A Profile of the

Ronald E. McNair Postbaccalaureate Achievement Program

1997–1998 THROUGH 2001–2002



U.S. Department of Education
Office of Postsecondary Education
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Ronald E. McNair Postbaccalaureate Achievement Program

1997–1998 THROUGH 2001–2002

Prepared for

U.S. Department of Education
Office of Postsecondary Education
Federal TRIO Programs
2005

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Foreword

To ensure the success of President Bush's education initiative "No Child Left Behind," high-quality postsecondary educational opportunities must be available to all students. In keeping with this goal, the Federal TRIO Programs provide outreach and support programs to assist low-income, first-generation college students in progressing through the academic pipeline from middle school to postbaccalaureate programs.

On behalf of the Federal TRIO Programs, I am pleased to present this report, *A Profile of the Ronald E. McNair Postbaccalaureate Achievement Program: 1997–98 Through 2001–02*. The TRIO Program prepares low-income, first-generation college students and individuals from groups that are underrepresented in graduate education for doctoral studies through involvement in research and other scholarly activities. In addition, this report compares McNair participants with a national sample of students with similar characteristics from the *Baccalaureate and Beyond Longitudinal Study* conducted by the National Center for Education Statistics.

This report is the third in a series of reports that present a national profile of the McNair Program. The previous reports, *A Profile of the Ronald E. McNair Postbaccalaureate Achievement Program: 1998–99* and *A Profile of the Ronald E. McNair Postbaccalaureate Achievement Program: 1999–2000* are available from the Department. Individual project reports, published separately, summarize specific information submitted by each McNair project and provide aggregate information on other McNair projects in the same federal region, and the nation. The performance reports, submitted annually by McNair projects, served as the primary data source for both the individual project reports and the national profile.

We are proud to continue our process for sharing national statistical information on the McNair Program. It is our hope that the collection and dissemination of this information will foster communication aimed at furthering our mission and implementing measures to see how well we are doing. We look forward to continuing to work together to improve program services and increase the number of students who earn doctoral degrees.

Larry Oxendine
Director
Federal TRIO Programs

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Highlights

This report describes the annual report data provided by McNair grantees for program years 1997–98 through 2001–02. For the 2001–02 program year, all 156 McNair projects submitted participant- and program-level data, resulting in a 100 percent response rate. More than 16,772 participants had received services from the Ronald E. McNair Postbaccalaureate Achievement Program in the reporting period between 1997–98 and 2001–02.

Grantees

- In 2001–02, the program had supported 156 grantees, 80 percent of whom were publicly controlled higher education institutions.
- Grantees included 18 percent minority-serving institutions—13 Historically Black Colleges and Universities (HBCUs) and 15 Hispanic-Serving Institutions (HSIs).
- Nine out of ten institutions (92 percent) were doctoral or master's degree-granting and almost two-thirds (65 percent) had full-time equivalent enrollments of 10,000 or more.
- On average, each grantee served 26 students in 2001–02.

Participants

- In 2000–01 and 2001–02, 3,877 and 4,012 students received program services, respectively.
- In both years, more participants were female (69 percent) than male.
- African American students made up 47 percent of the active participants in 2001–02, followed by 24 percent Hispanic/Latino, 18 percent white, and fewer than 5 percent each Asian, American Indian/Alaska Native, Hawaiian/other Pacific Islander.
- In 2001–02, most participants were juniors or seniors in college (25 and 53 percent, respectively).

Services

- In 2001–02, grantees received an average award of approximately $9,500 per participant.
- However, because projects served more students than they were initially funded to serve (26 vs. 24), the average award per actual participant served was approximately $8,900.
- The most common services provided by grantees included academic counseling, seminars, summer internships, and assistance with admissions and financial aid.

- The most popular services for participants were academic counseling, seminars, admission assistance, and financial aid assistance.

Outcomes

- Approximately 40 percent of McNair participants who completed their bachelor's degrees in 2000–01 were accepted into graduate school, 98 percent of those accepted enrolled.
- The percentage of graduates entering graduate school increased each year, from 13 percent in 1998–99 to 39 percent in 2000–01.
- A higher percentage of underrepresented students enrolled in graduate school than did low-income and first-generation students, and a higher percentage of whites and American Indian/Alaska Natives enrolled than did members of other ethnic groups.
- The number of participants who entered graduate programs not only increased each year but also increased with each year after graduation, suggesting that many participants do not enroll in graduate school immediately after graduation.
- In 2000–01, 93 percent of those who enrolled in graduate school immediately after graduation were still enrolled after one year. Of those who graduated in 1999–2000 and enrolled immediately in graduate school, 85 percent were still enrolled after one year, and 60 percent were still enrolled after two years.
- Compared with a nationally representative sample and a demographically similar sample, a slightly higher percentage of McNair participants enrolled in graduate school (10 percent compared with 6.4 and 5.8 percent). However, compared with the same samples, McNair participants persisted less once enrolled in graduate school.
- Although nearly all participants earned bachelor's degrees (95 percent, four years after program participation), whites and Asians were more likely to earn advanced degrees.
- Overall, 16 percent of all participants had earned a master's degree; 4 percent had earned a doctoral or other terminal degree.
- By 2001–02, nearly 500 participants had earned doctorates. Compared to the ethnicity makeup of all participants, slightly higher proportions of whites and Asians earned doctorates.

Chapter 1

Introduction

This report describes the Ronald E. McNair Postbaccalaureate Achievement Program for the five program years 1997–98 through 2001–02. Grantees are required to submit Annual Performance Reports (APRs) to the U.S. Department of Education detailing project-level activities and goals and participant demographics and academic progress. This report, the third in a series of reports describing the McNair Program, presents grantee data from program years 2000–01 and 2001–02 for the first time and includes data from earlier years for comparison purposes. In addition, this report compares McNair participants with a national sample of students with similar characteristics from the *Baccalaureate and Beyond Longitudinal Study* conducted by the National Center for Education Statistics.

Appendix A lists reference information for other publications describing the McNair Program and its participants.

Background and purpose

Funded by the U.S. Department of Education, the McNair Program is one of eight federal TRIO programs that provide educational support and opportunities to students from economically disadvantaged backgrounds. The three original federal programs, from which "TRIO" derived its name, began in the 1960s: Upward Bound (1964), Talent Search (1965), and Student Support Services (1968). The fourth TRIO program, Educational Opportunity Centers, was added in 1972. The Ronald E. McNair Postbaccalaureate Achievement Program, the subject of this report, resulted from the 1986 amendments to the Higher Education Act of 1965. In 1990, the Department of Education created the Upward Bound Math-Science Program to help Upward Bound students recognize and develop their potential to excel in the fields of mathematics and science. TRIO also includes a training program for TRIO directors and staff, authorized in 1976, and the newest program, TRIO Dissemination Partnership, authorized in 1998 to facilitate the replication of successful program practices at institutions and agencies that do not have a federally funded TRIO project.

The goal of the McNair Program is to increase the number of doctoral degrees earned by students from underrepresented populations. The program awards grants to undergraduate institutions for projects to motivate and prepare students from disadvantaged backgrounds with strong academic potential. Grantees work with students through the completion of the undergraduate degree, assisting with graduate school preparation, application, and entrance. Grantees also track students' academic progress through the successful completion of the doctoral degree.

Services provided to McNair participants include the following:

- Research opportunities for college juniors and seniors
- Mentoring
- Seminars and other activities to prepare students for doctoral studies
- Internships for participants who have completed their sophomore year in postsecondary education (with a research stipend of up to $2,800)
- Tutoring
- Academic counseling
- Assistance in securing admission and financial aid for graduate school

Eligible students must be enrolled in an undergraduate degree program at a participating institution. At least two-thirds of all participants must be low-income and first-generation college students.[1] The remaining one-third may consist of members of groups that are underrepresented in graduate education2; currently, this includes those of Hispanic, African American, or American Indian/Alaska Native descent.

Annual award and authorization

As previously noted, the McNair Program is authorized under a 1986 amendment to the Higher Education Act of 1965. The first projects were funded in 1989, with grant competitions currently held every four years. All grants are awarded on a four-year cycle, except for the institutions that score in the top 10 percent of each competition. These grants are awarded for five years.

Table 1.01 describes the annual award to the McNair Program along with information about the number of participants the program was expecting to serve. In program year 1989–90, the McNair Program funded 14 projects that expected to serve 415 students. By program year 2001–02, 156 projects were expected to provide services to 3,774 students. The funding level of the McNair Program increased from a little less than $1.5 million in program year 1989–90 to $35.8 million in program year 2001–02. Even when converted to 2002 dollars (values not displayed in table), the amount expected to be available per participant almost doubled over this time period because the average number of students that each project was funded to serve did not fluctuate widely, ranging between 23 and 30 students.

Because the actual number of participants served increased faster than the number of students the projects were funded to serve over the last three program years, the average amount actually available per participant has decreased slightly (Table 1.02). In program year 1996–97, just more than 2,000 students received services from 99 projects with a total appropriation of $19.8 million for an average of $9,772 available per student. By program year 2001–02, the program served more than 4,000 students at a

[1] A *low-income individual* is one whose family's taxable income for the preceding year did not exceed 150 percent of the federal poverty level. A *first-generation college student* is one whose parents (or single parent) have never completed a baccalaureate degree.

[2] This category initially included women and Asian or Pacific Islanders until the current definition became policy in 1996. Current grantees may seek to include other groups as underrepresented by providing supporting statistical documentation to the secretary of education.

Table 1.01. Annual McNair award, number of grantees, and expected number of program participants: 1989–90 through 2001–02

Program year	Annual program award	Number of awards (grantees)	Average award	Number of participants grantees funded (expected) to serve	Average award per (expected) participant	Average number of (expected) participants per award
1989–90	$1,482,000	14	$105,857	415	$3,571	29.6
1990–91	3,000,000	28	107,143	730	4,110	26.1
1991–92	4,944,000	42	117,714	1,000	4,944	23.8
1992–93	9,576,000	68	140,824	1,700	5,633	25.0
1993–94	9,598,000	68	141,147	1,730	5,548	25.4
1994–95	11,900,000	68	175,000	1,800	6,611	26.5
1995–96	19,080,000	99	192,727	2,460	7,756	24.8
1996–97	19,817,000	99	200,172	2,480	7,991	25.1
1997–98	20,367,000	99	205,727	2,480	8,213	25.1
1998–99	20,774,063	99	209,839	2,469	8,414	24.9
1999–00	32,114,068	156	205,859	3,641	8,820	23.3
2000–01	34,859,043	156	223,455	3,774	9,237	24.2
2001–02	35,785,817	156	229,396	3,774	9,482	24.2

SOURCE: Funding data from the program files of the U.S. Department of Education, Office of Federal TRIO Programs.

Table 1.02. Actual number of participants served, average award per participant, and average number of participants per grantee: 1996–97 through 2001–02

Program year	(Actual) number of participants served	Average award per (actual) participant served	Average (actual) number served by each grantee
1996–97	2,028	$9,772	20.5
1997–98	2,203	9,245	22.3
1998–99	3,121	6,656	20.0
1999–00	3,338	9,621	21.4
2000–01	3,877	8,991	24.9
2001–02	4,012	8,920	25.7

NOTE: The number of participants served is the same as the number of active participants in each year described in Chapter 2. Because APR response rates were less than 100 percent prior to 2000–01, these numbers do not include all participants actually served in those years.

SOURCE: Funding data from the program files of the U.S. Department of Education, Office of Federal TRIO Programs; participant data from the program files of the U.S. Department of Education, Office of Federal TRIO Programs, Ronald E. McNair Postbaccalaureate Achievement Program, Annual Performance Reports.

funding level of $36 million, averaging approximately $8,900 per student. In program year 2001–02, the actual number served was 106 percent of the number of students the program was funded to serve.[3]

[3] Grantees reported serving more students than we describe in this report. According to the numbers reported in the APRs alone, projects actually reported serving 150 percent of the students they were funded to serve. Through conversations with grantee staff and consultation with the TRIO office, we concluded that this over-reporting was likely due to a misunderstanding of the definition of "students served." As such, we include only the participants selected as new or continuing based on participant status in conjunction with prior year participant and enrollment status (resulting in 106 percent instead of 150 percent). See "Future Directions" chapter for further discussion.

The $36 million appropriation for the McNair Program in program year 2001–02 represents about 5 percent of the total appropriation to all TRIO programs in that year. The McNair Program is one of the smaller TRIO programs, but it is the only one that aims to increase the representation of disadvantaged students in graduate school. Table 1.03 describes the characteristics of the 156 grantee institutions for 2001–02. The majority of grantees were public, doctoral degree-granting universities with total full-time equivalent (FTE) enrollments of more than 10,000 students. Twenty-eight grantees were minority-serving institutions, either Historically Black Colleges and Universities or Hispanic-Serving Institutions. Appendix B describes the geographic dispersion of grantee institutions throughout the United States.

Table 1.03. Number and percent distribution of selected grantee characteristics: 2001–02

Characteristics	Number of institutions	Percent of institutions
All	156	100.0
Control		
Public	125	80.1
Private	31	19.9
Average size (FTE enrollment[a])		
<10,000	54	34.6
10,000 to 25,000	65	41.7
>25,000	37	23.7
Carnegie classification		
Baccalaureate – General and Liberal Arts	8	5.1
Master's I and II	50	32.0
Doctoral – Extensive and Intensive	94	60.3
Specialized	3	1.9
Not applicable[b]	1	0.7
Minority institutions[c]		
Historically Black Colleges and Universities	13	8.3
Hispanic-Serving Institutions	15	9.6
Not identified as minority specific	125	80.1
Unknown/Not applicable	3	1.9

[a]Full-time equivalent enrollment.

[b]One grantee was a consortium of institutions of varying size; a Carnegie Classification is not reported for this grantee.

[c]The minority-serving status of two institutions were not reported, and minority status does not apply to the consortium.

NOTE: Percents may not sum to 100% due to rounding.

SOURCE: Program files of the U.S. Department of Education, Office of Federal TRIO Programs and IPEDS College Opportunities On-line, National Center for Education Statistics, U.S. Department of Education, http://nces.ed.gov/ipeds/cool.

Project activities, 1999–2000 and 2001–02

Grantees report student participation in seven authorized activities central to the goals of the McNair Program. To simplify the analysis of the activities, we compared the earliest year for which enough data were available (program year 1999–2000) with the most recent year (program year 2001–02). Although the two years comprise the same 156 grantees, not all grantees provided APR data in 1999–2000. As

such, the comparison is between the 148 grantees (of 156) providing APR data in 1999–2000 and all 156 grantees in 2001–02. (Table 1.04)

In 2001–02, most projects provided the following activities: academic counseling, seminars, summer internships (99 percent), admission assistance (98 percent), financial aid assistance (96 percent), tutorial assistance (87 percent), and other research (81 percent). In addition, grantees offered several other activities, including workshops, test preparation, visits to graduate schools, and opportunities to attend and present at conferences.

Table 1.04. A comparison of program activities: Percent providing project activities and average number of participants, 1999–2000 and 2001–02

	Average number of participants in activity[a]		Percent of institutions providing activity	
	1999–00	2001–02	1999–00	2001–02
Authorized activities				
Academic counseling	24.2	28.2	100.0	99.4
Seminars	22.2	25.1	98.9	99.4
Summer internships[b]	17.0	16.5	96.8	98.7
Admission assistance	18.8	22.2	91.6	98.1
Financial aid assistance	20.0	22.7	85.3	96.2
Tutorial assistance	10.6	12.2	76.8	86.5
Other research[c]	7.0	8.7	65.3	81.4
Other activities				
Conferences, presentations	14.0	15.6	69.2	78.2
Workshops	16.6	18.3	48.7	53.2
Graduate school visits, fairs	16.7	16.5	48.7	51.9
Test preparation	18.3	17.9	48.7	50.0

[a]Data presented in table are based on 148 (of 156) grantees in 1999–2000 and 156 (of 156) grantees in 2001–02.

[b]Summer internships refer only to those research activities that provided the legislated stipend of up to $2,800.

[c]Other research refers to unpaid research activities or those that included compensation from other sources.

NOTE: Most participants receive more than one service and participate in more than one activity and thus may be included in the count for more than one activity. Percentages in this table are of all projects from each reporting year.

SOURCE: Data from the program files of the U.S. Department of Education, Office of Federal TRIO Programs, Ronald E. McNair Postbaccalaureate Achievement Program, Annual Performance Reports.

More students participated in academic counseling than in any other activity, with an average of 28 participants per grantee; the fewest students participated in other research activities, with an average of nine participants per grantee.

Changes between 1999–2000 and 2001–02 were minimal, but this is expected, given that the 156 grantees are the same in both years. The most notable change in program offerings was the increase in the percentage of institutions offering other research activities; in 1999–2000, 65 percent of grantees provided nonfunded research activities, but in 2001–02, 81 percent provided such activities. There were more student participants in 2001–02 than in 1999–2000, so the average number of students per activity was higher. Except for this increase, student participation in the listed activities was relatively constant across both years.

Data described in this report

The data used in this report are provided annually by individual grantees. Over the years, the quality of these data has greatly improved. Response rates for the annual reports increased from 63.6 percent in 1996–97 to 100 percent in 2000–01 and 2001–02. The number of invalid and missing fields decreased from 40 percent for some fields to fewer than 5 percent for the same fields in recent years. Because the 1996–97 data were reported by only 63 of the 99 grantees and contained a high percentage of missing, invalid, and out-of-range values, we use only data reported after 1996–97. This report describes valid data only and therefore the totals reported in the tables may vary. For this report we have excluded missing and invalid data from tables and charts. Appendix C provides detailed information about response rates, missing data, and other data issues.

Chapter 2

Student Participants in the McNair Program, 1997–98 Through 2001–02

This chapter switches the focus from project-level activities to the student participants themselves. McNair participants are examined in three ways. The first approach includes only active McNair participants, describing students who actually received services in each reporting year. The second approach includes new participants only, describing students receiving program services for the first time in each reporting year. Describing participants in these two ways highlights any changes in new participants or patterns in new participant selection over time.

The third approach describes all individuals reported by projects in a given year, including new, continuing, and all former participants.[4] This approach, although consistent with previous McNair reports, is somewhat less meaningful in that the majority of students who are included are not receiving any direct services from the grantee. This is particularly the case in the more recent years as the number of former participants accumulates. By program year 2001–02, active and new participants made up only 24 and 14 percent, respectively, of all participants reported. (Table 2.01)

Table 2.01. Number and distribution of new, active, and all participants, by year: 1997–98 through 2001–02

Program year	New participants				Active participants			All participants
	Number	Percent of all	Percent of active	Percent change	Number	Percent of all	Percent change	Number
1997–98	1,590	38.4	72.2	—	2,203	53.2	—	4,140
1998–99	1,892	21.1	60.6	19.0	3,121	34.9	41.7	8,948
1999–00	2,399	22.2	71.9	26.8	3,338	30.9	7.0	10,816
2000–01	2,208	15.4	57.0	-8.0	3,877	27.1	16.1	14,328
2001–02	2,302	13.7	57.4	4.3	4,012	23.9	3.5	16,772

NOTE: The sum of the number of active and new participants differs from the numbers presented in Table 1 in Appendix C, which displays participant status for each year as reported by grantees. The active and new participants in Table 2.01 (and described in this chapter) do not include all participants reported to be new (or continuing) but include only those who were selected as new or continuing on the basis of reported status in conjunction with prior year participant status and enrollment status.

SOURCE: Data from the program files of the U.S. Department of Education, Office of Federal TRIO Programs, Ronald E. McNair Postbaccalaureate Achievement Program, Annual Performance Reports.

[4] Projects are required to follow *all* students who ever received services at any time from the McNair Program until the time they receive a doctoral degree. The program does not currently allow projects to identify participants who have completed their educations with lesser degrees than the Ph.D. In many cases, this means that a student is reported as being "not enrolled" year after year. Because many of these participants are no longer receiving services from the McNair Program or even making academic progress, the inclusion of all prior participants in the analysis distorts, to some degree, the actual services that projects provide.

Just more than half (53 percent) of the student records reported in 1997–98 were for active participants. By 2001–02, only 24 percent of the participant records describe active participants. The percentage of active participants who are new to the McNair Program decreases over time. In 1997–98, 72 percent of active participants were receiving program services for the first time. By 2001–02, only 57 percent of active students receiving McNair services were in their first year of participation in the program.

Active participants

Active participants are those students that received project services during that year; participants receiving project services for more than one year are included in each year that services are received.[5] In 2001–02, active participants made up approximately 24 percent of all participants described in the APRs. This section describes active participants only. The number of active participants described in each table varies slightly due to either nonreported data or invalid data. Table 2.01 provides the total number of active participants.

Eligibility status

At least two-thirds of the participants served by each project must be low-income and first-generation college students. The remaining one-third may belong to certain groups that are underrepresented in graduate education, presently defined as African American, Hispanic or Latino, and American Indian/Alaska Native. Table 2.02 shows that during the five years for which data are reported, the percentage of low-income and first-generation students participating in McNair was slightly more than 70 percent.

Table 2.02. Percent distribution of active participants, by eligibility status: 1997–98 through 2001–02

	Active participants				
	1997–98	1998–99	1999–00	2000–01	2001–02
Eligibility status					
Low-income and first-generation	72.3	73.2	70.8	70.7	70.4
Underrepresented	27.7	26.8	29.2	29.3	29.6
Total	100.0	100.0	100.0	100.0	100.0
Number of records	2,195	3,119	3,334	3,868	3,977

NOTE: Because the number of participants reported here excludes those with missing or invalid data, the data presented in this table include valid cases only. The totals here may differ from totals presented in other tables.

SOURCE: Data from the program files of the U.S. Department of Education, Office of Federal TRIO Programs, Ronald E. McNair Postbaccalaureate Achievement Program, Annual Performance Reports.

Race/ethnicity

For all years, nearly half of the active participants were African American, approximately 25 percent were Hispanic or Latino, and nearly 20 percent were white. (Table 2.03) The race/ethnicity composition of McNair participants did not change over the five reporting years.

[5] Active participants include those students whom grantees classify as "new" participants and who (a) are not reported in previous years or (b) have a project entry date in the academic year in which they are reported as "new." Active participants also include students classified as "continuing" who are currently enrolled as an undergraduate.

According to eligibility status alone, just fewer than 30 percent of the active participants were reported as belonging to underrepresented groups. However, as can be seen by the distribution of race/ethnicity in Table 2.03 and Figure 2.01, approximately 75 percent of the active participants each year belonged to the three groups underrepresented in graduate education (African American, Hispanic, and American Indian/Alaska Native).

For the purpose of determining eligibility for program services, McNair projects report participants as low-income and first-generation *or* as underrepresented. However, many participants are clearly both

Table 2.03. Percent distribution of active participants, by race/ethnicity: 1997–98 through 2001–02

	Year of active participation				
	1997–98	1998–99	1999–00	2000–01	2001–02
Race/ethnicity					
American Indian/Alaska Native	4.7	4.1	3.9	3.8	4.1
Asian	5.3	5.8	4.5	4.5	4.7
Black/African American	45.4	41.0	47.1	46.0	47.0
Hispanic or Latino	24.8	28.3	23.0	24.8	23.5
White	18.2	19.3	19.1	18.4	17.9
Native Hawaiian or other Pacific Islander	—	—	0.8	0.9	1.0
More than one race/other[a]	1.5	1.6	1.6	1.7	1.8
Total	100.0	100.0	100.0	100.0	100.0
Number of records	2,203	3,115	3,315	3,848	3,993

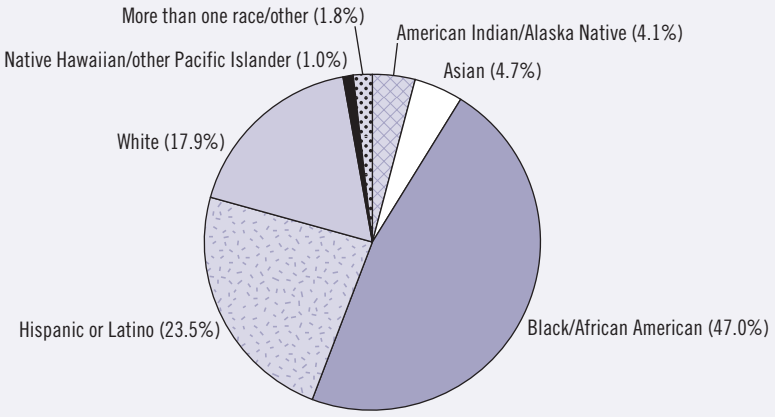
—Not available; Native Hawaiians and Pacific Islanders were included with Asians in program years 1997–98 and 1998–99. To compare across years, add the percentage for Native Hawaiian or Other Pacific Islander to Asian for the program years 1999–2000 through 2001–02.

[a]Original category was "Other"; in 1999–2000, this option was changed to "More than one race reported."

NOTE: The number of participants reported here excludes those with missing or invalid data; thus, the totals may differ from totals presented in other tables. Percents in each column may not sum to 100% due to rounding.

SOURCE: Data from the program files of the U.S. Department of Education, Office of Federal TRIO Programs, Ronald E. McNair Postbaccalaureate Achievement Program, Annual Performance Reports.

Figure 2.01. Percent distribution of active participants, by race/ethnicity: 2001–02



SOURCE: Data from the program files of the U.S. Department of Education, Office of Federal TRIO Programs, Ronald E. McNair Postbaccalaureate Achievement Program, Annual Performance Reports.

underrepresented *and* low-income and first-generation. Indeed, Hispanic and African American students are both underrepresented in graduate education and are less likely than Asian or white students to have parents with college degrees (Nettles & Millett, 1999). Table 2.04 presents the distribution of race/ethnicity by eligibility status for the most recent year's data. This table shows that many underrepresented participants were also low-income and first-generation. At least 62 percent of African Americans, 68 percent of Latinos, and 53 percent of American Indian/Alaska Natives both belonged to ethnic groups underrepresented in graduate education and were low-income and first-generation.

Table 2.04. Percent distribution of active participants, by race/ethnicity and eligibility status: 2001–02

	Eligibility status			
	N	Percent low-income and first-generation	Percent underrepresented	Total
Race/ethnicity				
American Indian/Alaska Native	147	53.1	46.9	100.0
Asian	179	90.5	9.5[a]	100.0
Black/African American	1,872	62.1	37.9	100.0
Hispanic or Latino	934	67.6	32.4	100.0
White	714	94.3	5.7[a]	100.0
Native Hawaiian or other Pacific Islander	40	75.0	25.0	100.0
More than one race/other[b]	72	63.9	36.1	100.0

[a]Although members of these ethnic groups are not considered underrepresented in graduate education, this table describes eligibility status as reported by projects.

[b]Original category was "Other"; in 1999–2000, this option was changed to "More than one race reported."

NOTE: Because the number of participants reported here excludes those with missing or invalid data, the data presented in this table include valid cases only. The totals here may differ from totals presented in other tables.

SOURCE: Data from the program files of the U.S. Department of Education, Office of Federal TRIO Programs, Ronald E. McNair Postbaccalaureate Achievement Program, Annual Performance Reports.

Gender

Approximately two-thirds of the active participants in each year are women, and this proportion increases slightly over time, from 65 percent in 1997–98 to 69 percent in 2001–02 (Table 2.05).

Table 2.05. Percent distribution of active participants, by gender: 1997–98 through 2001–02

	Year of active participation				
	1997–98	1998–99	1999–00	2000–01	2001–02
Gender					
Male	35.3	33.5	32.9	31.1	30.8
Female	64.7	66.5	67.1	68.9	69.2
Total	100.0	100.0	100.0	100.0	100.0
Number of records	2,203	3,118	3,310	3,870	4,004

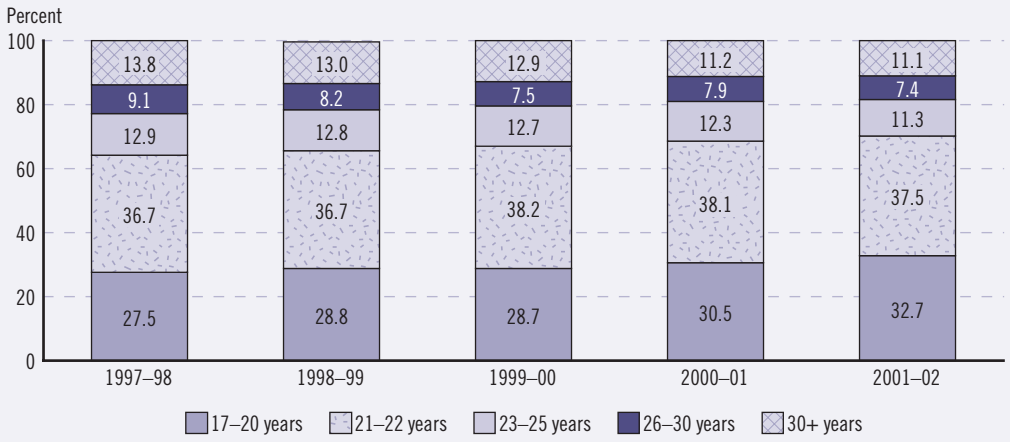
NOTE: Because the number of participants reported here excludes those with missing or invalid data, the data presented in this table include valid cases only. The totals here may differ from totals presented in other tables.

SOURCE: Data from the program files of the U.S. Department of Education, Office of Federal TRIO Programs, Ronald E. McNair Postbaccalaureate Achievement Program, Annual Performance Reports.

Age at project entry

About a third of active participants each year were between the ages of 17 and 20 at project entry. Slightly fewer than 40 percent were between the ages of 21 and 22. More than 10 percent in each year were older than 30. Although there were slight fluctuations from year to year, the overall age distribution was similar across the five years reported (Figure 2.02). The average age of active participants at project entry decreased slightly each year, from 24.2 years in 1997–98 to 23.5 years in 2001–02.

Figure 2.02. Percent distribution of active participants, by age at project entry: 1997–98 through 2001–02



NOTE: Because the number of participants reported here excludes those with missing or invalid data, the data presented in this table include valid cases only. Percents in each stacked bar may not sum to 100% due to rounding.

SOURCE: Data from the program files of the U.S. Department of Education, Office of Federal TRIO Programs, Ronald E. McNair Postbaccalaureate Achievement Program, Annual Performance Reports.

Current year in college

The McNair Program targets doctoral degree-seeking juniors and seniors, and the distribution of grade levels for the active participants reflects this. Approximately 50 percent of active participants in each year were seniors, and approximately 25 percent were juniors. Nearly 15 percent were fifth year/seniors, and just fewer than 5 percent were sophomores (see Table 2.06).

Two McNair projects were funded at graduate-level institutions, accounting for the small proportion of active graduate-level participants. A small percentage of active participants each year were not currently enrolled. This group likely included students who stopped out (are taking a temporary break in otherwise continuous enrollment) or dropped out (have quit with no plans to return) during the year in which they were participating in the McNair Program.

Table 2.06. Percent distribution of active participants, by college grade level: 1997–98 through 2001–02

	Year of active participation				
	1997–98	1998–99	1999–00	2000–01	2001–02
Current college grade					
1st year, never attended	0.3	0.9	0.2	0.3	0.3
1st year, attended before	0.0	0.2	0.7	0.1	0.3
2nd year/sophomore	3.7	3.8	5.4	4.4	4.5
3rd year/junior	25.4	22.6	25.9	24.0	24.9
4th year/senior	49.2	48.0	49.2	50.3	52.5
5th year/other undergraduates	12.7	15.7	12.7	15.7	14.3
1st-year graduate/professional	7.4	6.1	2.9	2.4	1.8
2nd year or beyond graduate/professional	1.5	2.8	0.3	0.2	0.3
Not currently enrolled	—	—	2.7	2.7	1.3
Total	100.0	100.0	100.0	100.0	100.0
Number of records	1,992	2,766	3,196	3,811	3,954

—Not available; this was not an available response option in these reporting years.

NOTE: College grade level is determined by institutional credit hour definitions and not by the number of years of undergraduate enrollment. The number of participants reported here excludes those with missing or invalid data, thus, the totals may differ from totals presented in other tables. Percents in columns may not sum to 100% due to rounding.

SOURCE: Data from the program files of the U.S. Department of Education, Office of Federal TRIO Programs, Ronald E. McNair Postbaccalaureate Achievement Program, Annual Performance Reports.

New participants

This section describes new participants only. New participants are those students who received project services for the first time during a reporting year.[6] In 2001–02, new students accounted for about 57 percent of the active program participants and approximately 14 percent of all reported student records (Table 2.01). The number of new participants described in each table varies slightly due to either nonreported or invalid data (Table 2.01 also provides the total number of new participants).

While approximately 40 percent of the new participants each year participated in the program for a single year, nearly 60 percent received project services for multiple years (Table 2.07). For program years 1997–98 through 1999–2000, approximately 30 percent of new participants remained in the program for two years, and another 15–25 percent remained involved with the program and received services for three years or longer.

[6] New participants were those who were not present in previous year's data and (a) whose participant status was "new" or (b) whose project entry dates indicated they were new to the McNair Program in the year they were first included in the APR.

Table 2.07. Percent distribution of new participants, by length of participation: 1997–98 through 2001–02

	New participants				
	1997–98	1998–99	1999–00	2000–01	2001–02
Length of participation					
Single year	43.5	47.2	40.4	41.8	100.0
Multiple years	56.5	52.8	59.6	58.2	†
Two years	32.3	30.4	33.8	58.2	†
Three years	15.2	14.3	25.5	†	†
Four years	6.5	7.9	†	†	†
Five or more years	2.6	†	†	†	†
Number of records	1,590	1,892	2,399	2,175	2,254

†Not applicable; not enough time has passed to determine cell value.

NOTE: The number of participants reported here excludes those with missing or invalid data; thus, the totals may differ from totals presented in other tables. Percents in each column may not sum to 100% due to rounding.

SOURCE: Data from the program files of the U.S. Department of Education, Office of Federal TRIO Programs, Ronald E. McNair Postbaccalaureate Achievement Program, Annual Performance Reports.

Eligibility status

Approximately 70 percent of new participants were low-income and first-generation students. This percentage remained constant across reporting years and is consistent with program eligibility requirements, ranging from 70 to 74 percent (Table 2.08).

Table 2.08. Percent distribution of new participants, by eligibility status: 1997–98 through 2001–02

	New participants				
	1997–98	1998–99	1999–00	2000–01	2001–02
Eligibility status					
Low-income/first-generation	71.8	73.5	69.9	70.1	69.5
Underrepresented	28.2	26.4	30.1	29.9	30.5
Total	100.0	100.0	100.0	100.0	100.0
Number of records	1,585	1,891	2,396	2,203	2,270

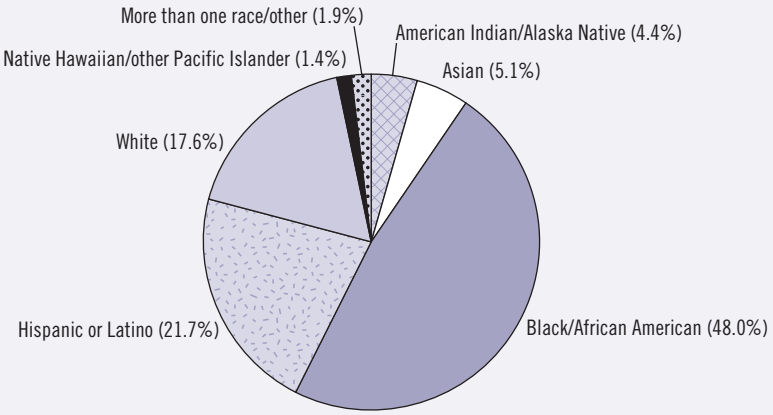
NOTE: The number of participants reported here excludes those with missing or invalid data; thus, the totals may differ from totals presented in other tables.

SOURCE: Data from the program files of the U.S. Department of Education, Office of Federal TRIO Programs, Ronald E. McNair Postbaccalaureate Achievement Program, Annual Performance Reports.

Race/ethnicity

In 2000–01, the most recent reporting year, slightly fewer than half of new participants were black or African American, a little more than one-fifth were Hispanic or Latino, and slightly fewer than one-fifth were white (Figure 2.03). These proportions were relatively similar across the years, although some fluctuations occurred (Table 2.09).

Figure 2.03. Percent distribution of new participants, by race/ethnicity: 2001–02



SOURCE: Data from the program files of the U.S. Department of Education, Office of Federal TRIO Programs, Ronald E. McNair Postbaccalaureate Achievement Program, Annual Performance Reports.

Table 2.09. Percent distribution of new participants, by race/ethnicity: 1997–98 through 2001–02

	New participants				
	1997–98	1998–99	1999–00	2000–01	2001–02
Race/ethnicity					
American Indian/Alaska Native	5.5	3.9	3.5	4.0	4.4
Asian	5.8	6.0	4.5	4.7	5.1
Black/African American	43.3	40.8	48.8	45.6	48.0
Hispanic or Latino	24.4	27.4	21.7	24.8	21.7
White	19.5	20.4	18.9	18.5	17.6
Native Hawaiian or other Pacific Islander	—	—	0.5	0.7	1.4
More than one race/other[a]	1.5	1.5	2.0	1.7	1.9
Total	100.0	100.0	100.0	100.0	100.0
Number of records	1,590	1,888	2,380	2,195	2,293

—Not available; Native Hawaiians and Pacific Islanders were included with Asians in 1997–99. To compare across years, add the percentage of Native Hawaiian or Other Pacific Islander to Asian for the years 1999–2002.

[a]Original category was "Other;" in 1999–2000 this option was changed to "More than one race reported."

NOTE: The number of participants reported here excludes those with missing or invalid data; thus, the totals may differ from totals presented in other tables. Percents in each column may not sum to 100% due to rounding.

SOURCE: Data from the program files of the U.S. Department of Education, Office of Federal TRIO Programs, Ronald E. McNair Postbaccalaureate Achievement Program, Annual Performance Reports.

Table 2.10 describes the race/ethnicity and eligibility status for new participants. The proportions of low-income and first-generation and underrepresented new participants were nearly identical to the active participants (Table 2.04). Of the new participants in 2001–02, 62 percent of African Americans, 66 percent of Latinos, and 51 percent of American Indian/Alaska Natives were also low-income and first-generation in addition to being underrepresented in graduate education.

Table 2.10. Percent distribution of new participants, by race/ethnicity and eligibility status, 2001–02

	Eligibility status			
	N	Percent low-income and first-generation	Percent underrepresented	Total
Race/ethnicity				
American Indian/Alaska Native	82	51.2	48.8	100.0
Asian	109	87.2	12.8[a]	100.0
Black/African American	1,098	61.7	38.3	100.0
Hispanic or Latino	496	65.5	34.6	100.0
White	402	94.3	5.7[a]	100.0
Native Hawaiian or other Pacific Islander	31	77.4	22.6	100.0
More than one race/other[b]	43	62.8	37.2	100.0

[a]Although members of these ethnic groups are not considered underrepresented in graduate education, this table describes eligibility status as reported by projects.

[b]Original category was "Other;" in 1999–2000, this option was changed to "More than one race reported."

NOTE: The number of participants reported here excludes those with missing or invalid data, thus, the totals may differ from totals presented in other tables. Percents in each row may not sum to 100% due to rounding.

SOURCE: Data from the program files of the U.S. Department of Education, Office of Federal TRIO Programs, Ronald E. McNair Postbaccalaureate Achievement Program, Annual Performance Reports.

Gender

As Table 2.11 shows, about two-thirds of new participants were female. This number increased slightly over time, from 65 percent in 1997–98 to 69 percent in 2001–02.

Table 2.11. Percent distribution of new participants, by gender: 1997–98 through 2001–02

	New participants				
	1997–98	1998–99	1999–00	2000–01	2001–02
Gender					
Male	34.6	33.2	32.4	31.0	30.9
Female	65.4	66.8	67.6	69.0	69.1
Total	100.0	100.0	100.0	100.0	100.0
Number of records	1,590	1,889	2,374	2,207	2,299

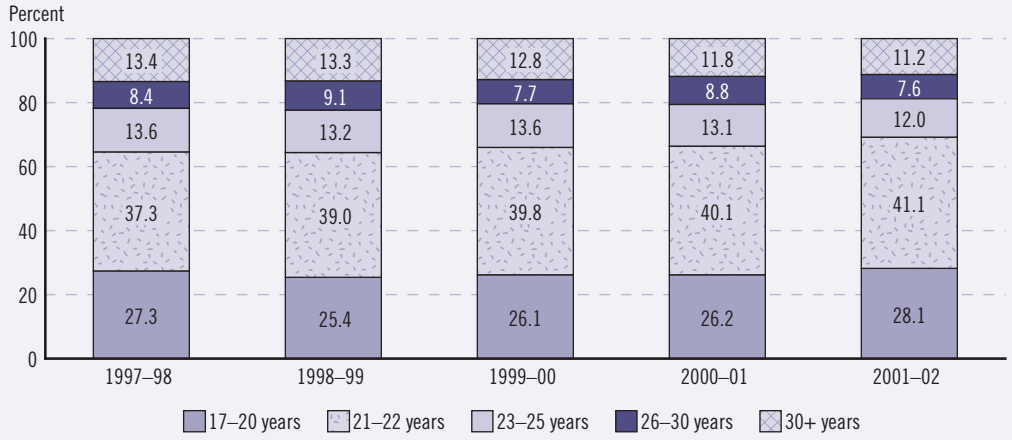
NOTE: The number of participants reported here excludes those with missing or invalid data; thus, the totals may differ from totals presented in other tables.

SOURCE: Data from the program files of the U.S. Department of Education, Office of Federal TRIO Programs, Ronald E. McNair Postbaccalaureate Achievement Program, Annual Performance Reports.

Age at project entry

The percentage of new participants in 2001–02 falling into the youngest age category was similar to that reported in earlier years. At the time they began participating in a McNair project, less than one-third of the participants, 28 percent, were between the ages of 17 and 20. In 1997–98, 27 percent were in this age range at project entry (Figure 2.04). The average age at project entry for new participants varied little each year, ranging from 23.7 in 2001–02 to 24.1 in 1997–98 and 1998–99.

Figure 2.04. Percent distribution of new participants, by age at project entry: 1997–98 through 2001–02



NOTE: The data presented in this table include valid cases only. Percents in each stacked bar may not sum to 100% due to rounding.

SOURCE: Data from the program files of the U.S. Department of Education, Office of Federal TRIO Programs, Ronald E. McNair Postbaccalaureate Achievement Program, Annual Performance Reports.

Current year in college

Of the students receiving McNair services for the first time, slightly fewer than one-half were fourth year/seniors, and approximately one-third were third year/juniors (Table 2.12). A few participated in graduate-level projects, but these accounted for a small proportion of all new participants. A small percentage of new participants in each year were not currently enrolled at the end of the academic year in which they began participating in the McNair Program.

Project entry date

Students begin participation in McNair projects at three peak times: at the beginning of both semesters (January and October) and in the spring. Of the new participants in 2000–01 and 2001–02, 43 and 41 percent, respectively, entered each spring (March through June) just prior to the onset of summer research activities; 12 and 13 percent entered at the beginning of second term in January; and 21 percent each year entered in the early fall term (October).

Table 2.12. Percent distribution of new participants, by college grade level: 1997–98 through 2001–02

	New participants				
	1997–98	1998–99	1999–00	2000–01	2001–02
College grade					
1st year, never attended	0.1	1.4	0.3	0.4	0.4
1st year, attended before	0.0	0.1	1.0	0.1	0.4
2nd year/sophomore	4.7	4.2	6.7	6.3	6.3
3rd year/junior	29.2	27.4	29.8	30.8	32.7
4th year/senior	44.8	43.5	47.7	44.2	48.9
5th year/other undergraduates	9.5	10.1	6.9	9.5	6.2
Graduate/professional	11.8	13.3	4.1	4.2	3.1
Not currently enrolled	—	—	3.5	4.4	2.0
Total	100.0	100.0	100.0	100.0	100.0
Number of records	1,481	1,771	2,344	2,180	2,292

—Not available; this was not an available response option in these reporting years.

NOTE: College grade level is determined by institutional credit hour definitions and not by the number of years of undergraduate enrollment. The number of participants reported here excludes those with missing or invalid data; thus, the totals may differ from totals presented in other tables. Percents in each column may not sum to 100% due to rounding.

SOURCE: Data from the program files of the U.S. Department of Education, Office of Federal TRIO Programs, Ronald E. McNair Postbaccalaureate Achievement Program, Annual Performance Reports.

All project participants, 1997–98 through 2001–02

The following description of all project participants includes all cases on which grantees report. These include active (new and continuing) and all prior-year participants tracked by each project. Because grantees must track every participant until he or she obtains a doctoral degree, the data described here include all students served by all funded projects over the past five years, except for those who have earned a doctoral degree. Every participant is reported every year, beginning with the first year of participation and ending with receipt of a doctoral degree. Once students earn a doctorate, they are no longer tracked or included in the annual performance reports. Previous program reporting described all participants, and we provide this section here for comparison to previous reports.

This section describes all participants reported in each year. The number of active participants described in each table varies slightly due to either nonreported data or invalid data. Table 2.01 provides the total number of active participants.

Eligibility status

More than 70 percent of all participants were low-income and first-generation students. This surpassed the requirement that at least two-thirds of participants be low-income and first-generation. Table 2.13 describes participant eligibility status.

Table 2.13. Percent distribution of all participant records, by eligibility status and reporting year: 1997–98 through 2001–02

	All records in reporting year				
	1997–98	1998–99	1999–00	2000–01	2001–02
Eligibility status					
Low-income and first- generation	72.1	72.3	71.8	71.6	71.8
Underrepresented	27.9	27.7	28.2	28.4	28.3
Total	100.0	100.0	100.0	100.0	100.0
Number of records	4,130	8,925	10,803	14,312	16,722

NOTE: The number of participants reported here excludes those with missing or invalid data; thus, the totals may differ from totals presented in other tables. Percents in each column may not sum to 100% due to rounding.

SOURCE: Data from the program files of the U.S. Department of Education, Office of Federal TRIO Programs, Ronald E. McNair Postbaccalaureate Achievement Program, Annual Performance Reports.

Race/ethnicity

Slightly fewer than 50 percent of all participants were black or African American, nearly 25 percent were Hispanic or Latino, and approximately 20 percent were white (Table 2.14).

Table 2.14. Percent distribution of all participant records, by race/ethnicity and reporting year: 1997–98 through 2001–02

	All records in reporting year				
	1997–98	1998–99	1999–00	2000–01	2001–02
Race/ethnicity					
American Indian/Alaska Native	4.1	3.9	3.9	3.7	3.7
Asian	4.2	6.1	5.8	5.3	5.7
Black/African American	47.8	40.2	43.9	44.1	44.3
Hispanic or Latino	19.7	25.4	23.1	24.0	23.8
White	23.0	22.8	21.4	21.0	20.4
Native Hawaiian or other Pacific Islander	—	—	1.2	1.1	1.2
More than one race/other[a]	1.2	1.7	0.7	0.8	1.0
Total	100.0	100.0	100.0	100.0	100.0
Number of records	4,138	8,937	10,786	14,279	16,725

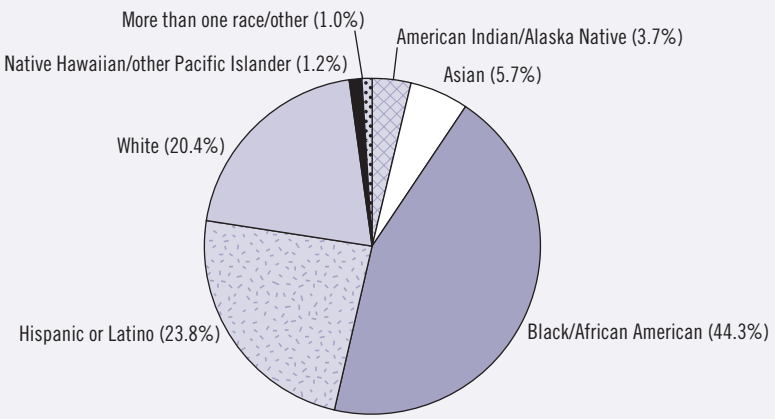
—Not available; Native Hawaiians and Pacific Islanders were included with Asians in 1997–99. To compare across years, add the percentage of Native Hawaiian or Other Pacific Islander to Asian for the years 1999–02.

[a]Original category was "Other;" in 1999–2000, this option was changed to "More than one race reported."

NOTE: The number of participants reported here excludes those with missing or invalid data; thus, the totals may differ from totals presented in other tables. Column percents may not sum to 100% due to rounding.

SOURCE: Data from the program files of the U.S. Department of Education, Office of Federal TRIO Programs, Ronald E. McNair Postbaccalaureate Achievement Program, Annual Performance Reports.

Figure 2.05. Percent distribution of all participants, by race/ethnicity: 2001–02



SOURCE: Data from the program files of the U.S. Department of Education, Office of Federal TRIO Programs, Ronald E. McNair Postbaccalaureate Achievement Program, Annual Performance Reports.

Gender

The majority of McNair participants were female, and their percent share increased slightly over time. In 1997–98, 65 percent of all participants were female. In 2001–02, 67 percent were female.

Table 2.15. Percent distribution of all participant records, by gender and reporting year: 1997–98 through 2001–02

	All records in reporting year				
	1997–98	1998–99	1999–00	2000–01	2001–02
Gender					
Male	35.5	34.7	34.1	33.5	33.3
Female	64.5	65.3	65.9	66.5	66.7
Total	100.0	100.0	100.0	100.0	100.0
Number of records	4,138	8,941	10,691	14,316	16,755

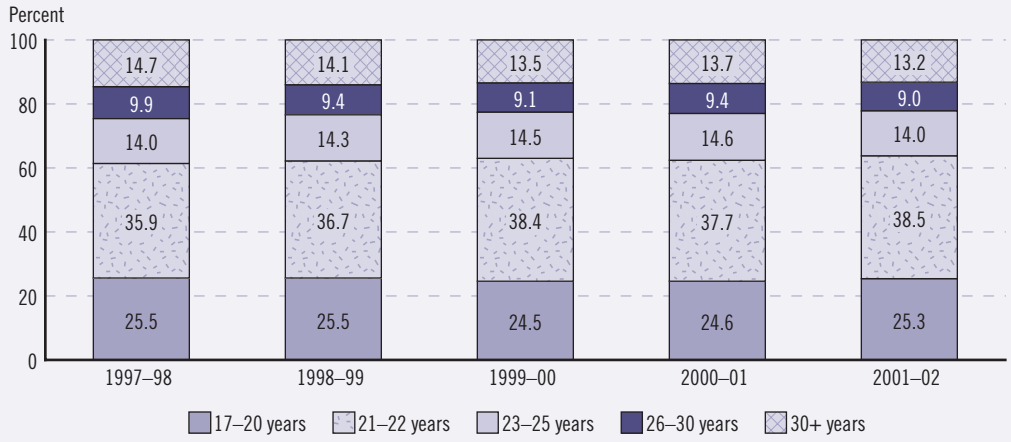
NOTE: Because the number of participants reported here excludes those with missing or invalid data, the data presented in this table include valid cases only. The totals here may differ from totals presented in other tables.

SOURCE: Data from the program files of the U.S. Department of Education, Office of Federal TRIO Programs, Ronald E. McNair Postbaccalaureate Achievement Program, Annual Performance Reports.

Age at project entry

In 2001–02, a quarter of all participants were between the ages of 17 and 20; nearly 40 percent were between the ages of 21 and 22. For all participants, the population did not change much from year to year (because each year differed from the previous year only by the addition of the relatively few new participants). As a result, the average age at project entry for all participants varied little across years (from 24.1 years of age in 2001–02 to 24.4 in 1997–98).

Figure 2.06. Percent distribution of all participants, by age at project entry: 1997–98 through 2001–02



NOTE: Because the number of participants reported here excludes those with missing or invalid data, the data presented in this table include valid cases only. Percents in each stacked bar may not sum to 100% due to rounding.

SOURCE: Data from the program files of the U.S. Department of Education, Office of Federal TRIO Programs, Ronald E. McNair Postbaccalaureate Achievement Program, Annual Performance Reports.

Current year in college

In 2001–02, slightly fewer than 30 percent of all McNair participants were enrolled in a graduate program, and another third were not currently enrolled in an undergraduate or graduate program (Table 2.16). In any year only about 1 percent of all students tracked had an earned doctorate, and approximately 3 percent had earned other terminal degrees.

Summary

In 2001–02, the McNair Program had 4,012 active participants. Of those participants, 2,302 were new to the program and received services for the first time. Fifty-seven percent of the active participants and 14 percent of all participants were new in 2001–02. Twenty-four percent of all students reported in the APRs were active and currently receiving program services. For 1997–98 through 2001–02, approximately 40–47 percent of new participants each year were involved with the McNair Program for a single year, approximately 30–58 percent received services for two years, and approximately 25 percent received services for three or more years.

Table 2.16. Percent distribution of all participant records, by college grade level and reporting year: 1997–98 through 2001–02

	All records in reporting year				
	1997–98	1998–99	1999–00	2000–01	2001–02
Current college grade					
1st year, never attended	0.2	0.7	0.1	0.1	0.1
1st year, attended before	0.0	0.7	0.3	0.1	0.1
2nd year/sophomore	2.7	2.7	2.0	1.5	1.4
3rd year/junior	17.3	11.9	9.7	8.6	7.7
4th year/senior	35.3	26.7	20.5	19.1	18.0
5th year/other undergraduates	11.7	12.4	6.9	7.2	6.2
1st year graduate/professional	17.1	17.0	10.7	10.3	10.4
2nd year graduate/professional	9.7	13.4	8.8	8.4	8.2
3rd year graduate/professional	4.4	7.5	4.8	4.5	4.7
Beyond 3rd-year graduate/professional	1.8	7.1	4.7	5.0	5.9
Completed doctoral program	—	—	1.0	1.1	1.3
Completed other terminal degree program	—	—	2.3	2.8	3.6
Not currently enrolled	—	—	28.2	31.3	32.4
Total	100.0	100.0	100.0	100.0	100.0
Number of records	3,047	6,330	9,377	12,700	14,840

—Not available; this was not an available response option in these reporting years.

NOTE: College grade level is determined by institutional credit hour definitions and not by the number of years of undergraduate enrollment. The number of participants reported here excludes those with missing or invalid data; thus, the totals may differ from totals presented in other tables. Percents in each column may not sum to 100% due to rounding.

SOURCE: Data from the program files of the U.S. Department of Education, Office of Federal TRIO Programs, Ronald E. McNair Postbaccalaureate Achievement Program, Annual Performance Reports.

There was little difference among the types of participants, although the percentage of new and active participants who were white decreased slightly over time. In general, just under half of McNair participants were African American, approximately one-quarter were Hispanic or Latino, and nearly one-fifth were white. Approximately 5 percent of participants were Asian; slightly less were American Indian/Alaska Native; and only 1 percent were Hawaiian or Pacific Islander. New participants were most often juniors and seniors in college, whereas active participants followed a similar pattern but with a smaller portion of juniors and a higher proportion of fifth-year undergraduates. Consistently, more than 70 percent of participants were low-income and first-generation. Approximately one-third of McNair participants were male; this percentage decreased slightly over time. Although the average ages at project entry were similar, slightly more of the new and active participants were 17 to 20 years old at project entry than were all participants. More than half of the students from ethnic groups underrepresented in graduate education were also low-income and first-generation.

For all participants, the population did not change much from year to year (because each year differed from the previous year only by the addition of the relatively few new participants). As a result, overall recruiting patterns showed little change over time. Although projects may be recruiting younger students and fewer whites and males, these differences are small.

Chapter 3

Program Outcomes and Impact

The ultimate measure of McNair Program success is a doctoral degree. However, obtaining a doctorate can take, on average, from 6.3 years for the physical sciences to 19.2 years for education (Kerlin, 1995). Although not enough time has elapsed for many McNair participants to obtain this degree, a number of interim indicators provide measures of project success in moving participants toward this goal. Specifically, measures of student progression toward the doctoral degree, or persistence, can be a reasonable proxy measure. This chapter describes McNair Program outcomes through students' enrollment and degree status and is organized in chronological order, describing outcomes as participants obtain baccalaureate degrees, gain acceptance into graduate programs, and progress through those programs in pursuit of doctoral degrees. For additional context, we compare the graduate school persistence of McNair participants with that of a national sample.

A note concerning data quality

The analyses in this chapter include participants from program years 1997–98 through 2001–02, even though there is some incompatibility between the way certain questions were asked before and after the 1999–2000 data collection. (Table C-3 describes these data field changes.)

Because some response options were not available in all years, these years have higher proportions of missing and invalid data. This is shown in some tables in this chapter, where occasionally data from earlier years are not available and appear to be inconsistent with trends evident in later years. Another source of error in the data arises from the practice of updating missing and erroneous information in current and subsequent year data files only. Errors and omissions are not fixed retroactively (see Table C-2 for the proportion of missing and invalid data for each year). Because this has been the practice for updating and correcting student data files, the more recent data will always be more accurate and complete than the less recent data. As such, conflicts should be resolved by giving precedence to newer data. A final note concerns response rates. For all years except 1997–98, at least 95 percent of funded projects provided APR data; in 1997–98, only 77 percent did so. See Table C-1 for response rates.

We include data here from all available years to allow the description of project outcomes to encompass as many years as possible. However, because of these issues, the interpretation of the findings presented in this chapter should take into account that the newer data are more reliable, complete, and accurate than the older data.

Baccalaureate degrees earned

Individuals wanting to pursue a doctorate must first earn a bachelor's degree. Table 3.01 shows the percentage of the active participants in each year who earn a bachelor's degree in the years following participation in the McNair Program. By 2000–01, nearly one-fourth of active students earned a bachelor's degree in the same year they participated in McNair, and approximately two-thirds earned a bachelor's degree one year later.

Table 3.01. Percent of active participants, by year of active participation and time to bachelor's degree: 1997–98 through 2001–02

	Year of active participation				
	1997–98	1998–99	1999–00	2000–01	2001–02
Number of records	2,203	3,121	3,338	3,877	4,012
When bachelor's degree was earned					
In year of program participation	35.9[a]	38.7[a]	23.8	23.4	21.0
One year later	54.3[a]	70.0	58.7	63.0	†
Two years later	86.9	86.6	84.5	†	†
Three years later	92.1	93.0	†	†	†
Four years later	94.8	†	†	†	†

[a]For reporting years 1997–99, "has not yet earned a BA" was not an option for degree status. Because of this, this variable has a high nonresponse rate ranging from 45.6 to 64.1 percent for the active participants in those years. We assume that the missing cases for this variable indicate those who had not yet earned a bachelor's degree and include them in the denominator when calculating these percentages.

†Not applicable; not enough time has passed to determine cell value.

NOTE: Percentages reported include bachelor's degrees or higher because a bachelor's degree is assumed if a more advanced degree is reported and a bachelor's degree is not. Percentages reported are of the total number of active participants in each year and exclude missing cases from the denominator (<10% are missing for all years); as such, the totals here may differ from totals presented in other tables.

SOURCE: Data from the program files of the U.S. Department of Education, Office of Federal TRIO Programs, Ronald E. McNair Postbaccalaureate Achievement Program, Annual Performance Reports.

Graduate school acceptance and entrance

The percentage of McNair participants enrolling in graduate school is promising. Of the McNair participants who graduated from college in 2000–01, 40 percent were accepted into graduate programs and 39 percent entered those programs in 2001–02. Of the graduating McNair participants in 1999–2000, 35 percent gained immediate acceptance into graduate school, and 28 percent entered (Table 3.02).

Immediate enrollment in a graduate program after college graduation varied slightly by participant status and race/ethnicity. Table 3.03 describes participant characteristics for all 2000–01 college graduates and for those who were enrolled in graduate school at the end of the 2001–02 academic year. Although there were no gender differences, slightly more underrepresented participants enrolled in graduate programs the year after graduation than did low-income and first-generation participants, and higher proportions of white and American Indian/Alaska Native students enrolled than did students from other ethnic groups. Forty-two percent of underrepresented graduates enrolled in graduate school, whereas only 35 percent of the low-income and first-generation students did. Fifty-three percent of American Indian/Alaska Native graduates enrolled in graduate school and 48 percent of whites did, compared with 33 percent for African Americans, 37 percent for Asians, and 30 percent for Hispanics.

Table 3.02. Graduate school acceptance and entrance one year after graduation for McNair bachelor's degree recipients, by graduation year: 1997–98 through 2001–02

	Undergraduate graduation year				
	1997–98	1998–99	1999–00	2000–01	2001–02
Number of graduates	574	1,282	1,126	1,069	1,362
Number accepted into graduate school	—	—	390	425	474
Percent of graduates accepted into graduate school	—	—	34.6	39.8	34.8
Number immediately enrolling in graduate school the year after graduation[a]	79	166	312	417	†
Percent of graduates who entered graduate school	13.8	13.0	27.7	39.0	†
Percent accepted who enrolled	—	—	80.0	98.1	†

—Not available; this was not an available response option in these years.

†Not applicable; not enough time has passed to determine cell value.

[a]This number is the sum of those still enrolled, graduated, or withdrawn from a graduate program at the end of the next year.

NOTE: Percentages reported in table are of the total number of graduating students in each year; the denominator used for calculating percentages is the total number of students receiving a bachelor's degree in each year.

SOURCE: Data from the program files of the U.S. Department of Education, Office of Federal TRIO Programs, Ronald E. McNair Postbaccalaureate Achievement Program, Annual Performance Reports.

Table 3.03. Number and percent of 2000–01 McNair college graduates who enrolled in graduate programs at the end of 2001–02, by selected characteristics

	Number of graduates in 2000–01	Percent who enrolled in graduate school at the end of 2001–02
All	1,069	36.3
Gender		
Male	353	36.0
Female	712	36.7
Eligibility status		
Low-income/first-generation	811	34.5
Underrepresented	258	41.9
Race/ethnicity		
American Indian/Alaska Native	47	53.2
Asian	57	36.8
Black/African American	428	32.9
Hispanic or Latino	279	30.1
White	225	48.0
Native Hawaiian/other Pacific Islander	‡	25.0!
More than one race	‡	33.3!

‡Based on fewer than 25 cases, number not reported.

!Percents are based on a small number of cases.

NOTE: The number of participants reported under each of the demographic categories (gender, eligibility, and race/ethnicity) do not sum to 1,069 due to missing data. The denominator used in computing the percent enrolling in graduate school reported here uses the valid number of cases in each category as the denominator.

SOURCE: Data from the program files of the U.S. Department of Education, Office of Federal TRIO Programs, Ronald E. McNair Postbaccalaureate Achievement Program, Annual Performance Reports.

Nationally, approximately 25 to 30 percent of undergraduates enroll in graduate school at any time following college graduation (McCormick, Nuñez, Shah, & Choy, 1999; Nettles & Millett, 1999; Golde & Dore, 2001; Choy & Geis, 2002). Of the McNair graduates in 2000–01, 36 percent enrolled in graduate school immediately after graduation and more will enroll in subsequent years after graduation. Unlike graduate students in general, McNair graduate students are made up of 72 percent low-income/first-generation and 28 percent from groups underrepresented in graduate education. Nationally, 41 percent of graduate students are first-generation and 14.9 percent are from groups underrepresented in graduate education (U.S. Department of Education, 2000).

The number of McNair participants enrolling in graduate school also increases in subsequent years after graduation. As can be seen in Table 3.04, the number of participants enrolled in graduate school increased each year as time from the undergraduate degree increased. Of the McNair participants

Table 3.04. Graduate school acceptance, enrollment, and retention for McNair college graduates for the years following graduation, by graduation year: 1997–98 through 2001–02

	Undergraduate graduation year				
	1997–98	1998–99	1999–00	2000–01	2001–02
Number of college graduates	574	1,282	1,126	1,069	1,362
Number accepted into graduate school	—	—	390	425	474
One year after graduation					
Number enrolled at beginning of year[a]	79	166	312	417	†
Number enrolled at end of year	76	131	265	388	†
Percent of graduates enrolled at end of 1st year	13.2	10.2	23.5	36.3	†
Two years after graduation					
Number enrolled at beginning of year[a]	124	247	415	†	†
Number enrolled at end of year	101	192	306	†	†
Percent of graduates enrolled at end of 2nd year	17.6	15.0	27.2	†	†
Three years after graduation					
Number enrolled at beginning of year[a]	142	310	†	†	†
Number enrolled at end of year	98	211	†	†	†
Percent of graduates enrolled at end of 3rd year	17.1	16.5	†	†	†
Four years after graduation					
Number enrolled at beginning of year[a]	160	†	†	†	†
Number enrolled at end of year	97	†	†	†	†
Percent of graduates enrolled at end of 4th year	16.9	†	†	†	†

—Not available; the enrollment status variables after 1999–2000 are not comparable to enrollment status before 1999.

†Not applicable; not enough time has passed to determine cell value.

[a]The sum of the number of students who remained enrolled at the end of that year and those who had graduated or withdrew during the year.

SOURCE: Data from the program files of the U.S. Department of Education, Office of Federal TRIO Programs, Ronald E. McNair Postbaccalaureate Achievement Program, Annual Performance Reports.

graduating in 1998–99, 166 were enrolled in graduate school the year following graduation, 247 were enrolled the following year, and 310 were enrolled three years after graduation (an increase of 49 percent from the first to second year, and 26 percent from the second to third year).

One explanation for the increase in numbers of McNair participants enrolling in graduate school each year is that many participants do not enroll immediately after graduation from college. Therefore, the number of students enrolled in graduate school increases with each year following college graduation. Research indicates that only 25 to 30 percent of graduate students enroll immediately after college graduation and that another 17 to 29 percent enroll within two years. However, immediate enrollment is more common for those enrolled in doctoral programs than for those enrolled in master's or first professional degree programs (McCormick, Nuñez, Shah, & Choy, 1999; Nettles & Millett, 1999; Golde & Dore, 2001; Choy & Geis, 2002).

Although it is likely that delayed enrollments account for much of the increase in graduate degree enrollments with each subsequent year after college graduation, another explanation is that the quality of the data continues to improve greatly with each year. As the data quality and response rate improve each year, grantees include more participants in the annual reports and correctly report them as enrolled. Those who may have enrolled in graduate school but were not consistently tracked would be considered missing or would have incorrect enrollment status reported until the program corrected or updated the data; at that time, that individual would be included in that year as a graduate student. Therefore, in addition to those who delayed graduate school enrollment, the increase in graduate enrollments likely also reflects those who may have immediately enrolled in graduate school but were not previously reported as such until their records were updated in subsequent years.

Graduate school persistence

Because it is difficult to accurately determine persistence when the number of enrollees increases every year (because every subsequent year after the first has more students enrolled in graduate school, the persistence rate will be greater than 100 percent each year), Table 3.05 describes graduate school

Table 3.05. Graduate school enrollment and persistence rates for McNair college graduates enrolling in graduate school immediately after graduation, by graduation year: 1997–98 through 2000–01

	Undergraduate graduation year			
	1997–98	1998–99	1999–00	2000–01
Number of graduates enrolling immediately in graduate school[a]	79	166	312	417
Percent of enrollees persisting to end of first year	96.2	78.9	84.9	93.0
Percent of enrollees persisting to end of second year	62.0	59.6	60.3	†
Percent of enrollees persisting to end of third year	53.2	44.0	†	†
Percent of enrollees persisting to end of fourth year	43.0	†	†	†

†Not applicable; not enough time has passed to determine cell value.

[a]The sum of the number of students who remained enrolled at the end of that year and those who had graduated or withdrew during the year.

NOTE: Persistence for the graduates of 2001–02 will be included in this table in future reports as their persistence data become available. For details describing how these rates were computed, see Appendix D.

SOURCE: Data from the program files of the U.S. Department of Education, Office of Federal TRIO Programs, Ronald E. McNair Postbaccalaureate Achievement Program, Annual Performance Reports.

persistence for just those students who enrolled in graduate programs the year after college graduation. This approach likely underestimates persistence because students who took time off between graduating from college and enrolling in graduate school are not included, nor are the students who may have enrolled immediately following graduation but whose records were missing or invalid in the report for that year.

After the first year of graduate school, between 79 and 96 percent of these students were persisting (still enrolled at the end of the year). At the end of the second year of graduate school, approximately 60 percent were still persisting, and after three years, between 44 and 53 percent were still enrolled. Forty-three percent persisted through the fourth year.

We note that on average, nearly half of all students who begin doctoral study never obtain the Ph.D. (Golde, 2001; Kerlin, 1995). Underrepresented and low-income students have less financial and social support in graduate school, making an ambitious goal even more difficult for McNair participants, who are more likely to be underrepresented and low-income than are graduate students in general (see Future Directions for further discussion). This research suggests that doctoral students from lower-income backgrounds tend to be less successful in graduate education, and many McNair participants are both low-income and underrepresented. Thus, the 43 percent persistence rate after four years (compared with a 50 percent completion rate on average for all doctoral students) for McNair participants needs to be interpreted with the fact that McNair participants are likely to have less financial and social support throughout graduate school than are others who are not low-income and first-generation or underrepresented.

A comparison of graduate school persistence

To provide additional context for the persistence of McNair participants through graduate school, we compare the academic progress of McNair participants with the academic progress of other students. In addition to providing context, the comparison is also a measure of the impact of the program on participants' pursuit of graduate degrees. As mentioned earlier, the desired outcome for participants is the doctoral degree. However, because not enough time has elapsed for most participants to have completed graduate school, graduate school persistence is our proxy outcome measure. This section compares the persistence rates of McNair participants with the rates of both a nationally representative sample and a sample of similar students.

The Baccalaureate and Beyond Longitudinal Study (B&B), funded by the National Center for Education Statistics, is a longitudinal study of the employment and graduate school experiences of bachelor's degree recipients. Approximately 11,000 students who completed their undergraduate degrees in 1992–93 make up the 1993 cohort of the B&B. The study tracks participants for 10 years, collecting data on employment, family education background, and graduate school enrollment at each of three follow-up periods (1, 4, and 10 years following graduation).[7] Although a second B&B cohort of students obtaining their bachelor's degree in 2000–01 has begun, not enough time has passed for this cohort to provide the graduate degree persistence information needed here.

The B&B study provided two groups for comparing graduate school enrollment and persistence with that of McNair participants. The first was a *nationally representative sample*. This included everyone in

[7] Additional information on the B&B can be found at http://nces.ed.gov/surveys/b&b.

the 1993 cohort who participated in both the initial and follow-up surveys and provided information on postbaccalaureate enrollment (representing approximately 1.18 million individuals).[8] Applying definitions similar to those used by McNair projects, we selected only the underrepresented, low-income, and first-generation students (representing approximately 700,000). This is the *demographically similar sample*.[9] The McNair group consists of all participants who received bachelor's degrees in 1998–99 (n=1,282).

Table 3.06 presents the results of these analyses, which must be interpreted with the following note of caution: Because the data quality has improved greatly in recent years (see earlier in this chapter and Appendix C for details), the persistence comparison based on these data, although promising, likely underrepresents the true persistence of McNair students. We used the 1998–99 participant data because we wanted data from the earliest year possible to allow enough time to measure persistence while still allowing the use of a prior year's data to confirm the year of bachelor's degree obtainment. The prior year's data were necessary because many projects repeatedly report the highest degree earned each year, making it difficult, even combined with end-of-year enrollment status, to otherwise determine when a participant actually earned a degree.

Table 3.06. Comparing graduate school persistence: McNair and B&B bachelor's degree recipients

		1992–1993 B&B bachelor's degree recipients, 1993–97	
	McNair bachelor's degree recipients, 1998–99	Estimated population	Estimated demographically similar population
Number of graduates	1,282	1,180,000	700,000
Percent completed 1st year	10.2	6.4*	5.8*
Percent completed 2nd year	7.7	6.1*	5.4*
Percent completed 3rd year	5.7	5.4	4.9*

*p<.05; statistical comparisons are made between McNair graduates and the national and similar samples. Percents in table with asterisks differ significantly from the McNair group.

NOTE: The denominator used for each cell is the number of graduates that year. The numbers in this table describing McNair graduates are the same as those in Table 3.05. These enrollment rates differ from the persistence rates presented there in that here the percentages are of all graduates and not just of those enrolling in graduate school. The number of graduates reported in the three years following graduation is not removed from the denominator for any of the persistence rates described in this table because the McNair Program objective is obtainment of the Ph.D., and Ph.D.s are unlikely to be earned in three years. B&B proportions presented here are weighted.

SOURCE: Data from the program files of the U.S. Department of Education, Office of Federal TRIO Programs, Ronald E. McNair Postbaccalaureate Achievement Program, Annual Performance Reports; Baccalaureate and Beyond, National Center for Education Statistics 93/94, www.nces.ed.gov/surveys/b&b/.

Ten percent of the McNair participants who obtained a bachelor's degree in 1998–99 enrolled in graduate school during the 1999–2000 academic year. In comparison data from the 1992–93 B&B Study of bachelor's degree recipients, 6.4 percent of this population and 5.8 percent of a demographically similar population enrolled in graduate school. A similar pattern is evident for the second and third years (Table 3.06).

[8] As the goal of the McNair Program is obtainment of the doctoral degree, "postbaccalaureate enrollment" included only those who enrolled in master's or doctoral programs and excluded those enrolled in MBA, JD, OD, certification, and licensing programs.

[9] Although demographically similar, the B&B sample is not proportionally similar to the McNair sample—the proportion of low-income students is higher in the similar sample than for McNair participants, and conversely, the proportion of underrepresented students is smaller in the similar sample than in the McNair population.

This comparison suggests that the McNair program has a positive impact on applying to and enrolling in graduate study for participants immediately after graduation. In the year following graduation, a higher percentage of the McNair students entered graduate school than did the national and similar comparison sample students. However, after three years, the gain narrows and the proportion of McNair students that persists is similar to the proportion of the other samples (5.7 vs. 5.4 and 4.9 percent). This suggests that although the McNair Program helps participants enroll in graduate school, they may have more difficulty staying enrolled once there.

Examining just those completing the first year of graduate school reveals differences in graduate school persistence. Of the 131 McNair students who completed the first year of graduate school, 76 percent persisted through the second year, compared with 95 percent of the national and 94 percent of the similar sample. By the end of the third year, 60 percent persisted, compared with 85 and 84 percent of the national and similar samples, respectively. This indicates that although McNair participants gain acceptance into graduate school at higher rates than do non-McNair participants, a smaller percentage persists once enrolled.

Doctoral and other advanced degrees earned

Table 3.07 displays the degrees reported by all McNair projects in each reporting year between 1997–98 and 2001–02. Although just more than half of all participants have earned a bachelor's degree, this number will continue to increase as those currently enrolled in undergraduate programs complete their degrees. Approximately 15 percent of all participants in each year have earned a master's degree, and approximately 4 percent of all participants have earned a doctoral or other terminal degree. However, the average time to complete doctoral studies is approximately 10 years, and the participants described

Table 3.07. Percent distribution of all participants, by academic degrees earned in each reporting year: 1997–98 through 2001–02

	Year degree was earned				
	1997–98	1998–99	1999–00	2000–01	2001–02
Earned degree					
Bachelor's degree	85.9	79.7	56.8	56.2	55.7
Master's degree	11.9	16.6	13.4	14.8	16.1
Doctoral degree	2.3a	3.6[a]	1.2	1.4	1.7
Other terminal degree	—	—	1.6	2.0	2.4
Has not earned a BA	—	—	27.0	25.6	24.1
Total	100.0	100.0	100.0	100.0	100.0
Number of records	2,442	6,314	10,077	13,713	16,223

—Not available; this was not an available response option in these years.

[a]Percentages are higher because there was no category for other advanced degrees, which were likely included here as doctoral degrees.

NOTE: The number of participants reported here excludes those with missing or invalid data; thus, the totals may differ from totals presented in other tables. Percents in each column may not sum to 100% due to rounding.

SOURCE: Data from the program files of the U.S. Department of Education, Office of Federal TRIO Programs, Ronald E. McNair Postbaccalaureate Achievement Program, Annual Performance Reports.

here have had time to complete only four years of graduate school. As such, the interpretation of these results is constrained by the abbreviated timeframe. Obtaining a doctorate in four years or less is relatively uncommon. The number of earned doctorates will increase in the future as time allows students to progress through graduate programs.

Research suggests that although women and men are equally likely to enroll in graduate school, women are more likely to enroll in master's degree programs and thus earn master's degrees, whereas men are more likely to enroll in and earn degrees from first-professional and graduate degree programs (Bradburn, Berger, Li, Peter, & Rooney, 2003; Kerlin, 1995). Other sources also report a higher percentage of males than females earning doctorates (23 vs. 13 percent; Clune, Nuñez, & Choy, 2001).

For McNair participants, men and women were equally likely to enroll in graduate school (see Table 3.03). Table 3.08 describes participants' earned degrees by gender and suggests that McNair participants do not show any large gender difference in their obtaining either the bachelor's or the doctoral degree. However, the percentage of males earning other terminal degrees is slightly higher than that of females, and the percentage of females earning master's degrees is slightly higher than that of males. These

Table 3.08. Percent distribution of all participants, by highest degree earned and selected demographic characteristics: 2001–02

		Highest degree earned as of 2001–02					
	Number of participants	No degree earned yet	Bachelor's degree	Master's degree	Doctoral degree	Other terminal degree	Total
All	17,807	23.9	56.5	15.5	1.9	2.3	100.0
Gender							
Male	5,972	24.0	56.2	15.0	1.9	2.9	100.0
Female	11,823	23.8	56.6	15.7	1.9	2.0	100.0
Eligibility status							
Low-income and first Generation	12,661	23.6	56.6	15.8	1.8	2.2	100.0
Underrepresented	5,098	24.2	56.4	14.7	2.0	2.6	100.0
Race/ethnicity							
American Indian/Alaska Native	638	29.9	55.8	11.8	1.3	1.3	100.0
Asian	991	18.9	58.8	16.3	2.5	3.4	100.0
Black/African American	7,997	25.0	55.9	15.3	1.6	2.1	100.0
Hispanic or Latino	4,202	23.6	59.3	13.7	1.3	2.0	100.0
White	3,568	21.2	54.0	18.8	3.1	2.9	100.0
Native Hawaiian/other Pacific Islander	210	22.9	58.6	15.2	1.9	1.4	100.0
More than one race	170	38.8	50.0	8.8	0.1	2.4	100.0

NOTE: The number of participants reported here is cumulative, reflecting all participants up to and including 2001–02, and thus, the totals may differ from totals presented in other tables. Percents in each row may not sum to 100% due to rounding. Percents here are accumulative and therefore are larger than those described in table 3.07.

SOURCE: Data from the program files of the U.S. Department of Education, Office of Federal TRIO Programs, Ronald E. McNair Postbaccalaureate Achievement Program, Annual Performance Reports.

results suggest that for McNair participants, men may be more likely to earn other terminal degrees, and women may be more likely to earn master's degrees, but there are no gender differences in who earns doctoral degrees. However, these differences are quite small and are the result of relatively small numbers of advanced-degree holders. Future reports will continue to explore any gender differences as more participants obtain degrees.

There were little differences in highest degree obtained for low-income and first-generation and underrepresented students. Higher proportions of white and Asian participants earned advanced degrees, including master's, doctoral, and other terminal degrees, whereas smaller proportions of African American, Hispanic, and American Indian/Alaska Native participants earned advanced degrees.

Individuals who participated in McNair projects between 1997–98 and 2001–02 earned 478 doctorates as of 2001–02; 121 of those were reported in 2001–02. Table 3.09 describes the participants who have

Table 3.09. Comparison of the percent distribution of doctoral degree recipients and all students who ever participated in the program, by selected demographic characteristics: 2001–02

	Participants with Ph.D.s (478)	All participants in database 2001–02 (18,714)
All	100.0	2.6
Gender		
Male	35.2	33.3
Female	64.8	66.7
Total	100.0	100.0
Eligibility status		
Low-income and first-generation	68.5	71.8
Underrepresented	31.5	28.3
Total	100.0	100.0
Race/ethnicity		
American Indian/Alaska Native	2.6	3.7
Asian[a]	7.4	5.7
Black/African American	41.9	44.3
Hispanic or Latino	18.1	23.8
White	29.0	20.4
Native Hawaiian or other Pacific Islander[b]	1.0	1.2
More than one race/other	0.0	1.0
Total	100.0	100.0

[a]Prior to 1999–2000 the number of doctorates awarded to Asians included those awarded to Native Hawaiians and Pacific Islanders.

[b]Not a response option in all years; doctorates awarded to Native Hawaiians or Pacific Islanders prior to 1999–2000 were included with Asians.

NOTE: The number of participants reported here includes all students ever reported–including those who had graduated with their doctorates in earlier years. Percents may not sum to 100% due to rounding. The total here represents all students ever reported in any reporting year.

SOURCE: Data from the program files of the U.S. Department of Education, Office of Federal TRIO Programs, Ronald E. McNair Postbaccalaureate Achievement Program, Annual Performance Reports.

earned doctoral degrees. Compared with all McNair participants, the group of doctoral degree recipients comprised more whites and Asians and fewer Hispanics and American Indians than were expected. There were no differences by gender or eligibility status.

Reflecting the target population served, the McNair Program is producing higher proportions of doctorates among low-income and first-generation and underrepresented groups. Nationally, women earn 35 percent of doctorates; first-generation college students earn exactly half, and members of underrepresented ethnic groups earn only 8 percent (Nettles & Millett, 1999; Kerlin, 1995). Compared with these national proportions, higher percentages of McNair doctorate recipients were female, first-generation and low-income, and underrepresented. McNair doctorate recipients were 65 percent female and 69 percent low-income and first-generation. Sixty-three percent of McNair doctorates were earned by students from groups underrepresented in graduate education.[10]

Summary

Approximately 40 percent of McNair graduates gain acceptance to graduate school, and in 2000–01, 98 percent of those accepted enrolled. The percentage of bachelor's degree recipients enrolling in graduate school increases with each program year, from 13 percent in 1998–99 to 39 percent in 2000–01. A higher percentage of underrepresented students enrolled in graduate school than did low-income and first-generation students, and a higher percentage of whites and American Indian/Alaska Natives enrolled than did members of other ethnic groups.

The number of participants enrolled in graduate programs not only increases with each program year but also increases with each year following college graduation (by 15 to 47 percent, depending on the year), suggesting that many participants do not enroll in graduate school immediately after graduation. Of the participants who enrolled in graduate school, between 79 and 96 percent (depending on the cohort) persisted after one year, approximately 60 percent persisted after two years, just fewer than half persisted through three years, and 43 percent persisted to four years. Compared with other groups (a national sample and a demographically similar sample), a slightly higher percentage of McNair participants enrolled in graduate school (10.2 percent, compared with 6.4 and 5.8 percent). However, compared with the same samples, McNair participants persist less once in graduate school, (60 percent after three years compared with 85 and 83 percent, respectively).

Although nearly all participants earn bachelor's degrees (95 percent after four years), whites and Asians are more likely to earn advanced degrees. Overall, 15 percent of all participants have a master's degree; 4 percent have earned a doctoral or other advanced degree. In the past five years, nearly 500 participants have earned doctorates, and of those who did, slightly higher percentages were Asian and white.

[10] We obtained the 62 percent by adding the percent of doctorates received for underrepresented ethnic groups as reported in Table 3.09 and not by reported eligibility status.

Chapter 4

Future Directions

Participation in the McNair Program is associated with increased graduate school entrance rates. McNair participants, who benefit from a higher entrance rate into graduate school than nonparticipants, persist through graduate school at similar rates as nonparticipants. On average, nearly half of all students who begin doctoral study obtain the Ph.D. (Golde, 2001; Kerlin, 1995). Of McNair participants who enroll in graduate school, slightly less than half are still enrolled four years later.

Research suggests that financial difficulty is the most frequent reason for graduate school withdrawal, and students from low-income backgrounds (the target population of the McNair Program) are particularly vulnerable to financial difficulties (Nettles & Millett, 1999; Kerlin, 1995; Lovitts, 2001). Further, most graduate support comes in the form of research or teaching assistantships, and the amount and availability of this support vary by field of study. Assistantships in science and engineering programs are more readily available and tend to provide more money than assistantships in other fields (Choy & Geis, 2002). However, the majority of doctoral students are not enrolled in science or engineering fields. In addition, the underrepresentation of African American and Hispanic students is particularly pronounced in science and engineering, the fields that provide more assistantships (National Association of Graduate-Professional Students, 2000; Nettles & Millett, 1999). Because McNair participants may be more likely than traditional graduate students to face financial difficulty, exploring the relationship between financial assistance, pursued majors, and persistence in graduate school could be of great relevance and warrants future exploration.

After financial difficulties, a lack of social support is the most frequent reason for leaving doctoral programs (National Academy of Sciences, 1997). Even though most graduate programs actively recruit members of groups underrepresented in graduate school, the environment is not always supportive of them once they enroll. Fewer women reported satisfaction with the graduate school environment than did men (69 vs. 80 percent), and smaller proportions of African Americans, Latinos, and Alaska Natives reported satisfaction than did whites and Asians (60 vs. 74 percent; National Association of Graduate-Professional Students, 2000). Indeed, more Hispanic and African American doctoral students stopped out of their programs because of a "lack of social fit" than did whites and Asians (8 and 6 percent vs. 4 and 5 percent; Nettles & Millett, 1999). We suspect that students who continue their graduate studies in the same institution from which they received McNair Program services would receive a higher level of social support than those who continued their graduate work in a different institution. As a result, a plausible research question is determining whether participants who pursue their graduate work in the same institution have a higher retention rate than those who transfer to a different institution.

In addition to determining persistence from the APRs, we also recommend conducting a small intensive survey on former McNair students who have dropped out of graduate school. The purpose of this survey is to gain understanding about the circumstances under which the student decided to terminate his or her graduate work, thus providing insights into how existing services and activities should be modified and what new activities should be developed. However, querying students about the reasons they stopped pursuing a doctoral degree requires identifying who, among the McNair participants, has actually dropped out and will not continue. Presently, there is no definition of dropout for McNair participants—the assumption applied is that ultimately all McNair participants will earn their doctoral degrees so there is no definition for failure. Defining dropouts among the McNair participants would be a useful first step in exploring the factors related to graduate school attrition among McNair participants.

The *Baccalaureate and Beyond Longitudinal Study* began following a new cohort consisting of 2000–01 bachelor's recipients. In future years, we will compare McNair participants with this newer cohort for graduate persistence and degree obtainment rates. Including graduate financial aid and graduate field of study in future data collections will highlight how these factors relate to graduate school success for McNair participants.

As briefly described in Chapter 1, our analysis also revealed that some grantees report serving many more students than they were funded to serve. Further investigation based on conversations with project staff and analysis of the project objective portion of the APRs suggests that overreporting may be the result of lacking a common understanding of how "students served" should be defined—some grantees define students served more liberally than others. For example, some grantees define the number of participants a program is funded to serve as the number of new participants they are expected to recruit each year instead of the total number they are expected to serve including new *and* continuing participants. Another reason for the overreporting is a misconception that grantee performance is determined, in part, by how far the grantee exceeds the targeted number of students to be served. Future correspondence to the grantees should clarify the definition of students served and the importance of defining and reporting this number correctly in the evaluation of grantee performance.

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Glossary

This glossary lists the terms used in the report. Some of them are specific to the TRIO program and do not necessarily apply to other Department of Education programs or grants.

Annual Performance Report (APR) is a program report submitted to TRIO by each grantee. APRs include information describing the participants, activities and outcomes for every funded program.

The **Baccalaureate and Beyond Longitudinal Study (B&B)**, sponsored by the U.S. Department of Education's National Center for Education Statistics, is a longitudinal study providing information concerning education and work experiences after completion of bachelor's degrees. B&B provides both cross-sectional information one year after bachelor's degree completion, comparable to the Recent College Graduate (RCG) Survey, and longitudinal data concerning entry into and progress through graduate-level education and the workforce. B&B provides information on entry into, persistence and progress through, and completion of graduate-level education. This information has not been available through follow-ups involving high school cohorts or even college-entry cohorts, both of which are restricted in the number who actually complete the bachelor's degrees and continue their education.

In the first B&B study, about 11,000 students were identified in the National Postsecondary Student Aid Study (NPSAS):93 who completed their degree in the 1992–93 academic year. These students made up the first B&B cohort and were followed up in 1994 (B&B:93/94) and 1997 (B&B:93/97), with a third follow-up scheduled for 2003 (B&B:93/2003). A new B&B cohort began with NPSAS:2000 and involved only a one-year follow-up in 2001 (B&B:2000/01). Future B&B cohorts will alternate with Beginning Postsecondary Students (BPS) in using NPSAS surveys as their base. See http://nces.ed.gov/surveys/b&b/.

Carnegie classification system is a systematic classification of institutions of higher education in the United States according to such variables as degrees offered, size, and commitment to research. The Carnegie Foundation for the Advancement of Teaching in Menlo Park, California, offers a free online version of *A Classification of Institutions of Higher Education* (2000) (www.carnegiefoundation.org/Classification/). The Carnegie *Classification*, originally published in 1973, was subsequently updated in 1976, 1987, 1994, and 2000.

Federal regions are as follows:

Region I:	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont
Region II:	New Jersey, Puerto Rico, Virgin Islands, New York
Region III:	Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia
Region IV:	Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee
Region V:	Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin
Region VI:	Arkansas, Louisiana, New Mexico, Oklahoma, Texas
Region VII:	Iowa, Kansas, Missouri, Nebraska
Region VIII:	Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming
Region IX:	Arizona, California, Hawaii, Nevada, American Samoa, Guam, Northern Mariana Islands
Region X:	Alaska, Idaho, Oregon, Washington

FTE enrollment is full-time equivalent enrollment (FTE). Full-time equivalent enrollment is determined by taking the total number of credit hours in which students are enrolled and dividing by 15 (the credit hour load of a hypothetical full-time student). The resulting statistic expresses instructional activity in terms that are comparable to headcount enrollment.

Low-income individual is defined in the McNair Program as a person whose family taxable income did not exceed 150 percent of the poverty-level amount in the calendar year preceding the year in which the individual initially participated in the project. The U.S. Department of Commerce, Bureau of the Census, sets guidelines to determine the definition of the poverty level. For example, the poverty threshold in 2000 for a four-person family with two children less than 18 years of age was $17,463 (Poverty Thresholds by Size of Family and Number of Children: 1980–2003, *U.S. Census Bureau, Current Population Survey,* January 30, 2004, www.census.gov/hhes/poverty/threshld.html). For this family, 150 percent of the poverty threshold would be $26,195.

Participant status indicates each student's involvement in the McNair Program for each year. Participant status can be one of the following: new, continuing, or prior year. We describe two types of participant status—the status as reported by grantees in the APRs and status as verified by the data. We verified participant status to resolve inconsistencies in this variable as reported by grantees.

Participant status as reported by grantees could be one of the following:

(1) A *new participant* is an individual who participated in the McNair Program for the first time in the reporting period.

(2) A *continuing participant* is an individual who participated in the project in both the current reporting period and in a previous reporting period.

(3) A *prior-year participant* is a former project participant who did not participate in the project during the current reporting period.

Participant status was then verified using prior-year data for all students as described below, and all students reported in each year were then reclassified into one of the following participant groups for that year: active participant, new participant, and all participants. It is according to the following definitions of participant status that we describe participants in Chapters 2 and 3.

(1) *Active participants* as described in Chapters 2 and 3 include those students whom grantees classify as "new" participants and who (a) are not reported in previous years or (b) have a project entry date in the academic year in which they are reported as "new." Active participants also include students classified as "continuing" who are currently enrolled as an undergraduate.

(2) *New participants* as described in Chapters 2 and 3 include those who (a) were not present in previous year's data and whose participant status was "new" or (b) whose project entry dates indicated they were new to the McNair Program in the year they were first included in the APR.

(3) *All participants* as described in Chapter 2 include active (new and continuing) and all prior-year participants reported by each project, except for those who have earned a doctoral degree (once a student earns a doctorate, they are no longer tracked or included in the annual performance reports).

A *first-generation college student* is the following:

(1) an individual neither of whose natural or adoptive parents received a baccalaureate degree; or

(2) a student who, prior to the age of 18, regularly resided with and received support from only one natural or adoptive parent and whose supporting parent did not received a baccalaureate degree.

Services. Definitions applicable to "services" include the following:

- *Academic counseling* means assisting students in making educational plans, selecting appropriate courses, developing career plans, meeting academic requirements, and planning for graduation education.
- *Admissions assistance* means workshops or individualized assistance to help participants successfully complete graduate school applications.
- *Campus visitations* mean project-sponsored trips to postsecondary institutions for the purpose of acquainting students with institutions that the project participants may wish to attend.
- *Career awareness* means project-sponsored activities, such as field trips, special lectures, and workshops, to increase students' knowledge of the various career opportunities available.
- *College entrance exam preparation* means workshops, tutoring, or individualized assistance specifically designed to help students meet scoring requirements on national or state standardized tests given to students for admission into a postsecondary educational institution.
- *Financial aid assistance* means workshops or individualized assistance to help participants complete various financial aid applications, including scholarship applications, U.S. Department of Education federal student financial aid applications, and state applications for financial aid.
- *Other research* means research activities for which students did not receive any payment from the McNair program.
- *Seminars* mean any seminar intended to prepare students for graduate school.

- Summer internships mean only those research activities for which students who have completed their sophomore year received the legislated stipend of up to $2,800.
- Tutorial assistance means individual or small-group informal academic assistance provided by professional staff or students who are either part-time paid, volunteer, or internship-for-credit students.

An **underrepresented** student is one belonging to a group that is underrepresented in graduate education, including those of Hispanic, African American or American Indian/Alaska Natives descent.

Appendix A

Other Related References

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Region of McNair Grantee Institutions

Table B-1. Geographic distribution of grantees.

Federal region	Percent of grantees	States included in region
Region I	2.6	Connecticut, Maine, Massachusetts, Rhode Island, New Hampshire, and Vermont
Region II	13.5	New Jersey, New York, Puerto Rico, and Virgin Islands
Region III	9.0	Delaware, Maryland, Pennsylvania, Virginia, West Virginia, and Washington, D.C.
Region IV	12.8	Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee
Region V	18.6	Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin
Region VI	16.0	Arkansas, Louisiana, New Mexico, Oklahoma, and Texas
Region VII	6.4	Iowa, Kansas, Missouri, and Nebraska
Region VIII	5.1	Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming
Region IX	12.2	Arizona, California, Hawaii, Nevada, Guam, The Commonwealth of Northern Mariana Islands, and American Samoa
Region X	3.8	Alaska, Idaho, Oregon, and Washington

SOURCE: Data from the program files of the U.S. Department of Education, Office of Federal TRIO Programs.

Response Rates and Data Issues

For all years except 1997–98, at least 95 percent of funded projects provided APR data; in 1987–98, only 77 percent did so. Because of these issues, the interpretation of the findings presented in this report (especially in Chapter 4) should incorporate the awareness that the newer data are more reliable, complete, and accurate than the older data.

Table C-1 describes the number of projects, student records, and response rates for the reporting years 1996–97 through 2001–02. Recently, the response rate for the data collection efforts reached 100 percent, with all funded institutions providing Annual Performance Reports (APR).

Table C-1. Number of records reported and response rates for McNair grantees: 1996–97 through 2001–02.

	1996–97	1997–98	1998–99	1999–00	2000–01	2001–02
Number of student records	3,618	4,140	8,948	10,816	14,328	16,772
Number of institutions	99	99	99	156	156	156
Number of new and continuing participants	2,028	2,286	3,509	4,245	5,074	5,645
Number of prior year participants	1,586	1,850	5,205	6,481	9,138	10,937
Number of institutions responding	63	76	95	148	156	156
Percent responding	63.6	76.8	96.0	94.9	100.0	100.0

NOTE: The sum of the total number of current (new and continuing) and prior-year participants does not equal the total number of student records because of missing data for participant status, and for years with response rates lower than 100%.

SOURCE: Data from the program files of the U.S. Department of Education, Office of Federal TRIO Programs, Ronald E. McNair Postbaccalaureate Achievement Program, Annual Performance Reports.

Another source of error in the data arises from the practice of updating missing and erroneous information in current and subsequent year data files only. Errors and omissions are not fixed retroactively. In other words, information that is missing for a participant in 1996 will always be missing in 1996 even if it is corrected and updated in 1997. (Table C-2 describes missing and invalid data for each year.) An erroneously reported doctoral degree in 1998 will always be part of that year's data even if the error is corrected and updated information is reported in subsequent years. Because this has been the practice for updating and correcting student data files, the more recent data will always be more accurate and complete than will less recent data. As such, conflicts should be resolved by giving precedence to newer data.

The quality of the data provided by McNair grantees is steadily improving. Table C-2 describes the percentage of all cases reported each year by all projects that are missing, invalid, or out of range. Most data fields have fewer than 5 percent of cases that are invalid, and the percentage of these cases decreases each year.

Because McNair Programs are required to track participants until the Ph.D. is awarded, each participant is included in every year's Annual Performance Report until the Ph.D. (or other terminal degree) is granted. After a participant graduates, projects must track and report on his or her academic progress through graduate school. Because not all participants enroll in graduate school or obtain a Ph.D., the APRs include many prior-year participants not currently enrolled in any academic program. The difficulty associated with tracking and reporting on participants every year who are no longer making academic progress accounts for the relatively higher percentage of invalid data for the "current grade level," "enrollment status," and "degree" variables.

Table C-2. Percent of missing, out-of-range, or invalid student records, by reporting year: 1996–97 through 2001–02.

	Reporting year					
	1996–97	1997–98	1998–99	1999–00	2000–01	2001–02
Number of records reported	3,618	4,140	8,948	10,816	14,328	16,772
Gender	0.0	0.0	0.1	1.2[a]	0.0	0.0
Race/ethnicity	0.1	0.0	0.1	0.2	0.0	0.2
Date of birth	0.6	2.8	3.1	4.8	2.5	2.1
First school enrollment date	0.9	2.9	2.3	1.7	3.5	3.7
Project entry date	0.8	6.1	2.5	6.5	3.0	3.3
Eligibility status	0.5	0.2	0.3	0.1	0.1	1.0
Participant status	0.1	0.1	2.6	0.8	0.8	1.1
College grade-level at entry into project	0.8	0.2	1.6	0.4	1.5	0.6
Current college grade-level	23.4[a]	26.4[a]	29.3[a]	13.3	11.5	11.5
End of year enrollment status	10.2	5.7	7.4	5.5	4.7	4.6
Degree	39.9[b]	41[b]	30[b]	6.9	4.3	3.3

[a]For these reporting years, there was no response option for participants who were no longer enrolled in a graduate or undergraduate program.

[b]For these reporting years, there was no response option available for those who had not yet earned a bachelor's degree.

SOURCE: Data from the program files of the U.S. Department of Education, Office of Federal TRIO Programs, Ronald E. McNair Postbaccalaureate Achievement Program, Annual Performance Reports.

The analyses in this report include participants from 1997–98 through 2001–02, although there is some incompatibility between the way certain questions were asked before and after the 1999–2000 data collection. The "degrees earned" and "enrollment status" items for the two earlier years, for example, did not allow projects to identify pre-baccalaureate participants (enrolled undergraduates with no degree yet) or students who were no longer enrolled in any academic program. Because these options were not available, these years have higher proportions of missing and invalid data (i.e., projects not reporting students for which there was no appropriate option or including them in other, less appropriate categories). This incompatibility is evidenced in the tables presented in Chapter 4, where occasionally data from the earlier years exaggerate or diminish trends evident in later years. Data for these years are

included (with this caveat) to allow the description of project outcomes to encompass as many years as possible. As more years of data become available, analyses will exclude data from the earliest, most problematic years.

Table C-3 describes the data field changes that occurred during the data collection for the participant-level information described in this report.

Table C-3. Data field changes: 1997–98 through 2001–02.

	Reporting year	
Data field	**1997–98 and 1998–99**	**1999–00 and after**
Current grade	1 '1st year, never attended'	1 '1st year, never attended'
	2 '1st year, attended before'	2 '1st year, attended before'
	3 '2nd year/sophomore'	3 '2nd year/sophomore'
	4 '3rd year/junior'	4 '3rd year/junior'
	5 '4th year/senior'	5 '4th year/senior'
	6 '5th year/other undergraduate'	6 '5th year/other undergraduate'
	7 '1st year graduate/professional'	7 '1st year graduate/professional'
	8 '2nd year graduate/professional'	8 '2nd year graduate/professional'
	9 '3rd year graduate/professional'	9 '3rd year graduate/professional'
	10 'Beyond 3rd year graduate/professional'	10 'Beyond 3rd year graduate/professional'
		11 'Completed doctoral program'
		12 'Completed other terminal degree program'
		13 'Not currently enrolled in a postsecondary or graduate degree program'
End of year enrollment	1 'Enrolled in undergraduate program'	1 'Enrolled in undergraduate program/has not earned a BA'
	2 'Dismissed or withdrew'	2 'Dismissed or withdrew from undergraduate program'
	3 'Graduated'	3 'Graduated from undergraduate program'
	4 'Enrolled in Graduate degree program'	4 'Graduated and accepted to graduate program'
		5 'Enrolled in Graduate degree program'
		6 'Dismissed or withdrew from graduate program'
		7 'Graduated from graduate program'
Degree	1 'Bachelor's degree'	1 'Bachelor's degree'
	2 'Master's degree'	2 'Master's degree'
	3 'Doctoral degree'	3 'Doctoral degree'
		4 'Other terminal degree'
		5 'Has not earned BA yet'
Race/ethnicity	1 'American Indian/Native American'	1 'American Indian or Alaska Native
	2 'Asian/Pacific Islander'	2 'Asian'
	3 'Black (non-Hispanic)'	3 'Black or African American'
	4 'Hispanic'	4 'Hispanic or Latino'
	5 'White (non-Hispanic)'	5 'White'
	6 'Other"	6 'Native Hawaiian or Pacific Islander'
		7 'More than one race reported'.

Appendix D

Persistence Rate Documentation

Table D-1. Graduate school persistence for McNair college graduates enrolling in graduate school immediately after graduation: 1997–98 through 2000–01.

	Undergraduate graduation year				
	1997–98	1998–99	1999–00	2000–01	2001–02
Number graduating	574	1,282	1,126	1,069	1,362
Number accepted into graduate school	†	†	390	425	474
Number enrolled – beginning of first year[a]	79	166	312	417	†
Number quit/withdrew during 1st year	1	16	14	3	†
Number graduating at end of 1st year	2	19	33	13	†
Number enrolled – end of 1st year	76	131	265	388	†
Percent persisting after one year[b]	96.2	78.9	84.9	93.0	†
Percent exiting program for 1st year[c]	1.3	9.6	4.5	0.7	†
Number enrolled – beginning of 2nd year[a]	59	109	224	†	†
Number quit/withdrew during 2nd year	3	0	7	†	†
Number graduating at end of 2nd year	7	10	29	†	†
Number enrolled – end of 2nd year	49	99	188	†	†
Percent persisting after two years	62.0	59.6	60.3	†	†
Percent exiting program for 2nd year	5.1	0.0	3.1	†	†
Number enrolled – beginning of 3rd year	62	103	†	†	†
Number quit/withdrew during 3rd year	6	1	†	†	†
Number graduating during 3rd year	14	29	†	†	†
Number enrolled – end of 3rd year	42	73	†	†	†
Percent persisting after three years	53.2	44.0	†	†	†
Percent exiting program for 3rd year	9.7	1.0	†	†	†

Table continued on next page

Table D-1. Graduate school persistence for McNair college graduates enrolling in graduate school immediately after graduation: 1997–98 through 2000–01—Continued.

	Undergraduate graduation year				
	1997–98	1998–99	1999–00	2000–01	2001–02
Number enrolled – beginning of 4th year	59	†	†	†	†
Number quit/withdrew during 4th year	4	†	†	†	†
Number graduating during 4th year	21	†	†	†	†
Number enrolled – end of 4th year	34	†	†	†	†
Percent persisting after 4th year	43.0	†	†	†	†
Percent exiting program for 4th year	6.8	†	†	†	†

†Not applicable; not enough time has passed to determine cell value.

[a]The sum of the number of students who remained enrolled at the end of that year and those who had graduated or withdrew during the year.

[b]The number enrolled at the end of the year divided by the number who enrolled in graduate school immediately after graduation.

[c]The number dismissed/withdrew divided by the number enrolled at the beginning of that year. Attrition is underreported by projects; true attrition rates would be the difference between the number enrolled and the number who graduated minus any missing cases.

NOTE: The number of graduates is not removed from the denominator for any of the persistence rates in this table because the objective of the McNair Program is obtainment of the Ph.D., and Ph.D.s are unlikely to be earned in less than four years. Program graduates in the first few years of graduate school are unlikely to represent PhD recipients and as such, are retained in the denominator. In future years, as Ph.D.s are earned, the recipients will be subtracted from the denominator when computing persistence rates. The majority of the degrees reported here are assumed to be master's degrees, many of which may be earned enroute to a doctoral degree. The numbers in bold were used as the denominators for the persistence rate each year.

SOURCE: Data from the program files of the U.S. Department of Education, Office of Federal TRIO Programs, Ronald E. McNair Postbaccalaureate Achievement Program, Annual Performance Reports.


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