

It will be observed that 69 staff surveyors were employed in the North Island, and 37 in the Middle Island. The Auckland Land District alone found work for 29, besides providing scope for 32 of the contract surveyors. The wealthy and important Districts of Canterbury and Otago only furnished work for 7 surveyors, who were principally engaged upon the subdivision of estates acquired under the Land for Settlements Act, a plain indication of the fact that only a small area of Crown lands suitable for close settlement was available in these great divisions of the colony. The total number of staff surveyors exceeds that of the previous year by 37. This increase occurred too late to affect the area of sectional surveys completed by the 31st March last; but this addition to the staff was manifested subsequently in the output of preliminary surveys, by means of which extensive areas of rural land were also made available for notification and selection on the "unsurveyed" system referred to further on. The contract surveyors also materially aided in expediting the completion of surveys of selections on the above system, thus avoiding undue delay in issue of leases and licenses to the new Crown tenants. Their employment had the effect of freeing the staff surveyors for the prosecution of the general surveys of large blocks and tracts of country.

The out-turn of survey-work for the year 1902-3 is given in the following summary :—

## SUMMARY OF FIELD-WORK EXECUTED.

	Acres.	Average Cost per Acre.	Total Cost.		
			£	s.	d.
Minor triangulation with topography ...	457,186	1·31d.	2,506	6	10
Topographical survey only ...	251,899	2·17d.	2,276	17	1
Rural and suburban section survey (1,188 sections) ...	607,594·65	0·82s.	25,203	7	2½
Town section survey (507 sections), cost per section ...	638·17	19·94s.	505	14	0
Native Land Court surveys (171 divisions) ...	400,388	3·97d.	6,631	8	10½
Mining surveys (66 sections) ...	3,801	5·14s.	977	11	0
Road surveys (301·498 miles), per mile ...	...	£15·29	4,854	15	7
Miscellaneous surveys, inspection, &c. ...	...	...	13,517	13	1
Total cost of field-work finished during the year ...			£56,473	13	8

This is less than the cost of the previous year's work by £13,397 3s. 8d.

Though it may not always be a fair or satisfactory test, owing to altered circumstances, it may be well to compare the out-turn and cost of work with those of the previous year. In doing so, allowance should be made for an unusually late and wet season, and also for the greater and increasing difficulties attending survey operations in more distant and inaccessible districts, and the more broken and frequently denser forest, and the consequent difficulties and costs involved.

The triangulation last year, being only one-sixth the area and in detached areas, was necessarily executed at a higher relative cost; the topographical surveys, which were of a more elaborate type, specially undertaken to furnish sale maps, were more limited in extent by 74,759 acres, and cost 1·03d. more per acre; the rural surveys were also 10,766 acres in excess in area, and less costly; the town surveys were only about half the area, but much less in cost. The Native Land Court surveys exceeded those of the previous year by 82,970 acres, and cost 0·85d. per acre more; the mining surveys, 5,672 acres less in area, were effected at practically the same rate. There was a great falling-off in mileage of road surveys, because the staff had no leisure for the usual surveys of existing roads and extensions of standard traverses. The shortage amounted to 130 miles, and the cost increased by £0·88 per mile.

## MINOR TRIANGULATION AND TOPOGRAPHICAL.

The area of 457,186 acres returned under this head is only one-sixth of that completed the previous year, for the reason that triangulation was only undertaken in small scattered areas in localities where it was necessary to provide true bearings and co-ordinate values for the settlement surveys. The cost of surveys undertaken in this desultory isolated manner is necessarily greater than when carried out on a comprehensive scale. Auckland is credited with about half the area; Hawke's Bay and Marlborough each one-sixth; the balance of 74,400 acres is divided between Taranaki, Wellington, and Nelson.

In the earlier part of the year 1902, Mr. H. J. Lowe, District Surveyor, completed the field-work of a major triangulation, embracing 2,150,000 acres, in the Wanganui-Rangitikei districts, and attained a considerable degree of exactitude, following the ordinary New Zealand improved methods of observation, and using a 10 in. Everest vernier class of