

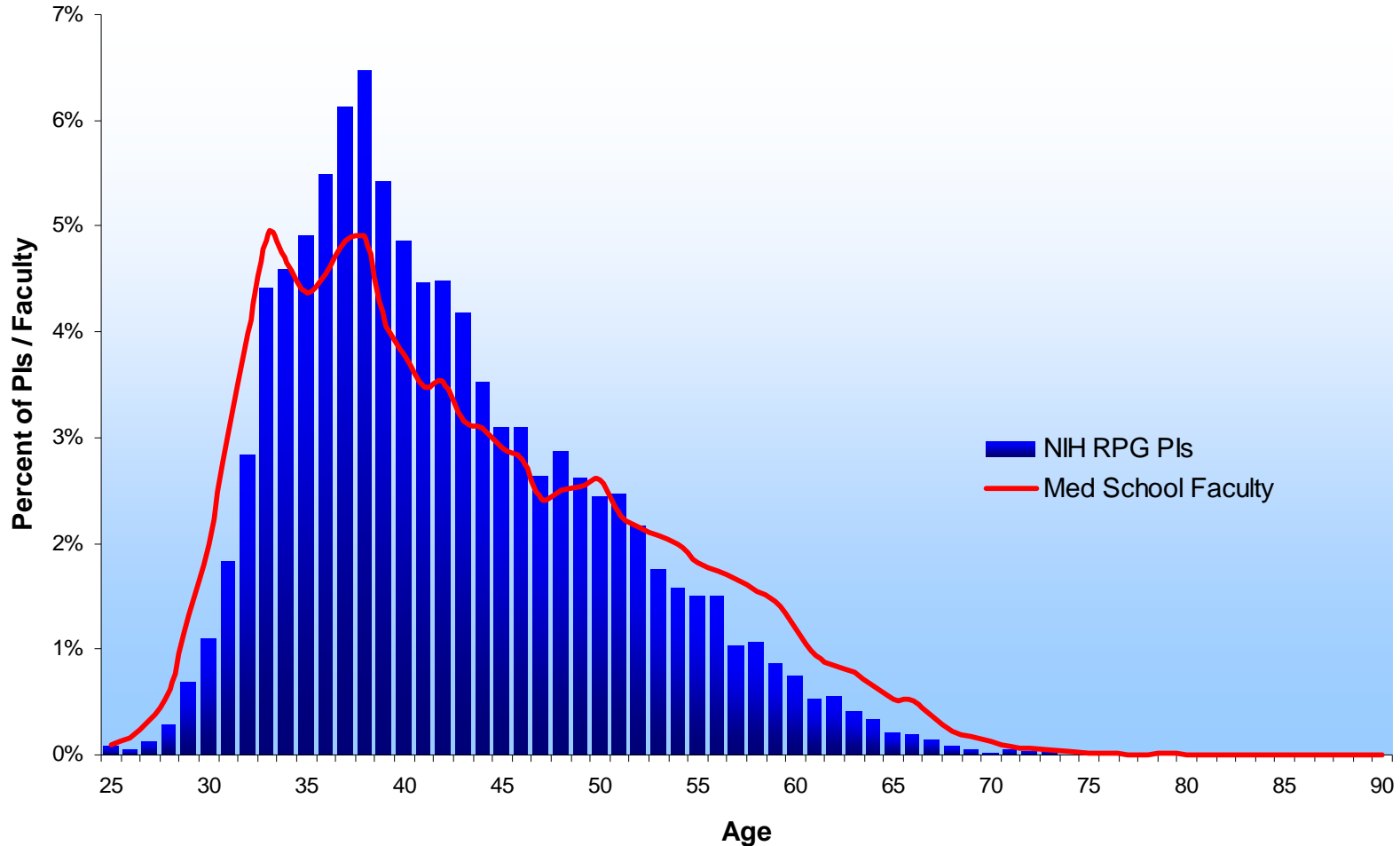


# **Some Observations on Demographics of NIH-funded Scientists**

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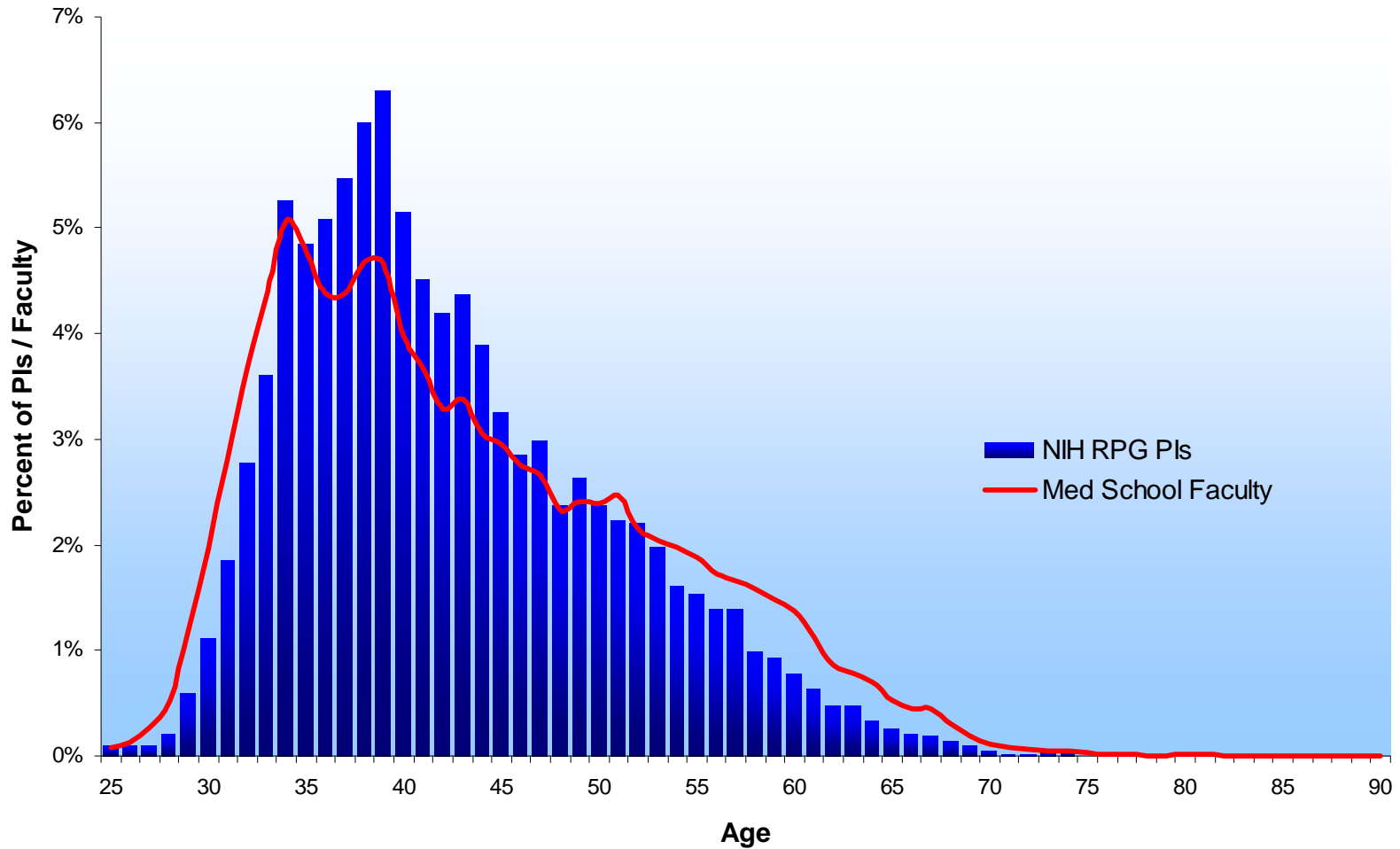
## **Policy Implications for New Investigators**

# Comparison of the Age of NIH Pls and 1980 Medical School Faculty



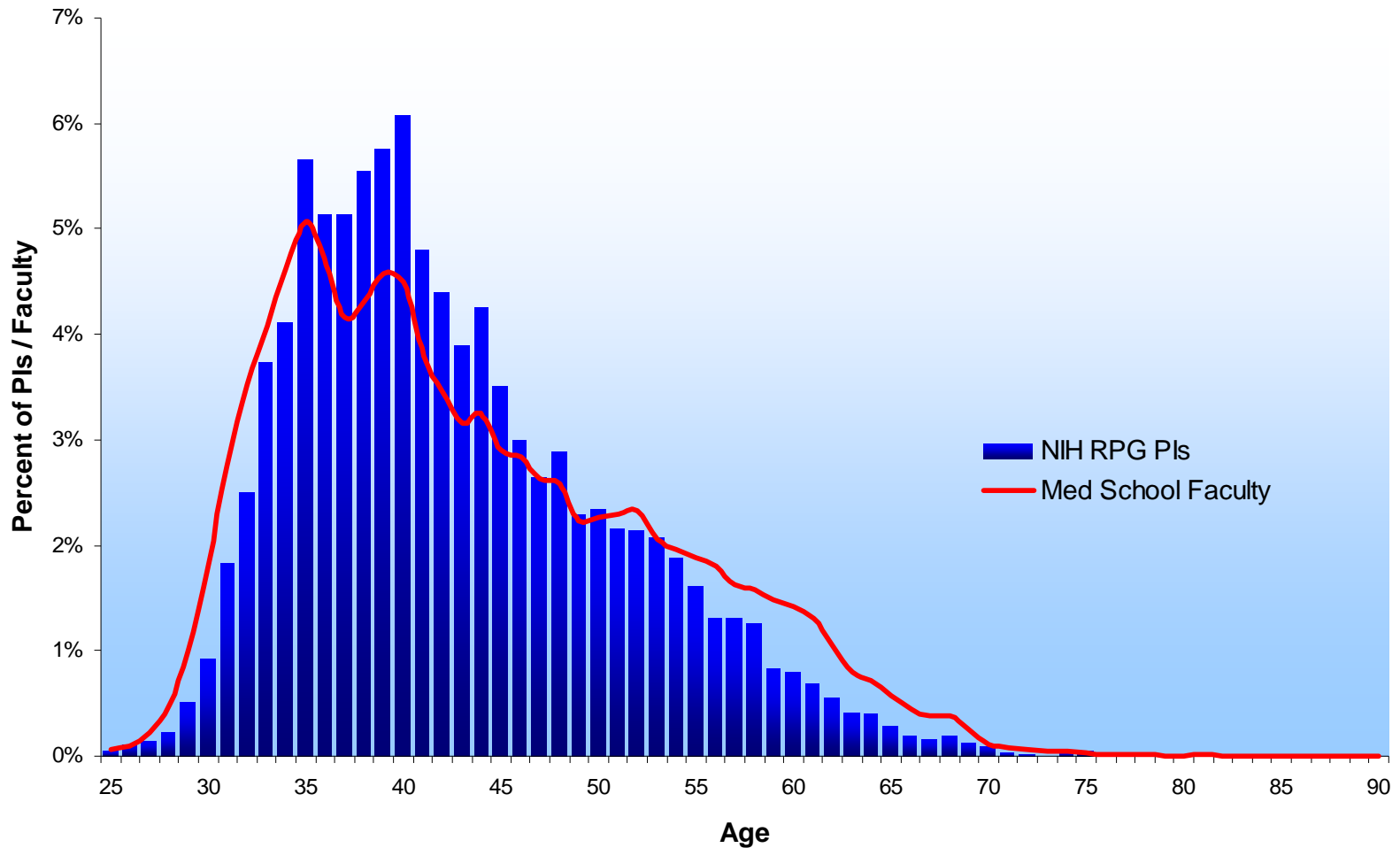
Sources: IMPAC II Current and History Files and AAMC Faculty Roster System

# Comparison of the Age of NIH PIs and 1981 Medical School Faculty



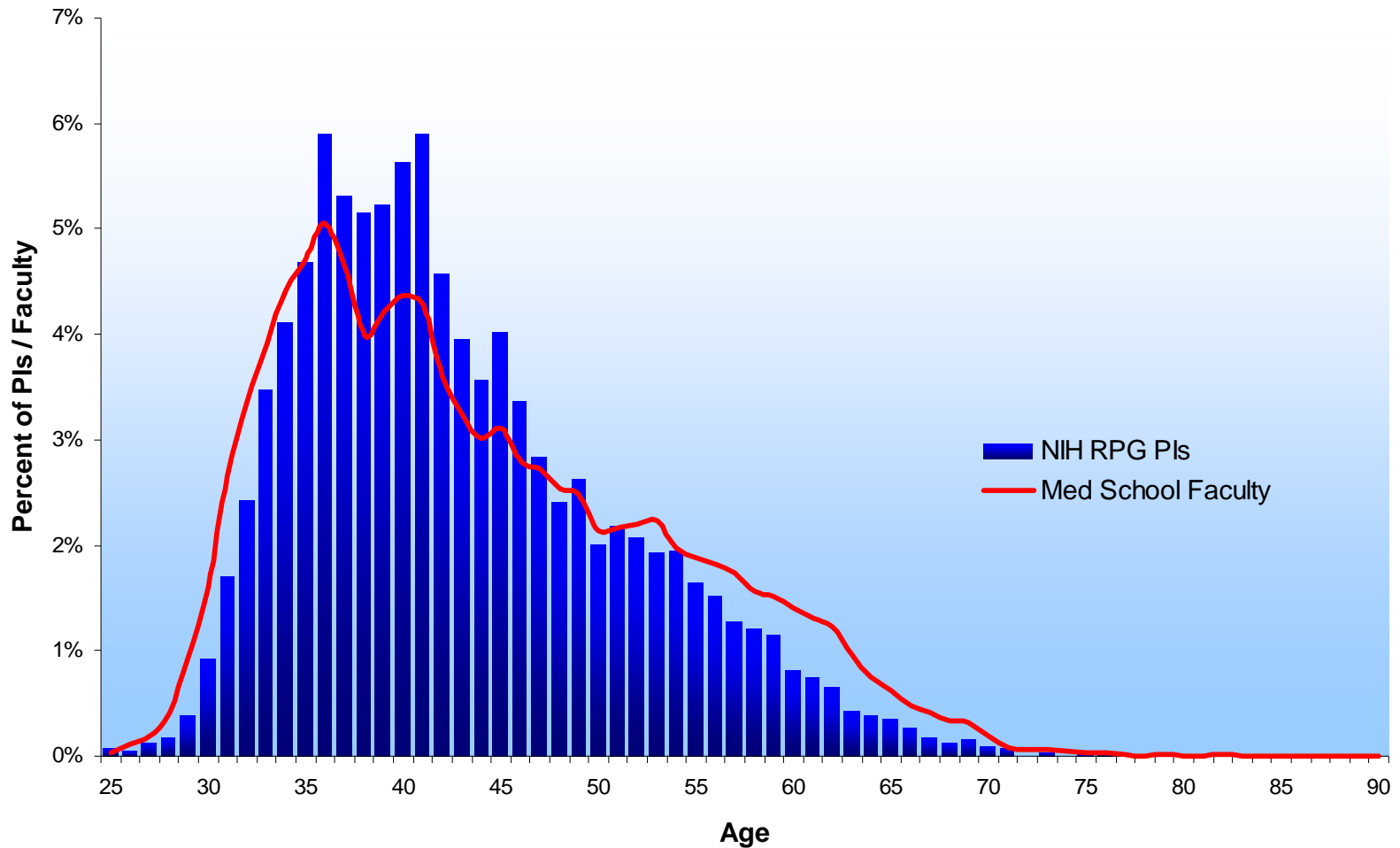
Sources: IMPAC II Current and History Files and AAMC Faculty Roster System

# Comparison of the Age of NIH PIs and 1982 Medical School Faculty



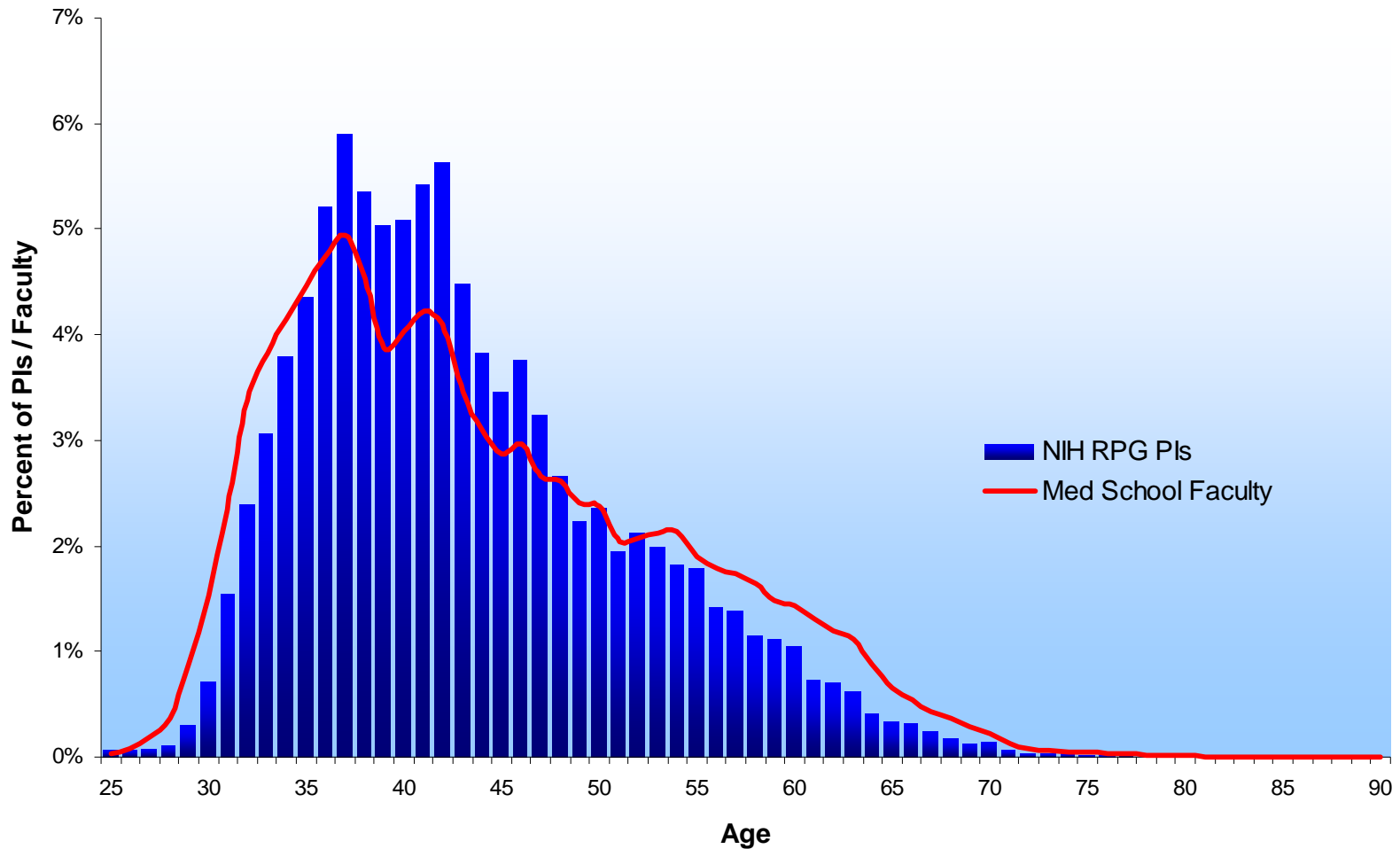
Sources: IMPAC II Current and History Files and AAMC Faculty Roster System

# Comparison of the Age of NIH PIs and 1983 Medical School Faculty



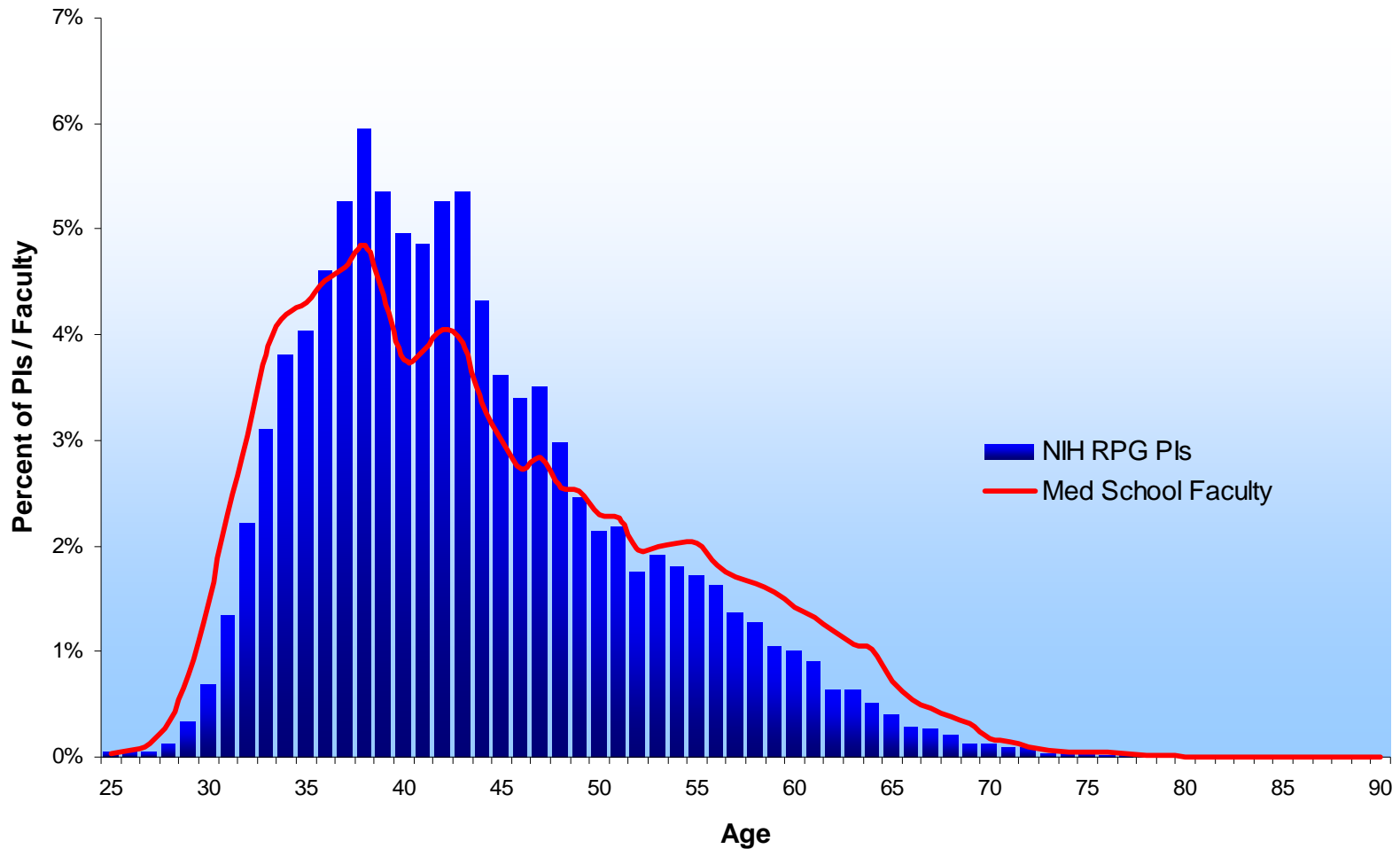
Sources: IMPAC II Current and History Files and AAMC Faculty Roster System

# Comparison of the Age of NIH PIs and 1984 Medical School Faculty



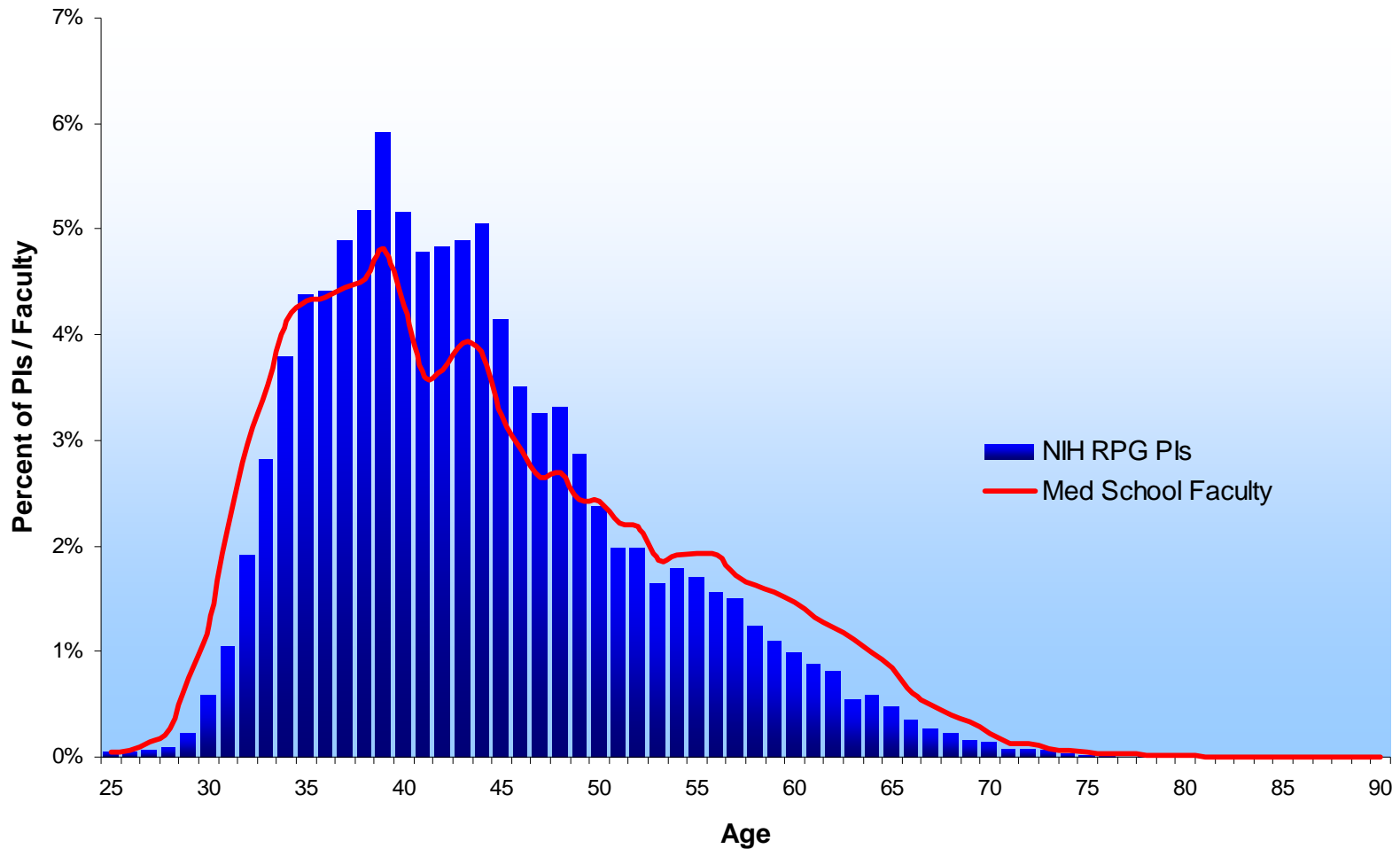
Sources: IMPAC II Current and History Files and AAMC Faculty Roster System

# Comparison of the Age of NIH PIs and 1985 Medical School Faculty



Sources: IMPAC II Current and History Files and AAMC Faculty Roster System

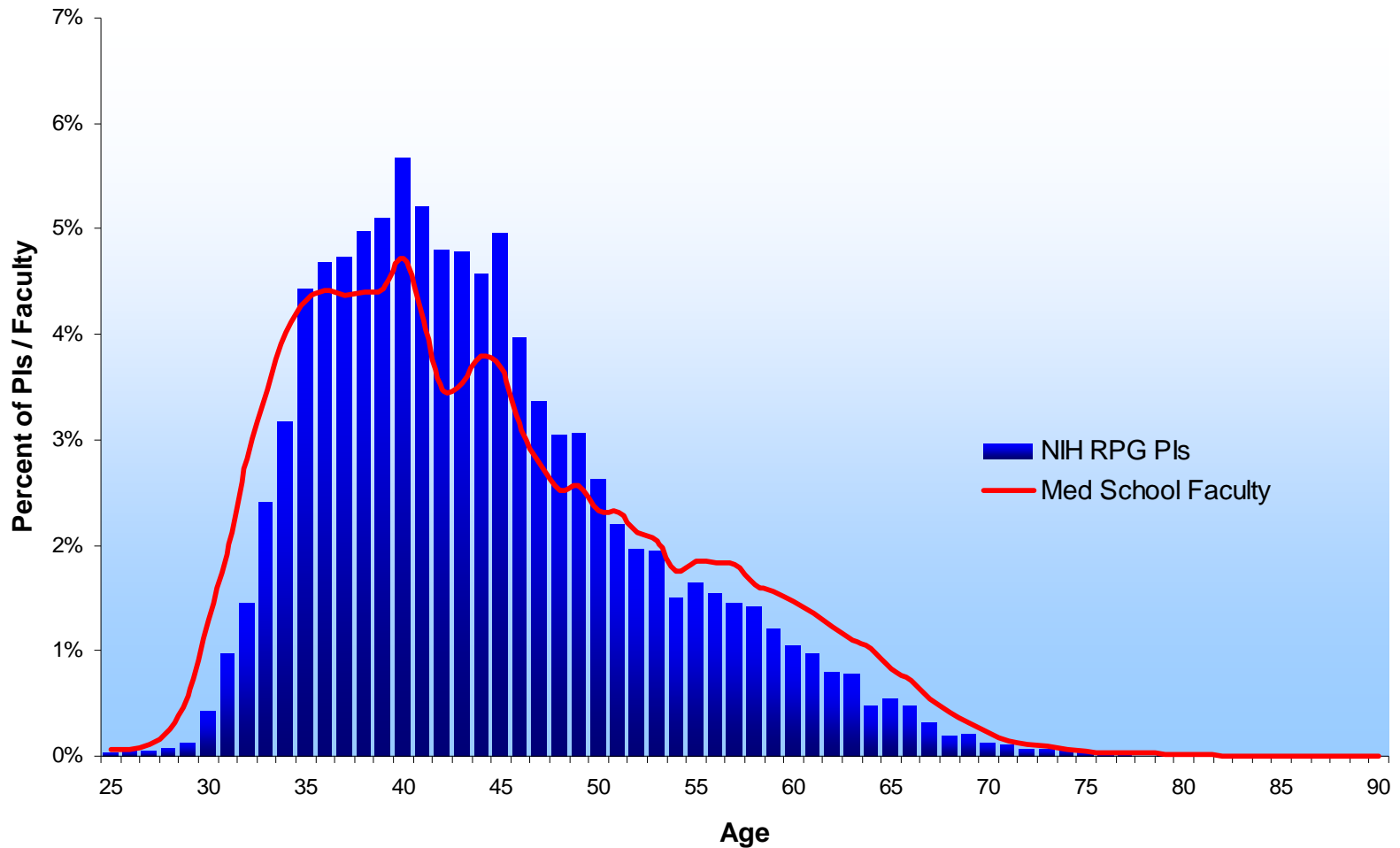
# Comparison of the Age of NIH PIs and 1986 Medical School Faculty



Sources: IMPAC II Current and History Files and AAMC Faculty Roster System

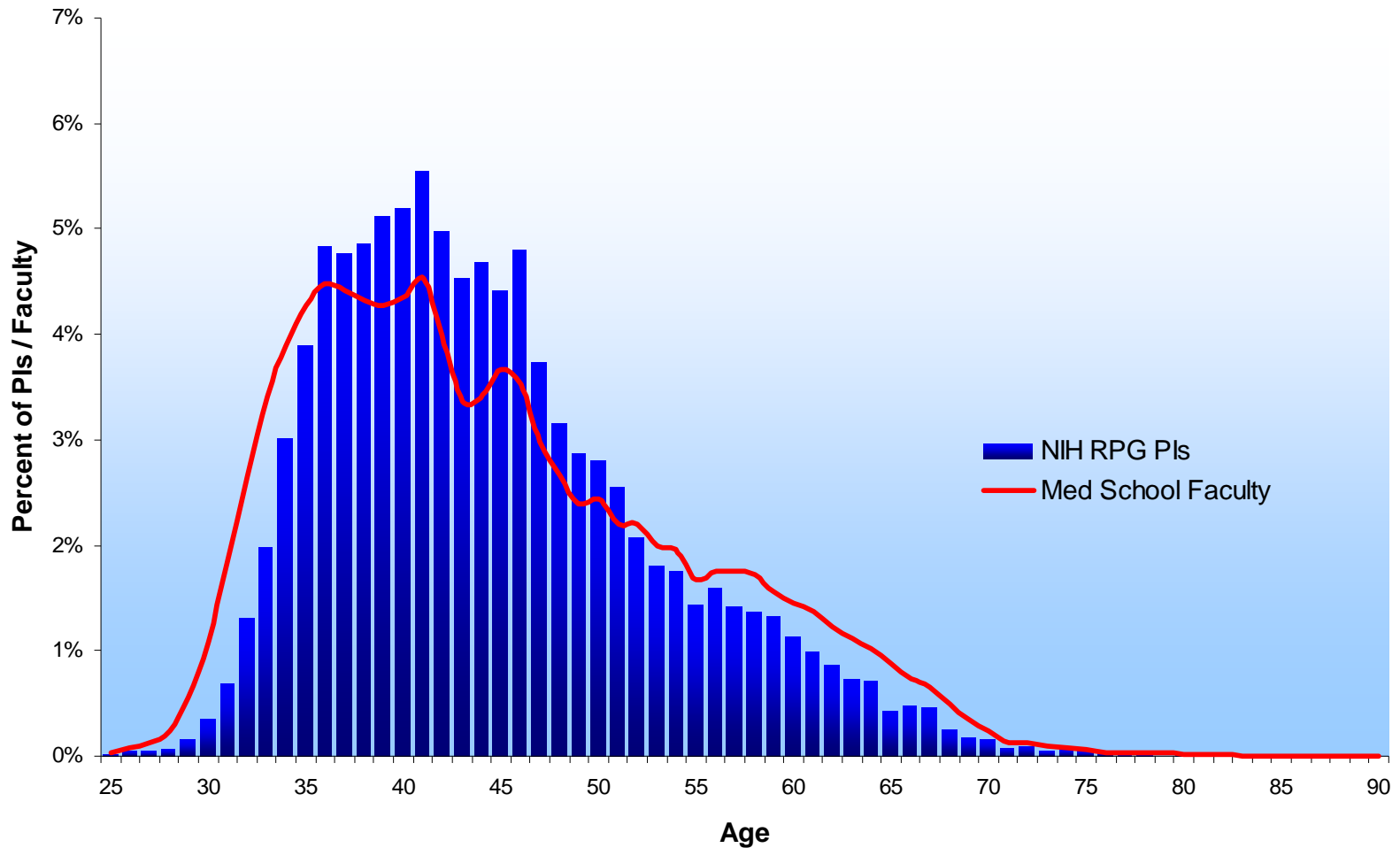


# Comparison of the Age of NIH PIs and 1987 Medical School Faculty



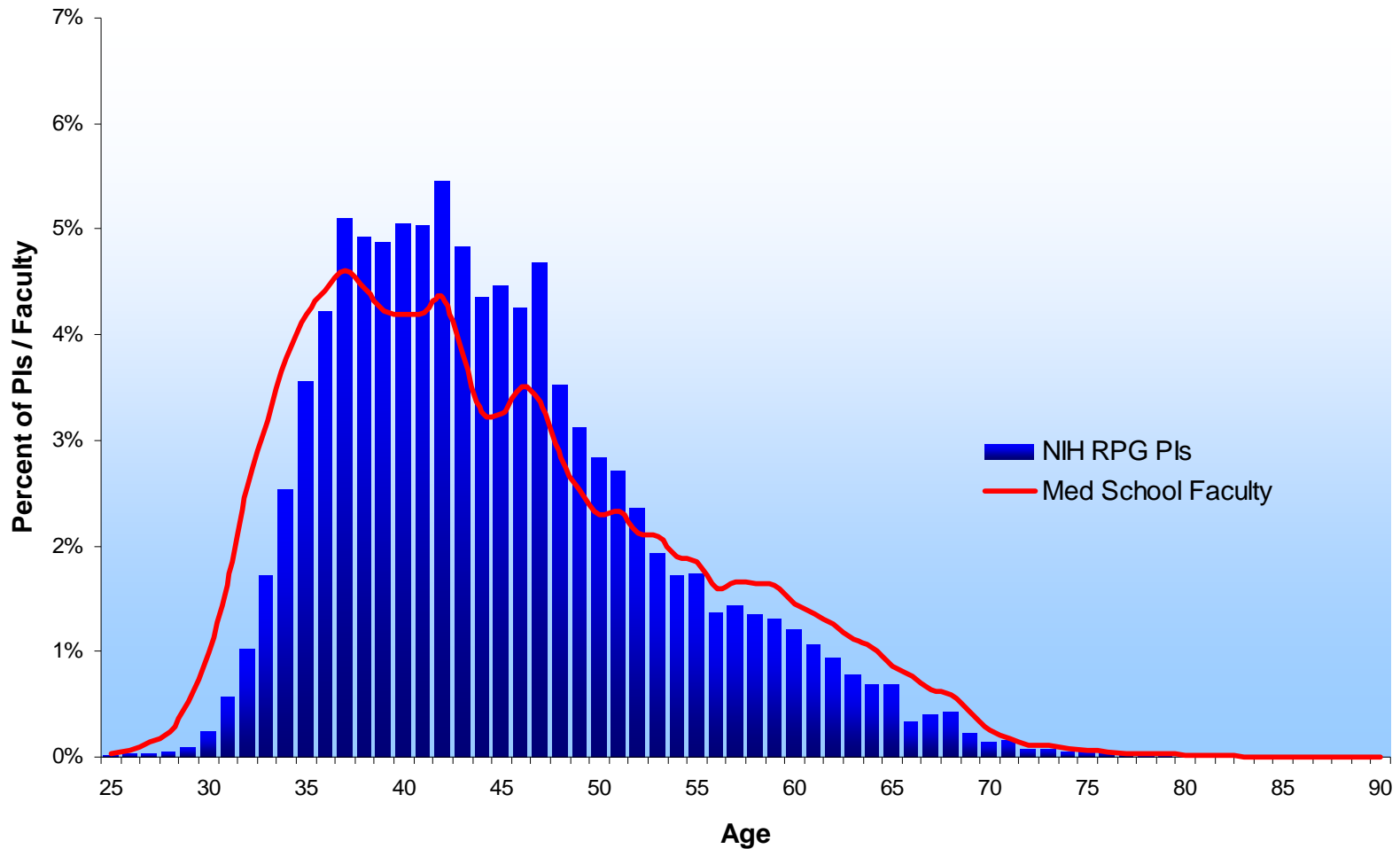
Sources: IMPAC II Current and History Files and AAMC Faculty Roster System

# Comparison of the Age of NIH PIs and 1988 Medical School Faculty



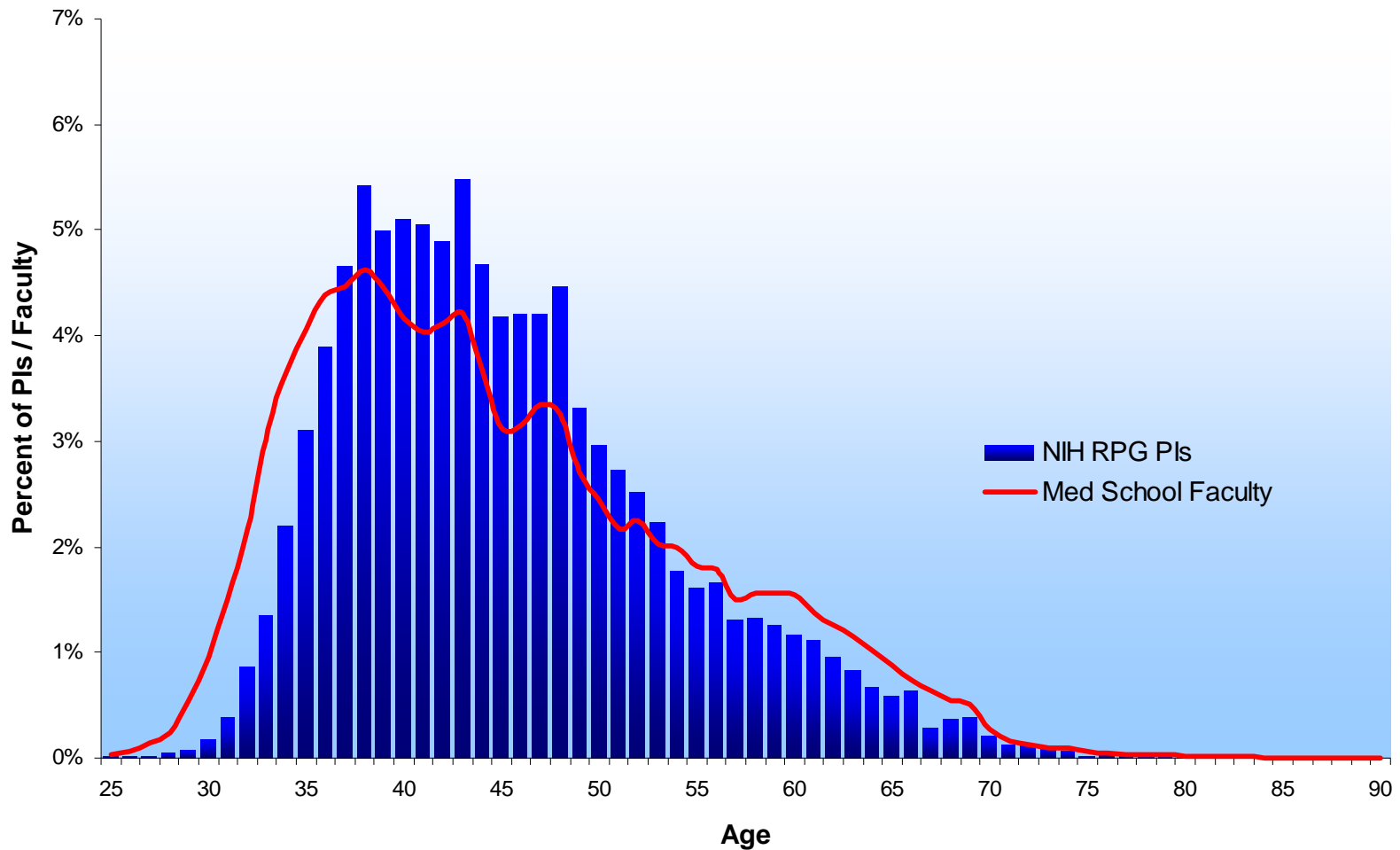
Sources: IMPAC II Current and History Files and AAMC Faculty Roster System

# Comparison of the Age of NIH PIs and 1989 Medical School Faculty



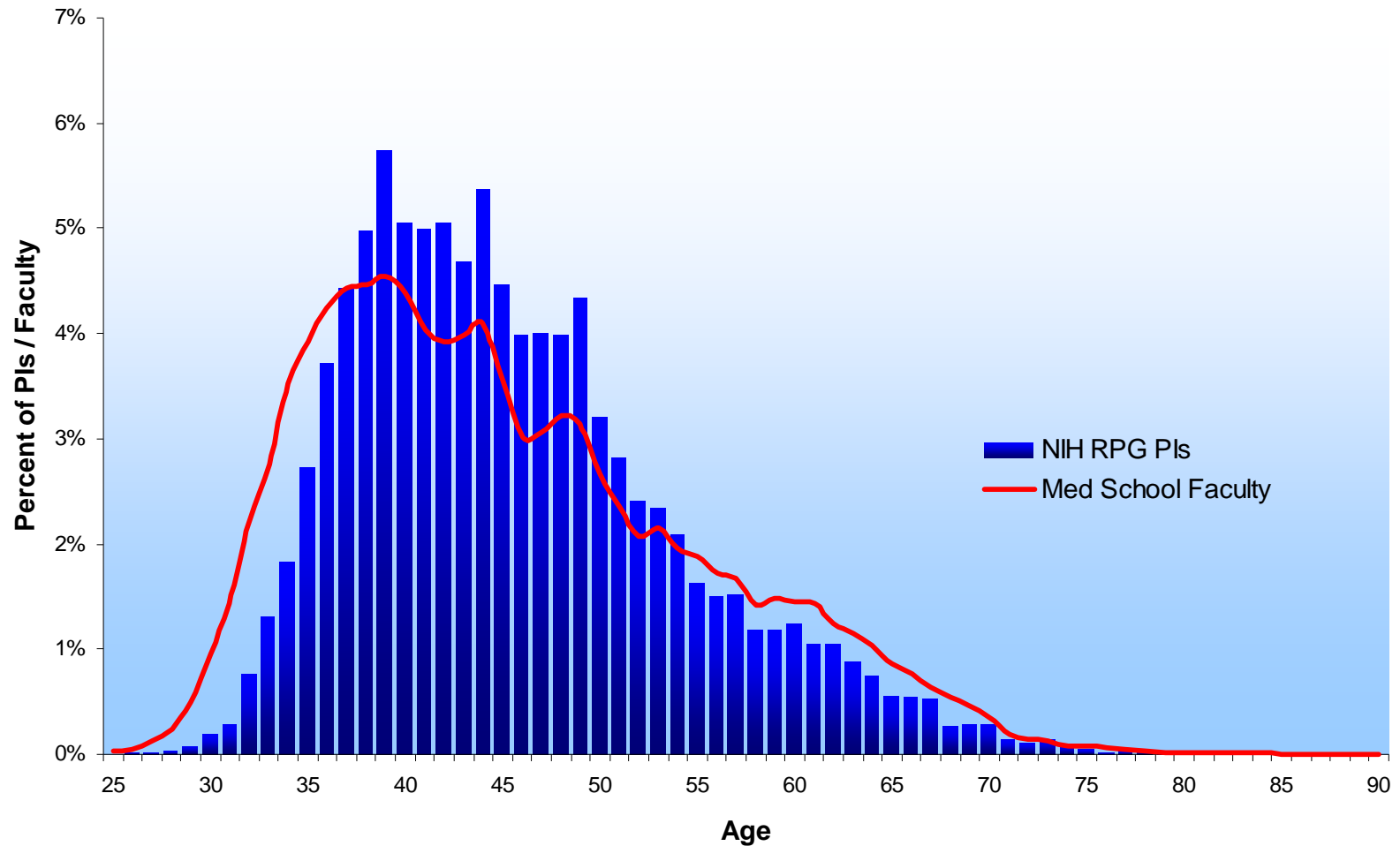
Sources: IMPAC II Current and History Files and AAMC Faculty Roster System

# Comparison of the Age of NIH PIs and 1990 Medical School Faculty



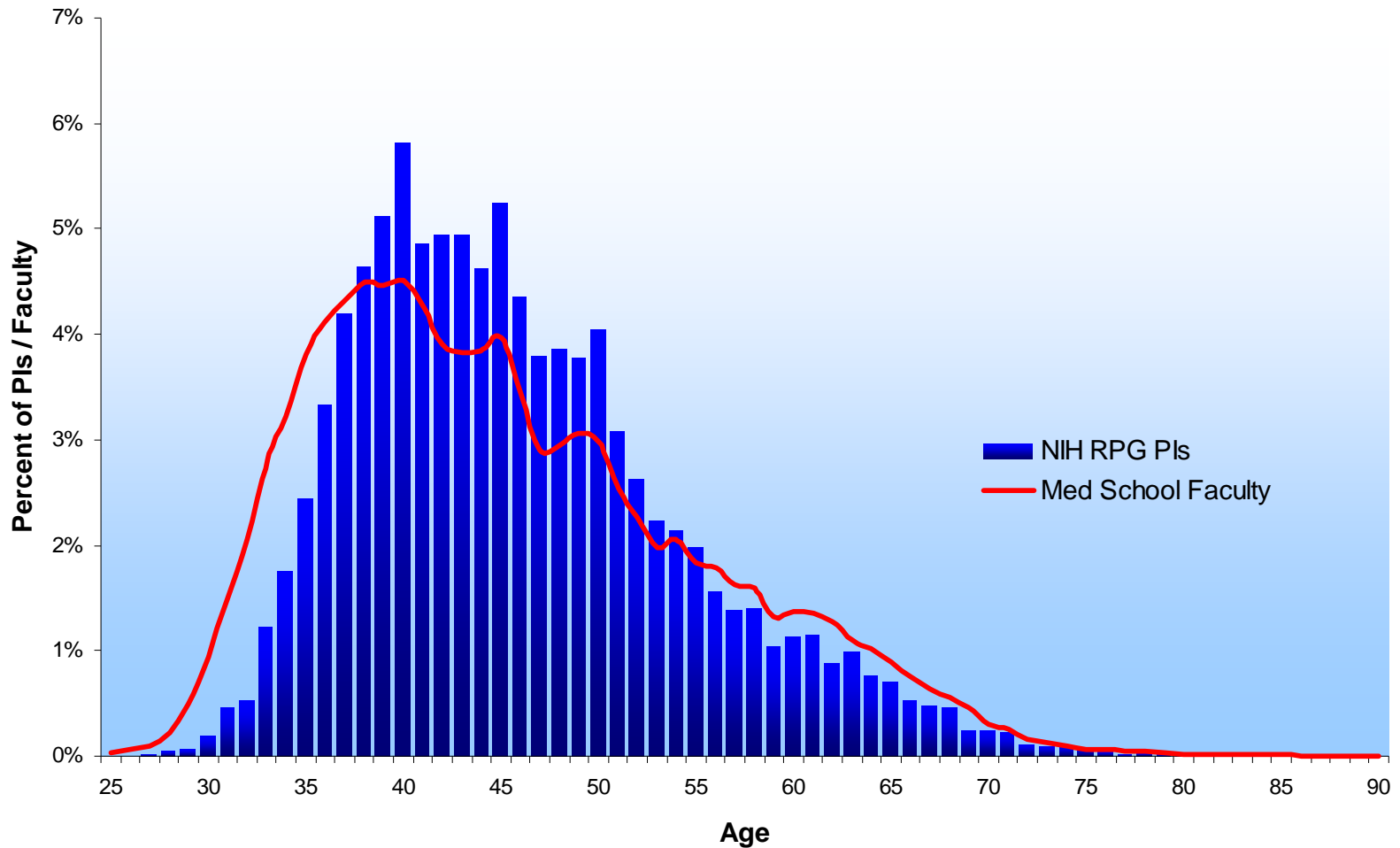
Sources: IMPAC II Current and History Files and AAMC Faculty Roster System

# Comparison of the Age of NIH PIs and 1991 Medical School Faculty



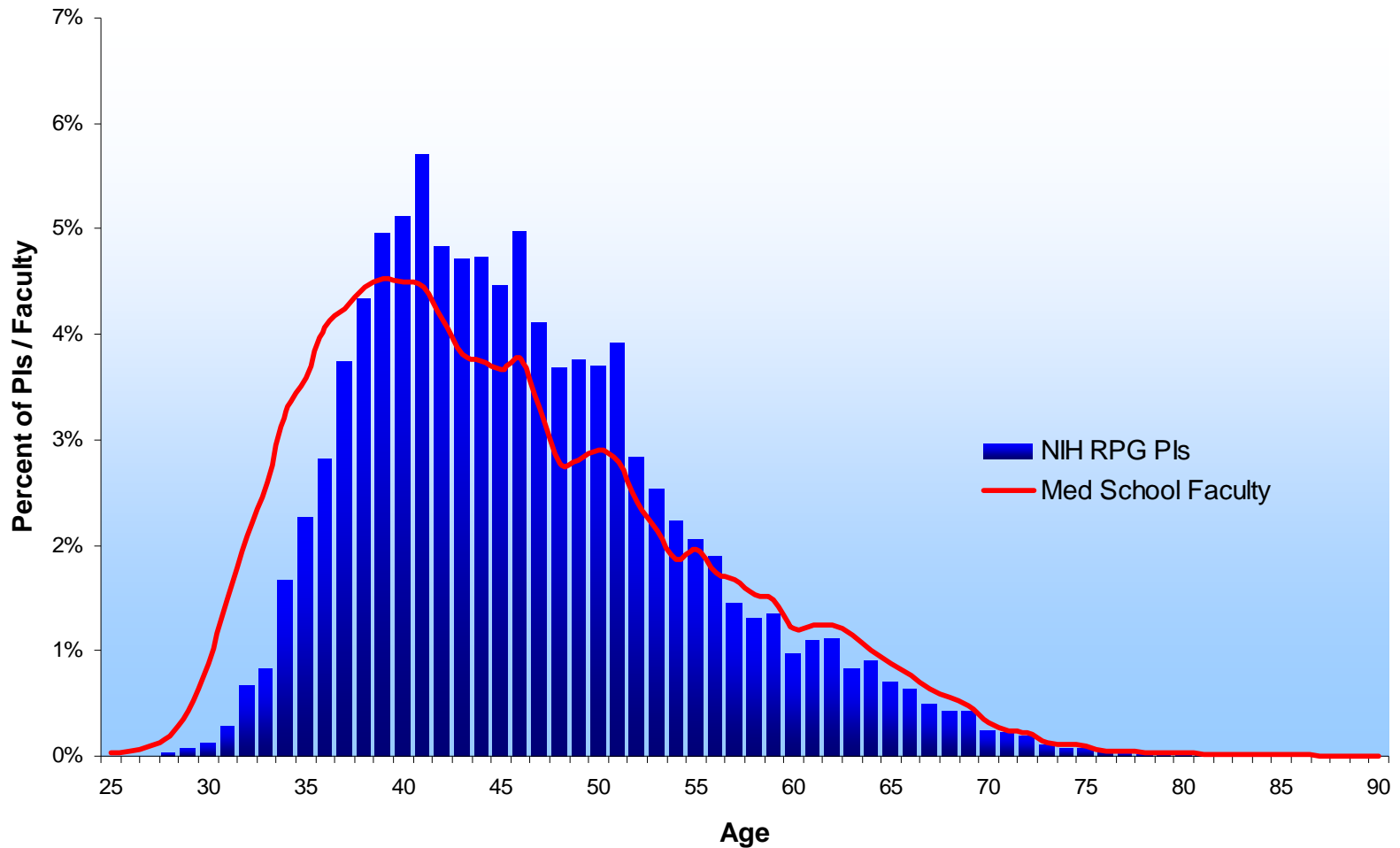
Sources: IMPAC II Current and History Files and AAMC Faculty Roster System

# Comparison of the Age of NIH PIs and 1992 Medical School Faculty



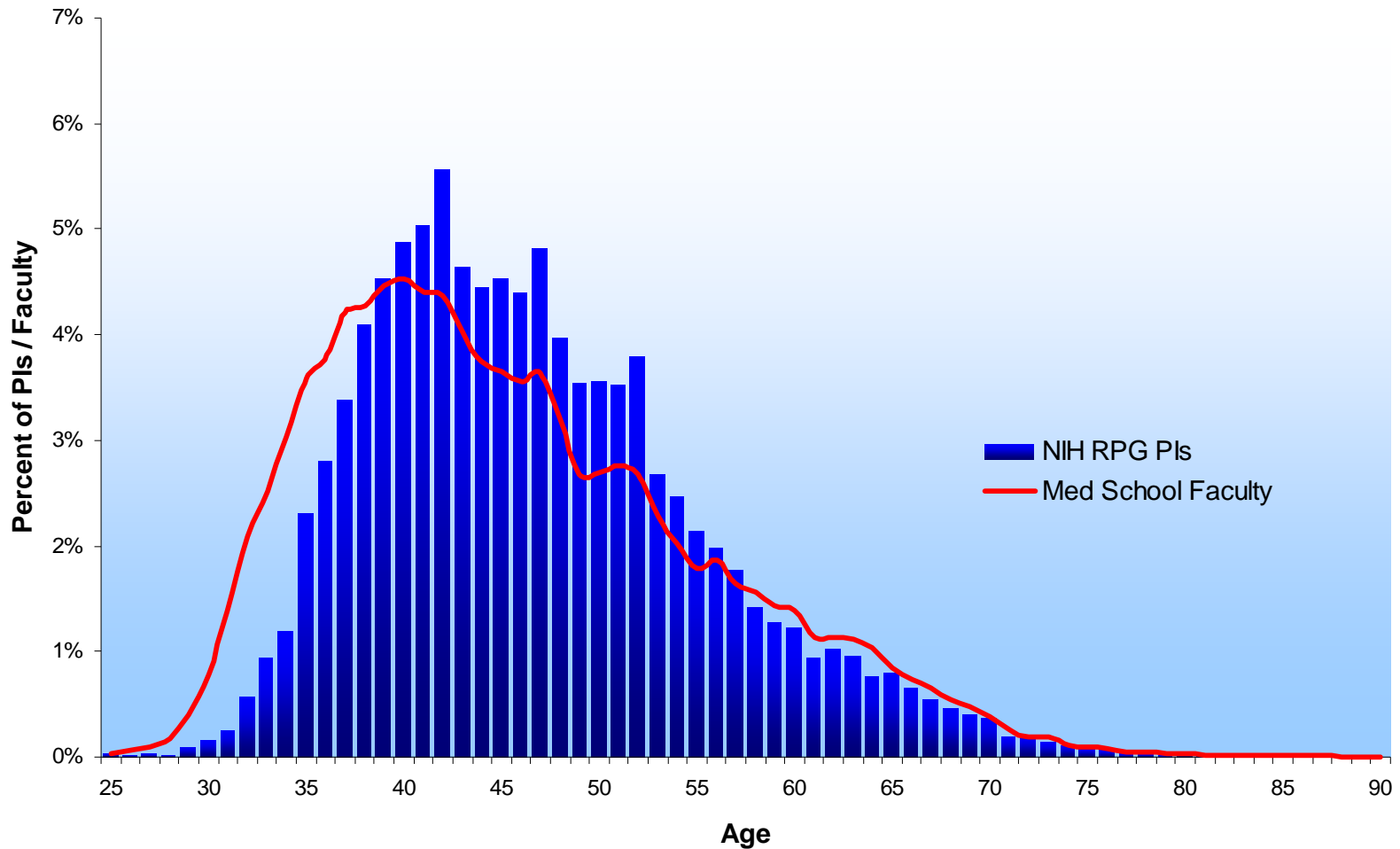
Sources: IMPAC II Current and History Files and AAMC Faculty Roster System

# Comparison of the Age of NIH PIs and 1993 Medical School Faculty



Sources: IMPAC II Current and History Files and AAMC Faculty Roster System

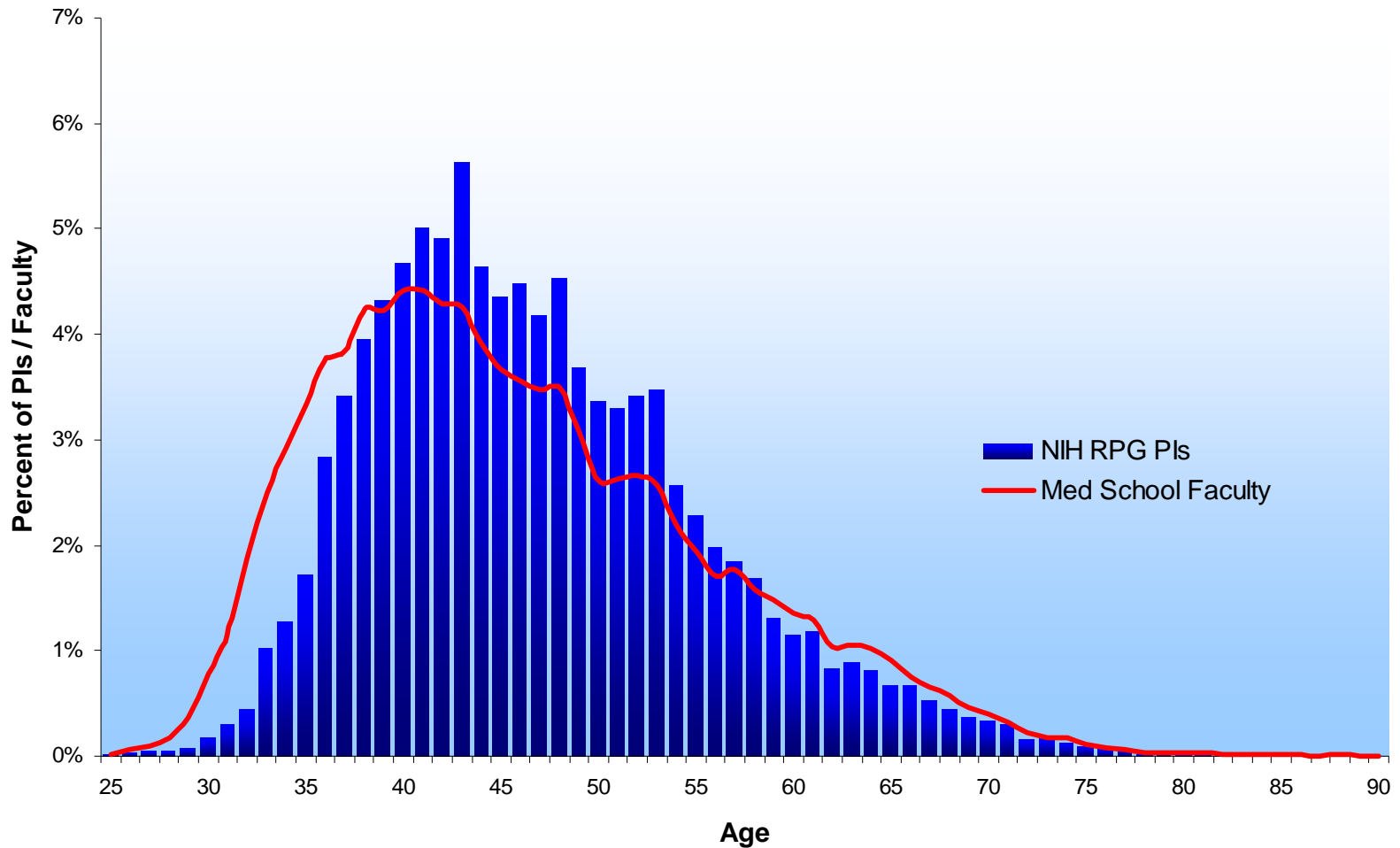
# Comparison of the Age of NIH PIs and 1994 Medical School Faculty



Sources: IMPAC II Current and History Files and AAMC Faculty Roster System

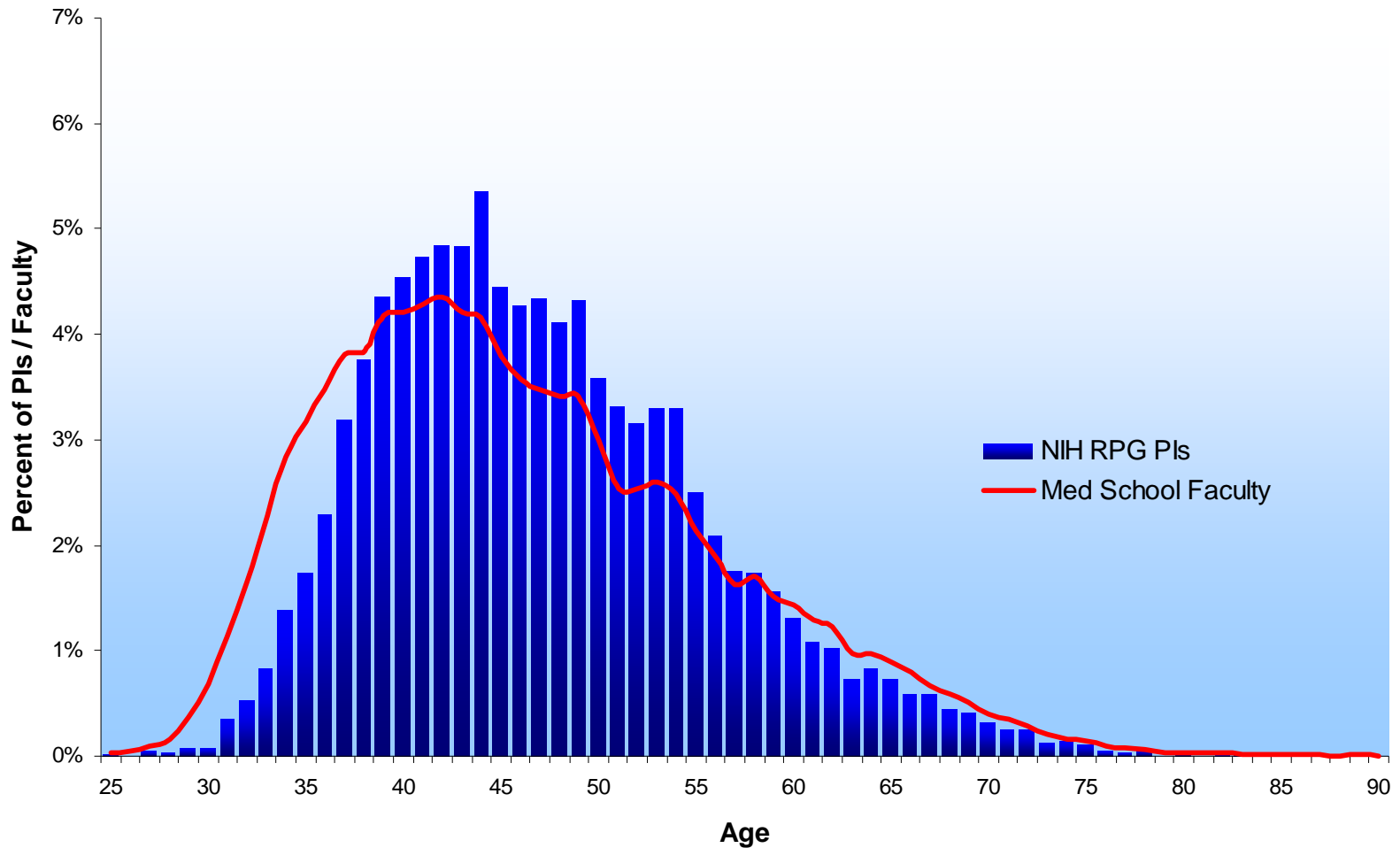


# Comparison of the Age of NIH PIs and 1995 Medical School Faculty



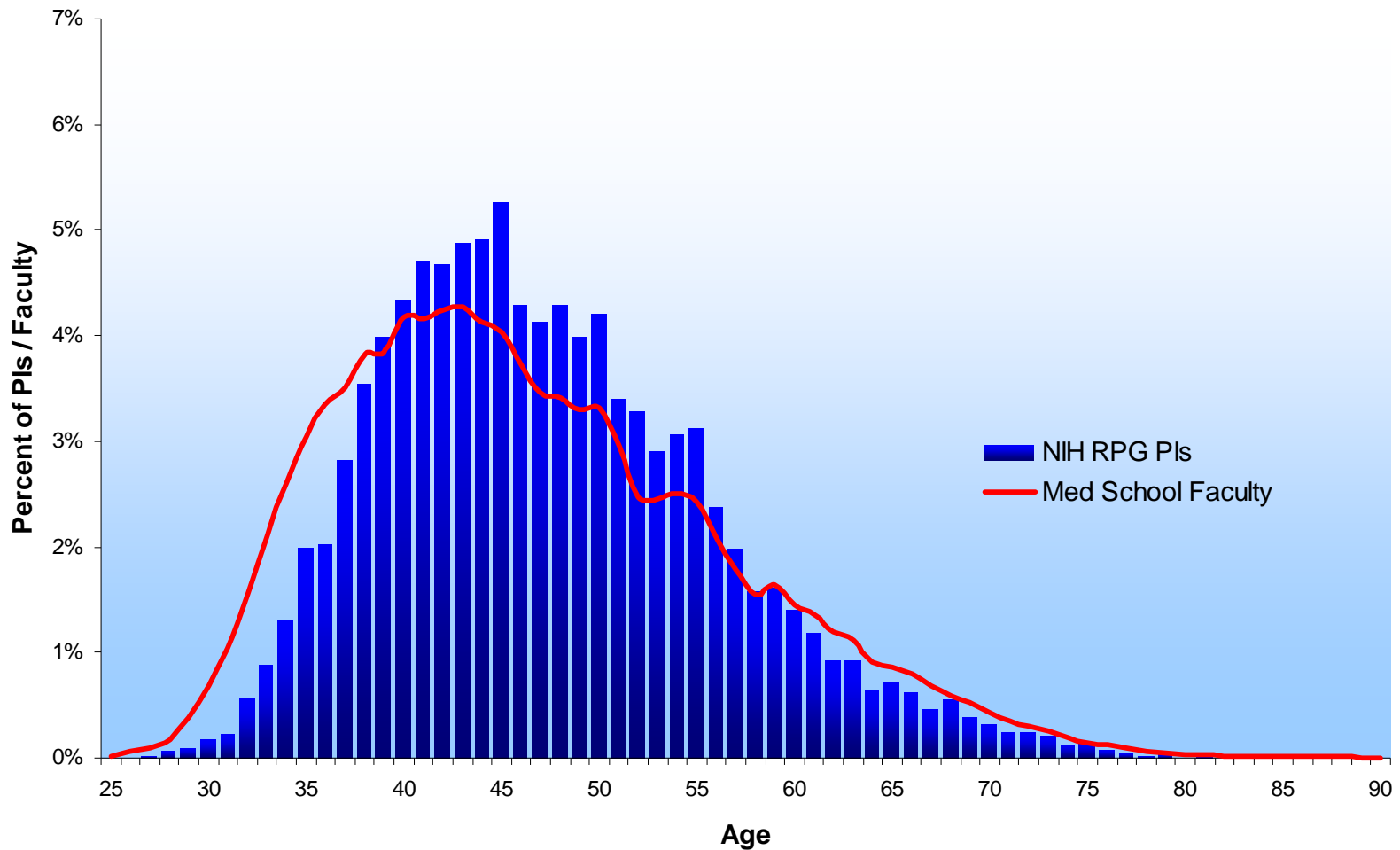
Sources: IMPAC II Current and History Files and AAMC Faculty Roster System

# Comparison of the Age of NIH PIs and 1996 Medical School Faculty



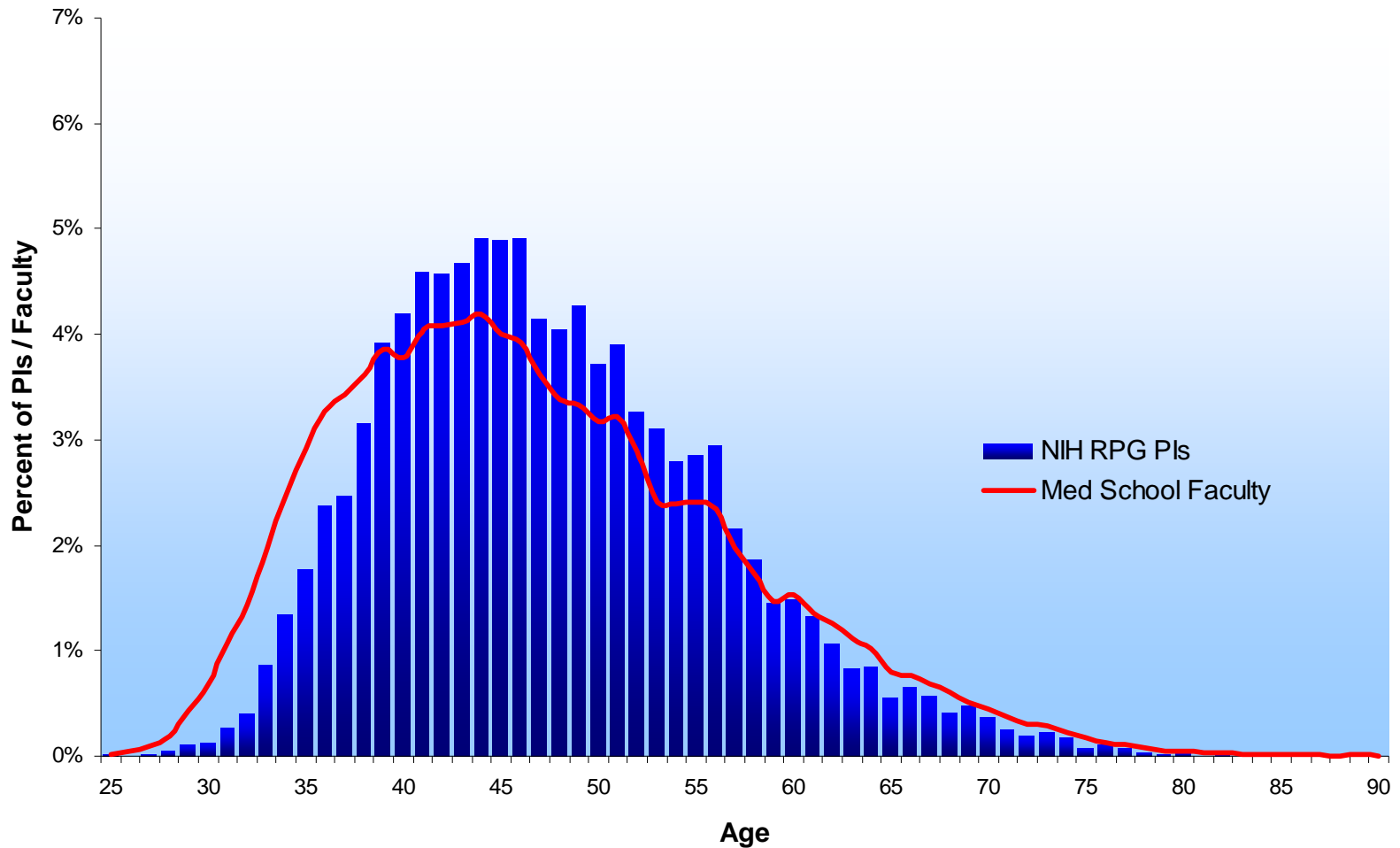
Sources: IMPAC II Current and History Files and AAMC Faculty Roster System

# Comparison of the Age of NIH PIs and 1997 Medical School Faculty



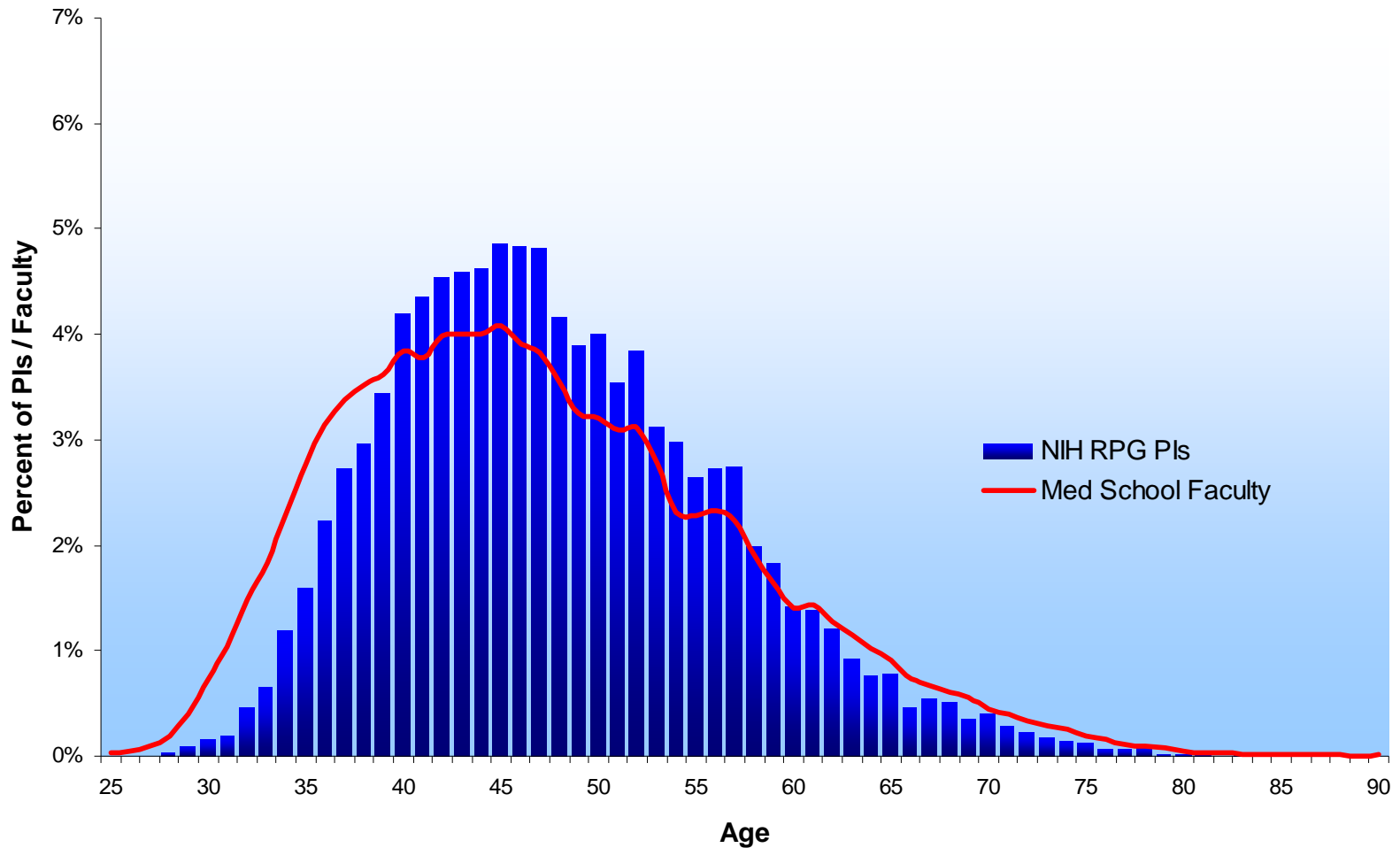
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# Comparison of the Age of NIH PIs and 1998 Medical School Faculty



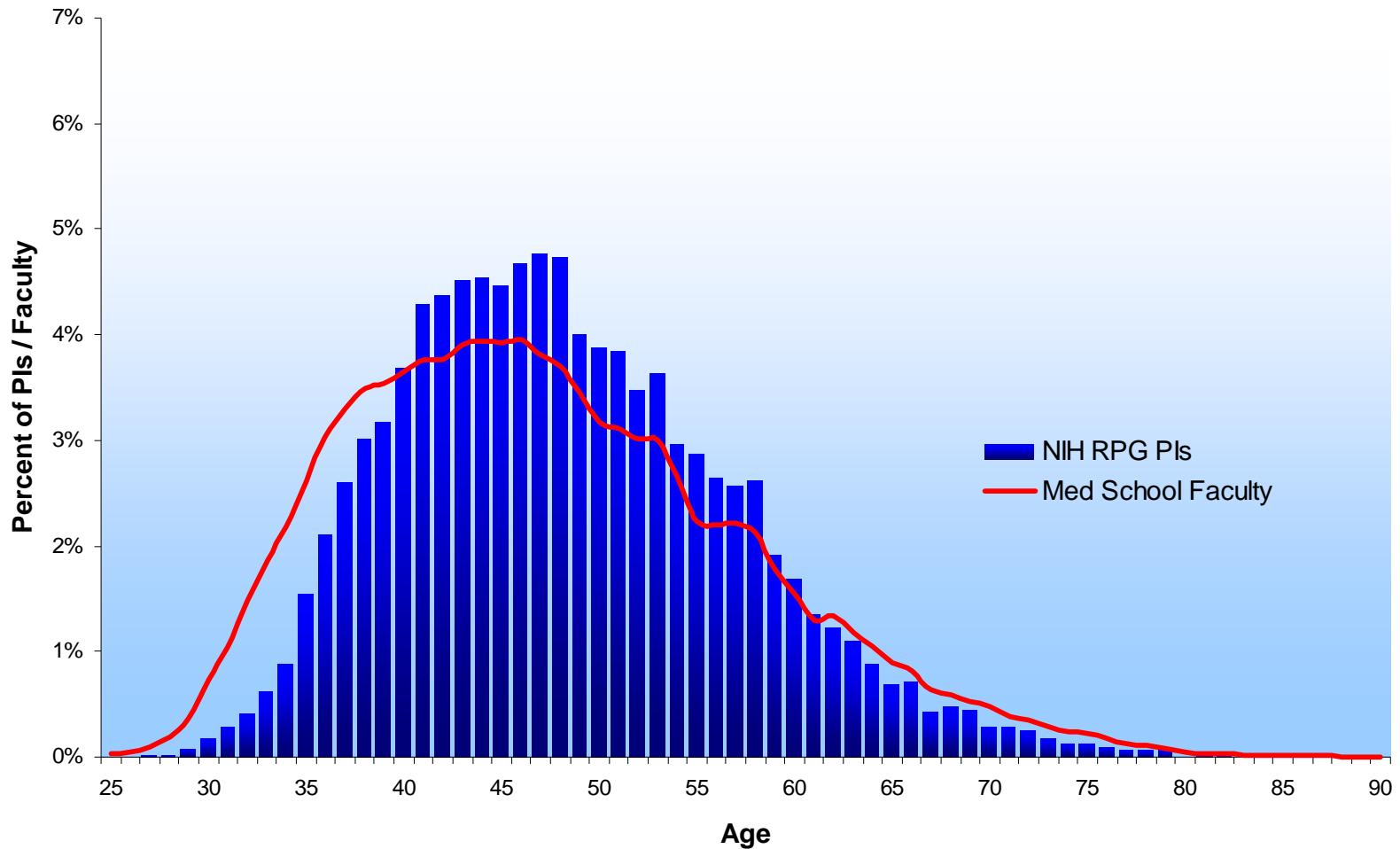
Sources: IMPAC II Current and History Files and AAMC Faculty Roster System

# Comparison of the Age of NIH PIs and 1999 Medical School Faculty



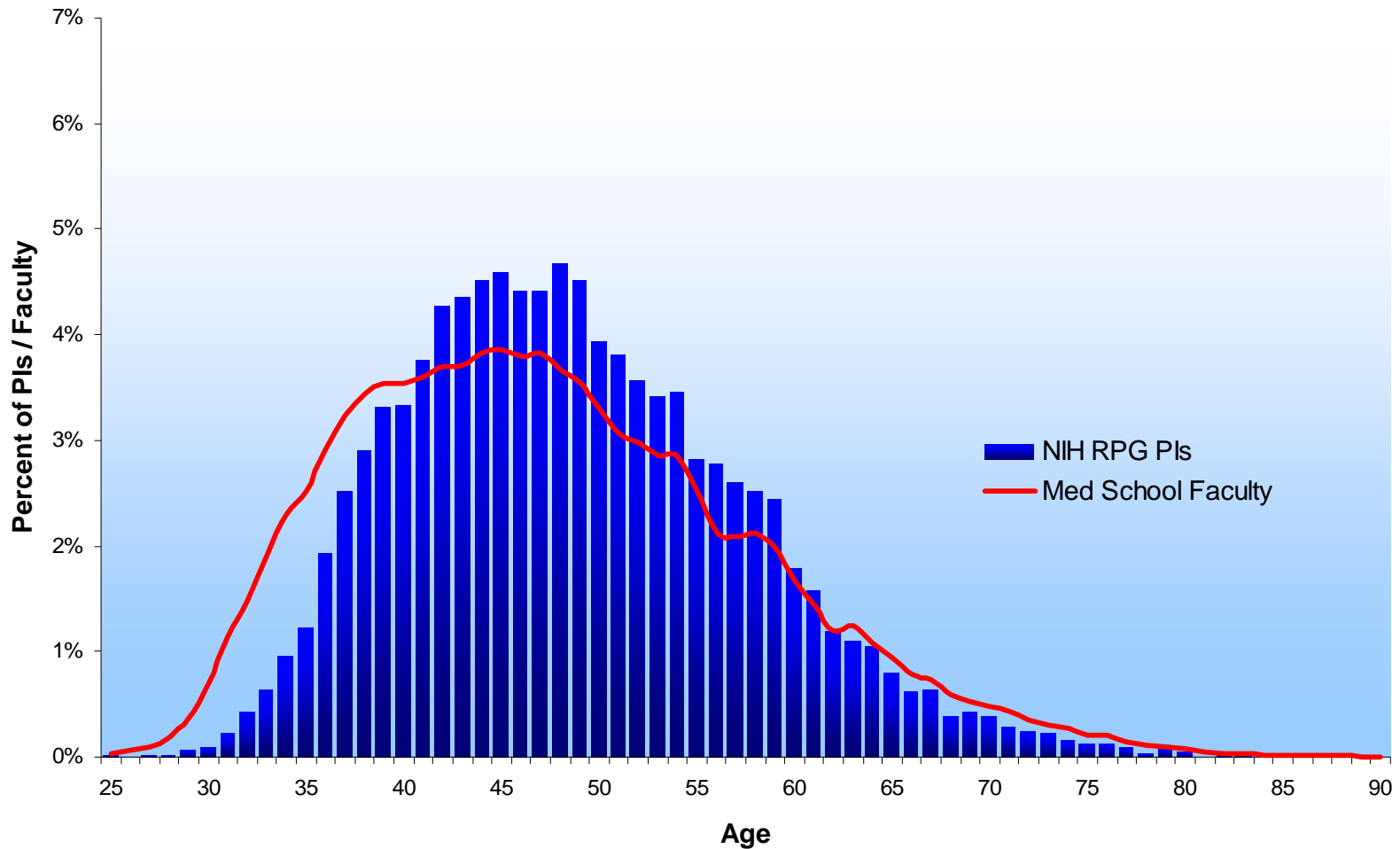
Sources: IMPAC II Current and History Files and AAMC Faculty Roster System

# Comparison of the Age of NIH PIs and 2000 Medical School Faculty



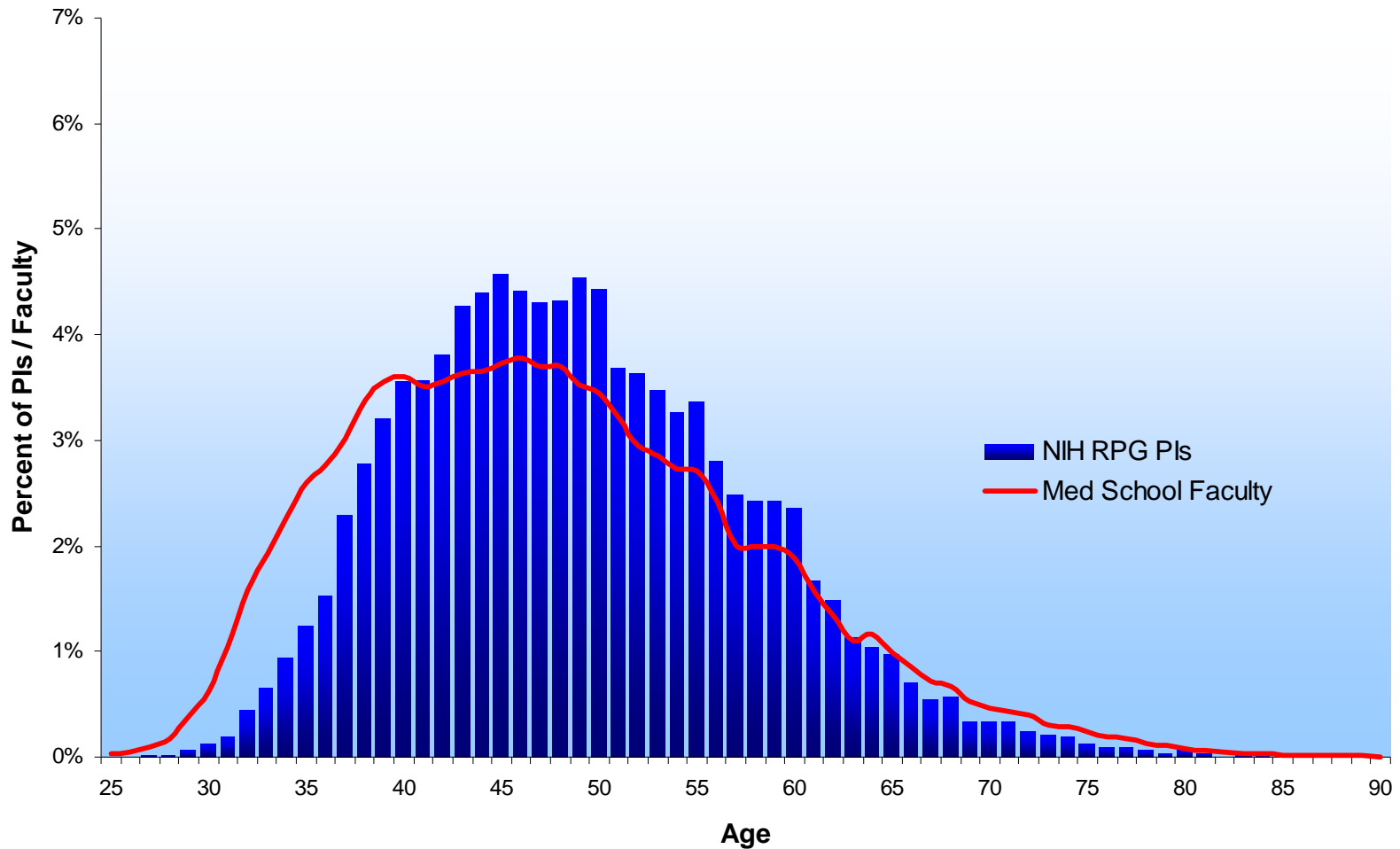
Sources: IMPAC II Current and History Files and AAMC Faculty Roster System

# Comparison of the Age of NIH PIs and 2001 Medical School Faculty



Sources: IMPAC II Current and History Files and AAMC Faculty Roster System

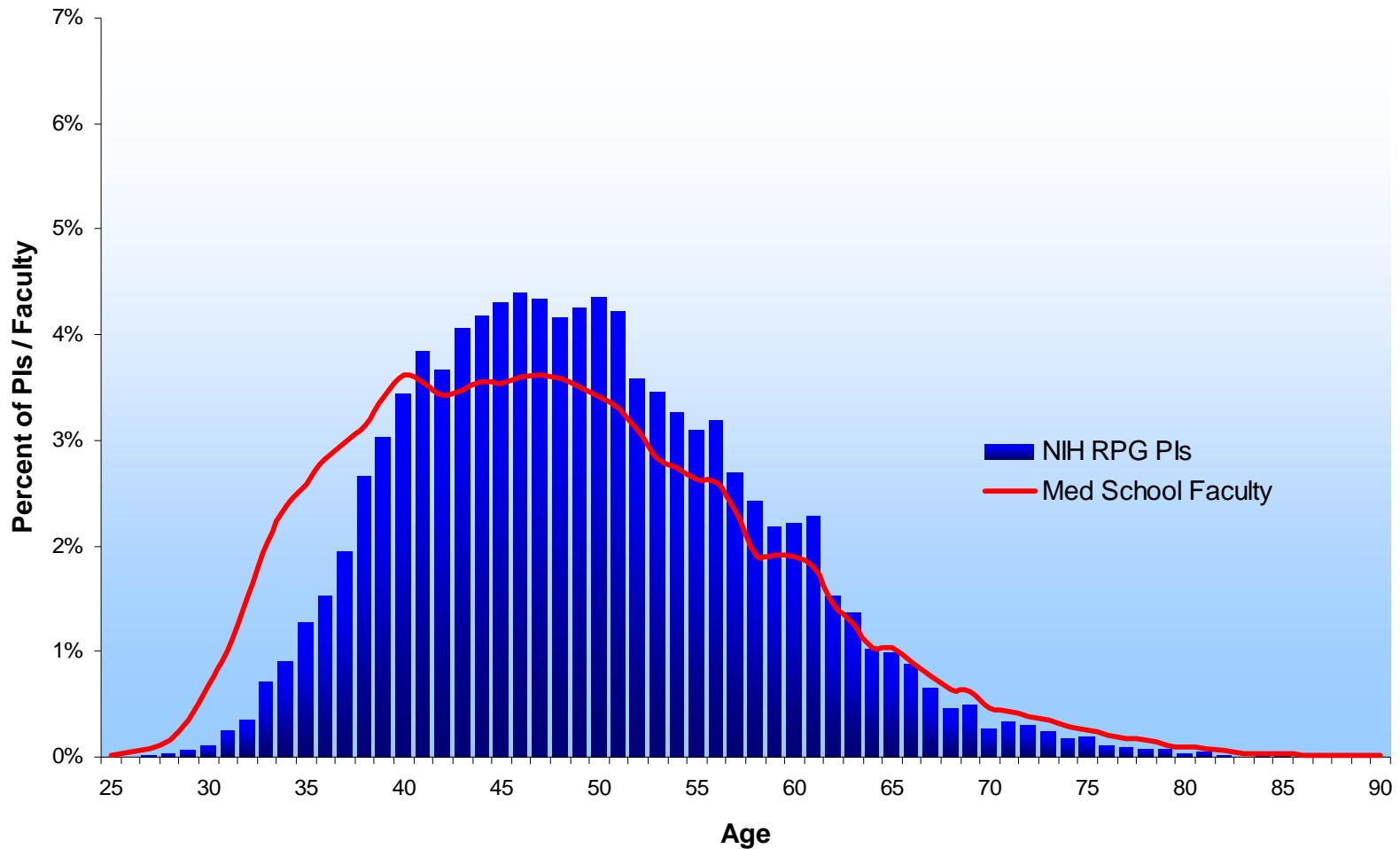
# Comparison of the Age of NIH PIs and 2002 Medical School Faculty



Sources: IMPAC II Current and History Files and AAMC Faculty Roster System

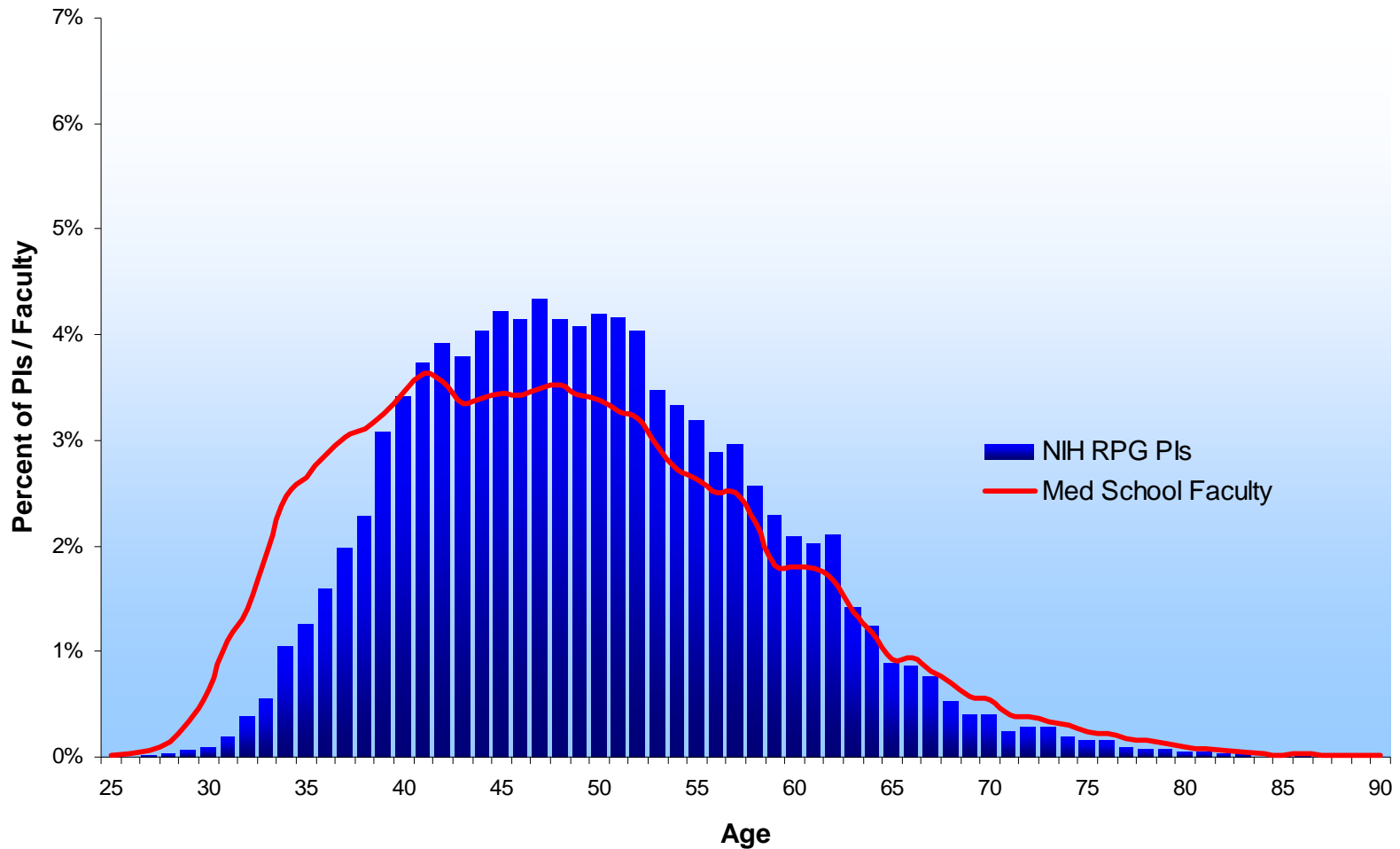


# Comparison of the Age of NIH PIs and 2003 Medical School Faculty



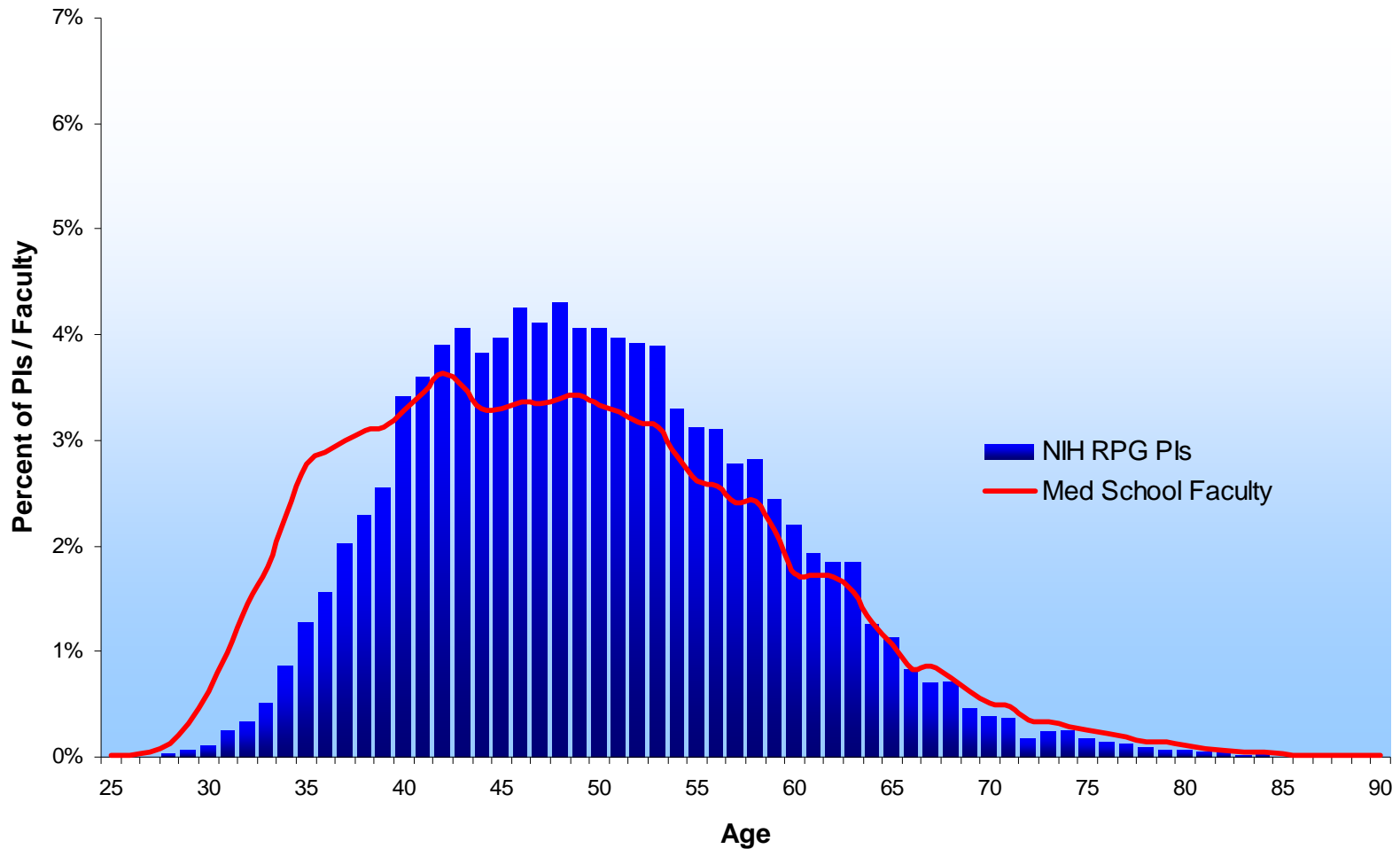
Sources: IMPAC II Current and History Files and AAMC Faculty Roster System

# Comparison of the Age of NIH PIs and 2004 Medical School Faculty



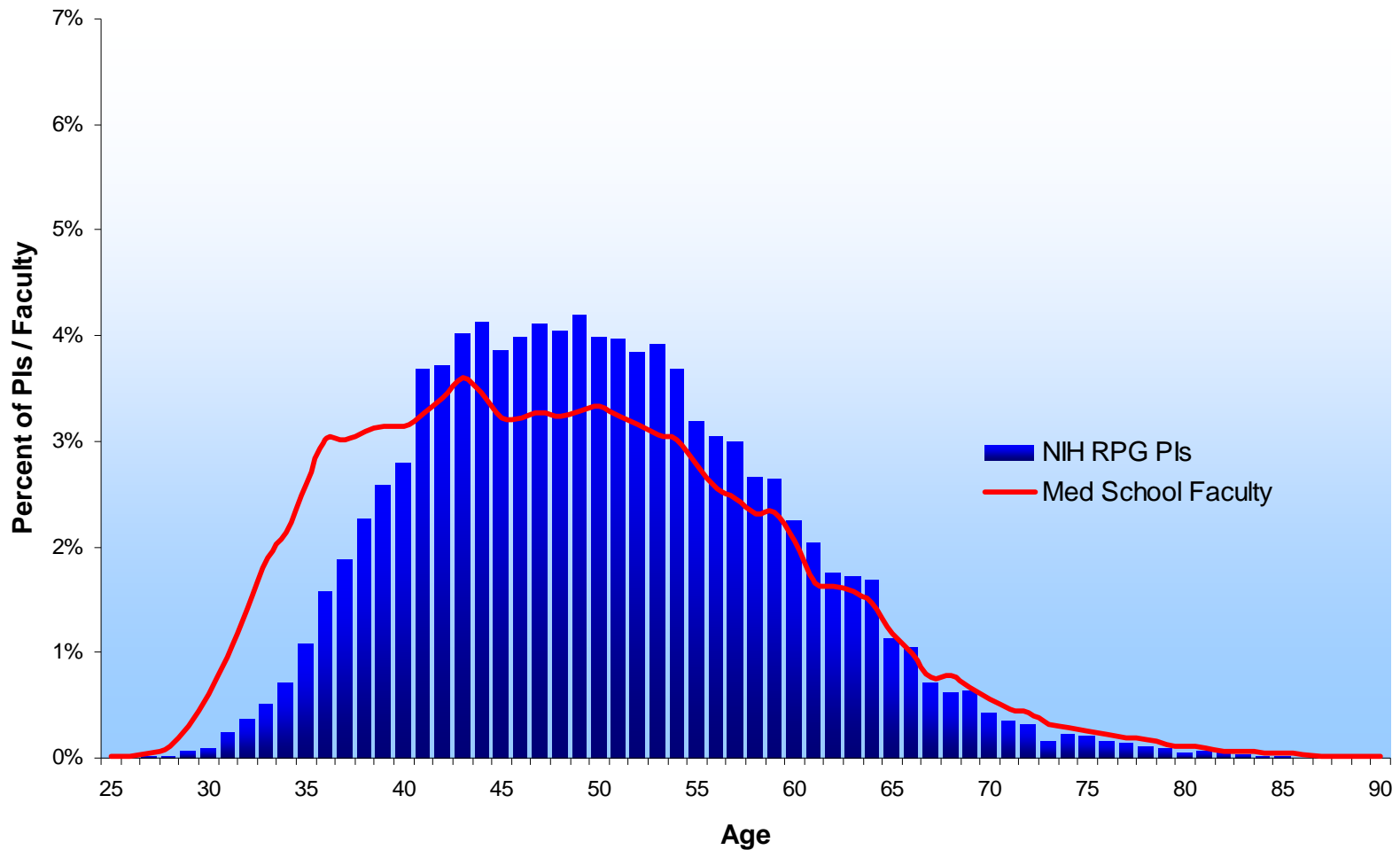
Sources: IMPAC II Current and History Files and AAMC Faculty Roster System

# Comparison of the Age of NIH PIs and 2005 Medical School Faculty



Sources: IMPAC II Current and History Files and AAMC Faculty Roster System

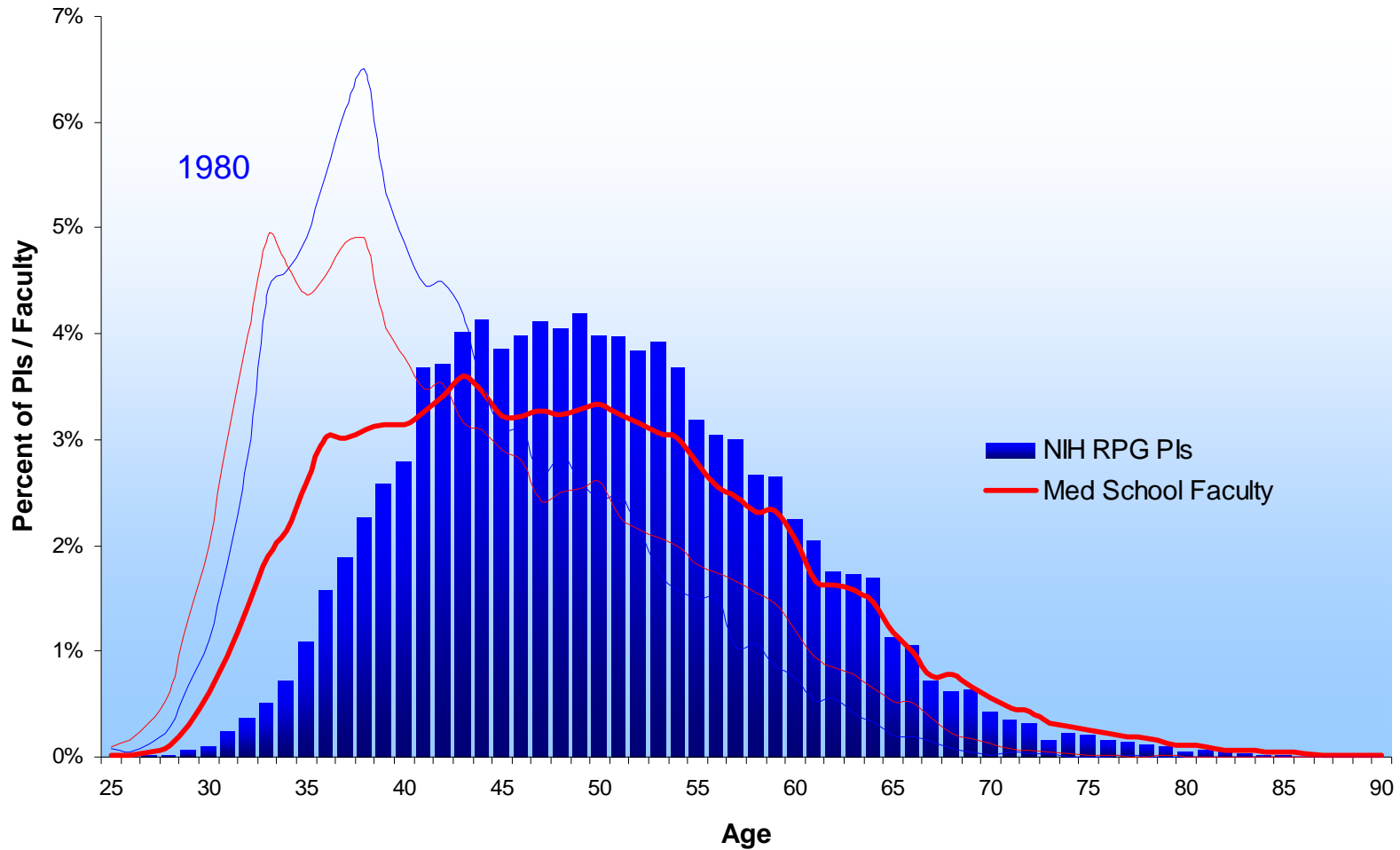
# Comparison of the Age of NIH PIs and 2006 Medical School Faculty



Sources: IMPAC II Current and History Files and AAMC Faculty Roster System

# Aging of Both NIH Grantees and Medical School Faculty Cohorts Since 1980

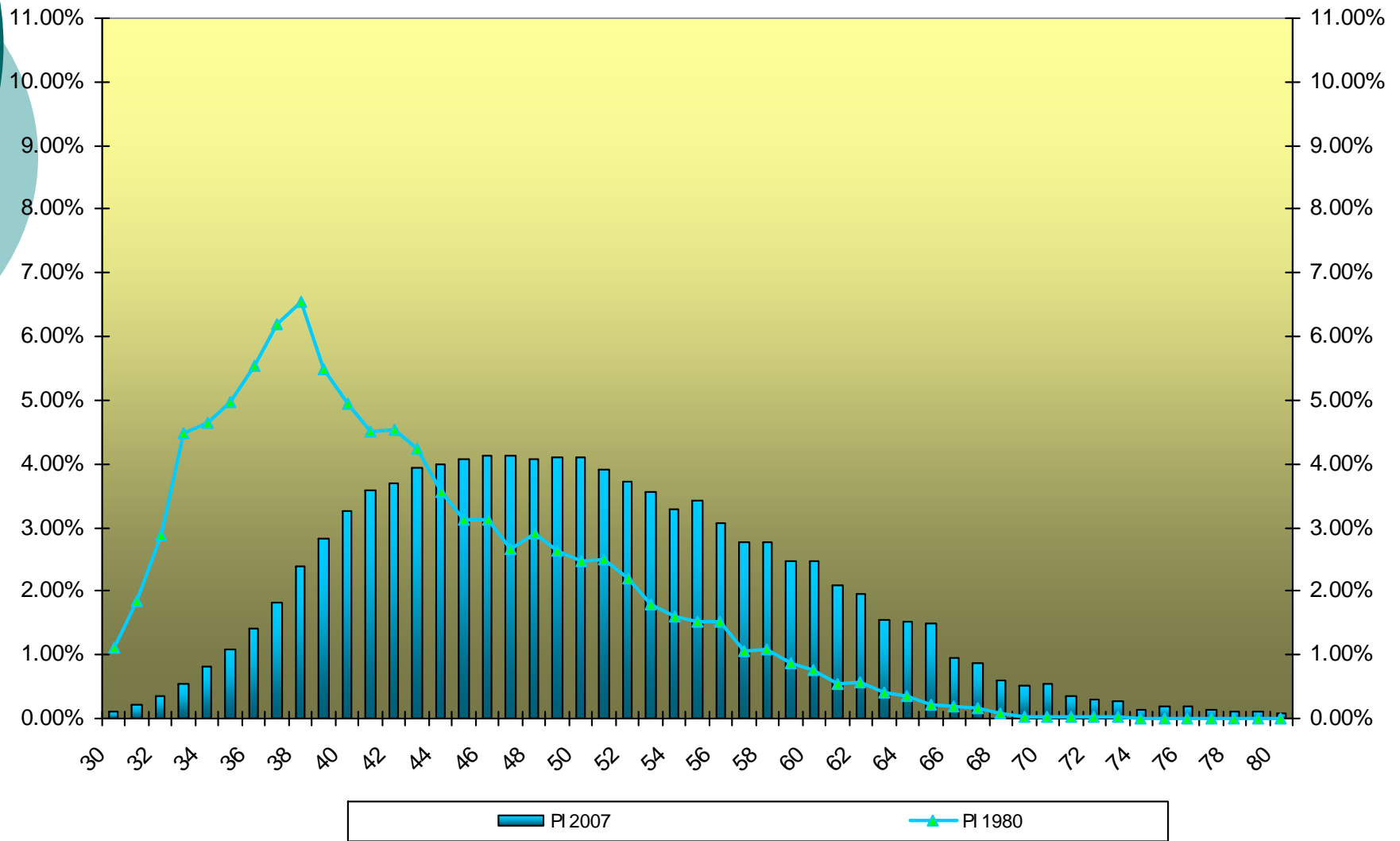
2006



Sources: IMPAC II Current and History Files and AAMC Faculty Roster System

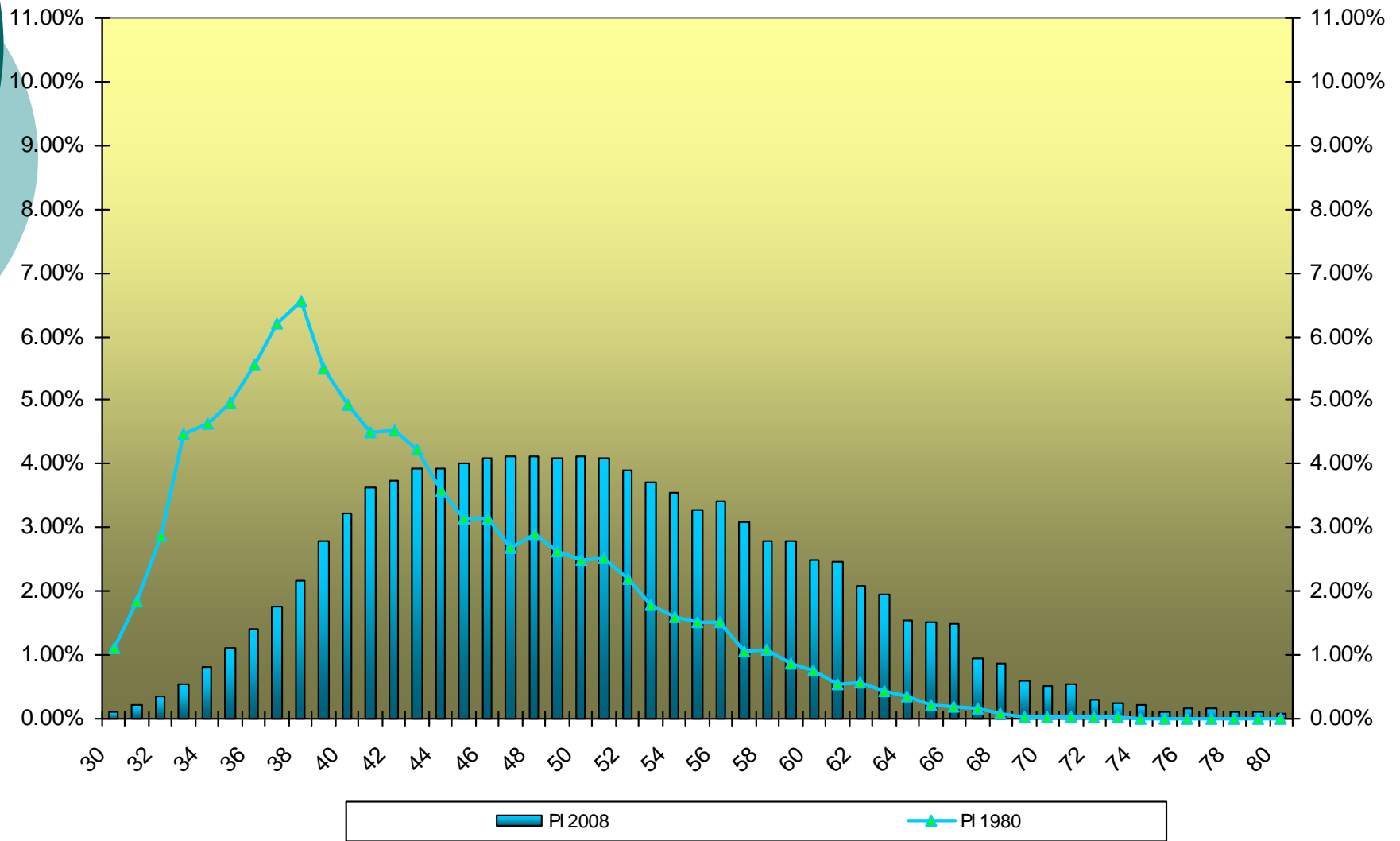
# Age Distribution of PIs

## 2007 (Projection)



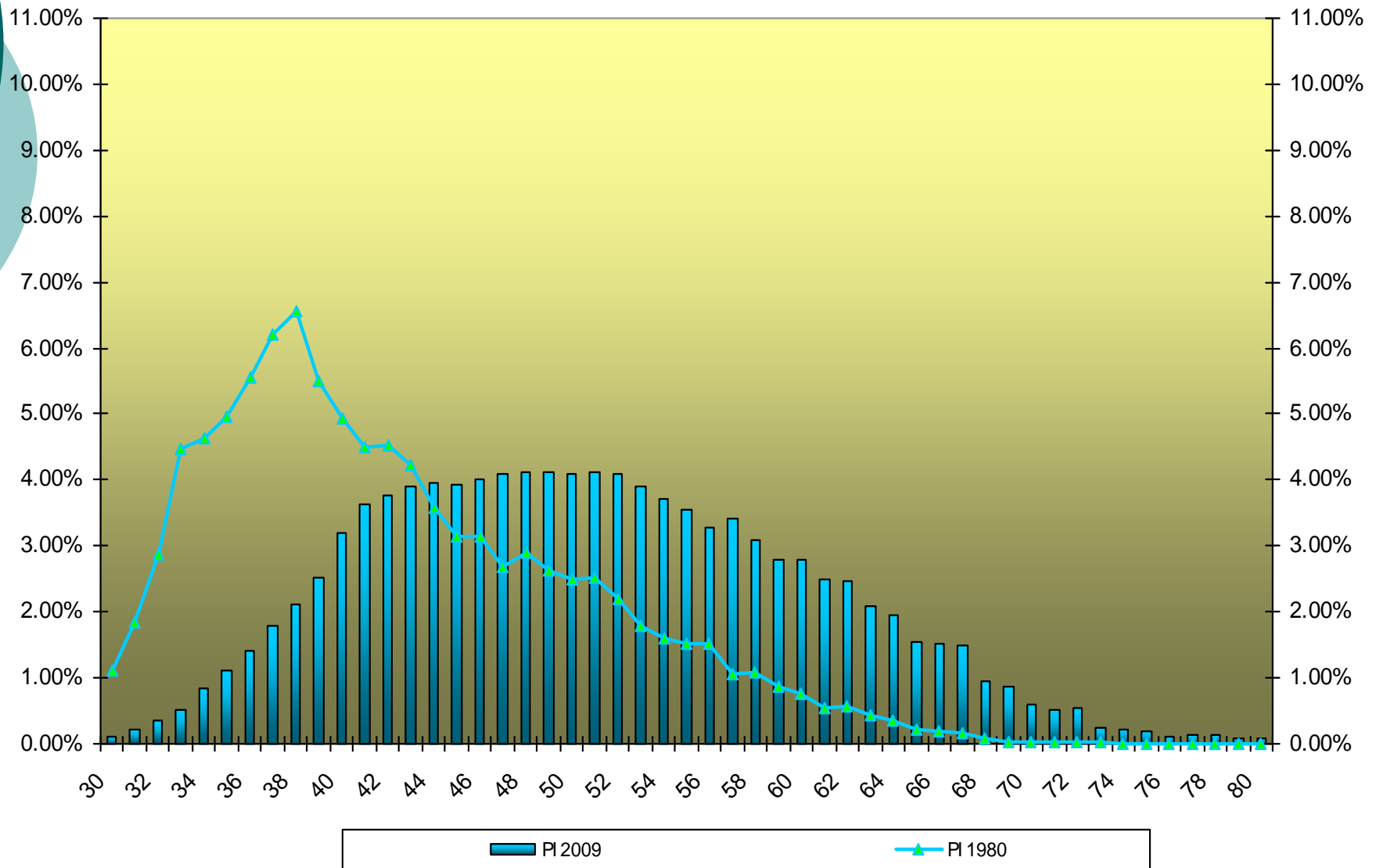
# Age Distribution of PIs

## 2008



# Age Distribution of PIs

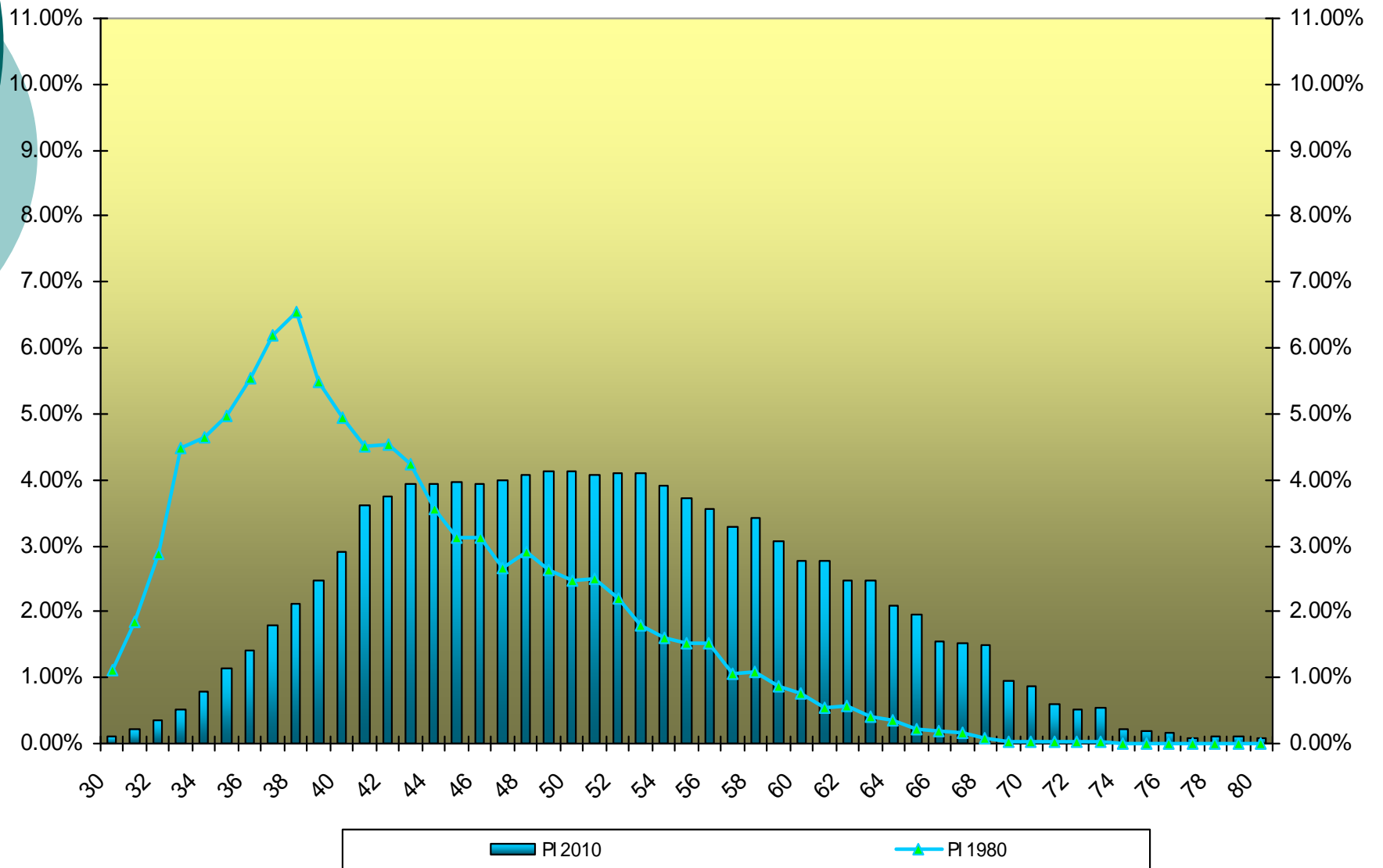
## 2009





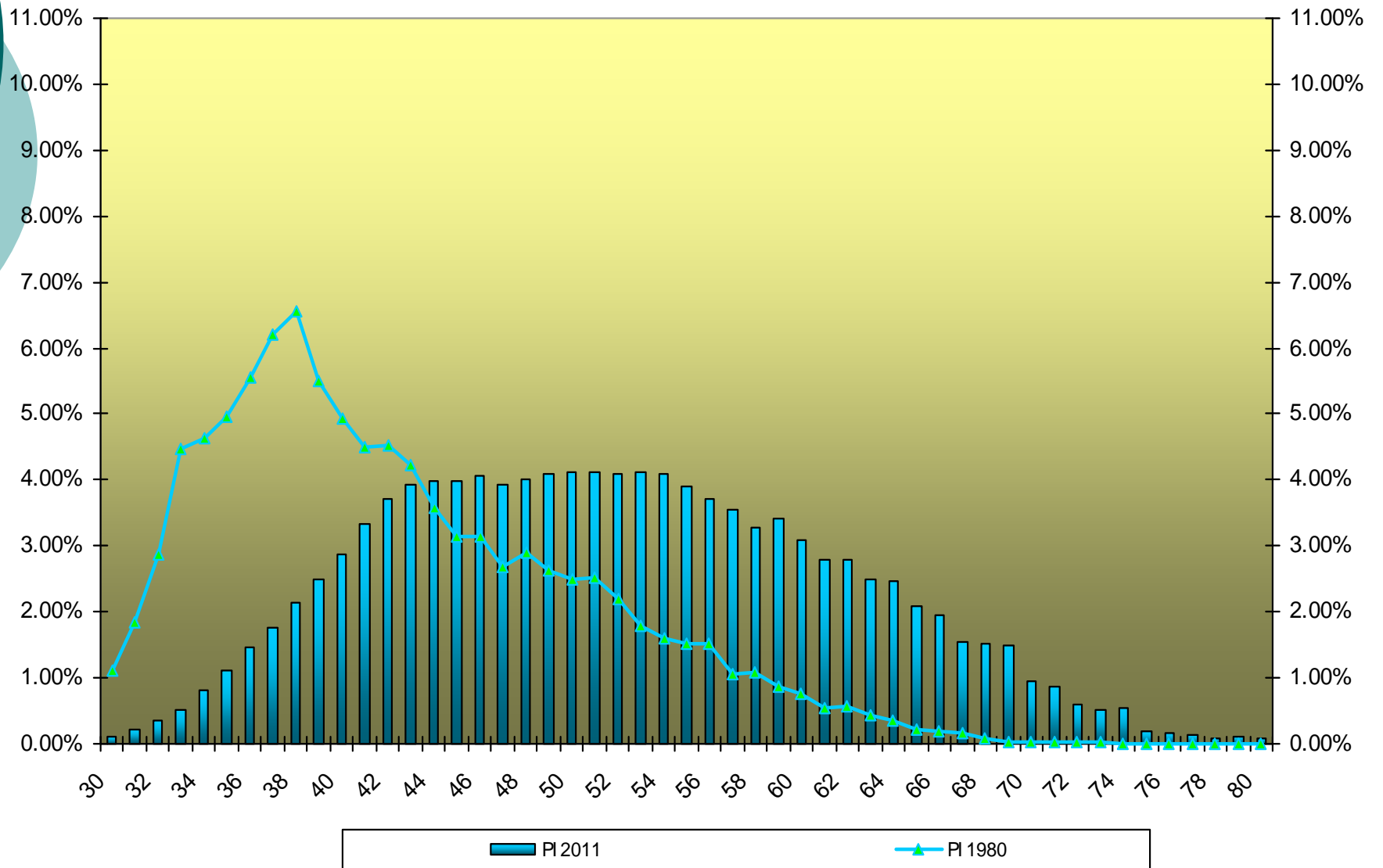
# Age Distribution of PIs

## 2010



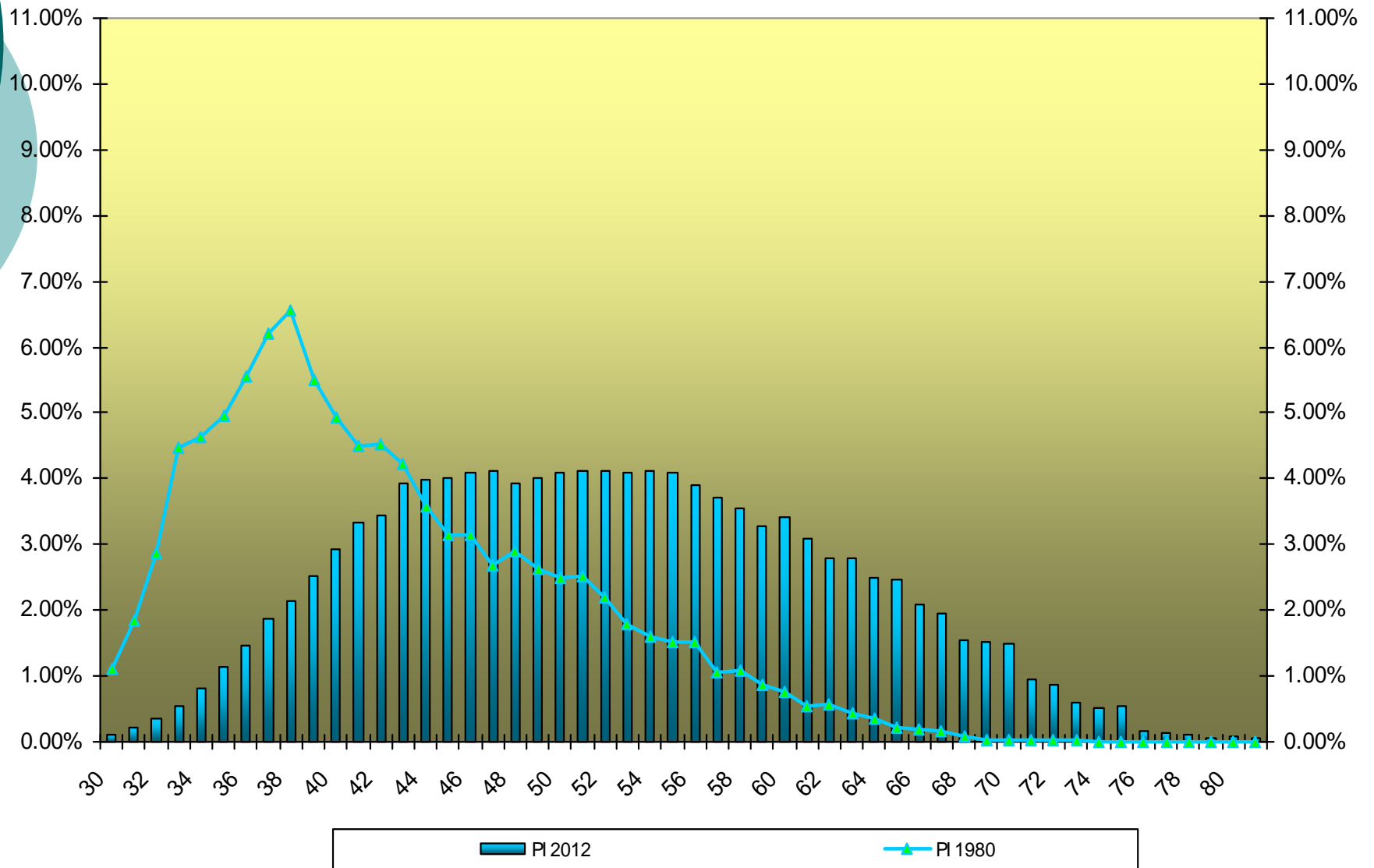
# Age Distribution of PIs

## 2011



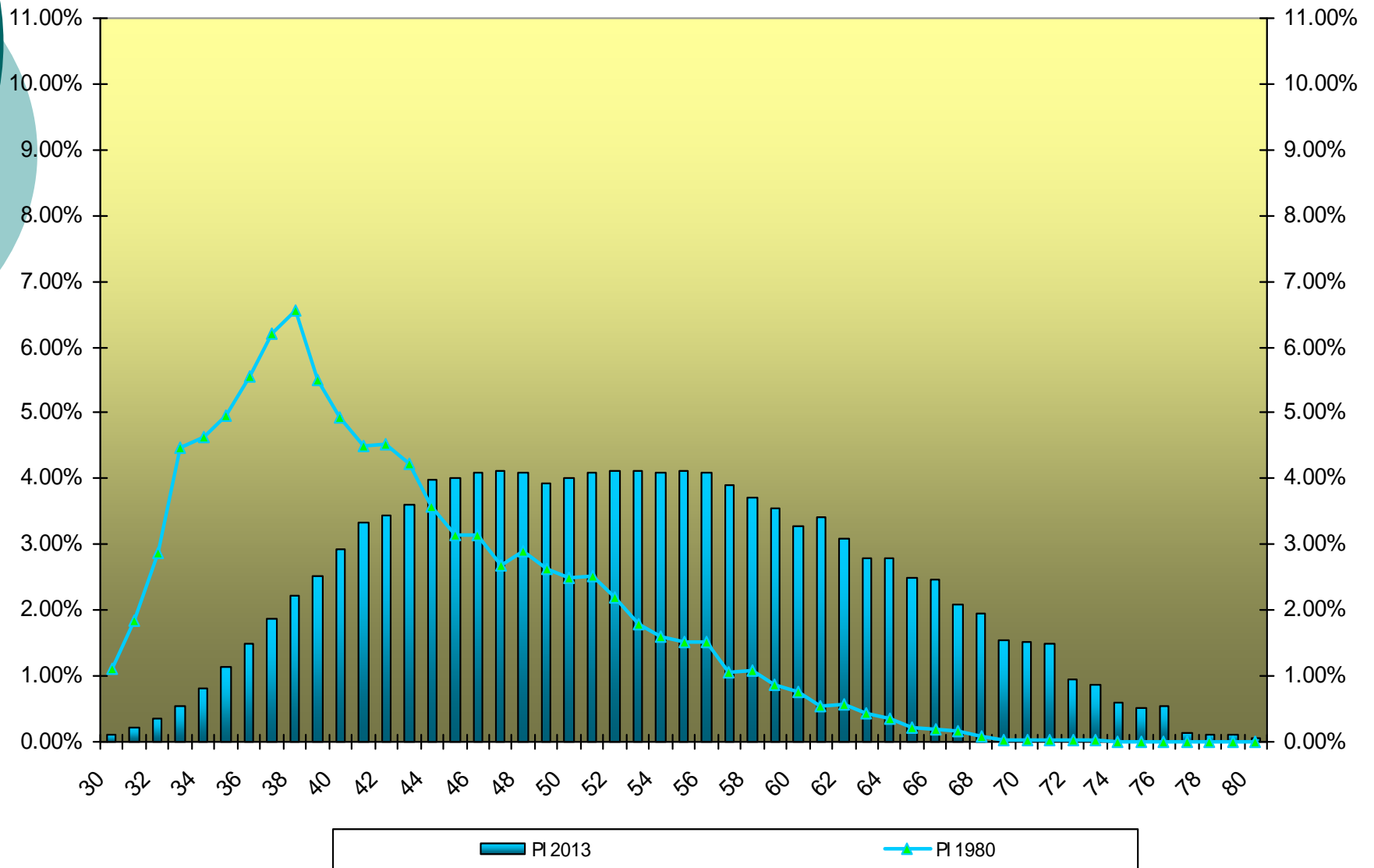
# Age Distribution of PIs

## 2012



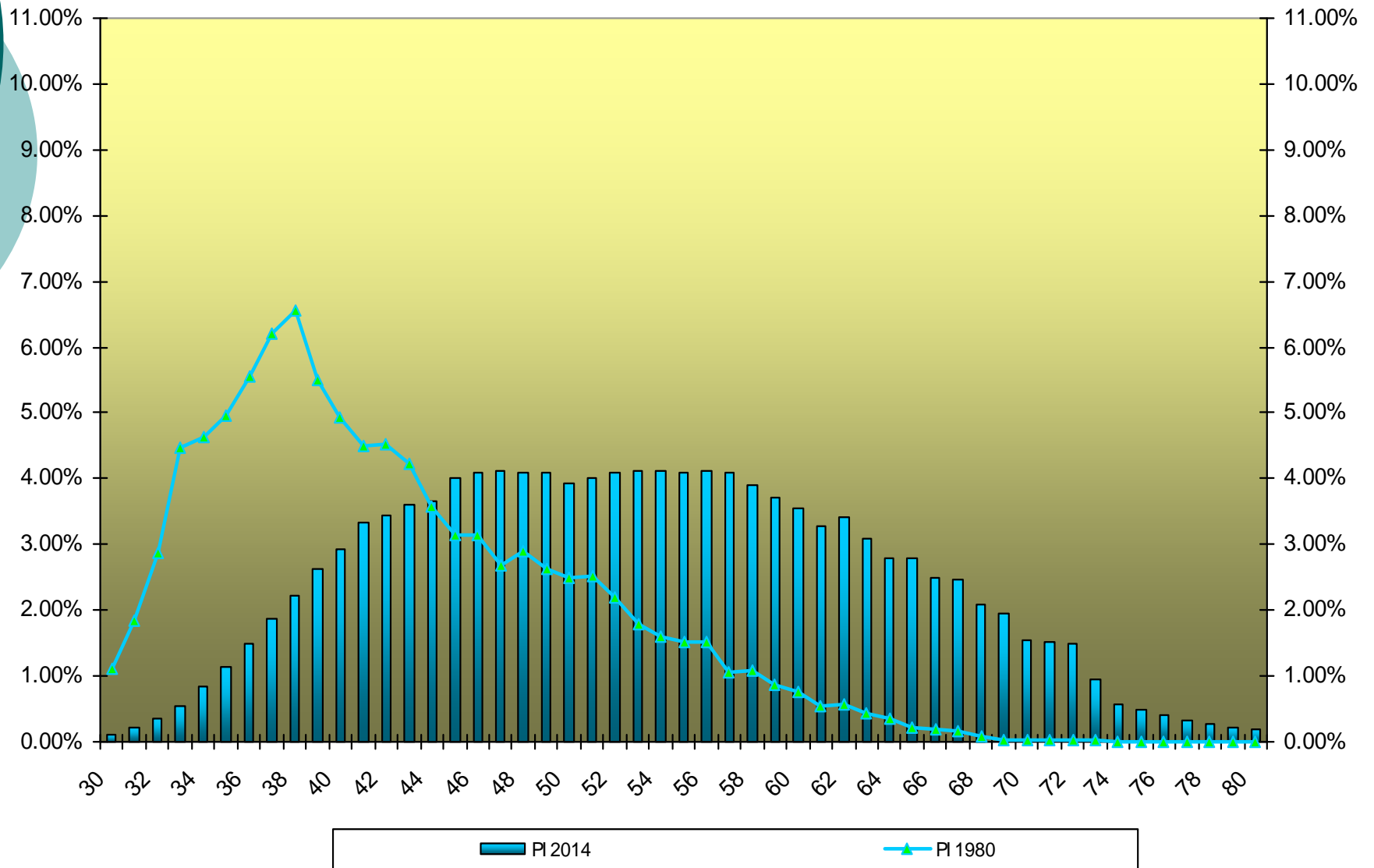
# Age Distribution of PIs

## 2013



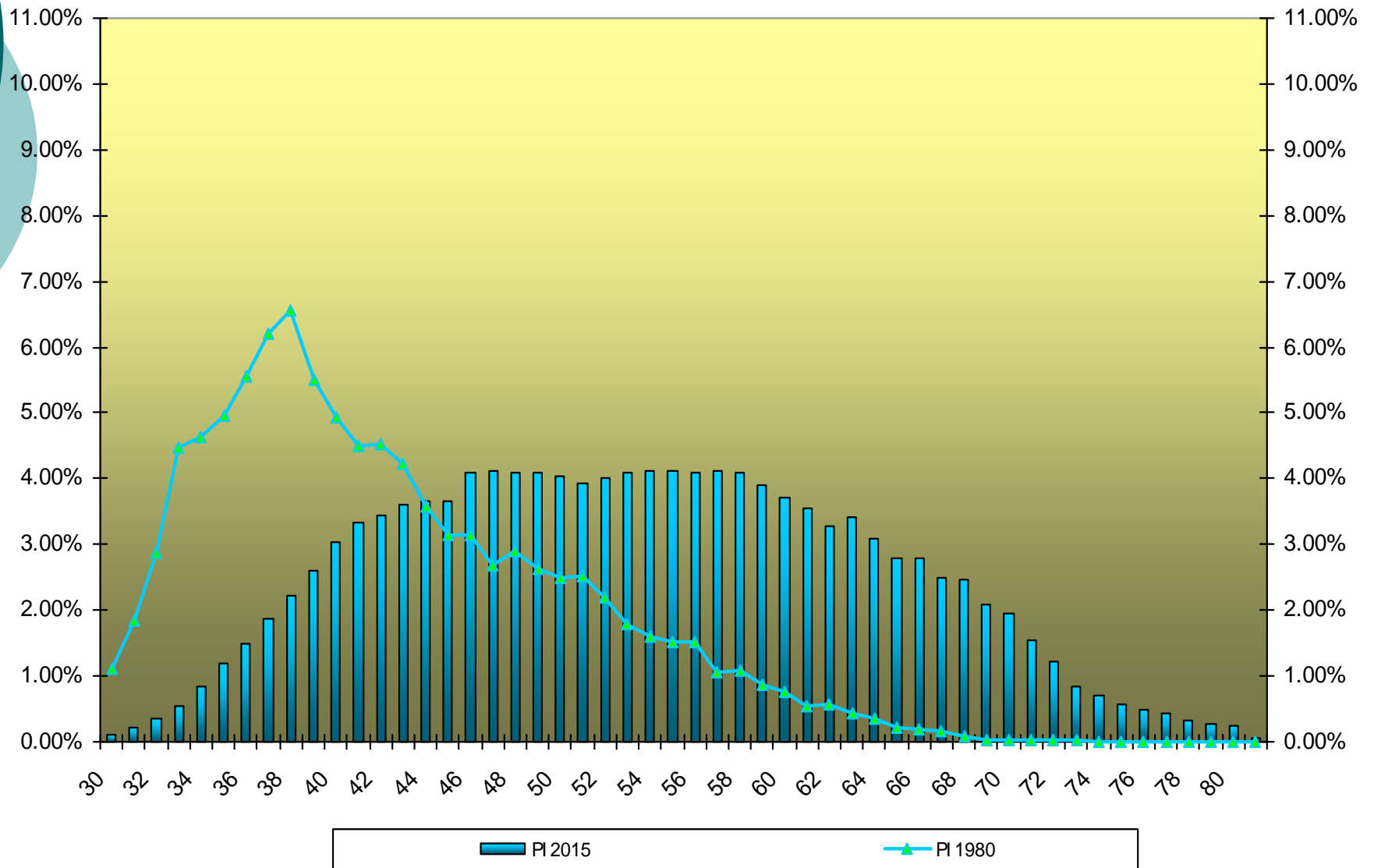
# Age Distribution of PIs

## 2014



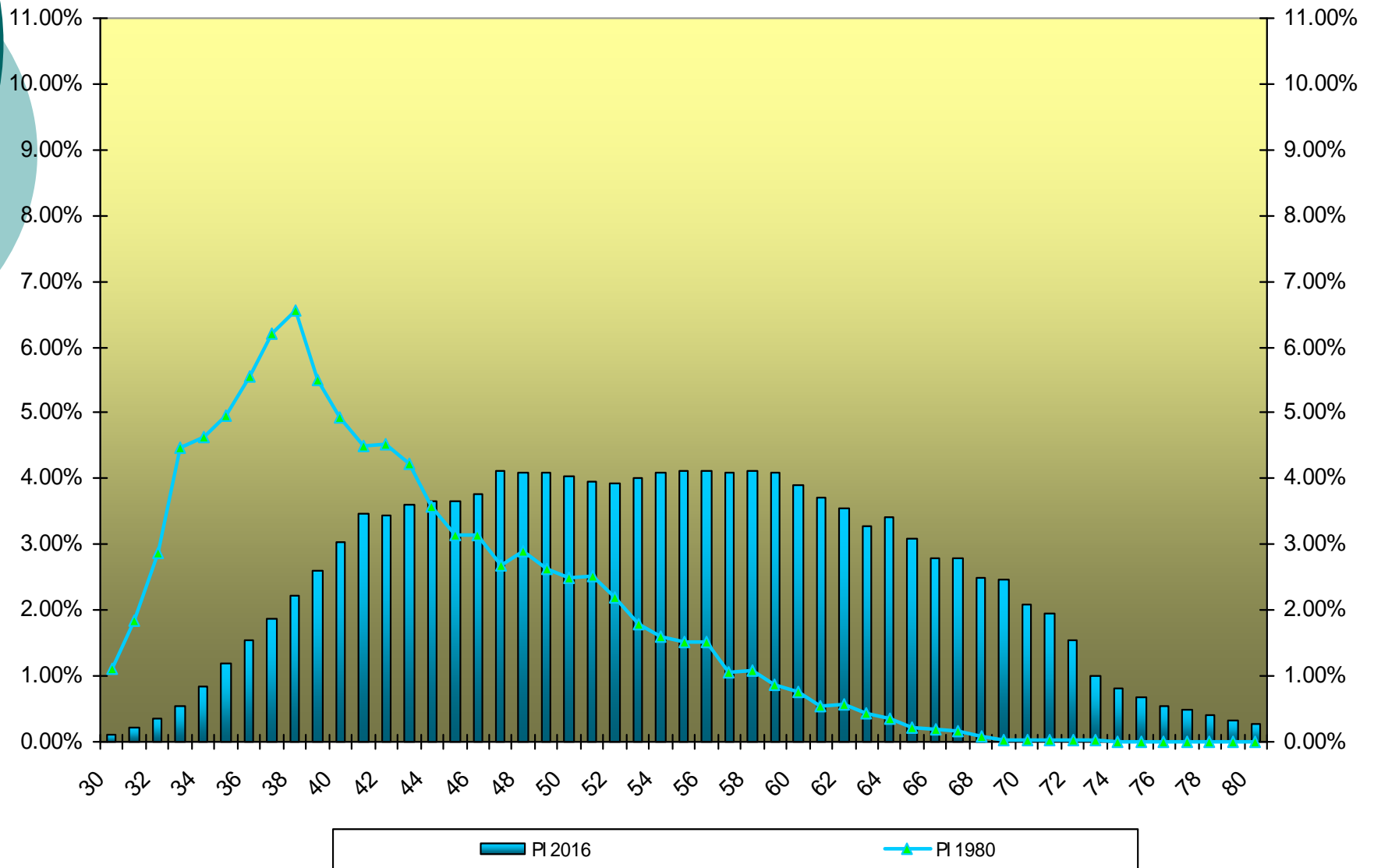
# Age Distribution of PIs

## 2015



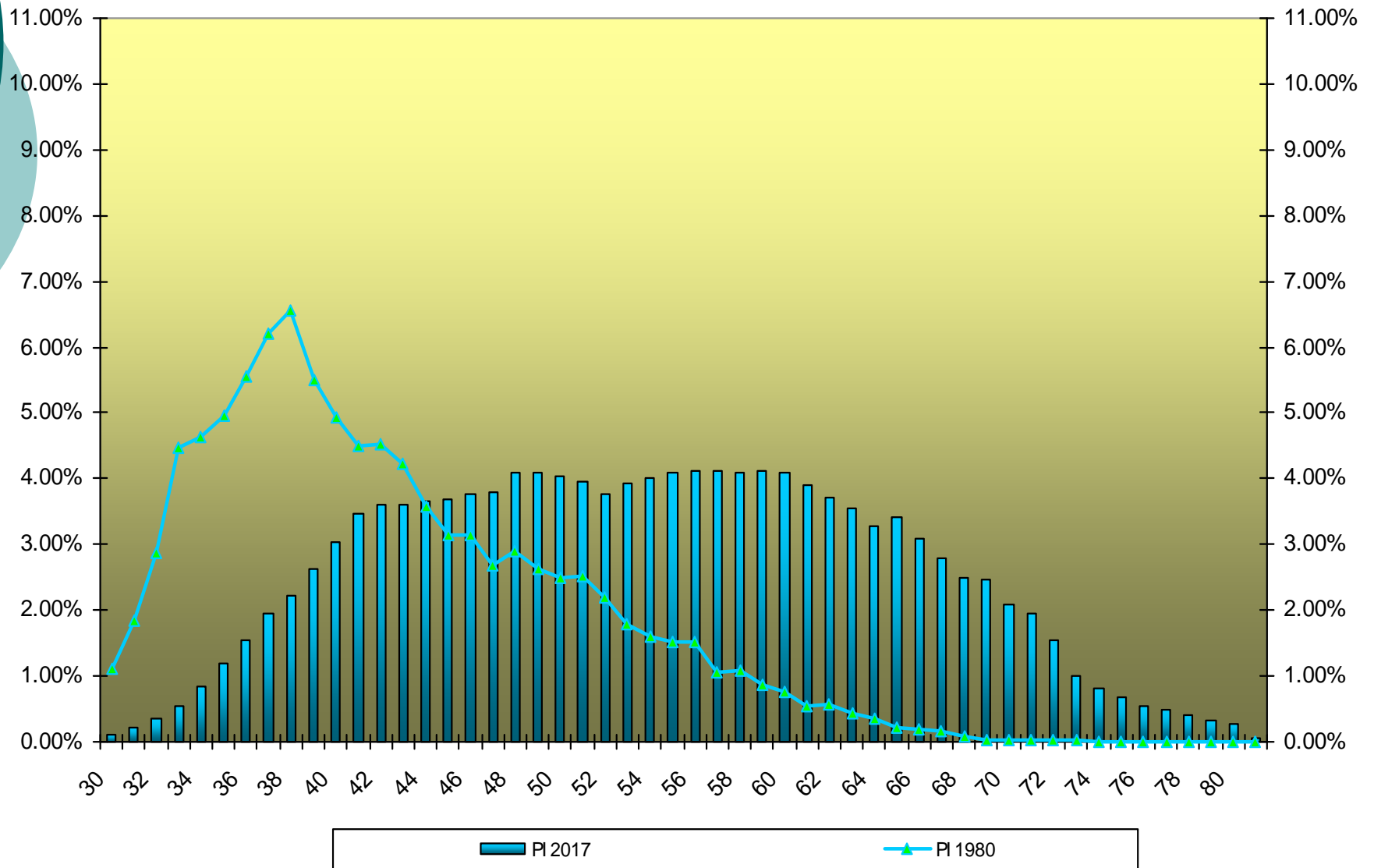
# Age Distribution of PIs

## 2016



# Age Distribution of PIs

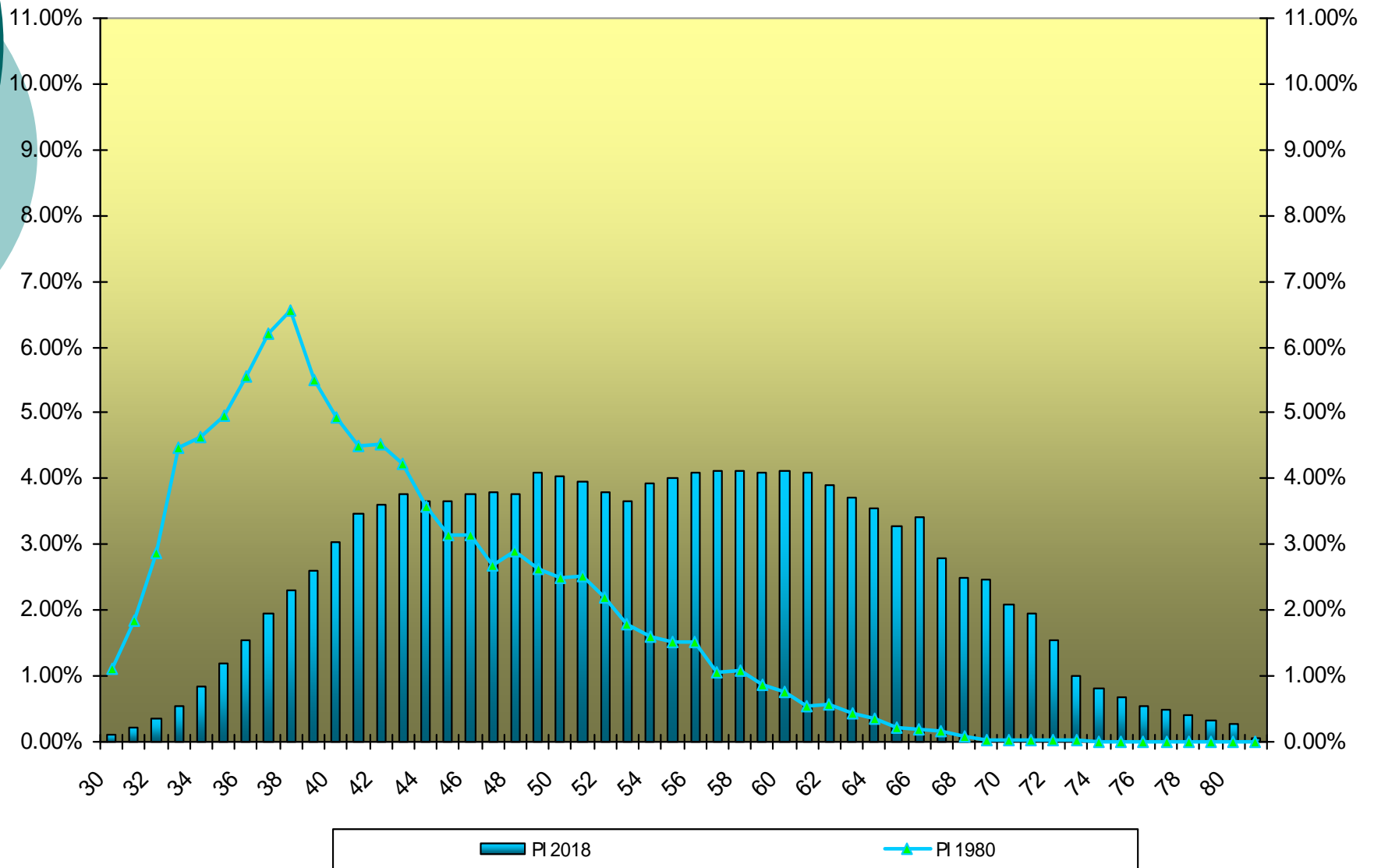
## 2017





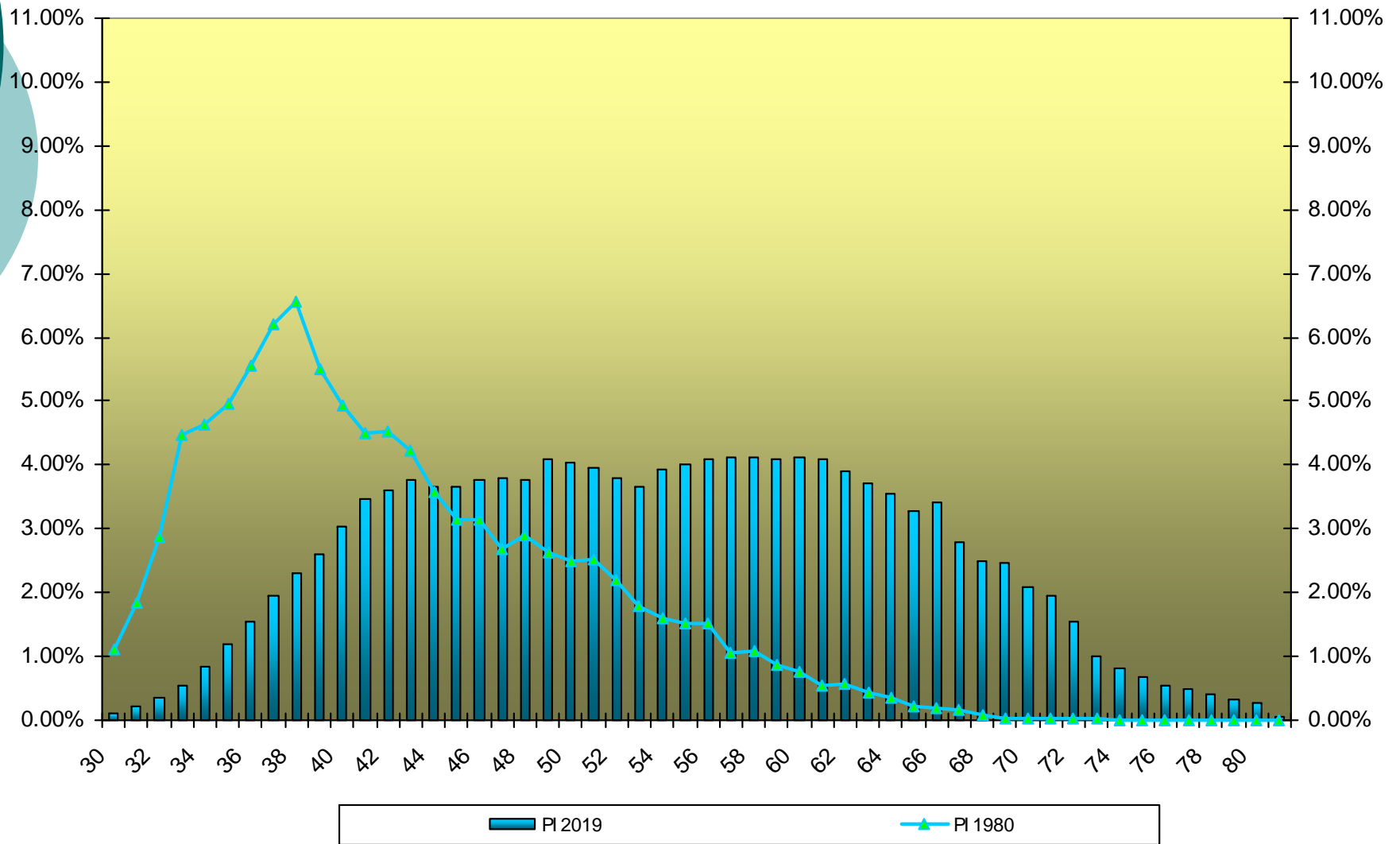
# Age Distribution of PIs

## 2018



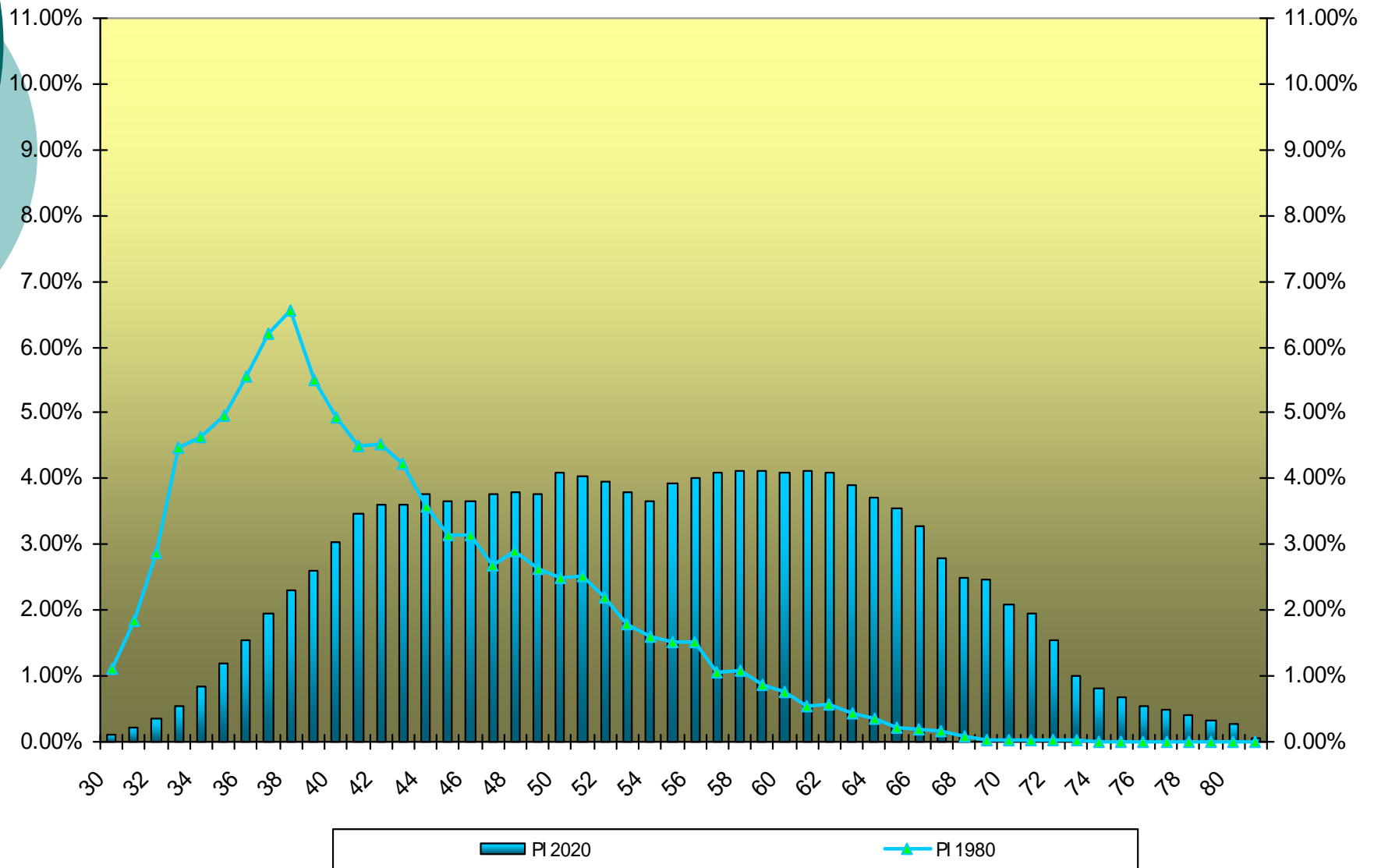
# Age Distribution of PIs

## 2019



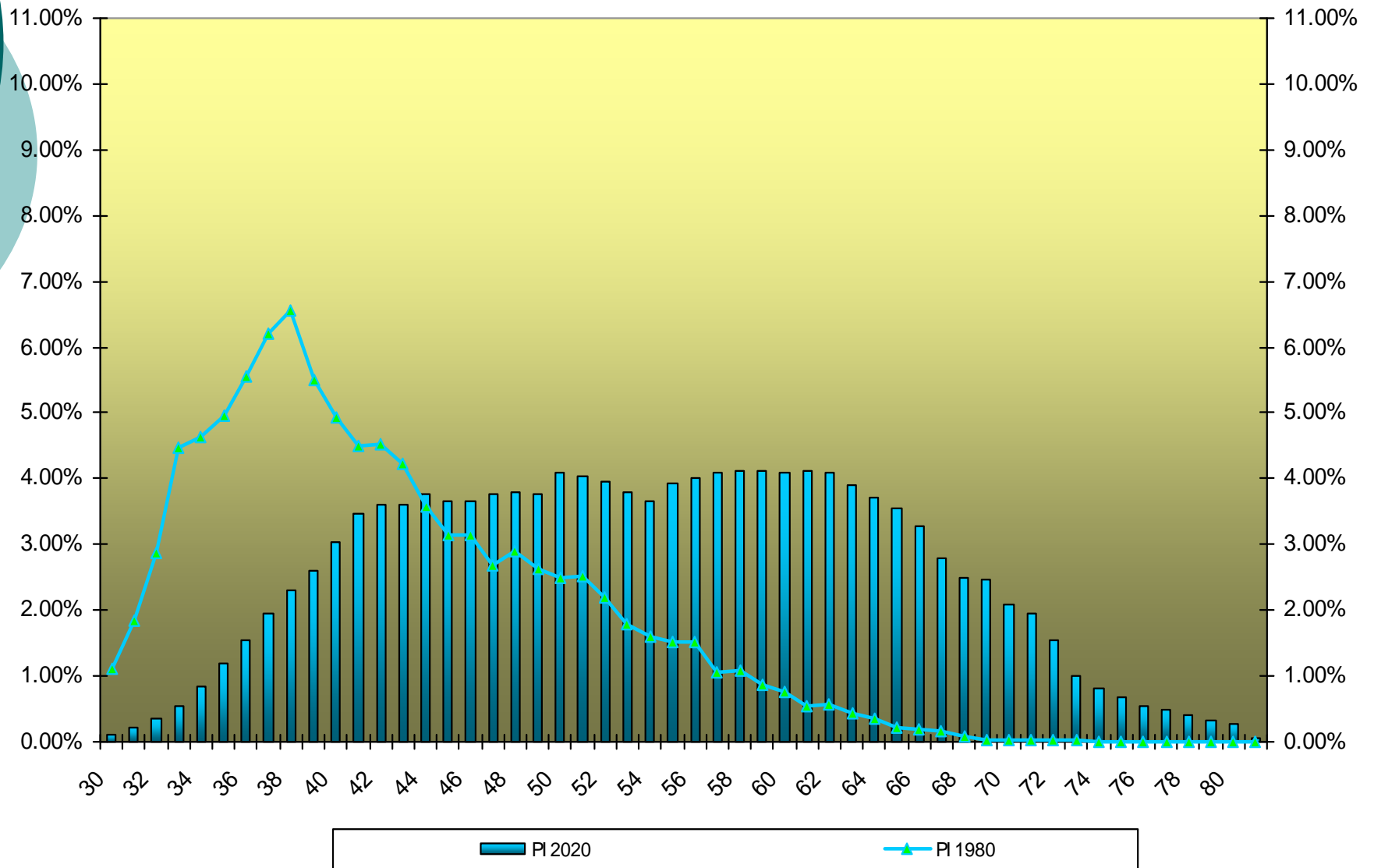
# Age Distribution of PIs

## 2020

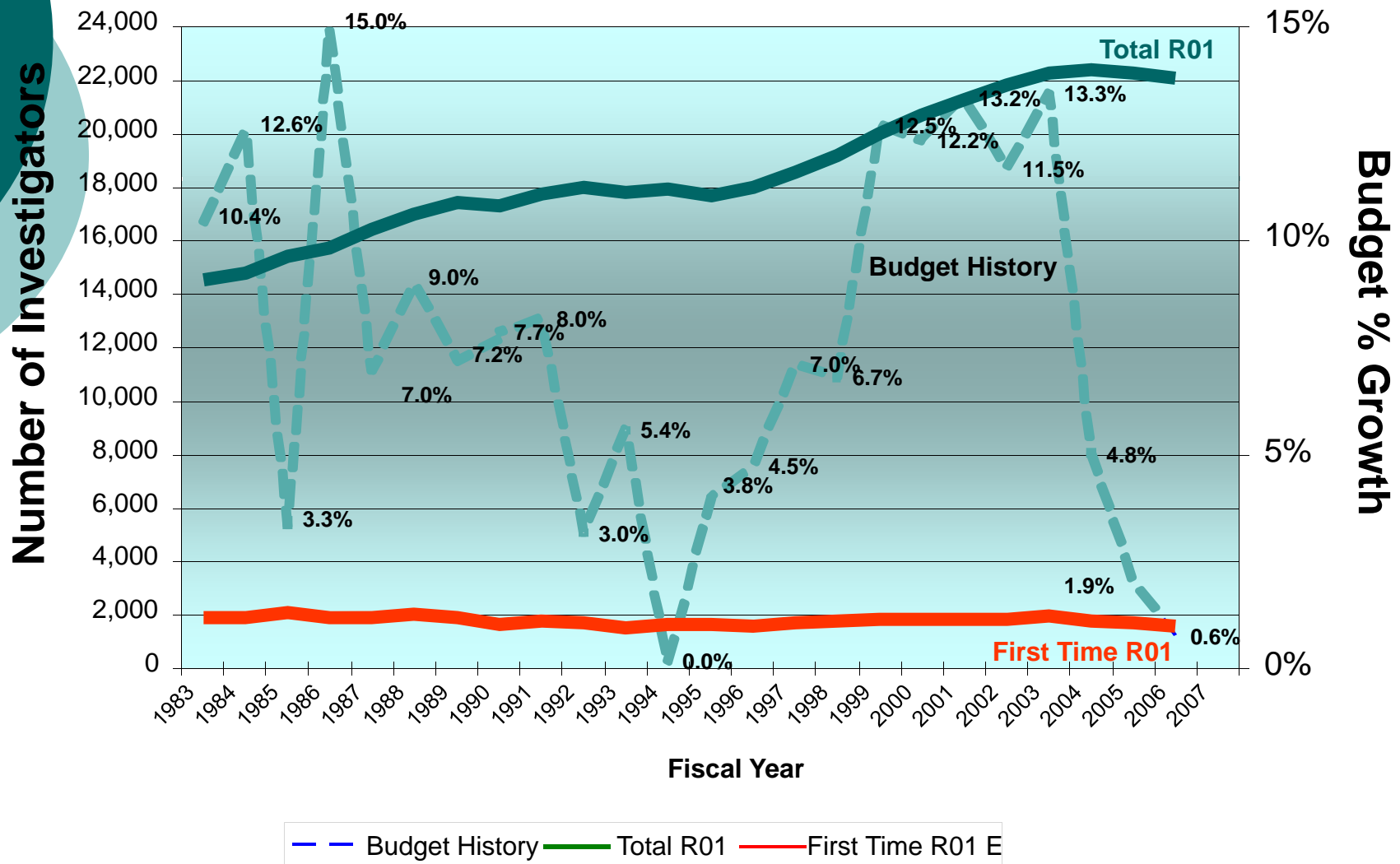


# Age Distribution of PIs

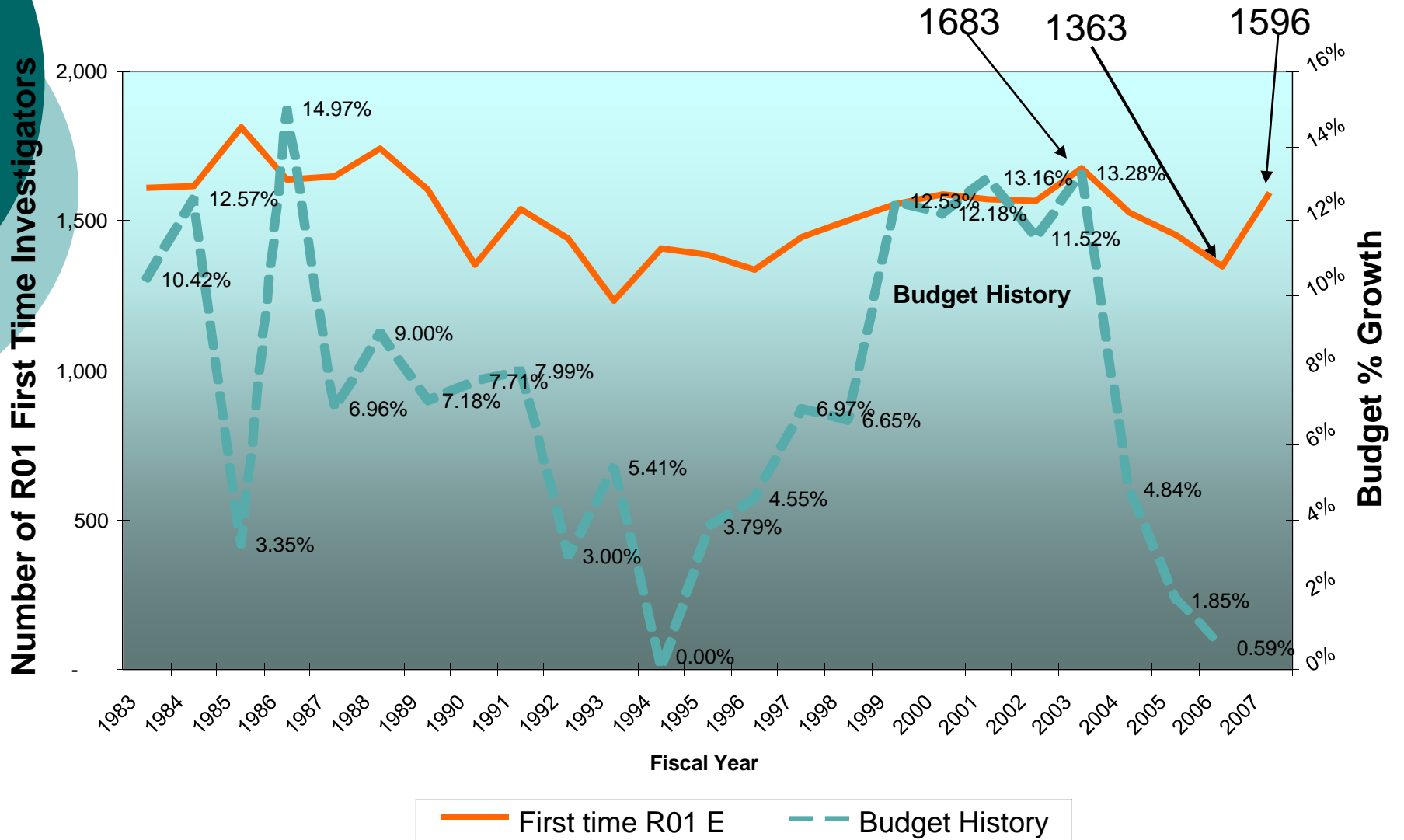
## 2020



# Number of R01 Investigators Is Not Closely Tied to Budget Growth



# First Time R01, Budget History



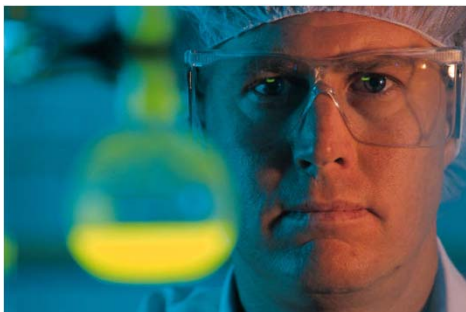
# RPG Funding Rates and Success Rates 1998-2007

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FY	Applicants	Awardees	Funding Rate	Applications	Awards	Success Rate
1998	19,662	6,974	35.5%	24,151	7,518	31.1%
2000	22,174	8,022	36.2%	27,798	8,765	31.5%
2002	23,771	8,605	36.2%	30,068	9,396	31.2%
2004	30,258	9,125	30.2%	40,861	10,052	24.6%
2006	33,119	8,406	25.4%	45,688	9,128	20.0%
2007	33,886	9,233	27.2%	47,455	10,100	21.3%


# NIH: Adaptive Strategies for Tough Times

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- Our approach in 2007: No inflationary adjustments for non-competing renewal awards in FY2007
- Our Goal:
  - Stabilize number of competing grants
  - Strengthen support for at-risk populations:
    - New Investigators
      - NIH is committed to maintaining historic average
    - First grant renewals
    - Well-established investigators with little or no additional support





## **2007 Goals—Stabilizing the Number of New Investigators and Bridge Support for More Established Investigators**

- Committed to maintaining a baseline number of new R01 investigators
- Average over past five years (FY'02-'06) 1523 new R01 investigators/year
- In FY 2007
  - Funded 1596 new R01 investigators (1353 in 2006)
  - Funding rate of 20.6%, Success rate of 18.5%
  - 265 Director's bridge grants for first renewals and near payline well established Investigators with less than 400k in other funding
- We plan to continue policy in 2008, with a goal of keeping the funding rate for first time R01 applicants ~20% or higher and maintain number of New R01 grantees at average of last five years or higher depending upon quality of applications.

# R01 Funding Rates 1998-2007

FY	First Time Applicants			Previously funded applicants					
	Applicants	Awardees	Funding Rate	All types			New ( type 1) only		
	Applicants	Awardees	Funding Rate	Applicants	Awardees	Funding Rate	Applicants	Awardees	Funding Rate
1998	6,171	1,518	24.6%	10,968	4,387	40.0%	7,811	2,234	28.6%
2000	6,752	1,612	23.9%	11,708	4,982	42.6%	8,611	2,657	30.9%
2002	6,868	1,586	23.1%	11,667	4,803	41.2%	8,736	2,494	28.5%
2004	8,155	1,539	18.9%	13,855	4,988	36.0%	10,839	2,564	23.7%
2006	8,183	1,363	16.7%	14,763	4,343	29.4%	10,253	2,180	21.3%
2007	7,758	1,596	20.6%	13,923	4,485	32.2%	9,460	2,254	23.8%
2007 Success Rates:			18.5%	26.1%			19.7%		



# New Investigator Awards 2006-2007

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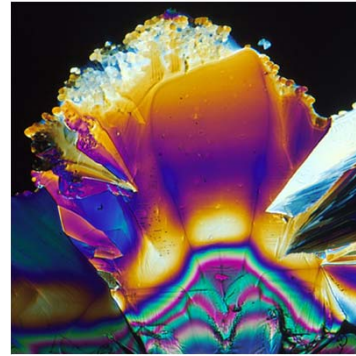
Fiscal year	R01s (R01,R29)	<b>Other Large Awards*</b> (DP1, DP2, R44, U01)	<b>Other Moderate Awards*</b> (R21, R03, R15, R43,R13)
2006	1418	391	1575
2007	1633 (+215)	459 (+68)	1820 (+245)

**Pathway to Independence awards K99/R00 not included ( 171 in 2007)**

**\*Preliminary data**



**Given Budgetary and Demographic trends, it is important for NIH to develop proactive policies based on quantitative long-range forecasts and focus on preserving a dynamic and innovative scientific workforce**



# NIH *Transforming medicine and health through discovery*

