

FINAL REPORT



DEVELOPING MINORITY BIOMEDICAL RESEARCH TALENT IN PSYCHOLOGY:

A Collaborative and Systemic Approach
for Strengthening Institutional Capacity for
Recruitment, Retention, Training, and Research

"The APA/NIGMS Project" · 1996–2009



AMERICAN
PSYCHOLOGICAL
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OFFICE OF ETHNIC MINORITY AFFAIRS

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EXECUTIVE SUMMARY

This is the final report of Project T36 GM08640, *Developing Minority Biomedical Research Talent in Psychology: A Collaborative and Systemic Approach for Strengthening Institutional Capacity for Recruitment, Retention, Training, and Research*, also known as the **APA/NIGMS Project**. This project, which was administered by the American Psychological Association (APA), was initially funded in 1996 by the Minority Opportunities in Research (MORE) Division of the National Institute of General Medical Sciences (NIGMS). This funding, which totaled approximately \$4 million, ended in July 2009. During this 13-year period, the project developed five collaborative regional training centers, each consisting of three institutions: a major research university, a predominantly minority 2-year institution, and a predominantly minority 4-year institution. Each center engaged in consultant-moderated strategic planning related to implementation of the following training procedures:

- Outreach/orientation
- Engagement
- Academic support and preparation for educational transitions
- Research mentorship

During the 13-year period, more than 635 students were engaged in more than 730 intensive research mentorships with more than 140 psychological researchers, and more than 91 project students entered a doctoral program. The *Final Report* not only describes activities of the last funding period (i.e., 2004–2009) but also highlights the project's major achievements during the 13-year period, as well as lessons learned and associated recommendations that can inform future minority research training efforts.

Project Rationale

The federal government has long recognized that the nation's communities of color have been underserved by biomedical scientists and that ethnic minorities (i.e., people who identify themselves as African American/Black, American Indian/Alaska Native, Asian American/Pacific Islander, or/and Hispanic/Latino) are underrepresented in biomedical research. These realities have become especially problematic given the continuing and increasing racial health disparities that often involve high-risk behaviors and

neurological disorders that could be reduced using the perspectives of psychologists who have both extensive cultural and biomedical knowledge and behavioral/psychological intervention skills.

The dominant federal response to the underrepresentation of ethnic minorities in the biomedical sciences has been to provide research and training grants to ethnic minority students at the doctoral-training and postdoctoral levels. However, this strategy is not working. For example, in 2006, ethnic minorities represented 13% of the psychology workforce in the United States and 21.3% of PhDs awarded in psychology in the United States. Ten years earlier, in 1996, minorities comprised 14.4% of psychology PhD recipients. But despite this 23.5% increase, the future enrollment of such persons would have to nearly triple to keep pace with the steadily growing population of persons of color in the United States. The growing disparity between community needs and the shortage of minority biomedical scientists provided the rationale for the APA/NIGMS Project.

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Project Description

The APA/NIGMS Project sought to increase the number of persons of color in the educational pipeline for biomedical research careers in psychology. The project is distinguished by its emphasis on (a) the development of five **Regional Centers of Excellence in Minority Research Training**, each involving a collaborative partnership among a major research institution, a predominantly minority 2-year institution, and a predominantly minority 4-year institution; (b) **systemic change** of academic cultures and enhancement of capacities to engage minority students effectively in research training; and (c) **pipeline training procedures** to ensure that ethnic minority students have the necessary commitment, skills, and experience to succeed at progressively advanced levels of biomedical research. Consequently, the APA/NIGMS Project was guided by the following hypotheses:

Over the course of a 15-year project period, all participating institutions will progressively demonstrate increased capacity to effectively recruit, retain, and train students of color for biomedical research careers in psychology as indicated through

- initiation of new activities in psychology departments;
- increased numbers of students of color involved in research mentorship experiences, completing degrees in psychology, and pursuing education in psychology at the next level of the educational pipeline;
- student and faculty perceptions of positive project benefits;
- project resource leveraging and institutionalization; and
- broader systemic change in support of minority recruitment, retention, and training.

These hypotheses and their associated objectives were addressed by each of the project's 14 participating institutions through use of specific systemic procedures (institutional partnership development, needs assessment, strategic planning, technical assistance and consultation, demonstration [strategic plan] implementation, assessment and evaluation, product development and dissemination, and institutionalization) and specific pipeline training procedures (outreach/orientation, engagement, academic support and preparation for educational transitions, and research mentorship). During the 13-year period, each of the project's institutions received annual demonstration grants ranging from \$15,000 in 1996/97 to \$24,300 in 2006/07.

Project Outcomes

The following is a partial listing of the project's outcomes during the 13-year period. The project:

- Provided technical assistance to the regional centers, including (a) leadership of three national project conferences, (b) independent project consultation with regional teams at least once per year, and (c) provision of continual information, advice, and support by APA staff.
- Sought aggressively to facilitate recruitment and training of the nation's future minority biomedical/behavioral researchers through dissemination of the project's findings, procedures, and demonstration models. For example, such information was the primary focus of the project's newsletter, *The Pipeline*, which was disseminated to over 2,500 institutions, agencies, and individuals. Project updates routinely appeared in *Communiqué*, the semiannual newjournal of the APA Office of Ethnic Minority Affairs (OEMA), which is disseminated to more than 5,000 persons and institutions, including every psychology department in the United States and Canada.
- Engaged in multimethod, multilevel project documentation and evaluation through its *Diversity Needs of Academic Settings* (DiNAS) pretest assessment ($n = 2,067$), a periodic project evaluation survey, annual institutional progress reports, various types of surveys of student participants, and development of both a standardized strategic plan format and a minimum data set reporting system.
- Documented that increased numbers of minority students at project sites were participating in research mentorships. During the project years 1997/98–2008/09, an average of **61** students per year were involved in a biomedical/behavioral research mentorship, a marked increase from the **31** minority students engaged in a research mentorship in all areas of psychology at the project's participating institutions in the 1996/1997 baseline year. Since the project's inception, a total of 635 (unduplicated) students have engaged in one or more mentored research experiences.
- Increased students' competitiveness for educational/research progression. Since the inception of the project, participating students prepared **493 research poster/paper presentations** and submitted **39 scholarly articles/book chapters** for publication.
- Demonstrated compelling evidence of success in retention, transfer, graduation, and advancement of **students at 2-year community colleges**. Since project initiation:
 - ▶ **57% ($n = 94$)** of 2-year college participants **transferred to a 4-year institution**; most transferred prior to receipt of an AA/AS degree, and nearly **60% of these transferred to a 4-year institution within their regional center**, with 70% continuing to receive intensive research mentorship through the APA/NIGMS Project.

- ▶ **31% ($n = 29$)** of 2-year college participants who transferred to a 4-year institution **earned a BA/BS degree**, and **55% of these** went on to **pursue an advanced degree**. To date, **2 have earned MA degrees**, and **1 has earned a doctoral degree**.
- Demonstrated compelling evidence of success in retention, graduation, and advancement of **students at 4-year institutions**. Since the project's inception:
 - ▶ **458 students** who were initially enrolled at 4-year institutions were engaged in project-**mentored research**, of whom **59% ($n = 271$) earned a BA/BS degree**, while **41% ($n = 187$) were still enrolled** in undergraduate studies in 2008/09.
 - ▶ **54%** (298 out of 552) of all students attending 4-year institutions (including transfer students) **earned a BA/BS degree**.
 - ▶ More than **35% ($n = 60$)** of students who pursued advanced degrees **earned one or more advanced degrees**, including **15 doctoral degrees**.
- Assisted its students in attaining **the following educational/career statuses** (as of 10/31/09): 315 were continuing their undergraduate studies (61 at 2-year institutions, 254 at 4-year institutions); 140 were enrolled in a graduate program (41 in a master's program [27 in psychology], 76 in doctoral programs [54 in psychology, 13 in some other biomedical/behavioral discipline, and 11 in other disciplines]); 23 were enrolled in a professional program (7 in MD programs, 6 in MSW programs, and 8 in other professional areas—e.g., law and public health); 23 had earned terminal MA degrees; 13 had earned professional degrees; and 15 had earned doctoral degrees (7 currently engaged in academia and 6 engaged in other sectors of the biomedical workforce).
- Succeeded in involving more than 25,000 secondary participants (i.e., students who were not engaged in intensive research mentorship but participated in other project activities), thus ensuring a large pool of students for research mentorships and sparking interests in biomedical issues.

The *Final Report* describes these and other outcomes in greater detail as well as the goals, activities, and associated outcomes for the project's most recent 2004–2009 reporting period.

Lessons Learned

The following is a synopsis of lessons learned that are presented in the *Final Report* and related recommendations that may inform policy, advocacy, as well as implementation of minority research training programs, especially those involving institutional partnerships. These lessons learned are derived from information, evaluation, and accomplishment data presented in the *Final Report*.

THE UNIQUE CONTRIBUTIONS OF PSYCHOLOGY TO MINORITY RESEARCH TRAINING

We urge that federal research agencies increasingly recognize the research contributions that can be made by psychologists to biomedical, health, and health disparities issues. Further, we urge that consideration be given to encouraging the increased involvement of psychologists as evaluators and reviewers of minority research training programs.

THE VALUE OF A STRUCTURED PARTNERSHIP PROCESS AND ITS USE OF CONSULTANTS

We urge that consideration be given to increased use of interinstitutional partnerships facilitated by independent consultants as a strategy for increasing minority research training participation.

THE SPECIAL NEEDS OF PARTNERSHIP RESEARCH TRAINING PROJECTS

Recognition of Diversity Among Institutions

We urge that funders of partnership research training programs consider extending supplemental funding to collaborating community colleges and tribal institutions to enable them to reduce teaching loads for project leaders, hire project support staff, and purchase necessary equipment, resource materials, and services, etc.

Importance of Administrator Support

We urge that minority research training programs aggressively seek the support and active involvement of institutional administrators.

Continuity of Project Leadership

We recommend that minority research training partnership programs consider advanced preparation of formal orientation procedures and project operational manuals in anticipation of possible changes in institutional program leadership.

Creative Faculty Incentives

We urge funders of partnership training programs, in consideration of the complexity (and additional workload) involved in partnership and systemic change efforts, to consider the importance of providing funding for such faculty incentives as release time, reduced instructional responsibilities, access to student assistants, or partial summer salary. Should funding restrictions foreclose such consideration, alternative efforts should be made to fund creative nonrecurring incentives.

We urge funders of partnership training programs that involve multiple geographical sites to consider the importance of including funding provisions for biennial projectwide conferences.

SYSTEMIC CHANGE REQUIRES LONG-TERM COMMITMENT

We urge that, as a means for promoting project stability and continuity of effort, partnership projects with systemic emphases that have successfully completed an initial 3-year (or shorter) funding period be awarded (if meritoriously appropriate) continuing grants for 5-year funding periods.

THE IMPORTANCE OF INTERVENTION AT EDUCATIONAL TRANSITION POINTS

We urge consideration of the advisability of both continuing and expanding federal support of comprehensive minority research training efforts that focus on preparing undergraduate students for educational transition and extending such efforts to high schools.

THE VALUE OF ACCOUNTABILITY TOOLS AND PROGRAM EVALUATION

We urge that consideration be given to increasing the requirement for and investment in the development of accountability tools and the conduct of program evaluation of federally funded minority research training programs.

Readers of this Executive Summary are encouraged to review the APA/NIGMS *Final Report* in its entirety to better understand the complexity and richness of the project's procedures, activities, findings, outcomes, and lessons learned.

Questions about the APA/NIGMS Project and its activities and outcomes should be directed to Principal Investigator/Project Director Bertha G. Holliday, PhD, at bhollidaypsy@gmail.com.



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