

**Attachment B**

**Detailed Statistical Tables 28-52**

### Detailed Statistical Tables 28-52

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## Currently Employed Engineers Engaged in R&D, by Branch of Industry

Branch of Industry	Engaged in R & D		
	Firms	R&D Engineers	Percent of Total R&D Engineers
<b>Manufacturing</b>			
<i>Food Processing</i>	21	32	1.2%
<i>Beverages &amp; Tobacco</i>	0	0	0.0%
<i>Textiles &amp; Textile Products</i>	8	21	0.8%
<i>Leather &amp; Leather Products</i>	0	0	0.0%
<i>Wood &amp; Wood Products</i>	6	13	0.5%
<i>Furniture &amp; Fixtures</i>	10	22	0.8%
<i>Paper, Printing, &amp; Publishing</i>	21	29	1.1%
<i>Chemicals &amp; Chemical Products (including drugs)</i>	22	86	3.3%
<i>Petroleum &amp; Coal</i>	6	96	3.7%
<i>Rubber Products</i>	40	83	3.2%
<i>Plastic Products</i>	48	105	4.0%
<i>Non-Metallic Mineral Products</i>	26	51	1.9%
<i>Basic Metal Products</i>	27	59	2.3%
<i>Fabricated Metal Products</i>	30	86	3.3%
<i>Machinery Manufacturing</i>	24	33	1.3%
<i>Office, Computing &amp; Accounting Machines</i>	9	89	3.4%
<i>Electric, Electronic &amp; Communications Products</i>	132	1,151	43.9%
<i>Motor Vehicles &amp; Motor Vehicle Equipment</i>	29	158	6.0%
<i>Other Transportation Equipment</i>	8	24	0.9%
<i>Other Manufacturing</i>	11	24	0.9%
<b>Total Manufacturing</b>	478	2,162	82.5%
<b>Non-Manufacturing</b>			
<i>Building Construction</i>	19	56	2.1%
<i>Other Non-Manufacturing</i>	43	403	15.4%
<b>Total Non-Manufacturing</b>	62	459	17.5%
<b>TOTAL</b>	<b>540</b>	<b>2,621</b>	<b>100.0%</b>

Source: SRI International, *Survey of Employment of Scientists, Engineers and Technicians in Industry in Malaysia*, September, 1996.

**Table 28**

## Currently Employed R&D Engineers as a Percent of Total Engineers, by Branch of Industry

Branch of Industry	Total Engineers	R&D Engineers	R&D Engineers as a Percent of Total Engineers
<b>Manufacturing</b>			
<i>Food Processing</i>	290	32	11.0%
<i>Beverages &amp; Tobacco</i>	41	0	0.0%
<i>Textiles &amp; Textile Products</i>	145	21	14.5%
<i>Leather &amp; Leather Products</i>	2	0	0.0%
<i>Wood &amp; Wood Products</i>	148	13	8.8%
<i>Furniture &amp; Fixtures</i>	55	22	40.0%
<i>Paper, Printing, &amp; Publishing</i>	154	29	18.8%
<i>Chemicals &amp; Chemical Products (including drugs)</i>	503	86	17.1%
<i>Petroleum &amp; Coal</i>	1,998	96	4.8%
<i>Rubber Products</i>	320	83	25.9%
<i>Plastic Products</i>	554	105	19.0%
<i>Non-Metallic Mineral Products</i>	469	51	10.9%
<i>Basic Metal Products</i>	850	59	6.9%
<i>Fabricated Metal Products</i>	801	86	10.7%
<i>Machinery Manufacturing</i>	281	33	11.7%
<i>Office, Computing &amp; Accounting Machines</i>	819	89	10.9%
<i>Electric, Electronic &amp; Communications Products</i>	7,222	1,151	15.9%
<i>Motor Vehicles &amp; Motor Vehicle Equipment</i>	2,460	158	6.4%
<i>Other Transportation Equipment</i>	129	24	18.6%
<i>Other Manufacturing</i>	400	24	6.0%
<b>Total Manufacturing</b>	17,641	2,162	12.3%
<b>Non-Manufacturing</b>			
<i>Building Construction</i>	2,315	56	2.4%
<i>Other Non-Manufacturing</i>	2,938	403	13.7%
<b>Total Non-Manufacturing</b>	5,253	459	8.7%
<b>TOTAL</b>	<b>22,894</b>	<b>2,621</b>	<b>11.4%</b>

Source: SRI International, *Survey of Employment of Scientists, Engineers and Technicians in Industry in Malaysia*, September, 1996.

**Table 29**

## Currently Employed Technicians Engaged in R&D, by Branch of Industry

Branch of Industry	Engaged in R & D		
	Firms	R&D Technicians	Percent of Total R&D Technicians
<b>Manufacturing</b>			
<i>Food Processing</i>	32	66	3.0%
<i>Beverages &amp; Tobacco</i>	3	5	0.2%
<i>Textiles &amp; Textile Products</i>	14	61	2.8%
<i>Leather &amp; Leather Products</i>	0	0	0.0%
<i>Wood &amp; Wood Products</i>	14	28	1.3%
<i>Furniture &amp; Fixtures</i>	5	11	0.5%
<i>Paper, Printing, &amp; Publishing</i>	13	67	3.0%
<i>Chemicals &amp; Chemical Products (including drugs)</i>	43	316	14.3%
<i>Petroleum &amp; Coal</i>	6	203	9.2%
<i>Rubber Products</i>	48	158	7.1%
<i>Plastic Products</i>	37	121	5.5%
<i>Non-Metallic Mineral Products</i>	24	50	2.3%
<i>Basic Metal Products</i>	26	88	4.0%
<i>Fabricated Metal Products</i>	22	54	2.4%
<i>Machinery Manufacturing</i>	14	27	1.2%
<i>Office, Computing &amp; Accounting Machines</i>	6	33	1.5%
<i>Electric, Electronic &amp; Communications Products</i>	95	449	20.3%
<i>Motor Vehicles &amp; Motor Vehicle Equipment</i>	26	119	5.4%
<i>Other Transportation Equipment</i>	8	46	2.1%
<i>Other Manufacturing</i>	10	30	1.4%
<b>Total Manufacturing</b>	446	1,932	87.4%
<b>Non-Manufacturing</b>			
<i>Building Construction</i>	10	16	0.7%
<i>Other Non-Manufacturing</i>	37	262	11.9%
<b>Total Non-Manufacturing</b>	47	278	12.6%
<b>TOTAL</b>	<b>493</b>	<b>2,210</b>	<b>100.0%</b>

Source: SRI International, *Survey of Employment of Scientists, Engineers and Technicians in Industry in Malaysia*, September, 1996.

**Table 30**

**Currently Employed R&D Technicians as a Percent of Total Technicians,  
by Branch of Industry**

<b>Branch of Industry</b>	<b>Total Technicians</b>	<b>R&amp;D Technicians</b>	<b>R&amp;D Technicians as a Percent of Total Technicians</b>
<b>Manufacturing</b>			
<i>Food Processing</i>	1,034	66	<b>6.4%</b>
<i>Beverages &amp; Tobacco</i>	198	5	<b>2.5%</b>
<i>Textiles &amp; Textile Products</i>	1,248	61	<b>4.9%</b>
<i>Leather &amp; Leather Products</i>	22	0	<b>0.0%</b>
<i>Wood &amp; Wood Products</i>	353	28	<b>7.9%</b>
<i>Furniture &amp; Fixtures</i>	165	11	<b>6.7%</b>
<i>Paper, Printing, &amp; Publishing</i>	419	67	<b>16.0%</b>
<i>Chemicals &amp; Chemical Products (including drugs)</i>	1,327	316	<b>23.8%</b>
<i>Petroleum &amp; Coal</i>	4,858	203	<b>4.2%</b>
<i>Rubber Products</i>	1,046	158	<b>15.1%</b>
<i>Plastic Products</i>	1,787	121	<b>6.8%</b>
<i>Non-Metallic Mineral Products</i>	894	50	<b>5.6%</b>
<i>Basic Metal Products</i>	3,117	88	<b>2.8%</b>
<i>Fabricated Metal Products</i>	2,027	54	<b>2.7%</b>
<i>Machinery Manufacturing</i>	524	27	<b>5.2%</b>
<i>Office, Computing &amp; Accounting Machines</i>	670	33	<b>4.9%</b>
<i>Electric, Electronic &amp; Communications Products</i>	15,939	449	<b>2.8%</b>
<i>Motor Vehicles &amp; Motor Vehicle Equipment</i>	1,571	119	<b>7.6%</b>
<i>Other Transportation Equipment</i>	932	46	<b>4.9%</b>
<i>Other Manufacturing</i>	1,141	30	<b>2.6%</b>
<b>Total Manufacturing</b>	<b>39,272</b>	<b>1,932</b>	<b>4.9%</b>
<b>Non-Manufacturing</b>			
<i>Building Construction</i>	2,362	16	<b>0.7%</b>
<i>Other Non-Manufacturing</i>	4,353	262	<b>6.0%</b>
<b>Total Non-Manufacturing</b>	<b>6,715</b>	<b>278</b>	<b>4.1%</b>
<b>TOTAL</b>	<b>45,987</b>	<b>2,210</b>	<b>4.8%</b>

Source: SRI International, *Survey of Employment of Scientists, Engineers and Technicians in Industry in Malaysia*, September, 1996.

**Table 31**

## Ratio of R&D Technicians to R&D Scientists and Engineers, by Branch of Industry

Branch of Industry	R&D Scientists & Engineers	R&D Technicians	R&D Technicians Per R&D Scientist/ Engineer
<b>Manufacturing</b>			
<i>Food Processing</i>	111	66	0.6
<i>Beverages &amp; Tobacco</i>	5	5	1.0
<i>Textiles &amp; Textile Products</i>	27	61	2.3
<i>Leather &amp; Leather Products</i>	2	0	0.0
<i>Wood &amp; Wood Products</i>	24	28	1.2
<i>Furniture &amp; Fixtures</i>	22	11	0.5
<i>Paper, Printing, &amp; Publishing</i>	37	67	1.8
<i>Chemicals &amp; Chemical Products (including drugs)</i>	276	316	1.1
<i>Petroleum &amp; Coal</i>	217	203	0.9
<i>Rubber Products</i>	166	158	1.0
<i>Plastic Products</i>	148	121	0.8
<i>Non-Metallic Mineral Products</i>	64	50	0.8
<i>Basic Metal Products</i>	67	88	1.3
<i>Fabricated Metal Products</i>	100	54	0.5
<i>Machinery Manufacturing</i>	33	27	0.8
<i>Office, Computing &amp; Accounting Machines</i>	92	33	0.4
<i>Electric, Electronic &amp; Communications Products</i>	1,250	449	0.4
<i>Motor Vehicles &amp; Motor Vehicle Equipment</i>	166	119	0.7
<i>Other Transportation Equipment</i>	24	46	1.9
<i>Other Manufacturing</i>	40	30	0.8
<b>Total Manufacturing</b>	2,871	1,932	0.7
<b>Non-Manufacturing</b>			
<i>Building Construction</i>	70	16	0.2
<i>Other Non-Manufacturing</i>	573	262	0.5
<b>Total Non-Manufacturing</b>	643	278	0.4
<b>TOTAL</b>	<b>3,514</b>	<b>2,210</b>	<b>0.6</b>

Source: SRI International, *Survey of Employment of Scientists, Engineers and Technicians in Industry in Malaysia*, September, 1996.

**Table 32**

## Currently Annual Expenditures on in-House R&D, by Branch of Industry

Branch of Industry	Total Number of Firms	Number of Firms Conducting In-House R&D	Annual Expenditures on In-House R&D (RM'000)	Percent of Total Industrial In-House R&D Expenditures
<b>Manufacturing</b>				
<i>Food Processing</i>	117	53	9,044	1.5%
<i>Beverages &amp; Tobacco</i>	17	5	1,638	0.3%
<i>Textiles &amp; Textile Products</i>	46	19	3,629	0.6%
<i>Leather &amp; Leather Products</i>	5	2	467	0.1%
<i>Wood &amp; Wood Products</i>	53	18	1,237	0.2%
<i>Furniture &amp; Fixtures</i>	24	10	1,236	0.2%
<i>Paper, Printing, &amp; Publishing</i>	74	26	4,991	0.8%
<i>Chemicals &amp; Chemical Products (including drugs)</i>	135	75	29,680	5.0%
<i>Petroleum &amp; Coal</i>	24	10	83,875	14.2%
<i>Rubber Products</i>	117	66	28,304	4.8%
<i>Plastic Products</i>	175	56	10,765	1.8%
<i>Non-Metallic Mineral Products</i>	82	35	10,381	1.8%
<i>Basic Metal Products</i>	139	35	7,085	1.2%
<i>Fabricated Metal Products</i>	115	33	5,144	0.9%
<i>Machinery Manufacturing</i>	48	24	3,404	0.6%
<i>Office, Computing &amp; Accounting Machines</i>	32	9	22,392	3.8%
<i>Electric, Electronic &amp; Communications Products</i>	377	138	302,947	51.2%
<i>Motor Vehicles &amp; Motor Vehicle Equipment</i>	85	34	40,638	6.9%
<i>Other Transportation Equipment</i>	17	9	1,372	0.2%
<i>Other Manufacturing</i>	48	14	1,625	0.3%
<b>Total Manufacturing</b>	<b>1,730</b>	<b>671</b>	<b>569,853</b>	<b>96.3%</b>
<b>Non-Manufacturing</b>				
			0	
<i>Building Construction</i>	176	24	1,632	0.3%
<i>Other Non-Manufacturing</i>	254	54	20,011	3.4%
<b>Total Non-Manufacturing</b>	<b>430</b>	<b>78</b>	<b>21,643</b>	<b>3.7%</b>
<b>TOTAL</b>	<b>2,160</b>	<b>749</b>	<b>591,496</b>	<b>100.0%</b>

\*Note: Expenditures data are in part estimated to account for survey respondents who reported employing scientists, engineers and/or technicians but failed to provide expenditures on R&D.

Source: SRI International, *Survey of Employment of Scientists, Engineers and Technicians in Industry in N* September, 1996.

**Table 33**

**Percentage of Firms Adversely Affected by Availability of  
Qualified Scientist, Engineer, or Technical Job Candidates  
Over the Near Term, by State**

State	Not at All		Some		A Great Deal	
	Number of Firms	Percent of Firms	Number of Firms	Percent of Firms	Number of Firms	Percent of Firms
<i>Johor</i>	72	32%	90	40%	64	28%
<i>Kedah</i>	11	17%	39	59%	16	24%
<i>Kelantan</i>	0	0%	2	100%	0	0%
<i>Melaka</i>	16	30%	19	36%	18	34%
<i>Negeri Sembilan</i>	11	26%	24	56%	8	19%
<i>Pahang</i>	5	22%	10	43%	8	35%
<i>Perak</i>	26	35%	27	36%	22	29%
<i>Perlis</i>	2	100%	0	0%	0	0%
<i>Pulau Pinang</i>	64	27%	123	51%	53	22%
<i>Sabah</i>	6	16%	24	63%	8	21%
<i>Sarawak</i>	13	20%	33	52%	18	28%
<i>Selangor</i>	208	28%	359	48%	174	23%
<i>Terengganu</i>	3	30%	2	20%	5	50%
Federal Territory						
<i>Kuala Lumpur</i>	128	28%	221	48%	108	24%
<i>Labuan</i>	0	0%	0	0%	0	0%
<b>Total</b>	<b>565</b>	<b>28%</b>	<b>973</b>	<b>48%</b>	<b>502</b>	<b>25%</b>

Note: Some companies may operate in more than one state.

Source: SRI International, *Survey of Employment of Scientists, Engineers and Technicians in Industries in Malaysia*, September, 1996.

**Table 34**

**Percentage of Firms Adversely Affected by Availability of  
Qualified Scientist, Engineer, or Technical Job Candidates  
Over the Long Term, by State**

State	Not at All		Some		A Great Deal	
	Number of Firms	Percent of Firms	Number of Firms	Percent of Firms	Number of Firms	Percent of Firms
<i>Johor</i>	40	18%	99	44%	88	39%
<i>Kedah</i>	7	11%	37	57%	21	32%
<i>Kelantan</i>	0	0%	2	100%	0	0%
<i>Melaka</i>	5	9%	26	47%	24	44%
<i>Negeri Sembilan</i>	5	12%	22	51%	16	37%
<i>Pahang</i>	3	14%	8	36%	11	50%
<i>Perak</i>	13	17%	35	47%	27	36%
<i>Perlis</i>	2	100%	0	0%	0	0%
<i>Pulau Pinang</i>	33	14%	110	46%	94	40%
<i>Sabah</i>	2	5%	19	49%	18	46%
<i>Sarawak</i>	5	8%	28	44%	30	48%
<i>Selangor</i>	106	14%	383	52%	248	34%
<i>Terengganu</i>	0	0%	7	70%	3	30%
Federal Territory						
<i>Kuala Lumpur</i>	64	14%	239	52%	154	34%
<i>Labuan</i>	0	0%	0	0%	0	0%
<b>Total</b>	<b>287</b>	<b>14%</b>	<b>1,015</b>	<b>50%</b>	<b>733</b>	<b>36%</b>

Note: Some companies may operate in more than one state.

Source: SRI International, *Survey of Employment of Scientists, Engineers and Technicians in Industry in Malaysia*, September, 1996.

**Table 35**

## Currently Employed Scientists, Engineers, and Technicians, by State

State	Scientists	Engineers	Scientists & Engineers	Technicians
<i>Johor</i>	163	2,102	2,265	4,477
<i>Kedah</i>	20	579	599	1,672
<i>Kelantan</i>	0	5	5	20
<i>Melaka</i>	34	358	392	714
<i>Negeri Sembilan</i>	51	251	302	378
<i>Pahang</i>	24	362	386	903
<i>Perak</i>	33	2,030	2,063	3,165
<i>Perlis</i>	0	3	3	5
<i>Pulau Pinang</i>	339	2,620	2,959	3,866
<i>Sabah</i>	25	332	357	634
<i>Sarawak</i>	69	682	751	1,439
<i>Selangor</i>	1,300	8,383	9,683	16,350
<i>Terengganu</i>	8	211	219	272
Federal Territory				
<i>Kuala Lumpur</i>	660	4,973	5,633	12,093
<i>Labuan</i>	0	2	2	0
<b>Total</b>	<b>2,727</b>	<b>22,894</b>	<b>25,621</b>	<b>45,988</b>

Note: Some companies may operate in more than one state.

Source: SRI International, *Survey of Employment of Scientists, Engineers and Technicians in Industry in Malaysia*, September, 1996.

**Table 36**

## Currently Employed Foreign Scientists, Engineers, and Technicians, by State

State	Foreign Scientists	Foreign Engineers	Foreign Scientists & Engineers	Foreign Technicians
<i>Johor</i>	6	118	124	106
<i>Kedah</i>	0	52	52	92
<i>Kelantan</i>	0	0	0	0
<i>Melaka</i>	5	11	16	5
<i>Negeri Sembilan</i>	0	16	16	11
<i>Pahang</i>	2	37	39	0
<i>Perak</i>	3	102	105	72
<i>Perlis</i>	0	0	0	0
<i>Pulau Pinang</i>	26	294	320	134
<i>Sabah</i>	0	10	10	0
<i>Sarawak</i>	3	14	17	0
<i>Selangor</i>	58	378	436	127
<i>Terengganu</i>	0	33	33	6
Federal Territory				
<i>Kuala Lumpur</i>	69	470	539	415
<i>Labuan</i>	0	0	0	0
<b>Total</b>	<b>174</b>	<b>1,535</b>	<b>1,709</b>	<b>968</b>

Note: Some companies may operate in more than one state.

Source: SRI International, *Survey of Employment of Scientists, Engineers and Technicians in Ir in Malaysia*, September, 1996.

**Table 37**

**Foreign Scientists, Engineers, and Technicians as a Percentage of  
Total Scientists, Engineers, and Technicians, by State**

<b>State</b>	<b>Percent Foreign Scientists</b>	<b>Percent Foreign Engineers</b>	<b>Percent Foreign Scientists &amp; Engineers</b>	<b>Percent Foreign Technicians</b>
<i>Johor</i>	3.7%	5.6%	5.5%	2.4%
<i>Kedah</i>	0.0%	9.0%	8.7%	5.5%
<i>Kelantan</i>	0.0%	0.0%	0.0%	0.0%
<i>Melaka</i>	14.7%	3.1%	4.1%	0.7%
<i>Negeri Sembilan</i>	0.0%	6.4%	5.3%	2.9%
<i>Pahang</i>	8.3%	10.2%	10.1%	0.0%
<i>Perak</i>	9.1%	5.0%	5.1%	2.3%
<i>Perlis</i>	0.0%	0.0%	0.0%	0.0%
<i>Pulau Pinang</i>	7.7%	11.2%	10.8%	3.5%
<i>Sabah</i>	0.0%	3.0%	2.8%	0.0%
<i>Sarawak</i>	4.3%	2.1%	2.3%	0.0%
<i>Selangor</i>	4.5%	4.5%	4.5%	0.8%
<i>Terengganu</i>	0.0%	15.6%	15.1%	2.2%
Federal Territory				
<i>Kuala Lumpur</i>	10.5%	9.5%	9.6%	3.4%
<i>Labuan</i>	0.0%	0.0%	0.0%	0.0%
<b>Total</b>	<b>6.4%</b>	<b>6.7%</b>	<b>6.7%</b>	<b>2.1%</b>

Note: Some companies may operate in more than one state.

Source: SRI International, *Survey of Employment of Scientists, Engineers and Technicians in Industry in Malaysia*, September, 1996.

**Table 38**

## Currently Shortage of Scientists, Engineers, and Technicians, by State

State	Scientists	Engineers	Scientists & Engineers	Technicians
<i>Johor</i>	41	523	564	2,056
<i>Kedah</i>	10	202	212	477
<i>Kelantan</i>	0	2	2	6
<i>Melaka</i>	17	98	115	154
<i>Negeri Sembilan</i>	21	55	76	60
<i>Pahang</i>	13	73	86	195
<i>Perak</i>	8	254	262	172
<i>Perlis</i>	0	0	0	0
<i>Pulau Pinang</i>	113	577	690	767
<i>Sabah</i>	7	96	103	132
<i>Sarawak</i>	24	137	161	331
<i>Selangor</i>	170	1,547	1,717	2,694
<i>Terengganu</i>	2	32	34	22
Federal Territory			0	
<i>Kuala Lumpur</i>	128	989	1,117	1,667
<i>Labuan</i>	0	0	0	0
<b>Total</b>	<b>554</b>	<b>4,584</b>	<b>5,138</b>	<b>8,732</b>

Note: Some companies may operate in more than one state.

Source: SRI International, *Survey of Employment of Scientists, Engineers and Technicians in Industry in Malaysia*, September, 1996.

**Table 39**

**Currently Employed Scientists, Engineers, and Technicians Engaged in R&D,  
by State**

<b>State</b>	<b>Scientists</b>	<b>Engineers</b>	<b>Scientists &amp; Engineers</b>	<b>Technicians</b>
<i>Johor</i>	64	178	242	213
<i>Kedah</i>	11	19	30	21
<i>Kelantan</i>	0	0	0	0
<i>Melaka</i>	31	52	83	46
<i>Negeri Sembilan</i>	0	38	38	10
<i>Pahang</i>	11	50	61	22
<i>Perak</i>	19	144	163	256
<i>Perlis</i>	0	0	0	0
<i>Pulau Pinang</i>	149	241	390	279
<i>Sabah</i>	8	32	40	32
<i>Sarawak</i>	31	45	76	71
<i>Selangor</i>	428	1,455	1,883	920
<i>Terengganu</i>	0	2	2	5
Federal Territory			0	
<i>Kuala Lumpur</i>	141	366	507	336
<i>Labuan</i>	0	0	0	0
<b>Total</b>	<b>893</b>	<b>2,621</b>	<b>3,514</b>	<b>2,211</b>

Note: Some companies may operate in more than one state.

Source: SRI International, *Survey of Employment of Scientists, Engineers and Technicians in Industry in Malaysia*, September, 1996.

**Table 40**

**Currently Employed Scientists and Engineers,  
by Size of Company and Branch of Industry**

Branch of Industry	Number of Employees						Total
	Less Than 100	100-199	200-499	500-999	1000-1999	More Than 2000	
<b>Manufacturing</b>							
<i>Food Processing</i>	48	95	114	99	0	165	521
<i>Beverages &amp; Tobacco</i>	0	14	0	32	24	0	70
<i>Textiles &amp; Textile Products</i>	2	8	38	19	3	83	153
<i>Leather &amp; Leather Products</i>	0	0	2	0	2	0	4
<i>Wood &amp; Wood Products</i>	13	5	32	18	25	89	182
<i>Furniture &amp; Fixtures</i>	5	3	16	31	0	0	55
<i>Paper, Printing, &amp; Publishing</i>	29	2	95	16	19	0	161
<i>Chemical &amp; Chemical Products (including drugs)</i>	167	279	313	15	134	0	908
<i>Petroleum &amp; Coal</i>	25	0	468	272	393	1,224	2,382
<i>Rubber Products</i>	89	23	198	84	51	31	476
<i>Plastic Products</i>	95	116	200	153	23	2	589
<i>Non-Metallic Mineral Products</i>	65	41	192	126	70	0	494
<i>Basic Metal Products</i>	128	88	152	356	153	0	877
<i>Fabricated Metal Products</i>	121	164	218	230	79	0	812
<i>Machinery Manufacturing</i>	76	74	106	26	0	0	282
<i>Office, Computing &amp; Accounting Machines</i>	13	2	462	185	83	78	823
<i>Electric, Electronic &amp; Communications Products</i>	244	244	673	1,031	1,414	4,217	7,823
<i>Motor Vehicles &amp; Motor Vehicle Equipment</i>	31	97	160	143	132	1,905	2,468
<i>Other Transportation Equipment</i>	0	0	0	0	0	0	0
<i>Other Manufacturing</i>	3	16	22	31	58	0	130
<i>Other Manufacturing</i>	0	0	0	0	0	0	0
<b>Total Manufacturing</b>	1,190	1,288	3,579	2,987	2,737	7,850	19,631
	0	0	0	0	0	0	0
<b>Non-Manufacturing</b>	0	0	0	0	0	0	0
<i>Building Construction</i>	455	273	548	814	138	50	2,278
<i>Other Non-Manufacturing</i>	468	639	623	701	819	79	3,329
<b>Total Non-Manufacturing</b>	923	912	1,171	1,515	957	129	5,607
	0	0	0	0	0	0	0
<b>TOTAL</b>	2,113	2,200	4,750	4,502	3,694	7,979	25,238
<b>Number of Companies</b>	559	311	440	239	107	88	1,744

Note: Totals differ slightly from other tables in the series because only 2121 of the 2160 total respondents (weighted number) provided data on size of company.

Source: SRI International, *Survey of Employment of Scientists, Engineers and Technicians in Industry in Malaysia*, September, 1996.

**Table 41**

**Currently Employed Scientists,  
by Size of Company and Branch of Industry**

Branch of Industry	Number of Employees						Total
	Less Than 100	100-199	200-499	500-999	1000-1999	More Than 2000	
<b>Manufacturing</b>							
<i>Food Processing</i>	21	48	62	26	0	83	<b>240</b>
<i>Beverages &amp; Tobacco</i>	0	11	0	16	2	0	<b>29</b>
<i>Textiles &amp; Textile Products</i>	0	6	0	0	0	0	<b>6</b>
<i>Leather &amp; Leather Products</i>	0	0	2	0	0	0	<b>2</b>
<i>Wood &amp; Wood Products</i>	5	0	16	2	11	0	<b>34</b>
<i>Furniture &amp; Fixtures</i>	0	0	0	0	0	0	<b>0</b>
<i>Paper, Printing, &amp; Publishing</i>	5	0	0	0	3	0	<b>8</b>
<i>Chemical &amp; Chemical Products (including drugs)</i>	74	129	131	13	60	0	<b>407</b>
<i>Petroleum &amp; Coal</i>	6	0	140	22	0	216	<b>384</b>
<i>Rubber Products</i>	44	18	32	41	12	26	<b>173</b>
<i>Plastic Products</i>	16	0	8	33	0	0	<b>57</b>
<i>Non-Metallic Mineral Products</i>	0	3	18	6	0	0	<b>27</b>
<i>Basic Metal Products</i>	3	2	0	22	2	0	<b>29</b>
<i>Fabricated Metal Products</i>	2	3	0	6	6	0	<b>17</b>
<i>Machinery Manufacturing</i>	0	0	0	0	0	0	<b>0</b>
<i>Office, Computing &amp; Accounting Machines</i>	0	0	3	0	0	0	<b>3</b>
<i>Electric, Electronic &amp; Communications Products</i>	13	22	45	76	89	518	<b>763</b>
<i>Motor Vehicles &amp; Motor Vehicle Equipment</i>	0	7	0	0	0	0	<b>7</b>
<i>Other Transportation Equipment</i>	0	0	0	0	0	0	<b>0</b>
<i>Other Manufacturing</i>	5	0	8	5	0	3	<b>21</b>
<b>Total Manufacturing</b>	194	249	465	268	185	846	<b>2,207</b>
<b>Non-Manufacturing</b>							
<i>Building Construction</i>	3	3	15	17	0	20	<b>58</b>
<i>Other Non-Manufacturing</i>	73	61	7	0	291	4	<b>436</b>
<b>Total Non-Manufacturing</b>	76	64	22	17	291	24	<b>494</b>
<b>TOTAL</b>	<b>270</b>	<b>313</b>	<b>487</b>	<b>285</b>	<b>476</b>	<b>870</b>	<b>2,701</b>
<b>Number of Companies</b>	97	68	73	43	28	17	<b>322</b>

Note: Totals differ slightly from other tables in the series because only 2121 of the 2160 total respondents (weighted number) provided data on size of company.

Source: SRI International, *Survey of Employment of Scientists, Engineers and Technicians in Industry in Malaysia*, September, 1996.

**Table 42**

**Currently Employed Engineers,  
by Size of Company and Branch of Industry**

Branch of Industry	Number of Employees						Total
	Less Than 100	100-199	200-499	500-999	1000-1999	More Than 2,000	
<b>Manufacturing</b>							
<i>Food Processing</i>	27	47	52	73	0	82	<b>281</b>
<i>Beverages &amp; Tobacco</i>	0	3	0	16	22	0	<b>41</b>
<i>Textiles &amp; Textile Products</i>	2	2	38	19	3	83	<b>147</b>
<i>Leather &amp; Leather Products</i>	0	0	0	0	2	0	<b>2</b>
<i>Wood &amp; Wood Products</i>	8	5	16	16	14	89	<b>148</b>
<i>Furniture &amp; Fixtures</i>	5	3	16	31	0	0	<b>55</b>
<i>Paper, Printing, &amp; Publishing</i>	24	2	95	16	16	0	<b>153</b>
<i>Chemical &amp; Chemical Products (including drugs)</i>	93	150	182	2	74	0	<b>501</b>
<i>Petroleum &amp; Coal</i>	19	0	328	250	393	1,008	<b>1,998</b>
<i>Rubber Products</i>	45	5	166	43	39	5	<b>303</b>
<i>Plastic Products</i>	79	116	192	120	23	2	<b>532</b>
<i>Non-Metallic Mineral Products</i>	65	38	174	120	70	0	<b>467</b>
<i>Basic Metal Products</i>	125	86	152	334	151	0	<b>848</b>
<i>Fabricated Metal Products</i>	119	161	218	224	73	0	<b>795</b>
<i>Machinery Manufacturing</i>	76	74	106	26	0	0	<b>282</b>
<i>Office, Computing &amp; Accounting Machines</i>	13	2	459	185	83	78	<b>820</b>
<i>Electric, Electronic &amp; Communications Products</i>	231	222	628	955	1,325	3,699	<b>7,060</b>
<i>Motor Vehicles &amp; Motor Vehicle Equipment</i>	31	90	160	143	132	1,905	<b>2,461</b>
<i>Other Transportation Equipment</i>	3	16	22	31	58	0	<b>130</b>
<i>Other Manufacturing</i>	31	17	110	115	74	53	<b>400</b>
<b>Total Manufacturing</b>	996	1,039	3,114	2,719	2,552	7,004	<b>17,424</b>
<b>Non-Manufacturing</b>							
<i>Building Construction</i>	452	270	533	797	138	30	<b>2,220</b>
<i>Other Non-Manufacturing</i>	395	578	616	701	528	75	<b>2,893</b>
<b>Total Non-Manufacturing</b>	847	848	1,149	1,498	666	105	<b>5,113</b>
<b>TOTAL</b>	<b>1,843</b>	<b>1,887</b>	<b>4,263</b>	<b>4,217</b>	<b>3,218</b>	<b>7,109</b>	<b>22,537</b>
<b>Number of Companies</b>	514	289	427	237	106	87	<b>1,660</b>

Note: Totals differ slightly from other tables in the series because only 2121 of the 2160 total respondents (weighted number) provided data on size of company.

Source: SRI International, *Survey of Employment of Scientists, Engineers and Technicians in Industry in Malaysia*, September, 1996.

**Table 43**

**Currently Employed Technicians,  
by Size of Company and Branch of Industry**

Branch of Industry	Number of Employees						Total
	Less Than 100	100-199	200-499	500-999	1000-1999	More Than 2000	
<b>Manufacturing</b>							
<i>Food Processing</i>	64	172	144	290	0	332	<b>1,002</b>
<i>Beverages &amp; Tobacco</i>	3	49	0	101	45	0	<b>198</b>
<i>Textiles &amp; Textile Products</i>	30	20	105	348	2	745	<b>1,250</b>
<i>Leather &amp; Leather Products</i>	0	3	0	0	19	0	<b>22</b>
<i>Wood &amp; Wood Products</i>	13	16	64	126	33	101	<b>353</b>
<i>Furniture &amp; Fixtures</i>	14	15	62	74	0	0	<b>165</b>
<i>Paper, Printing, &amp; Publishing</i>	91	36	186	52	47	0	<b>412</b>
<i>Chemical &amp; Chemical Products (including drugs)</i>	236	243	449	11	385	0	<b>1,324</b>
<i>Petroleum &amp; Coal</i>	8	0	549	1,522	1,138	1,641	<b>4,858</b>
<i>Rubber Products</i>	72	115	323	168	281	62	<b>1,021</b>
<i>Plastic Products</i>	199	443	660	396	65	12	<b>1,775</b>
<i>Non-Metallic Mineral Products</i>	73	74	266	362	114	0	<b>889</b>
<i>Basic Metal Products</i>	201	454	634	954	858	0	<b>3,101</b>
<i>Fabricated Metal Products</i>	230	242	487	778	238	0	<b>1,975</b>
<i>Machinery Manufacturing</i>	123	200	152	49	0	0	<b>524</b>
<i>Office, Computing &amp; Accounting Machines</i>	17	19	163	115	122	233	<b>669</b>
<i>Electric, Electronic &amp; Communications Products</i>	425	231	1,156	2,148	4,858	7,031	<b>15,849</b>
<i>Motor Vehicles &amp; Motor Vehicle Equipment</i>	72	264	175	291	276	492	<b>1,570</b>
<i>Other Transportation Equipment</i>	3	49	56	700	124	0	<b>932</b>
<i>Other Manufacturing</i>	83	31	119	156	430	322	<b>1,141</b>
<b>Total Manufacturing</b>	<b>1,957</b>	<b>2,676</b>	<b>5,750</b>	<b>8,641</b>	<b>9,035</b>	<b>10,971</b>	<b>39,030</b>
<b>Non-Manufacturing</b>							
<i>Building Construction</i>	517	224	795	132	398	100	<b>2,166</b>
<i>Other Non-Manufacturing</i>	544	600	956	1,822	280	70	<b>4,272</b>
<b>Total Non-Manufacturing</b>	<b>1,061</b>	<b>824</b>	<b>1,751</b>	<b>1,954</b>	<b>678</b>	<b>170</b>	<b>6,438</b>
<b>TOTAL</b>	<b>3,018</b>	<b>3,500</b>	<b>7,501</b>	<b>10,595</b>	<b>9,713</b>	<b>11,141</b>	<b>45,468</b>
<b>Number of Companies</b>	571	371	469	243	109	79	<b>1,842</b>

Note: Totals differ slightly from other tables in the series because only 2121 of the 2160 total respondents (weighted number) provided data on size of company.

Source: SRI International, *Survey of Employment of Scientists, Engineers and Technicians in Industry in Malaysia*, September, 1996.

**Table 44**

## Current Shortage of Scientists and Engineers, by Size of Company and Branch of Industry

Branch of Industry	Number of Employees						Total
	Less Than 100	100-199	200-499	500-999	1000-1999	More Than 2000	
<b>Manufacturing</b>							
<i>Food Processing</i>	16	42	38	25	0	76	197
<i>Beverages &amp; Tobacco</i>	0	11	0	6	0	0	17
<i>Textiles &amp; Textile Products</i>	0	8	8	9	5	33	63
<i>Leather &amp; Leather Products</i>	0	2	2	0	2	0	6
<i>Wood &amp; Wood Products</i>	5	0	15	7	6	8	41
<i>Furniture &amp; Fixtures</i>	5	8	6	25	0	0	44
<i>Paper, Printing, &amp; Publishing</i>	26	2	25	2	0	0	55
<i>Chemical &amp; Chemical Products (including drugs)</i>	50	59	37	0	17	0	163
<i>Petroleum &amp; Coal</i>	0	0	57	91	0	24	172
<i>Rubber Products</i>	16	13	65	3	6	4	107
<i>Plastic Products</i>	39	63	87	24	2	2	217
<i>Non-Metallic Mineral Products</i>	48	16	60	51	19	0	194
<i>Basic Metal Products</i>	33	21	24	39	50	0	167
<i>Fabricated Metal Products</i>	56	42	75	43	13	0	229
<i>Machinery Manufacturing</i>	40	30	19	0	0	0	89
<i>Office, Computing &amp; Accounting Machines</i>	5	0	28	30	17	31	111
<i>Electric, Electronic &amp; Communications Products</i>	129	33	195	200	333	404	1,294
<i>Motor Vehicles &amp; Motor Vehicle Equipment</i>	20	15	48	45	8	212	348
<i>Other Transportation Equipment</i>	3	8	9	8	41	0	69
<i>Other Manufacturing</i>	7	2	16	12	8	3	48
<b>Total Manufacturing</b>	498	375	814	620	527	797	3,631
	0	0	0	0	0	0	0
<b>Non-Manufacturing</b>	0	0	0	0	0	0	0
<i>Building Construction</i>	179	37	139	212	78	4	649
<i>Other Non-Manufacturing</i>	176	89	132	151	135	78	761
<b>Total Non-Manufacturing</b>	355	126	271	363	213	82	1,410
	0	0	0	0	0	0	0
<b>TOTAL</b>	853	501	1,085	983	740	879	5,041

Note: Totals differ slightly from other tables in the series because only 2121 of the 2160 total respondents (weighted number) provided data on size of company.

Source: SRI International, *Survey of Employment of Scientists, Engineers and Technicians in Industry in Malaysia*, September, 1996.

**Table 45**

**Current Shortage of Scientists,  
by Size of Company and Branch of Industry**

Branch of Industry	Number of Employees						Total
	Less Than 100	100-199	200-499	500-999	1000-1999	More Than 2000	
<b>Manufacturing</b>							
<i>Food Processing</i>	6	24	14	0	0	50	<b>94</b>
<i>Beverages &amp; Tobacco</i>	0	3	0	3	0	0	<b>6</b>
<i>Textiles &amp; Textile Products</i>	0	2	0	0	0	0	<b>2</b>
<i>Leather &amp; Leather Products</i>	0	0	0	0	0	0	<b>0</b>
<i>Wood &amp; Wood Products</i>	0	0	2	0	3	3	<b>8</b>
<i>Furniture &amp; Fixtures</i>	0	0	0	0	0	0	<b>0</b>
<i>Paper, Printing, &amp; Publishing</i>	8	0	0	0	0	0	<b>8</b>
<i>Chemical &amp; Chemical Products (including drugs)</i>	22	21	12	0	6	0	<b>61</b>
<i>Petroleum &amp; Coal</i>	0	0	17	16	0	5	<b>38</b>
<i>Rubber Products</i>	3	8	10	0	0	2	<b>23</b>
<i>Plastic Products</i>	10	3	10	3	0	0	<b>26</b>
<i>Non-Metallic Mineral Products</i>	5	5	6	5	3	0	<b>24</b>
<i>Basic Metal Products</i>	2	0	0	11	8	0	<b>21</b>
<i>Fabricated Metal Products</i>	0	2	0	0	5	0	<b>7</b>
<i>Machinery Manufacturing</i>	2	0	0	0	0	0	<b>2</b>
<i>Office, Computing &amp; Accounting Machines</i>	0	0	0	0	0	0	<b>0</b>
<i>Electric, Electronic &amp; Communications Products</i>	19	8	11	17	30	19	<b>104</b>
<i>Motor Vehicles &amp; Motor Vehicle Equipment</i>	0	2	0	0	0	0	<b>2</b>
<i>Other Transportation Equipment</i>	0	0	0	0	0	0	<b>0</b>
<i>Other Manufacturing</i>	5	0	0	0	0	0	<b>5</b>
<b>Total Manufacturing</b>	<b>82</b>	<b>78</b>	<b>82</b>	<b>55</b>	<b>55</b>	<b>79</b>	<b>431</b>
<b>Non-Manufacturing</b>							
<i>Building Construction</i>	10	0	0	7	0	2	<b>19</b>
<i>Other Non-Manufacturing</i>	35	3	7	0	41	0	<b>86</b>
<b>Total Non-Manufacturing</b>	<b>45</b>	<b>3</b>	<b>7</b>	<b>7</b>	<b>41</b>	<b>2</b>	<b>105</b>
<b>TOTAL</b>	<b>127</b>	<b>81</b>	<b>89</b>	<b>62</b>	<b>96</b>	<b>81</b>	<b>536</b>

Note: Totals differ slightly from other tables in the series because only 2121 of the 2160 total respondents (weighted number) provided data on size of company.

Source: SRI International, *Survey of Employment of Scientists, Engineers and Technicians in Industry in Malaysia*, September, 1996.

**Table 46**

**Current Shortage of Engineers,  
by Size of Company and Branch of Industry**

Branch of Industry	Number of Employees						Total
	Less Than 100	100-199	200-499	500-999	1000-1999	More Than 2000	
<b>Manufacturing</b>							
<i>Food Processing</i>	10	18	24	25	0	26	<b>103</b>
<i>Beverages &amp; Tobacco</i>	0	8	0	3	0	0	<b>11</b>
<i>Textiles &amp; Textile Products</i>	0	6	8	9	5	33	<b>61</b>
<i>Leather &amp; Leather Products</i>	0	2	2	0	2	0	<b>6</b>
<i>Wood &amp; Wood Products</i>	5	0	13	7	3	5	<b>33</b>
<i>Furniture &amp; Fixtures</i>	5	8	6	25	0	0	<b>44</b>
<i>Paper, Printing, &amp; Publishing</i>	18	2	25	2	0	0	<b>47</b>
<i>Chemical &amp; Chemical Products (including drugs)</i>	28	38	25	0	11	0	<b>102</b>
<i>Petroleum &amp; Coal</i>	0	0	40	75	0	19	<b>134</b>
<i>Rubber Products</i>	13	5	55	3	6	2	<b>84</b>
<i>Plastic Products</i>	29	60	77	21	2	2	<b>191</b>
<i>Non-Metallic Mineral Products</i>	43	11	54	46	16	0	<b>170</b>
<i>Basic Metal Products</i>	31	21	24	28	42	0	<b>146</b>
<i>Fabricated Metal Products</i>	56	40	75	43	8	0	<b>222</b>
<i>Machinery Manufacturing</i>	38	30	19	0	0	0	<b>87</b>
<i>Office, Computing &amp; Accounting Machines</i>	5	0	28	30	17	31	<b>111</b>
<i>Electric, Electronic &amp; Communications Products</i>	110	25	184	183	303	385	<b>1,190</b>
<i>Motor Vehicles &amp; Motor Vehicle Equipment</i>	20	13	48	45	8	212	<b>346</b>
<i>Other Transportation Equipment</i>	3	8	9	8	41	0	<b>69</b>
<i>Other Manufacturing</i>	2	2	16	12	8	3	<b>43</b>
<b>Total Manufacturing</b>	<b>416</b>	<b>297</b>	<b>732</b>	<b>565</b>	<b>472</b>	<b>718</b>	<b>3,200</b>
<b>Non-Manufacturing</b>							
<i>Building Construction</i>	169	37	139	205	78	2	<b>630</b>
<i>Other Non-Manufacturing</i>	141	86	125	151	94	78	<b>675</b>
<b>Total Non-Manufacturing</b>	<b>310</b>	<b>123</b>	<b>264</b>	<b>356</b>	<b>172</b>	<b>80</b>	<b>1,305</b>
<b>TOTAL</b>	<b>726</b>	<b>420</b>	<b>996</b>	<b>921</b>	<b>644</b>	<b>798</b>	<b>4,505</b>

Note: Totals differ slightly from other tables in the series because only 2121 of the 2160 total respondents (weighted number) provided data on size of company.

Source: SRI International, *Survey of Employment of Scientists, Engineers and Technicians in Industry in Malaysia*, September, 1996.

**Table 47**

**Current Shortage of Technicians,  
by Size of Company and Branch of Industry**

Branch of Industry	Number of Employees						Total
	Less Than 100	100-199	200-499	500-999	1000-1999	More Than 2000	
<b>Manufacturing</b>							
<i>Food Processing</i>	32	40	33	31	0	53	<b>189</b>
<i>Beverages &amp; Tobacco</i>	0	21	0	25	0	0	<b>46</b>
<i>Textiles &amp; Textile Products</i>	0	8	27	14	8	0	<b>57</b>
<i>Leather &amp; Leather Products</i>	0	2	0	0	6	0	<b>8</b>
<i>Wood &amp; Wood Products</i>	12	0	14	20	9	8	<b>63</b>
<i>Furniture &amp; Fixtures</i>	10	10	21	31	0	0	<b>72</b>
<i>Paper, Printing, &amp; Publishing</i>	40	3	52	2	8	0	<b>105</b>
<i>Chemical &amp; Chemical Products (including drugs)</i>	60	64	63	0	31	0	<b>218</b>
<i>Petroleum &amp; Coal</i>	0	0	85	84	0	0	<b>169</b>
<i>Rubber Products</i>	28	65	114	13	39	3	<b>262</b>
<i>Plastic Products</i>	85	123	201	37	7	0	<b>453</b>
<i>Non-Metallic Mineral Products</i>	345	29	45	82	19	0	<b>520</b>
<i>Basic Metal Products</i>	70	70	106	56	384	0	<b>686</b>
<i>Fabricated Metal Products</i>	97	62	98	68	16	0	<b>341</b>
<i>Machinery Manufacturing</i>	70	99	48	3	0	0	<b>220</b>
<i>Office, Computing &amp; Accounting Machines</i>	14	3	14	0	66	78	<b>175</b>
<i>Electric, Electronic &amp; Communications Products</i>	219	62	332	349	775	1,265	<b>3,002</b>
<i>Motor Vehicles &amp; Motor Vehicle Equipment</i>	24	16	42	114	14	54	<b>264</b>
<i>Other Transportation Equipment</i>	3	11	16	78	66	0	<b>174</b>
<i>Other Manufacturing</i>	5	3	16	25	17	39	<b>105</b>
<b>Total Manufacturing</b>	<b>1,114</b>	<b>691</b>	<b>1,327</b>	<b>1,032</b>	<b>1,465</b>	<b>1,500</b>	<b>7,129</b>
<b>Non-Manufacturing</b>							
<i>Building Construction</i>	197	41	169	134	156	17	<b>714</b>
<i>Other Non-Manufacturing</i>	170	145	152	104	16	31	<b>618</b>
<b>Total Non-Manufacturing</b>	<b>367</b>	<b>186</b>	<b>321</b>	<b>238</b>	<b>172</b>	<b>48</b>	<b>1,332</b>
<b>TOTAL</b>	<b>1,481</b>	<b>877</b>	<b>1,648</b>	<b>1,270</b>	<b>1,637</b>	<b>1,548</b>	<b>8,461</b>

Note: Totals differ slightly from other tables in the series because only 2121 of the 2160 total respondents (weighted number) provided data on size of company.

Source: SRI International, *Survey of Employment of Scientists, Engineers and Technicians in Industry in Malaysia*, September, 1996.

**Table 48**

**Currently Employed Scientists and Engineers Engaged in R&D,  
by Size of Company and Branch of Industry**

Branch of Industry	Number of Employees						Total
	Less Than 100	100-199	200-499	500-999	1000-1999	More Than 2000	
<b>Manufacturing</b>							
<i>Food Processing</i>	22	31	36	15		8	112
<i>Beverages &amp; Tobacco</i>		5		0			5
<i>Textiles &amp; Textile Products</i>		8	10	2			20
<i>Leather &amp; Leather Products</i>		0	2		0		2
<i>Wood &amp; Wood Products</i>	3	0	8	13	0		24
<i>Furniture &amp; Fixtures</i>	3	10					13
<i>Paper, Printing, &amp; Publishing</i>	9	0	16	3	5		33
<i>Chemical &amp; Chemical Products (including drugs)</i>	52	77	95		47		271
<i>Petroleum &amp; Coal</i>			205	11		0	216
<i>Rubber Products</i>	33	8	53	31		17	142
<i>Plastic Products</i>	45	41	36	26		2	150
<i>Non-Metallic Mineral Products</i>	3	13	27	19	0		62
<i>Basic Metal Products</i>	18	10	17	12	10		67
<i>Fabricated Metal Products</i>	30	23	5	32	10		100
<i>Machinery Manufacturing</i>	19	13	2				34
<i>Office, Computing &amp; Accounting Machines</i>	5	0	36		0	23	64
<i>Electric, Electronic &amp; Communications Products</i>	78	55	104	138	242	607	1,224
<i>Motor Vehicles &amp; Motor Vehicle Equipment</i>	5	19	51	5		83	163
<i>Other Transportation Equipment</i>	2		3	8	8		21
<i>Other Manufacturing</i>	7					9	16
<b>Total Manufacturing</b>	337	319	724	361	349	757	2,847
<b>Non-Manufacturing</b>							
<i>Building Construction</i>	35	8	12	8	0	0	63
<i>Other Non-Manufacturing</i>	60	45	13	26	430		574
<b>Total Non-Manufacturing</b>	95	53	25	34	430	0	637
<b>TOTAL</b>	<b>432</b>	<b>372</b>	<b>749</b>	<b>395</b>	<b>779</b>	<b>757</b>	<b>3,484</b>
<b>Number of Companies</b>	183	140	168	89	42	30	652

Note: Totals differ slightly from other tables in the series because only 2121 of the 2160 total respondents (weighted number) provided data on size of company.

Source: SRI International, *Survey of Employment of Scientists, Engineers and Technicians in Industry in Malaysia*, September, 1996.

**Table 49**

**Currently Employed Scientists Engaged in R&D,  
by Size of Company and Branch of Industry**

Branch of Industry	Number of Employees						Total
	Less Than 100	100-199	200-499	500-999	1000-1999	More Than 2000	
<b>Manufacturing</b>							
<i>Food Processing</i>	15	24	23	9	0	8	<b>79</b>
<i>Beverages &amp; Tobacco</i>	0	5	0	0	0	0	<b>5</b>
<i>Textiles &amp; Textile Products</i>	0	6	0	0	0	0	<b>6</b>
<i>Leather &amp; Leather Products</i>	0	0	2	0	0	0	<b>2</b>
<i>Wood &amp; Wood Products</i>	3	0	5	3	0	0	<b>11</b>
<i>Furniture &amp; Fixtures</i>	0	0	0	0	0	0	<b>0</b>
<i>Paper, Printing, &amp; Publishing</i>	3	0	0	0	3	0	<b>6</b>
<i>Chemical &amp; Chemical Products (including drugs)</i>	36	59	49	5	40	0	<b>189</b>
<i>Petroleum &amp; Coal</i>	3	0	116	3	0	0	<b>122</b>
<i>Rubber Products</i>	24	5	10	18	9	17	<b>83</b>
<i>Plastic Products</i>	21	3	10	10	0	0	<b>44</b>
<i>Non-Metallic Mineral Products</i>	0	2	3	6	0	0	<b>11</b>
<i>Basic Metal Products</i>	0	0	0	6	2	0	<b>8</b>
<i>Fabricated Metal Products</i>	5	5	0	3	2	0	<b>15</b>
<i>Machinery Manufacturing</i>	0	0	0	0	0	0	<b>0</b>
<i>Office, Computing &amp; Accounting Machines</i>	0	0	3	0	0	0	<b>3</b>
<i>Electric, Electronic &amp; Communications Products</i>	16	8	18	9	43	0	<b>94</b>
<i>Motor Vehicles &amp; Motor Vehicle Equipment</i>	0	7	2	0	0	0	<b>9</b>
<i>Other Transportation Equipment</i>	0	0	0	0	0	0	<b>0</b>
<i>Other Manufacturing</i>	7	0	5	3	0	2	<b>17</b>
<b>Total Manufacturing</b>	<b>133</b>	<b>124</b>	<b>246</b>	<b>75</b>	<b>99</b>	<b>27</b>	<b>704</b>
<b>Non-Manufacturing</b>							
<i>Building Construction</i>	9	0	1	3	0	0	<b>13</b>
<i>Other Non-Manufacturing</i>	22	8	0	0	140	0	<b>170</b>
<b>Total Non-Manufacturing</b>	<b>31</b>	<b>8</b>	<b>1</b>	<b>3</b>	<b>140</b>	<b>0</b>	<b>183</b>
<b>TOTAL</b>	<b>164</b>	<b>132</b>	<b>247</b>	<b>78</b>	<b>239</b>	<b>27</b>	<b>887</b>

Note: Totals differ slightly from other tables in the series because only 2121 of the 2160 total respondents (weighted number) provided data on size of company.

Source: SRI International, *Survey of Employment of Scientists, Engineers and Technicians in Industry in Malaysia*, September, 1996.

**Table 50**

## Currently Employed Engineers Engaged in R&D, by Size of Company and Branch of Industry

Branch of Industry	Number of Employees						Total
	Less Than 100	100-199	200-499	500-999	1000-1999	More Than 2000	
<b>Manufacturing</b>							
<i>Food Processing</i>	7	7	13	6	0	0	<b>33</b>
<i>Beverages &amp; Tobacco</i>	0	0	0	0	0	0	<b>0</b>
<i>Textiles &amp; Textile Products</i>	0	2	10	2	0	8	<b>22</b>
<i>Leather &amp; Leather Products</i>	0	0	0	0	0	0	<b>0</b>
<i>Wood &amp; Wood Products</i>	0	0	3	10	0	0	<b>13</b>
<i>Furniture &amp; Fixtures</i>	3	10	2	8	0	0	<b>23</b>
<i>Paper, Printing, &amp; Publishing</i>	6	0	16	3	2	0	<b>27</b>
<i>Chemical &amp; Chemical Products (including drugs)</i>	16	18	46	0	7	0	<b>87</b>
<i>Petroleum &amp; Coal</i>	0	0	89	8	0	0	<b>97</b>
<i>Rubber Products</i>	9	3	43	13	11	0	<b>79</b>
<i>Plastic Products</i>	24	38	26	16	0	2	<b>106</b>
<i>Non-Metallic Mineral Products</i>	3	11	24	13	0	0	<b>51</b>
<i>Basic Metal Products</i>	18	10	17	6	8	0	<b>59</b>
<i>Fabricated Metal Products</i>	25	18	5	29	8	0	<b>85</b>
<i>Machinery Manufacturing</i>	19	13	2	0	0	0	<b>34</b>
<i>Office, Computing &amp; Accounting Machines</i>	5	0	33	28	0	23	<b>89</b>
<i>Electric, Electronic &amp; Communications Products</i>	62	47	86	129	199	607	<b>1,130</b>
<i>Motor Vehicles &amp; Motor Vehicle Equipment</i>	5	12	49	5	5	83	<b>159</b>
<i>Other Transportation Equipment</i>	2	3	3	8	8	0	<b>24</b>
<i>Other Manufacturing</i>	<b>0</b>	<b>3</b>	<b>11</b>	<b>2</b>	<b>2</b>	<b>7</b>	<b>25</b>
<b>Total Manufacturing</b>	<b>204</b>	<b>195</b>	<b>478</b>	<b>286</b>	<b>250</b>	<b>730</b>	<b>2,143</b>
<b>Non-Manufacturing</b>							
<i>Building Construction</i>	26	8	11	5	0	0	<b>50</b>
<i>Other Non-Manufacturing</i>	38	37	13	26	290	0	<b>404</b>
<b>Total Non-Manufacturing</b>	<b>64</b>	<b>45</b>	<b>24</b>	<b>31</b>	<b>290</b>	<b>0</b>	<b>454</b>
<b>TOTAL</b>	<b>268</b>	<b>240</b>	<b>502</b>	<b>317</b>	<b>540</b>	<b>730</b>	<b>2,597</b>

Note: Totals differ slightly from other tables in the series because only 2121 of the 2160 total respondents (weighted number) provided data on size of company.

Source: SRI International, *Survey of Employment of Scientists, Engineers and Technicians in Industry in Malaysia*, September, 1996.

**Table 51**

**Currently Employed Technicians Engaged in R&D,  
by Size of Company and Branch of Industry**

Branch of Industry	Number of Employees						Total
	Less Than 100	100-199	200-499	500-999	1000-1999	More Than 2000	
<b>Manufacturing</b>							
<i>Food Processing</i>	9	16	18	6	0	17	<b>66</b>
<i>Beverages &amp; Tobacco</i>	0	5	0	0	0	0	<b>5</b>
<i>Textiles &amp; Textile Products</i>	2	11	16	9	23	0	<b>61</b>
<i>Leather &amp; Leather Products</i>	0	0	0	0	0	0	<b>0</b>
<i>Wood &amp; Wood Products</i>	7	0	8	13	0	0	<b>28</b>
<i>Furniture &amp; Fixtures</i>	2	2	0	8	0	0	<b>12</b>
<i>Paper, Printing, &amp; Publishing</i>	14	0	39	3	11	0	<b>67</b>
<i>Chemical &amp; Chemical Products (including drugs)</i>	31	36	233	0	14	0	<b>314</b>
<i>Petroleum &amp; Coal</i>	0	0	196	8	0	0	<b>204</b>
<i>Rubber Products</i>	16	52	38	12	19	17	<b>154</b>
<i>Plastic Products</i>	33	28	24	33	0	3	<b>121</b>
<i>Non-Metallic Mineral Products</i>	10	6	19	15	0	0	<b>50</b>
<i>Basic Metal Products</i>	49	15	18	2	0	0	<b>84</b>
<i>Fabricated Metal Products</i>	14	24	2	5	8	0	<b>53</b>
<i>Machinery Manufacturing</i>	21	6	0	0	0	0	<b>27</b>
<i>Office, Computing &amp; Accounting Machines</i>	3	0	3	8	0	19	<b>33</b>
<i>Electric, Electronic &amp; Communications Products</i>	82	19	78	95	112	48	<b>434</b>
<i>Motor Vehicles &amp; Motor Vehicle Equipment</i>	3	12	35	16	5	49	<b>120</b>
<i>Other Transportation Equipment</i>	0	9	5	16	17	0	<b>47</b>
<i>Other Manufacturing</i>	5	8	5	5	0	8	<b>31</b>
<b>Total Manufacturing</b>	<b>301</b>	<b>249</b>	<b>737</b>	<b>254</b>	<b>209</b>	<b>161</b>	<b>1,911</b>
<b>Non-Manufacturing</b>							
<i>Building Construction</i>	7	5	4	0	0	0	<b>16</b>
<i>Other Non-Manufacturing</i>	34	29	84	8	106	0	<b>261</b>
<b>Total Non-Manufacturing</b>	<b>41</b>	<b>34</b>	<b>88</b>	<b>8</b>	<b>106</b>	<b>0</b>	<b>277</b>
<b>TOTAL</b>	<b>342</b>	<b>283</b>	<b>825</b>	<b>262</b>	<b>315</b>	<b>161</b>	<b>2,188</b>

Note: Totals differ slightly from other tables in the series because only 2121 of the 2160 total respondents (weighted number) provided data on size of company.

Source: SRI International, *Survey of Employment of Scientists, Engineers and Technicians in Industry in Malaysia*, September, 1996.

**Table 52**

