Appendix XXI

GISP Respondents
Number of respondents in this category: 563
(23.4% of total survey respondents)

Job Title Description:
A GISP is a certified geographic information systems (GIS) Professional who has met the minimum standards for ethical conduct and professional practice as established by the GIS Certification Institute (GISCI).

About Your Position

1. Please select the one category that best describes the type of organization in which you are currently employed.

	2006
Private Sector	27.9%
County Government	24.0
Municipal Government	20.6
State or Provincial Agency	7.5
Regional Consortium/Agency	4.4
University or Research Organization	4.3
Federal Agency	3.7
Public Utility or Authority	3.2
Student	0.9
Other	3.4
	100.0%
Base:	562

a. If municipal, county, or regional government, what is the population?

	2006
Less than 10,000	0.7%
10,000 - 50,000	17.0
50,001 - 100,000	19.6
100,001 - 250,000	19.9
250,001 - 500,000	23.2
More than 500,000	19.6
	100.0%
Average	288,388
Median	175,000
Base:	276

2. Which one of the following job titles most closely describes your current position?

	2006
GIS Manager	33.3%
GIS Coordinator	15.6
GIS Specialist	10.6
GIS Data Analyst	10.0
GIS Systems Software Analyst/Programmer	8.6
Director of Geographic Information Systems/Geographic Information Officer (GIO)	7.2
Educator	2.7
GIS Technician	2.0
Independent Consultant	1.4
IT/IS Manager	1.1
User of GIS (heavy)	0.9
Student	0.7
Director of Information Systems/Chief Information Officer (CIO)	0.4
IT/IS Coordinator	0.4
IT/IS Specialist	0.2
Other	5.0
	100.0%

Base: 558

3. Estimate what percent of time during a typical workweek in which you perform a geospatial task.

	2006
0 - 25%	9.4%
26 - 50%	20.5
51 - 75%	28.8
76 - 100%	41.3
	100.0%

Base: 552

4. Do you work within a single department (you would be classified as working solely in one department), multiple departments (your position requires you to work within a number of different departments or agencies), or do you work enterprise-wide (where all departments or agencies use a central IT/GIS department)?

Single department	25.1%
Multiple departments	32.7
Enterprise-wide	<u>42.1</u>
	100.0%
Base:	553

5. What other GIS-related job titles exist within your organization?

	2006
GIS Technician	61.4%
GIS Specialist	46.7
GIS Data Analyst	38.4
GIS Manager	37.1
User of GIS (heavy)	36.1
IT/IS Manager	33.3
GIS Systems Software Analyst/Programmer	31.6
GIS Coordinator	23.1
IT/IS Systems Software Analyst/Programmer	22.1
IT/IS Technician	21.2
Director of Information Systems/Chief Information Officer (CIO)	21.2
IT/IS Specialist	19.8
IT/IS Data Analyst	16.3
IT/IS Coordinator	11.2
Trainer	9.1
Director of Geographic Information Systems/Geographic Information Officer (GIO)	8.9
Independent Consultant	8.3
Public or Elected Official	7.9
Educator	5.3
Other	10.6
Base:	529

6. Did you change your job or occupation in the past three years?

	2006
Yes	30.8%
No	69.2
Base:	552

a. If your answer was "Yes", what was the title of your last job?

	2006
GIS Analyst	30.6%
GIS Manager	17.6
GIS Specialist	7.6
GIS Coordinator	7.1
GIS Technician	5.3
GIS Consultant	3.5
Other	28.2
Base:	170

7. How many staff members are in your department?

1 - 4	19.7%
5 - 9	16.9
10 - 14	14.5
15 - 19	7.6
20 - 29	9.7
30 - 39	7.0
40 - 49	4.4
50 - 74	6.8
75 - 99	2.8
More than 100	<u>10.7</u>
	100.0%

Average	49.3 staff members
Median	14.1 staff members
Base:	503

a. How many are employed, in total, by your organization?

1 - 9	5.6%
10 - 19	4.2
20 - 29	1.7
30 - 39	2.7
40 - 49	1.7
50 - 74	5.2
75 - 100	6.1
101 - 150	5.6
151 - 200	4.2
201 - 250	6.1
251 - 300	4.4
301 - 500	9.6
501 - 1,000	11.3
1,001 - 1,500	6.5
More than 1,500	<u>25.1</u>
	100.0%

Average	2,306 total employees
Median	352 total employees
Base:	478

8. How many GIS staff members are in your department?

0	0.8%
1 - 4	55.7
5 - 9	21.8
10 - 14	8.3
15 - 19	3.9
20 - 29	4.0
30 - 39	2.3
40 - 49	1.0
More than 50	2.3
	100.0%

Average	8.7 GIS staff members in department
Median	4.0 GIS staff members in department
Base:	519

a. How many GIS staff members are employed, in total, by your organization?

0	— %
1 - 4	36.4
5 - 9	17.6
10 - 14	8.9
15 - 19	7.2
20 - 29	8.9
30 - 39	5.2
40 - 49	3.1
50 - 74	4.1
More than 75	8.5
	100.0%

Average	29.9 GIS employees
Median	8.3 GIS employees
Base:	516

9. In the past five years, has your organization seen an increase or decrease in the number of GIS staff it employs?

Increase	63.7%
Decrease	10.4
Don't know	5.9
N/A	<u>19.9</u>
	100.0%
Base:	557

10. Indicate the department(s) in which you work.

GIS	31.9%
MIS/IS	13.3
Engineering	7.3
Planning	7.0
Natural Resources/Environmental Regulation	5.4
Public Works	4.5
Assessor's Office	4.1
Transportation	3.6
Water/Wastewater Management	2.9
Geology/Geography	2.0
Land Records	1.4
Community Development	1.3
Research	1.3
Utility Planning Operations	1.3
911 and Emergency Management	1.1
Public Health Services	0.9
Agriculture	0.5
City/County Manager's Office	0.5
Finance/Administration	0.5
Training/Education	0.5
Zoning	0.2
Other	8.6
Base:	558

11. Indicate all department(s) with which you work on a regular basis.

GIS	70.1%
Planning	62.2
Engineering	57.1
Transportation	46.2
Water/Wastewater Management	44.6
Public Works	43.3
MIS/IS	42.2
911 and Emergency Management	42.2
Land Records	39.4
Zoning	38.3
Natural Resources/Environmental Regulation	36.9
Economic Development	33.6
Assessor's Office	33.0
Utility Planning Operations	32.1
Community Development	31.7
City/County Manager's Office	31.2
Training/Education	19.4
Finance/Administration	19.1
Geology/Geography	17.6
Public Health Services	15.4
Research	11.9
Housing /Social Services	9.4
Regulation	8.4
Agriculture	7.0
Other	9.7
Base:	545

12. How many years of professional experience do you have?

Less than one year	— %
1 - 2 years	0.9
3 - 4 years	0.9
5 - 9 years	20.7
10 - 14 years	30.0
15 - 19 years	19.5
20 - 29 years	21.4
30 years or more	<u>6.6</u>
	100.0%
Average	16.0 years
Median	14.1 years
Base:	560

13. How many years of GIS professional experience do you have?

Less than one year	1.4%
1 - 2 years	1.6
3 - 4 years	1.4
5 - 9 years	31.7
10 - 14 years	35.7
15 - 19 years	20.0
20 - 29 years	7.3
30 years or more	<u>0.9</u>
	100.0%
Average	12.1 years
Median	11.4 years
Base:	561

14. How many years have you been working in your current position in the current organization?

	2006
Less than one year	14.4
1-2 years	20.5
3-4 years	16.7
5-9 years	30.0
10-14 years	8.0
15-19 years	6.5
20-29 years	2.7
30 years or more	1.1
	100.0
Base	263

15. How many times have you changed your employer in the last five years?

	2006
None	56.9
Once	27.9
Twice	9.9
Three times	4.2
More than three times	1.1
	100.0
Base	262

16. If you have changed jobs, what is the nature of that change?

	2006
From private sector to another private sector	25.6
From private sector to public sector	19.8
From public sector to another public sector	23.1
From public sector to private sector	14.0
Other (please specify)	17.4
	100.0
Base	121

17. How many hours, on average, do you work in a typical week?

Less than 30	0.7%
30 - 34	0.4
35 hours	3.0
37.5 hours	3.0
40 hours	48.8
41 - 44 hours	5.6
45 - 49 hours	21.5
50 - 54 hours	12.0
More than 55 hours	<u>5.0</u>
	100.0%
Average	43.1 hours
Median	40.0 hours
Base:	535

18. What is the highest level of education you have attained?

High school	0.5%
Some college	5.9
Associate's degree	5.9
Bachelor's degree	28.4
Some postgraduate study	17.5
Master's degree	36.3
Multiple postgraduate degrees	2.7
Doctorate degree	<u>2.9</u>
	100.0%
Bachelor's degree or higher	87.7%
Postgraduate degree(s)	41.8%
Base:	560

19. In what discipline(s) were your educational degree(s)?

Geography	46.7%
GIS	31.2
Environmental science	12.6
Planning	12.0
Computer science	11.7
Engineering	9.3
Cartography	8.8
Business	8.6
Geology	6.8
Natural resources	6.2
Public administration	4.0
Surveying	3.5
Mathematics	2.7
Forestry	2.6
Anthropology	1.8
Oceanography	1.5
Landscape architecture	1.1
Other	19.0
Base:	548

20. What is the **minimum** level of education required for your position?

High school	3.8%
Some college	4.2
Associates degree	5.4
Bachelor's degree	67.7
Some postgraduate study	2.5
GIS or geospatial technology certificate	4.7
Master's degree	10.3
Multiple postgraduate degrees	—
Doctorate degree	<u>1.4</u>
	100.0%
Bachelor's degree or higher	86.6%
Postgraduate degree(s)	11.7%
Base:	554

21. During the past three years, what type(s) of continuing education and/or professional development have you acquired?

Professional certification	86.3%
Vendor specific (on-site/off-site) training	76.8
On-the-job training	75.4
Vendor neutral (on-site/off-site) training	28.8
Master's degree	8.3
Four-year university (baccalaureate degree)	2.2
Two-year university (associate's degree)	1.6
Doctorate degree	0.9
Apprenticeship	0.2
Other	5.9
Base:	556

22. Are you a certified GIS professional (GISP) through the GIS Certification Institute (GISCI)?

Yes	100.0%
No	—
Base:	563

Questions 23 and 24 are not applicable to GISPs and therefore were skipped in this analysis.

Computer Skills/Requirements

25. With which of the following types of GIS software does your job require you to be proficient?

ESRI ArcGIS 9.x	94.7%
ESRI SDE/GeoDatabase	53.4
ESRI Extensions (Network Analyst, 3D Analyst, Spatial Analyst)	52.3
ESRI ArcIMS	46.1
ESRI ArcView v. 3.x	37.5
ESRI ArcPad	31.7
ESRI ArcInfo v. 7.x	24.0
AutoDesk AutoCAD	19.9
AutoDesk Map	16.4
Bentley MicroStation	13.7
ESRI PC ArcInfo	10.7
ERDAS Imagine	10.7
ESRI MapObjects	9.8
Oracle Spatial	7.3
MapInfo Professional	4.6
Intergraph GeoMedia	4.2
ESRI ArcCAD	4.0
AutoDesk MapGuide	3.5
Intergraph MGE	2.7
ERDAS	2.6
AutoDesk MapGuide	2.2
Intergraph GeoMedia WebMap	1.3
Smallworld GIS	0.9
Caliper TransCADD	0.9
Caliper Maptitude	0.9
MapInfo Mapextreme	0.4
Genamap MapObjects	0.4
Other	13.5
Base:	549

26. What database management or spreadsheet program(s) do you use in the completion of your duties?

Access	86.4%
Excel	77.5
SQLServer	50.5
Spatial Database Engine (SDE)	34.0
Oracle	28.7
dBase	28.2
Oracle Spatial	8.4
Info	6.9
DB2	4.7
FoxPro	3.6
Lotus	2.2
Paradox	1.1
Informix	0.9
Quattro	0.7
Other	2.5
Do not use	0.5
Base:	550

27. What programming/customization language(s) do you use in the completion of your duties?

Visual Basic (VB)	62.0%
HTML	34.6
Arc Macro Language (AML)	32.2
Python	27.9
XML	27.2
Avenue	23.2
Java Script	22.3
Java	13.5
C++	6.7
PHP	4.1
AutoLISP	3.9
Perl	2.8
C	2.4
MapBasic	1.9
Fortran	0.9
COBOL	0.2
Other	8.2
Do not use	23.0
Base:	550

28. What operating system(s) does your job utilize?

Windows XP	88.9%
Windows 2000	31.8
Windows 2003	26.5
Windows CE or Palm	17.4
Windows NT	16.7
UNIX	12.0
Windows 2005	9.3
Sun-Solaris	8.0
Windows 95/98	4.5
IBM	4.5
AIX	2.7
HP-UX	2.5
Macintosh Linux	1.5
VAX/VMS	1.1
Other	4.2
Base:	551

29. What GIS and geospatial technology skills are required for your job?

Data analysis	90.9%
Data acquisition and creation	85.3
Data manipulation	85.0
Editing and querying GIS data	84.6
Cartography and visualization	79.0
Database design	77.7
Database maintenance	77.0
Map composition	69.7
Project P planning and implementation	65.2
Data visualization and reporting	64.9
Quality assurance/Quality control	63.6
Global Positioning Systems (GPS)	62.1
Data modeling	61.4
Geocoding	61.1
Application development	54.7
Database/Systems administration	53.6
Geospatial management	49.1
Maintain GIS Web capabilities	43.7
Programming	43.5
Systems design	38.2
Photogrammetry	22.5
Remote sensing	21.0
Geocomputation	17.9
Other	2.4
Base:	552

30. What other skills are required for your job?

Project management	83.2%
Technical support	77.7
Teaching/Training	72.0
Public speaking	68.2
Report writing	66.0
Research	61.8
Budgeting	58.7
Personnel management	57.4
Mathematics	39.1
Cost benefit analysis	38.9
Statistics	30.7
Sales/Marketing	25.2
Other	2.6
Base:	547

Salary and Benefits

31. Please select the range that most closely describes your salary for calendar year 2006.

Less than $20,000	0.4%
$20,000 - $29,999	0.9
$30,000 - $39,999	3.1
$40,000 - $49,999	14.9
$50,000 - $59,999	26.4
$60,000 - $69,999	22.5
$70,000 - $79,999	12.8
$80,000 - $89,999	7.2
$90,000 - $99,999	5.4
$100,000 - $109,999	2.7
$110,000 - $124,999	1.3
$125,000 - $134,999	1.3
$135,000 - $149,999	0.4
$150,000 or more	0.9
	100.0%
Average	$66,308
Median	$65,000
Base:	556

32. How has your salary changed over the past 3 years?

	2006
Decreased	5.8
Increased	80.7
No Change in salary	10.0
Not Applicable	3.5
	100.0
Base	259

33. If your salary increased, by what percentage?

	2006
0.0%	0.0
0.01 - 0.99	22.6
1 - 3.9	14.7

4 - 5.9	13.2
6 - 10.9	19.5
11 - 19.9	12.1
20 - 24.9	5.3
25 - 49.9	6.3
50+	<u>6.3</u>
	100.0
Base	190

34. What additional forms of compensation, if any, does your organization offer?

Health insurance	85.7%
Paid conference attendance	82.3
Paid training	70.9
Retirement plans	67.0
Membership dues in a professional organization	66.8
Professional certification reimbursement or support	65.2
401(k) plans (or similar)	54.9
College tuition reimbursement	51.6
Flex time	48.9
Bonuses	34.3
Stock	8.7
Other	2.9
Base:	554

a. If your organization offers bonuses, how are bonuses paid?

Based on organization's performance	13.2%
Based on individual performance	34.4
Both	<u>54.4</u>
	100.0%
Base:	189

35. What is your gender?

Male	73.0%
Female	<u>27.0</u>
	100.0%
Base:	552

36. What is your age?

Under 25	0.2%
25 - 34	29.4
35 - 44	40.4
45 - 54	24.4
55 - 64	5.2
65 or older	<u>0.4</u>
	100.0%
Average	40.1 years
Median	39.5 years
Base:	554

37. In what state/province or country do you **work**?

Southern Region	41.3%
Western Region	25.3
Midwest Region	20.5
Northeast Region	<u>12.9</u>
	100.0%
Base:	526
United States	92.8%
Canada	5.8
International	<u>1.4</u>
	100.0%
Base:	553

Regional Breakdown

Western Region	Number of Respondents
Oregon	37
Alberta, Canada	24
Idaho	14
Alaska	11
British Columbia, Canada	11
Hawaii	8
New Mexico	8
California	6
Colorado	6
Saskatchewan, Canada	4
Utah	2
Arizona	1
Nevada	1
Washington	0
Wyoming	0
Yukon, Canada	0
Montana	0
Total	133

Northeast Region	Number of Respondents
Pennsylvania	16
Massachusetts	12
Maryland	9
New Jersey	9
New York	8
District of Columbia	5
Maine	3
Connecticut	2
New Brunswick, Canada	2
Vermont	1
Delaware	1
New Hampshire	0
Rhode Island	0
Nova Scotia, Canada	0
Total	68

Midwest Region	Number of Respondents
Ohio	23
Wisconsin	17
Illinois	14
Michigan	12
Indiana	10
Missouri	8
Minnesota	7
Ontario, Canada	6
Iowa	6
South Dakota	3
Nebraska	2
Kansas	0
North Dakota	0
Total	108

Southern Region	Number of Respondents
Florida	65
North Carolina	37
Texas	33
Virginia	26
Georgia	18
Tennessee	10
South Carolina	9
Oklahoma	6
Kentucky	4
Alabama	3
Louisiana	2
Mississippi	2
West Virginia	1
Arkansas	1
Puerto Rico	0
Total	217

Appendix XXII

Non-GISP Respondents
Number of respondents in this category: 1,443
(60.1% of total survey respondents)

Job Title Description:
A Non-GISP has not met the minimum standards for ethical conduct and professional practice as established by the GIS Certification Institute (GISCI).

About Your Position
1. Please select the one category that best describes the type of organization in which you are currently employed.

	2006
	2006
Private Sector	22.6%
County Government	20.4
Municipal Government	20.3
State or Provincial Agency	11.5
Federal Agency	6.2
Regional Consortium/Agency	5.4
University or Research Organization	4.8
Public Utility or Authority	4.7
Student	0.7
Other	3.4
	100.0%
Base:	1,440

a. If municipal, county, or regional government, what is the population?

	2006
Less than 10,000	2.9%
10,000 - 50,000	19.2
50,001 - 100,000	18.4
100,001 - 250,000	23.9
250,001 - 500,000	13.9
More than 500,000	21.8
	100.0%
Average	276,745
Median	175,000
Base:	662

2. Which one of the following job titles most closely describes your current position?

	2006
GIS Manager	18.1%
GIS Coordinator	17.9
GIS Specialist	17.0
GIS Data Analyst	10.5
GIS Technician	8.6
Director of Geographic Information Systems/Geographic Information Officer (GIO)	5.1
GIS Systems Software Analyst/Programmer	5.1
Educator	2.9
User of GIS (heavy)	2.9
IT/IS Manager	2.2
Director of Information Systems/Chief Information Officer (CIO)	1.0
Student	0.7
IT/IS Coordinator	0.6
Independent Consultant (Primary employment is independent of any other firm or corporation.)	0.4
IT/IS Technician	0.3
IT/IS Data Analyst	0.3
	100.0%

Base: 1,438

3. Estimate what percent of time during a typical workweek in which you perform a geospatial task.

	2006
0 - 25%	13.9%
26 - 50%	16.8
51 - 75%	31.9
76 - 100%	37.3
	100.0%

Base: 1,403

4. Do you work within a single department (you would be classified as working solely in one department), multiple departments (your position requires you to work within a number of different departments or agencies), or do you work enterprise-wide (where all departments or agencies use a central IT/GIS department)?

Single department	32.9%
Multiple departments	35.8
Enterprise-wide	<u>31.3</u>
	100.0%
Base:	1,420

5. What other GIS-related job titles exist within your organization?

	2006
GIS Technician	57.3%
GIS Specialist	45.5
GIS Manager	39.4
GIS Data Analyst	35.8
IT/IS Manager	33.5
User of GIS (heavy)	32.2
GIS Systems Software Analyst/Programmer	27.9
GIS Coordinator	27.4
IT/IS Technician	24.8
IT/IS Systems Software Analyst/Programmer	23.3
Director of Information Systems/Chief Information Officer (CIO)	23.1
IT/IS Specialist	21.6
IT/IS Data Analyst	15.0
IT/IS Coordinator	13.2
Director of Geographic Information Systems/Geographic Information Officer (GIO)	12.5
Trainer	9.3
Public or Elected Official	7.1
Independent Consultant	7.1
Educator	5.8
Other	9.8
Base:	1,337

6. Did you change your job or occupation in the past three years?

Yes	34.9%
No	65.1
Base:	1,425

a. If your answer was "Yes", what was the title of your last job?

GIS Analyst	13.1%
GIS Technician	12.5
GIS Specialist	10.7
GIS Manager	6.6
GIS Coordinator	5.6
Student	4.8
GIS Consultant	3.0
Other	43.7
Base:	497

7. How many staff members are in your department?

1 - 4	19.9%
5 - 9	20.9
10 - 14	12.5
15 - 19	6.4
20 - 29	10.5
30 - 39	6.3
40 - 49	3.2
50 - 74	6.9
75 - 99	2.6
More than 100	<u>10.8</u>
	100.0%

Average	86.5 staff members
Median	12.0 staff members
Base:	1,319

a. How many are employed, in total, by your organization?

1 - 9	4.3%
10 - 19	4.8
20 - 29	4.6
30 - 39	3.0
40 - 49	3.1
50 - 74	6.4
75 - 100	6.1
101 - 150	6.4
151 - 200	4.9
201 - 250	4.1
251 - 300	4.9
301 - 500	9.3
501 - 1,000	12.2
1,001 - 1,500	4.8
More than 1,500	<u>21.1</u>
	100.0%

Average	2,749.4 total employees
Median	272.5 total employees
Base:	1,253

8. How many GIS staff members are in your department?

0	1.9%
1 - 4	60.7
5 - 9	20.7
10 - 14	7.3
15 - 19	2.9
20 - 29	2.7
30 - 39	1.1
40 - 49	0.4
More than 50	<u>2.2</u>
	100.0%

Average   8.1 GIS staff members in department
Median   3.7 GIS staff members in department

Base: 1,335

a. How many GIS staff members are employed, in total, by your organization?

0	0.6%
1 - 4	39.0
5 - 9	20.3
10 - 14	10.8
15 - 19	4.1
20 - 29	6.7
30 - 39	4.5
40 - 49	2.2
50 - 74	4.0
More than 75	<u>7.8</u>
	100.0%

Average   70.5 GIS employees
Median   7.1 GIS employees

Base: 1,302

9. In the past five years, has your organization seen an increase or decrease in the number of GIS staff it employs?

Increase	63.5%
Decrease	10.0
Don't know	8.2
N/A	<u>18.2</u>
	100.0%
Base:	1,432

10. Indicate the department(s) in which you work.

GIS	29.4%
MIS/IS	12.2
Planning	8.9
Natural Resources/Environmental Regulation	6.4
Engineering	5.8
Water/Wastewater Management	3.3
Assessor's Office	2.9
Transportation	2.9
911 and Emergency Management	2.8
Geology/Geography	2.6
Public Works	2.4
Research	2.3
Community Development	1.5
Utility Planning Operations	1.3
Land Records	1.2
Finance/Administration	1.0
Agriculture	0.8
Public Health Services	0.8
Training/Education	0.8
City/County Manager's Office	0.4
Zoning	0.2
Economic Development	0.1
Regulation	0.1
Housing/Social Services	0.1
Other	9.6
Base:	1,438

11. Indicate all department(s) with which you work on a regular basis.

GIS	67.2%
Planning	53.8
Engineering	47.1
Transportation	37.7
911 and Emergency Management	36.6
Water/Wastewater Management	36.5
Natural Resources/Environmental Regulation	36.3
Land Records	35.1
Public Works	34.2
Zoning	32.9
MIS/IS	30.6
Community Development	28.1
Assessor's Office	27.8
Utility Planning Operations	27.3
City/County Manager's Office	26.2
Economic Development	24.1
Geology/Geography	18.5
Finance/Administration	17.3
Training/Education	15.5
Research	15.1
Public Health Services	13.7
Housing /Social Services	8.9
Agriculture	8.7
Regulation	8.2
Other	9.0
Base:	1,397

12. How many years of professional experience do you have?

Less than one year	1.3%
1 - 2 years	8.4
3 - 4 years	4.7
5 - 9 years	28.4
10 - 14 years	21.4
15 - 19 years	15.7
20 - 29 years	15.1
30 years or more	4.9
	100.0%
Average	13.0 years
Median	11.2 years
Base:	1,435

13. How many years of GIS professional experience do you have?

Less than one year	4.5%
1 - 2 years	10.3
3 - 4 years	14.3
5 - 9 years	34.4
10 - 14 years	20.1
15 - 19 years	10.7
20 - 29 years	4.2
30 years or more	1.0
	100.0%
Average	8.7 years
Median	7.5 years
Base:	1,436

14. How many years have you been working in your current position in the current organization?

	2006
Less than one year	13.6
1-2 years	23.6
3-4 years	20.6
5-9 years	30.9
10-14 years	7.3
15-19 years	3.1
20-29 years	0.8
30 years or more	0.1
	100.0
Base	1735

15. How many times have you changed your employer in the last five years?

	2006
None	54.1
Once	26.5
Twice	12.1
Three times	5.1
More than three times	2.1
	100.0
Base	1740

16. If you have changed jobs, what is the nature of that change?

	2006
From private sector to another private sector	18.0
From private sector to public sector	26.2
From public sector to another public sector	32.4
From public sector to private sector	13.7
Other (please specify)	9.7
	100.0
Base	860

17. How many hours, on average, do you work in a typical week?

Less than 30	0.8%
30 - 34	0.7
35 hours	4.7
37.5 hours	5.8
40 hours	52.5
41 - 44 hours	4.9
45 - 49 hours	16.0
50 - 54 hours	9.8
More than 55 hours	<u>4.7</u>
	100.0%
Average	42.3 hours
Median	40.0 Hours
Base:	1,378

18. What is the highest level of education you have attained?

High school	1.5%
Some college	7.6
Associate's degree	6.9
Bachelor's degree	32.7
Some postgraduate study	29.5
Master's degree	15.8
Multiple postgraduate degrees	2.2
Doctorate degree	<u>3.8</u>
	100.0%
Bachelor's degree or higher	84.0%
Postgraduate degree(s)	35.5%
Base:	1,441

19. In what discipline(s) were your educational degree(s)?

Geography	43.0%
GIS	33.6
Environmental science	12.0
Computer science	10.8
Cartography	9.8
Planning	9.5
Engineering	8.9
Geology	8.4
Natural resources	7.2
Business	7.2
Surveying	3.5
Mathematics	3.4
Forestry	3.3
Public administration	2.7
Anthropology	2.3
Landscape architecture	1.1
Oceanography	0.9
Other	20.9
Base:	1,389

20. What is the **minimum** level of education required for your position?

High school	6.1%
Some college	5.5
Associate's degree	7.1
Bachelor's degree	59.5
Some postgraduate study	2.6
GIS or geospatial technology certificate	8.6
Master's degree	8.8
Multiple postgraduate degrees	—
Doctorate degree	<u>1.9</u>
	100.0%
Bachelor's degree or higher	81.4%
Postgraduate degree(s)	10.6%
Base:	1,428

21. During the past three years, what type(s) of continuing education and/or professional development have you acquired?

On-the-job training	82.7%
Vendor specific (on-site/off-site) training	68.9
Two-year university (associate's degree)	27.1
Four-year university (baccalaureate degree)	18.2
Professional certification	9.6
Master's degree	4.4
Doctorate degree	2.5
Other	1.2
Base:	1,413

22. Are you a certified GIS professional (GISP) through the GIS Certification Institute (GISCI)?

Yes	— %
No	100.0
Base:	1,443

23. If "No", do you plan on applying in the next three years?

Yes	58.2%
No	41.8
Base:	1,413

a. If "No", why not?

Have not seen value	39.7%
Am unaware of the GISCI certification program	21.1
Employer will not pay or support	8.7
Do not agree with the concept of certification	7.0
Do not meet the qualifications	5.6
Will do so when there is an examination component	2.0
Other	16.0
Base:	589

24. If you are not a GISP, do you hold any other certifications or professional designations?

Professional Engineer	1.9%
Licensed Surveyor	1.8
AICP Certified Planner	1.2
ASPRS Mapping Scientist (any designation)	1.1
NENA National Emergency Number Professional	0.5
ASPRS Mapping Technician (any designation)	0.5
IAAO Cadastral Mapping Specialist	0.5
Other	12.3
None	82.0
Base:	1,289

Computer Skills/Requirements

25. With which of the following types of GIS software does your job require you to be proficient?

ESRI ArcGIS 9.x	90.9%
ESRI SDE/GeoDatabase	46.4
ESRI Extensions (Network Analyst, 3D Analyst, Spatial Analyst)	44.4
ESRI ArcIMS	35.1
ESRI ArcView v. 3.x	33.6
ESRI ArcPad	25.0
AutoDesk AutoCAD	24.2
ESRI ArcInfo v. 7.x	19.9
AutoDesk Map	17.2
ERDAS Imagine	12.1
ESRI PC ArcInfo	11.8
Bentley MicroStation	9.7
ESRI MapObjects	9.6
MapInfo Professional	7.9
Oracle Spatial	7.7
Intergraph GeoMedia	6.6
AutoDesk MapGuide	4.4
ERDAS	3.5
ESRI ArcCAD	3.2
Intergraph GeoMedia WebMap	3.1
Intergraph MGE	2.9
AutoDesk MapGuide	2.5
Smallworld GIS	1.9
Intergraph FRAMME	1.8
MapInfo Mapextreme	1.1
Caliper TransCADD	0.7
Caliper Maptitude	0.4
Genamap MapObjects	0.3
Other	12.9
Base:	1,384

26. What database management or spreadsheet program(s) do you use in the completion of your duties?

Access	82.7%
Excel	78.4
SQLServer	44.5
Spatial Database Engine (SDE)	30.7
dBase	28.3
Oracle	27.9
Oracle Spatial	10.5
Info	4.8
DB2	3.7
FoxPro	3.3
Lotus	2.8
Informix	1.6
Paradox	1.4
Quattro	1.2
SyBase	0.9
Other	4.4
Do not use	1.4
Base:	1,415

27. What programming/customization language(s) do you use in the completion of your duties?

Visual Basic (VB)	53.9%
HTML	26.5
XML	22.8
Python	22.4
Arc Macro Language (AML)	21.4
Java Script	19.5
Java	14.2
Avenue	13.6
C++	6.2
PHP	4.5
Perl	3.6
C	2.8
AutoLISP	2.3
Fortran	2.1
MapBasic	2.0
COBOL	0.7
Other	8.6
Do not use	29.2
Base:	1,347

28. What operating system(s) does your job utilize?

Windows XP	83.7%
Windows 2000	31.2
Windows 2003	23.2
Windows NT	17.1
Windows CE or Palm	11.3
UNIX	10.9
Sun-Solaris	6.6
Windows 2005	6.4
Windows 95/98	3.7
IBM	3.5
HP-UX	2.1
AIX	2.1
Macintosh/Linux	1.9
VAX/VMS	1.0
Unaware	0.6
DEC	0.5
Other	3.0
Base:	1,410

29. What GIS and geospatial technology skills are required for your job?

Data analysis	82.8%
Editing and querying GIS data	78.1
Data manipulation	77.3
Data acquisition and creation	76.6
Cartography and visualization	75.4
Database maintenance	68.9
Database design	64.5
Map composition	61.7
Project planning and implementation	55.6
Data visualization and reporting	54.5
Quality assurance/Quality control	54.0
Global Positioning Systems (GPS)	53.3
Geocoding	52.0
Data modeling	49.5
Database/Systems administration	41.9
Geospatial management	39.9
Application development	39.1
Programming	33.2
Maintain GIS Web capabilities	31.8
Systems design	25.5
Remote sensing	23.4
Photogrammetry	21.4
Geocomputation	13.6
Other	3.0
Base:	1,403

30. What other skills are required for your job?

Project management	74.7%
Technical support	72.5
Teaching/Training	62.6
Research	60.9
Public speaking	59.3
Report writing	59.0
Budgeting	51.0
Personnel management	50.6
Mathematics	36.6
Cost benefit analysis	34.1
Statistics	30.2
Sales/Marketing	17.8
Other	3.0
Base:	1,362

Salary and Benefits

31. Please select the range that most closely describes your salary for calendar year 2006.

Less than $20,000	1.8%
$20,000 - $29,999	4.0
$30,000 - $39,999	13.6
$40,000 - $49,999	21.9
$50,000 - $59,999	22.0
$60,000 - $69,999	13.6
$70,000 - $79,999	9.2
$80,000 - $89,999	5.4
$90,000 - $99,999	4.1
$100,000 - $109,999	2.3
$110,000 - $124,999	1.1
$125,000 - $134,999	0.4
$135,000 o $149,999	0.4
$150,000 or more	0.4
	100.0%
Average	$57,669
Median	$53,984
Base:	1,409

32. How has your salary changed over the past 3 years?

	2006
Decreased	2.5
Increased	87.3
No Change in salary	7.2
Not Applicable	3.0
	100.0
Base	1697

33. If your salary increased, by what percentage?

	2006
0.0%	0.1
0.01 - 0.99	18.7
1 - 3.9	14.5

4 - 5.9	16.0
6 - 10.9	20.3
11 - 19.9	11.8
20 - 24.9	7.4
25 - 49.9	7.2
50+	3.9
	100.0
Base	1376

34. What additional forms of compensation, if any, does your organization offer?

Health insurance	85.2%
Paid conference attendance	72.6
Retirement plans	66.3
Paid training	66.2
401(k) plans (or similar)	51.1
Membership dues in a professional organization	46.9
College tuition reimbursement	46.2
Flex time	45.0
Professional certification reimbursement or support	37.1
Bonuses	27.8
Stock	8.4
Other	3.0
None	3.9
Base:	1,400

a. If your organization offers bonuses, how are bonuses paid?

Based on organization's performance	20.1%
Based on individual performance	32.0
Both	47.9
	100.0%
Base:	384

35. What is your gender?

Male	69.5%
Female	30.5
	100.0%
Base:	1,397

36. What is your age?

Under 25	3.1%
25 - 34	38.1
35 - 44	31.9
45 - 54	19.7
55 - 64	6.8
65 or older	0.6
	100.0%
Average	38.7 years
Median	37.3 years
Base:	1,406

37. In what state/province or country do you **work**?

Southern Region	33.1%
Western Region	32.1
Midwest Region	23.0
Northeast Region	11.8
	100.0%
Base:	1,326
United States	86.0%
Canada	10.3
International	3.7
	100.0%
Base:	1,389

Regional Breakdown

Western Region	Number of Respondents
California	103
British Columbia, Canada	72
Washington	46
Colorado	44
Alberta, Canada	38
Arizona	27
Oregon	26
Utah	13
New Mexico	13
Wyoming	12
Idaho	8
Montana	7
Alaska	6
Nevada	6
Saskatchewan, Canada	2
Hawaii	1
Yukon, Canada	1
Total	425

Midwest Region	Number of Respondents
Ohio	44
Michigan	43
Illinois	42
Wisconsin	40
Kansas	26
Minnesota	25
Ontario, Canada	22
Missouri	22
Indiana	12
Iowa	12
Nebraska	7
South Dakota	5
North Dakota	5
Total	305

Northeast Region	Number of Respondents
New Jersey	26
Maryland	24
New York	21
Massachusetts	20
Pennsylvania	20
District of Columbia	8
Connecticut	7
New Hampshire	7
Maine	7
Vermont	6
Rhode Island	4
New Brunswick, Canada	4
Delaware	3
Nova Scotia, Canada	0
Total	157

Southern Region	Number of Respondents
Florida	113
Texas	58
North Carolina	48
Virginia	43
Georgia	39
Arkansas	27
Tennessee	22
Kentucky	19
Alabama	17
Louisiana	17
South Carolina	13
Oklahoma	10
West Virginia	9
Mississippi	2
Puerto Rico	2
Total	439