

Summary Report

Survey of Researchers' Needs and Practices regarding Research Data Management in Canada

Mowers, Humphrey and Perry
 Current to August 1, 2013

[team] 1. Do you most frequently carry out your research ...

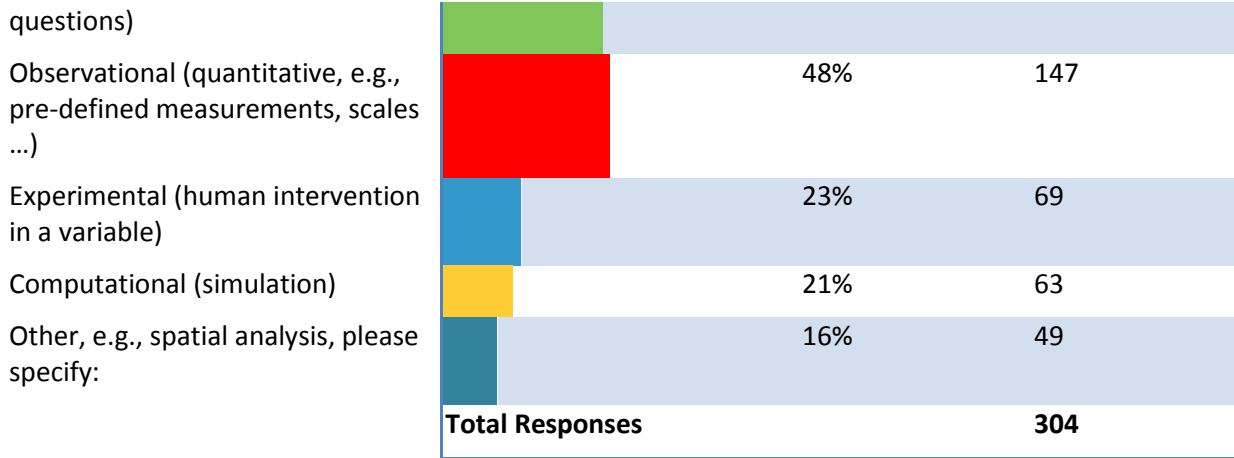
Response	Chart	Percentage	Count
independently		46%	142
in teams of up to 5 researchers		45%	141
in teams of 6 or more researchers		9%	27
Total Responses			310

[pa pers] 2. Please estimate the number of scholarly papers you have authored or co-authored?

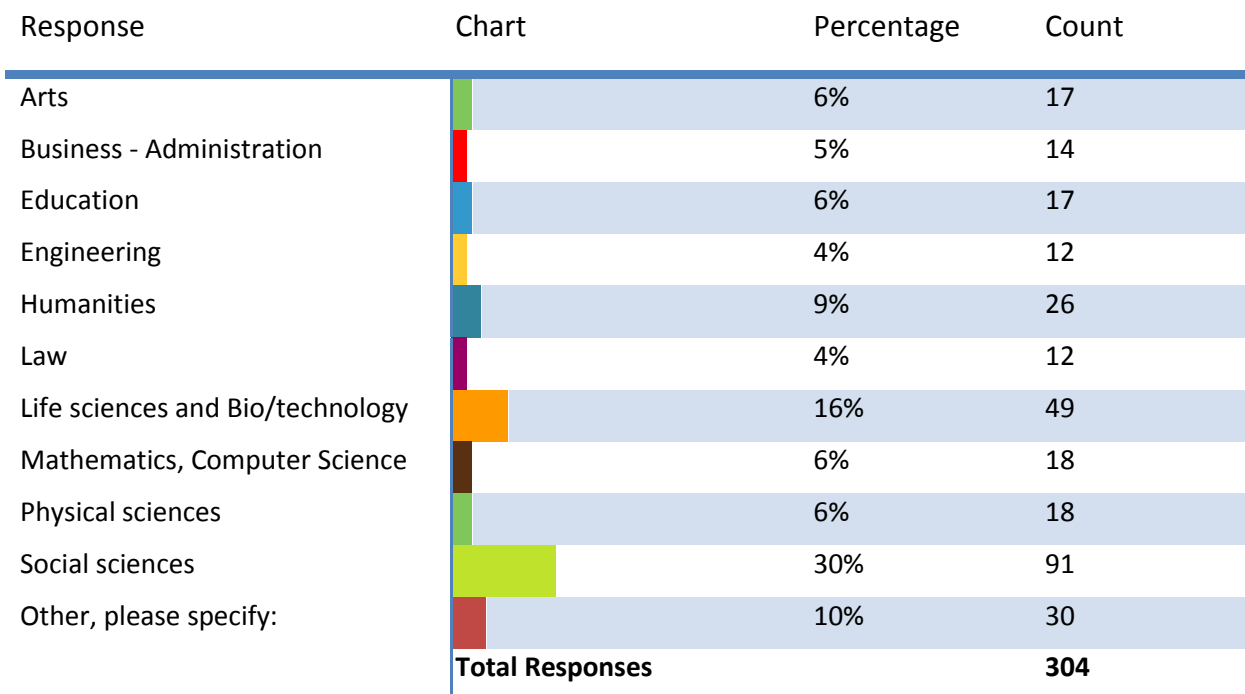
Response	Chart	Percentage	Count
None		0%	0
1 - 10		18%	54
11 - 50		47%	145
51- 100		23%	72
101 - 200		9%	28
> 201		3%	9
Total Responses			308

[method] 3. Of the generalized methods of research, select the method or methods you use in the majority of your research...

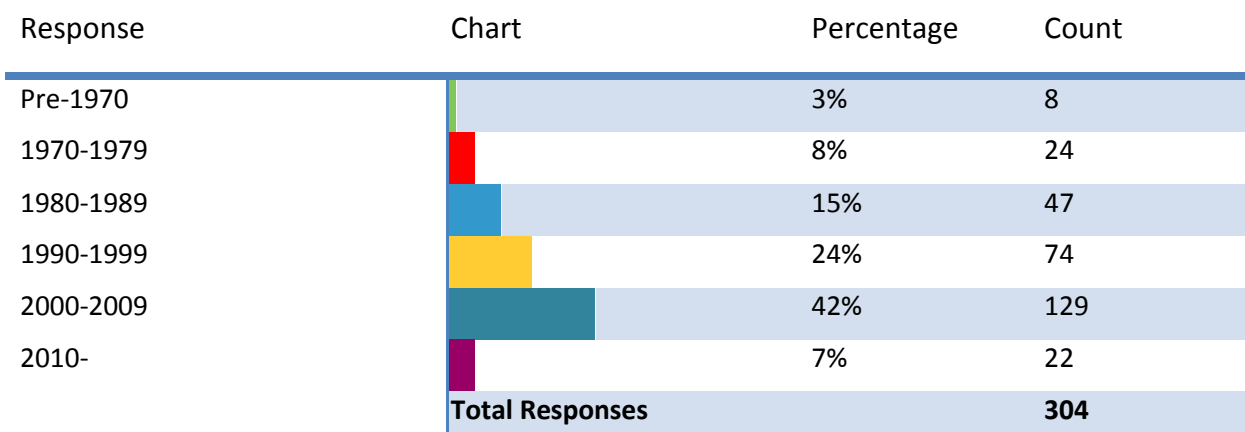
Response	Chart	Percentage	Count
Observational (qualitative, e.g., exploratory, largely open-ended,		46%	141






[field] 4. Please indicate your main field of expertise or research?







[PhD] 5. When did you receive your PhD or highest degree?








[region] 6. In what region of the country do you live?

Response	Chart	Percentage	Count
Atlantic Canada		0%	1
Quebec		17%	52
Ontario		64%	196
Prairies		18%	54
British Columbia		0%	1
Total Responses			304

[q7] 7. How often do you use data sets produced by others for your original research papers?

Response	Chart	Percentage	Count
I never use data in my papers		28%	86
Half or fewer of my papers		44%	134
More than half of my papers		12%	35
I use data sets produced by others in virtually all of my research papers		16%	48
Total Responses			303

[ask] 8. In the last 5 years, have you asked other researchers to provide access to their [detailed] research data and materials?

Response	Chart	Percentage	Count
No, never		52%	156
Yes, once		16%	48
Yes, 2 - 5 times		25%	74
Yes, 6 - 10 times		3%	10
Often (>10 times): I make use of such data regularly		5%	14
Total Responses			302

[gavereq] 9. Were the appropriate data and materials provided (when you asked for access)?

Response	Chart	Percentage	Count
No, never		9%	13
Yes, once		33%	47
Yes, 2 - 5 times		43%	62
Yes, 6 - 10 times		7%	10
Often (>10 times): I make use of such data regularly		8%	12
Total Responses			144

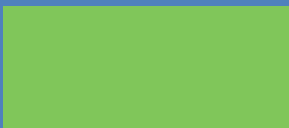










[gavevol] 10. In the last 5 years, have other researchers voluntarily provided you with access to their [detailed] research data and materials?

Response	Chart	Percentage	Count
No, never		52%	154
Yes, once		18%	54
Yes, 2 - 5 times		24%	70
Yes, 6 - 10 times		3%	8
Often (>10 times): I make use of such data regularly		4%	11
Total Responses			297


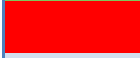
[producer] 11. In the last 5 years, have you produced data files or databases that were integral to conducting your research?

Response	Chart	Percentage	Count
Yes		76%	225
No		24%	73
Total Responses			298







[tasks] 12. Which of the following data management tasks do you generally perform?

Response	Chart	Percentage	Count
a) Organize my data into structured data files with clear labeling		84%	184
b) Ensure that my data is stored in a format that makes them easy to share		55%	121
c) Ensure that my data is stored in a format that is a standard in my field		51%	112
d) Prepare information material (documentation or metadata) describing my methods of data collection, sampling, testing and processing		53%	115
e) Document and keep a copy of the computer code used to process and analyse my data		49%	108
f) Create metadata files in an accepted standard (i.e., a computer/XML discoverable standard like Data Documentation Initiative)		12%	27
g) Ensure storage and backup of my original raw data files (or master version)		76%	167
h) Ensure storage and backup of my most recent data files		69%	152
i) Maintain an inventory of the various versions of my data and documentation files		43%	94
j) Maintain an inventory of the locations of the various versions of my data and documentation files		21%	46
Other, please specify:		2%	5
Total Responses			219






[confiden] 13. Have any of your data been subject to human-subject confidentiality rules or sensitive data restrictions?

Response	Chart	Percentage	Count
Yes		60%	132
No		40%	89
Total Responses			221

[howkeep] 14. What steps have you taken to ensure the privacy of your data?

Response	Chart	Percentage	Count
I obtained informed consent from the participants to share my data		78%	102
I anonymized / de-identified sensitive or confidential data (e.g., deleting unique identifiers or aggregating details into broader categories)		95%	123
I maintained the original raw data and other sensitive files in a secure setting (e.g., a locked filing cabinet or a secure data server)		70%	91
I destroyed all my data within a short time of publishing research results		12%	16
I destroy all my data within a specified time period		34%	44
Other, please specify:		4%	5
Total Responses			130

[getasked] 15. In the last 5 years have you received requests from other researchers for access to your [detailed] data?

Response	Chart	Percentage	Count
No, never		53%	117
Yes, once		16%	35
Yes, 2 - 5 times		22%	49
Yes, 6 - 10 times		3%	6
Often (>10 times): I receive		6%	14

frequent requests






Total Responses	221
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[muchshare] 16. How often have you been able to provide access to your data?










Response	Chart	Percentage	Count
Never		8%	8
Less than half the time		20%	21
About half the time or more		19%	20
Always		53%	55
Total Responses			104

[howshare] 17. How would you describe the extent of your data sharing within the last 5 years?



Response	Chart	Percentage	Count
a) I shared my data with the members of my research project team		79%	175
b) I shared my data with my closest colleagues (not members of my research team)		35%	77
c) I shared my data with other researchers involved in my discipline		36%	80
d) I shared my data with researchers who have applied for access through their research ethics office		2%	4
e) I shared my data with junior researchers such as graduate students		53%	117
f) I typically was able to share my data only when time permitted		5%	11
g) I shared my data as widely as possible		14%	30
h) I promoted my data online, including basic documentation		12%	27

i) I offered access to my data and documentation for a fee		0%	1
j) I offered access to my data and documentation without fees		17%	38
k) I published with journals that require me to deposit my research data		12%	26
l) I shared my data with my research participants		25%	56
m) I have not shared my data		12%	27
Total Responses			221

[infra] 18. What infrastructure have you used to share your [detailed] data?

Response	Chart	Percentage	Count
- A web portal for download access		28%	52
- Provided online contact information for data requests		18%	33
- FTP (file transfer protocol)		17%	31
- Responded to individual requests		55%	103
- E-mail		66%	123
- A public domain archive		10%	18
- An institutional repository at my university		4%	8
- A curated digital data repository		4%	7
Other, please specify:		11%	21
Total Responses			187

[store] 19. After publishing your research results, where do you currently preserve or store most of the data and related materials you produce?

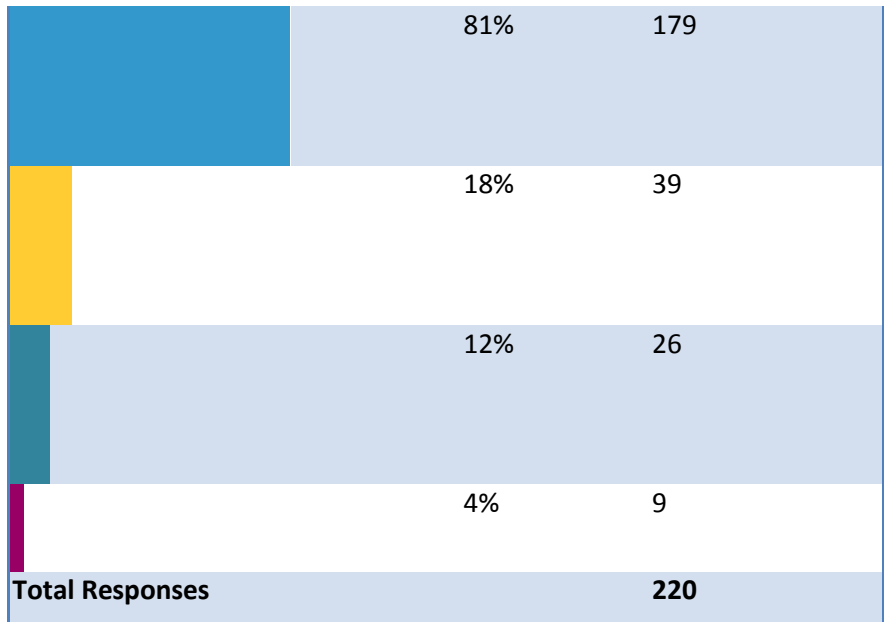
Response	Chart	Percentage	Count
I do not do anything special to store my data after publishing		18%	40
I store only a part of my data because of data storage limitations		5%	10

I store my data locally for my access, e.g., in my university office or lab on my computer(s), server(s) or disk(s)

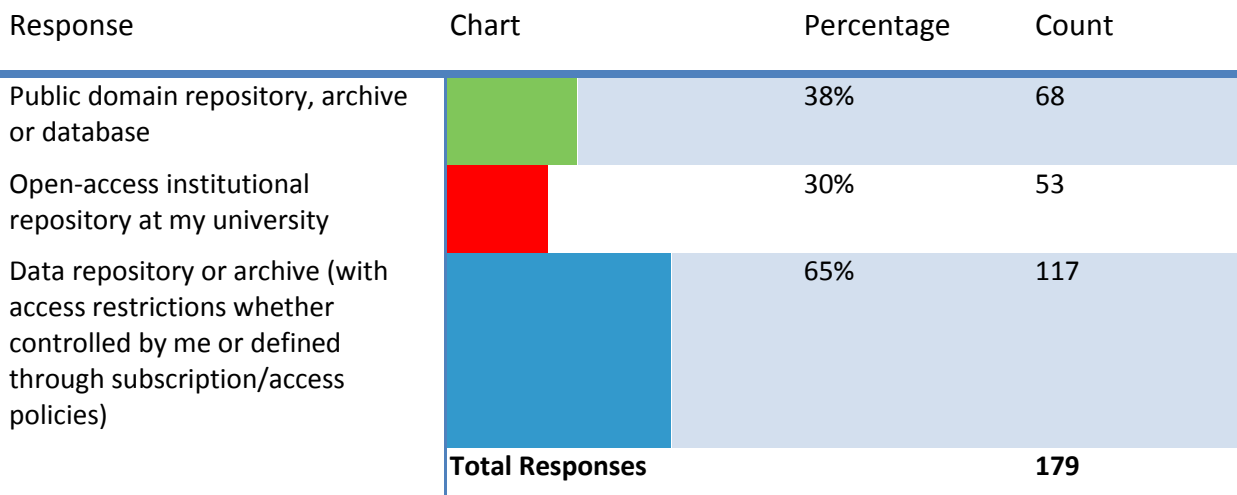
I store my data on a server, repository or database at my university, assuring some degree of access to other researchers

I store my data on a digital repository or database outside my university, assuring some degree of access to other researchers

I store my data such that it is available to everyone



[preserve] 20. What infrastructure would you use to preserve your data?



[services] 21. How would you rate the importance of the following data-related SERVICES to helping improve research in your discipline?

	Not Important1	Somewhat important2	Important3	Very Important4	Unfamiliar ?	Total Responses
a) Having increased access to research data and related materials in "my" discipline	14 (6%)	38 (17%)	57 (26%)	109 (50%)	0 (0%)	218
b) Having increased access to "time-series" data and related materials in my discipline	28 (13%)	31 (14%)	44 (20%)	92 (42%)	23 (11%)	218
c) Having increased access to "cross-disciplinary" data and	17 (8%)	53 (24%)	52 (24%)	86 (39%)	10 (5%)	218

related materials						
d) Having access to research data from a "variety of sources"	14 (6%)	35 (16%)	71 (33%)	87 (40%)	11 (5%)	218
e) Available guidelines and services supporting researchers in "managing" their research data	23 (11%)	40 (18%)	69 (32%)	74 (34%)	12 (6%)	218
f) Available guidelines and services supporting researchers in "depositing" their research data	20 (9%)	43 (20%)	70 (32%)	71 (33%)	14 (6%)	218
g) Available guidelines and services supporting researchers in creating "metadata" (for describing data and collecting and processing of data)	27 (12%)	40 (18%)	69 (32%)	61 (28%)	21 (10%)	218
h) Having access to information about researchers' ongoing research and data collection activities	32 (15%)	49 (22%)	68 (31%)	60 (28%)	9 (4%)	218
i) Having access to communication tools for scholars to talk about data and data "collaboration"	31 (14%)	58 (27%)	64 (29%)	55 (25%)	10 (5%)	218
j) Having "teaching and learning materials" so that researchers can work with data	26 (12%)	45 (21%)	64 (29%)	68 (31%)	15 (7%)	218
k) Having the services necessary to assign a permanent digital identifier to my data to help others to "cite" my data	35 (16%)	49 (22%)	58 (27%)	58 (27%)	18 (8%)	218
l) Having the infrastructure in Canada to allow Canadian research data to be preserved and made available to others	20 (9%)	36 (17%)	59 (27%)	88 (40%)	15 (7%)	218

[policies] 22. How would you rate the importance of the following standards, policies, principles and practices for helping you and your colleagues to manage and deposit your [detailed] data and materials for sharing purposes?

	Not Important ¹	Somewhat important ²	Important ³	Very Important ⁴	Unfamiliar ?	Total Responses
a) "Stated timelines" by funding agencies for depositing data	54 (25%)	53 (24%)	49 (23%)	41 (19%)	20 (9%)	217

and materials

b) "Available time" to implement research data management and deposit plans

24 (11%)	38 (18%)	57 (26%)	76 (35%)	21 (10%)	216
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c) "Available funds" to implement research data management and deposit plans

12 (6%)	24 (11%)	54 (25%)	110 (51%)	16 (7%)	216
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d) Discipline-specific "metadata standards and ontologies" and easy-to-use tools

24 (11%)	38 (18%)	59 (27%)	66 (31%)	29 (13%)	216
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e) Use of metadata standards and ontologies linked across disciplines to allow "cross-disciplinary data discovery and access"

27 (12%)	50 (23%)	55 (25%)	49 (23%)	35 (16%)	216
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f) The requirement by funding agencies to submit an "overall plan" for managing and depositing research data

50 (23%)	50 (23%)	46 (21%)	56 (26%)	14 (6%)	216
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[incentiv] 23. What contribution would the following incentives make to help you (or your colleagues) to manage and deposit your research data?

	None ¹	Little ²	Some ³	Major ⁴	Do not know	Not relevant	Total Responses
a) Availability of range of services, including "assistance" and user-friendly "tools", to support capturing, describing and standardizing research data	24 (9%)	22 (8%)	80 (28%)	106 (38%)	25 (9%)	24 (9%)	281
b) University ethics policies that support data sharing while ensuring confidentiality	33 (12%)	37 (13%)	67 (24%)	104 (37%)	14 (5%)	26 (9%)	281
c) Promotion of data repositories where researchers can deposit their research data and related materials	19 (7%)	40 (14%)	73 (26%)	104 (37%)	23 (8%)	21 (8%)	280
d) One-stop data access / discovery across disciplines	22 (8%)	42 (15%)	70 (25%)	90 (32%)	34 (12%)	22 (8%)	280
e) Steps and assistance for ensuring data anonymization and secure data access	33 (12%)	38 (14%)	64 (23%)	93 (33%)	23 (8%)	29 (10%)	280
f) Having my data recognized as a factor in decisions for tenure, promotion and grants (e.g.,	52 (19%)	47 (17%)	53 (19%)	71 (25%)	21 (8%)	36 (13%)	280

through using a data citation impact factor)							
g) An accepted national standard for data citation and related support services	38 (14%)	43 (15%)	89 (32%)	54 (19%)	31 (11%)	24 (9%)	279
h) Funds provided for data management and deposit from research fund granting councils	28 (10%)	28 (10%)	57 (20%)	124 (44%)	24 (9%)	18 (6%)	279
i) Requirement for data deposit for renewal of research grants	56 (20%)	55 (20%)	48 (17%)	67 (24%)	21 (8%)	32 (11%)	279