

DISCCRS II-IV: Profile of Early-Career Climate Researchers registered with DISCCRS October 1, 2002 - March 31, 2008

Background. The Dissertations Initiative for the Advancement of Climate Change Research, DISCCRS (<http://disccrs.org>) is a capstone program to bring together new Ph.D. scholars from the natural and social sciences, mathematics, engineering and other fields related to climate change, impacts and solutions. Recent Ph.D.s are targeted in order to introduce graduates to the community and to catalyze interdisciplinary understanding, professional development and foster collaborative interactions. Central to this initiative are annual symposia and electronic resources (webpage and weekly newsletter). The intensive, week-long **symposia** bring together international, interdisciplinary cohorts of recent graduates who are selected through a competitive application process. The symposia provide a forum where these future leaders can expand their scientific and professional outlook and forge lifelong, interdisciplinary collegial networks. Reports on the DISCCRS I, II, III and IV Symposia are available at <http://disccrs.org>. An **electronic newsletter** disseminates news, resources, job announcements and other time-sensitive information to a global audience on a weekly basis. The **webpage** <http://disccrs.org> includes an on-line Ph.D. Dissertation Registry, <http://disccrs.org/search.html>. Nearly 1,000 dissertations have been registered to date. This page showcases work across disciplinary and geographic boundaries. The webpage also provides global access to resources developed for and by symposium participants.

As part of the process to register dissertation abstracts, graduates are asked to complete a demographic profile so that the characteristics of interdisciplinary climate scholars can be documented and tracked.

This paper summarizes data collected from 780 early career scholars who registered for the DISCCRS II, III and IV programs running October 1, 2002 through March 31, 2008. Table I provides institutions with number of registered Ph.D.s for the DISCCRS I program (198 registrants) as well as from DISCCRS II, III and IV to provide a more comprehensive list (978 total) for DISCCRS I, II, III and IV.

Recruitment. The following research societies support DISCCRS with announcements of opportunity of the program to their members: Association of American Geographers (**AAG**), Association of Environmental and Resource Economists (**AERE**), American Geophysical Union (**AGU**), American Meteorological Society (**AMS**), American Society of Limnology and Oceanography (**ASLO**), Ecological Society of America (**ESA**), Environmental Studies Section of the International Studies Association (**ESS-ISA**), Science, Technology and Environmental Politics Section of the American Political Science Association (**STEP/APSA**), The Oceanography Society (**TOS**), and U.S. Society for Ecological Economics (**USSEE**). These sponsoring societies provide links from their pages to the DISCCRS website, distribute program announcements at their annual meetings, and advertise the program through their publications and/or electronic communication. Announcements are also distributed through community listservs (view list at <http://disccrs.org/news.html>), the DISCCRS weekly newsletter, and a list of academic departments and individuals engaged in climate research. In all, 780 scholars registered and 410 of these applied for the DISCCRS II, III, and IV symposia.

CHARACTERISTICS OF DISCCRS REGISTRANTS

The DISCCRS program is international, with citizens of 85 countries registering since the Registry began in 2002. Throughout this report, the 2008 List of Developing Countries provided by the World Bank, 7/1/07, see www2.unine.ch/webdav/site/.../isce.../list_developing_countries.pdf was used to categorize countries.

The full DISCCRS I – IV registry includes 978 registrants representing 393 different Ph.D. granting institutions. Of the registrants, 546 (55.8%) received their Ph.D. from U.S. institutions (Table I), 323 (33%) from institutions in other developed nations (Table II) and 109 (11.1%) from institutions in developing countries (Table III).

The DISCCRS II - IV cycle targeted graduates with Ph.D. degrees completed October 1, 2002 - March 31, 2008. A total of 780 abstracts were registered during the five and one half-year period. Of these 780 registrants, 514 (65.9%) registered less than 12 months after completing their Ph.D. The majority of them, 69.2% (540), registered in the 4 months prior to a DISCCRS Symposium application deadline.

Citizenship (Figure 1). Figure 1 summarizes citizenship by geographic region for DISCCRS II, II and IV registrants. The Dissertation Registry attracted 780 recent graduates who were citizens of 82 countries. Of these, 308 were citizens of the U.S. The rest were citizens of: Algeria (1), Argentina (5), Australia (18), Bangladesh (7), Barbados (1), Belgium (5), Benin (1), Bermuda (1), Bhutan (1), Botswana (1), Brazil (17), Bulgaria (1), Cambodia (1), Cameroon (1), Canada (39), Chile (1), China (36), Colombia (12), Congo (1), Costa Rica (2), Cote d'Ivoire (1), Croatia (1), Czech Republic (1), Denmark (6), Egypt (6), Eritrea (1), Estonia (1), Ethiopia (3), Finland (3), France (18), German (49), Ghana (3), Greece (4), Honduras (1), Hungary (1), India (38), Indonesia (6), Iran (1), Ireland (1), Israel (3), Italy (10), Jamaica (1), Japan (8), Jordan (4), Kenya (9), Mauritius (1), Mexico (8), Mongolia (2), Morocco (1), Nepal (8), Netherlands (6), New Zealand (6), Nicaragua (1), Nigeria (8), Norway (1), Pakistan (1), Peru (2), Philippines (2), Poland (1), Portugal (2), Romania (2), Russia (2), Senegal (2), Slovakia (1), South Africa (2), South Korea (8), Spain (11), Sudan (1), Sweden (10), Switzerland (2), Taiwan (3), Thailand (1), Tunisia (1), Turkey (4), Uganda (1), Ukraine (1), United Kingdom (23), Uruguay (2), Venezuela (3), Zambia (1), and Zimbabwe (1). Some registrants held dual citizenships and 10 did not specify.

Country of Ph.D. (Figure 2). Figure 2 summarizes country of Ph.D. by geographic region. Of the 780 registrants, 437 (56%) completed their Ph.D. in the United States and 302 (78%) were American citizens. The remaining 135 graduates from U.S. institutions were citizens of: Argentina (1), Australia (2), Barbados (1), Bermuda (1), Brazil (5), United Kingdom (2), Canada (13), Chile (1), China (23), Colombia (8), Costa Rica (2), Cote d'Ivoire (1), Croatia (1), Netherlands (1), Eritrea (1), Ethiopia (1), France (2), German (8), Ghana (1), Greece (2), India (10), Israel (1), Italy (1), Japan (4), Jordan (2), Kenya (4), Mexico (5), Morocco (1), Nepal (3), New Zealand (2), Nicaragua (1), Peru (1), Philippines (1), Romania (1), Russia (1), South Korea (7), Spain (2), Taiwan (3), Thailand (1), Turkey (1), Uganda (1), and Venezuela (2). Five with U.S. Ph.D.s did not specify citizenship. Just six of the registered Americans citizens completed a

Ph.D. outside the U.S. Of the 308 American citizens who registered, 302 (98%) completed their Ph.D. in the U.S. These six completed Ph.D.s in Australia (1), Belgium (1), and Canada (4).

Country of Residence. (Figure 3). This population of recent Ph.D. graduates is quite mobile and may have moved between when they completed their Ph.D. and when they registered. The majority (57.6%) resided in the U.S. when they registered, compared with 56% who completed their Ph.D. in the U.S. There were 211 (27%) registrants residing in other developed countries and 120 (15.4%) registrants residing in developing countries

Age at Ph.D. (Figures 4a and b). Of the 780 who registered, 746 (96%) indicated their month and year of birth. Of these 746, the average age at Ph.D. was 32.9 years (median 31.7). Of the 308 American registrants, 295 provided their month and year of birth with an average age at Ph.D. of 32.5 years and median age 1.0 years. The average and median ages at Ph.D. among the 153 American females were 32.2 and 30.6, respectively. Corresponding figures for American males were 32.9 average and 31.8 median.

DISCCRS Registration and Completion of Ph.D. (Figure 5). Of the 780 registrants, 514 (65.9%) registered within 12 months post degree, 615 (78.8%) within 18 months and 685 (87.8%) within 24 months.

Gender (Figure 6). Of the 780 registrants, 774 indicated gender. Of these, 346 (44.7%) were female and 428 (55.3 %) were male. The 308 American citizens included 160 (51.9%) females and 148 (48.1%) males.

Ethnicity (Figure 7). Of the 308 American citizens who registered, 294 (95%) provided ethnicity. Of these, 16 (5.4%) were underrepresented minorities. This included 5 (1.7%) African Americans, 2 (0.7%) American Indians or Alaska Natives, 1 (0.3%) Mexican American, 1 (0.3%) Puerto Rican and 7 (2.4%) Other Hispanic Americans.

Disciplinary Specialty (Figures 8a and b). Of the 780 registrants, 767 indicated a primary disciplinary specialty as follows: 329 (42.9%) biological/ecological sciences, 254 (33.1%) physical sciences, 165 (21.5%) social sciences and 19 (2.5%) mathematics or engineering. The 303 U.S. citizens who indicated a primary disciplinary specialty were most likely to be biological/ecological science specialists (155 or 51.2%), followed by 81 (26.7%) physical science, 62 (20.5%) social science and 5 (1.7%) math or engineering specialists. The 231 citizens of developing countries who provided primary disciplinary specialty were more likely to specialize in physical science (90 or 39%) than biological/ecological science (80 or 34.6%), followed by 54 (23.4%) social science and 7 (3%) math or engineering specialists.

Employment Sector (Figure 9). Given the intervals between Ph.D. completion and DISCCRS registration, most were likely to be on their first job, or waiting for their first job. The majority of the 449 U.S. residents who registered (347 or 77.3%) were employed in academia. Seven (1.6%) were unemployed at the time of registration. Of the 211 registrants of other developed countries, 15 (7.1%) stated they were unemployed compared with 2 (1.7%) of the 120 residents of developing countries.

Job Type (Figure 10). Of the 442 U.S. residents who were employed, 272 (61.5%) were on postdocs, 65 (14.7%) were in other temporary work, and 105 (23.8%) held permanent or potentially permanent positions. Of the 196 residents of other developed countries who were employed, 119 (60.7%) were on postdocs, 52 (26.5%) were in other temporary work, and 25 (12.8%) held permanent or potentially permanent positions. Of the 117 residents of developing countries who were employed, 25 (21.4%) were on postdocs, 12 (10.3%) were in other temporary work, and 80 (68.4%) held permanent or potentially permanent positions.

Perceptions of the job market (Figure 11a and b). Registrants were asked to rate the job market as excellent, good, neutral/fair, bad, or hopeless. Two hundred ninety one of 308 American citizens (95%) indicated their perception of the job market. Responses of the American citizens were: 11 (3.8%) excellent; 102 (35.1%) good; 140 (48.1%) neutral/fair; 34 (11.7%) bad; and 4 (1.4%) hopeless. For other developed countries 211 of 229 (92%) responded, with: 8 (3.8%) excellent; 57 (27%) good; 102 (48.3%) neutral/fair; 41 (19.4%) bad; and 3 (1.4%) hopeless. For developing countries, 217 of 233 (93%) responded, with: 12 (5.5%) excellent; 83 (38.2%) good; 93 (42.9%) neutral/fair; 28 (12.9%) bad; and 1 (0.5%) hopeless.

Marital Status (Figure 12). Of the 780 registrants, 749 (96%) provided information on marital status. Of these 399 (53.3%) were married. Among the American citizens, 296 of 308 (96%) provided marital status, including 144 males and 152 females. Of these Americans, 79 (54.9%) males and 71 (46.7%) females were married, 14 (9.7%) males and 20 (13.6%) females were in permanent relationships, 46 (31.9%) males and 54 (35.5%) females were single, 5 (3.5%) males and 7 (4.6%) females were either separated or divorced (Figure 9).

Children (Figure 13). Overall 653 of the 780 registrants (84%) provided information about number of children. The majority (418 or 64.0%) of the 653 had no children. There were gender differences: Overall, just 79 (28.1%) of the 281 females had at least one child compared with 155 (41.8%) of the 371 males. Of the 308 American registrants, 263 (85%) provided information about number of children. Of the 136 American females, 31 (22.8%) had at least one child; and of the 127 American males, 44 (34.6%) had at least one child (Figure 10).

It is sad to see that women continue to face a “penalty” when it comes to marriage and children. As Rossi so eloquently stated back in 1965, "Marriage, parenthood and meaningful work are major experiences in the adventure of life. No society can consider that the disadvantages of women have been overcome so long as the pursuit of a career exacts a personal deprivation of marriage and parenthood, or the pursuit of happiness in marriage and family life robs a woman of fulfillment in meaningful work."

DISCCRS SYMPOSIA

Four DISCCRS symposia have been held to date: DISCCRS I, March 10-15, 2003, Guanica, Puerto Rico; DISCCRS II, March 26 – April 2, 2006, Pacific Grove, California; DISCCRS III, September 10-17, 2007, Volcanoes National Park, Hawai'i, and DISCCRS IV, November 2-9, 2008, Tonto National Forest, Arizona.

Symposium Application Success rates: The success rate for DISCCRS II applicants was 50.7% (75 applications and 38 invitations), 18.7% (235 applications and 44 invitations) for DISCCRS

III and 35.2% for DISCCRS IV (108 applications and 38 invitations). Success rates for American citizens were 68.8% (32 applications and 22 invitations) for DISCCRS II, 38.8% (85 applications and 33 invitations) for DISCCRS III, and 67.9% (36 invitations for 53 applicants) for DISCCRS IV. Success rates for U.S.A. residents were 68.2% (44 applications and 30 invitation) for DISCCRS II, 28.7% (122 applications and 35 invitations) for DISCCRS III and 40.8% (76 applications and 31 invitations) for DISCCRS IV.

Symposium reports are located on the DISCCRS webpage (<http://disccrs.org>), under “Program Reports”.

Publications from DISCCRS II-IV Cycle.

Weiler, C.S., J. Marlon and R.B. Mitchell (2004-2008). DISCCRS Climate Change webpage. <http://disccrs.org/>. Includes DISCCRS Ph.D. dissertation registry, symposium application instructions, professional resources developed for and from the DISCCRS symposia, and symposium reports. See:

http://www.disccrs.org/reports/DISCCRS_II_Symposium_Report.pdf

http://www.disccrs.org/reports/DISCCRS_III_Symposium_Report.pdf

http://www.disccrs.org/reports/DISCCRS_IV_Symposium_Report.pdf

Weiler, C.S. and J. Marlon. 2005 – 2009. DISCCRS News, weekly electronic newsletter distributed to more than 1,000 interdisciplinary Ph.D. graduates who have registered with DISCCRS since 2002.

Mitchell, R. B. (2008). Minds Move Mountains: The Power of Interdisciplinary Collaboration. Commencement Speech, University of Oregon, 16 June 2008.

Weiler, C. S. 2007. Meeting Ph.D. graduates’ needs in a changing global environment. *Eos* 88(13):149,151.

Weiler, C.S. (2007). Earth System Science: The Ultimate Team Sport. Acceptance Speech, ASLO Distinguished Service Award. Plenary session, ASLO Aquatic Sciences Meeting, February 5 – 9, 2007, Santa Fe, New Mexico.

Weiler, C.S. (2005). The Right Stuff: Preparing PhD graduates for the challenges posed by complex environmental systems. *L&O Bulletin* 14(2):47-48.

Weiler, C.S. (2005). The Right Stuff: Preparing new professionals to meet the challenges of a changing world. Poster, NSF Biocomplexity PI Meeting, March 21-23, 2005, Arlington.

References

Rossi, A.S., 1965: Women in science: Why so few? *Science* 148. 1196-1202.

Acknowledgments

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Table I. U.S. institutions granting Ph.D. degrees to DISCCRS I - IV dissertation registrants. Of the 978 graduates who registered, 546 (56%) completed their Ph.D. in the U.S. There are 126 U.S. institutions represented. Institution name and number of registrants is provided.

#	Institution	#	Institution
1	American Univ.	2	Univ. of Alabama at Huntsville
4	Arizona State Univ.	1	Univ. of Alabama at Tuscaloosa
1	Arkansas State Univ. at Jonesboro	10	Univ. of Alaska at Fairbanks
2	Auburn Univ.	18	Univ. of Arizona
3	Boston Univ.	1	Univ. of Arkansas
1	Bowling Green State Univ.	24	Univ. of California at Berkeley
2	Brown Univ.	11	Univ. of California at Davis
4	California Institute of Technology	9	Univ. of California at Irvine
4	Carnegie Mellon Univ.	7	Univ. of California at Los Angeles
1	Case Western Reserve Univ.	1	Univ. of California at Riverside
1	City Univ. of New York	8	Univ. of California at San Diego
4	Clark Univ.	14	Univ. of California at Santa Barbara
4	College of William and Mary	4	Univ. of California at Santa Cruz
6	Colorado State Univ.	22	Univ. of Colorado
13	Columbia Univ.	4	Univ. of Connecticut
6	Cornell Univ.	3	Univ. of Delaware
3	Dartmouth College	4	Univ. of Florida
1	Drexel Univ.	6	Univ. of Georgia
11	Duke Univ.	6	Univ. of Hawaii
3	Florida Institute of Technology	1	Univ. of Houston
4	Florida State Univ.	7	Univ. of Illinois
4	George Mason Univ.	2	Univ. of Iowa
1	George Washington Univ.	1	Univ. of Kansas
9	Georgia Institute of Technology	1	Univ. of Kentucky
9	Harvard Univ.	1	Univ. of Louisiana at Lafayette
1	Howard Univ.	4	Univ. of Maine
1	Illinois State Univ.	7	Univ. of Maryland
4	Indiana Univ.	1	Univ. of Massachusetts at Amherst
3	Iowa State Univ.	6	Univ. of Miami
2	Johns Hopkins Univ.	8	Univ. of Michigan
3	Kansas State Univ.	11	Univ. of Minnesota
2	Lehigh Univ.	3	Univ. of Montana
4	Louisiana State Univ.	1	Univ. of Nebraska
10	Massachusetts Institute of Technology	1	Univ. of Nebraska at Lincoln
4	Massachusetts Institute of Technology/ WHOI Joint Program	1	Univ. of Nebraska at Omaha
1	Miami Univ. of Ohio	1	Univ. of Nevada
6	Michigan State Univ.	3	Univ. of New Hampshire
2	Michigan Technological Univ.	4	Univ. of New Mexico
1	Naval Postgraduate School	1	Univ. of New Orleans
4	New Mexico Institute of Mining and Technology	2	Univ. of North Carolina at Chapel Hill
1	North Carolina State Univ.	1	Univ. of Notre Dame
2	Northern Arizona Univ.	7	Univ. of Oklahoma
7	Ohio State Univ.	3	Univ. of Oregon
2	Old Dominion Univ.	3	Univ. of Pennsylvania
9	Oregon State Univ.	3	Univ. of Puerto Rico
8	Pennsylvania State Univ.	5	Univ. of Rhode Island
10	Princeton Univ.	1	Univ. of Rochester
2	Purdue Univ.	2	Univ. of South Alabama
3	Rensselaer Polytechnic Institute	5	Univ. of South Carolina
1	Rice Univ.	1	Univ. of South Florida
7	Rutgers Univ.	3	Univ. of Southern California
2	South Dakota State Univ.	3	Univ. of Tennessee
1	Southern Illinois Univ. at Carbondale	6	Univ. of Texas at Austin
15	Stanford Univ.	2	Univ. of Toledo
2	State Univ. of New York at Albany	1	Univ. of Utah
4	State Univ. of New York at Stony Brook	2	Univ. of Virginia
3	State Univ. of New York, College of Env. Science & Forestry	21	Univ. of Washington
3	Syracuse Univ.	10	Univ. of Wisconsin
2	Texas A & M Univ.	1	Utah State Univ.
1	Texas State Univ.	1	Virginia Tech
1	Tufts Univ.	3	Washington State Univ.
1	Union Institute and Univ.	1	Wayne State Univ.
1	Univ. of Alabama	1	Yale Univ.

Table II. Institutions from **developed countries** granting Ph.D. degrees to DISCCRS I-IV dissertation registrants. Of the 978 graduates who registered with DISCCRS I-IV, 323 (33%) completed their Ph.D. outside in a developed country outside, including 6 American citizens. There were 175 institutions represented in this group.

#	Institution	#	Institution
1	Agricultural Univ. of Norway (Norway)	1	Méditerranée Univ. (France)
1	Albert-Ludwigs-Universität Freiburg (Germany)	1	Mid Sweden Univ. (Sweden)
1	Aus. Antarctic Div./Southern Cross Univ. (Australia)	3	Monash Univ. (Australia)
1	Australian Catholic Univ. National (Australia)	3	Murdoch Univ. (Australia)
10	Australian National Univ. (Australia)	1	Nagoya Univ. (Japan)
1	Ben-Gurion Univ. of the Negev (Israel)	1	Napier Univ. (United Kingdom)
3	Blaise Pascal Univ. (France)	1	National Oceanography Centre of Southampton (UK)
1	Bologna Univ. (Italy)	1	Netherlands Inst. of Ecology - Utrecht Univ. (Netherlands)
1	Brandenburg Univ. of Technology (Germany)	1	Niigata Univ. (Japan)
2	Carleton Univ. (Canada)	1	Nottingham Trent Univ. (United Kingdom)
2	Catholic Univ. of Louvain (Belgium)	2	Open Univ. (United Kingdom)
1	Ctr. for Sci. Research & Higher Ed in Ensenada (Mexico)	2	Oxford Univ. (United Kingdom)
1	Chalmers Univ. of Technology (Sweden)	1	Potsdam Institute for Climate Impact Research (Germany)
1	Chiba Univ. (Japan)	2	Queen's Univ. (Canada)
2	Christian-Albrechts-Universität zu Kiel (Germany)	2	Queen's Univ. at Kingston (Canada)
1	Copenhagen Univ. (Denmark)	1	Roskilde Univ. (Denmark)
1	Cranfield Univ. (United Kingdom)	1	Royal Institute of Technology (Sweden)
1	Curtin Univ. (Australia)	1	Southampton Univ. (United Kingdom)
2	Dalhousie Univ. (Canada)	1	St Andrews Univ. (United Kingdom)
1	Ecole Nationale Supérieure (France)	2	Stockholm Univ. (Sweden)
1	Facultés Universitaires Notre-Dame de la Paix (Belgium)	2	Swedish Univ. of Agricultural Sciences (Sweden)
1	Free Univ. of Berlin (Germany)	4	Swiss Federal Institute of Science and Tech. (Switzerland)
1	Georg-August-Univ. Goettingen (Germany)	1	Technical Univ. of Berlin (Germany)
1	Ghent Univ. (Belgium)	1	Tokyo Metropolitan Univ. (Japan)
3	Gifu Univ. (Japan)	1	Tokyo Univ. (Japan)
6	Göteborg Univ. (Sweden)	1	Tokyo Univ. of Agriculture & Technology (Japan)
1	Griffith Univ. (Australia)	1	Trent Univ. (Canada)
3	Hamburg Univ. (Germany)	4	Umeå Univ. (Sweden)
1	Hiroshima Univ. (Japan)	1	Università Cattolica del Sacro Cuore (Italy)
1	Hokkaido Univ. (Japan)	1	Università Politecnica delle Marche (Italy)
1	Humboldt Univ. Berlin (Germany)	1	Universitat Autònoma Barcelona (Spain)
1	Imperial College London (United Kingdom)	1	Universitat Politècnica de Catalunya (Spain)
1	Instituto Mediterraneo de Estudios Avanzados (Spain)	1	Universite de Aix-Marseille II (France)
3	James Cook Univ. (Australia)	1	Universite de Bordeaux (France)
1	Keele Univ. (United Kingdom)	2	Université de Montréal (Canada)
2	Kiel Univ. (Germany)	2	Universite de Paris VI (France)
2	Kyoto Univ. (Japan)	1	Universite de Versailles - St.Quentin-En-Yvelines (France)
1	Laboratoire des Sciences du Climat et de l'Env. (France)	1	Université du Québec à Montréal (Canada)
4	Laval Univ. (Canada)	1	Université du Québec à Trois-Rivières (Canada)
1	London School of Economics (United Kingdom)	1	Université Joseph Fourier, Grenoble (France)
1	Ludwig-Maximilians-Univ. (Germany)	4	Universite Pierre et Marie Curie (France)
3	Lund Univ. (Sweden)	1	Universiteit Maastricht (Netherlands)
2	Macquarie Univ. (Australia)	1	Univ. College Dublin (Ireland)
1	Max Planck Institute for Chemical Ecology (Germany)	1	Univ. of Aarhus (Denmark)
2	McGill Univ. (Canada)	2	Univ. of Alberta (Canada)
3	McMaster Univ. (Canada)		

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Table II (continued). Institutions from **developed countries** granting Ph.D. degrees to DISCCRS I-IV dissertation registrants. Of the 978 graduates who registered, 323 (33%) completed their Ph.D. outside in a developed country outside the U.S., including 6 American citizens. There were 175 institutions represented in this group; some may be duplicates due to inconsistencies in name.

#	Institution	#	Institution
1	Univ. of Amsterdam (Netherlands)	6	Univ. of New South Wales (Australia)
2	Univ. of Augsburg (Germany)	1	Univ. of Newcastle (United Kingdom)
1	Univ. of Bath (United Kingdom)	1	Univ. of Nottingham (United Kingdom)
3	Univ. of Bergen (Norway)	1	Univ. of Oldenburg/Univ. Paris VI (Germany/France)
1	Univ. of Berne (Switzerland)	1	Univ. of Oslo (Norway)
1	Univ. of Birmingham (United Kingdom)	2	Univ. of Otago (New Zealand)
3	Univ. of Bonn (Germany)	1	Univ. of Oulu (Finland)
5	Univ. of Bremen (Germany)	2	Univ. of Oxford (United Kingdom)
1	Univ. of Bremen/Max Planck Institute (Germany)	1	Univ. of Padova (Italy)
1	Univ. of Bristol (United Kingdom)	3	Univ. of Plymouth (United Kingdom)
9	Univ. of British Columbia (Canada)	5	Univ. of Potsdam (Germany)
1	Univ. of Calgary (Canada)	1	Univ. of Reading (United Kingdom)
4	Univ. of Cambridge (United Kingdom)	1	Univ. of Rostock (Germany)
2	Univ. of Canterbury (New Zealand)	1	Univ. of Saskatchewan (Canada)
1	Chinese Univ. of Hong Kong (Hong Kong)	2	Univ. of Southampton (United Kingdom)
1	Univ. of Cologne (Germany)	1	Univ. of Southern Denmark (Denmark)
2	Univ. of Copenhagen (Denmark)	1	Univ. of Southern Queensland (Australia)
11	Univ. of East Anglia (United Kingdom)	2	Univ. of Surrey (United Kingdom)
4	Univ. of Edinburgh (United Kingdom)	1	Univ. of Sussex (United Kingdom)
1	Univ. of Frankfurt (Germany)	4	Univ. of Tasmania (Australia)
1	Univ. of Freiburg (Germany)	1	Univ. of the Aegean (Greece)
1	Univ. of Geneva (Switzerland)	1	Univ. of the Ryukyus (Japan)
1	Univ. of Göttingen (Germany)	2	Univ. of Tokyo (Japan)
1	Univ. of Granada (Spain)	5	Univ. of Toronto (Canada)
1	Univ. of Granada and Univ. of Lyon (Spain/France)	1	Univ. of Utrecht (Netherlands)
1	Univ. of Groningen (Netherlands)	1	Univ. of Vienna (Austria)
4	Univ. of Guelph (Canada)	3	Univ. of Vigo (Spain)
1	Univ. of Haifa (Israel)	1	Univ. of Waikato (New Zealand)
9	Univ. of Hamburg (Germany)	1	Univ. of Wales (United Kingdom)
3	Univ. of Helsinki (Finland)	1	Univ. of Wales at Swansea (United Kingdom)
1	Univ. of Joensuu (Finland)	2	Univ. of Waterloo (Canada)
1	Univ. of Kent (United Kingdom)	1	Univ. of Western Ontario (Canada)
3	Univ. of Kiel (Germany)	1	Univ. of Windsor (Canada)
1	Univ. of Las Palmas de Gran Canaria (Spain)	1	Univ. of Zurich (Switzerland)
1	Univ. of Leeds (United Kingdom)	1	Universtatat de Lleida (Spain)
1	Univ. of Leuven (Belgium)	2	Uppsala Univ. (Sweden)
1	Univ. of Liege (Belgium)	2	Utrecht Univ. (Netherlands)
1	Univ. of Liverpool (United Kingdom)	1	Vienna Univ. of Economics and Business Admin. (Austria)
3	Univ. of London (United Kingdom)	2	Vrije Universiteit Brussel (Belgium)
1	Univ. of Manchester (United Kingdom)	4	Wageningen Univ. (Netherlands)
2	Univ. of Manitoba (Canada)	1	Wageningen Univ. / Netherlands Inst of Ecol. (Netherlands)
1	Univ. of Melbourne (Australia)	1	Weizmann Institute of Science (Israel)
1	Univ. of New England (Australia)	2	York Univ. (Canada)

Table III. Institutions from **developing countries** granting Ph.D. degrees to DISCCRS I, II, III and IV dissertation registrants. Of the 978 graduates who registered 109 (11%) completed their Ph.D. outside the U.S. in developing countries. There were 81 institutions represented in this group.

#	Institution	#	Institution
1	Acharya N.G.Ranga Agricultural University (India)	1	National Univ. of Singapore (China)
1	Ain Shams Univ. (Egypt)	1	North-Eastern Hill Univ. at Shillong (India)
1	Al Hussien Bin Talal Univ. (Jordan)	1	Odessa State Environmental Univ. (Ukraine)
1	Alexandria Univ. (Egypt)	1	Osmania University (India)
1	Algerian Space Agency / National Center of Space Technics (India)	1	Peking Univ. (China)
2	Andhra Univ. (India)	1	Rani Durgavati Univ. (India)
2	Asian Institute of Technology (Thailand)	1	Research Center for Eco-Environmental Sciences (China)
1	Bangladesh Agricultural Univ. at Mymensingh (Bangladesh)	1	Rio de Janeiro Federal Univ. (Brazil)
2	Barkatullah Univ. (India)	1	Rio Grande Univ. (Brazil)
1	Bharathiar University at Coimbatore (India)	1	Russian Academy of Science (Russia)
1	Bogor Agricultural Univ. (India)	1	Tarbiat Modares Univ. (Iran)
1	Brazilian Institute of Space Research (Brazil)	1	Tribhuvan Univ. (Nepal)
2	Cairo Univ. (Egypt)	1	Tsinghua Univ. (China)
1	CCS Haryana Agril Univ. (India)	1	Universidad Autonoma de Baja California, Ensenada (Mexico)
1	Charles Univ. in Prague (Czech Republic)	2	Universidad Politecnica de Valencia (Colombia)
3	Cochin Univ. of Science & Technology (India)	1	Univ. Federal of Rio de Janeiro (Brazil)
1	Eotvos Lorand Univ. (Hungary)	1	Univ. of Abomey-Calavi (Republic of Benin)
1	Ferdowsi Univ. at Mashhad (Iran)	1	Univ. of Bucharest (Romania)
1	Goa Univ. (India)	3	Univ. of Buenos Aires (Argentina)
1	Imo State Univ. (Nigeria)	1	Univ. of Calabar (Nigeria)
1	Indian Institute of Management Ahmedabad (India)	3	Univ. of Cape Town (South Africa)
1	Indian Institute of Science (India)	1	Univ. of Concepcion (Chile)
2	Indian Institute of Technology (India)	1	Univ. of Concepcion/Univ. Pierre et Marie Curie (Chile/France)
1	Indian Institute of Technology at Delhi (India)	2	Univ. of Cukurova (Turkey)
1	Indian Institute of Technology at Kharagpur (India)	1	Univ. of Economics at Bratislava (Slovak Republic)
1	Institut National Agronomique de Tunisie (Tunisia)	2	Univ. of Ghana (Ghana)
1	Institute of Geography Science and Nature Resource, Chinese Academy of Science (China)	1	Univ. of Ibadan (Nigeria)
1	Institute of Geology and Geophysics, CAS (China)	1	Univ. of Khartoum (Sudan)
1	Institute of North Industrial Ecology Problems (Russia)	1	Univ. of Lagos (Nigeria)
1	Institute of Technology Bandung (Indonesia)	2	Univ. of Madras (India)
1	Instituto Nacional de Pesquisas Espaciais (Brazil)	1	Univ. of Mysore (India)
1	Jadavpur Univ. (India)	1	Univ. of Portharcourt at Rivers State (Nigeria)
1	Jawaharlal Nehru Univ. at New Delhi (India)	5	Univ. of Pune (India)
1	Kookmin Univ. (South Korea)	1	Univ. of Rio Grande (Brazil)
1	Kumaun Univ. (India)	10	Univ. of Sao Paulo (Brazil)
1	Makerere Univ. (Uganda)	1	Univ. of Tartu (Estonia)
1	Max Planck Inst. for Marine Microbiol. (Uruguay/Germany)	1	Univ. of the Philippines at Los Banos (Philippines)
1	Moi Univ. (Kenya)	1	Univ. of the West Indies (Jamaica)
1	National Institute for Space Research (Brazil)	1	Univ. of Witwatersrand (South Africa)
1	National Univ. of Mongolia (Mongolia)	1	VB Univ. (India)
		1	Vikram Univ. (India)

Figure 1. Citizenship for the 780 DISCCRS II-IV registrants, grouped by geographic region.

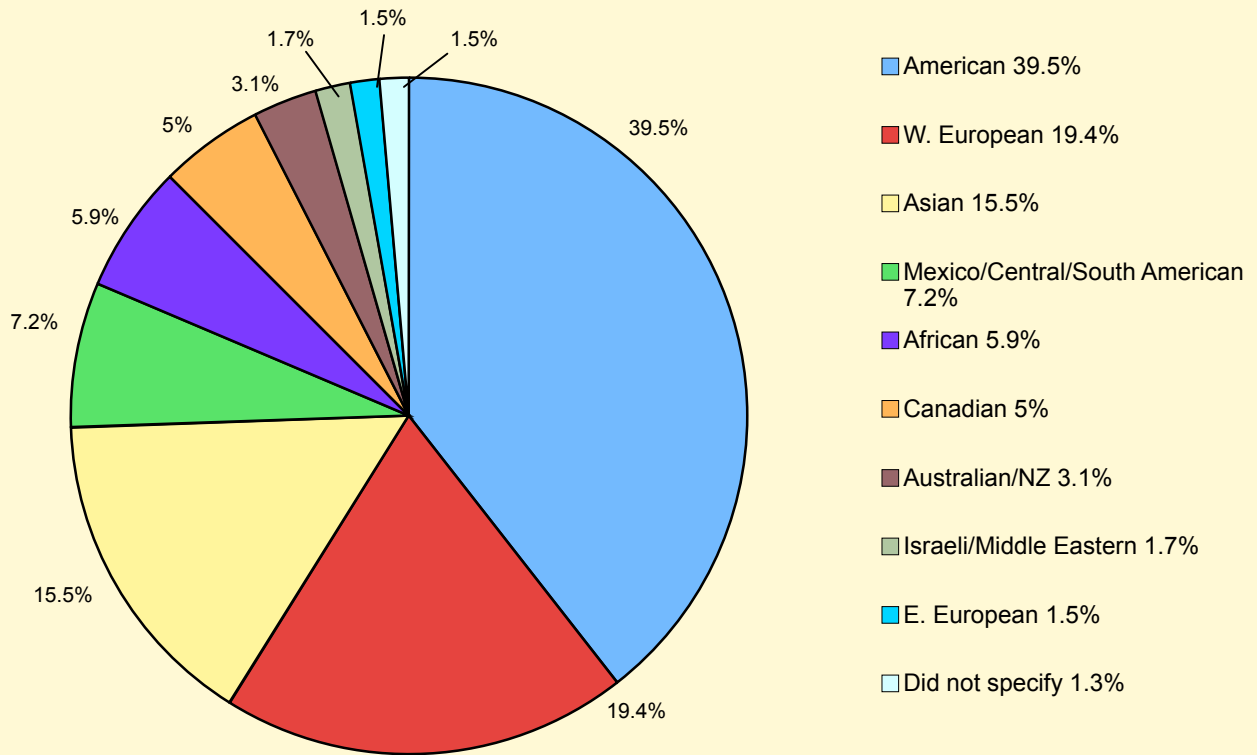


Figure 2. Country of Ph.D. for the 780 DISCCRS II-IV registrants, grouped by geographic region of Ph.D.-granting institution.

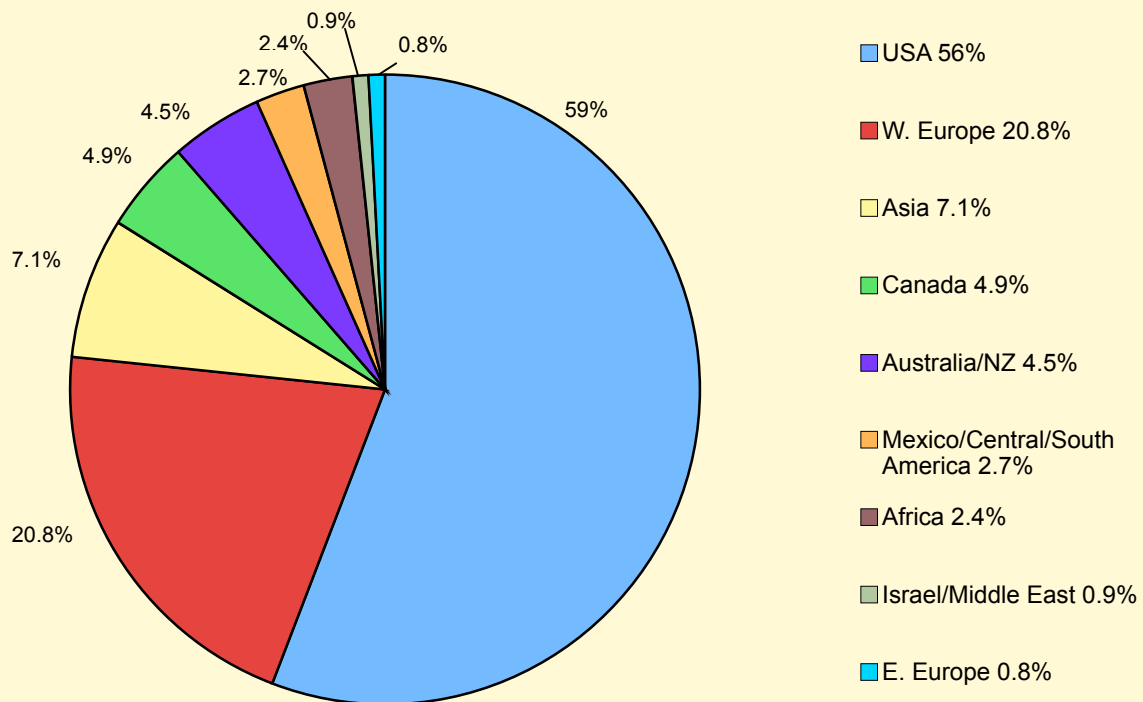


Figure 3. Country of residence at time of registration for the 780 DISCCRS II-IV registrants, grouped by geographic region.

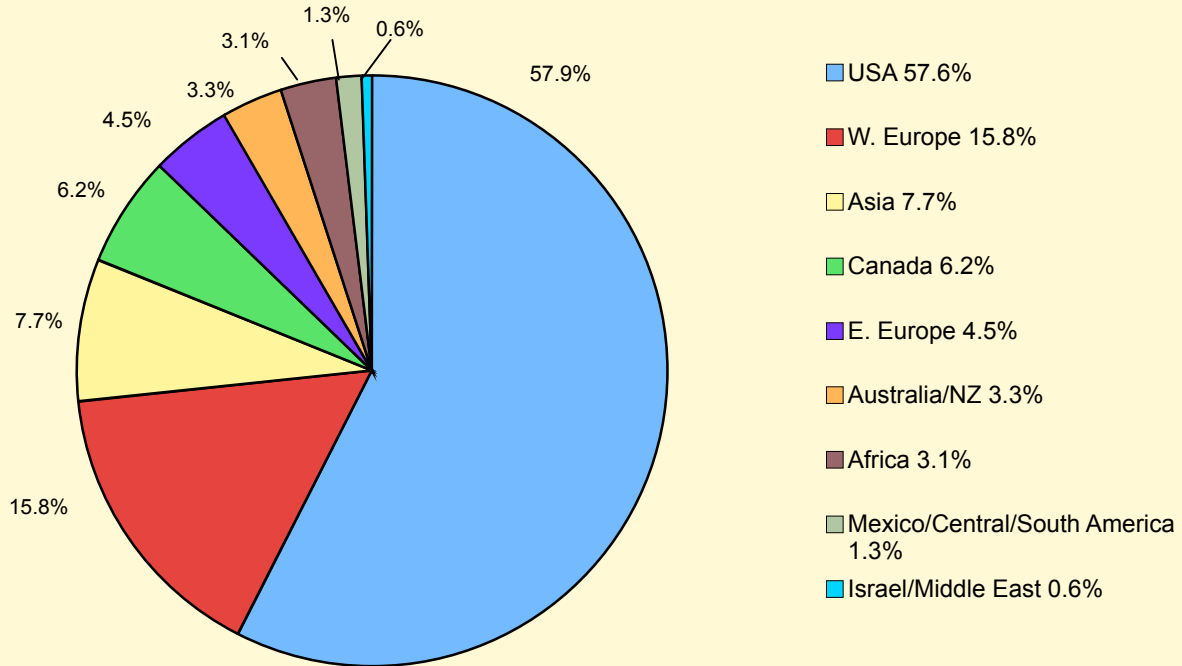


Figure 4a. Age at Ph.D. for the 746 (95.6%) of 780 DISCCRS II-IV registrants who provided age information. Average age at time of Ph.D. was 32.9 years. The median age for Americans was 31 years, and for other citizens it was 33 years.

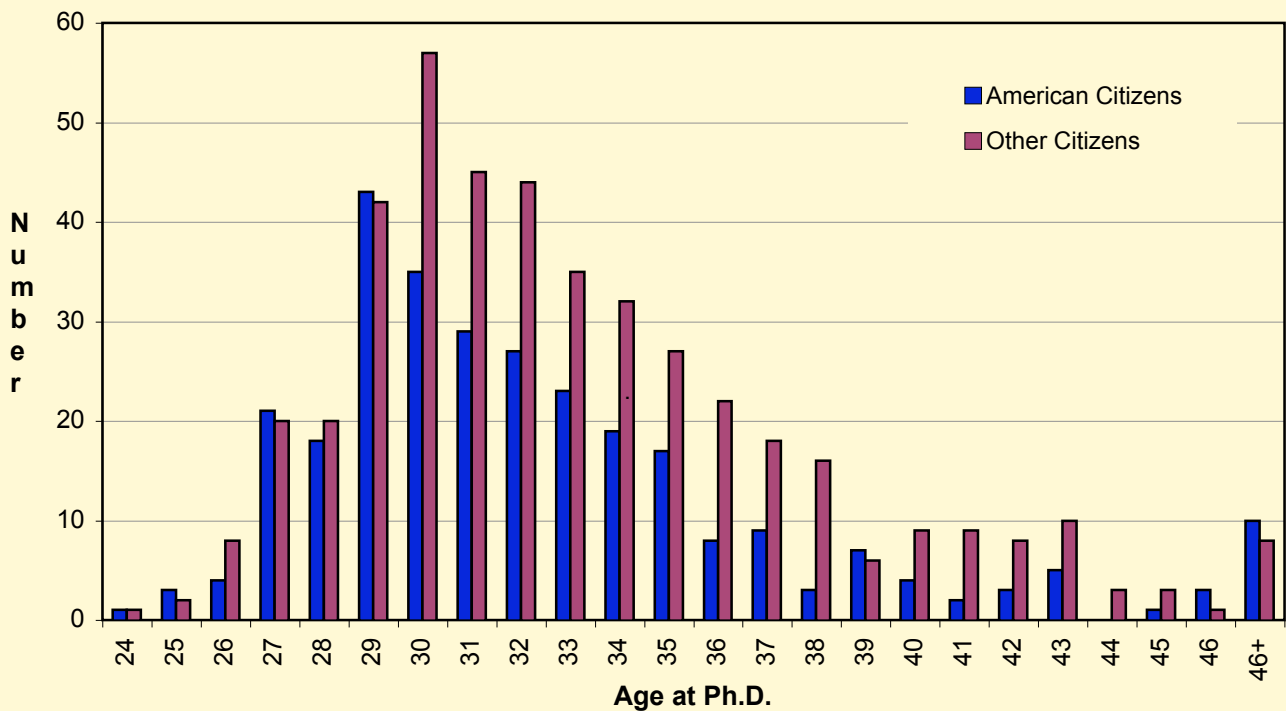


Figure 4b. Age at Ph.D. for the 295 (95.8%) of 308 Americans who registered for DISCCRS II-IV and provided age. Average age at Ph.D. for American citizens was 32.5 years, median age was 31 years. The average age of the 153 American females was 32.2 years and the 142 American males averaged 32.9 years. The median age for American males was 31 years and for females it was 30 years.

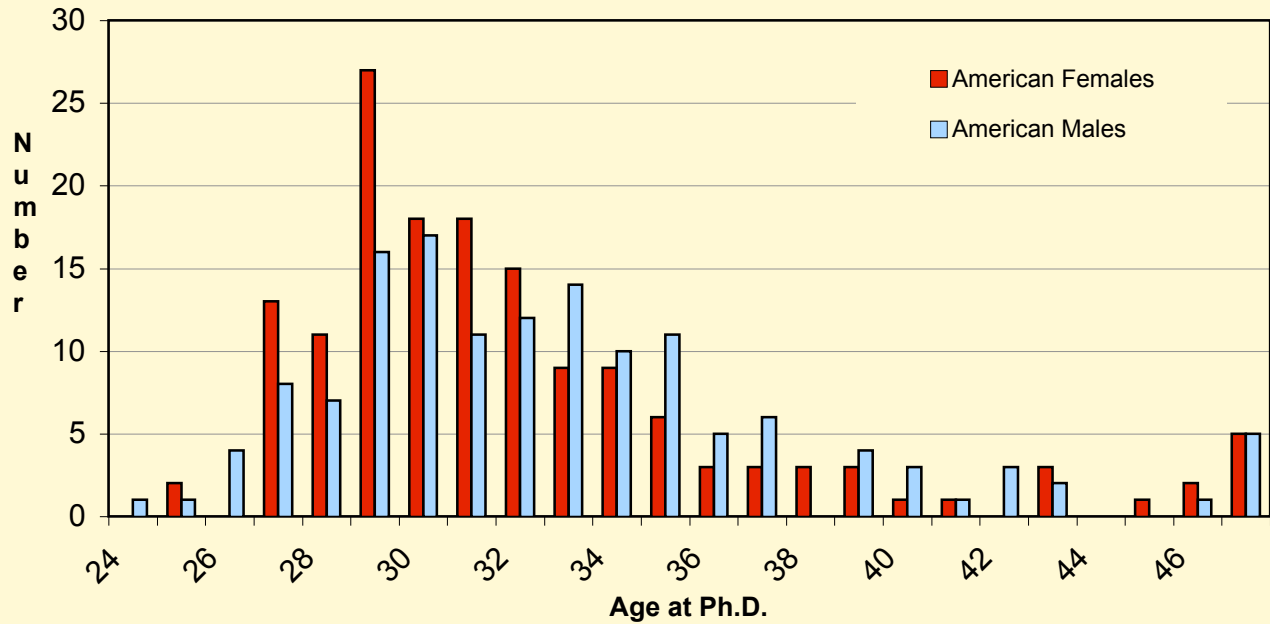


Figure 5. Time interval between Ph.D. completion and DISCCRS registration for the 780 DISCCRS II – IV registrants. Most (57%) registered within 9 months of completing their Ph.D., 66% within 12 months and 79% within 18 months.

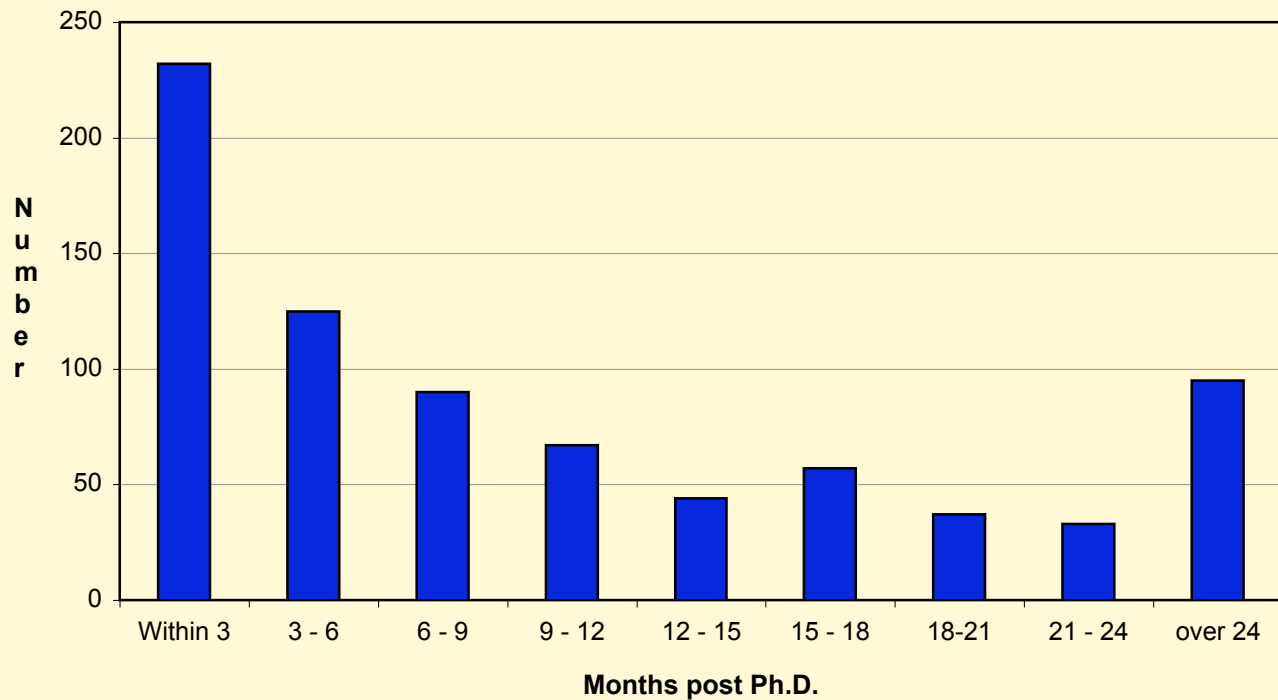


Figure 6. Gender for the 774 of 780 (99%) DISCCRS II-IV registrants who provided gender information. Of these, 346 (44.7%) were female and 428 (55.3%) were male. The 308 American citizens included 160 (51.9%) females and 148 (48.1%) males.

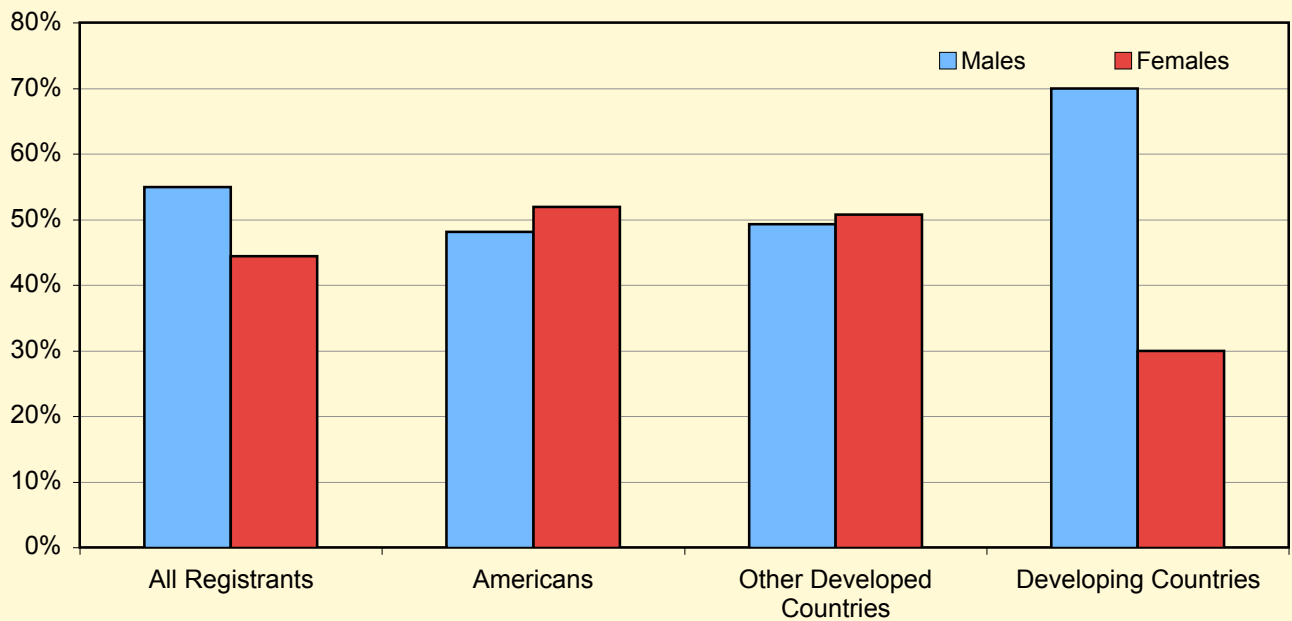


Figure 7. Ethnicity of American citizens for the 294 (95.5%) of 308 Americans who provided their ethnicity. Of these, 7 (2.4%) were Other Hispanic, 5 (1.7%) were African American, 2 (.7%) were American Indian or Alaska Native, 1 (.3%) was Multiethnic, 1 (.3%) was Mexican American and 1 (.3%) was Puerto Rican.

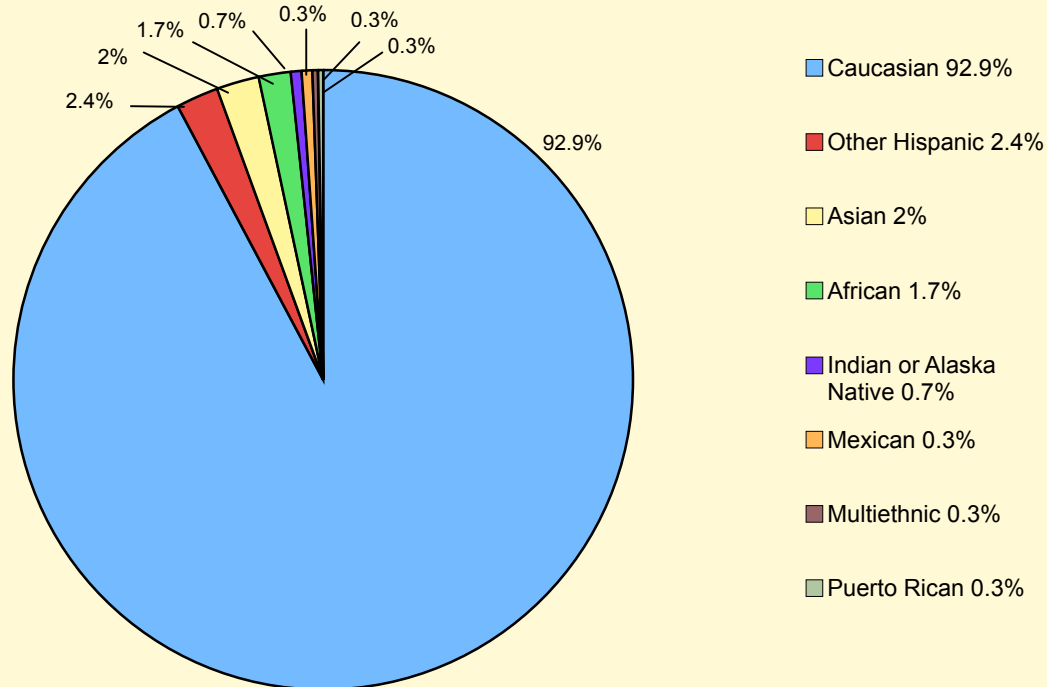


Figure 8a. Primary Disciplinary Speciality for the 767 of 780 (98%) DISCCRS II-IV registrants who responded. Of these, 758 (98.8%) indicated citizenship. Disciplinary speciality is provided below for 303 American citizens, 224 citizens of other developed countries and 231 citizens of developing countries.

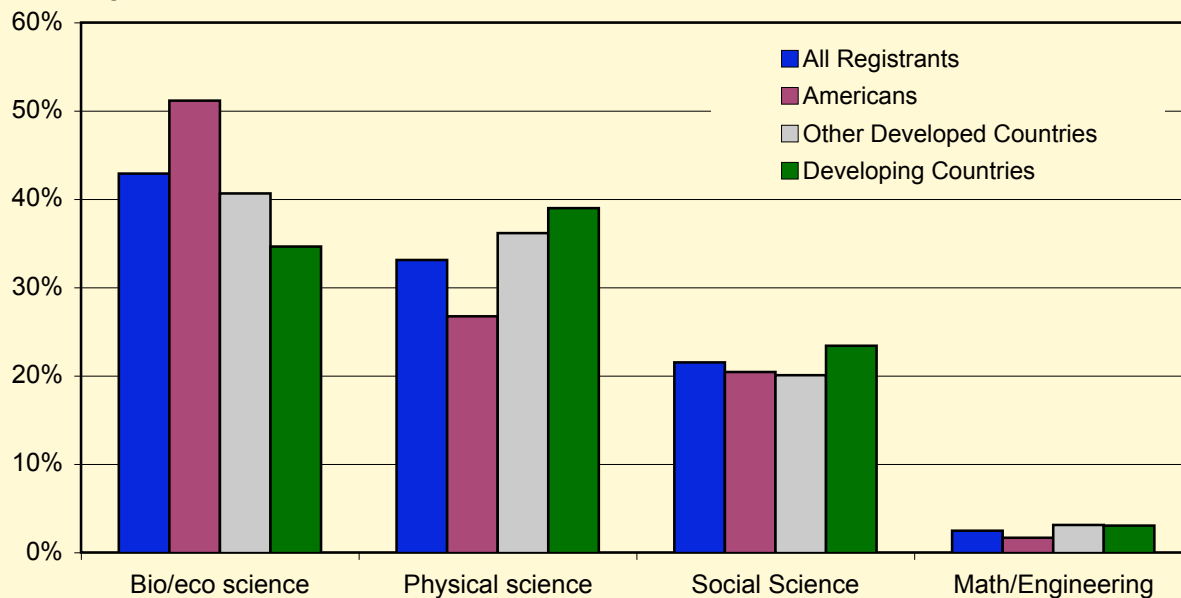


Figure 8b. Primary Disciplinary Speciality for the 767 of 780 (98%) DISCCRS II-IV registrants who responded. Results are grouped by country where Ph.D. was awarded.

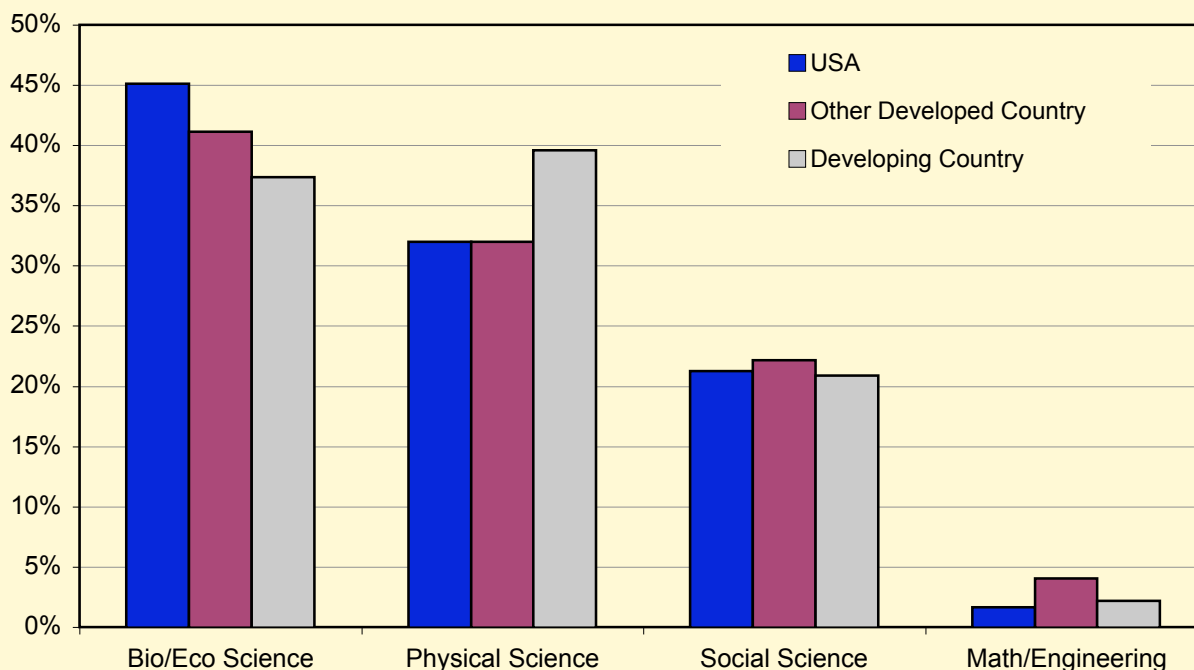


Figure 8c. Primary Disciplinary Speciality for the 767 (98%) of the 780 DISCCRS II-IV registrants who responded. Results are grouped by geographic region where Ph.D. was awarded.

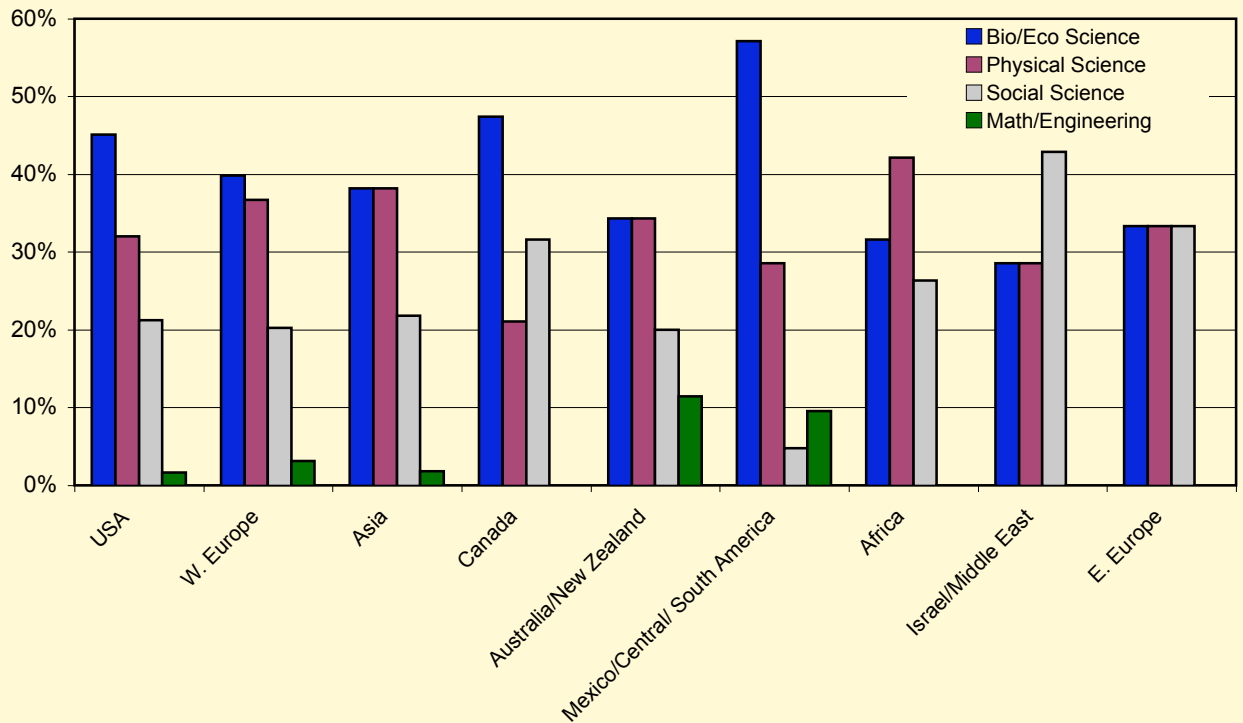


Figure 9. Employment Sector for the 449 U.S. residents who registered for DISCCRS II-IV. Of these, 7 (1.5%) were unemployed. Of the 442 employed, 347 (78.5%) held academic positions, 55 (12.4%) federal government, 15 (3.4%) non-profit, 9 (2.0%) state/regional government, 6 (1.4%) commercial, and 10 (2.3%) 'other'.

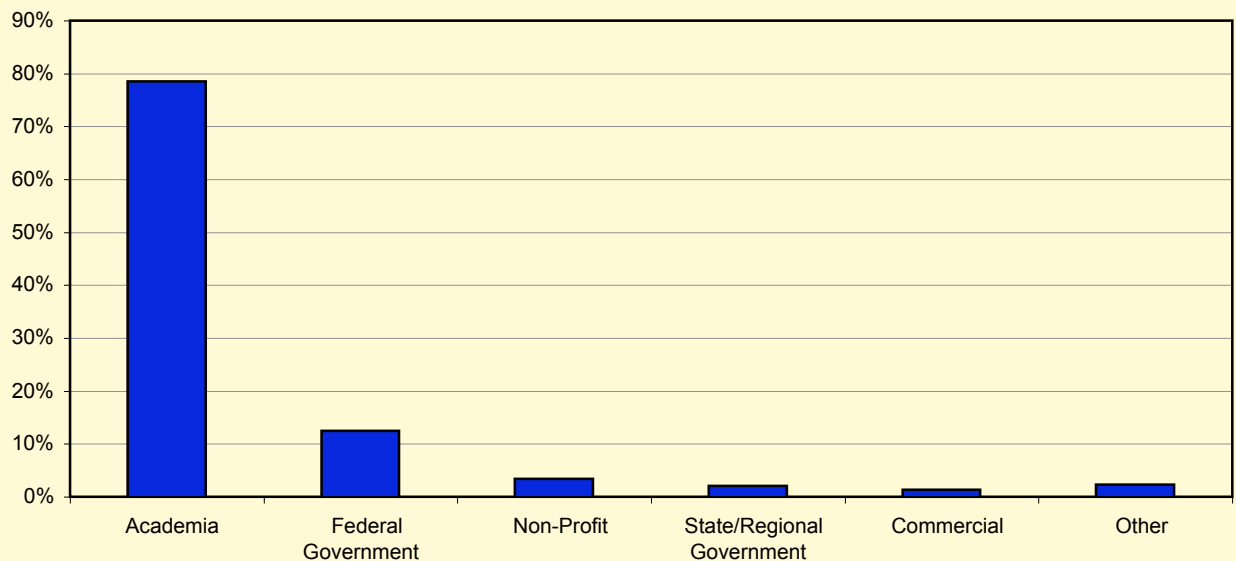


Figure 10. Job status for the 755 (96.8%) of 780 DISCCRS II-IV registrants who responded. Data is organized by the country of residence at time of registration. Of the 449 U.S. residents who provided information, 272 (60.6%) were on postdocs, 105 (23.4%) in permanent positions, 65 (14.5%) in 'other temporary' and 7 (1.6%) were unemployed.

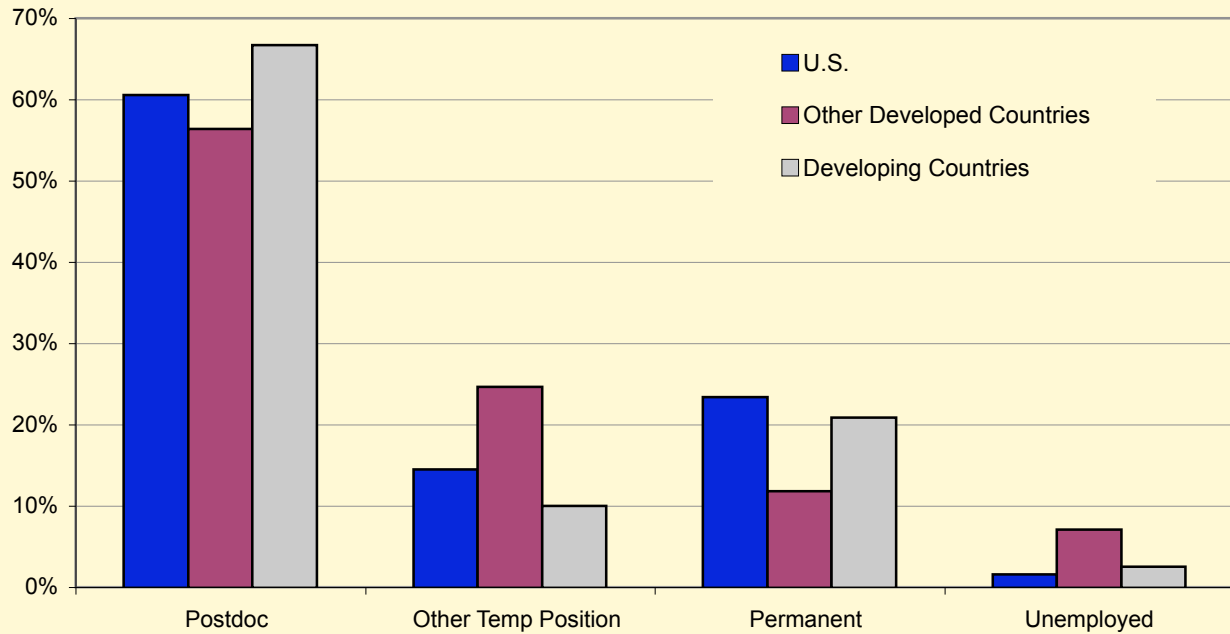


Figure 11a. Job-market perceptions of the 719 (92.2%) of 780 DISCCRS II-IV registrants who provided both citizenship and job market perceptions.

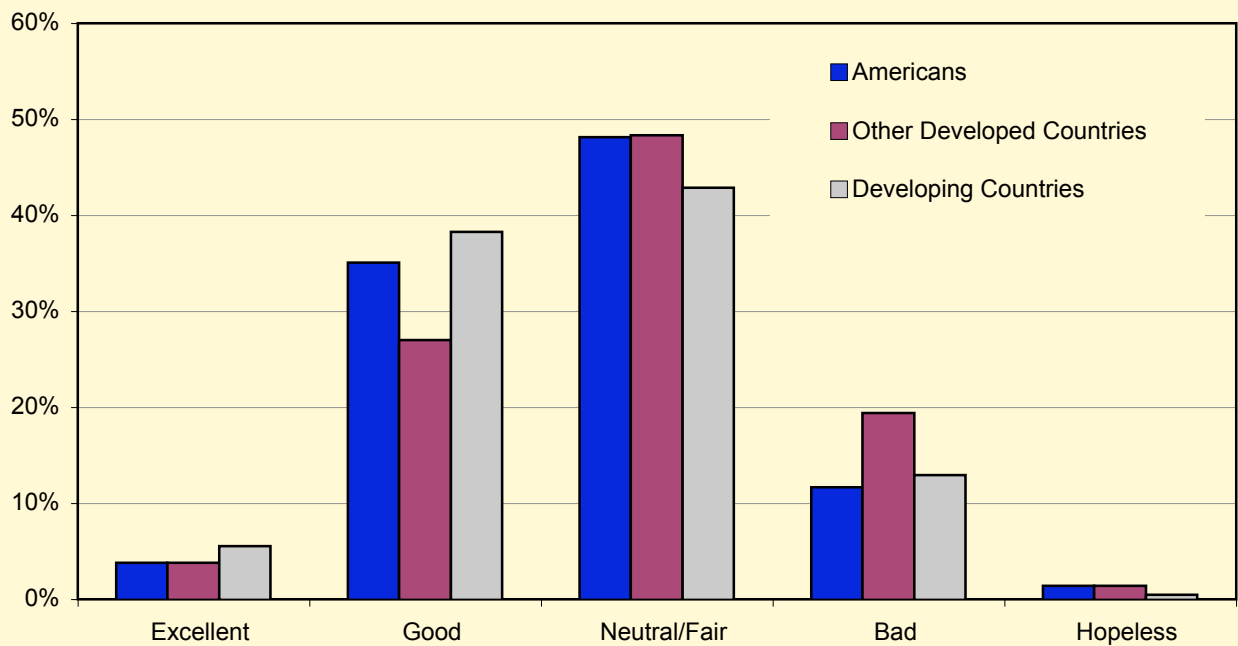


Figure 11b. Job-market perceptions of the 719 (92.2%) of 780 DISCCRS II-IV registrants who provided both citizenship and job market perceptions, shown by registration period and as a whole. Registration periods for DISCCRS II, III, and IV were Oct. 2002 - Sept. 2005, Oct. 2005 - Apr. 2007 and May 2007 - Apr. 2008 respectively.

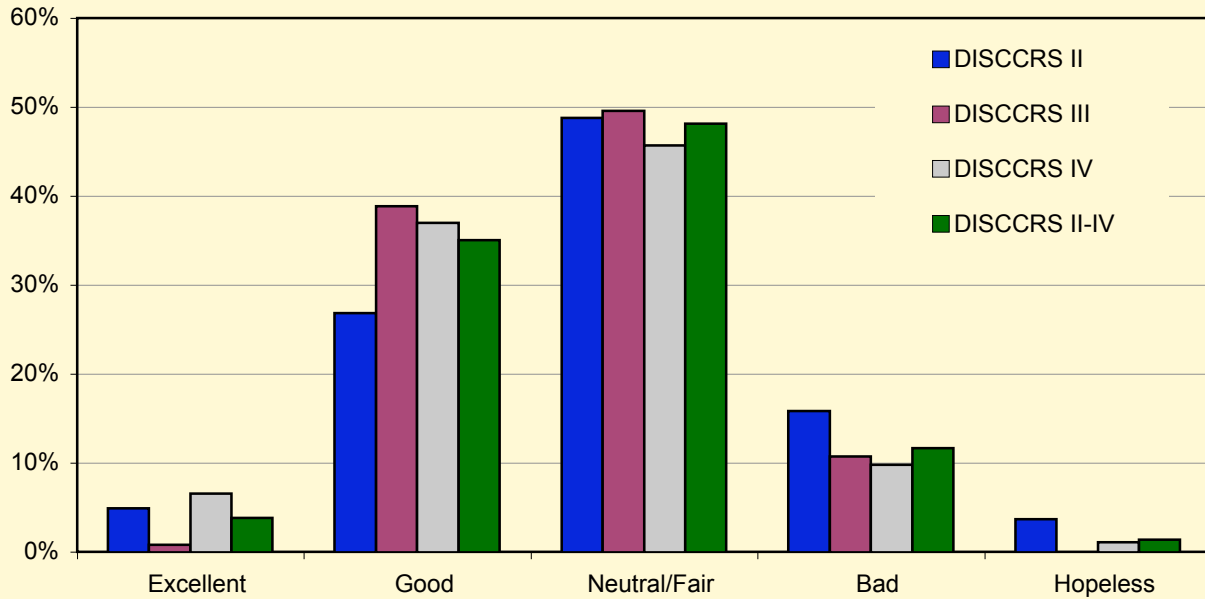


Figure 12. Marital status of the 296 (96.1%) of 308 American citizens who registered for DISCCRS II-IV and indicated marital status.

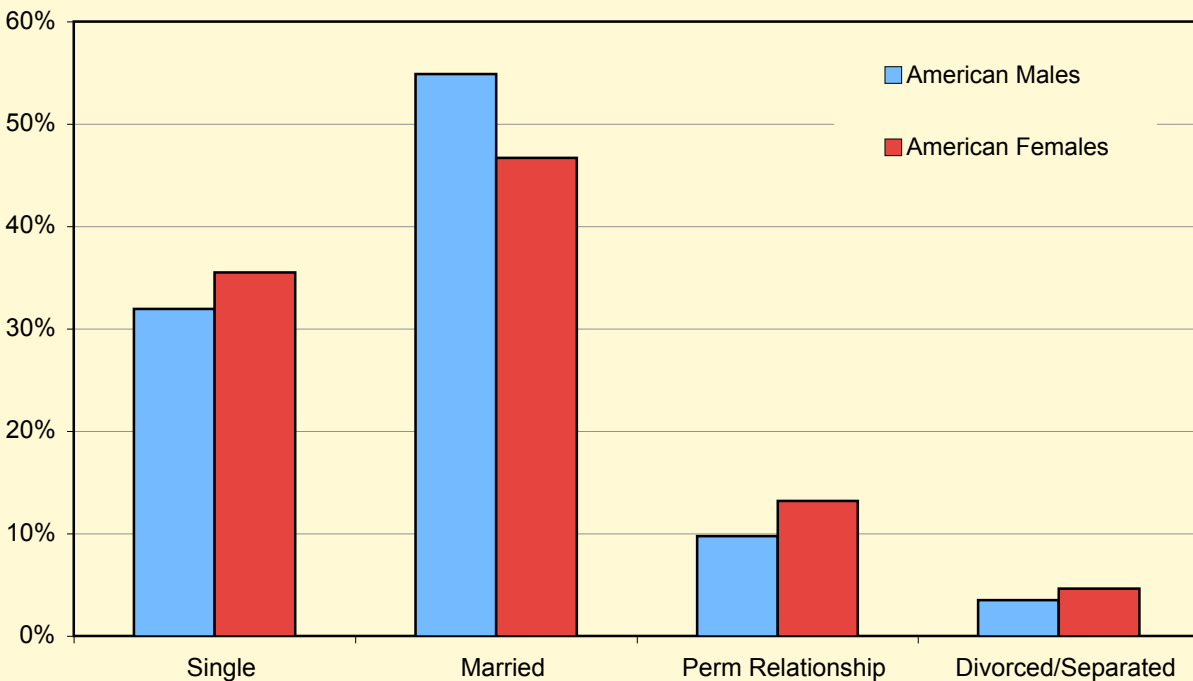


Figure 13. Children reported by the 263 (85.4%) of 308 American citizens who registered for DISCCRS II-IV and provided information. Overall, 28.5% of the DISCCRS II-IV American citizens reported having children (34.6% of males compared with 22.8% of females).

