## **COMMITTEE REPORTS**

## SPECIAL COMMITTEE REPORTS ON STUDY OF PROVINCIAL NEEDS

## SURVEY TECHNICIANS AND SURVEY TECHNOLOGISTS

During the past year the Special Committee on Certification and Education of Survey Technicians carried out a provincial needs study. This study was intended to show the immediate and future needs for survey technicians and technologists in the general survey community. These needs have been assessed in relation to the provincial education areas as designated by the Ontario Department of Education.

A questionnaire was circulated to 228 private and 50 public organizations. Of the 278 organizations circulated 102 (37%) chose to reply to the questionnaire.

The private organizations consisted of 206 O.L.S. firms and 22 consulting firms engaged for the most part in air surveys, photogrammetry or cartography. Thirty-one percent of the private organizations replied to the questionnaire.

The public organizations consisted of 12 provincial or federal governmental agencies and 38 cities or large municipalities. Sixty-six percent of the public organizations replied to the questionnaire.

The survey disclosed that:

- (1) the total number of employees engaged in surveying (office and field) in those firms replying is 2776.
- (2) the total number of employees engaged in surveying (office and field) projected to include those firms that did not reply is 4700.
- (3) the ratio of principals to employees in private organizations is 17%.
- (4) the survey staff may be categorized as follows:
  - (a) professional 11%
  - (b) technologist 9%
  - (c) technician 42%
  - (d) craftsmen <u>38</u>%

Total 100%

- (5) the survey industry may be categorized as follows:
  - (a) Land Surveying 60%
  - (b) Engineering Surveys 29%
  - (c) Photogrammetry 4%
  - (d) Control Surveys 4%
  - (e) Cartography 2%
  - (f) Geodesy 1%

Total 100%

When calculating the projected staff needs for each education area, the committee took into consideration the relative size of all the organizations circulated.

The committee recognizes the fact that the figures shown on the attached chart might be appreciably increased if subjected to an analysis and consideration of other factors such as: retirement, emigration, immigration, transfer, upgrading and skill substitution.

The survey did not examine the requirements of other related engineering fields that will undoubtedly attract many graduates of survey technician and technology courses. Experience has shown that any selected field of endeavour usually attracts only a small percentage of the graduating students.

Notwithstanding the possible effect of these factors, it is apparent that there is a substantial need throughout the province for more qualified survey technicians and technologists.

Special Committee on Certification and Education of Survey Technicians

	7		S. FF NEEDS (Reported) STAFF NEEDS (Projected)									
		15%	- 4		MMEDIATE	i		- #	MMEDIATE		5 YEARS	
EDUCATION AREA	(SOUARE MILE	POPULATION 1966	ORGANIZATIONS CIRCU	PERCENTAGE REPLYINGE	SURVEY FECHNOLOGIST		<del>.</del>		<i>"</i>		1	
- 1	5556	586, 390	21	29	1	2	59	13	3	7	73	45
2	3469	264,533	13	23	2	2	3	7	9	9	13	30
3	8163	306, 354	17	35	3	6	5	12	8	17	14	34
4	1378	215,367	6	67	2	3	4	6	3	5	6	9
Metro Toronto 5,6,7,19	936	1,630,000	69	44	21	36	75	160	37	79	130	266
8	826	313,121	14	50	6	9	12	24	12	18	24	48
9	1287	521,239	10	20	1	2	11	12	5	10	15	20
10	775	316,046	13	15	1	2	1	6	7	13	7	40
11	3318	437,911	14	36	2	3	5	10	6	8	14	28
12	1621	377,328	10	20	1	5	1	2	5	10	5	20
13	1072	108,236	8	38	3	5	3	11	8	13	8	<b>2</b> 9
14	3613	425,775	15	60	4	11	11	24	7	18	18	40
15	10,244	327,943	28	36	6	12	11	26	17	34	31	73
16	46,526	371,740	18	33	7	10	15	27	21	30	45	81
17	58,133	144,488	8	25	1	2	3	4	4	8	12	16
18	212,967	223,484	14	36	2	2	5	7	6	6	14	20
TOTALS	359,884	6,569,955	<b>27</b> 8		63	112	224	3 <b>51</b>	158	285	429	799

