



**McNair Scholars Program**

# **FACULTY MENTOR HANDBOOK 2013**

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## General Information

### *Program History*

The Ronald E. McNair Post-Baccalaureate Achievement Program was named in honor of Space Shuttle *Challenger* astronaut Dr. Ronald Erwin McNair. McNair was born October 21, 1950, in Lake City, South Carolina. He attended North Carolina A & T State University and graduated Magna Cum Laude. He earned his Ph.D. from the Massachusetts Institute of Technology and soon became recognized as an expert in laser physics.

In 1986, the U.S. Congress provided funding for the Ronald E. McNair Postbaccalaureate Achievement Program in recognition of Dr. McNair, who lost his life in the Space Shuttle *Challenger* accident in January of that year. The Program is funded through the U.S. Department of Education, Higher Education Programs, and is designed to increase the number of **low-income**, **first-generation** and **underrepresented** minority college students who pursue and complete the doctoral degree.

Over 200 universities offer McNair Programs across the country. Each program honors McNair's memory and his dedication to the pursuit of science, knowledge, and personal excellence.

### *Purpose*

The Ronald E. McNair Postbaccalaureate Achievement Program is one of eight federally funded TRIO programs offered within universities and colleges throughout the nation. TRIO programs offer both outreach and academic support services to students from disadvantaged backgrounds that need assistance navigating the academic pipeline from high school to post-secondary education.

The McNair Scholars Program at Northeastern Illinois University is designed to provide **underrepresented**, **low-income**, and **first-generation** students with mentoring from staff and faculty, academic counseling, tutoring, and opportunities to conduct and present research. Through seminars, lectures, and three courses geared to providing information on applying to graduate school, teaching assistantships, and developing a research based thesis, NEIU's McNair Scholars are supported through acceptance and the complete admission process. Scholars are encouraged to continue through the attainment of the Ph.D., which will increase the quantity and quality of faculty of color in institutions of higher learning.

## ***Eligibility Requirements***

Students who intend to pursue a career that requires a Ph.D. and who meet the following criteria may apply to the program. Eligibility requirements include:

- Completion of at least 60 hours
- Senior standing students must have a year remaining at NEIU
- US citizenship or residency
- A minimum 2.8 Grade Point Average
- Status as a first-generation college student with income eligibility and/or a member of a group underrepresented in graduate education

### ***To maintain eligibility, a participant must:***

- Fully participate in all program events and complete all assignments
- Maintain a cumulative 2.8 Grade Point Average (minimum)
- Establish and maintain an appropriate meeting schedule with the faculty mentor
- Comply with all federal, state and local laws and all NEIU regulations and procedures when participating in program activities
- Comply with all McNair Scholars Program requirements, as detailed in the Participation Agreement

## NEIU McNair Scholars Program Objectives

The following objectives were formed to meet the overall project goal of increasing the participation of McNair Scholars in graduate and doctoral studies:

- 28 McNair Program participants will be served each year.
- At least 80% of McNair participants will complete research and scholarly activities that will directly impact their educational progression each academic year.
- At least 66% of McNair Scholars will enroll in a post-baccalaureate program by the fall term of the academic year immediately following completion of their bachelor's degree.
- At least 40% of graduated McNair Scholars will continue graduate programs after the first year.
- At least 6% of McNair Program participants will attain a doctoral degree within ten years of the attainment of the bachelor's degree.

## NEIU McNair Scholars Process Objectives

Below are the Process Objectives for the NEIU McNair Scholar Program. These objectives are relevant in defining the role of faculty mentors:

1. Identify, recruit and select low-income, first-generation, or students from underrepresented groups and ***match them to faculty mentors.***
2. Guide and support scholars as they identify research topics, develop a plan for conducting the research, and complete research projects ***under the direction of faculty mentor.***
3. Review student progress and determine any necessary academic support in a timely manner.
4. Provide the necessary academic and social support to insure the continuation and completion of the baccalaureate degree ***with the assistance of faculty mentors.***
5. Provide assistance in the selection of appropriate graduate programs, and guide the student in the application and acceptance process as a requirement of a seminar on preparing for graduate study. Each scholar will apply to at least four graduate programs.

## Program Services

### *Program activities focus on:*

- Faculty mentorship
- Graduate school advising
- Summer research
- Academic advising
- GRE preparation
- Seminars
- Workshops
- Cultural activities

### *Program Services*

- Academic, career, and personal guidance
- Faculty mentoring
- Library mentoring
- Annual \$2,800 summer research stipend
- Participation in a summer research project
- Opportunities to present and publish research
- Funded conference travel (As budget allows)
- Assistance in applying to graduate school
- GRE preparation workshops and fee waivers
- Application fee waivers for many graduate programs
- Assistance in applying for fellowships, grants, and other financial support
- Graduate school visits
- Workshops to support academic and personal development

### *Seminar courses (three at one credit hour each) for McNair Scholars*

- *Developing a Research-Based Thesis* (Spring semester)
- *Preparing for Graduate School* (Summer semester)
- *College Teaching for TA's* (Fall semester)

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## ***Role of the Faculty Mentor***

The faculty mentor is an important part of the McNair Scholars Program and the student's experience as a McNair Scholar. One of the major roles of the mentor is to guide the student in the conduct of her/his research project from the initial conceptualization, through data collection, writing of a final report and presentation at a symposium and/or professional meeting. Working with the student to get their work published is encouraged.

Mentors assist students with academic advising, provide some level of professional socialization, interaction and support, write letters of recommendation, and otherwise assist the students in the formulation of professional goals related to advanced study. Mentors encourage their McNair Scholars' enrollment in a graduate program the fall immediately following completion of the undergraduate degree.



## Faculty Mentor Areas of Influence

McNair Faculty Mentors work closely with their students and meet with them regularly during their tenure as McNair Scholars. Mentors are encouraged to guide McNair Scholars in these areas:

### Completion of undergraduate degree/participation in McNair Scholars Program

- Academic advising
- Interaction and support
- formulation of professional goals
- Encouragement to attend graduate school

### Research

- Development of a problem statement
- Creation of the research model or design
- Development of a research proposal
- IRB (if necessary)
- The conduct of the research
- Data analysis and write-up of results
- Presentation of research (including practice sessions)
- Communicate successes and challenges to McNair Program Director each semester

### Graduate school

- The identification of potential graduate programs
- The application process
- Attend professional conference with student
- Write letters of recommendation and assist with seeking financial aid
- Encourage Scholars to enroll in a graduate program the fall immediately following completion of the undergraduate degree
- Final selection of a graduate program

### Benefits to faculty mentors

- Opportunity for service to NEIU
- \$500 stipend for research mentorship



# Summer Research Project

## Summer Research Details

### *Proposal*

- Developed during spring seminar
- Mentor guidance
- Apply for IRB

### *Summer session (June & July)*

- Weekly meeting with mentor
- Biweekly meeting with peers and McNair Staff

## Program Documents

### **Scholar summer documents and reports**

- Summer Research Proposal Approval form (must be signed by mentor and submitted to McNair Program Director before student hours can be logged).
- Summer Research Paper Approval form (must be signed by mentor and submitted with the completed research paper and abstract).

### **Mentor documents and report form for Research**

- Program Objectives  
*A list of program objectives for mentor's reference*
- Faculty Mentor Research Contract (for Scholar's Research Project)  
*Must be submitted at the beginning of mentorship*
- Faculty Mentor Research Activity Report (for Scholar's Research Project)  
*Submitted at the end of research*
- Request for Lump Sum Payment Form (obtained from McNair office)  
*University form that will follow the Activity Report*
- Summer Research Proposal Approval Form  
*To be completed by student and signed by mentor upon approval of the proposal*
- Research Paper Approval Form  
*To be completed, signed, and submitted with research paper*

# Writing Better Letters of Recommendation

A handout for faculty

## 1. Be sure you want to recommend this student

- Discuss the student's academic plans and preparation before agreeing to write a recommendation
- Help student choose graduate programs that match interests, skills and preparation
- Consider declining some to do a better job on others

## 2. Get enough data to write a strong letter, including:

- Transcript and/or list of classes in major
- The student's personal statement
- Graded work sample: paper or lab project (for students who were not in your class)
- Résumé or c.v.
- List of honors and awards
- Some idea of what the student does in their spare time
- Required information from the target graduate school
- *Note when student is going to apply and the application deadline(s)*

## 3. List student's basic skills

E.g.: "\_\_\_\_\_ has command of coherent wave optics, Fourier optics, laser physics, lens design, optical metrology, and related areas of physics."

## 4. Describe a particularly successful project

- Find one or more "above and beyond" stories to focus on
- Remember, the candidate needs to be special, out of the ordinary (or, presumably, you shouldn't be recommending him/her)
- Note any positions or forms of departmental service such as proctor, TA, RA, tutor, etc.

## 5. Get personal when appropriate

- State any adversities the student has overcome
- Highlight first generation status, health or family, and special talents (you can be the student's advocate rather than him/her on these issues, which is more sophisticated than having the student address them)
- If you enjoy having this student in your classes, say so and explain why

## 6. Close by predicting the student's success in the program

- "\_\_\_\_\_ is one of the top students I've worked with in recent years"
- "\_\_\_\_\_ has a razor-sharp mind..."
- "This student has tremendous potential..."
- "\_\_\_\_\_ is more than adequately prepared..."
- "I am confident that \_\_\_\_\_ will be an outstanding graduate student and go on to make major contributions in the field through both research and teaching."

## 7. Abandon the form and customize

- When possible, attach a separate letter to describe the student's strengths not addressed on form letters
- Include your and the student's name, perhaps, but no more.
- Be sure to inform them of the separate attachment: "See attached letter addressing these and other issues..."

## Tips for Effective Mentoring

- Work with students to develop short- and long-term research and professional goals.
- Communicate regularly with students about progress on research and any changes in timetables or deadlines.
- Read and return work promptly and comment constructively on it.
- Clarify their expectations and policies.
- Acknowledge that students have responsibilities outside of the academy.
- Know requirements and benchmarks for the student's degree program.
- Help students develop innovative research and dissertation topics.
- Provide the student with opportunities to develop and practice professional skills.
- Inform and advise students about workshops and seminars that might enhance their professional development.
- Help the student develop a marketable professional dossier.
- Treat student respectfully as future colleague, and help student to network.
- Provide encouragement and moral support.

<b>Semester/year</b>	<b>Month</b>	<b>McNair activity/service</b>
<b>Fall/ sophomore junior</b>	August-December	Recruiting Period Scholar Advising
	November	McNair National Conference (Delevan) Mentor identification
	December	Application Deadline SROP presentation Applicant notification
<b>Spring/junior</b>	January-April	Mentorship Research Seminar
	Late January	GRE preparation Scholar/Mentor Meeting
	February	Library workshop UNT National McNair Conference
	March	Power Point workshop McNair writing workshop
	April	Graduation Application for Fall
	Early to Mid May	McNair Annual Dinner Applicant Notification
<b>Summer</b>	June and July	Research project with stipend Mentorship GRE preparation Grad school prep seminar Local grad school visit
	Early August	Graduation Application for Spring
<b>Fall/senior</b>	September - December	Mentorship GRE Tutoring Grad School application process
	August-December	McNair Teaching Seminar
	Early November	GRE testing Graduation Application for Summer
	December	Graduate School applications
	January	Graduate school applications
<b>Spring/senior</b>	January - May	Mentorship Conference travel
	Early April	Graduation Application for Fall
	January - April	Graduate school visits

## McNair Scholars Program Faculty Mentor Research Contract

The faculty mentor will meet with his/her McNair Scholar regularly (weekly meetings are strongly recommended) during the eight-week summer research session to guide data collection, analysis, and presentation of results.

I have read the above statement and I agree to serve as summer research mentor for the McNair Scholar named below.

Name of student \_\_\_\_\_

Name of mentor \_\_\_\_\_

Signature of mentor \_\_\_\_\_

Date \_\_\_\_\_ Office Phone \_\_\_\_\_

Email address \_\_\_\_\_

Academic Department \_\_\_\_\_

*Please return this contract to the McNair Program Office, B 141.*

# McNair Scholars Program

## Faculty Mentor Research Activity Report

**McNair Scholar** \_\_\_\_\_

**Faculty Mentor** \_\_\_\_\_

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Time period \_\_\_\_\_ Total # of Contact Hours \_\_\_\_\_  
(*indicate dates*)

1. Mentoring activities this period (check all that apply):
  - \_\_\_\_\_ Conferences/meetings concerning the research project
  - \_\_\_\_\_ Teaching research concepts or skills
  - \_\_\_\_\_ Career counseling
  - \_\_\_\_\_ Graduate school counseling/advising
  - \_\_\_\_\_ Social activity
  - \_\_\_\_\_ Other (please describe)
2. List any concerns you have about the progress of the project.
3. List any concerns you have about the scholar.
4. List any suggestions for improving any aspect of the summer program overall.

*Please return this report to the McNair Program Office, B 141.*

# McNair Scholars Program

## Summer Research Proposal Approval

Name: \_\_\_\_\_ Discipline: \_\_\_\_\_

- Directions: 1) Use the spaces provided to describe your proposed Summer Research Project  
2) Attach a copy of the research proposal, action plan, and progress report  
3) Ask your mentor to review the proposal and sign the form  
4) Return the signed form and copy of the proposal to the McNair Scholars Program Office.*

### STATEMENT OF THE PROBLEM

*This is the topic your research will explore. State **the problem** in a complete sentence in as few words as possible.*

### HYPOTHESES AND/OR RESEARCH QUESTIONS

*List **the hypotheses** to be tested or state **the research questions** you will ask in seeking a solution to the problem.*

### METHODS OF DATA GATHERING/METHODOLOGY

*Tell how **data** will be gathered to answer the question(s) or test the hypotheses.*

### DATA ANALYSIS PROCEDURES

*Tell how the data will be **analyzed** in order to reach conclusions about the questions or hypotheses.*

### PROJECT ACTION PLAN

*Attach an action plan that includes a **timeline**/list of research **activities** that will allow project completion by the end of the eight-week summer session.*

\_\_\_\_\_  
*Name of Faculty Mentor*

\_\_\_\_\_  
*Signature*

\_\_\_\_\_  
*Date*

\_\_\_\_\_  
*Kim Sanborn, Interim Director*

\_\_\_\_\_  
*Date*

# McNair Scholars Program

**Scholar Name** \_\_\_\_\_

**Discipline** \_\_\_\_\_

## I. TITLE OF PAPER

\_\_\_\_\_  
\_\_\_\_\_

## II. ABSTRACT

*Please attach*

## III.\* PAPER WILL BE SUBMITTED FOR PUBLICATION

\_\_\_\_\_  
*Title of Journal*

\_\_\_\_\_  
*Anticipated Submission Date*

## PAPER WILL BE SUBMITTED FOR PRESENTATION

\_\_\_\_\_  
*Conference Title & Date*

**\* If there are no plans to submit paper for publication or presentation, please explain:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## IV. PAPER APPROVAL

\_\_\_\_\_  
*Name of Faculty Mentor*

\_\_\_\_\_  
*Mentor Signature*

\_\_\_\_\_  
*Date*

\_\_\_\_\_  
*Kim Sanborn, Interim Director*

\_\_\_\_\_  
*Date*



## **Characteristics of First-Generation, Low-income, and Minority Students**

Studies show that first-generation college students are at a disadvantage regarding basic knowledge about college education. Lack of family income and support, educational expectations, and pre-college preparedness also negatively contribute to college level success (Davis 2009; FAME 2008). These students often have family and background characteristics associated with academic risk and attrition, which lead to lower academic performance (NCES 2010). The report is tabulated as follows:

<b>Table 2. Differences among First-Generation and Non-First-Generation Students</b>		
<b>Comparative Factor</b>	<b>First-Generation</b>	<b>Non-First-Generation</b>
Lowest quartile SAT/ACT scores	18.1	19.5
Continued enrollment after 3 years	52%	57%
Enrollment in remedial courses	780	388
Average GPA	2.94	2.98

NCES data suggest that higher levels of academic and social integration are related to higher academic achievements and persistence. These factors are not reflected in the demographics of many NEIU students, as demonstrated in Table 3.

**Table 3: Characteristics of First-Generation Students that are relevant to NEIU:**

<b>Characteristics of First-Generation Students:</b>	<b>Significance</b>	<b>Relevance to NEIU</b>
More likely to work full time <sup>1</sup>	Full time employment leads to lower achievement and retention	About 40% of NEIU students are enrolled part time.
Have lower expectations of earning bachelor's or higher degrees <sup>2</sup>	The level of confidence and academic aspiration directly affects student goals	Hispanics <sup>3</sup> rate their academic ability and intellectual self-confidence average or below
Are more likely to be non-traditional aged	Older students have family and financial obligations that discourage pursuit of educational goals.	The average NEIU student age is 26.2. Average baccalaureate graduate age is 31 years.
Are likely to be from the lowest family income quartile. <sup>4</sup>	Low income students and parents know least about college costs, suggesting little knowledge about graduate level programs and costs.	54% of NEIU students receive financial aid.
Receive less help from their parents in preparing, selecting	Parental involvement in curricular and college planning activities is associated	NEIU's academic support programs provide such

<sup>1</sup> 22% of first-generation students reported working full time while in school vs. the average 9%

<sup>2</sup> 55% of first-generation students compared to 91% students whose parents have bachelor's or higher

<sup>3</sup> Hispanics are the largest NEIU underrepresented group

<sup>4</sup> 41% vs. 18% of students whose parent(s) have bachelor's degrees

and applying for colleges.	with higher enrollment rates.	guidance.
Are less likely to attend research universities (52% vs. 31%).	Research institutions provide more resources and programs that encourage graduate study.	NEIU is a comprehensive institution with few, but a growing number of research opportunities.

Like first-generation status, underrepresented status is also negatively associated with academic performance and persistence nationally (Dervarics 2011; NCES 2007; U.S. Department of Education, 2006). This is reflected in the NEIU student body as shown in Table 4.

**Table 4. Average GPA of NEIU Undergraduate Student by Ethnicity Fall 2011**

White	African American	Hispanic	American Indians
3.12	2.75	2.84	2.87

Attrition among underrepresented students may be attributed to **poor preparation prior to college**. As a commuter school, most NEIU students are from the Chicago Public School (CPS) system (66% of 2010 first year students were CPS graduates). 91% of all CPS students are from underrepresented backgrounds; 42% of CPS schools (207 elementary and 76 high schools) are on academic or low-attendance probation; and over 2/3 of CPS students performed below the national average in a 2009 academic assessment (Chicago Tribune, 2012; Hood and Ahmed-Ullah, 2011). The 2010 mean ACT composite score for all new freshmen at NEIU was 19, which was below the national average of 21.1.

Despite reported poor academic performance among some NEIU students, cadres of committed and hardworking students attend NEIU demonstrating exceptional performance in their college course work. The University has been successful in attracting McNair eligible students.

**Table 5. Characteristics of NEIU Freshman Students (Fall 2010)**

Enhanced ACT Composite Score Mean	19
High School Percent Rank	55

Those students chosen for the McNair Program will be supported through their baccalaureate degree, and will receive assistance for attainment of their graduate degrees. Of the Fall 2010 semester freshmen, 41% of African-American students, 43% of Hispanic students, 49% of Asian students and 54% of Caucasian students had a GPA of 2.75 or above.

## II. Problems in continuing on to graduate study

Both first-generation students and students from underrepresented groups face special problems in continuing on to graduate school. The Graduate Record Exam (**GRE**) score, a requirement for entry into many graduate schools, is challenging for minority students as shown in Table 6. NEIU students score well below the average in all test areas and below the scores of their white counterparts:

**Table 6. GRE General Test Score by Ethnic Group: 2006-07 (U.S. Citizens)**

Group	Verbal	Quantitative	Total	Analytical
African American	395	419	814	3.6
Mexican American	431	485	916	4.0
Other Hispanic	444	498	942	4.0
White	493	562	1055	4.3
Other	501	554	1055	4.3

*FAME Report 2008*

For first-generation students, a typical barrier is lack of knowledge about graduate study (Ishiyama & Hopkins, 2002). This is especially apparent at NEIU, a commuter university where students rarely have opportunities to establish **mentoring relationships** with faculty, or develop campus contacts and social support that result in engagement with academic pursuits and graduate study (Pike & Kuh, 2005). NEIU students rarely participate in research projects and are less likely to develop relationships with faculty that lead to strong recommendations.

## III. Financial problems in completing undergraduate studies

Rising budget deficits have led some states to increase tuition and fees, effectively closing the door on higher education for many students, particularly

Hispanics, who remain among the poorest students (ACE 2004). According to the U.S. Department of Education, *Program Assessment: Ronald E. McNair Post-baccalaureate Achievement Program* of March, 1999, economic need may outweigh the desire for a terminal degree. Despite paying the lowest tuition rate in the state, 64% of NEIU students receive financial aid yet many struggle to finance their college education. The decline in need-based financial aid means that low-income students see greater gaps between cost and financial aid packages (ACE 2004). As a result, many NEIU students (44%) attend part-time in order to work while attending school. Changes in a student’s financial situation can be a cause for “stopping” or dropping out of school. These constraints divert students’ time and attention from studies and activities such as tutoring that are crucial to successful academic development.

**IV. Financial problems in continuing to graduate studies:** The amount and type of financial aid available to graduate students is an important factor influencing both entrance into and completion of graduate education (ACE 2004; Perna, 2004). Receipt of financial aid is positively correlated to enrollment and persistence in graduate school and doctoral degree completion. The level of financial aid varies by academic field with the highest amounts for students in the sciences and the lowest amounts for students in the social sciences, the field in which most minority students pursue a doctoral degree (Mitchell-Kernan, 2005). The climbing cost of graduate education (Table 7) results in greater debt, a trend of special concern for minorities, who are less likely than their majority peers to incur debt for graduate study (Perna, 2004).

**Table 7. Changes in graduate tuition and fees for full-time students 2004-05 and 2009-10**

<b>Graduate Tuition and Fees</b>	<b>Public</b>		<b>Private</b>	
	<b>In State</b>	<b>Out-of-state</b>	<b>Not-for-profit</b>	<b>For-profit</b>
Average 2004-05	\$5,474.6	\$9,079	\$9,963	\$12,097
Average 2009-10	\$8,907.2	\$12,475	11,972	\$12,635
<b>Percentage Change</b>	<b>63%</b>	<b>37%</b>	<b>20%</b>	<b>4%</b>
Median 2004-05	\$4905.0	\$8,640	\$ 8,445	\$11,850

Median 2009-10	\$8,125.5	\$ 11,758	\$10,160	\$11,250
<b>Percentage Change</b>	<b>65.7%</b>	<b>36%</b>	<b>20%</b>	<b>-5%</b>

*Source: Department of Education, National Center for Education Statistics, 2010*

**V. Other problems:** Many students, especially first-generation and/or minority students, **lack the vision** to see exactly what it is they are trying to achieve and what it takes to get there. They may become discouraged when they encounter difficulties and conclude that the problem is within them, rather than the possibility that they have not accessed the appropriate resources. Many first-generation and minority students are **uninformed** about higher education and lack exposure to accurate knowledge about graduate school (Ulloa & Herrera, 2006). Furthermore, there are **few minority role models** to emulate. Nationally, African-Americans compose 5% of full time faculty and Hispanics represent 3% (ACE, 2004). There are few opportunities for minority students to find and be mentored by minority faculty.

**VI. First Generation, low-income and minority population is underrepresented in graduate education**

In the undergraduate/graduate educational pipeline, there are clear differences in enrollment and degree trends among minorities as compared to white students (Cole and Barber, 2003). Table 8 illustrates the under representation of minority students in graduate programs. Possible factors are the small numbers of minorities who major in the arts and sciences and are prepared for graduate study; their choice of career fields with high labor force participation rates after the bachelor’s degree; financial constraints; interest in professional degrees; and lower participation in fields requiring advanced study. The result is that “the pipeline of African Americans and Latinos who might become faculty members is pitifully small and undernourished in many fields.” (ACE, 2004, p1).

**Table 8. Enrollment by ethnicity and level of study in fall 2009**

<b>Graduate Level</b>	<b>Actual</b>	<b>Percentage</b>
<b>Total</b>	<b>20,427,711</b>	<b>100</b>
White, non Hispanic	12,730,780	<b>62.3</b>
<b>Total Underrepresented</b>	<b>7,012,124</b>	<b>34.3</b>
Black, non Hispanic	2,919,826	14.2
Hispanic	2,546,710	12.4
Asian or Pacific Islander	1,337,671	6.5
American Indian/Alaska Native	207,917	1.01

*Source: NCES, Digest of Education Statistics 2010*

Table 9 illustrates the shortages of minority Ph.D. recipients, especially in science, technology, engineering, and mathematics (STEM) disciplines. NEIU offers 37 majors in fields that provide participants to the McNair Scholars Program.

**Table 9. Doctorates awarded to U.S citizens or permanent residents, by ethnicity and major field of study of recipients: 2009**

<b>Fields</b>	<b>Native American</b>	<b>Asian</b>	<b>Black/African American</b>	<b>Hispanic</b>	<b>White</b>
<b>All fields</b>	<b>0.5%</b>	<b>7.3%</b>	<b>7.0%</b>	<b>4.6%</b>	<b>76.5%</b>
STEM	0.4%	10.3%	5.4%	5.0%	<b>76.3%</b>
Social Sciences	0.5%	6.3%	6.8%	7.1%	<b>77.1%</b>
Education	0.8%	3.9%	14.5%	6.9%	<b>74.0%</b>
Health	0.4%	10.3%	5.4%	5.0%	<b>76.6%</b>
Humanities	0.4%	5.2%	4.3%	6.6%	<b>81.4%</b>

There is an urgent need to prepare more minority students for the professorate to better reflect the diversity of the student body (Perna, 2006). Table 9 reflects the under representation of minority faculty.

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