

A survey for and about women working in GIS

Page description:

Project Title: Women Working in Professional Geographic Information Systems

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CONSENT TO PARTICIPATE IN A RESEARCH PROJECT

Introduction/Purpose: As a woman, you are invited to participate in a survey that is part of a master's thesis study. The study is conducted under the direction of Livia Betancourt Mazur, Graduate Student, Hunter College. The purpose of this study is to better understand the experience of women who work in Geographic Information Systems. It is intended that the results of this study make a contribution to the understanding of women's unique position in the Geographic Information Systems career field and these efforts, alongside others, might eventually lead to a more diverse workforce.

Site where study is to be conducted: The survey may be completed at any computer, smartphone, or PDA, on any Internet browser of the survey taker's choosing.

Procedures: This survey should take approximately 30 minutes to complete. Your identity will remain completely unknown to the researcher (IP addresses are not captured by the survey instrument).

Possible Discomforts and Risks: There are no risks associated with this study. You may decline to answer any questions that make you feel uncomfortable and you may stop the survey at any point, should you wish to not continue.

Benefits: There are no direct benefits. However, participating in the study may increase your awareness of research questions about women working in Geographic Information Systems, and might pique your interest in this subject area.

Voluntary Participation: Your participation in this study is voluntary, and you may decide not to participate without prejudice, penalty, or loss of benefits to which you are otherwise entitled. If you decide to leave the study (in other words, leave the survey), please feel free to simply exit out of the survey from your Internet browser.

Financial Considerations: There are no financial considerations.

Confidentiality: The data obtained from you (which shall remain anonymous) will be recorded by written document. The collected data will be accessible to the Principal Investigator (Livia Betancourt Mazur), the Academic Advisor (Jochen Albrecht), as well as members and staff of the Institutional Review Board (IRB). Again, no identifiable information shall be recorded through the survey so your identity shall remain unknown. This data will be destroyed eventually – the IRB requires that data from this project be kept for a minimum of three years.

Contact Questions/Persons: If you have any questions about the research now or in the future, you should contact the Principal Investigator, Livia Betancourt Mazur, 212-772-5221, lmazur@hunter.cuny.edu. If you have any questions concerning your rights as a participant in this study, you may contact the Hunter College Human Research Protection Program (HRPP) Office at (212) 650-3053 or hrpp@hunter.cuny.edu.

IRBNet Project Number: 534568-3

“I have read the above description of this research and I understand it. I have been informed of the risks and benefits involved, and all my questions have been answered to my satisfaction. Furthermore, I have been assured that any future questions that I may have will also be answered by the principal investigator of the research study. I voluntarily agree to participate in this study. By checking “I agree” below, I have not waived any of my legal rights to which I would otherwise be entitled.” *

- I agree
- I don't agree
-

(untitled)

Please note, if taking this survey on a mobile device, it generally reads better in landscape orientation.

Is the professional GIS sphere, and its demands and challenges, similar or dissimilar to that of IT?

Page description:

There is not much existing research or literature regarding the status of female GIS professionals. Due to potential similarities between the fields of GIS and IT, literature regarding women in IT has been studied to provide a background on some of the challenges that women face in technically oriented career paths. The following questions are being posed to validate the researcher's belief that lessons learned from research conducted on women in IT might be applicable to women in GIS, and vice versa. Also, the researcher would like to learn if GIS is distinct in any ways from IT in terms of its culture and women's experience of it.

Are you required to work long hours?

- yes
- no
-

Does your work have flexible work arrangements (for example, telecommuting, alternative work schedules, etc.)?

- yes
- no
-

Is there a need to update your GIS skills regularly (ie. Learn new software/methods)?

- yes
- no

Comments

Do you need to take continuing education courses and/or other trainings to update knowledge?

- yes
- no

What is the gender ratio of your department in general? Balanced between males and females?

Enter two numbers to provide a ratio

 women men

Total : 0

If there is an imbalanced ratio, with more men, do you feel that there is a male-dominated culture? For example, a “boys club” type situation? Do you feel excluded in any way from activities?

- yes
- no
- not applicable

Socializing:

Do people in your department socialize after work?

Do people in your department (or company) go to GIS-related meetups?

Do you participate in any of these activities? Which ones?

Why or why not?

If you do participate, what is the benefit of doing so?

Is there clustering (non-spatial!) of women in GIS?

Page description:

According to the literature regarding women in science and technology careers, women are more frequently found in certain types of positions – both “horizontally” (spread unevenly in different niches) and “vertically” (at different levels). In science, it is contended that women are more active in certain disciplines (biology instead of physics, for example), and in IT related careers, there are higher numbers of women in non-highly-technical

roles. Is this pattern also present in GIS?

What sector is your position in?

- state
- federal
- local government
- non-profit
- start-up
- other

More specific sector:

Can select more than one

- transportation
- environmental
- education
- other
- other

How would you categorize your work?

Can select more than one

- programming
- analysis
- cartography
- administrator
- other
- other
- other

How many people are working in your GIS section?

How many of those are full-time, how many are part-time?

 full-time

part-time

Total : 0

How many of them are women?

full-time

part-time

Total : 0

At your rank, what is the percentage of women in GIS?

(the percentage of women in your **department** who work in GIS roles in a similar level to you)

Smaller than 20

20 - 40

40 - 60

60 - 80

More than 80

I don't know

Do you feel that there are enough women in your department?

Definitely not

Probably not

Ambivalent

Probably yes

Definitely yes

Comments

Mentoring and networking

Page description:

Is it better for women to have female or male mentors? What is the value of female-focused GIS and other professional groups? The purpose of the questions below are to gather information that might help in forming and influencing thought on mentoring relationships and networking groups.

If you chose to participate in a formal mentoring program, would you prefer to have a male or female mentor?

(In this case, the question is referring to GIS specific career mentoring)

- I would prefer a female mentor.
- I would prefer a male mentor.
- I don't have a preference.

Why?

Would it be the same for networking (meaning, would you prefer to network with other females)?

- I would prefer to network with other women.
 - I would prefer to network with men.
 - I don't have a preference whether I network with males or females.
 - I would like to network with both men and women.
-

Female professional groups:

	yes	no
Good (yes)? Bad (no)?	<input type="radio"/> yes	<input type="radio"/> no
Are you part of any?	<input type="radio"/> yes	<input type="radio"/> no
Would you like to be?	<input type="radio"/> yes	<input type="radio"/> no

Comments

Is your supervisor male (Yes) or female (No)?

- Yes
 - No
 - not applicable
-

Do you feel that you would like to meet other women who work in GIS?

- Yes
- No

Why or why not?

Have you ever been the only woman in the room (at meetings, events, etc)?

- Yes
- No

If so, how did that make you feel?

Have you ever obtained a job through a personal connection ?

Enter '0' if no, enter a number greater than 0 for yes (indicating how many times)

Please explain

Have you had difficulties finding a mentor?

- Yes
- No

Please provide details if so

GIS's "Hybrid" Nature

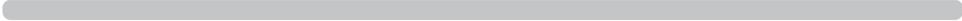
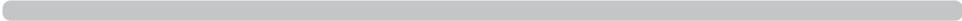
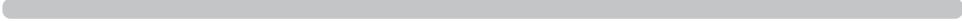
Page description:

Do positions that fall under the GIS umbrella involve multiple categories of skills? What are the skills that survey respondents draw upon to complete their work? The questions posed below are being asked, in part, to get a sense of the myriad talents that women bring to their work. Additionally, it is claimed by some that IT "hybrid" positions that combine "hard" technical skills with "soft" communication skills might represent a way to enhance diversity in IT. Is GIS inherently "hybrid"?

Do you consider your position to combine multiple skills? That is, do the tasks that you perform require diverse skills and affinities? On a scale from 0 to 5 indicate which of the following skills are required in your daily activities:

(Zero' would equal not at all, 'one' very little, 'five' a lot, 'two' - 'four' somewhere in between. *If taking the survey on a mobile device, and sliders don't appear below, flip your device to a landscape orientation.)

Technical skills - Data acquisition	<input type="range"/>
Technical skills - Analysis and modeling	<input type="range"/>
	<input type="range"/>

Technical - Software and application development	
Knowledge base - Core geospatial abilities and knowledge	
Communication and Workplace skills - teamwork	
Communication and Workplace skills - creative thinking	
Communication and Workplace skills - planning and organizing	
Communication and Workplace skills - problem solving/decision making	
Management competencies	

Other skills not mentioned above or any other comments

What are your greatest skills?

(can be GIS specific or general work related)

What are your areas of weakness?

(can be GIS specific or general work related)

What skills would you recommend that female newcomers to GIS focus on?

(untitled)

You are halfway through! Thanks for making it this far!

Page description:

How do women who work in GIS come to GIS? Do many hear about GIS and receive GIS training via Geography degrees? Do some hear and learn about it through other academic disciplines or other ways (such as on the job, etc.)? Could there potentially be a more significant presence of women in GIS due to its ties to Geography?

What is your highest degree in? If multiple degrees, what are they and in what discipline?

Please indicate the discipline(s) for the various educational degrees attained (leave blank if not attained)

	Discipline
Bachelor's	Discipline <input type="text"/>
Master's	Discipline <input type="text"/>
PhD	Discipline <input type="text"/>
Certificate	Discipline <input type="text"/>

How did you hear about GIS?

GIS internships:

	yes	no	n/a
Have you ever had a GIS internship?	<input type="radio"/> yes	<input type="radio"/> no	<input type="radio"/> n/a
If so, did that internship ever lead to a full-time position?	<input type="radio"/> yes	<input type="radio"/> no	<input type="radio"/> n/a

Feel free to add comments about any other way(s) internship may have been beneficial:

Optimism?

Page description:

Is there an underrepresentation of women in GIS? Do women face gender bias in their career paths that might hinder their success? What are the different perceptions of women? Do perceptions about the status of women in GIS vary based on a woman's length of time in the field and other career stage details?

How many years have you been working in a professional setting?

(in any type of professional setting, need not be GIS related)

Of those years, how many have been in GIS?

Do you think there is an underrepresentation of women in GIS?

Yes No

Do women face bias as GIS professionals?

Yes No

Is this bias unique to GIS (Yes) or is it more general (No)?

Yes No I don't think women face gender-based bias

Was getting to where you are in your career easy (Yes) or difficult (No)?

Yes No

Somewhere in between yes and no? Feel free to comment:

Challenges to next step in career:

	Yes	No
Do you view attaining the next step in your career as having challenges?	<input type="radio"/> Yes	<input type="radio"/> No
Does your gender play a role in what you view those challenges to be?	<input type="radio"/> Yes	<input type="radio"/> No

If there are challenges, either general or gender based, please provide comments:

If you see roadblocks to advancing your career, or just face general daily challenges, are there any sources of “help” or ideas of what could help you (either a resource that is available to you or not available?)

Work-Life Balance

Page description:

There is a debate in the literature regarding women in technology careers and the work-life/family issue. Some claim that a lack of flexibility and other factors that hinder work-life/family balance are barriers specific to women, and that removing these hindrances would afford greater work-life/family balance and allow more women to participate in technology careers. Others claim that calling this a woman’s issue is a mistake that only reinforces stereotypes about women, and which maintains the viewpoint that they are less suitable for a career in technology. The questions in this section are intended to add information to the already established dialogue as well as to explore GIS-specific accounts of work-life balance issues (or lack thereof).

Is work-life balance an important characteristic of a job?

Not Important

Neutral

Important

Very Important

Why or why not?

Would you say that in your current job you have a good level of work-life balance?

Definitely!

Yes, but could be better

A little

Not at all

I don't know/care

If you do not have the desired level of work-life balance, is this a problem for you?

Yes

No

Somewhat

N/A - I have good balance

I don't know/care

Are work-family issues more relevant to women than to men?

- Yes
 - No
-

Do you think that women shoulder more responsibilities than men in caring for children and elderly family members?

- Yes
 - No
-

Do you think more policies should be implemented geared specifically towards women that would allow for better work-family balance?

- Yes
- No

If you disagreed with the above, why?

Is work-life/work-family balance an issue for men and women alike?

- Yes
 - No
-

Do you feel that gearing work-family policies with women in mind alienates women?

(Meaning, does it reinforce stereotypes about women, thereby alienating them?)

- Yes
 - No
-

Flexible work arrangements and your current job:

	Yes	No
If your company does have flexible work arrangements available, do you avail yourself of them?	<input type="radio"/> Yes	<input type="radio"/> No
Do you feel comfortable doing so?	<input type="radio"/> Yes	<input type="radio"/> No

Why or why not?

Page description:

Being a woman is just one aspect of a person's identity. How do other demographic factors interplay with gender and with an individual's experience in the field of GIS?

Race/ethnicity:

Can pick more than one

- Black or African American
- White
- Asian
- American Indian or Alaska Native
- Native Hawaiian or Other Pacific Islander
- Hispanic/Latino
- Other:

Age:

Where did you learn GIS? (City, State)

Where do you currently work? (City, State)

Are you supported in updating skills?

Page description:

Is continuing education an important aspect of enhancing GIS careers? If so, is it encouraged by employers, and is it taken advantage of by women? Are women GIS professionals being given and taking opportunities to get the knowledge and training that they need?

Please list any classes, seminars or conferences that you have attended to further your career goals or to enhance

your work-related skills:

Do you feel that taking continuing education classes is necessary to your current work?

Yes No

Do you feel that taking continuing education classes would be necessary to obtain a different position?

(For example, you are not learning new things in your current position, therefore a class might be needed to learn a new skill.)

Yes No

Learning opportunities and your current position:

	Yes	No
Does your position have many learning opportunities?	<input type="radio"/> Yes	<input type="radio"/> No
Are you required to accomplish tasks that push you to learn new things?	<input type="radio"/> Yes	<input type="radio"/> No
If not, is that a problem for you?	<input type="radio"/> Yes	<input type="radio"/> No
If so, do you enjoy that aspect (yes) or is it a hardship (no)?	<input type="radio"/> Yes	<input type="radio"/> No

Women? In GIS

Page description:

How do you identify yourself – as a “woman in GIS,” a “GIS professional,” or as both? Some literature suggests that certain ways of talking about gender and career paths only serve to reinforce the current status quo. That is, saying “women in GIS,” for example, might reinforce that women are not already a significant part of GIS, or that they are somehow different than others (men) in GIS. Others claim that women do share a collective experience, and perhaps even approach the world and careers differently (than men), and as such identifying as women is appropriate. How do different women who work in GIS identify themselves? Should the term “women in GIS” be embraced? Finding out how actual women in GIS identify themselves might suggest answers.

The term “Women in GIS” is a good way to categorize, or describe, women who work in GIS.

Strongly disagree

Disagree

Neutral

Agree

Strongly agree

The term “Women in GIS” is not a good thing – it separates and alienates women who work in GIS from men.

Strongly disagree



Disagree



Neutral



Agree



Strongly agree



Comments

You identify yourself as a (if you had to pick one):

- “woman in GIS”
 - GIS professional (no gender)
-

Thank You!

Thank you for taking this survey. Your response is very important to me and I appreciate the time you took to complete it!

If you wish to make any comments about this survey or if you would like to stay in touch to learn about the results of the study, please contact me at lmazur@hunter.cuny.edu.

Thank you!
Livia Betancourt Mazur

Action: Social Media

Want to share this survey with your friends? Click one of the options below!