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National Survey on DMP Final Report

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**Society of Directors of Academic Medical
Physics Programs (SDAMPP)**

AAPM Task Group 168

Acknowledgement

- All survey participants!
- Duke University students:
 - Vorakarn Chanyavanich, Ashley Manzoor, Latoya Crayton, Irina Vergalaso, Lauren Courlas, Adam Brooks, Paco Robles
- SDAMPP Committee:
 - Jim Dobbins, Sam Armato, Gary Fullerton, Mike McNitt-Gray, Ed Jackson
- Program directors
- AAPM:
 - Angela Kaiser
- AIP:
 - Roman Czujko

Disclaimer

- This is a final report
- The report reviewed/blessed by oversight committees
- This is primarily an opinion survey
- Original data are open for reanalysis upon request

Don't shoot the messenger if you do not like the message!

Basic information

- Initiated by students at Duke University
- Mandated by SDAMPP and TG168
- 88 educational programs
- 4 cohorts: students, residents, faculty, directors
 - Individual sign-in for each survey-taker
- Survey vetted by
 - A committee of students
 - SDAMPP survey committee
 - AIP
 - Program directors
- Executed by AIP Statistical Research Center

DMP defined as

- “A professional degree in the practice of medical physics... Although the requirements for such a degree have not been firmly established, general features being discussed are 2 years of didactic work, followed by 2 years of clinical residency. The DMP would offer clinical medical physics training but no extensive research training. Tuition and costs likely would be paid by the student.”

Survey population

	<u>Contacted</u>	<u>Responded</u>	
• Students:	635	(58%)	366
• Residents:	58	(86%)	50
• Post-docs:	26	(42%)	11
• Faculty:	309	(37%)	114
• Directors:	93	(47%)	44

CAMPEP (~70%) and non-CAMPEP (~30%)

Public (~70%) and private (~30%)

Survey population - trainees

- Training:
 - MS (31%), PhD (53%), Residents (12%)
- Field:
 - Therapy (72%), Diagnostic (22%), NM (3%)
- Finance:
 - Self financed (27%), RA (48%), Hospital (12%), Outside scholarship (13%)
- Interest:
 - Clinical (43%), clinical/academic (43%), academic research (7%)
- Board:
 - ABR interest (87%), No ABR interest (7%), Other boards (6%)

If at the time of your application to graduate school both the residency requirement ****had**** been enacted and your degree choices had been MS, PhD, or DMP, how would this have changed your INITIAL degree path into the field?

31%	no change
3	would have applied to PhD instead of MS
20	would have applied to DMP instead of MS
10	would have applied to DMP instead of PhD
15	would have applied to combination DMP PhD
7	would have applied to another field altogether
14	unsure/undecided

For graduate students only, would you apply to a 4-year clinical medical physics doctorate (DMP) degree program?

14%	yes, I would apply to a DMP program after my MS program
12	no, I would not apply to a DMP program, but would apply to a PhD program instead
25	no, I would finish my current degree and apply to a residency
5	no, I would finish my current degree and apply to a post-doctoral program
38	no, I would finish my current degree and directly pursue employment
7	unsure/undecided

What is the maximum TOTAL amount you would have been willing to spend (out of pocket) on tuition & fees to obtain a 4-year clinical doctorate in medical physics (DMP) degree?

1%	\$150,000
2	\$120,000
11	\$100,000
11	\$80,000
7	\$60,000
29	< \$60,000
39	I'm not interested in the clinical doctorate in DMP degree

In light of your present situation as a student or resident, rank the four options specified by TG 133 from most appealing (A) to least appealing (D) for the following scenarios:

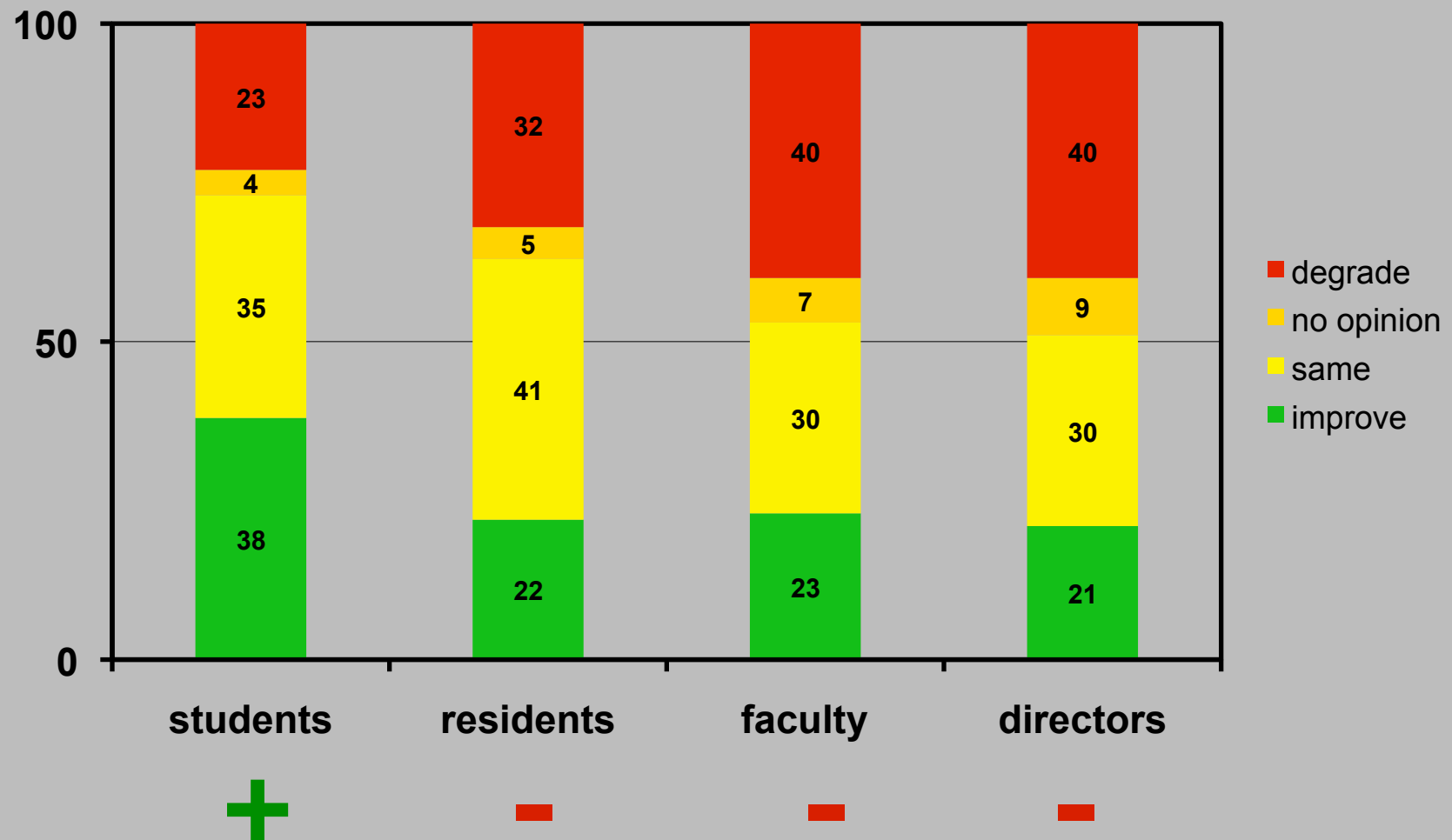
A	B	C	D	STUDENTS
19	31	37	13	Traditional residency
15	38	29	18	Affiliated residency
10	12	18	62	DMP
56	19	16	7	An enhanced M.S. or Ph.D.
A	B	C	D	RESIDENTS
57	19	10	6	Traditional residency
13	39	30	18	Affiliated residency
11	10	22	67	DMP
19	32	38	9	An enhanced M.S. or Ph.D.

If you were a prospective student or resident in a program, rank the four options specified by TG 133 from most appealing (A) to least appealing (D) for the following scenarios :

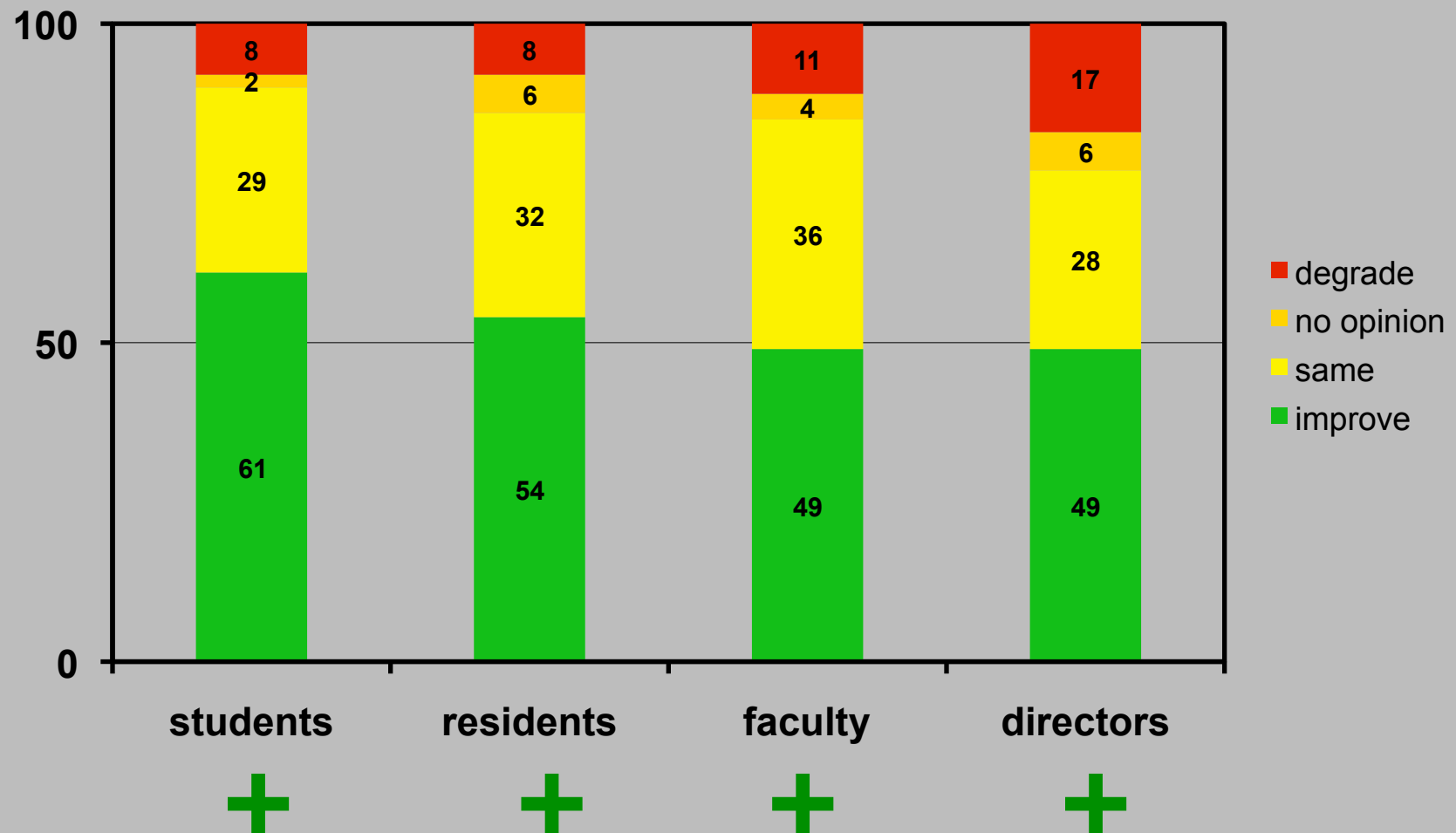
A	B	C	D	STUDENTS
17	27	34	23	Traditional residency
10	32	37	22	Affiliated residency
19	20	16	46	DMP
54	21	13	9	An enhanced M.S. or Ph.D.
A	B	C	D	RESIDENTS
55	23	13	0	Traditional residency
9	36	32	22	Affiliated residency
12	5	26	70	DMP
24	36	29	8	An enhanced M.S. or Ph.D.

Please indicate how you think the establishment of clinical medical physics doctorate (DMP) programs will affect the medical physics profession:

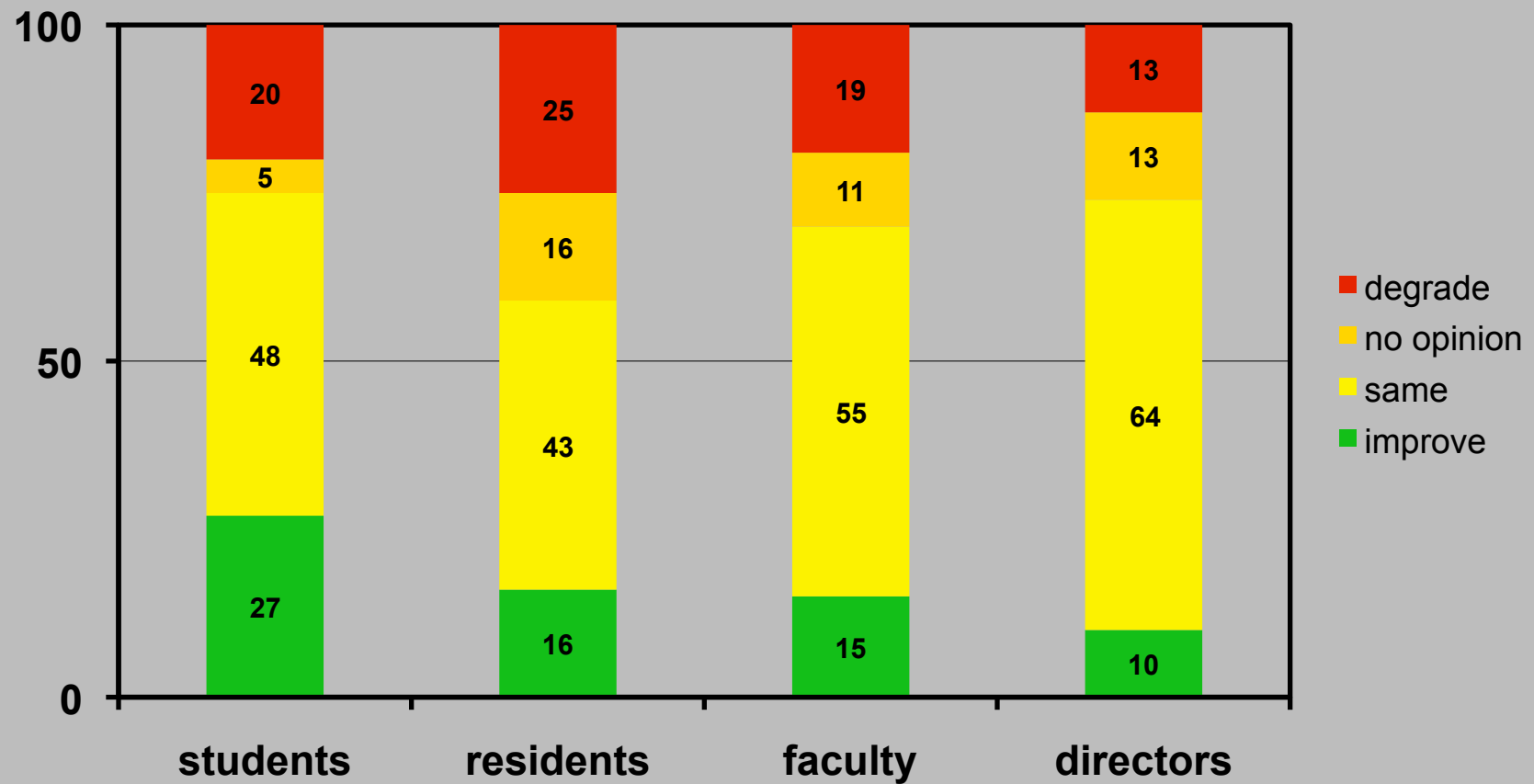
Stature/credibility of profession



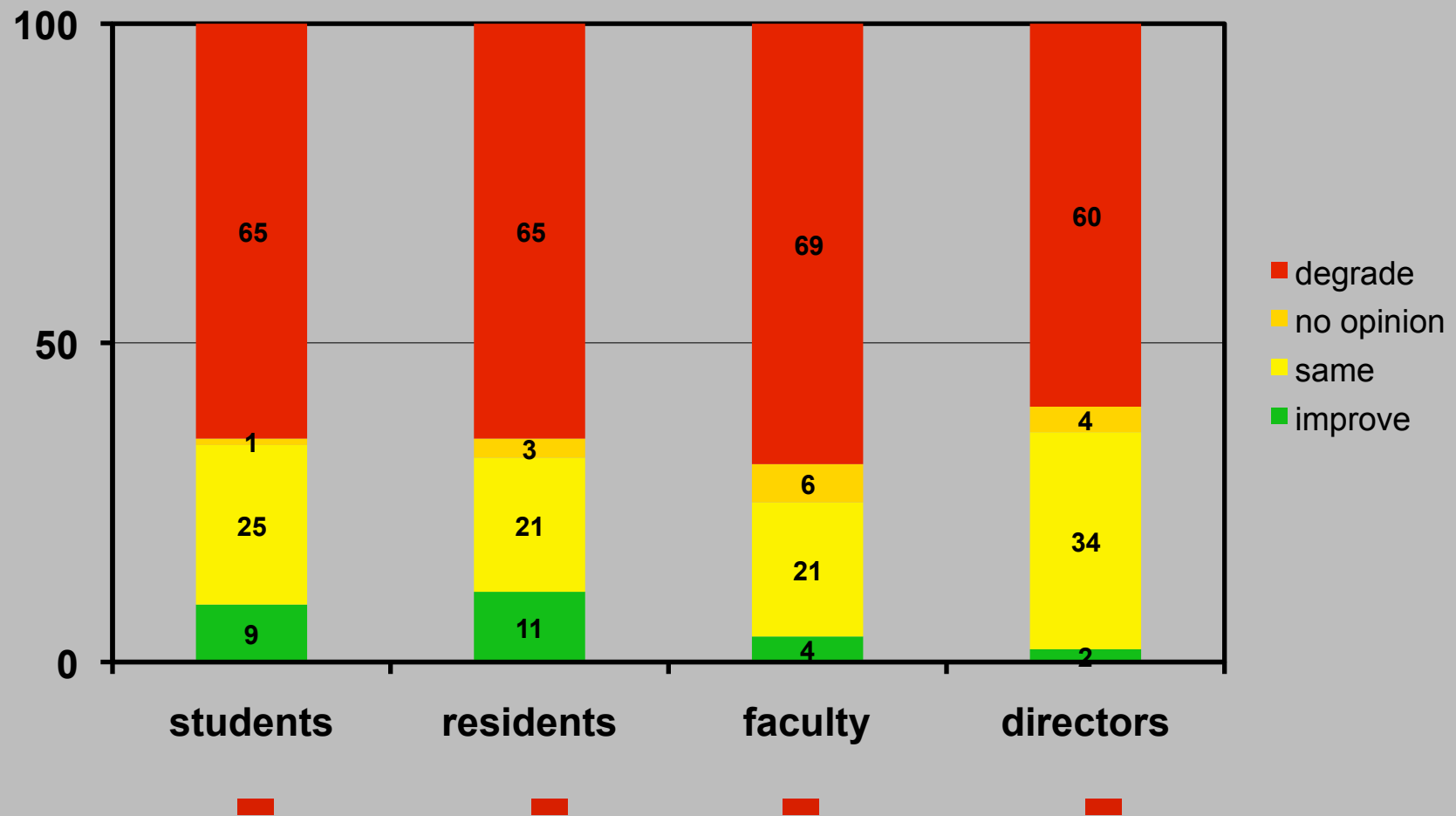
Clinical medical physics training



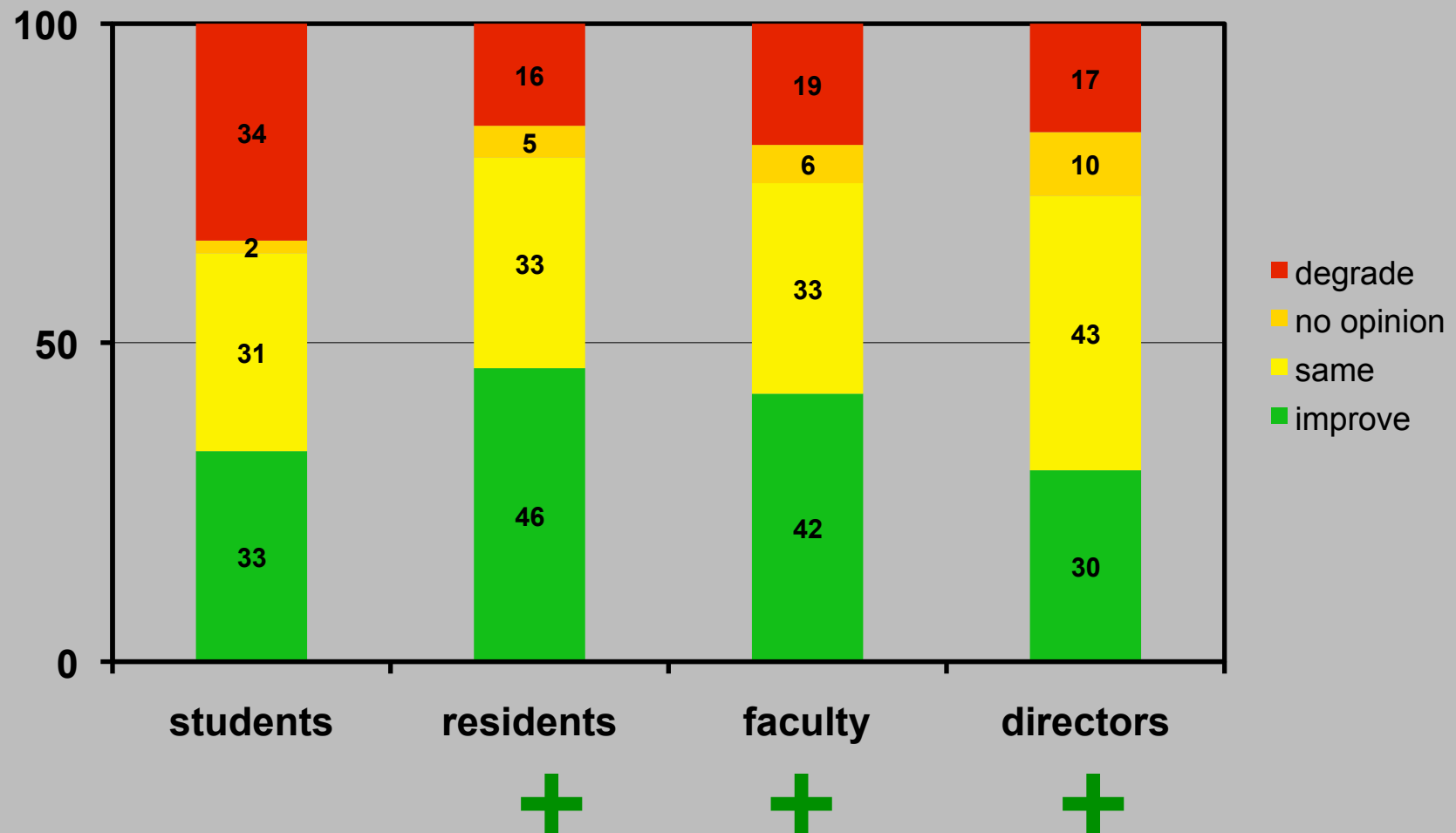
Salary/pay in the profession



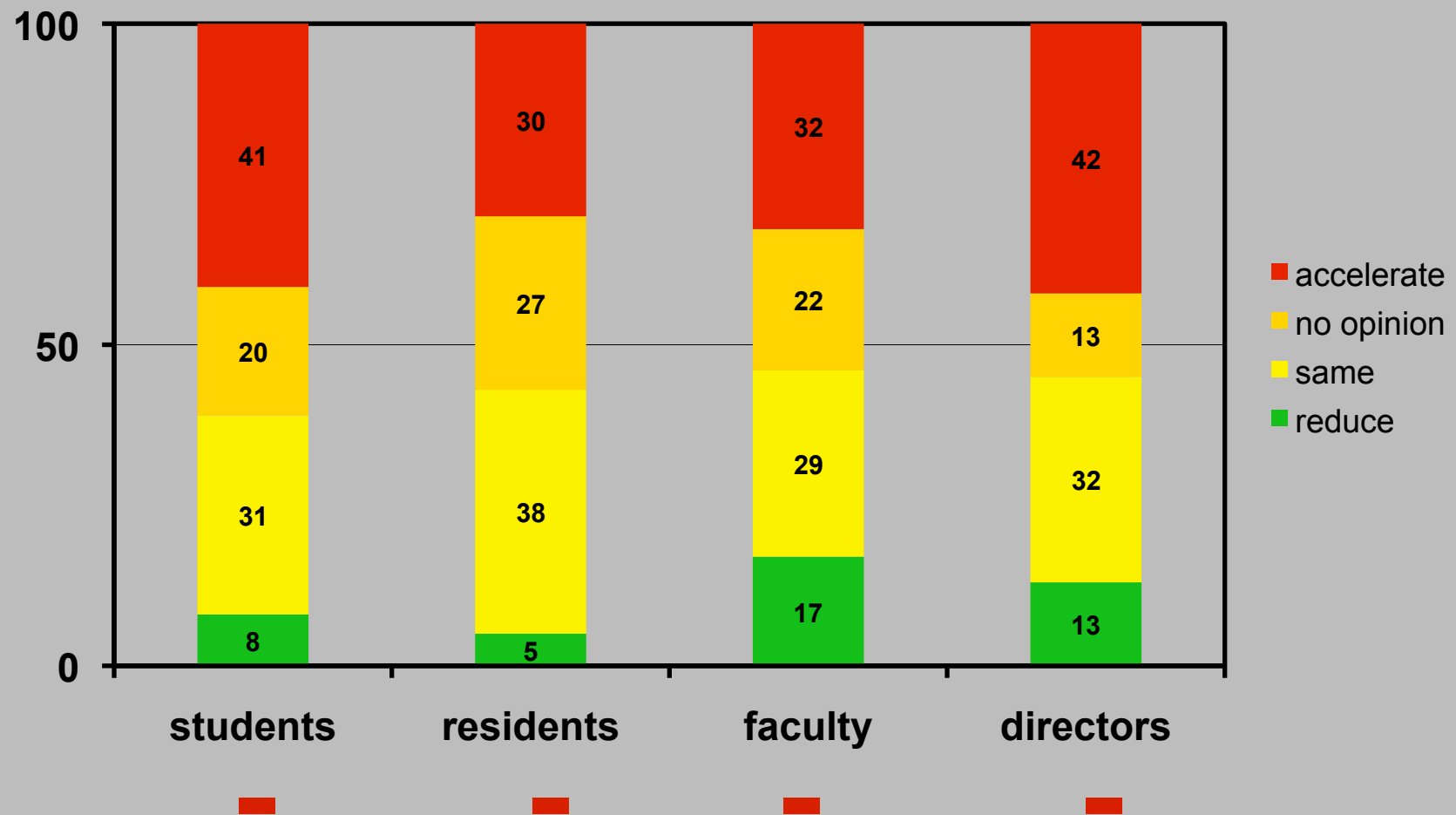
Role of research in medical physics training



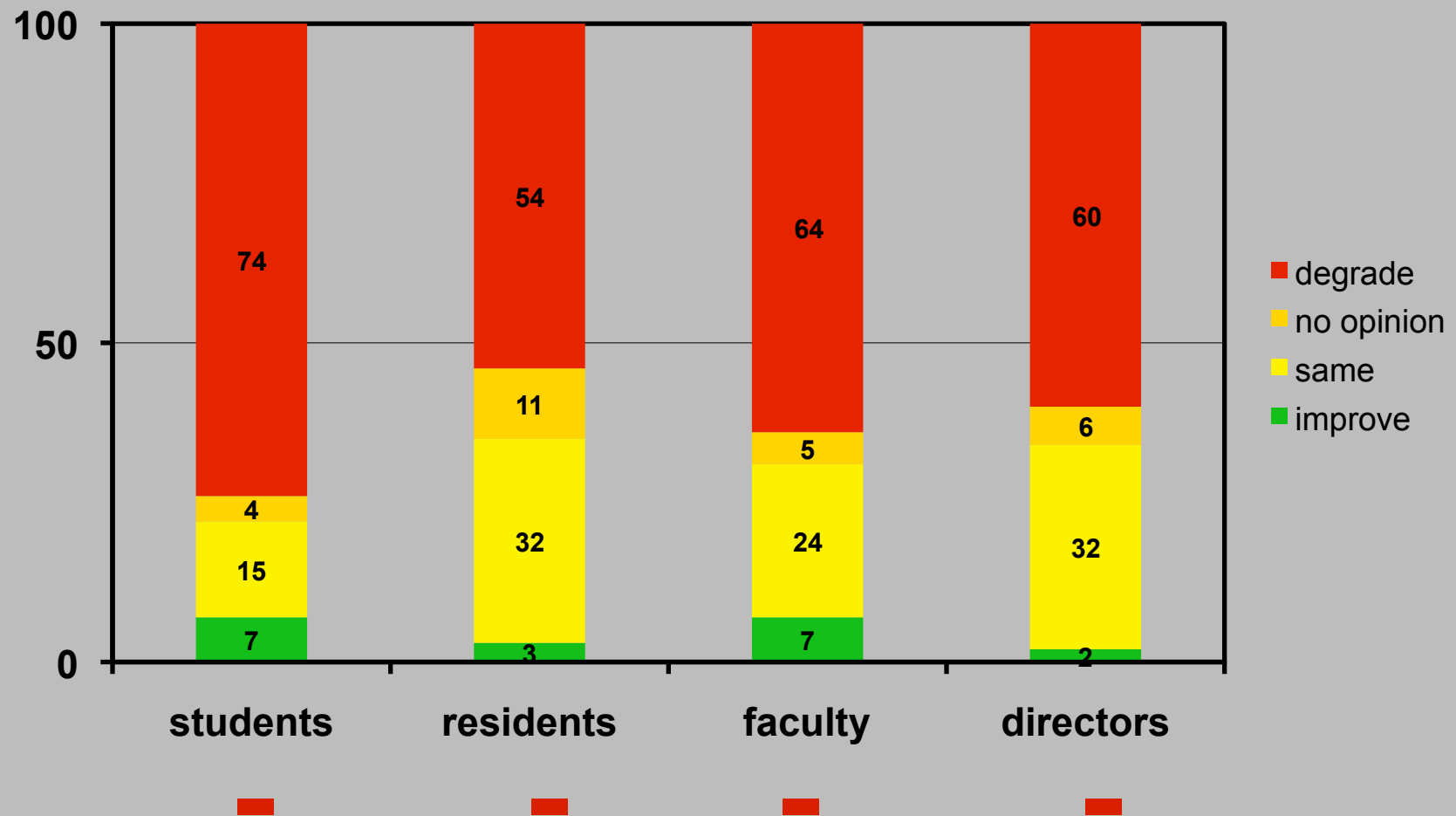
Ability to attract students to enter the field



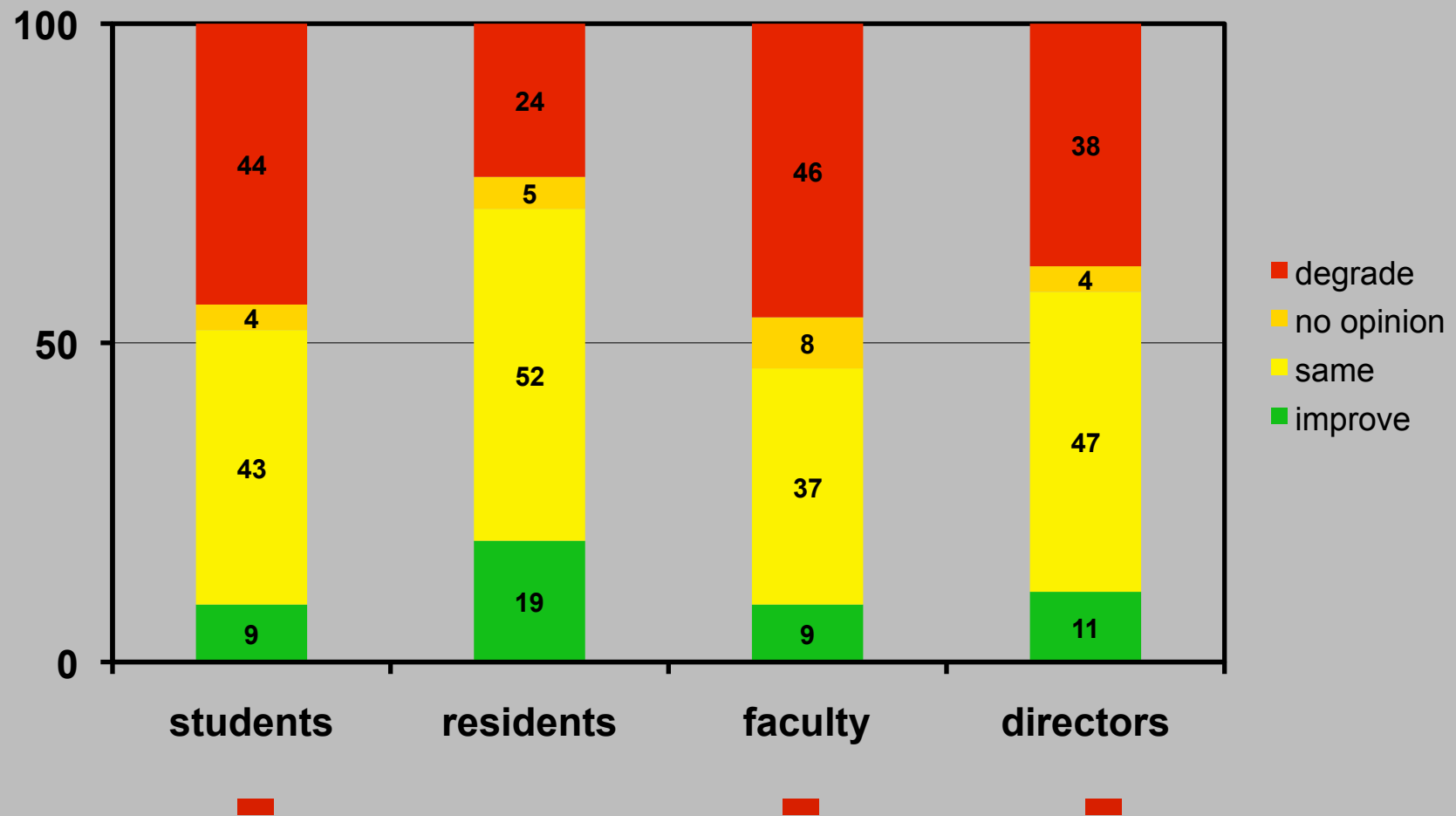
Stratification of disparate professional classes



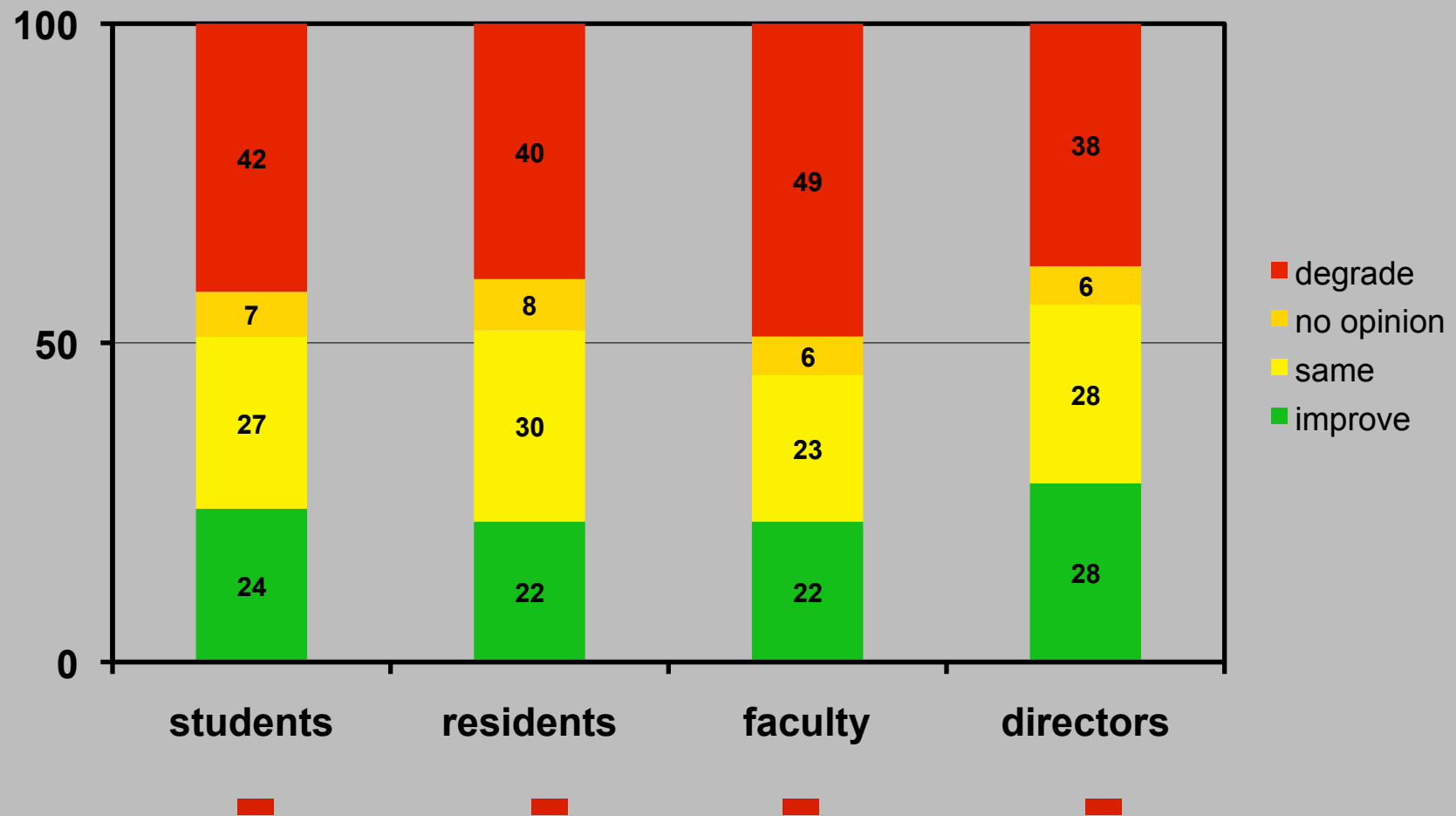
Role of current MS medical physicists in the field



Role of PhD medical physicists in the field



Overall effect, considering all factors



Comments

- 26,000+ words!
- With exceptions, overwhelmingly negative take on DMP
 - Many students commented on DMP as a conspiracy by ABR, old timers, hospitals, universities “to make \$”
 - “If I could pay for 4 yrs, I get MD, if I want the prestige, I get PhD and get paid”
- Many suggested alternatives to DMP

Alternatives - political

N	Comment
15	Legislate residencies / Lobby (CMMS) for federal/ state funding
1	Leverage CARE bill with administration to support residencies

Alternatives - new approaches

46	Cooperative/affiliated residencies or partnered grad/residency programs
13	Add/count clinical training during graduate training/hospital based clinical rotation
6	Combined PhD/residency (residency possibly funded by loans)
6	Rename DMP: professional/practitioner, don't call it doctorate
5	3 yr MS with clinics + 1 year fellowship or CE
3	Require residencies for certifying grad programs
3	Limit the field only to Physics/MP PhDs with residencies

Alternatives - new approaches

2	Reduce the number of MP graduates
2	Funding for the starting new residencies
2	Summer school-type clinical education with CAMPEP accreditation
2	DMP without having to pay for residency years
1	A residency-type grad education w/o doctorate title
1	Meet the need with enhanced dosimetrist education
1	Distributed 4-year residencies
1	Eliminate MS so we have just two different kinds of doctorate. Grandfather earlier graduates

Alternatives - new approaches

1	6 year DMP
1	Encourage alternative pathways
1	CAMPEP-monitored junior positions
1	International residencies via IAEA
1	Don't mandate residencies, incentivize them more heavily instead
1	Combined grad/residency accelerated programs with waivers for prior experience
1	Combined residency/MS, 3 months grad + 9 months clinics
1	More stringent/committee-based qualification process to qualify applicants for the ABR exam

Alternatives - logistical

6	Quota for MS graduates entering residencies
4	Reduce teacher to resident ratio to 1:1
4	Online/weekend didactic training to facilitate residencies
4	Limit/stop non-MP entries into residencies, audited by CAMPEP?
3	Streamlined CAMPEP process for residencies

Alternatives - logistical

2	Better communication from AAPM as how to develop residencies
2	Reduce CAMPEP requirements for residencies, less paperwork, more help
1	CAMPEP acceptance of affiliate programs
1	Reduce administrative burden to run residency
1	"Honorary" temporary CAMPEP accreditation of programs until the need is met!

Alternatives - funding

6	Department funded residencies, with additional working commitment
5	Resident-funded residencies (at smaller facilities?)
3	Free residencies (eg Orthodontics) for MS, paid for PhD
2	Use MS tuition to fund residencies
2	Funding from the ABR
1	Funding from private scholarships (eg, donations through the AAPM, etc)
1	Funding from AAPM/ASTRO
1	Stimulus money

Alternatives - questioning the mandate

19	Revisit the mandate
10	Extend the ABR 2014 deadline
3	Don't let ABR define the requirements of the profession
2	2014 should include both residencies and grad programs
2	Structured training on the job
1	Certification in DI/NM can become extinct!

Alternatives - encouragement techniques

12	Encourage facilities to convert junior positions to residencies, also serves as a cost saving measure
4	CME/MOC credit for resident trainers
2	Increase #s in current residencies
1	Think about ways to make residents more useful to employees
1	Much more proactively to encourage new residencies

Summary

- The Med Phys community deeply cares about the future of the profession and the DMP initiative:
 - 52% (585/1121) participation in the survey
 - Extensive and passionate comments
 - Public perception issue amongst students
 - Major concerns about research training and the status of current MS/PhDs

Summary: the Med Phys community concerned about the impact of DMP on:

- Reduced stature of the profession (except among students)
- Role of research in training
- Status of MS and PhD people in the field
- Stratification of disparate classes

Summary: the Med Phys community is happy with:

- Enhanced stature of the profession
(among students)
- Improved clinical training
- Ability to attract students in the field
(except among students!)

Summary: Take home point

- An overall negative take: 42%↓ 24%↑
- Concerns of the community should be taken into serious consideration in the development of the DMP programs to minimize potential weaknesses and risks to the profession