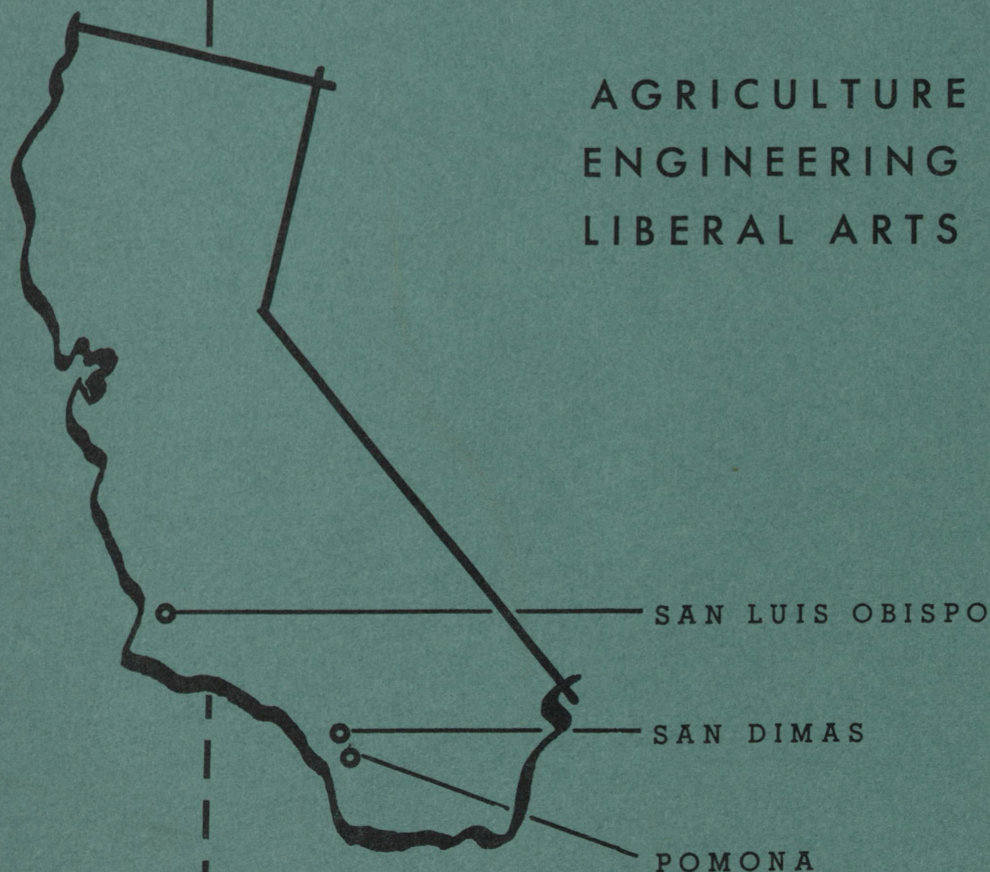


1955-56 ANNUAL REPORT

CALIFORNIA STATE POLYTECHNIC COLLEGE

One of California's Ten State Colleges,
Administered by the Board of Education
And the State Department of Education



CALIFORNIA STATE POLYTECHNIC COLLEGE

TABLE OF CONTENTS
ANNUAL REPORT

FOREWORD	1955-56	1
SUMMARY		2
ENROLLMENT		4
	to the	
DEGREES AND CERTIFICATES		12
FACULTY		13
MAJOR CONSTRUCTION PROGRAM	CALIFORNIA	13
MINOR CONSTRUCTION	STATE BOARD OF EDUCATION	14
SPECIAL SERVICES		14
	AND THE	
STUDENT PERSONNEL DIVISION		15
FOUNDATION	STATE DEPARTMENT OF EDUCATION	20
FUNCTIONS, OBJECTIVES, AND PHILOSOPHY		21
NEW CURRICULA		22
COOPERATION		23
LIBRARY		24
AGRICULTURAL DIVISION		26
ENGINEERING DIVISION		27
ARTS AND SCIENCES DIVISION		28
KELLOGG-VOORHIS CAMPUS		33

San Luis Obispo, California

May, 1956

TABLE OF CONTENTS

FOREWORD	1
SUMMARY	2
ENROLLMENT	5
DEGREES AND CERTIFICATES	12
FACULTY	12
MAJOR CONSTRUCTION PROGRAM	13
MINOR CONSTRUCTION PROGRAM	14
SPECIAL SERVICES	14
STUDENT PERSONNEL DIVISION	15
FOUNDATION	20
FUNCTIONS, OBJECTIVES, AND PHILOSOPHY	21
NEW CURRICULA	22
COEDUCATION	23
LIBRARY	24
AGRICULTURAL DIVISION	25
ENGINEERING DIVISION	27
ARTS AND SCIENCES DIVISION	32
KELLOGG-VOORHIS CAMPUS	33

FOREWORD

In submitting the annual report of California State Polytechnic College for the academic year 1955-56, I wish first of all to express the College's acknowledgment and appreciation of the consideration and cooperation which have been given by the State Board of Education, the State Department of Education, members of the Legislature and other State officials.

The year with which this report is concerned might well be characterized as a period of expansion. The College has grown in enrollment, in faculty, in curriculum, and in facilities. More new classrooms and laboratories have gone into use this year than in any previous year of the College's history.

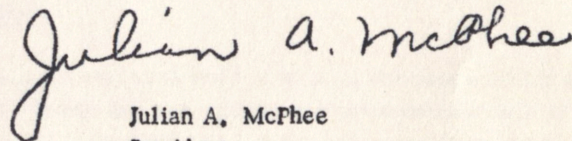
The final decision to again admit women to the College was made since our 1954-55 annual report was submitted. Their admission in the fall of this year will mark another phase of the expansion of the College and preparation for their admission has been among the year's important tasks.

The report included here on the year's enrollment indicates that as usual this college is performing its function as a state-wide state college. Enrollment reported is not concentrated in the home region of the College but comes from all parts of California as well as from many states and territories of the United States and foreign countries.

The California State Polytechnic College Foundation's report states facts on the increasingly critical housing situation at Cal Poly which arises from the fact that its students do not come from its home region but from counties throughout California.

Your attention is directed also to the analysis of the placement of graduates included in the report of the Student Personnel Division. These data depict the interest which agriculture, manufacturing industry, government agencies, and education have in employing students trained in each of Cal Poly's occupationally centered majors.

Respectfully submitted to the State Board of Education and the State Department of Education,



Julian A. McPhee
President

SUMMARY

During the 1955-56 academic year, California State Polytechnic College made significant progress in providing better educational opportunities for California's young men and women to prepare themselves as economically efficient workers in their communities.

ADMINISTRATION

An administrative reorganization aimed at strengthening the coordination between the San Luis Obispo and Kettle camps was consummated a year's study of problems associated with the operation of a specialized community college institution on two widely separated campuses. By management of duties and shifting of certain personnel, it is believed that the college now has a much stronger and more efficient administration without the disruption and confusion usually associated with such reorganization.

SUMMARY

The admission of women students again, after a lapse of twenty-five years, occurred in the Fall quarter, 1955, when seven women with emergency teaching credentials enrolled as regular students. An additional 52 women enrolled as limited students during the year. Preparations currently are being completed for the unlimited acceptance of women applicants next fall. All majors will be open to them although it appears that education, home economics and arts and science majors will draw a majority of the women students.

The Legislature was again sympathetic to the work being carried on by the college and supported the program on several important occasions. Typical of this support was Senate Concurrent Resolution No. 82, which recognizes and states for the correction of inaccuracies now in vogue on Cal Poly and other State college graduates with regard to engineering registration in California.

The State Department of Education and the State Board of Education also were positively helpful. Approval received for new curricula included: Farm Management, Modernized Agriculture, Industrial Engineering, Elementary Education, English, Home Economics and Agricultural Chemistry. A new major in Agricultural Management and sales was approved for the Kettle-Veneta Campus along with the addition of the fourth year in their pre-vocational majors.

Enrollment has continued to rise at a rapid rate with 3685 full-time students enrolled at both campuses during the Fall quarter, 1955-56. At the San Luis Obispo campus seven per cent of these students came from outside the continental limits of the United States, 5.8 per cent were from out of state and 61.7 per cent represented 54 of the 94 counties in California. These figures attest to Cal Poly's position as a college serving greater than regional needs. The current need in applications for 1956-57 indicates that more than four thousand students may be expected this fall.

Major construction projects continued at a gratifying pace and several were completed during the year. The 50,000 square foot science and classroom building was occupied as was the new Agricultural Engineering facility. Rehabilitation and remodeling of several major buildings in preparation for women students also was accomplished. Site clearance and construction of a large new engineering building also were begun during this year and many projects of a lesser magnitude, but important in the educational efficiency of the college also were accomplished. On the Kettle campus the 75,000 square foot science and classroom building is nearing completion and should be ready for fall classes. Bids should be called for work on a new gymnasium, cafeteria, crops and fruit production field houses and part of the commercial horticulture unit, all financed in the 1955-56 budget.

Major construction and improvement work has continued to be used wherever possible for improving student skills in constructive educational projects. A typical example is the 60-foot addition to the poultry laying house being built by the farm carpentry class. It was possible to make educational use of many of the budgeted CRRS projects which totaled \$124,000 this past year.

SUMMARY

During the 1955-56 academic year, California State Polytechnic College made significant progress in providing increased opportunities for California's young men and women to prepare themselves as economic and civic assets to their communities.

ADMINISTRATION

An administrative reorganization aimed at strengthening the coordination between the San Luis Obispo and Kellogg-Voorhis campuses culminated a year's study of problems associated with the operation of a specialized occupationally-centered institution on two widely separated campuses. By reassignment of duties and shifting of certain personnel, it is believed that the college now has a much stronger and more efficient administration without the disruption and confusion usually associated with such reorganization.

The admission of women students again, after a lapse of twenty-five years, occurred in the Fall quarter, 1955, when seven women with emergency teaching credentials enrolled as regular students. An additional 52 women enrolled as limited students during the year. Preparations currently are being completed for the unlimited acceptance of women applicants next fall. All majors will be open to them although it appears that education, home economics and arts and science majors will draw a majority of the women students.

The Legislature was again sympathetic to the work being carried on by the college and supported the program on several important occasions. Typical of this support was Senate Concurrent Resolution No. 52, which recognizes and strives for the correction of inequities now imposed on Cal Poly and other State college graduates with respect to engineering registration in California.

The State Department of Education and the State Board of Education also were particularly helpful. Approval received for new curricula included: Farm Management, Mechanized Agriculture, Industrial Engineering, Elementary Education, English, Home Economics and Agricultural Chemistry. A new major in Agricultural Management and Sales was approved for the Kellogg-Voorhis Campus along with the addition of the fourth year in their previous majors.

Enrollment has continued to rise at a rapid rate with 3548 individual students enrolled at both campuses during the Fall quarter, 1955-56. At the San Luis Obispo campus seven per cent of these students came from outside the continental limits of the United States, 5.3 per cent were from out of state and 87.7 per cent represented 54 of the 58 counties in California. These figures attest to Cal Poly's position as a college serving greater than regional needs. The current trend in applications for 1956-57 indicates that more than four thousand students may be expected this fall.

Major construction projects continued at a gratifying pace and several were completed during the year. The 90,000 square foot science and classroom building was occupied as was the new Agricultural Engineering facility. Rehabilitation and remodeling of several major buildings in preparation for women students also was accomplished. Site clearance and construction of a large new engineering building also were begun during this year and many projects of a lesser magnitude, but important in the educational efficiency of the college also were accomplished. On the Kellogg campus the 72,000 square foot science and classroom building is nearing completion and should be ready for fall classes. Bids should be called for soon on a new gymnasium, cafeteria, crops and fruit production field houses and part of the ornamental horticulture unit, all financed in the 1955-56 budget.

Minor construction and improvement monies have continued to be used whenever possible for applying student skills in constructive educational projects. A typical example is the 60-foot addition on the poultry laying house being built by the farm carpentry class. It was possible to make educational projects out of many of the budgeted CIRE projects which totaled \$193,000 this past year.

Special Services continued to be supported by the college which feels deeply its responsibility to the people of the State to make available its staff and facilities to lay and professional groups. Since more than one half of the agricultural teachers in the State's secondary schools have taken all or part of their training at Cal Poly, a special effort was made this year to improve and expand the continued professional development program for these people through in-service training. Some 72 high schools were visited by staff members this past year. Seventy-one teachers enrolled in special short courses in agricultural skills with some 333 in attendance at the annual agricultural teacher's Summer conference. Numerous other industrial, agricultural, educational and civic organizations also made use of the college services for meetings, conferences, workshops, training sessions, field days and other cooperative endeavors.

INSTRUCTION

The Agricultural Division made several important modifications in their curricula, keeping pace with the changing economic and production outlook for agriculture in California. A new program in mechanized agriculture has been approved and a new major in farm management will be offered next year for the first time. The Animal Husbandry and Agricultural Management and Sales programs to be offered at the Kellogg campus next year will reflect the changing agricultural picture of Southern California. New facilities for soil science work were occupied in the science and classroom building. Reflecting the growth of this division, a Student Agricultural Council has been formed to coordinate the major-club activities in agriculture. Student project facilities have been expanded and improved. The size of these project operations is apparent when one considers that some 130,000 pounds of milk are now processed monthly into market milk, butter, ice cream and cheese. More than 1500 head of beef cattle, sheep and swine were marketed this past year. Some 60,000 dozen eggs, 7000 fryers and 300 turkeys were produced. Students participated in numerous fairs, shows and judging contests and their usual high awards recognized the effectiveness of their training. Some 450 students participated directly in agricultural projects sponsored by the college Foundation while additional students worked in feeding, management and processing of farm products by Foundation enterprises.

The Engineering Division continued to show phenomenal growth with more than 1600 students registering. The quality of students selecting engineering fields as their careers also continued to improve. Major curriculum changes have placed greater emphasis on tool engineering in the mechanical engineering program and more stress on creativity in all design courses. Recognizing the industrial trend towards automation, a plan to introduce some basic electronics in several major departments has been developed. The architectural engineering program has expanded its emphasis in city planning and structural engineering. A continued effort has been made to apply the project learn-by-doing approach to all engineering majors and more than 100 such student projects were completed this past year. Some of these projects were quite major--such as developing a master plan for the City of Cambria or the construction of a wind tunnel for the determination of propeller efficiency. Because of the applied nature of the Cal Poly type of instruction, it is imperative that instructors in the vocational subjects be familiar with industrial practices. Sixty-five per cent of the instructors in the engineering division have had industrial work experience within the last three years. A significant number of the engineering staff has been recognized by election or appointment to leadership positions in professional or industrial organizations.

Arts and Science is the new name of the former Liberal Arts division. While conveying a clearer picture of the division's functions, the name "Arts and Sciences" avoids the traditional "liberal arts" connotation which was not in keeping with the Cal Poly philosophy of applied education. Besides expanding its service to the engineering and agriculture divisions, the Arts and Science division now offers ten occupational majors of its own. Although some 91 faculty members now serve in this division, further expansion of the division staff will be necessary next year as a majority of the women students will register in Arts and Science majors.

The Library, in an attempt to keep pace with the growing instructional program of the college, added some six thousand new volumes during this year. One indication of its effectiveness was an increase in circulation of 18 per cent over last year. The addition of new instructional majors always poses a

problem for the Library, but by holding the line in certain areas and borrowing from others, enough new titles to build basic references for the new offerings have been procured. A major contribution in the instructional program this past year has been the production of improved training aids through the joint effort of the audio-visual staff and instructors. An equipment technician was also added to the staff this past year.

STUDENT PERSONNEL

Student housing was a major problem faced by the Student Personnel Division this past year. This problem grows more critical each year. Overcrowding in the temporary freshman dormitories was somewhat alleviated this year by the promotion of additional off-campus housing. Much of the off-campus housing used by students is sub-standard and not "college approved." New furniture, repainting and repairs were provided for the freshman dormitories. Three permanent men's dormitories have been assigned to handle the influx of women students next fall which will make the men's housing problem even more serious. Housing for married students is also inadequate with more than 650 couples (with 509 children) living off campus. Some 30 per cent of the students this past year were veterans. An unusually high percentage of Cal Poly's students are 23 years of age or over. Cal Poly has always held a special attraction for the more mature individual who has specific educational goals. Only 75 temporary apartments and 185 outmoded trailer homes are now available on campus for married students and these World War II surplus units are rapidly deteriorating beyond the point of practical or economical maintenance.

Placement opportunities for Cal Poly graduates reached an all-time high during the past year. More than 200 personnel recruiters representing nearly 100 organizations held formal on-campus interviews with graduating seniors this year. Many more informal contacts were also made. The college placement office also made an increased effort this past year to provide part-time employment for students. Besides bettering the economic welfare of the students, it is part of the college plan to provide for supervised part-time employment of students whenever possible in order to develop proper work habits and attitudes.

A more effective followup of former students was instituted this year with questionnaires and interviews with graduates and employers used to evaluate the effectiveness of the training program. The Annual President's Tour was an outstanding success with many employers vouching for the present effectiveness of Cal Poly instruction and offering valuable suggestions for improving the quality of the college product.

Improved health services were offered this year with expanded facilities and staff. A surplus ambulance was re-conditioned and put to effective use. The environmental sanitation program started several years ago has had an effect in eliminating many health problems. A dermatologist now provides consultation service on a part-time basis.

Student activities continued apace with the general college growth. A three-day, student-faculty leadership conference at the start of this year proved to be an outstanding success. More than 10,000 parents and friends visited the San Luis Obispo campus for Poly Royal, while some 2,000 attended the annual open house at the Voorhis campus. It is estimated that 20,000 high school, junior college students and adults attended performances of the annual music department tour through central California.

Physical limitations that have been for so long one of Cal Poly's most serious problems are being overcome gradually by the planned sequence of building program projects. This past year, for the first time, more classes and laboratory sessions were held in permanent than temporary structures. There is still a long way to go but the future looks bright. Cal Poly's graduates are making a name for themselves and their "upside-down" alma mater.

ENROLLMENT -- FALL QUARTER, 1955

A total of 3163 full-time students registered at the San Luis Obispo campus of the College for the fall quarter, 1955, while a total of 587 registered at the Kelllogg-Voorhis campus during the same period -- a total for both campuses of 3750. Of those at San Luis Obispo, 1178 were in agriculture, 1654 in engineering, and 279 in arts and sciences. Graduate students numbered 83. Included in the fall quarter enrollment at the San Luis Obispo campus were seven women students.

Enrollment of limited students was approved during the fall quarter and 56 such students (29 men, 27 women) were enrolled for the winter quarter.

The locations of the homes from which the students come indicate clearly the more-than-regional character of Cal Poly's service area. Of the students on the San Luis Obispo campus, 97.7 per cent come from 54 California counties, 5.2 per cent from other states, and 7.0 per cent from 49 territories and foreign countries. At the Kelllogg-Voorhis campus, 90.0 per cent of the students come from 29 California counties, 3.8 per cent from other states and 4.7 per cent from U. S. territories and foreign countries.

ENROLLMENT

The current enrollment of 3,163 individual students on the San Luis Obispo campus is expected to increase to 3750 by the fall of 1960. At the Kelllogg-Voorhis unit enrollment is expected to increase to 750 when the College moves there during the 1958-59 academic year.

DEGREES AND CERTIFICATES

FACULTY

ENROLLMENT -- FALL QUARTER, 1955

A total of 3163 full-time students registered at the San Luis Obispo campus of the College for the fall quarter, 1955, while a total of 385 registered at the Kellogg-Voorhis campus during the same period -- a total for both campuses of 3548. Of those at San Luis Obispo, 1175 were in agriculture, 1654 in engineering, and 272 in arts and sciences. Graduate students numbered 62. Included in the fall quarter enrollment at the San Luis Obispo campus were seven women students.

Enrollment of limited students was approved during the fall quarter and 66 such students (29 men, 37 women) were enrolled for the winter quarter.

The locations of the homes from which the students come indicate clearly the more-than-regional character of Cal Poly's service area. Of the students on the San Luis Obispo campus, 87.7 per cent come from 54 California counties, 5.3 per cent from 36 other states, and 7.0 per cent from 43 territories and foreign countries. At the Kellogg-Voorhis unit, 93.0 per cent of the students come from 20 California counties, 2.3 per cent from other states and 4.7 per cent from U. S. territories and foreign countries.

The current enrollment of 3,163 individual students on the San Luis Obispo campus is expected to increase to 3750 by the fall of 1956. At the Kellogg-Voorhis unit enrollment is expected to increase to 750 when the College moves into its new buildings on the Kellogg campus during the 1956-57 academic year.

	FALL AND SPRING			GRADUATE			
	Men	Women	Total	Men	Women	Total	
Agricultural Science	81	0	81	Agricultural Educ.	32	0	32
Mineralation	34	0	34	Education	14	0	14
Physical Education	80	0	80		50	0	50
Physical Science	7	0	7				
Social Science	73	0	73				
Agricultural Journalism	37	0	37				
Engineering Educ.	0	1	1				
	271	1	272	TOTAL	1166	1	1167

* First three years of instruction given at Kellogg-Voorhis campus and only senior year given at San Luis Obispo campus.

SAN LUIS OBISPO CAMPUS ENROLLMENT

<u>BY DIVISION</u>			<u>BY YEAR</u>				
	<u>MEN</u>	<u>WOMEN</u>	<u>TOTAL</u>		<u>MEN</u>	<u>WOMEN</u>	<u>TOTAL</u>
ENGINEERING DIVISION	1654	0	1654	FIRST YEAR	989	0	989
AGRICULTURAL DIVISION	1175	0	1175	SECOND YEAR	863	0	863
ARTS & SCIENCES DIVISION	271	1	272	THIRD YEAR	642	0	642
GRADUATES	<u>56</u>	<u>6</u>	<u>62</u>	FOURTH YEAR	606	1	607
	3156	7	3163	GRADUATES	<u>56</u>	<u>6</u>	<u>62</u>
					3156	7	3163

ENROLLMENT BY DEPARTMENTS

AGRICULTURAL

AGRICULTURAL ENGINEERING	244
HORTICULTURAL SERVICES & INSPECTION	13 *
ANIMAL HUSBANDRY	434
FIELD CROPS PRODUCTION	93
TRUCK CROPS PRODUCTION	25
DAIRY HUSBANDRY	91
DAIRY MANUFACTURING	36
FRUIT PRODUCTION	20
ORNAMENTAL HORTICULTURE	63
POULTRY HUSBANDRY	58
SOIL SCIENCE	93
CITRUS FRUIT	5
	1175

ENGINEERING & INDUSTRIAL

AERONAUTICAL ENGINEERING	232
ARCHITECTURAL ENGINEERING	188
AIR CONDITIONING & REFRIGERATION	108
ELECTRICAL ENGINEERING	159
ELECTRONICS & RADIO	466
MECHANICAL ENGINEERING	397
PRINTING	104
	1654

ARTS AND SCIENCES

	MEN	WOMEN	TOTAL
BIOLOGICAL SCIENCE	51	0	51
MATHEMATICS	34	0	34
PHYSICAL EDUCATION	69	0	69
PHYSICAL SCIENCE	7	0	7
SOCIAL SCIENCE	73	0	73
AGRICULTURAL JOURNALISM	37	0	37
UNDERGRADUATE EDUC.	0	1	1
	271	1	272

GRADUATE

	MEN	WOMEN	TOTAL
AGRICULTURAL EDUC.	32	0	32
EDUCATION	24	6	30
	56	6	62

	MEN	WOMEN	TOTAL
TOTAL	3156	7	3163

* FIRST THREE YEARS OF INSTRUCTION GIVEN AT KELLOGG-VOORHIS CAMPUS AND ONLY SENIOR YEAR GIVEN AT SAN LUIS OBISPO CAMPUS.

AND ALL STUDENTS RESIDENTS AT THE SAN LUIS OBISPO CAMPUS WERE INCLUDED IN THIS SURVEY AS SOME DATA WERE NOT AVAILABLE AT THE TIME THE STUDY WAS MADE. IN 1950 ACTUAL ENROLLMENT WAS 2800, IN 1950 IT WAS 2207, IN 1951 IT WAS 2212, IN 1952 IT WAS 2255. HAD THE CHANGE BEEN INCLUDED IN THIS STUDY, SOME ADDITIONAL COMMENTS WOULD BE NECESSARY.

PLACE OF LEGAL RESIDENCE (SAN LUIS OBISPO)

7

COUNTY	OCT. 1 1949	NOV. 10 1950	OCT. 30 1951	NOV. 18 1952	NOV. 16 1953	NOV. 23 1954	DEC. 2 1955
ALAMEDA	108	106	93	87	82	113	139
ALPINE	0	0	0	0	0	0	0
AMADOR	2	0	0	1	1	2	4
BUTTE	10	10	8	7	14	14	17
CALAVERAS	0	1	2	5	2	2	4
COLUSA	3	12	4	5	4	3	5
CONTRA COSTA	37	45	36	36	31	38	52
DEL NORTE	1	1	0	0	0	0	2
EL DORADO	14	12	5	2	3	8	7
FRESNO	71	50	43	35	40	39	51
GLENN	16	14	14	10	16	15	14
HUMBOLDT	14	8	11	12	12	17	19
IMPERIAL	15	17	26	40	22	20	27
INYO	3	7	7	4	1	2	2
KERN	66	51	47	67	73	77	92
KINGS	15	17	13	15	20	20	27
LAKE	2	5	2	4	1	2	5
LASSEN	11	6	4	3	5	4	4
LOS ANGELES	651	596	481	454	429	531	668
MADERA	5	4	5	4	11	7	9
MARIN	17	14	12	15	10	14	23
MARIPOSA	2	1	2	0	3	3	5
MENDOCINO	6	6	8	17	10	17	20
MERCED	26	31	25	15	12	14	18
MODOC	6	5	3	1	1	2	3
MONO	0	0	0	0	0	0	0
MONTEREY	50	57	38	37	42	60	57
NAPA	10	5	2	9	8	15	23
NEVADA	6	5	2	3	5	4	4
ORANGE	93	84	51	50	67	77	76
PLACER	2	5	6	5	7	12	10
PLUMAS	1	0	0	0	0	1	3
RIVERSIDE	64	68	56	49	49	65	71
SACRAMENTO	42	46	47	54	54	66	87
SAN BENITO	10	7	3	4	7	6	14
SAN BERNARDINO	65	64	51	46	45	65	66
SANTA CLARA	73	79	55	55	58	64	79
SAN DIEGO	114	95	89	80	93	105	98
SAN FRANCISCO	66	68	57	48	45	43	45
SAN JOAQUIN	33	39	26	27	18	33	43
SAN LUIS OBISPO	215	199	186	185	202	264	367
SAN MATEO	42	43	36	53	48	62	66
SANTA BARBARA	108	120	91	116	104	120	125
SANTA CRUZ	31	34	34	25	24	27	39
SHASTA	5	5	8	8	6	7	9
SIERRA	2	1	2	0	0	00	00
SISKIYOU	7	6	3	8	7	8	9
SOLANO	11	12	7	11	12	16	29
STANISLAUS	63	46	32	36	27	35	47
SONOMA	38	31	26	31	30	34	36
SUTTER	12	9	6	7	6	4	5
TEHAMA	6	8	3	5	3	4	4
TRINITY	1	2	1	1	2	2	0
TUOLUMNE	1	3	4	3	3	5	5
TULARE	68	67	53	42	55	61	63
VENTURA	50	47	36	38	41	44	63
YOLO	4	4	4	2	7	7	5
YUBA	5	6	3	2	5	5	9
OTHER STATES	390	307	219	206	197	228	169
FOREIGN COUNTRIES	54	48	60	123	133	172	158
U. S. TERRITORIES	59	76	52	49	46	58	62
	2902	2715	2199	2259	2259	2745	3163

NOT ALL STUDENTS REGISTERED AT THE SAN LUIS OBISPO CAMPUS WERE INCLUDED IN THIS SURVEY AS SOME CARDS WERE NOT AVAILABLE AT THE TIME THE STUDY WAS MADE. IN 1949 ACTUAL ENROLLMENT WAS 2009, IN 1950 IT WAS 2767, IN 1951 IT WAS 2213, IN 1952 IT WAS 2259. HAD THE BALANCE BEEN INCLUDED IN THIS STUDY, SOME ADDITIONAL COUNTIES WOULD BE REPRESENTED.

SUMMARY OF ENROLLMENT DISTRIBUTION WITHIN THE STATE

FOLLOWING THE TREND WHICH BEGAN IN 1903 AND HAS CONTINUED EVER SINCE, CAL POLY'S ENROLLMENT IS WIDE-SPREAD THROUGHOUT THE STATE--IN CONTRAST TO THAT OF THE REGIONAL STATE COLLEGES. AT THE SAN LUIS OBISPO CAMPUS 54 OF THE 58 COUNTIES IN THE STATE WERE REPRESENTED IN THE FALL OF 1955. AT THE KELLOGG-VOORHIS CAMPUS FALL QUARTER, 1955, ENROLLMENT DISTRIBUTION SHOWS STUDENTS FROM 20 OF CALIFORNIA'S COUNTIES.

ENROLLMENT BY CLASSES AND CURRICULUM LEVEL

(SAN LUIS OBISPO CAMPUS ONLY)

<u>AGRICULTURAL</u>	<u>TECHNICAL</u>	<u>DEGREE</u>
FRESHMEN	116	222
SOPHOMORES	56	249
JUNIORS	0	243
SENIORS	0	289
GRADUATE	0	0
	172	1003
TOTAL AGRICULTURE		1175

<u>ENGINEERING AND INDUSTRIAL</u>	<u>TECHNICAL</u>	<u>DEGREE</u>
FRESHMEN	1	606
SOPHOMORES	1	479
JUNIORS	0	329
SENIORS	0	238
	2	1652
TOTAL ENGINEERING		1654

<u>ARTS AND SCIENCES</u>	<u>MEN</u>	<u>WOMEN</u>	<u>TOTAL</u>
FRESHMEN	44	0	44
SOPHOMORES	78	0	78
JUNIORS	70	0	70
SENIORS	79	1	80
	271	1	272

<u>GRADUATES</u>	<u>MEN</u>	<u>WOMEN</u>	<u>TOTAL</u>
AGRICULTURAL EDUCATION	32	0	32
EDUCATION	24	6	30
	56	6	62

	<u>MEN</u>	<u>WOMEN</u>	<u>TOTAL</u>
ALL TOTAL	3156	7	3163

ENROLLMENT OF VETERAN AND NON-VETERAN STUDENTS

	<u>VETERANS</u>	<u>NON-VETERANS</u>	<u>TOTAL</u>
FRESHMEN	320	669	989
SOPHOMORES	387	496	883
JUNIORS	286	356	642
SENIORS	221	386	607
GRADUATES	25	37	62
	<u>1219</u>	<u>1944</u>	<u>3163</u>

ENROLLMENT OF MARRIED STUDENTS

	<u>MEN</u>	<u>WOMEN</u>	<u>TOTAL</u>	
PUBLIC LAW 346	17	0	17	
PUBLIC LAW 16 AND 894	14	0	14	
PUBLIC LAW 550	617	0	617	
STATE VETERANS	54	0	54	
MARRIED VETERANS	702	0	702	APPROXIMATELY 57.6% OF VETERANS ENROLLMENT
MARRIED NON-VETERANS	297	6	303	
TOTAL MARRIED STUDENTS	999	6	1055	APPROXIMATELY 31.8% OF TOTAL ENROLLMENT

COMPARATIVE ENROLLMENTS BY YEARS (SAN LUIS OBISPO)

<u>5-YR. INTERVALS</u>	<u>1-YR. INTERVALS</u>	<u>1-YR. INTERVALS</u>
1903-04-----20	1938-39-----651	1946-47-----1571
1908-09-----151	1939-40-----780	1947-48-----2229
1913-14-----194	1940-41-----739	1948-49-----2575
1918-19-----110	1941-42-----711	1949-50-----2909
1923-24-----114	1942-43-----570	1950-51-----2767
1928-29-----399	1943-44-----80	1951-52-----2213
1933-34-----239	1944-45-----128	1952-53-----2259
1938-39-----651	1945-46-----819	1953-54-----2259
		1954-55-----2745
		1955-56-----3163

COMPARATIVE ENROLLMENTS BY YEARS (KELLOGG-VOORHIS CAMPUS)

<u>5-YR. INTERVALS</u>	<u>1-YR. INTERVALS</u>	<u>1-YR. INTERVALS</u>
1938-39-----113	1938-39-----113	1946-47-----280
1943-44-----CLOSED W. WAR II	1939-40-----137	1947-48-----393
1948-49-----411	1940-41-----136	1948-49-----411
1953-54-----423	1941-42-----117	1949-50-----438
	1942-43-----69	1950-51-----405
	1943-44-----CLOSED W. WAR II	1951-52-----331
	1944-45-----CLOSED W. WAR II	1952-53-----413
	1945-46-----CLOSED W. WAR II	1953-54-----423
		1954-55-----384
		1955-56-----385

KELLOGG-VCCRHS CAMPUS ENROLLMENT

FALL QUARTER, 1954

ENROLLMENT BY DEPARTMENTS

	NOV. 10 1950	NOV. 20 1951	NOV. 18 1952	NOV. 9 1953	1954	1955
ANIMAL HUSBANDRY	1	0	5	2	2	0
GENERAL CROPS PRODUCTION	1	0	89	1	1	1
FRUIT PRODUCTION	0	0	79	1	0	0
ORNAMENTAL HORTICULTURE	2	2	32	2	1	1
HORTICULTURAL SERVICES & INSPECTION	1	0	86	4	8	23
SOIL SCIENCE	0	0	62	0	2	1
	3	2	37	2	5	1
TOTAL	239	185	235	234	173	182

ENROLLMENT BY CLASSES AND CURRICULUM LEVEL

AGRICULTURAL

DEGREE

	1950	1951	1952	1953	1954	1955
FRESHMEN	31	31	34	35	30	37
SOPHOMORES	0	1	139	1	0	0
JUNIORS	11	15	138	20	25	32
SENIORS	0	0	67	0	2	2
	33	21	41	40	37	37
TOTAL AGRICULTURE	44	57	385	76	64	76

ENROLLMENT OF VETERAN AND NON-VETERAN STUDENTS

	VETERAN	NON-VETERAN	TOTAL
FRESHMEN	27	112	139
SOPHOMORES	49	89	138
JUNIORS	36	31	67
SENIORS	18	23	41
TOTAL	110	275	385

ENROLLMENT OF MARRIED STUDENTS

PUBLIC LAW 346	1	
PUBLIC LAW 16 AND 894	3	
PUBLIC LAW 550	59	
STATE VETERANS	6	
MARRIED VETERANS	69	APPROXIMATELY 63% OF VETERANS ENROLLMENT
MARRIED NON-VETERANS	21	
TOTAL MARRIED STUDENTS	90	APPROXIMATELY 23.4% OF TOTAL ENROLLMENT

PLACE OF LEGAL RESIDENCE (KELLOGG-VOORHIS)

COUNTY	Nov. 10 1950	Oct. 30 1951	Nov. 18 1952	Nov. 9 1953	1954	1955
ALAMEDA	1	0	5	2	2	0
CONTRA COSTA	1	0	1	0	1	1
EL DORADO	0	0	1	1	0	0
FRESNO	2	2	0	2	1	1
IMPERIAL	1	5	1	4	9	23
INYO	0	0	0	0	2	1
KERN	3	2	2	2	5	1
LOS ANGELES	239	185	226	234	179	192
MADERA	0	0	0	0	1	0
MARIN	0	0	1	1	1	1
MENDOCINO	1	2	1	1	1	0
MERCED	1	0	0	0	1	0
MODOC	0	1	0	0	0	0
MONTEREY	0	0	1	1	0	1
NAPA	1	1	2	2	3	0
ORANGE	31	31	34	35	30	17
PLACER	0	1	1	1	0	0
RIVERSIDE	11	15	35	29	25	32
SACRAMENTO	0	0	0	0	2	2
SAN BERNARDINO	33	21	36	40	33	37
SAN DIEGO	13	9	16	19	23	27
SAN FRANCISCO	0	4	1	1	3	0
SAN JOAQUIN	0	0	0	0	2	2
SAN LUIS OBISPO	1	0	0	0	0	0
SAN MATEO	1	0	1	1	3	2
SANTA BARBARA	9	8	9	8	5	1
SANTA CLARA	2	2	1	1	0	1
SANTA CRUZ	1	0	0	1	2	0
SOLANO	0	0	1	1	1	0
SONOMA	1	0	0	0	0	0
STANISLAUS	0	0	0	1	1	2
SUTTER	0	0	1	1	0	0
TEHAMA	1	0	0	0	0	0
TULARE	5	3	1	0	2	1
VENTURA	21	14	6	5	13	13
YOLO	0	0	1	0	0	0
YUBA	0	0	0	0	2	0
OTHER STATES	16	13	10	12	15	9
U. S. TERRITORIES	2	1	6	6	6	6
FOREIGN COUNTRIES	3	9	8	11	10	12
TOTAL	401*	329*	409*	423	364	385

*NOT ALL STUDENTS REGISTERED AT THE VOORHIS CAMPUS WERE INCLUDED IN THIS SURVEY AS SOME CARDS WERE NOT AVAILABLE AT THE TIME THE STUDY WAS MADE. IN 1950 THE ACTUAL ENROLLMENT WAS 405. IN 1951 IT WAS 331, AND IN 1952 IT WAS 413.

	KELLOGG-VOORHIS		KELLOGG-VOORHIS
DOCTORATES	44	DOCTORATES	5
MASTERS	28	MASTERS	20
BACHELORS	88	BACHELORS	12
NONE	1	NONE	0
TOTAL	208	TOTAL	36

DEGREES AND CERTIFICATES
 NUMBER OF DEGREES AND CERTIFICATES GRANTED
 (JUNE, 1955--BOTH CAMPUSES)

<u>DIVISION AND DEPARTMENT</u>	<u>BACHELOR OF SCIENCE</u>	<u>TECHNICAL</u>	<u>MASTER OF ARTS IN EDUCATION</u>
<u>AGRICULTURE</u>			
AGRICULTURE ENGINEERING	13	7	0
AGRICULTURAL INSPECTION	15	0	0
ANIMAL HUSBANDRY	67	10	0
DAIRY MANUFACTURING	0	0	0
DAIRY HUSBANDRY	8	1	0
ORNAMENTAL HORTICULTURE	20	0	0
POULTRY HUSBANDRY	7	0	0
CROP PRODUCTION, GENERAL	14	0	0
CITRUS FRUIT PRODUCTION	7	0	0
DECIDUOUS FRUIT PRODUCTION	3	0	0
SOIL SCIENCE	13	1	0
TRUCK CROPS	3	0	0
FIELD CROPS	12	1	0
<u>ENGINEERING</u>			
AERONAUTICAL ENGINEERING	16	0	0
AIR CONDITIONING & REFRIGERATION	7	0	0
MECHANICAL ENGINEERING	37	1	0
ELECTRICAL ENGINEERING	8	0	0
ELECTRONICS & RADIO ENGINEERING	28	0	0
PRINTING	2	0	0
ARCHITECTURAL ENGINEERING	24	0	0
<u>LIBERAL ARTS</u>			
BIOLOGICAL SCIENCE	10	0	2
HEALTH AND PHYSICAL EDUCATION	12	0	4
MATHEMATICS	5	0	2
SOCIAL SCIENCE	1	0	3
PHYSICAL SCIENCE	1	0	0
EDUCATION AGRICULTURE	0	0	16
AGRICULTURAL JOURNALISM	1	0	0
	<u>334</u>	<u>21</u>	<u>27</u>

GRAND TOTAL GRADUATES, JUNE 1955 -- 382

FACULTY

COMBINED CAMPUSES

246 PERSONS ARE ON THE TEACHING STAFF AT THE SAN LUIS OBISPO AND SAN DIMAS (KELLOGG-VOORHIS) CAMPUSES. THE FOLLOWING TABLES INDICATE THE DISTRIBUTION OF THE TEACHING STAFF ACCORDING TO DEGREES, AS OF APRIL 16, 1956.

	<u>SAN LUIS OBISPO</u>		<u>KELLOGG-VOORHIS</u>	
DEGREES:	DOCTORATES	44	DOCTORATES	6
	MASTERS	89	MASTERS	20
	BACHELORS	68	BACHELORS	12
	NONE	<u>7</u>	NONE	<u>0</u>
	TOTAL	208	TOTAL	38

MAJOR CONSTRUCTION PROGRAM

Science Center

The opening of the Fall quarter brought partial occupancy of the Science and Classroom Building, a project started in 1952. This 50,000 sq. ft., one-story, reinforced concrete structure was officially completed in March, 1956. It was designed to serve biological and physical sciences, soils, and veterinary science but could accommodate agriculture and science departments as well using the facilities on a temporary basis. Forty-five staff members are being housed in the building although office space was designed for only forty-two. Twelve lecture rooms and twenty-seven laboratories are now being used by our expanding instructional departments.

An addition to the physical education facilities was completed in October, providing shower, locker, and dressing rooms for approximately 450 women students. The addition helped to make possible the admission of women to the college.

MAJOR CONSTRUCTION PROGRAM

The Agricultural Building, which was started during the Christmas vacation although the project was not entirely completed. The project consists of two buildings -- one containing seven Agricultural Mechanics and Engineering shops and the other containing six offices, two lecture rooms and one surveying laboratory.

MINOR CONSTRUCTION PROGRAM

A new Orientation Center was completed in 1956 thus completing the site development projects made necessary by the building of the Science and Classroom facility. The new building consists of a small sales and office building which was a residential cottage moved from the site of the old dairy unit, a propagation house, one new glass house and two which were moved from the site of the old O. H. unit, and two lawn houses.

SPECIAL SERVICES

Provision was made in the 1955-56 budget for the relocation of several buildings on campus in order that women students could be admitted to the college. This project, to be completed by September, 1956, includes: remodeling three men's dormitories to provide space for 164 women students; remodeling three classrooms to be equipped for temporary use as Home Economics laboratories; remodeled for women the Administration Building; and partial remodeling of the Health Center.

STUDENT PERSONNEL

The 1955-56 budget also included provision for a new Engineering Building, and, since we are having to superimpose a new campus on an old one, funds for an extensive site clearance and relocation project. Under construction at present are: an Aeronautical Engine laboratory with a separate test cell and a fuel storage building; remodeling and addition to an existing building formerly used for Ag Engineering to provide facilities for the welding department. The foundation for the fire house has been completed and the old one will soon be moved to its new location.

Relocation projects which have been completed are: three cottages which were located on the site of the old Engineering Building have been moved -- one has been relocated adjacent to the new Classroom and will house the women's dormitory; the second has been moved adjacent to the Home and Beef Pavilion and will house animal husbandry students; and the third has been moved to the Dairy Project area to furnish housing for dairy students who have projects there; the student repair garage and a metal CU unit have been relocated to provide facilities for those students desiring to repair their own cars; three other small warehouses have been moved to the propagation yard to provide additional storage space. Old buildings which have been demolished include the Ag. Mechanics Bldg. and the old machine shop; a new building which will provide space for the new Engineering Building and the old area and welding shop.

Future Plans

The bids for the Science and Classroom Building having been opened and the contracts for actual construction of a brand new campus at the Redding site was begun. The campus when completed will provide facilities for nearly 4,000 students.

MAJOR CONSTRUCTION PROGRAM

San Luis Obispo

The beginning of the Fall quarter brought partial occupancy of the Science and Classroom Building, a project funded in 1952. This 90,000 sq. ft., one-story, reinforced concrete structure was officially completed in March, 1956. It was designed to serve biological and physical sciences, soils, and veterinary science but certain other agriculture and science departments are also using the facilities on a temporary basis. Sixty-four staff members are being housed in the building although office space was designed for only forty-two. Twelve lecture rooms and twenty-seven laboratories are now being used by our expanding instructional departments.

An addition to the physical education facilities was completed in October, providing shower, locker, and dressing rooms for approximately 450 women students. The addition helped to make possible the admission of women to the college.

The Agricultural Engineering department began moving into new facilities during the Christmas vacation although the project was not entirely completed. The project consists of two buildings -- one containing seven Agricultural Mechanics and Engineering shops and the other containing six offices, two lecture rooms and one surveying laboratory.

A new Ornamental Horticulture unit was completed in February, 1956 thus completing the site development projects made necessary by the building of the Science and Classroom facility. The new O. H. unit consists of a small sales and office building which was a residential cottage moved from the site of the old dairy unit, a propagation house, one new glass house and two which were moved from the site of the old O. H. unit, and two lath houses.

Provision was made in the 1955-56 budget for the rehabilitation of several buildings on campus in order that women students could be admitted to the college. This project, to be completed by September, 1956, includes: remodeling three men's dormitories to provide space for 164 women students; remodeling three classrooms to be equipped for temporary use as Home Economics laboratories; rest room for women in the Administration Building; and partial remodeling of the Health Center.

The 1955-56 budget also included provision for a new Engineering building, and, since we are having to superimpose a new campus on an old one, funds for an extensive site clearance and relocation project. Under construction at present are: an Aeronautical Engines laboratory with a separate test cell and a fuel storage building; remodeling and addition to an existing building formerly used for Ag Engineering to provide facilities for the welding department. The foundation for the fire house has been completed also and the old one will soon be moved to its new location.

Relocation projects which have been completed are: three cottages which were located on the site of the new Engineering Building have been moved -- one has been relocated adjacent to the new firehouse and will house the student firemen; the second has been moved adjacent to the Horse and Beef Pavilion and will house animal husbandry students; and the third has been moved to the Dairy Project area to furnish housing for dairy students who have projects there; the student repair garage and a metal CU unit have been relocated to provide facilities for those students desiring to repair their own cars; three other metal war-surplus buildings have been moved to the corporation yard to provide additional storage space. Old landmarks which have been demolished include the Ag. Mechanics #1 Building and the old machine shop; others to follow which will provide space for the new Engineering Building are the old aero and welding shops.

Kellogg-Voorhis

The bids for the Science and Classroom Building having been opened and the contracts let, actual construction of a brand new campus at the Kellogg unit was begun. The campus when completed will provide facilities for nearly 4,000 students.

By the fall of 1956, the 72,000 sq. ft. two-story, reinforced concrete Science and Classroom Building will be completed and ready for occupancy. It will serve biological and physical sciences, soils and other agricultural departments. It contains 31 classrooms and laboratories and provides office space for 50 faculty members. Since this campus is located in a rapidly developing metropolitan area, large parking lots are being planned to accommodate the cars of the many students who will be residing off campus.

Bids will soon be accepted for the construction of a new gymnasium and playing field. This will be an excellent facility.

The funds for the construction of a new cafeteria were also approved by the Legislature. This facility is planned for an enrollment of 1,200 students and is expected to be completed and ready for use by the fall of 1957. Provisions for additions which will be necessary as the enrollment increases have been considered in the original planning of the unit.

The Crops and Fruit Field House and the first half of an Ornamental Horticulture Unit were other projects financed in the 1955-56 budget upon which construction is scheduled to start before the summer of 1956. The addition of these buildings on the Kellogg Campus will provide needed facilities for the initial enrollment in the Crops and Ornamental Horticulture departments.

MINOR CONSTRUCTION PROGRAM

Projects which are considered minor construction are those which are estimated to cost less than \$20,000 for materials and wages. This year, 1955-56, approximately \$193,000 was available for minor construction projects. These jobs are often of a nature that does not require skilled craftsmen but are of the type in which the "learn-by-doing" technique of instruction can be utilized for students. Students can gain valuable experience as well as receive financial aid and supplement their regular classroom instruction by working on the college campuses.

An example of this type of project was the building of a 60 foot extension on a laying house for the Poultry Department at the San Luis Obispo campus. It was constructed by a Farm Carpentry class in the Agricultural Engineering Department. Another project of equal value was the leveling of a farm area at the Kellogg campus. Such projects are also valuable from the standpoint of teaching essential job responsibility.

SPECIAL SERVICES

Educational service is the key note of Cal Poly's philosophy and therefore the college is always on the alert to provide, whenever possible, assistance in the various areas of education, agriculture, and industry encompassed by its program. A few examples of such educational services are listed below in order to provide a partial insight into the over-all college program.

The college plays an active roll in the in-service training of teachers by providing instructional staff and facilities for workshops and training programs cooperatively sponsored by the State Bureau of Agricultural Education and the College. Because of the close coordination and cooperation that has existed between these two during the developmental years of the two programs, the contribution in this area has continued to occupy a most important place in the service phase of the college's program.

This year, 1955-56, twenty men will receive the Special Secondary Credential in Vocational Agriculture and two will receive the Limited Special Secondary in Agriculture. Of the 384 vocational agriculture teachers in 235 high schools and junior colleges of the state, nearly 50 per cent have done either part or all of their work at Cal Poly. Because such a large percentage of the state's agricultural teachers were trained by this college, an in-service program was initiated.

Not only does the college provide the in-service training program but it offers help through the agriculture specialists' visitations to the many high schools and junior colleges during the regular school year. Seventy-two different schools were visited during nine weeks of visitation this year.

The college also offers specially selected short courses of one week duration in various agricultural areas. These short courses are designed to give teachers concentrated information and skills particularly adapted to meet secondary school needs. Last summer seventy-one teachers participated in this program.

The annual summer conference of the California Agricultural Teacher Association was held the last week of June on the San Luis Obispo campus. Facilities, special speakers, exhibits and other services were provided by the college. There were 333 in official attendance at last summer's conference.

The college makes its facilities and instructional staff available for a number of other professional short courses and workshop programs and conferences. This year the California Association of Health, Physical Education, and Recreation, in cooperation with the State Department of Education and the college, again sponsored two summer workshops of two weeks each at the San Luis Obispo campus. This past summer's program attracted 350 teachers from high schools and junior colleges from every section of the state.

Other groups from industry and governmental organizations that have met on one of the three campuses or have been served by the college are: Western Fairs Judging Conference; California Aviation Education Association; Grange Youth Conference; California Sprinkler Irrigation Conference; Central Coast Chapter, Society of California Accountants; Western Fairs Association College of Fairs; California Elementary School Administrators Association; California State Beekeepers Association; San Luis Obispo County Science Teachers Association; Soils Conservation Service Workshop; Pacific Coast Conference Football Officials' School; California Milk Producers Federation; School Lunch Workshop; California Association of Nurserymen; Joint Meeting of all C. S. E. A. Chapters in area; the Sunkist Managers; Los Angeles County Farm Bureau; the Avocado Section, California Farm Bureau; the Lemon Men's Club; Boy Scouts of America; Girl Scouts of America; Campfire Girls and many school groups.

The Future Farmers of America held their State Final Parliamentary Procedure and Judging Contests and Annual State Convention on the San Luis Obispo campus again this year with 1400 high school boys participating.

The Kellogg-Voorhis unit campuses afford excellent facilities and often-used meeting places for groups from industry, sectional and regional meetings of the agricultural teachers, Future Farmers of America, and Young Farmers of America. This past year the Future Farmers of America from the southern California high schools held their annual Field Day on the Kellogg campus.

STUDENT PERSONNEL DIVISION

The purpose of the Student Personnel Division is to provide services to both the students and the College staff. Activities of the Division include admissions, pre-college counseling, relations with schools, counseling and testing, co-curricular activities counseling, health services, residence supervision and counseling, placement services, financial aids, and alumni services.

Relations with Schools

Articulation meetings with 19 junior colleges were held, in which detailed comparisons of courses were made for use of junior college counselors in advising their students who contemplate transfer to Cal Poly. Also, 42 meetings were held with high school and junior college counselors. A new purpose of the high school meetings this year was to present information concerning the advent of the coed program this coming fall.

Counseling and Testing

Students entering the College complete a counseling folder which then contains information concerning their expressed needs. This study reveals that approximately half the students entering college feel a need to learn to study. They also indicate needs in remedial work as follows: about 35 percent in Math; 35 percent in English; 15 percent in Speech. The same study shows that approximately three-fourths of the students feel certain about their choice of major. The age grouping of the 1955 entering class has two

definite modes, the larger being in the 17 and 18 year group and the next, and significantly large, in the 23 and over group. In particular, majors in Poultry Husbandry, Air Conditioning, Electrical Engineering, Electronic Engineering, and Mechanical Engineering show a higher concentration of older students than the younger. The veteran enrollment of new students continues to run high, about 30 percent.

The testing program used to place new students in appropriate class sections reveals a steady increase in academic aptitude over the past four years, as measured by the American Council on Education Psychological Examination.

A new device, a graphic item counter, has been added to the IBM Test Scoring Machine. This device will enable the Test Center to do a more effective job of test item analysis of classroom tests. This will allow the division to be of more service to the classroom instructor in aiding him in his test improvement.

Co-Curricular Activities

Further development of the College Union program area highlighted the co-curriculum. The Board membership of 15 students and 3 faculty members together with 40 committee workers offered an expanded program extending into the weekend. These programs are designed to broaden social experiences, to explore the use of leisure time through hobby activities, and to develop leadership ability and democratic attitudes through participation in organized group activities. The residence nature of this 24-hour campus in a city with limited facilities for social, cultural, and recreational experiences causes these needs to be especially critical. Organized campus outings, dances, assemblies, films, games and tournaments, and socials have given this campus community a quality of unity which is often non-existent on campuses where loyalties are to smaller fraternal or academic groups.

Leadership training continued to be important with a 3-day leadership conference in September attended by approximately 100 students and faculty. Non-credit courses in parliamentary procedure reached 40 students.

Poly Royal, a two-day open house in April, attracted more than 10,000 visitors; the music tour to the San Joaquin Valley reached 20,000 persons; the Publications Board produced a 208 page yearbook and 36 issues of the weekly student newspaper, "El Mustang".

The athletic picture improved this year with the CCAA Conference finally voting to remain together and adding Long Beach State College as an additional member. In sports competition, teams generally ranked in the first division. The soccer team won the Southern California Championship for the first time.

Health Service

The purpose of the Health Service is to protect and maintain the health of the student so that he may achieve to his fullest capacity. A skin clinic was a notable addition to the service this year. One morning each week a board dermatologist is in the clinic to review persistent or acute skin problems.

Another addition is an ambulance obtained from surplus. In a residence college such as Cal Poly where 95 percent of the students are away from home, an ambulance serves a vital purpose.

The environmental sanitation program continues as a valuable service, with weekly bacterial checks on all eating places, water fountains, swimming pool, and dormitories. Food handlers are regularly examined. It may be noted that there have been no cases of food poisoning attributable directly to campus living and eating during the past five years. It is believed that the emphasis on environmental sanitation has contributed materially to this record.

Housing

A detailed study of married students living off-campus was made this year. There were 653 couples living off-campus. This group has 509 children ranging in age from 1 to 17. However, 88 percent of these children are under five years of age. Average rent paid by married students ranges from \$42 a month for small living room-bedroom type apartments, to \$80 a month for 3 bedroom furnished houses. Average rental paid is about \$50 a month. It was also interesting to note that 48 students owned their own homes.

On-campus housing made several noticeable improvements. Perhaps the principal gain was made in the freshman housing area, where changes were made enabling the College to eliminate over-crowding in the temporary units. Also, new furniture in the freshman area, along with a complete re-painting made the area much more livable.

The Residence Supervisor-Counselor, now in his second year of operation, was able to select an excellent group of student dorm managers who have worked very closely with him. As a result of this program, the dorm managers through their training have isolated a number of students needing counseling and have referred them to the proper sources for assistance.

Placement

The year 1955-56 has brought increasing demands on the Placement Office in all areas for which we prepare students.

There has been a particularly large increase in the number of organizations who have conducted campus interviews.

Following is a summary of the interviewing activities of employing organizations who visited the campuses during the period April 1, 1955, to March 31, 1956. This tabulation includes only the activities of those employing organizations for whom a formal interviewing program was arranged on campus:

Number of students interviewed on campus through regular interview schedules	1744
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Number of employing organizations for whom campus interviewing schedules were arranged	98
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Number of above organizations who were on campus for:

1 day during year	57
2 days during year	21
3 days during year	7
4 days during year	13

Number of representatives who conducted interviews (many organizations sent teams of interviewers)	215
--	-----

Number of above organizations holding general meetings (meetings open to all students interested in the activities and opportunities for employment with the organization)	21
--	----

Number of above organizations who also interviewed for summer employment	53
--	----

Room use in terms of the number of days rooms were occupied by interviewers	205
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Most of the organizations are in need of persons with specific types of training and have requested that interviews be arranged with seniors in one or more majors. The following list shows the number of pre-scheduled campus interview opportunities open to seniors in each of our majors:

Agriculture

Agricultural Engineering	22
Animal Husbandry	17
Dairy Husbandry and Manufacturing	20
Field and General Crops	26
Fruit Production	21
Truck Crops	22
Ornamental Horticulture	22
Poultry Husbandry	9
Soil Science	22
Services and Inspection	27

Arts and Sciences

Agricultural Journalism	2
Biological Science	9
Health and Physical Education	2
Mathematics	54
Physical Science	47
Social Science	18

Engineering

Aeronautical Engineering	31
Air Conditioning and Refrigeration Engineering	43
Architectural Engineering	28
Electrical Engineering	71
Electronic Engineering	66
Mechanical Engineering	81
Printing Engineering	5

In general it is the large companies interested in bringing a number of graduating seniors into their organization each year who have regular recruitment programs with interviews scheduled in advance. Smaller companies and individual employers make less formal contacts since they are usually seeking only one or two employees at a time. Many such employers visit the campus during the year. Whenever possible, arrangements are made for them to talk with one or more students. Examples of these employers would be a school superintendent in need of a teacher, a rancher who wishes to hire a man to assist him with his ranching operations, an architect who needs an architectural draftsman, or a small businessman who is looking for an assistant.

Another large group of employers contacts the college by mail, wire, and phone to list job openings. Information on these opportunities is recorded and made available to students, alumni, and faculty. Many times it is possible to give the employer the name of a student or an alumnus who is available and qualified for the position.

This year for the first time each student completed a Placement Record Card during registration covering their employment for the previous quarter, their employment status at the date of filling out the card, and their employment needs as of that date.

The following information obtained from these cards for the Fall Quarter 1955-56 may be of interest.

Number of hours worked per week of those reporting employment

	Fall Quarter '55-'56	Spring Quarter '54-'55
1 - 9 hours	25.0%	20.2%
10 - 19	35.1%	28.3%
20 - 29	18.6%	20.6%
30 - 39	4.2%	8.4%
40 and over	8.1%	11.8%
did not show hours	9.0%	.3%
odd jobs only	-	10.4%

Place of employment of those reporting employment

	Fall Quarter '55-'56	Spring Quarter '54-'55
work only on campus	47.2%	43.8%
work only off campus	48.2%	48.1%
work both on and off campus	3.9%	8.1%
did not show where employed	.7%	-

NOTE: A comparatively large number of students show employment of 40 hours or more per week. We know that this includes some who are taking only one to three courses.

Once again the outstandingly effective follow-up of the graduate in his job situation was afforded by the President's Annual Alumni Tour which this year entered ten counties and provided the usual opportunities for interviews with employers and alumni. The extensive follow-up program of the Placement Office was expanded this year to include companion questionnaires to obtain information from both the employer and the graduate.

The demand for qualified teachers is still far greater than the number available. The Placement Office has worked with high schools and the various departments of the College to attract more qualified people into the field of education.

Financial Aids

Twenty-five scholarships, totaling \$5650, were granted to incoming freshman students and twenty scholarships, totaling \$3600, were granted to advanced students during the 1955-56 college year. In addition to scholarships granted by the College, there were 60 students attending college on scholarships granted by corporations, individuals, or school districts.

During the past year, 1275 short-term (up to 90 days) loans were made to meet emergencies. Also, 59 long-term loans were granted to assist students to finish college. The loan funds are receiving increasing use year by year.

THE FOUNDATION

The Foundation serves the college as an auxiliary organization created and managed to operate enterprises difficult to handle under normal State procedures. These functions include aid to the instructional division of the college, the operation and management of housing and cafeteria and the provision of special services.

Instruction

The Foundation aids the agricultural instruction program by supporting the student project program and by the provision and maintenance of herds, flocks, and crops. Approximately 450 students are financed each year in the project program which ranges throughout a wide variety of agricultural enterprises. The student project income varies considerably year to year with farm prices. Students are required to present planned budgets and calendars of operation before a project agreement is finally approved. Student projects involving the testing of some chemical and some mechanical devices have been investigated and a few "pilot" projects carried out. The nature of "learn by doing" projects may well prove to be as valuable as the productive projects and open up a new field in instructional aids. Additional information on project operations is provided in this report in the "Agricultural Division" section.

The "learn by doing" work is not confined to individual enterprise projects only. Creamery students, livestock and poultry enterprises, and other enterprises involving feeding, management, or processing, whatever the case may be. Some 250 students are on the payroll for this kind of work.

Housing

For Single Students

On the San Luis Obispo campus, dormitory accommodations were provided for 1229 single students. Of these, 799 students were housed in permanent type dormitory structures, while the balance were housed in temporary sub-standard frame structures with wall board partitions. Most of the temporary frame structures were built since World War II, and require a great deal of maintenance to permit their usage. Deuel dormitory, one of the permanent structures, is almost 60 years old, and due to its small rooms and condition, shows a lower percentage of occupancy each year.

During the 1956-57 college year, Deuel, Heron and Jasper dormitories will be used to house women students, which will reduce the capacity for men students being reduced to 1,013.

At the Kallong-Voorhis campus, housing was available to 228 single students. These dormitories are well-built permanent structures, and afford very comfortable facilities for a limited number of students.

For Married Students

On the San Luis Obispo campus, there are 75 units with one or two bedrooms each, plus a trailer village of 185 trailers.

The bedroom units were obtained in 1946 as surplus from a military housing installation, and now require considerable maintenance. These units are of plywood and wallboard construction and have an estimated usable life expectancy of less than five years.

The trailer village was installed in 1947, and a large portion of the 185 trailers are badly in need of replacement. They have been re-roofed and repainted several times, and probably cannot be used for more than one more year. Maintenance costs are very high, and yet the condition of the trailers does not justify higher rental.

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The "learn by doing" work is not confined to individual enterprise projects only. Creamery students, livestock and poultry students, meat laboratory students and others operate the Foundation enterprises involving feeding, management, or processing, whatever the case may be. Some 250 students are on the payroll for this kind of work.

Housing

For Single Students

On the San Luis Obispo campus, dormitory accommodations were provided for 1223 single students. Of these, 739 students were housed in permanent type dormitory structures, while the balance were housed in temporary sub-standard frame structures with wall board partitions. Most of the temporary frame structures have been in use since World War II, and require a great deal of maintenance to permit their usage. Deuel dormitory, one of the permanent structures, is almost 50 years old, and due to its small rooms and condition, shows a lower percentage of occupancy each year.

During the 1956-57 college year, Chase, Heron and Jespersen dormitories will be used to house women students, which will result in the capacity for men students being reduced to 1,013.

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Outlook for 1956-1957

In the City of San Luis Obispo and the immediate surrounding area there is available housing for a maximum of 1,530 students. Of this total 338 spaces are in unapproved, sub-standard housing.

The present maximum campus housing facilities will provide for only 1,437 students, both married and single. This includes spaces for 402 single students in sub-standard, temporary buildings, as well as over-occupancy in rooms designed for two students, and now being occupied by three students, totaling another 160. Also included are the 185 inadequate trailer dwellings.

The anticipated additional enrollment for 1956-1957 will constitute a serious housing problem.

FUNCTIONS, OBJECTIVES AND PHILOSOPHY

California State Polytechnic College provides occupational education at the collegiate level in agriculture, engineering, and arts and sciences. A major function of arts and science instruction is the preparation of elementary and secondary school teachers. General education courses and participation in campus activities are combined with the college's specialized instruction to prepare graduates for citizenship and leadership.

Although Cal Poly is a member of the family of California State Colleges and as such has certain functions and objectives in common with the others, it is officially recognized that its functions are not to be limited except within the boundaries established in the founding act (1901) a part of which states:

".... The purpose of the college is to furnish to young people of both sexes mental and manual training in the arts and sciences, including agriculture, mechanics, engineering, business methods, domestic economy, and such other branches as will fit the students for the non-professional walks of life. This article shall be liberally construed, to the end that the college may at all times contribute to the industrial and agricultural welfare of the State." (Education Code, Chapter 3, Section 2065).

The law further states that Cal Poly "shall be governed by the laws governing and regulating the state colleges insofar as such laws are applicable to the school." (Education Code, Chapter 3, Section 20655).

The college carries on its activities at three campuses: San Luis Obispo, San Dimas and Pomona. The original campus at San Luis Obispo has lands totaling 2850 acres. The 157 acre Voorhis Unit, situated at San Dimas was deeded to the college in 1938 by its owners, Charles B. Voorhis of Pasadena, and his son, former congressman Jerry Voorhis. The Kellogg Unit, located at Pomona, consisting of 816 acres was received as a gift from the Kellogg Foundation in 1949.

General Objectives of the College

Although the primary aim of the instructional program at California State Polytechnic College is to impart to the student those techniques, knowledges, and skills necessary to make him occupationally successful, it is also strongly recognized that he must acquire the ability to understand the world in which he lives, express himself, live harmoniously with others, and assume his appropriate citizenship and community leadership responsibilities. For this reason he is required to complete a pattern of courses generally referred to as general education as well as those courses required for occupational competency.

During the current year training was offered at San Luis Obispo leading to the Bachelor of Science Degree in seven major fields in Agriculture, seven in Engineering, and six in Arts and Sciences. In addition to these, students could prepare for teaching credentials as follows: Special Secondary in Vocational Agriculture; Special Secondary Limited in Agriculture; Special Secondary in Physical Education; and General Secondary with majors in Agriculture, Health and Physical Education, Life Science and General Science, Mathematics, Physical Science and General Science, or Social Science. A student so desiring could obtain a two-year technical certificate in his chosen field in Agriculture.

At the Southern campuses during the 1955-56 year a student could obtain three years of work leading to the Bachelor of Science Degree in four major fields in Agriculture and two years of work in two other major fields in Agriculture. The remaining work was to be obtained at San Luis Obispo.

Upside-Down Plan

In order to provide motivation and a more closely integrated curriculum, as well as to allow a student to obtain as much value as possible from any time spent in college, California State Polytechnic College has developed what is sometimes referred to as the "upside-down" educational program. In this program the general education courses are not concentrated in the first two years as is conventionally done in other colleges, but are spread throughout the entire four years. This arrangement permits the student to begin his major work in the freshman year. Advantages of this plan are (a) the student comes immediately into contact with the field of his major interest; (b) he realizes the need for the theory courses which follow; (c) in the event he finds it necessary to terminate his college education at any time prior to graduation he has obtained some degree of competency in his chosen field; (d) general education appears as an important and integral part of his education, not set off to one side; (e) it allows certain areas in general education to be offered in the later years of the curriculum where they are of more significance to the student than if taken earlier in his career.

Project System

In addition to the upside-down program, Cal Poly also has pioneered in the "project system". This embodies the use of the "learn by doing" and "earn while learning" philosophy of the college. It provides additional experience and instruction through self-owned or managerial projects operated by the student. Examples of projects undertaken by students are fattening of livestock; raising beef, sheep, swine, or dairy cattle; conducting individual dairy projects or working as members of groups in management of a dairy herd; operating a poultry plant; growing ornamental or field and truck crops; operating a radio and television repair shop; and maintenance of campus air conditioning and refrigeration equipment.

A revolving fund from which students may borrow without co-signers makes it possible to finance many projects.

NEW CURRICULA

During the current academic year the California State Board of Education approved several new curricula offered by the college. At the San Luis Obispo campus the following programs were approved: A new curriculum in Farm Management is to be started in the Agricultural Division in the fall quarter of the academic year 1956-57. This curriculum places major emphasis on the management phases of agriculture. A new major in Mechanized Agriculture is being offered by the Agricultural Engineering department in addition to the major which it previously offered. In the Engineering Division a new curriculum in Industrial Engineering also will be started this fall. This program prepares students for employment in the planning, production, sales and management aspects of manufacturing. This curriculum will be the first to be offered in California employing the practical state college approach to a degree in Industrial Engineering. The course of study will provide a strong background in engineering and business skills in addition to required general education courses.

In the Arts and Sciences Division new curricula are being introduced in Elementary Education leading to the Bachelor of Science degree and the Bachelor of Education degree; in English leading to the Bachelor of Science degree and the general secondary credential; in Home Economics leading to the Bachelor of Science degree, and in Agricultural Chemistry also leading to the Bachelor of Science degree. The major in Agricultural Chemistry is designed to prepare students for non-research laboratory work in such fields as vitamin assay bio-chemistry, feed analysis, food and drug chemistry, insecticide formulation, insecticide residue analysis, fertilizer chemistry, meat technology and public health chemistry.

At the Kellogg-Voorhis campus a curriculum in Agricultural Management and Sales is to be offered for the first time in the fall quarter of the academic year 1956-57. It is designed to prepare students for such positions as owner, manager or supervisor of related agricultural business, agricultural sales-service, marketing specialist, real estate appraiser and government program specialist. Students begin this course with a concentration in specialized agricultural production to be assured of a valuable foundation in production techniques and experiences. The following departments have been authorized to add the fourth year of work at the Kellogg-Voorhis campus beginning in 1956-57; fruit production, general crops, horticultural services and inspection, and ornamental horticulture.

COEDUCATION

The San Luis Obispo campus of the College will become fully coeducational beginning with the fall quarter of the academic year 1956-57. The first step in resuming coeducation was taken during the current year with the admission of women who have teaching credentials.

When the women arrive in the fall they will find all the majors in the three divisions of the College open to them. Inasmuch as every Cal Poly curriculum has been developed as a result of careful job analyses, all of these majors afford occupationally centered education for women students which will fit them for employment immediately after leaving college. This occupational education which Cal Poly now offers to women includes the following fields:

Agriculture and Engineering

All agricultural majors are open to women, some offering especially attractive careers. Among these are ornamental horticulture, farm management, animal husbandry and poultry husbandry. The rapidly growing food processing industry has interesting positions for women who have a scientific knowledge of vegetables, cereals, fruits and meats. The field of soil science offers laboratory work for which women with a liking for science may prepare.

Any of the engineering majors may be taken by women who find particularly satisfactory careers in drafting, testing, sales, development, and consulting work in each of the engineering fields.

Arts and Sciences

Applications for admission received from women to this date indicate that Elementary Education is the major which will be in greatest demand by women students. In preparation for admission of women, a major program in Elementary Education leading to the Bachelor of Science or Bachelor of Education degree and preparing for the General Elementary Credential has been organized this year. Through this major the College's Department of Education will seek to make a substantial contribution to meeting the increasing demand for elementary education teachers throughout California.

Women may enroll also for any of the programs at the College leading to the General Secondary Credential. For purposes of obtaining this credential women may take a program with a major in English, Life Science and General Science, Mathematics, Physical Education, Physical Science and General Science, and Social Studies. Through preparation of women candidates for the General Secondary Credential the Cal Poly Department of Education hopes to make another contribution to solving the teacher shortage problem which is as acute in the secondary schools of California as it is in the elementary schools.

A Home Economics Department also has been organized this year to serve the women who will enroll in the fall. A prospective homemaking teacher can work toward either the Special Secondary Credential in Homemaking Education or the General Secondary Credential with a major in homemaking education. Necessary work in professional education is available now at Cal Poly and the full curriculum leading to these credentials will be ready in the 1958-59 academic year. Students entering in the fall of 1956 or 1957 will be able to complete all requirements at Cal Poly.

The home economics program will prepare for work in many other occupational fields: home equipment demonstration, nursery school supervision, extension service work, consumer education, and institutional management. Selection of elective courses in journalism, English, and the social sciences will equip the graduate to compete successfully for employment in other applications of home economics training. A classroom building is being remodelled to provide temporary laboratory facilities for the work in home economics.

All the other major departments in the Arts and Sciences Division, each of which prepares for occupations other than teaching, are open to women. These majors, many of which open the door to excellent employment opportunities for women, include Agricultural Chemistry, Agricultural Journalism, Biological Sciences, English, Mathematics, Physical Education, Physical Sciences, and Social Sciences.

LIBRARY

During the year covered by this report addition of 5,900 volumes has raised the total collection to approximately 57,000 volumes. Slightly over 500 periodical titles are now being received by purchase or gift.

A circulation increase of almost 18 percent reflects a healthy growth in library service to the college, which is shown also by the extremely heavy use of materials within the library. This type of library use cannot be subject to statistical records, but there has been a very noticeable increase in occupancy of reading rooms and study carrels.

The advent of coeducation to the college, with its accompanying increases in curricular offerings, has placed unusual burdens on the library budget, but with some retrenchment of purchasing for existing courses, these needs are being met and the library will be in readiness for the beginning of the new courses in September, 1956, with the essential materials.

Audio-Visual Department

The Audio-Visual Department is responsible for the purchase, cataloging, maintenance and circulation of instructional materials and equipment for the entire college. Through direct service to faculty and staff in ordering, scheduling and assistance in utilizing such materials as films, slides, recordings and graphics, the department contributes materially to the instructional staff's teaching effectiveness.

Because of a shortage of instructional materials in many of the college's applied subject areas, the A-V Department has added this year the production of visual materials to meet the needs of specific courses of instruction. This local production service works directly with faculty members in preparing charts, slides, filmstrips and other visual materials for more thorough student understanding of specific facts and concepts in the various subject areas.

The technical-mechanical aspect of A-V service has been improved by the addition of an equipment technician to the staff. Better equipment utilization is now possible through on-campus service and repair of equipment by this technician.

Present facilities are limited and overcrowded. This will be relieved in 1956-57 by the modification of part of a temporary structure to house the A-V production activity. This will enable the A-V program to continue its development in providing the faculty with effective teaching tools.

AGRICULTURAL DIVISION

The changing economic situation in agriculture is a challenge to the Agricultural Division to keep abreast of scientific and technical developments. In order to train students in the highly competitive fields of agricultural production, Faculty members held many meetings with representative people in industry as well as agriculture to keep informed on the growing needs of mechanization of California agriculture. Cal Poly is adhering to its policy of "learn by doing" which has earned for it such an outstanding record in education for agriculture.

Facilities

Marked progress has been made by the Agricultural Engineering Department this year in facilities, course offerings, and staff. The instructional functions of the department moved into the two new buildings in January. One building 75' x 450' houses seven shops and laboratories; the other building contains three classrooms, a conference room, and offices for the staff. An auditorium type classroom has a movable floor so that a tractor or other large equipment can be moved into large groups. The shops have been equipped with some of the latest and best equipment, including a pump for carrying out tests with irrigation equipment, a dynamometer for testing tractor and engine performance and a special room for testing fuels and rebuilding and testing diesel fuel injection equipment.

AGRICULTURAL DIVISION

Construction of most of the new buildings at the new Commercial Horticulture unit has been completed. This included the construction of a new greenhouse, enabling the department to conduct two laboratory classes simultaneously. Three greenhouses and two high houses were moved from the former location and installed in a more modern fashion to permit greater utilization of space. Two new greenhouses were constructed to replace other houses not capable of being moved.

ENGINEERING DIVISION

One of the outstanding achievements of the 1966 year was the move from old quarters to the new science building. With the opening of school in September, Soil Science was ready for an increased enrollment with three fully equipped laboratories, two classrooms, and two supporting rooms (including preparation, digestion, and storage). A greenhouse was acquired at the Commercial Horticulture site for instruction in plant culture. These new facilities provided long-needed room for expansion of all phases of Soil Science instruction. Animal Husbandry, Poultry and Commercial Horticulture departments.

ARTS AND SCIENCES DIVISION

KELLOGG-VOORHIS DIVISION

Projects

Cal Poly continues to expand its agricultural facilities to provide production experience for as many students as possible.

Further improvements were made during the year at the dairy project unit and it now provides one of the best facilities in the country to give dairy husbandry students practical training and help establish them in business. Students now have 75 milking cows and 70 head of young stock which they own and manage at this unit. Thirty-six dairy manufacturing students are now processing 150,000 pounds of milk monthly into market milk and related products such as butter, ice cream, sherbet, cottage and cheddar cheese.

Plantings were made of new varieties of greenhouse roses, chrysanthemums, and carnations; and much experimental work was done on the development of new greenhouse soil mixes. The variety study of potted chrysanthemums was continued as a part of both class work and project work. Forty-two students participated in project work selling a total of 30800 worth of nursery and florist plants. Much of the plant material used in landscaping the campus was grown by students in horticulture classes.

During the year, 233 students in animal husbandry marketed 1530 head of beef cattle, sheep and swine. They exhibited beef cattle, sheep, and swine at the major livestock shows in California.

The College has continued to offer project opportunities for Crop majors. Student crop projects show a large variety of crops. They averaged 54 tons per acre of sugar beets on three acres. Fifteen acres of corn were planted, averaging 37 tons per acre. Approximately 55 tons of oat and wheat hay were produced on 20 acres. Good production was obtained on 20 acres devoted to vegetable growing projects.

AGRICULTURAL DIVISION

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Construction of most of the major buildings at the new Ornamental Horticulture unit has been completed. This included the construction of a large laboratory building enabling the department to conduct two laboratory classes simultaneously. Three greenhouses and two lath houses were moved from the former location and installed in a range fashion to permit greater utilization of space. Two new greenhouses were constructed to replace older houses not capable of being moved.

One of the outstanding events in the Soil Science Department during the 1955 year was the move from old quarters to the new science building. With the opening of school in September, Soil Science was ready for an increased enrollment with three fully equipped laboratories, two classrooms, and five supporting rooms (including preparation, digestion, and storage). A greenhouse was acquired at the Ornamental Horticulture site for instruction in plant culture. These new facilities provided long-needed room for expansion of all phases of the Soil Science instruction. Animal Husbandry, Poultry and Ornamental Horticulture departments have new office quarters in the Science Building.

Projects

Cal Poly continues to expand its agricultural facilities to provide production experience for as many students as possible.

Further improvements were made during the year at the dairy project unit and it now provides one of the best facilities in the country to give dairy husbandry students practical training and help establish them in business. Students now have 75 milking cows and 70 head of young stock which they own and manage at this unit. Thirty-six dairy manufacturing students are now processing 130,000 pounds of milk monthly into market milk and related products such as butter, ice cream, sherbet, cottage and cheddar cheese.

Plantings were made of new varieties of greenhouse roses, chrysanthemums, and carnations; and much experimental work was done on the development of new greenhouse soil mixes. The variety study of potted chrysanthemums was continued as a part of both class work and project work. Forty-two students participated in project work selling a total of \$3800 worth of nursery and florist plants. Much of the plant material used in landscaping the campus was grown by students in horticulture classes.

During the year, 189 students in animal husbandry marketed 1580 head of beef cattle, sheep and swine. They exhibited beef cattle, sheep, and swine at the major livestock shows in California.

The College farm continues to offer project opportunities for Crops majors. Student crop projects show a large variety of items. They averaged 24 tons per acre of sugar beets on three acres. Fifteen acres of corn were planted, averaging 19 tons per acre. Approximately 56 tons of oat and vetch hay were produced on 20 acres. Good production was obtained on 20 acres devoted to vegetable growing projects.

The farm area provides a project program which continues to expand and provide training for qualified students. As a result, the general interest and abilities of the students in the Crops Department have improved due to more adequate facilities provided. It should be noted, however, that additional land for cultural operations would help to expand the instructional opportunities needed for the Crops Department.

Poultry projects provided educational training for 42 students. Poultry production included 60,000 dozen eggs, 7,000 fryers and 300 turkeys. Poultry majors raised 5,000 replacement chicks to maintain the laying flock which now totals 4,000 laying hens.

Department Activities

The departments in the Agricultural Division maintain active membership in the professional organizations of their special interest in the agriculture field. Members of the departments participate actively and provide professional services when called upon to be of service in the area of their specialty.

The Animal Husbandry Department and the Dairy Department are again providing an annual Live-stock Judges' Conference in cooperation with the State Department of Finance and the Western Fairs Association this year. This conference and school provide the training for livestock and dairy judges throughout the state. The Crops Department this year sponsored the State Beekeepers' Conference which was held on the Cal Poly campus.

The Soils Department conducted many land judging demonstrations and contests in connection with the high school vocational agriculture classes throughout the state. Instruction of college students who are training for the teaching field has been emphasized in this area. This activity is particularly important for those students going into the teaching profession or farm advisory activities.

Cal Poly was asked by the Western Fairs Association to host a College of Fairs school in which every department in the Agricultural Division participated. This school was held primarily for fair managers and livestock superintendents throughout the state. The Ornamental Horticulture Department sponsored the seventh annual Refresher Course for Nurserymen which was held in June. Two hundred nurserymen from all over the state participated in this annual activity, and as a result of their attendance at this function interviewed many students for employment.

Student Activities

A major forward step in student activities in the division was taken during the year with the formation of the student Agricultural Council. This organization consists of representatives of each of the agricultural clubs, and its purpose is to review problems of interest to the entire division.

Dairy judging teams competed in three inter-collegiate contests during the year. They placed first with an all-time high record score at the Pacific International. At the National Dairy Show, Waterloo, Iowa, they placed twelfth and at the Cow Palace, San Francisco, fifth.

The livestock judging team competed in five inter-collegiate contests placing second in three, third and fourth in another.

The Ornamental Horticulture Department was represented by a flower judging team at the National flower show in Denver, Colorado.

An active Rodeo Club has taken part in five inter-collegiate rodeos. The rodeo team itself and other members of the club have been active in rebuilding the arena and pens.

Curriculum Development

Farm Management, Preparatory work incident to the inauguration of this new major was undertaken during the year. The course curriculum was developed; a four-man staff was set up for the next year; budget for future years' operations were made; instructors were assigned their specific areas of concentration and started preparation of courses. The curriculum calls for training and experience in the following areas: (1) Practical farm experience on actual farms during the summer. Students are urged to get this experience. (2) Training and experience in production courses. (3) Scientific and general education courses. (4) Lectures and laboratory work in the broad fields of farm management and agricultural economics. (5) Study of actual farm situations and farm service institutions. (6) Decision making and execution on a college farm.

To better train students for the wide variety of job openings in the field of agricultural engineering, another curriculum was added to that department's offerings. The four-year degree curriculum in Agricultural Engineering will qualify graduates for positions requiring the application of technical engineering in the various fields of agriculture and related industries. Two options within the curriculum provide for a student to concentrate either in the area of power and machinery or soil and water. The new four-year degree curriculum in Mechanized Agriculture is designed to give the student a broad training with emphasis on the applied mechanical, rather than engineering, phases of agriculture.

ENGINEERING DIVISION

The following brief statements and charts summarize the extent to which the Engineering Division worked toward the accomplishment of its goal of supplying practically trained engineers for American industry during 1955-56.

The Engineering Students

Students continued to increase in number and in quality, and the percentage of those who had college level training elsewhere also continued to rise, as shown graphically in Figure 1.

The quality and industrial acceptance of the Cal Poly engineering program gained further recognition during the past year. There are now student branches of the following professional societies:

Institute of Aeronautical Sciences
 American Society of Refrigerating Engineers
 American Institute of Architects
 Institute of Radio Engineers
 American Institute of Electrical Engineers
 Society of Automotive Engineers
 American Society of Tool Engineers
 American Welding Society

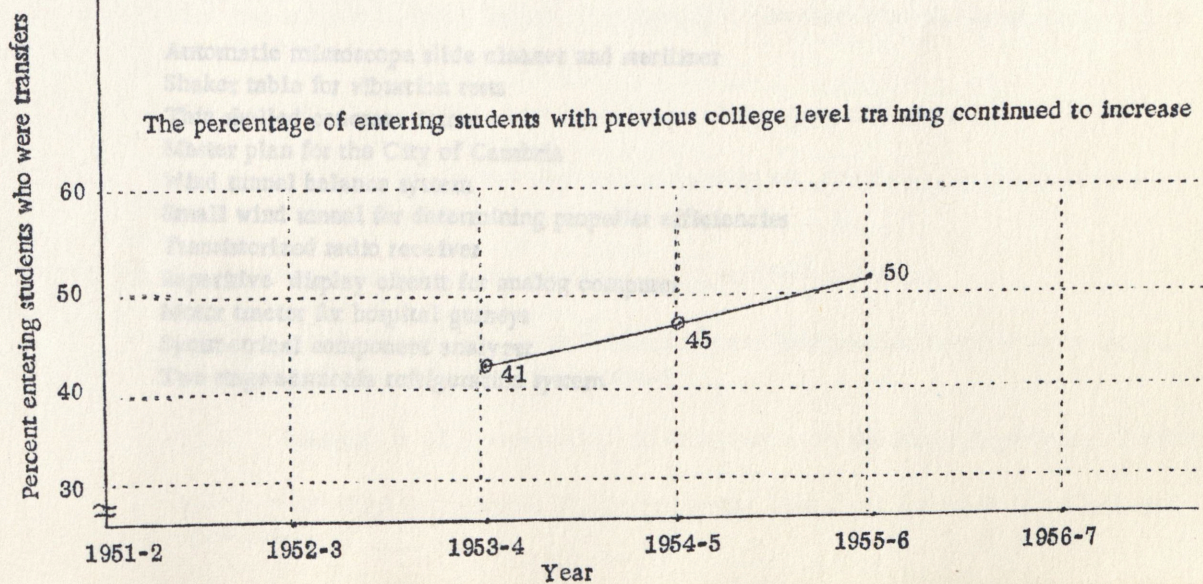
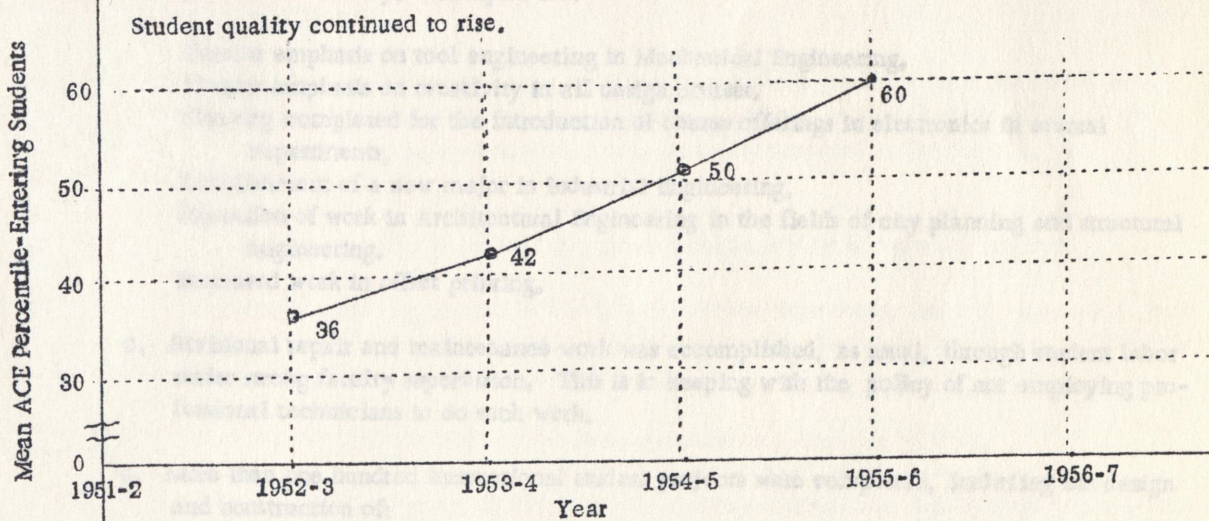
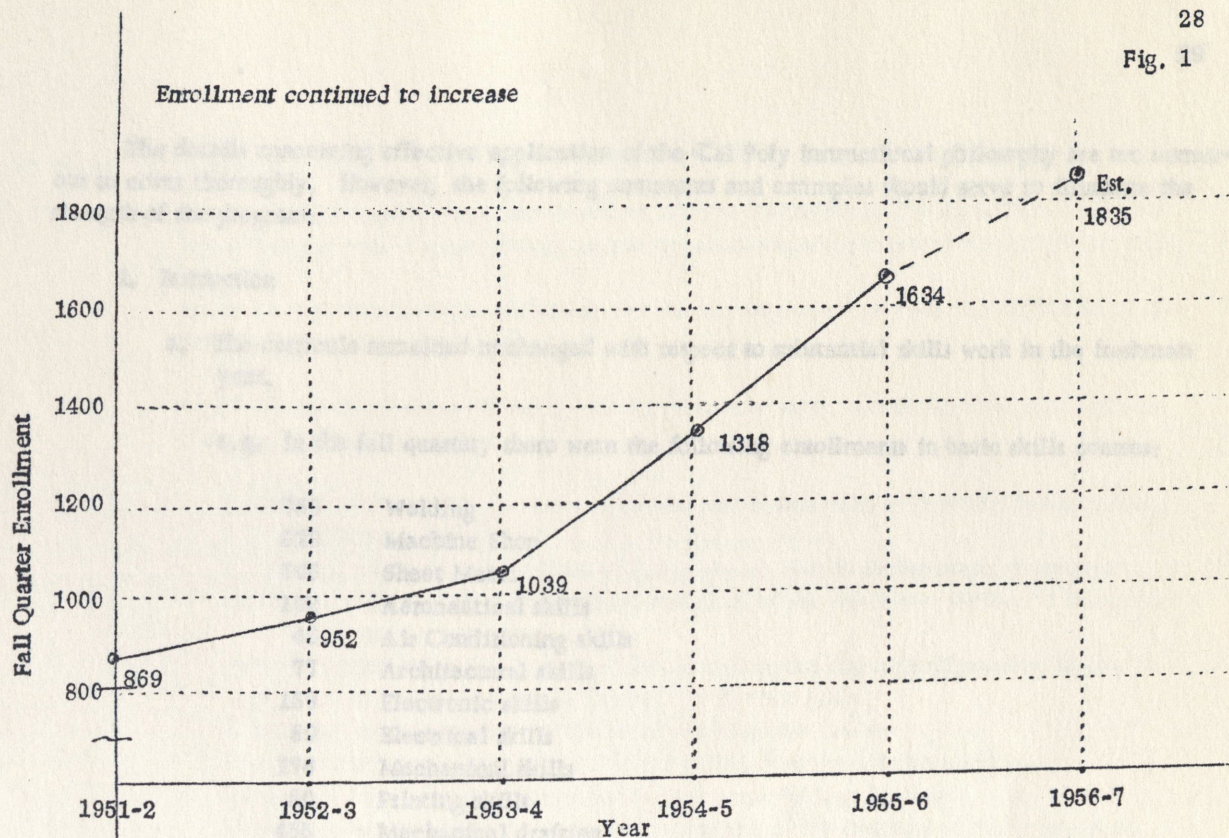
These student societies sponsored nearly one hundred lecture and demonstration programs by practicing engineers.

The Educational Process

The instructional program continued to emphasize students' abilities to know how to do things, to do them well, and to know why they are done. Particular emphasis was placed on the following unique features:

- a. Skills courses in the freshman year
- b. Extensive laboratory work
- c. Concentration in the major
- d. Emphasis on the production, planning, sales, application, and service phases of engineering.
- e. Prime attention to the needs of employers

Fig. 1



The details concerning effective application of the Cal Poly instructional philosophy are too numerous to cover thoroughly. However, the following comments and examples should serve to illustrate the strength of the program:

1. Instruction

- a. The curricula remained unchanged with respect to substantial skills work in the freshman year.

e.g. In the fall quarter, there were the following enrollments in basic skills courses:

766	Welding
512	Machine Shop
106	Sheet Metal
102	Aeronautical skills
46	Air Conditioning skills
77	Architectural skills
159	Electronic skills
69	Electrical skills
176	Mechanical skills
50	Printing skills
455	Mechanical drafting

- b. Curriculum changes were made in several departments to keep pace with the changing patterns in industry. Examples are:

Greater emphasis on tool engineering in Mechanical Engineering.

Greater emphasis on creativity in all design courses.

Planning completed for the introduction of course offerings in electronics in several departments.

Establishment of a new major in Industrial Engineering.

Expansion of work in Architectural Engineering in the fields of city planning and structural engineering.

Increased work in offset printing.

- c. Divisional repair and maintenance work was accomplished, as usual, through student labor under strong faculty supervision. This is in keeping with the policy of not employing professional technicians to do such work.

- d. More than one hundred instructional student projects were completed, including the design and construction of:

Automatic microscope slide cleaner and sterilizer

Shaker table for vibration tests

Thin shelled concrete dome

Master plan for the City of Cambria

Wind tunnel balance system

Small wind tunnel for determining propeller efficiencies

Transistorized radio receiver

Repetitive display circuit for analog computer

Motor tractor for hospital gurneys

Symmetrical component analyzer

Two stage ammonia refrigeration system

2. Faculty

The number of engineering instructors increased in proportion to the increased enrollment. Sixty-five per cent of these men have had industrial experience within the last three years.

There are now four licensed architects and thirteen registered professional engineers on the staff.

Faculty recognition was accorded by industry in many ways. Staff members now hold the following professional positions:

Chairman of Education Committee of National Association of Practical Refrigerating Engineers

Member of Education Committee of American Society of Refrigeration Engineers

Chairman of Heat Load Calculation Committee of the American Society of Refrigeration Engineers

Associate Editor of the Data Book of the American Society of Refrigerating Engineers

Participant in General Motors Professors' Conference (1956)

Participant in General Electric Professors' Conference (1956)

Summer consultant in simplified drafting to San Francisco Naval Shipyard

Member of Membership Committee of American Welding Society

Member of Seventh Region Education Committee of the Institute of Radio Engineers

Member of Student Activities Committee, National Convention (1956) American Institute of Architects

3. Facilities and Financing

The Engineering Division appreciates the splendid support it has received to date from the State Board of Education and other State agencies. Although it is difficult to satisfy all the needs of an institution engaged in technical training, the support at Cal Poly has been extremely gratifying.

e.g. A new facility to replace the old Aero Engines Shop is under construction.

Construction will begin soon on the East Unit of the Engineering Building, a structure with 50,000 square feet of floor space. This will house the Electronic Engineering and Electrical Engineering Departments.

The Welding Department will soon be moved into a permanent building.

The Air Conditioning and Refrigeration Engineering Department will be able to expand into the area vacated by the Electrical Engineering Department when the latter moves into its new facilities.

The Machine Shop facilities have been expanded through a CIRE project.

The equipment list for the new engineering building will provide nearly one-half million dollars of new equipment.

Gifts in the form of equipment and scholarships were received as follows:

\$630 toward scholarship fund in Air Conditioning and Refrigeration Engineering by various air conditioning and refrigeration companies

\$1000 scholarship in Air Conditioning and Refrigeration by the Heatt Engineering Company

\$600 in scholarships in Electronic Engineering by the West Coast Electronic Manufacturers' Association

\$300 scholarship in Mechanical Engineering by the Victor Equipment Company

\$500 scholarship in Electrical Engineering by the Electrical Maintenance Association

\$704.50 fund for Welding Library by various welding companies

Modutrol control systems from Minneapolis-Honeywell Company

Cut-away diesel engine from Fairbanks Morse and Company

Pressure switch from Meletron Corporation

Relay and solenoids from the G. H. Leland Company

The Industries Served

1. Employment Opportunities

More than one hundred firms which employ engineers visited the College to interview the class of 1956. Almost all the candidates for degrees had a choice of several jobs. The majority of salary offers ranged upward from a \$400 per month minimum.

2. Graduates

The number of graduates continued to rise. Approximately 165 engineering degrees will be awarded at the June commencement. Placement in industry was highly diversified except that the aircraft industry attracted more graduates than it has in the past.

3. New Horizons

There has been increasing demand by industry for Cal Poly to expand its offerings into majors in Civil Engineering, Naval Architecture and Marine Engineering, Tool Engineering, Industrial Engineering, City Planning, and Computer Engineering. A major in Industrial Engineering will be established in September, 1956. The other fields are being carefully analyzed at the present time.

Mention should be made also of Senate concurrent Resolution No. 52 passed by the 1955 Legislature.

This resolution recognizes and strives to correct the inequities which now exist for graduates of Cal Poly and other state colleges with respect to Engineering Registration in California. Successful implementation of SCR 52 will mean greatly increased employment opportunities for graduates of these colleges.

ARTS AND SCIENCES DIVISION

During the 1955-56 academic year the title of this division was changed from Liberal Arts to Arts and Sciences so as better to describe its aims and functions. It has a service function to students majoring in the other divisions of the college. It also offers occupationally-centered majors in 10 fields, seven of them presently leading to teaching credentials, and work leading to an occupational Master of Arts degree in education.

Because the purpose of the division is to support occupational majors and to prepare its own graduates for places in well-defined occupational fields, the old title, Liberal Arts was inappropriate and confining. While it is proper and fitting that this division function in keeping with the Cal Poly philosophy of occupational education, it was difficult to reconcile that function with a title steeped in tradition and, in the minds of many, identified with traditional stereotypes concerning the so-called liberal arts approach to education. The new name permits the division to approach its aim of providing occupational training in the various arts and sciences freed from a semantic handicap.

In its service function, the Arts and Sciences Division continues to offer most of the courses meeting requirements in general education as outlined in appropriate sections of the Administrative Code, Title 5. It provides all students with instruction in the sciences, language, social studies, mathematics, and similar areas to provide a groundwork for and to supplement major work in all divisions. It provides elective courses in all departments to broaden and enrich the education of all the college's students in those areas of value and of interest to them.

New Programs

By popular demand the college has expanded its areas of service by providing new majors in elementary education and home economics. Women in all parts of the state and particularly in and around San Luis Obispo have clamored to enter Cal Poly. Many, of course, will select the present major areas, but because of acute shortages in these two fields, majors have been added to provide competent teachers for California's schools and to accommodate those women in the area who now are teaching on sub-standard credentials. Both of these majors have been designed to meet the stated needs of the schools of California.

Another new major which will first be introduced in 1956-57 is that in English. For many years Cal Poly has successfully prepared secondary teachers with a major in social studies. Most administrators seek teachers with a combination of this field and English, and the new program has been developed early to meet this need. There is also a need for high school English teachers specifically prepared to perform that work, and there are very few college programs geared to that need. Cal Poly's major in English has been designed specifically to prepare such teachers and provide them with the skills they will use in their work.

A fourth new major to be offered first in 1956-57 is that in agricultural chemistry. It has been planned to provide people at the bachelor's level for the ever-growing chemical industry that serves the needs of California's agriculture.

Faculty

In keeping with the growth of the college the faculty of the division has grown proportionately. In 1953-54 the division was staffed with 60.7 full-time equivalent instructors. In 1954-55 this figure increased to 77.7 and in 1955-56 to 91.4.

A major problem is staffing the division with personnel who have both adequate academic preparation and the practical experience required by the Cal Poly practical, occupationally-centered instructional program. The college has been fortunate in bringing together an outstanding staff combining these two important characteristics which has made possible the phenomenon of occupational education in the areas of instruction embraced by the arts and sciences.

KELLOGG-VOORHIS CAMPUS

In addition to the main campus at San Luis Obispo, California State Polytechnic College operates the Kellogg-Voorhis Campus in Southern California, just outside the city of Pomona. The Kellogg-Voorhis campus is composed of two facilities--the 157-acre Voorhis Unit in San Dimas and the 816-acre Kellogg Unit in Pomona.

The Kellogg-Voorhis campus carries out the same educational philosophy and requirements as does the Agricultural Division of the College at San Luis Obispo. However, in order to meet the special needs of agriculture in Southern California and to avoid unnecessary duplication of programs, the agricultural offerings at the Kellogg-Voorhis Campus in most cases provide a somewhat different emphasis from that given at San Luis Obispo.

Up through the current school year, the Kellogg-Voorhis Campus has offered the first three years of four-year programs in Fruit Production, General Crops Production, Horticultural Services and Inspection, and Ornamental Horticulture. The first two years are given in Animal Husbandry and Soil Science. Instruction also is offered in related agricultural subjects and arts and sciences courses required in the major curricula. Students normally take the first two or three years of their curricula at the Kellogg-Voorhis Campus and then complete their programs at San Luis Obispo.

With the completion of new facilities at the Kellogg Unit, it is planned to open in the fall of 1956 with the following agricultural majors: Animal Husbandry (two years of a four-year program), Fruit Production (four years), General Crops Production (four years), Horticultural Services and Inspection (four years), Ornamental Horticulture (four years), Soil Science (two years of a four-year program), and Agricultural Management and Sales (first year of a planned four-year program). In programs of less than four years, students will continue to complete their work at San Luis Obispo.

At the present time, a staff of 38 instructors are meeting the needs of an enrollment of 418 FTE. The Kellogg-Voorhis President's Council was established early in the school year and is functioning as an advisory group to the President on administrative matters pertaining to the Kellogg-Voorhis Campus.

Curriculum Developments

The State Board of Education at its June, 1955, meeting approved the long-range curriculum plans for the expansion of the program at the Kellogg-Voorhis Campus. The first step in this expansion will take place in the fall of 1956.

A great deal of time and work this year has gone into the planning of final details in connection with the expansion of curricular offerings for the 1956-57 school year. The change involves the addition of the fourth year in Fruit Production, General Crops Production, Horticultural Services and Inspection, and Ornamental Horticulture. Also, the College will introduce the first year of a planned four-year program in Agricultural Management and Sales, with the remainder of this major to be added year by year.

Continued effort has been devoted to curriculum study toward better aligning the major programs with the rapidly changing needs of the agricultural industry. Several new courses have been added to the offerings on the Kellogg-Campus, and there has been some revision of present offerings.

Curriculum development for all campuses of the College is accomplished under the direction of the Administrative Dean, Instruction.

Library

One new position, Librarian II, Cataloger, was added to the Library staff at midyear. Major projects undertaken were the discarding of inactive materials in cooperation with the faculty, the planning and ordering of the equipment for the temporary library quarters in the Science Building next year, and the submission of plans for a new permanent Library Building.

As a result of the discarding program, the total number of volumes on inventory remained at approximately 9,000 volumes. The Library is now carrying 130 paid periodical titles and a large but uncataloged collection of documents. Instructional services for students and informational services for instructors were expanded.

Several large gifts of documents were received, sorted selectively, and processed during the year.

Foundation

Under the direction of the Board of Directors and the Foundation Manager, the Cal Poly Foundation program provides essentially the same services on the Kellogg-Voorhis Campus as at San Luis Obispo. These services include health, post office, housing, cafeteria, student projects and, in addition, the Sunday Arabian horse shows, required as a condition of the Kellogg grant deed.

Most important in the instructional program is the Foundation student project system. Individual and group student ownership projects are carried on in horticulture, crops, and animal husbandry. Several changes have been effected during the past year, improving the instructional value of the project program.

It is anticipated that the Foundation's services will become ever more important with the expansion of the Kellogg-Voorhis Campus program in 1956-57.

Student Personnel Activities

Highlights of the program this year include the 14th annual Poly Vue held on May 12, the 6th annual Agricultural Education Field Day on April 7, the annual Music Tour which took place between the winter and spring quarters in the San Bernardino area and the northern part of San Diego County, and the inter-collegiate and intra-mural athletic programs carried on throughout the year.

Additions to Facilities

The Science Building being constructed at the Kellogg Unit is on schedule, and plans are being made for occupancy by the middle of September, 1956. The contract has been let for major utilities to service the Science Building.

The Public Works Board has approved the preparation of working drawings and construction for the Cafeteria, Health and Physical Education facilities, and the Crops and Fruit Unit. Construction on these facilities will probably start in the early summer.

A number of campus improvements were made during the year. At the Voorhis Unit, two main parking lots were resurfaced, the roofs of the buildings in the Ver Hill Housing Project were resurfaced and painted, a small cemetery behind the Chapel was landscaped, new citrus plantings were completed, and the Voorhis home was purchased by the State for use as a dormitory. At the Kellogg Unit, cross-fencing of back pastures was completed, a storage building was constructed, livestock scales and grain bins were installed, a sprinkler system was replaced in one of the citrus groves, the road along the southern boundary of the campus was resurfaced, first phase of a termite control program was initiated, a land leveling program was begun with the use of the new carryall, the painting of campus buildings was continued, and many new water lines were installed.

Special events held on the Kellogg-Voorhis Campus other than those mentioned in the Section on Special Services, include the 14th annual Poly View, the 6th annual Agricultural Education Field Day, the Light Horse Judging School, the Junior Arabian Show, the All-Arabian Spring Show, the Pest Control Conference, and the Citrus Judging Contest.

Twenty-four horse shows were held during the year, with an average attendance of some 800 people per show.

Mr M^o Phil -

I realize that you are busy
and won't have time to read all
of the attachments. However, they (some of them)
convey something of the idea I
had for an Administrative Guide. You
might find them interesting.

M^o 4-27