

File / Physical Science
Major



College of Natural Sciences
Office of the Dean

Colorado State University
Fort Collins, Colorado
80523

May 20, 1985

MEMORANDUM

TO: Kellogg-NCHEMS Project

FROM: Thomas A. Gorell, Assistant Dean, Head, Physical Science Major

SUBJECT: Survey of Physical Science Majors

I have enclosed a copy of information obtained from a survey of Physical Science graduates. The survey was conducted for the first five-year review of the program and was an attempt to determine the degree of satisfaction of the graduates with the interdepartmental major. The data are summarized in table form using the numbers that were appropriate for the report. Responses of some of the students are included in Item IV. A copy of the letter requesting information is also included. I would be happy to respond to any questions regarding this small "non-scientific survey".

I also head the interdepartmental major in Biological Science; however, no similar survey has been conducted.



College of Natural Sciences
Office of the Dean

Colorado State University
Fort Collins, Colorado
80523

September 21, 1984

&name&
&street&
&aim&
&ctystzp&

Dear &addressee&:

The College of Natural Sciences is conducting a survey of recent graduates in the Physical Science major. We would appreciate your help in providing us with the answers to the following questions:

1. What is your area of employment or status at the present time?
(What are you doing now?)

2. Did the Physical Science major sufficiently prepare you for your present employment?

3. If you had it to do over again, would you major in Physical Science?
If not, what would you major in?

Since our sample size is very small, we urgently need your response. Please place this letter in the enclosed self-addressed stamped envelope and return it to us by October 1. We appreciate your assistance. Thank you again.

Sincerely,

Thomas A. Gorell
Assistant Dean

Table 6. Employment status of students graduating during the five-year review period.

<u>Employment Status</u>	<u>Frequency of Response</u>
Military	5
Graduate School	1
Second Bachelor's Program	2
Medicine (school, internship, residency)	9
Dentist	3
Veterinary School	1
Salesperson	3
Health Physicist	2
Computer Operator	2
Secretary	1
Manager	1
TOTAL	30

Table 7. Response of students graduating during the five-year review period regarding adequacy of preparation for present employment.

<u>Adequate Preparation</u>	<u>Frequency of Response</u>
Yes	18
No	7
I don't know	5
TOTAL	30

Table 8. Response of students graduating during the five-year review period regarding selection of Physical Science major "if they had to do it all over again".

<u>Select Physical Science</u>	<u>Frequency of Response</u>
Yes	20
No	10
TOTAL	30

Table 9. Alternative majors selected by graduates that would not major in Physical Science "if they had to do it all over again".

<u>Alternative Major</u>	<u>Frequency of Selection</u>
Electrical Engineering	1
Business	2
Chemistry	1
Computer Science	1
Animal Science	1
Biological Science	1
Art Education	1
More Specific Major	2

CAREER ACCOMPLISHMENTS OF PHYSICAL SCIENCE GRADUATES AND PERCEPTION OF THE MAJOR

A mail survey of 47 graduates in the five year review period resulted in a response (mail-back) of 30 graduates (61.7%). A copy of the survey letter is included in the appendix (Item III). Table 6 indicates the responses and frequency of responses to the question: "What is your area of employment or status at the present time?".

Obviously, the career achievements of the respondents vary considerably. However, 18 of the respondents are in graduate study, health professions (or in training), or in a physical science area.

Table 7 indicates the response and frequency of response to the question: "Did the Physical Science major sufficiently prepare you for your present employment?".

Based on the responses, 60% of the respondents felt sufficiently prepared for their current employment or training status by majoring in Physical Science.

Table 8 indicates the response and frequency of response to the question: "If you had to do it over again, would you major in Physical Science?".

Based on these responses, 66% of respondents would major in Physical Science if they had to do it over again. Of the 20 "YES" respondents, some added additional comments, which are of some interest (Item IV, Appendix). Of the 10 "NO" respondents, the alternative majors and their frequency of selection as shown in Table 9.

Based on the above responses, the graduates (in hindsight) would have selected a variety of majors including some far removed from the physical science area. However, except for Art Education and Business, most students would have selected majors in science or engineering.

From this "non-scientific" survey, one could conclude that the Physical Science major satisfactorily served the needs of a majority of the graduates who responded.

ITEM IV

Summary of additional comments of students who responded positively to question 3 on mail survey of graduates: "If you had to do it over again would you major in Physical Science?"

--Probably--It was a well-rounded field.

--Yes, and also in Physics.

--Sure I would. It was a good time.

--Physical Science is a good major for general studies in the field but in itself doesn't prepare for any particular career.

--Yes, I would. The major was flexible enough to allow me to pursue my interests and not too concentrated in one field to restrict my scope of experiences.

--Yes, I do not feel that what someone studies in school should dictate what they do for a career. Also, school in most cases, has very little relation to the real world.

--Yes, but I feel there should be some general business requirements. No matter what a person does they will always use general business courses.

--Yes, I think I would--it was a challenging course of study for me.

--Definitely. I feel it gave me an overall good background in several sciences as opposed to a more concentrated but more narrow approach.

--Yes, again for my career as a pilot, the broad spectrum of subjects encountered is a definite plus.

--Yes, because the emphasis on mathematics and science is of value to me in both the medical aspect of my job and in preparing me for flight training.

--Yes, the major provided me with a broad educational background, along with the sufficient basic science preparation for medical school.

--I would definitely major in physical science. I think a major which requires the basic pre-med courses and then allows for electives in either the sciences or humanities is important.

--Yes, physical science allowed me to meet pre-med requirements and gave me flexibility in choosing classes in other areas. For instance, I got a minor in history. When I got the health department job, I think my broad background was a positive factor vs. the straight environmental health degree. If CSU is considering dropping the physical science major I feel they are doing a disservice to their students. Technology is forcing specialization upon us but with the rapidity of change in society, those with a large overview who can adjust and be flexible are those who will most likely be the most satisfied, productive members of society.

--Engineering--if I didn't go to Med School which would be a definite possibility. or Computer Science--this would have been a good background for Computers in Medicine (an area filled with potential).