Survey of Leaders of Collaborative Biostatistics Units in Academic Health Centers in the United States

February 12, 2021

Please note: This printout of survey questions is provided to help survey takers prepare to participate in the online survey, so they may gather the necessary information before beginning the online survey. Please do not distribute this document: this is not a data collection instrument for the research project. Thank you for your time and participation!

SURVEY INTRODUCTION

You are invited to participate in a research study. This page includes information about the study and contact information if you have any questions.

WHAT INFORMATION WILL BE COLLECTED BY THIS SURVEY?
We are interested in learning more about the structure of collaborative biostatistics units within academic health centers, and in particular, positions held by leaders of such collaborative units. We would like to understand the size and composition of collaborative teams, their funding structures, and the types of institutional support that they receive. The information collected will serve as the basis for establishing a set of baseline metrics for the collaborative biostatistics community at the national level.

Understanding that descriptive language will differ across teams and institutions, we ask that you answer to the best of your ability and please don't hesitate to contact us for help should you get stuck and need guidance. You will find our contact information at the end of this introduction screen.

Specifically, we are seeking input from the most senior leader in your collaborative biostatistics unit. In settings where leadership includes both faculty and staff, we seek a survey response from the most senior faculty leader. In institutions with multiple collaborative biostatistics units, we would like to hear from senior leaders of each unit. Please respond to this survey if you assume a leadership role in one of the following types of collaborative biostatistics units:

- BERD Core
- Cancer Center Biostatistics Shared Resource
- Center for AIDS Research Biostatistics Core
- Alzheimer's Disease Research Center Core
- Other type of collaborative or consulting biostatistics unit (e.g., Center, Institute, Group, Team, etc.) in an academic health center

HOW LONG WILL IT TAKE ME TO COMPLETE THIS SURVEY?
This survey should take about 20 minutes of your time to complete. Please try to complete the survey in one session. If there is a "Back" button at the bottom of the screen, you may use this to go back and change your answers. Please avoid using your browser's controls to go backwards in the survey.

WHAT SHOULD I KNOW?
Participation is voluntary, and you can stop at any time. We do not anticipate any risks from completing this study. You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don’t want to answer and remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

Information you will need to have on hand to complete the survey:
The survey will include questions about your collaborative unit's distribution of salary funding (e.g., external grants and contracts, institutional funding, etc.) Before you begin the survey, please gather
the following information regarding your unit's team: number of team members in specified roles, each team member's FTE in their specified roles, and the distribution of salary funding that covers the total FTE of your unit's team.

This work has been IRB reviewed (Virginia Tech IRB Protocol #20-819) and results will be submitted for publication in a peer-reviewed journal and presented at national conferences.

CONFIDENTIALITY
Only aggregate level data will be reported. Any data collected in this survey will be kept confidential by the researchers. Your responses are anonymous, so no one can associate your answers back to you. Please do not include your name or other identifying information that can identify you in your responses.

WHO CAN I CONTACT FOR HELP?
if you have any questions or concerns about the survey or experience technical difficulties, please feel free to contact Emily Bezar at emilybezar@vt.edu.

If you have questions regarding your rights as a research participant, please contact the Virginia Tech HRPP Office at 540-231-3732 (irb@vt.edu).

We thank you for your time and contribution to this project.

SURVEY QUESTIONS
Which Cores do you lead? Please select all that apply.
   BERD Core
   Center for AIDS Research Biostatistics Core
   Cancer Center Biostatistics Shared Resource
   Alzheimer's Disease Research Center Core
   None of the above

Is your Core part of a larger collaborative biostatistics Unit (Department, Center, Institute, etc.)?
   Yes
   No

Which word best describes this larger collaborative biostatistics Unit, which contains your Core
   Department
   Center
   Institute
   Group
   Team
   Lab
   Other (please specify) ____________________________________________

My Core is contained by two or more larger collaborative biostatistics Units

Do you also lead the larger collaborative biostatistics Unit that contains your Core?
   Yes
   No

Do you also lead the larger collaborative biostatistics Unit that contains your Core?
   Yes
   No
The following set of questions are about YOU, your education and your career. After you have answered these, you will be asked questions about the Core(s)/Unit that you lead and your role as the leader of those Core(s)/Unit.

What is your gender identity?
- Male
- Female
- Non-binary
- Prefer to self-describe ________________________________
- Prefer not to say

What is your race? Please select all that apply.
- White
- Black or African American
- American Indian or Alaskan Native
- Asian or Pacific Islander
- Other ________________________________
- Prefer not to say

Are you of Hispanic, Latino, or Spanish origin?
- Yes
- No

What is your age?
- 25 or younger
- 26 - 35
- 36 - 45
- 46 - 55
- 56 - 65
- 66 - 75
- 76 or older

For each of your educational degree(s), please indicate the discipline(s) and year(s) in which they were granted. If you have two or more degrees at the same educational level, please enter all the disciplines and years granted, separated by commas. If you did not receive a particular degree, please leave the entry blank.

<table>
<thead>
<tr>
<th>Degree (Please enter discipline)</th>
<th>Year granted (Please enter a number, e.g., 2010)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associate’s</td>
<td></td>
</tr>
<tr>
<td>Bachelor’s</td>
<td></td>
</tr>
<tr>
<td>Master’s</td>
<td></td>
</tr>
<tr>
<td>Doctorate</td>
<td></td>
</tr>
<tr>
<td>Other degree (indicate degree type)</td>
<td></td>
</tr>
</tbody>
</table>

How many years of professional experience do you have in your field? Please include only the number of years (e.g., 15) in your response.

________________________________________________________________
Please indicate your current job title(s) and enter the number of years you have been in the role(s), if applicable. Please select all that apply.

- Professor
- Associate Professor
- Assistant Professor
- Instructor
- Lecturer
- Research Associate
- Department Chair/Head
- Director
- Assistant/Associate Director
- Associate/Vice Dean
- Other role

Please specify the job title for your Other role: ________________

In which School/College is your primary academic appointment?

- Science, Letters and Science
- Liberal Arts and Science
- Medicine
- Public Health
- Pharmacy
- Veterinary Medicine
- Nursing
- Allied Health Sciences
- Business
- Other (please specify) ________________________________

In which department is your primary appointment?

- Biostatistics
- Epidemiology
- Data Science
- Public Health Sciences/Preventive Medicine/Population Health
- Statistics
- Mathematical sciences
- Other basic science department (please specify) ______
- A clinical department (please specify) ______
- Other department (please specify) _______

Do you have a secondary academic appointment at your primary institution?

- Yes
- No

In which School(s)/College(s) is/are your secondary academic appointment(s)? Please select all that apply.

- Science, Letters and Science
- Liberal Arts and Science
- Medicine
- Public Health
- Pharmacy
- Veterinary Medicine
- Nursing
- Allied Health Sciences
- Business
- Other (please specify) ________________________________________
How long have you been leading collaborative biostatistics units? Please provide only the number of years (e.g., 10) in your response. ____________________________________________

Are you on a 9-month, 10-month, 11-month, or 12-month appointment?
9-month
10-month
11-month
12-month
Other (please specify) ____________________________________________

Are you tenured, on a tenure track, or on a non-tenure track?
Tenured
Tenure track
Non-tenure track
Other (please specify) ____________________________________________

Considering all of the activities in which you are involved, estimate how your TIME is distributed across the following categories. Note that we are not asking for your effort % distribution as reported to your institution, but for your estimation of what you actually do with your time on a regular basis.

Please enter a number representing the approximate percentage of your time (e.g., 50) spent for each item. The sum of the ten items should be 100% of your total work week (e.g., if you work 60 hours per week, this percent should reflect the distribution of time across 60 hours).

• Formal teaching : _______
• Student advising, mentoring and thesis/dissertation committee work : _______
• Funded research (grants, foundation funds, internal and external contracts) : _______
• Discipline specific research (methodology, etc.) : _______
• Mentoring on funded research activities : _______
• Research activities that are not funded by any mechanism (grants, foundation funds, internal and external contracts) : _______
• University service : _______
• Professional service (scientific review, board memberships, etc.) : _______
• Administrative Duties : _______
• Other (please specify) : _______
• Total : _______

You have stated that you spend approximately $X\%$ of your time on formal teaching activities.
• Please describe the typical distribution of your time spent on those teaching activities (e.g., of your teaching time, 30% covers core courses, 40% covers elective courses).
• Please describe the typical distribution of your time spent teaching undergraduate vs. graduate courses (e.g., 2 undergraduate courses and 1 graduate course per semester).
• Please also indicate whether you receive discretionary funds for teaching.

________________________________

You have specified that you are the leader of your Core. For the following set of questions, please answer from your perspective as the leader of this Core.

In what year was your Core formally established?
Year your Core was formally established (please enter only the number, e.g., 2004, in the box below): _________________________________
I don’t know
How long have you been leading this Core? Please provide only the number of years (e.g., 10) in your response. ________________________________________________________________

**We are interested in the composition of your Core's leadership team.**
We understand that the leadership team of some Cores may extend across multiple institutions/universities; for this question, we are interested in the leadership team only at your specific institution/university.

Please indicate the number of people in the following leadership roles and the total combined FTE committed to that leadership role for your Core. Please use decimal point notation for FTE, with the unit of measure defined as: 1.0 = full-time effort.

**Here are several examples:**

1) If someone spends 50% of their total work time acting as Director of a Core, then this person has 0.5 FTE committed to the leadership role of Director.

2) If two Assistant/Associate Directors each commit 0.25 FTE to their respective leadership roles, then you would specify 0.5 as the Total combined FTE committed to the role of Assistant/Associate Director.

All boxes should have a response; if none, please enter 0.

| Director | Number of people in the role (if none, enter 0) | Total Combined FTE committed to the role (if none, enter 0; this # should not exceed # in the left-hand column) |
|__________|___________________________________________|__________________________________________________________________________________________|
| Assistant/Associate Director | | |
| Other leadership role(s) (please describe) | | |

**Information about your Core's Team Members and Total Combined FTE**

Considering your whole Core, please select the roles for which you have FTE available (including yourself, if applicable). Please check all that apply.

- Biostatisticians
- Epidemiologists
- Bioinformaticians
- Medical/Clinical Informaticians
- Data Scientists
- Programmers
- Research IT professionals
- Data management professionals
- Other (not including grants and admin support)

**For the questions that will be presented on the following screens, please provide the number of team members funded by your Core and the total combined FTE for each role displayed, categorized by educational level.**
If a person can be counted in more than one role category, count the person only once in the category that most closely aligns with his or her primary role in your Core.

Instructions:
If there is no one in the particular role in an educational category, please enter 0 in both the Number of People and the Total Combined FTE columns.

Please use decimal point notation for FTE, with the unit of measure defined as: 1.0 = full-time effort (e.g., 2 Postdoc biostatisticians each working 0.75 FTE would be entered as 1.5 total combined FTE).

If there are team members in a role, but you do not know their total combined FTE, please enter your best estimate for FTE. Note: If you enter a number in a total combined FTE cell, please make sure the Number of team members in the role is no less than the total combined FTE you have entered.

For each Role you have specified in the preceding question (the roles for which you have FTE available), you will be shown a grid like the one below:

**Your Core's Team Members and their Total Combined FTE:**

<table>
<thead>
<tr>
<th><strong>Number of people in this role</strong> (If none, enter 0)</th>
<th><strong>Total Combined FTE of people in this role</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>PhD Faculty</td>
<td>If none, enter 0. If unknown, use best estimate (this # should not exceed # in the left-hand column)</td>
</tr>
<tr>
<td>PhD Permanent Staff</td>
<td></td>
</tr>
<tr>
<td>Postdocs</td>
<td></td>
</tr>
<tr>
<td>Master's Level Staff</td>
<td></td>
</tr>
<tr>
<td>Graduate Students</td>
<td></td>
</tr>
<tr>
<td>Undergraduate Students</td>
<td></td>
</tr>
</tbody>
</table>

Do you have support for grants management (e.g., grant budget management, proposal coordination, liaison between your Core and your university's Office of Sponsored Programs/Projects) available to your Core? Please select all that apply.

- Yes, within my Core
- Yes, I receive grants management support from outside my Core
- No, I do not have any grants management support

What FTE is committed to your Core for grants management support? Please use decimal point notation for FTE, with the unit of measure defined as: 1.0 = full-time effort.

________________________________________________________________

Briefly describe the responsibilities of your Core's grants management support person.

________________________________________________________________

Do you have administrative support (e.g., project coordination, correspondence, human resources, non grant-related budget management) available to your Core? Please select all that apply.

- Yes, within my Core
- Yes, I receive administrative support from outside my Core
- No, I do not have any administrative support

________________________________________________________________
What FTE is committed to your Core for administrative support? Please use decimal point notation for FTE, with the unit of measure defined as: 1.0 = full-time effort.

________________________________________________________________

Briefly describe the responsibilities of your Core's administrative support person.

________________________________________________________________

Is your Core's grants management and administrative support done by the same person?

Yes

No

Does your Core report evaluation metrics of success obtained in the post-award period?

Yes

No

I don't know

Please specify the post-award evaluation metrics that your Core provides to the NIH. Check all that apply.

- The number of published manuscripts
- The number of submitted manuscripts
- The number of products derived (e.g., open-source software)
- The impact factor of manuscripts
- The number of users who download software
- Other metrics (please specify) __________________________

Please specify the method of data collection used to report these metrics. Check all that apply.

- Core team member follows up with collaborator
- Collaborator is to report back to the Core team
- The use of a database such as PubMed
- Other (please specify) __________________________

Does your Core report evaluation metrics of success derived from the pre-award or proposal development period?

Yes

No

I don't know

Please specify the pre-award or proposal development period evaluation metrics that your Core provides to the NIH. Check all that apply.

- The number of investigators seeking pre-award consultation
- The number of investigators seeking pre-award consultation by rank (e.g., non-faculty, resident, fellow, Assistant, Associate, Full)
- The number of proposals submitted
- The number of proposals awarded
- The number of proposals awarded by type of award (e.g., NIH vs non-NIH or U, P, R)
- Other metrics (please specify) __________________________

Please specify the method of data collection used to report these metrics. Check all that apply.

- The Core team keeps track using a tailored database
- Rely on my institution's database of proposal submissions for external awards
- Rely on my institution's database of proposal submissions for internal awards
- Other (please specify) __________________________
Does your Core report evaluation metrics of success derived from **non-funded, non-pre-award activities** such as providing/reviewing code, providing high level advice on study design or analysis that may or may not result in a manuscript or delivering a short-course?

- Yes
- No
- I don't know

Please specify the evaluation metrics of success from **non-funded, non-pre-award activities** that your Core provides to the NIH. Check all that apply.

- The number of investigators seeking consultation unrelated to a proposal submission
- The number of manuscripts published
- The number of courses or lectures delivered
- Other metrics (please specify) ______________________________________________

Please specify the method of data collection used to report these metrics. Check all that apply.

- The Core team keeps track using a tailored database
- The Core team follows up with collaborator on any publications
- Collaborator is to report back to the Core team on any publications
- Other (please specify) ______________________________________________

Prior to answering the questions that follow, please have in front of you information about the amount of funding for salary that you and your Core's team receive from various funding sources.

Please estimate the percent of YOUR salary currently covered by the following funding sources. Enter a number (e.g., 50) for each item. The sum of the seven items should be 100%.

- Institutional or home department funds : ______
- Non-grant funding from other departments, centers, etc., within your institution : ______
- Funding from your NIH Core(s) : ______
- Funding from other federal grants : ______
- Funding from foundations : ______
- Funding from industry : ______
- Other funding sources (please specify) : ______

**Total must equal 100%**

**Core Leaders who have specified that they also lead a Larger collaborative biostatistics unit are asked the following set of questions (preceded by **)**:

**Please estimate the distribution of current salary funding for your entire team (not including you, nor grants and admin support). Enter a number (e.g., 50) for each item. The sum of the seven items should be 100%.

- Institutional or home department funds : ______
- Non-grant funding from other departments, centers, etc., within your institution : ______
- Funding from your NIH Core(s) : ______
- Funding from other federal grants : ______
- Funding from foundations : ______
- Funding from industry : ______
- Other funding sources (please specify) : ______

**Total must equal 100%**
**As a PI, do you receive any portion of returned indirect (overhead) costs awarded on grants that you've been a part of?**

- Yes
- No
- I don't know
- I am not a PI on any grant

**As a Co-PI, do you receive any portion of returned indirect (overhead) costs awarded on grants that you've been a part of?**

- Yes
- No
- I don't know
- I am not a Co-PI on any grant

**Does your institution have a formula for determining the portion of returned indirect costs that you will receive?**

- Yes
- No
- I don't know

**Please describe the formula for determining the portion of returned indirect costs that you will receive:**

________________________________________________

**Does your larger Unit receive support from your institution for the following items? Please select all that apply.**

- Office/working space
- Computer equipment
- Professional development
- Travel funds
- Funds for publication costs
- Other (please specify) __________________________________________________
- I don't know

**Does your institution specify minimum salary funding requirements for you and/or your Core's team members: e.g., PhD-level team members are required to be 60% funded through external sources (grants, contracts, other institutional departments or centers through MOUs, etc.); Graduate students are required to be 100% funded, etc.?**

**Recognizing that the answers to this question may not be straightforward, please provide your best estimates. Please include only the percentage number in your response.**

<table>
<thead>
<tr>
<th>Are there minimum salary funding requirements for your larger Unit's team members?</th>
<th>If &quot;Yes&quot;, what is the minimum salary funding requirement? Please enter the percentage.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>You, as the Leader of your larger Unit</td>
<td></td>
</tr>
<tr>
<td>PhD level Faculty</td>
<td></td>
</tr>
</tbody>
</table>
You have just specified the minimum salary funding requirements for your larger Unit's team, if any.

Now, please provide information about the CURRENT external funding for your team, by educational level. For example, if you have 3.5 FTE at the PhD level on your team, what percentage of that 3.5 FTE is covered by external funding? If you don't know the exact percentage, please provide your best estimate. Please include only the percentage number in your response.

For this question, please consider "external funding" to include all of the following:
- Non-grant funding from other departments, centers, etc., within your institution
- Funding from NIH Core(s)
- Funding from other federal grants
- Funding from foundations
- Funding from industry
- Other external funding sources

<table>
<thead>
<tr>
<th>Percent of Total FTE Covered by External Funding</th>
<th>Not applicable; no one at this educational level on team</th>
</tr>
</thead>
<tbody>
<tr>
<td>You, as the Leader of your larger Unit</td>
<td>N/A</td>
</tr>
<tr>
<td>PhD level Faculty</td>
<td>N/A</td>
</tr>
<tr>
<td>PhD level permanent staff</td>
<td>N/A</td>
</tr>
<tr>
<td>Postdoc</td>
<td>N/A</td>
</tr>
<tr>
<td>Master's level</td>
<td>N/A</td>
</tr>
<tr>
<td>Graduate student</td>
<td>N/A</td>
</tr>
<tr>
<td>Undergraduate student</td>
<td>N/A</td>
</tr>
</tbody>
</table>
The following section contains questions about your 2020 income/salary from your primary employer.

No individual identifying information will be reported. Only aggregate level data will be reported.

Please note that baseline compensation information for the collaborative biostatistics leadership community does not currently exist. It is not collected in the American Statistical Association’s (ASA) annual Salary Survey.

Collecting salary information in this survey will establish baseline metrics and may benefit you and your collaborative unit in future salary negotiations with your institution. Although we hope you do decide to answer these questions, if you are not comfortable providing this information, please select "I prefer not to answer" in the answer choices that follow. Thank you.

What was your 2020 gross income from your primary academic institution?

Please enter your 2020 gross income

I prefer to provide an income range (options will follow)

I prefer not to answer

Please indicate the range of your 2020 gross income from your primary academic institution.

Less than $50,000
$50,000 to less than $75,000
$75,000 to less than $100,000
$100,000 to less than $125,000
$125,000 to less than $150,000
$150,000 to less than $175,000
$175,000 to less than $200,000
$200,000 to less than $225,000
$225,000 to less than $250,000
$250,000 to less than $275,000
$275,000 to less than $300,000
$300,000 to less than $325,000
$325,000 to less than $350,000
$350,000 to less than $375,000
$375,000 to less than $400,000
$400,000 to less than $425,000
$425,000 to less than $450,000
$450,000 to less than $475,000
$475,000 to less than $500,000
$500,000 or more

Did your total 2020 gross income from your primary academic institution include additional pay (beyond your base annual salary)? Please select all that apply.

No additional pay from primary employer beyond base annual salary
Yes, performance bonus from primary employer
Yes, extra pay for voluntary extra work from primary employer
Yes, extra pay for mandatory extra work from primary employer
Yes, summer salary from grants/contracts
Yes, other additional pay from primary employer (please specify type of pay)

I prefer not to answer
For what percent of your summer time did you receive additional pay? Your response should include only the percentage (e.g. 95) and range from 0-100%. For example, if you worked all summer, enter 100.

Thinking about your 2020 gross income from your primary academic institution: What percent of this gross income was comprised of your base annual salary? Your response should include only the percentage (e.g. 95) and range from 0-100%.

During normal times (i.e., not during this pandemic), do you typically receive an annual salary increase?
- Yes
- No
- Don't know
- I prefer not to answer

What is your typical, pre-COVID annual salary percentage increase? Your response should include only the percentage (e.g. 10) and range from 0-100%.

CONTINUED ON NEXT PAGE
Please specify the importance of the following items as they contribute to YOUR career advancement in your current position (e.g., annual evaluations and promotions):

<table>
<thead>
<tr>
<th>Item</th>
<th>Unimportant</th>
<th>A little important</th>
<th>Moderately important</th>
<th>Very important</th>
<th>Don't know</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funded as a Principal Investigator on an NIH grant (or similar agency)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Funded as a Co-Investigator on an NIH grant (or similar agency)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Funded as key personnel on an NIH grant (or similar agency)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First author on a peer-reviewed publication</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second author on a peer-reviewed publication</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Third author (and beyond, excluding last) on a peer-reviewed publication</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Last author on a peer-reviewed publication</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formal teaching</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduate student mentoring and advising</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>University service</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional service</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (please specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please provide any feedback you may have about this survey:

________________________________________________________________

SURVEY END