

Computing Research Association

Conference at Snowbird 2000



Slides from a workshop
on the topic of

“CRA Academic Profiles Survey”

prepared by

Mirek Truszczynski,
University of Kentucky

and presented by

Stephen Seidman,
Colorado State University

Monday July 10, 2000
1:30 pm

<http://www.cra.org/Activities/snowbird/00/wk2-4.html>

Department Management: Budgeting, Buyouts, and the Final Frontier - Space

Organizers:

Stephen Seidman, Colorado State

Mirek Truszczynski, University of Kentucky

Workshop goals

- **Present results of the Spring 2000 CRA Academic Profiles Survey**
- **Discuss:**
 - **design and scope of the survey**
 - **problems**
 - **return rate**
 - **accuracy of responses**

Academic Profiles Survey

- **First run in 1998**
- **This is the second edition**
- **Focus on:**
 - **support personnel**
 - **department budget**
 - **research support**
 - **space**
 - **teaching loads**
 - **graduate students**
- **Results will appear in Computing Research Notes**

Response rate

- **88/157 = 56% of computer science departments**
- **Subcategory response rates:**
 - **Public: 65/111 = 59%**
 - **Private: 23/46 = 50%**
 - **NRC rank 1-12: 6/12 = 50%**
 - **NRC rank 13-24: 9/12 = 75%**
 - **NRC rank 25-36: 10/12 = 83%**
 - **NRC rank >36: 63/121 = 52%**

Response rate

- **There were no significant changes in response rate from the last survey, but it would be very nice to have data from more programs.**
- **There were very few responses from**
 - **Canada**
 - **Computer engineering programs**
- **What can we do to get a better response?**

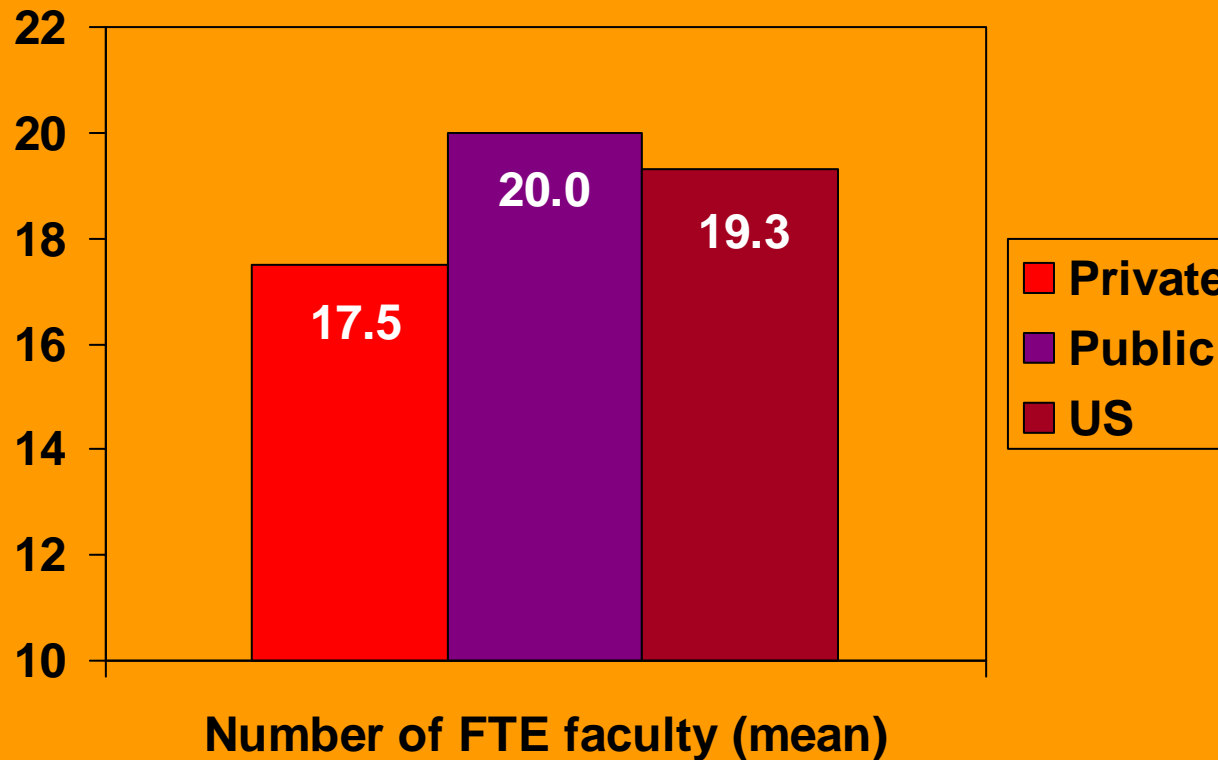
Content of the survey

- **Support personnel**
- **Department budget**
- **Research support**
- **Current space**
- **Expected new space**
- **Faculty teaching loads**
- **Graduate student support**

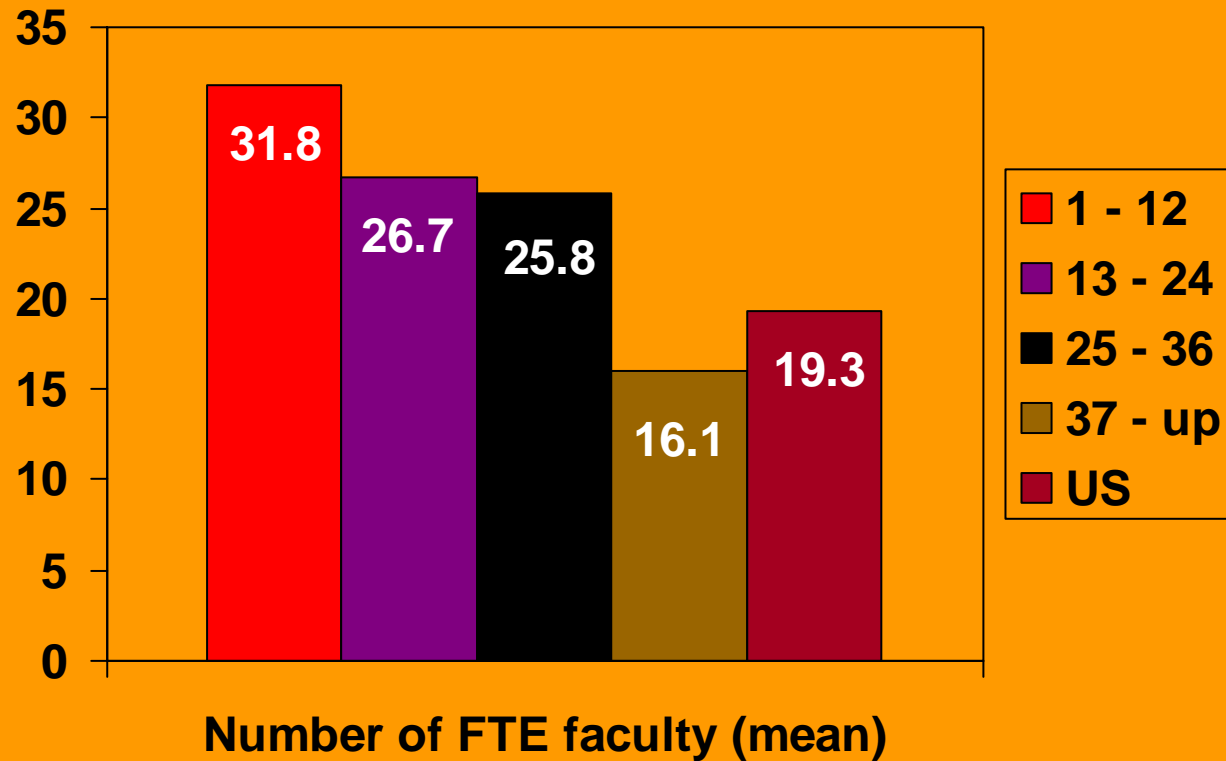
Background information

- **Faculty positions - taken from Taulbee report**
- **Secretarial positions**
- **Computer support positions**
- **Research programmer positions**

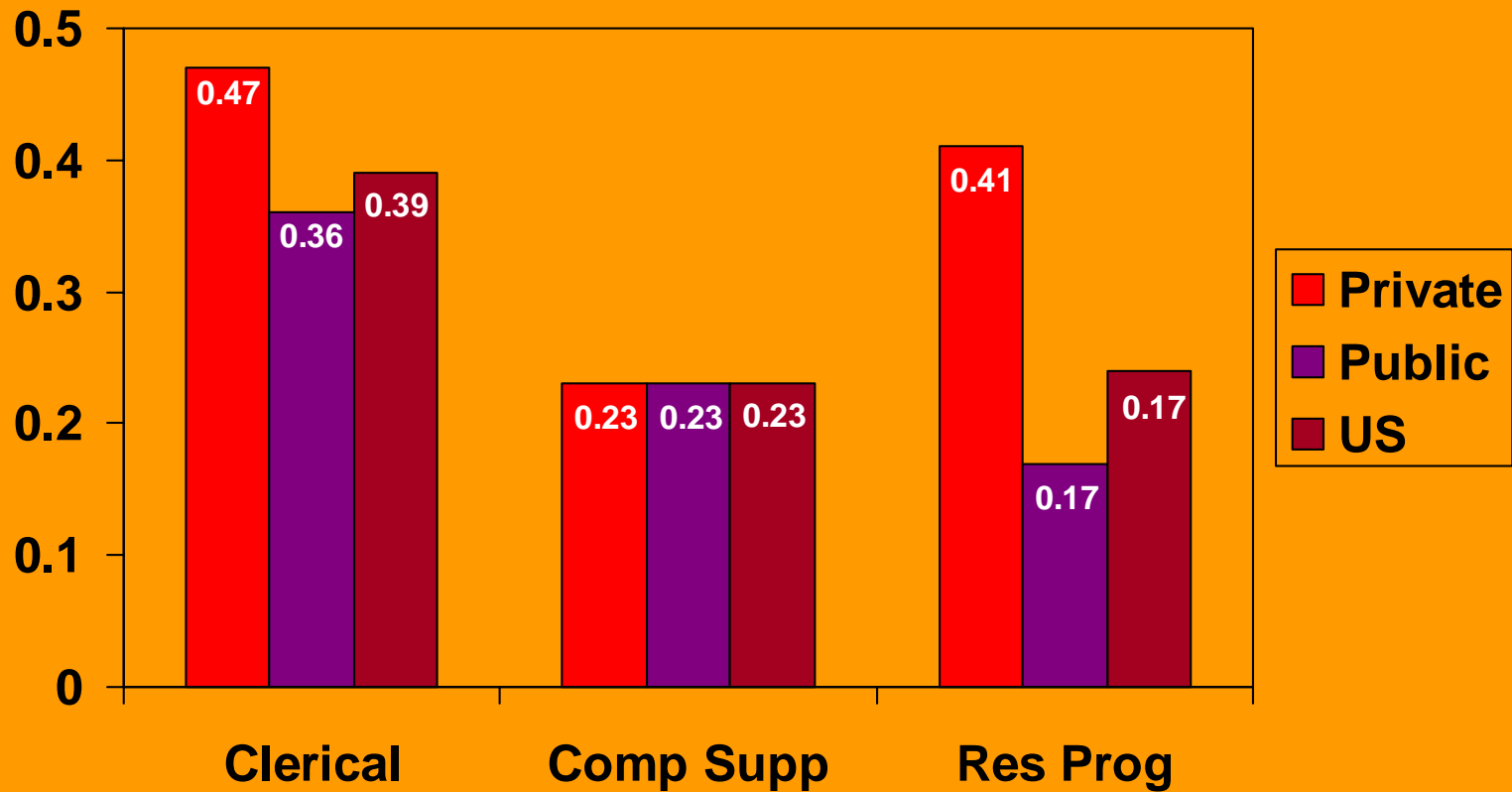
FTE faculty positions



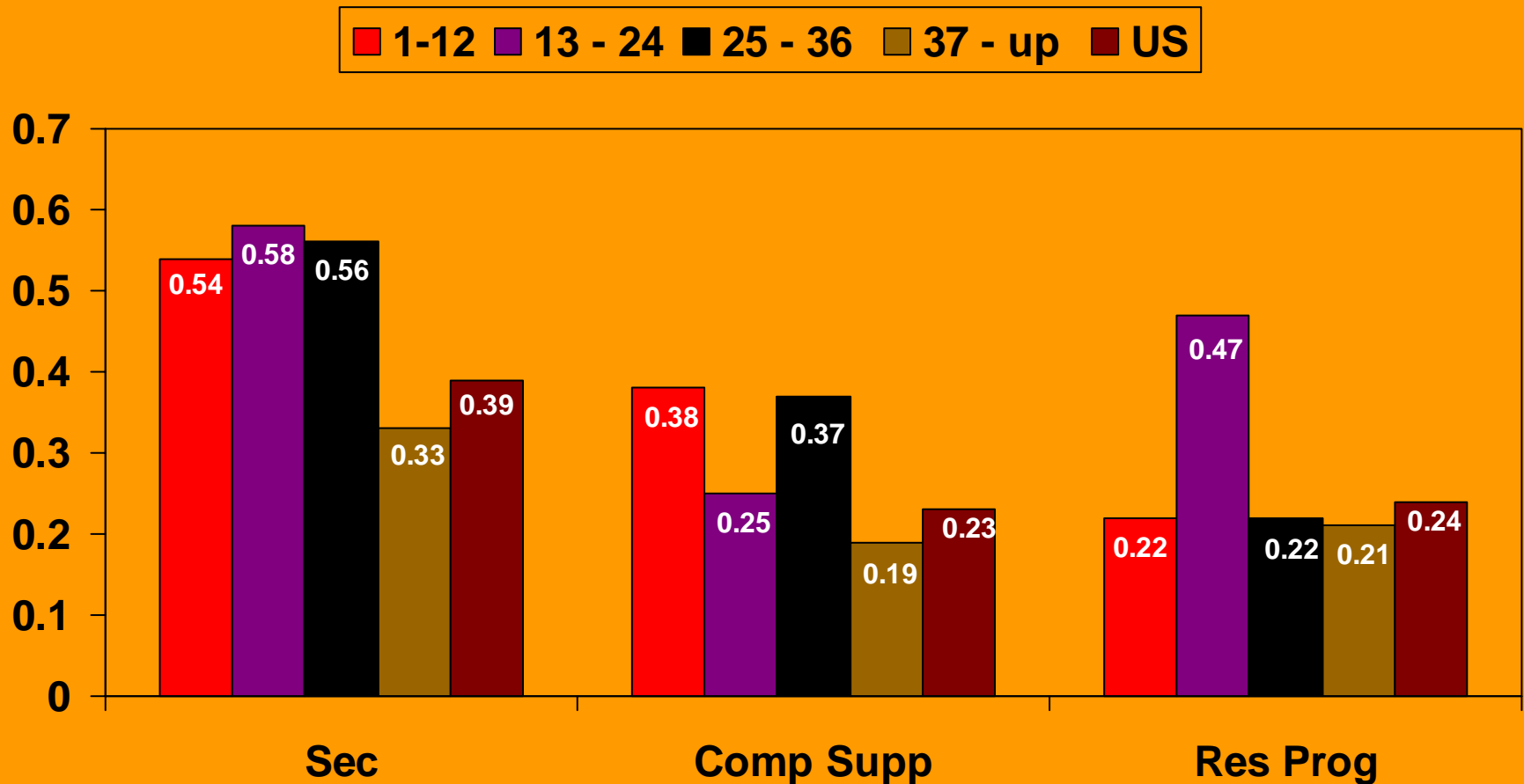
FTE faculty positions



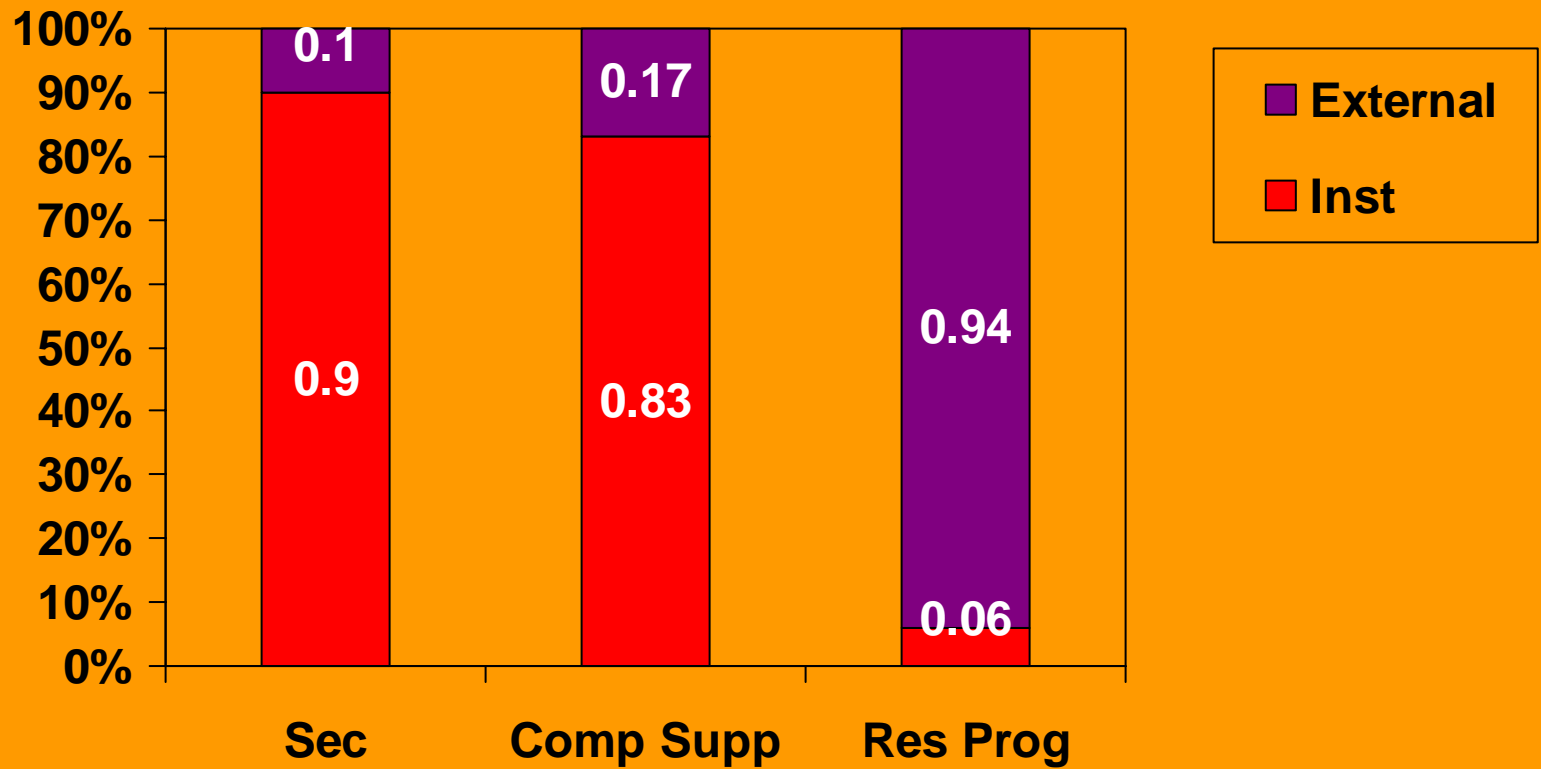
Staff support per faculty member



Staff support per faculty member



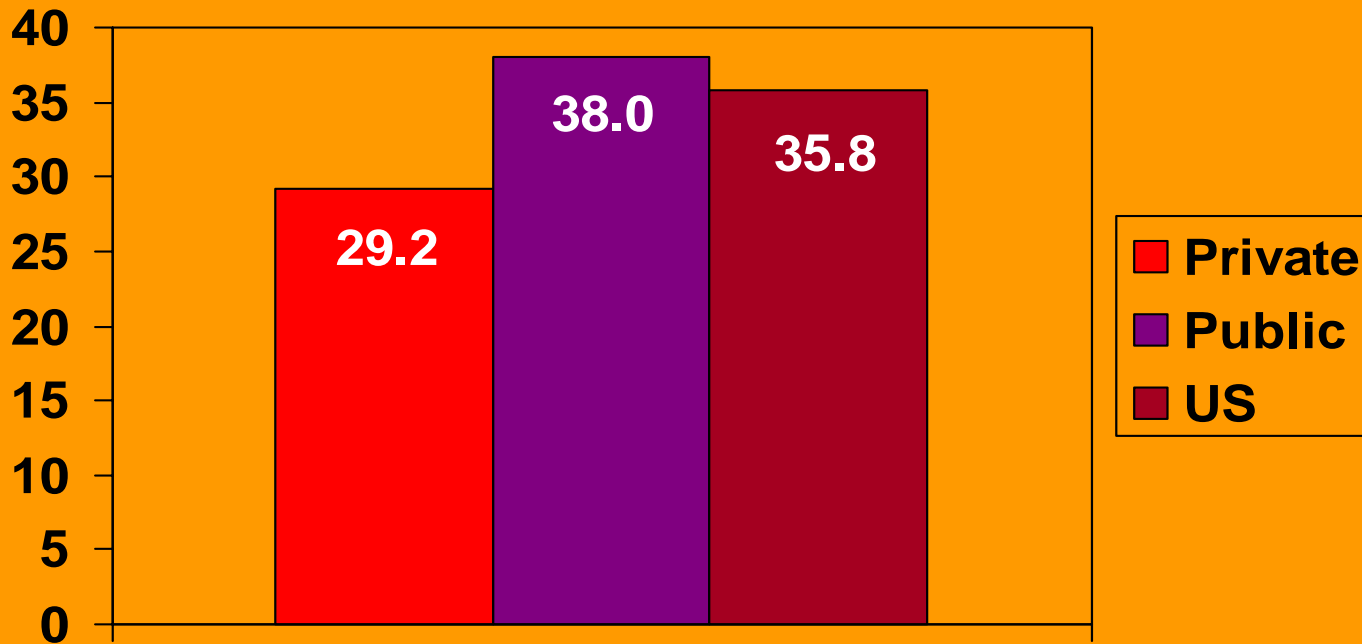
Sources of staff funding



Budget

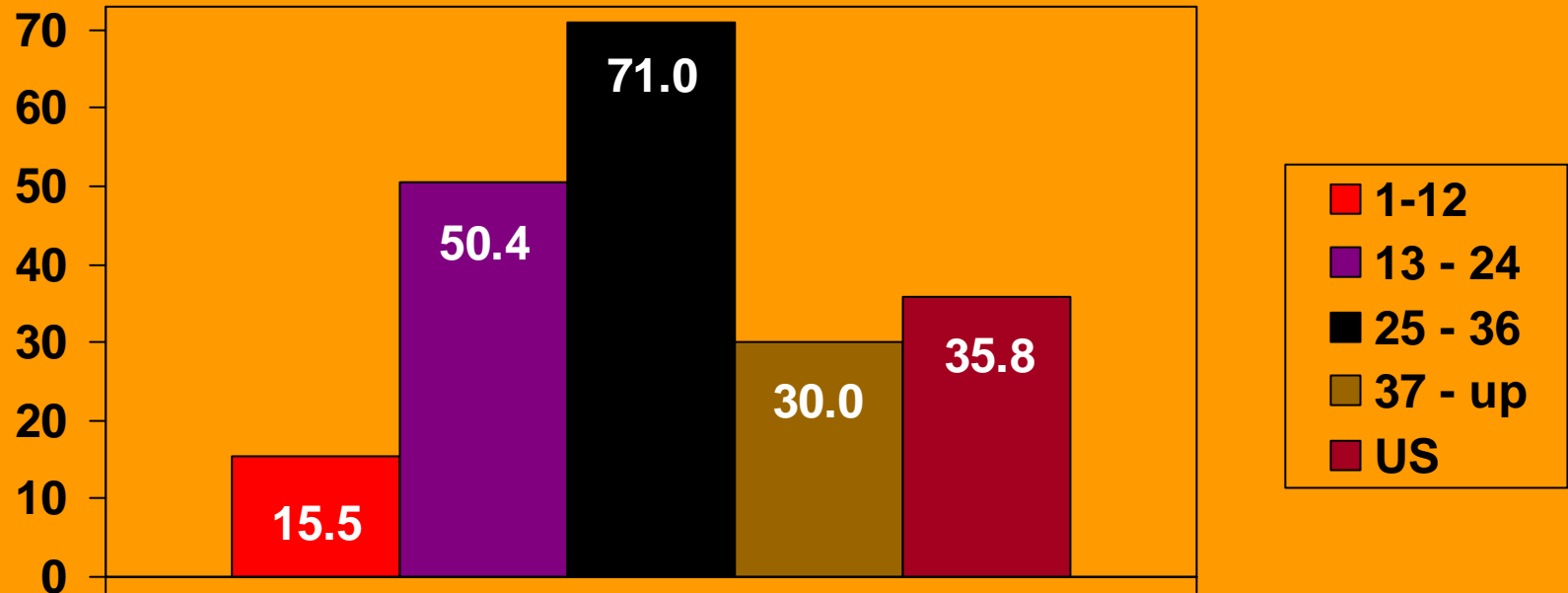
- **Total annual operating budget (excluding salaries)**
- **External funding**
- **Sources of external funding**

Operating budget per faculty member



Average operating budget per faculty member in thousands of US dollars

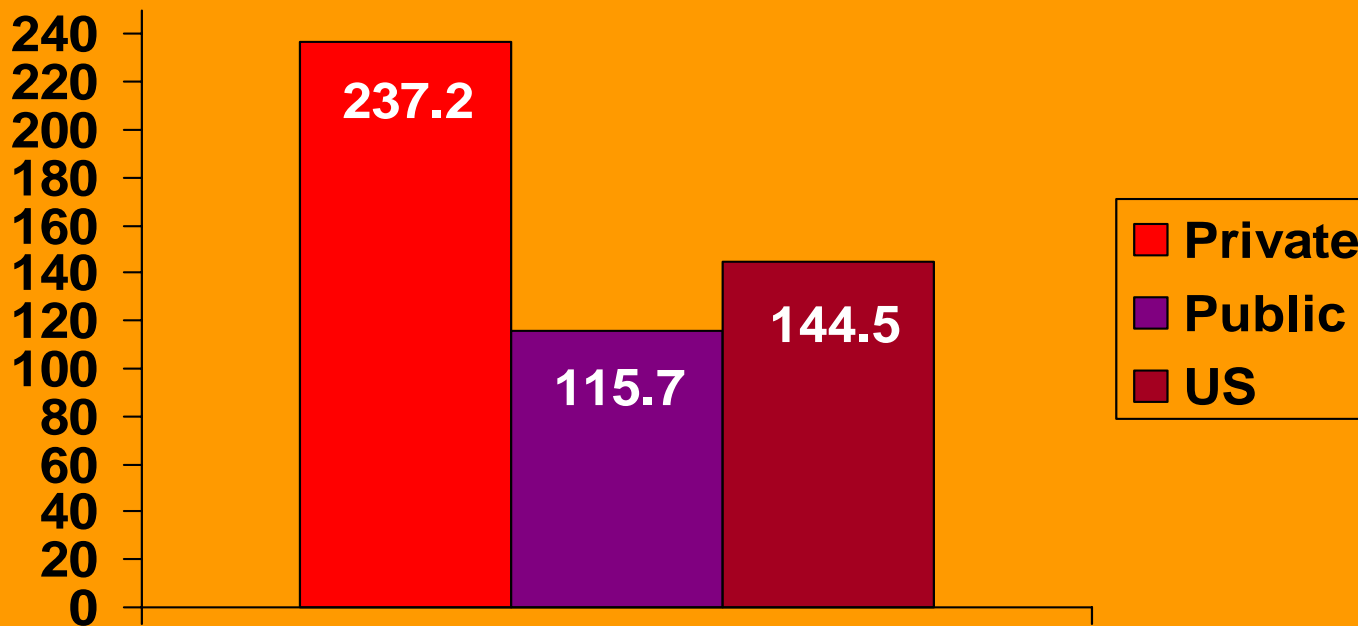
Operating budget per faculty member



Average operating budget per faculty member
in thousands of US dollars

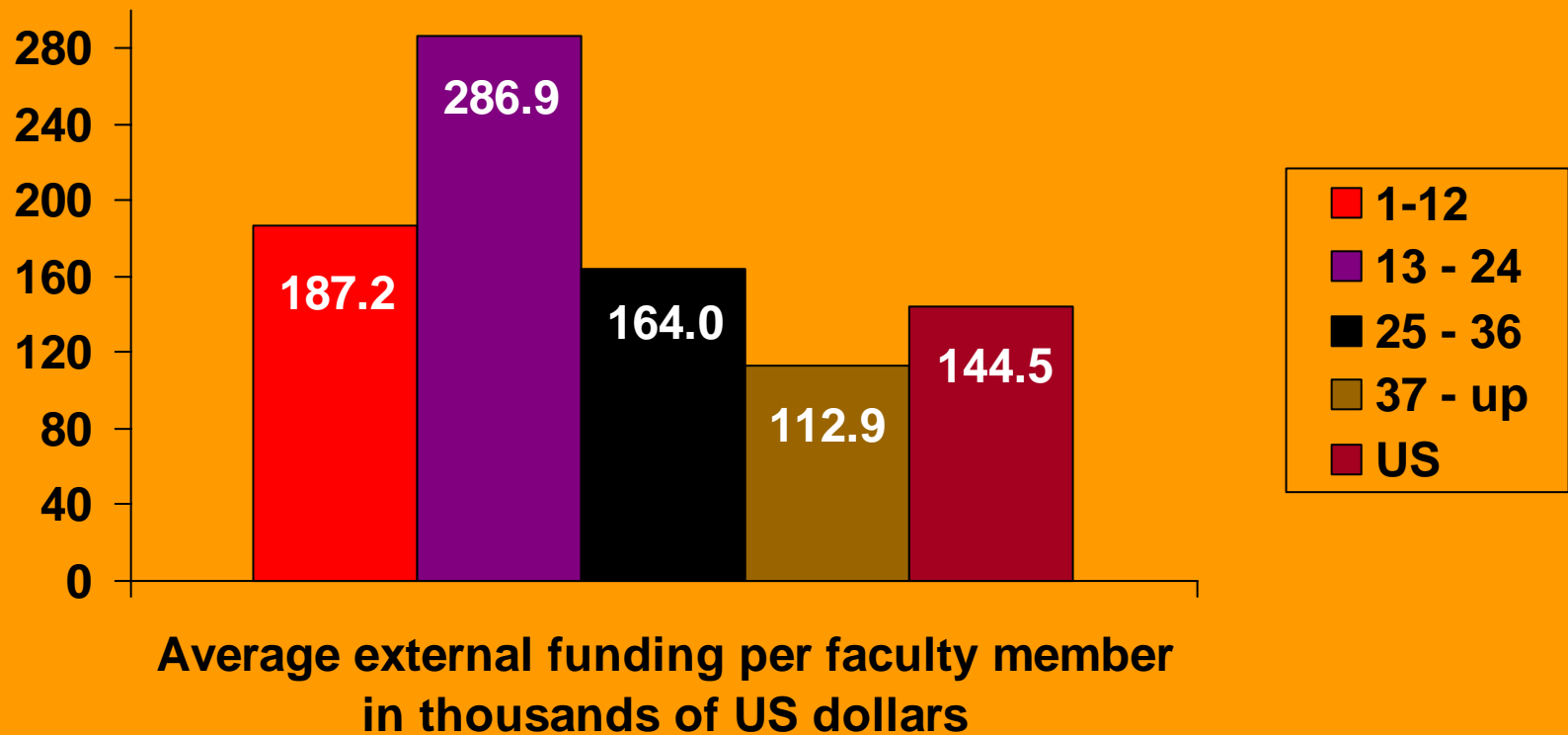
Note: Only 5 responses were received from programs ranked 1-12.

External funding per faculty member

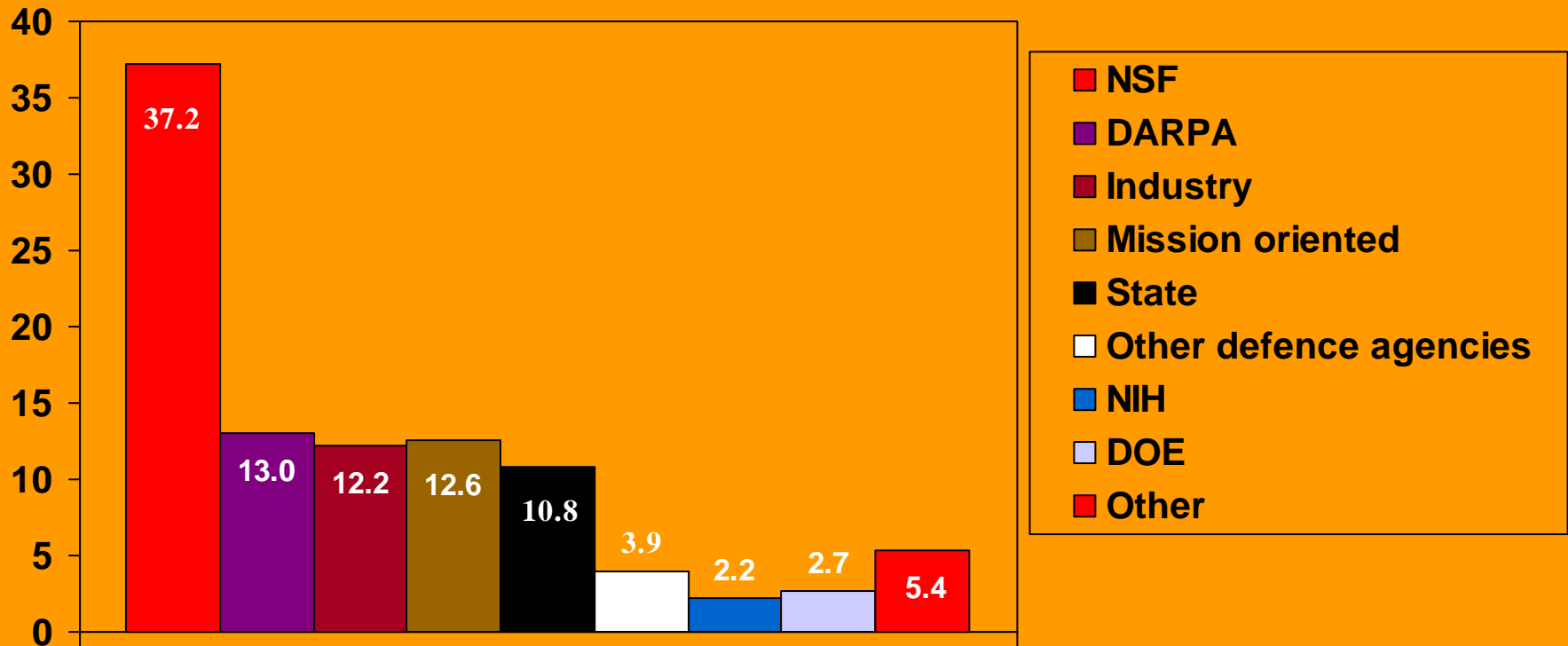


Average external funding per faculty member in thousands of US dollars

External funding per faculty member



External funding by source

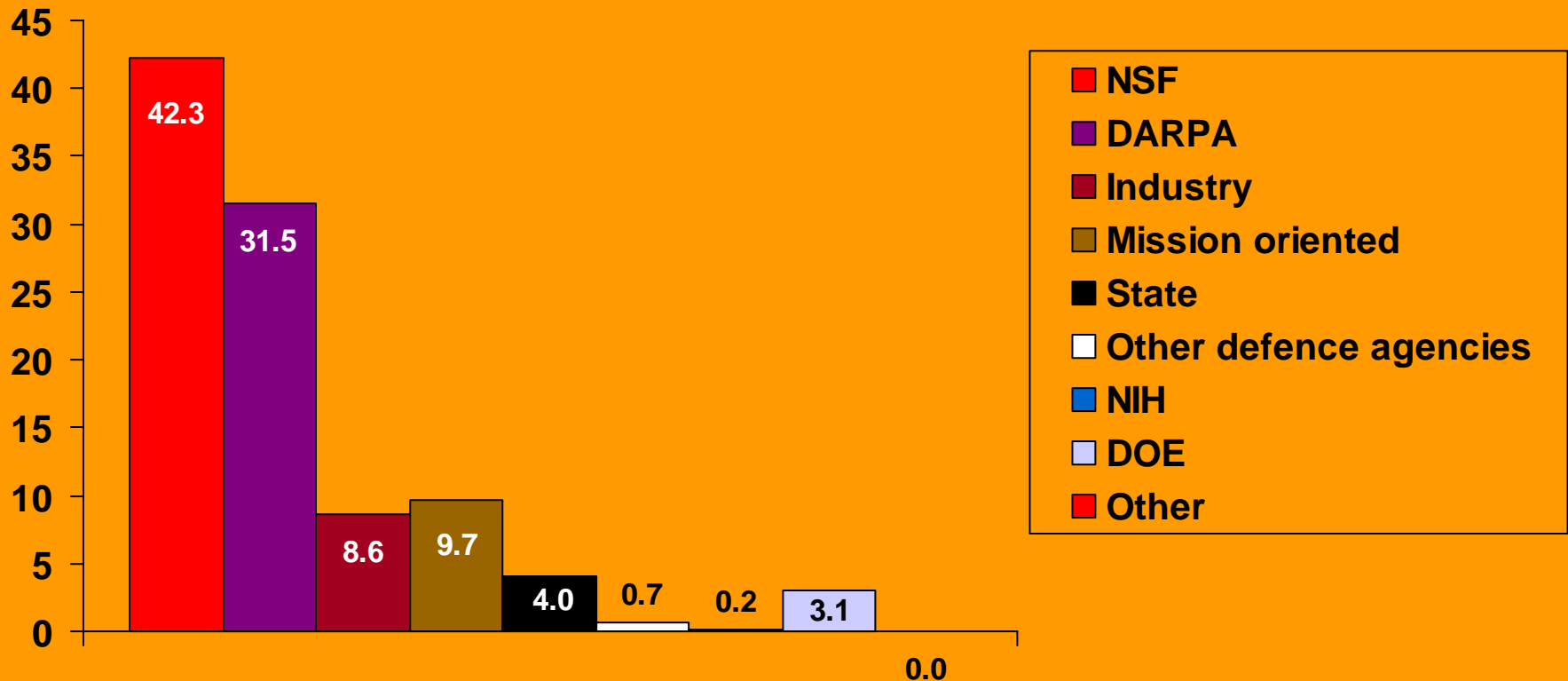


● 80 programs reporting

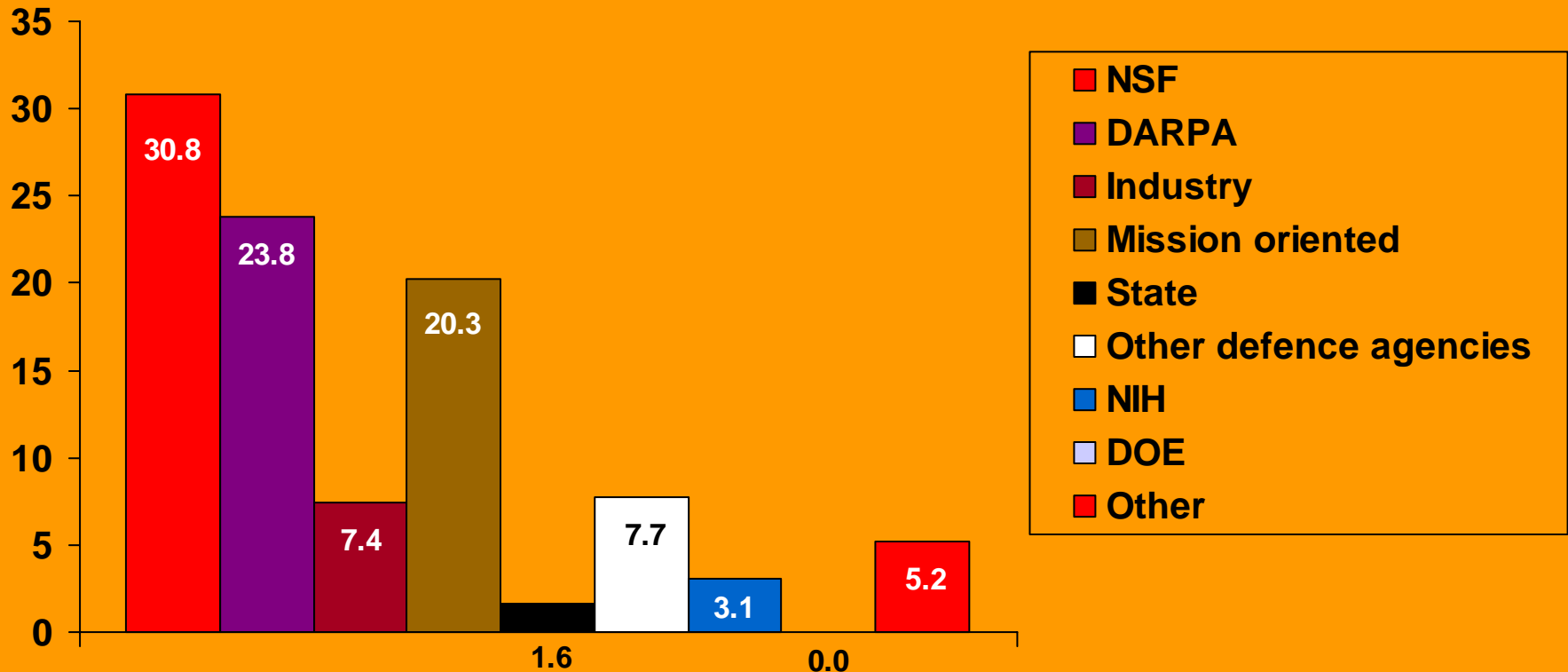
External funding by source

- **NSF and DARPA** **50.2%**
- **State, Industry, mission oriented agencies:** **35.6%**
- **All other sources** **14.2%**

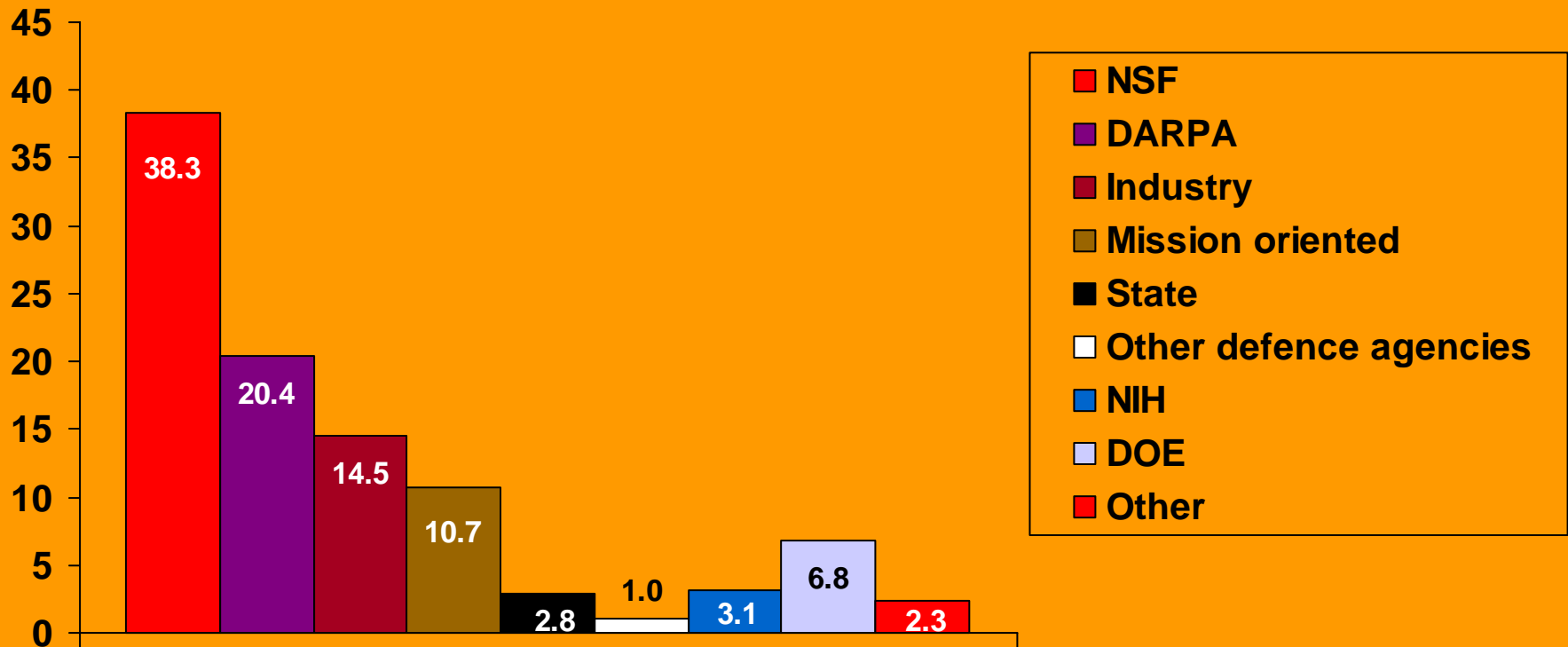
External funding by source - programs ranked 1-12



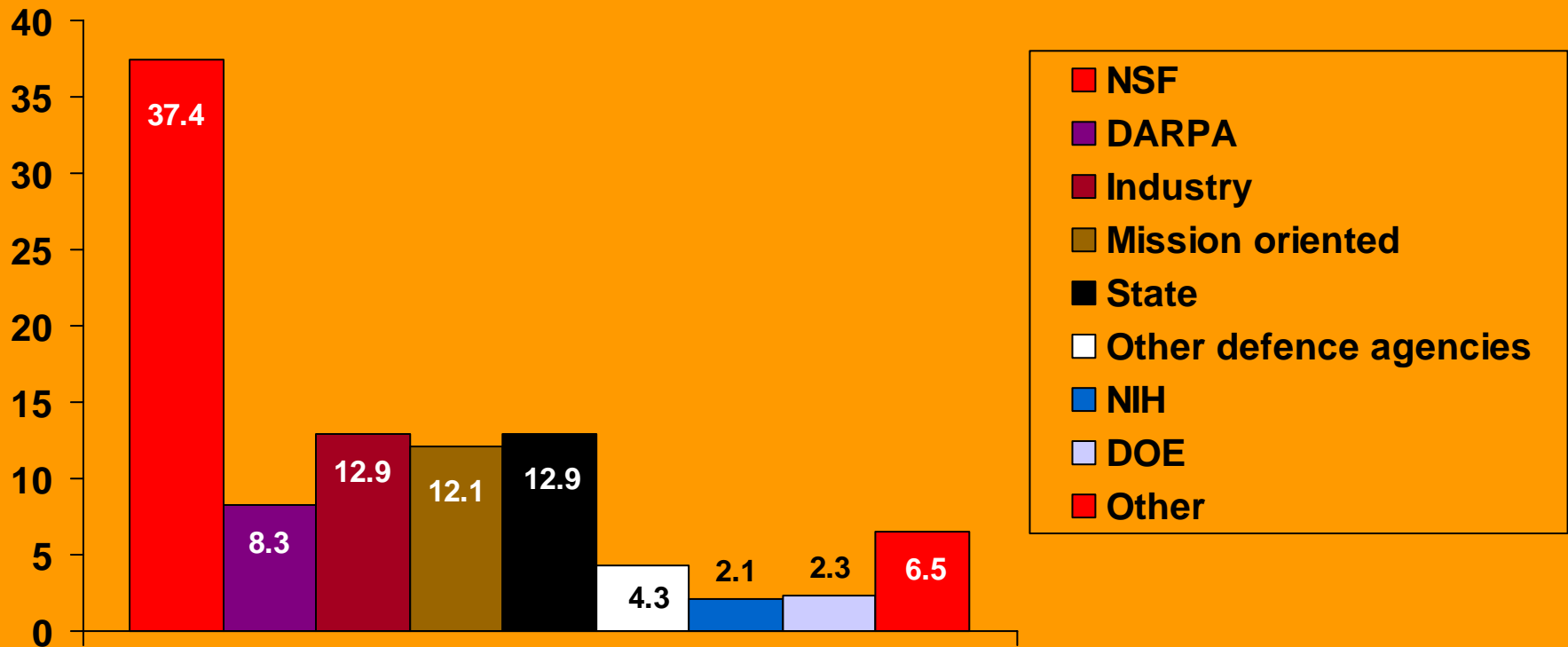
External funding by source - programs ranked 13-24



External funding per source - programs ranked 25-36



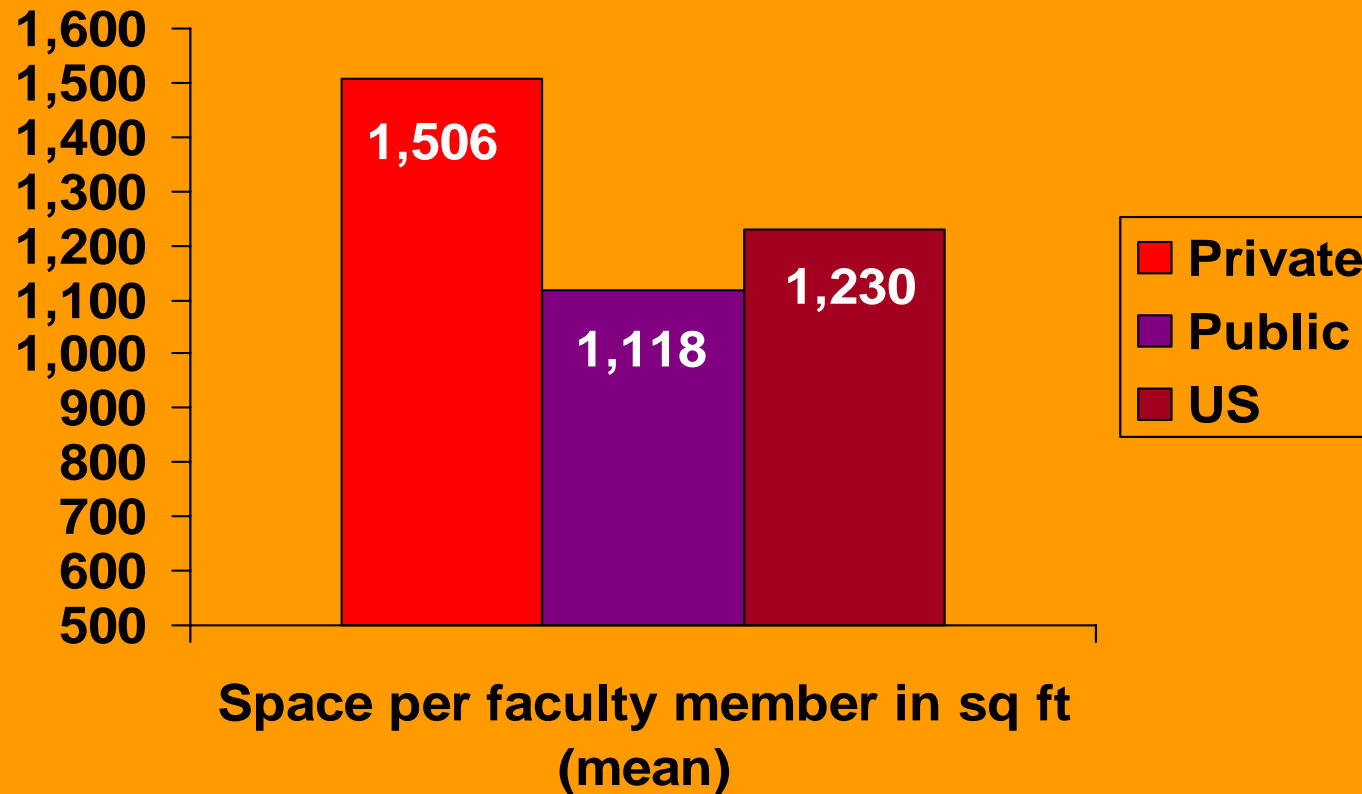
External funding per source - all other programs



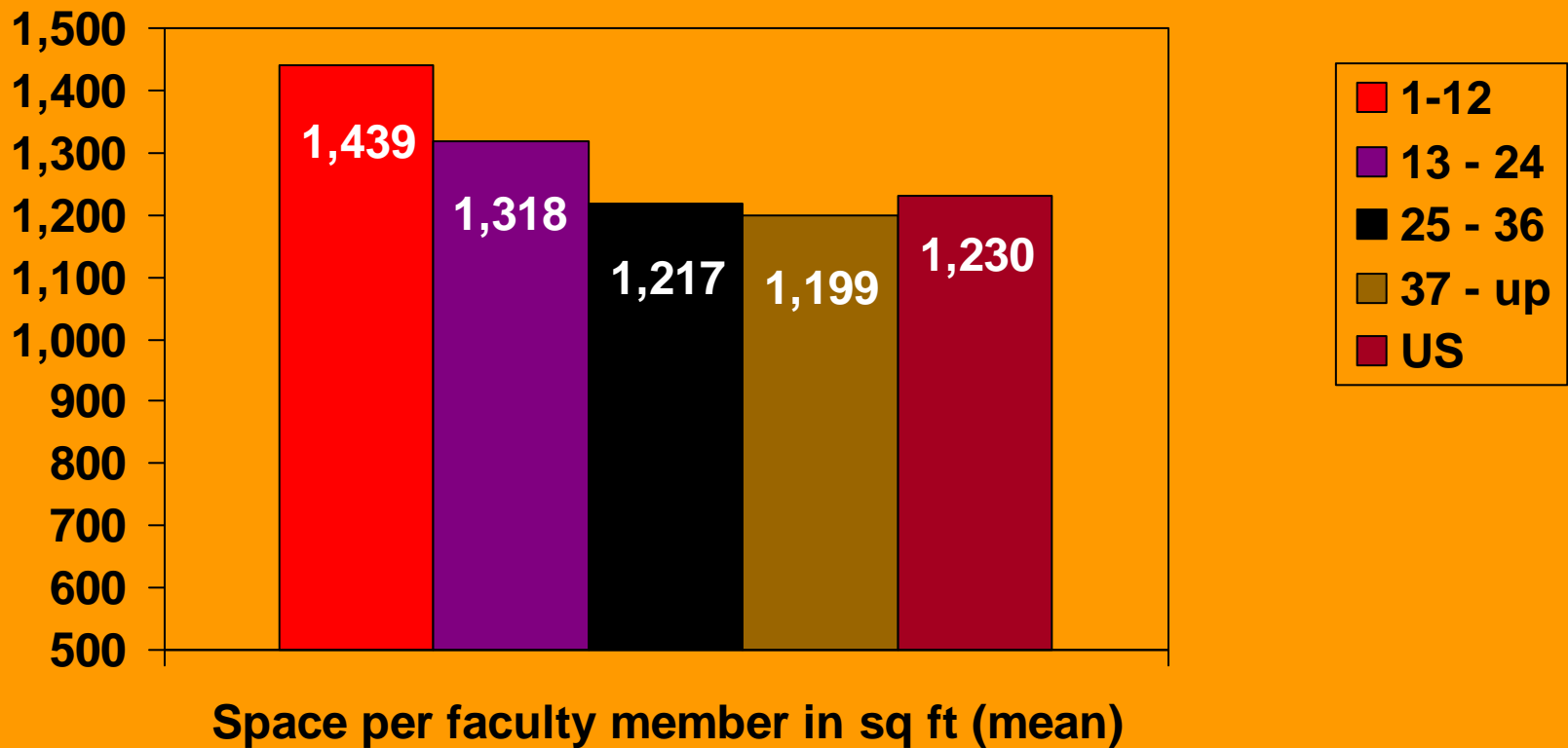
Current space

- **Total departmental space and its structure**
- **Newly gained space and sources of funding**
- **Renovated space and sources of funding**

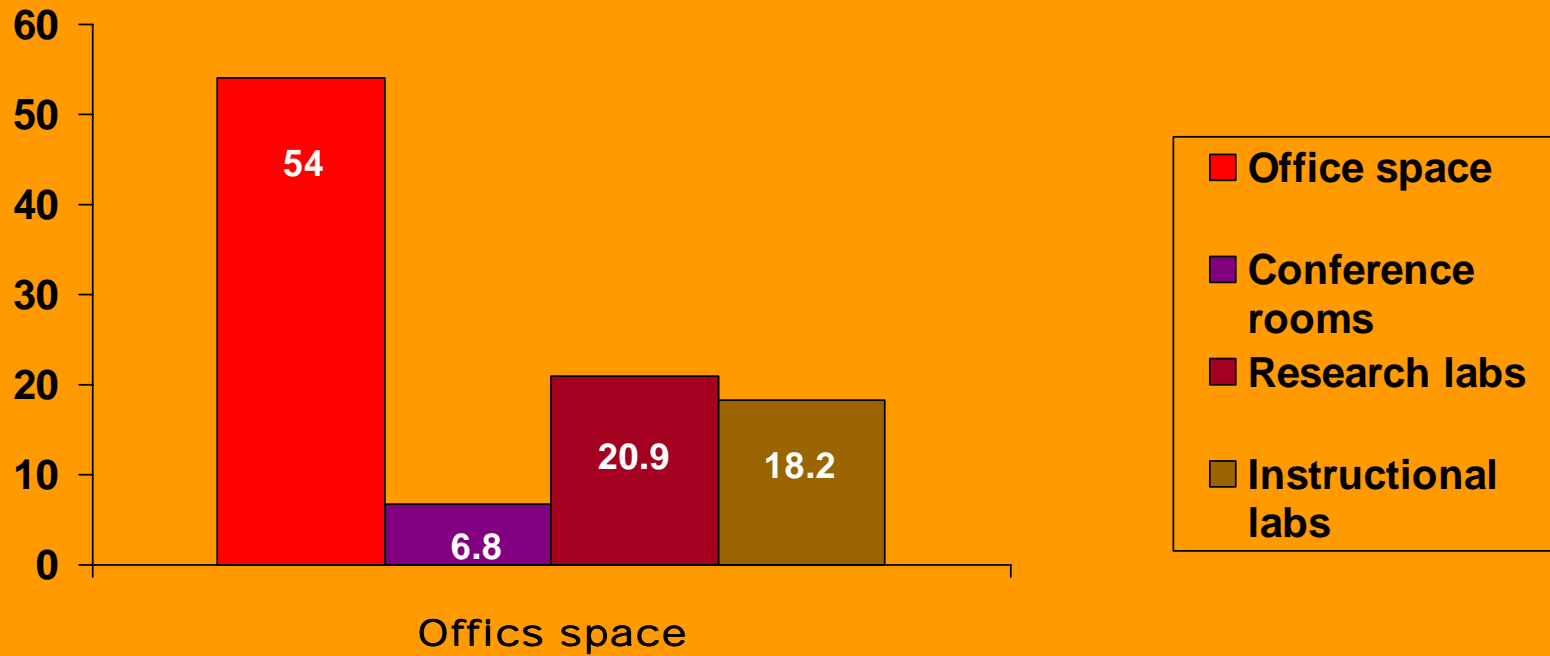
Total space per faculty member



Total space per faculty member



Usage of current space

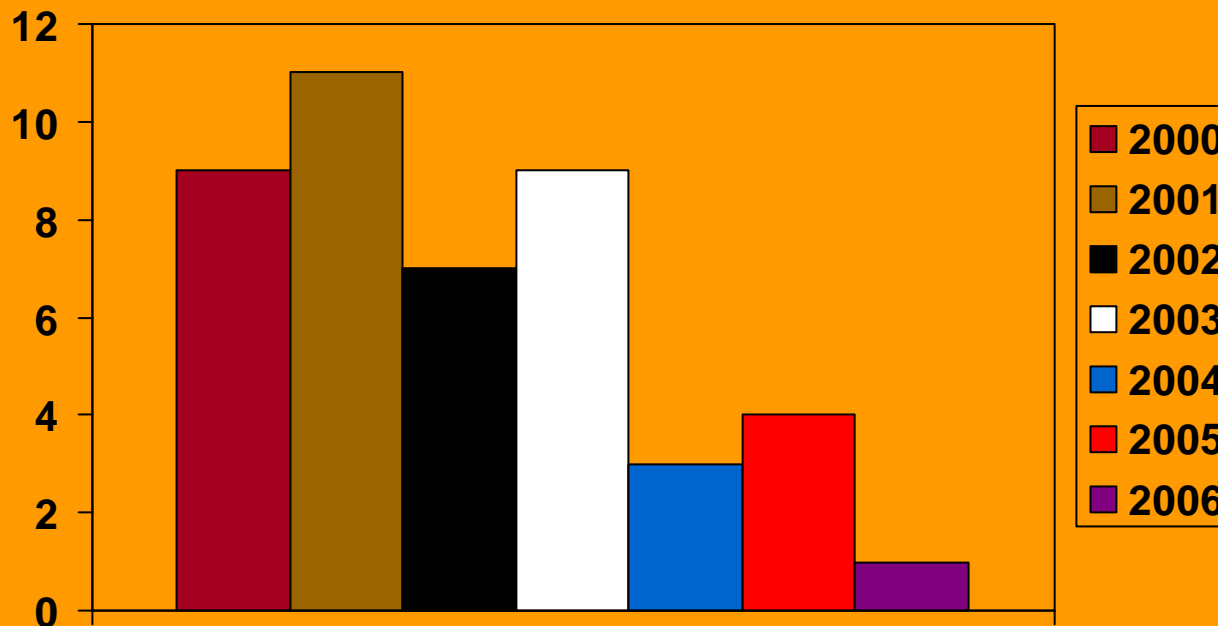


Planned space

- **Expected new space and its structure**
- **Funding sources**
- **Construction completion time and degree of likelihood**

Planned space

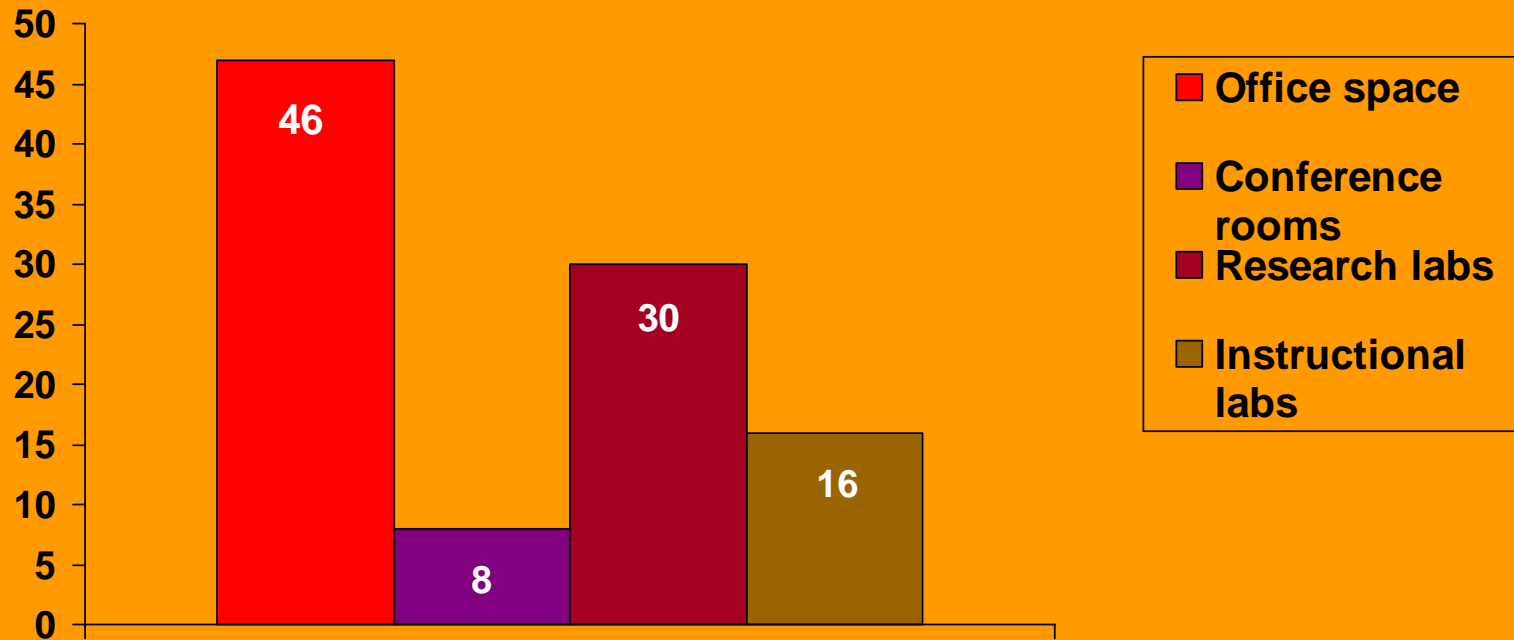
- Approximately half (45/88) of departments expect to gain new or newly renovated space
- 82% of these departments expect to have new space by the end of 2003



Expected sq. footage

- **38 programs out of the 45 that expect to gain space reported amount of anticipated new space**
- **Overall**
 - **Mean - 32,121**
 - **Median - 21200**
- **Private vs. private - no significant difference**
- **Ranking**
 - **1-36 (12 responses): 62,070 sq. ft (mean)**
 - **37-up (26 responses): 18,299 sq. ft (mean)**

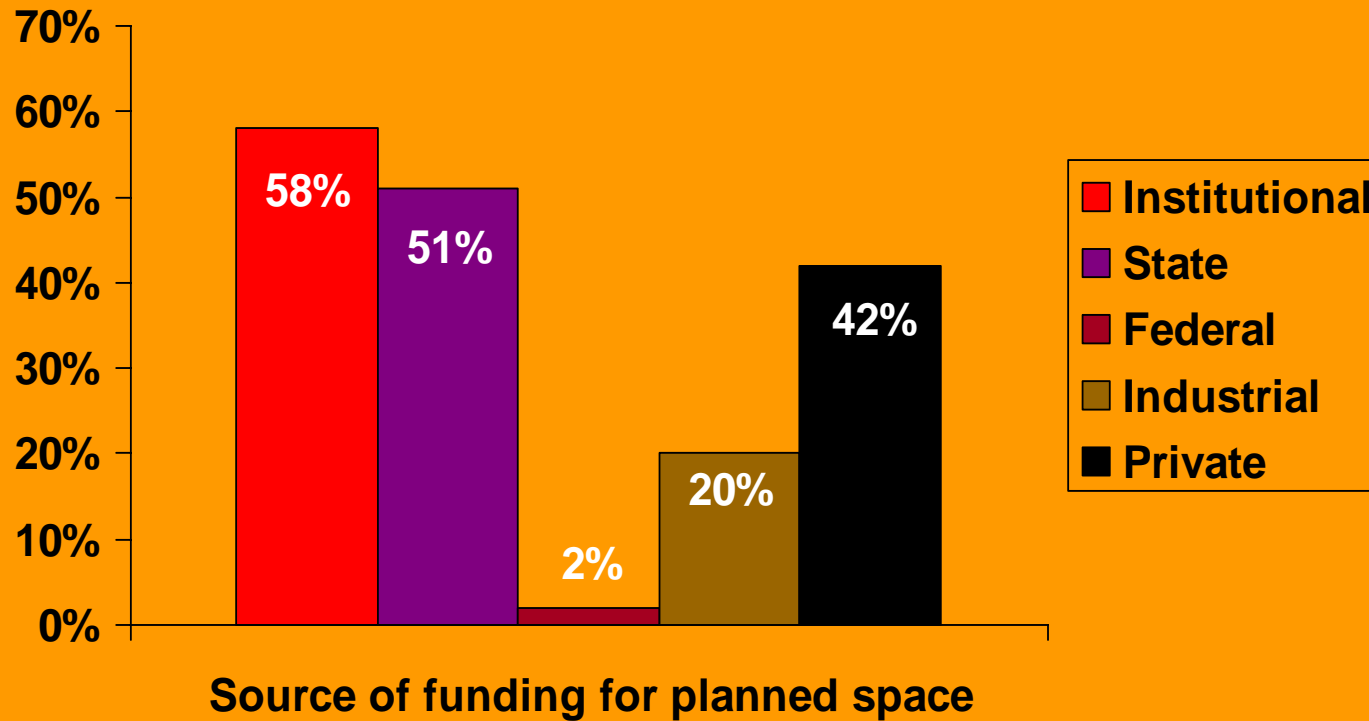
Usage of planned space



Planned space - certainty

- **Delay expected - 38%**
- **Likely to be on time - 22%**
- **Certain to be on time - 13%**
- **No response - 27%**

Planned space - source of funding



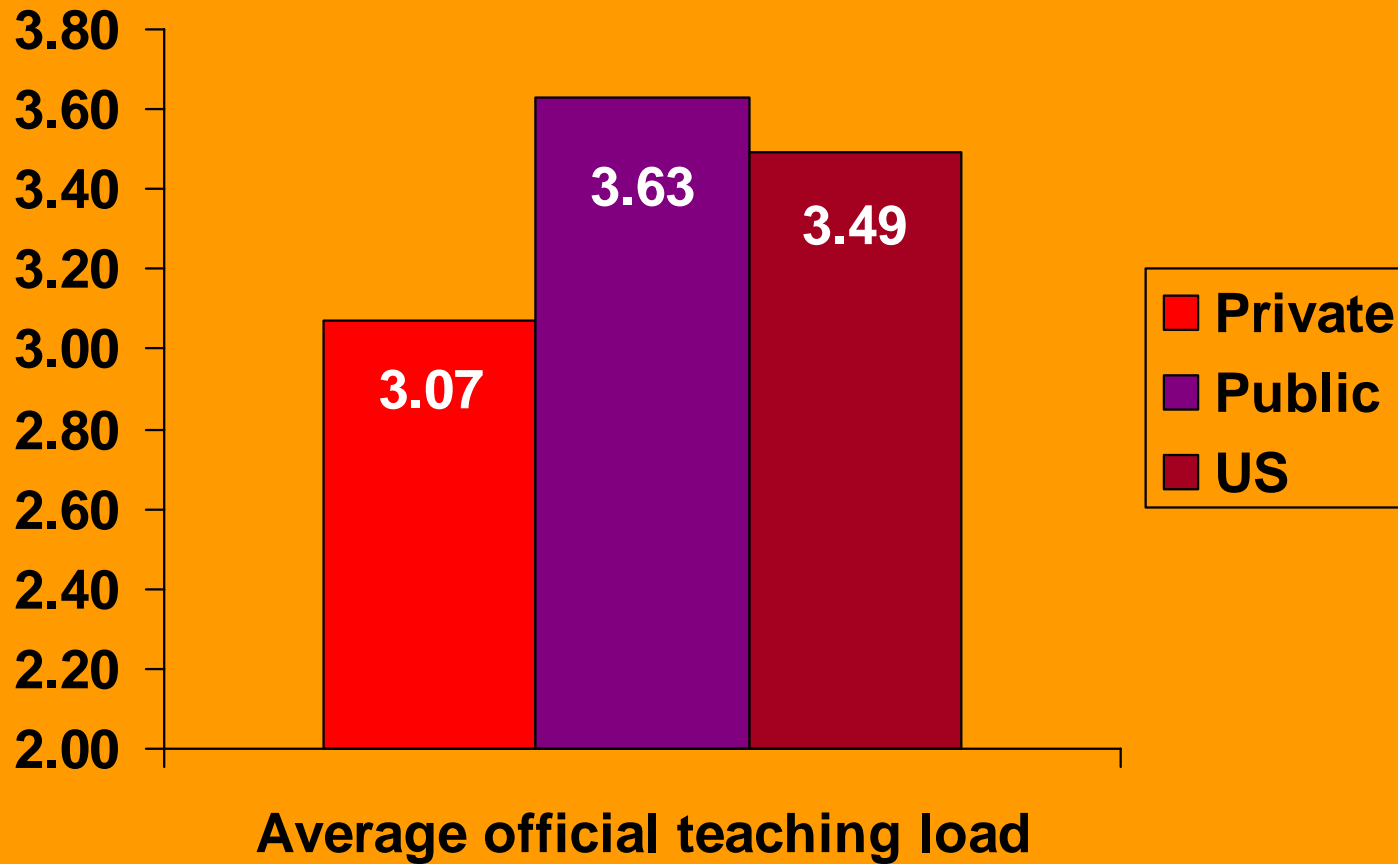
Faculty teaching loads

- **Official teaching loads**
- **Actual teaching loads**
- **Reductions**
- **Increases**

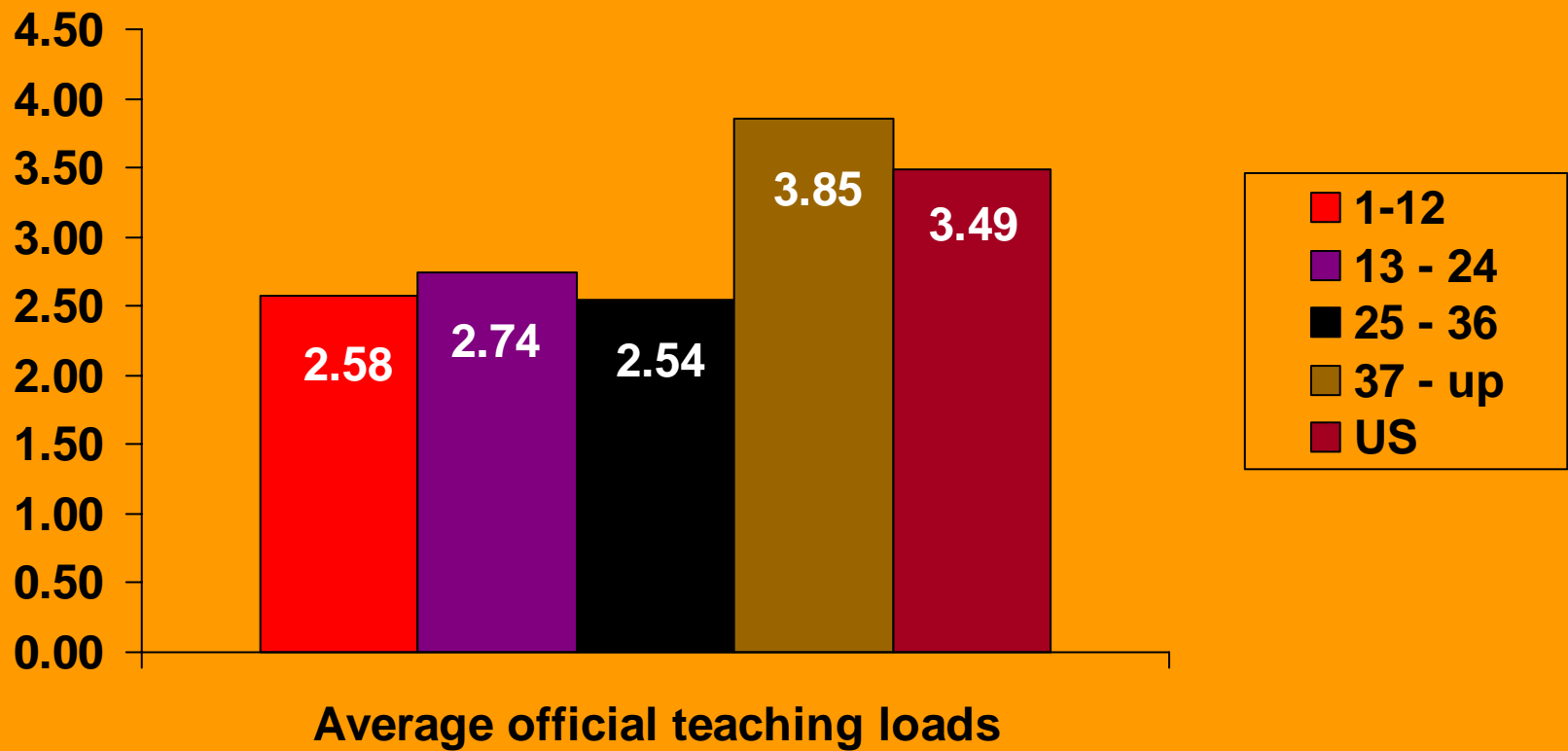
Official teaching loads

- ≤ 2 : reported by 15% of programs
- >2 and ≤ 3 : reported by 38% of programs
- >3 and ≤ 4 : reported by 35% of programs
- >4 reported by 12% of programs
- Max reported: 8
- min reported: 1.33

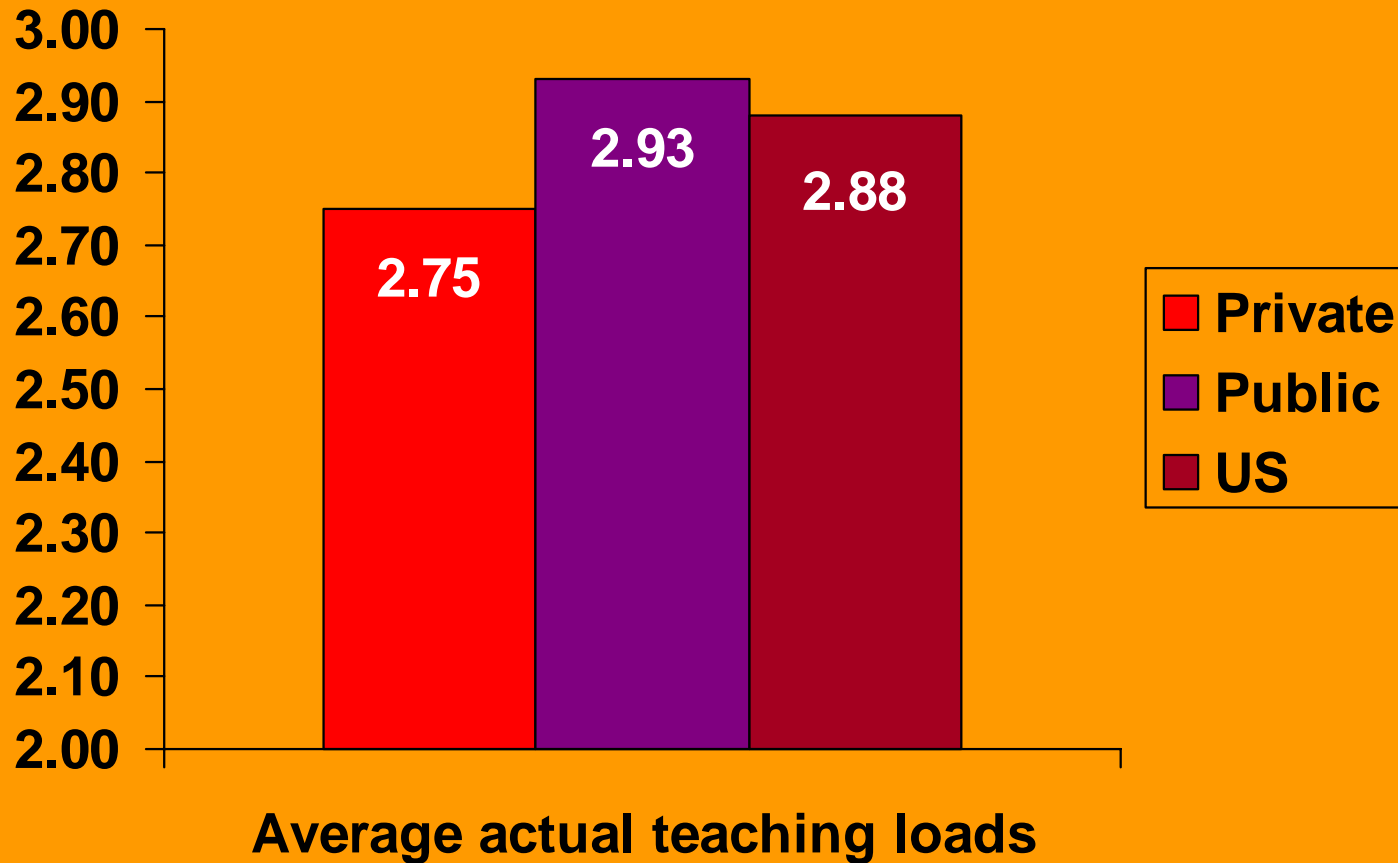
Official teaching loads



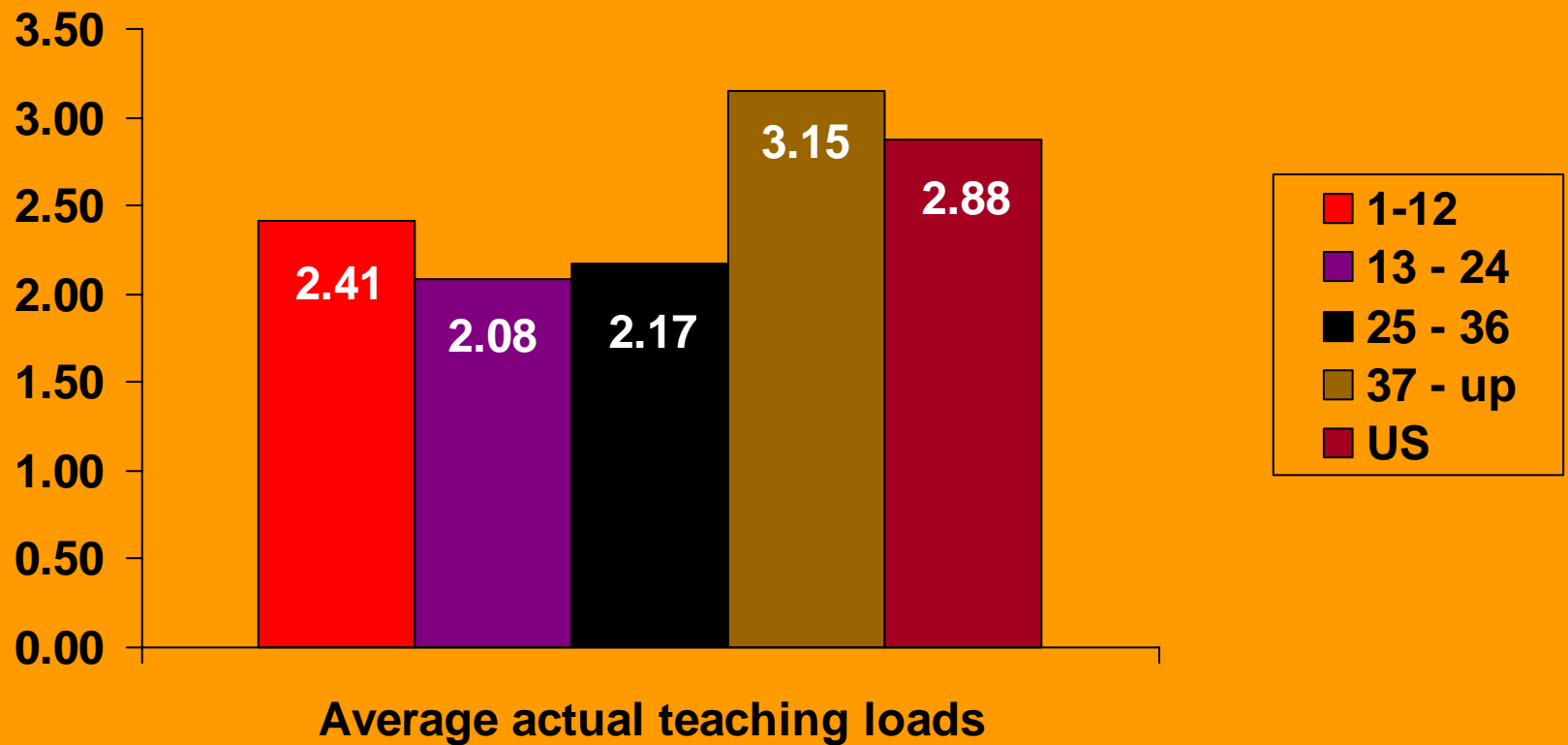
Official teaching loads



Actual teaching loads



Actual teaching loads



Teaching load decrease

- **93% of reporting programs allow for reduction**

New faculty package	84.3%
Administrative duties	88.0%
Buy out	77.1%
Strong research	36.1%
Class size/type	27.7%
Other	19.3%

- **Other:**
 - **special reduction for junior faculty**
 - **curriculum development**

Buyouts

- **77.1% of programs allow buyouts**
- **12 out of 64 programs that allow buyouts did not specify rates**
- **Average buyout rate**
 - **percentage of annual salary: 46 responses**
 - mean percentage: 21%
 - median: 20%
 - mode: 25%
 - **fixed amount: 6 responses**
 - mean amount: \$12,000
 - median: \$12,500

Increase in teaching

- **Possibility of increase reported by 72% of programs(64 of 89)**
- **Reasons:**
 - **shifting primary responsibilities to teaching: 77%**
 - **other: 30%**
 - **lack of active research**
 - **lack of service contributions**
 - **course staffing emergencies**
 - **to balance over time**
 - **special interest seminars**
 - **enrollment pressure**
 - **voluntary**

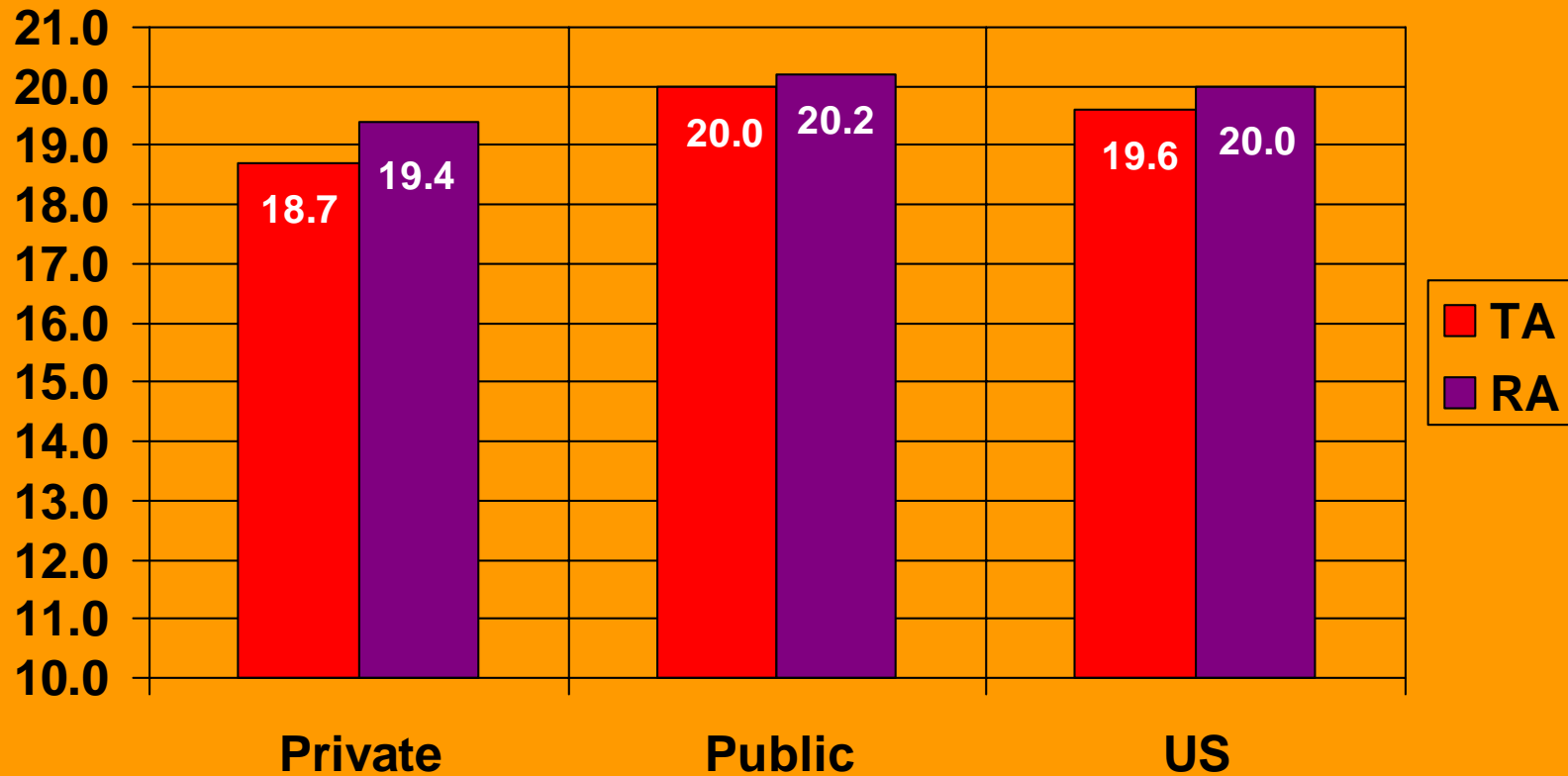
Graduate student support

- **Standard work requirements**
- **FTE students receiving support**
- **Stipends**
- **Factors affecting stipend**
- **Recruitment incentives**

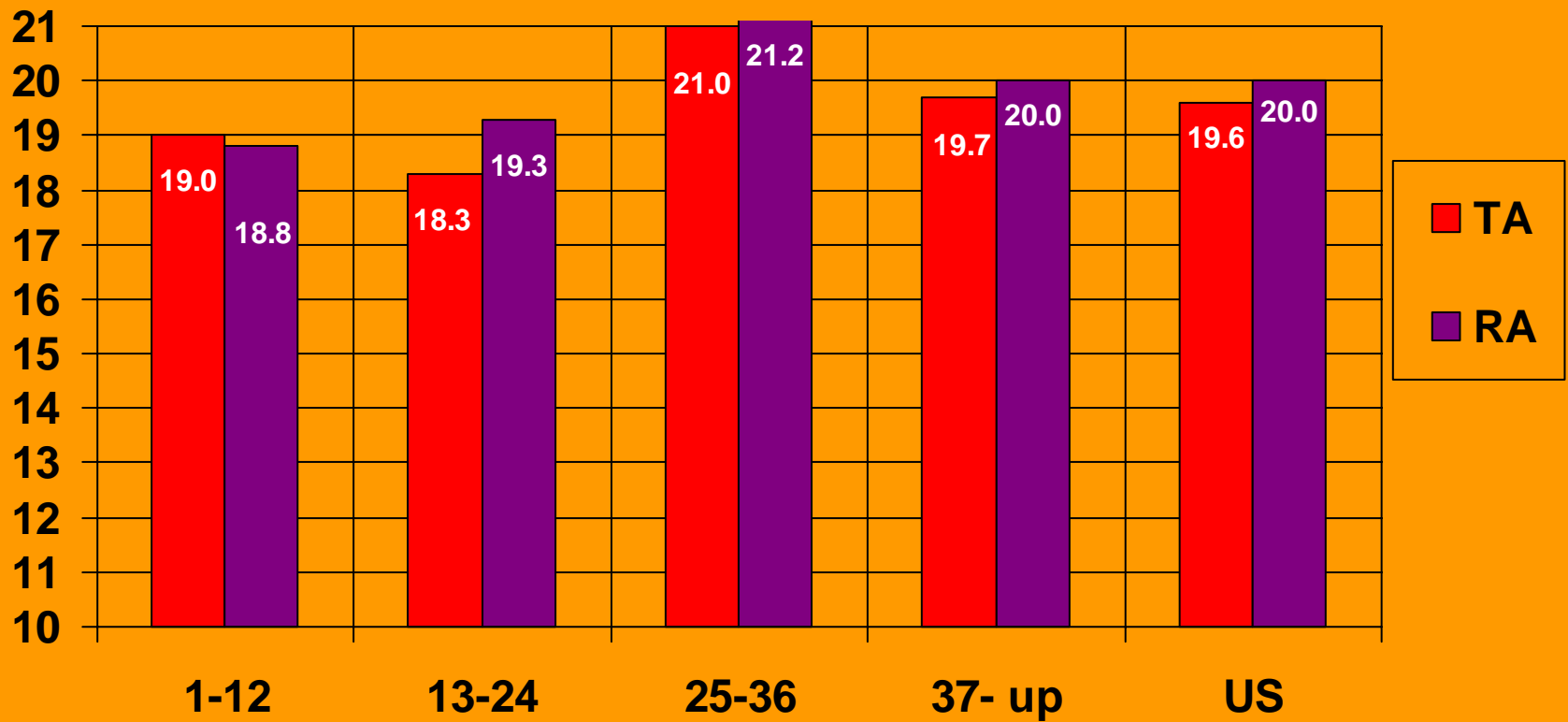
Standard work requirements

- **TAs**
 - **20 hrs/week - 84% of departments**
- **RAs**
 - **20 hrs/week - 88% of departments**

Work requirements for TAs and RAs

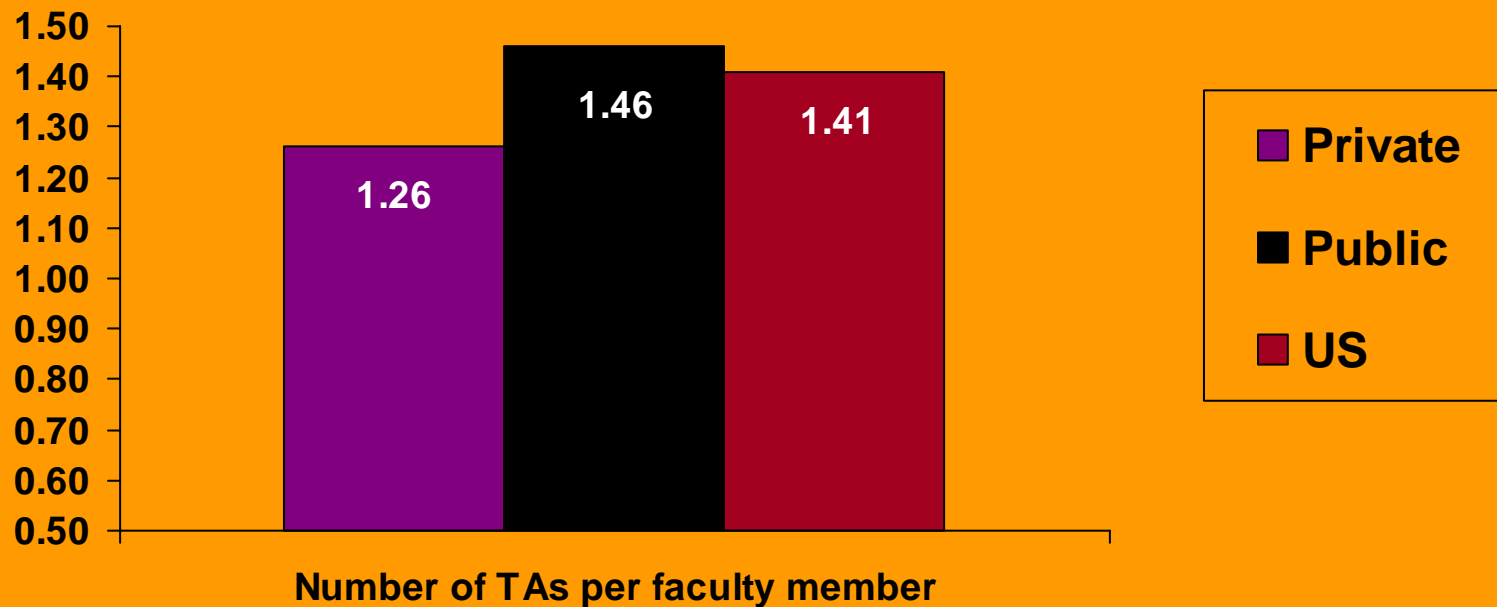


Work requirements for TAs and RAs

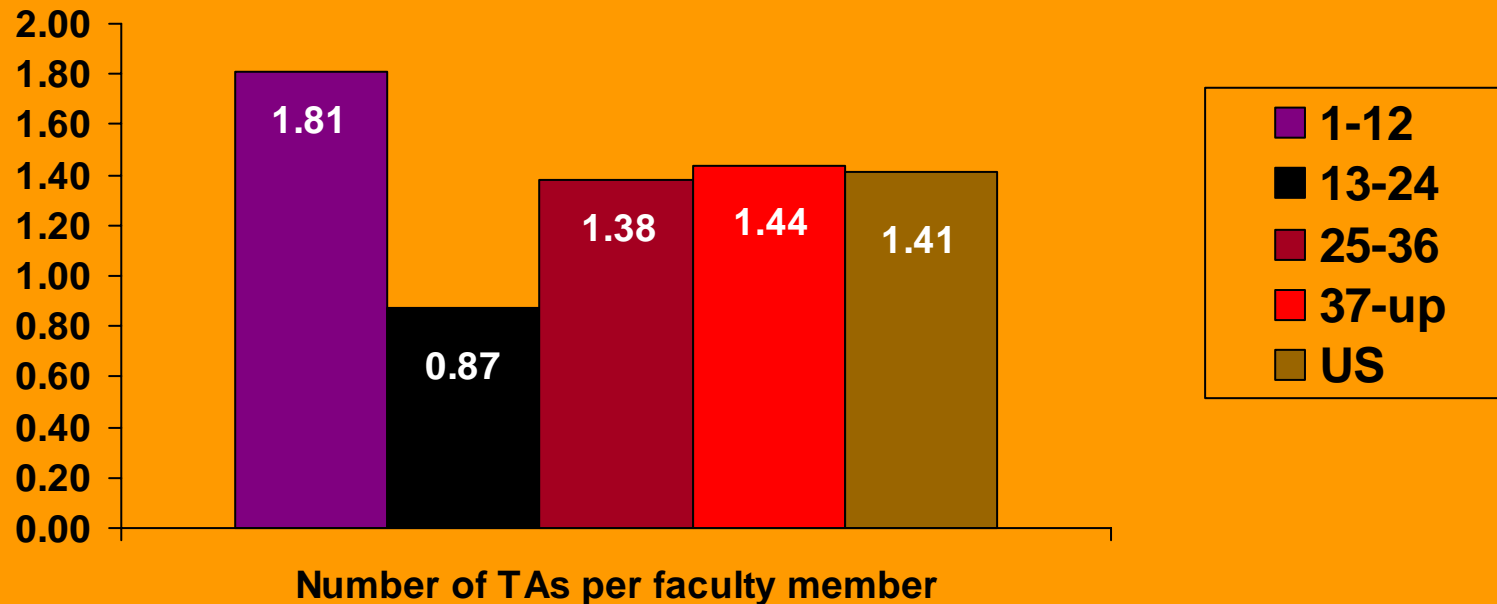


Supported TAs

- Only 3 programs report having some TAs on external support
- TAs per faculty member on institutional support:



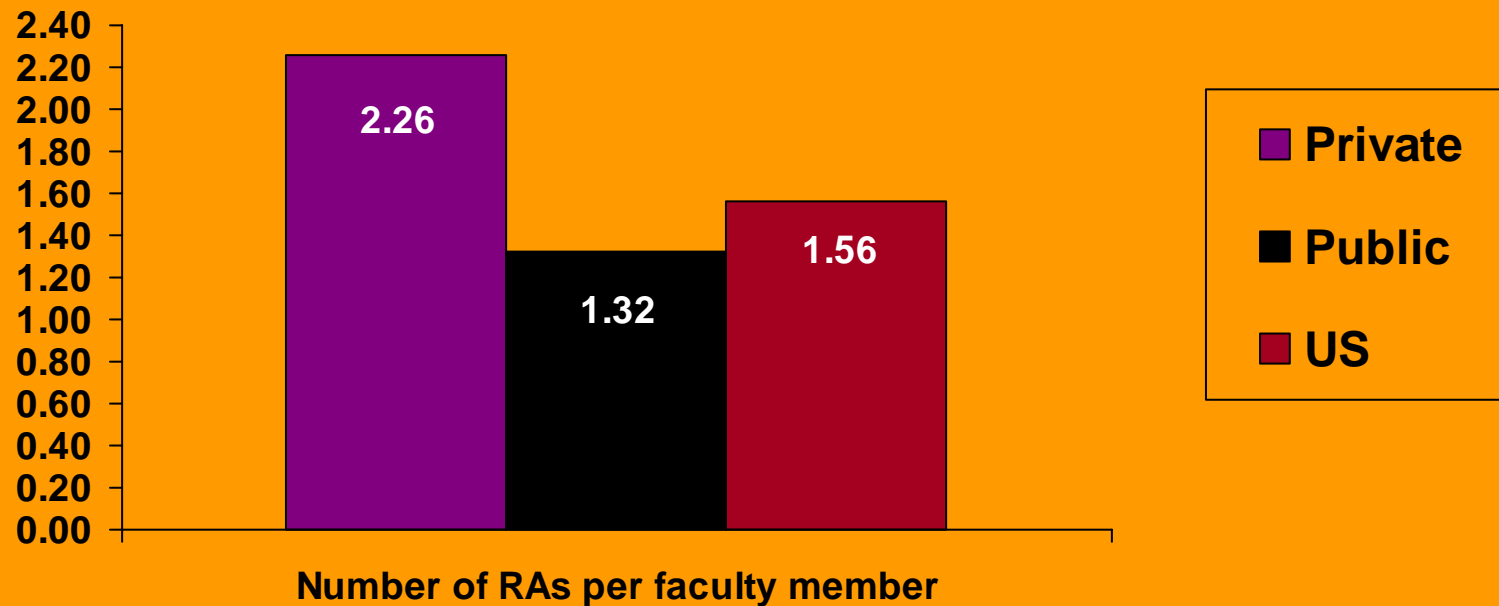
Supported TAs



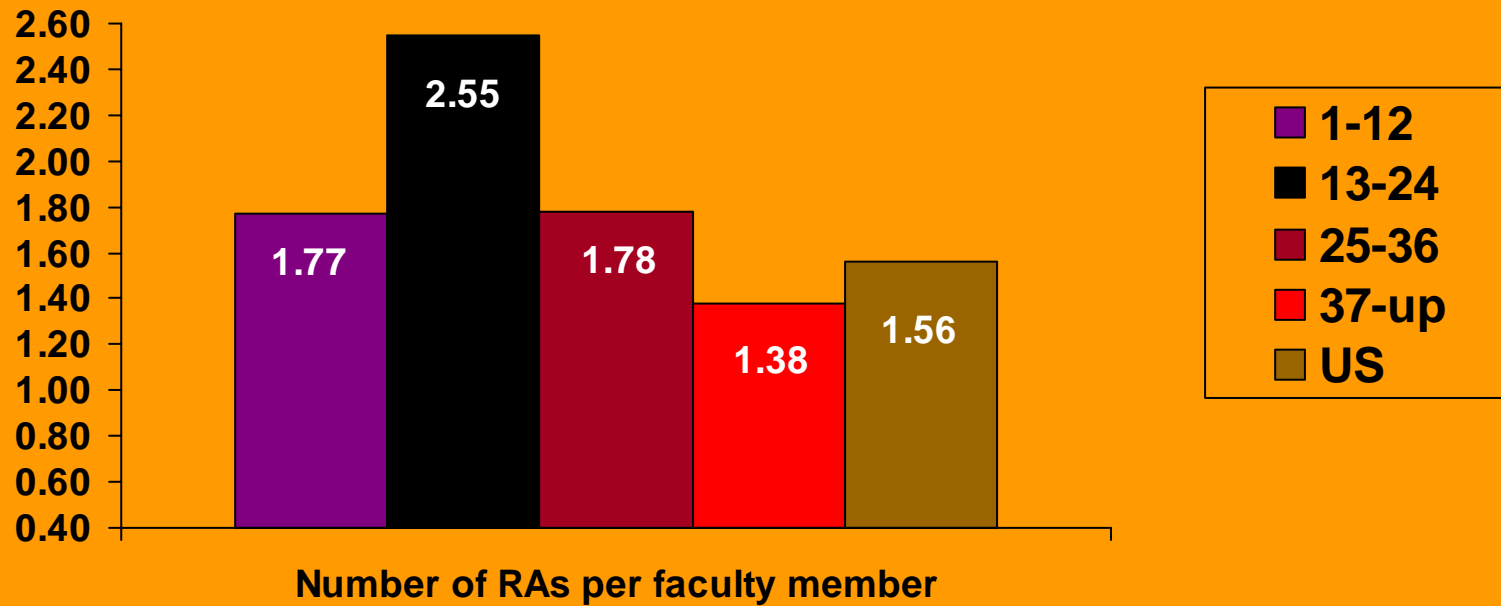
- There were 8 responses from programs ranked 13-24

Supported RAs

- **89% of programs have RAs**
 - **47% of these use institutional funds**
 - **90% of these use external funds**

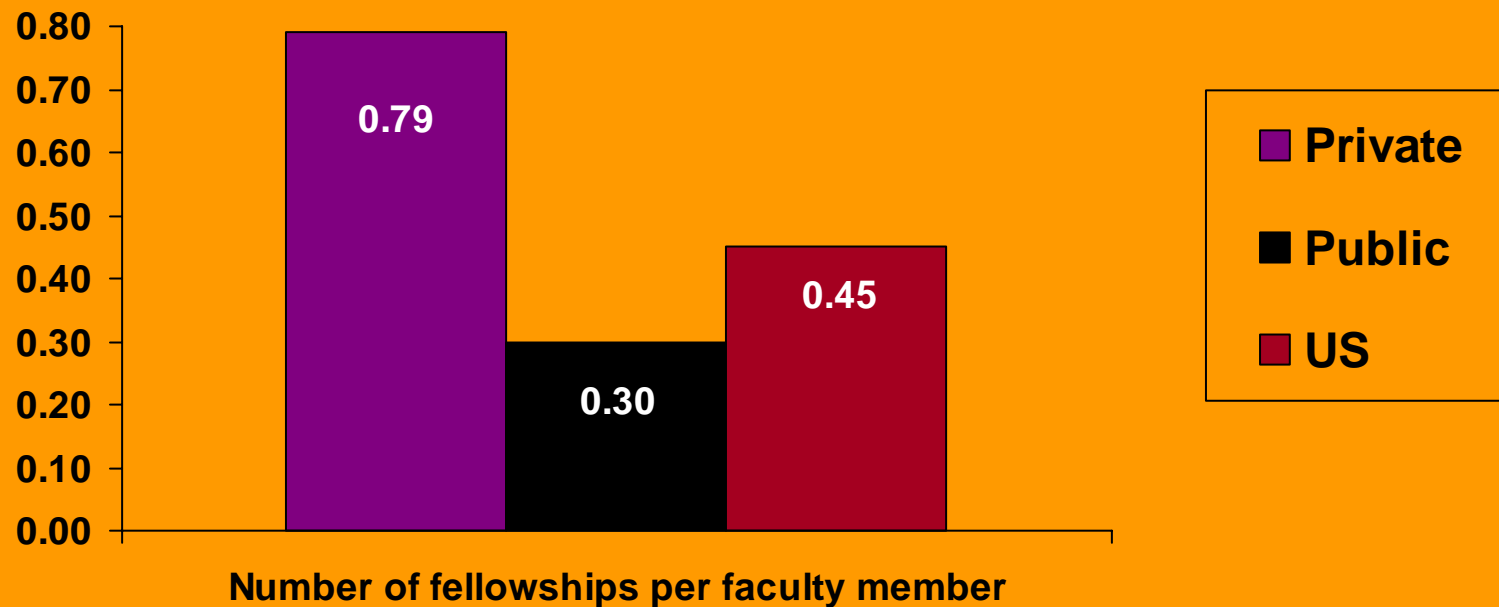


Supported RAs

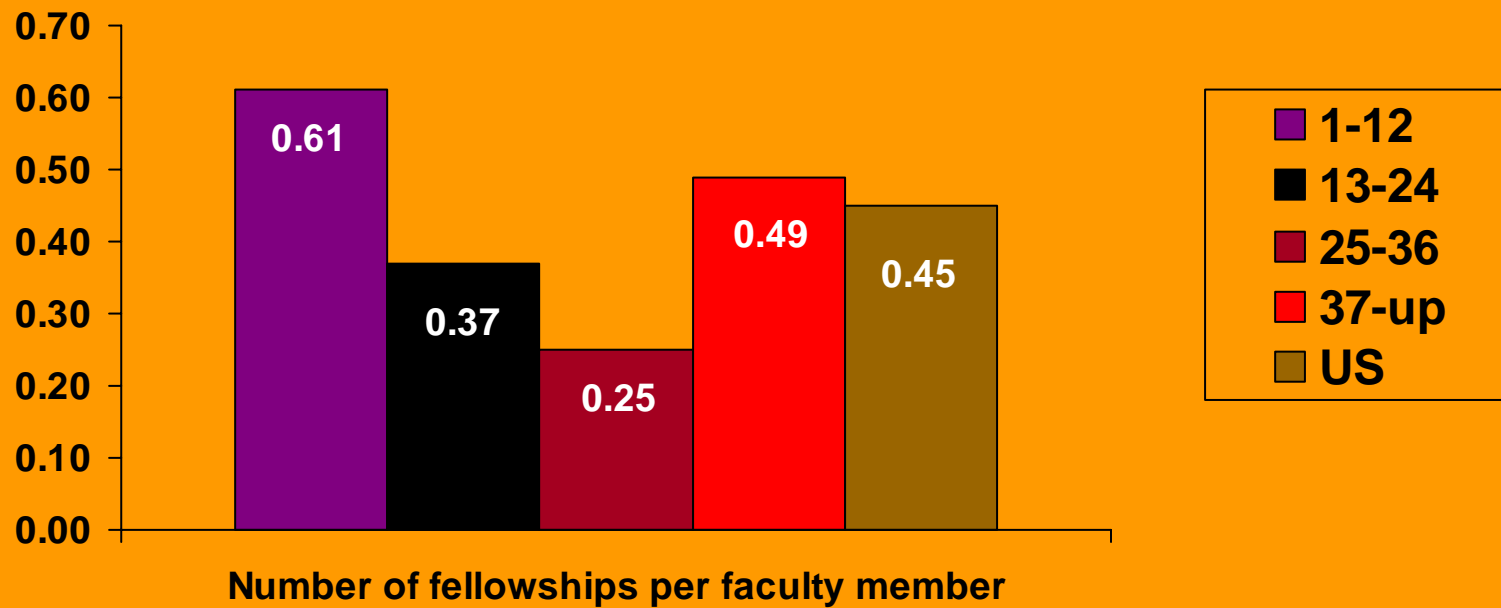


Students with full fellowships

- 61% of programs report full fellowships
 - 83% of these use institutional funds
 - 61% of these use external funds



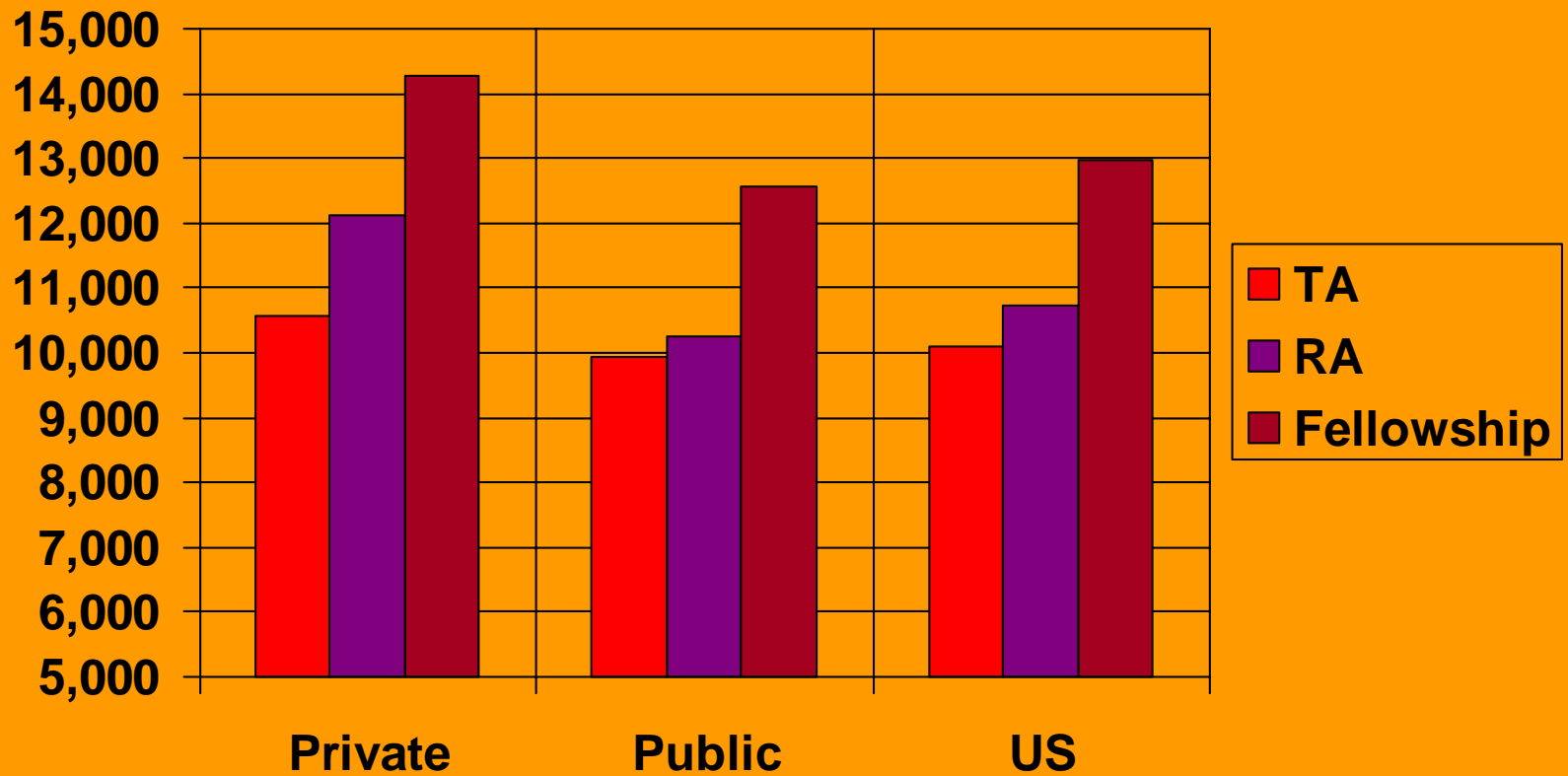
Students with full fellowships



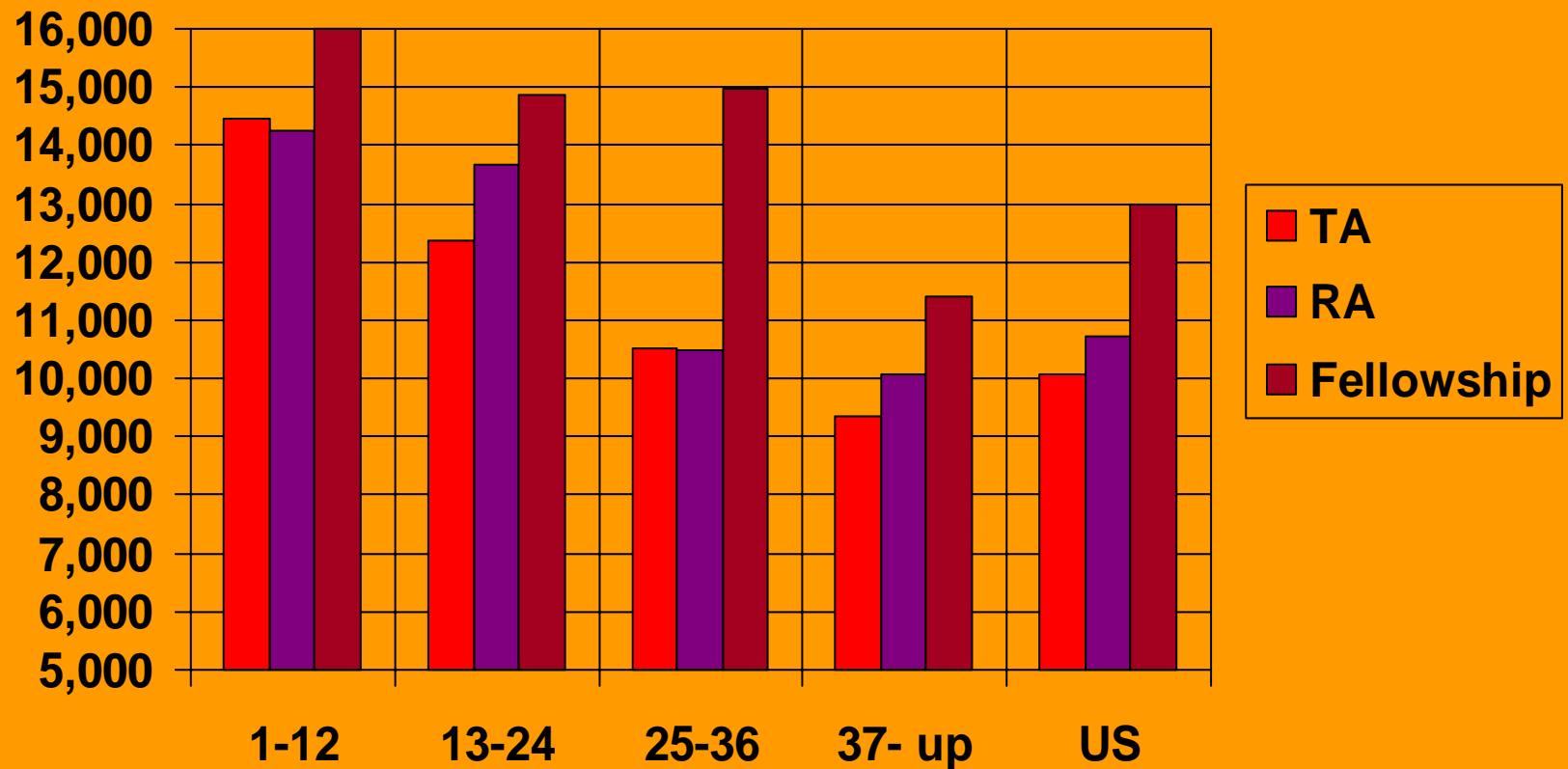
Other graduate student support

- **33% of programs report using graduate assistants for computer support**
 - negligible numbers
 - average of 0.13 per faculty member
- **16% of programs report providing other types of support for graduate students**
 - average of 0.27 per faculty member

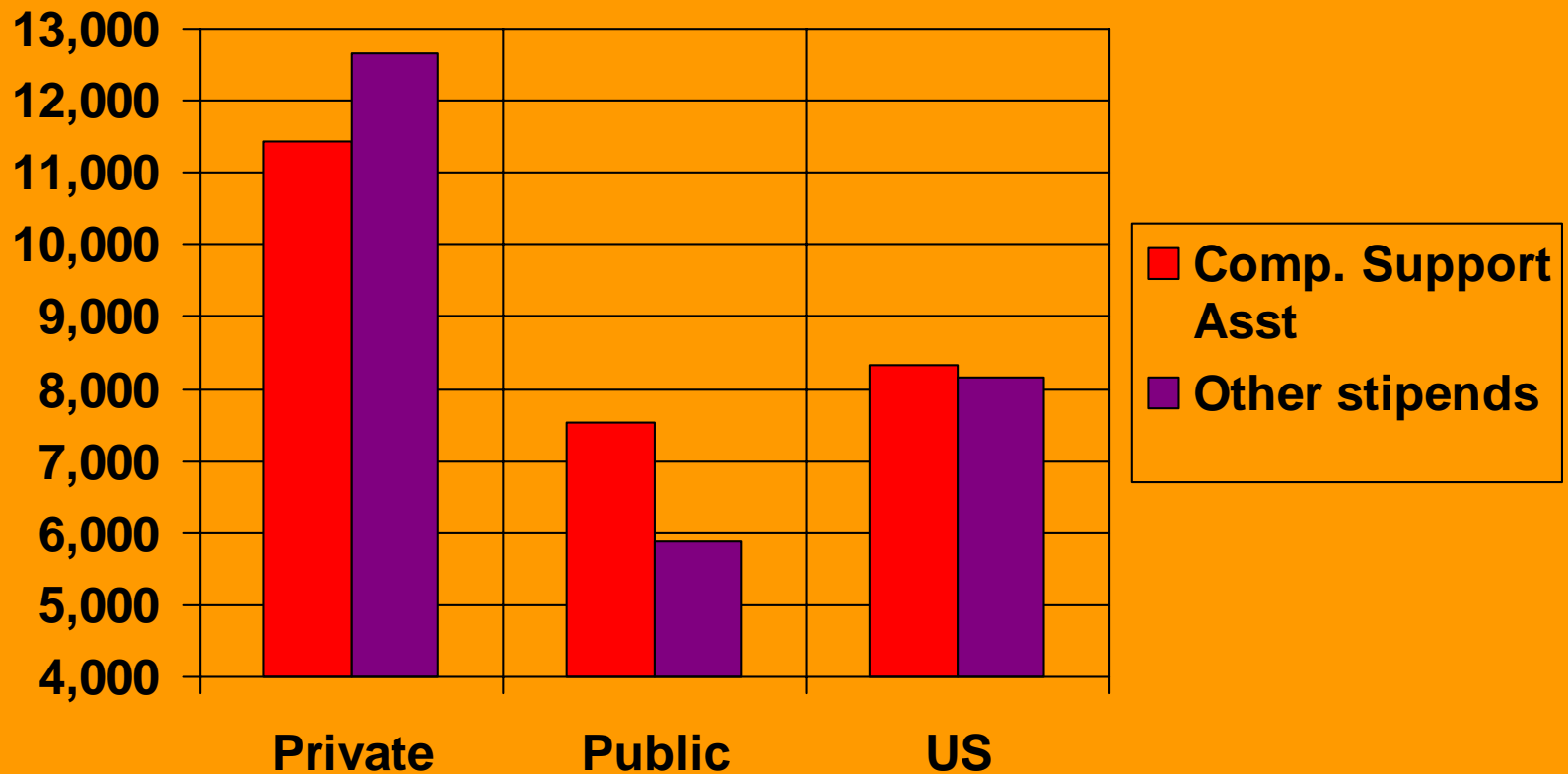
Average net stipends



Average net stipends



Average net stipends



Average net stipend

- **Computer support and other stipends according to ranks - insufficient response rate for programs ranked 1-12, 13-24, 25-36**

Factors affecting stipends

Advancement in studies	56%
Passed qualifier	48%
Different sources of funding	45%
Recruitment enhancements	32%
GPA	15%
Other	19%

- **Other:**
 - **PhD candidates have higher stipends**

Recruitment incentives

Guaranteed multi-year support	51%
Paid visits to campus	51%
Guaranteed summer support	29%
Stipend enhancements	45%
Other	25%

Guaranteed multi-year support

- Reported by 45% of departments
- 1 year - 7%
- 2 years - 20%
- 3 years - 14%
- 4 years - 39%
- >4 years - 20%

Stipend enhancements

- **Reported by 45% of departments**
 - **\$4,854 - average amount**
 - **\$3,000 - median amount**

Guaranteed summer support

- **Reported by 28% of the departments**
 - **\$3,989 - average amount**
 - **\$4,108 - median amount**

Paid visits to campus

- **Reported by 51% of the departments**
 - **Median - \$500**
 - **Maximum \$1,500**