



Biostatistics Consulting and Survey Center
Department of Biostatistics and Epidemiology
Medical College of Georgia

2013 Salary Survey of Business, Industry, and Government Statisticians

Final Report
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Prepared by
James K. Dias
Department of Biostatistics and Epidemiology
Biostatistics Consulting and Survey Center
Georgia Regents University

1120 15th Street, AE-1000, Augusta, GA 30912-4900
Phone: (706) 721-3785 Fax: (706) 721-6294

biostat.gru.edu

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2013 Salary Survey of Business, Industry, and Government Statisticians

Table of Contents

I. SURVEY DESIGN AND ADMINISTRATION	1
Background	1
Project Staff	1
Survey Design	2
II. SURVEY IMPLEMENTATION AND PROCEDURES	2
Project Planning	2
Survey Development	3
Site Security	3
Respondent Activity	3
Data and Response Management	3
Data Collection Procedure	3
III. FINAL RESULTS AND RESPONSE RATES	3
Respondent Characteristics	4
Salary Statistics	4
IV. COMMENTS AND SUGGESTIONS	6
V. ACKNOWLEDGEMENTS	6
APPENDICES	
A. 2013 Survey Questions	7
B. E-Mail Invitation	9
C. Descriptive Statistics for Various Questionnaire Items	10
D. Salary Percentiles for Various Questionnaire Items	15
E. Percentiles (10, 25, 50, 75, 90) of Annual Salary for Managerial Responsibility by Years Experience by Highest Degree	17
F. Percentiles (25, 50, 75) of Annual Salary for Respondents with a Bachelors as Highest Degree by Years Experience	18
G. Percentiles (10, 25, 50, 75, 90) of Annual Salary by Employer by Degree	19
H. Percentiles (10, 25, 50, 75, 90) of Annual Salary by Employer by Application Area or Type of Job by Highest Degree	20

2013 SPAIG SALARY SURVEY

I. SURVEY DESIGN AND ADMINISTRATION

Background

The American Statistical Association (ASA) has conducted salary surveys of its membership over several years. The primary purpose of these surveys was to obtain benchmark salary information for statisticians in the US that could be referenced by students, statisticians, and employers of statisticians. This year, the Biostatistics Consulting and Survey Center (BCSC) in the Department of Biostatistics and Epidemiology at the Georgia Regents University (GRU) was again contracted by the ASA to design and implement the survey of its non-academic members in the US who were employed by Business, Industries and Government (B/I/G) for the above purpose. This report describes the procedures followed for the survey design and data collection, and the final survey outcomes. The survey was conducted under the directives of Mr. Stephen Porzio, Associate Executive Director and Director of Operations, ASA, and ASA's Statistics Partnership among Academic, Industry & Government (SPAIG) committee, chaired by Dr. Barry Nussbaum.

For this survey, a **STATISTICIAN** was defined as a person employed in business, industry, or government (not academia) who: (1) had a university/college degree (Bachelors, Masters, Doctorate) in statistics, biostatistics, or mathematical statistics, **OR** had the equivalent of one year of graduate course work in academic statistics (including a Federal Government employee who meets the education requirements for a Mathematical Statistician), **AND** (2) currently used statistical reasoning or performed statistical analyses (including supervision of statisticians) as part of his or her job.

Project Staff

Representatives of ASA involved in this project are Barry Nussbaum, Chair, Statistics Partnership among Academe, Industry & Government (SPAIG) Committee, and the other members of the SPAIG Committee. Department of Biostatistics and Epidemiology and BCSC staff members involved in this project are listed in the following table.

GRU BCSC Staff		
Name	Title	Project Responsibilities
James K. Dias, PhD	Associate Professor and Director, BCSC	Survey design, implementation, all on-line programming, and final report preparation
Patricia Hall, MS	Biostatistician and Manager, BCSC	Survey design, administration, project monitoring, and implementation

Survey Design

Past B//G surveys conducted by and for the ASA (prior to the 2007 survey) focused on employers. Sampled ASA member employers were asked to provide salary and demographic information for all statisticians on staff. Difficulties with both privacy and the accessibility of information resulted in response rates lower than desired. The 2007 survey focused on individual ASA members and resulted in a significantly higher response rate (over 60%). In 2009 and 2011, the BCSC proposed changes in both sample and survey design that it hoped would both produce rates matching or exceeding those of past surveys and increase the accuracy and usefulness of the information provided. These recommendations were accepted by ASA and SPAIG, and were implemented in both the 2009 and 2011 surveys. This survey used the same methods as those implemented in the 2011 survey.

For conducting this year's survey, ASA provided a database of ASA member B//G statisticians. The database consisted of 5,943 members from which it was decided by SPAIG and BCSC to invite, by **e-mail invitation only, all members** to take the survey on-line. (No sampling was conducted as was the case with surveys prior to the 2011 survey.)

The final 2013 survey was brief and consisted of only eleven items. A password and user ID with a unique PIN # was assigned to each individual to limit survey access and to track responses. Advance notice of the survey was advertised in the January, 2013 edition of the ASA Member News.

II. SURVEY IMPLEMENTATION AND PROCEDURES

Project Planning

Planning was completed in November, 2012. The survey methodology and scope of work was approved by SPAIG. The GRU Human Assurance Committee (Institutional Review Board) approved the research protocol. On December 11, 2012 the contract was executed and all GRU approvals were obtained allowing us to begin the actual work on the survey.

Programming of the on-line survey and all preliminary work necessary to implement the e-mail invitations were completed by the end of January 2013. The survey period extended from early February through the middle of March.

Survey Development

The 2013 SPAIG survey was developed in collaboration with ASA project representatives. The final survey questionnaire appears in Appendix A.

The BCSC again chose SurveyMonkey® to implement the on-line survey. The BCSC Director programmed the on-line survey in January of 2013. The instrument pages were coded with check boxes for categorical response items with "strong" typing and format control. The instrument was deployed on SurveyMonkey's website (www.surveymonkey.com) with full user ID and password protection. A unique "collector" was used for each phase of the survey.

The layout of the web instrument was designed using SurveyMonkey's design templates. After entering one's unique PIN, the first question was whether the participant was employed as a statistician (with proper definition): (1) if the respondent answered "NO" they were taken to the end of the questionnaire; (2) If they answered "YES" they were taken to a new page to answer the remaining 9 questions. A minimal amount of scrolling was required to view all questions on a single page.

The online survey was extensively tested and validated. The on-line survey was opened and e-mail invitations were sent on February 8, 2013.

Site Security

Each ASA member in the database was assigned a password with a unique PIN # to be entered at the survey's first page in order to gain access to the survey itself. The PIN served as a case ID and key, and a combination of the password and PIN # made survey access by unauthorized persons highly unlikely. Instructions in the e-mail invitations/reminders provided a name, telephone number, and e-mail address of BCSC project staff that would be available to assist with any difficulties encountered in accessing the survey as well as to answer questions about the survey itself.

All data of a confidential nature was stored on GRU's secure/protected storage area with a key (the unique PIN #) that was used as a link to de-identified data for subsequent data processing.

Respondent Activity

Respondents were allowed to access their survey only once using their assigned username and password. Answers to specific items could be changed as often as desired until they exited the last page of the survey. When they exited the final page their responses were stored as the "FINAL" version.

Data and Response Management

All data and paradata, as well as contact information, were downloaded from SurveyMonkey as an SPSS data file. All data processing and report generation was done using IBM SPSS Statistics (version 20). Contact information, survey completion status, and general comments were maintained for each respondent in SPSS data files, which was accessible to project staff for reference and for range/validity checks. Periodic progress reports were made available to project staff as needed.

Data Collection Procedure

An Excel database of n = 5,943 ASA B/I/G members was received from the ASA in early January 2013 and was processed, examined and cleaned by BCSC project staff. Of the 5,943 members, 5,689 had valid e-mail address. On February 8, 2013, the initial e-mail invitation was sent to those with valid e-mail addresses. This invitation described the study and its purpose, and invited the ASA members to participate; it also included the URL for the on-line survey and the assigned username and password to be used to access the survey. The e-mail invitation letter can be found in Appendix B. On February 19 and 28, 2013, reminder e-mails were sent to those that had not yet responded. The survey was closed on March 15, 2013.

III. FINAL RESULTS AND RESPONSE RATES

Of the 5,689 with valid e-mail addresses that were invited to participate, 2,081 responded to the survey.

Respondents that were not employed as a statistician or not employed at all, including retired individuals, were classified as not eligible. In addition, respondents who were employed in academia were also classified as ineligible.

Of the 5,689 invited to participate, responses were received from 2,081 individuals with valid addresses (36.6%). Of the remainder with valid addresses, 3,608 either refused or did not respond (63.4%). Based on the responses received, it was determined that 308 individuals were not eligible to be included in the final analysis. Those ineligible were either employed in academia, unemployed, not employed as a statistician, retired, or reported that they did not meet the definition of a statistician. Seventy-two individuals that were eligible and responded did not report salary information and were re-coded as “non-responders”. When adjusted for delivery failure, eligibility, and non-response, 1,701 (2,081 – 308 - 72) eligible responses were received from an adjusted universe of eligible members of 5,381 (5,689 - 308), for an adjusted **response rate of 31.6%**.

The 2011 SPAIG survey had a response rate of 36.3%. Our goal was to match or exceed that rate, however, the 2013 SPAIG survey response rate was 4.7% lower than the 2011 survey.

Respondent Characteristics

One thousand seven hundred one (1,701) eligible ASA members responded to the B/I/G salary survey. Their reported characteristics are given in Appendix C for their current type of employment (full-/part-time), gender, employer classification, highest degree, geographic region, managerial responsibility, years of experience as a statistician, and the application area/job type of current employment.

One hundred twenty one (121) reported being employed part-time (7.1%) with an average percentage effort of 52% ± 22% (mean ± SD). Their reported percentage effort ranged from 7% to 90% (median 50%).

Sixty-eight percent (68%) of respondents were male. The majority (61%) reported employment by a for-profit-business or industry, followed by federal government (21%) and non-profit organization (7%). Fifty-four percent (54%) reported their highest academic degree as Doctorate, 42% reported as Masters and 4% reported as Bachelors. Thirty-six percent (36%) reported working in the South-Atlantic region of the US, 16% reported Middle-Atlantic and 14% reported the Pacific region. Forty percent (40%) reported having managerial responsibility in their current position.

Respondents were asked the first date (month, day, and year) they were ever employed as a statistician. The number of years since first being employed as a statistician (experience) was calculated as the range from reported starting date to February 25, 2013 (the mid-survey date). The average experience was 20.4 years ± 13.2 years. Experience ranged from zero to 74 years with a median of 19 years.

Twenty-eight percent (28%) reported working in the pharmaceutical area, 21% in other medical/health-care-related areas, 14% in general consulting, and 6% in the survey-/market- research area.

Salary Statistics

Respondents were asked to report their annual base salary (in dollars) and were instructed to include bonuses, incentives, or other forms of monetary reward. Salary (dollars per year) was “annualized” for part-time-employed respondents. Salary statistics are reported in tables as full-time equivalents in thousands of dollars per year.

The average salary reported was \$158,980 ± \$144,004 and ranged from \$0 to \$3,600,000. The median salary reported was \$136,000.

Various descriptive statistics are given in Appendix C for the following variables:

1. Quantitative Variables:
 - a. Part-Time % Effort
 - b. Salary
 - c. Years Experience as a Statistician

2. Categorical Variables:
 - a. Full-/Part-Time
 - b. Gender
 - c. Employer
 - d. Highest Degree
 - e. Geographic Region
 - f. Managerial Responsibility
 - g. Years Experience (coded into intervals)
 - h. Application Area or Job Type

Geographic Region was coded as:

Geographic Region	States
South Atlantic	DE, DC, GA, FL, MD, NC, SC, VA, WV
Middle Atlantic	NJ, NY, PA
East North Central	IL, IN, MI, OH, WI
Pacific	AK, CA, HI, OR, WA
New England	CT, MA, ME, NH, RI, VT
West North Central	IA, KS, MN, MO, ND, NE, SD
Other	States not listed above

Appendix D gives Percentiles (10, 25, 50, 75, 90) of Annual Salary overall and for levels of the following Variables:

1. Employer
2. Geographic Region
3. Managerial Responsibility
4. Gender
5. Highest Degree
6. Years Experience
7. Application Area or Job Type

Appendix E gives Percentiles (10, 25, 50, 75, 90) of Annual Salary for Managerial Responsibility by Years Experience by Highest Degree (Masters and Doctorate only).

Appendix F gives Percentiles (25, 50, 75) of Annual Salary for Bachelor as Highest Degree by Experience.

Appendix G gives Percentiles (10, 25, 50, 75, 90) of Annual Salary for Employer by Highest Degree.

Appendix H gives Percentiles (10, 25, 50, 75, 90) of Annual Salary for Employer by Application Area or Type of Job by Highest Degree (Masters and Doctorate only).

In the salary tables listed above, we suppressed displaying the 10th and 90th percentiles for table rows (categories) with fewer than 20 observations. We also suppressed all percentiles for table rows (categories) with less than 10 observations.

IV. COMMENTS AND SUGGESTIONS

The response rate was only 31.6% and is our major concern. Comments and suggestions follow.

Comments:

- On February 1, 2011, the Medical College of Georgia (MCG) changed its name to Georgia Health Sciences University (GHSU) and on January 8, 2013 Augusta State University consolidated with GHSU to become Georgia Regents University (GRU). These name changes may have reduced our name recognition. Several of those invited to participate in the survey, commented that they were reluctant to provide salary information to an unknown entity.
- Others reported their reluctance to take a SurveyMonkey survey. Some sites block SurveyMonkey and classify it as “Spam”. Many of those invited to participate had previously “opted out” of taking any SurveyMonkey surveys
- People are surveyed more and more and are becoming reluctant to participate in any survey. Among their concerns are identity theft, loss of privacy, and “survey fatigue”.

Suggestions:

- Conduct an even more aggressive campaign to advertise and inform members about the survey and its importance to our profession.
- Instead of GRU, have the ASA send out initial e-mail invitations and any reminders.
- Consider alternatives to using SurveyMonkey to administer the survey and collect responses.
- We recommend a concerted effort by the ASA to update its database of individual members, especially their e-mail addresses and the classification of their employers. A substantial number, almost 4.3% (254/5943), of addresses were either invalid or missing. The description field in the database provided by the ASA corresponded poorly with that reported by survey responders. Only 89% were in agreement.

V. ACKNOWLEDGEMENTS

The author gratefully acknowledge the critical input provided by Stephen Porzio, Associate Executive Director and Director of Operations, ASA, Barry Nussbaum, Chair of SPAIG Committee, and all members of the SPAIG Committee.

We also wish to thank the ASA members who responded to the survey. Without their participation, the survey could not have been conducted. Their valuable comments will surely improve future surveys.

APPENDIX A
2013 American Statistical Association Salary Survey
of Business, Industry, and Government Statisticians

2013 American Statistical Association Salary Survey

1. Welcome to the ASA Salary Survey of Business, Industry, and Government Stat...

Please complete the following information about your background and current primary employment as a statistician. All information will remain strictly confidential and will only be reported as aggregated data.

Your input is very valuable and important to us. Thank you very much for your time in participating in our survey.

*** 1. Please enter your PIN**

2. Survey Questions

For this study, a Statistician is defined as a person who is employed in business, industry, or government (not academia):

1. Has a university/college degree (Bachelors, Masters, PhD) in statistics, biostatistics, or mathematical statistics, OR has the equivalent of one year graduate course work in academic statistics (including Federal Government employees who meet the education requirements for a Mathematical Statistician), AND
2. Currently uses statistical reasoning or performs statistical analyses (includes supervision of statisticians) as part of their job.

*** 2. Based on the definition above, are you currently employed as a statistician?**

- Yes
- If No (or Not Sure) please specify

3. Survey Questions

3. What is your highest educational degree completed?

- Bachelors Degree Masters Degree Doctorate

4. What is your Gender?

- Male Female

5. What is the first date you were ever employed full-time as a statistician? (Could be at a different organization.)

MM DD YYYY
Date / /

6. Is your current position full-time or part-time?

- Full-time
- Part-time, please enter your percentage effort

2013 American Statistical Association Salary Survey

7. Does your current position include managerial responsibilities? (Managerial responsibilities include budget and hiring responsibility, conducting performance appraisals, etc. A technical team leader is not considered to have managerial responsibility.)

- Yes No

8. What is the state in which your current job is located (or based)?

State:

*** 9. What is your current annual base salary (in dollars) as a business, industry, or government statistician? (Include bonuses, incentives, or other forms of monetary award.)**

10. Which choice best describes your current employer?

- Federal Government
 State or Local Government
 For-Profit Business or Industry
 Non-Profit Organization
 Self Employed/Private Consultant
 Other (please specify)

11. Which choice best describes your current job type or application area?

- Pharmaceuticals
 Other Medical/Health-Related
 General Consulting
 Other (please specify)

4. Finished

Thank you for completing the survey. Be assured that your responses are completely anonymous.

APPENDIX B E-Mail Invitation

Dear [FirstName] [LastName]:

STAND UP AND BE COUNTED! We statisticians are well aware of the current trend toward decreasing survey response rates that can bias a study's results. Let's practice what we preach and prove that statisticians value high response rates by completing this survey conducted on our very own population of professionals.

Your assistance is requested for the 2013 American Statistical Association (ASA) survey of statisticians in business, industry, government, and non-profit organizations. This research will update similar ASA surveys conducted in the past (see reports at <http://www.amstat.org/careers/salaryinformation.cfm>). Survey results will provide relevant statistician salary benchmarks to ASA members and will be very helpful in addressing the salary/career questions ASA receives from students, employers, and researchers.

You have been selected from the ASA membership to be contacted for this survey. The questions are brief and primarily relate to your current employment situation. It should take only 3 or 4 minutes to complete. Your response is very important to an accurate representation of statistics as a career. If you choose to complete the survey on the survey's website please:

Go to: [SurveyLink]
Enter this password: SPAIG13
Enter this PIN: [CustomData]

Please note that your assigned password is case sensitive and your PIN is unique. **If you have any difficulty accessing the web survey, please contact Patricia Hall at Georgia Regents University, Biostatistics Consulting and Survey Center at (706) 721-2947 or pthall@gru.edu.** Please note that on January 9, 2013, Georgia Health Sciences University and Augusta State University consolidated to become **Georgia Regents University**.

There are no known risks to you if you decide to participate in this survey. There is no direct benefit to you for participating in this study. The alternative would be not participating in the study. I will not share any information that identifies you with anyone outside my research group, which consists of Patricia Hall and me.

Your participation is voluntary; however we encourage you to make this special survey a priority. There is no penalty should you refuse to answer any question or decide not to participate in the research. Strict security procedures are in place so that your information will be kept confidential. I will do my best to keep your information confidential. All data will be stored in a password-protected electronic format. To help protect your confidentiality, the surveys will not contain information that will personally identify you. Your name will not be associated with any information you provide. The results of this study will be used for scholarly purposes only and will be shared with the ASA. Published data will be summarized by type of organization and geographic region, as well as by academic degree and length of work experience. Contact the Georgia Regents University Office of Human Research Protection at (706) 721-1483 if you have questions or concerns about your rights as a research subject.

Taking the survey indicates that you have read the above information and that you agree to participate.

Thank you very much for your cooperation.

Sincerely,

Barry Nussbaum, D.Sc., Chair
Statistics Partnership of Academe,
Industry & Government (SPAIG) Committee
American Statistical Association

James Dias, Ph.D., Director
Biostatistics Consulting and Survey Center
Department of Biostatistics and Epidemiology
Georgia Regents University

Please note: If you do not wish to receive further emails from us, please click the link below, and you will be automatically removed from our mailing list.

[RemoveLink]

Study ID: Pro00000947: Date Approved: 1/7/2013 Expiration Date: 11/19/2013

APPENDIX C – Descriptive Statistics

Entire Sample Responding (N = 1615)

Quantitative Variables	Not Missing		Missing		Total	
	N	Percent	N	Percent	N	Percent
Part-Time % Effort	121	7.1%	1580	92.9%	1701	100.0%
Salary (Annualized in Thousands)	1701	100.0%	0	0.0%	1701	100.0%
Years Experience	1668	98.1%	33	1.9%	1701	100.0%

Descriptive Statistics for Quantitative Variables

			Statistic
Part-Time % Effort n = 121	Mean		51.93
	95% Confidence Interval for Mean	Lower Bound	47.91
		Upper Bound	55.96
	Median		50.00
	Std. Deviation		22.342
	Minimum		7
	Maximum		90
Salary (Annualized in Thousands) n = 1,1701	Mean		158.98
	95% Confidence Interval for Mean	Lower Bound	152.13
		Upper Bound	165.83
	Median		136.00
	Std. Deviation		144.004
	Minimum		0
	Maximum		3600
Years Experience n = 1,668	Mean		20.37
	95% Confidence Interval for Mean	Lower Bound	19.74
		Upper Bound	21.01
	Median		19.00
	Std. Deviation		13.167
	Minimum		0
	Maximum		74

Quantitative Variables	n	Percentiles				
		10	25	50	75	90
Part-Time % Effort	121	20.00	33.00	50.00	75.00	80.00
Salary (Annualized in Thousands)	1701	75.00	103.00	136.00	180.00	250.00
Years Experience	1668	4.00	9.00	19.00	30.00	37.00

Number Non-Missing and Missing for Categorical Variables

	Full- /Part- Time	Gender	Employer	Highest Degree	Geographic Region	Managerial Responsibility	Application Area or Type of Job	Years Experience
N	1701	1695	1695	1700	1628	1689	1694	1668
# Missing	0	6	6	1	73	12	7	33

Frequency Table for Categorical Variables

		Frequency	Percent
Full-/Part-Time	Full-time	1580	92.9
	Part-time	121	7.1
	Total responded	1701	100.0
	Missing	0	
	Total	1701	
Gender	Female	542	32.0
	Male	1153	68.0
	Total responded	1695	100.0
	Missing	6	
	Total	1701	
Employer	Federal Government	350	20.6
	State or Local Government	64	3.8
	For-Profit Business or Industry	1034	61.0
	Non-Profit Organization	123	7.3
	Self Employed or Private Consultant	117	6.9
	Other	7	.4
	Total responded	1695	100.0
	Missing	6	
	Total	1701	
Highest Degree	Bachelors	70	4.1
	Masters	711	41.8
	Doctorate	919	54.1
	Total responded	1700	100.0
	Missing	1	
	Total	1701	

Frequency Table for Categorical Variables (cont.)

		Frequency	Percent
Geographic Region	South Atlantic	583	35.8
	Middle Atlantic	266	16.3
	East North Central	175	10.7
	Pacific	219	13.5
	New England	111	6.8
	West North Central	89	5.5
	Other	185	11.4
	Total responded	1628	100.0
	Missing	73	
	Total	1701	
Managerial Responsibility	No	1015	60.1
	Yes	674	39.9
	Total responded	1689	100.0
	Missing	12	
	Total	1701	
Years Experience	0-2	97	5.8
	3-5	130	7.8
	6-10	234	14.0
	11-15	242	14.5
	16-25	362	21.7
	26+	603	36.2
	Total responded	1668	100.0
	Missing	33	
	Total	1701	

Frequency Table for Categorical Variables (cont.)

		n	%
Application Area/ Job Type	Pharmaceuticals	471	27.8
	Other Medical/Health-Care Related	357	21.1
	General Consulting	235	13.9
	Surveys/Marketing	109	6.4
	Banking/Finance/Business	56	3.3
	Environment/Health	30	1.8
	Software	42	2.5
	Wildlife/Forestry/Agriculture	25	1.5
	High Tech/Internet Technology/WWW	26	1.5
	Military/Defense/Aerospace	17	1.0
	Natural Resources/Energy	25	1.5
	Engineering/Manufacturing	16	.9
	Insurance	16	.9
	Education	18	1.1
	Consumer Products/Goods	21	1.2
	Economics	13	.8
	Telecommunications	12	.7
	Transportation	10	.6
	Other	195	11.5
	Total responded	1694	100.0
Missing	7		
Total	1701		

APPENDIX D

Salary (Annualized in Thousands)

		n	Percentiles				
			10	25	50	75	90
Total Sample		1701	75.0	103.0	136.0	180.0	250.0
Employer	Federal Government	350	80.0	103.0	124.5	148.0	162.0
	State or Local Government	64	38.5	64.5	88.0	112.5	140.0
	For-Profit Business or Industry	1034	82.5	110.0	145.5	200.0	264.0
	Non-Profit Organization	123	57.5	76.0	119.0	180.0	230.0
	Self Employed or Private Consultant	117	60.0	100.0	150.0	210.0	380.0
	Other	7					
Geographic Region	South Atlantic (DE, DC, GA, FL, MD, NC, SC, VA, WV)	583	80.0	105.0	133.0	160.0	206.0
	Middle Atlantic (NJ, NY, PA)	266	87.0	120.0	174.0	233.0	300.0
	East North Central (IL, IN, MI, OH, WI)	175	73.0	100.0	130.0	172.0	245.0
	Pacific (AK, CA, HI, OR, WA)	219	72.0	100.0	139.0	200.0	275.0
	New England (CT, MA, ME, NH, RI, VT)	111	93.0	117.0	160.0	213.0	289.0
	West North Central (IA, KS, MN, MO, ND, NE, SD)	89	72.5	99.0	122.0	155.0	200.0
	Other (States not listed above)	185	72.0	93.0	125.0	165.0	220.0
Managerial Responsibility	No	1015	71.0	94.5	122.0	155.0	200.0
	Yes	674	96.0	121.0	160.0	220.0	300.0
Gender	Female	542	73.0	99.0	123.0	160.0	206.0
	Male	1153	78.0	107.0	140.0	191.0	260.0
Highest Degree	Bachelors	70	37.5	55.0	84.5	119.0	172.5
	Masters	711	70.0	92.0	120.0	153.5	203.0
	Doctorate	919	98.0	119.5	150.0	200.0	287.5

APPENDIX D (cont.)

Salary (Annualized in Thousands)

		n	Percentiles				
			10	25	50	75	90
Years Experience	0-2	97	47.5	62.0	75.0	90.0	115.0
	3-5	130	58.5	75.0	96.0	116.0	135.5
	6-10	234	76.5	94.5	112.5	140.0	175.0
	11-15	242	93.5	109.0	131.5	170.0	222.0
	16-25	362	95.0	120.0	150.0	200.0	270.0
	26+	603	100.0	126.0	158.0	210.5	285.0
Application Area or Type of Job	Pharmaceuticals	471	108.0	127.5	170.0	230.0	300.0
	Other Medical/Health-Related	357	71.0	93.0	120.0	150.0	200.0
	General Consulting	235	70.0	100.0	130.0	175.0	220.0
	Surveys/Marketing	109	74.0	101.0	130.0	157.5	202.5
	Other	522	70.0	96.0	129.0	165.0	235.0

APPENDIX E

Managerial Responsibility by Experience by Highest Degree

Salary (Annualized in Thousands)

Years Experience	Highest Degree ¹	n	Percentiles				
			10	25	50	75	90
No Managerial Responsibility							
0-5	Masters	86	62.5	69.0	75.0	89.5	115.0
	Doctorate	74	67.0	82.5	102.5	120.0	135.0
6-10	Masters	73	70.5	81.0	96.0	111.0	123.0
	Doctorate	80	93.5	105.5	119.5	140.0	165.0
11-15	Masters	58	74.0	93.0	109.5	127.0	145.0
	Doctorate	63	100.0	110.0	145.0	182.0	225.0
16-25	Masters	83	90.0	102.5	127.5	151.0	180.0
	Doctorate	112	100.0	123.0	146.5	179.0	240.0
26+	Masters	122	78.0	111.5	137.0	165.0	213.0
	Doctorate	187	101.0	130.0	155.5	193.0	277.0
Managerial Responsibility							
0-5	Masters	17		53.5	80.0	106.0	
	Doctorate	18		96.0	117.0	172.0	
6-10	Masters	39	74.5	95.0	120.0	140.0	170.0
	Doctorate	35	99.0	116.0	140.0	180.0	225.0
11-15	Masters	47	96.0	110.0	125.0	155.0	200.0
	Doctorate	64	120.0	140.5	167.5	202.5	280.0
16-25	Masters	59	105.0	130.0	150.0	184.0	263.0
	Doctorate	101	116.0	155.5	200.0	264.0	410.0
26+	Masters	107	94.0	130.0	164.0	215.0	250.0
	Doctorate	164	110.0	147.0	200.0	258.0	375.0

¹There were too few respondents with a Bachelor's degree to include in this table.

APPENDIX F
Bachelor's Highest Degree
Experience

Salary (Annualized in Thousands)

Years Experience	n	Percentiles		
		25	50	75
0 - 2	16	37.5	56.0	74.5
3 - 5	15	53.0	63.0	84.0
6 - 25	18	80.0	90.5	117.0
26+	18	97.0	125.0	170.5
Overall	67	55.0	84.5	119.0

APPENDIX G
Employer by Highest Degree

Salary (Annualized in Thousands)

Employer	Highest Degree	n	Percentiles				
			10	25	50	75	90
Federal Government	Bachelors	16		76.0	110.0	142.5	
	Masters	127	67.0	92.0	115.0	140.0	155.5
	Doctorate	207	95.0	109.5	131.0	154.0	170.0
State or Local Government	Bachelors	5					
	Masters	23	17.5	51.5	70.0	94.0	100.0
	Doctorate	36	60.0	82.5	108.0	123.5	161.0
For-Profit Business or Industry	Bachelors	36	50.0	71.5	86.5	122.0	190.0
	Masters	467	75.0	100.0	125.0	165.0	220.0
	Doctorate	530	107.0	130.0	172.0	230.0	300.0
Non-Profit Organization	Bachelors	11		50.0	54.0	74.0	
	Masters	51	57.5	70.5	98.0	130.0	211.0
	Doctorate	61	93.0	115.0	160.0	210.0	245.0
Self Employed or Private Consultant	Bachelors	2					
	Masters	39	50.0	100.0	130.0	166.0	226.5
	Doctorate	76	60.0	100.0	175.0	250.0	440.0
Other	Bachelors	0					
	Masters	3					
	Doctorate	4					

APPENDIX H - Employer by Application Area or Type of Job by Highest Degree

Salary (Annualized in Thousands)

Employer	Application Area or Type of Job	Highest Degree ¹	n	Percentiles				
				10	25	50	75	90
Federal Government	Pharmaceuticals	Masters	3					
		Doctorate	19		104.0	125.0	142.0	
	Other Medical/ Health-Related	Masters	33	85.5	92.0	107.0	122.0	140.0
		Doctorate	81	103.0	113.5	136.0	154.0	195.0
	General Consulting	Masters	12		114.5	135.5	147.5	
		Doctorate	24	102.0	111.5	133.0	148.0	155.5
	Surveys/ Marketing	Masters	28	89.0	105.0	137.0	151.5	157.0
		Doctorate	16		117.0	140.0	160.0	
	Other	Masters	51	62.0	75.0	108.0	137.0	153.0
		Doctorate	65	81.0	100.0	124.0	155.0	165.0
For-Profit Business or Industry	Pharmaceuticals	Masters	157	100.0	115.0	150.0	195.5	231.5
		Doctorate	252	121.0	150.0	198.0	250.0	325.0
	Other Medical/ Health-Related	Masters	74	75.0	90.0	116.5	155.0	177.0
		Doctorate	61	92.0	120.0	146.0	200.0	250.0
	General Consulting	Masters	74	70.0	87.0	120.0	149.0	200.0
		Doctorate	49	100.0	117.0	155.5	200.0	270.0
	Surveys/ Marketing	Masters	24	65.0	80.5	107.5	167.5	220.0
		Doctorate	20	104.0	115.0	142.5	191.5	229.5
	Other	Masters	135	72.5	90.0	123.0	151.0	200.0
		Doctorate	148	100.0	121.0	151.5	209.0	280.0
Other (State/Local Government, Non-profit Organization, Self Employed, Private Consultant, Other Employers not listed above)	Pharmaceuticals	Masters	12		129.5	145.0	196.5	
		Doctorate	24	100.0	132.5	165.5	250.0	475.0
	Other Medical/ Health-Related	Masters	47	50.0	60.5	75.5	105.0	125.0
		Doctorate	47	79.0	93.0	116.0	169.0	230.0
	General Consulting	Masters	23	66.5	80.0	100.0	144.0	200.0
		Doctorate	44	60.0	100.0	155.0	202.5	250.0
	Surveys/ Marketing	Masters	7					
		Doctorate	7					
	Other	Masters	27	48.0	70.0	100.0	150.0	225.0
		Doctorate	53	70.0	107.0	159.5	200.0	360.0

¹There were too few respondents with a Bachelor's degree to include in this table.