

Opportunities in Training and Careers for International Medical Graduates

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Outline

1. State of Cardiology workforce in U.S.
2. Role of Internal Medical Graduates (IMGs) in Cardiology workforce
3. Description of IMGs
 - Origins, roles, interests
4. Cardiology Career Opportunities
 - Interest, Supply & Demand
5. U.S. Visa and License Options
 - Careers in Cardiology for International Medical Graduates
6. Career Pathways for IMGs
7. Summary/Conclusions

Introduction

- One of the driving factors in interest in International Medical Graduates (IMGs) is an impending Cardiology Workforce problem
- There is a general feeling in the Cardiology community that there is a shortage of Cardiologists in the USA, and it is getting worse^{1,2}

1. Hurst JW. Will the nation need more cardiologists in the future than are being trained now? *J Am Coll Cardiol* 2003;41:1838–40.

2. Fye WB. Cardiologist workforce: there's already a shortage, and it's getting worse! *J Am Coll Cardiol* 2002;39:2077–9.

VIEWPOINT

International Medical Graduates and the Cardiology Workforce

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Recent publications have expressed the view that there is a shortage of cardiologists and it is growing worse. Both an increasing demand and a diminishing supply of cardiologists have been projected. An increase in the number of international medical graduates (IMGs) who enter cardiology practice has been proposed as a remedy for a projected shortage. The IMGs have to overcome challenges including clinical practice, language proficiency, and cultural differences before they are incorporated into the fabric of U.S. cardiology. With hard work, perseverance, excellence, compassionate care and support and mentoring, many have contributed to scientific and clinical cardiology in the U.S. Whether in the absence of a present crisis the projected shortage of cardiologists necessitates change in U.S. immigration policy is an open question. (J Am Coll Cardiol 2004;44:1172-4) © 2004 by the American College of Cardiology Foundation

The Cardiology Workforce

- Although there is a perception that Cardiology positions are decreasing, it is actually stable
- Thus, shortage of cardiologists is largely one of demand:
 - Aging population
 - Increased ability to identify disease → more patients surviving initial cardiac event
 - Better treatment
 - Technological advancements
 - Population awareness

Table 1. Cardiovascular Disease Programs (5)

Year	Number of Programs	Number of Positions Filled
2000–2001	181	2,025
2001–2002	178	2,005
2002–2003	175	2,088
2003–2004	173	2,081

Table 3. Certification in Cardiovascular Disease (7)

Year	First-Time Takers	Pass Rate
1999	748	78%
2000	668	79%
2001	682	85%
2002	701	83%

IMGs and Cardiology Workforce

- Percentage of IMGs in the USA is decreasing
- Number of IMGs in year 1 positions decreased by 12.3% between 1999 and 2000 (to 6,727) and between 2001 and 2002 (to 5,898)
- The percentage of clinical faculty who are IMGs has been stable (16% to 17%) over the past two decades
- Numbering about 196,000, IMGs account for approximately 25% of the U.S. physician workforce, and 85% of them are involved in patient care

Proposed Solutions to Cardiology Workforce Issue

- Increase number of women entering Cardiology
- Increase the number of African-Americans entering Cardiology
- Increase the number of IMGs able to remain in the country:
- ? Consider a modification of the home-return rule for J-1 Visa holders

Who Are International Medical Graduates (IMGs) ?

IMGs are physicians who have completed their medical education outside the U.S., Puerto Rico or Canada

IMGs consist of:

- Foreign nationals on special visa status (eg. J1 or H1B)
 - May include foreign nationals who have graduated from U.S. or Canadian medical schools
- U.S. citizens or permanent residents who graduated from foreign medical schools

Importance of IMGs in the Workforce

- Since the 1960's, IMGs have constituted an important part of the workforce
- Currently, IMGs fill ~ 1/3 of cardiology training positions and ~1/4 of practices in the United States
- IMGs are an important source of physician manpower for rural and underserved areas
- IMGs constitute a major proportion of physicians performing teaching and research
- Provide ethnic and cultural diversity to pool of caregivers
- IMGs proportionally contribute more women to the physician workforce than U.S. medical graduates

Working Group 4: International Medical Graduates and the Cardiology Workforce

William A. Zoghbi, MD, FACC, *Chair*

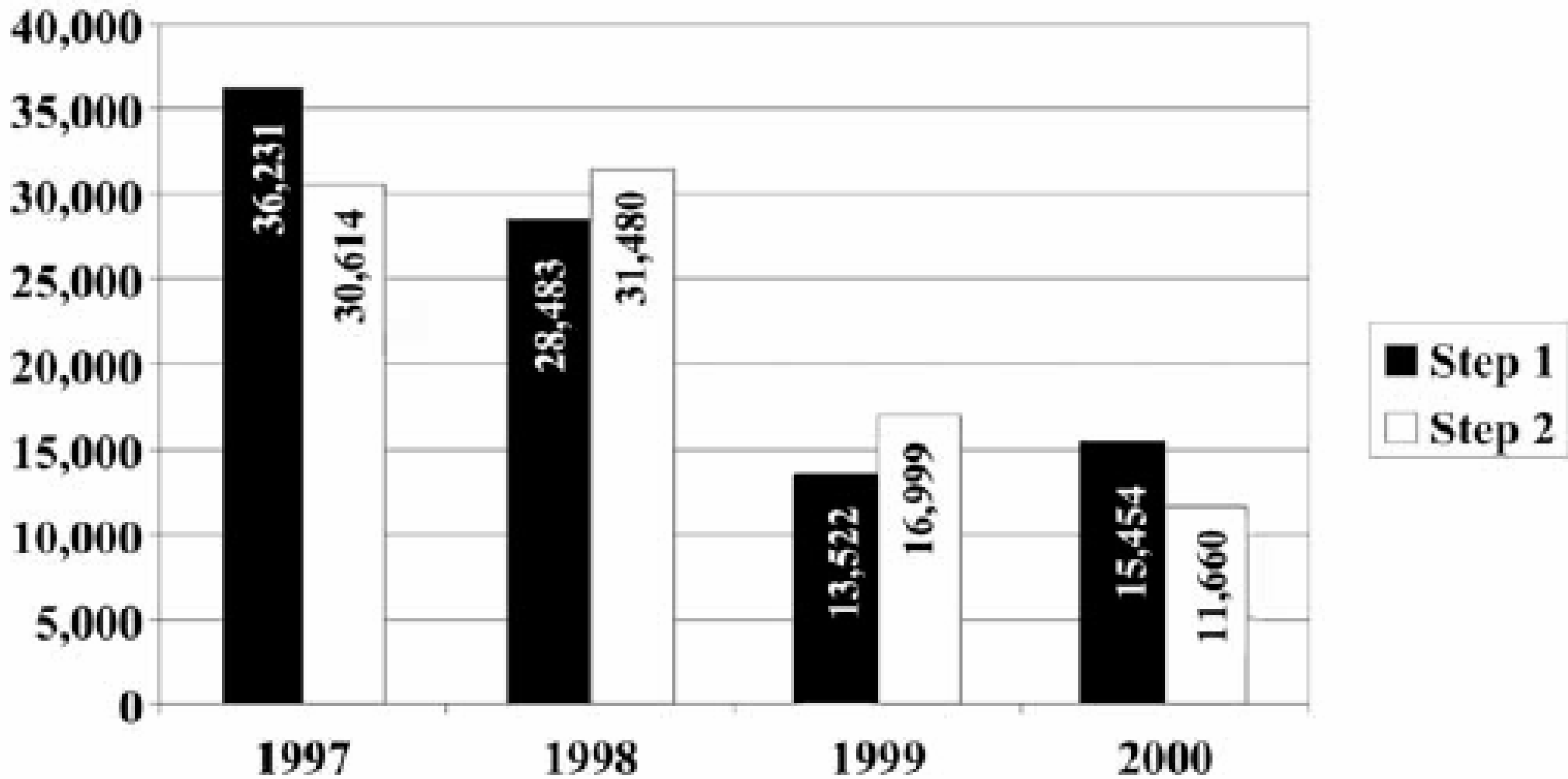
Jorge R. Alegria, MD, George A. Beller, MD, MACC, W. Daniel Doty, MD, FACC,
Robert H. Jones, MD, FACC, Arthur J. Labovitz, MD, FACC, Guy S. Reeder, MD, FACC,
Hector O. Ventura, MD, FACC

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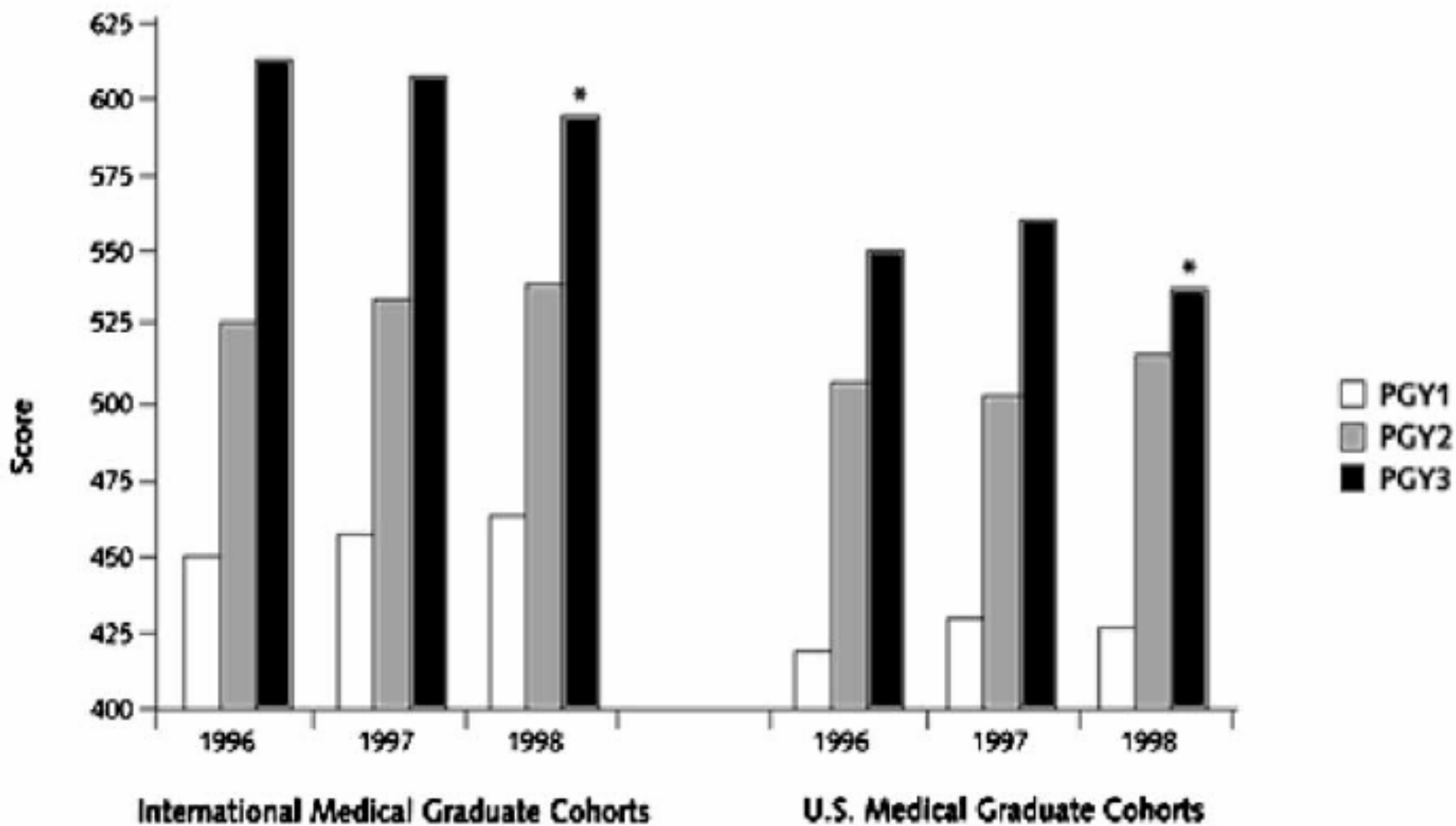
Number of IMGs in the United States

	1980	2000	% Change
IMGs (All areas)	97,726	196,000	+ 100%
IMGs (Cardiology only)	2,248	6,178	+ 175%

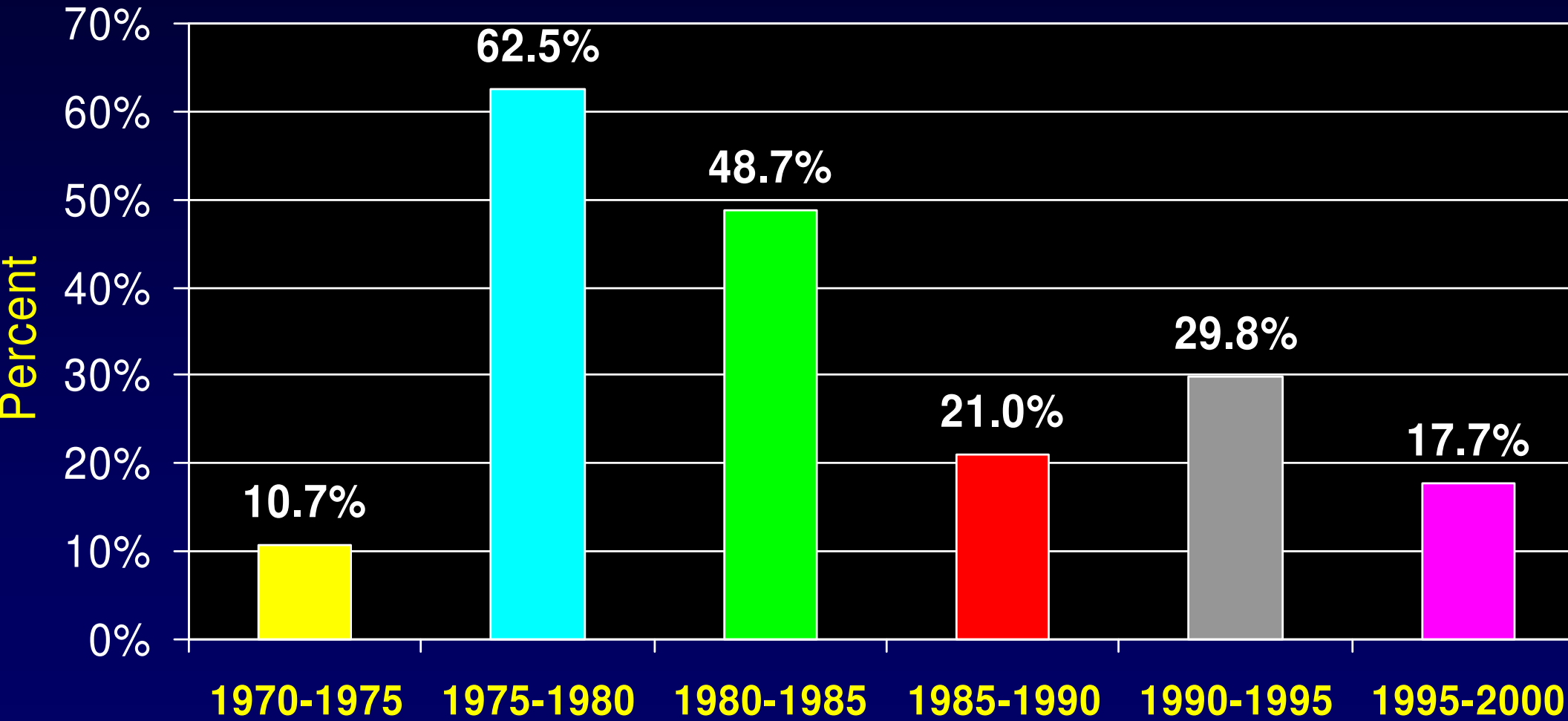
IMG Registration for USMLE over Time



In-Training Exam Scores

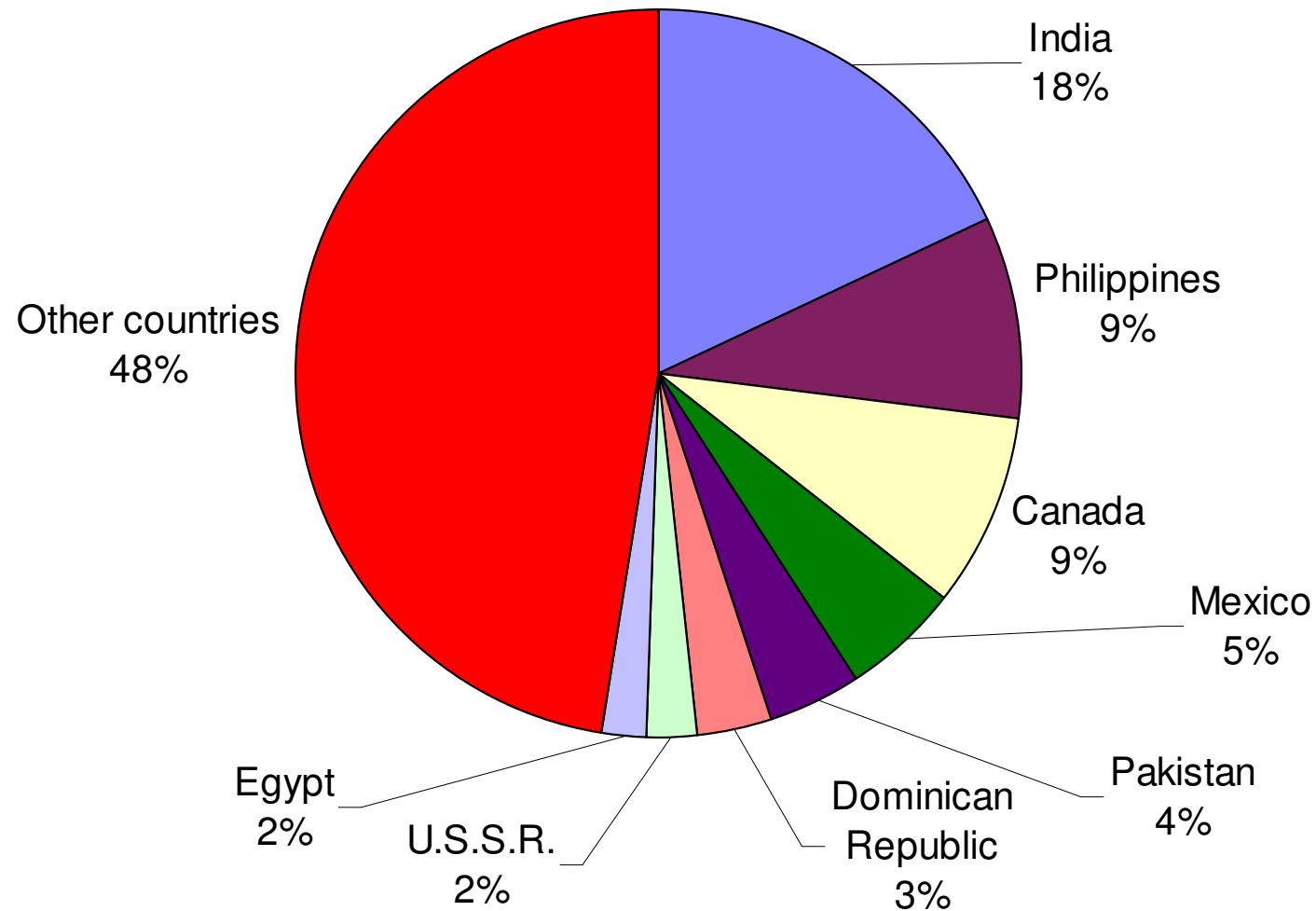


Percentage Growth in IMGs Practicing Cardiology: Temporal Trends



Source: American Medical Association. Physician Characteristics and Distribution in the U.S. 2002-2003 Ed.

Country of Medical Education of IMGs: 2002

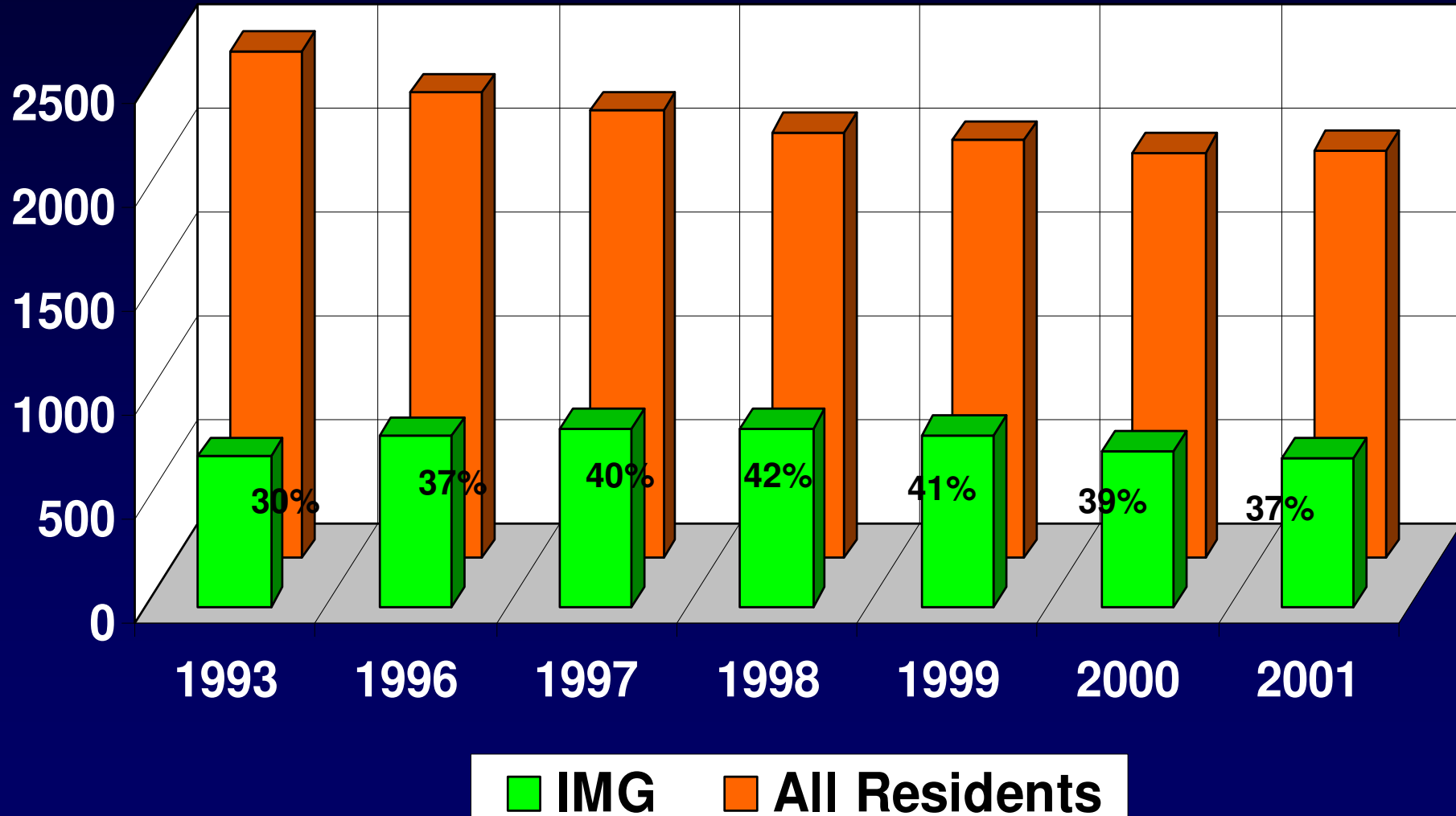


Source: Area Resource File, 2002, DHHS, HRSA/BHPPr/NCHWA

IMGs in Baylor College of Medicine Cardiovascular Training Program

- Total fellows = 32
- U.S. Trained: 20 (62%)
- IMGs: 12 (38%)
- Of the 12 IMGs:
 - Perm Resident: 7
 - Visa Holders: H-1 – 4
J-1 - 1

Cardiology Residency Trends: Proportion of IMGs



JAMA Medical Education Issues, 1993, 1996-2002

IMG % by Cardiology Subspecialty

Year

General Cardiology
Trainees (%)

Electro-
physiology

Interventional
Cardiology (%)

1996

36.6%

18.5%

NA

1997

40.0%

33.7%

NA

1998

42.0%

44.6%

NA

1999

41.2%

48.4%

39.7%

2000

38.6%

37.2%

55.8%

2001

36.7%

43.0%

49.1%

2002

32.9%

41.7%

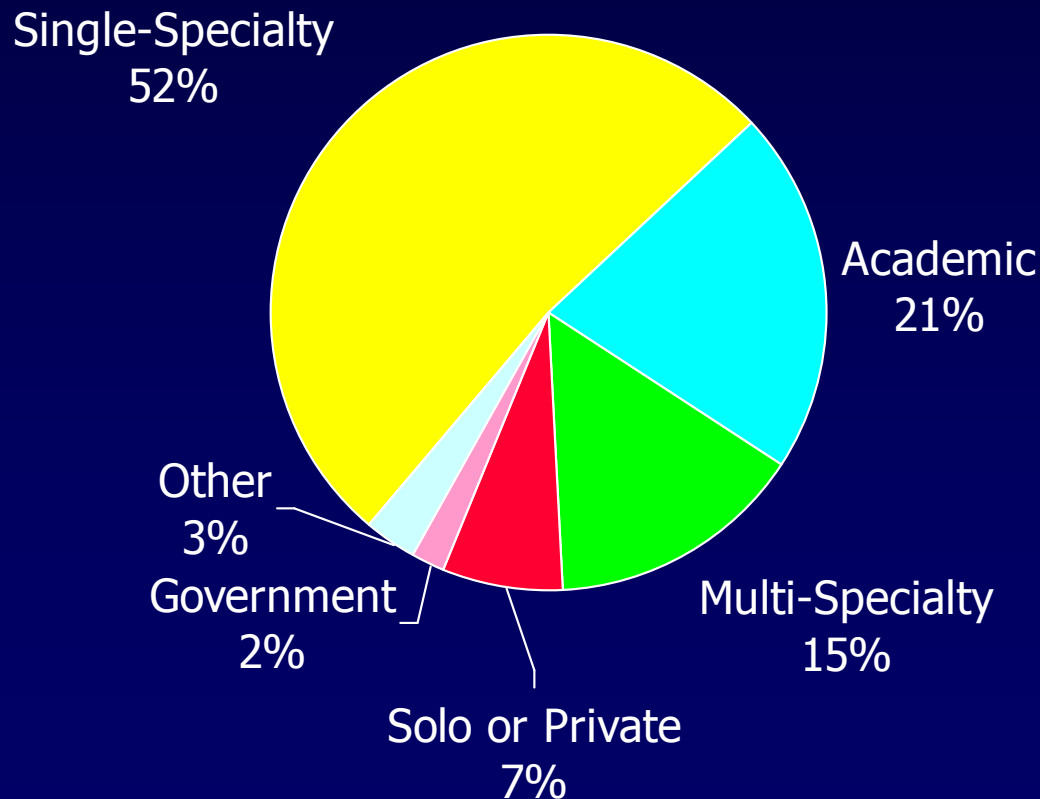
42.1%

Cardiology Career Opportunities

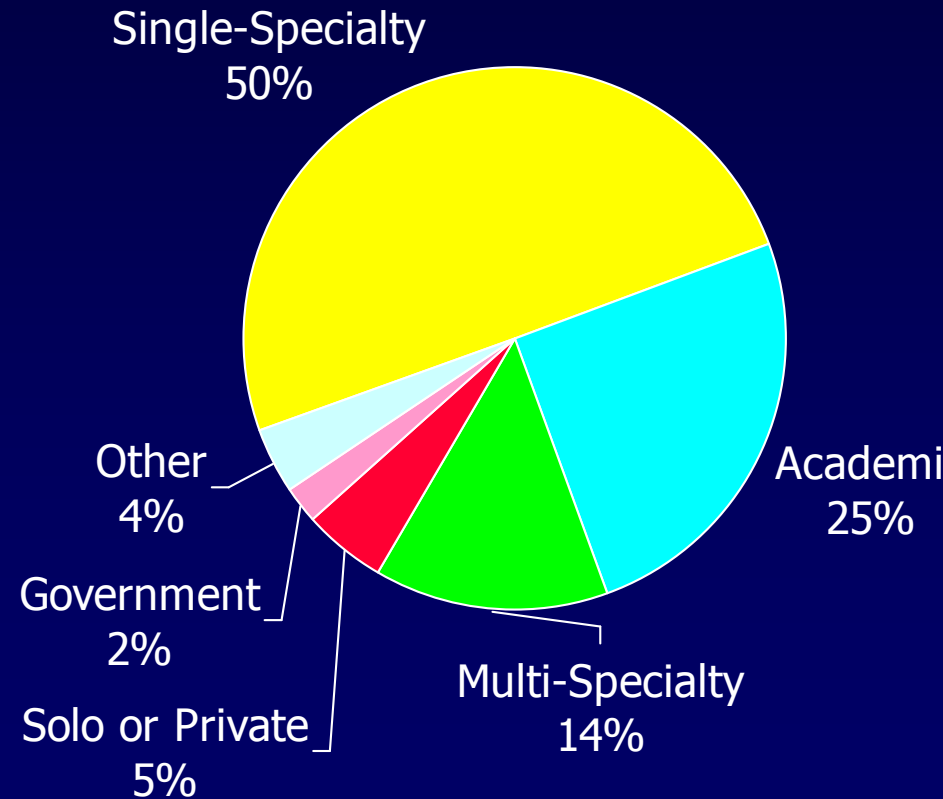
Interest, Supply & Demand

Career Interest of Senior Cardiology Fellows: Private and Academic

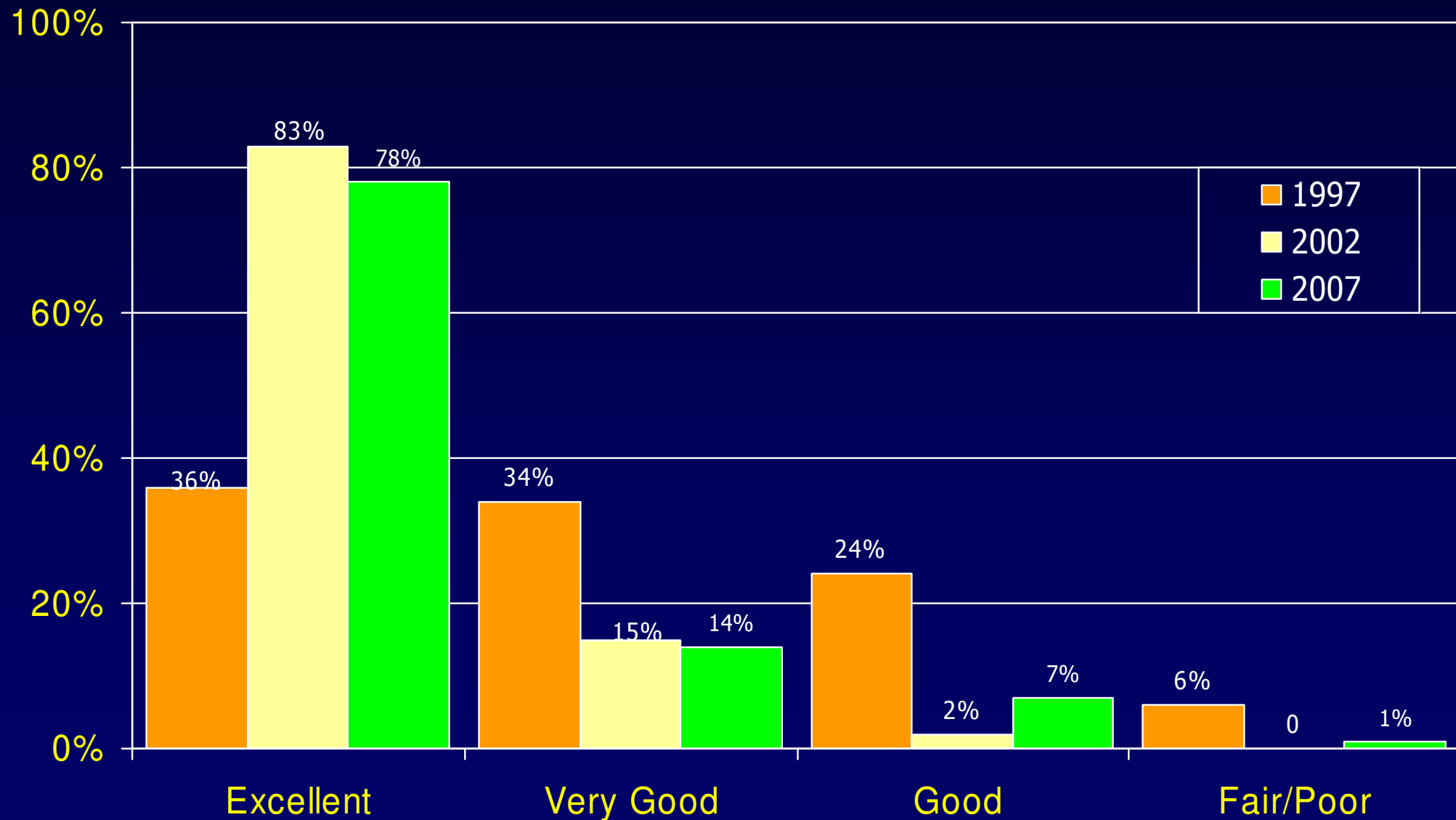
1997



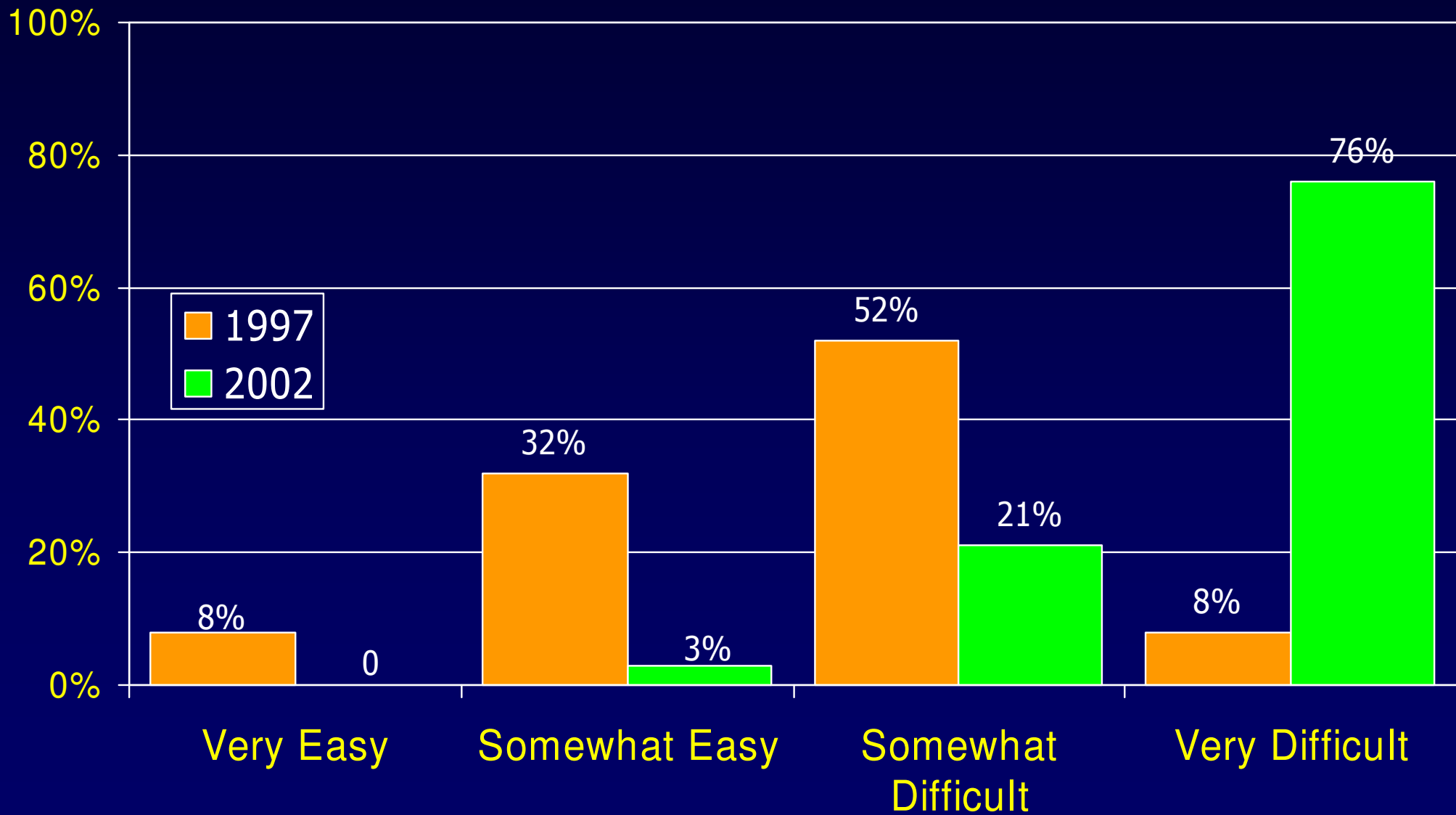
Current



Job Prospects for Senior Cardiology Fellows As Rated by Program Directors (N=137)

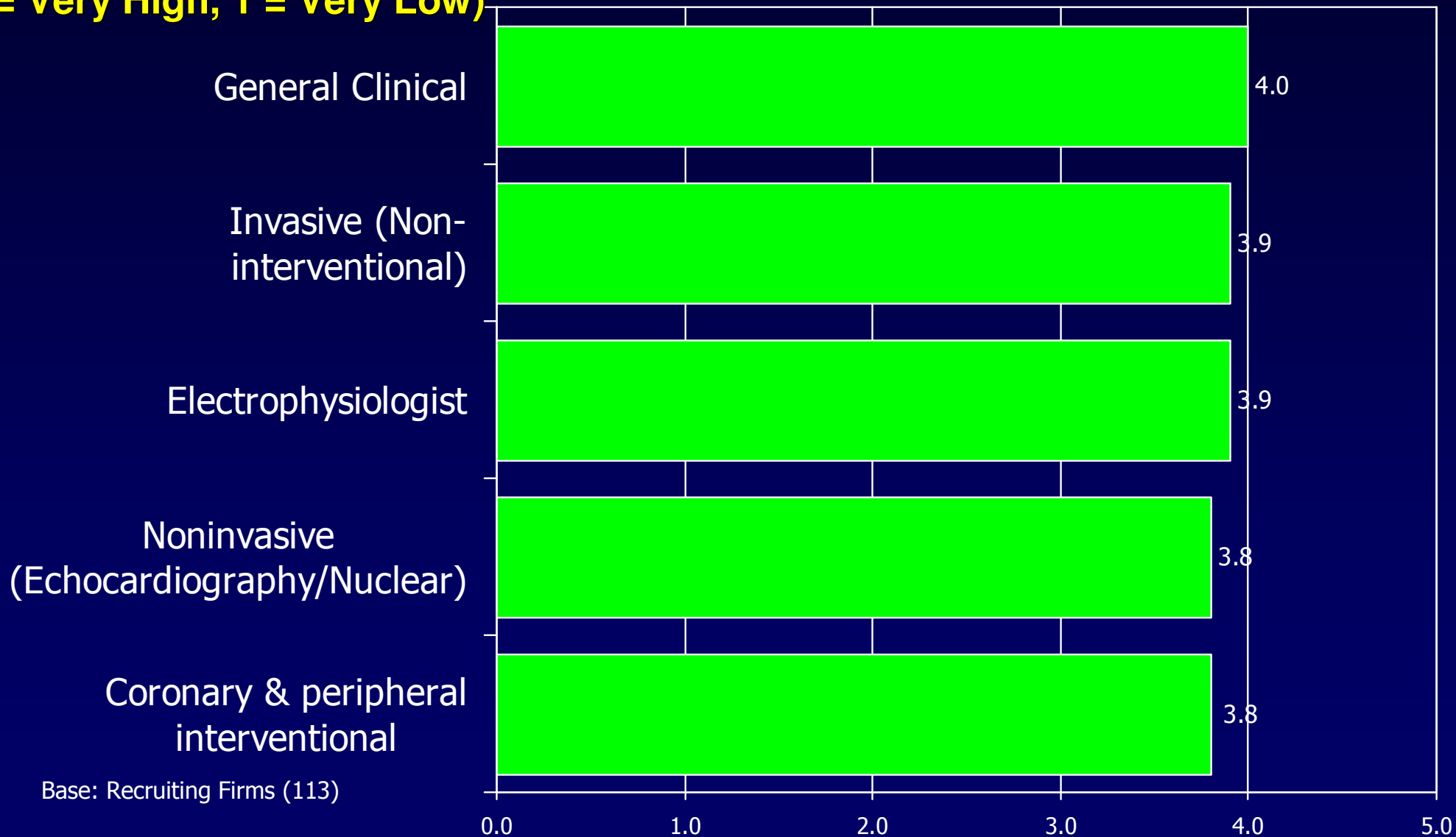


Ease or Difficulty Recruiting Qualified Cardiologists As Rated by Recruiters (N=113)



Demand for Cardiologist by Subspecialty As Reported by Recruiters

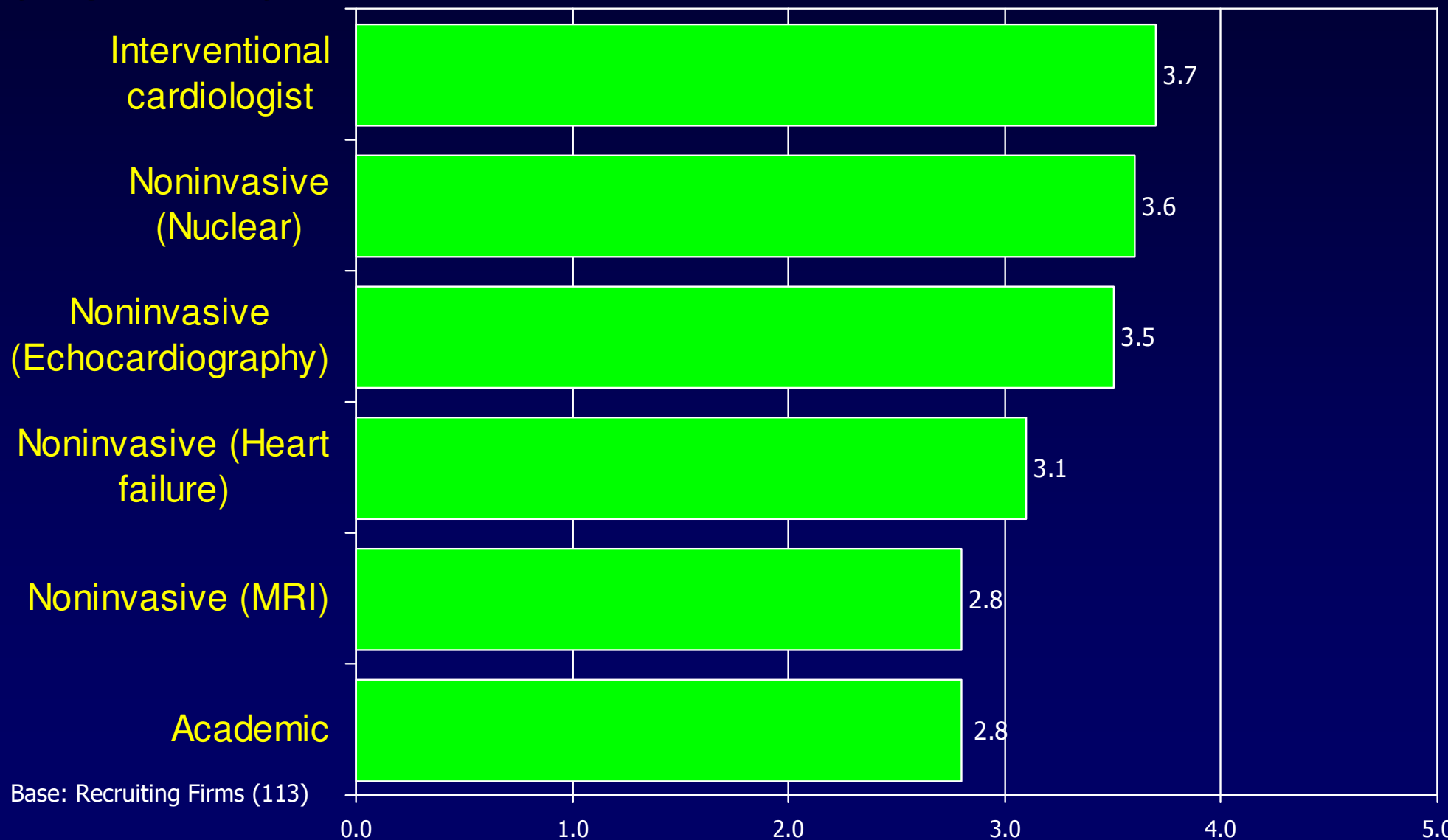
(5 = Very High, 1 = Very Low)



Base: Recruiting Firms (113)

Demand for Cardiologist by Subspecialty As Reported by Recruiters

(5 = Very High, 1 = Very Low)



Base: Recruiting Firms (113)

U.S. Visa and License Options

Careers in Cardiology for International Medical Graduates

Current Challenges to IMGs

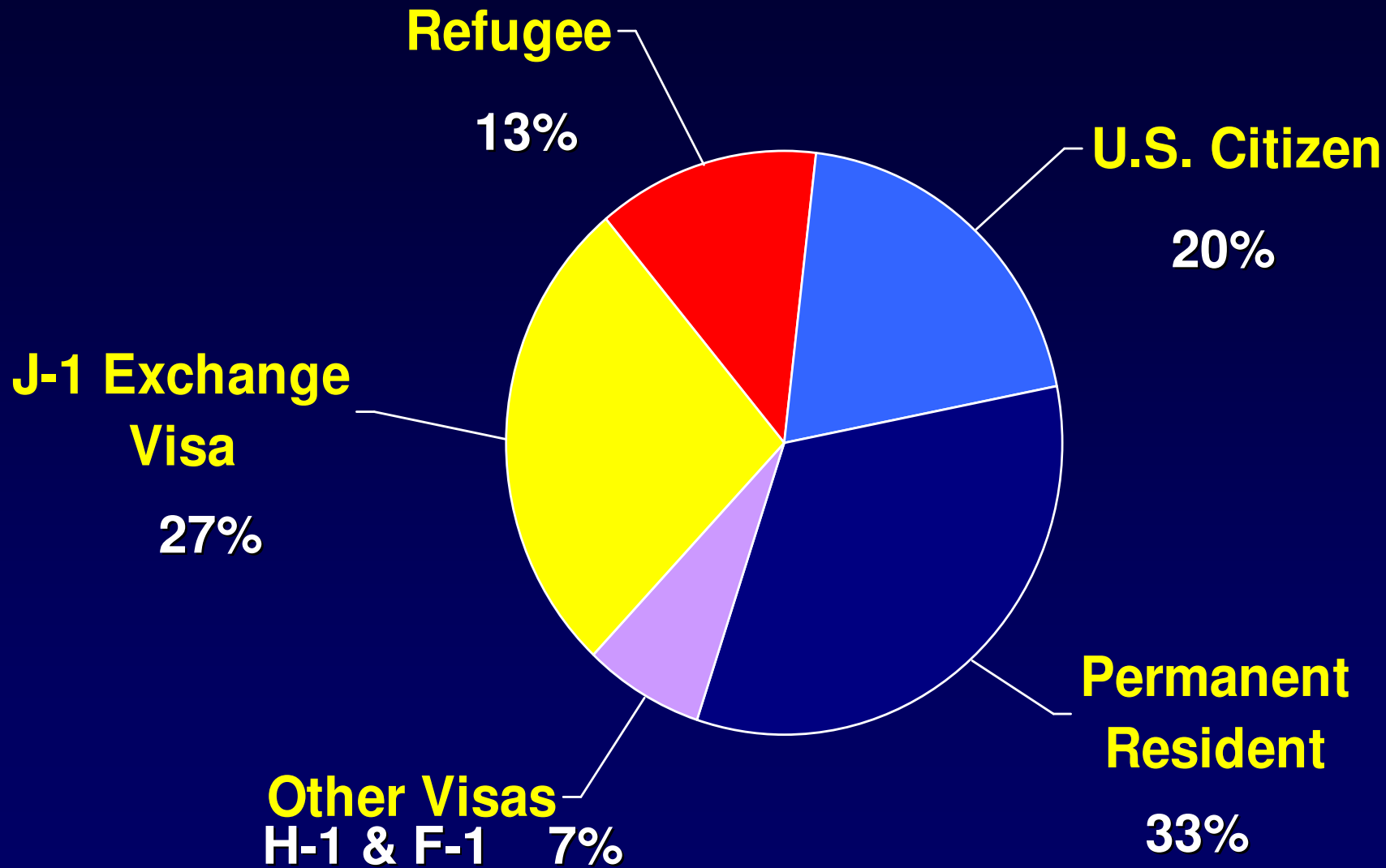
- **Immigration Laws**

- Can affect training of IMGs and chances of joining the workforce
- Increasingly pose obstacles for international travel for IMGs *and their families*

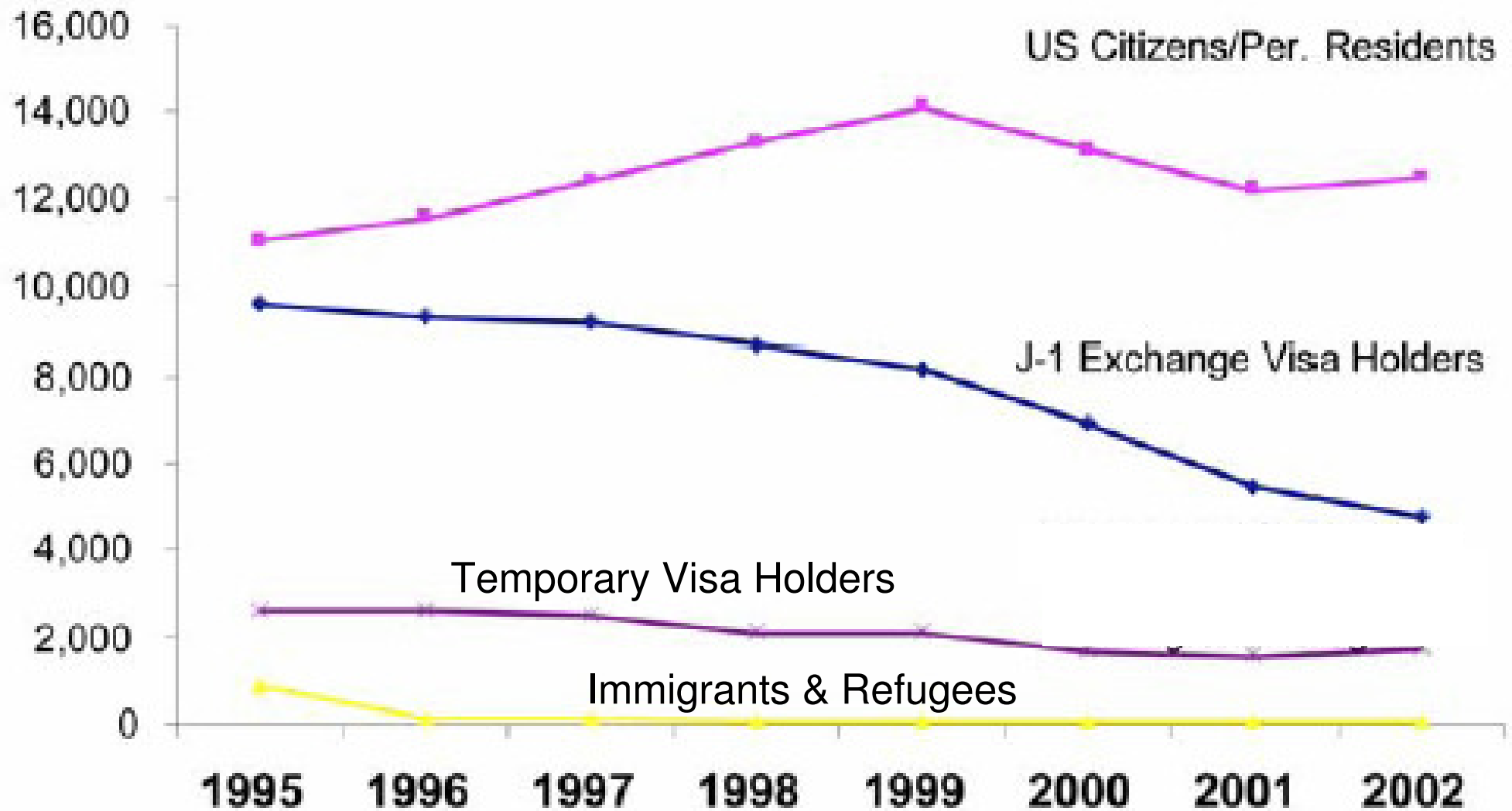
- **Employment**

- Primarily related to visa status
- J-1 visa holders are at increasing risk of not finding waivers, particularly after Sept. 11th

IMG Composition by Immigration Status



Visa Status of IMGs over Time



IMG Career Pathways

1. Research
 - without “hands on” patient care
2. Training
 - to obtain U.S. Specialty Certification
3. Academic Clinical Practice, Teaching and Research

Visa Options for IMGs by Career Pathway

Research

No Patient Care

Visa Options*:

- J-1 “Research Scholar”
- H-1B –employer
- NAFTA
- B-1 If a scientist sent from abroad (*visitor only*)

Other Requirements:

- No US Medical Exams
- No state medical license

GME Training

Visa Options*:

- J-1 “ECFMG”
- H-1B – employer
- US Medical school graduates: F-1 / H-1B
- **NAFTA not an option**

Other Requirements:

USMLE 1 & 2
USMLE 1, 2, & 3
ECFMG Certificate
State limited or training license

Academic

Clinical Practice

Visa Options*:

- H-1B – Intl.’ Renown
- H-1B - Confined
- H-1B – Un-restricted
- NAFTA – limited
- O-1 unrestricted, harder to obtain

Other Requirements:

Academic License **OR**
USMLE 1 & 2
USMLE 1, 2, & 3
ECFMG Certificate
Full State Medical License

* Unless indicated – all visa options are for non-US permanent residents

The Educational Commission for Foreign Medical Graduates (ECFMG)

ECFMG Certification

The Educational Commission for Foreign Medical Graduates (ECFMG) assesses whether graduates of foreign medical schools are ready to enter residency or fellowship programs in the United States that are accredited by the Accreditation Council for Graduate Medical Education (ACGME)

Requirements of ECFMG Certificate

Pass the USMLE:

1. Medical Science Examination
2. Clinical Skills Assessment
3. Clinical Knowledge Assessment

Medical Education Credential Requirements:

- Completion of all requirements for, and receipt of, the final medical diploma
- ECFMG Verification of medical diploma with medical school

Pathways for IMGs

1. Research *(without “hands on” patient care)*

- Careers in biomedical research are widely available for physician scientists from abroad
- Research experience is often a major advantage when interviewing for admission into a U.S. residency program

Research, Non-Clinical Visa Programs

- Universities, medical schools and research institutions may offer visa assistance for research activities
- **Most Common:**
 - **J-1 Research**- 5 years maximum potential duration (Caution: 2-year rule may be attached)
 - **H-1B** – 6 years maximum duration
 - **NAFTA** – Canadian & Mexican nationals only

2. General Medical Training Pathway: Visa Programs

- Medical schools and training hospitals may offer visa assistance or have an attorney on retainer
 - Check with the institution before seeking outside advice
- **Most Common:**
 - **J-1 ECFMG** - 7 years maximum potential duration
Caution: 2-year home rule is attached.
 - **H-1B** – 6 years maximum duration
Requires all 3 Steps of USMLE

Options after J-1 Training

1. **Return to the home country** of 212(e) obligation (country that issued the Ministry of Health letter) for 2 years
2. **Return to the US after a brief departure** on another nonimmigrant visa: **NAFTA (TN)** for Mexican or Canadian academic physicians or the **O-1** Alien of Extraordinary Ability worker visa
3. **Obtain a Waiver** of the 212(e) home rule of service in a geographically underserved area, or Veterans Affairs Hospital

J1 212(e) Home Return Rule

“Any foreign medical graduate admitted as a nonimmigrant under section 101(a) (15) (J) of the Act, or who acquired such status after admission in order to acquire graduate medical education or training” cannot:

- Change Nonimmigrant status in U.S.;
- Change to H or L visas;
- Apply for for permanent residence.

Two-Year Home-Country Physical Presence Requirement

J-1 Exchange Visitors are subject to the home residence requirement if any of the following applies:

- They received U.S. or foreign-government financing to support their exchange
- Their skills are on the Exchange Visitor Skills list for their country
- They are sponsored in J status by the ECFMG for graduate medical education or training

Conrad Waiver Program

- J-1 waiver program for foreign doctors who complete their training in the United States
- The program permits physicians with J-1 visas to stay in the United States *if they agree to practice in an underserved community for three to five years*
- Each state has 30 waivers per year, including five waivers for physicians practicing in areas not specifically deemed “underserved” by the Department of Health and Human Services

H-1B Temporary Worker

Temporary worker visa that allows an employer to sponsor qualified aliens to work in specific jobs

- Between 1976 and 1991, the H-1B visa for residencies was only available to graduates of U.S. medical schools, except in cases where physicians were of national or international renown
- Unlike the J-1, the H-1B *does not* carry a 2-year home residence requirement

H-1B Visa: Exam Requirements

- Physicians are eligible for clinical training with the H-1B if they have the following exam profile:
 - 3 Steps of USMLE *or*
 - 3 Parts of the former NBME
- (No “mixing and matching” of exams)

3. Academic Clinical Practice, Teaching and Research

Most Common:

- **H-1B** - 6yrs maximum duration
- Requires all 3 Steps of USMLE or Proof of International Renown
- **NAFTA** – patient care only permitted if incidental to teaching and research
- **O-1 Extraordinary Ability** – (difficult to obtain)

License Options:

- Full License requires all USMLE exams, U.S. GME training or waiver, and ECFMG Certificate
- Limited License may be available

International Medical Graduates: Grant Eligibility

- Foreign nationals are not eligible for most NIH grants, including training grants (*RO1 is an exception for faculty*)
- NIH exception: the NIH Visiting Program- Visiting Fellowship, Visiting Associate and Visiting Scientist
- IMGs are eligible for most other grants: ACCF, AHA

Strategies for Admission to Academic Careers for IMGs

I. Training to Practice

1. Take USMLE exams
 - *generally requires very high scores for admission directly into training*
2. Obtain ECFMG certificate
3. Enter GME training
4. Receive U.S. specialty board certification
5. Enter academic or private practice

II. Research, Training, to Practice*

1. Conduct research
2. Take USMLE exams
3. Obtain ECFMG certificate
4. Enter GME training
5. Receive U.S. specialty board certification
6. Enter academic or private practice

Training Requirements for US Specialty Board Certification

- Acceptance into an Approved or Accredited Training Program
- Medical School Diploma
- ECFMG certificate
- Official State Medical Board Permit or Full License
- Permission to work in the United States

III. Academic teaching to practice

Requires Faculty Appointment

1. Teach, conduct research with “incidental care” permitted with limited state license
2. Take USMLE exams & obtain ECFMG certificate
3. Enter academic or private practice without U.S. specialty board certification

State Medical License & Visa Applications

- A State License is required for Visa applications
- Each State has its own unique rules on licensing for physicians
- IMG needs to become familiar with the process and begin early

State Medical Licenses Information

Federation of State Medical Boards of
the United States Inc.

P.O. Box 619850

Dallas, TX 75261-9850

phone (817) 868-4000;

fax (817) 868-4098

<http://www.fsmb.org/>

“The Melbourne Manifesto”

- A code of practice adopted at the 5th World Rural Health Conference in Melbourne, Australia on May 3, 2002
- **Purpose:**
 - To promote the best possible standards of health care around the world
 - To encourage rational workforce planning by all countries in order to meet their own needs
 - To discourage activities which could harm any country's health care system

IMGs in Cardiology

Bethesda Task Force Recommendations

- Maintain current proportion of IMGs in workforce, provided quality and performance remain high
- More accessibility to the CSA/CSE examinations: more cities (US, international), more scholarships
- Pilot program for “short track” training of select IMGs:
 - those with completed Internal Medicine and Cardiology training could do 1 year of IM and regular (3-4 yr) Cardiology fellowship training

International Medical Graduates and The Cardiology Workforce. Bethesda Conference 35; Working Group # 4. J Am Coll Cardiol 2004 ;44: 245-51

IMGs in Cardiology

Task Force Recommendations

- Involve medical organizations (ACC, AMA) in monitoring/influencing IMG immigration
 - balance between IMG training and ability to remain in US
- Promote transparent relationships with other countries regarding IMGs:
 - immigration, exchange, and return to country of origin
 - balance and match training opportunities with health care needs

IMGs in Cardiology

Task Force Recommendations

- Facilitate International exchange of physicians:
 - IMGs in US to return for short or extended periods to contribute to healthcare in country of origin (sabbatical, teaching, performing unavailable procedures)
 - Recruit US-graduate colleagues to serve in a similar capacity (enriching the experience of US physicians and those of other countries)
 - Involve academic & non-academic centers

IMGs in Cardiology: Conclusions

1. Cardiology demand exceeds supply in U.S.
2. IMGs form a vital part of training, research, practice, and diversity in the U.S.
3. Due to visa issues, IMG numbers are declining
4. There are 3 main pathways for IMGs in the U.S., with specific VISA requirements:
 - Research (J1, H1, NAFTA, B1)
 - Training (J1, H1)
 - Academic Practice (H1, O1, NAFTA)
5. IMG presence in U.S. should not be a one-way-street: “**Reciprocal brain flow**” is encouraged

Thank you



Texas Medical Center, Houston, Texas, USA