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Medical Student's Views Regarding Specialties and Medical Careers

by

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A THESIS

Presented to the Faculty of
The College of Medicine in the University of Nebraska
In Partial Fulfillment of Requirements
For the Degree of Doctor of Medicine

Under the Supervision of D. Craig Affleck

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Medical Student's Views Regarding Specialties
and Medical Careers

A. Introduction:

This thesis concerns the attitudes of the medical students at the University of Nebraska regarding their views and plans relative to specialties and medical careers. A three page questionnaire was given to each of the four different medical classes at the University of Nebraska College of Medicine. One was interested in possible changes from the basic science years to the clinical years. The questionnaire covered seven major areas: 1) interest in various specialties, 2) types of practice planned, 3) time allotted to practice, teaching, and research, 4) size of city desired for practice, 5) geographical area of preference for practice, 6) size of city of high school attendance, 7) college major. It was intentionally anonymous. The first set of responses concerned the 19 possible choices of specialty training in the medical profession. Each was to be rated on a four point scale; not interested, little interest, some interest, and very interested. It was planned to compare the findings on these ratings with the national figures published in the Directory of Approved Internships and Residencies 1967-68, pgs. 16 + 17.

The second major heading in the questionnaire involves interest in types of practice e.g. General Practice,

specialized practice, group or clinic practice, and individual practice. The same four types of interest were used for graded responses. In this section one planned to evaluate changes in types of practice preference as the student proceeds through Medical school.

The third section concerned the amount of time each person plans on spending in practice, teaching, and research. The response was graded, relative to time; none, some, most, and all. Again one was interested in changes over time, in these ratings as one progresses through school and also the relative degree of interest in teaching and research. Do students become more practice oriented and less teaching, and research oriented as they pass from Freshman to Senior?

The fourth set of responses is a large multiple choice question concerning the size of city in which practice is contemplated. There are seven choices as to size of community as well as undecided. It was expected that most students will prefer cities larger than ten thousand population mirroring the paucity of small-town physicians in Nebraska. The 1967 Hazel Road Atlas pg. 136 is the source of data as to the number of communities of greater than one hundred population in Nebraska.

In the fifth section the problem is to choose the geographical area where one wishes to practice. One certainly expects Nebraska and the West to be most popular and a fairly large percentage to be undecided where they

are going. Since this medical school accepts predominantly natives of Nebraska one would predict a large percentage staying in the state.

The sixth response is a fill-in-the-blank as to the size town in which the student attended high school. This question was asked in order to provide background data regarding choice of area where one prefers to practice.

The seventh and last choice is that of college major. This area specifically interests the writer in that his personal observation is that the average medical student has had a scientific background and little else. Whether this is a problem or not is academic, but there certainly is an overwhelming number of Chemists, Biologists, Zoologists, and premedical majors who are accepted to Medical school.

The questionnaire was given to each of the four Medical classes at the University of Nebraska College of Medicine in Omaha. It was taken first by the Juniors in the eleven o'clock Internal Medicine lecture on November 20, 1967 with a return of 86.58%. The Sophomores next took it at two o'clock on November 20, 1967 in Pathology lab with a return of 86.42%. Thirdly, the Freshmen received it in Microanatomy lab at nine o'clock November 21, 1967 with a return of 93.48%. Finally, the Seniors took it on November 21, 1967 at two o'clock following an Internal Medicine lecture with a return of 83.87%. Overall there were 305 responses from a possible 348 or 87.6%. There was no attempt made to reach those who were not present or not cooperative at the time the ques-

tionnaire was given.

The major difficulty in a paper of this type is making specific comparisons of the data which have no precedent for comparative purposes. One argument immediately noticeable is; are the classes really comparable? While they are not, this questionnaire can function as a beginning which can be logically followed with similar surveys in the future. Continuing the questionnaire each year for four years would be the best way to show true change because it would remove the major uncontrolled variable which this paper has e.g. the different Medical school classes themselves. It is possible that this variable is more apparent than real, but only a four year study could prove that conclusively.

It is felt that this paper would prove of interest to the teaching staff, General Practitioners, and communities interested in availing themselves of physicians in the future. The students themselves have expressed some interest in the project and the Curriculum Committee is specifically interested in the results.

B. Procedure and Results:

In this thesis there are seven basic sections as previously discussed, each of which has its associated questions. This portion of the paper presents the results of the 303 questionnaires in tabular form, as well as one table each from the 1967-68 Directory of Approved Internships and Residencies and the 1967 Hazel Road Atlas. The questionnaire is table 1 (inserted here).

The following include size of city and geographical location in which you prefer to work. Check one in each group.

- (1) Community under 3,000 _____
- Community from 3,000 to 10,000 _____
- City from 10,000 to 50,000 _____
- City from 50,000 to 100,000 _____
- City from 100,000 to 500,000 _____
- City from 500,000 to 1,000,000 _____
- City from 1,000,000 and over _____
- Undecided _____

- (2) Nebraska (Lincoln or Omaha) _____
- Nebraska (other than Lincoln or Omaha) _____
- Midwest (other than Nebraska) _____
- Eastern United States _____
- Southeastern United States _____
- Western United States _____
- Southwestern United States _____
- Anywhere outside continental United States _____
- Undecided _____

In what size city did you attend high school? _____

What was your college major? _____

	Not Interested (1)	Little Interest (2)	Some Interest (3)	Very Interested (4)
Pediatrics	_____	_____	_____	_____
Plastic Surgery	_____	_____	_____	_____
Psychiatry	_____	_____	_____	_____
Radiology	_____	_____	_____	_____
Thoracic Surgery	_____	_____	_____	_____
Urology	_____	_____	_____	_____
Urosurgery	_____	_____	_____	_____

Indicate your interest in the following types of practice:

	Not Interested (1)	Little Interest (2)	Some Interest (3)	Very Interested (4)
General Practice	_____	_____	_____	_____
Specialized Practice	_____	_____	_____	_____
Group or Clinic Practice	_____	_____	_____	_____
Individual Practice	_____	_____	_____	_____

The following are general questions about the amount of time you hope to spend in practice, teaching, and research when you have completed your medical education:

	None (1)	Some (2)	Most (3)	All (4)
Practice	_____	_____	_____	_____
Teaching	_____	_____	_____	_____
Research	_____	_____	_____	_____

This study is designed to evaluate University of Nebraska Medical School Students' interests in specialty training and the geographical areas in which they prefer to practice. Your cooperation in completing this questionnaire will be greatly appreciated.

Do Not Sign Your Name

Please check your medical school classification:

Freshman _____ Sophomore _____ Junior _____ Senior _____

Grade each statement with one check, indicating your preference of the four choices.

The following are areas of specialty practice. Indicate your interest in each at this time:

	Not Interested (1)	Little Interest (2)	Some Interest (3)	Very Interested (4)
Anesthesiology	_____	_____	_____	_____
Allergenic Medicine	_____	_____	_____	_____
Clinical Pathology	_____	_____	_____	_____
Dermatology	_____	_____	_____	_____
General Surgery	_____	_____	_____	_____
Internal Medicine	_____	_____	_____	_____
Neurology	_____	_____	_____	_____
Neurosurgery	_____	_____	_____	_____
Obstetrics-Gynecology	_____	_____	_____	_____
Ophthalmology	_____	_____	_____	_____
Orthopedic Surgery	_____	_____	_____	_____
Otorhinolaryngology	_____	_____	_____	_____

Table's 2-5 are labeled interests of (each class) students in specialties in actual numbers of responses. The data received was analyzed in three different ways. The four columns of responses were listed in order for each class, organized from highest number to lowest. The higher the number, the greater the number of responses in that category. In this comparison the absolute numbers were used rather than percentages (see tables 2-5).

Table 2: Interests of Freshmen Students in Specialties in Actual Numbers of Responses (86/92)

	Not Interested	Little Interest	Some Interest	Very Interested
1) Allergy	42	Eye 32	Int.Medicine 49	Int.Medicine 27
2) ENT	42	Orthopedics 32	Ob-Gyn 38	Gen.Surg. 25
3) Urosurgery	39	Urosurgery 31	Gen. Surg. 35	Pediatrics 24
4) PlasticSurg.	38	Dermatology 30	Clin. Path. 32	Orthopedics 12
5) Urology	37	Neurology 30	Pediatrics 32	Neurology 12
6) Dermatology	36	Neurosurgery 30	Psychiatry 28	Psychiatry 11
7) Radiology	36	Urology 30	Radiology 27	Thor. Surg. 11
8) Anesthesiol.	30	PlasticSurg. 29	Thor. Surg. 27	Ob-Gyn 10
9) Clin. Path.	30	Ob-Gyn 28	Anesthesiol. 26	Eye 10
10) Eye	28	Allergy 27	Neurology 26	Neurosurgery 38
11) Psychiatry	27	ENT 26	Neurosurgery 23	Anesthesiol. 7
12) Neurosurgery	25	Thor. Surg. 26	Orthopedics 20	Clin. Path. 6
13) Orthopedics	22	Anesthesiol 23	PlasticSurg 17	ENT 6
14) Thor. Surg.	22	Pediatrics 20	Dermatology 16	Dermatology 5
15) Neurology	18	Psychiatry 20	Eye 16	Radiology 4

	Not Interested	Little Interest	Some Interest	Very Interested
16)	Ob-Gyn 11	Radiology 19	Allergy 15	Urology 4
17)	Pediatrics 11	Clin. Path. 18	Urology 15	Allergy 3
18)	Gen. Surgery 10	Gen. Surgery 16	ENT 13	Urosurgery 3
19)	Int.Medicine 4	Int. Medicine 6	Urosurgery 13	Plastic Surg.2

Table 3: Interests of Sophomore Students in Specialties in Actual Numbers of Responses (70/81)

	Not Interested	Little Interest	Some Interest	Very Interested
1)	Urosurgery 38	Anesthesiol. 28	IntMedicine34	Int.Medicine 28
2)	PlasticSurg.37	Neurology 28	Gen. Surg. 32	Pediatrics 14
3)	Urology 36	Urology 26	Ob-Gyn 27	Gen. Surg. 13
4)	Orthopedics 35	Urosurgery 25	Pediatrics 25	Ob-Gyn 12
5)	Dermatology 34	Neurosurgery 24	Clin. Path.24	Psychiatry 12
6)	Neurosurgery33	Radiology 24	Thor. Surg.24	Eye 8
7)	ENT 32	Clin. Path. 23	Psychiatry 23	Thor. Surg. 8
8)	Radiology 32	Eye 23	Anesthes. 22	ENT 5
9)	Allergy 30	ENT 23	Neurology 19	Allergy 4
10)	Eye 25	Dermatology 21	Allergy 16	Clin. Path. 4
11)	Thor. Surg. 22	PlasticSurg. 20	Orthopedics16	Neurology 4
12)	Clin. Path. 20	Allergy 19	Eye 13	Radiology 3
13)	Psychiatry 20	Ob-Gyn 19	Dermatology13	Dermatology 2
14)	Anesthesiol.19	Pediatrics 18	Neurosurgery13	Anesthesiol. 1
15)	Neurology 19	Orthopedics 17	PlasticSurg11	Orthopedics 1
16)	Ob-Gyn 12	Thor. Surg. 16	Radiology 10	Plastic Surg. 1
17)	Pediatrics 12	Gen. Surg. 14	ENT 9	Neurosurgery 0

	Not Interested	Little Interest	Some Interest	Very Interested
18) Gen. Surg.	10	Psychiatry 14	Urology 8	Urology 0
19) Int. Medicine	3	Int. Medicine 6	Urosurgery 7	Urosurgery 0

Table 4: Interests of Junior Students in Specialty Practice in Actual Numbers of Responses (71/82)

	Not Interested	Little Interest	Some Interest	Very Interested
1) Neurosurgery	39	Allergy 29	Anesthesiol 36	Ob-Gyn 19
2) ENT	34	Dermatology 28	Gen. Surg. 30	Int. Medicine 17
3) Urosurgery	33	Eye 28	Int. Medicine 30	Gen. Surg. 15
4) Allergy	31	Radiology 26	Ob-Gyn 24	Psychiatry 13
5) Plastic Surg.	31	Neurology 24	Psychiatry 24	Orthopedics 10
6) Radiology	28	Anesthesiol. 22	Urology 22	Pediatrics 9
7) Thor. Surg.	28	Clin. Path. 22	Clin. Path. 19	Plastic Surg. 8
8) Neurology	27	Orthopedics 22	Pediatrics 18	ENT 7
9) Pediatrics	27	Urology 21	Thor. Surg. 18	Thor. Surg. 7
10) Eye	26	Plastic Surg 20	Neurology 17	Clin. Path. 6
11) Clin. Path.	25	Thor. Surg. 19	Orthopedics 17	Dermatology 5
12) Urology	25	Urosurgery 19	Radiology 16	Neurosurgery 5
13) Dermatology	24	Pediatrics 18	Dermatology 15	Eye 5
14) Orthopedics	23	Psychiatry 17	ENT 15	Urosurgery 5
15) Psychiatry	18	Ob-Gyn 16	Urosurgery 14	Anesthesiol. 4
16) Ob-Gyn	14	ENT 16	Neurosurgery 13	Neurology 4
17) Gen. Surg.	13	Int. Medicine 15	Eye 13	Urology 4
18) Anesthesiol.	10	Neurosurgery 15	Plastic Surg 13	Allergy 3
19) Int. Medicine	9	Gen. Surg. 14	Allergy 9	Radiology 2

Table 5: Interests of Senior Medical Students in Specialties
in Actual Numbers (78/93)

	Not Interested	Little Interest	Some Interest	Very Interested
1) Allergy	56	Eye 28	Gen. Surg. 33	Int.Medicine 26
2) Clin. Path.	48	Thor. Surg. 27	Anesthesiol.31	Psychiatry 11
3) Urosurgery	47	Ob-Gyn 26	Int.Medicine29	Gen. Surg. 9
4) Neurosurgery	45	Radiology 26	Dermatology 26	ENT 7
5) Plastic Surg	44	Orthopedics 24	Pediatrics 24	Anesthesiology6
6) Psychiatry	39	Dermatology 22	Radiology 22	Plastic Surg. 6
7) Urology	38	Neurosurgery 22	Ob-Gyn 22	Urology 6
8) Thor. Surg.	37	ENT 22	Neurology 20	Dermatology 5
9) Pediatrics	36	Urology 21	ENT 16	Neurology 5
10) Orthopedics	35	Neurology 20	Orthopedics 14	Eye 5
11) Eye	34	Urosurgery 17	Plastic Surg14	Orthopedics 5
12) Neurology	33	Clin. Path. 16	Urology 13	Pediatrics 5
13) ENT	33	Gen. Surg. 16	Psychiatry 12	Clin. Path. 4
14) Radiology	27	Psychiatry 16	Thor. Surg. 12	Ob-Gyn 4
15) Ob-Gyn	26	Anesthesiol. 15	Urosurgery 12	Neurosurgery 3
16) Anesthesiol.	25	Allergy 14	Eye 11	Radiology 3
17) Dermatology	25	Int.Medicine 14	Clin.Path. 10	Thor. Surg. 2
18) Gen. Surg.	20	Pediatrics 14	Allergy 8	Urosurgery 1
19) Int.Medicine	9	Plastic Surg.14	Neurosurgery 8	Allergy 0

The second type of comparison was the use of each class as a group (see table 6). This was accomplished by multiplying the figures in the /not interested column by four, the little interest column by three, the some interest column by two, and the very interested column by one. Each of these four numbers was added and the sum was divided by N (the number of total responses for that specialty), to secure the mean ratio for that specialty, by class. A low score signifies high interest. This replaces the four columns of interest and better reflects the feelings of the class as a whole.

Table 6: Interests of Each Class in Specialties with the Mean Ratio Calculated for Each Specialty and Each Class

	Freshmen	Sophomores	Juniors	Seniors
1)	Int.Medic 1.85	Int. Med. 1.77	Int. Med. 2.22	Int. Med. 2.08
2)	Gen. Surg. 2.13	Gen. Surg. 2.30	Ob-Gyn 2.34	Gen. Surg.2.60
3)	Pediatrics 2.21	Pediatrics 2.40	Gen. Surg2.35	Anesthes. 2.73
4)	Ob-Gyn 2.46	Ob-Gyn 2.44	Anesthes.2.53	Dermatol. 2.86
5)	Neurology 2.63	Psychiatry 2.60	Psychiatr2.55	Ob-Gyn 2.95
6)	Thor. Surg.2.69	Thor. Surg.2.74	Orthopedics2.80	Radiology 2.99
7)	Psychiatry 2.73	Clin.Path. 2.83	Pediatric2.87	Pediatrics3.01
8)	Orthopedics2.74	Neurology 2.86	Clin.Path2.91	Neurology 3.04
9)	Clin. Path.2.83	Anesthes. 2.93	Urology 2.93	ENT 3.04
10)	Neurosurg. 2.83	Eye 2.93	Thor.Surg2.94	Psychiatry3.06
11)	Eye 2.91	ENT 3.17	Dermatol.2.98	Orthopedic3.14
12)	Anesthes. 3.00	Plas.Surg. 3.17	Neurology3.03	Urology 3.16

	Freshmen	Sophomores	Juniors	Seniors
13) Radiology	3.01	Radiology 3.21	Plas.Surg.3.03	Eye 3.17
14) Dermatol.	3.11	Dermatol. 3.24	Eye 3.04	Plas.Surg.3.23
15) Urology	3.17	Orthopedic3.24	ENT 3.07	Thor.Surg.3.27
16) ENT	3.19	Neurosurg.3.28	Neurosurg.3.08	Clin.Path.3.38
17) Plas.Surg.	3.19	Allergy 3.38	Radiology 3.11	Neurosurg.3.39
18) Urosurgery	3.23	Urology 3.40	Urosurgery3.13	Urosurgery3.43
19) Allergy	3.24	Urosurgery3.44	Allergy 3.22	Allergy 3.61
20) Average	2.78	Average 2.91	Average 2.91	Average 3.06

The third comparison of the section on specialty interest utilized the percentage of each class interested in each specialty. In this set of facts (see tables 7-10) interest is the major heading, with the specialties as one side of the table, and each of the classes as the other side.

Table 7: The Percentage of Those Not Interested in Each Specialty Presented by Class

Specialty	Freshmen	Sophomores	Juniors	Seniors
1) Anesthesiology	35%	28%	14%	31%
2) Allergy	48%	42%	44%	73%
3) Clinical Path.	35%	26%	34%	60%
4) Dermatology	42%	49%	31%	31%
5) General Surgery	11%	15%	16%	28%
6) Internal Medicine	4%	4%	12%	11%

Specialty	Freshmen	Sophomores	Juniors	Seniors
7) Neurology	21%	27%	38%	42%
8) Neurosurgery	30%	46%	55%	58%
9) Ob-Gyn	12%	17%	20%	33%
10) Eye	34%	35%	36%	43%
11) Orthopedics	26%	50%	33%	44%
12) ENT	48%	46%	47%	41%
13) Pediatrics	12%	17%	38%	45%
14) Plastic Surgery	45%	52%	43%	55%
15) Psychiatry	31%	29%	25%	49%
16) Radiology	42%	46%	40%	34%
17) Thoracic Surgery	27%	31%	40%	47%
18) Urology	44%	51%	35%	48%
19) Urosurgery	46%	54%	47%	59%

Table 8: The Percentage of Medical Students with Little Interest in Each Specialty Presented by Class

Specialty	Freshmen	Sophomores	Juniors	Seniors
1) Anesthesiology	27%	40%	30%	20%
2) Allergy	31%	28%	42%	17%
3) Clinical Path.	21%	34%	31%	20%
4) Dermatology	34%	30%	40%	27%
5) General Surgery	18%	20%	20%	20%
6) Internal Medicine	7%	8%	20%	19%
7) Neurology	35%	40%	32%	26%
8) Neurosurgery	35%	35%	21%	28%

Specialty	Freshmen	Sophomores	Juniors	Seniors
9) Ob-Gyn	32%	27%	23%	33%
10) Ophthalmology	37%	34%	40%	37%
11) Orthopedics	37%	25%	32%	30%
12) ENT	30%	34%	22%	30%
13) Pediatrics	23%	26%	25%	19%
14) Plastic Surgery	33%	29%	28%	19%
15) Psychiatry	23%	20%	23%	20%
16) Radiology	22%	35%	35%	33%
17) Thoracic Surgery	30%	23%	26%	34%
18) Urology	34%	38%	30%	27%
19) Urosurgery	35%	36%	26%	22%

Table 9: The Percentage of Medical Students with Some Interest in Each Specialty Presented by Class

Specialty	Freshmen	Sophomores	Juniors	Seniors
1) Anesthesiology	30%	31%	50%	40%
2) Allergy	17%	25%	11%	10%
3) Clinical Path.	37%	35%	27%	25%
4) Dermatology	18%	19%	22%	34%
5) General Surgery	41%	46%	43%	41%
6) Internal Medicine	58%	48%	43%	36%
7) Neurology	30%	27%	25%	26%
8) Neurosurgery	27%	19%	19%	10%
9) Ob-Gyn	45%	39%	34%	29%
10) Eye	18%	20%	19%	14%
11) Orthopedics	23%	24%	22%	20%

Specialty	Freshmen	Sophomores	Juniors	Seniors
12) ENT	15%	14%	21%	20%
13) Pediatrics	37%	37%	25%	30%
14) Plastic Surgery	19%	18%	18%	19%
15) Psychiatry	34%	34%	33%	16%
16) Radiology	31%	16%	22%	29%
17) Thoracic Surgery	31%	35%	25%	16%
18) Urology	17%	11%	31%	18%
19) Urosurgery	15%	10%	20%	18%

Table 10: The Percentage of Medical Students Very Interested in Each Specialty, Presented by Class

Specialty	Freshmen	Sophomores	Juniors	Seniors
1) Anesthesiology	8%	1%	6%	9%
2) Allergy	3%	5%	3%	0%
3) Clinical Path.	7%	5%	8%	5%
4) Dermatology	6%	2%	7%	8%
5) General Surgery	30%	19%	21%	11%
6) Internal Medicine	31%	40%	25%	34%
7) Neurology	14%	6%	5%	6%
8) Neurosurgery	8%	0%	5%	4%
9) Ob*Gyn	11%	17%	26%	5%
10) Eye	11%	11%	5%	6%
11) Orthopedics	14%	1%	13%	6%
12) ENT	7%	6%	10%	9%
13) Pediatrics	28%	20%	12%	6%
14) Plastic Surgery	3%	1%	11%	7%

Specialty	Freshmen	Sophomores	Juniors	Seniors
15) Psychiatry	12%	17%	19%	15%
16) Radiology	5%	3%	3%	4%
17) Thoracic Surgery	12%	11%	9%	3%
18) Urology	5%	0%	4%	7%
19) Urosurgery	4%	0%	7%	1%

Finally, for comparative purposes, a table listing the ten major specialties and the percentages of physicians in each is presented. This is quoted from the Directory of Approved Internships and Residencies 1967-68 (table 11).

Table 11: Distribution of Physicians in the U.S. and Possessions, December 31, 1966.

Field of Practice	All Physicians		All Interns+ Residents			
	No.	% of total Physicians	No. on Duty	% of total MD'S IN this field	% of total on Duty	% of Residencies Filled in this field
1) General Practice	70,223	23	672	1	2	48
2) Int. Medicine	40,314	13	7,536*	19	17	85
3) Surgery	28,756	10	6,747*	23	15	90
4) Psychiatry	18,875	6	3,572	19	8	79
5) Ob-Gyn	17,444	6	2,629*	15	6	89
6) Pediatrics	16,417	5	2,924*	18	7	85
7) Radiology	10,189	3	17,73	17	4	80
8) Anesthesiology	9,110	3	1,199	13	3	70
9) Pathology	8,914	3	2,168*	24	5	60

All Physicians All Interns + Residents

Field of Practice	No.	% of total's Physicians	No. on Duty	% of total M.D.'s in this Field	% of total on Duty	% of residencies filling in this field
10) Ophthalmology	8,735	3	1,184	14	3	96
11) Orthopedics	7,982	3	1,441	18	3	93
<u>Totals</u>	236,959	79	31,845	13	71	---
Others	63,416	21	13,092	21	29	---
Grand Totals	300,375	100	44,937	15	100	---

* includes straight internships

From the Directory of Approved Internships and Residencies
1967-68, pgs. 16 + 17.

The second major area of the paper regarded General Practice, specialty practice, group or clinic practice, and individual practice; the first two of which are paired and the latter two of which are paired. This set of data was compiled class by class with both absolute numbers and percentages being presented (table 12).

Table 12: Types of Practice in which the Students are Interested, by Class

Types of Practice	Not Interested	Little Interest	Some Interest	Very Interested
<u>Freshmen:</u>				
1) General	8/86(9%)	11/86(12%)	41/86(47%)	26/86(32%)
2) Specialized	1/86(1%)	8/86(9%)	31/86(35%)	46/86(55%)
3) Clinic	2/84(2%)	8/84(9%)	46/84(52%)	28/84(37%)
4) Individual	9/85(10%)	13/85(15%)	48/85(58%)	15/85(17%)
<u>Sophomores:</u>				
1) General	8/69(11%)	8/69(11%)	28/69(40%)	25/69(38%)
2) Specialized	2/69(3%)	5/69(7%)	27/69(40%)	35/69(50%)
3) Clinic	2/70(2%)	4/70(5%)	24/70(36%)	40/70(57%)
4) Individual	11/69(17%)	13/69(19%)	33/69(46%)	12/69(18%)
<u>Juniors:</u>				
1) General	9/72(12%)	14/72(20%)	15/72(21%)	34/72(47%)
2) Specialized	2/72(3%)	3/72(4%)	31/72(43%)	36/72(50%)
3) Clinic	2/72(3%)	1/72(1%)	27/72(37%)	42/72(59%)
4) Individual	13/72(19%)	19/72(26%)	26/72(35%)	14/72(20%)
<u>Seniors:</u>				
1) General	16/76(20%)	10/76(14%)	20/76(28%)	30/76(38%)
2) Specialized	2/76(3%)	5/76(6%)	31/76(39%)	38/76(52%)
3) Clinic	0/76(0%)	2/76(3%)	27/76(38%)	47/76(59%)
4) Individual	27/76(39%)	21/76(26%)	17/76(22%)	11/76(13%)

The third section refers to time allotted for practice, teaching, and research. This category was also evaluated with both absolute numbers and percentages so that if there is a follow-up study it will be more meaningful. It also is separated by class (table 13).

Table 13: The Amount of Time Allotted to Practice, Teaching, and Research by Each Class

Field by Class	None	Some	Most	All
<u>Freshmen:</u>				
1) Practice	0/86(0%)	7/86(8%)	67/86(78%)	12/86(14%)
2) Teach	24/86(28%)	61/86(71%)	1/86(1%)	0/86(0%)
3) Research	33/86(38%)	52/86(61%)	1/86(1%)	0/86(0%)
<u>Sophomores:</u>				
1) Practice	0/69(0%)	2/69(4%)	50/69(71%)	17/69(25%)
2) Teach	19/70(28%)	50/70(71%)	1/70(1%)	0/70(0%)
3) Research	45/70(65%)	25/70(35%)	0/70(0%)	0/70(0%)
<u>Juniors:</u>				
1) Practice	0/71(0%)	6/71(8%)	50/71(71%)	15/71(21%)
2) Teach	15/71(21%)	56/71(79%)	0/71(0%)	0/71(0%)
3) Research	34/71(48%)	35/71(50%)	2/71(2%)	0/71(0%)
<u>Seniors:</u>				
1) Practice	0/76(0%)	5/76(7%)	54/76(70%)	17/76(23%)
2) Teach	12/76(15%)	61/76(81%)	3/76(4%)	0/76(0%)
3) Research	51/76(66%)	24/76(33%)	1/76(1%)	0/76(0%)

The next major group is the size of city in which one wishes to practice. This is broken down as: less than three thousand, three to ten thousand, ten to fifty thousand, fifty to one hundred thousand, one hundred to five hundred thousand, five hundred thousand to one million, greater than one million, and undecided. The size of the city is the left side of the table and each class is the top of the table. The numbers are again presented as absolute figures and the percentages computed (see table 14). The next table (15) concerns the cities of Nebraska with greater than one hundred population and is used for comparison with table 14. It was taken from the 1967 New Hazel Road Atlas pg. 136.

Table 14: Size of City, in Thousands, in which Each Class Contemplates Practice

Size of City (thous)	Freshmen	Sophomores	Juniors	Seniors
1) 3,000 or less	2/86(2%)	0/69(0%)	2/72(3%)	1/76(1%)
2) 3-10,000	12/86(13%)	6/69(9%)	13/72(19%)	15/76(20%)
3) 10-50,000	21/86(28%)	18/69(26%)	22/72(31%)	21/76(29%)
4) 50-100,000	10/86(11%)	6/69(9%)	10/72(13%)	6/76(8%)
5) 100-500,000	11/86(12%)	16/69(24%)	15/72(20%)	16/76(22%)
6) 500-1,000,000	7/86(8%)	7/69(10%)	5/72(7%)	10/76(11%)
7) over 1,000,000	8/86(9%)	6/69(9%)	0/72(0%)	4/76(5%)
8) undecided	15/86(17%)	10/69(13%)	5/72(7%)	3/76(4%)

Table 15: The Cities of Nebraska with Greater Than One
Hundred Population, Organized by Size

<u>Population in Thousands</u>	<u>Number of Towns</u>
1) Under 3,000	396
2) 3-10,000	27
3) 10-50,000	10
4) 50-100,000	0
5) 100-500,000	<u>2</u>
6) Total	435

The New Hazel Road Atlas, Published by Hazel Inc., 1967,
pg.136.

The fifth section concerns the geographical area in which practice is contemplated. The table uses Nebraska (Lincoln or Omaha), Nebraska (other), Midwest (other), East, Southeast, West, Southwest, outside U.S., and undecided as its left column. The top of the table presents the four classes in Medical school. Both percentages and absolute figures are again presented (see table 16).

Table 16: Geographical Area in Which Each Class
Contemplates Practice

Geographical Area	Freshmen	Sophomores	Juniors	Seniors
1) Nebraska (Omaha)	4/83(5%)	10/71(14%)	7/74(10%)	4/79(5%)
2) Nebraska (other)	14/83(16%)	11/71(15%)	8/74(11%)	19/79(24%)
3) Midwest (other)	8/83(9%)	8/71(11%)	10/74(12%)	14/79(18%)
4) Eastern U.S.	3/83(3%)	2/71(3%)	2/74(3%)	1/79(1%)
5) Southeastern U.S.	1/83(1%)	4/71(5%)	0/74(0%)	0/79(0%)
6) Western U.S.	17/83(20%)	13/71(19%)	27/74(38%)	14/79(18%)
7) Southwestern U.S.	7/83(8%)	0/71(0%)	7/74(10%)	3/79(4%)
8) Outside U.S.	2/83(2%)	1/71(1%)	1/74(1%)	0/79(0%)
9) Undecided	27/83(36%)	22/71(32%)	12/74(15%)	23/79(30%)

Table 17 refers to the size city in which the Medical students attended high school with the left side of the table being: less than five thousand, less than ten thousand, less than fifteen thousand, less than twenty thousand, less than twenty-five thousand, twenty-five thousand to one hundred thousand, and greater than one hundred thousand. The top of the chart is each class. Again both absolute numbers and percentages are presented.

Table 17: Size of City in Which High School was Attended by Medical Students

High School Town	Freshmen	Sophomores	Juniors	Seniors
1) Under 5,000	27/83(36%)	25/69(35%)	28/71(40%)	26/76(36%)
2) 5-10,000	6/83(7%)	4/69(5%)	3/71(4%)	8/76(10%)
3) 10-15,000	5/83(6%)	2/69(3%)	5/71(7%)	7/76(9%)
4) 15-20,000	4/83(4%)	2/69(3%)	1/71(1%)	3/76(3%)
5) 20-25,000	3/83(3%)	4/69(5%)	2/71(3%)	0/76(0%)
6) 25-100,000	3/83(3%)	5/69(5%)	8/71(11%)	2/76(2%)
7) Over 100,000	35/83(41%)	27/69(43%)	24/71(34%)	30/76(40%)

The seventh and final section presents college major versus class in Medical school. Both absolute figures and percentages are given (see table 18).

Table 18: Medical Student's College Majors

College Major	Freshmen	Sophomores	Juniors	Seniors
1) Zoology	22/87(24%)	20/75(29%)	17/83(21%)	16/85(20%)
2) Biology	14/87(16%)	9/75(13%)	21/83(27%)	13/85(15%)
3) Chemistry	28/87(34%)	15/75(21%)	22/83(28%)	18/85(22%)
4) Premedicine	14/87(16%)	16/75(22%)	9/83(10%)	20/85(24%)
5) Literature	6/87(6%)	4/75(4%)	3/83(3%)	6/85(7%)
6) Mathematics	3/87(3%)	0/75(0%)	1/83(1%)	3/85(3%)
7) Physiology	5/87(5%)	0/75(0%)	2/83(2%)	0/85(0%)
8) Other	5/87(5%)	11/75(11%)	9/83(9%)	9/85(9%)

C. Discussion:

Of the seven general areas of this paper the first section on interests in specialties lends itself to the most comparisons. The major reasons for this are that with 19 different parts it is the largest section, and there are national figures for comparative purposes. This section was presented in three different ways as described in the method section. Tables 2-5 reflect interest in specialties in actual numbers, table 6 is the mean ratio for each specialty calculated by class, tables 7-10 reflect interest in specialties in percentages, and table 11 is the national figures of physicians in the ten most popular specialties. It is important to note here that the not interested and very interested columns have as much relevance as does the mean ratio of the class, since these two columns are the closest parameter of specific specialties negated or chosen for practice by the individual responses. Since many fields have a limited appeal the mean ratio of the class may be low, reflecting many not interested responses while the very interested column may contain a relatively large number of positive answers. An example of this is Psychiatry. In table 6 Psychiatry ranks tenth in the Senior class (mean ratio), but when table 5 (very interested table) is used Psychiatry ranks second to Internal Medicine. This shows that, in general, the Senior class has average interest in Psychiatry, but if the absolute number of very interested is taken into account it is quite popular.

Probably the most significant finding in table 6 is the fact that Internal Medicine is ranked number one by all four classes. General Surgery is second in all classes, except the Junior, in which it is third. Pediatrics drops from third in the Freshman and Sophomore classes to seventh in the Junior and Senior classes, and this change is concomitant with the transition from basic sciences to clinical sciences. Obstetrics shows a peak in the Junior year, and a slight decrease in the Senior year. Neurology shows a steady decline from Freshman to Junior, but picks up in the Senior year. Thoracic Surgery manifests a steady decline. Psychiatry is highest in Sophomore and Junior years, and lowest in the Senior year. This probably is associated with less indecision related to specialty choice in the Senior class. Orthopedics is lowest in the Sophomore class, and highest in the Junior class, reflecting an increase in interest from basic sciences to clinical sciences. Clinical Pathology is about the same through the first three years, and falls down markedly in the Senior year. This may be associated with more students in the Senior class having chosen their field of endeavor. Neurosurgery is highest in the Freshman class, and lowest in the Senior class. The length of training and relatively small number of physicians in this field may contribute to this finding. Ophthalmology is highest in the Sophomore and lowest in the Junior year, again showing an association between changing from basic to clinical sciences. Anesthesiology shows a very steady progression, from twelfth in the

Freshman class to third in the Senior class. This reflects both a change from basic science to clinical science, and the fairly large demand for Anesthesiologists. Radiology shows a big change from seventeenth in the Junior class to sixth in the Senior class. Dermatology, like Anesthesiology, shows a steady progression upwards from fourteenth in the Freshman class to fourth in the Senior class, mirroring an increase in interest with exposure to the field. Urology is least popular in the Sophomore class and most popular in the Junior class. Otorhinolaryngology is ranked low in Freshman and Junior classes and intermediate in Sophomore and Senior classes. Plastic Surgery is low in the Freshman class and intermediate in the other three. Urosurgery remains second to the bottom in all classes, except the Sophomore, where it is on the bottom. Allergy is on the bottom of all but the Sophomore class where it is third from the bottom. This paragraph is, in essence, a reproduction of table 6. There has been some attempt to explain the changes reflected in this table, but there are too many variables to draw conclusive reasons for changes in each specialty. Each reader undoubtedly will have his own ideas as to why specific specialties increase or decline in popularity through the four years. One of the most important factors to remember to evaluate in analysis of this table, is that many of the specialties listed have only a small percentage of the total physicians in the U.S. in them (see table 11). Since many fields have better opportunities for financial

success and a greater demand for applicants in their residencies, presumably more people will be interested in them. To a certain extent Medicine is a field of supply and demand.

Probably the most valid comparison which can be made from tables 2-10 is with the national figures (table 11). The ranking of physicians in specialties, by numbers, will now be compared with the Nebraska figures. Remember that the questionnaire used here reflected interest and not whether a person was going to practice that specialty, e.g. a person interested in General Practice would probably rank Internal Medicine and General Surgery high on his interest list without any thought of practicing that specialty. The national figures show Internal Medicine to be both the most popular specialty and the most popular residency with Surgery second in both categories, which is the same as was found in table 6 of this paper (see table 11 for comparison). Psychiatry is third in both total physicians and number in residency programs. Obstetrics-Gynecology and Pediatrics are fourth and fifth in total number of specialists in the U.S.; they are reversed in the number of physicians in training. Obstetrics-Gynecology is more popular at the University of Nebraska and Pediatrics is less popular. Radiology is sixth in number of physicians, and ranks about the same with the students studied. Anesthesiology is seventh nationally, and more popular at the University. Pathology is eighth nationally and much less popular in the students studied. Ophthalmology is

ninth in number of physicians, and slightly less popular at Nebraska. Orthopedic Surgery is the tenth most popular specialty and about the same among the students tested. Overall the ten most popular specialties with 166,736 (General Practice excluded) account for 72.4 percent of the total specialists in the U.S. When considering the openings for training 31,173 (General Practice excluded) or 70.4 percent choose the ten most popular specialties. General Practice itself accounts for 23 percent of the total physicians in the U.S., but only one percent of those in training. With this table (11) in mind the columns in tables 2-5 become more important because they reflect the interests of smaller segments of the classes than table 6, which is the entire class in general. Since the questionnaire required the ranking of all the specialties, there were many responses in both the not interested and very interested columns.

It is noted here that tables 7-10 are comparable to tables 2-5 in that the former are in percentages and the latter in absolute numbers of responses. One should also observe that the not interested and very interested columns are mirror images of each other or very nearly so e.g. what ranks lowest in the not interested column ranks highest in the very interested column for each class.

As mentioned in the method portion of this paper table 12 presents General Practice versus specialty practice, and clinic or group practice versus individual practice qualified by interest in each. The Freshman class has

47% with some interest in General Practice, and 32% very interested, which equals 79%, while only 9% are not interested. The Sophomore class has 40% with some interest and 38% very interested which equals 78% while 11% are not interested. The Junior class shows 20% with some interest, and 47% very interested for 68%, with 12% who are not interested. The Senior class has 28% with some interest and 38% very interested for 66% with 20% not interested. According to these figures, about 10% of the people lose interest in General Practice between the Sophomore and Senior years. However, about the same number remain very interested. It appears that what happens is that the people in the little interest and some interest, especially the latter, tend to decrease in interest, while the very interested remain about the same. This conclusion is speculative, however, since one cannot say that the people originally in the very interested column stay there.

For comparative purposes, 90% of each class has some interest or is very interested in specialty practice, while 1-3% are not interested. According to this study only 14% are not interested in General Practice, and only 0.3% are not interested in specialty practice. These figures seem to say that only a small number of people rule out either General Practice or specialty practice. The important figures to compare with these are; how many people have ruled in General Practice and specialty practice? These figures are 40.6% very interested in

General Practice, and 54.7% very interested in specialty practice for all of the classes together. Notice that some answer sheets contained responses in which both were checked very interested. In each class about 90% of the students checked either General Practice or specialty practice as very interested. Overall, an amazing 95.3% chose either General Practice or specialty practice as very interested, while only 14.3% chose one or the other as not interested. It is interesting to speculate upon these results. What it means to the writer is that most people have their preference as to General Practice or specialty, but very few have decided so firmly as to exclude the other from his thinking.

The next comparison is between group or clinic practice and individual practice (table 12). Only a few are not interested in group practice e.g. 0-3%, while there is a steady increase in those not interested in individual practice as they progress through school (Freshmen 10%, Sophomores 17%, Juniors 19%, Seniors 39%). Overall these figures are: clinic 2%; individual 20%. Relative to the very interested, between 37% and 59% chose group or clinic, and 13-20% chose individual practice. Overall these figures are: clinic 52%; individual 17%. As in the analysis above, the figures are not really amenable to strict evaluation due to the number of variables present. One can say that about one of five know in what they are not interested, and about two of three know in what they are

very interested. There seems to be an increase in group or clinic practice as one progresses through Medical school, as well as a decrease in interest in individual practice (reflected by the increase in those not interested in the Senior class). The reasons for this are purely hypothetical, but many feel they have more time to themselves when practicing in a group. The most important result of this question is that those towns without physicians are unlikely to get them since few (17%) are very interested in individual practice, and many of those probably are not going into General Practice. Since two of three prefer group practice, (this is probably a low figure) a trend may be in the making away from the "old country Doctor on his own!" Note that 93% of the responses for group or clinic practice fall in the some and most interest categories, while the response to individual practice in these two columns shows a steady decline through the four years, e.g. Freshmen 75% some or very interested in individual practice, Sophomores 64%, Juniors 55%, Seniors 34% (average 58%). This trend of decreasing interest in individual practice through the four years shown in both the not and very interested categories appears to have significance, but more data is necessary to evaluate it properly.

The next section (table 13) records responses in practice, teaching, and research, with time allotted to each, the criterion for choice e.g. none, some, most, all of the time. The most interesting finding, and

probably the most significant one, is that of all 303 responses not one student is going to spend all of his time in either teaching or research. Only 5/303 are going to spend most of their time teaching and only 4/303 are going to spend most of their time in research. There was not one person who is not going to practice; as one would expect without any full time teachers or researchers. Between 92 + 96% are going to spend most or all of their time practicing. From 71 to 81% of the responses were in the some teaching area. In the first two years it is 71%, the Junior year 79%, and the Senior year 81%. There is a comparable shift in those who are going to do no teaching e.g. Freshmen 28%, Sophomores 28%, Juniors 21%, and Seniors 15%. These results may be dependent upon one's definition of teaching, although the response of some teaching should have rectified that problem. The greatest majority, 98 to 100%, chose either some or no time for research. For some research the responses were: Freshmen 61%, Sophomores 35%, Juniors 50%, and Seniors 33%. While the responses for no research were Freshmen 38%, Sophomores 65%, Juniors 48%, and Seniors 66%. Although these results are not too consistent, there seems to be a transition from some research interest to no research interest, at least this is true between the Freshmen and Senior classes. The conclusions which can be drawn are: 1) The greatest majority of students plan on spending most or all of their time in practice. 2) There are no students who have excluded practice or are going to spend all of their time

in either teaching or research. 3) About three out of four of the students are interested in some teaching, while about one-fourth of the students are not. 4) Two-thirds of the Freshmen and one-third of the Seniors have some interest in research, while one-third of the Freshmen and two-thirds of the Seniors have no interest in research.

This paragraph refers to table 14; choice of the size city in which practice is contemplated. The most significant finding here is that only 5/303 are interested in communities of less than three thousand. This indicates that small towns, without physicians, are likely to encounter difficulty in finding them. This is especially true since only 33/303 are undecided as to which size town they are going, and this number decreases as one passes through school (Freshmen 15/86, Sophomores 10/69, Juniors 5/72, Seniors 3/76). This undecided category could potentially represent a group interested in towns less than three thousand, but since the undecided group decreased about 5%/year, and the less than three thousand group remains the same, a definite problem exists. The interest, ^{in practice,} in towns of three to ten thousand seems to be increasing slightly (Freshmen 13% to Seniors 20%). The most popular sized city is ten to fifty thousand and varies from 26% to 31%. According to the New Hazel Road Atlas 1967 there are 435 towns in Nebraska with greater than one hundred population (table 15). Of this group 396/435 (91%) have less than three thousand population, 27/435 (6.2%) are in the three to ten thousand category, 10/435 are in the ten to fifty

thousand category, 0 in the fifty to one hundred thousand group, and two in the greater than one hundred thousand group. Of course, better than one-half of Nebraska's population is in the Omaha and Lincoln areas, but this question was related to size of community anyway and Omaha Lincoln were not popular.

The statistics present a very disturbing picture e.g. 91% of individual communities in Nebraska have less than three thousand population and only five students tested were interested in this size town. In absolute numbers there are 27 communities of three to ten thousand and 46 students interested in that size or about two physicians/community of this size if they all stay in Nebraska. There are ten cities of ten to fifty thousand with 83 students interested in this size or about 8/city if they were all to stay in Nebraska.

Now the most important factor is how many of these potential Nebraska physicians will stay here?

Table 16 is compiled from responses relative to geographical location chosen for practice. The West, and Nebraska other than Lincoln or Omaha, are most popular. However, each class has a large segment (about 30%) undecided in contrast to table 14 (size of community) which showed a steady decrease in the number of undecided. There are twice as many Seniors interested in Nebraska other than Lincoln or Omaha than in any of the other classes. Whether this is a function of real change or just an incidental finding can not be proven without

further study in the future. Using the Senior class as an example 24% plan on practicing in outstate Nebraska and 29% plan on going to a community of ten to fifty thousand population, of which there are ten. Thus this size town should have enough physicians. This is also true of the three to ten thousand community, but there are 27 of them with only 15 Seniors interested. Overall, from this questionnaire, it appears that the community of less than three thousand will suffer the greatest, while the three to ten thousand and ten to fifty thousand size should have a ~~more~~ adequate number of physicians. The geographical question leaves room for marked speculation since about one-third of each class remains undecided. However, one can say that outstate Nebraska and the West are the most popular and together represent between one-third and one-half of each class. The writer was quite surprised at the lack of interest in Omaha and Lincoln (Freshmen 5%, Sophomores 14%, Juniors 10%, and Seniors 5%). If past experience is to be included, one could expect many of the undecided to choose Omaha or Lincoln, but this may be changing and needs further study. Excluding the undecided as if they did not respond, those percentages of students planning on remaining in Nebraska are: Freshmen 32%, Sophomores 43%, Juniors 24%, Seniors 42%. Theoretically, one should expect the undecided group to respond in the same pattern as the remainder of the group. Overall, this is between one-third and two-fifths of Nebraska Medical

students staying in the state. Each class has a different proportion of those staying in Nebraska going outstate: Freshmen three-fourths, Sophomores one-half, Juniors one-half, Seniors four-fifths. From these crude facts one would like to say that those Freshmen interested in staying in Nebraska want to go outstate.

Although the interest declines in the second and third years, it picks up by the Senior year; but this is merely speculation until further study is done in the future. Noticing the large number and percentage of Juniors interested in the West, one can probably not show an increase in interest over a one year period. The Junior class also has about one-half as many undecided as any other class. It is interesting that the West is as popular as is Nebraska: Freshmen 30%, Sophomores 27%, Juniors 43%, Seniors 25%. These percentages again exclude the undecided group. Thus if the undecided group is ignored the combined percentages of Nebraska and the West are: Freshmen 62%, Sophomores 70%, Juniors 67%, Seniors 67%. Overall two-thirds of Nebraska students are interested in either staying here or going to the West; but this is assuming the undecided group will respond in a concomitant fashion to those in the rest of the groups.

The next set of responses (table 17) concerns the size town in which each student attended high school. This study revealed that between 35 and 40% of University

of Nebraska students are from towns of less than five thousand, and that between 34 and 43% are from cities greater than one hundred thousand. If those students from five to ten thousand population are added to the less than five thousand group, this increases to between 40 and 46% of the students. Comparing this to size of city in which practice is contemplated (table 14), there are between nine and 22% of the students returning to this size of community. Most students (26 to 31%) are interested in the ten to fifty thousand size city, and they appear to have come from the smaller towns. Those from cities greater than one hundred thousand represent from 34 to 43% of each class and comparing this to the percentages of students in table 14 who contemplate practice in cities greater than one hundred thousand, one finds between 27 and 43%. This gross comparison seems to say that those students (one-third) from communities less than ten thousand tend to move to larger areas, and those from cities greater than one hundred thousand (one-third) tend to stay about the same. One can not say that this shift is valid due to the number of variables present.

Table 18 discloses the college majors of the students. Between 81 and 85% majored in Zoology, Biology, Chemistry, and Premedicine. About one-half majored in Zoology and Chemistry alone. This reflects the large number of students majoring in science in undergraduate school. Science majors contribute to the criticism of medical personnel as not

well enough prepared in English and the Humanities. The fact that a large percentage of the courses of a Premedical student are required also limits his choice of major in college.

D. Summary:

This thesis concerns a three-page questionnaire given to each of the four Medical school classes at the University of Nebraska College of Medicine on November 20th and 21st, 1967. It is a study of Medical students views regarding specialties and medical careers. Overall 87.6% of the students cooperated in this study. The questionnaire contains seven major sections: 1) interest in various specialties, 2) types of practice, 3) time allotted to practice, teaching, and research, 4) size of city desired for practice, 5) geographical area of preference for practice, 6) size of city of high school attendance, 7) college major. It was anonymous. There are two sources of information, The Directory of Approved Internships and Residencies from which a table on percentages of physicians in the ten major specialties was taken, and the New Hazel Atlas from which the number of cities in Nebraska with greater than one hundred population was extracted and tabulated. The data WERE organized into 18 tables and discussed. The questionnaire is table 1.

The section on specialties was presented in tables 2-10. Internal Medicine was chosen number one in interest

by all four classes. Most of the 19 specialties showed a change from the basic science years. Some increased and some decreased in interest. The data in tables 2-10 was compared with the national figures of the ten most popular specialties (table 11). Most of the results of the University of Nebraska students were comparable to the national specialty interest. These specialties were more popular at the University of Nebraska: Obstetrics-Gynecology and Anesthesiology. These specialties were less popular at the University: Psychiatry, Pediatrics, Pathology, Ophthalmology. These specialties ranked about the same at both the University and nationally: Internal Medicine, Surgery, Radiology, and Orthopedic Surgery.

The second section presents General Practice versus specialized practice, and group or clinic practice versus individual practice (table 12). There is an apparent decrease in interest in General Practice from Sophomore to Senior years reflected in the not interested column; but the very interested number remains about the same. It appears that students move toward the not and very interested choices and away from the little and some interest choices as they progress through Medical school. The general conclusion in this section is that most people have their preference as to General Practice or specialized practice, but only a few have decided conclusively enough to exclude the other from his thinking. The conclusion in the choice between group or clinic practice versus individual practice

was decided in favor of the former. Only a few are not interested in group practice, while there is a steady increase in those not interested in individual practice, as they progress through school. About one-fifth know what they are not interested in and about two-thirds know what they are very interested in.

The third section relates to time allotted to practice, teaching, and research (table 13). In this area it was interesting to note that not one student is planning on full time teaching or research, and none have excluded practice. Over 90% are going to spend most or all of their time practicing. About three-fourths want to do some teaching. Two-thirds of the Freshmen and only one-third of the Seniors are planning on spending some time in research (the remainder of each group is allotting no time to research).

The fourth area studied is the size of city in which practice is contemplated. There were only 5/303 who responded in the less than three thousand category, which indicates small towns are going to have increasing difficulty finding physicians. Unfortunately 91% of the communities over one hundred population in Nebraska have less than three thousand people. There are very few undecided students. The most popular sized city is ten to fifty thousand of which there are ten in Nebraska.

The fifth section represents the geographical area chosen for practice (table 16). The West and outstate

Nebraska were chosen by about two-thirds of the students in each class. About one-third of the total were undecided, and this group was excluded for compilation of percentages choosing each area.

The sixth area asked for the size city in which high school was attended (table 17). This section revealed a little more than one-third of University of Nebraska students are from towns of less than five thousand people, and slightly more than one-third are from cities of greater than one hundred thousand population. Overall, the comparison with the section for size of city for practice reveals that those students from communities less than ten thousand tend to move to larger areas, and those from cities greater than one hundred thousand tend to stay about the same.

The seventh and final section (table 18) presents the college majors of the Medical students. An overwhelming majority majored in science courses with over one-half in Zoology and Chemistry alone.

This thesis is merely a beginning for further studies in the future. Many of the generalities suggest more specific problems. One should assess in any future survey those who have definitely chosen their specialty or General Practice. Attitudes of students regarding medical specialties and careers has appeal to the University staff, General Practitioners, and the students themselves. Hopefully someone will continue this study to ascertain whether the results are reproduceable and to facilitate more specific

conclusions from the data.