

# Cancer Research Workforce Training

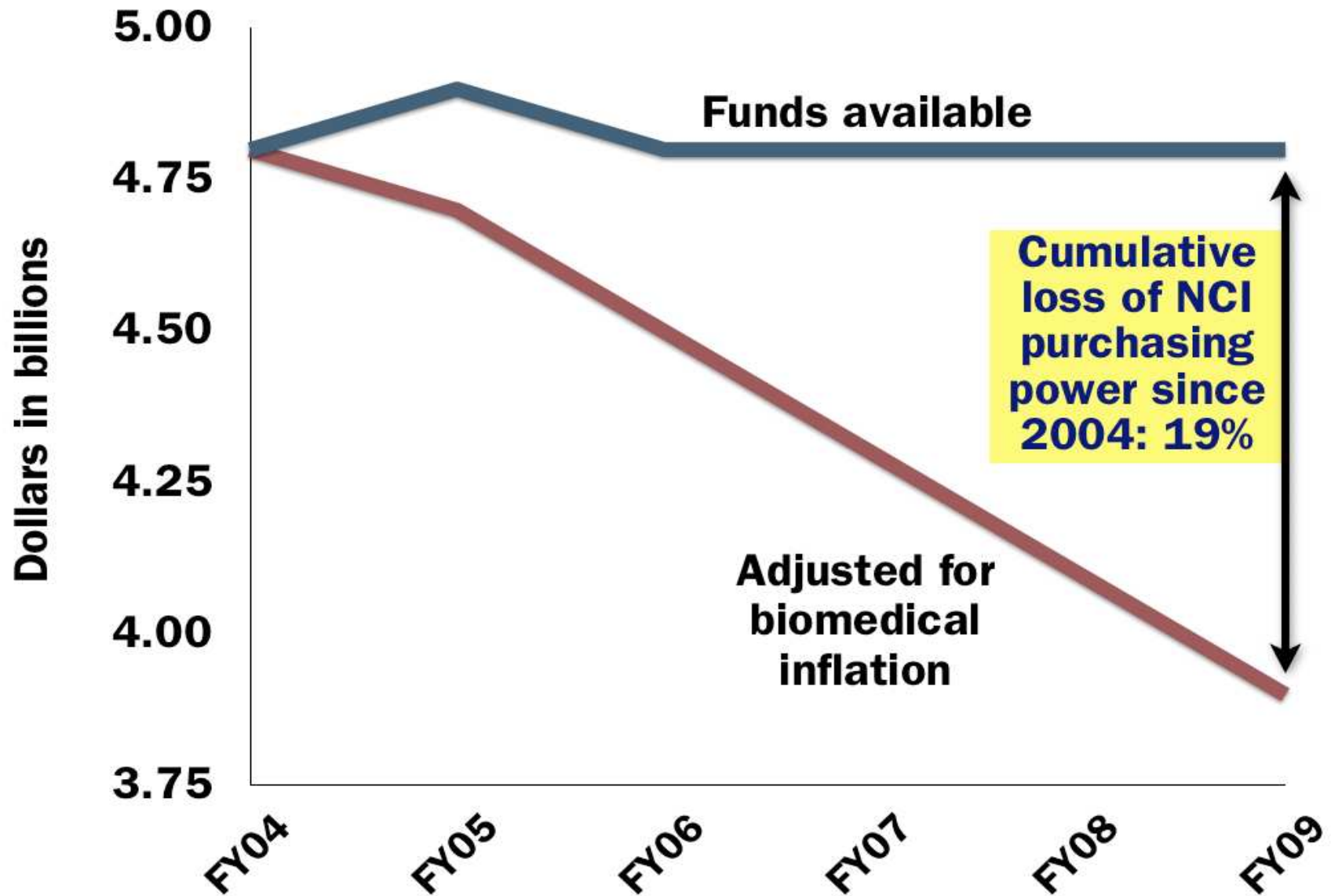
Jonathan Wiest, Ph.D.  
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U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES  
National Institutes of Health  
National Cancer Institute

# Overview

- Career Development Award (CDA)  
Mechanisms
- Data Sources
- Overall Success Rates and by Degree  
MD, PhD, MD/PhD
- Success of Subspecialties  
Surgery, Pathology, Medical Oncology, Radiation  
Oncology
- Total NCI Investment
- Conclusions
- Recommendations

# NCI's Challenge



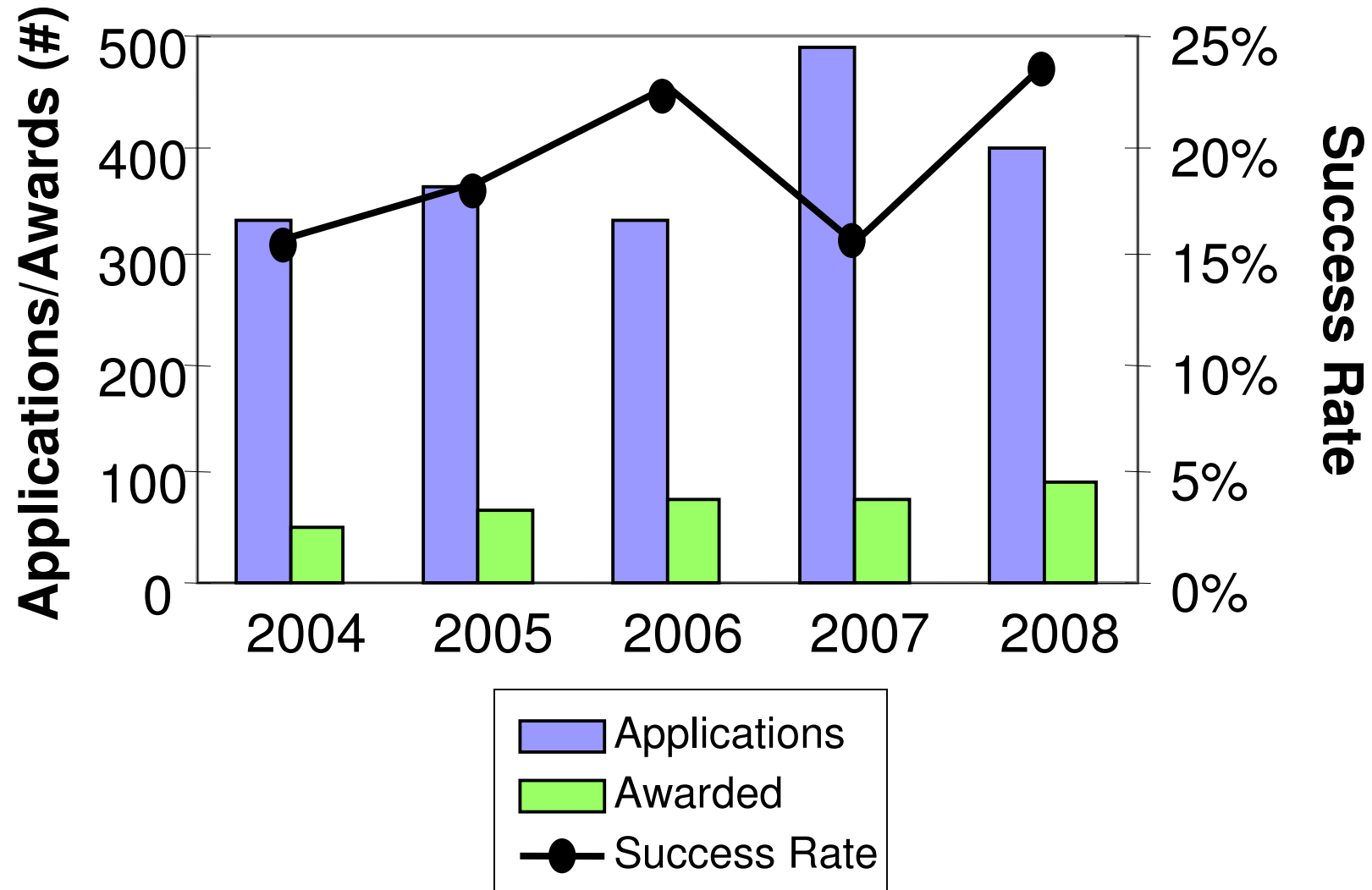
# Mechanisms

- K07 - Cancer prevention, control, behavioral, and population sciences
  - K08 - Laboratory-based basic science, biomedical, behavioral, and/or translational research
  - K22 - Basic science, patient oriented research, or prevention, control, behavioral and population sciences
  - K23 - Clinically trained professionals pursuing patient-oriented research
  - K99/R00 - Basic science research in human cancer systems
- 
- K12 - Enhance collaboration among MDs and basic science researchers to promote translational therapeutic research
  - Loan Repayment (LRP) - For qualified educational debts; receive up to 70K over two years. Can compete for repayments of remaining debt

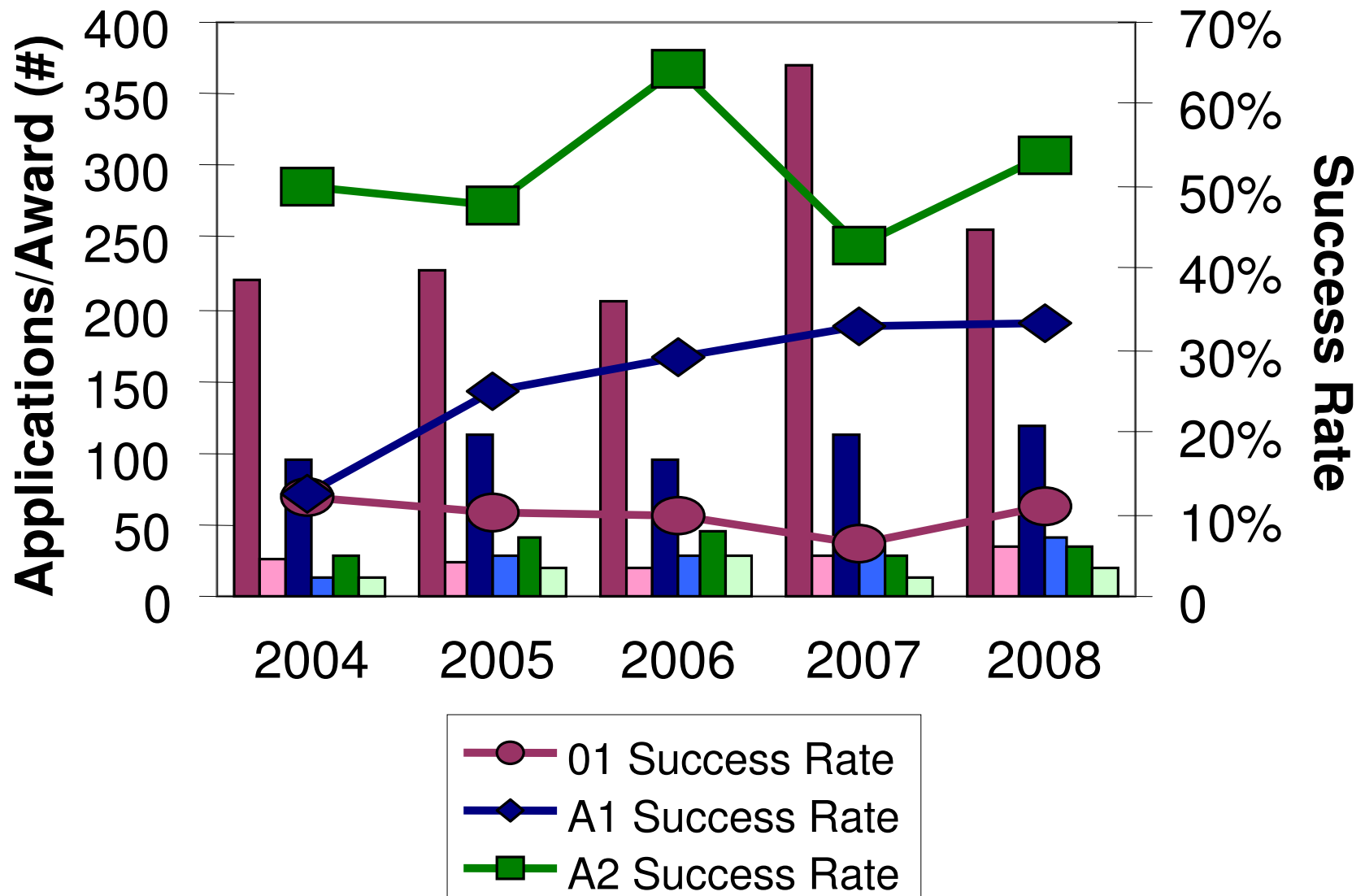
# Data Sources

- Information for Management, Planning, Analysis & Coordination (IMPAC II)
  - Descriptive & scientific research project data
  - Data span FY 2004 – 2008
- Medical Subspecialties
  - Surgery
    - Surgical Oncologists, General Surgeons
  - Pathology
  - Medical Oncology
    - Medical Oncologists, Hematologist-Oncologists
  - Radiation Oncology
    - Radiation Oncologists, Radiologists

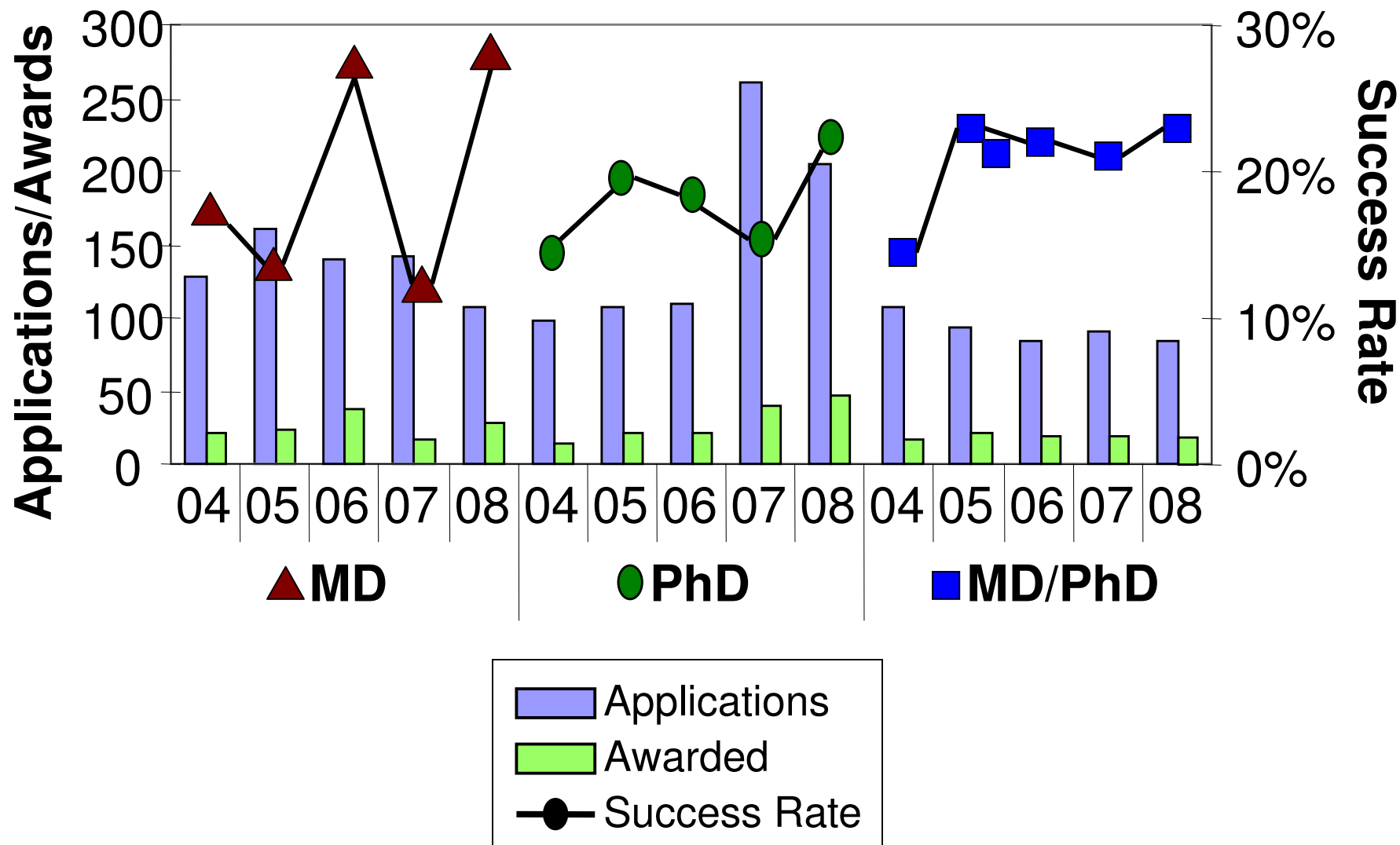
# Total CDA Applications & Success Rates



# Success Rates by Submission Status

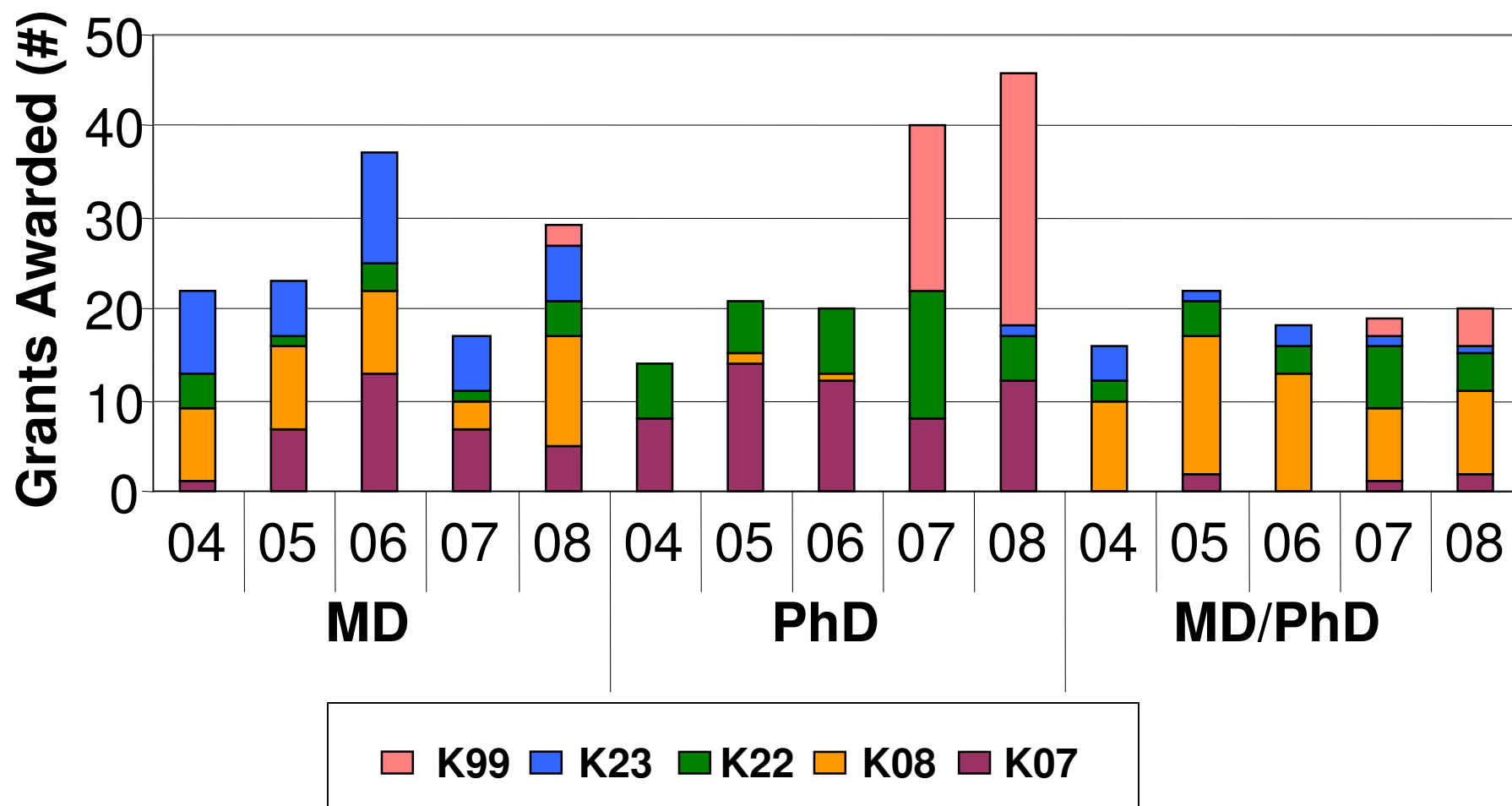


# Success Rates by Degree

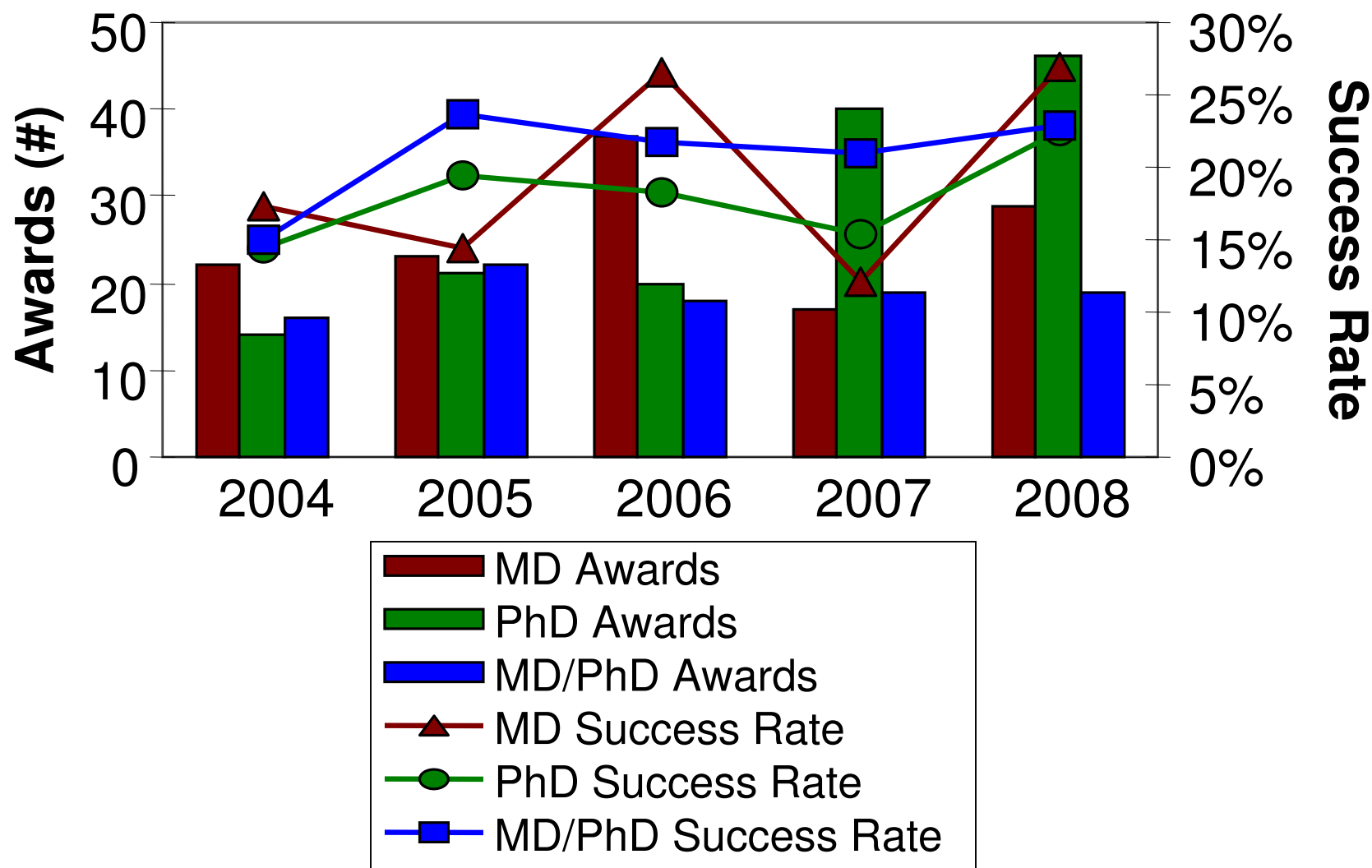




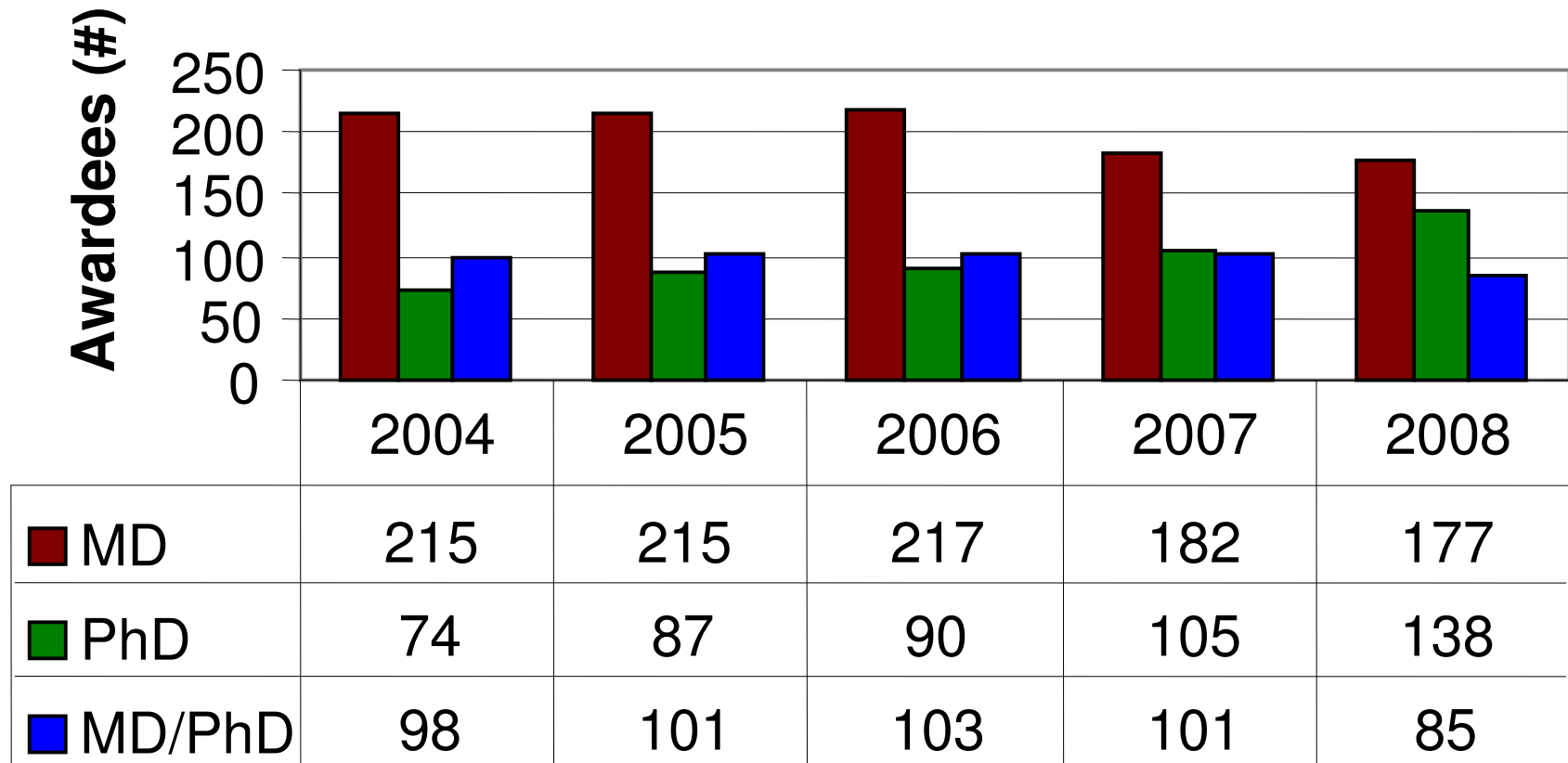
# CDA Awards by Mechanism



# CDA Awards by Degree

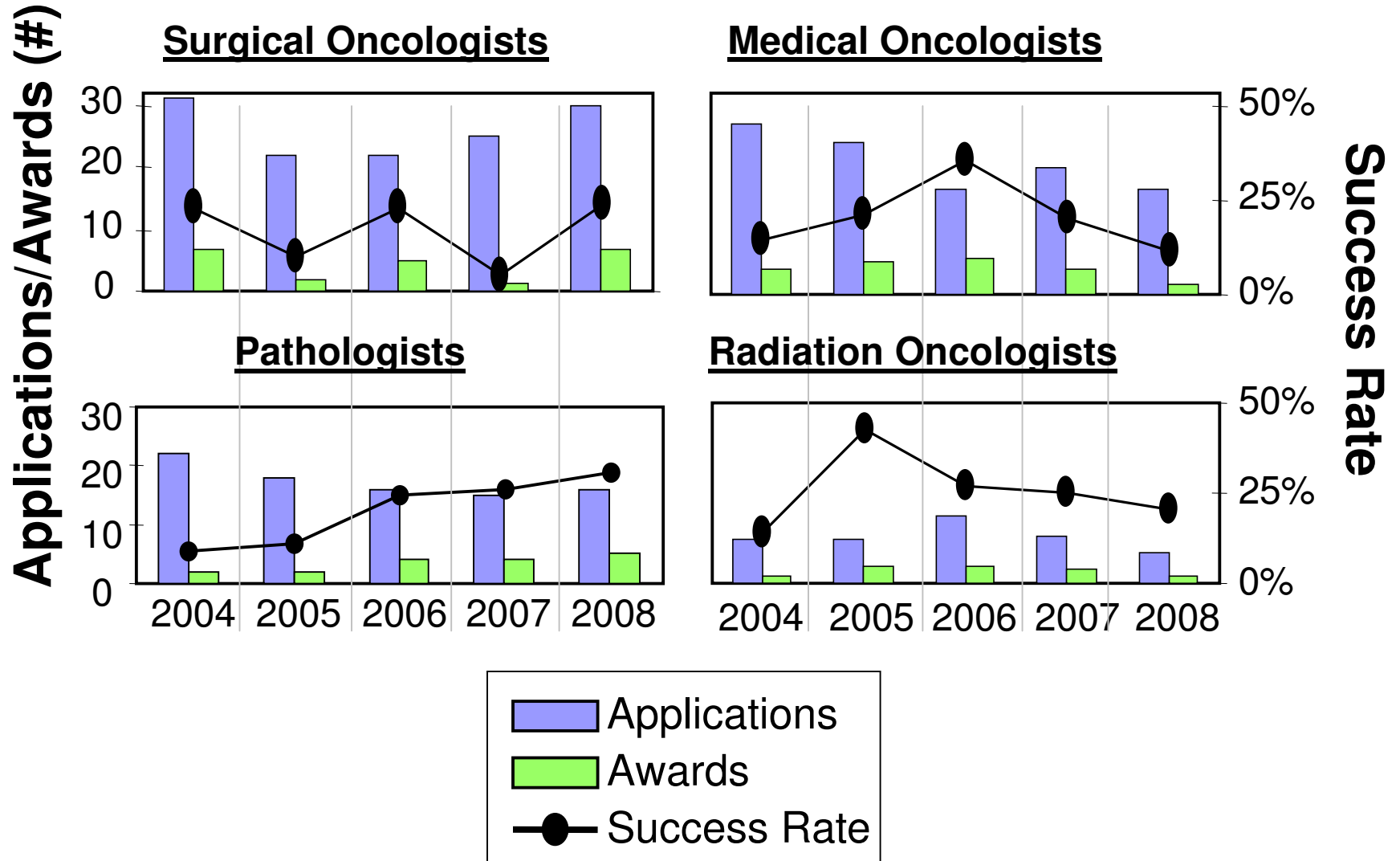


# Awardees (total number)

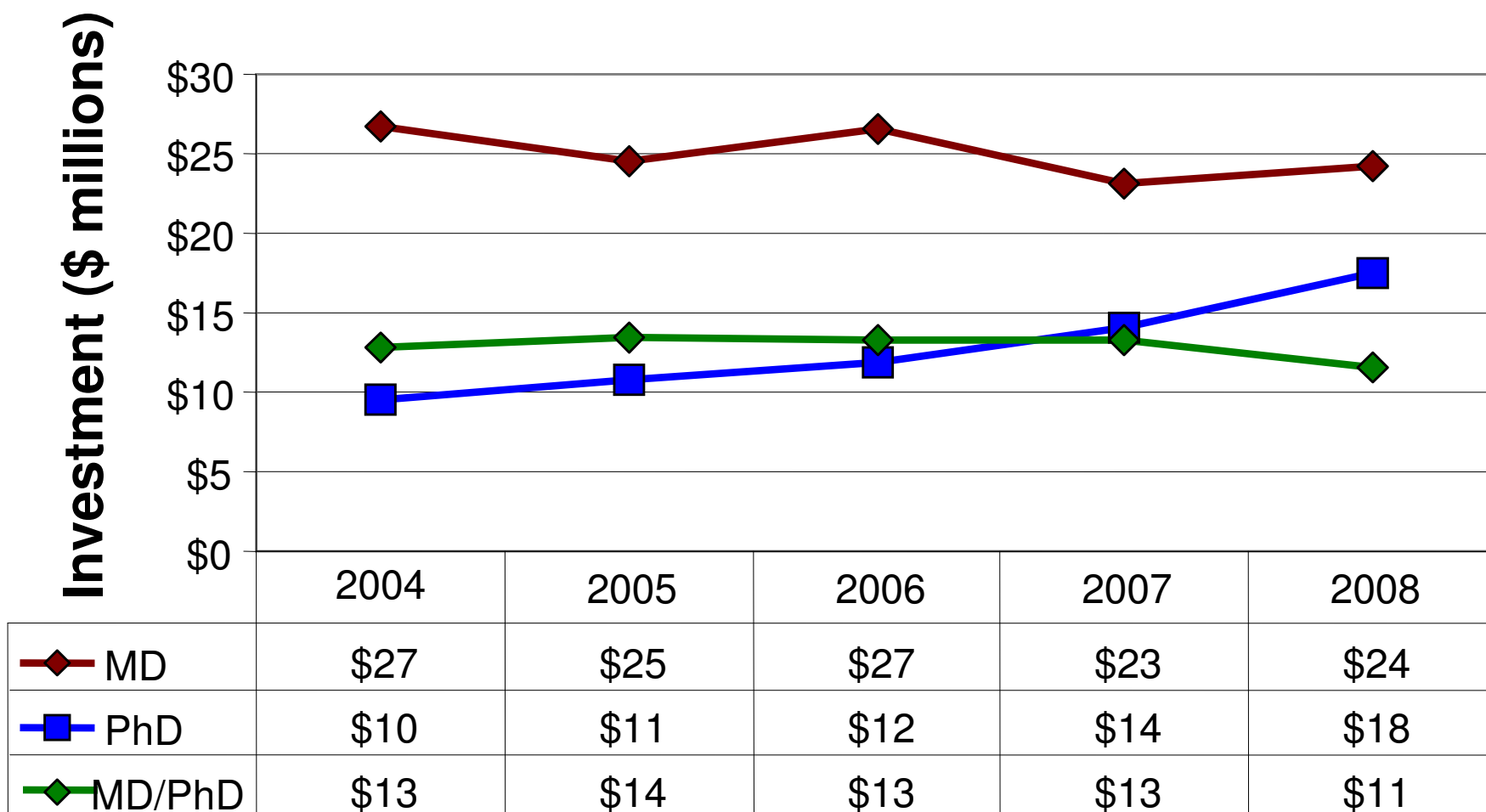


Includes all active individual CDAs & K12 appointees

# CDAs by Subspecialty

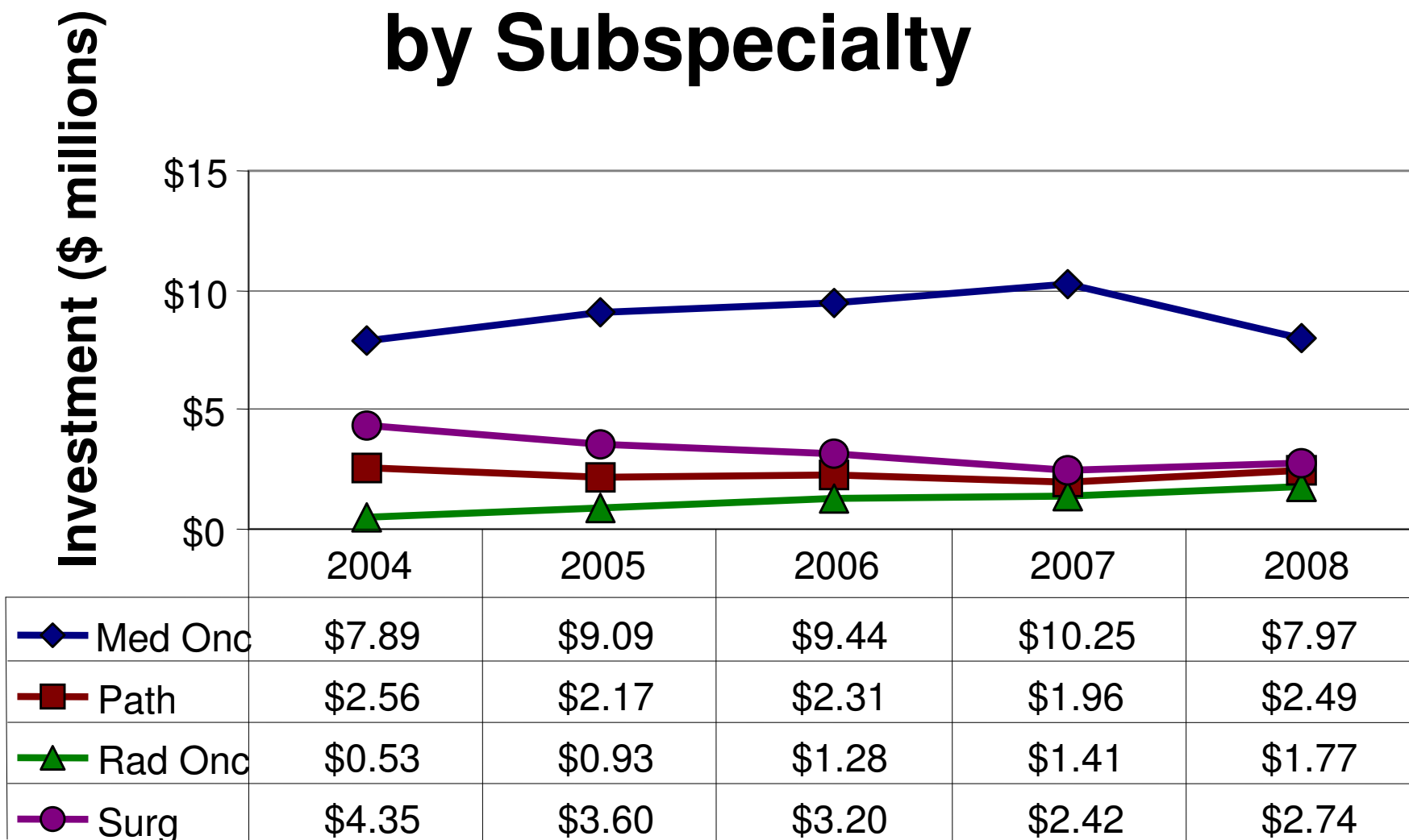


# NCI's CDA Investment



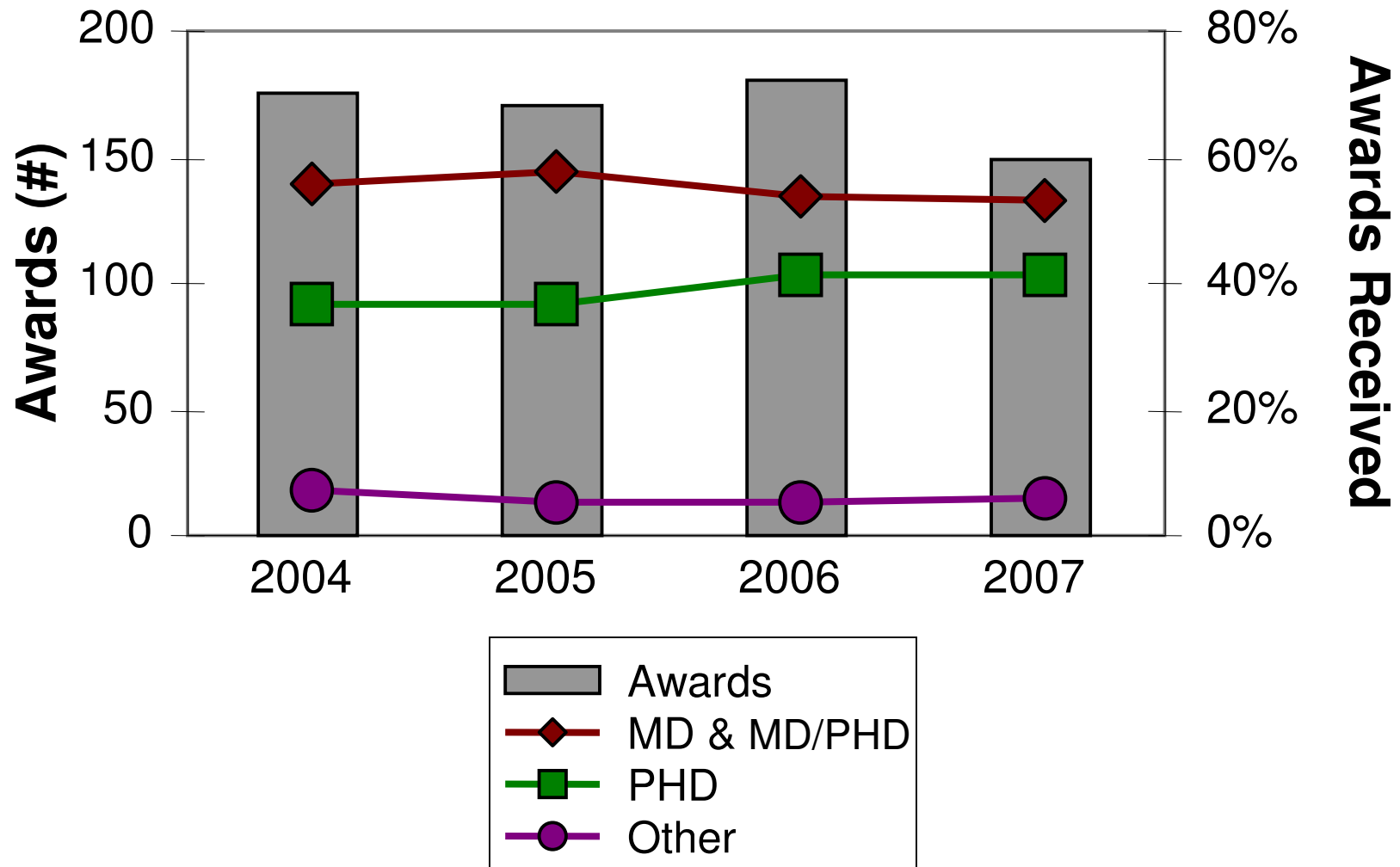
Includes all active individual CDAs & K12 appointees

# NCI CDA Investment by Subspecialty



Includes all active individual CDAs & K12 appointees

# LRP Awards by Degree Status



# Conclusions

- The number of applications submitted by physician scientists fluctuates by ~10% from year to year (incomplete data for FY2008).
- The success rate for physician scientists has remained relatively stable.
  - Oncologists are still actively engaged in and pursuing research (exception is FY 2007).
- The number of applications submitted by medical subspecialists dropped 22% from FY 04-06 & has remained constant.
- The LRP continues to encourage physician scientists to pursue research careers.



# Recommendations

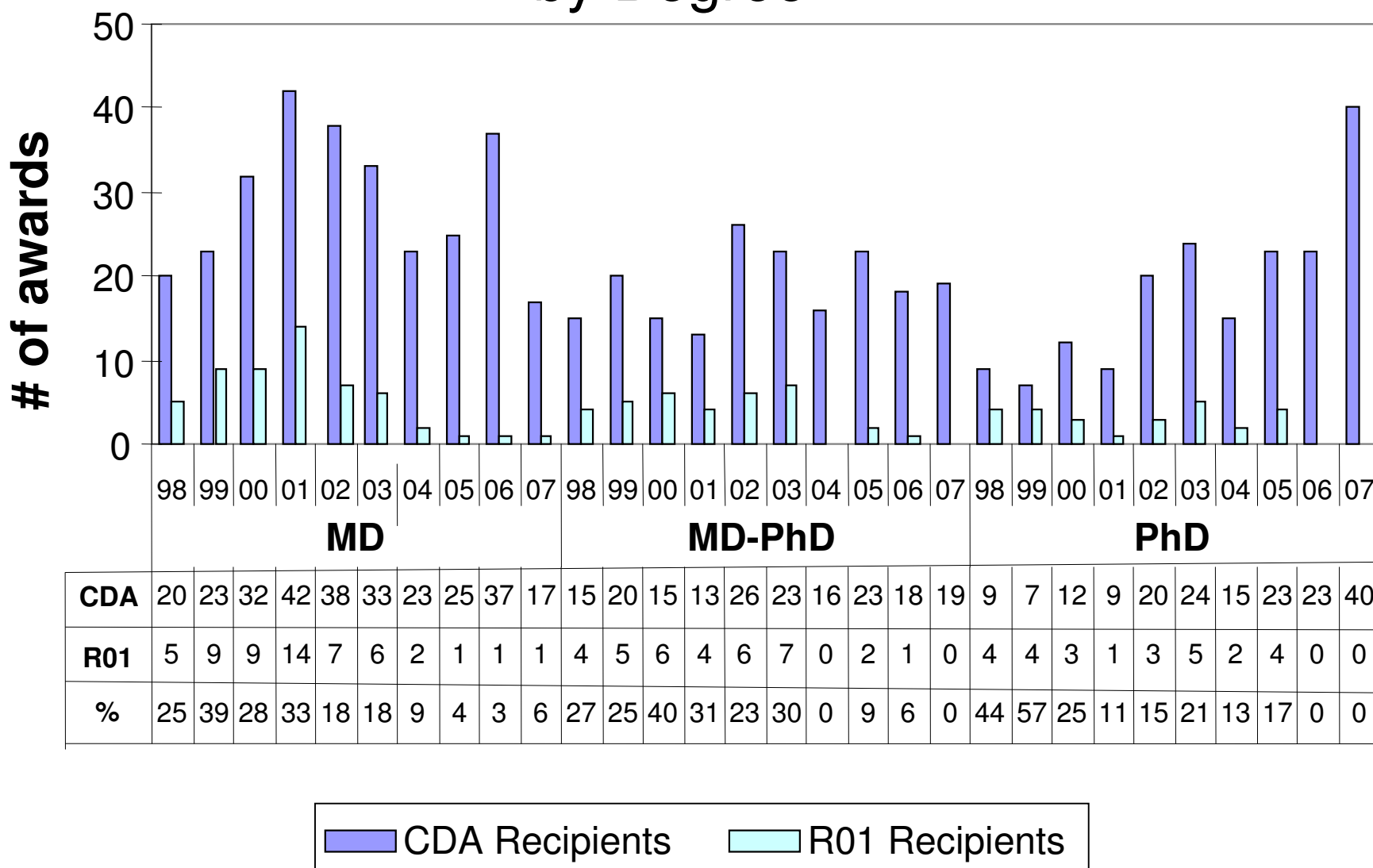
- Increase the salary cap on CDAs from \$75K to \$100K.
- Partner with Foundations and Societies to supplement resources for subspecialty physicians in academic research.
- Evaluate the number of CDA recipients continuing in academic research.
  - Consider re-directing dollars to successful CDA mechanisms.
  - Consider re-directing LRP dollars to physician scientists.

# Acknowledgements

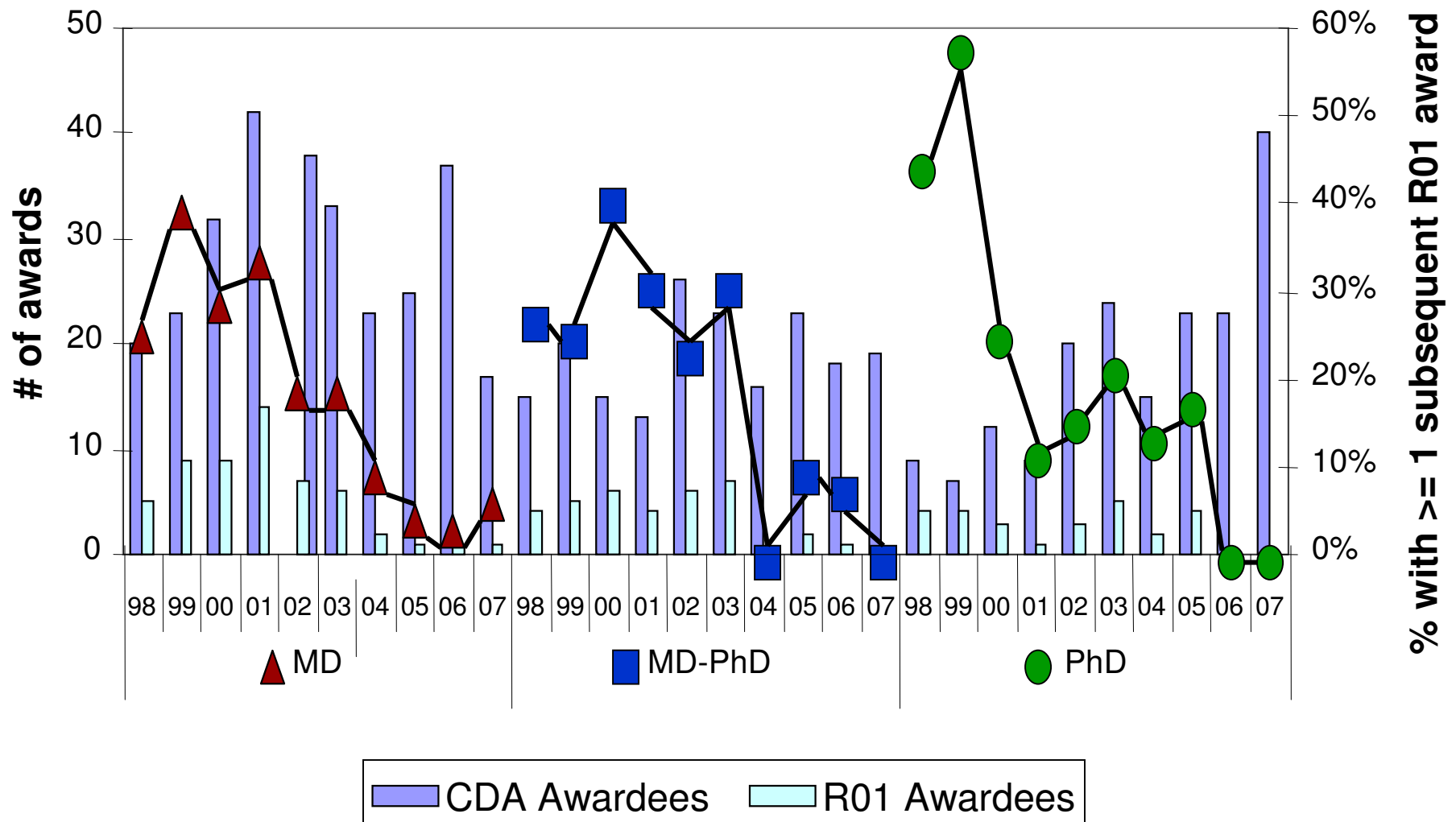
- NCI Cancer Training Branch Staff
  - Lester Gorelic
  - Sonia Jakowlew
  - Shannon Lemrow
  - Nancy Lohrey
  - Dorkina Myrick
  - Melissa Stick
  - Jaye Viner



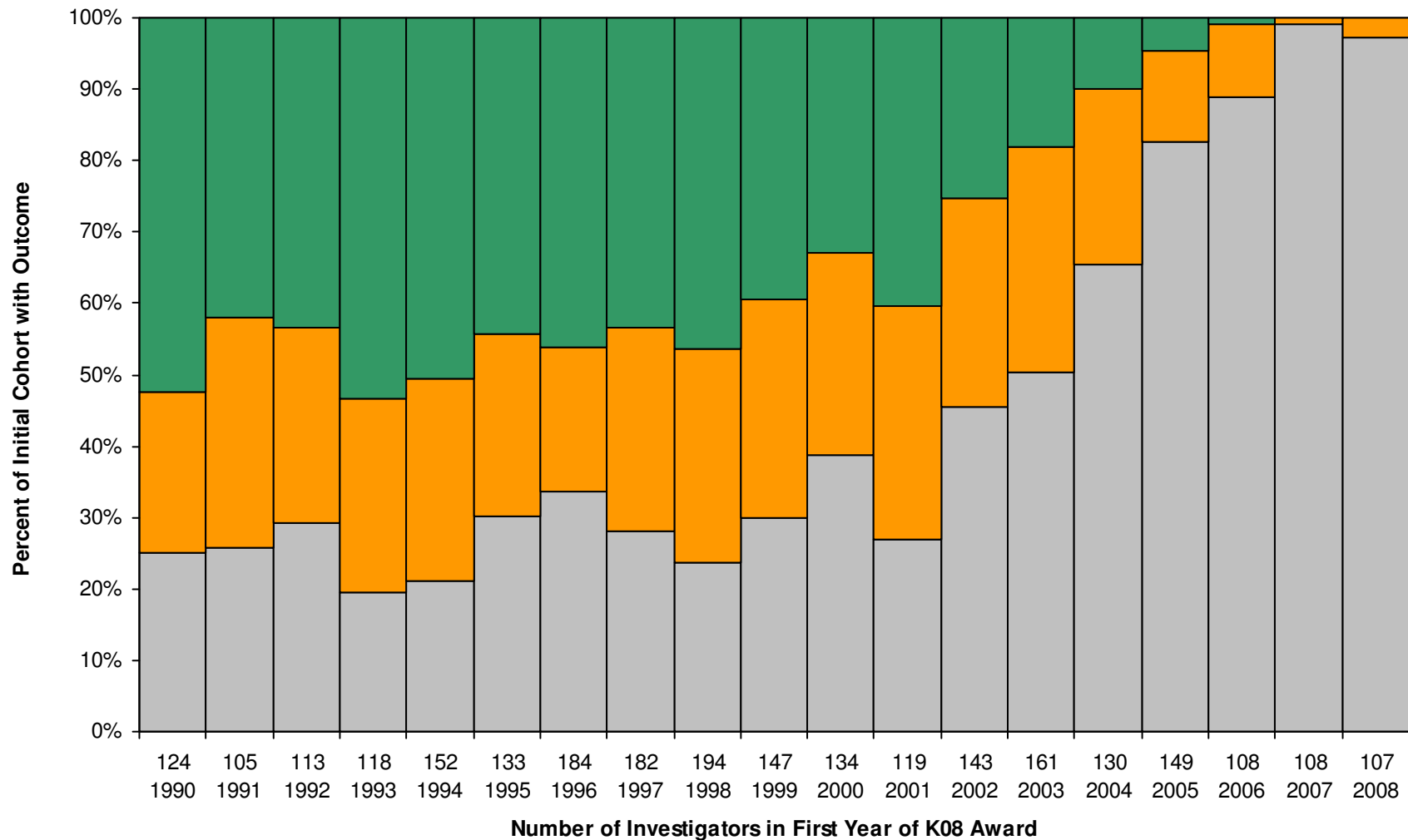
# # of CDA recipients who received R01 awards by Degree



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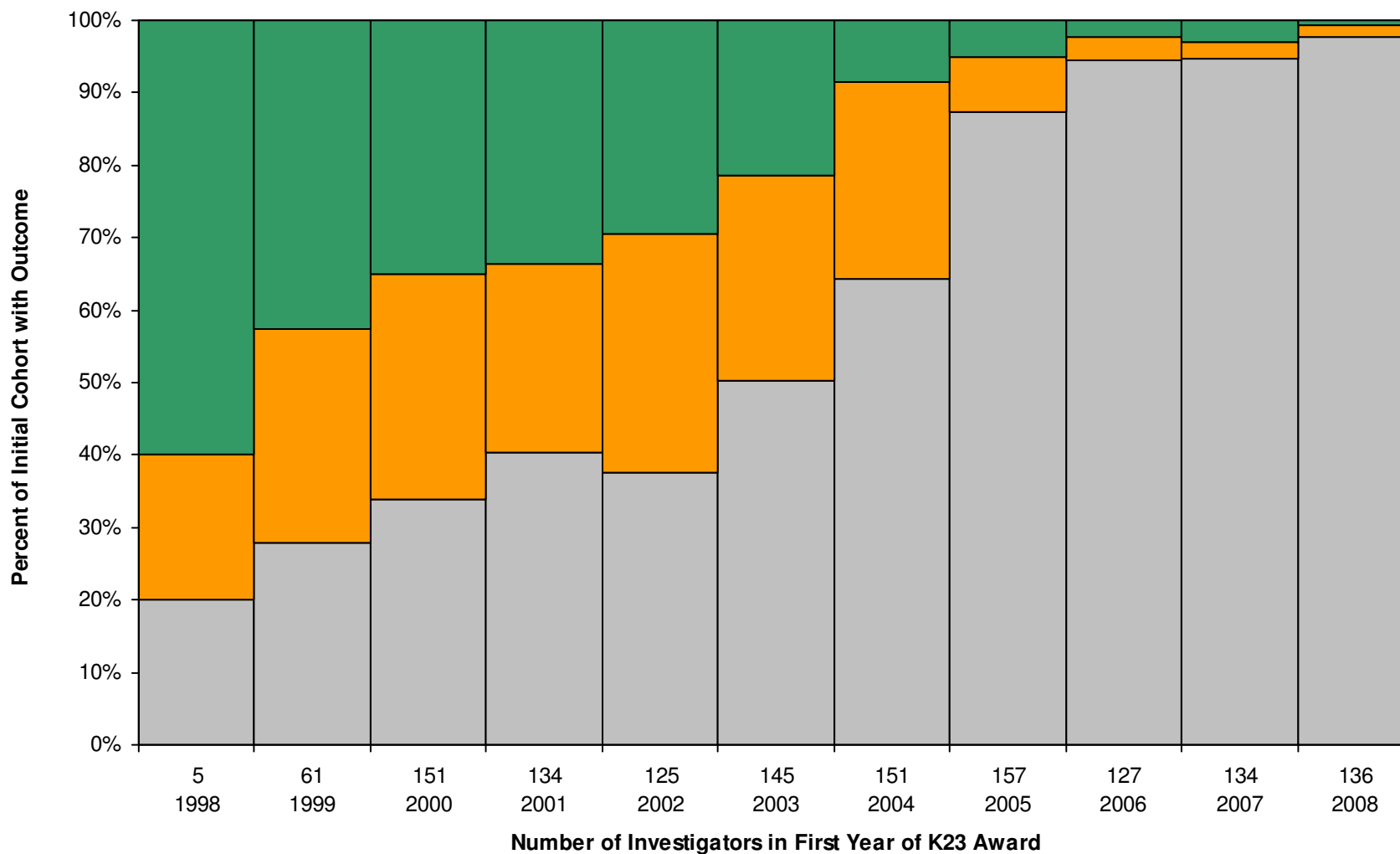
# K08 MD Awardees' Eventual Application for, and Funding of NIH R01 Equivalents \*, FY 1990 - 2008



Awarded K08; Nothing More
  Awarded K08; Applied, No Later Award
  Awarded K08; Applied, Received Later Award

\* R01 Equivalents 's include R01, R23, R29, R37 mechanisms

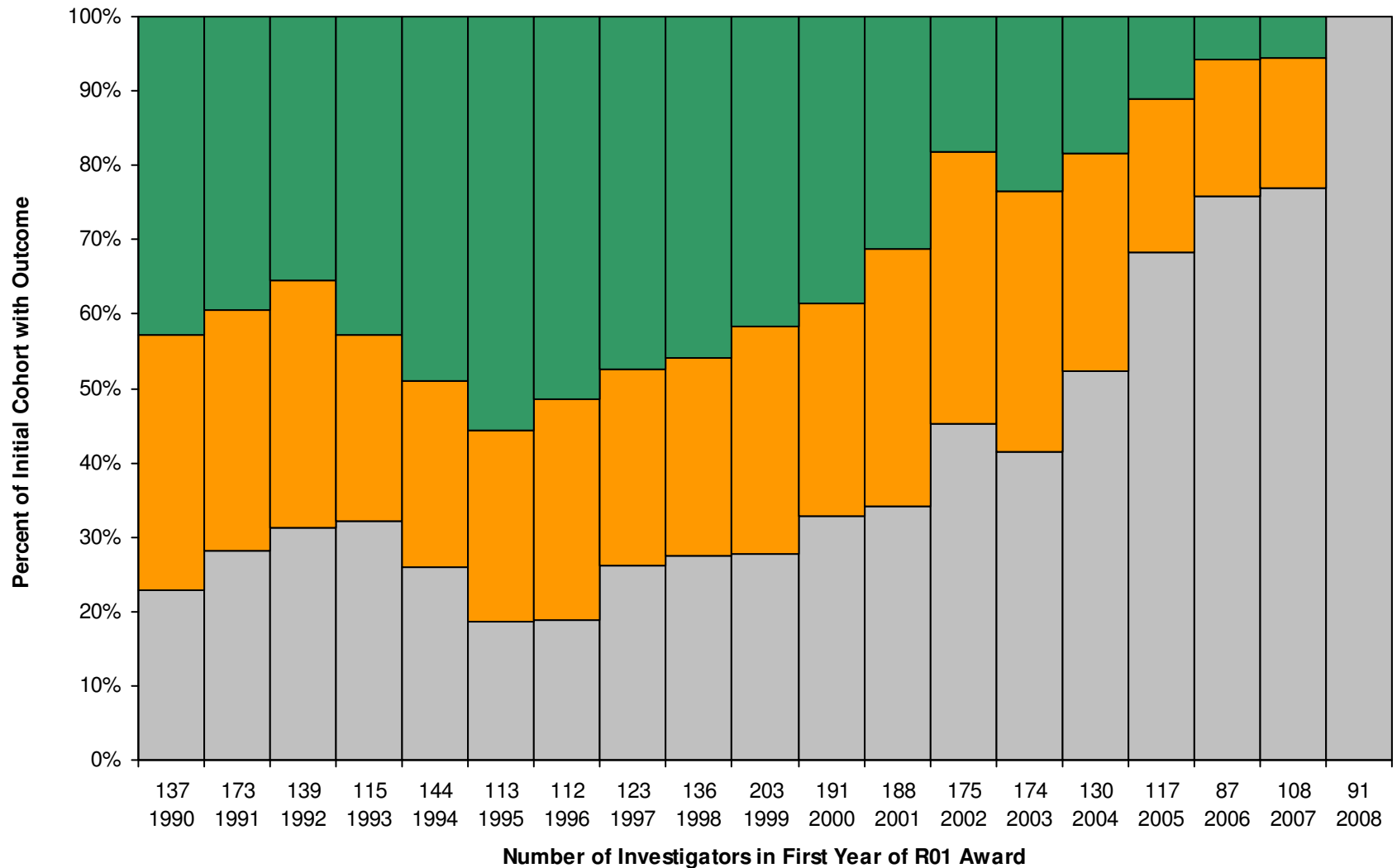
# K23 MD Awardees' Eventual Application for, and Funding of NIH R01 Equivalents \*, FY 1998 - 2008



Awarded K23; Nothing More
  Awarded K23; Applied, No Later Award
  Awarded K23; Applied, Received Later Award

\* R01 Equivalents 's include R01, R23, R29, R37 mechanisms

# R01 MD Awardees' Eventual Application for, and Funding of NIH R01 Equivalents \*, FY 1990 - 2008



□ Awarded R01; Nothing More

■ Awarded R01; Applied, No Later Award

■ Awarded R01; Applied, Received Later Award

\* R01 Equivalents 's include R01, R23, R29, R37 mechanisms