technical development, production, and sales of ERIP technologies. Previous data documented that most of this employment occurs at the production/marketing stage, although significant numbers of jobs can be generated while developing prototypes. Further, it is not until the production phase that employment can be fully supported from revenues generated by the invention itself. In prior stages, work on the technology is largely subsidized by other sources.

Table 5.1 Number of Full-Time Equivalent (FTE) Employees Supported by Sales of ERIP Inventions

Year	Known FTE's supported by direct sales	Estimated FTE's based on direct sales	Known FTE's supported by indirect sales	Estimated FTE's based on in indirect sales	FTE's supported by inventions without sales	Totals
1984	172	67	85	69	189	582
1985	229	20	77	96	48	470
1986	234	118	80	297	59	788
1987	185	138	46	173	129	671
1988	237	133	41	159	146	716
1989	282	29	160	219	78	768
1990	316	37	146	168	91	758
1991	226[a]	174	102	29	114	645
1992	289[b]	130	121	27	101	668

[a] 16 of these FTE's are supported by technologies that had sales both through licensing and directly by the inventor.

[b] 30 of these FTE's are supported by technologies that had sales both through licensing and directly by the inventor.

Employment data for 1991 and 1992 are available for most of the inventions with direct sales (since the inventors themselves tended to be interviewed), but they are available for less than half of the inventions being commercialized through license agreements (since not all of the licensees were interviewed). When sales are known, but employment data are unavailable, employment estimates are generated from ratios of ERIP sales to FTEs. (These ratios are provided in Table 5.2.) For example, in 1992, the sales-to-FTE ratio for ERIP inventions with known sales and employment, was $82,000. An additional $10.7 million of sales in 1992 is associated with an unknown number of full-time equivalent employees. Using the $82,000 ratio of sales to jobs, the estimated FTEs supported by $10.7 million of direct sales is 130. Table 5.1 shows the values of known vs. estimated FTEs, for ERIP technologies sold either directly or indirectly.