

Effects of Graduate Support Mechanisms

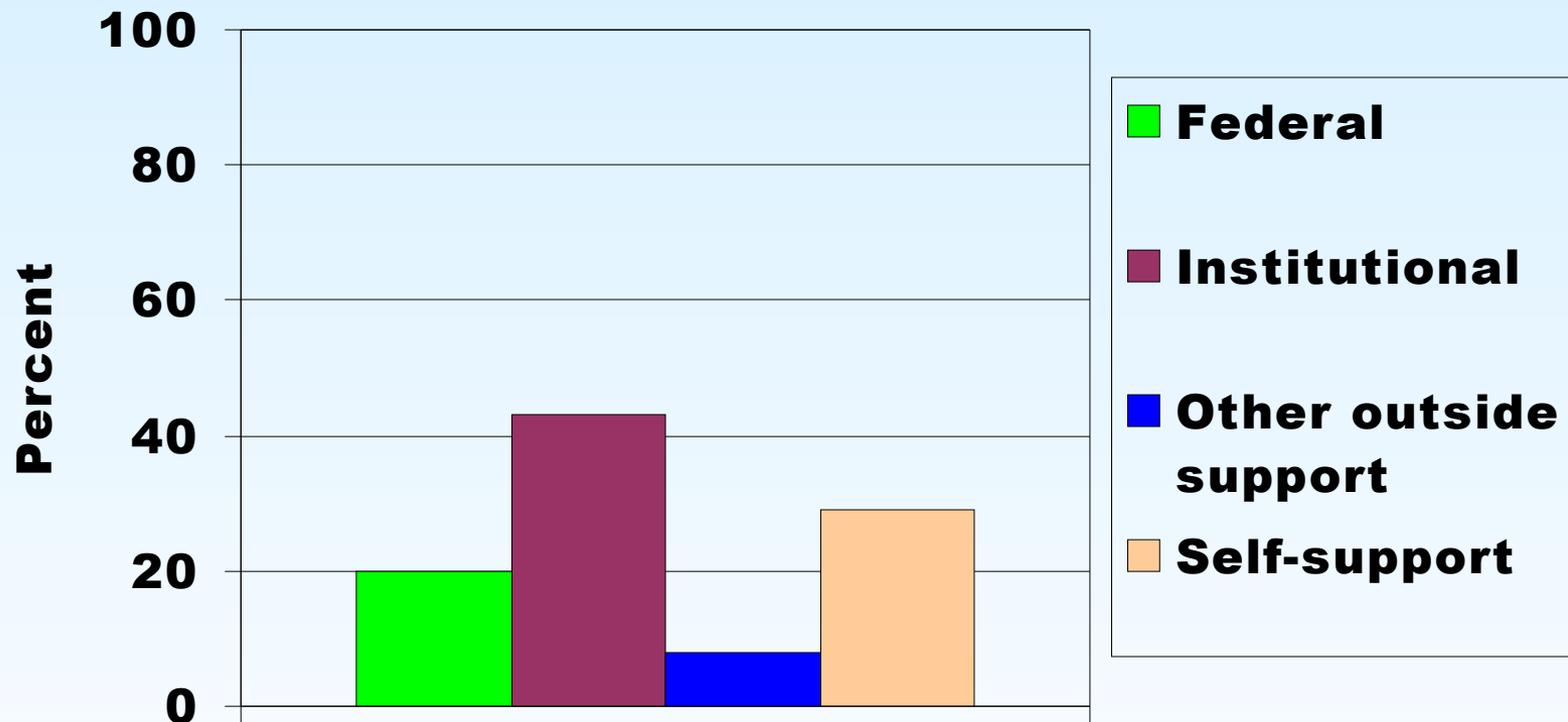
**presented at NSF/NIH/CGS Graduate
Support Workshop**

June 17, 2004

Sources of Information

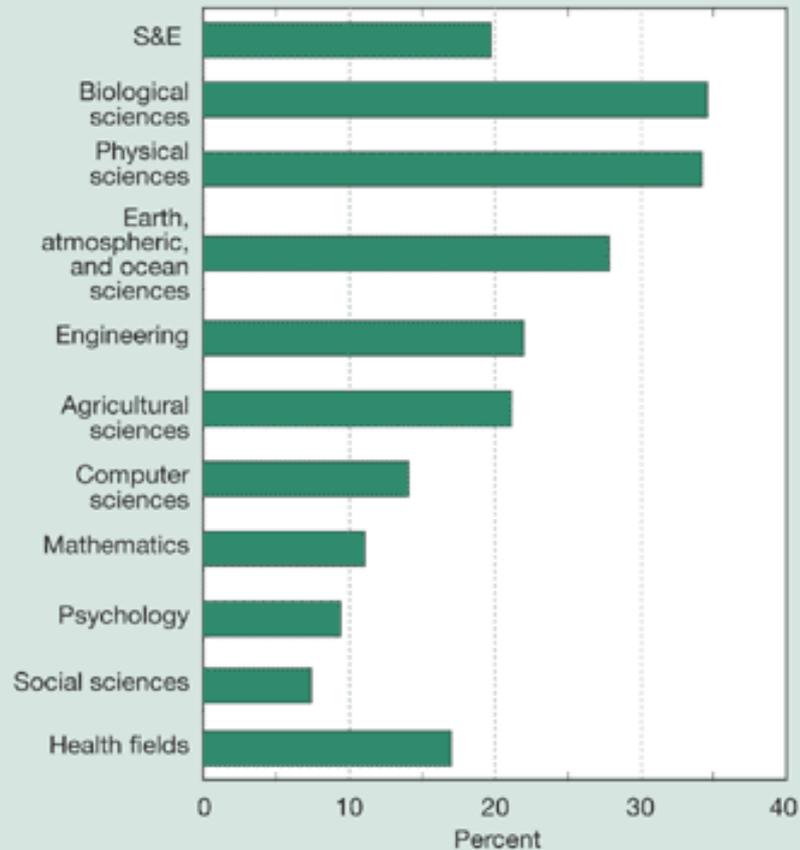
- NSF/NIH Survey of Graduate Students and Postdoctorates in Science and Engineering
- NSF/NIH/USED/NASA/NEH/USDA Survey of Earned Doctorates
- NSF/NIH Survey of Doctorate Recipients

Full-time S&E Graduate Students by Primary Source of Support: 2001



SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering

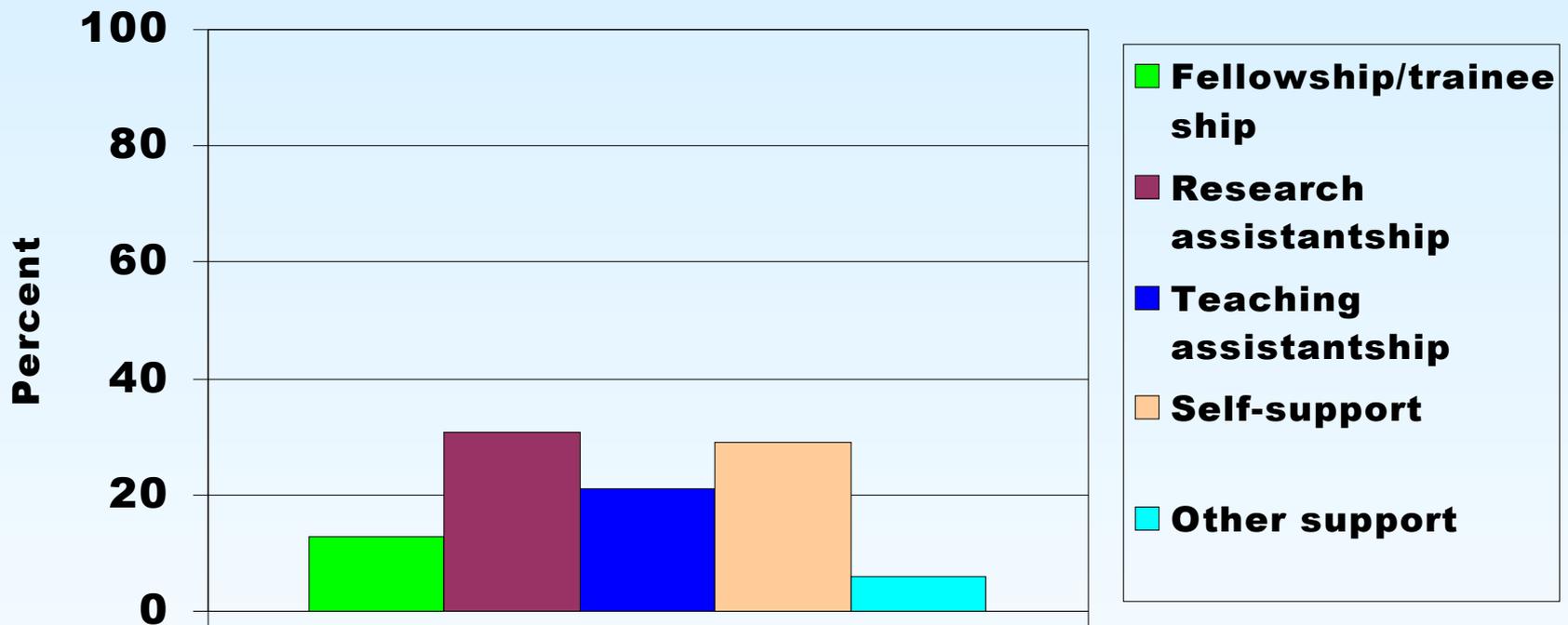
Figure 2-9
Full-time S&E graduate students with primary support from Federal Government, by field: 2001



NOTE: Health fields not included in S&E total.

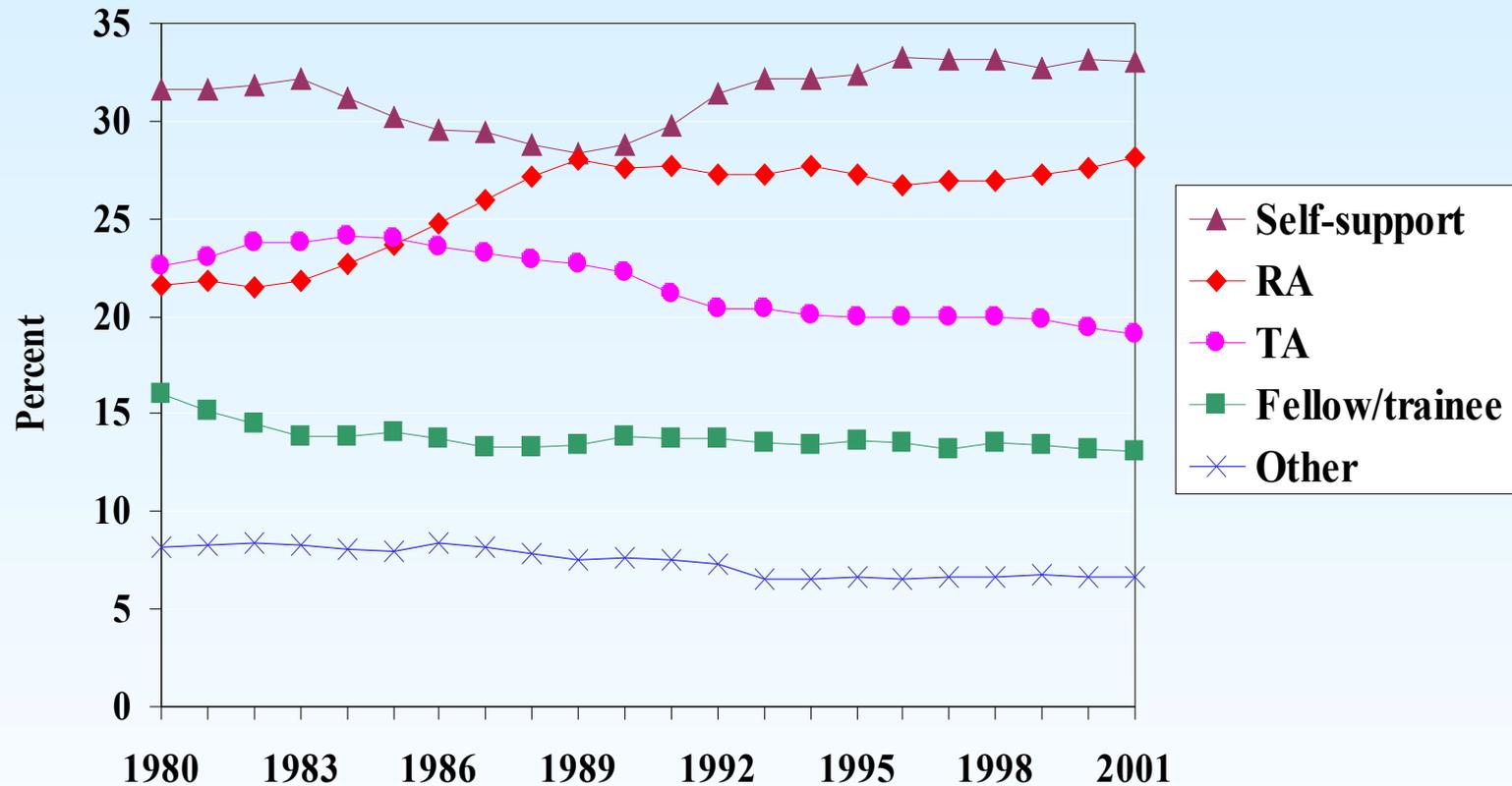
SOURCE: National Science Foundation, Division of Science Resources Statistics, WebCASPAR database system, <http://caspar.nsf.gov>. See appendix table 2-17.

Full-time S&E Graduate Students by Primary Mechanism of Support: 2001



SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering

Trends in Primary Mechanisms of Support of Full-time Science, Engineering, and Health Graduate Students: 1980-2001



SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

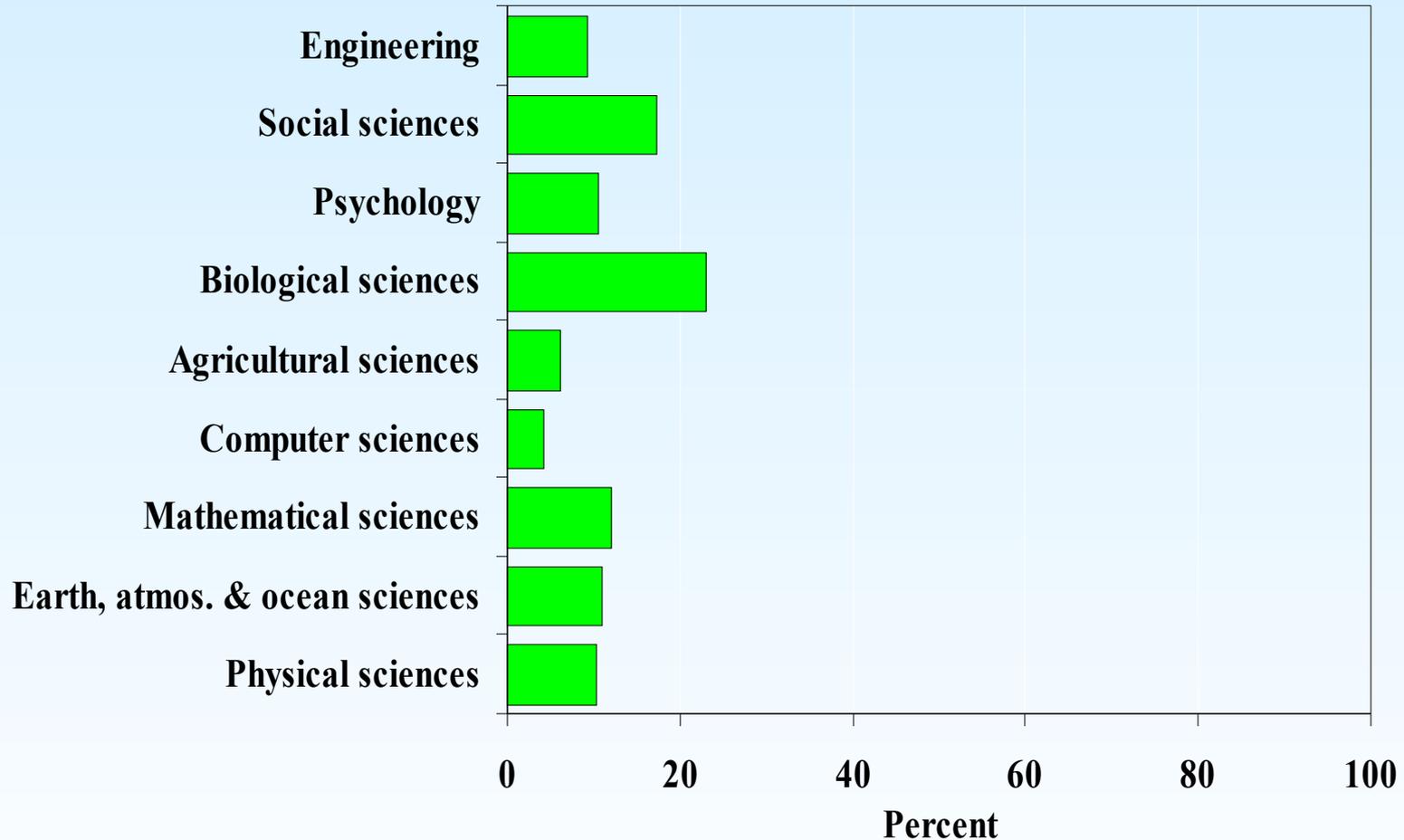
Number of “Modes” of Support Among Doctorate Recipients

- Generally S&E doctorates had more than one “mode” of support in graduate school – average is 2.5
- The top 5 combinations are RA+TA, RA+own funds, RA+TA+own funds, RA, TA+own funds

Type of Support Varies by Field

- Research assistantship was the most frequently cited primary support mode in most S&E fields
- Own funds was the most frequently cited primary support mode in the health sciences (49%), psychology (44%), and the social sciences (32%)
- Teaching assistantship was the most frequently cited primary mode of support in mathematics (60%)

Percentage of Full-time Graduate Students Who Have Fellowships or Traineeships, by Field: 2001

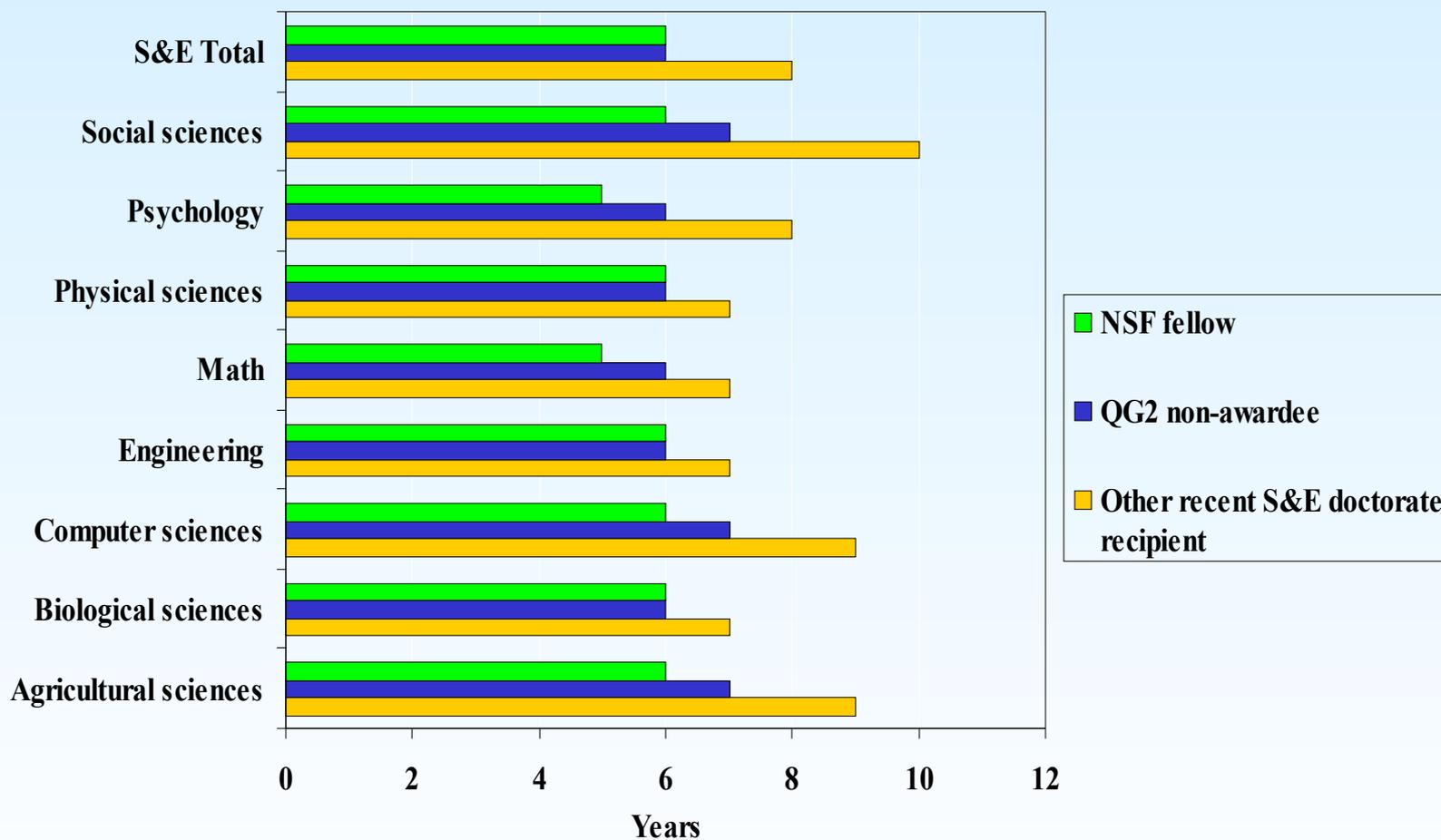


SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

Time to Degree

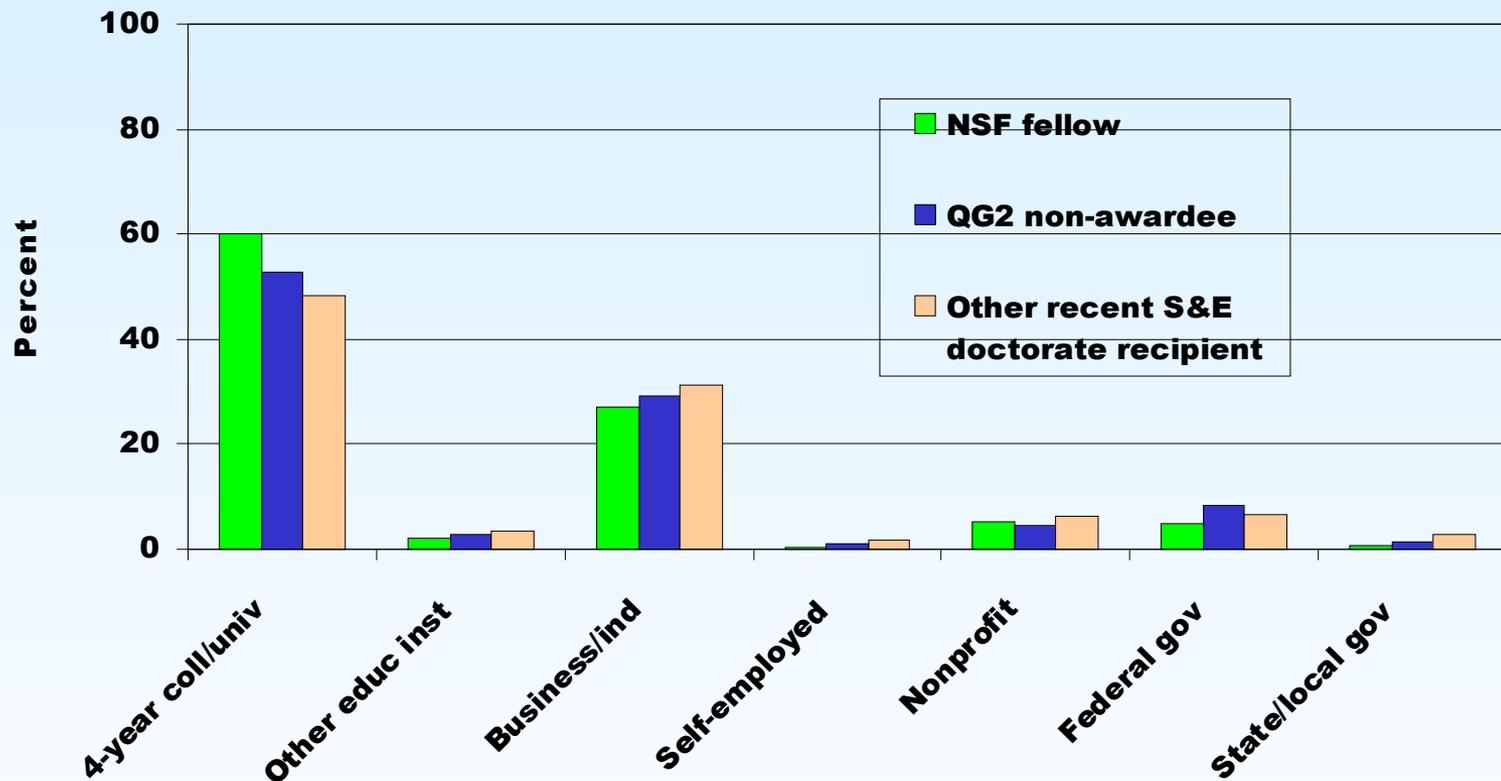
- Not a lot of difference in time to degree (TTD):
- Fellowships 7.86 years; Self-supported 10.33 years.
- After controlling for field, personal characteristics, parents' education, field & institution switching, and amount of debt, TTD with a fellowship is .65 years faster with self support and .30 years faster than with a teaching assistantship
- Can't separate out selection bias, i.e., those with a fellowship may have greater ability

Median time to doctorate, by NSF fellowship status of recent doctorate recipients: 1997

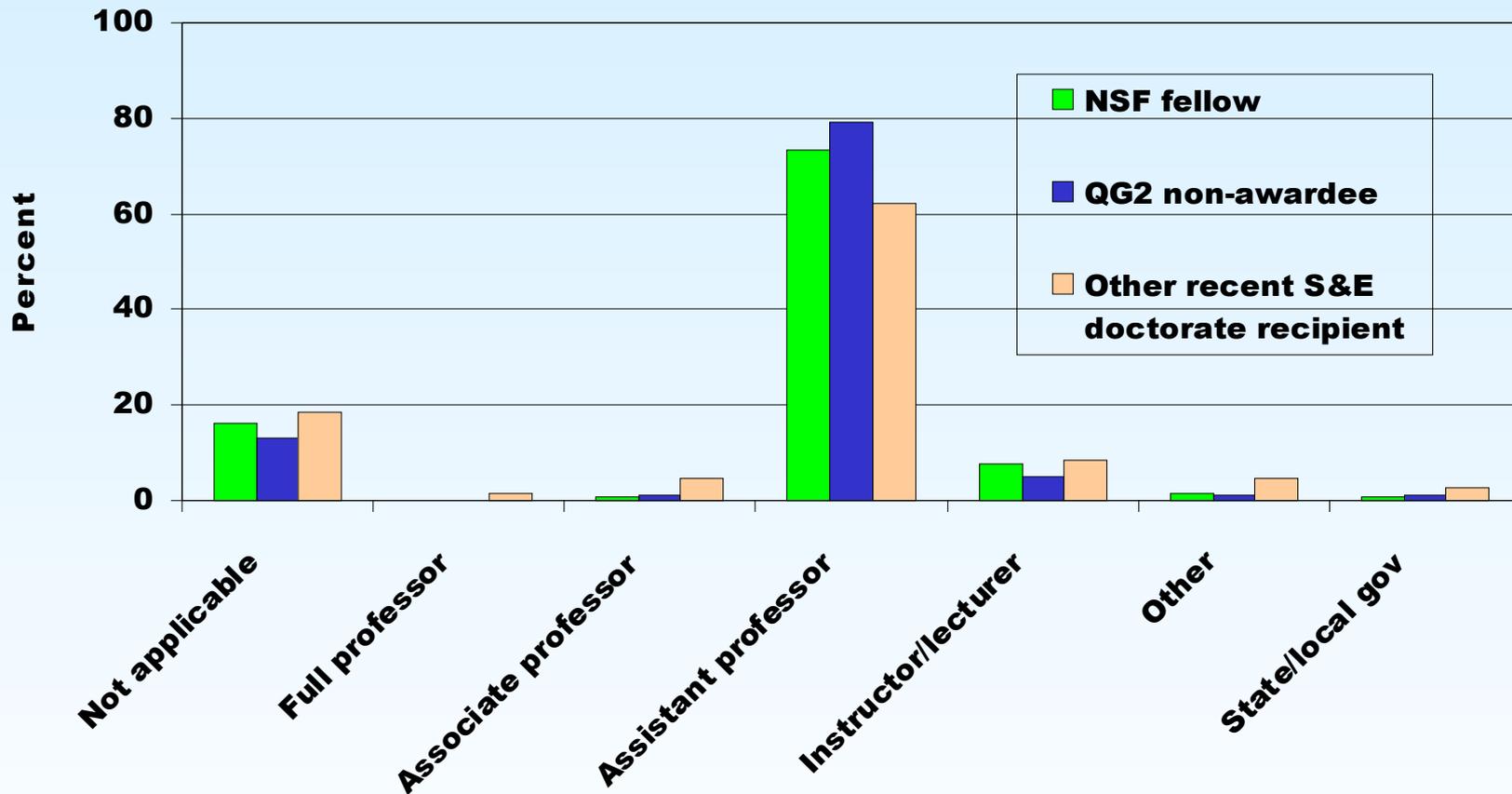


SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Earned Doctorates.

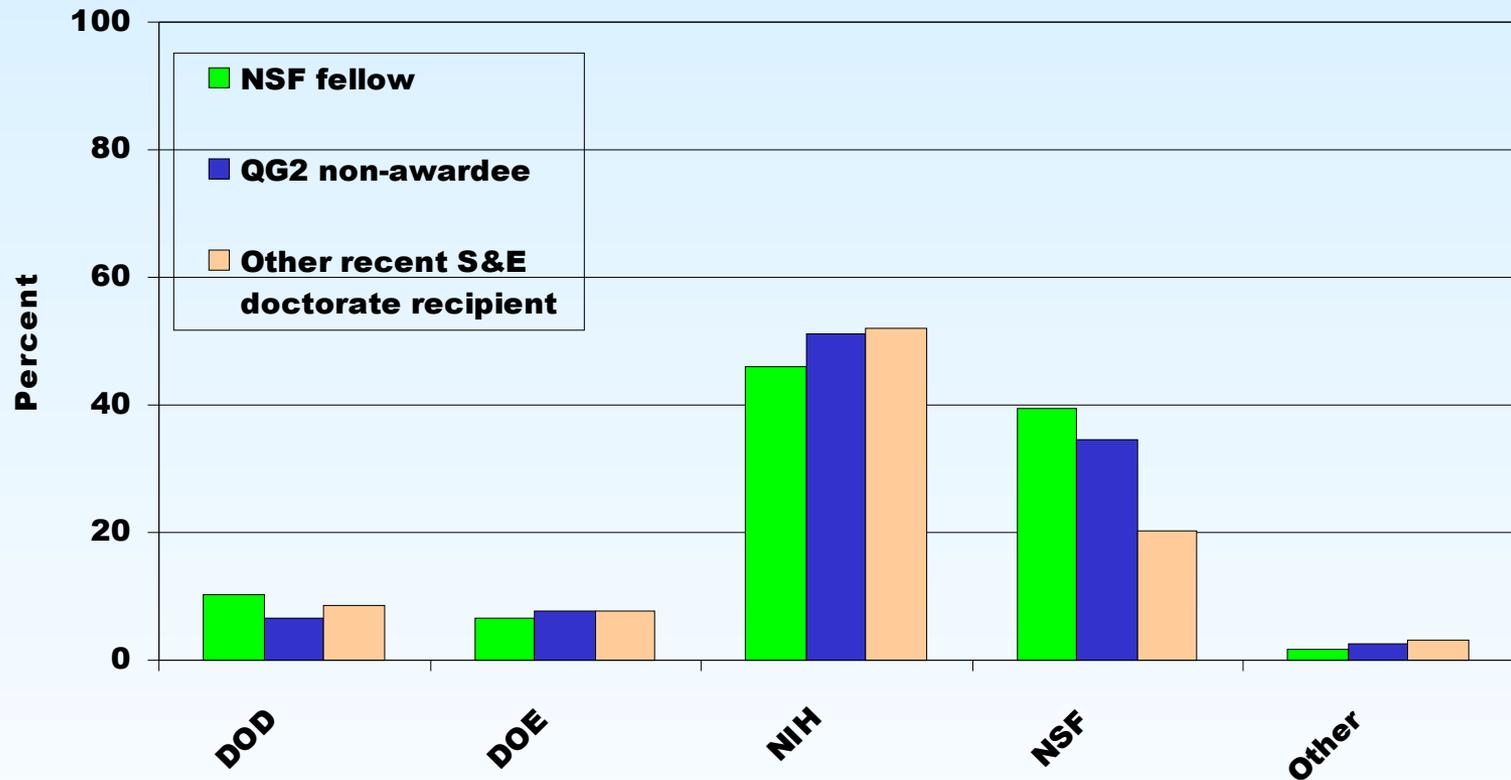
Employment sector of recent doctorate recipients, by NSF fellowship status: 1997



Faculty rank of recent doctorate recipients employed in 4-year colleges or universities, by NSF fellowship status: 1997 [postdocs excluded]



Federal support of recent doctorate recipients in 4-year colleges or universities, by NSF fellowship status: 1997 [includes postdocs]



Amount of undergraduate and graduate debt of recent doctorate recipients, by NSF fellowship status: 1997

