




# Summary Report

## *Survey of Researchers' Needs and Practices regarding Research Data Management*







Mowers, Humphrey and Perry

Current to July 11, 2013


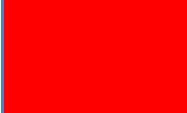
### 1. Do you most frequently carry out your research ...




Response	Chart	Percentage	Count
independently		47%	85
in teams of up to 5 researchers		45%	81
in teams of 6 or more researchers		8%	15
Total Responses			181

### 2. Please estimate the number of scholarly papers you have authored or co-authored?












Response	Chart	Percentage	Count
None		0%	0
1 - 10		19%	33
11 - 50		43%	76
51- 100		27%	48
101 - 200		8%	14
> 201		4%	7
Total Responses			178

### 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, questions)		44%	76
Observational (quantitative, e.g., pre-defined measurements, scales ...)		53%	93

Experimental (human intervention in a variable)		23%	40
Computational (simulation)		20%	35
Other, e.g., spatial analysis, please specify:		14%	25
<b>Total Responses</b>			<b>174</b>




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

Response	Chart	Percentage	Count
Arts		4%	7
Business - Administration		7%	12
Education		5%	8
Engineering		3%	6
Humanities		9%	15
Law		3%	5
Life sciences and Bio/technology		17%	30
Mathematics, Computer Science		3%	6
Physical sciences		5%	9
Social sciences		31%	54
Other, please specify:		13%	22
<b>Total Responses</b>			<b>174</b>





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

Response	Chart	Percentage	Count
Pre-1970		3%	6
1970-1979		9%	15
1980-1989		17%	29
1990-1999		24%	41
2000-2009		41%	72
2010-		6%	11
<b>Total Responses</b>			<b>174</b>






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

Response	Chart	Percentage	Count
Atlantic Canada		0%	0
Quebec		13%	22
Ontario		56%	98
Prairies		30%	53
British Columbia		1%	1
<b>Total Responses</b>			<b>174</b>

## 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		26%	45
Half or fewer of my papers		42%	73
More than half of my papers		12%	21
I use data sets produced by others in virtually all of my research papers		20%	34
<b>Total Responses</b>			<b>173</b>

## 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		51%	87
Yes, once		17%	29
Yes, 2 - 5 times		24%	42
Yes, 6 - 10 times		4%	7
Often (>10 times): I make use of such data regularly		4%	7
<b>Total Responses</b>			<b>172</b>

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

Response	Chart	Percentage	Count
No, never		7%	6
Yes, once		37%	30
Yes, 2 - 5 times		41%	34
Yes, 6 - 10 times		9%	7
Often (>10 times): I make use of such data regularly		6%	5
<b>Total Responses</b>			<b>82</b>












### 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		53%	90
Yes, once		19%	32
Yes, 2 - 5 times		21%	36
Yes, 6 - 10 times		4%	6
Often (>10 times): I make use of such data regularly		4%	7
<b>Total Responses</b>			<b>171</b>



### 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		81%	137
No		19%	32
<b>Total Responses</b>			<b>169</b>


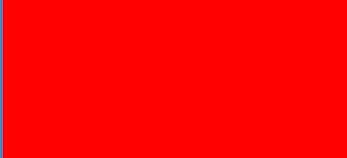




## 12. Which of the following data management tasks do you generally perform?

Response	Chart	Percentage	Count
a) Organize my data into structured data files with clear labeling		84%	112
b) Ensure that my data is stored in a format that makes them easy to share		59%	78
c) Ensure that my data is stored in a format that is a standard in my field		50%	67
d) Prepare information material (documentation or metadata) describing my methods of data collection, sampling, testing and processing		50%	67
e) Document and keep a copy of the computer code used to process and analyse my data		52%	69
f) Create metadata files in an accepted standard (i.e., a computer/XML discoverable standard like Data Documentation Initiative)		12%	16
g) Ensure storage and backup of my original raw data files (or master version)		82%	109
h) Ensure storage and backup of my most recent data files		71%	94
i) Maintain an inventory of the various versions of my data and documentation files		40%	53
j) Maintain an inventory of the locations of the various versions of my data and documentation files		23%	30
Other, please specify:		4%	5
<b>Total Responses</b>			<b>133</b>






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

Response	Chart	Percentage	Count
Yes		56%	75
No		44%	60
<b>Total Responses</b>			<b>135</b>

### 14. What steps have you taken to ensure the privacy of your data?

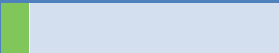



Response	Chart	Percentage	Count
I obtained informed consent from the participants to share my data		81%	61
I anonymized / de-identified sensitive or confidential data (e.g., deleting unique identifiers or aggregating details into broader categories)		92%	69
I maintained the original raw data and other sensitive files in a secure setting (e.g., a locked filing cabinet or a secure data server)		73%	55
I destroyed all my data within a short time of publishing research results		8%	6
I destroy all my data within a specified time period		36%	27
Other, please specify:		5%	4
<b>Total Responses</b>			<b>75</b>

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


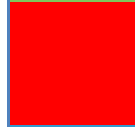






Response	Chart	Percentage	Count
No, never		49%	66
Yes, once		18%	24
Yes, 2 - 5 times		24%	33
Yes, 6 - 10 times		3%	4
Often (>10 times): I receive frequent requests		6%	8




	<b>Total Responses</b>	<b>135</b>
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## 16. How often have you been able to provide access to your data?










Response	Chart	Percentage	Count
Never		9%	6
Less than half the time		17%	12
About half the time or more		22%	15
Always		52%	36
<b>Total Responses</b>			<b>69</b>

## [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		80%	108
b) I shared my data with my closest colleagues (not members of my research team)		38%	51
c) I shared my data with other researchers involved in my discipline		38%	51
d) I shared my data with researchers who have applied for access through their research ethics office		1%	2
e) I shared my data with junior researchers such as graduate students		53%	72
f) I typically was able to share my data only when time permitted		4%	6
g) I shared my data as widely as possible		13%	17
h) I promoted my data online, including basic documentation		10%	14
i) I offered access to my data and documentation for a fee		1%	1
j) I offered access to my data and documentation without fees		18%	24




k) I published with journals that require me to deposit my research data		13%	17
l) I shared my data with my research participants		21%	29
m) I have not shared my data		12%	16
<b>Total Responses</b>			<b>135</b>

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




Response	Chart	Percentage	Count
- A web portal for download access		29%	33
- Provided online contact information for data requests		17%	19
- FTP (file transfer protocol)		15%	17
- Responded to individual requests		54%	62
- E-mail		68%	78
- A public domain archive		10%	11
- An institutional repository at my university		6%	7
- A curated digital data repository		4%	5
Other, please specify:		9%	10
<b>Total Responses</b>			<b>115</b>

## 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		20%	27
I store only a part of my data because of data storage limitations		2%	3
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)		79%	107

I store my data on a server, repository or database at my university, assuring some degree of access to other researchers		18%	24
I store my data on a digital repository or database outside my university, assuring some degree of access to other researchers		13%	17
I store my data such that it is available to everyone		4%	6
<b>Total Responses</b>			<b>135</b>

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

Response	Chart	Percentage	Count
Public domain repository, archive or database		38%	43
Open-access institutional repository at my university		27%	30
Data repository or archive (with access restrictions whether controlled by me or defined through subscription/access policies)		70%	78
<b>Total Responses</b>			<b>112</b>

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

	Not Important	Somewhat important	Important	Very Important	Unfamiliar ?	Total Responses
a) Having increased access to research data and related materials in "my" discipline	6 (5%)	20 (15%)	33 (25%)	<b>73 (55%)</b>	0 (0%)	132
b) Having increased access to "time-series" data and related materials in my discipline	14 (11%)	21 (16%)	24 (18%)	<b>58 (44%)</b>	15 (11%)	132
c) Having increased access to "cross-disciplinary" data and related materials	6 (5%)	35 (27%)	33 (25%)	<b>51 (39%)</b>	7 (5%)	132
d) Having access to research data from a "variety of sources"	7 (5%)	22 (17%)	39 (30%)	<b>55 (42%)</b>	9 (7%)	132
e) Available guidelines and services supporting researchers in "managing" their research data	14 (11%)	25 (19%)	<b>45 (34%)</b>	39 (30%)	9 (7%)	132

f) Available guidelines and services supporting researchers in "depositing" their research data	8 (6%)	26 (20%)	<b>49 (37%)</b>	39 (30%)	10 (8%)	132
g) Available guidelines and services supporting researchers in creating "metadata" (for describing data and collecting and processing of data)	9 (7%)	26 (20%)	<b>44 (33%)</b>	37 (28%)	16 (12%)	132
h) Having access to information about researchers' ongoing research and data collection activities	17 (13%)	28 (21%)	<b>45 (34%)</b>	35 (27%)	7 (5%)	132
i) Having access to communication tools for scholars to talk about data and data "collaboration"	17 (13%)	<b>37 (28%)</b>	<b>40 (30%)</b>	31 (23%)	7 (5%)	132
j) Having "teaching and learning materials" so that researchers can work with data	14 (11%)	28 (21%)	39 (30%)	<b>43 (33%)</b>	8 (6%)	132
k) Having the services necessary to assign a permanent digital identifier to my data to help others to "cite" my data	19 (14%)	31 (23%)	<b>41 (31%)</b>	31 (23%)	10 (8%)	132
l) Having the infrastructure in Canada to allow Canadian research data to be preserved and made available to others	10 (8%)	21 (16%)	36 (27%)	<b>54 (41%)</b>	11 (8%)	132

## 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 <sup>1</sup>	Somewhat important	Important	Very Important	Unfamiliar ?	Total Responses
a) "Stated timelines" by funding agencies for depositing data and materials	27 (21%)	<b>35 (27%)</b>	<b>36 (27%)</b>	23 (18%)	10 (8%)	131
b) "Available time" to implement research data management and deposit plans	14 (11%)	26 (20%)	<b>36 (28%)</b>	<b>45 (35%)</b>	9 (7%)	130
c) "Available funds" to implement research data management and deposit plans	6 (5%)	13 (10%)	<b>33 (25%)</b>	<b>69 (53%)</b>	9 (7%)	130
d) Discipline-specific "metadata standards and ontologies" and easy-to-use tools	12 (9%)	23 (18%)	<b>41 (32%)</b>	<b>35 (27%)</b>	19 (15%)	130
e) Use of metadata standards and ontologies linked across disciplines to allow "cross-disciplinary data discovery and access"	17 (13%)	<b>30 (23%)</b>	<b>36 (28%)</b>	26 (20%)	21 (16%)	130
f) The requirement by funding agencies to submit an "overall plan" for managing and depositing research data	28 (22%)	<b>35 (27%)</b>	24 (18%)	<b>35 (27%)</b>	8 (6%)	130

## 23. What contribution would the following incentives make to help you (or your colleagues) to manage and deposit your research data?

	None	Little	Some	Major	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	14 (9%)	10 (6%)	<b>46 (29%)</b>	<b>62 (40%)</b>	14 (9%)	10 (6%)	156
b) University ethics policies that support data sharing while ensuring confidentiality	19 (12%)	25 (16%)	32 (21%)	<b>63 (40%)</b>	5 (3%)	12 (8%)	156
c) Promotion of data repositories where researchers can deposit their research data and related materials	9 (6%)	21 (14%)	38 (25%)	<b>69 (45%)</b>	10 (6%)	8 (5%)	155
d) One-stop data access / discovery across disciplines	11 (7%)	30 (19%)	36 (23%)	<b>51 (33%)</b>	19 (12%)	8 (5%)	155
e) Steps and assistance for ensuring data anonymization and secure data access	20 (13%)	24 (15%)	34 (22%)	<b>55 (35%)</b>	10 (6%)	12 (8%)	155
f) Having my data recognized as a factor in decisions for tenure, promotion and grants (e.g., through using a data citation impact factor)	<b>31 (20%)</b>	<b>25 (16%)</b>	<b>35 (23%)</b>	<b>37 (24%)</b>	12 (8%)	15 (10%)	155
g) An accepted national standard for data citation and related support services	23 (15%)	20 (13%)	<b>51 (33%)</b>	32 (21%)	18 (12%)	10 (6%)	154
h) Funds provided for data management and deposit from research fund granting councils	15 (10%)	12 (8%)	29 (19%)	<b>79 (51%)</b>	13 (8%)	7 (5%)	155
i) Requirement for data deposit for renewal of research grants	<b>30 (19%)</b>	<b>31 (20%)</b>	<b>29 (19%)</b>	<b>40 (26%)</b>	10 (6%)	14 (9%)	154