**PROGRAM EVALUATION SUPPORT BOILERPLATE**

Shared resources available through the Office of Graduate Education to provide expertise for evaluating the training outcomes of programs include: 1) centralized program outcome tracking; 2) collaboratively developed evaluation tools by a team of program directors and program evaluation advisor; 3) customized evaluation plan consultations with the Director of Professional Development Programs, Dr. Rebekah L. Layton.

1) The UNC Office of Graduate Education continuously tracks and analyzes recruiting outcomes, student productivity and degree completion, and alumni career placement and is committed to publishing this information regularly (https://bbsp.unc.edu/professional-development/career-outcomes/). UNC is a leader in transparency in graduate education and career outcomes of doctoral and post-doctoral trainees in the life sciences, as a member of the NIH Broadening Experiences in Scientific Training (BEST) Consortium and a member of the newly created Next Generation Life Sciences Coalition (http://nglscoalition.org/).

2) Collaboratively developed evaluation tools have been developed using core questions of interest that can be shared and compared across training programs, with the hope of publishing results in online forums (e.g., outcome transparency on program websites), as well as to share best practices in publications as applicable (e.g., trends in aggregate, with identifying information removed). A common evaluation plan has been submitted to the UNC Institutional Review Board as an exempt status program evaluation, and is available to opt-in for any Program Directors on campus who would like to collaborate on evaluations. In accordance with the new funding guidelines, we will conduct evaluation activities in-house, including coordination of existing data/records (e.g., programs, curricula/departments) as well as distributing and analyzing online surveys (e.g., Qualtrics quantitative and qualitative survey questions).

3) Program evaluation efforts will be lead by Dr. Layton, who provides a common resource available to affiliated Basic Biological and Biomedical Science programs through the jointly funded Office of Graduate Education (OGE). Dr. Layton joined the OGE in 2014, and she brings *specific and deep expertise in program evaluation*. Dr. Laytonholds multiple advanced degrees in psychology, and has 10+ years of experience in designing and implementing surveys, and has authored scholarly publications on diversity topics and graduate training, and has expertise in basic and advanced statistical methods to advise directors on experimental design, methods, and appropriate analyses. Dr. Layton’s expertise include principles of effective survey design (psychometrics) and quantitative evaluation. Her specialties include evaluation of survey data using statistical techniques including: univariate and multivariate analysis of variance/covariance, linear regression, logistic regression, survival/failure analyses, principal component factor and factor analyses, and structural equation modeling. She is a published author using a number of these techniques in peer-reviewed literature on career/professional development as well as in the behavioral sciences. Dr. Layton has experience using multiple survey design and administration software platforms including Qualtrics, Survey Monkey, MediaLab/DirectRT, and Inquisit, and is highly proficient in the use of SPSS for statistical analyses, and has familiarity with use of R, JMP, SAS, AMOS, and LISREL. Dr. Layton will provide program evaluation support and will assist Program Directors in creating and adjusting evaluation plans, as well as analyzing and interpreting data/responses.

**EVALUATION PLAN BOILERPLATE**

The [PROGRAM NAME] evaluation plan includes both *formative* and *summative* components. We plan to survey students to assess effectiveness of program elements, satisfaction with training, and skill development. Responses will be used to evaluate and adjust programming annually, as well as to evaluate program outcomes using a pre-/post- comparison on key areas of interest.

We will conduct *formative* annual surveys to assess effectiveness of programming offered (the higher frequency will allow for programmatic adjustments). We will conduct a *summative* evaluation and examine pre-/post- assessments of program outcomes including skill development and student satisfaction with training measured at program entry and upon program exit/completion (to assess the ultimate impact on participants). When practicable, both quantitative and qualitative response options will be included in parallel. Likert-scale questions using similar response-scales will be utilized to reduce burden of participants, with open-response text-box options included to create a richer understanding of the data. Use of quantitative pre/post assessments will allow for more sensitive within-subject comparisons (e.g., individual change-over-time), rather than relying on between-group analyses. This will increase statistical power available to examine questions even with smaller sample sizes to conduct analyses (e.g., independent samples t-tests). In addition, programmatic trends can be examined using analyses of variance (ANOVA) uni/multivariate regression, as appropriate. Faculty surveys and focus groups may also be used to supplement student feedback. We will use the outcomes and response data to decide which program elements to expand, eliminate, or adjust.

In addition, we will examine program data relating to student productivity (publications, fellowships, etc.) and degree completion milestones. Multisource data will be available to combine with each program’s data tracking (e.g., OGE, Graduate School). Furthermore, since multiple programs will be using common metrics, this will increase the availability of data to compare similar/different programmatic elements of interest across programs. If comparative analyses of common or differing program components may be helpful, IRB-approved common data may be used to publish relevant lessons-learned and evidence-based outcomes.

Career outcomes of alumni in scientific leadership positions in academia or the government and private sectors will also be tracked. In support of program outcome transparency, career outcomes will be shared widely both in aggregate for doctoral programs as well as for individual T32 Programs, such that participants may be aware of the historical track record of previous participants when deciding to apply or take part in T32 Programs. A jointly-developed, NIH-funded set of program evaluation tools are available for T32 programs to opt into use of common metrics (IRB# 18-3140), including a core survey of foundational scientific skills as well as customized survey modules which can be adapted to align with program goals (more at: https://tarheels.live/t32programevaluation/; *Developing evidence-based resources for evaluating postgraduate trainees in the biomedical sciences,* PLOS ONE; McLaughlin et al, 2022).

[ADD ANY PROGRAM SPECIFIC EVALUATION TOPICS, QUESTIONS, OR DETAILS]