFDA) numbers. For more information on grants funded under these categories, see the NARIC program directory database.

Advanced Rehabilitation Research Training (ARRT) grants provide funding to institutions of higher education to recruit qualified post-doctoral candidates with clinical, management, basic or engineering

research experience and prepare them to conduct independent research on disability and rehabilitation issues [CFDA 84.133P].

Disability and Rehabilitation Research Projects (DRRP) emphasize research and development projects, training, and knowledge translation on rehabilitation topics. DRRP subcategories are: Americans with Disabilities Act National Network (ADA), Traumatic Brain Injury Model Systems Centers, Burn Model Systems Centers, Knowledge Translation (KT) and general DRRPs [CFDA 84.133A].

Field Initiated Projects (FIP) address rehabilitation issues in promising and innovative ways. As the name implies, topics for these projects are chosen by the applicants. Awards are based upon merit and potential impact on the field of rehabilitation [CFDA 84.133G].

Rehabilitation Engineering Research Centers (RERC) conduct programs of advanced engineering and technical research designed to apply technology, scientific achievement, and psychological and social knowledge to solve rehabilitation problems and remove environmental barriers. RERCs are affiliated with institutions of higher education or non-profit organizations [CFDA 84.133E].

Rehabilitation Research and Training Centers (RRTC) conduct coordinated and integrated advanced research to alleviate or stabilize disabling conditions, promote maximum social and economic independence of people with disabilities, or improve rehabilitation methodology or service delivery systems. RRTCs operate in collaboration with institutions of higher education and providers of rehabilitation services and serve as national centers of excellence in rehabilitation research [CFDA 84.133B].

Research Fellowships Program (RFP), also known as the Mary E. Switzer Fellowship, gives individual researchers an opportunity to develop new ideas and gain research experience. Fellows design and work for one year on an independent research project [CFDA 84.133F].

Small Business Innovation Research (SBIR) grants, as administered by NIDRR as a part of the larger mandatory SBIR program, help support the production of new assistive and rehabilitation technology. This two-phase program takes a rehabilitation-related product from development to market readiness [CFDA 84.133S].

Spinal Cord Injury Model Systems Centers (SCIMS) study the course of recovery and outcomes following the delivery of a coordinated system of care for individuals with SCI. Under this program, SCIMS centers provide comprehensive rehabilitation services to individuals with SCI and conduct spinal cord research, including clinical research [CFDA 84.133N].

NIDRR also funds contracts to provide technical support related to NIDRR's internal management and knowledge translation activities.

Data Categories Used in This Report

In this report, data are reported under program mechanism categories that differ from the CFDA categories. The DRRP subcategories of KT, ADA, TBI model system, and burn model system are excluded from the general DRRP category; KT and ADA are presented as separate categories. TBI and burn model systems are combined with SCI model systems under the category MS. Please see the Appendix for a full description of program mechanisms as used in this report and for definitions of domain, research method, research stages, and development stages.

Annual Performance Reporting System

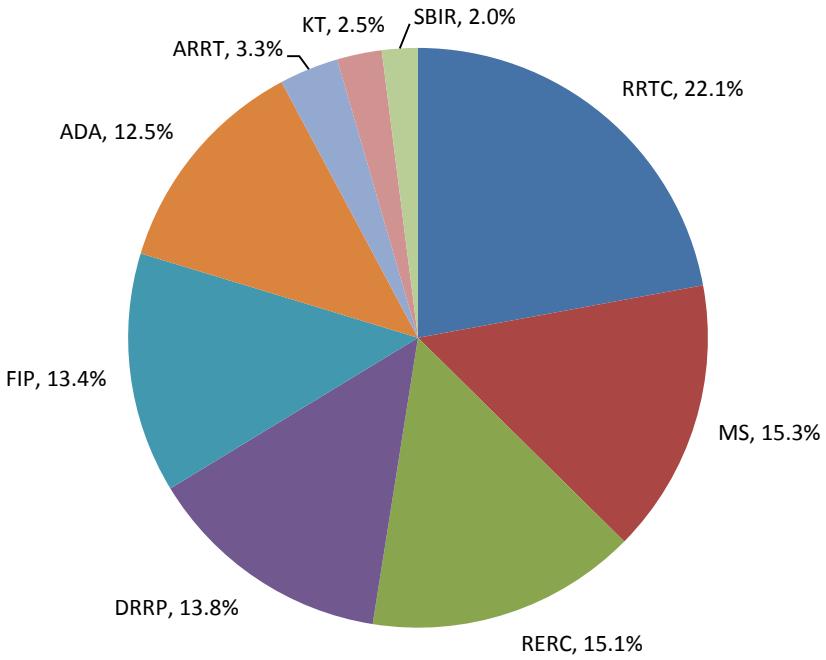
In 2000, NIDRR launched its web-based grants performance system called the Annual Performance Reporting system. Grantees use this system to provide data about goals and objectives; staffing; budget; research issues such as sample size and method; progress; outputs; and accomplishments. For a new grantee, 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 report data annually in the APR on July 1. Because grants and their associated projects are in various stages of completion, these data provide a snapshot look at grant status as of May 31 in a given year.

Section 1. NIDRR Funds Received by Grantees

Information on funding comes from the following APR item: *The total amount (exclusive of supplements) of funds that you received from NIDRR for this budget period for this award*. Budget period is not synonymous with reporting period. A budget period is a specific interval of time for which federal funds are being provided from a particular fiscal year to fund approved activities and budget. Budget period is defined as 365 days from the start date of the grant. For multiyear awards, consecutive budget periods proceed immediately from the end of the previous budget period and are 365 days in duration. The amount of funding grantees reported receiving from NIDRR on the 2014 APR refers to the budget year. All other data in this report refer to the 2014 APR reporting period which is from June 1 through May 31.

How much NIDRR funding did grantees receive in the budget period covered by the 2014 APR?

Exhibit 1. Percentage of total NIDRR funding received by grantees, by program mechanism: 2014



NOTE: SBIR Phase I grants not included. DRRP includes three grants under Section 21. The DRRP subcategories of KT, ADA, TBI model system, and burn model system are excluded from the DRRP category; KT and ADA are presented as separate categories. TBI and burn model systems are combined with SCI model systems under the category MS. These data are not collected from RFP grantees in the APR.

SOURCE: NIDRR Annual Performance Reports database, Table 1, output Oct. 21, 2014.

- Exhibit 1 shows the percent distribution of $100 million in grant funding among nine program mechanisms based on budget period reporting in the 2014 APR. RRTCs reported receiving 22.1 percent of the $100 million in grant funding, followed by MS and RERC with about 15 percent each. The smallest program mechanisms were KT and SBIR with about 2 percent of total funding each.

Exhibit 2. Number of grants, projects and funding, by program mechanism: 2014

Program mechanism	Number of grants	Number of research, development, and training projects	Average number of projects per grant	Number of grants receiving funding this budget period[1]	NIDRR funds received
RRTC	35	429	12.3	26	$22,088,685
MS	37	203	5.5	34	15,296,848
RERC	23	275	12.0	15	15,071,835
DRRP	30	228	7.6	26	13,862,144
FIP	87	142	1.7	72	13,460,085
ADA	12	184	15.3	12	12,532,898
ARRT[2]	25	-	-	22	3,264,685
KT	3	25	8.3	3	2,474,510
SBIR	11	20	1.8	8	2,038,229
RFP	10	10	1.0	-	-
Total	273	1,516	6.1	218	$100,089,919

[1]Excludes grants with no-cost extensions.

[2]Beginning with the 2014 reporting period, ARRT grants do not report research, development, or training projects.

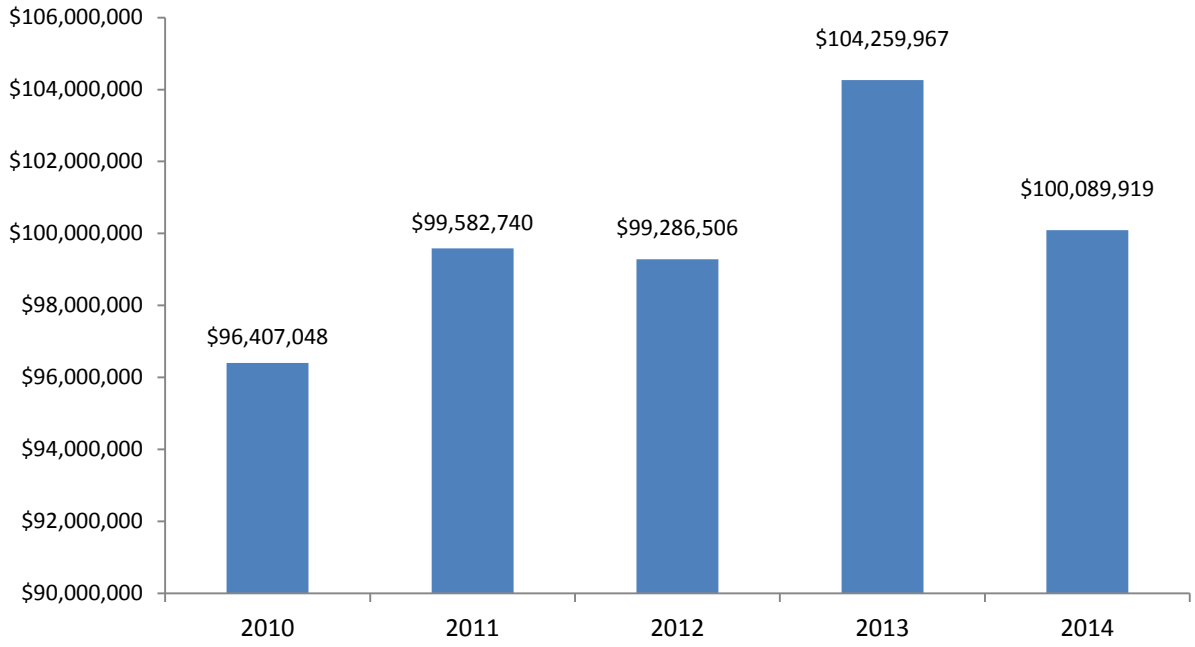
NOTE: SBIR Phase I grants not included. DRRP includes three grants under Section 21. The DRRP subcategories of KT, ADA, TBI model system, and burn model system are excluded from the DRRP category; KT and ADA are presented as separate categories. TBI and burn model systems are combined with SCI model systems under the category MS. Funding data are not collected from RFP grantees in the APR.

SOURCE: NIDRR Annual Performance Reports database, Tables 1 and 2, output Oct. 21, 2014.

- Exhibit 2 shows the dollar amount reported by grantees in each program mechanism and the number of grants and associated projects. In 2014, there were 263 grants: 218 which received funds during the associated budget period and 45 with no-cost extensions.
- There were 1,516 research, development, and training projects associated with the grants. Across all program mechanisms, the average number of projects per grant was 6.1. The ADA grants had the largest average number of projects per grant with 15.3.

How did the total amount of NIDRR grant funding received by grantees in all program mechanisms change from 2010 through 2014?

Exhibit 3. Funding received by grantees: 2010–2014

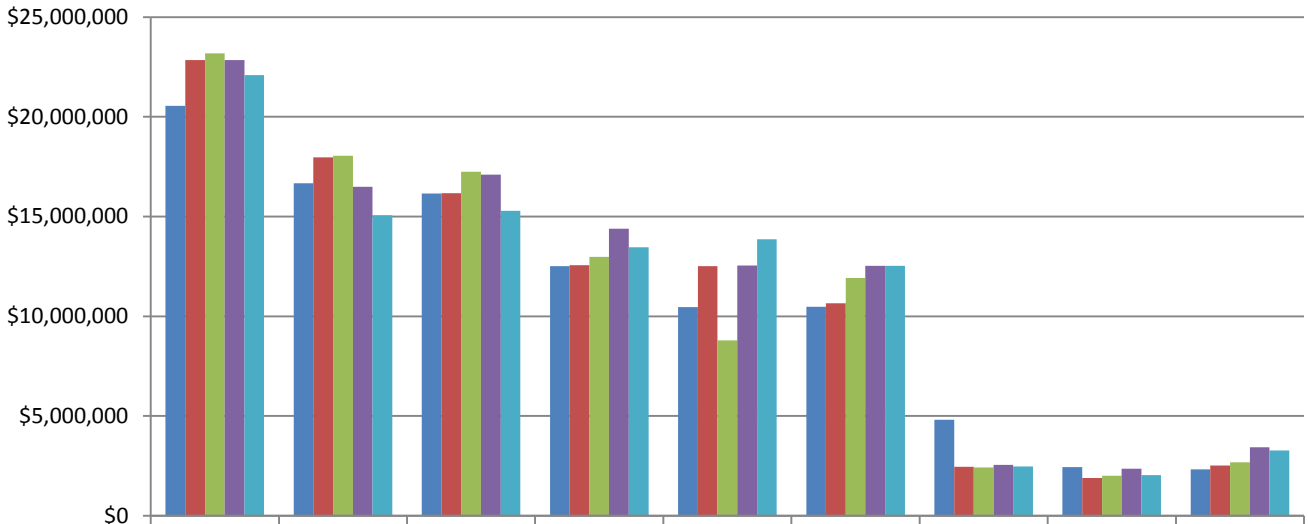


SOURCE: NIDRR Annual Performance Reports database, Table 1, output Oct. 21, 2014.

- Exhibit 3 shows how the amount of NIDRR grant funding received by grantees changed from 2010 through 2014.
- As reported by grantees in the 2014 APR, grantees received $100 million in funding from NIDRR in 2014.
- Overall funding received from NIDRR rose by $3,682,871 from 2010 to 2014, an increase of about 3.8 percent. However, the year-to-year percentage changes did not reflect a steady upward trend: 2011 showed a 3.3 percent increase over the previous year, 2012 had a decrease of 0.3 percent, 2013 had an increase of 5 percent, and 2014 a decrease of 4 percent.

How did the amount of NIDRR grant funding received by program mechanisms change from 2010 through 2014?

Exhibit 4. Distribution of reported grant funds received, by program mechanism and year: 2010–2014



	RRTC	RERC	MS	FIP	DRRP	ADA	KT	SBIR	ARRT
2010	20,548,529	16,675,340	16,157,988	12,510,910	10,464,138	10,470,988	4,815,787	2,433,432	2,329,936
2011	22,837,715	17,963,452	16,176,609	12,564,720	12,512,382	10,654,687	2,449,802	1,899,458	2,523,915
2012	23,187,833	18,046,918	17,243,633	12,980,919	8,792,229	11,916,771	2,424,997	2,006,889	2,686,317
2013	22,842,122	16,498,837	17,096,099	14,385,274	12,551,249	12,531,295	2,549,995	2,364,309	3,440,787
2014	22,088,685	15,071,835	15,296,848	13,460,085	13,862,144	12,532,898	2,474,510	2,038,229	3,264,685

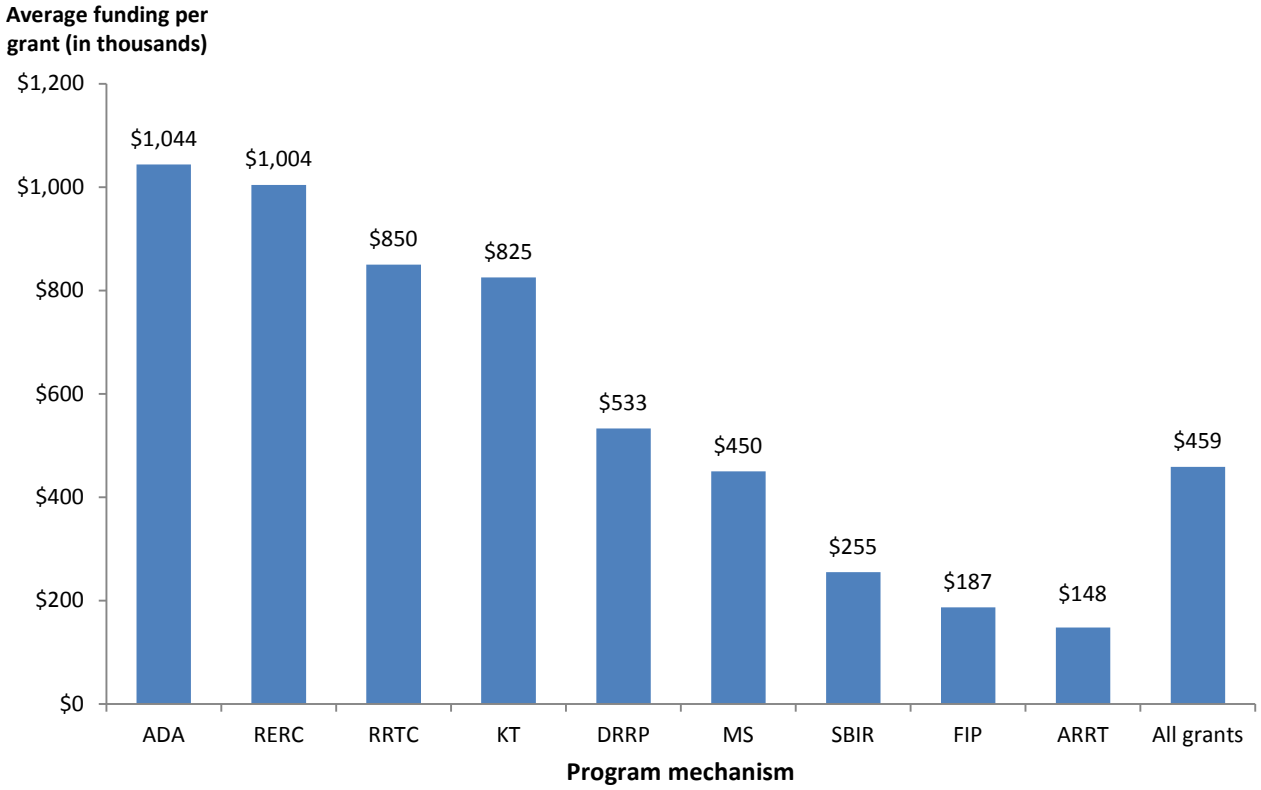
NOTE: SBIR Phase I grants not included. DRRP includes three grants under Section 21. The DRRP subcategories of KT, ADA, TBI model system, and burn model system are excluded from the DRRP category; KT and ADA are presented as separate categories. TBI and burn model systems are combined with SCI model systems under the category MS. These data are not collected from RFP grantees in the APR.

SOURCE: NIDRR Annual Performance Reports database, Table 1, output Oct. 21, 2014.

- Exhibit 4 shows how grant funds were distributed among program mechanisms for the 5-year period of 2010 through 2014.
- In 2014, RRTCs received about $22 million in grant funding, the highest figure among the program mechanisms. This pattern held constant through the five years.
- The RRTC, FIP, DRRP, ADA, and ARRT program mechanisms reported increased funding between 2010 and 2014. The RERC, MS, KT, and SBIR program mechanisms had reduced funding when comparing 2010 and 2014. In addition, ADA was the only mechanism that exhibited a constant upward trend throughout the five years.

What was the average funding received per grant for each program mechanism?

Exhibit 5. Average funding received per grant (in thousands of dollars), by program mechanism: 2014



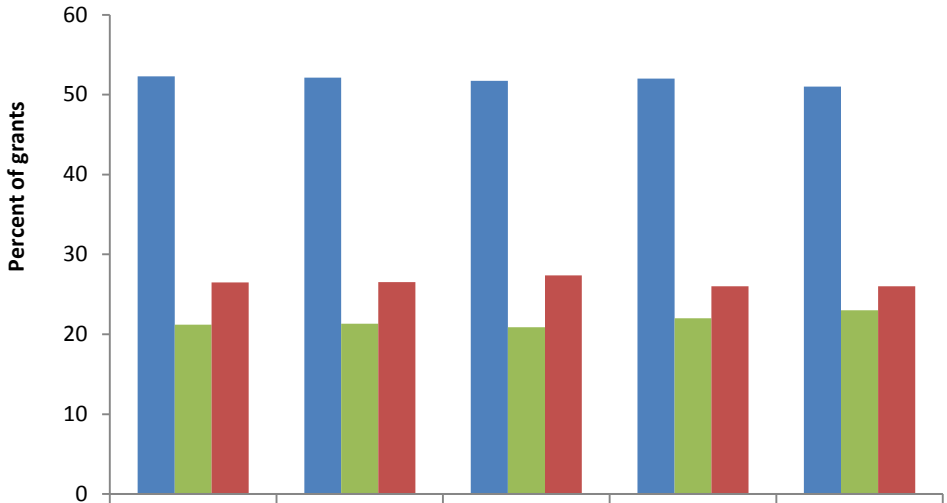
NOTE: SBIR Phase I grants not included. DRRP includes three grants under Section 21. The DRRP subcategories of KT, ADA, TBI model system, and burn model system are excluded from the DRRP category; KT and ADA are presented as separate categories. TBI and burn model systems are combined with SCI model systems under the category MS. These data are not collected from RFP grantees in the APR.

SOURCE: NIDRR Annual Performance Reports database, Table 1, output Oct. 21, 2014.

- In 2014, NIDRR grants received an average of $459,000.
- ADA and RERC grants had the highest average funding per grant, at about $1 million each. In addition, the average RRTC, KT, and DRRP grants were higher than the overall average, while the MS, SBIR, FIP, and ARRT grants were below the overall average.

What types of changes did grantees expect to produce?

Exhibit 6. Percentage of grants expected to produce select types of changes: 2010–2014



	2010	2011	2012	2013	2014
Advances in knowledge—changes or improvements in awareness, knowledge, understanding, skills and/or attitudes	52	52	52	52	51
Increased capacity to conduct and/or use high-quality research, or progression of trainees in academic stature	21	21	21	22	23
Changes or improvements in policy, practice, behavior, or system capacity	26	27	27	26	26

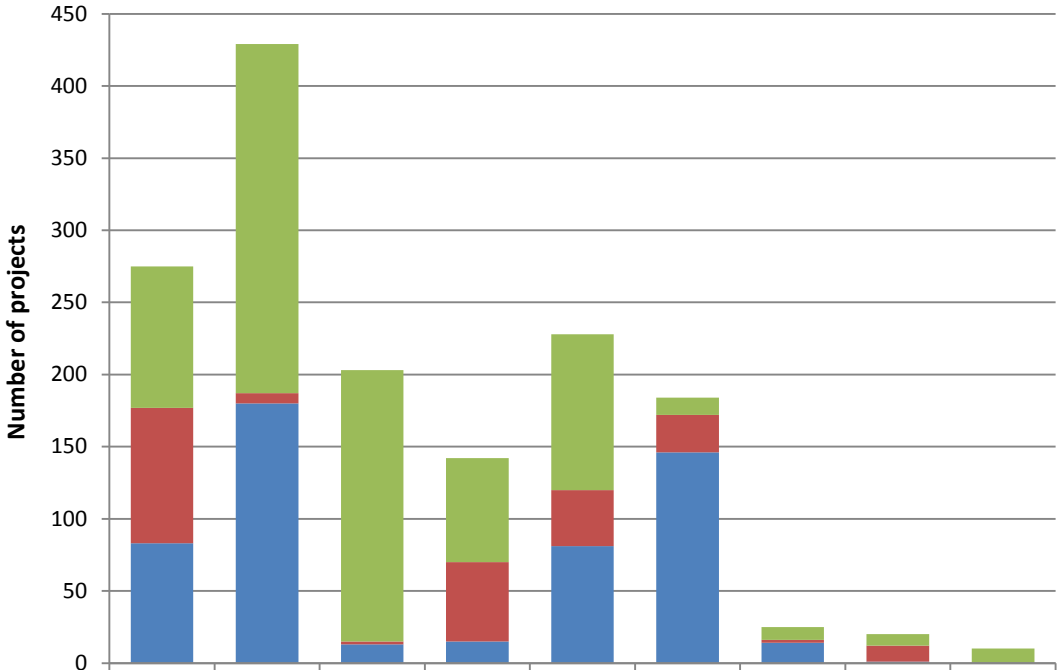
NOTE: Percentage was calculated by dividing the number of grants associated with each type of change by the total number of grants, then multiplying the result by 100.

SOURCE: NIDRR Annual Performance Reports database, output Nov. 18, 2014.

- Grants funded by NIDRR are expected to produce contributions to the field of disability and rehabilitation. In the APR, grantees were asked to select the type of change or improvement that will occur as a result of the grant. Exhibit 6 compares the three types of change over five years.
- In all years, about half the grants expected to achieve *Advances in knowledge*. This pattern has remained constant from year to year. There was also very little change within the other two categories.

What types of projects were conducted in the various program mechanisms in 2014?

Exhibit 7. Number of projects, by program mechanism and type of project: 2014



	RERC	RRTC	MS	FIP	DRRP	ADA	KT	SBIR	RFP
Research (n=747)	98	242	188	72	108	12	9	8	10
Development (n=236)	94	7	2	55	39	26	2	11	0
Training (n=533)	83	180	13	15	81	146	14	1	0

NOTE: SBIR Phase I grants not included. DRRP includes three grants under Section 21. The DRRP subcategories of KT, ADA, TBI model system, and burn model system are excluded from the DRRP category; KT and ADA are presented as separate categories. TBI and burn model systems are combined with SCI model systems under the category MS. RFP grantees are asked to characterize the fellowship as a research or development project. Beginning with the 2014 reporting period, ARRT grants do not report research, development, or training projects.

SOURCE: NIDRR Annual Performance Reports database, Table 2, output Oct. 21, 2014.

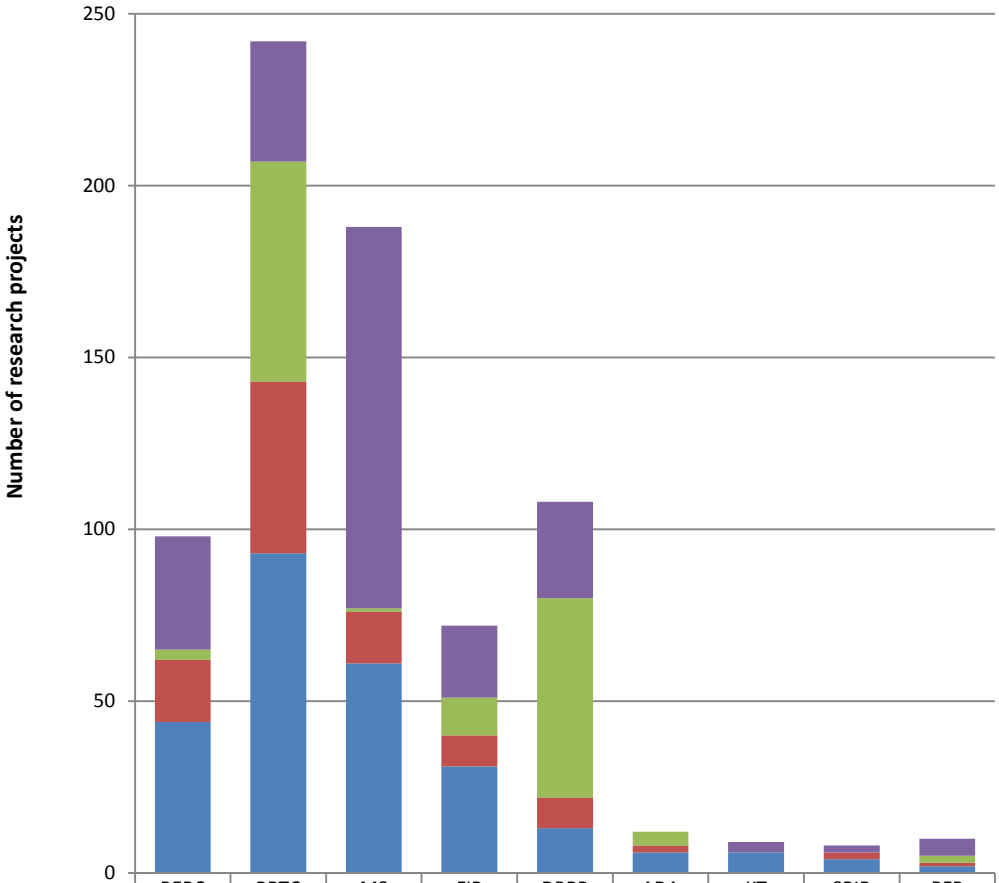
- Exhibit 7 shows how many research, development, and training projects were conducted under each program mechanism in 2014. Grantees reported a total of 1,516 projects for 2014. The most common type of project was research (747), followed by training (533), and development (236).
- RRTC and MS grants conducted the most research projects, with 242 and 188 projects respectively. These two program mechanisms accounted for 58 percent of all research projects. RERCs conducted the most development projects with 94, followed by FIPs with 55. RRTCs and ADAs conducted the most training projects, with 180 and 146 respectively.
- Looking within program mechanisms, RERC projects were almost evenly divided among research, development, and training. RRTC grants conducted very few development projects. MS projects focused almost exclusively on research, while ADA center projects focused primarily on training.

Section 3. Research Projects

A research project is defined 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." This definition was derived from the regulations governing the DRRP program (34 CFR 350.13).

How were research projects distributed among program mechanisms and domains in 2014?

Exhibit 8. Number of research projects, by program mechanism and domain: 2014



	RERC	RRTC	MS	FIP	DRRP	ADA	KT	SBIR	RFP
Health and function (n=238)	33	35	111	21	28	0	3	2	5
Employment (n=143)	3	64	1	11	58	4	0	0	2
Participation and community living (n=106)	18	50	15	9	9	2	0	2	1
Cross-cutting (two or more domains) (n=260)	44	93	61	31	13	6	6	4	2

NOTE: SBIR Phase I grants not included. DRRP includes three grants under Section 21. The DRRP subcategories of KT, ADA, TBI model system, and burn model system are excluded from the DRRP category; KT and ADA are presented as separate categories. TBI and burn model systems are combined with SCI model systems under the category MS. RFP grantees are asked to characterize the fellowship as a research or development project. Beginning with the 2014 reporting period, ARRT grants do not report research, development, or training projects. Beginning with the 2014 reporting period, the three domains of *Technology*, *Demographics* and *Knowledge translation, including tech transfer* were removed.

SOURCE: NIDRR Annual Performance Reports database, Table 9, output Oct. 21, 2014.

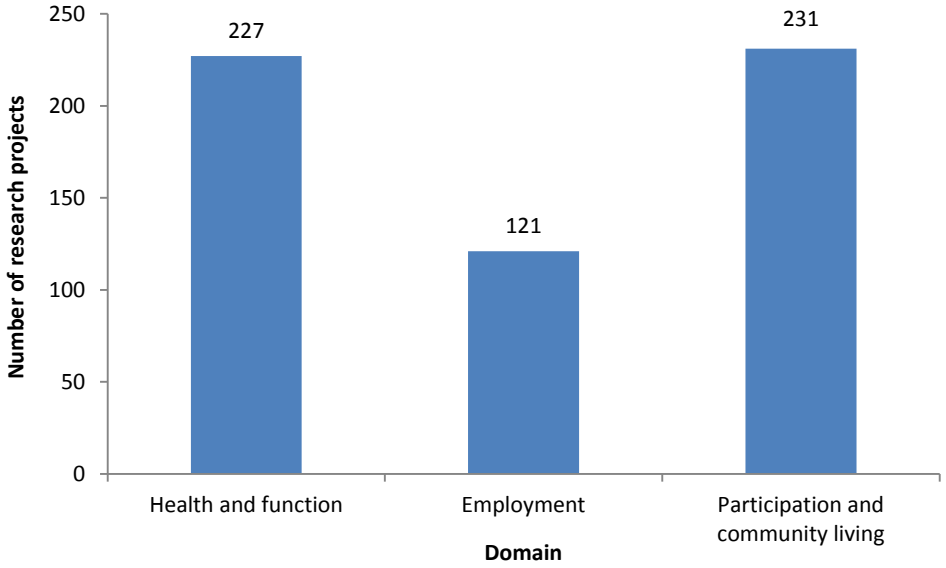
- In the APR, grantees were asked:

  *Based on the objectives listed, what one NIDRR Long-Range Plan Domain does this project **best** fit in? (Select only one)*
  (1) health and function
  (2) employment
  (3) participation and community living
  (4) cross-cutting (specify two or more domains that apply)

- Exhibit 8 shows the number of research projects in each program mechanism and domain in 2014. Overall, *Cross-cutting* (contributing to two or more domains) was the most commonly identified domain, with 260 (34.8 percent) of the 747 research projects. *Health and function* was the next most common domain with 238 projects (31.8 percent), followed by *Employment* with 143 projects (19.1 percent) and *Participation and community living* with 106 projects (14.1 percent).
- MS grants conducted nearly half of all *Health and function* projects, while RRTCs conducted nearly half of all *Participation and community* living projects. *Employment* projects were concentrated in the RRTC and DRRP program mechanisms.
- Most of the *Cross-cutting* projects were conducted by RRTC and MS grants.

What were the specified domains for Cross-cutting research projects in 2014?

Exhibit 9. Number of Cross-cutting research projects, by specified domains: 2014



NOTE: Grantees may select more than one domain for each *Cross-cutting* project.
SOURCE: NIDRR Annual Performance Reports database, output Nov. 18, 2014.

- The *Cross-cutting* domain shows that a disability research project often spans two or more Long-Range Plan domains because of the multi-disciplinary nature of disability research. Grantees who identified their research projects as *Cross-cutting* were asked:

  If "cross-cutting," specify two or more domains that apply.

  (1) health and function

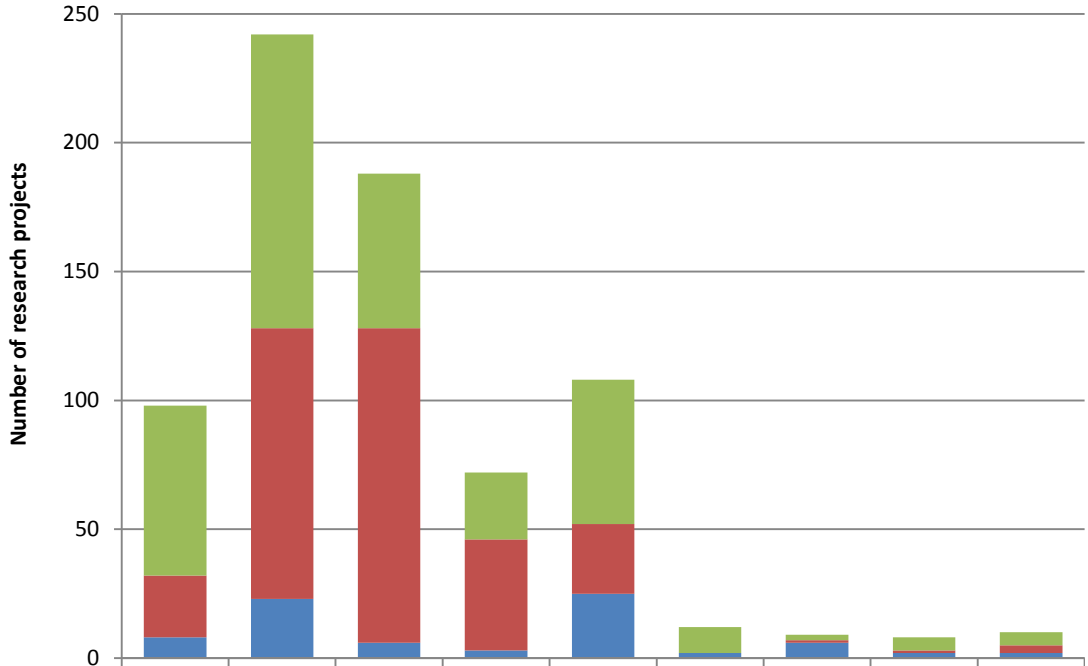
  (2) employment

  (3) participation and community living

- Exhibit 9 shows the domains associated with the 260 research projects identified as *Cross-cutting* in 2014. Of these 260 *Cross-cutting* projects, 227 projects selected the *Health and function* domain, 121 projects selected the *Employment* domain, and 231 selected *Participation and community living*.

What was the distribution of research projects by program mechanism and time dimension (cross-sectional and longitudinal) in 2014?

Exhibit 10. Number of research projects, by program mechanism and time dimension: 2014



	RERC	RRTC	MS	FIP	DRRP	ADA	KT	SBIR	RFP
Cross-sectional (n=344)	66	114	60	26	56	10	2	5	5
Longitudinal (n=326)	24	105	122	43	27	0	1	1	3
Other (n=77)	8	23	6	3	25	2	6	2	2

NOTE: SBIR Phase I grants not included. DRRP includes three grants under Section 21. The DRRP subcategories of KT, ADA, TBI model system, and burn model system are excluded from the DRRP category; KT and ADA are presented as separate categories. TBI and burn model systems are combined with SCI model systems under the category MS. RFP grantees are asked to characterize the fellowship as either a research or a development project. Beginning with the 2014 reporting period, ARRT grants do not report research, development, or training projects.

SOURCE: NIDRR Annual Performance Reports database, Table 10, output Oct. 21, 2014.

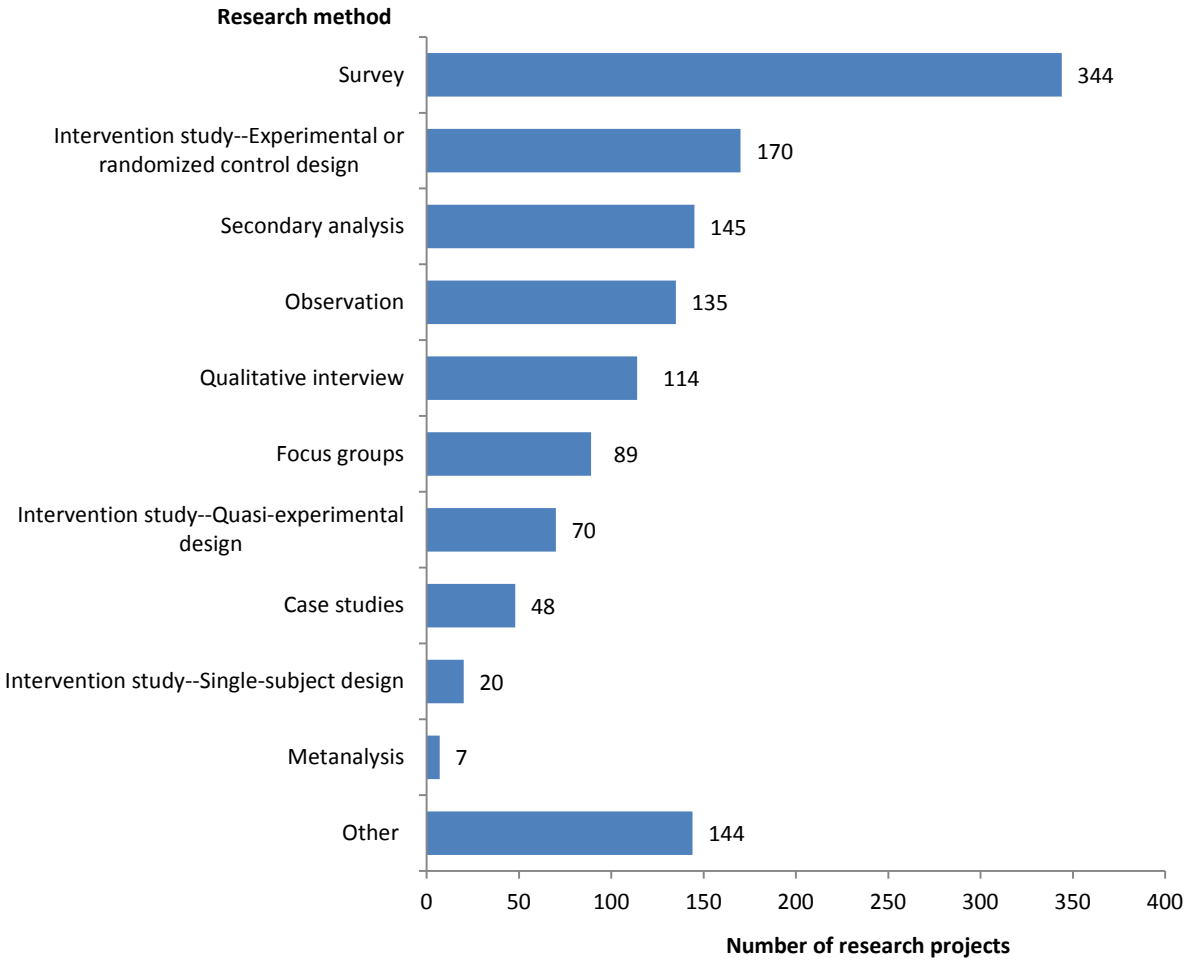
- In the APR, grantees were asked:

  What time dimension is associated with this study? (Select only one. Select 'other' if no other category applies.)

- *Cross-sectional* is defined as measurement taken at one point in time. *Longitudinal* is defined as repeated measurements taken over many time points. Exhibit 10 shows the time dimension for the 747 research projects in each program mechanism in 2014.
- The 747 research projects consisted of 344 *Cross-sectional* studies (46 percent), 326 *Longitudinal* studies (43.6 percent) and 77 (10.3 percent) reported as *Other*.
- Most of the *Cross-sectional* studies were conducted in RRTCs, while *Longitudinal* studies were concentrated in the RRTC and MS program mechanisms. Within programs, only MS and FIP had more *Longitudinal* than *Cross-sectional* studies.

What methods or designs did research projects use?

Exhibit 11. Number of research projects using particular research methods: 2014



NOTE: Grantees may select more than one research method for each project. See the Appendix for definitions of the research methods.

SOURCE: NIDRR Annual Performance Reports database, Table 10, output Oct. 21, 2014.

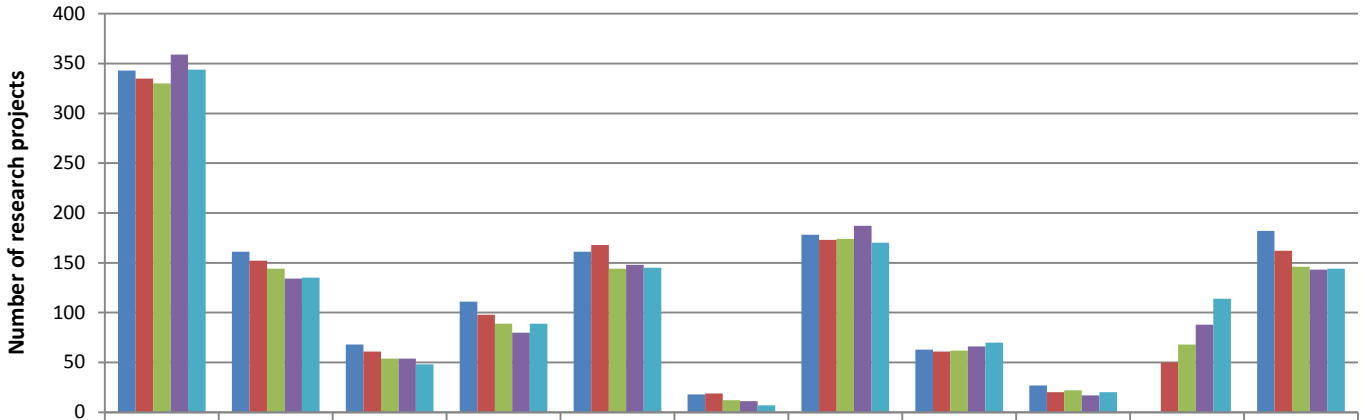
- In the APR, grantees were asked:

  > *What method(s) or design(s) does the project use to obtain its information? (Check all that apply. Select "other" for this item only if no other category applies.)*

- Exhibit 11 displays the various methods used in research projects in 2014. Note that grantees may select more than one research method for each project.
- The most common research method used was a *Survey*, occurring in 344 (46 percent) of the 747 research projects. The next most common method was *Intervention studies–Experimental or randomized control design*, used by 170 projects (22.8 percent).

How did the use of research methods change from 2010 through 2014?

Exhibit 12. Number of research projects using particular research methods, by year: 2010–2014



	Survey	Observation	Case studies	Focus groups	Secondary analysis	Meta-analysis	Intervention study-Experimental or randomized controlled design	Intervention study-Quasi-experimental design	Intervention study-Single subject design	Qualitative interview	Other
2010	343	161	68	111	161	18	178	63	27	-	182
2011	335	152	61	98	168	19	173	61	20	50	162
2012	330	144	54	89	144	12	174	62	22	68	146
2013	359	134	54	80	148	11	187	66	17	88	143
2014	344	135	48	89	145	7	170	70	20	114	144

- *Qualitative interview* was collected as a separate category beginning in 2011. In 2010, *Other* included methods such as literature reviews and qualitative interviews.

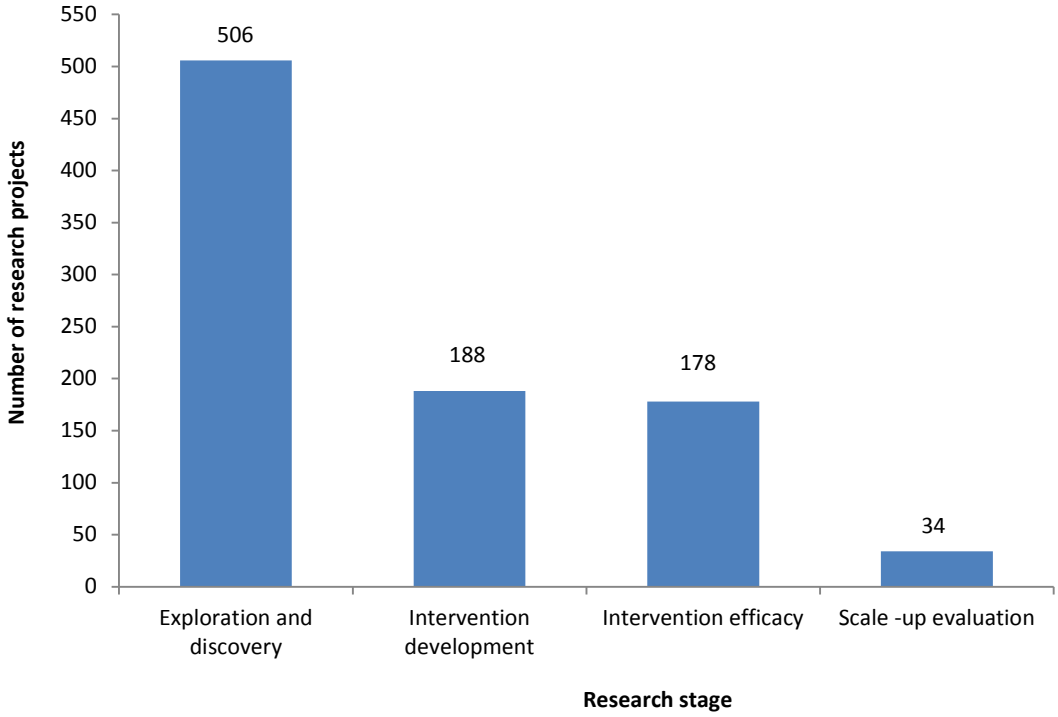
NOTE: Grantees may select more than one research method for each project.

SOURCE: NIDRR Annual Performance Reports database, Table 10, output Oct. 21, 2014.

- Grantees were asked to specify the method or design associated with each research project. Exhibit 12 shows the number of research projects that used a particular research method for 2010–2014. Note that grantees may select more than one research method for each project.
- *Survey* was the most frequently used research method in all five years. The use of *Observation, Case studies, and Meta-analysis* decreased notably over this time period, while *Secondary analysis* declined somewhat less. The three types of *Intervention study* have remained fairly constant over the five years.
- *Qualitative interview* has seen a marked increase in use, from 50 projects in 2011 to 114 projects in 2014.

How were research projects distributed among research stages in 2014?

Exhibit 13. Number of research projects in research stages: 2014



NOTE: Grantees may select more than one research stage for each project. See the Appendix for the definition of each stage.
SOURCE: NIDRR Annual Performance Reports database, output Feb. 5, 2015.

- 2014 was the first year that the APR collected data on stage of research. Grantees were asked:

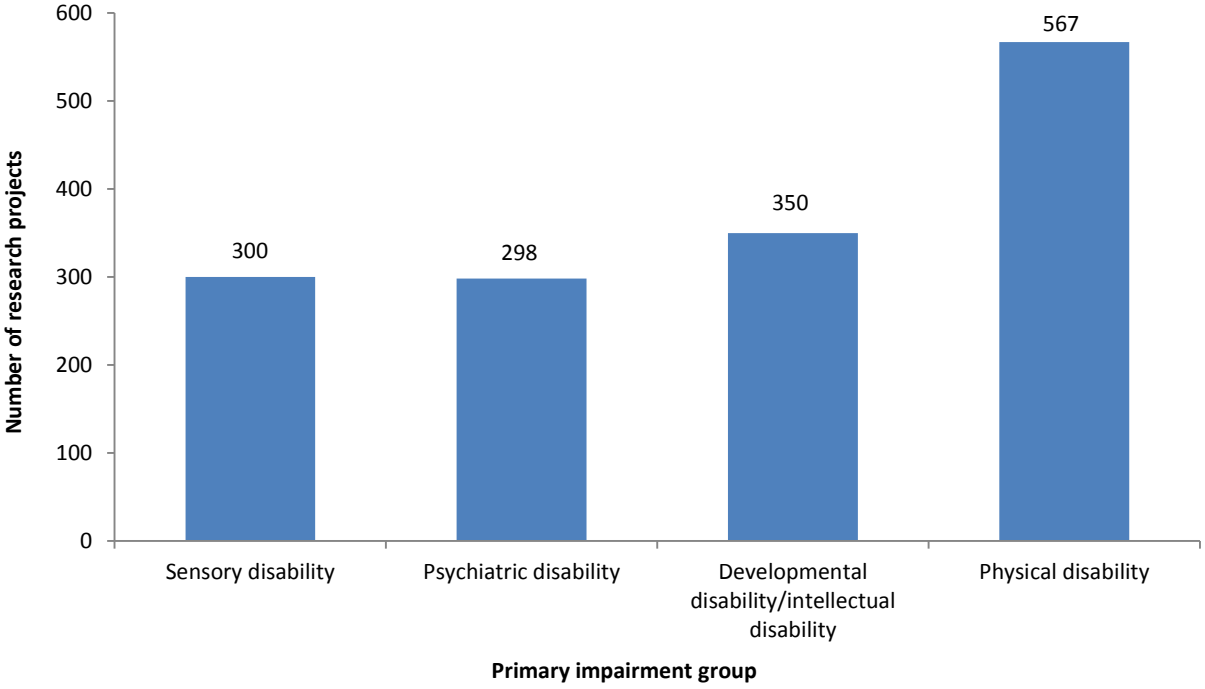
  Which main category, or stage of research, does this research project belong in? If this project includes research that can be categorized under more than one of the research stages, or research that progresses from one stage to another, you may specify more than one stage. (Check all that apply.)

  a. Exploration and discovery
  b. Intervention development
  c. Intervention efficacy
  d. Scale-up evaluation

- Exhibit 13 shows the research stages for the 747 research projects in 2014. The most frequently cited research stage was *Exploration and discovery*, while the least common stage was *Scale-up evaluation*, which applied to 34 research projects. Between these two extremes were the *Intervention development* and *Intervention efficacy* stages with an almost equal number of projects.

What primary impairment group or groups did research projects address in 2014?

Exhibit 14. Number of research projects in primary impairment groups: 2014



NOTE: Grantees may select more than one *primary impairment group or groups* for each project. The *primary impairment group* question does not apply to projects conducted by ADA grants.

SOURCE: NIDRR Annual Performance Reports database, output Nov. 12, 2014.

- 2014 was the first year that the APR collected *primary impairment group* at the project level. Previously this variable was collected at the grant level. Grantees were asked:

  Please select the primary impairment group or groups that is/are the focus of this project. (Check all that apply.)

  a. Sensory disability
  b. Psychiatric disability
  c. Developmental disability/intellectual disability
  d. Physical disability

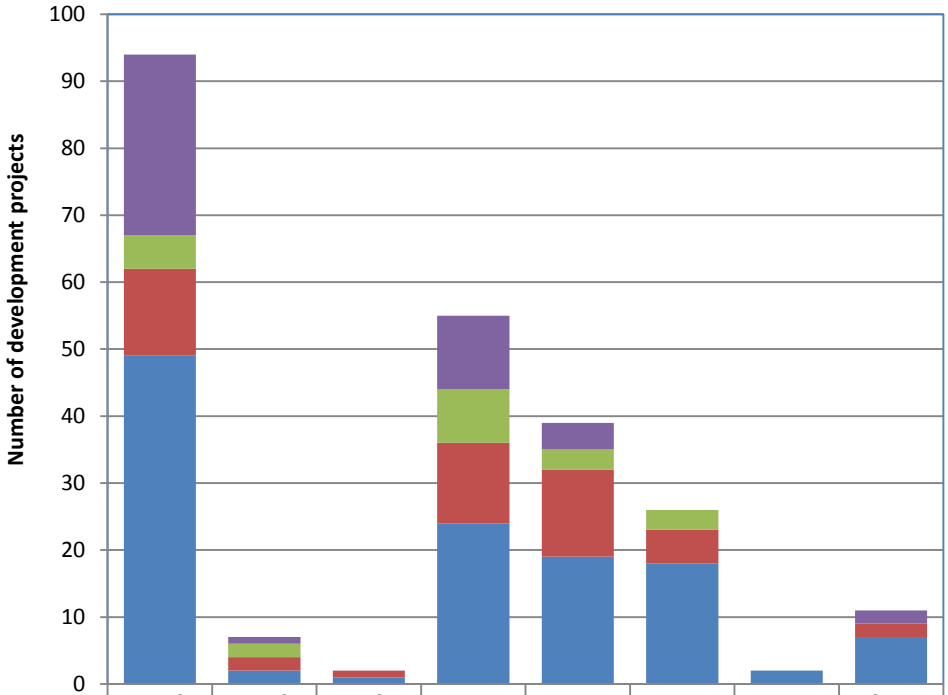
- Exhibit 14 shows how the 735 research projects were distributed among the primary impairment groups in 2014. The impairment group question does not apply to the 12 research projects conducted by ADA grants.
- Three-fourths of the 735 research projects had a focus on *Physical disability*, while nearly half were concerned with *Developmental disability/intellectual disability*. About 40 percent of projects reported focusing on *Sensory disability* and *Psychiatric disability*.

Section 4. Development Projects

A development project is defined as "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." This definition was derived from the regulations governing the DRRP program (34 CFR 350.16).

How were development projects distributed among program mechanisms and domains in 2014?

Exhibit 15. Number of development projects, by program mechanism and domain: 2014



	RERC	RRTC	MS	FIP	DRRP	ADA	KT	SBIR
Health and function (n=45)	27	1	0	11	4	0	0	2
Employment (n=21)	5	2	0	8	3	3	0	0
Participation and community living (n=48)	13	2	1	12	13	5	0	2
Cross-cutting (two or more domains) (n=122)	49	2	1	24	19	18	2	7

NOTE: SBIR Phase I grants not included. DRRP includes three grants under Section 21. The DRRP subcategories of KT, ADA, TBI model system, and burn model system are excluded from the DRRP category; KT and ADA are presented as separate categories. TBI and burn model systems are combined with SCI model systems under the category MS. RFP grantees reported no development projects in 2014. Beginning with the 2014 reporting period, the three domains *Technology*, *Demographics*, and *Knowledge translation, including tech transfer* were removed.

SOURCE: NIDRR Annual Performance Reports database, Table 11, output Oct. 21, 2014.

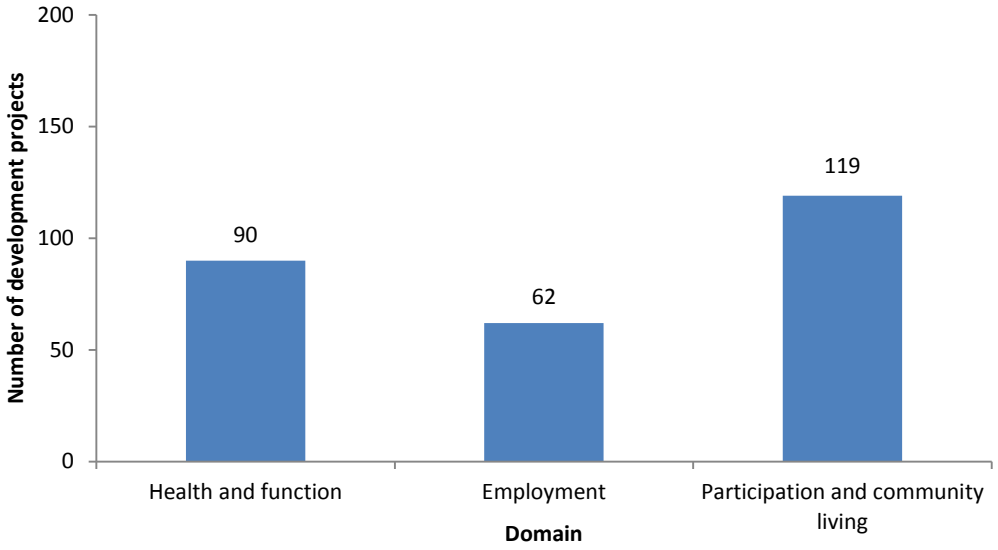
- In the APR, grantees were asked:

  *Based on the objectives listed, what **one** NIDRR Long-Range Plan Domain does this project **best** fit in?*

- Exhibit 15 shows the number of development projects in each domain in 2014. Overall, *Cross-cutting* (contributing to two or more domains) was by far the most commonly identified domain, with 122 (51.7 percent) of the 236 development projects. For all programs except RRTC and MS, the *Cross-cutting* domain accounted for the dominant share of projects. Of the 45 *Health and function* projects, 27 (11.4 percent) were conducted by RERC grants.

What were the specified domains for Cross-cutting development projects in 2014?

Exhibit 16. Number of Cross-cutting development projects, by specified domains: 2014



NOTE: Grantees may select more than one domain for each *Cross-cutting* project.
SOURCE: NIDRR Annual Performance Reports database, output Nov. 18, 2014.

- The *Cross-cutting* domain shows that a disability development project often spans two or more Long-Range Plan domains because of the multi-disciplinary nature of disability research. Grantees who identified their research projects as *Cross-cutting* were asked:

  If "cross-cutting," specify two or more domains that apply.

  (1) health and function

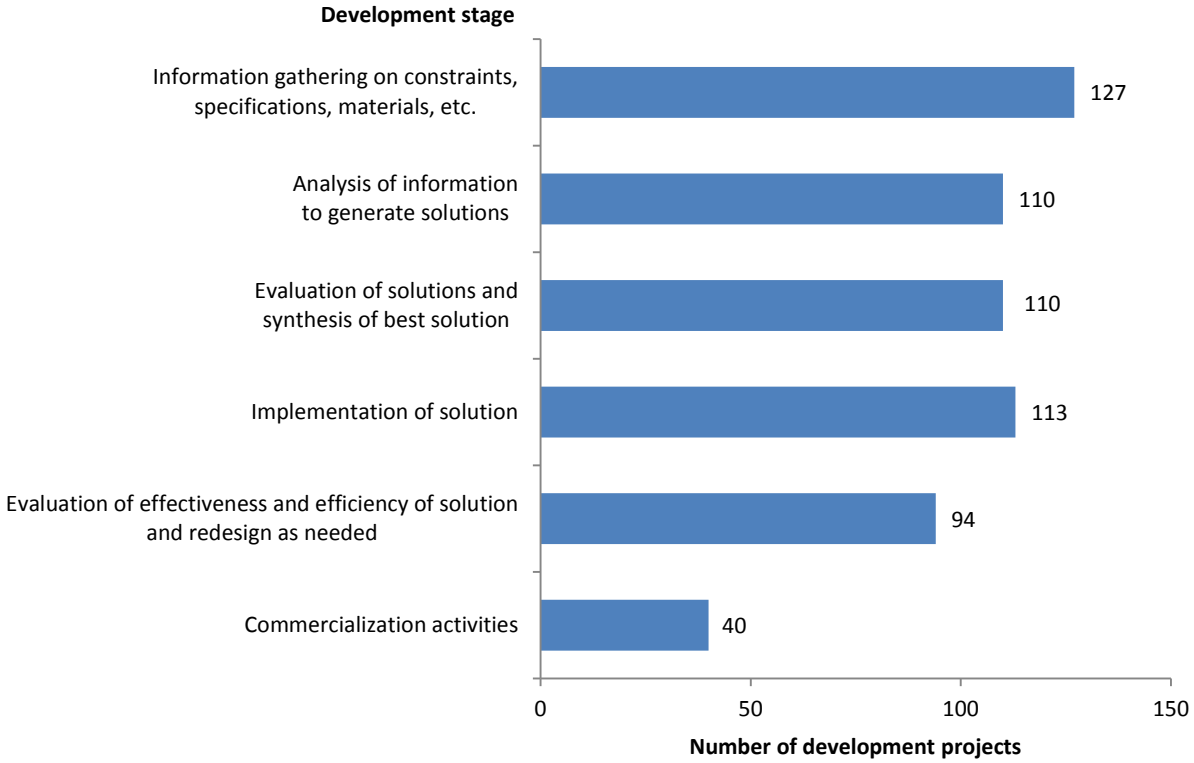
  (2) employment

  (3) participation and community living

- Exhibit 16 shows the domains associated with the 122 development projects identified as *Cross-cutting* in 2014. Of these 122 *Cross-cutting* projects, 90 projects selected the *Health and function* domain, 62 projects selected the *Employment* domain, and 119 selected *Participation and community living*.

How were development projects distributed among development stages in 2014?

Exhibit 17. Number of development projects, by development stage: 2014



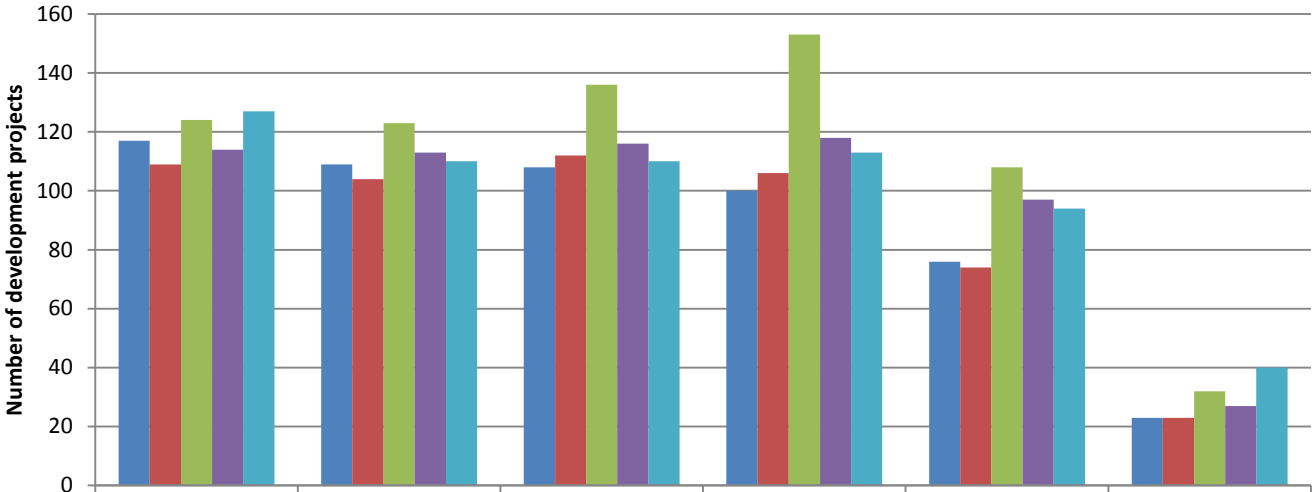
NOTE: Grantees may select more than one development stage for each project. See the Appendix for the definition of each stage.

SOURCE: NIDRR Annual Performance Reports database, Table 11, output Oct. 21, 2014.

- Exhibit 17 shows the development stages for the 236 development projects in 2014. Grantees could select more than one development stage for each project.
- The most frequently cited development stage in 2014 was *Information gathering on constraints, specifications, materials, etc.*, while the least common stage was *Commercialization activities*, which applied to 40 of the 236 development projects.

How has development stage status changed from 2010 through 2014?

Exhibit 18. Number of development projects, by development stage and year: 2010–2014



	Information gathering on constraints, specifications, materials, etc.	Analysis of information to generate solutions	Evaluation of solutions and synthesis of best solution	Implementation of solution	Evaluation of effectiveness and efficiency of solution and redesign as needed	Commercialization activities
2010	117	109	108	100	76	23
2011	109	104	112	106	74	23
2012	124	123	136	153	108	32
2013	114	113	116	118	97	27
2014	127	110	110	113	94	40

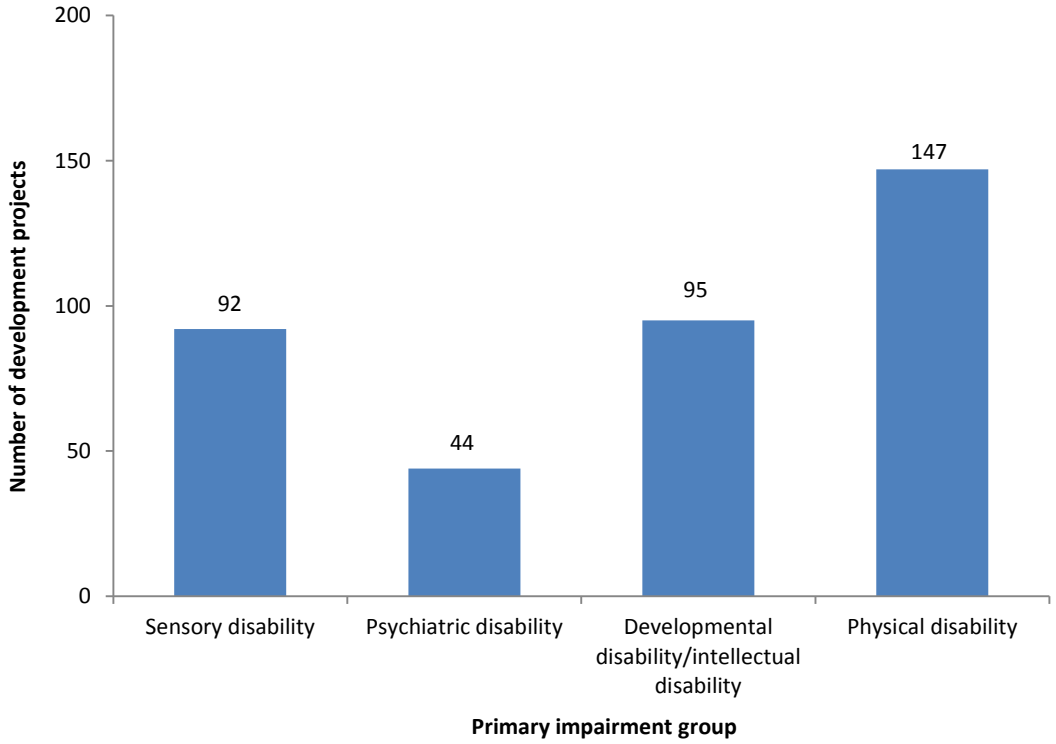
NOTE: Grantees may select more than one development stage for each project. See the Appendix for the definition of each stage.

SOURCE: NIDRR Annual Performance Reports database, Table 11, output Oct. 21, 2014.

- Exhibit 18 displays the number of development projects reported in each development stage from 2010 through 2014. Grantees could select more than one development stage for each project.
- Note that development stages can vary annually based on the number of years each development project has been funded. For example, when a cohort of grants is in the fourth year, there may be more projects that are in the last few stages of development.
- In 2014, the most frequently reported development stage was *Information gathering on constraints, specifications, materials, etc.* with 127 projects, an increase from the 114 projects in 2013. *Commercialization activities* was by far the least common stage in every year, although this category saw an increase from 27 projects in 2013 to 40 projects in 2014.

What primary impairment group or groups did development projects address in 2014?

Exhibit 19. Number of development projects in primary impairment groups: 2014



NOTE: Grantees may select more than one *primary impairment group* for each project. The *primary impairment group* question does not apply to projects conducted by ADA grants.

SOURCE: NIDRR Annual Performance Reports database, output Nov. 12, 2014.

- 2014 was the first year that the APR collected *primary impairment group* at the project level. Previously this variable was collected at the grant level. Grantees were asked:

  Please select the primary impairment group or groups that is/are the focus of this project. (Check all that apply.)

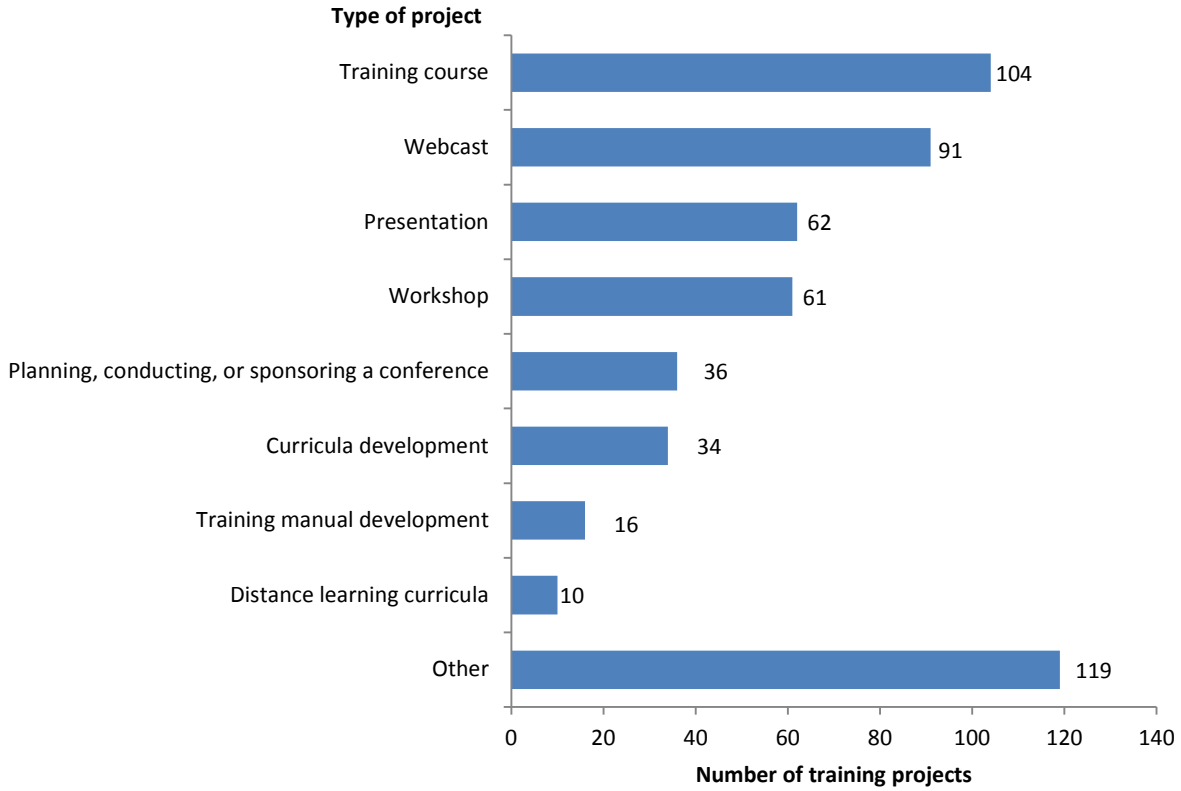
  a. Sensory disability
  b. Psychiatric disability
  c. Developmental disability/intellectual disability
  d. Physical disability

- Exhibit 19 shows how the 210 development projects were distributed among *primary impairment group* in 2014. The impairment group question does not apply to the 26 development projects conducted by ADA grants.

- Three-fourths of the 210 development projects had a focus on *Physical disability*, while about 40 percent were concerned with *Sensory disability* and *Developmental disability/intellectual disability*. Only 44 projects reported focusing on *Psychiatric disability*.

What types of training projects were conducted in 2014?

Exhibit 20. Number of training projects conducted, by type of project: 2014

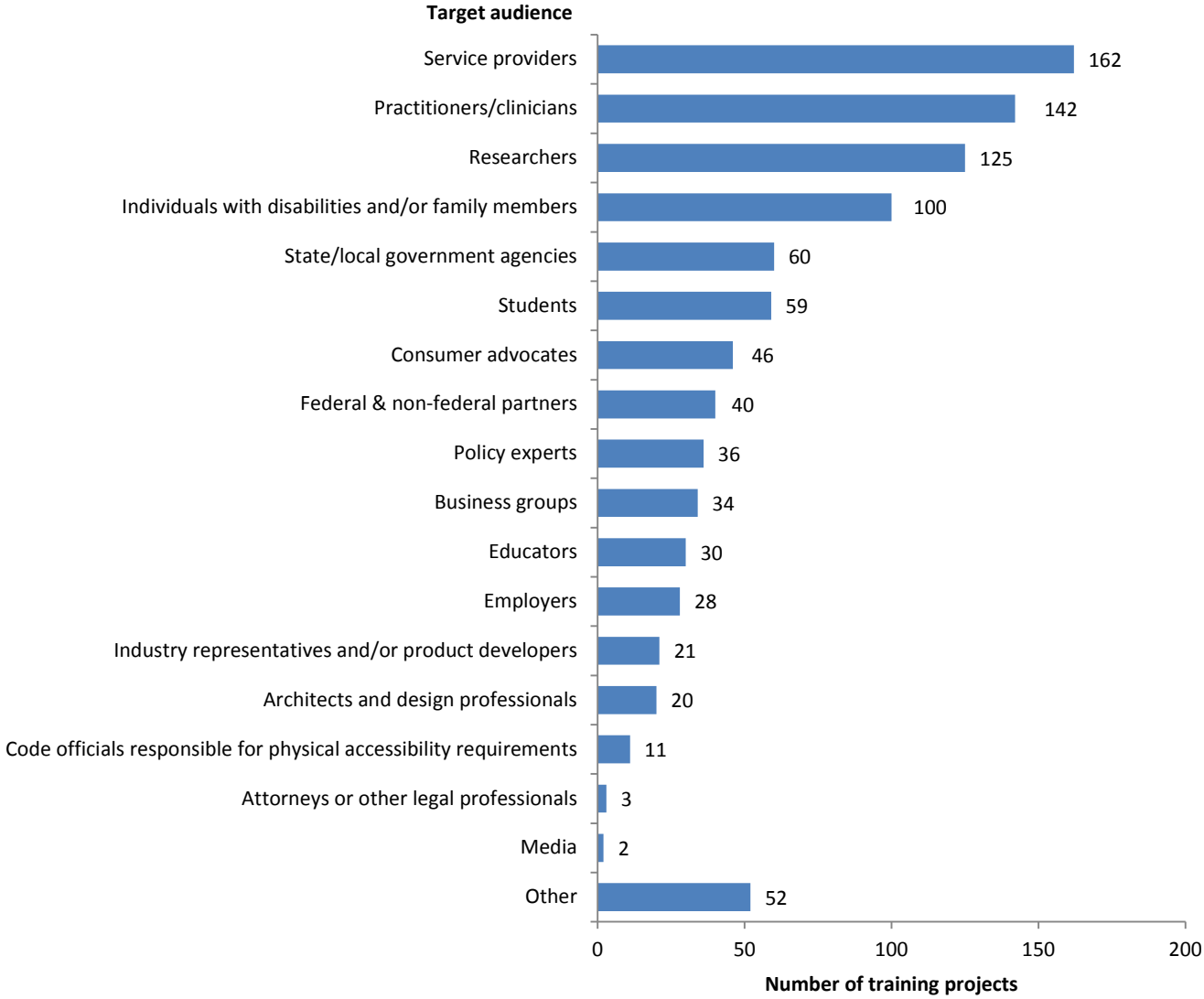


SOURCE: NIDRR Annual Performance Reports database, Table 12, output Oct. 21, 2014.

- Grantees were asked to specify the type of training project conducted. Grantees reported 533 training projects in 2014. As shown in Exhibit 20, the most common types were *Training course* (104) and *Webcast* (91).

What audiences were reached through training projects?

Exhibit 21. Number of training projects targeting specific audiences: 2014



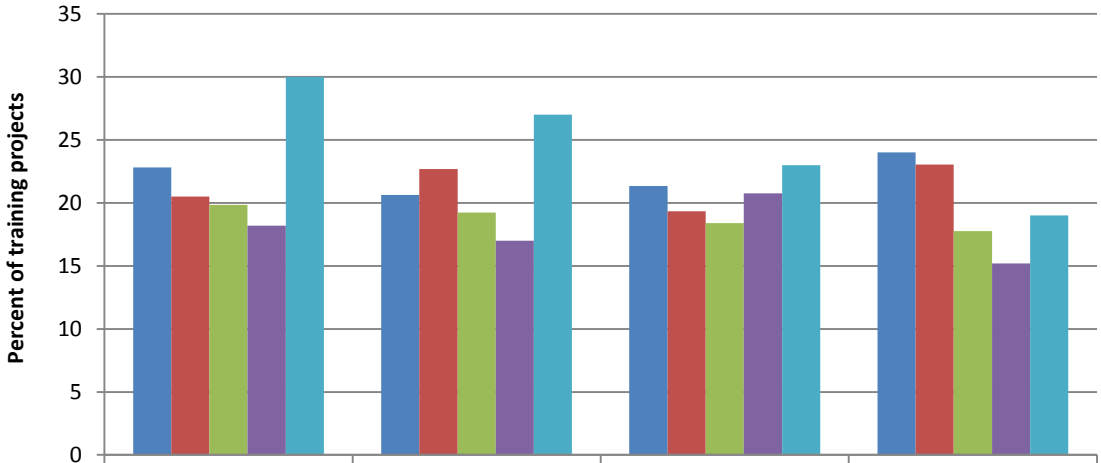
NOTE: Grantees may select up to two target audiences for each training project. This question does not apply to RFP grants. Only ADA grants report the number of training activities targeting *State/local government agencies*, *Business groups*, *Architects and design professionals*, *Code officials responsible for physical accessibility requirements*, and *Attorneys or other legal professionals*.

SOURCE: NIDRR Annual Performance Reports database, Table 12, output Oct. 21, 2014.

- Grantees were asked to select no more than two primary target audiences for each training project. As shown in Exhibit 21, the three most common target audiences for the 533 training projects in 2014 were *Service providers* 162 projects (30.4 percent), *Practitioners/clinicians* 142 projects (26.6 percent), and *Researchers* 125 projects (23.4 percent).

How have the top four audiences for training projects changed from 2010 to 2014?

Exhibit 22. Percentage of training projects, by top four audiences and year: 2010–2014



	Service providers	Practitioners/ clinicians	Researchers	Individuals with disabilities and/or family members
2010 (729 projects)	23	21	21	24
2011 (731 projects)	21	23	19	23
2012 (612 projects)	20	19	18	18
2013 (549 projects)	18	17	21	15
2014 (533 projects)	30	27	23	19

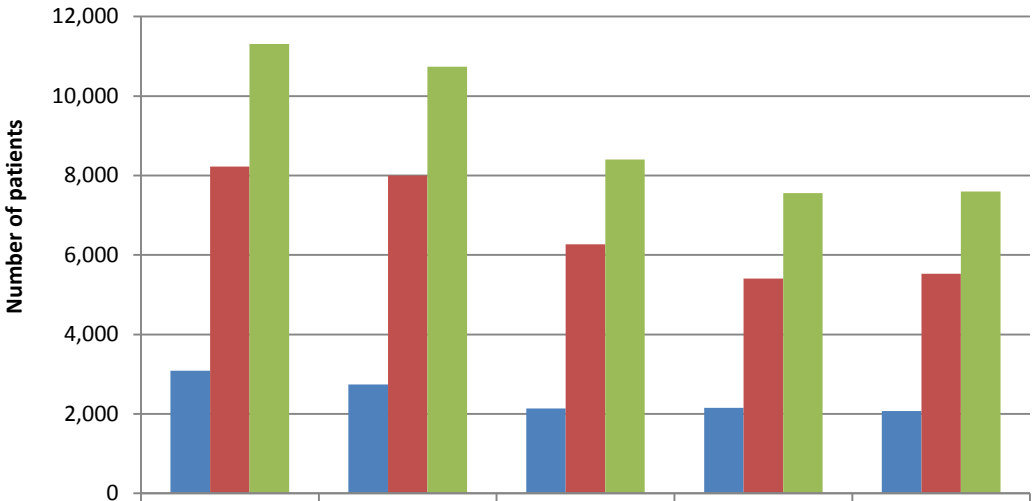
NOTE: Grantees may select up to two target audiences for each training project.

SOURCE: NIDRR Annual Performance Reports database, Table 12, output Oct. 21, 2014.

- Exhibit 22 shows the percentage of training projects for the top four audiences.
- Overall, the number of training projects declined from 729 projects in 2010 to 533 projects in 2014. However, this decline was partly due to ARRT grants no longer reporting training projects beginning in 2014. (ARRT grants had reported 51 training projects in 2013).
- In 2014 the top four target audiences for training projects were: *Service providers*, *Practitioners/clinicians*, *Researchers*, and *Individuals with disabilities and/or family members*.
- When comparing 2010 through 2014, the percentage of training projects that targeted the top four audiences remained fairly constant from year to year. The largest spread was for *Service providers* with a seven percentage point increase between 2010 and 2014. The largest increase was observed from 2013 to 2014, from 18 percent of projects to 30 percent targeting *Service providers*.

How many new patients were enrolled or provided follow-up by model systems in 2010 through 2014?

Exhibit 23. Number of model systems patients enrolled or provided follow-up: 2010–2014



	2010	2011	2012	2013	2014
New patients enrolled	3,087	2,742	2,132	2,150	2,068
Patients followed-up	8,225	7,996	6,271	5,405	5,526
Total	11,312	10,738	8,403	7,555	7,594

SOURCE: NIDRR Annual Performance Reports database, Table 17, output Oct. 21, 2014.

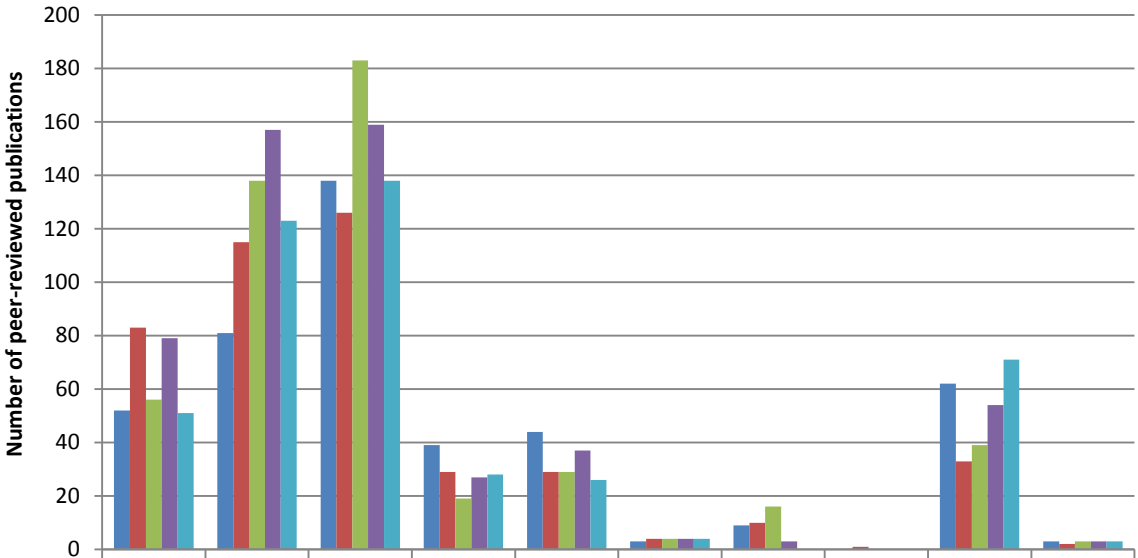
- Exhibit 23 displays the number of model systems patients enrolled or provided follow-up in 2010 through 2014. NIDRR funds three model systems: Spinal Cord Injury, Traumatic Brain Injury, and Burn. As part of their research activities, model systems collect and contribute data on patient characteristics, diagnoses, cause of injury, interventions, outcomes, and costs to a uniform national database. In the APR, each MS grantee was asked to provide the following information for the grant: (1) number of new patients enrolled and added to the database during the reporting period; and (2) number of patients followed up during the reporting period.
- In 2014 the number of new patients decreased slightly from 2013. The number of new patients enrolled in the model systems has held fairly constant since 2012, but represents a steep decline from the high of 3,087 new patients in 2010.
- Although the number of patients who were followed up in the model systems increased slightly from 2013 to 2014, the 5,526 patients in 2014 represented a substantial decrease from the 8,225 patients followed up in 2010.

Section 7. Products

In the *Outputs* section of the APR, grantees reported four types of outputs: Type 1, *Publications*; Type 2, *Tools, measures, and intervention protocols*; Type 3, *Technology products and devices*; and Type 4, *Informational products*. Grantees were also asked to identify their *most important* outputs: those that contribute the most to achieving the outcome-oriented goals for the award by advancing knowledge; increasing capacity for research, training or knowledge translation; or facilitating changes in policy, practice or system capacity.

How many publications (type 1 outputs) were produced from 2010 through 2014?

Exhibit 24. Number of peer-reviewed publications, by program mechanism and year: 2010–2014



	RERC	RRTC	MS	FIP	DRRP	ADA	KT	SBIR	ARRT	RFP
2010 (n=431)	52	81	138	39	44	3	9	0	62	3
2011 (n=432)	83	115	126	29	29	4	10	1	33	2
2012 (n=487)	56	138	183	19	29	4	16	0	39	3
2013 (n=523)	79	157	159	27	37	4	3	0	54	3
2014 (n=444)	51	123	138	28	26	4	0	0	71	3

NOTE: SBIR Phase I grants not included. DRRP includes three grants under Section 21. The DRRP subcategories of KT, ADA, TBI model system, and burn model system are excluded from the DRRP category; KT and ADA are presented as separate categories. TBI and burn model systems are combined with SCI model systems under the category MS.

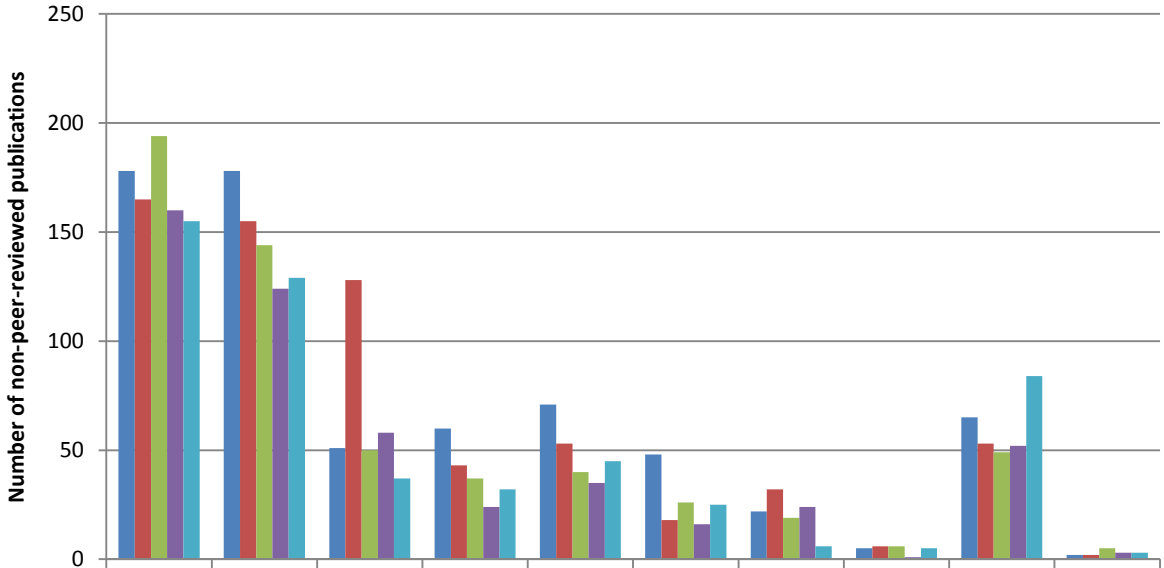
SOURCE: NIDRR Annual Performance Reports database, Table 18, output Oct. 21, 2014.

- Grantees reported all peer-reviewed publications produced during the current reporting period that were directly funded by the grant, excluding documents currently in review, accepted for publication, in press, or self-published. Publications can be based on research and related activities conducted in a previous reporting period or NIDRR funding cycle as long as they are related to the objectives of the current award and are delivered or disseminated during the

current reporting period to external audiences. Exhibit 24 shows the distribution of those publications among program mechanisms in 2010 through 2014.

- Grantees reported 444 peer-reviewed publications in 2014, a decrease from the 523 in 2013. Among program mechanisms, MS grants accounted for the largest number of peer-reviewed publications in all years.

Exhibit 25. Number of non-peer-reviewed publications, by program mechanism and year: 2010–2014



	RERC	RRTC	MS	FIP	DRRP	ADA	KT	SBIR	ARRT	RFP
2010 (n=680)	178	178	51	60	71	48	22	5	65	2
2011 (n=655)	165	155	128	43	53	18	32	6	53	2
2012 (n=570)	194	144	50	37	40	26	19	6	49	5
2013 (n=497)	160	124	58	24	35	16	24	1	52	3
2014 (n=521)	155	129	37	32	45	25	6	5	84	3

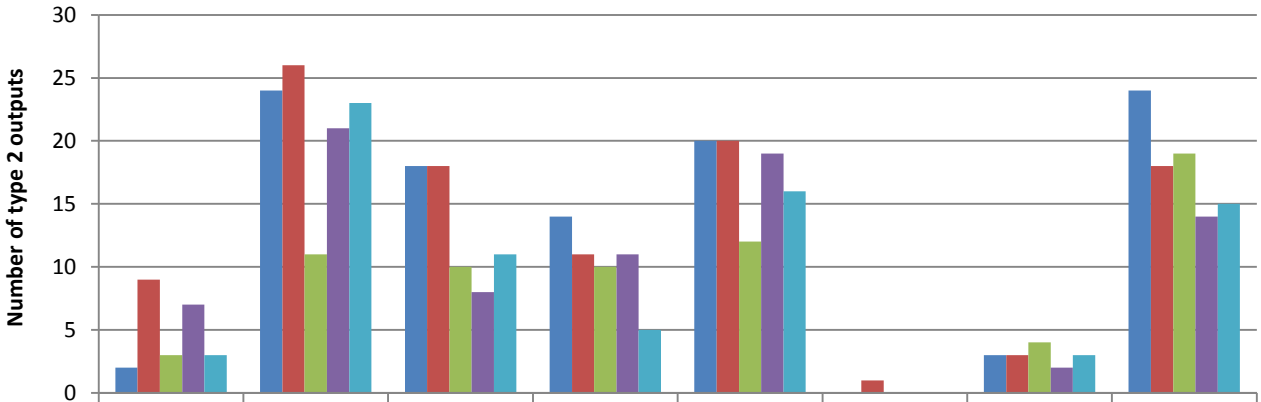
NOTE: SBIR Phase I grants not included. DRRP includes three grants under Section 21. The DRRP subcategories of KT, ADA, TBI model system, and burn model system are excluded from the DRRP category; KT and ADA are presented as separate categories. TBI and burn model systems are combined with SCI model systems under the category MS.

SOURCE: NIDRR Annual Performance Reports database, Table 19, output Oct. 21, 2014.

- Grantees reported all non-peer-reviewed publications produced during the current reporting period that were directly funded by the grant, excluding documents currently in review, accepted for publication, in press, or self-published. Publications can be based on research and activities conducted in a previous reporting period or NIDRR funding cycle as long as they are related to the objectives of the current award and are delivered or disseminated during the current reporting period to external audiences. Exhibit 25 shows the distribution of those publications among program mechanisms in 2010 through 2014.
- Grantees reported 521 non-peer-reviewed publications in 2014, a slight increase from the 497 in 2013. Across all years (except 2010) and program mechanisms, the RERC grants produced the largest number of non-peer-reviewed publications.

How many tools, measures, and intervention protocols (type 2 outputs) were produced from 2010 through 2014?

Exhibit 26. Number of most important tools, measures, and intervention protocols (type 2 outputs), by type of output and year: 2010–2014



	Checklist	Survey questionnaire or interview schedule	Diagnosis or assessment instrument, including physiologic measure	Outcome measures	Intervention protocol or program	Statistical technique	Database	Other
2010 (n=105)	2	24	18	14	20	0	3	24
2011 (n=106)	9	26	18	11	20	1	3	18
2012 (n=69)	3	11	10	10	12	0	4	19
2013 (n=82)	7	21	8	11	19	0	2	14
2014 (n=76)	3	23	11	5	16	0	3	15

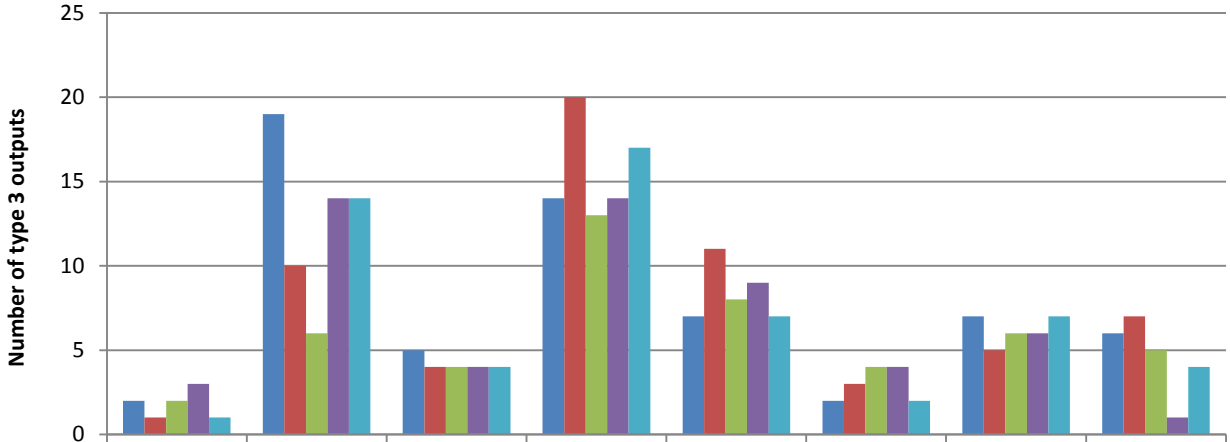
NOTE: Grantees may report a maximum of two *most important* Type 2 outputs.

SOURCE: NIDRR Annual Performance Reports database, Table 20, output Oct. 21, 2014.

- Exhibit 26 presents the number of type 2 outputs reported by grantees in 2010 through 2014. Type 2 outputs focus on the *most important* tools, measures, or intervention protocols directly funded by the grant during the reporting period. *Tool* is defined as an instrument or process created to acquire quantitative or qualitative information, knowledge, or data on a specific disability or rehabilitation issue. Tool includes measures and intervention protocols. Grantees reported up to two type 2 outputs that represent the *most important* accomplishments for the current reporting period, including an explanation of how the tool was validated or tested. *Most important* tools refer to those that contribute the most to achieving the outcome oriented goals for this grant by advancing knowledge; increasing capacity for research, training or knowledge translation; or facilitating changes in policy, practice, or system capacity.
- In 2014, *Survey questionnaire or interview schedule* was the most frequently reported type 2 output, followed by *Intervention protocol or program*. The number of outputs reported in each type 2 category did not vary much over the 5-year period.

How many technology products and devices (type 3 outputs) were produced from 2010 through 2014?

Exhibit 27. Number of most important technology products and devices (type 3 outputs), by type of output and year: 2010–2014



	Industry standards/ guidelines	Software or netware	Patent(s), licenses, patent disclosures	Working prototype	Product(s) evaluated or field tested	Product(s) transferred to industry for potential commercial -ization	Product(s) in the marketplace	Other
2010 (n=62)	2	19	5	14	7	2	7	6
2011 (n=61)	1	10	4	20	11	3	5	7
2012 (n=48)	2	6	4	13	8	4	6	5
2013 (n=55)	3	14	4	14	9	4	6	1
2014 (n=56)	1	14	4	17	7	2	7	4

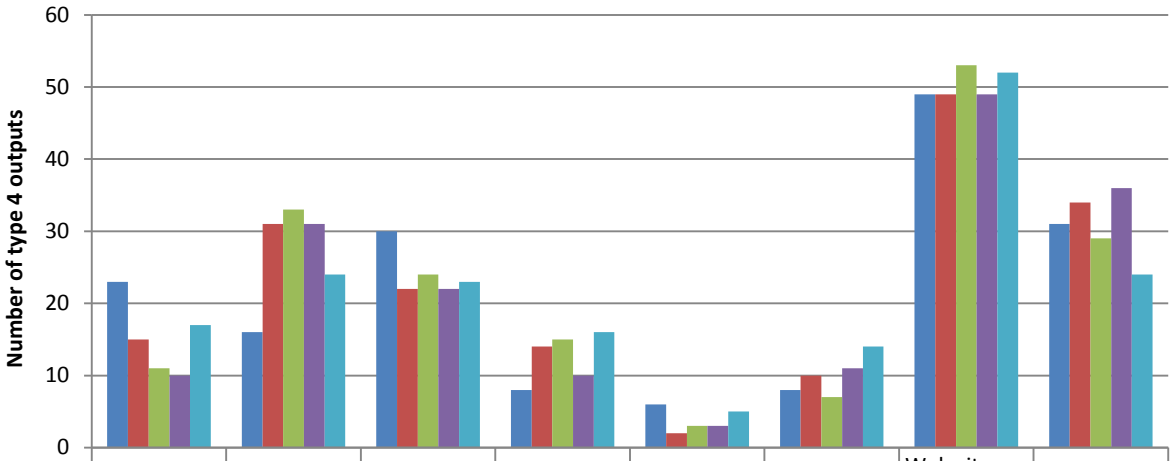
NOTE: Grantees may report a maximum of two *most important* Type 3 outputs.

SOURCE: NIDRR Annual Performance Reports database, Table 21, output Oct. 21, 2014.

- Exhibit 27 presents the number of type 3 outputs reported by grantees in 2010 through 2014. Grantees reported up to two type 3 outputs that represent the *most important* technology products and devices for the current reporting period, including an explanation of how the product or device was validated or tested. *Most important* technology products and devices refer to those that contribute the most to achieving the outcome oriented goals for this grant by advancing knowledge; increasing capacity for research, training or knowledge translation; or facilitating changes in policy, practice, or system capacity.
- In 2014, *Working prototype* and *Software or netware* were the most frequently reported type 3 outputs.
- The total number of type 3 outputs declined from 62 in 2010 to 48 in 2012, then increased slightly to 56 in 2014.
- *Software or netware* declined from 2010 through 2012, but then recovered in 2013 and 2014. All other categories remained about the same over the 5-year period.

How many informational products (type 4 outputs) were produced from 2010 through 2014?

Exhibit 28. Number of most important informational products (type 4 outputs), by type of output and year: 2010–2014



	Training manuals/ curricula	Fact sheets	Newsletters	Audiovisual materials	Marketing tools	Educational aids	Web sites or other Internet sites	Other
2010 (n=171)	23	16	30	8	6	8	49	31
2011 (n=177)	15	31	22	14	2	10	49	34
2012 (n=175)	11	33	24	15	3	7	53	29
2013 (n=172)	10	31	22	10	3	11	49	36
2014 (n=176)	17	24	23	16	5	14	52	24

NOTE: Grantees may report a maximum of two *most important* Type 4 outputs.

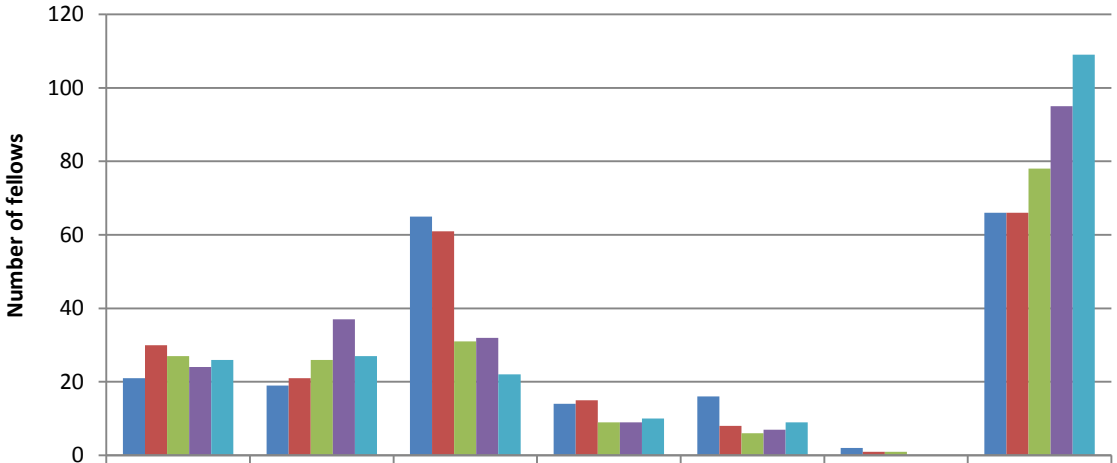
SOURCE: NIDRR Annual Performance Reports database, Table 22, output Oct. 21, 2014.

- Exhibit 28 presents the number of type 4 outputs reported by grantees in 2010 through 2014. Grantees reported up to two type 4 outputs that represent the *most important* informational products in the current reporting period, including an explanation of how the informational product was validated or tested. *Most important* informational products refer to those that contribute the most to achieving the outcome oriented goals for this grant by advancing knowledge; increasing capacity for research, training or knowledge translation; or facilitating changes in policy, practice, or system capacity.
- In 2014, grantees reported 52 *Web sites or other Internet sites*, making this category the most frequently reported.
- The total number of type 4 outputs remained remarkably consistent from year to year, varying from 171 in 2010 to 176 in 2014. *Web sites or other Internet sites* were by far the most common type of output over the 5-year period.

Section 8. Fellows and Graduate Students

How many fellows were supported by NIDRR grants from 2010 through 2014?

Exhibit 29. Number of fellows supported by NIDRR grants, by program mechanism and year: 2010–2014



	RERC	RRTC	MS	FIP	DRRP	SBIR	ARRT
2010 (n=203)	21	19	65	14	16	2	66
2011 (n=202)	30	21	61	15	8	1	66
2012 (n=178)	27	26	31	9	6	1	78
2013 (n=204)	24	37	32	9	7	0	95
2014 (n=203)	26	27	22	10	9	0	109

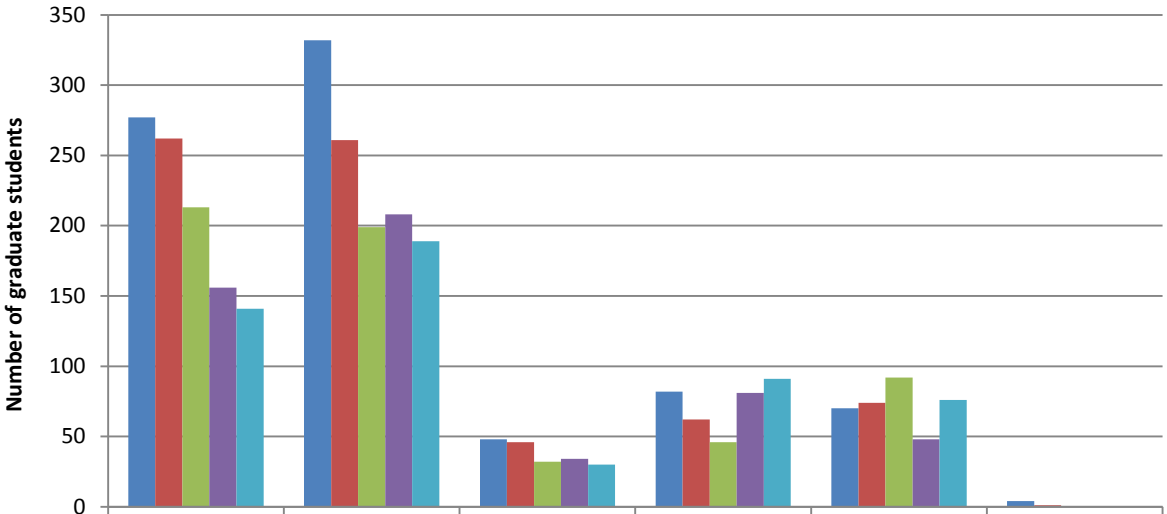
NOTE: SBIR Phase I grants not included. DRRP includes three grants under Section 21. The DRRP subcategories of KT, ADA, TBI model system, and burn model system are excluded from the DRRP category; TBI and burn model systems are combined with SCI model system under the category MS. ADA and KT grants do not support fellows. This question does not apply to RFP grants.

SOURCE: NIDRR Annual Performance Reports database, Table 15, output Oct. 21, 2014.

- Exhibit 29 shows the number of fellows supported by NIDRR grants in the various program mechanisms. All grantees, except ADA and KT which do not support fellows, reported the number of fellows who worked on a grant at any time during the current reporting period.
- In 2014, NIDRR grants supported 203 research fellows, a number fairly consistent since 2010.
- In all years, fellows were concentrated in the ARRT program mechanism. MS grants saw a steep decline in the number of fellows over the five years, from a high of 65 in 2010 to 22 in 2014, while during the same time period, ARRT fellows increased from 66 to 109.

How many graduate students were supported by NIDRR grants from 2010 through 2014?

Exhibit 30. Number of graduate students supported by NIDRR grants, by program mechanism and year: 2010–2014



	RERC	RRTC	MS	FIP	DRRP	SBIR
2010 (n=813)	277	332	48	82	70	4
2011 (n=706)	262	261	46	62	74	1
2012 (n=582)	213	199	32	46	92	0
2013 (n=527)	156	208	34	81	48	0
2014 (n=527)	141	189	30	91	76	0

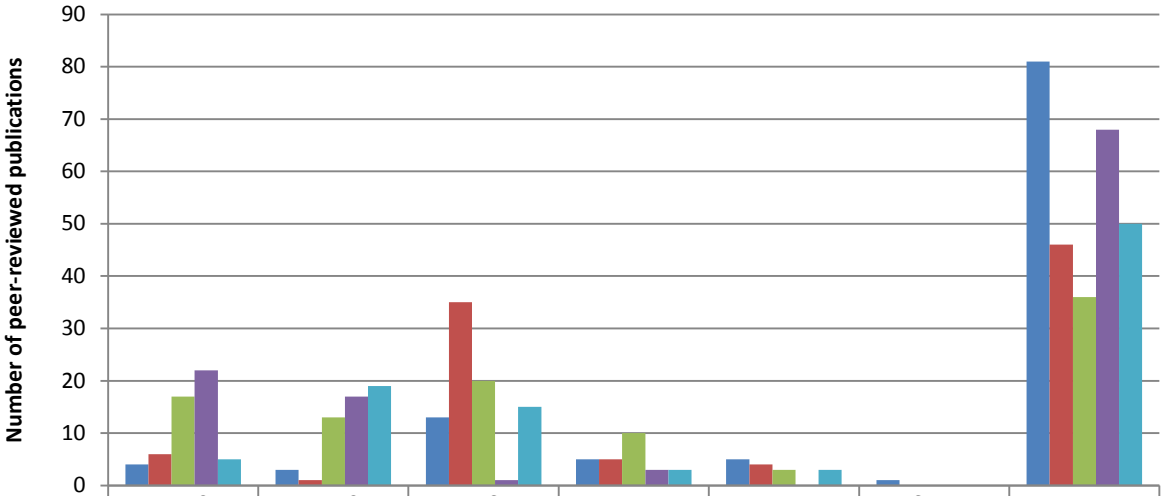
NOTE: DRRP includes three grants under Section 21. The DRRP subcategories of KT, ADA, TBI model system, and burn model system are excluded from the DRRP category; TBI and burn model systems are combined with SCI model systems under the category MS. ADA, KT and ARRT grants do not support graduate students. This question does not apply to RFP grants.

SOURCE: NIDRR Annual Performance Reports database, Table 15, output Oct. 21, 2014.

- Exhibit 30 shows the number of graduate students supported by NIDRR grants in the various program mechanisms. All grantees, except ARRT, ADA and KT which do not support graduate students, reported the number of graduate students who worked on a grant in the current reporting period and who are receiving training or satisfying requirements in conjunction with an advanced degree. The reporting does not include graduate students working on a grant for pay only.
- In 2014, NIDRR grants supported 527 graduate students, a substantial decrease from the high of 813 graduate students supported in 2010.
- In all years, graduate students were concentrated in the RERC and RRTC program mechanisms, but following the overall trend, the number declined greatly over the five years.

How many peer-reviewed publications were authored by fellows?

Exhibit 31. Number of peer-reviewed publications authored by fellows, by program mechanism and year: 2010–2014



	RERC	RRTC	MS	FIP	DRRP	SBIR	ARRT
2010 (n=112)	4	3	13	5	5	1	81
2011 (n=97)	6	1	35	5	4	0	46
2012 (n=99)	17	13	20	10	3	0	36
2013 (n=111)	22	17	1	3	0	0	68
2014 (n=95)	5	19	15	3	3	0	50

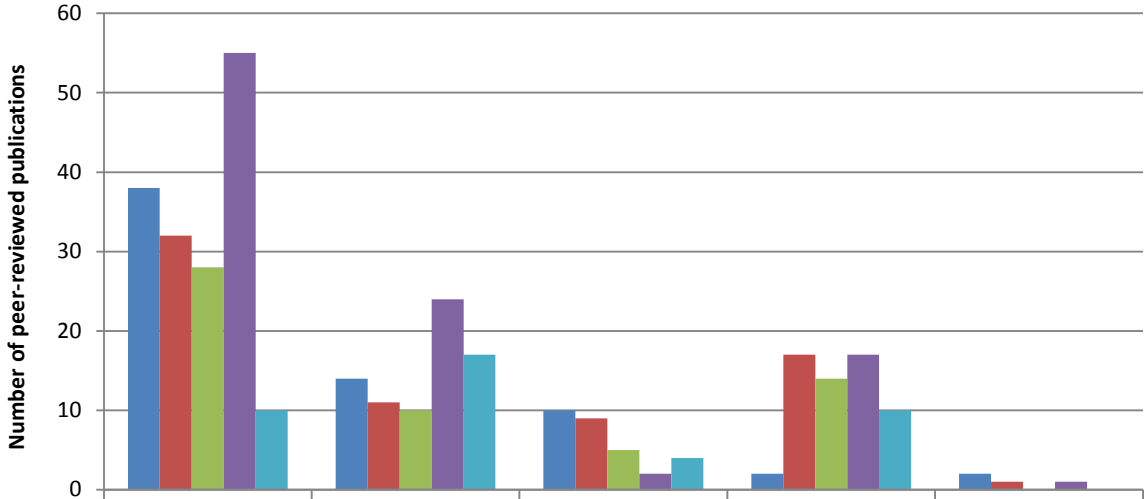
NOTE: DRRP includes three grants under Section 21. The DRRP subcategories of KT, ADA, TBI model system, and burn model system are excluded from the DRRP category; TBI and burn model systems are combined with SCI model systems under the category MS. ADA and KT grants do not support fellows. This question does not apply to RFP grants.

SOURCE: NIDRR Annual Performance Reports database, Table 15, output Oct. 21, 2014.

- Exhibit 31 displays the number of peer-reviewed publications that were authored by fellows in each program mechanism. All grantees, except ADA and KT which do not support fellows, reported the peer-reviewed publications based on NIDRR-funded research, published in the current reporting period, that were authored by fellows who were part of a grantee's training program in the current reporting period or had been in the past three years. The fellow need not have been the first author, so long as he or she was listed among the authors of the publication.
- In 2014, grantees reported 95 peer-reviewed publications authored by fellows. This number has remained fairly constant over the five years.
- From 2010 through 2014, ARRT fellows produced by far the greatest share of peer-reviewed publications. Of the 95 peer-reviewed publications authored by fellows in 2014, ARRT fellows produced 50 of those publications. The next closest contribution came from RRTC fellows (19 publications) who showed an increase in publications over the 5-year period.

How many peer-reviewed publications were authored by graduate students?

Exhibit 32. Number of peer-reviewed publications authored by graduate students, by program mechanism and year: 2010–2014



	RERC	RRTC	MS	FIP	DRRP
2010 (n=66)	38	14	10	2	2
2011 (n=70)	32	11	9	17	1
2012 (n=57)	28	10	5	14	0
2013 (n=99)	55	24	2	17	1
2014 (n=41)	10	17	4	10	0

NOTE: TBI and burn model systems are combined with SCI model systems under the category MS. ADA, KT and ARRT grants do not support graduate students. This question does not apply to RFP grants.

SOURCE: NIDRR Annual Performance Reports database, Table 15, output Oct. 21, 2014.

- Exhibit 32 displays the number of peer-reviewed publications that were authored by graduate students in each program mechanism. All grantees, except ARRT, ADA and KT which do not support graduate students, reported the peer-reviewed publications based on NIDRR-funded research, published in the current reporting period, that were authored by graduate students who were part of a grantee's training program during the current reporting period or had been in the past three years. The graduate student need not have been the first author, so long as he or she was listed among the authors of the publication.
- In 2014, grantees reported 41 peer-reviewed publications authored by graduate students, a sharp decline from the 99 reported in 2013, with the largest decline coming from RERC grants: from 55 publications in 2013 to 10 in 2014.

Appendix

Program Mechanisms as Used in This Report

Advanced Rehabilitation Research Training Projects (ARRT) provide funding to institutions of higher education to recruit qualified post-doctoral candidates with clinical, management, basic or engineering research experience and prepare them to conduct independent research on disability and rehabilitation issues. Beginning with the 2014 reporting period, ARRT grants do not report research, development, or training projects.

Americans with Disabilities Act National Network (ADA) is a subcategory of DRRP, but is presented as a separate category in this report.

Disability and Rehabilitation Research Projects (DRRP) emphasize research and development projects, training, and knowledge translation on rehabilitation topics. DRRP subcategories are: Knowledge Translation (KT), Americans with Disabilities Act National Network (ADA), Traumatic Brain Injury Model Systems Centers (TBI), Burn Model Systems Centers, and "general" DRRPs. In this report, the DRRP subcategories of KT, ADA, TBI model system, and burn model system are excluded from the DRRP category; KT and ADA are presented as separate categories. TBI and burn model systems are combined with SCI model systems under the category MS.

Field-Initiated Projects (FIP) address rehabilitation issues in promising and innovative ways. As the name implies, topics for these projects are chosen by the applicants. Awards are based upon merit and potential impact on the field of rehabilitation.

Knowledge Translation (KT) is a subcategory of DRRP, but is presented as a separate category in this report.

Model Systems (MS) study the course of recovery and outcomes following the delivery of a coordinated system of care. MS centers provide comprehensive rehabilitation services and conduct research, including clinical research. There are three model systems: Spinal Cord Injury (SCI), Traumatic Brain Injury (TBI), and Burn. The TBI and Burn model systems are funded as a subcategory of DRRP, but are combined with SCI for this report.

Rehabilitation Engineering Research Centers (RERC) conduct programs of advanced engineering and technical research designed to apply technology, scientific achievement, and psychological and social knowledge to solve rehabilitation problems and remove environmental barriers. RERCs are affiliated with institutions of higher education or non-profit organizations.

Rehabilitation Research and Training Centers (RRTC) conduct coordinated and integrated advanced research to alleviate or stabilize disabling conditions, promote maximum social and economic independence of people with disabilities, or improve rehabilitation methodology or service delivery systems. RRTCs operate in collaboration with institutions of higher education and providers of rehabilitation services and serve as national centers of excellence in rehabilitation research.

Research Fellows Program (RFP), also known as the Mary E. Switzer Fellowship, gives individual researchers an opportunity to develop new ideas and gain research experience. Fellows design and work for one year on an independent research project. RFP grants began reporting through the APR in 2009. These grants are also known as Mary E. Switzer Fellowships.

Small Business Innovation Research (SBIR) grants, as administered by NIDRR as a part of the larger mandatory SBIR program, help support the production of new assistive and rehabilitation technology. This two-phase program takes a rehabilitation-related product from development to market readiness. SBIR Phase I grants do not report through the APR.

Domains

Domains come from the *NIDRR Long-Range Plan for Fiscal Years 2013–2017*. Beginning with the 2014 reporting period, the three domains of *Technology*, *Demographics* and *Knowledge translation, including tech transfer* were dropped from the APR reporting form.

Health and function encompasses research to achieve outcomes at the individual level—improved functioning, fitness, and health, including mental health. This domain also addresses goals at the system level, such as more effective service delivery systems, better access (financial and logistical) to healthcare services, and the assessment of rehabilitation effectiveness.

Employment represents research on employment-related activities and strategies to improve employment outcomes and labor force participation.

Participation and community living represents the interaction with the social and built environment in a way that maximizes full inclusion and integration of people with disabilities. This domain focuses on direct supports that increase the availability of acceptable options and opportunities to make choices and enhance participation in everyday activities.

Cross-cutting, while not a Long-range Plan domain, is used in the APR when two or more domains apply to a project. From the APR: "The cross-cutting domain shows that a disability research project often spans two or more Long-Range Plan domains because of the multi-disciplinary nature of disability research."

Research Methods

These are the definitions contained in the APR instructions.

Survey. In a sample survey, data are collected from a sample of a population to determine the incidence, distribution, and interrelation of naturally occurring events and conditions. The overriding concern in the sample survey strategy is to collect information in such a way that conclusions can be drawn about elements of the population that are not in the sample as well as about elements that are in the sample.

Observation. Observation, or naturalistic study, is a study where no explicit intervention is given but organizations or groups or individuals are observed naturally carrying out their business or practices and this is documented in a detailed way.

Case study. A case study is an analytic description of an event, a process, an institution, or a program.

Focus groups. Focus groups combine both interviewing and observation skills and allow the observation of a large amount of interaction on a topic in a short time.

Secondary analysis. This is an approach rather than a design because the data that are involved have already been acquired under an original design for data collection, using some technique such as self-administered questionnaires.

Meta-analysis. This is a way of averaging "effect sizes" from several studies. Effect size is proportional to the difference in outcome between a treatment group and a comparison group.

Intervention study–Experimental design or randomized control design. Some units of study are randomly assigned to a treatment group and some are assigned to one or more comparison groups. Random assignment means that every unit available to the experiment has a known probability of being assigned to each group and that the assignment is made by chance, as in the flip of a coin. The program's or intervention's effects are estimated by comparing outcomes for the treatment group with outcomes for each comparison group.

Intervention study–Quasi-experimental design. Similar to a true experimental design/randomized control trial in that both designs consist of a treatment group and one or more comparison groups. However, with a quasi-experimental design, membership in a treatment group or comparison group is not randomly assigned. This difference is important because it implies that, since the groups will not be equivalent, causal statements about treatment effects may be substantially weakened.

Intervention study–Single-subject design. May involve only one participant but typically include multiple participants (e.g., 3 to 8) in a single study. Each participant serves as his or her own control. Performance prior to intervention is compared to performance during and/or after intervention. In most cases, a research participant is an individual, but it is possible for each participant to be a group whose performance generates a single score per measurement period, i.e., the rate of problem behavior performed by all children within a classroom during a 20-minute period.

Qualitative Interview. Structured or unstructured interviews where the goal is understand something from the respondent's point of view and to understand the meaning of their experiences. This category was added to the APR in 2011.

Other. Select 'other' only if none of the listed categories apply.

Research Stages

The question on research stages was added to the APR form beginning with the 2014 reporting period.

Exploration and discovery means the stage of research that generates hypotheses or theories by conducting new and refined analyses of data, producing observational findings, and creating other sources of research-based information. This research stage may include identifying or describing the barriers to and facilitators of improved outcomes of individuals with disabilities, as well as identifying or describing existing practices, programs, or policies that are associated with important aspects of the lives of individuals with disabilities. Results achieved under this stage of research may inform the development of interventions or lead to evaluations of interventions or policies. The results of the exploration and discovery stage of research may also be used to inform decisions or priorities.

Intervention development means the stage of research that focuses on generating and testing interventions that have the potential to improve outcomes for individuals with disabilities. Intervention development involves determining the active components of possible interventions, developing measures that would be required to illustrate outcomes, specifying target populations, conducting field tests, and assessing the feasibility of conducting a well-designed intervention study. Results from this stage of research may be used to inform the design of a study to test the efficacy of an intervention.

Intervention efficacy means the stage of research during which a project evaluates and tests whether an intervention is feasible, practical, and has the potential to yield positive outcomes for individuals with disabilities. Efficacy research may assess the strength of the relationships between an intervention and outcomes, and may identify factors or individual characteristics that affect the relationship between the intervention and outcomes. Efficacy research can inform decisions about whether there is sufficient evidence to support "scaling-up" an intervention to other sites and contexts. This stage of research can include assessing the training needed for wide-scale implementation of the intervention, and approaches to evaluation of the intervention in real world applications.

Scale-up evaluation means the stage of research during which a project analyzes whether an intervention is effective in producing improved outcomes for individuals with disabilities when implemented in a real-world setting. During this stage of research, a project tests the outcomes of an evidence-based intervention in different settings. The project examines the challenges to successful replication of the intervention, and the circumstances and activities that contribute to successful adoption of the intervention in real-world settings. This stage of research may also include well-designed studies of an intervention that has been widely adopted in practice, but that lacks a sufficient evidence-base to demonstrate its effectiveness.

Development Stages

Information gathering on constraints, specifications, materials, etc. Searching for pertinent information and facts and developing reasonable forecasts or making assumptions where information is not possible or reliable. All the measurable factors, constraints, and features that might be of importance to filter out the best solution must be localized and analyzed.

Analysis of information to generate solutions. Separating the problem from the general problem solution, clarifying the real problem from the apparent ones, and stating the independent-to-dependent relationships.

Evaluation of solutions and synthesis of best solution. Combining elementary components to build up multiple families of alternatives before yielding a detailed solution. This phase also requires detailed analysis, which involves defining and setting up criteria to test results, verifying and validating a system, and optimizing component features.

Implementation of solution. Implementation encompasses all the processes involved in getting a new product operating properly in its environment, including installation, configuration, running, testing, and making necessary changes.

Evaluation of effectiveness and efficiency of solution and redesign as needed. New tools, methods, and procedures, which were previously unknown or develop over time.

Commercialization activities. The product or device has been built, evaluated, and field-tested. Grantee has identified an industry partner (e.g., company or organization) and is engaged in discussions about the feasibility of producing and marketing the product or device for distribution to customers.