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Affirmative Action at Work: Performance Audit of Two Minority Graduate Fellowship Programs, Illinois' IMGIP and ICEOP

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Abstract

IMGIP and ICEOP are minority graduate fellowship programs sponsored by the State of Illinois in order to increase the number of minority faculty and professional staff at Illinois institutions of higher education through graduate fellowships, networking and mentoring support. Nearly 850 fellowships have been awarded since 1986. A performance audit examined immediate (areas of graduate study, ethnicity of awards), intermediate (graduation areas and rates), and long-range results (academic job placement). The primary source for the audit was the database maintained by the programs' administrative office. These data were compared with data sets maintained by the Illinois Board of Higher Education and with national benchmarks (NSF and Ford Foundation Minority Graduate Fellowships). Findings revealed: (a) the IMGIP and ICEOP programs led to major diversification of minority doctoral study in Illinois; (b) a high percentage of all fellows graduated, both absolutely and in relation to national benchmarks, and fellows made up a large percentage of doctoral degrees awarded to minorities by

Illinois institutions (e.g., 46% of doctorates in the hard sciences awarded to African Americans from 1988-1998); and (c) fellows made up an important proportion of all minority faculty in Illinois (9%). Most ICEOP doctoral fellows and many other fellows have taken academic positions. The audit revealed outcomes-based evidence of a successful affirmative action program in higher education—evidence that is not otherwise available.

African American, Hispanic Americans, and Native Americans are significantly underrepresented throughout the collegiate education pipeline leading to faculty positions. In addition, minority graduate students have traditionally not done doctoral work in the sciences and humanities but have concentrated in education (Blackwell, 1987, Stamps & Tribble, 1995). Minority students make up a small proportion of students awarded advanced degrees and few minorities hold faculty positions in higher education (Midwest Higher Education Commission, 1995; Sandersen, & Dugoni, 1999).

In the mid-1980s, Illinois initiated two programs aimed at increasing minority faculty in institutions of higher education in the state. These programs, described below, provide graduate fellowships, mentoring, and networking support to African American, Hispanic American and Native American graduate students at institutions within the state who have the career goal of working in higher education in the state. This combination of financial, academic, and networking support has been identified as critical to the success of minority graduate students (Smith & Parker, 2000; Stamps & Tribble, 1995; Willie, Grady & Hope, 1991).

Program Descriptions

The Illinois Minority Graduate Incentive Program (IMGIP) was established in 1985, funded by a Higher Education Cooperation Act (HECA) grant awarded by the Illinois Board of Higher Education (IBHE). HECA funding has continued through the current fiscal year. The purpose of IMGIP is to increase the number of minority faculty and professional staff at Illinois institutions of higher education in the physical sciences, life sciences, mathematics, and engineering. Applicants for the fellowship must be African American, Hispanic American, or Native American and have been unconditionally accepted into an appropriate Illinois doctoral program. Three-year fellowship awards with an annual stipend of \$13,500 are made following statewide competition. Fellows also receive a \$1,500 books, supplies and travel allowance, a tuition waiver, and mentoring and networking support, including a yearly, three-day conference of workshops and presentations by current and former fellows, faculty mentors and university officials. Applicants need not be Illinois residents. There is no pay back provision; although, upon graduation, fellows must seek employment at institutions of higher learning in Illinois. A total of 177 fellowships have been awarded since 1986.

The Illinois Consortium for Educational Opportunity Program (ICEOP) was established by state legislation in 1985 by Public Act 84-785. According to the Act, ICEOP awards were established "to implement the policy of encouraging minority students to enroll and complete academic programs at the post-baccalaureate level." The ultimate goal was to increase the number of faculty and staff from minority groups underrepresented in Illinois institutions of higher education and governing boards. Applicants for the fellowship must be Illinois residents, be African American, Hispanic American, Asian American (Note 1), or Native American, have financial need, and have

been unconditionally admitted to an appropriate Illinois graduate program. Two-year master's fellowships and four-year doctoral fellowships are made following statewide competition. The annual stipend is \$10,000. In addition, most fellows receive a tuition waiver from their university. The administrative office provides orientation and networking support, especially through the yearly fellows' conference that includes IMGIP fellows. Upon graduation, applicants must take a position in Illinois education or payback 20% of their stipend award. A total of 669 fellowships have been awarded since 1987.

In 1988, a central office for both IMGIP and ICEOP was established at Southern Illinois University at Carbondale (<http://www.imgip.siu.edu/>). Since then, the two programs have been administered jointly by an administrator responsible to the ICEOP Board of Directors (made up of representative from 34 graduate degree granting institutions in the state) and the IMGIP Board of Directors (made up of representatives from 10 doctoral degree granting institutions in the state).

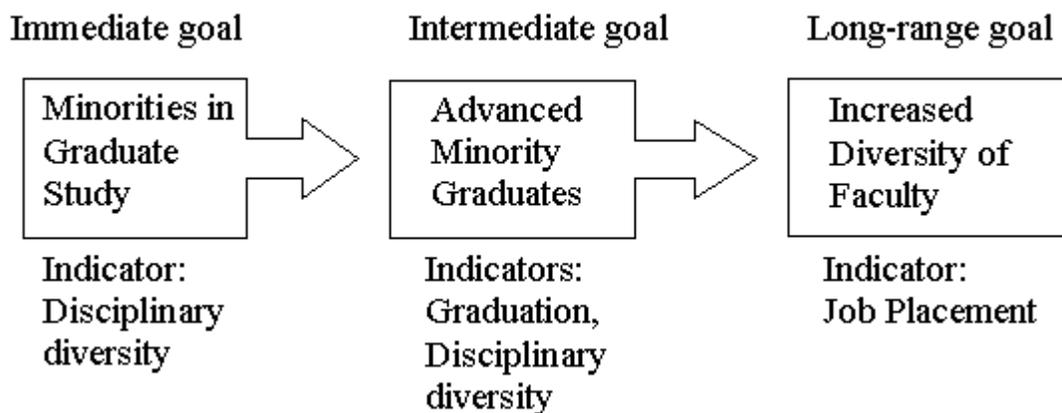


Figure 1. Logic Model of IMGIP and ICEOP Outcomes

Methodology

Logic Model

This performance audit examined program outcomes following the logic model outlined in Figure 1 (United Way, 1996). The immediate result of state-awarded fellowships (i.e., IMGIP and ICEOP) was expected to be a diversification of the fields of graduate study chosen by minority students. The intermediate result of the minority graduate programs was expected to be increased frequency of advanced degrees being awarded to minority students in the fields of funded study. The long-range goal was expected to be increase employment of minorities in higher education in Illinois.

Performance Audit

The primary source of information for the audit was the database of IMGIP and ICEOP fellows developed and maintained by the programs' administrative office. The database included information on awards (100%), academic progress (90%), job

placement (66%), and residential address (98%) for each fellow. An audit of the database by a confirmatory survey of current and former fellows and of university representatives found that the information in the database was up to date and accurate. Data from the administrative database were compared with three data sets maintained by the IBHE: (1) enumeration of graduate students enrolled by institution, academic program, and student ethnicity yearly from 1988 through 1998; (2) enumeration of graduate degrees conferred by institution, academic program, and student ethnicity yearly from 1988 through 1998; and (3) enumeration of faculty by institution, rank and ethnicity for 1997. IBHE data sets are available at <http://www.ibhe.state.il.us/>

The program audit examined these issues:

1. The ethnicity and areas of academic study of IMGIP and of ICEOP fellows and the impact of the programs on the areas of study of minority graduate students in Illinois.
2. Graduation rates of IMGIP and of ICEOP fellows and impact of the programs on the number of graduate degrees awarded by Illinois universities to minorities.
3. Job placement of IMGIP and ICEOP fellows and the impact of programs on the number of minorities on Illinois faculty, administration, and staff.

Results

Graduate Study-Ethnicity and Areas of Academic Study

African American, Hispanic Americans, and Native American made up 9.3% of Illinois graduate students from 1988 to 1998 (Table 1, Appendix) and 7.2% of Illinois the college faculty (1997, Table 9, Appendix). All IMGIP and ICEOP fellows were minorities.

Based on the National Center for Education Statistics' 2-digit Classification of Instructional Programs (CIP) codes, Figure 2 compares the areas of study for all Illinois' doctoral students, for all minority doctoral students, and for IMGIP fellows, highlighting the areas of primary concentration of IMGIP fellows (see also Table 2, Technical Appendix).

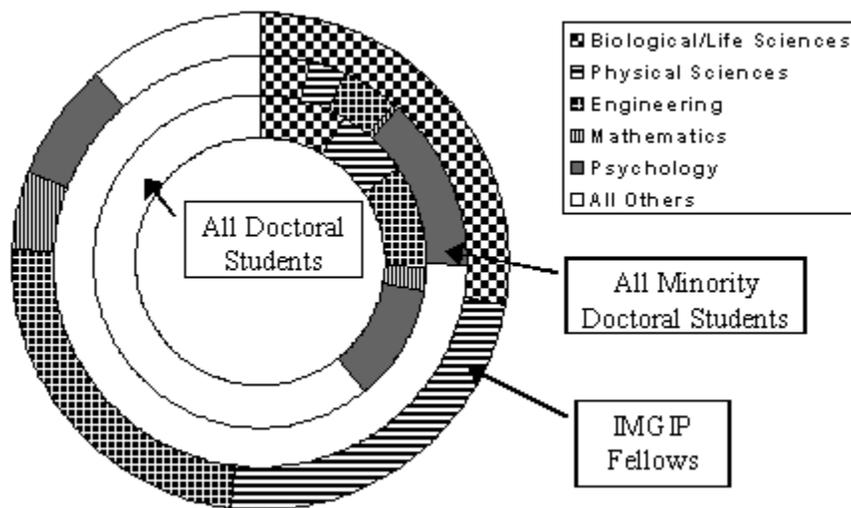


Figure 2. Areas of Academic Study for IMGIP Fellows and Illinois Doctoral Students

In Illinois, a smaller percentage of minority doctoral students studied in Biological and Life Sciences, Physical sciences, Engineering, and Mathematics than for all doctoral students (12% vs. 28% overall). In contrast, 81% of IMGIP fellowships have been awarded in these areas, increasing academic diversity.

Figure 3 compares the areas of study for all Illinois' graduate students, for all minority graduate students, and for ICEOP fellows, highlighting the areas of primary concentration of ICEOP fellows (see also Table 3 in the Appendix).

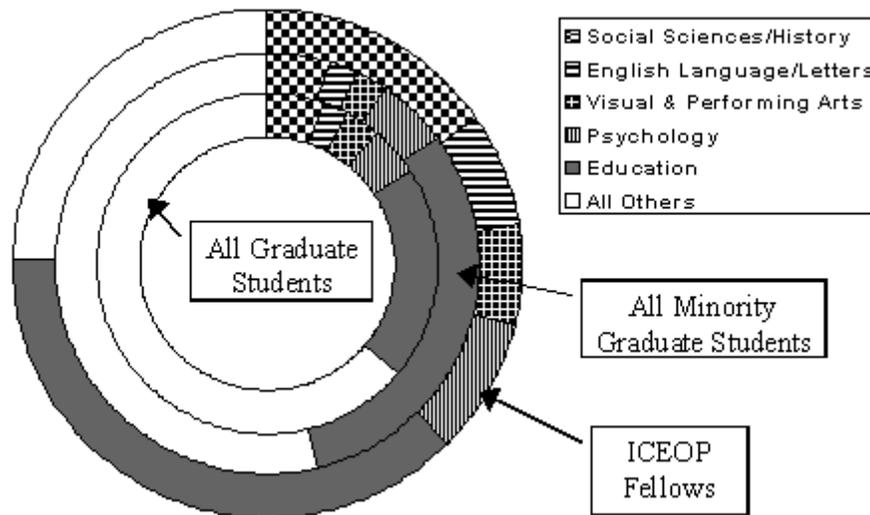


Figure 3. Areas of Academic Study for ICEOP Fellows and for Illinois Graduate Students

Both master's and doctoral students are included in the figure. Compared to all Illinois graduate students, minority graduate students were somewhat less likely to enroll in the areas of Social Sciences/History, English Language/Letters, and Visual & Performing Arts (11% vs. 9%, respectively). In contrast, 29% percent of ICEOP fellowships have been awarded in these three areas, increasing academic diversity. In the opposite direction, ICEOP fellowships have tended to intensify minority graduate study in the area of Education. Thirty-two percent of minority graduate students study Education, compared to 20% of all graduate students. Thirty-eight percent of ICEOP fellowships have been awarded in Education.

Together the IMGIP and ICEOP programs have contributed a major diversification of minority doctoral study into the areas of Biological/Life Sciences, Physical Sciences, Engineering, and Mathematics and to additional diversification of minority graduate study into Social Sciences/History, English Language/Letters, and Visual & Performing Arts.

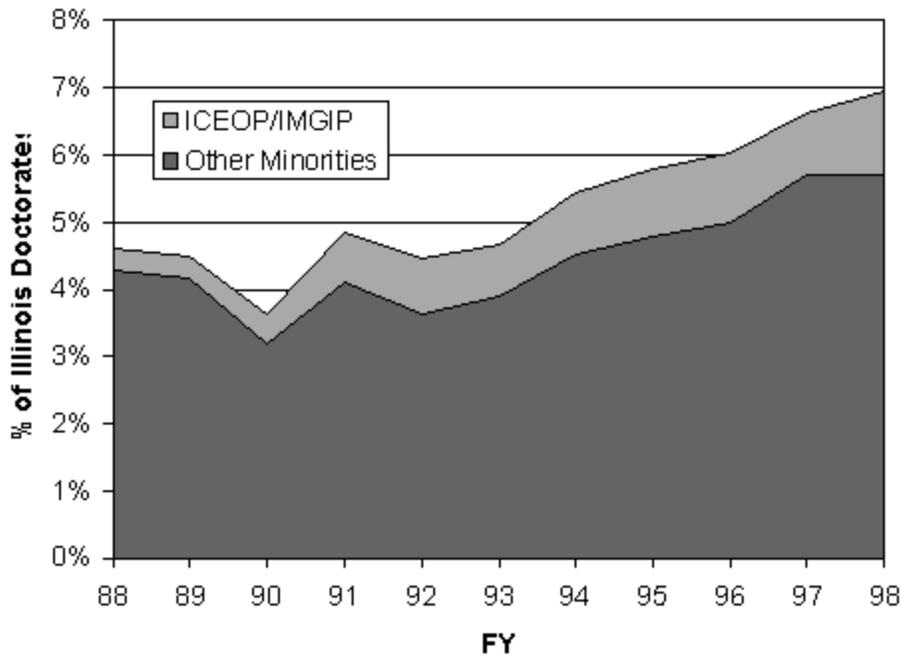


Figure 4. ICEOP/IMGIP and Other Minority Doctoral Graduates as a % of Illinois Doctorates by Fiscal Year

Graduate Study-Degree Completion

Over the 11 years from 1988 to 1998, African American, Hispanic Americans, and Native Americans received 5.3% of the doctoral degrees awarded by Illinois institutions. (Note 2) Sanderson & Dugoni (1999) report that these minority groups received 9.4% of all PhDs awarded in 1997 by US universities. In Illinois, the percentage of doctorates awarded to minorities has risen gradually from 4.6% in FY 1988 to 6.9% in FY 1998. Over the study period, 15% of the minority doctoral degrees in Illinois have been awarded to IMGIP and ICEOP fellows, rising from 7% in 1988 to 18% in 1998. Figure 4 shows the growth of minority doctoral degrees as a percentage of all degrees over this period and illustrates the increasing importance of the IMGIP and ICEOP fellows to this change.

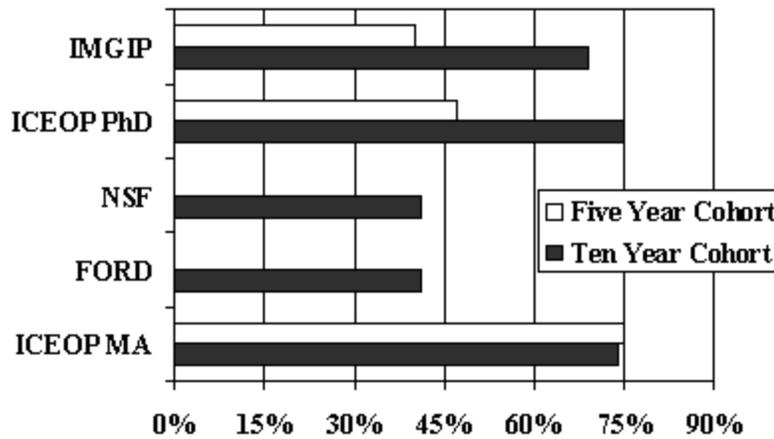


Figure 5. Graduations Rates for IMGIP and ICEOP Fellows by Years Post-fellowship Award and for National Benchmarks

Because of the research on time-to-degree-completion (Bowen & Rudenstein, 1992; Sanders & Dugoni, 1999), graduation rates of IMGIP and ICEOP fellows were examined for three time periods: fellows who started between 1986 and 1990 for whom graduate study should be completed; fellows who started between 1991 and 1995 who should be nearing completion of doctoral work and have completed master's work; and fellows who started graduate study between 1996 and 2000. Results are displayed in Figure 5.

Sixty-nine percent of the IMGIP fellows and 75% of the ICEOP doctoral fellows from 1986 to 1990 finished their degrees (see Table 4, Appendix). By comparison, Bowen and Rudenstein (1992) found that “about half of all entering students in Ph.D. programs eventually obtain doctorates” (p. 105). Doctoral graduation rates for the Ford Foundation Predoctoral Minority Fellowships was 41% after 7 years (Note 3) (National Research Council, 1996). National Science Foundation Minority Graduate Fellowships were also about 41% (Note 4). Illinois' fellows doctoral graduation rates far surpass these national benchmarks.

Those awarded doctoral fellowships more recently appear to be on track to meet or exceed the experience of other programs with 40% of IMGIP fellows and 47% of the 1991 to 1995 ICEOP doctoral fellows, already having received their degrees. A high percentage of the ICEOP master's fellows received their degree: 74% and 87% for awards from 1987- 1990 and 1991-1995, respectively. The observed graduation rates for fellows may be underestimated because academic status was not available in the administrative database for 13% of IMGIP fellows and 9% of ICEOP fellows.

Graduate Study-Area of Degree

Further evidence of the importance of the IMGIP and ICEOP programs to minority doctoral education in Illinois came from analysis of the proportion of minority doctoral degrees granted by area of study. Figure 6 presents this information for academic areas typical of IMGIP fellowships (top, darker bars) and of ICEOP fellowships (bottom, lighter bars). Overall, fellows received 27% of all doctoral degrees awarded in Illinois to minorities in the areas of Biological/Life Sciences, Physical Sciences, Engineering, and Mathematics over the 11 years from 1988 to 1998 (see Table 5, Appendix). Fellows

received 16% of the doctoral degrees awarded to minorities in the areas of Education, Social Sciences/History, Psychology, English Language/Letters, and Public Administration/Services (see Table 6, Appendix). In none of the areas of academic study where ICEOP master's fellowships were awarded did the fellows makeup more than 5% of the degrees awarded to minorities.

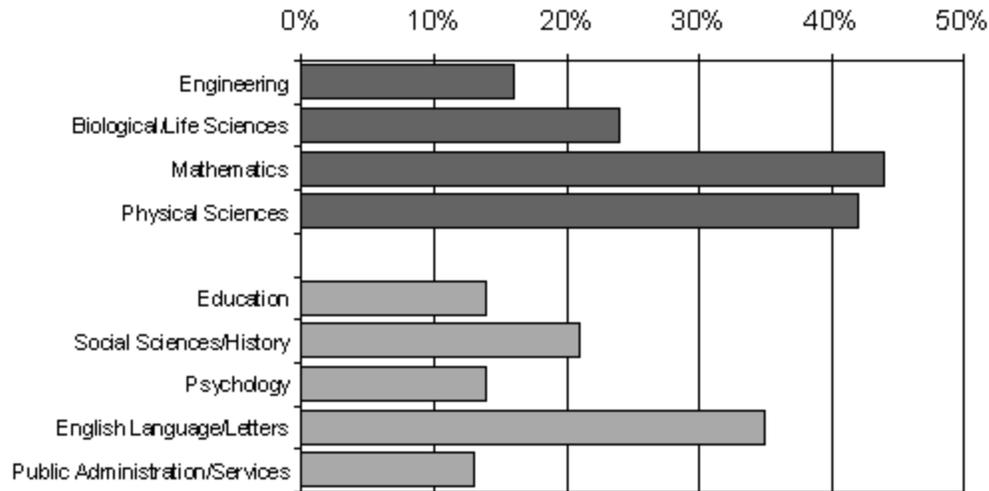


Figure 6. Doctoral Degrees Awarded to IMGIP and ICEOP Fellows as a Percentage of Doctoral Degrees Awarded to Minorities in Illinois 1988-1998, Selected Fields

Clearly, at the doctoral level, the IMGIP and ICEOP programs have had a major impact on the field of study and the number of degrees awarded to minority scholars in Illinois. Impact on master's graduations was not as clear.

Job Placement

Known job placements for fellows who have received their degrees are presented in Figure 7. Both programs consider appropriate job placements to include somewhat more than academic faculty positions in Illinois (Note 5). Seventy-five percent of ICEOP doctoral degree recipients, 43% of IMGIP degree recipients, and 38% of ICEOP master's degree recipients have taken academic jobs (see Table 7, Appendix). Comparably, through 1995 the Committee on Institutional Cooperation (CIC) schools reported that 69% of 137 minority doctoral fellows who had by then received a doctorate in humanities or in social sciences took a faculty position (in any state), as did 45% of the 22 minority fellows who had received a doctorate in sciences (Note 6). The former group would be most comparable to ICEOP fellows and the latter to IMGIP fellows.

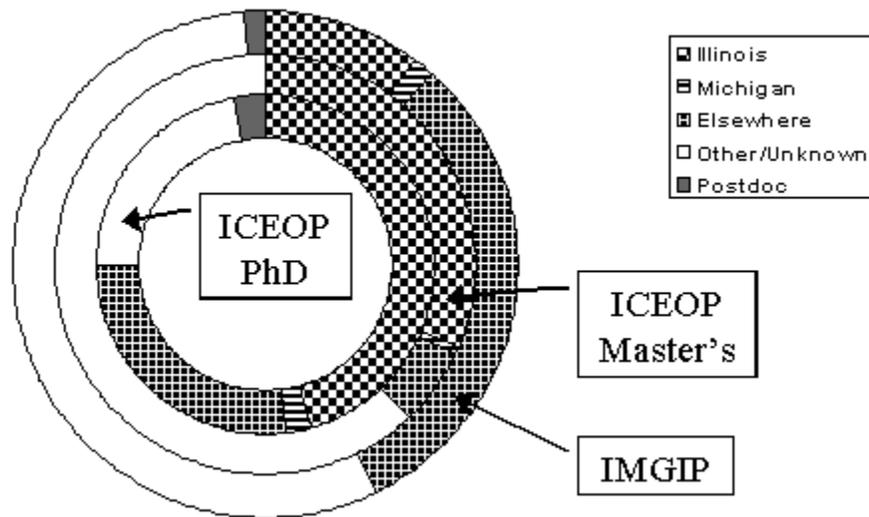


Figure 7. Academic Job Placement of IMGIP and ICEOP Graduates

Historically, 33% Illinois minority doctoral graduates have taken academic employment in the Midwest (Midwest Higher Education Commission, 1995). The percentages of fellows in academic jobs in Illinois are 46% (ICEOP, PhD), 10% (IMGIP), and 31% (ICEOP, master's). Illinois job placement of ICEOP doctoral recipients was impressive and that of IMGIP graduates was disappointing. However, because of their disciplinary specialties and non-academic opportunities, appropriate placement of IMGIP graduates may be a matter of severe competition among universities that value a diverse faculty. Job placements of fellows may be underestimated because employment status was not available in the administrative database for 46% of IMGIP fellows and 31% of ICEOP fellows.

Comparing the number of fellows who have taken academic faculty positions in Illinois with the total number of minority faculty in Illinois reveals that almost 9% of the minority faculty in Illinois have been or are ICEOP and IMGIP fellows (Note 7). The rank and type of institution where fellows were placed were not available in the administrative database. Analysis of this information for all Illinois faculty indicate that minority faculty are (1) more likely than other faculty to teach at community colleges (28% vs. 18%), (2) about as likely as other faculty to teach at public universities (43% vs. 41%), and (3) less likely than other faculty to teach at private universities (29% vs. 41%, see Table 9, Appendix). Minority faculty are less likely to be tenured (45% vs. 55%) and more likely to be on tenure track than other faculty (29% vs. 20%).

Discussion

As an immediate result, IMGIP and ICEOP have contributed a major diversification of minority doctoral study into sciences and engineering and to additional diversification of minority graduate study into social sciences and humanities. The programs have intensified minority graduate study in Education. As an intermediate result, a high percentage of all fellows finish their degrees, especially when compared to national bench marks. This is particularly clear for ICEOP doctoral fellows. Graduating IMGIP and ICEOP fellows make up a large percentage of doctoral degrees awarded to minorities by Illinois institutions and make an important and increasing contribution to the rising proportion of minority doctoral degrees awarded in the state. Long-term results also are positive. IMGIP and ICEOP fellows make up an important proportion of the

minority college faculty in Illinois (9%). Most ICEOP doctoral fellows and many other fellows are taking academic positions. However, for science and engineering graduates (IMGIP), that the percentage of fellows with academic positions is lower and that they are not locating in Illinois is disappointing.

In terms of educational policy, this results-focused program audit revealed Illinois investments in minority graduate fellowship programs are bearing fruit for the state and the nation. Several aspects of the programs would benefit from further investigation. First, both programs, but especially IMGIP, focused on academic areas of graduate study especially infrequently pursued by minority students. Working closely with universities, both programs were able to identify, admit, enroll, and graduate these students. Second, science doctorates and master's graduates were less likely to take academic positions. Although the mechanisms certainly differ for these groups, both may benefit from additional mentoring and encouragement to pursue academic careers, either through state supported post-docs or teaching internships. Finally, an explicit pay back provision, such as that implemented for ICEOP, may help tip the balance between academic and private sector employment for new PhDs.

As realized in the present report, the performance audit took advantage of an outcome-focused database of program participants and of datasets for the state that allowed development of comparison statistics. The outcome-focus has proven quite popular with the state higher education authority (IBHE) and the state legislature. For both groups issues of clear causal inference are less important than evidence of change in policy related indicators. At the same time, the outcome-focus was much preferred to the more typical process analysis of minority graduate fellowship programs (Smith, & Parker, 2000; Stamps & Tribble, 1995).

Notes

1. Asian Americans have received 12 of 669 ICEOP awards. Because of the small number of awards, this ethnic group was not covered in this study.
2. Computed by author from IBHE graduation data sets.
3. Adapting Tables 1 and 8 (National Research Council, 1996) for the 129 minority fellowships awarded from 1986 to 1988 when studied in 1995 (7 years RTD) yields these percentages:

Awarded Degree	Continuing with Studies	Discontinued	Unknown	Total (N=129)
41.1%	15.5%	4.7%	38.8%	100%

4. "By the end of 1988, 41% of the 113 MGFP awardees of 1979-1981 had completed their doctorates"(National Research Council, 1995, p. 3). Alternatively, by calculation from Table A-7 (p. 46), 79 of 190 fellows received their doctorates (41.5%). The authors concluded: "it is unlikely that the number of 1979-1981 fellows completing the Ph.D. will grow appreciably in the future" (p33).
5. ICEOP legislation allows fellows to accept faculty or staff position in Illinois higher education or "as an employee of this State in an education related position"(930/10; 110 ILCS 935/2). The IMGIP board seeks faculty or staff positions in Illinois higher education for fellows. Both governing boards have recently entered into a reciprocity relationship with the State of Michigan allowing placement in higher education institutions in Michigan as well as Illinois.
6. Personal communication, December 1999.

7. Includes "all persons whose specific assignments customarily are made for the purpose of conducting instruction, research, or public service as a principal activity" (IPEDS, form S). This can include administrators "if their principal activity is instructional" (see Table 8, Appendix).

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About the Author

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Dr. McKillip is a Professor of Psychology, Southern Illinois University at Carbondale, where he has been on the faculty for more than 25 years. His disciplinary specialties are program evaluation, need assessment, professional certification, and secondary data

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Appendix

Table 1
Ethnicity of IMGIP and ICEOP Fellowship Recipients and Illinois Graduate Students

Ethnicity	% IMGIP ¹	% ICEOP ¹	Illinois Graduate Students ²
African American	63.3%	78.9%	6.8%
Hispanic American	32.8%	17.2%	2.3%
Native American	4.0%	2.1%	0.2%
Asian American	--	1.8%	4.4%
N	177	669	862,081

¹ Source: IMGIP/ICEOP administrative database, unduplicated IMGIP and ICEOP Fellowship awards 1986 through 1999. Computed by author.

² Source: IBHE data on graduate enrollment in Illinois universities, 1988 through 1998 for graduate students with declared majors (FES88.dat to FES98.dat). Computed by author.

Table 2
Minority and Illinois Doctoral Program Enrollment and IMGIP Fellowships, by Academic Discipline

Doctoral Program (2 Digit CIP Code)	% IMGIP ¹	% Minority ²	% Total ³
Biological/Life Sciences	27.7%	4.0%	8.2%
Physical Sciences	24.3%	2.7%	7.3%
Engineering	23.7%	4.3%	10.0%
Psychology ⁴	7.9%	13.7%	11.3%
Mathematics	5.1%	0.7%	2.4%
Home Economics	3.4%	0.2%	0.1%

Agricultural Sciences	2.8%	0.6%	1.1%
Computer & Information Science	1.7%	0.8%	2.8%
English Language/Letters	1.7%	3.6%	4.4%
Agribusiness/Production	0.6%	0.4%	0.3%
Education	0.6%	30.1%	13.8%
Social Sciences/History	0.6%	11.2%	11.8%
All Others (17)	0.0%	27.7%	26.3%
Total Doctoral Programs	100.0%	100.0%	100.0%

¹ *Source:* IMGIP/ICEOP administrative database, unduplicated IMGIP Fellowship awards 1985 through 1999. Coding and computation by author. N=177.

² *Source:* IBHE data on doctoral enrollment in Illinois universities, 1988 through 1998 for African American, Native American, and Hispanic American students (FES88.dat to FES98.dat). Computed by author. N=12,668.

³ *Source:* IBHE data on doctoral enrollment in Illinois universities, 1988 through 1998 for doctoral students with declared majors (FES88.dat to FES98.dat). Computed by author. N=183,850.

⁴ The IMGIP board voted to end funding of doctoral study in Psychology in 1997.

Table 3
Minority and Illinois Graduate Program Enrollment and ICEOP Fellowships, by Academic Discipline

Graduate Program (2 Digit CIP Code)	% ICEOP ¹	% Minority ²	% Total ³
Education	37.7%	31.6%	20.3%
Social Sciences/History	15.2%	4.7%	5.2%
Psychology	8.8%	5.2%	4.7%
English Language/Letters	7.2%	2.3%	2.7%
Visual & Performing Arts	6.4%	2.4%	3.2%
Health Professions	4.6%	6.3%	7.0%
Public Administration/Services	4.6%	9.9%	4.8%
Business Mgt./Admin. Services	2.1%	18.4%	23.9%
Biological/Life Sciences	1.9%	1.6%	3.1%
Philosophy & Religion	1.6%	0.5%	0.7%
Communications	1.5%	1.7%	1.3%
Foreign Languages	1.5%	1.0%	1.2%
Physical Sciences	1.0%	1.0%	2.6%

Engineering Related Technology	0.9%	0.2%	0.2%
Engineering	0.7%	2.2%	5.6%
Home Economics	0.7%	0.2%	0.4%
Mathematics	0.7%	0.9%	1.4%
Area/Ethnic Studies	0.6%	0.6%	0.2%
Computer & Information Science	0.4%	1.9%	3.1%
Protective Sciences	0.4%	1.6%	0.5%
Divinity	0.3%	2.6%	3.3%
Architecture	0.1%	0.7%	0.8%
Law and Legal Studies	0.1%	0.4%	0.5%
Liberal/General Studies	0.1%	0.7%	0.8%
Library Sciences	0.1%	0.7%	1.0%
Parks and Recreation	0.1%	0.3%	0.5%
All Others (4)	0.0%	0.6%	1.2%
Total	100.0%	100.0%	100.0%

¹ Source: IMGIP/ICEOP administrative database, unduplicated ICEOP Fellowship awards 1986 through 1999. Coding and computation by author. N=669.

² Source: IBHE data on graduate enrollment in Illinois universities, 1988 through 1998 for African American, Native American, and Hispanic American students (FES88.dat to FES98.dat). Computed by author. N=80,484.

³ Source: IBHE data on graduate enrollment in Illinois universities, 1988 through 1998 for graduate students with declared majors (FES88.dat to FES98.dat). Computed by author. N=862,081.

Table 4
Academic Outcome for IMGIP and ICEOP Fellows by Year Fellowship Began

	Awarded Degree	Continuing with Studies	Discontinued	Unknown	Total
IMGIP (Doctorate)					
'86-'90 (n=64)	69%	0%	31%	2%	100%
'91-'95 (n=57)	40%	7%	32%	21%	100%
'96-2000 (n=55)	5%	64%	13%	18%	100%
ICEOP (Doctorate)					

'87-'90 (n=110)	75%	1%	19%	5%	100%
'91-'95 (n=154)	47%	20%	16%	16%	100%
'96-2000 (n=155)	7%	83%	3%	8%	100%
ICEOP (Master's)					
'87-'90 (n=43)	74%	0%	26%	0%	100%
'91-'95 (n=60)	87%	3%	7%	3%	100%
'96-2000 (n=142)	49%	35%	6%	10%	100%

Note.- 1 IMGIP fellow and 4 ICEOP fellows died before completing their studies. They are omitted from the table as is one student enrolled in a professional degree program. *Source:* IMGIP/ICEOP administrative database. Coding and computation by author.

Table 5
IMGIP/ICEOP Graduates as a Percentage of all Minority Doctoral Graduates in Illinois 1988-1998, for IMGIP-Targeted Disciplines

All Illinois Doctoral Degrees (FY88- FY98)¹	African Americans	Hispanic Americans	Native Americans	Total
Engineering	33	41		74
Biological/Life Sciences	23	39	4	66
Mathematics	3	6		9
Physical Sciences	22	28	2	52
Total Doctoral Graduates	81	114	6	201
IMGIP/ICEOP Doctorates (FY88-FY98)²				
Engineering	7	5		12
Biological/Life Sciences	10	5	1	16
Mathematics	4			4
Physical Sciences	16	6		22
Total IMGIP Graduates	37	16	1	54
IMGIP/ICEOP Doctorates as a % of All Graduates				
Engineering	21%	12%		16%

Biological/Life Sciences	43%	13%	25%	24%
Mathematics	100%*			44%
Physical Sciences	73%	21%		42%
Total Doctoral Graduates	46%	14%	17%	27%

¹ Source: IBHE data on doctoral degrees awarded in Illinois universities, 1988 through 1998 for all students (FEZ88.dat to FEZ98.dat). Computed by author.

² Source: IMGIP/ICEOP administrative database, fellows receiving degrees from FY1988 through FY1998. Discipline coding and computations by author. Three African American IMGIP fellows receiving doctoral degrees not included because they were awarded FY1999. 49 doctorates were awarded to IMGIP fellows and 5 to ICEOP fellows.

* IBHE data only identify 3 mathematics doctoral degrees awarded to African American students during the study period while IMGIP/ICEOP data contain 4.

Table 6
ICEOP/IMGIP Graduates as a Percentage of all Minority Doctoral Graduates in Illinois 1988-1998, for Selected Disciplines

All Illinois Doctoral Degrees (FY88- FY98)¹	African Americans	Hispanic Americans	Native Americans	Total
Education	390	80	8	478
Social Sciences/History	70	46	5	121
Psychology	115	72	7	194
English Language/Letters	32	12	4	48
Public Administration/Services	38	10		48
Total Doctoral Graduates	645	220	24	889
ICEOP/IMGIP Doctorates (FY88-FY98)²				
Education	58	10		68
Social Sciences/History	18	7		25
Psychology	19	7	2	28
English Language/Letters	13	4		17
Public Administration/Services	5	1		6
Total IMGIP Graduates	113	29	2	144
ICEOP/IMGIP Doctorates as a % of All Graduates				

Education	15%	13%		14%
Social Sciences/History	26%	15%		21%
Psychology	17%	10%	29%	14%
English Language/Letters	41%	33%		35%
Public Administration/Services	13%	10%		13%
Total Doctoral Graduates	18%	13%	8%	16%

¹ Source: IBHE data on doctoral degrees awarded in Illinois universities, 1988 through 1998 for all students (FEZ88.dat to FEZ98.dat). Computed by author.

² Source: IMGIP/ICEOP administrative database, fellows receiving degrees from FY1988 through FY1998. Disciplines selected because they had graduated at least 5 fellows. Discipline coding and computations by author. Thirteen ICEOP fellows receiving doctoral degrees not included because they were awarded FY1999. 131 doctorates were awarded to ICEOP fellows and 13 to IMGIP fellows.

Table 7
Job Placement of IMGIP and ICEOP Fellows By Academic Outcome

	Academic Outcome					
IMGIP Fellows¹	Awarded Doctorate (n=70)	Continuing with studies (n=39)	Dis-continued (n=67)	Unknown (n=23)	Total (n=176)	
Faculty/Staff-IL	10.0%		4.5%		5.1%	
Faculty/Staff-MI ²	1.4%				0.6%	
Faculty/Staff-Other	31.4%		9.0%		14.8%	
Other or Unknown	55.7%		86.3%	100.0%	56.8%	
Continuing	1.4%	100.0%			22.7%	
Total IMGIP	100.0%	100.0%	100.0%	100.0%	100.0%	
ICEOP Fellows^{1,3}	Awarded Doctorate (n=166)	Awarded Master's ⁴ (n=153)	Continuing with studies (n=213)	Dis-continued (n=74)	Unknown (n=58)	Total (n=664)
Faculty/Staff/Educ.-IL	45.8%	31.4%	7.0%	9.5%		22.0%
Faculty/Staff/Educ.-MI ²	2.4%	0.7%	0.5%			0.9%
Faculty/Staff/Educ.-Other	27.1%	5.9%	0.9%	9.5%	1.7%	9.6%
Other or Unknown	21.7%	62.1%	1.4%	81.1%	98.3%	37.3%
Continuing	3.0%		90.1%			30.1%
Total ICEOP	100.0%	100%	100.0%	100.0%	100.0%	100.0%

Note.- One IMGIP fellow and 5 ICEOP fellows have died and are not included in the table.

¹ Source: IMGIP/ICEOP administrative database, fellows receiving degrees from FY1988 through FY1998. Coding and computations by author.

² Since 1997 IMGIP/ICEOP boards allow fellows to accept academic jobs in Michigan via a reciprocity agreement..

³ ICEOP legislation allows fellows to accept faculty or staff position in Illinois higher education or “as an employee of this State in an education related position”(930/10; 110 ILCS 935/2). This educational placement is often as administrators in public k-12 school districts. 25 ICEOP fellows hold such positions in Illinois (8.4% of those awarded the doctorate and 6.5% of those awarded the master's).

⁴ Students with master's level ICEOP fellowship that have been awarded the master's degree.

Table 8
IMGIP and ICEOP Fellows Employed as Faculty at Illinois Universities and Colleges as a Percentage of All Illinois Minority Faculty, by Ethnicity

		Ethnicity			
		African American	Hispanic American	Native American	Total Minority
Number of Illinois Faculty ¹		1253	45	465	1763
Number of	IMGIP	6	3	0	9
Fellows Employed	ICEOP	117	24	2	143
as Illinois Faculty ²	Both	123	27	2	152
Fellows as a % of	IMGIP	0.5%	0.0%	0.6%	0.5%
Illinois Faculty	ICEOP	9.3%	4.4%	5.2%	8.1%
	Both	9.8%	4.4%	5.8%	8.6%

¹ Source: IBHE IPEDS S file on faculty at 138 Illinois institutions in 1997 (line F107, Total Faculty, staff97.txt).Includes “all persons whose specific assignments customarily are made for the purpose of conducting instruction, research, or public service as a principal activity”. This can include administrators “if their principal activity is instructional.” Computations by author. Minority faculty (African American, Hispanic American, and Native American) make up 7.2% of the total of 24,565 faculty at 138 institutions. Table 9 presents minority faculty rank and type of institution.

² Source: IMGIP/ICEOP administrative database, Illinois faculty placements only. Coding and computations by author.

Table 9
Other and Minority Faculty At Illinois Colleges by Type of School and Faculty Rank, 1997

Type of School	% Other Faculty (n=22,802)	% Minority Faculty ¹ (n=1,763)		
Private (n=80)	41.4%	29.0%		
Community College (n=46)	17.7%	27.9%		
Public (n=12)	40.9%	43.1%		
Total (N=138)	100.0%	100.0%		
Faculty Rank	% Other Faculty	% Minority Faculty		
Tenured	55.0%	45.4%		
Tenure Track	20.4%	28.8%		
Not Tenure Track	24.6%	25.8%		
Total	100.0%	100.0%		
Minority Faculty as a % of All Faculty	Tenured	Tenure Track	Not Tenure Track	Total ²
Private	3.4%	6.5%	6.3%	5.1%
Community College	9.4%	12.5%	23.5%	10.8%
Public	5.7%	13.2%	7.0%	7.5%
Total	6.0%	9.8%	7.5%	7.2%

Source: IBHE IPEDS S file on faculty at 138 Illinois institutions in 1997 (lines F092, “Total faculty with tenure,” F099, “Total non-tenured faculty (Those on tenure track),” F106, “Total non-tenured faculty (Those not on tenured track),” and F107, “Total Faculty”, staff97.txt). Classification of institutions and computations by author.

¹Minority faculty are African American, Hispanic American, and Native American.

² N=24,565.

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