

RESEARCH TRENDS IN

JUNE 2022

NUNAVUT

BASED ON SCIENTIFIC RESEARCH LICENSES
(2004-2019)



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In collaboration with:

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Photo: Nunavut Research Institute
(Iqaluit, Nunavut) by Jamal Shirley



RIGHTS AND RESPONSIBILITIES IN RESEARCH

Obtaining Information on Research Projects

All NRI license holders must provide a plain language summary of research activities completed each year. These summaries are published each year in the NRI **compendia for research** (see Resources p. 29). These annual summary reports are available in English and Inuktitut, and for some locations in Inuinnaqtun. They are meant to provide a snapshot of research fieldwork including when, how, and by whom, and what information was collected. To obtain summary reports for any research projects conducted in or near your community or region please **contact the NRI Manager, Research Liaison** (see contact information below).

Researchers' Ethical Obligations

Nunavummiut must be treated with fairness and respect. Researchers are required to abide by the laws of each community and to follow **ethical principles and codes of conduct** (see Resources p. 29). Researchers are expected to engage in culturally appropriate behaviour following local protocols. Researchers are responsible for learning what is respectful and responsible in the local context, as each community is different.

Important information for Nunavummiut

Your Rights in Research

Remember, **you always have the right to refuse to participate in a research project** even if your community has approved the research. Researchers must obtain your informed consent before they ask you any questions, and they must always respect your privacy and confidentiality.

It is against the law to conduct research in Nunavut without a license.

Researchers must follow the terms and conditions in their research licenses and ensure their work does not cause harm or disruption to the community or to wildlife and the environment. Research licenses can be suspended or revoked, and a researcher may face fines or other penalties, when there is documented proof that research is causing harm.

If you have concerns that a researcher working in your community has not secured your informed consent, or may be causing harm or disruption, please **contact the Nunavut Science Advisor** (see contact below).

**Manager,
Research Liaison**

[researchlicenses@
arcticcollege.com](mailto:researchlicenses@arcticcollege.com)

(867) 979-7279

**Nunavut Science
Advisor**

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arcticcollege.com](mailto:researchlicenses@arcticcollege.com)

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ABOUT THIS REPORT

About the Nunavut Research Institute (NRI)

The NRI has been responsible for developing, facilitating, and promoting scientific research in Nunavut since 1994. **The NRI works to ensure that research is a resource for the wellbeing of Nunavummiut** (people of Nunavut).

Scientific Research Licenses

The NRI administers scientific research licensing under Nunavut's Scientists Act. The Scientists Act only applies to research in the **Physical and Natural Sciences (P), Health Sciences (H), and Social Sciences and Traditional Knowledge (SS), which is about 60% of all research that happens in Nunavut.** Research on archaeology, parks, and wildlife (including all terrestrial and aquatic animals, plants, birds, and fish) is licensed under different legislation and is not included in this report.

The **NRI's Scientific Research Licensing Guidelines** (see Resources, p. 29) provide information about the types of permits required for research in Nunavut, and how to apply for an NRI Scientific Research License in each discipline.

Did you know that the NRI only licenses about 60% of research happening in Nunavut?

Why we created this report

The goal of this report is to help Nunavummiut learn about who is doing research, what they are studying, and where. This report was developed by analyzing research summaries from NRI license applications. To learn more about the numbers presented in this report, see **Understanding the Numbers** (p. 28). This work is part of the NRI's ongoing efforts to:

1. improve Inuit engagement in research;
2. make research results more accessible to Nunavummiut;
3. reduce community research fatigue; and,
4. encourage research that addresses Inuit priorities.

Other Research Permits

Even when researchers have a license, they might require other approvals to conduct their project. Other approvals are usually required for fieldwork, depending on the location and type of research activity. Examples of other authorizations a researcher may need include:

- Review by the **Nunavut Planning Commission** (NPC) - for all land and water based activities;
- Screening by the **Nunavut Impact Review Board** (NIRB) - environmental impact screening;
- Authorization from the **Nunavut Water Board** (NWB) - to use water or deposit waste in the environment;
- Approval from **Crown Indigenous Relations and Northern Affairs Canada** (CIRNAC) - to use Federal Crown Lands in Nunavut for research purposes; and,
- Approval from a **Regional Inuit Association** (RIA) - to access or use Inuit Owned Lands for research purposes.

WHERE IS RESEARCH HAPPENING?

1320

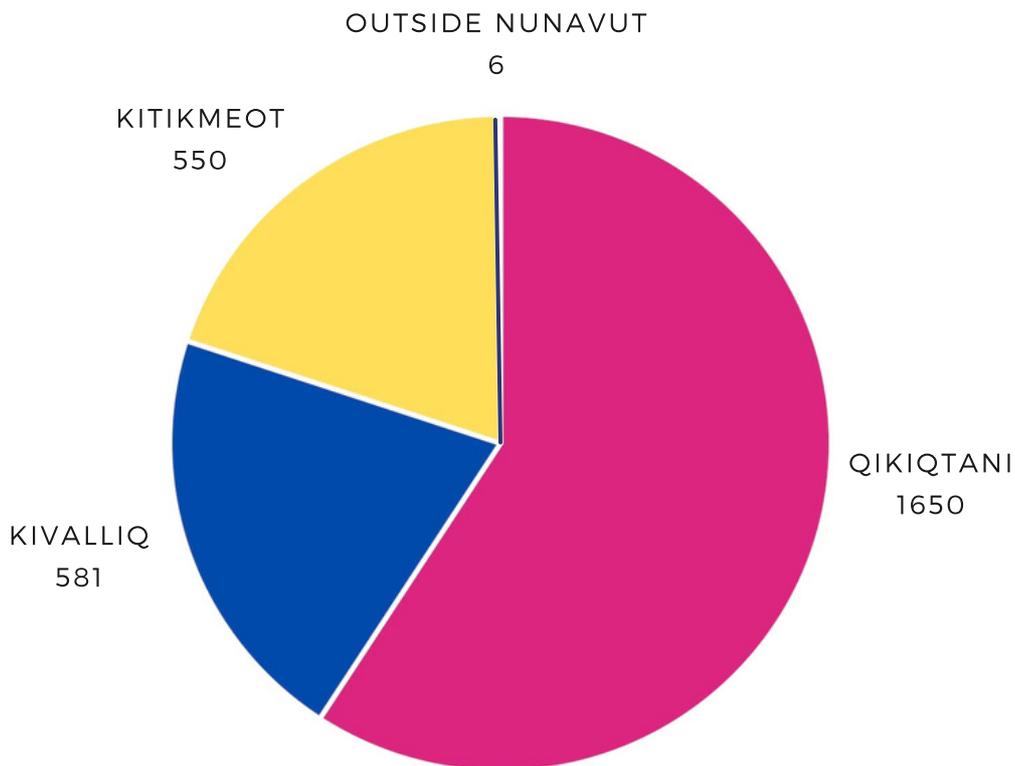
TOTAL NUMBER OF PROJECTS (2004 -2019)

2260

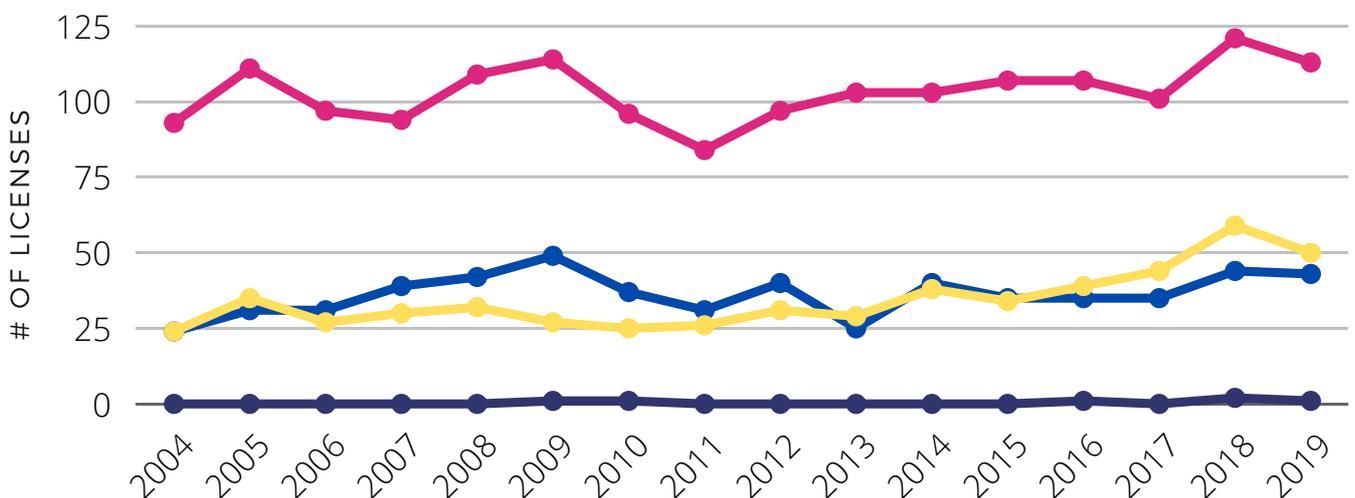
TOTAL NUMBER OF LICENSES ISSUED (2004 -2019)

● Qikiqtani ● Kivalliq ● Kitikmeot ● Outside Nunavut

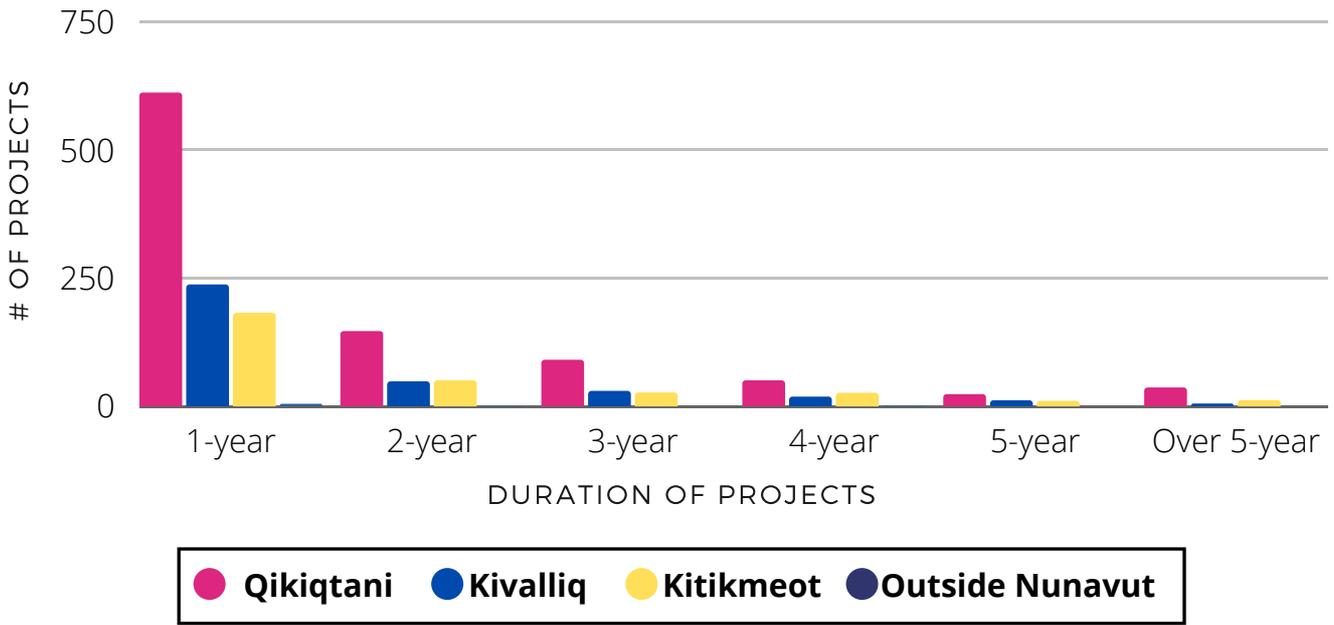
TOTAL NUMBER OF PROJECTS BY REGION



TOTAL NUMBER OF LICENSES BY REGION BY YEAR



DURATION OF PROJECTS BY REGION

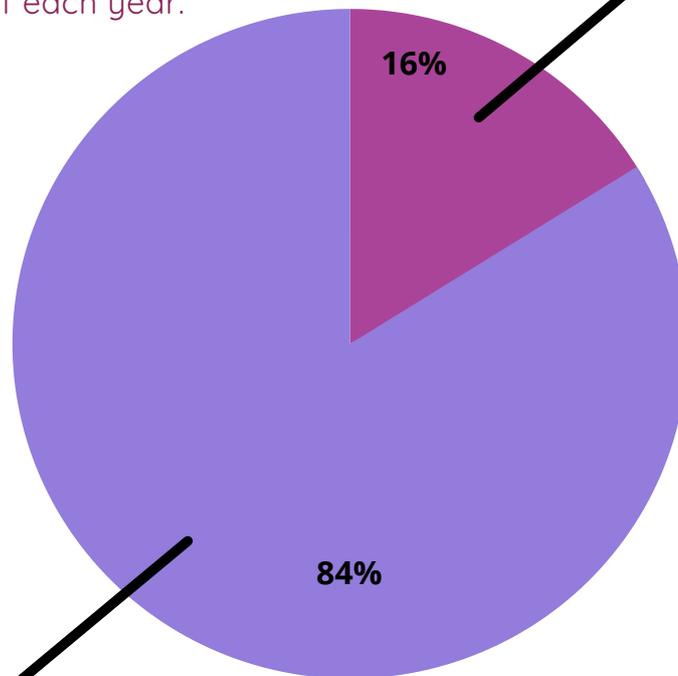


WHERE RESEARCH IS HAPPENING

A research license is required for each year that a research project takes place in Nunavut. Projects that are conducted for longer than one year can receive a multi-year research license, and this must be renewed at the end of each year.

In this report, **research license** numbers represent the individual license issued each year.

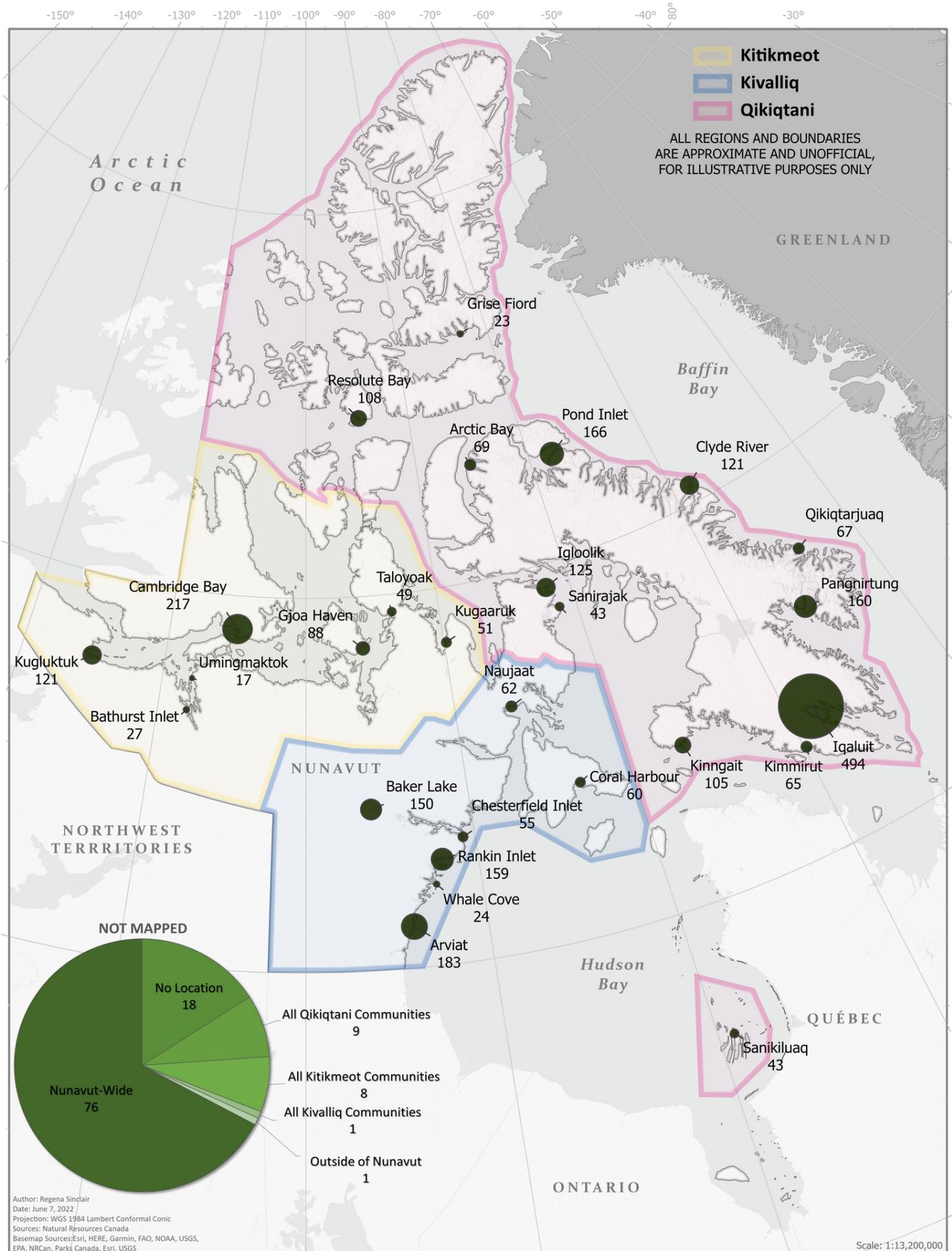
Research project numbers represent an individual project (which may hold several licenses over multiple years).



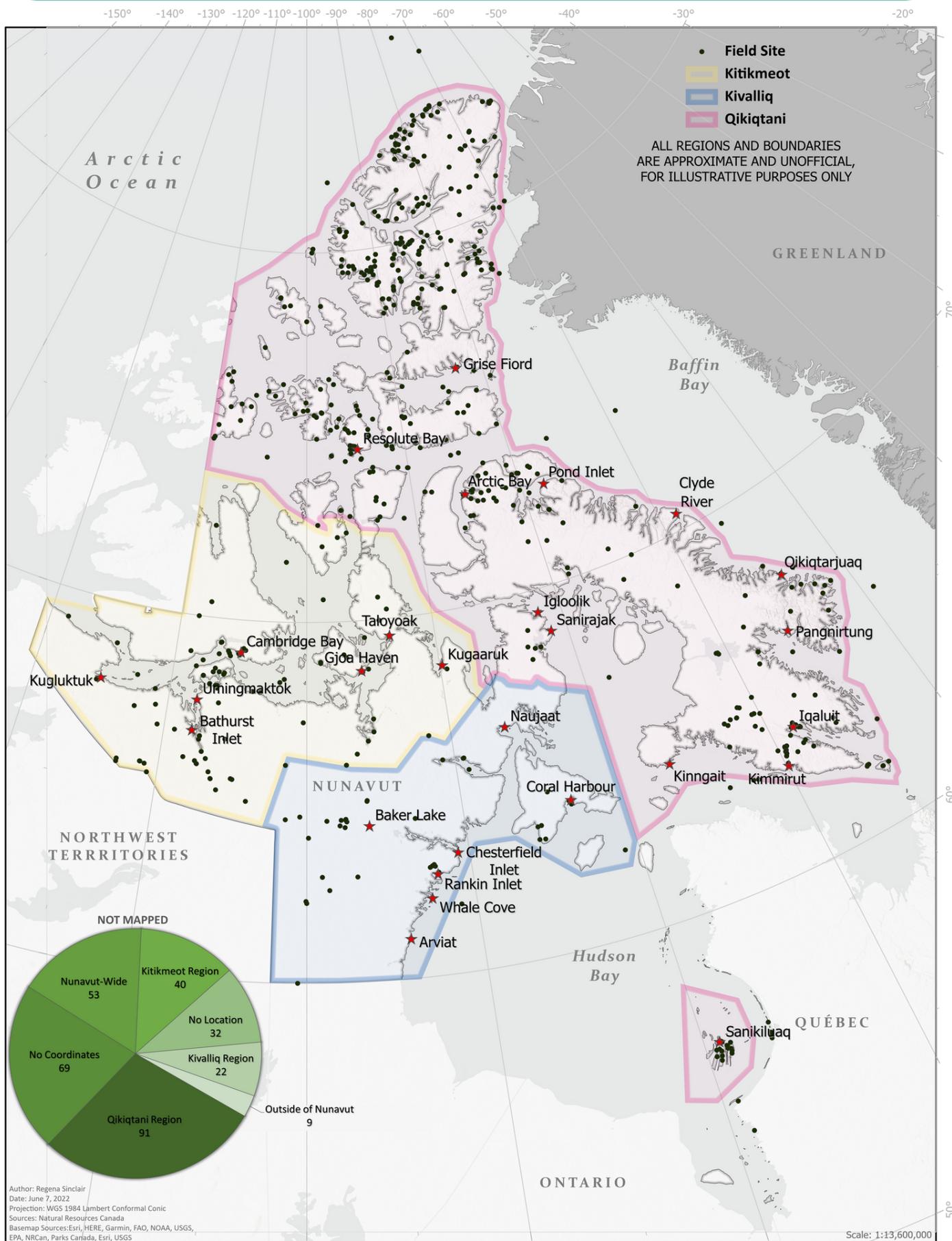
550
total projects occurring at field locations outside of a community

2858
total projects in a community

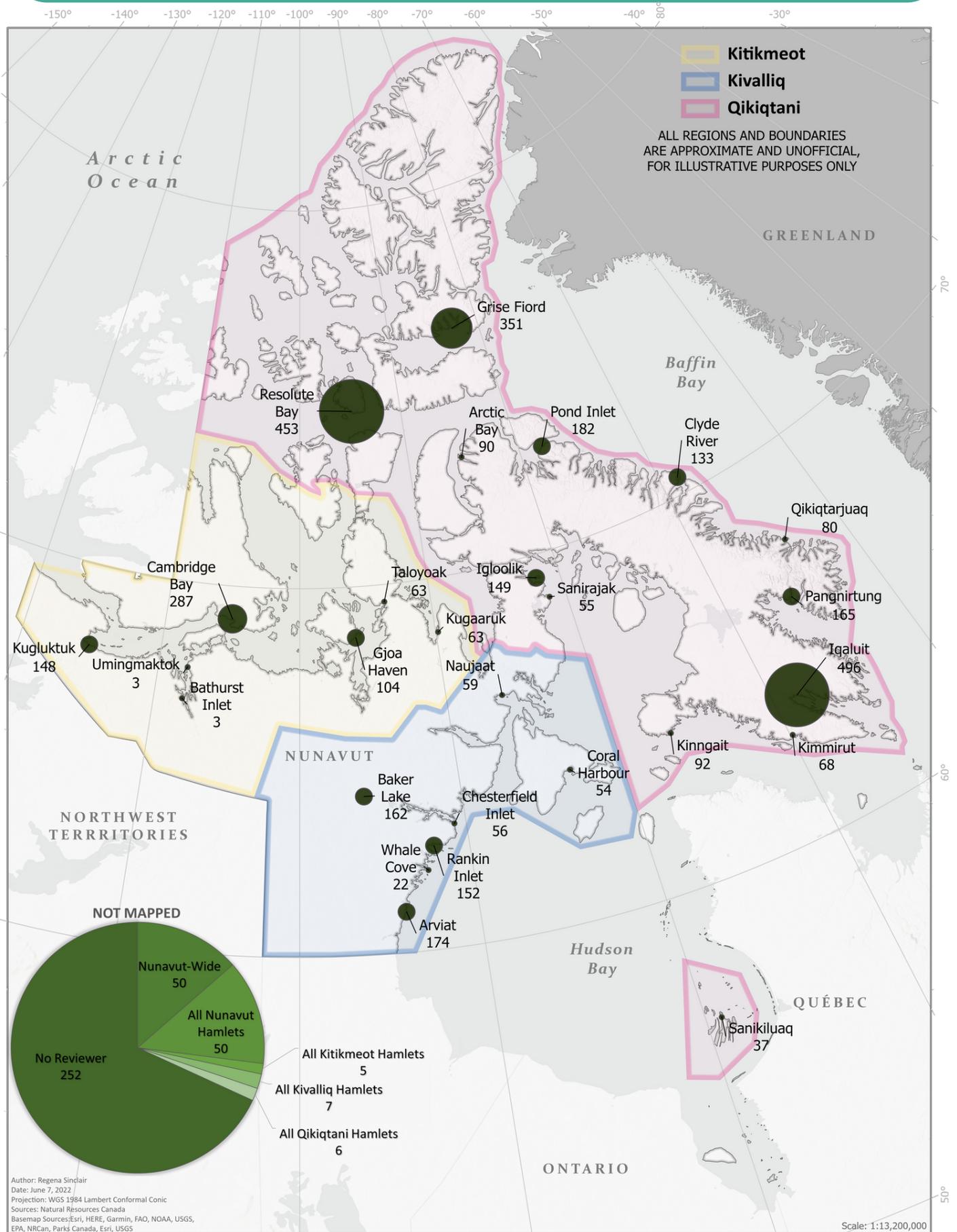
INTENSITY OF RESEARCH IN COMMUNITIES (2004-2019)



LOCATIONS OF RESEARCH FIELD SITES (2004-2019)

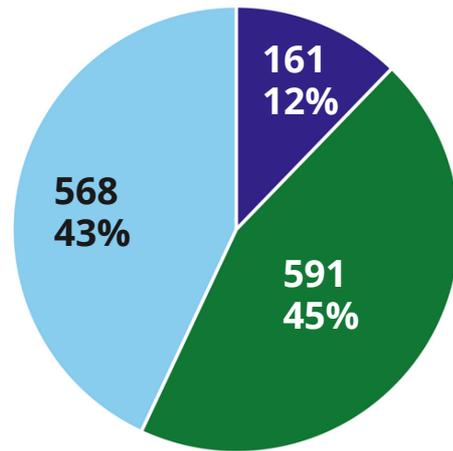


NRI LICENSES BY REVIEWING COMMUNITY (2004-2019)

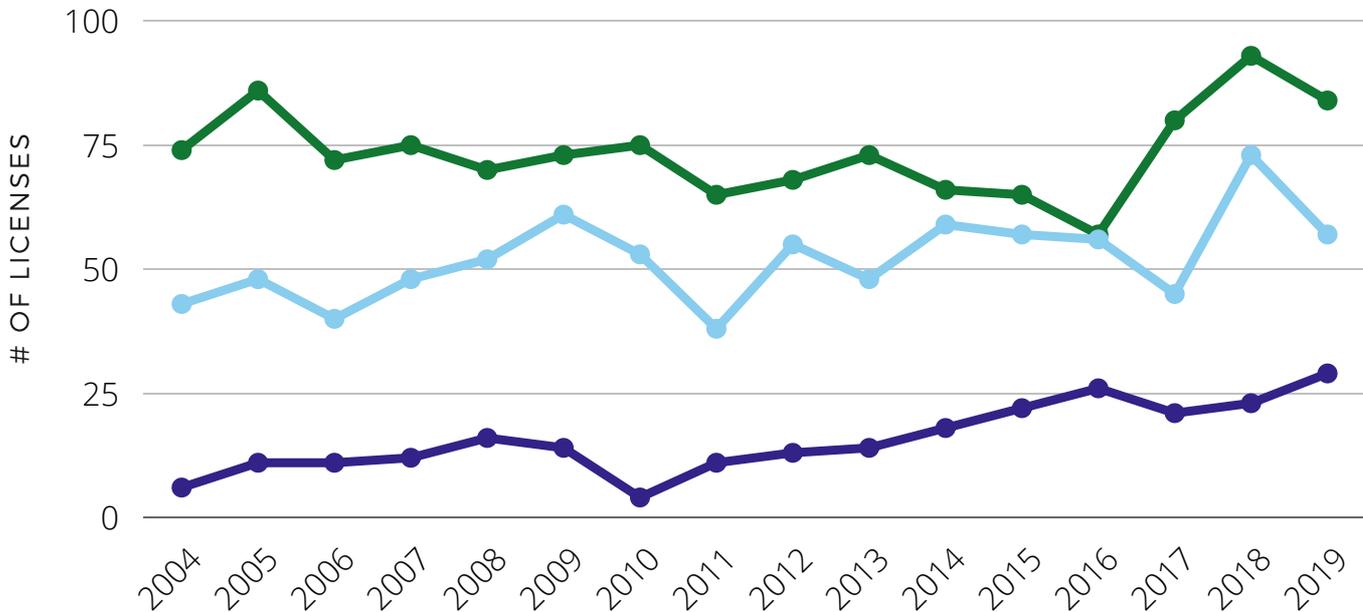


WHAT KINDS OF RESEARCH ARE HAPPENING IN NUNAVUT?

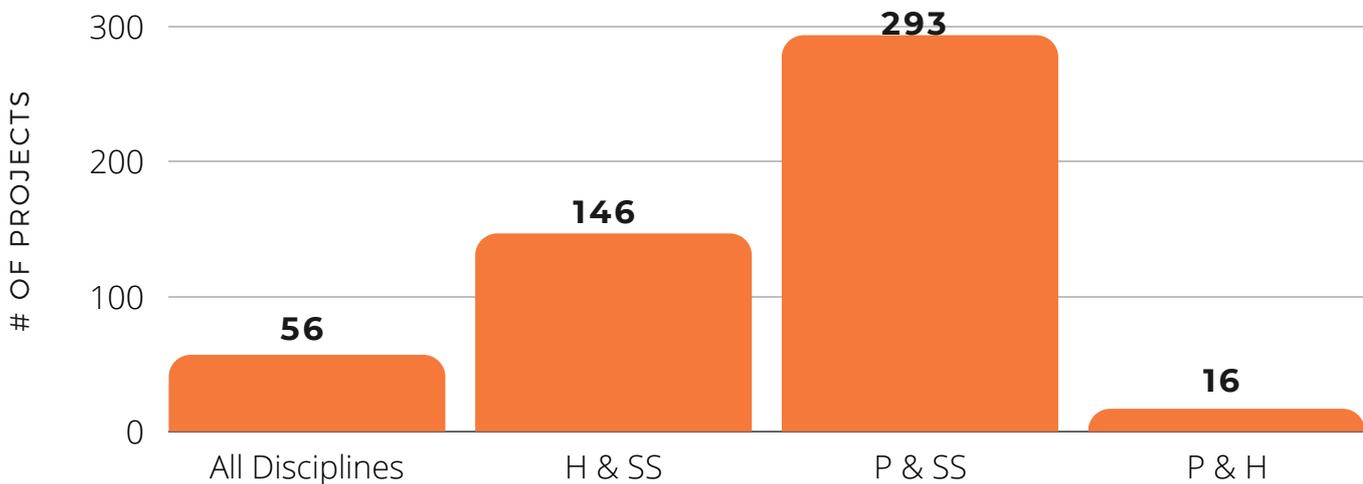
TOTAL NUMBERS OF PROJECTS BY DISCIPLINE



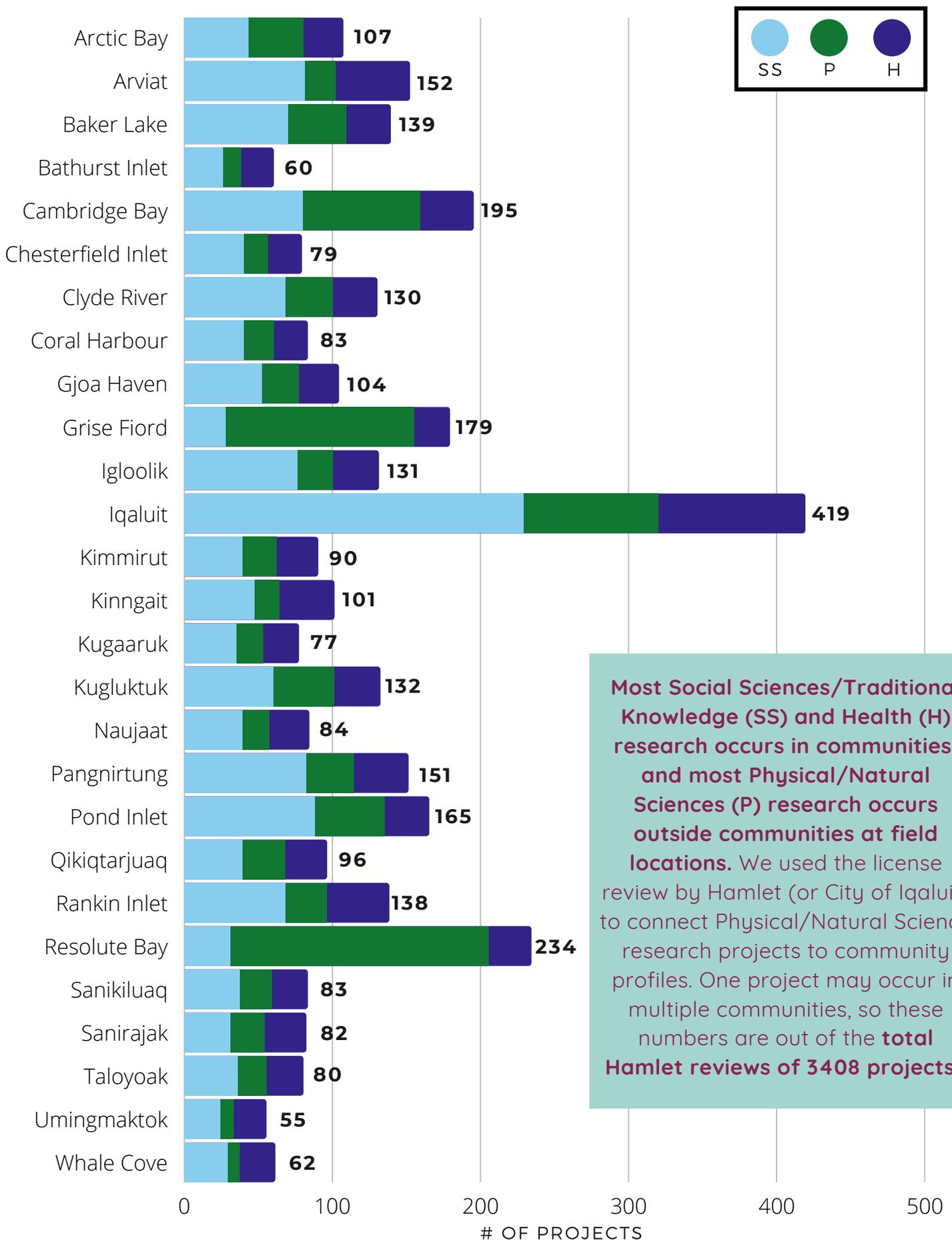
TOTAL LICENSES BY DISCIPLINE IN NUNAVUT



INTERDISCIPLINARY PROJECTS

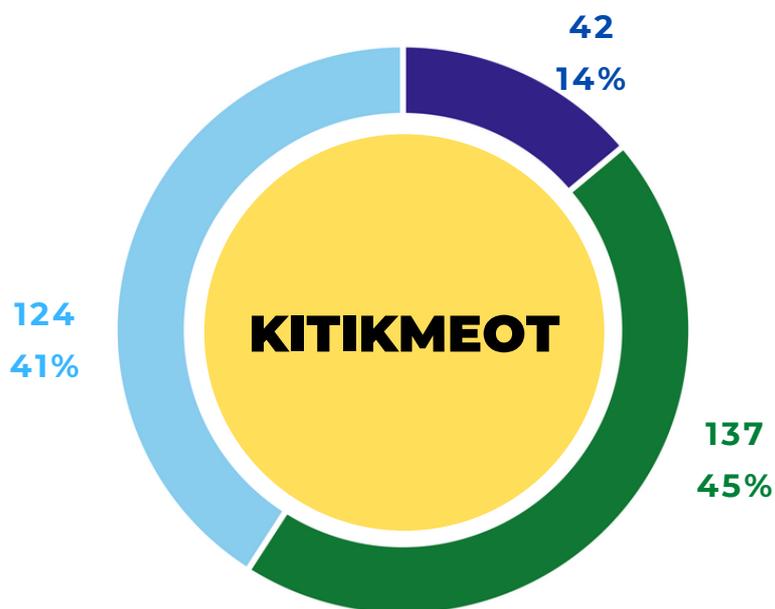
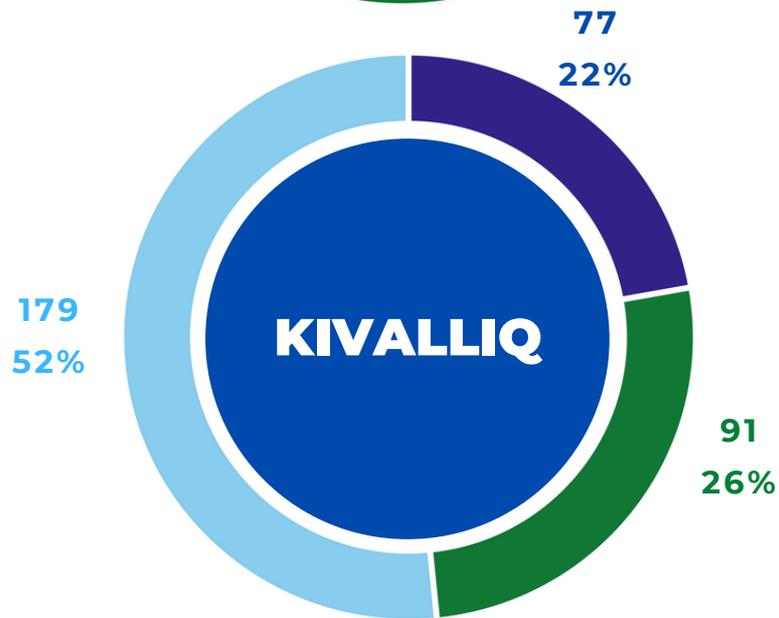
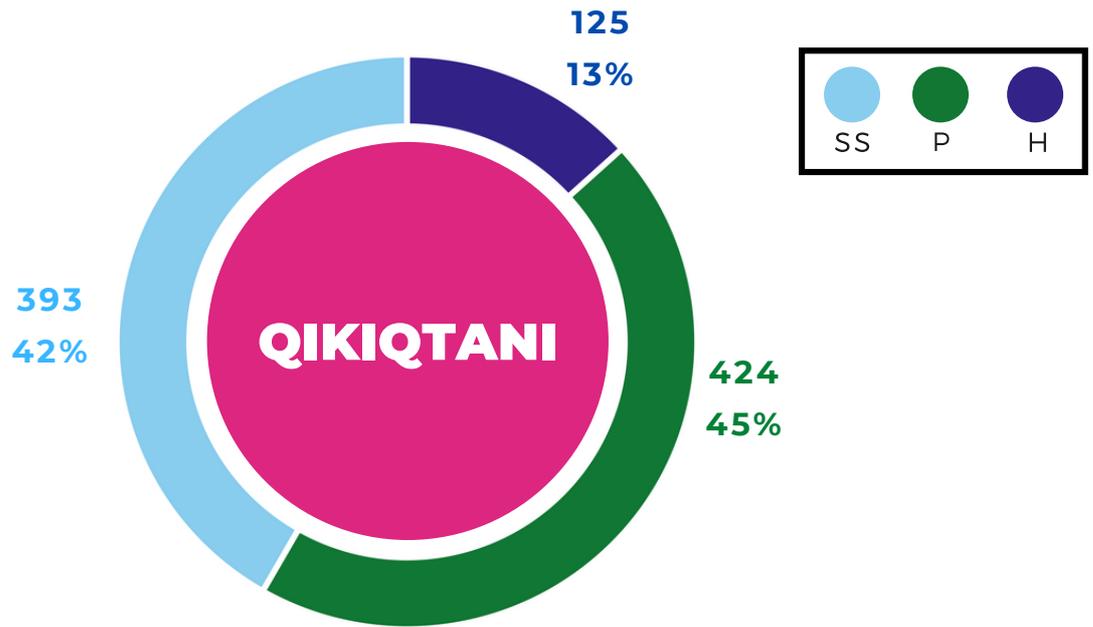


TOTAL NUMBER OF PROJECTS BY COMMUNITY AND DISCIPLINE



Most Social Sciences/Traditional Knowledge (SS) and Health (H) research occurs in communities, and most Physical/Natural Sciences (P) research occurs outside communities at field locations. We used the license review by Hamlet (or City of Iqaluit) to connect Physical/Natural Science research projects to community profiles. One project may occur in multiple communities, so these numbers are out of the **total Hamlet reviews of 3408 projects.**

TOTAL NUMBER OF PROJECTS BY DISCIPLINE ACROSS REGIONS



TOP 10 RESEARCH TOPICS*

BY REGION

QIKIQTANI

of
Projects

1. Culture & society	192
2. Climate change	168
3. Inuit Qaujimagatuqangit	160
4. Marine	135
5. Land use & traditional activities	81
6. Wildlife*	75
7. Education	70
8. Policy & governance	66
9. Climate & weather	62
10. Sovereignty & self-determination	53

KIVALLIQ

of
Projects

1. Culture & society	85
2. Inuit Qaujimagatuqangit	66
3. Land use & traditional activities	43
4. Wellbeing	40
5. Education	38
6. Wildlife*	34
7. Climate change	31
8. Economy	20
9. Policy & governance	19

KITIKMEOT

of
Projects

1. Culture & society	54
2. Inuit Qaujimagatuqangit	53
3. Climate change	47
4. Marine	45
5. Wildlife*	40
6. Fish*	35
7. Land use & traditional activities	27
8. Plants*	27
9. Education	25
10. Wellbeing	24

OUTSIDE NUNAVUT

of
Projects

1. Climate change	3
2. Epidemiology	2
3. Marine	2
4. Wellbeing	2

*Some of the projects licensed by the NRI address **topics related to wildlife, plants and fish**. However, research on wildlife, fish, and plants is not directly licensed by NRI (see About this Report, p. 2) and so the full scope of wildlife and fisheries research is not represented in this report.

TOP 10 RESEARCH TOPICS*

BY DISCIPLINE

Research topics refer to the focus of a research project.

TOTAL

of
Projects

1. Culture & society	280
2. Inuit Qaujimajatuqangit	266
3. Climate change	215
4. Marine	173
5. Land use & traditional activities	132
6. Wildlife*	130
7. Policy & governance	104
8. Education	93
9. Climate & weather	87
10. Plants*	73

SOCIAL TOPICS

of
Projects

1. Culture & society	280
2. Inuit Qaujimajatuqangit	266
3. Land use & traditional activities	132
4. Policy & governance	104
5. Education	93
6. Sovereignty & self-determination	66
7. History	60
8. Gender	28
9. Arts	27
10. Colonization impacts	24

LAND AND WATER TOPICS

of
Projects

1. Climate change	215
2. Marine	173
3. Wildlife*	130
4. Climate & weather	87
5. Plants*	73
6. Fish*	71
7. Ecosystems	62
8. Resource development	59
9. Air & atmosphere	51
10. Land & landforms	50

HEALTH TOPICS

of
Projects

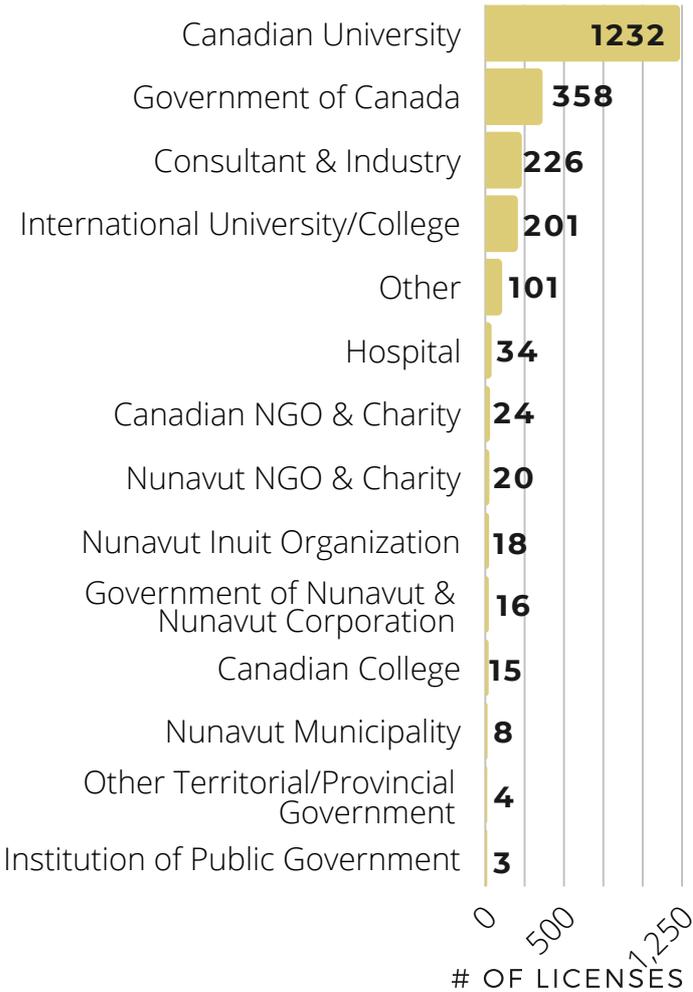
1. Wellbeing	62
2. Community wellness	40
3. Public health & health promotion	37
4. Epidemiology	24
5. Health services	22
6. Health systems & monitoring	22
7. Health practitioners & workers & learners	20
8. Clinical & medical research	14
9. Environmental health	13
10. Population health	5

*Some of the projects licensed by the NRI address **topics related to wildlife, plants and fish**. However, research on wildlife, fish, and plants is not directly licensed by NRI (see About this Report, p. 2) and so the full scope of wildlife and fisheries research is not represented in this report.

WHO IS LEADING RESEARCH IN NUNAVUT?

A **Principal Investigator (PI)** is the lead researcher on a project and is the person identified as the license holder on an NRI license. The PI takes responsibility for submitting the license application, and making sure that the research is carried out as proposed or adjusted as needed. The PI often lists other **research team members** in their application. However, numbers shown here only represent the affiliation of the PI.

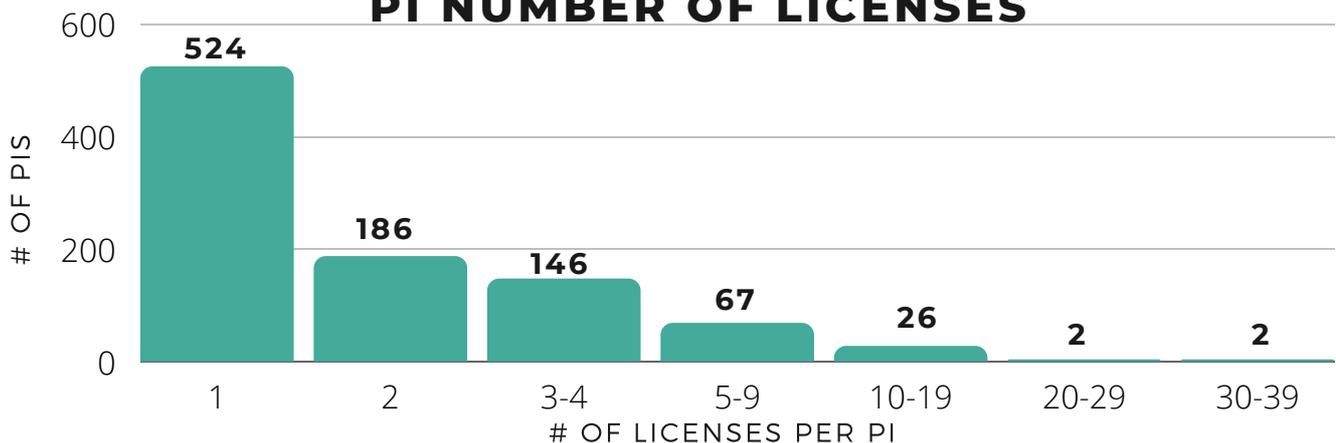
PI AFFILIATION BY LICENSES



ACADEMIC PI AFFILIATION



PI NUMBER OF LICENSES



TOP LONG TERM LICENSE HOLDERS

ALL

DISCIPLINES

# of Licenses	Discipline	Affiliation Type
31	H	CU, H
30	P	CU
25	P	CU
24	P	CU
18	P	CI
18	P	CU
17	SS	CI
16	P	CU
15	P	GC
14	P	GC
14	SS	GC, ICU
13	P	CU, GC
13	P	CU
13	P	CU, GC, ICU
12	SS & P	CI
12	P	CU
12	SS	GC
12	P	GC, CU
12	P	CI
12	P	CU
11	P	GC
11	SS	CI
11	P	GC
11	P	O

Affiliation Type

Consultant/Industry
(CI)

Canadian University
(CU)

Government of Canada
(GC)

Hospital
(H)

International
University/College
(ICU)

Other
(O)

PHYSICAL SCIENCES

of Licenses

SOCIAL SCIENCES

of Licenses

HEALTH RESEARCH

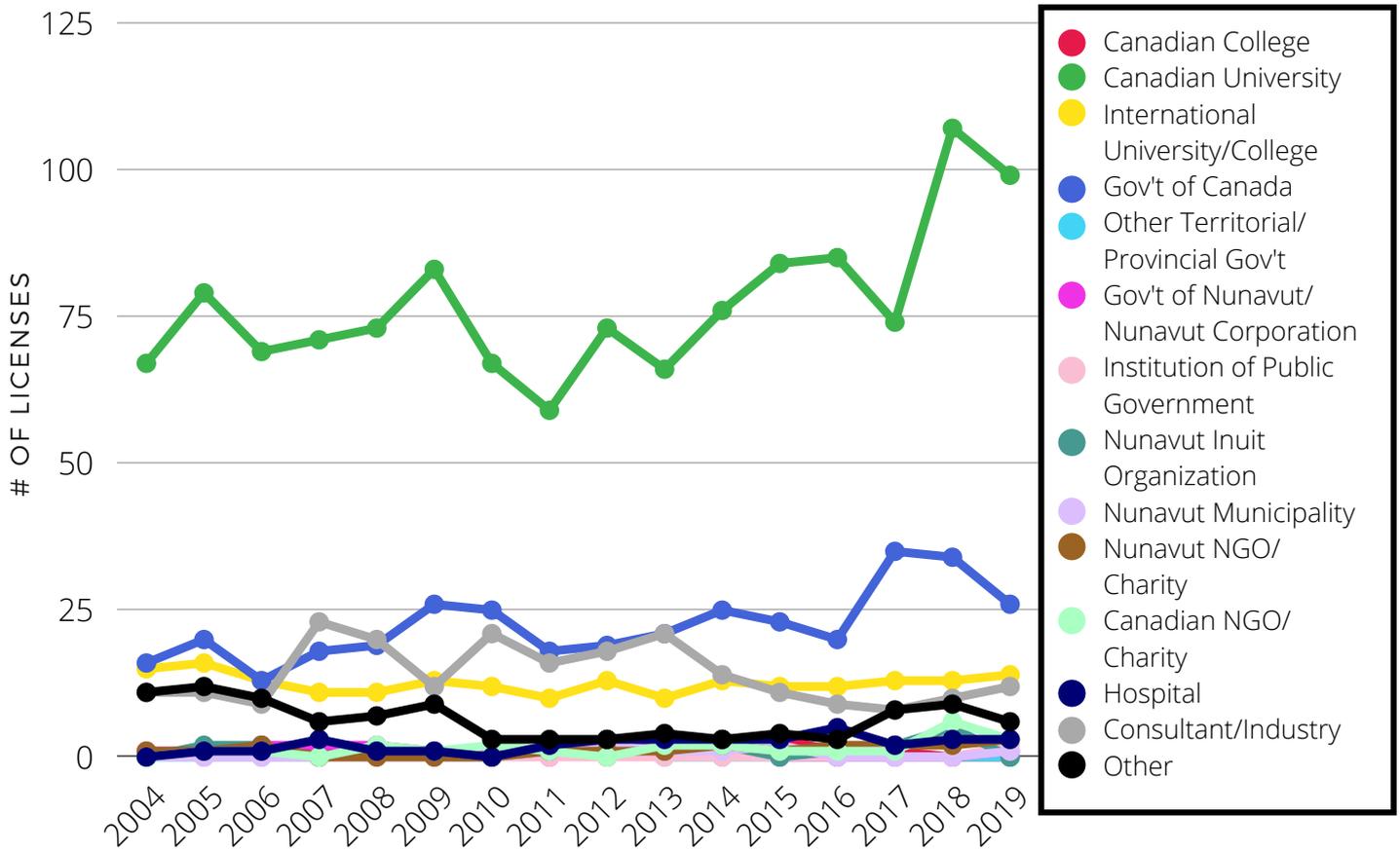
of Licenses

Pollard, Wayne	30
Lamoureux, Scott	25
Sharp, Martin	24
Muggli, Deborah	18
Whyte, Lyle	18
Vincent, Warwick	16
McLennan, Donald	15
Miles, Warner	14
Beauchamp, Benoit	13
Drummond, James	13
Mueller, Derek	13
Copland, Luke	12
Mate, David	12
Moore, Steve	12
Young, Kathy	12
Burgess, David	11
Hamilton, Jim	11
Lee, Pascal	11
Melling, Humfrey	10
Osinski, Gordon	10
Pienitz, Reinhard	10
Siciliano, Steven	10

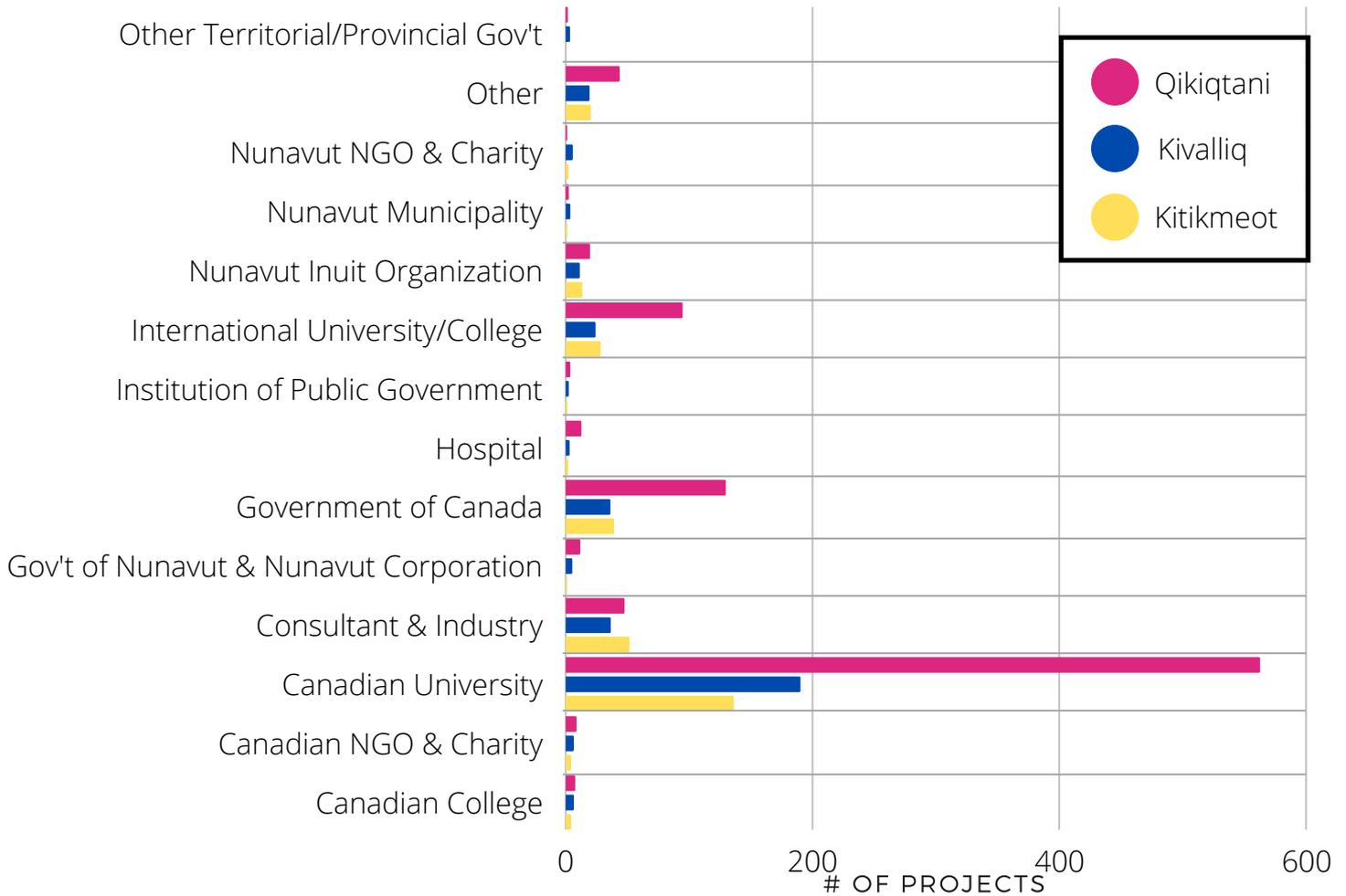
Klein, Heidi	17
Routledge, Karen	14
Mahy, Maryse	12
Gustavson, Kent	11
Ljubicic, Gita (Laidler)	10
Cook, Richard	9
Fox, Shari (Gearheard)	9
Sahanatien, Vicki	9
Blangy, Sylvie	8
Tomaselli, Matilde	8
Wenzel, George	8
Omura, Keiichi	7
Rodon, Thierry	7
Carter, Natalie	6
Lee, Cathy	6
Desjardins, Sean	5
Doubleday, Nancy	5
Dowsley, Martha	5
Ferrazzi, Priscilla	5
Ford, James	5
Henri, Dominique	5
Johnston, Patricia	5
Keeling, Arn	5
Mauro, Ian	5
Robertson, Sean	5
Tagalik, Shirley	5

Arbour, Laura	31
Ahmed, Ahmed	6
Alvarez, Gonzalo	6
Egeland, Grace	6
Goldfarb, David	6
Steenbeek, Audrey	6
Bohbot, Veronique	5
Cardinal, Shelley	5
Tagalik, Shirley	5
Bohr, Yvonne	4
Minuk, Gerald	4
Riva, Mylene	4
Anang, Polina	3
Asmis, Tim	3
Brubacher, Laura	3
Chan, Laurie	3
Galloway, Tracey	3
Godwin, Marshall	3
Healey Akearok, Gwen	3
Hicks, Jack	3
Jaffe, Peter	3
Kovesi, Thomas	3
Kral, Michael	3
Leatherdale, Scott	3
Moeller, Helle	3

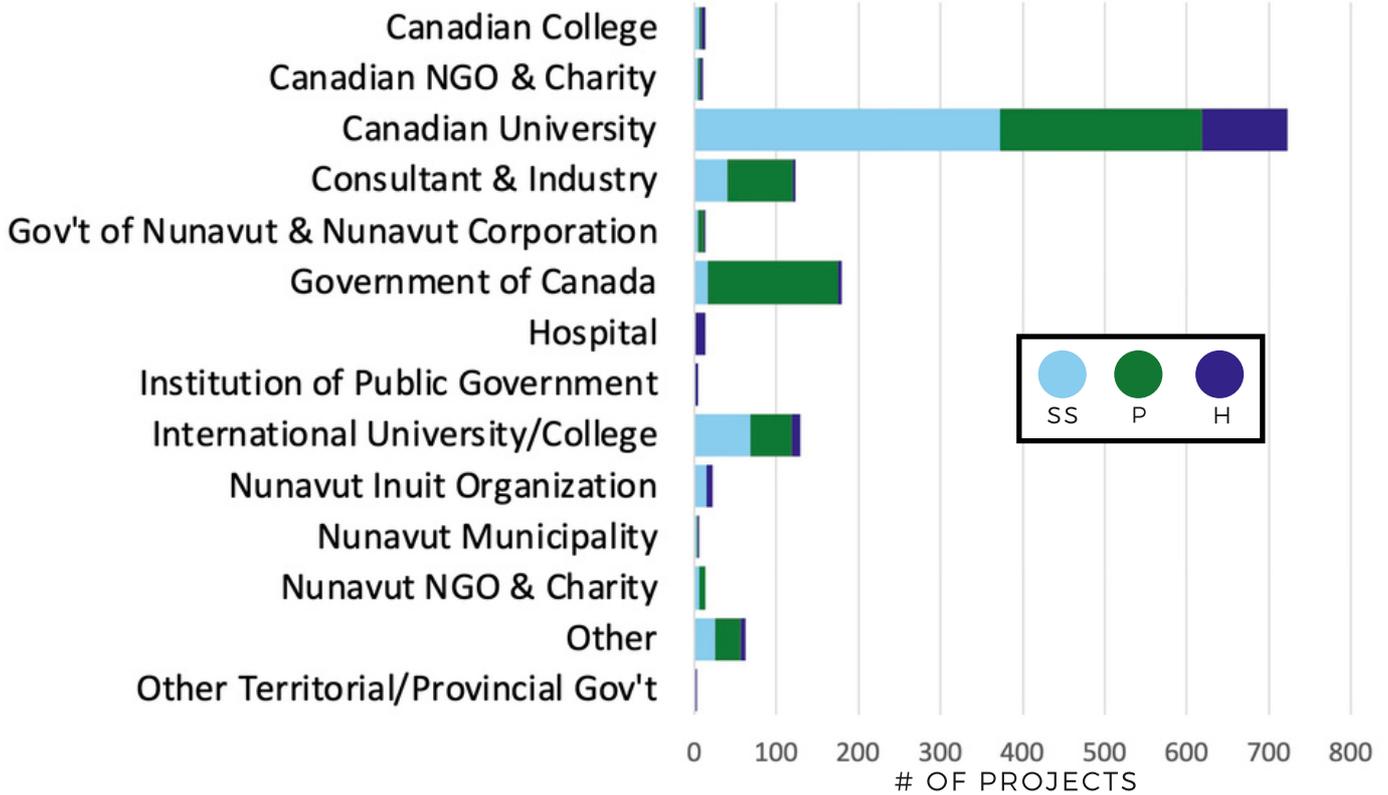
PI AFFILIATIONS OVER TIME



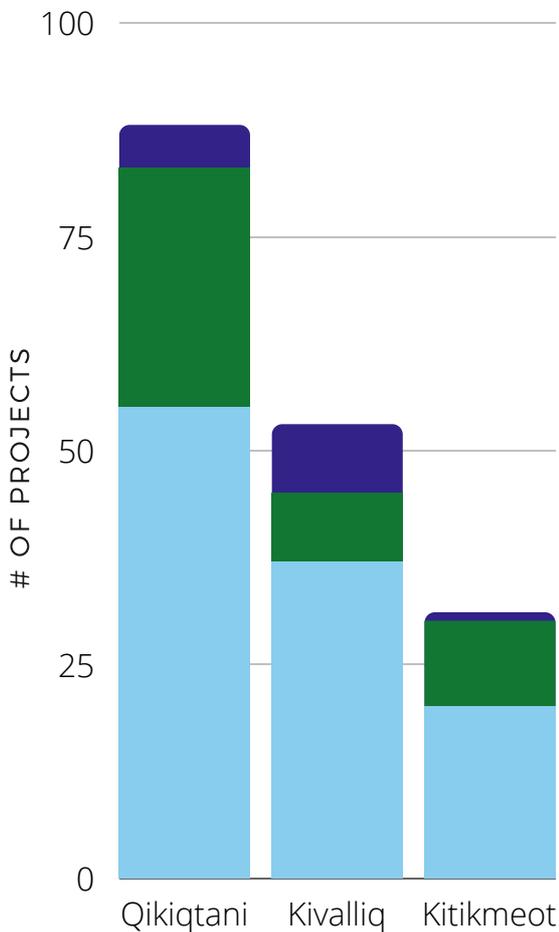
PI AFFILIATION BY REGION



AFFILIATION OF PROJECTS BY DISCIPLINE



NUNAVUT-BASED PRINCIPAL INVESTIGATORS



TOP 20 NUNAVUT-BASED LICENSE HOLDERS

	# of Licenses	Discipline
Mahy, Maryse	12	SS
Tagalik, Shirley	10	H&SS
Fox, Shari (Gearheard)	7	SS
Flaherty, Jamie	6	P&SS
Mate, David	6	P
Healey Akearok, Gwen	5	H&SS
Chakungal, Joyia	4	P
Coulombe, Stephanie	4	P
Glennie, Cassidy	4	SS&H
Mallory, Mark	4	P
Nimchuk, Sheldon	4	P
Zhang, Shunxin	4	P
Akearok, Jason	3	SS
Spagnuolo, Lou	3	P
Steenkamp, Holly	3	P
Utting, Dan	3	P
Chippett, Jeremy	3	SS
Hicks, Jack	3	H
Crockatt, Kim	3	SS

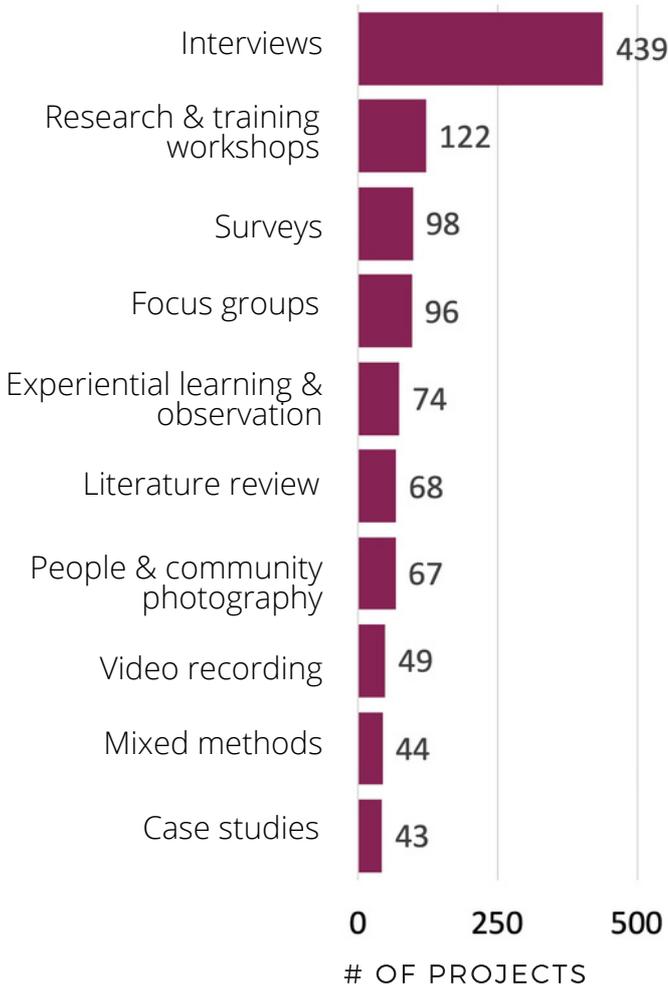
WHAT METHODS DO RESEARCHERS USE?

Numbers shown on p. 17-23 only represent the **research methods and reporting tools that were described in license applications** (not all licenses included this information).

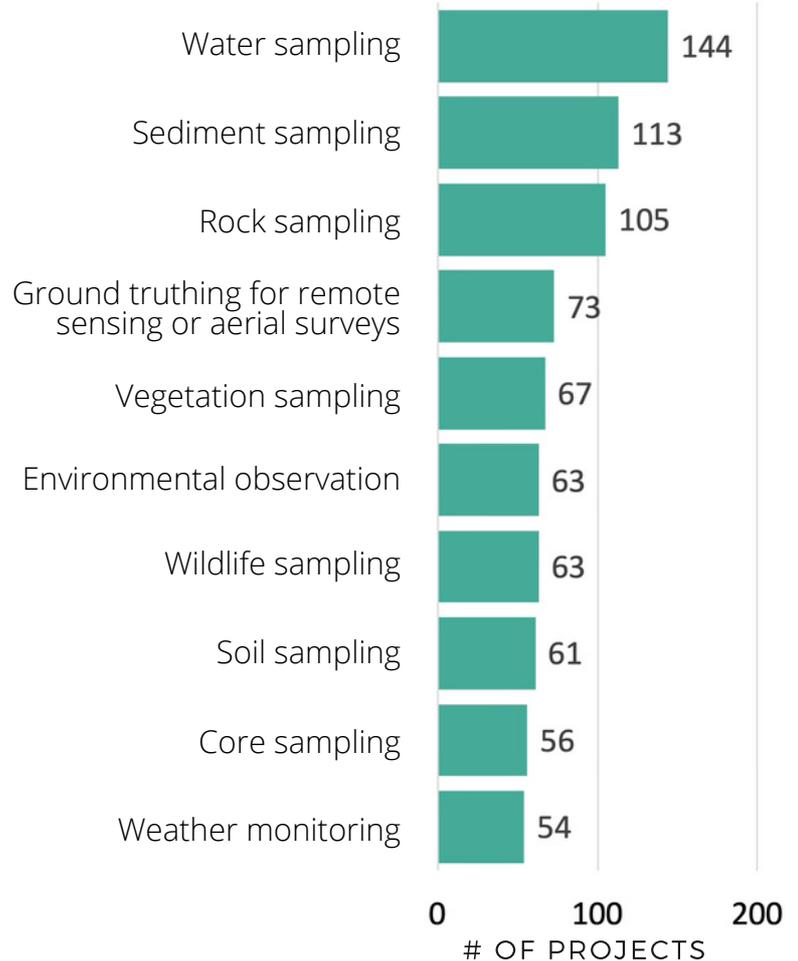
TOP 10 RESEARCH METHODS

	# of Projects
1. Interviews	439
2. Water sampling	144
3. Research & training workshops	122
4. Sediment sampling	113
5. Rock sampling	105
6. Surveys	98
7. Focus groups	96
8. Experiential learning & observation	74
9. Ground truthing	73
10. Literature review	68

TOP 10 SOCIAL & HEALTH RESEARCH METHODS (OUT OF 1096 PROJECTS)



TOP 10 LAND & WATER RESEARCH METHODS (OUT OF 1096 PROJECTS)



TOP 10 RESEARCH METHODS ACROSS REGIONS

QIKIQTANI

RESEARCH METHODS

of Projects

1. Interviews	318
2. Water sampling	99
3. Sediment sampling	88
4. Research & training workshops	74
5. Surveys	74
6. Rock sampling	74
7. Focus groups	66
8. Experiential learning & observation (includes participant observation)	50
9. Literature review	47
10. Ground truthing for remote sensing or aerial surveys	46

KITIKMEOT

RESEARCH METHODS

of Projects

1. Interviews	93
2. Water sampling	41
3. Research & training workshops	37
4. Surveys	34
5. Wildlife sampling (e.g. walrus for trichinella, beluga for clostridium)	27
6. Rock sampling	24
7. Sediment sampling	24
8. Focus groups	20
9. Vegetation sampling	20
10. Wildlife monitoring	19

KIVALLIQ

RESEARCH METHODS

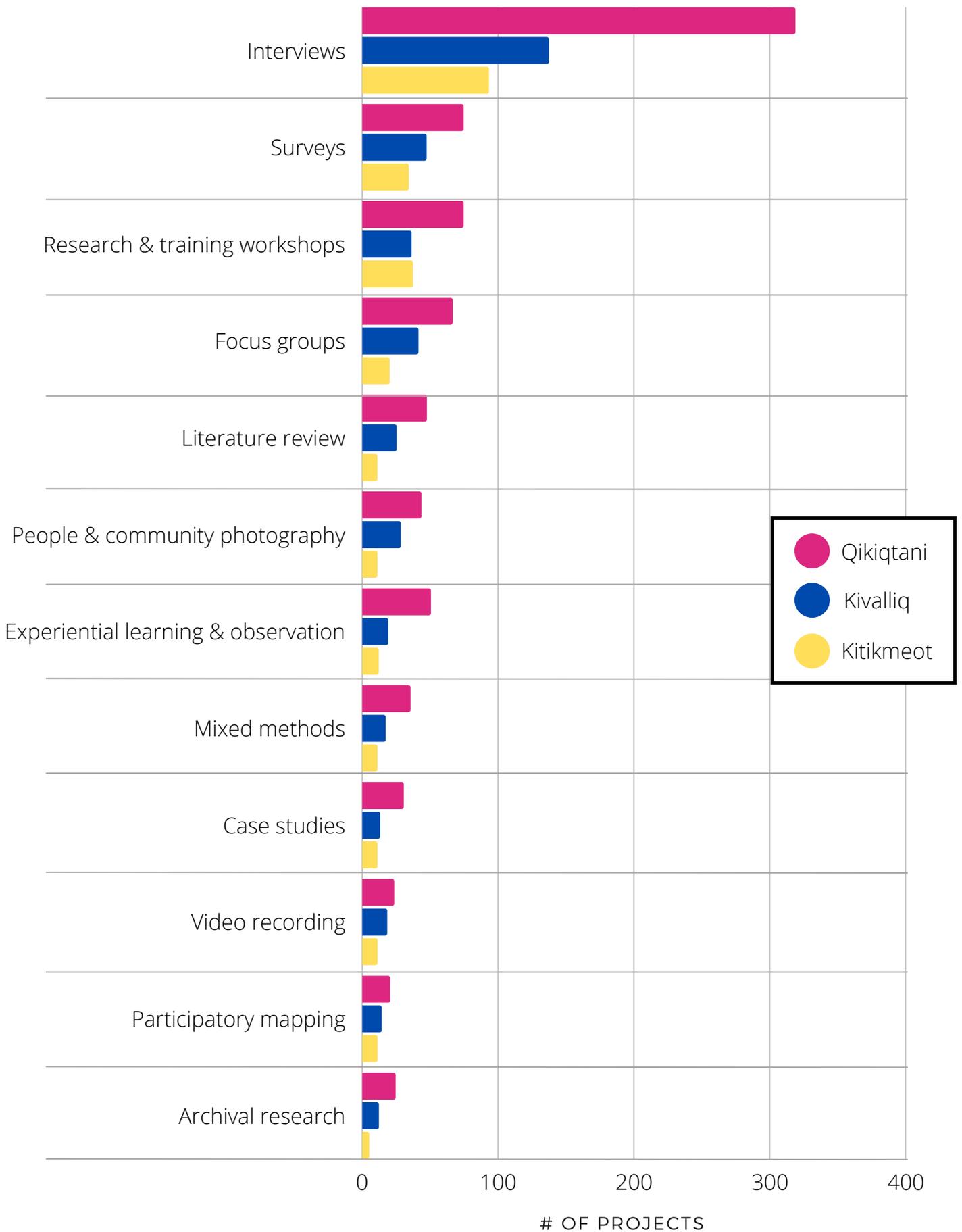
of Projects

1. Interviews	137
2. Surveys	47
3. Focus groups	41
4. Research & training workshops	36
5. People & community photography (e.g. photo voice)	28
6. Water sampling	28
7. Literature review	25
8. Sediment sampling	22
9. Experiential learning and observation (includes participant observation)	19
10. Video recording	18

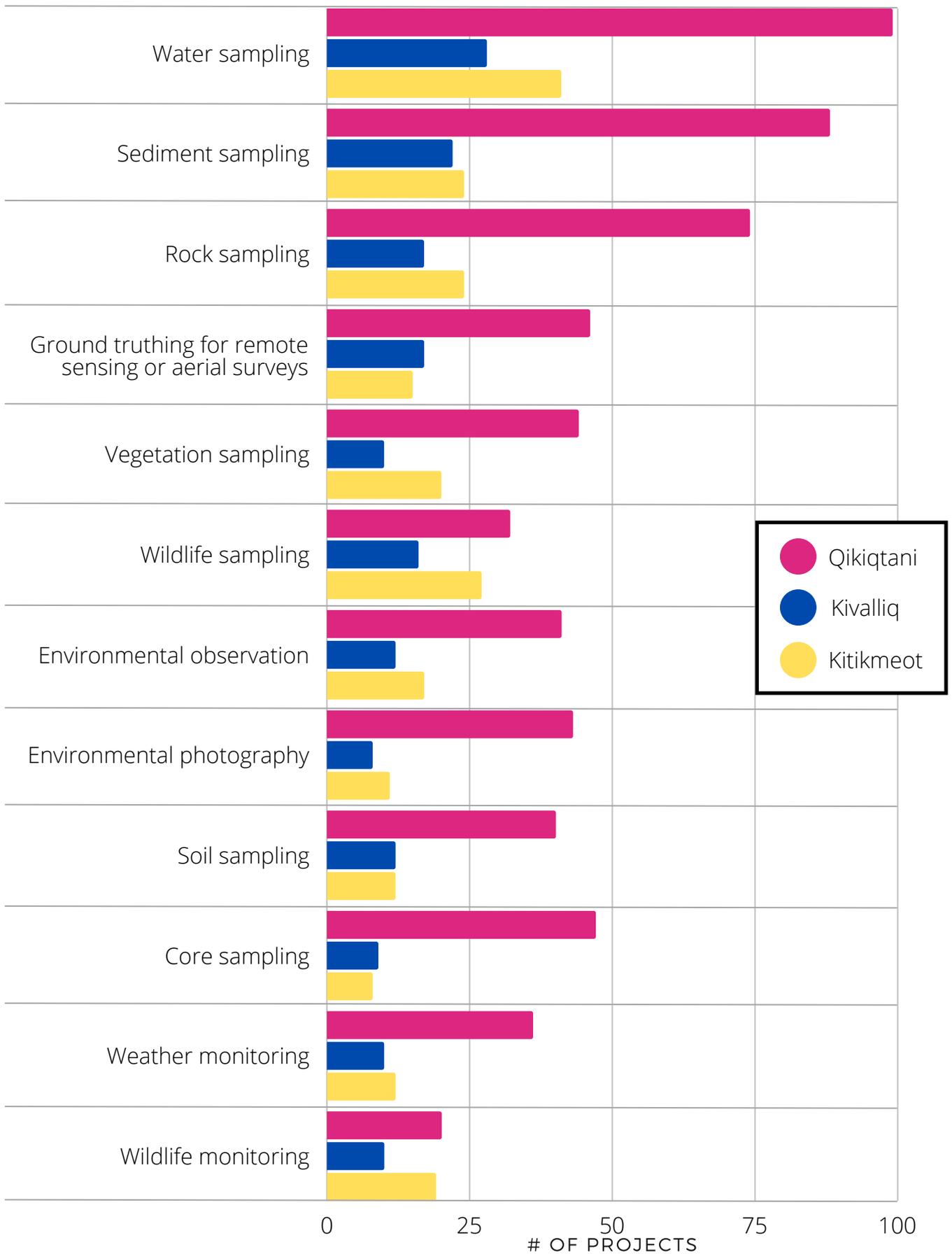
SOCIAL & HEALTH RESEARCH METHODS

BY REGION

(OUT OF 1096 PROJECTS)



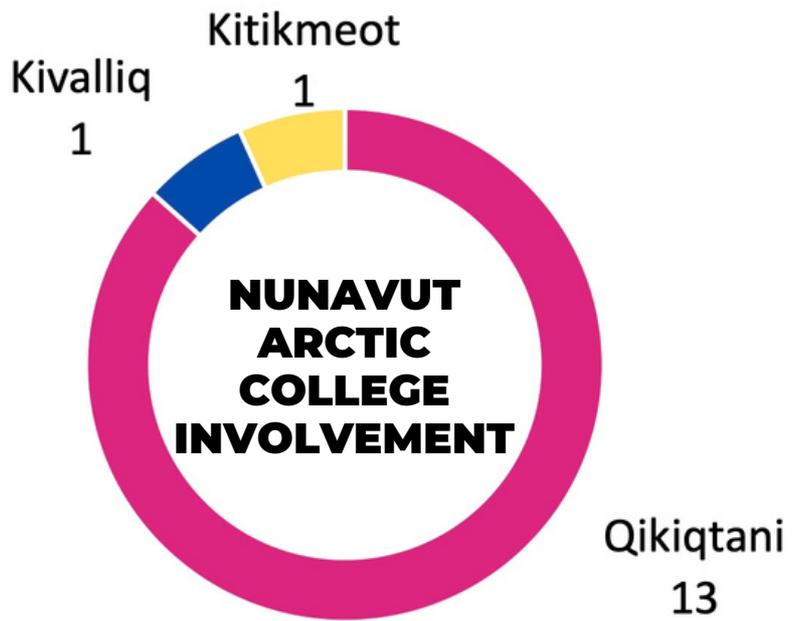
LAND & WATER RESEARCH METHODS BY REGION (OUT OF 1096 PROJECTS)



COMMUNITY ENGAGEMENT IN RESEARCH

Community-connected projects are those that involve community members in some capacity, for example, as local guides, translators, or data providers.

Community-partnered projects are those that involve a research partnership between a Principal Investigator and community members or organizations where the community plays an active role in all parts of the research.



QIKIQTANI

78

46

Community-connected projects

Community-partnered projects

KIVALLIQ

26

9

Community-connected projects

Community-partnered projects

KITIKMEOT

26

12

Community-connected projects

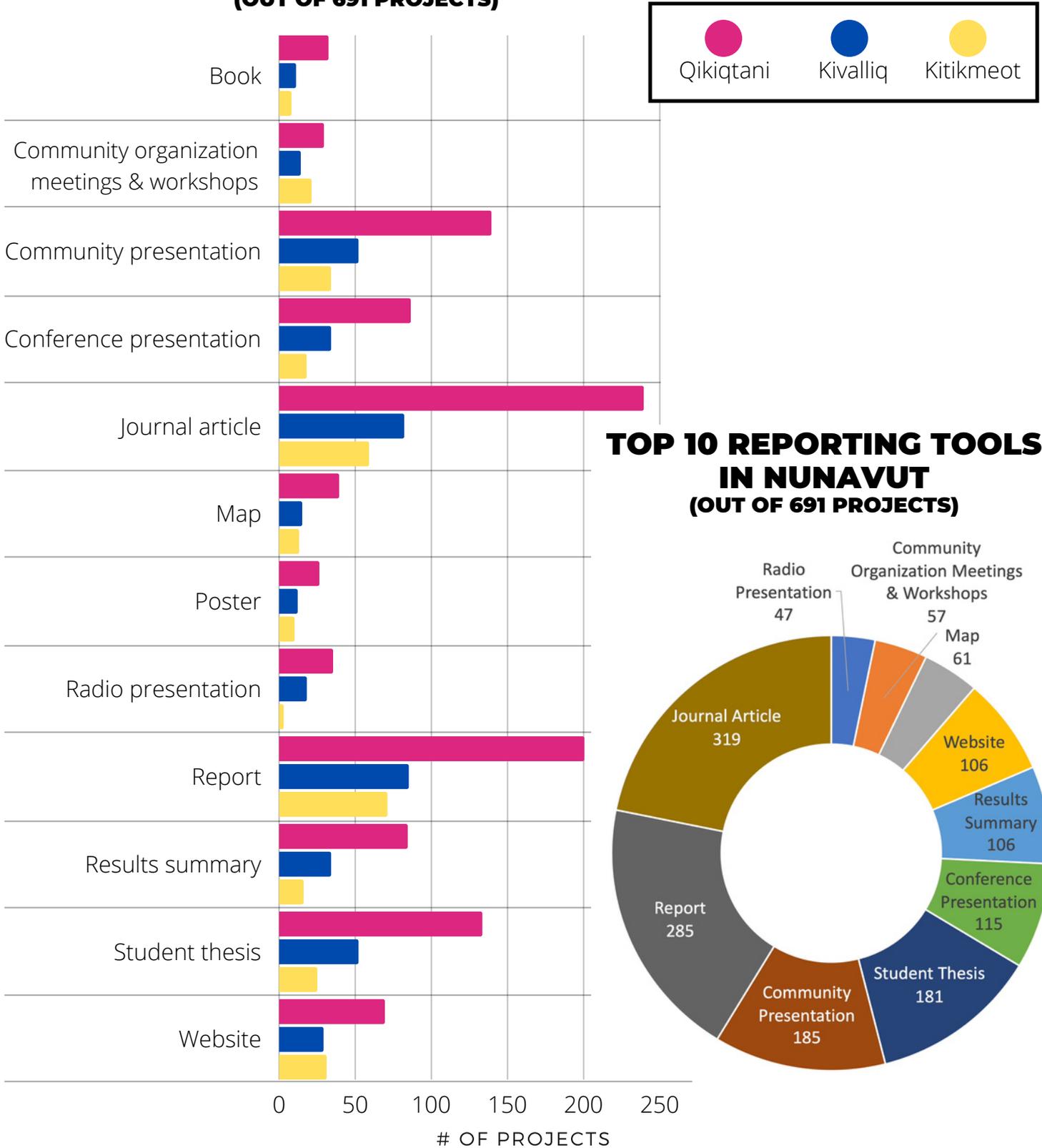
Community-partnered projects



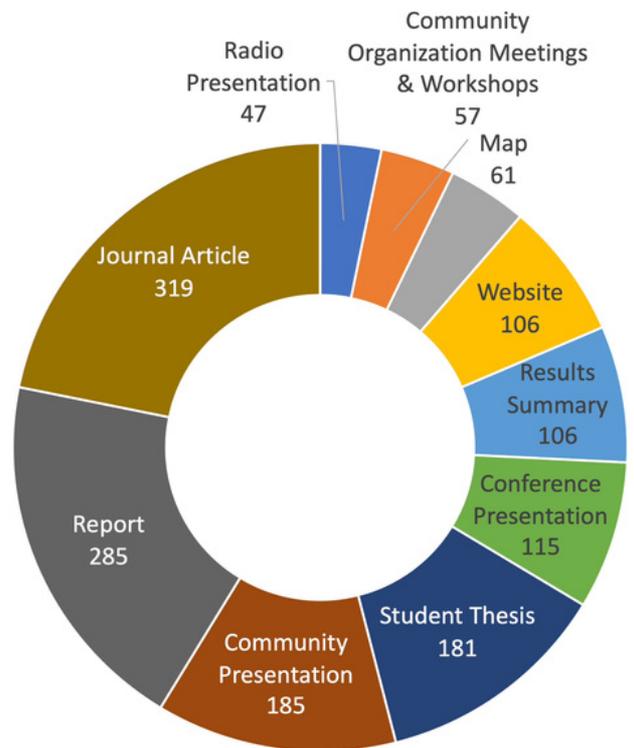
Photo: Pond Inlet, Nunavut by Alison Perrin

HOW IS RESEARCH BEING COMMUNICATED?

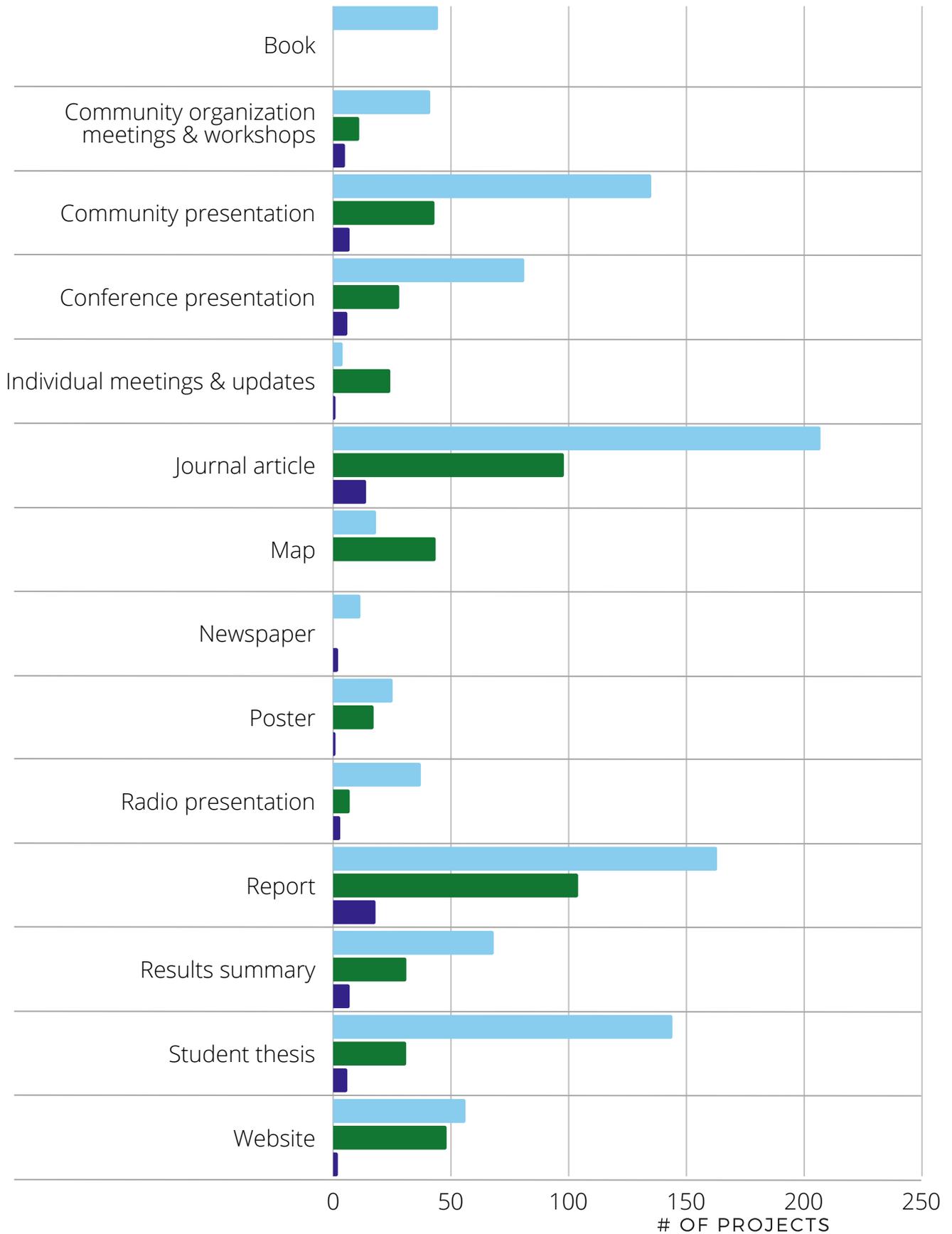
**TOP REPORTING METHODS BY REGION
(OUT OF 691 PROJECTS)**



**TOP 10 REPORTING TOOLS
IN NUNAVUT
(OUT OF 691 PROJECTS)**



TOP REPORTING METHODS BY DISCIPLINE (OUT OF 691 PROJECTS)

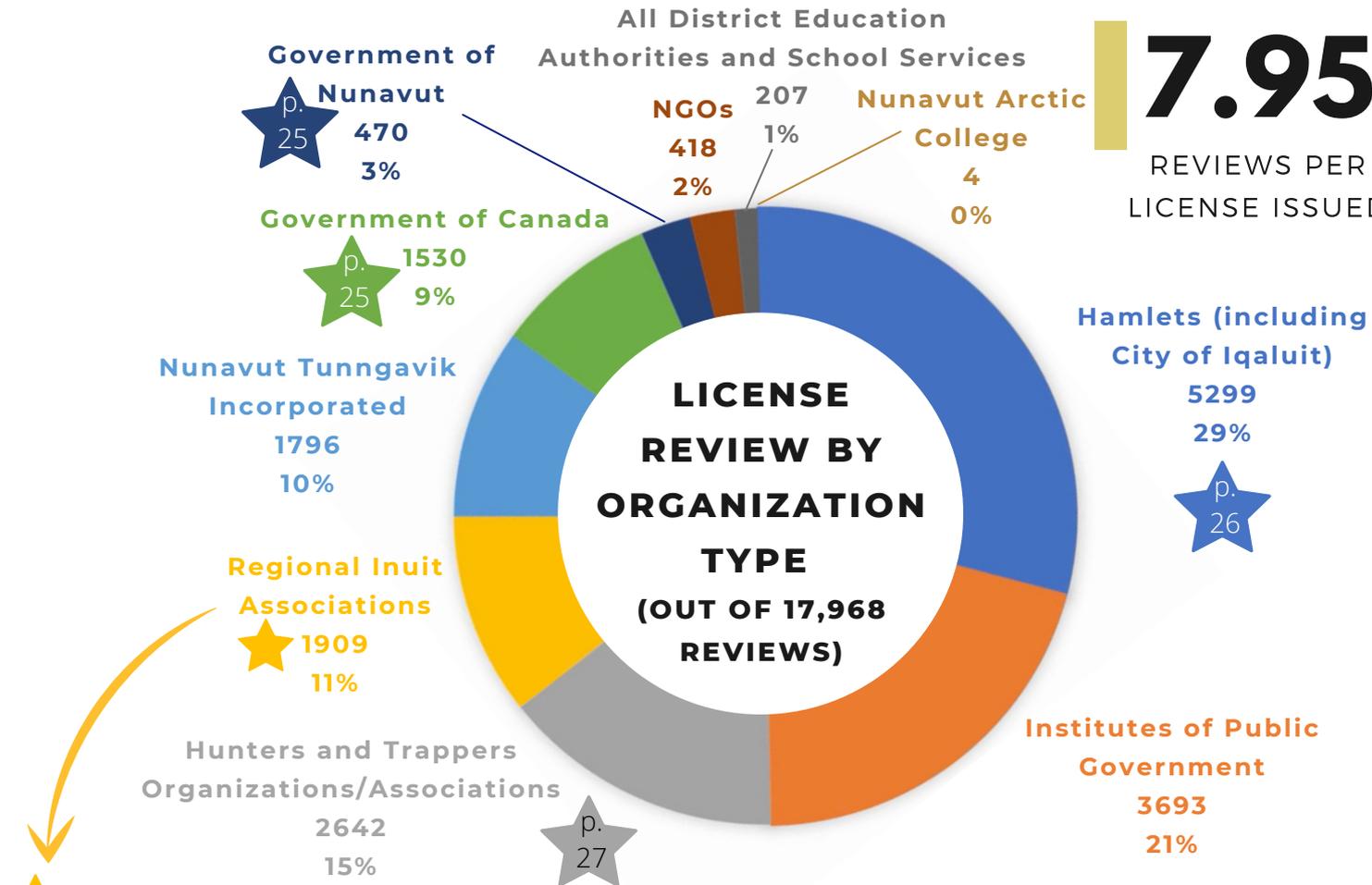


WHO IS REVIEWING RESEARCH IN NUNAVUT?

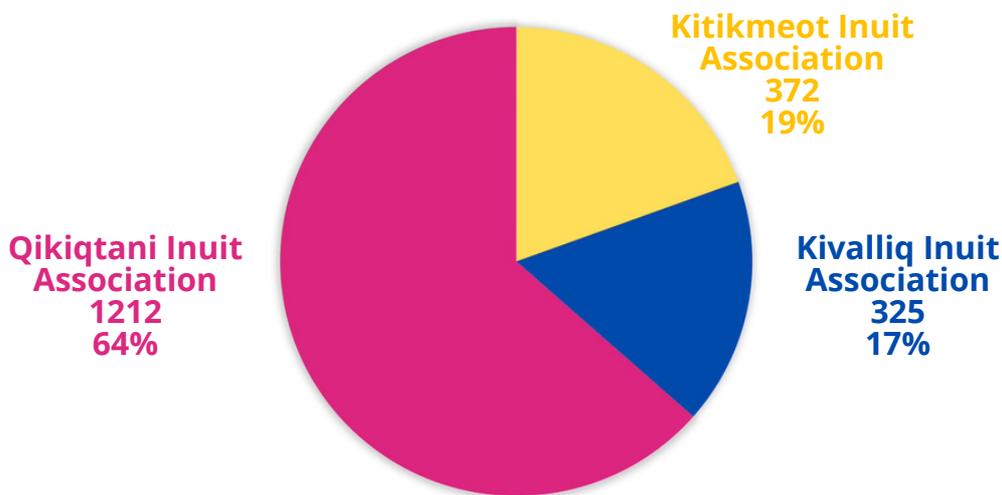
17,968
TOTAL NUMBER OF REVIEWS

2,260
TOTAL LICENSES ISSUED

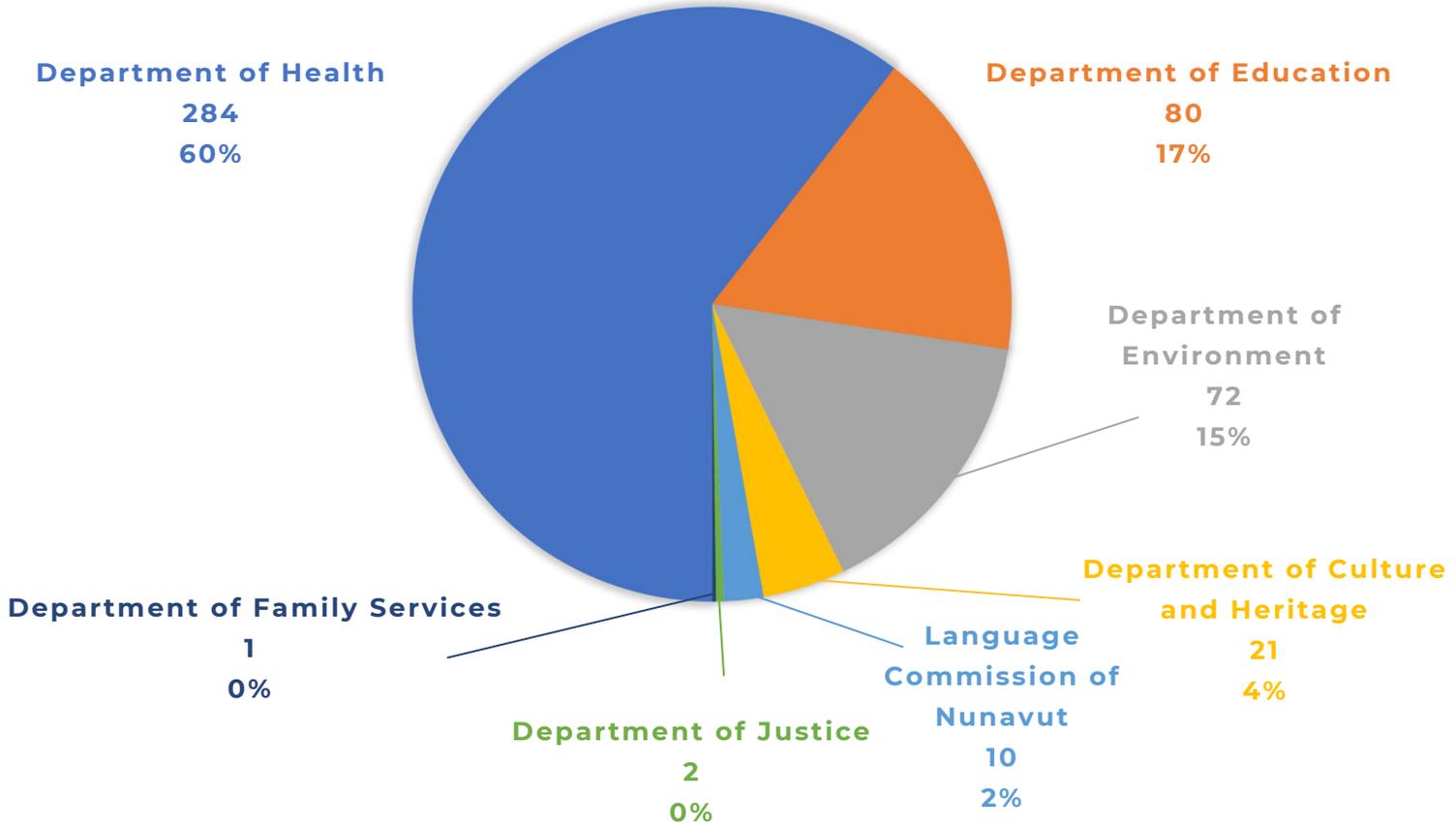
7.95
REVIEWS PER LICENSE ISSUED



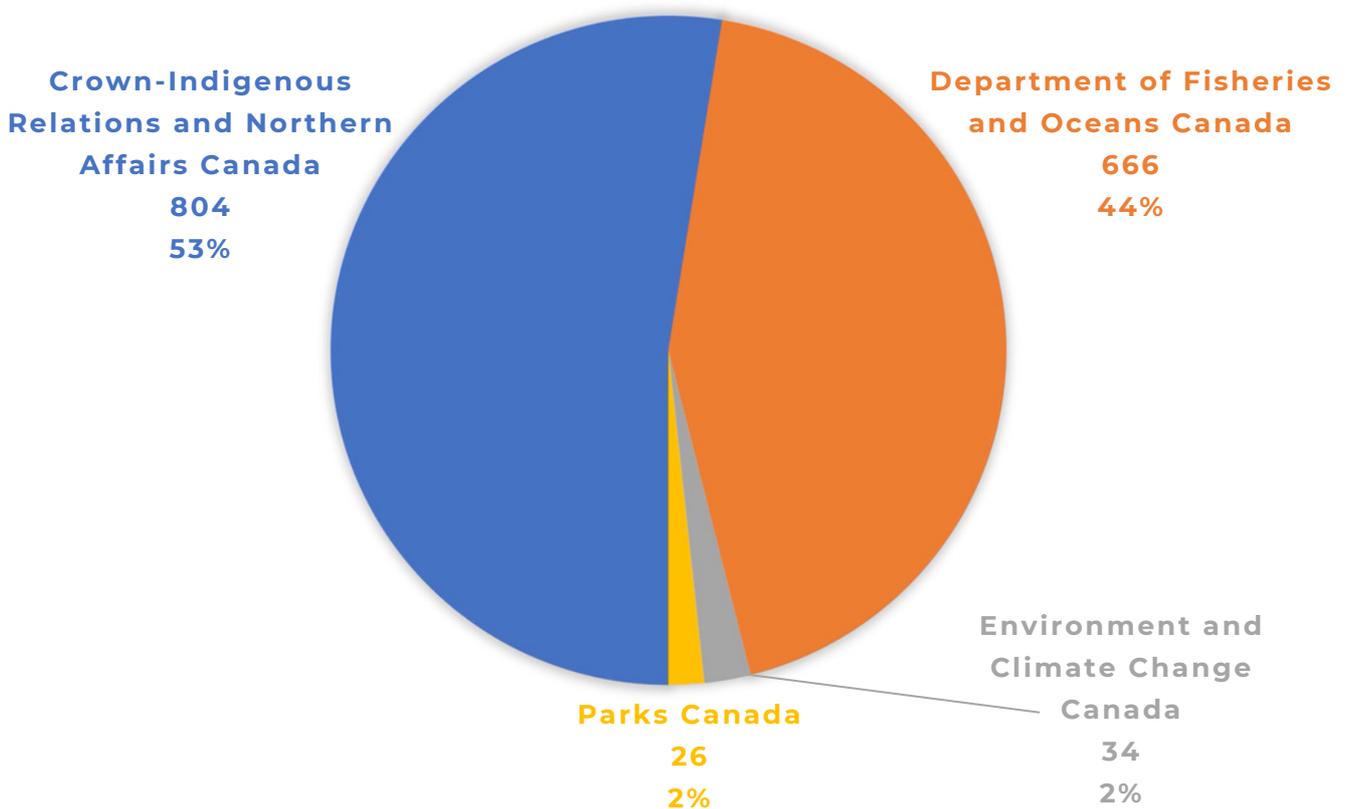
★ LICENSE REVIEW BY REGIONAL INUIT ASSOCIATION (OUT OF 1,909 REVIEWS)



★ **LICENSE REVIEW BY GOVERNMENT OF NUNAVUT**
 (OUT OF 470 REVIEWS)

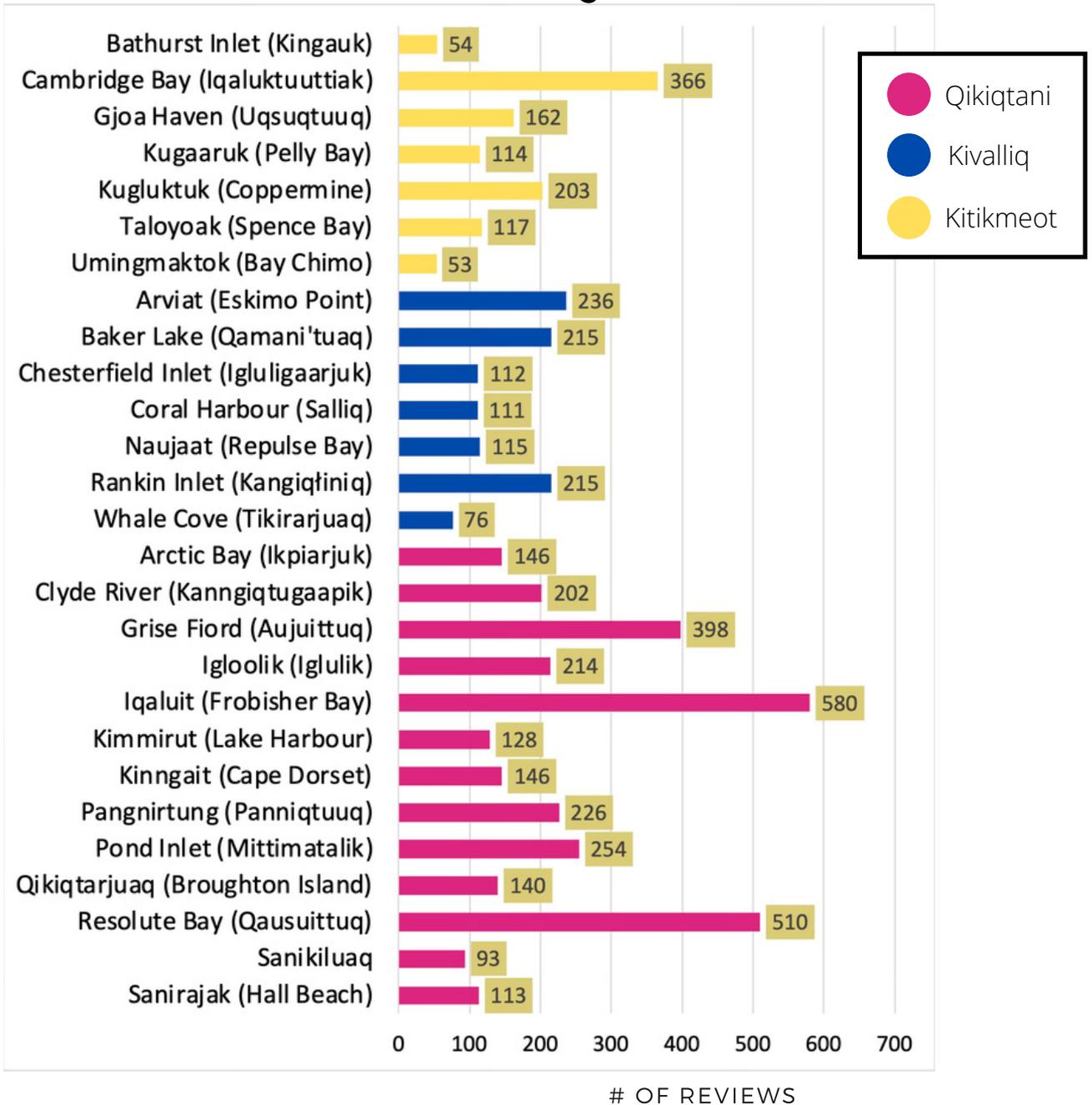


★ **LICENSE REVIEW BY GOVERNMENT OF CANADA**
 (OUT OF 1,530 REVIEWS)

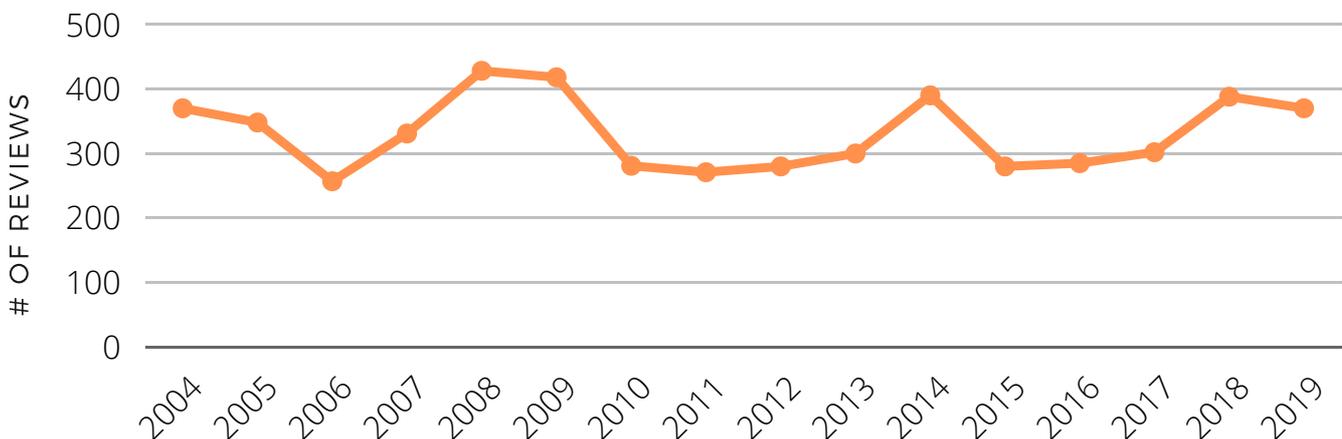




LICENSE REVIEW BY HAMLETS AND CITY OF IQALUIT

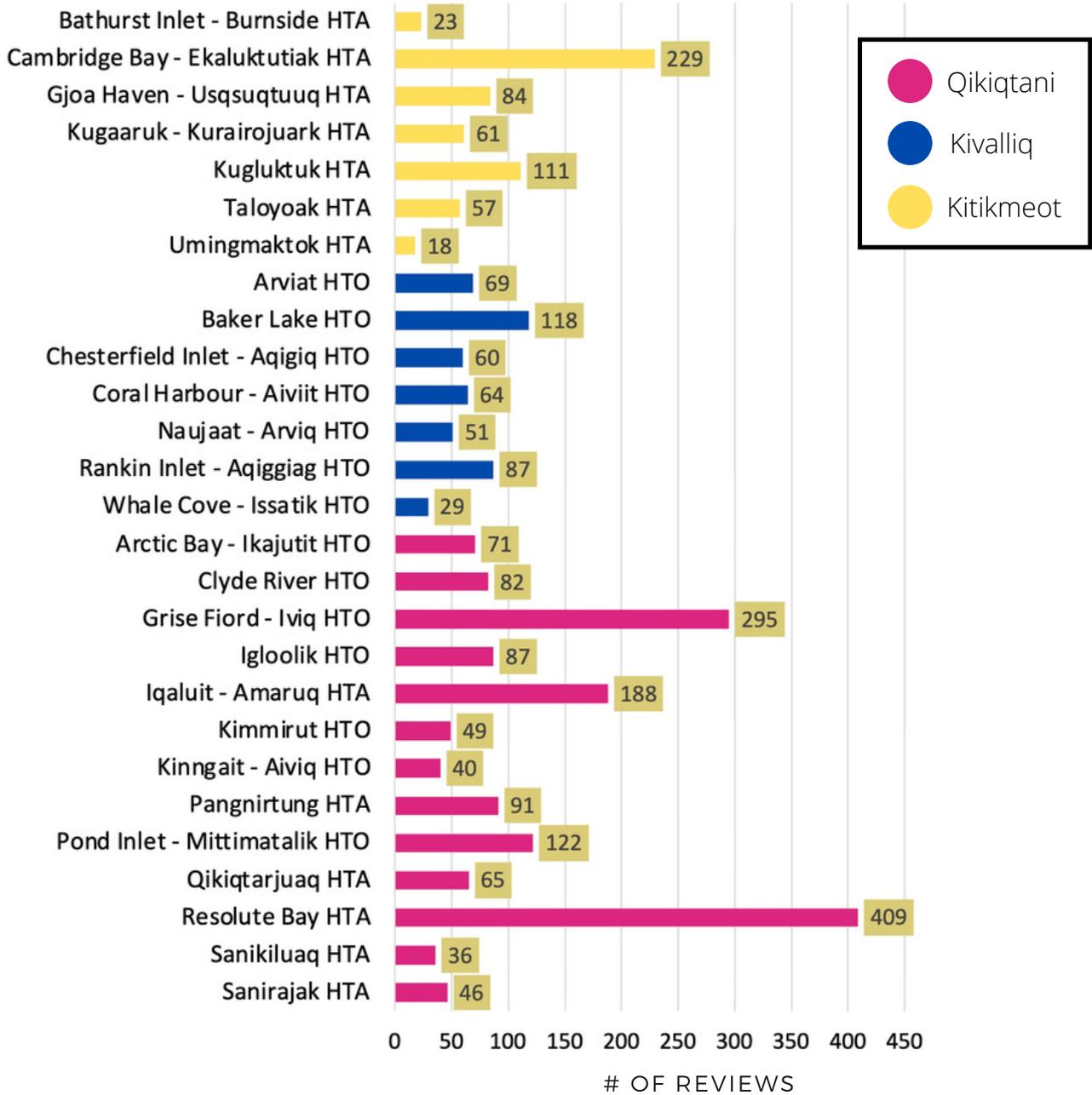


ANNUAL REVIEWS BY ALL HAMLETS/CITY OF IQALUIT





LICENSE REVIEW BY HUNTERS AND TRAPPERS ORGANIZATIONS/ASSOCIATIONS (HTO/HTA)



ANNUAL REVIEWS BY ALL HTO/HTAS



UNDERSTANDING THE NUMBERS

The information we used to create this report is explained here, to help understand some of the limitations.

Analysis of License Applications

The research numbers and trends shown in this report are based on the analysis of Scientific Research License Applications. If a full application was not available, the research summary from the NRI annual compendium was used. This means that ***the analysis only reflects what a researcher proposed when first applying for their license.*** The numbers do not reflect any final changes or adjustments that a researcher made when actually carrying out the project.

Types of Research

The research numbers and trends shown in this report only represent about 60% of the research that happens in Nunavut. This includes research in the Physical and Natural Sciences (P), Health Sciences (H), and Social Sciences and Traditional Knowledge (SS). Other kinds of research have a separate permitting process, and are not included in this report (see About this Report, p. 2).

Nunavut-led Research

Some scientific activities led by government agencies, Inuit organizations, and by individual Nunavummiut do not require licensing under the Scientists Act. For this reason, **the number of Nunavut-led research activities is likely under-represented in the report** (see Nunavut-based PIs on p. 16). Refer to the NRI's Scientific Research Licensing Guidelines for a list of research activities that are currently exempt from licensing (see Resources p. 28).

Research Topics

For each project we reviewed the summary available in the license application, or annual compendium, to identify all topics relevant to the research (p. 11-12). This helped to identify the range of research topics covered in Nunavut, as well as to develop keywords that can be used to search research projects in the future.

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RESOURCES

Interested in learning more?

NRI Licensing Information

(<https://www.nri.nu.ca/>)

- [Scientific Research Licensing Guidelines](#)
- [Compendiums of Research Licensed under the Scientists Act](#) (since 1997)
- [Health Research in Nunavut: Special Considerations for Remote Data Collection](#)
- [Scientific Research Licensing: Frequently Asked Questions](#)

Inuit Tapiriit Kanatami

Resources (<https://www.itk.ca/>)

- [National Inuit Strategy on Research \(NISR\)](#)
- [NISR Implementation Plan](#)
- [Negotiating Research Relationships: A Guide for Communities](#)
- [Negotiating Research Relationships with Inuit Communities: A Guide for Researchers](#)

Nunavut Research Organizations

- [Aqquimavik Society](#) (Arviat)
- [Arctic Eider Society](#) (Sanikiluaq)
- [ArcticConnexion](#) (multiple communities)
- [Ikaarvik](#) (multiple communities)
- [Ittaq Heritage and Research Centre](#) (Clyde River)
- [Kitikmeot Heritage Society](#) (Cambridge Bay)
- [Nattilik Heritage Society](#) (Gjoa Haven)
- [Qaujigiartiit Health Research Centre](#) (Iqaluit)
- Researchers are also encouraged to reach out to the Regional Inuit Association, Hamlet Office, Hunters and Trappers Association, Visitor's Centre, and other organizations in each community you work in, to get recommendations on important local research groups and initiatives.

Research Ethics and Guidelines

- [Examples of Inuit-centred research frameworks](#)
- [Ethical Principles for the Conduct of Research in the North](#)
- [Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans](#)

