

Swiss Medical Students' Career Plan, Specialty, and Residency Location Choices

2010 Survey

Nu V. Vu, PhD & Michèle Germond, MSc

University of Geneva Faculty of Medicine

Unit of Development and Research in Medical Education (UDREM)

With the participation of

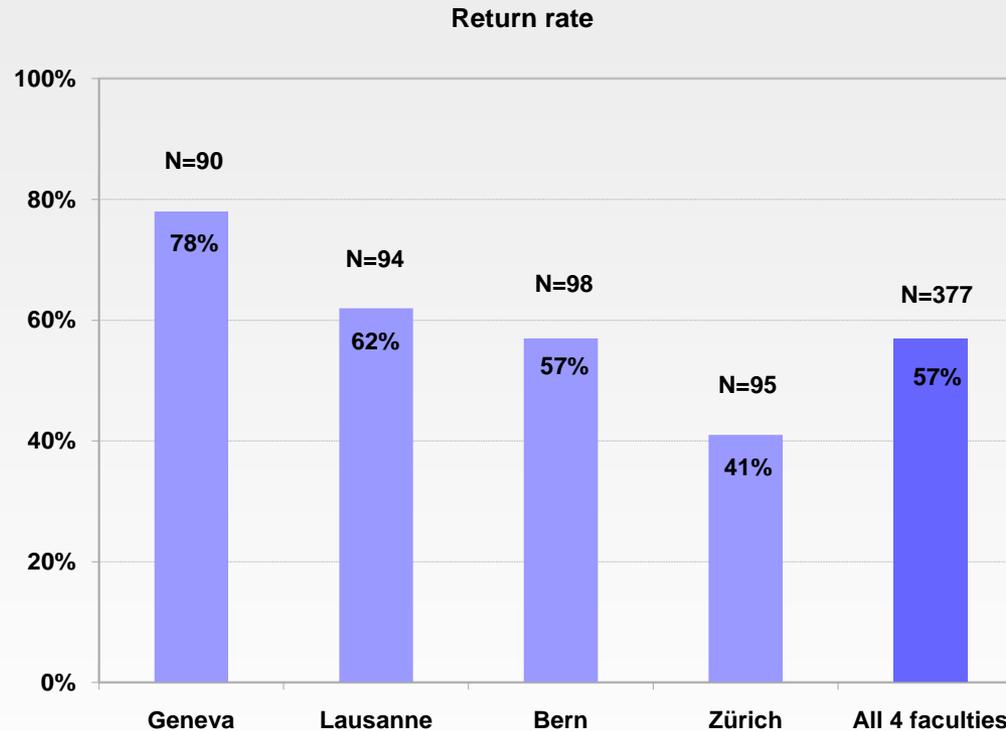
Raphael Bonvin, MD, MME – University of Lausanne Faculty of Medicine

Christian Schirlo, MD, MME – University of Zurich Faculty of Medicine

Barbara Stadelmann, PhD, MME – University of Bern Faculty of Medicine

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2010 survey conducted with students from the Faculty of Medicine of Lausanne, Bern, Zurich and Geneva*

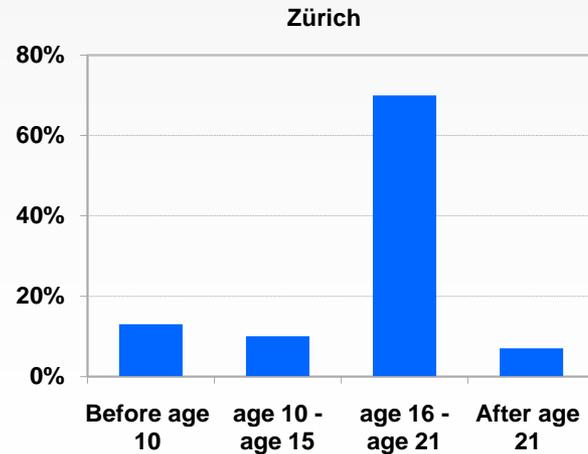
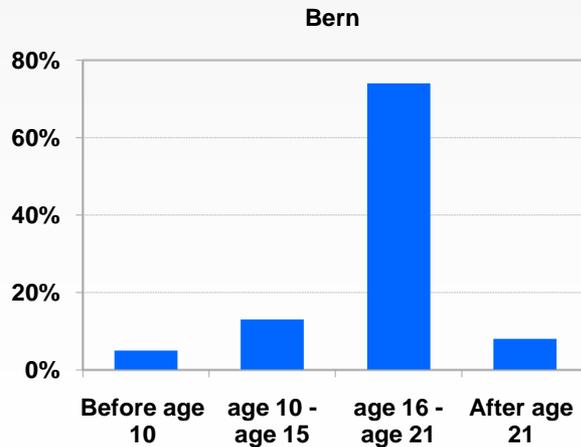
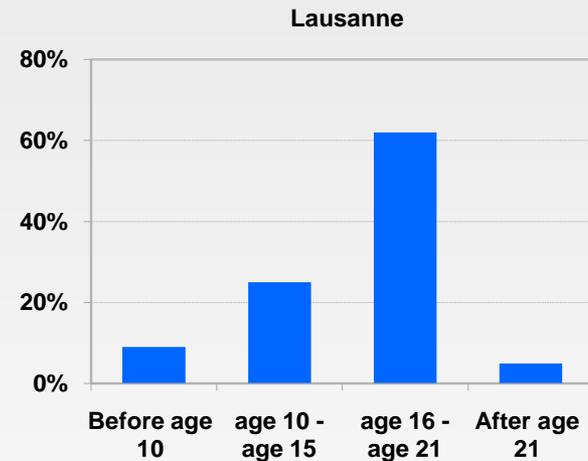
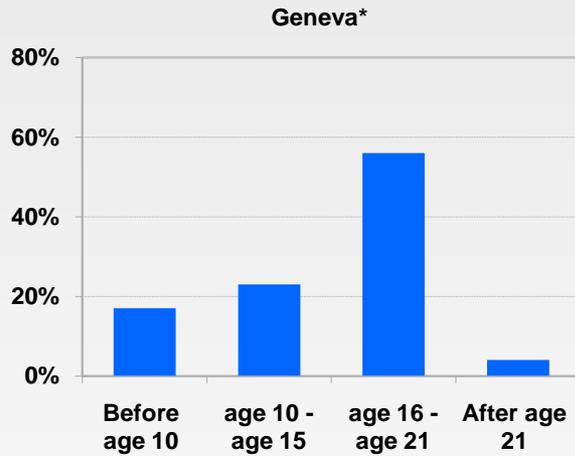


* Geneva (N total = 115) / Survey administered end of the 5th year

* Lausanne (N total = 151), Bern (N total = 171), Zurich (N total = 229) / Surveys administered in the 6th year

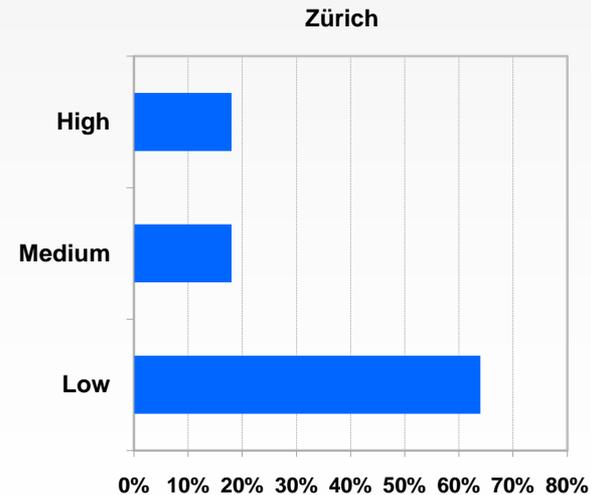
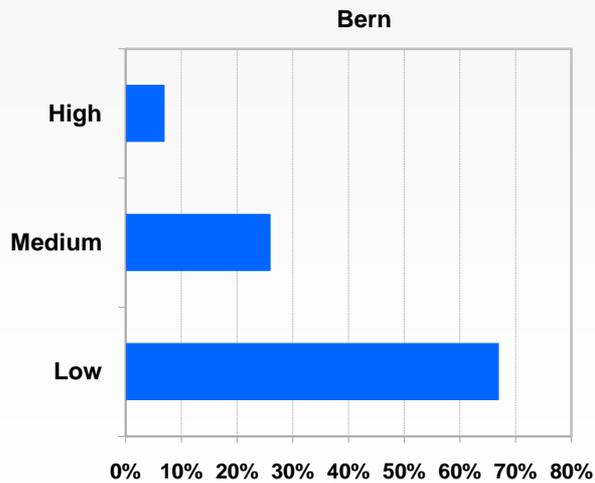
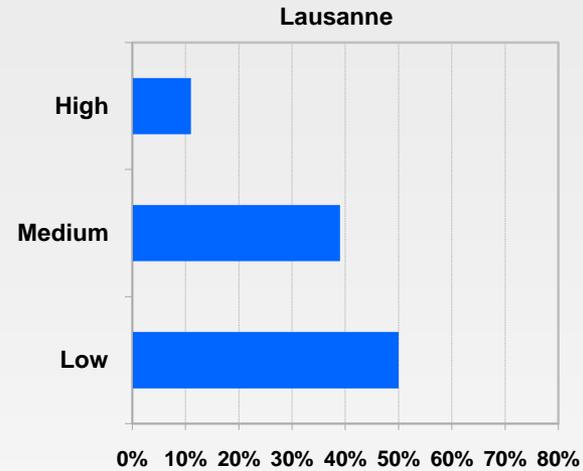
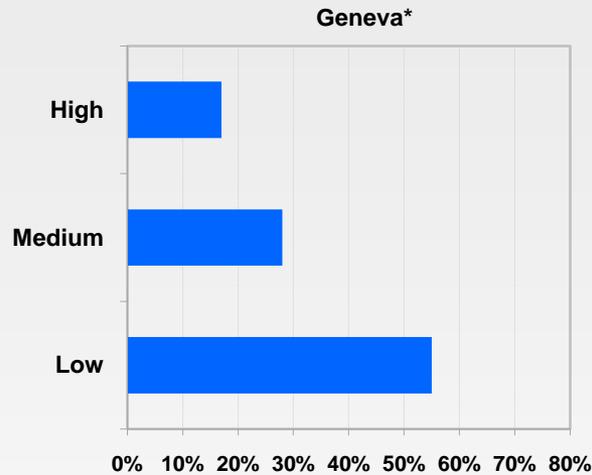
* The surveys for Lausanne and Geneva were administered on paper while the ones for Bern and Zurich were on-line

Age of decision to study medicine

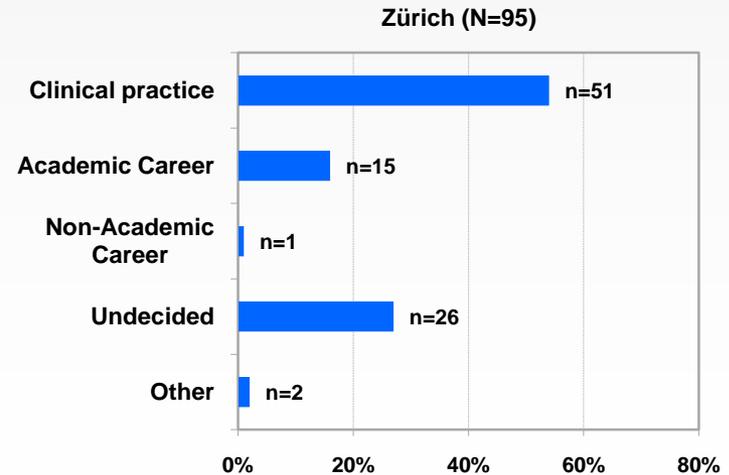
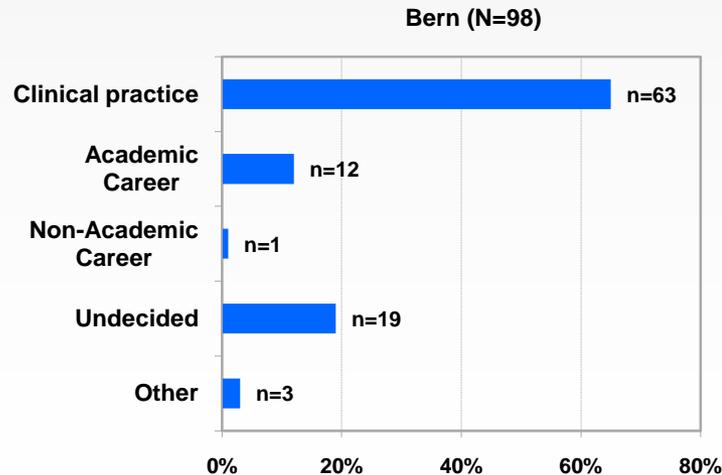
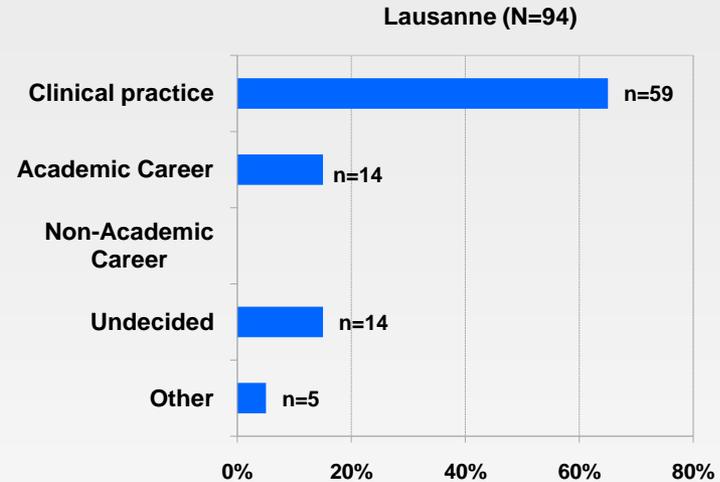
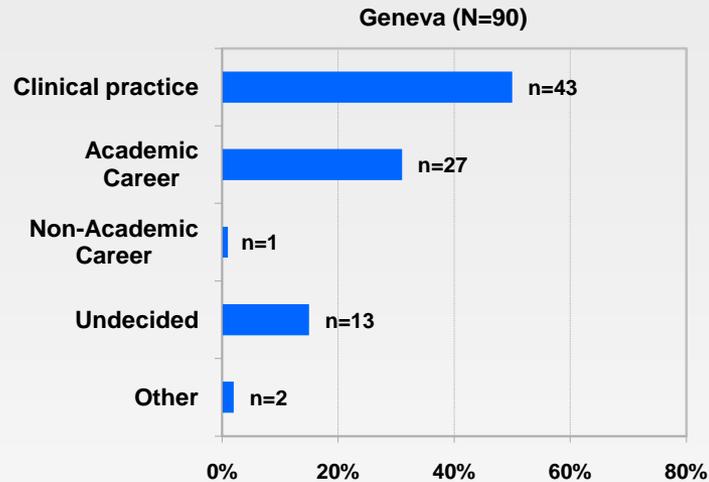


* This item was asked to the students in Geneva (n=108) at the end of their second year in a separate survey questionnaire

Degree of hesitation to study medicine

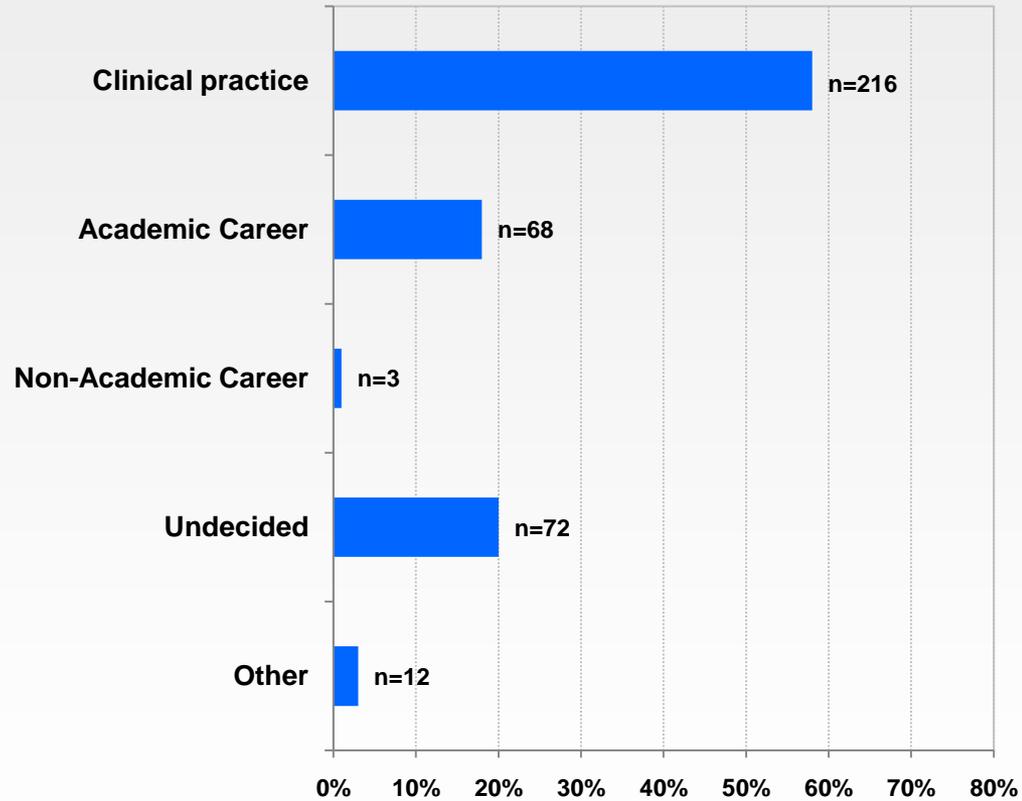


Choice of career plan By faculty

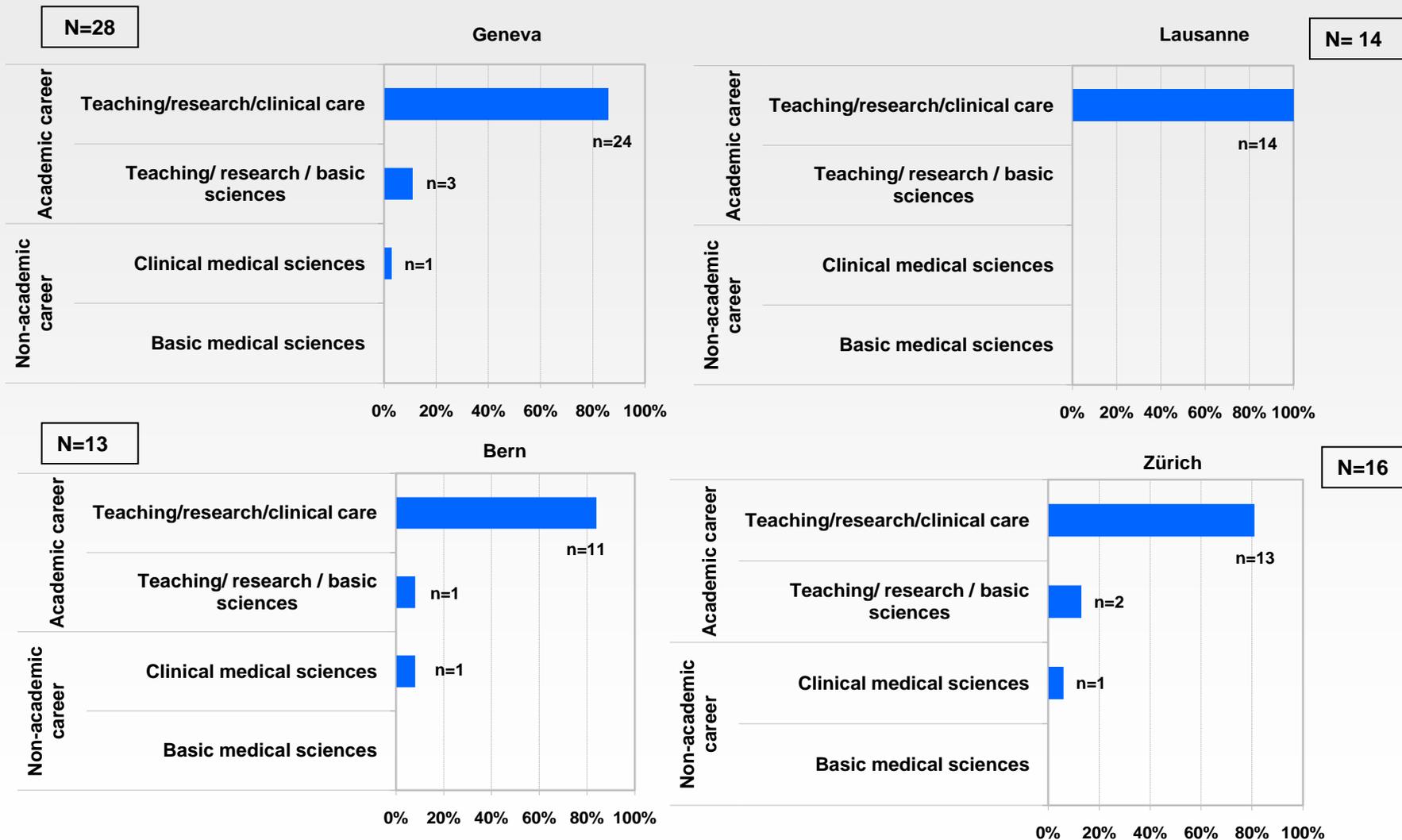


Choice of career plan

All 4 faculties (N=377)

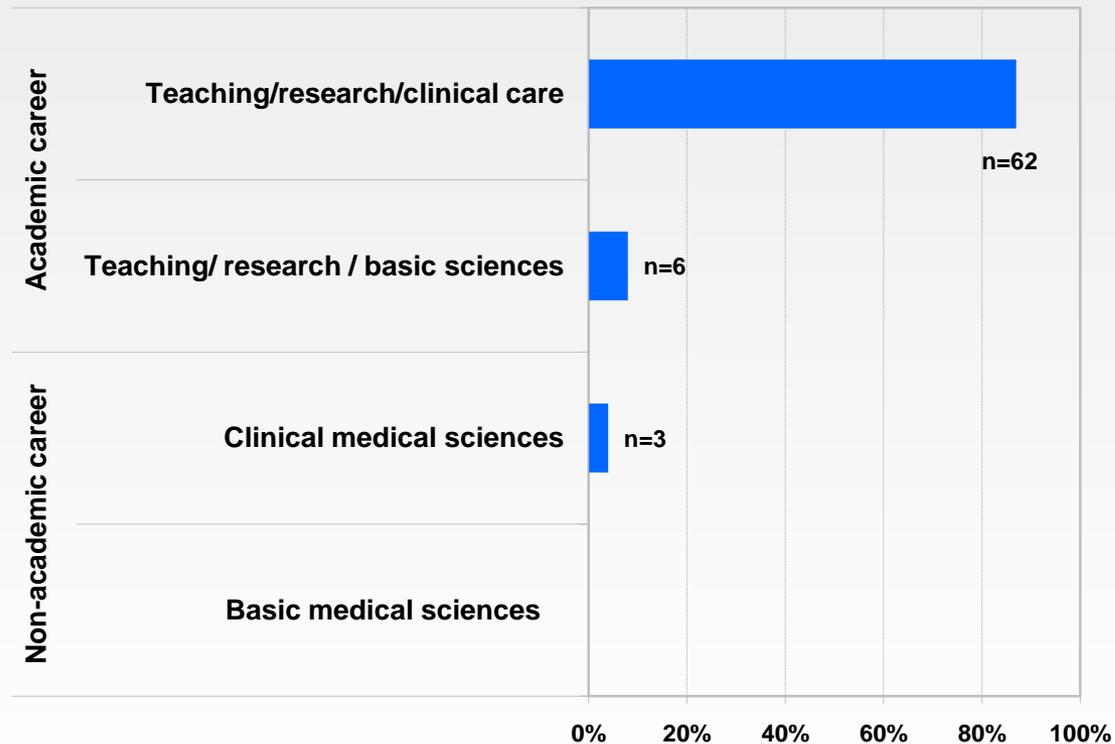


Choice within academic vs. non-academic career plan By faculty



Choice within academic vs. non-academic career plan

All 4 faculties (N=71/305)*

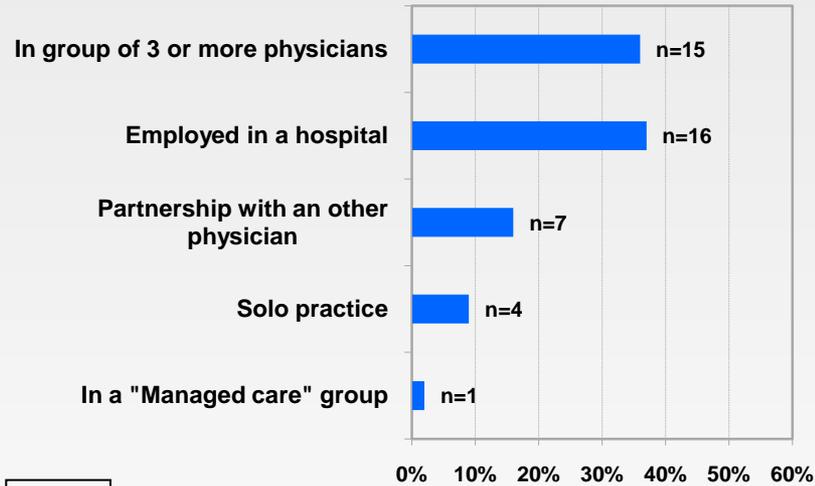


*Number of students with an academic vs non-academic career plan / Number of students having made a career plan choice

Choice of clinical practice as career plan By faculty

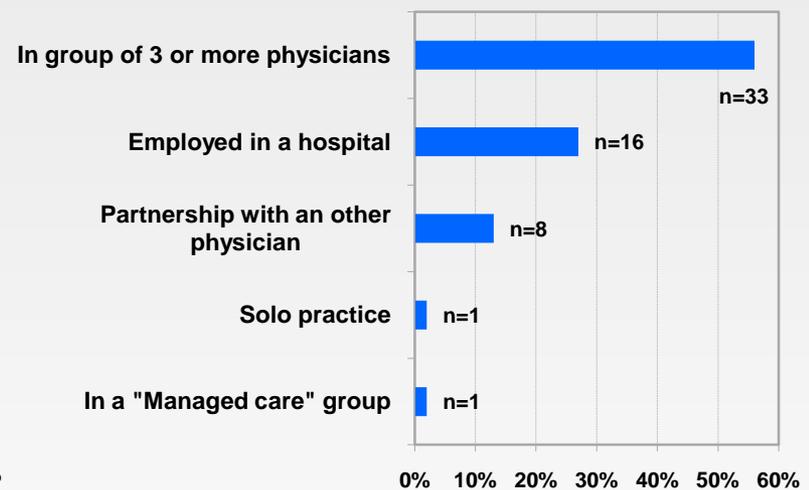
N=43

Geneva



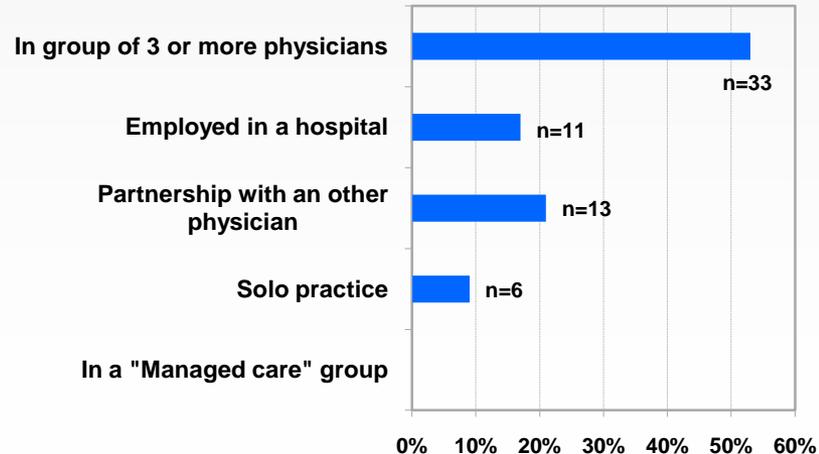
Lausanne

N=59



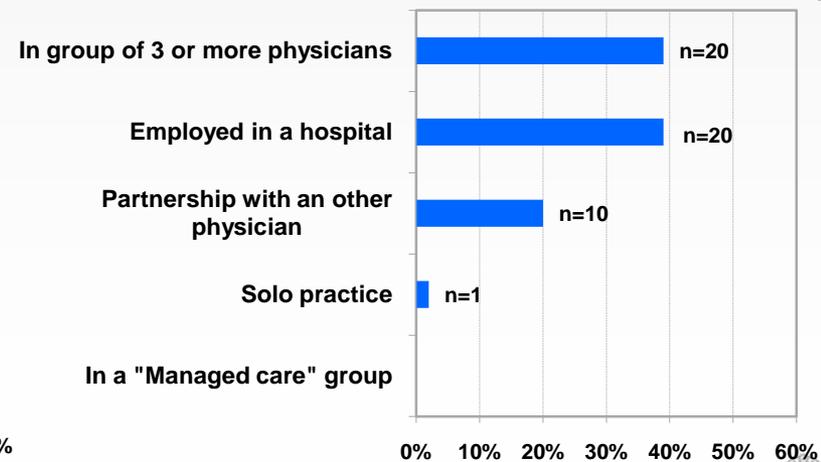
N=63

Bern



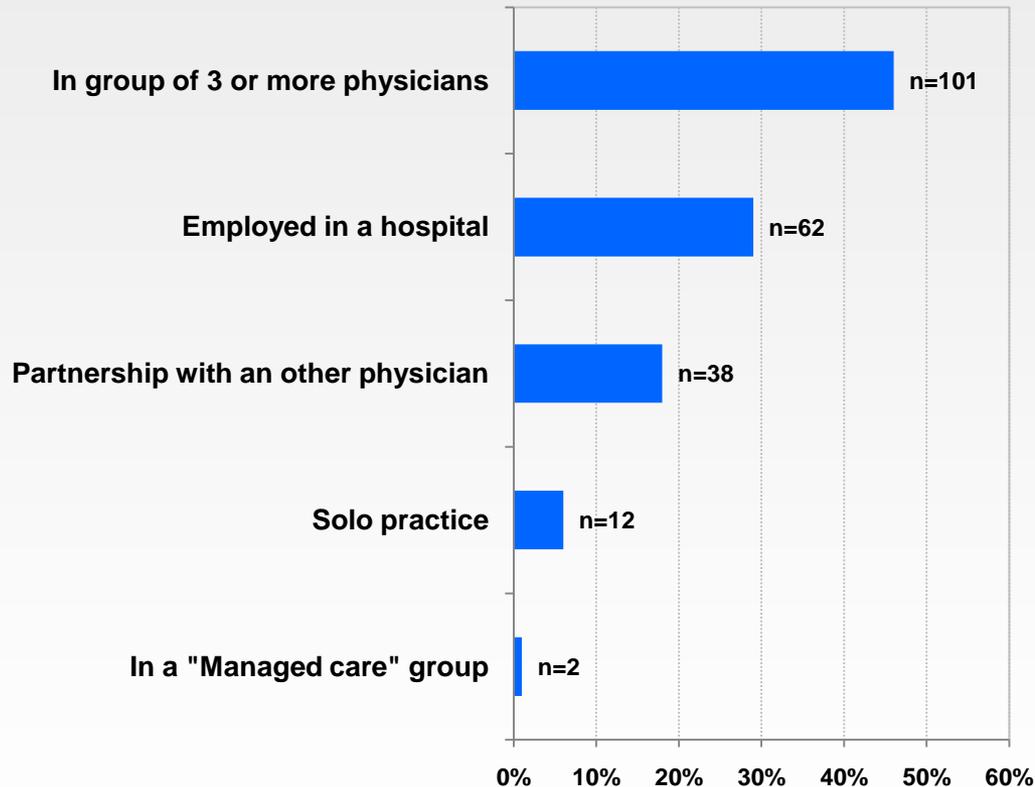
Zürich

N=51



Choice of clinical practice as career plan

All 4 faculties (N=216/305)*



*Number of students with an academic vs non-academic career plan / Number of students having made a career plan choice

Reasons for career plan choice

Personal values/ considerations

- Passionate for medicine
- Influence of family (parents are doctors...)
- Intellectually challenging
- Have great interest and affinity for medicine

Work extrinsic characteristics

- Career advancement and competitiveness
- Financial security
- Working conditions (schedule, private practice/hospital, full/part time)
- Working environment
- Lifestyle (family-work equilibrium)
- Swiss law on limitation of opening new medical practices
- Number of residency positions
- Needs of physicians in the specialty

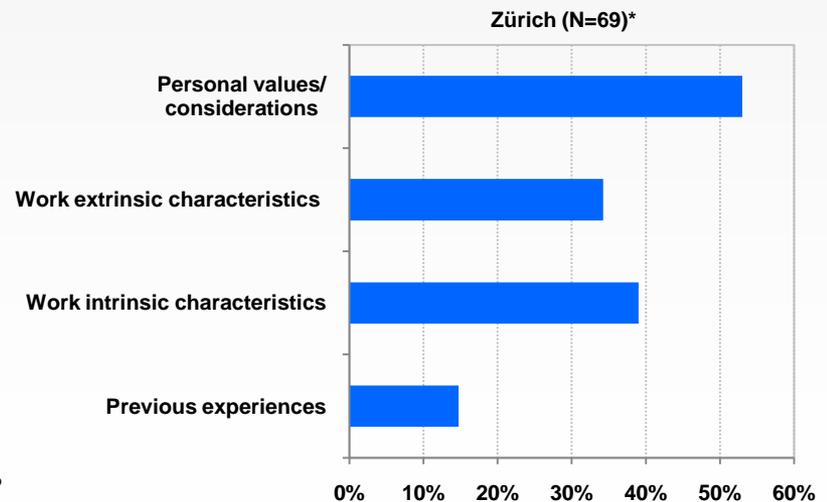
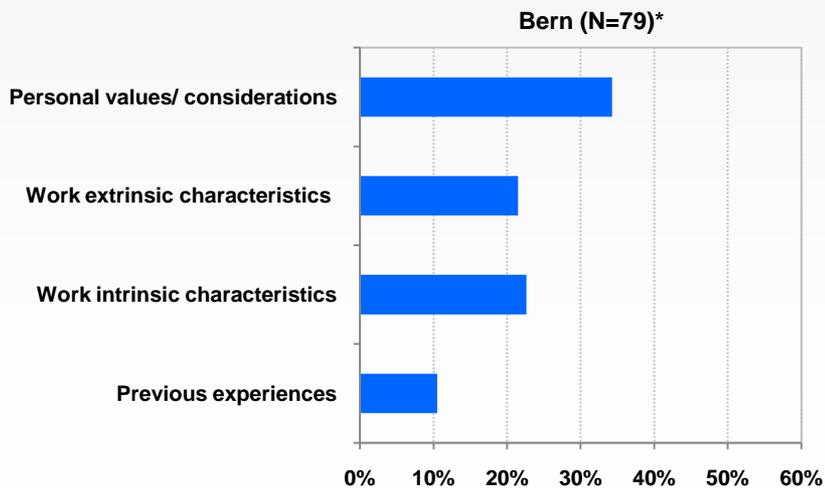
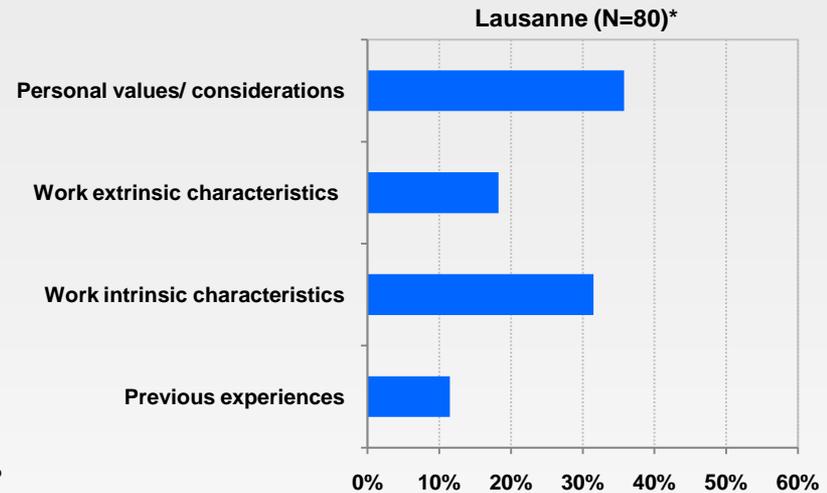
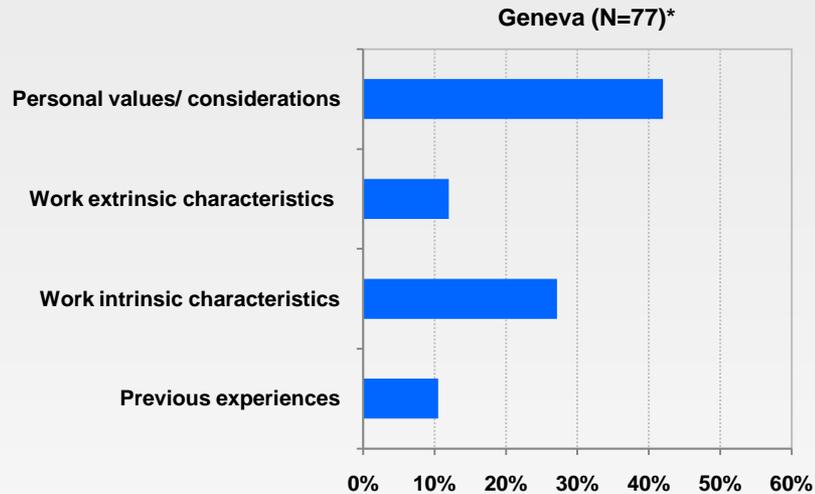
Work intrinsic characteristics

- Interpersonal relationship and contact with patients
- Multidisciplinarity
- Variety of activities, experiences, types of pathologies...
- Team work
- Tied to research
- Technical skills (manual, precise skills)
- High level of complexity and leading edge progress
- Level of responsibility and decision-making

Previous experiences

- Personal experiences (accident, disease...)
- Experiences while a student (clinical clerkship, work as substitute)
- Influence of a family member
- Influence of a course, teacher, chief resident
- Other

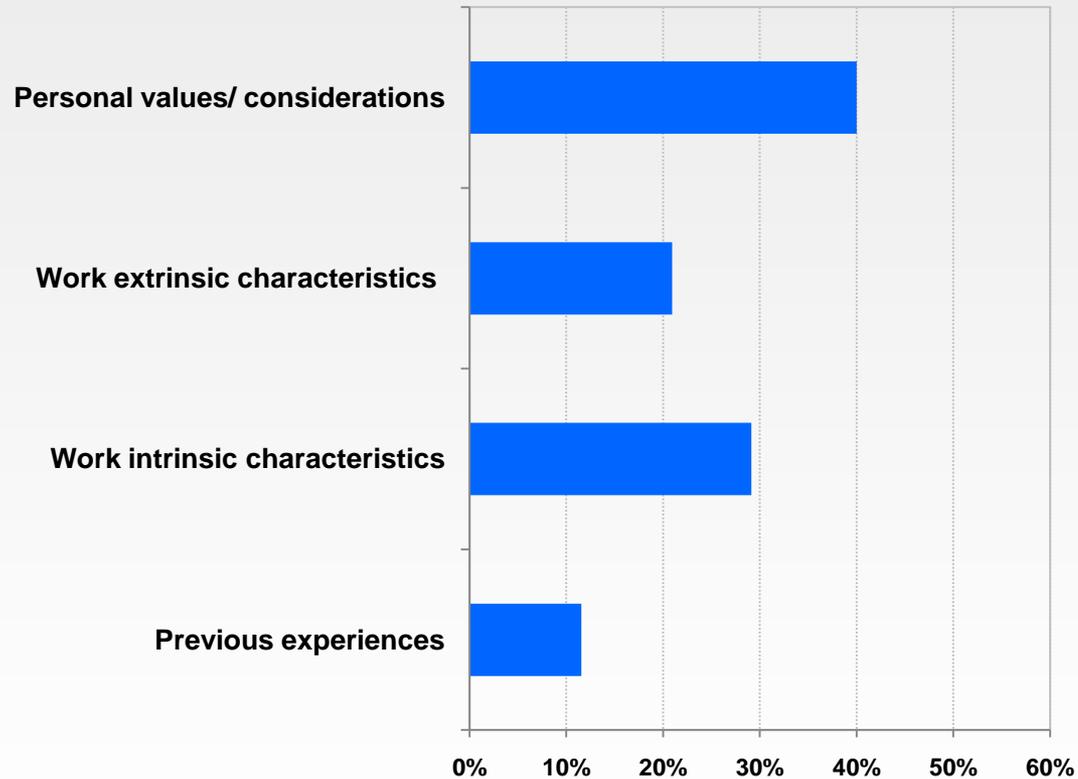
Reasons for career plan choice By faculty



* Percentages based on number of students who indicated having made a career plan choice

Reasons for career plan choice

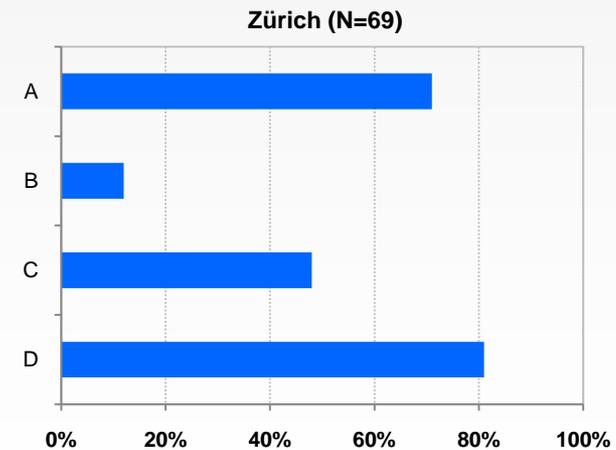
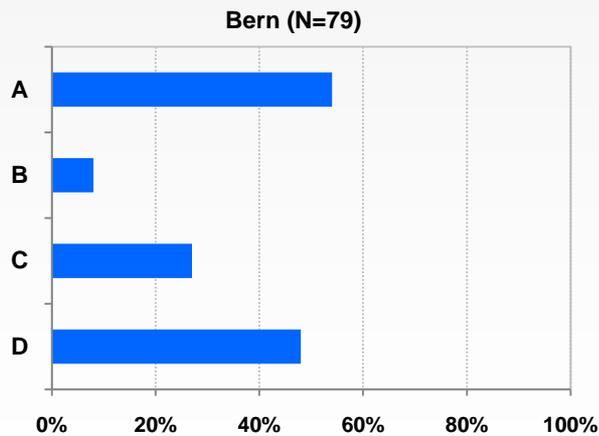
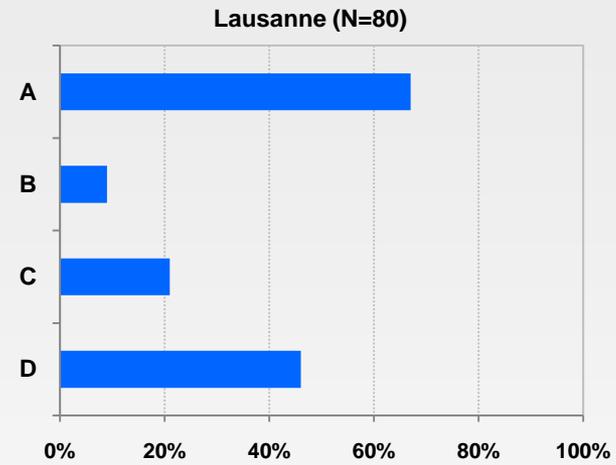
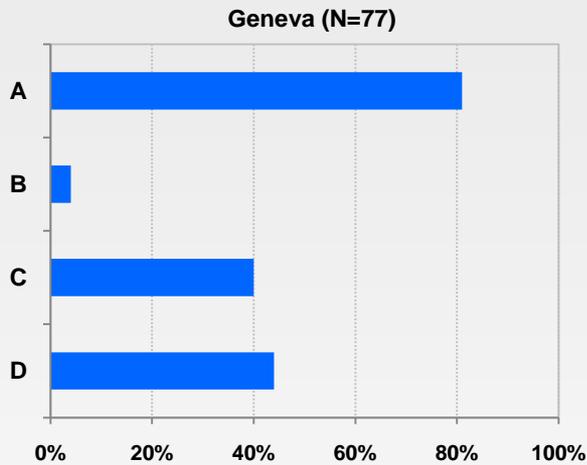
All 4 faculties (N=305/377)*



* Percentages based on number of students who indicated having made a career plan choice

Reasons for career plan choice: Personal values/considerations

By faculty



A Passionate for medicine

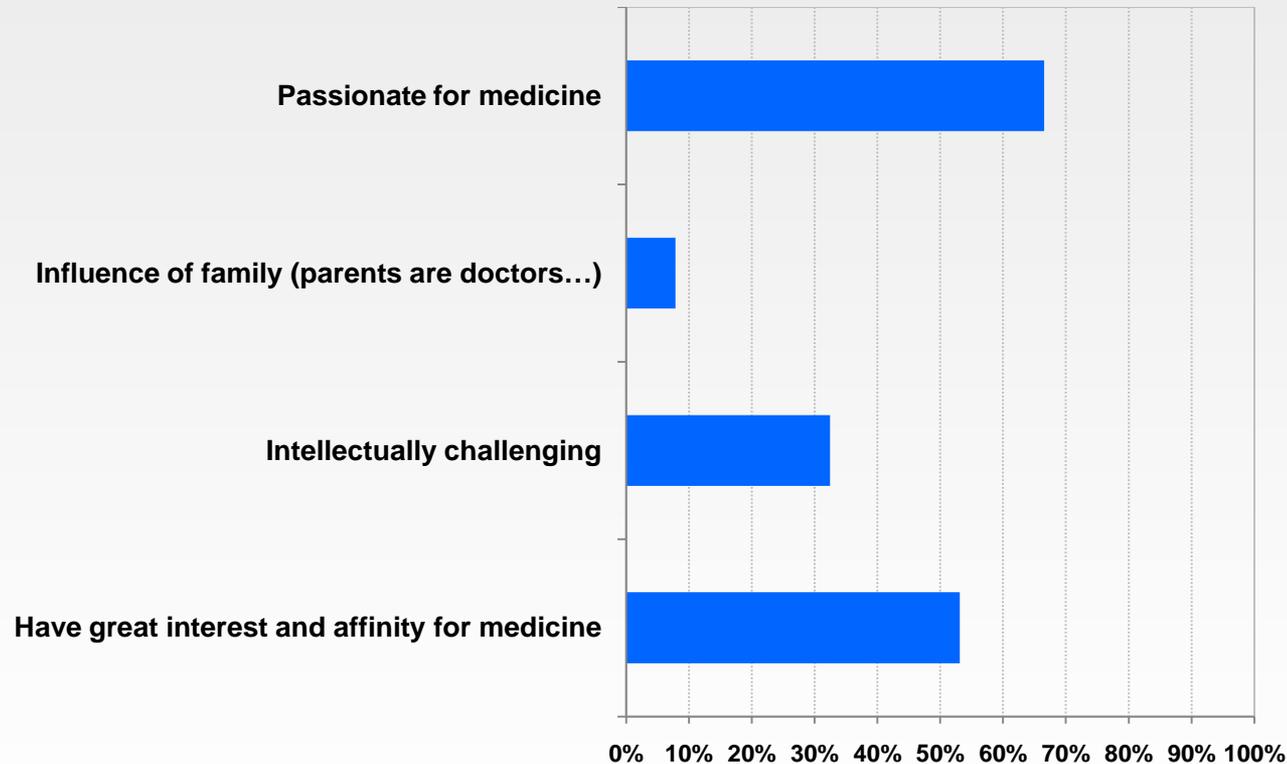
B Influence of family (parents are doctors...)

C Intellectually challenging

D Have great interest and affinity for medicine

Reasons for career plan choice: Personal values/considerations

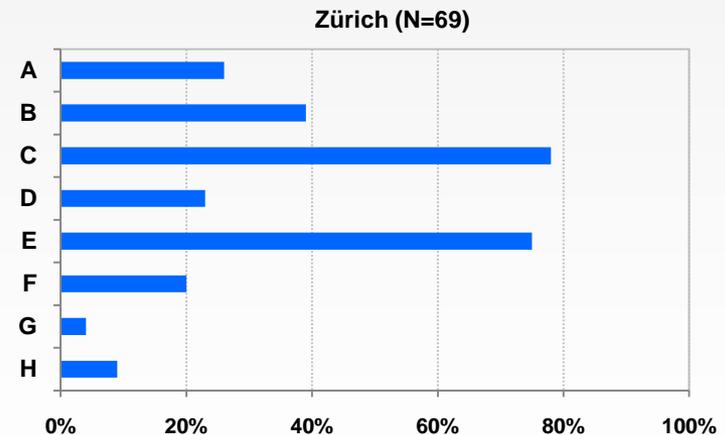
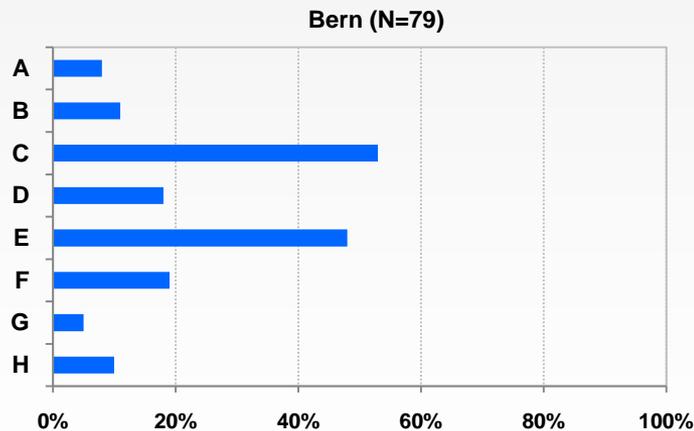
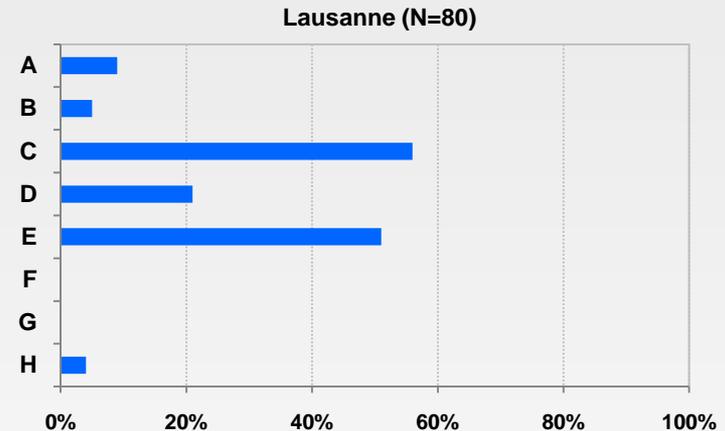
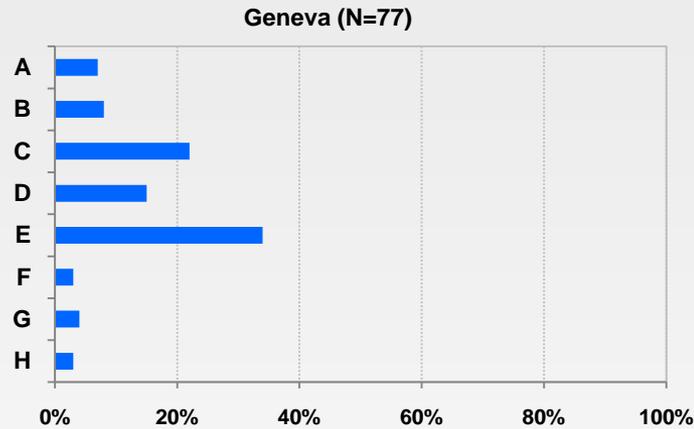
All 4 faculties (N=305/377)*



* Percentages based on number of students who indicated having made a career plan choice

Reasons for career plan choice: Work extrinsic characteristics

By faculty

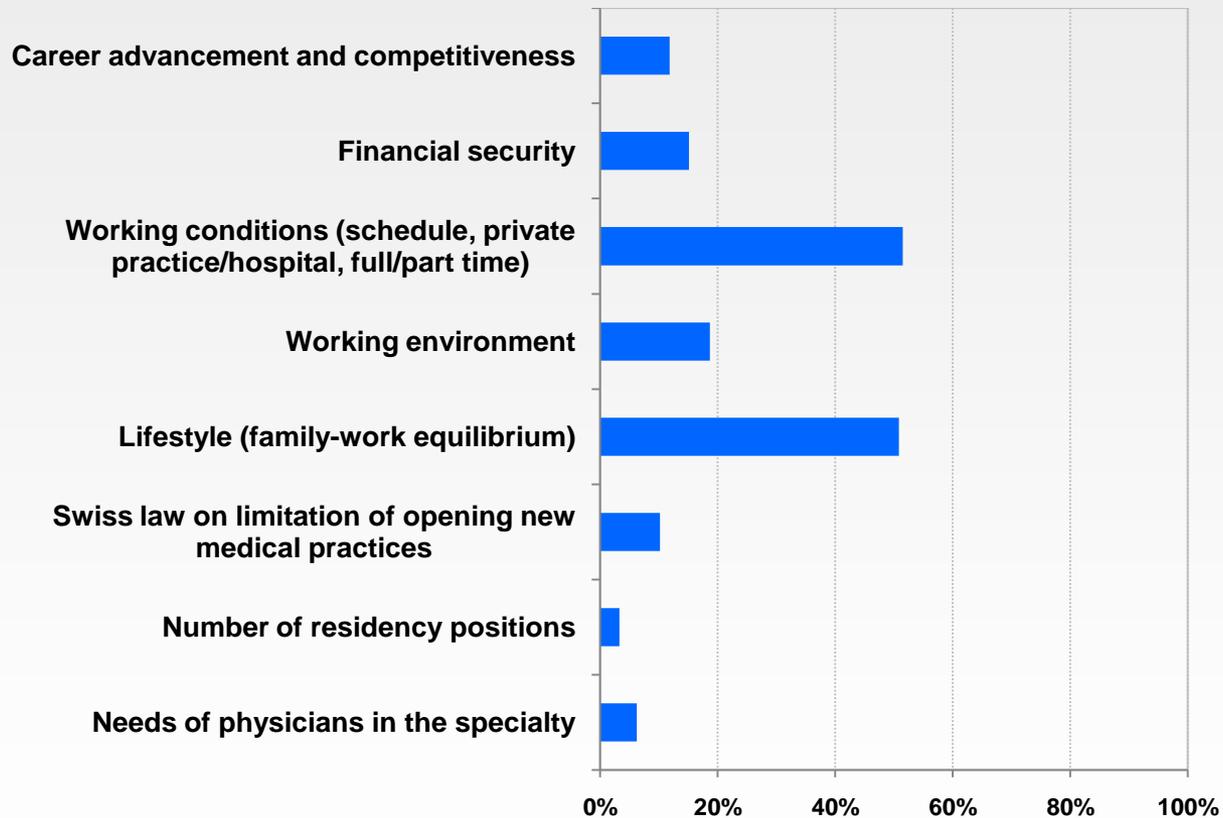


- A Career advancement and competitiveness
- B Financial security
- C Working conditions (schedule, private practice/hospital, full/part time)
- D Working environment

- E Lifestyle (family-work equilibrium)
- F Swiss law on limitation of opening new medical practices
- G Number of residency positions
- H Needs of physicians in the specialty

Reasons for career plan choice: Work extrinsic characteristics

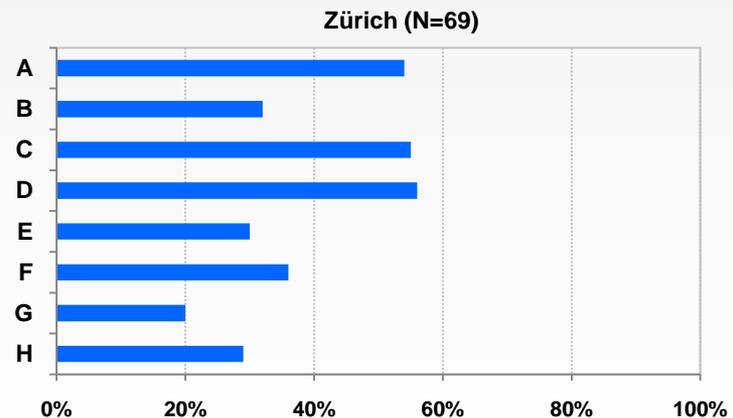
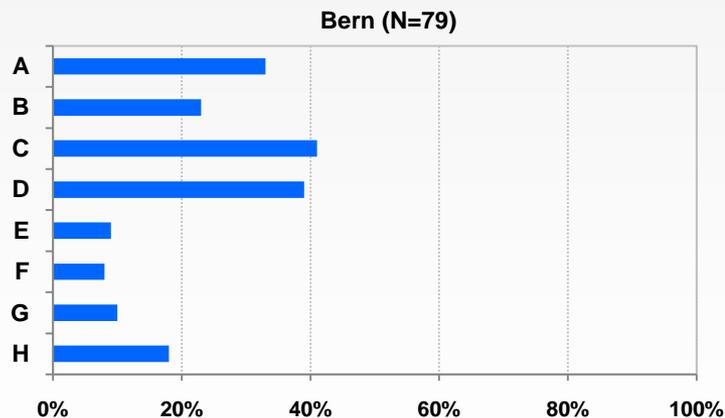
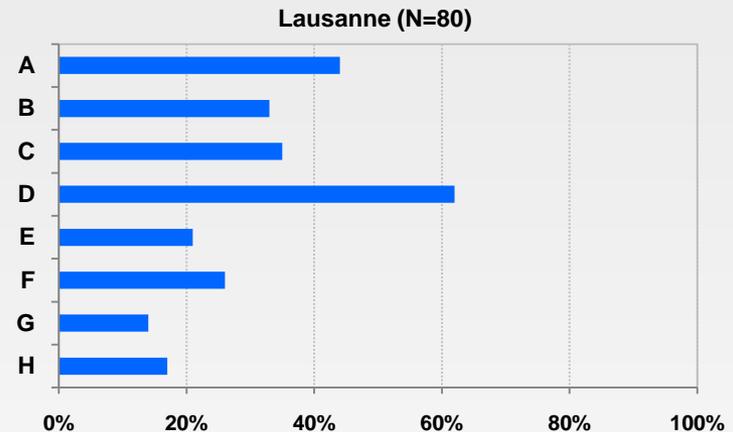
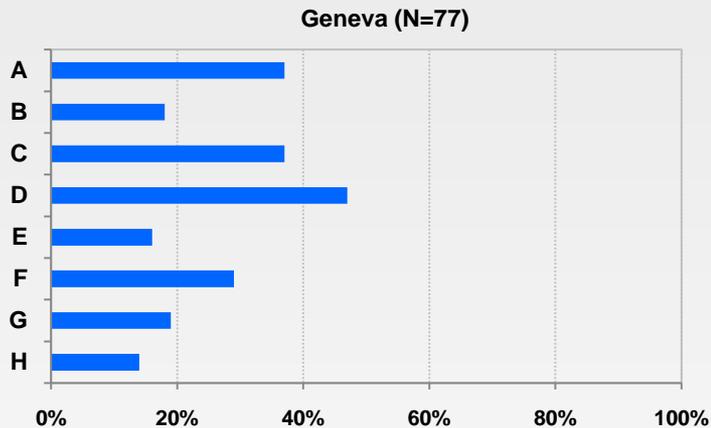
All 4 faculties (N=305/377)*



* Percentages based on number of students who indicated having made a career plan choice

Reasons for career plan choice: Work intrinsic characteristics

By faculty

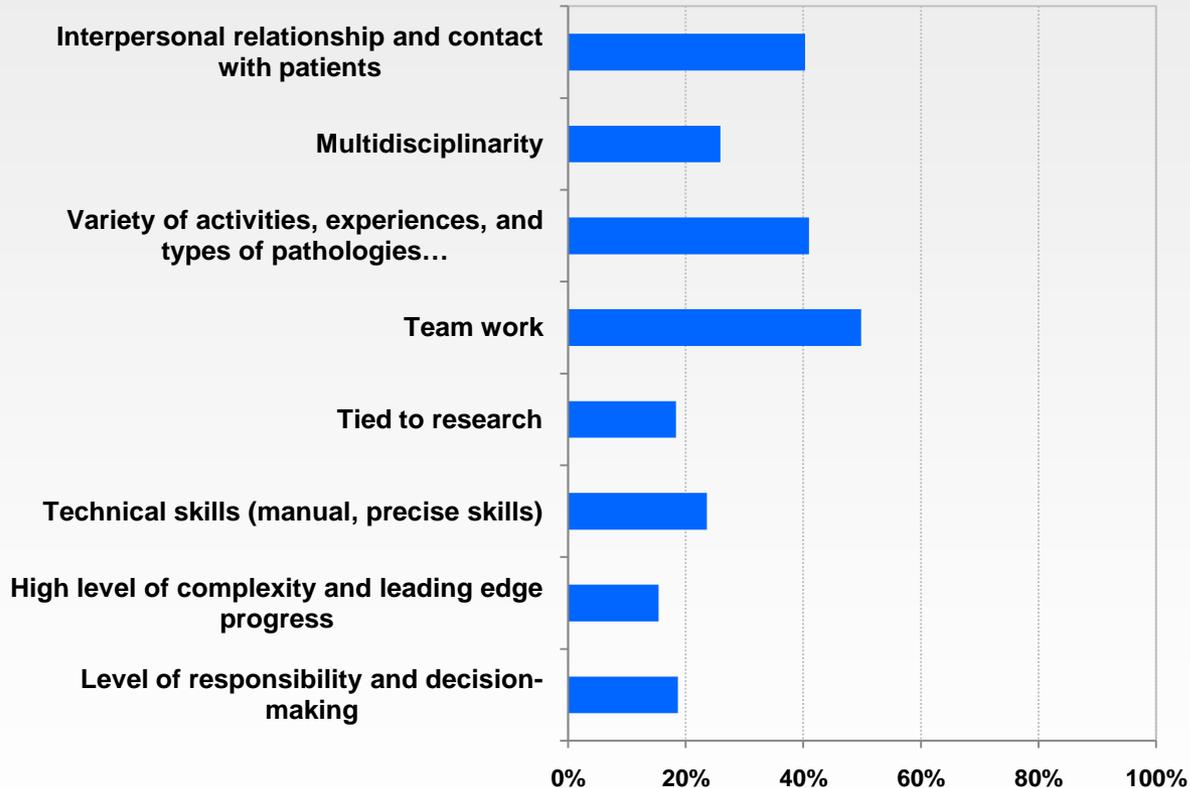


- A Interpersonal relationship and contact with patients
- B Multidisciplinary
- C Variety of activities, experiences, and types of pathologies...
- D Team work

- E Tied to research
- F Technical skills (manual, precise skills)
- G High level of complexity and leading edge progress
- H Level of responsibility and decision-making

Reasons for career plan choice: Work intrinsic characteristics

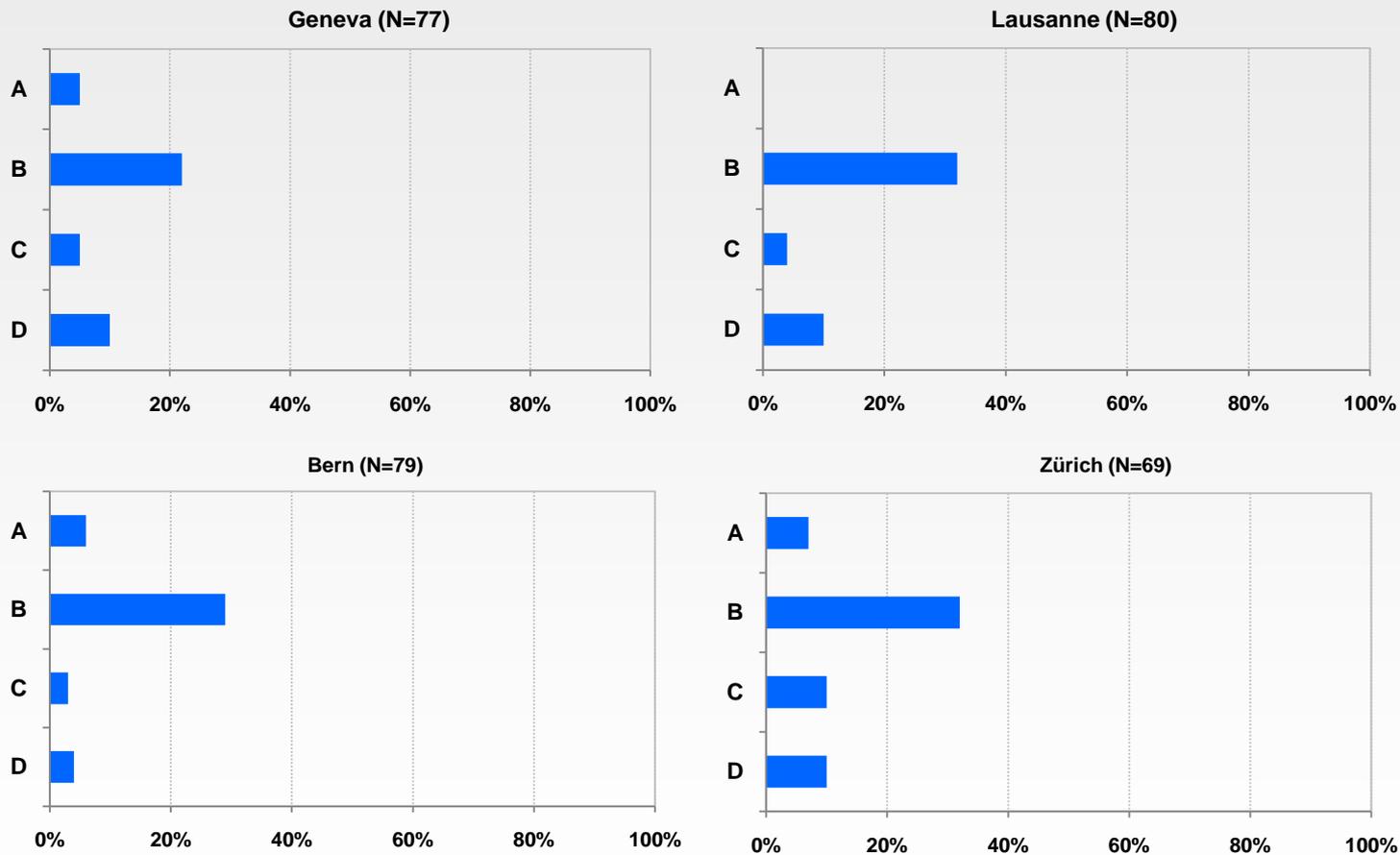
All 4 faculties (N=305/377)*



* Percentages based on number of students who indicated having made a career plan choice

Reasons for career plan choice: Previous experiences

By faculty



A Personal experiences (accident, disease...)

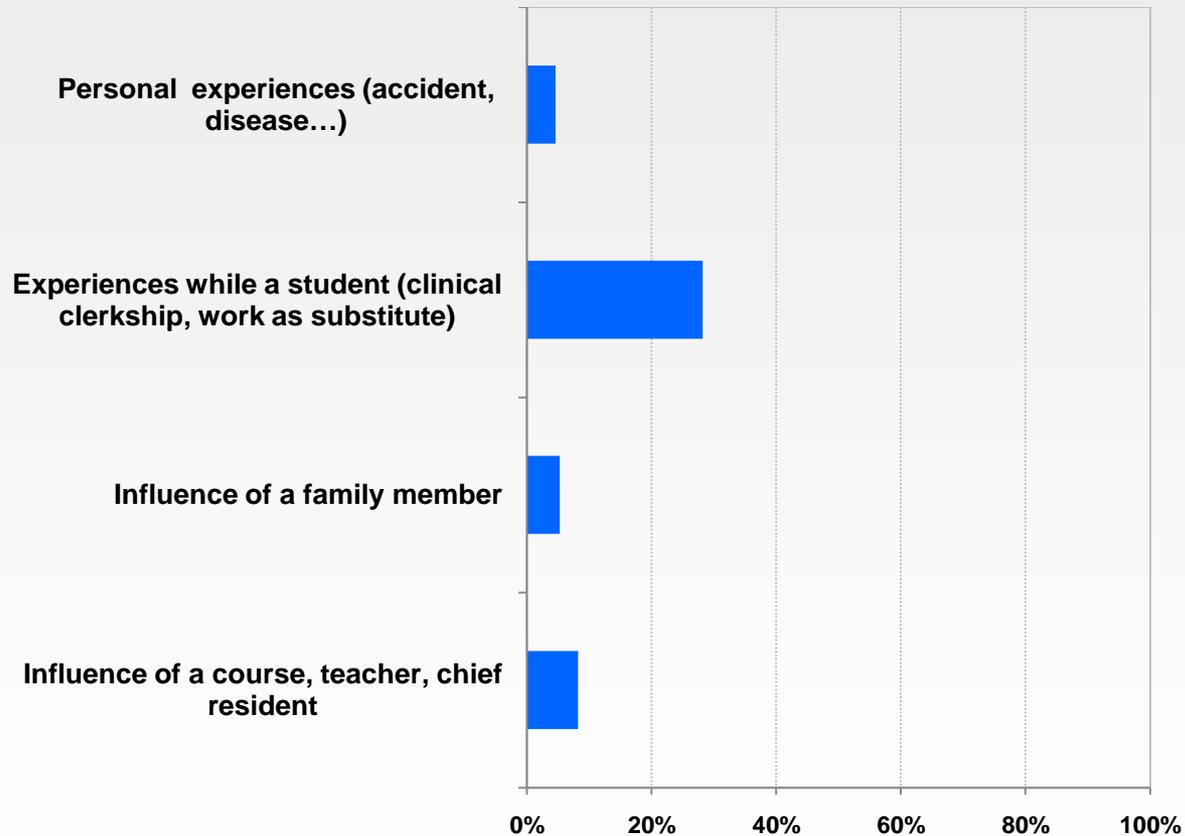
B Experiences while a student (clinical clerkship, work as substitute)

C Influence of a family member

D Influence of a course, teacher, chief resident

Reasons for career plan choice: Previous experiences

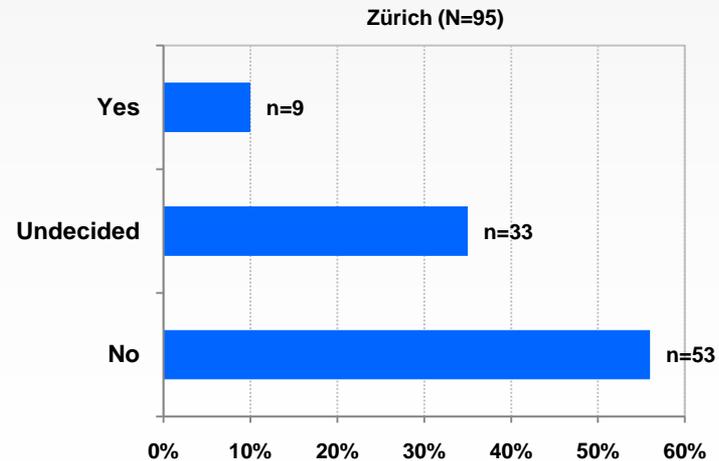
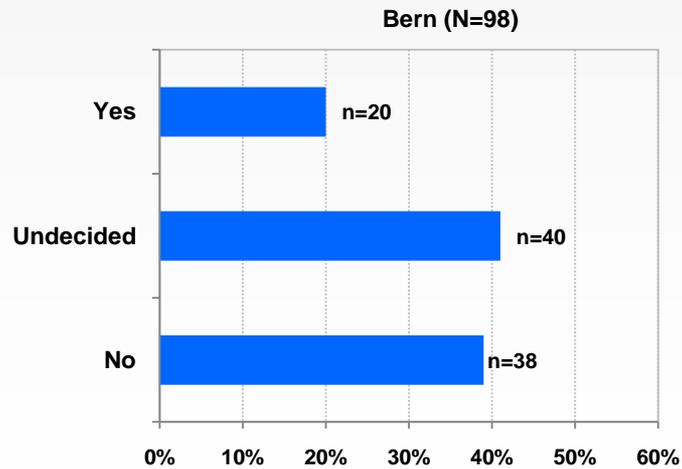
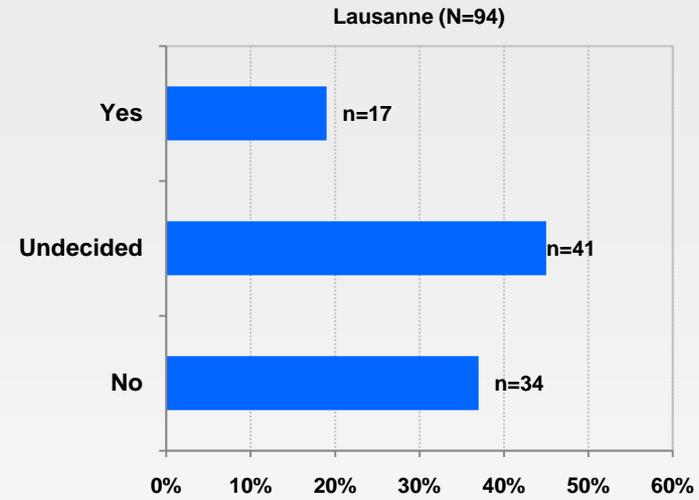
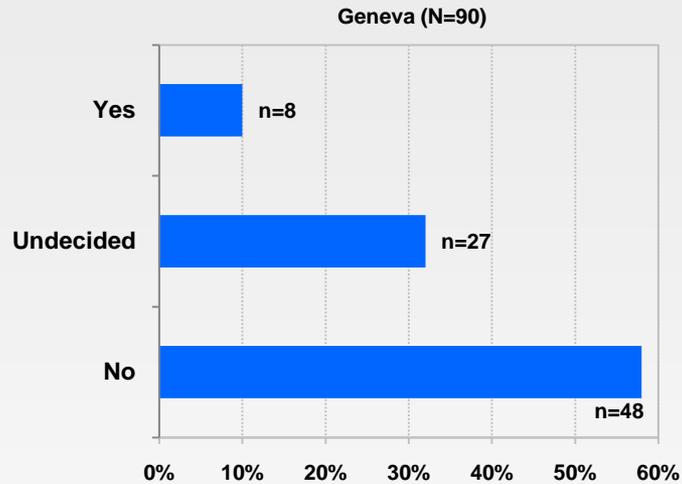
All 4 faculties (N=305/377)*



* Percentages based on number of students who indicated having made a career plan choice

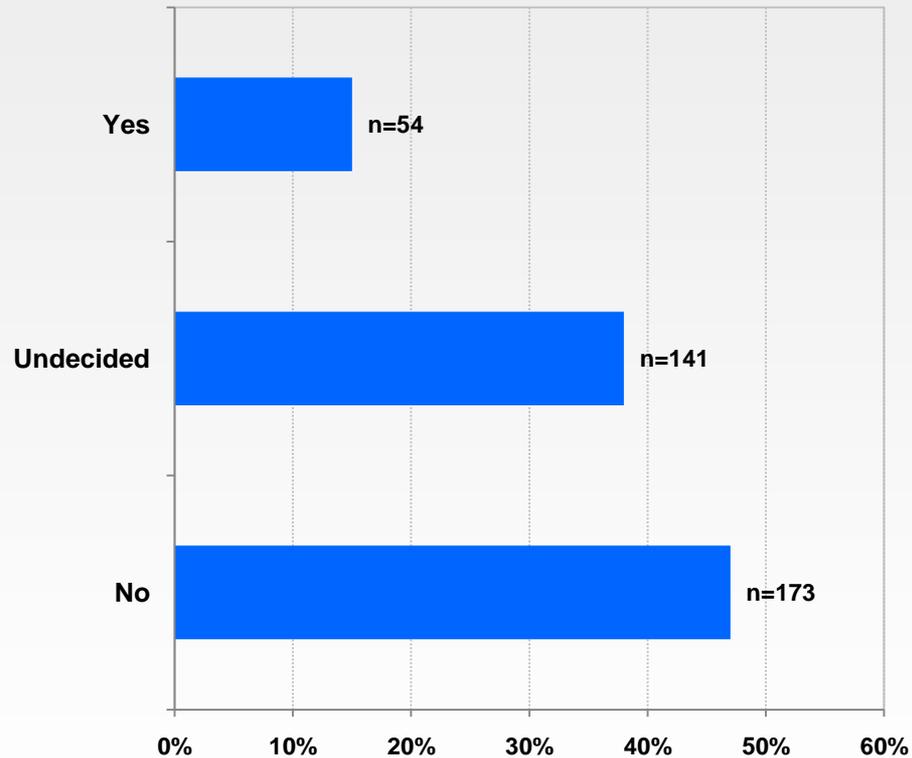
Intention of practice in medically underserved areas

By faculty



Intention of practice in medically underserved area

All 4 faculties (N=377)



Choice of place of practice in medically underserved areas

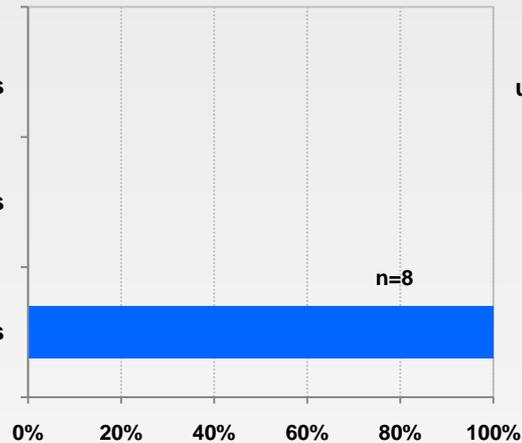
By faculty

Geneva (N=8)*

Urban medically underserved neighborhoods

Mountain areas

Rural areas

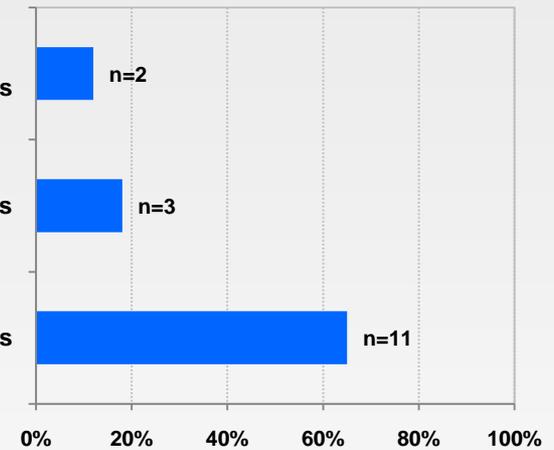


Lausanne (N=17)*

Urban medically underserved neighborhoods

Mountain areas

Rural areas

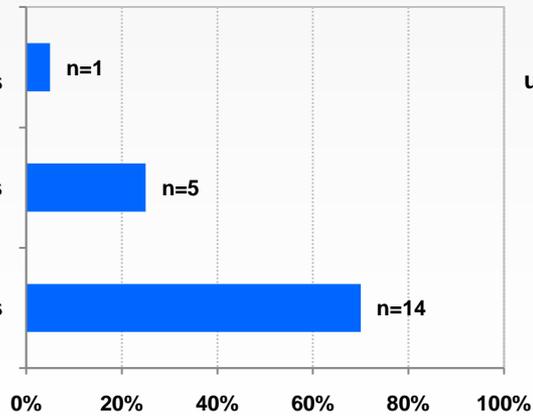


Bern (N=20)*

Urban medically underserved neighborhoods

Mountain areas

Rural areas

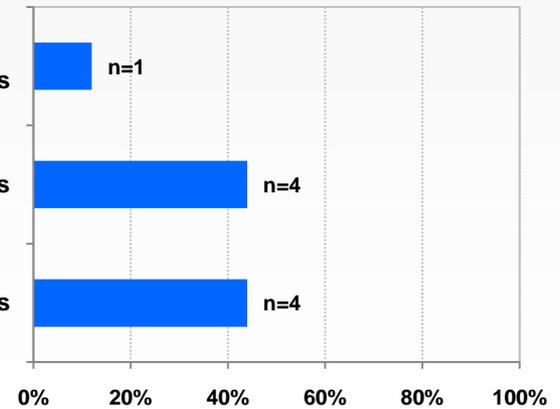


Zürich (N=9)*

Urban medically underserved neighborhoods

Mountain areas

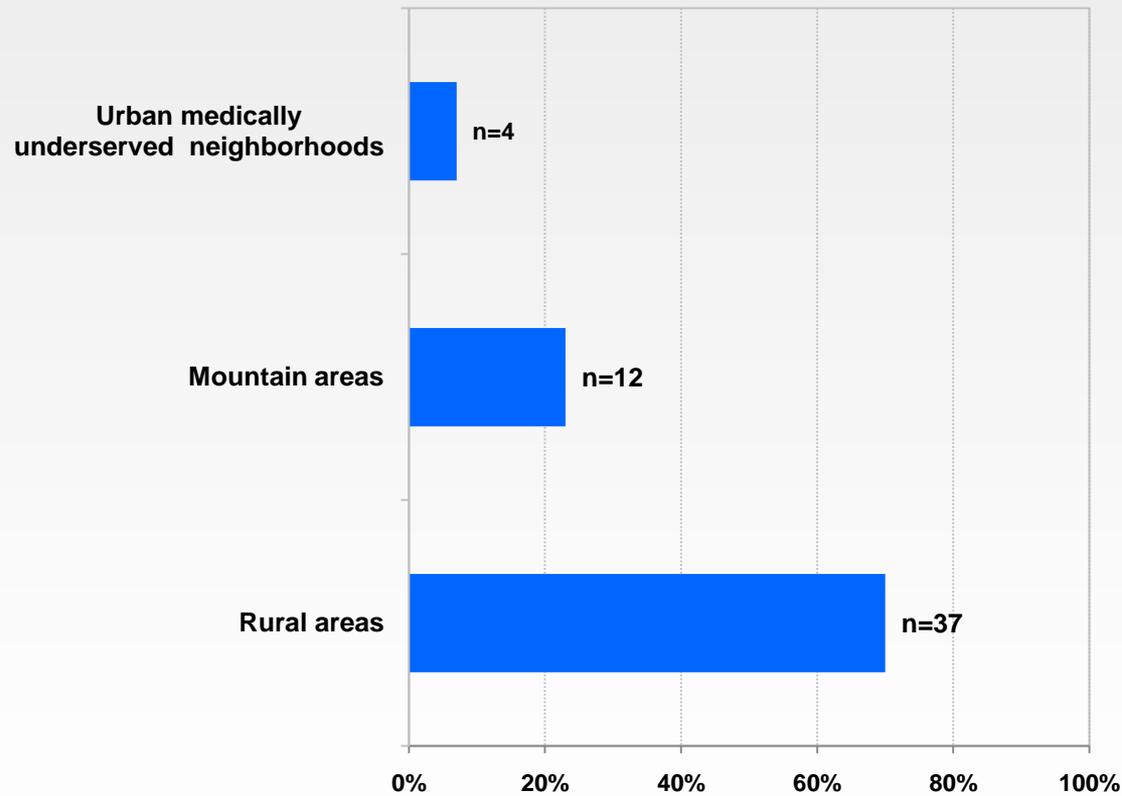
Rural areas



* Percentages based on the number of students who indicated having intention to practice in medically underserved areas

Choice of place of practice in medically underserved areas

All 4 faculties (N=54/377)*

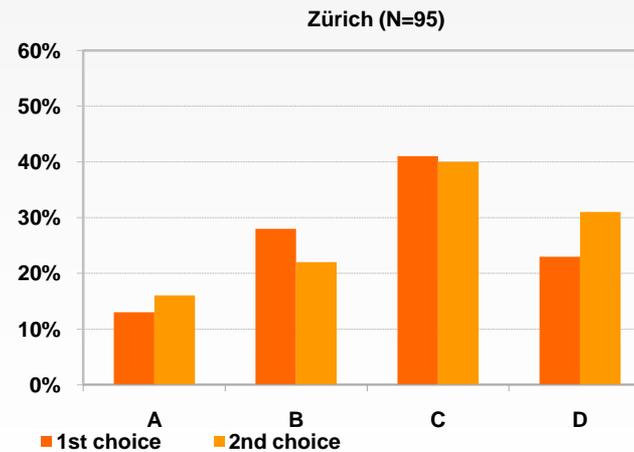
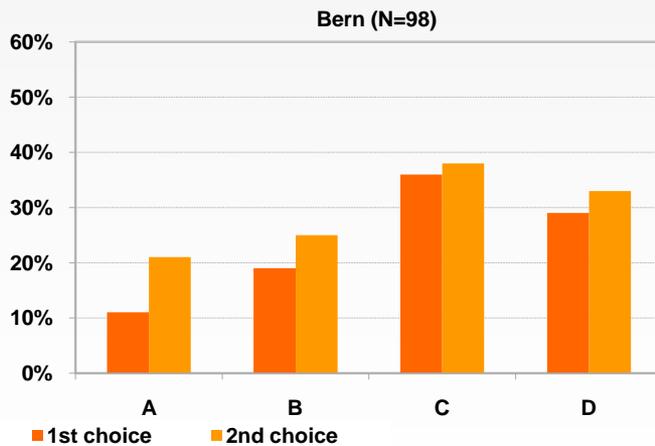
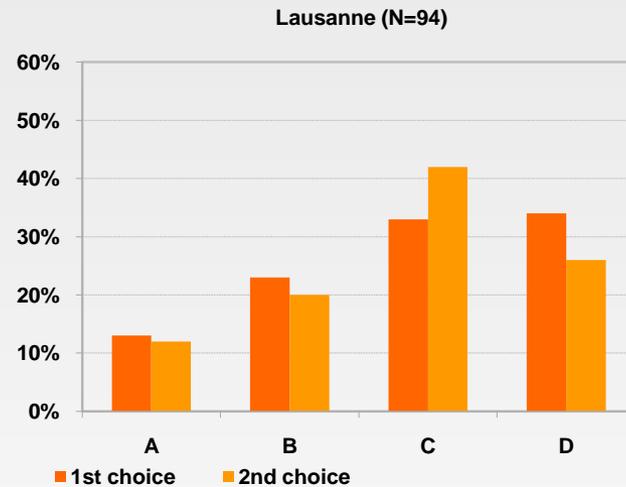
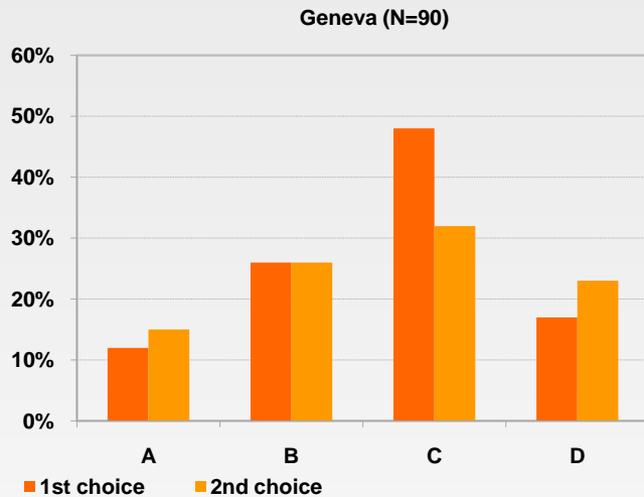


* Percentages based on the number of students who indicated having intention to practice in medically underserved areas

Career plan: Type of specialization

A	Performing specialized diagnostic or technical procedures, basic or applied laboratory research; Primarily hospital- based. (ex : radiology, pathology ...)
B	Performing highly skilled and specialized therapeutic techniques or procedures. Primarily hospital-based with some office activity. (ex : orthopedic surgery, ophthalmology ...)
C	Providing episodic or long-term care of a limited number of medical problems that may include instrumentation and technical interventions. Mix of ambulatory and hospital-based practice. (ex : internal medicine, cardiology, psychiatry, dermatology, obstetrics/ gynecology ...)
D	Providing first encounter health or illness appraisal, preventive education and interventions, episodic and long-term comprehensive care of a wide variety of medical problems. Primarily office-based. (ex : family medicine, general medicine ...)

1st and 2nd choices of type of specialization By faculty



A ex : radiology, pathology ...

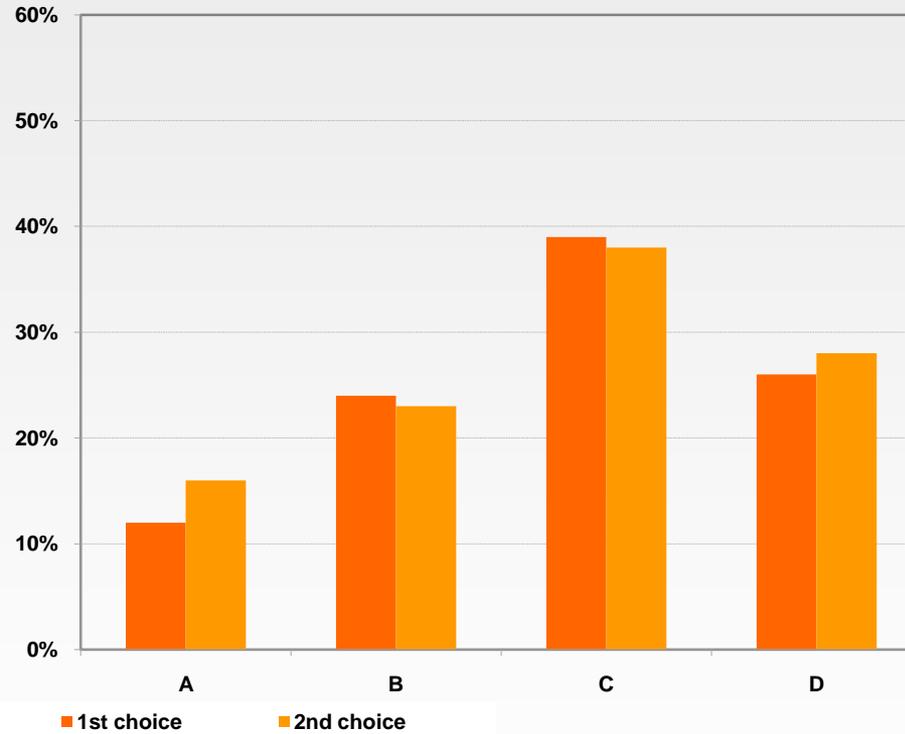
B ex : orthopedic surgery, ophthalmology...

C ex : internal medicine, cardiology, psychiatry, dermatology, ob/gyn...

D ex : family medicine, general medicine ...

1st and 2nd choices of type of specialization

All 4 faculties (N=377)



A ex : radiology, pathology ...

B ex : orthopedic surgery, ophtalmology...

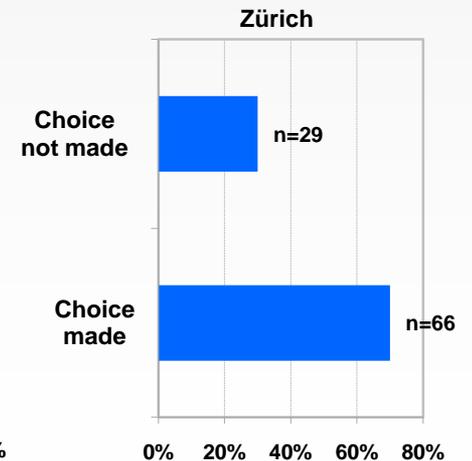
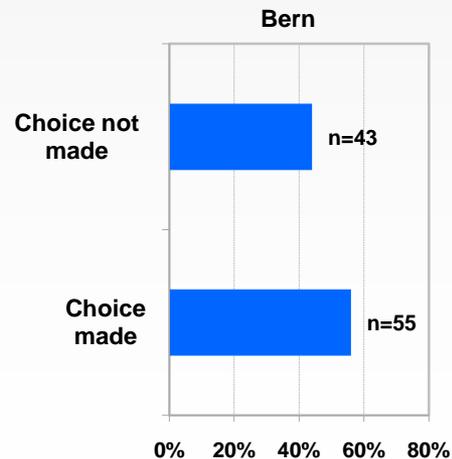
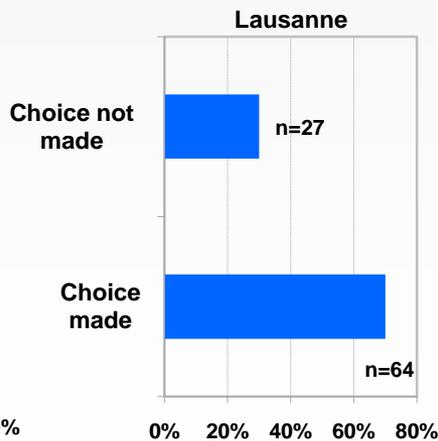
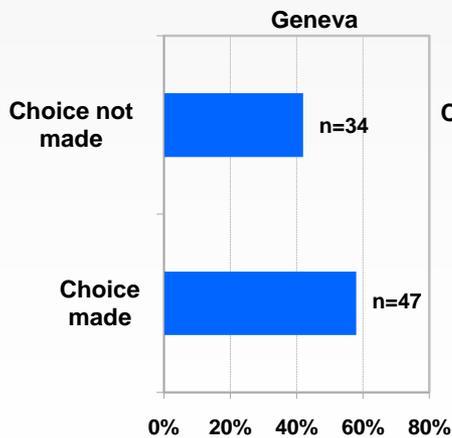
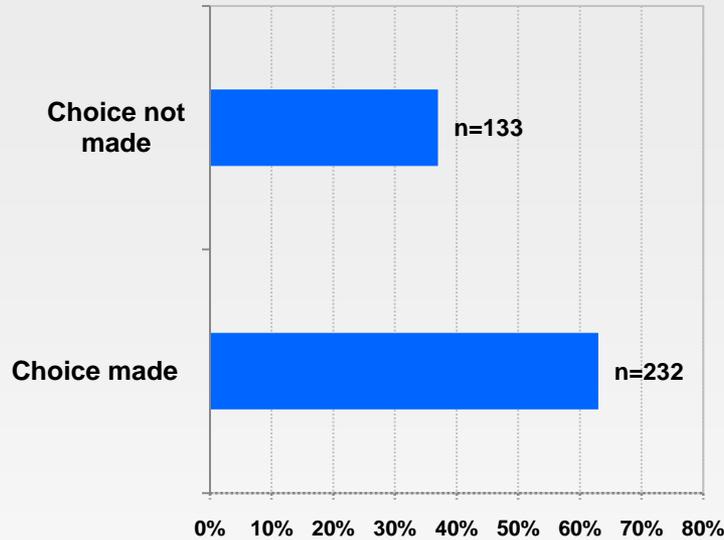
C ex : internal medicine, cardiology, psychiatry, dermatology, ob/gyn...

D ex : family medicine, general medicine ...

Specialty choice status

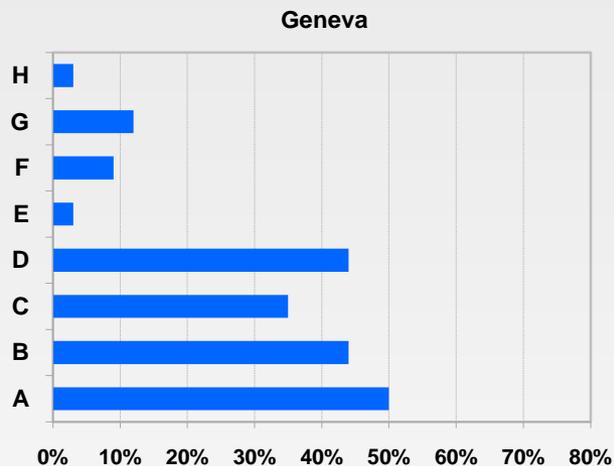
All 4 faculties and by faculty*

All 4 Faculties

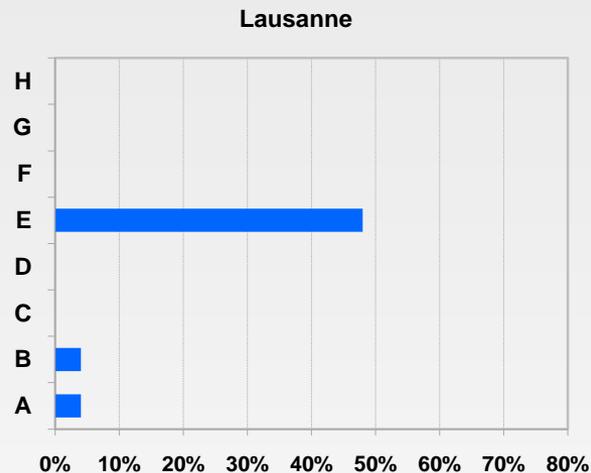


Reasons for not making a specialty choice By faculty

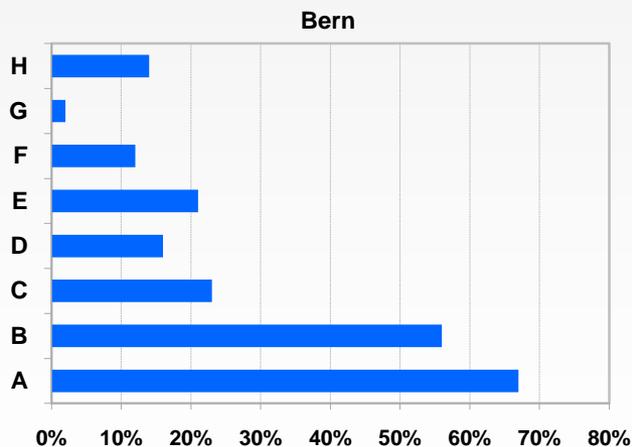
N=34*



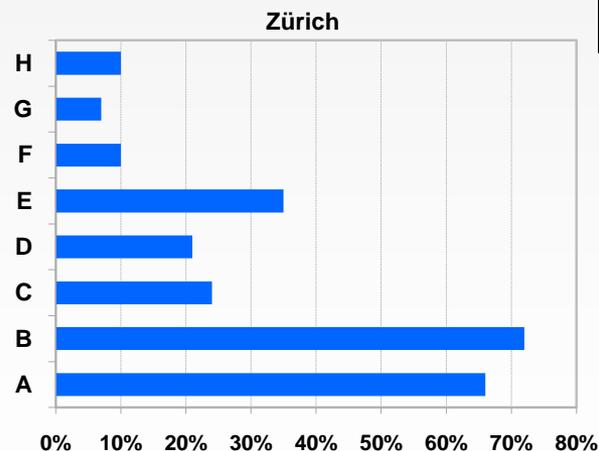
N=27*



N=43*



N=29*



A Difficulty choosing among many specialties

B Have not decided yet

C Insufficient information from faculty on specialty choices

D Insufficient information from faculty on the process of residency application

E Difficulty to find an interesting specialty

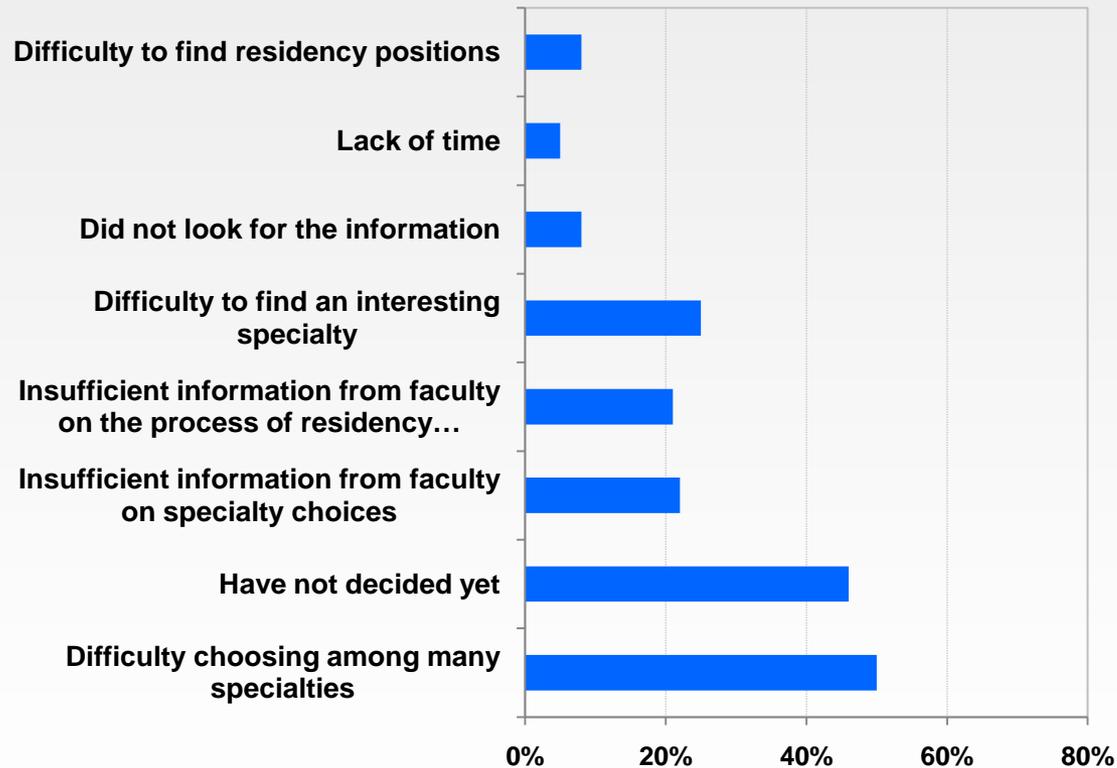
F Did not look for the information

G Lack of time

H Difficulty to find residency positions

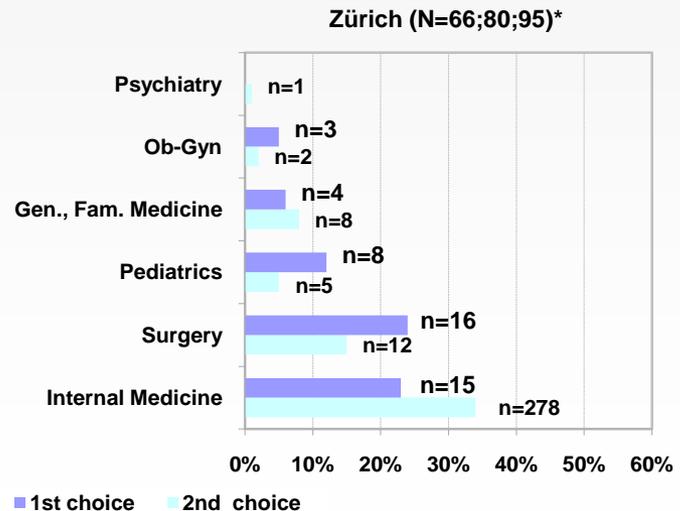
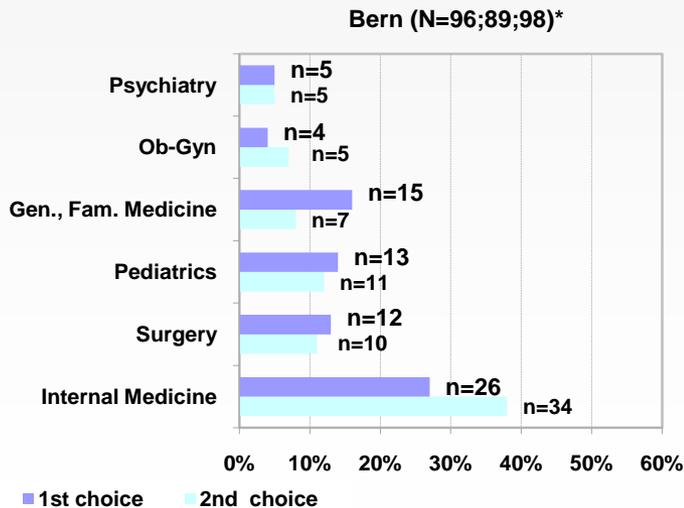
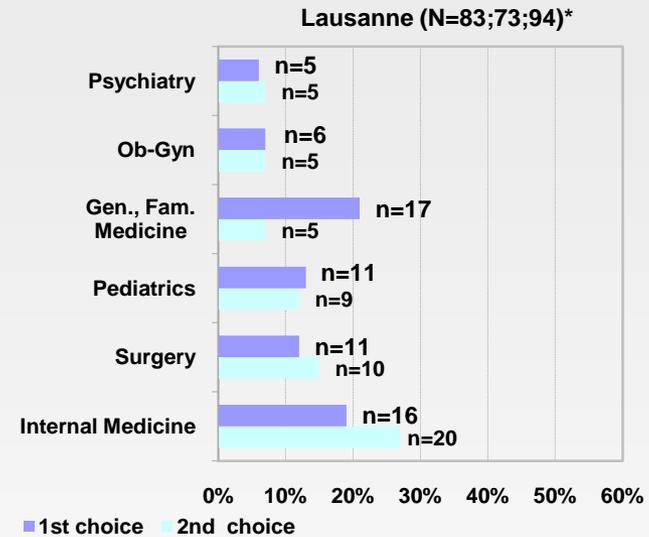
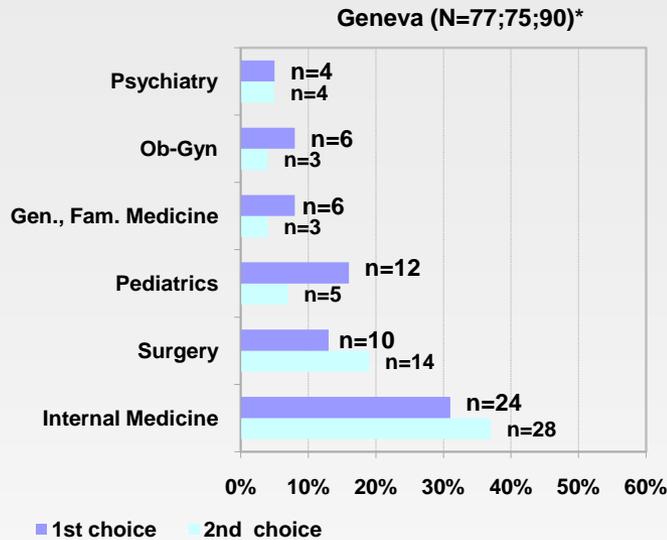
Reasons for not making a specialty choice

All 4 faculties (N=133/377)*

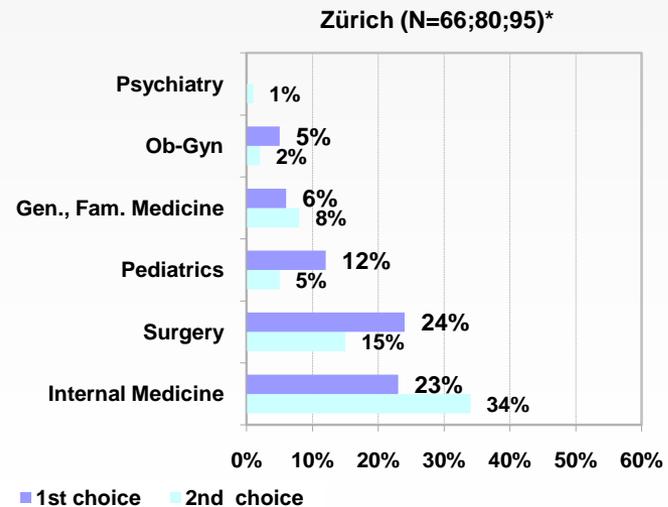
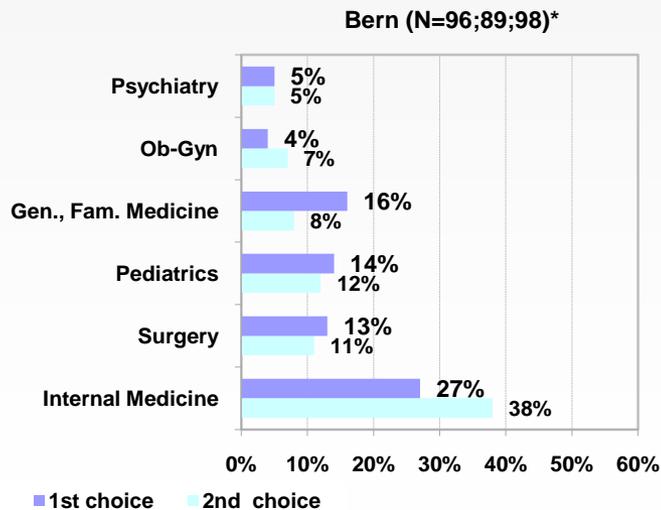
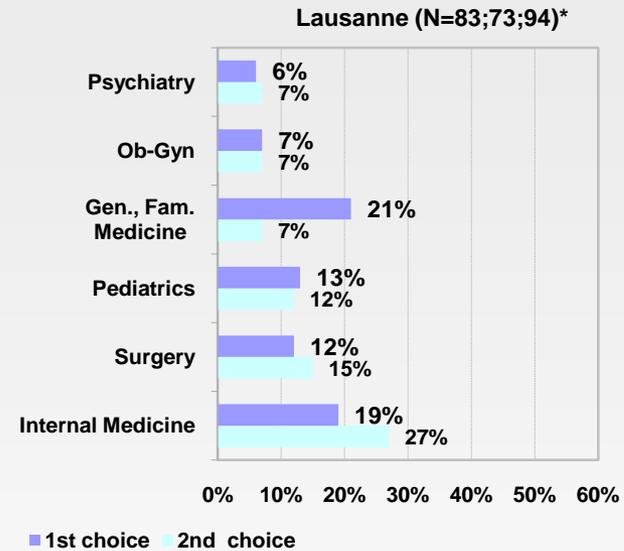
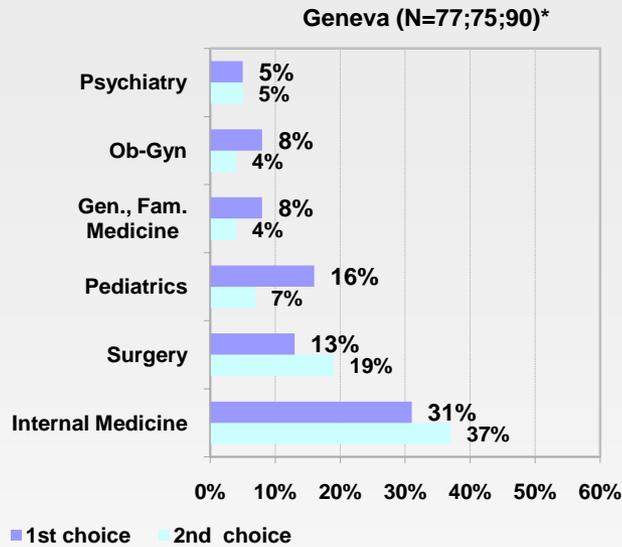


* Percentages based on number of students who indicated having not made a specialty choice

Specialty 1st and 2nd choices By faculty (N)

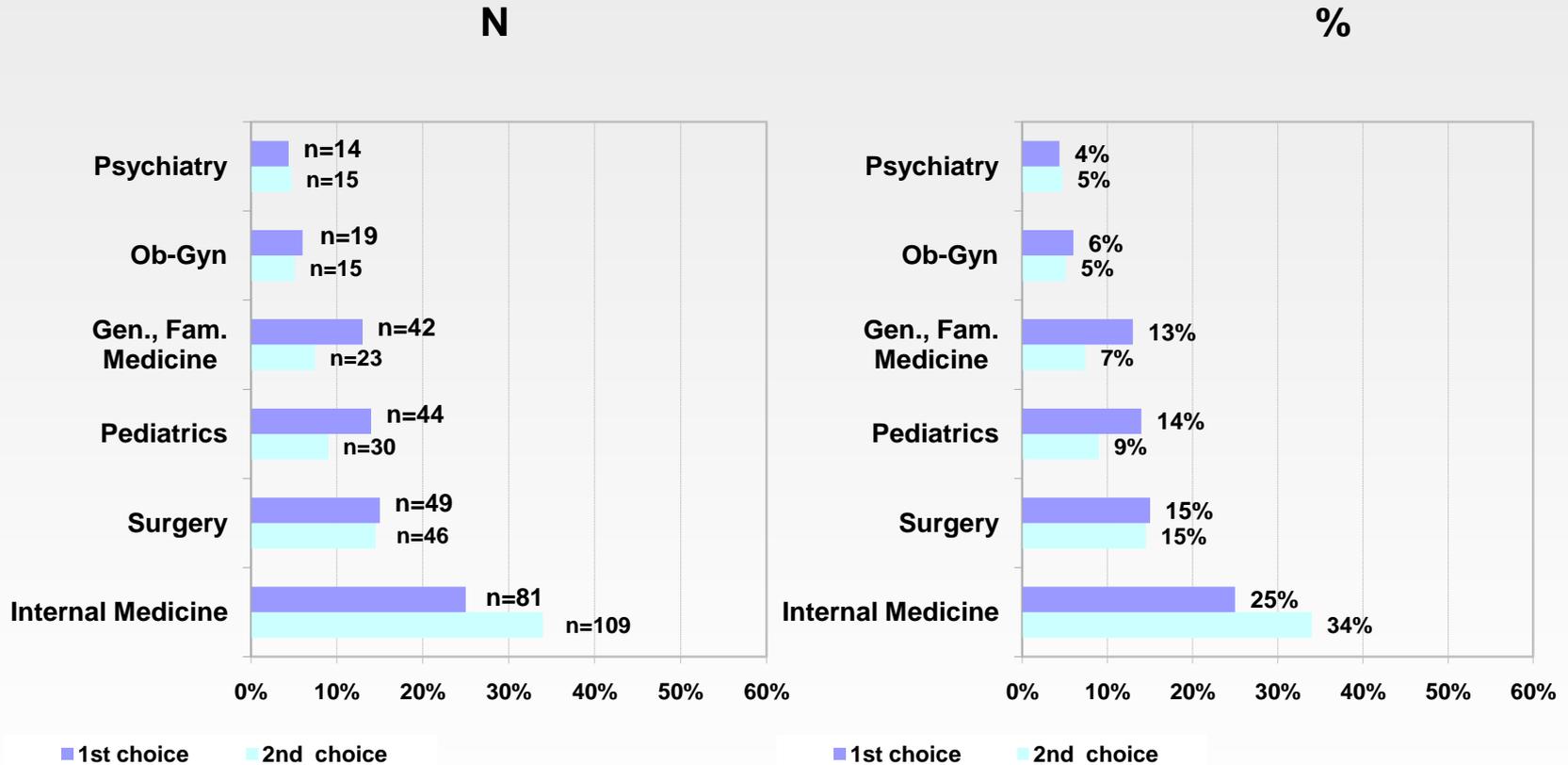


Specialty 1st and 2nd choices By faculty (%)



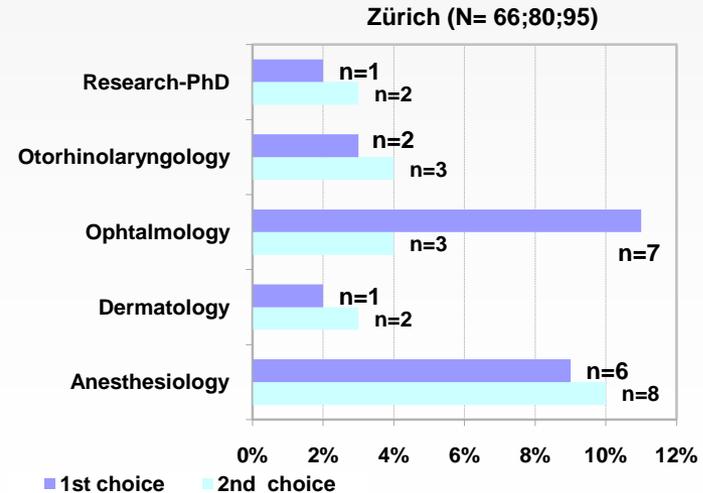
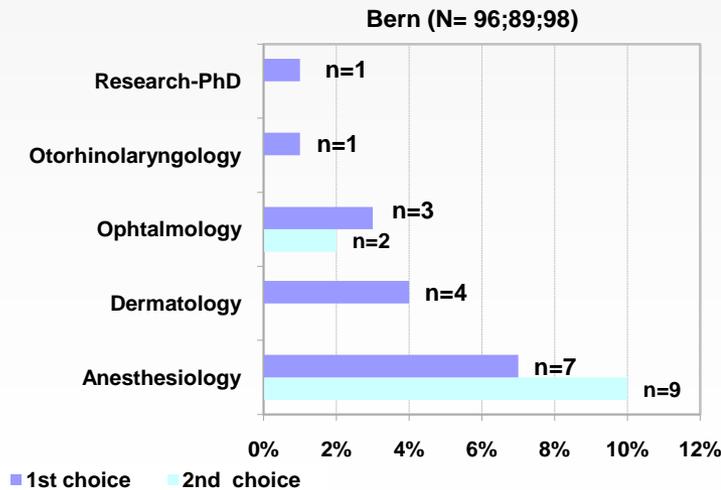
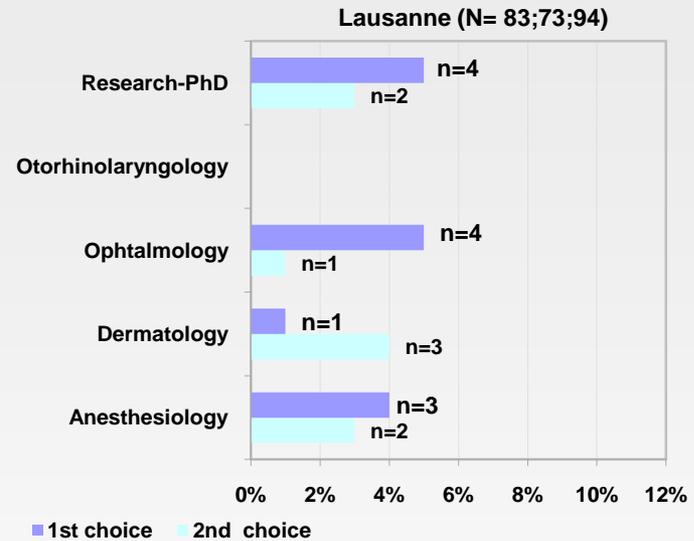
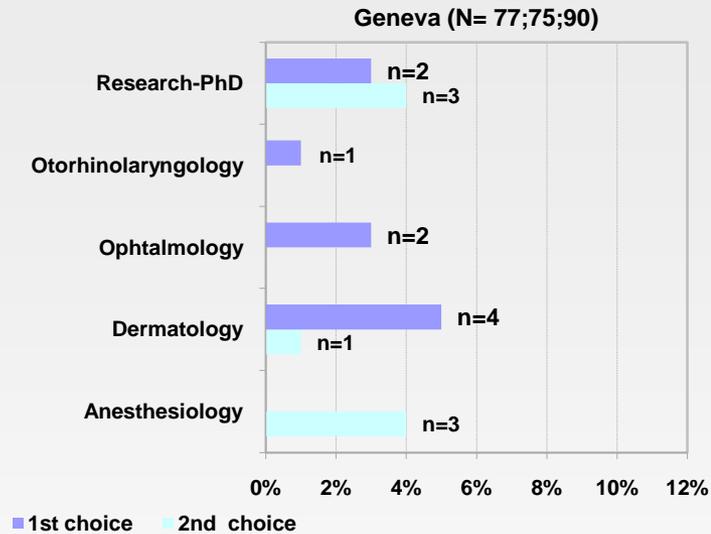
Specialty 1st and 2nd choices

All 4 faculties (N=322; 317; 377)*

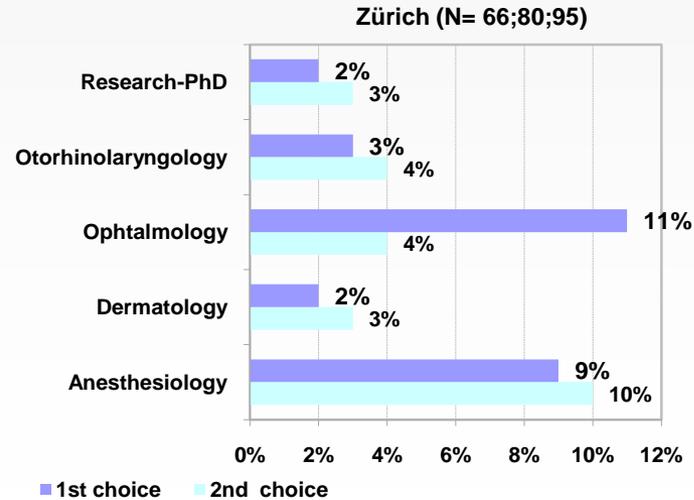
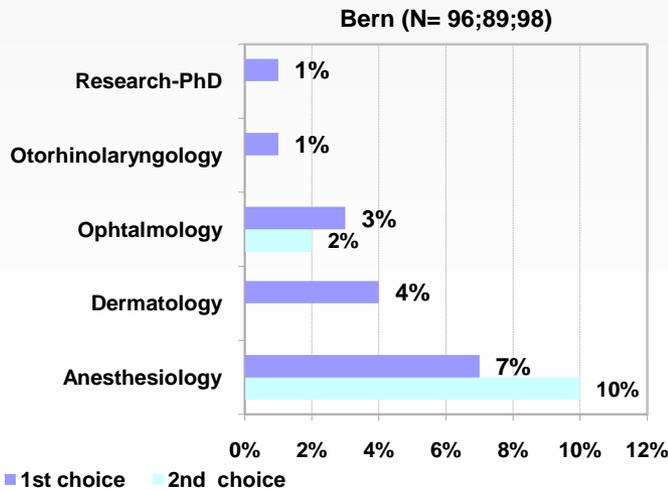
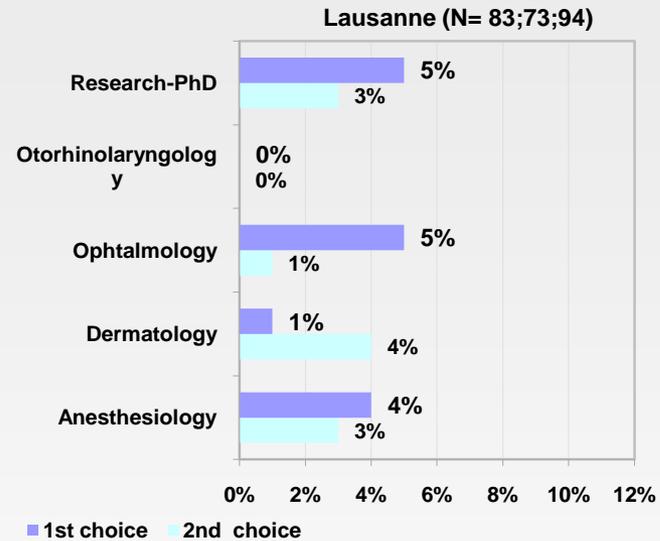
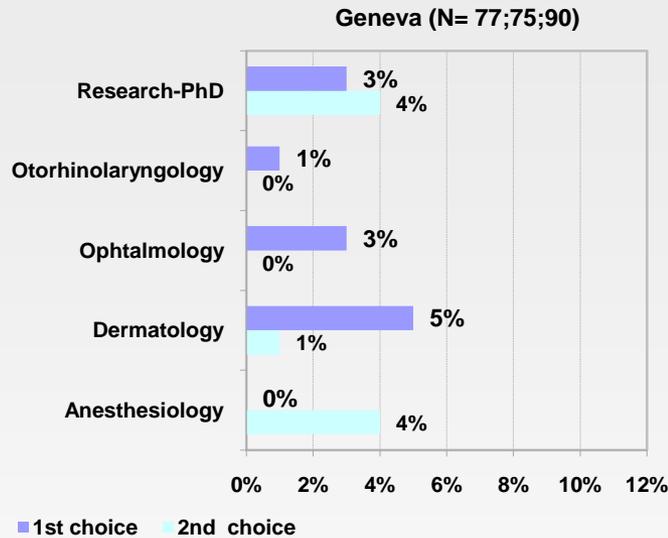


* N= No of students who make the 1st choice; No of students who make the 2nd choice; No of students who filled out the questionnaire
 Note: Several students who indicated having not made a specialty choice did, however, select a specialty

Subspecialty 1st and 2nd choices By faculty* (N)

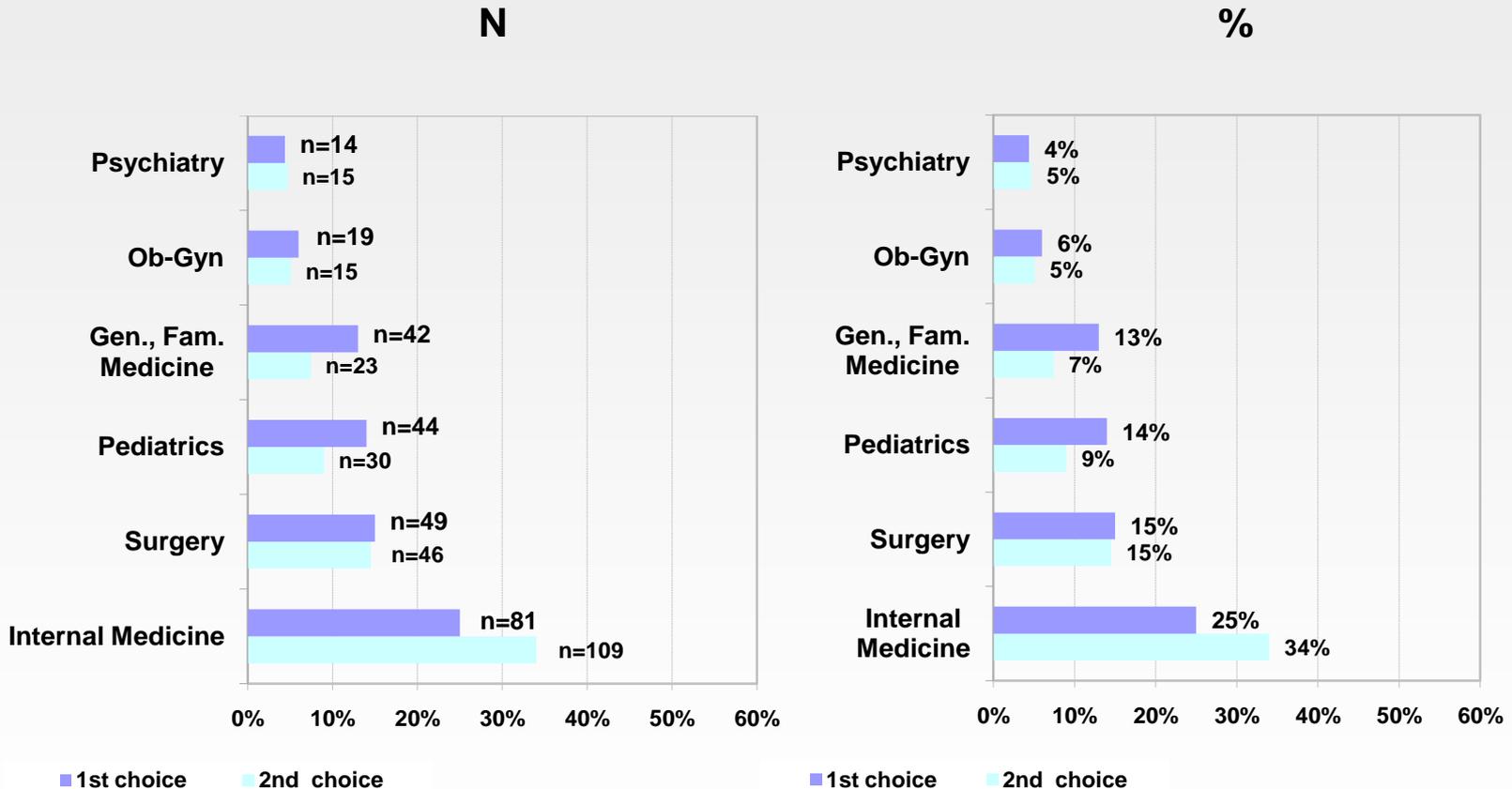


Subspecialty 1st and 2nd Choices By faculty* (%)



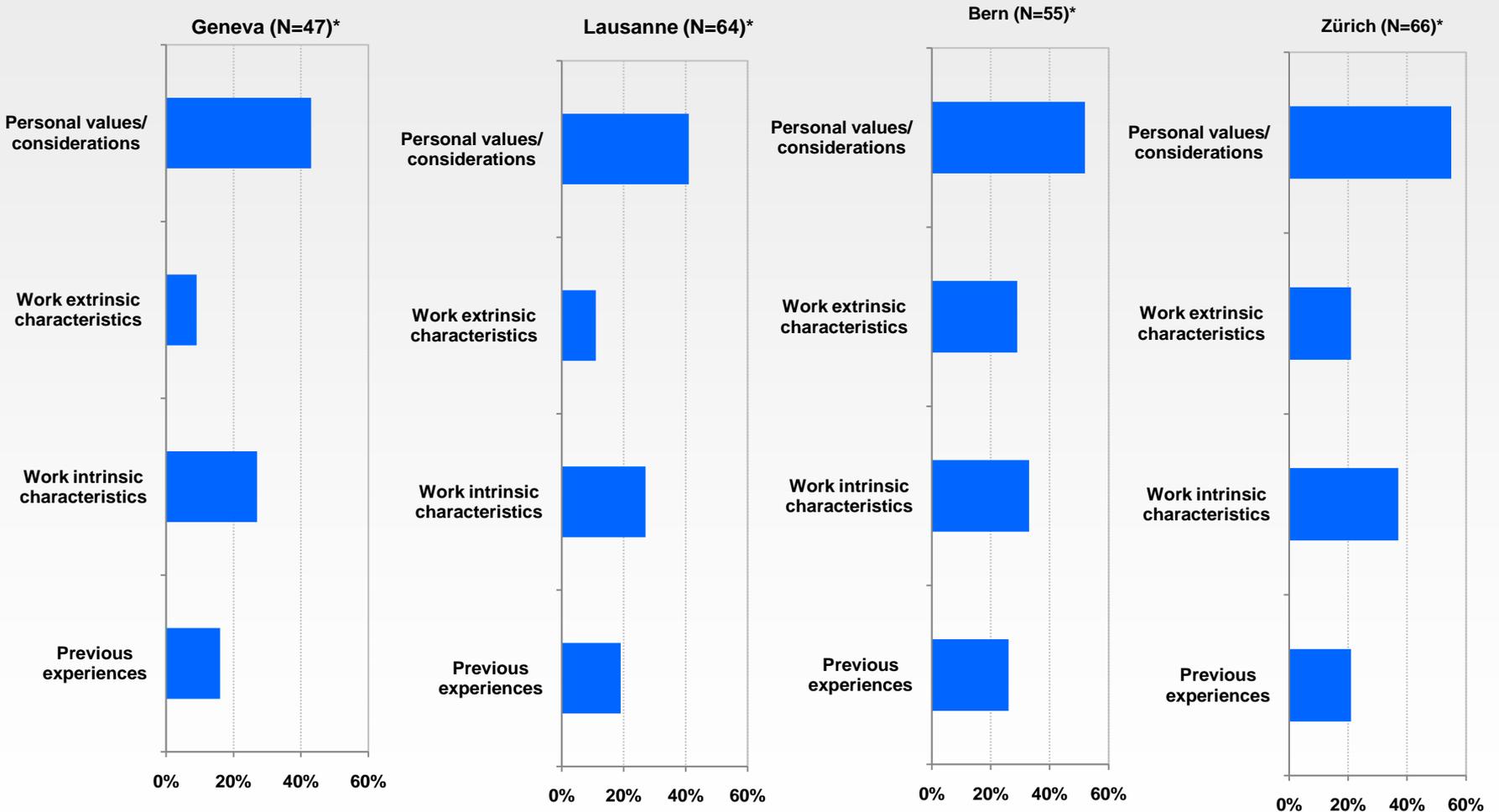
Subspecialty 1st and 2nd Choices

All 4 faculties* (N=322; 317; 377)



* Not listed are subspecialties not selected by the students or having an N ≤ 1 as 1st or 2nd choice.

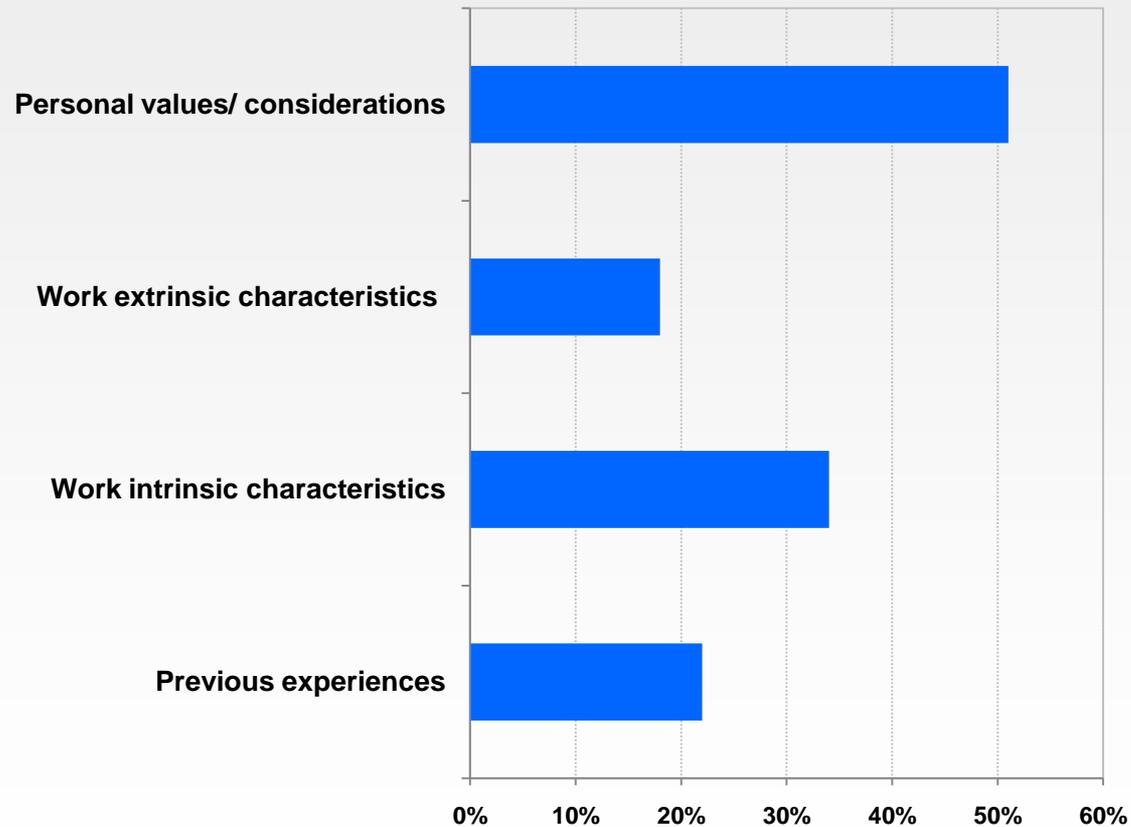
Reasons for specialty choice By faculty



* Percentages based on the number of students who indicated having made a specialty choice

Reasons for specialty choice

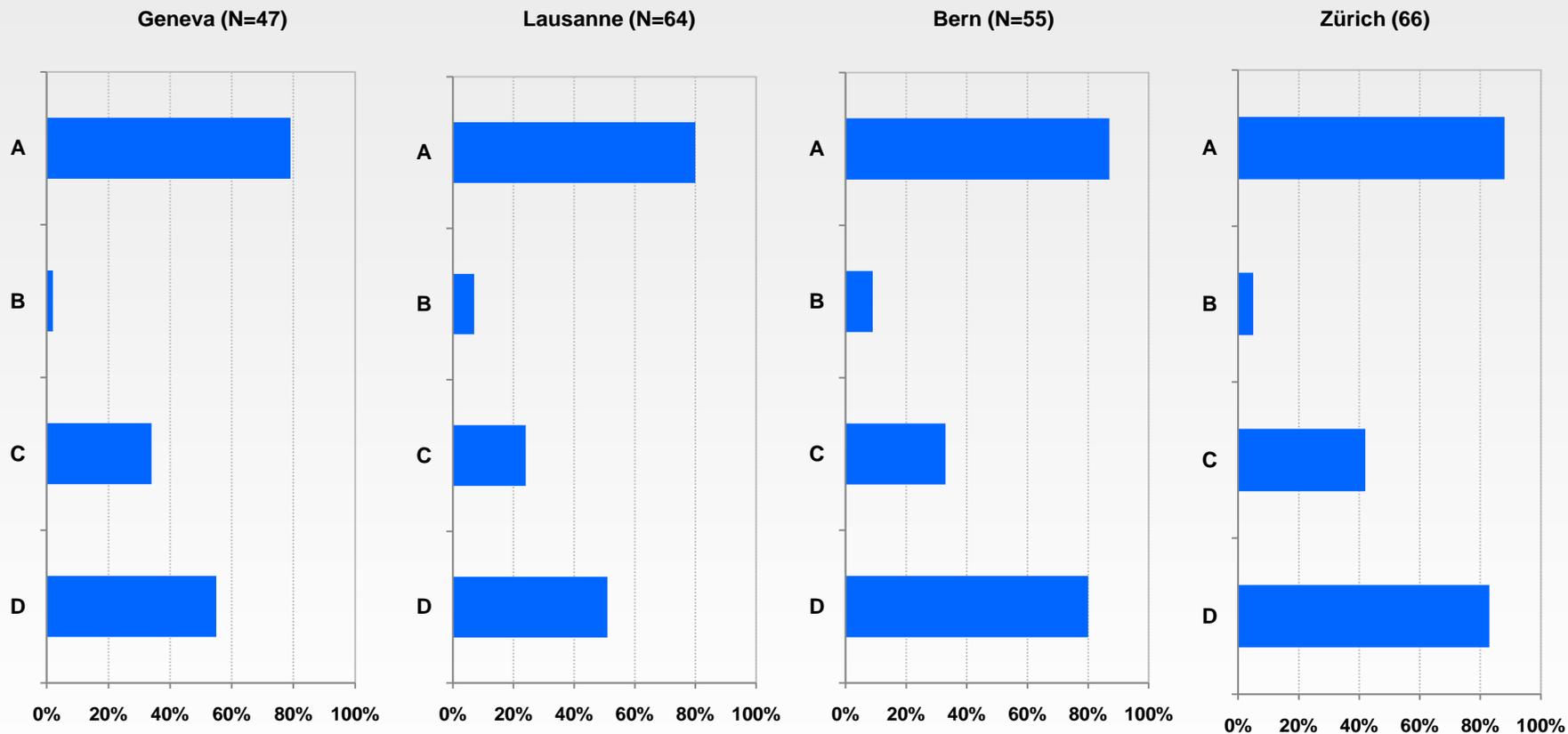
All 4 faculties (N=232/377)*



* Percentages based on the number of students who indicated having made a specialty choice

Reasons for specialty choice: Personal values/considerations

By faculty



A Passionate for medicine

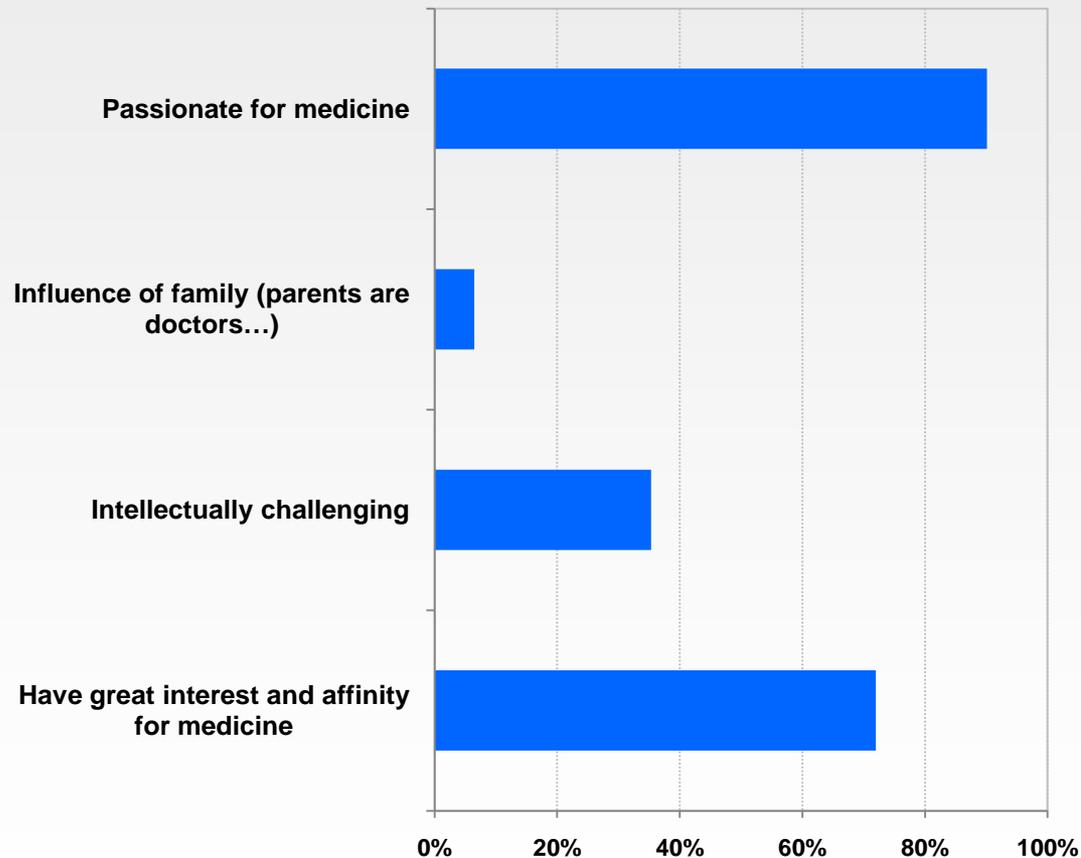
B Influence of family (parents are doctors...)

C Intellectually challenging

D Have great interest and affinity for medicine

Reasons for specialty choice: Personal values/considerations

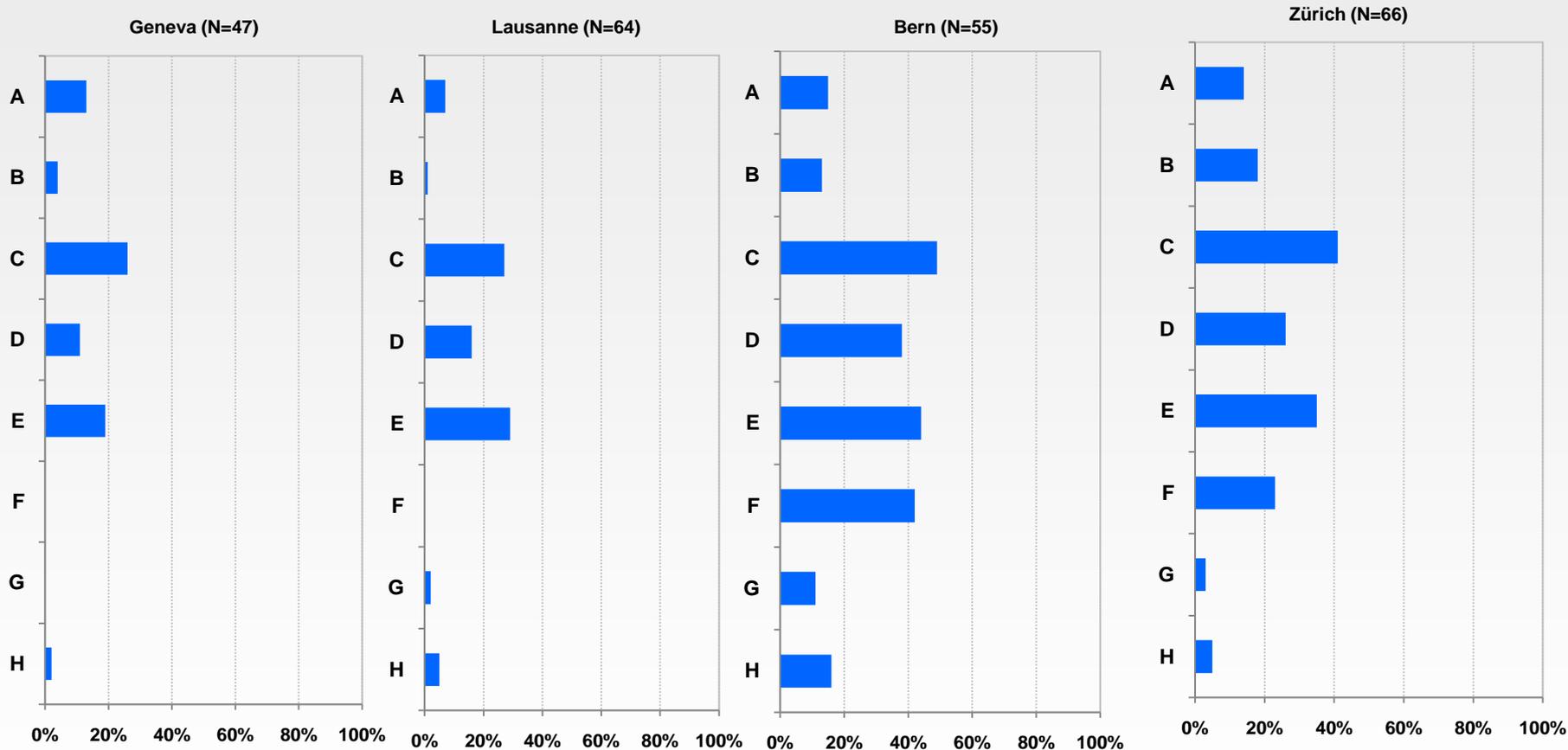
All 4 faculties (N=232/377)*



* Percentages based on the number of students who indicated having made a specialty choice

Reasons for specialty choice: Work extrinsic characteristics

By faculty



A Career advancement and competitiveness

B Financial security

C Working conditions (schedule, private practice/hospital, full/part time)

D Working environment

E Lifestyle (family-work equilibrium)

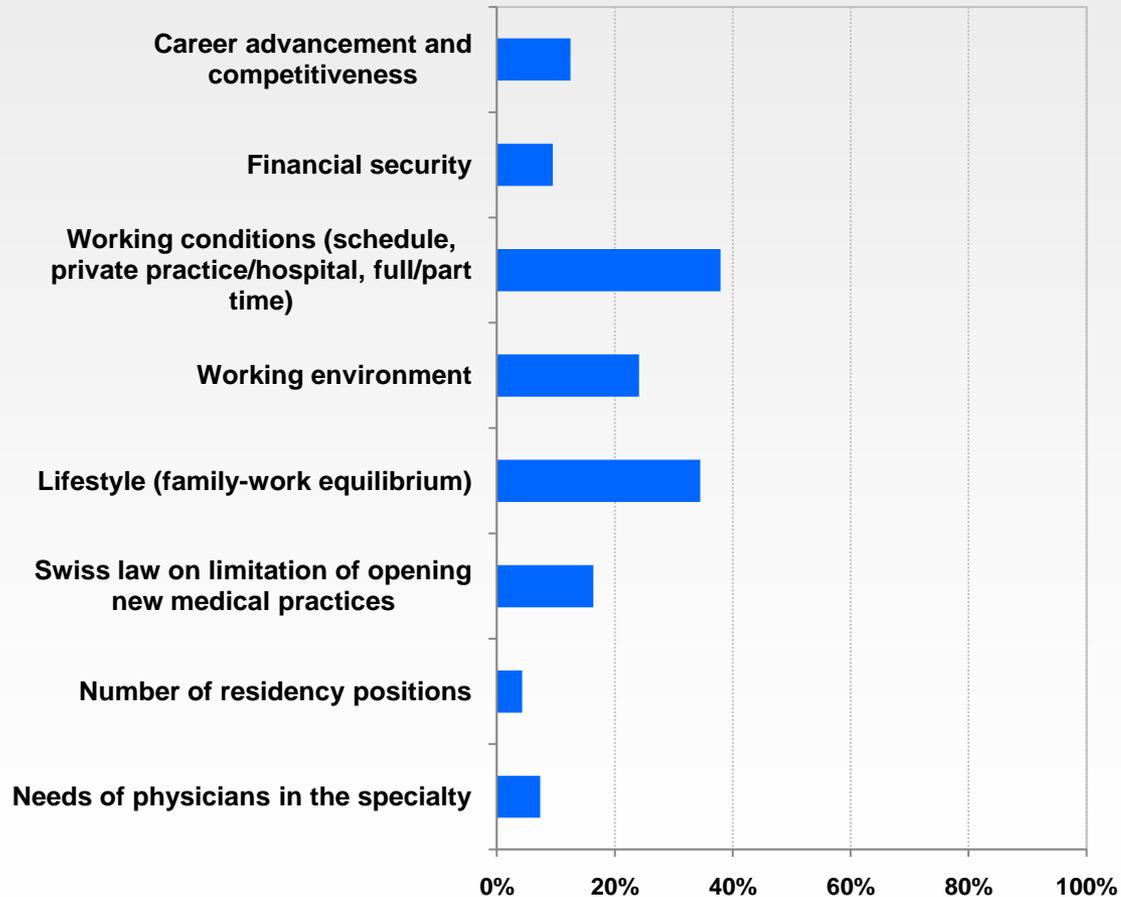
F Swiss law on limitation of opening new medical practices

G Number of residency positions

H Needs of physicians in the specialty

Reasons for specialty choice: Work extrinsic characteristics

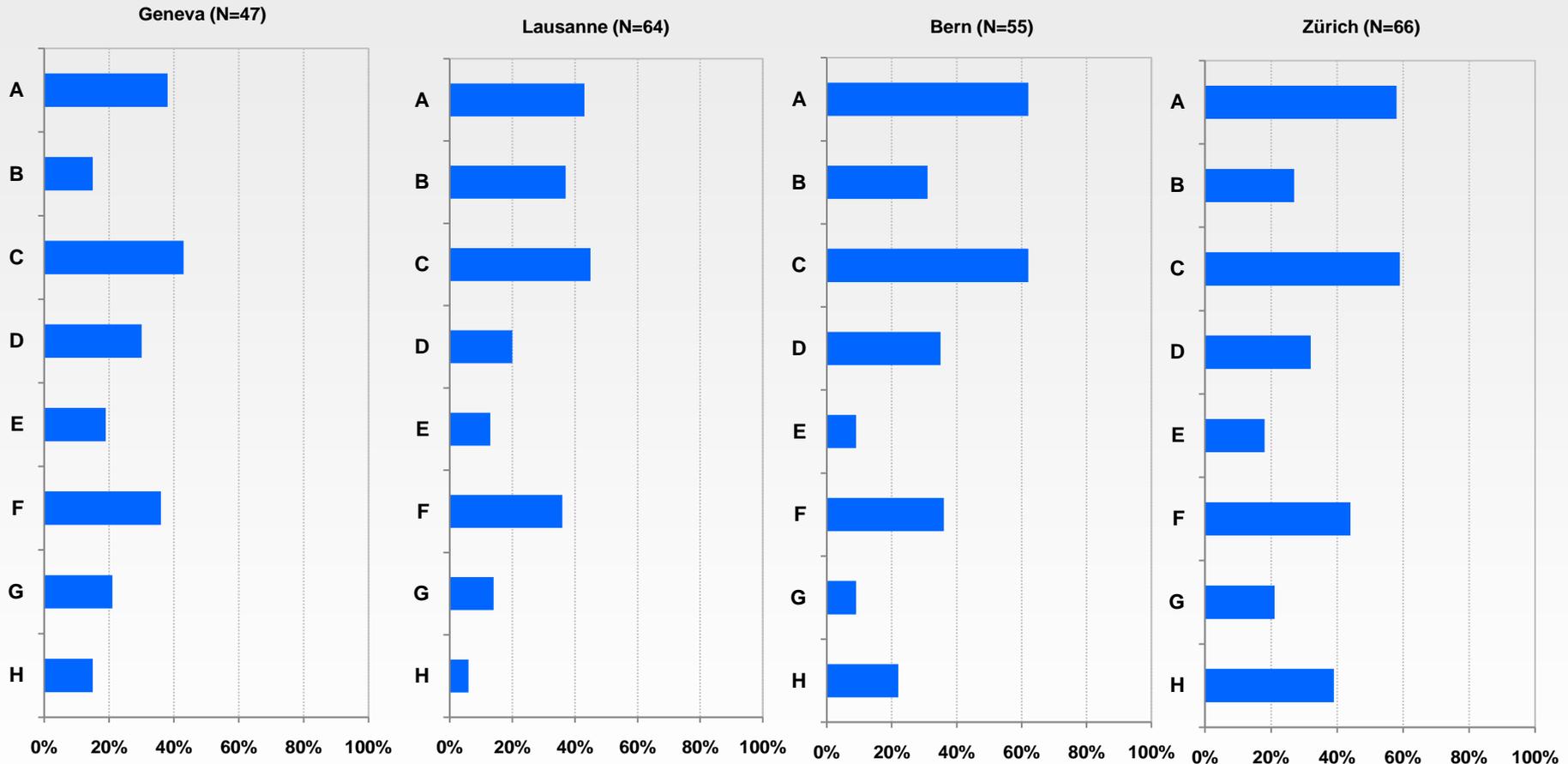
All 4 faculties (N=232/377)*



* Percentages based on the number of students who indicated having made a specialty choice

Reasons for specialty choice: Work intrinsic characteristics

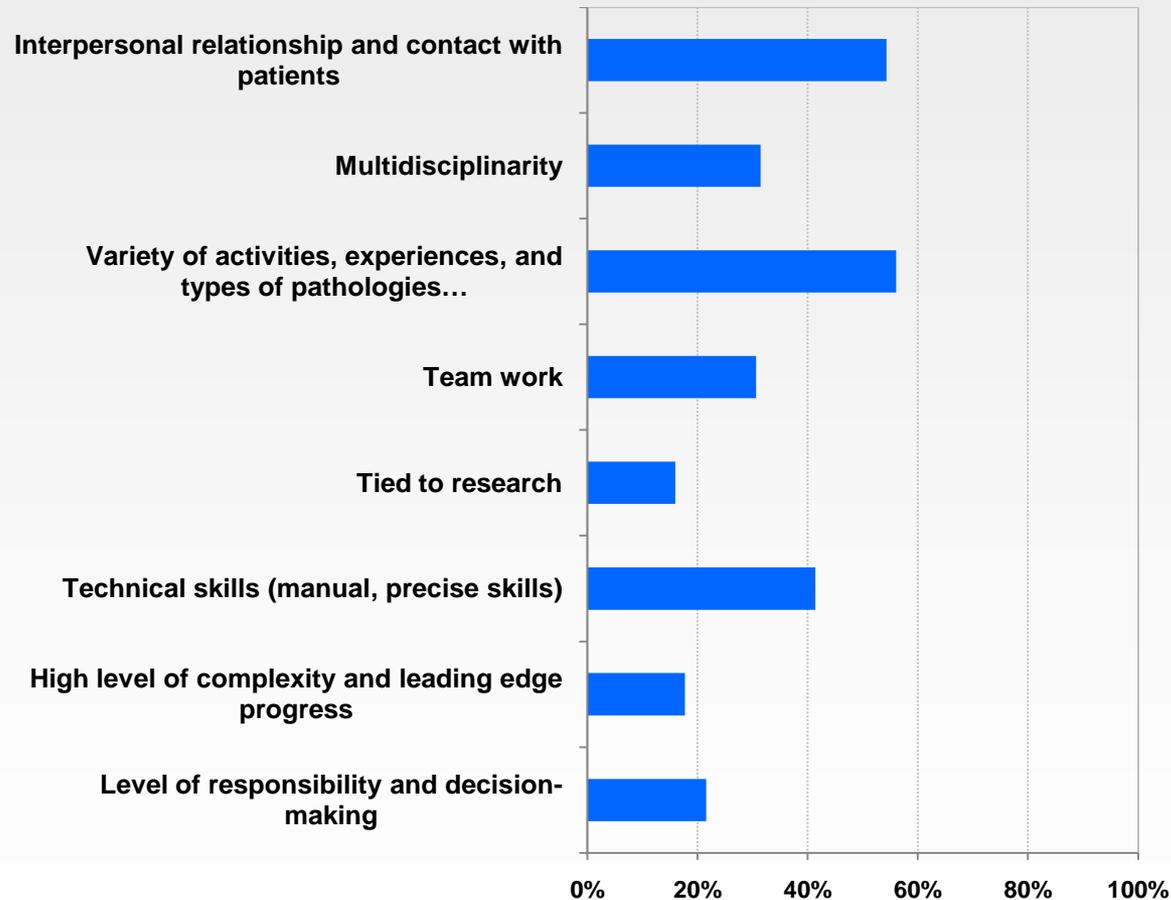
By faculty



- A Interpersonal relationship and contact with patients
- B Multidisciplinarity
- C Variety of activities, experiences, and types of pathologies...
- D Team work
- E Tied to research
- F Technical skills (manual, precise skills)
- G High level of complexity and leading edge progress
- H Level of responsibility and decision-making

Reasons for specialty choice: Work intrinsic characteristics

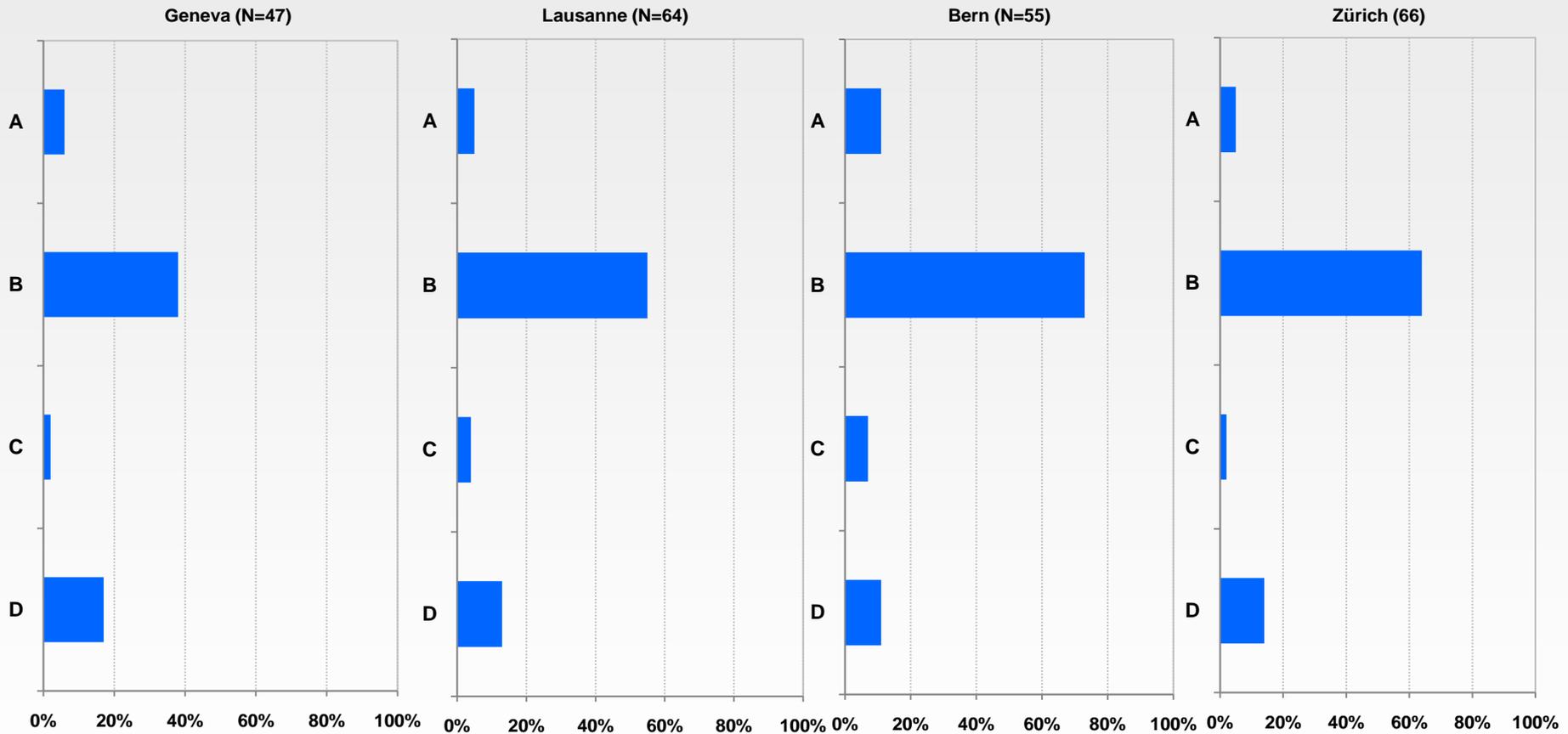
All 4 faculties (N=232/377)*



* Percentages based on the number of students who indicated having made a specialty choice

Reasons for specialty choice: Previous experiences

By faculty



A Personal experiences (accident, disease...)

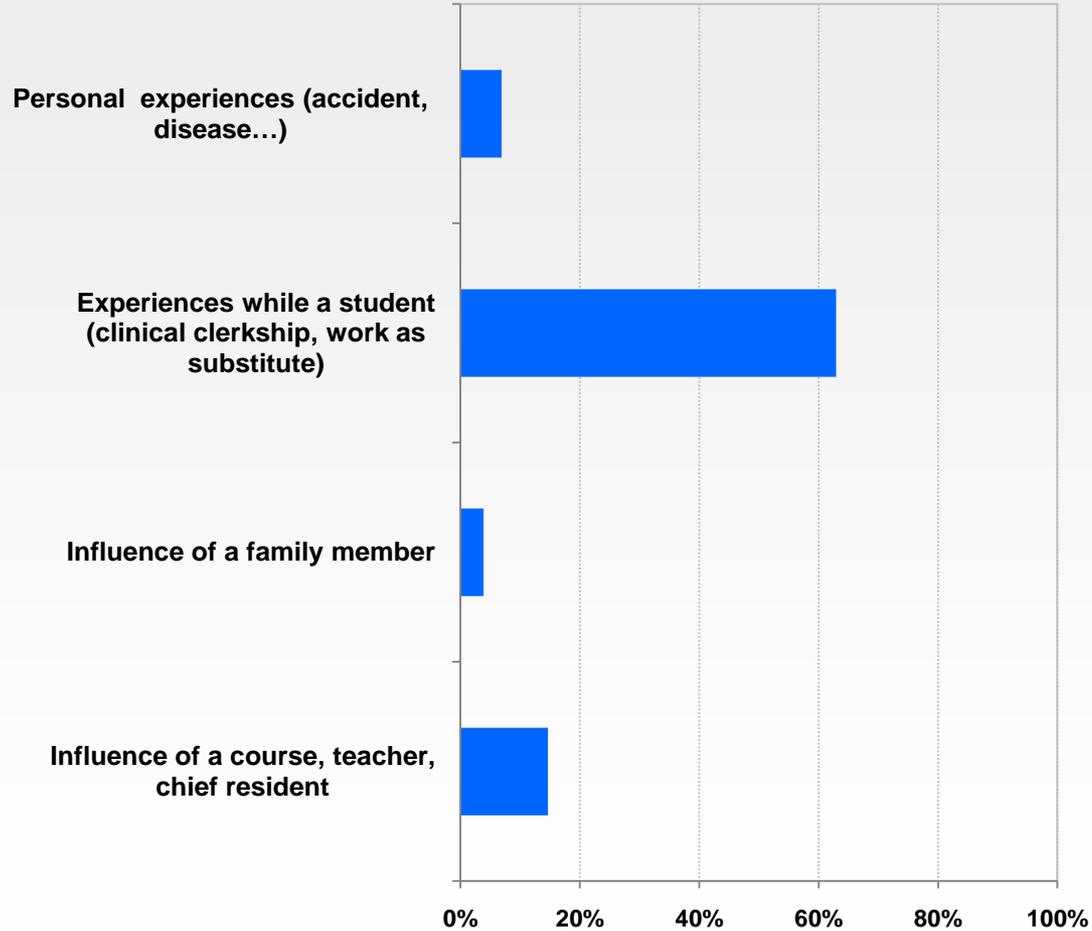
B Experiences while a student (clinical clerkship, work as substitute)

C Influence of a family member

D Influence of a course, teacher, chief resident

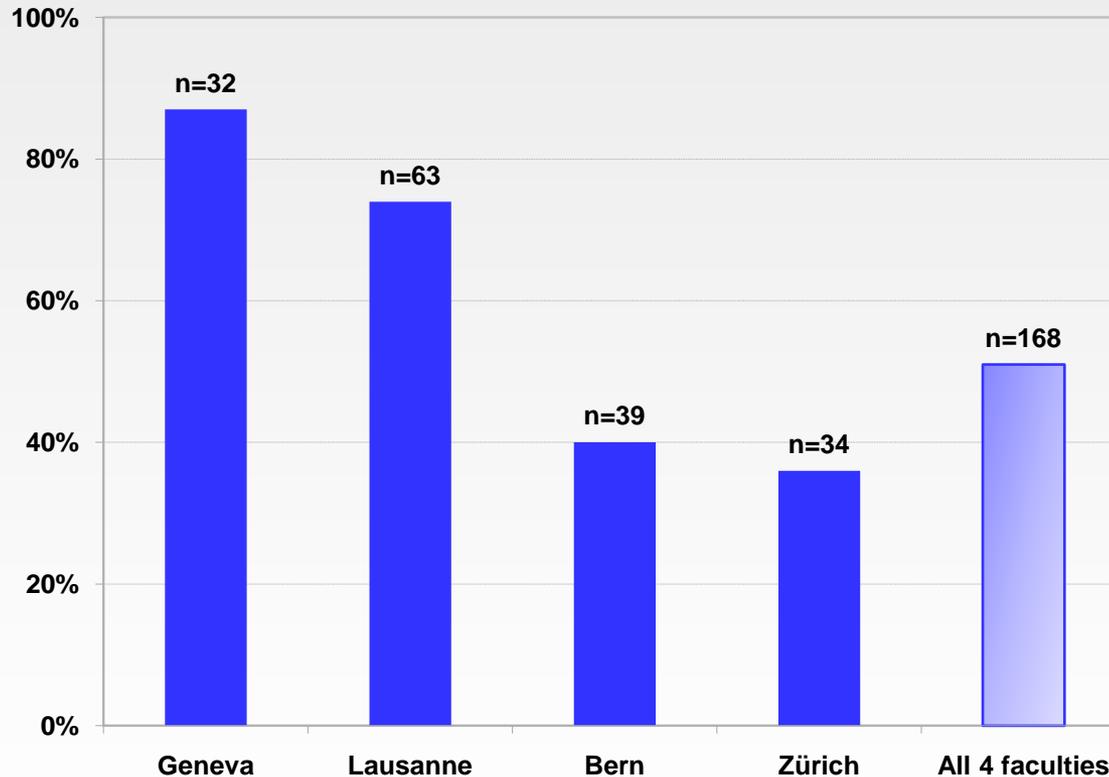
Reasons for specialty choice: Previous experiences

All 4 faculties (N=232/377)*



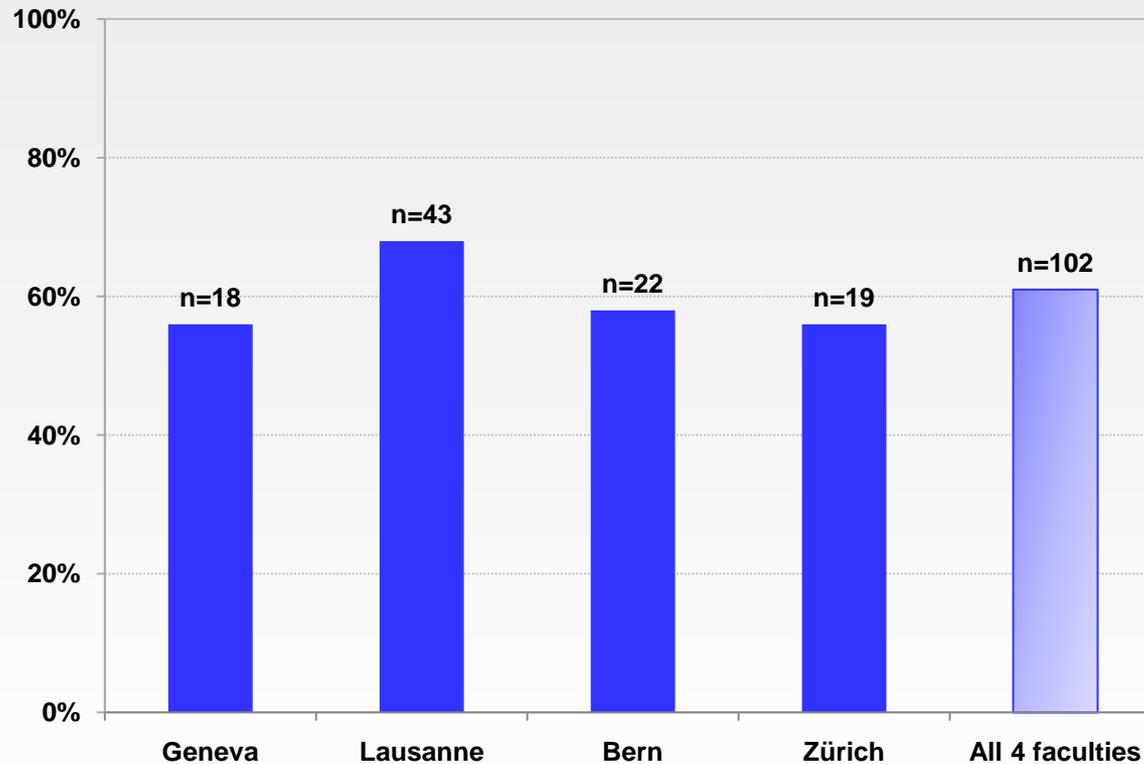
* Percentages based on the number of students who indicated having made a specialty choice

N and % of students who had been accepted to a first- year residency training program* (N=168/327)



* This item was asked to the students in Geneva (n=40) at the end of their 6th year in a separate survey questionnaire

N and % of students with first year residency training in their selected specialty* (N=102/168)**



* This item was asked to the students in Geneva (n=32) at the end of their 6th year in a separate survey questionnaire

** Percentages based on the number of students accepted to a first-year residency training program

First year residency training: Choice of location (canton and linguistic region) By faculty

		Cantons**					Linguistic region**		
		Geneva	Vaud	Bern	Zürich	Other***	Switzerland French-speaking	Switzerland German-speaking	Switzerland Italian-speaking
FACULTY	Geneva (32/47)*	34% (11)	28% (9)	0% (0)	0% (0)	38% (12)	97% (31)	3% (1)	0% (0)
	Lausanne (63/64)*	0% (0)	56% (35)	0% (0)	0% (0)	44% (28)	98% (62)	0% (0)	2% (1)
	Bern (39/55)*	0% (0)	5% (2)	44% (17)	8% (3)	44% (17)	23% (9)	77% (30)	0% (0)
	Zürich (34/66)*	0% (0)	0% (0)	6% (2)	46% (16)	47% (16)	6% (2)	88% (30)	3% (1)

* Number of students who found a residency position/ Number of students who made their specialty choice

** Percentages based on the number of students who indicated the location of their residency.

*** Other Swiss cantons

Specialty and residency training choices

All 4 faculties

Residency found		Residency not found		
155 (44%)		200 (56%)		
Residency in selected specialty	Residency not in selected specialty			
102 (66%)	53 (34%)			
	Have made specialty choice	Have not made specialty choice	Have made specialty choice	Have not made specialty choice
	39 (25%)	14 (9%)	111 (56%)	89 (44%)
N= 355 (22 with no completed answers)				

Specialty and residency training choices

All 4 faculties

Specialty selected		Specialty not selected	
252 (71%)		103 (29%)	
Residency found	Residency not found	Residency found	Residency not found
141 (56%)	111 (44%)	14 (13%)	89 (87%)
Residency in selected specialty	Residency not in selected specialty		
102 (40%)	39 (16%)		
N= 355 (22 with no completed answers)			

Main conclusions: Career plan (1)

■ **Medicine as a career:**

- Most Swiss students chose to study medicine between the age of 16 and 21
- About half to two thirds chose medicine with little or no hesitation

■ **Choice of type of career plan:**

- 58% chose to do clinical practice
- 18% chose to be in an academic career
- 1% chose to be in a non-academic career
- 20% were undecided

Main conclusions: Type of career plan (2)

- For those who chose an **academic career**, almost all (91%) chose to be involved in the area of clinical science (vs. basic science) related practice, teaching and research.
- For those who chose **clinical practice as a career**:
 - 29% chose to be employed in a hospital
 - 46% chose to practice in a group of 3 or more physicians
 - 18% chose to be a partner with an other physician
 - 6% chose to practice in solo
 - 1% chose to practice in a “managed care” group

Main conclusions: Type of career plan (3)

Students' main reasons for choosing career plan

- **Personal values/ considerations (40%)**
 - Passionate for medicine (67%)

- **Work intrinsic characteristics (29%)**
 - Team work (50%)
 - Variety of activities, experiences, and types of pathologies... (41%)
 - Interpersonal relationship and contact with patients (40%)
 - Multidisciplinarity (26%)
 - Technical skills (manual, precision skills) (24%)
 - Level of responsibility and decision-making (19%)
 - High level of complexity and leading edge progress (15%)

- **Work extrinsic characteristics (21%)**
 - Lifestyle (family-work equilibrium) (51%)
 - Working conditions (schedule, private practice/hospital, full/part time) (51%)
 - Working environment (19%)

- **Previous experiences (12%)**
 - Experiences while a student (clinical clerkship, work as substitute) (28%)

Main conclusions: Type of specialization (4)

C 40%	Providing episodic or long-term care of a limited number of medical problems that may include instrumentation and technical interventions. Mix of ambulatory and hospital-based practice. ex : internal medicine, cardiology, psychiatry, dermatology, obstetrics/gynecology ...
D 25%	Providing first encounter health or illness appraisal, preventive education and interventions, episodic and long-term comprehensive care of a wide variety of medical problems. Primarily office-based. ex : family medicine, general medicine ...
B 25%	Performing highly skilled and specialized therapeutic techniques or procedures. Primarily hospital-based with some office activity. (ex : orthopedic surgery, ophthalmology ...)
A 10%	Performing specialized diagnostic or technical procedures, basic or applied laboratory research; Primarily hospital- based. (ex : radiology, pathology ...)

Main conclusions: Specialty choice (5)

- For Bern and Geneva, about **half** of the students **chose their medical specialty** in their senior years while the other half did not.
- For Lausanne and Zurich, about **two thirds** of the students **chose their medical specialty** in their senior years while one third did not.
- Main reasons for not choosing specialty:
 - Difficulty **choosing among many** specialties
 - Having **not made the decision** yet

Main conclusions: Main specialty choice (6)

- 25% Internal Medicine
- 15% Surgery
- 14% Pediatrics
- 13% General/ Community Medicine
- 6% Obstetrics-Gynecology
- 4% Psychiatry

Main conclusions: Specialty choice (7)

Main reasons for specialty choice

- **Personal values/ considerations (51%)**
 - Passionate for medicine (90%)
 - Have great interest and affinity for medicine (72%)

- **Work intrinsic characteristics (34%)**
 - Variety of activities, experiences, and types of pathologies... (56%)
 - Interpersonal relationship and contact with patients (54%)
 - Technical skills (manual, precise skills) (41%)
 - Team work (31%)
 - Multidisciplinarity (31%)

- **Previous experiences (22%)**
 - Experiences while a student (clinical clerkship, work as substitute) (63%)

- **Work extrinsic characteristics (18%)**
 - Working conditions (schedule, private practice/hospital, full/part time) (38%)
 - Lifestyle (family-work equilibrium) (34%)
 - Working environment (24%)

Main conclusions:

Specialty and location of residency training (8)

■ Location of residency training:

- Most students tended to choose to do their first years of residency training in a canton of their respective main speaking language
- While about half of the students from Lausanne, Bern, and Zurich (44%-56%) choose to stay in the canton of their undergraduate training, only 34% of the students from Geneva choose to do so. Most students had their first years of residency in other Swiss cantons

Main conclusions:

Specialty and residency training choices (9)

- About half (44%) of the Swiss senior students had **found a residency program**.
- Of those who **had a residency program**, two thirds (66%) had their residency program in their selected specialty.
- Of those who **had not find a residency program** (56%), about half had selected a specialty.

Main conclusions:

Specialty and residency training choices (10)

- Of those students who **had selected** their **specialty** (71%):
 - About half (56%) had found a residency program
 - Of those who had found a residency program, two thirds had a residency program in their selected specialty

- Of those students who **had not selected their specialty** (29%), only one tenth had found a residency program.

Main conclusions:

Specialty and residency training choices (11)

Overall, it seems that:

- A great majority of the students had not made a firm choice of their specialty at the end of their senior year.
- Not finding a residency training program is rather dependent of whether the students had made a specialty choice or not.
- Two thirds (66%) of the students started their residency in their selected specialty.
- Only 9% started their residency training program without having made their specialty.