The above expenditure apportioned among the various Chief Surveyors and Head Office is as follows:—

District.					Expenditure.	Percentage.
					£	
Head Office					17,788	11.1
North Auckland and South Auckland					45,783	$28 \cdot 6$
Gisborne					5,762	$3 \cdot 6$
Hawkes Bay					10,554	$6 \cdot 6$
ľaranaki					8,009	$5 \cdot 0$
Vellington					19,750	$12 \cdot 4$
Iarlborough					5,292	$3 \cdot 3$
Telson					6,062	$3 \cdot 8$
Vestland					2,303	$1 \cdot 4$
anterbury					19,713	$12 \cdot 4$
Otago					12,047	$7 \cdot 5$
Southland					6,787	$4 \cdot 3$
				-		
Totals					159,850	100.0

## Specialized Activities

The following sets out brief reports on survey work of specialized nature carried out during the year:—

# Geodetic Triangulation

Observations for La Place longitudes at six stations in the North Island and two stations in the South Island were completed during the year. It is anticipated that the observations at the remaining three stations in the South Island will be completed during 1949. This work will finalize all observations for the geodetic triangulation of the Dominion which was commenced in 1911.

### Second and Third Order Triangulation

During the year a start has been made in establishing second and third order triangulation in the Rotorua – Taupo – King-country area for the purpose of controlling the topographical mapping of this area, which is required for national development purposes.

### Precise Levelling

(a) Rimutaka Tunnel.—This traverse is required for the purpose of fixing the portals of the proposed Rimutaka Tunnel, and sixteen miles of the twenty-two miles were completed at the end of the year. It is anticipated that the traverse will be completed by June, 1949. This traverse is a portion of the Wellington-Wairarapa geodetic level net, and if staff can be made available this work will be continued during this year.

(b) Waikato River.—A traverse along the Waikato River from Arapuni to Taupo was started during the year for the control of the hydro-electric works on this river and approximately sixty miles of levelling between Arapuni and

Ohakura was completed at the end of the year.

### Standard Traverse

With the exception of a few miles in the Gisborne district, no standard-traverse surveys were made during the year. There are many miles of both city and rural standard traverses required in all districts, but, although the work is becoming increasingly urgent, the shortage of staff will not permit this work to be put in hand during 1949.