REPUBLIC OF TRINIDAD AND TOBAGO
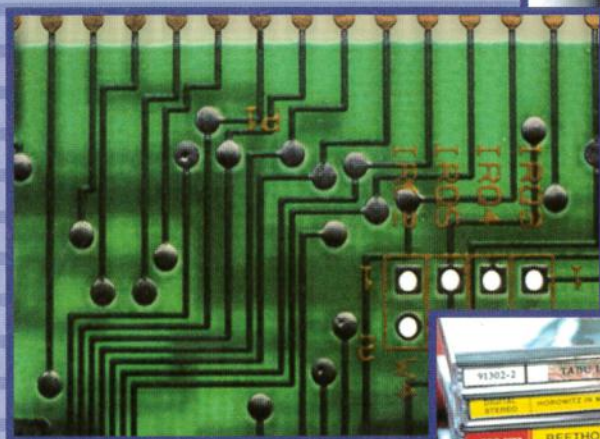
NIHERST
NATIONAL INSTITUTE OF HIGHER EDUCATION
RESEARCH, SCIENCE AND TECHNOLOGY

INCORPORATED BY ACT OF PARLIAMENT ACT NO. 20 OF 1984

Utilisation of Information Technology by Households, 2001

FOREWORD

In this publication, the National Institute of Higher Education, Research, Science and Technology (NIHERST) presents the results of the first Survey on the Utilisation of Information Technology by Households in the Republic of Trinidad and Tobago. The survey was designed to provide empirical data on the penetration of Information Technology in private households and has generated essential benchmark indicators for comparison with future longitudinal studies of similar objectives.

Various tabulations and charts in the report show the distribution of computers in households by administrative areas. Data on the demographic and socio-economic characteristics of computer users, information on a wide range of computer usage and on Internet access and service providers are also included on this publication.

These indicators on computer application and the profile of users in households should assist researchers, decision makers and educators in the Information Technology sector.

NIHERST wishes to thank the responding households which willingly provided the data collated in this report.

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EXECUTIVE SUMMARY

❖ Only 12.7% of the households in Trinidad and Tobago (approximately 44,600 households based on national statistics for 2000) had a home computer as at June 2001; 26.9% in Diego Martin, 19.8% in San Fernando and 18.8% in Chaguanas.

   For purposes of comparison, more than 30% of the households in a number of Organisation for Economic Co-operation and Development (OECD) countries were equipped with computers by 1997, and more than half (54.0%) of the households in Australia had computers in May 2000.

❖ Affordability was the major constraint in 56.3% of all households without computers, ranging from 43.9% in the City of Port of Spain to 78.0% in the Borough of Point Fortin.

❖ 51.7% of households purchased computers from private savings; 13.5% accessed Government loans.

❖ Households (19.9%) with gross monthly incomes of $6,000 - $7,999 had the largest proportion of home computers, followed by 15.4% of households with incomes of $4,000 – $5,999. Only 5.1% of households with monthly incomes of less than $2,000 had computers.

❖ In 2000, 27.0% of the computers were acquired compared with 6.7% in 1997.

❖ Almost three out of four persons (72.5%) in each household used the computer.

❖ The proportion of male (51.4%) to female (48.6%) computer users was generally similar.

❖ 16.6% of computer users were between 15 – 19 years, 16.3% between 30 – 39 and 14.5% between 40 – 49.

❖ Of computer users, 50.2% had acquired secondary level education; only 3.1% had a university level education in computer studies.

❖ 49.6% of computer users were employed and self-employed and 39.4% were students.

❖ In Private Enterprises, 59.8% of employees used the computer compared with 29.7% in Government.

❖ Windows 98 and 95 were the main operating systems in 74.4% of households.

❖ Most households (70.8%) used the computer daily between two and five or more hours.

❖ Only 11.8% of households were engaged in software development and 20.2% accessed distance learning/education compared with other activities such as games (78.4%), Microsoft Office (66.0%), e-mail (62.4%) and web searches (61.5%).

❖ A significant proportion of households (39.8%) was dissatisfied with the service of Internet Access Providers due to 'high cost', 'too much time for connection' and 'interruption while working'.

❖ By value of e-commerce transactions, 42.2% of the households spent less than $500, while 35.6% spent between $500 and $2,999 over the six month period ending May/June, 2001.

❖ Of the households with Internet access, 19.5% reported e-commerce transactions, mainly in the purchase of computer hardware/software, electronic goods and books and magazines.

APPENDIX

THE NATIONAL INSTITUTE OF HIGHER EDUCATION, RESEARCH, SCIENCE AND

TECHNOLOGY (NIHERST)

Survey on the Utilisation of Information Technology by Households

Household I. D. | C | W | | E. D. | | | Household No. | | | |

Q1. Do you have a computer in your household?   1) Yes O   2) No O
                                                                    ↓   ↓
                                                              Skip to Q3   Go to Q2

Q2. Why don't you have a computer in your household? Is it because of:

    1) High Cost   O   3) Not necessary/no one to use it   O

    2) Lack of computer education/training   O   4) Use at workplace   O

                                             5) Other   O
                                              (Specify): _____

(Interviewer: End interview, note name and address of respondent and go to next household)

Q3. Name of Respondent   _____

Q4. Address   _____

                                    _____

    Telephone   _____

    Email   _____

Q5. How many persons are there in your household (including you)?

    1 O   2 O   3 O   4 O   5 O   6 or more persons O

Q6. What was the source of finance for the purchase of your computer?

    1) Savings   O   4) Loan from Bank/Financial Institution   O

    2) Loan from Gov't   O   5) Other   O

    3) Loan from Credit Union   O   (Specify): _____

Q7. When was the computer for your household purchased (year)? _____

Q8. How many persons in the household use the computer? _____

Q9. Please give the following details in respect of each person using the computer in your household.

Name:	Age:	Gender: 1) o Male (M) 2) o Female (F)	Highest Level of Education: 1) o Primary (P) 2) o Secondary (S) 3) o Technical (T) 4) o University (U) 5) o Other_____ (Specify)	Employment Status: 1) o Employed (E) 2) o Self-Employed (SE) 3) o Unemployed (UE) 4) o Student (S) 5) o Home Duties (HD) 6) o Retired (R)	Type of Worker: 1) o Gov't (Central & Local) (G) 2) o State Enterprise (SE) 3) o Private Enterprise (PE)	Occupation for the Employed & Self-Employed: (E.g. Secretary, Teacher I, Civil Engineer, Computer Programmer)	Computer Education: Code: E.g. 0 4
		1) o M 2) o F	1) o P 3) o T 2) o S 4) o U 5) o Other _____ (Specify)	1) o E 4) o S 2) o SE 5) o HD 3) o UE 6) o R	1) o G 2) o SE 3) o PE	Occupation: _____	
		1) o M 2) o F	1) o P 3) o T 2) o S 4) o U 5) o Other _____ (Specify)	1) o E 4) o S 2) o SE 5) o HD 3) o UE 6) o R	1) o G 2) o SE 3) o PE	Occupation: _____	
		1) o M 2) o F	1) o P 3) o T 2) o S 4) o U 5) o Other _____ (Specify)	1) o E 4) o S 2) o SE 5) o HD 3) o UE 6) o R	1) o G 2) o SE 3) o PE	Occupation: _____	
		1) o M 2) o F	1) o P 3) o T 2) o S 4) o U 5) o Other _____ (Specify)	1) o E 4) o S 2) o SE 5) o HD 3) o UE 6) o R	1) o G 2) o SE 3) o PE	Occupation: _____	

Q10. What is your primary operating system?

1) DOS	O	6)	Macintosh system 8	O
2) PC running UNIX	O	7)	Windows 95	O
3) Macintosh (other than system 8)	O	8)	OS2	O
4) Windows 98	O	9)	Other	O
5) UNIX	O		(Specify): _____	
		10)	Don't know	O

Q11. For what type of activities is the computer in your household used?

1) E-mail	O	6)	Web searches	O
2) Playing Games	O	7)	CAD (Computer Aided Design)	O
3) Microsoft Office	O	8)	Graphics	O
4) E-commerce	O	9)	Software Development	O
5) Multimedia	O	10)	Distance Learning/Education	O
		11)	Other (Specify): _____	O

Q12. How frequently do your household members use the computer?

1) Daily	O	5)	Fortnightly	O
2) Every two days	O	6)	Monthly	O
3) Every three days	O	7)	Other	O
4) Weekly	O		(Specify): _____	

Q13. How much time do your household members spend on the computer?

1) 1 hour	O	4)	4 hours	O
2) 2 hours	O	5)	5 hours	O
3) 3 hours	O	6)	more than 5 hours	O

Q14. Do you have Internet connection?   1) Yes O   2) No O

                                       ∑ Go to Q 15   ∑Skip to Q27

Q15. How frequently do your household members use the Internet?

1)	Daily	O	4)	Fortnightly	O
2)	Every two days	O	5)	Monthly	O
3)	Weekly	O	6)	Other	O
				(Specify): _____	

Q16. How much time do your household members spend on the Internet?

1)	less than 1 hour	O	5)	4 hours	O
2)	1 hour	O	6)	5 hours	O
3)	2 hours	O	7)	Other	O
4)	3 hours	O		(Specify): _____	

Q17. What is the name of the establishment providing the Internet service?

1)	TSTT	O	5)	Cariblink	O
2)	Cablenett	O	6)	Opus	O
3)	Interserve	O	7)	Rave	O
4)	WOW	O	8)	Other	O
				(Specify):_____	

Q18. What type of account do you have with the Internet service provider?

1)	20 hours	O	4)	75 hours	O
2)	40 hours	O	5)	100 hours	O
3)	50 hours	O	6)	Unlimited	O

Q19. Are you satisfied with the service provided by the Internet establishment?

1) Yes   O   2) No   O
        $\sum$ Skip to Q21 $\sum$ Go to Q20

Q20. Why are you dissatisfied? Is it because of:

1)	High Cost	O	3)	Interruption while working	O
2)	Too much time for connection	O	4)	Other	O
				(Specify): _____	

Q21. How much are you concerned about the security on the Internet (e.g. people reading your e-mail, finding out what websites you visit, etc)?

1)	Not at all concerned	O	3)	Very much concerned	O
2)	Somewhat concerned	O			

Q22. Do you feel that the present security features are sufficient and encourage on-line purchases from web-based vendors?

1) Yes O   2) No O   3) Don't know   O

Q23. To protect privacy on the Internet new laws are required, do you?

1) Strongly agree   O   4) Somewhat disagree   O

2) Somewhat agree   O   5) Strongly disagree   O

3) Neither agree or disagree   O

Q24. Does your household make online purchases from web-based vendors?

1) Yes   O   2) No   O
         Σ Go to Q25 Σ Skip to Q27

Q25. In which category are the purchases made?

1) Computer hardware/software/games   O   5) Clothing   O

2) Household appliances   O   6) Pharmaceuticals O

3) Electronics (entertainment)   O   7) Motor car/accessories   O

4) Food items   O   8) Other   O
                                                 (Specify): _____

Q26. In the past six months what was the total amount spent by your household on purchases from web-based vendors?

1) less than $500   O   4) $2,000 - $2,999   O

2) $500 - $999   O   5) $3,000 - $3,999   O

3) $1,000 - $1,999   O   6) $4,000 and more   O

Q27. What is the gross monthly income of your household?

Enter Code: [   ]

Note: Interviewer, thank respondent for his/her co-operation.

Name of Interviewer: _____

Date: _____

Name of Supervisor: _____

Table 1: Number of Households With and Without Computers
by Administrative Areas, 2001

Administrative Areas	Households sampled	Households with computers	Households without computers	Percentage	
				Households with computers	Households without computers
	(1)	(2)	(3)	(4)	(5)
All Areas	**2812**	**356**	**2456**	**12.7**	**87.3**
Port of Spain	124	17	107	13.7	86.3
San Fernando	126	25	101	19.8	80.2
Arima	65	9	56	13.8	86.2
Point Fortin	46	5	41	10.9	89.1
Chaguanas	154	29	125	18.8	81.2
Diego Martin	219	59	160	26.9	73.1
St. Ann's	348	33	315	9.5	90.5
Tacarigua	304	42	262	13.8	86.2
Rest of St. George	146	20	126	13.7	86.3
Caroni	253	18	235	7.1	92.9
Victoria	388	50	338	12.9	87.1
St. Patrick	245	12	233	4.9	95.1
St. Andrew/St. David	136	8	128	5.9	94.1
Nariva/Mayaro	72	8	64	11.1	88.9
Tobago	186	21	165	11.3	88.7

Percentage of Households With and Without Computers

13%

87%

■ Households with computers

■ Households without computers
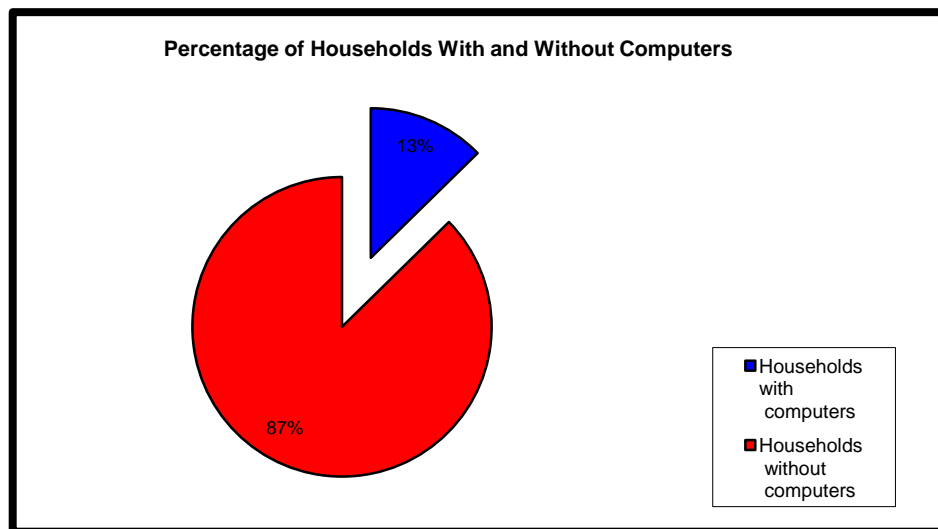
It can be observed from Table 1 that only 12.7% of the responding households had computers. Based on national statistics for 2000, this indicates a computer presence in approximately 44,600 households in Trinidad and Tobago. A review of the data by administrative areas showed that a relatively large proportion of the households in Diego Martin (26.9%), San Fernando (19.8%) and Chaguanas (18.8%) had computers when compared to other administrative areas.

Percentage of Households with Computers by Areas

Area	Percentage
Tobago	11.3
Nariva/Mayaro	11.0
St. Andrew/St. David	6.0
St. Patrick	5.0
Victoria	13.0
Caroni	7.0
Rest of St. George	13.7
Tacarigua	14.0
St. Ann's	9.5
Diego Martin	27.0
Chaguanas	19.0
Point Fortin	11.0
Arima	14.0
San Fernando	20.0
Port of Spain	13.8
All Areas	12.7
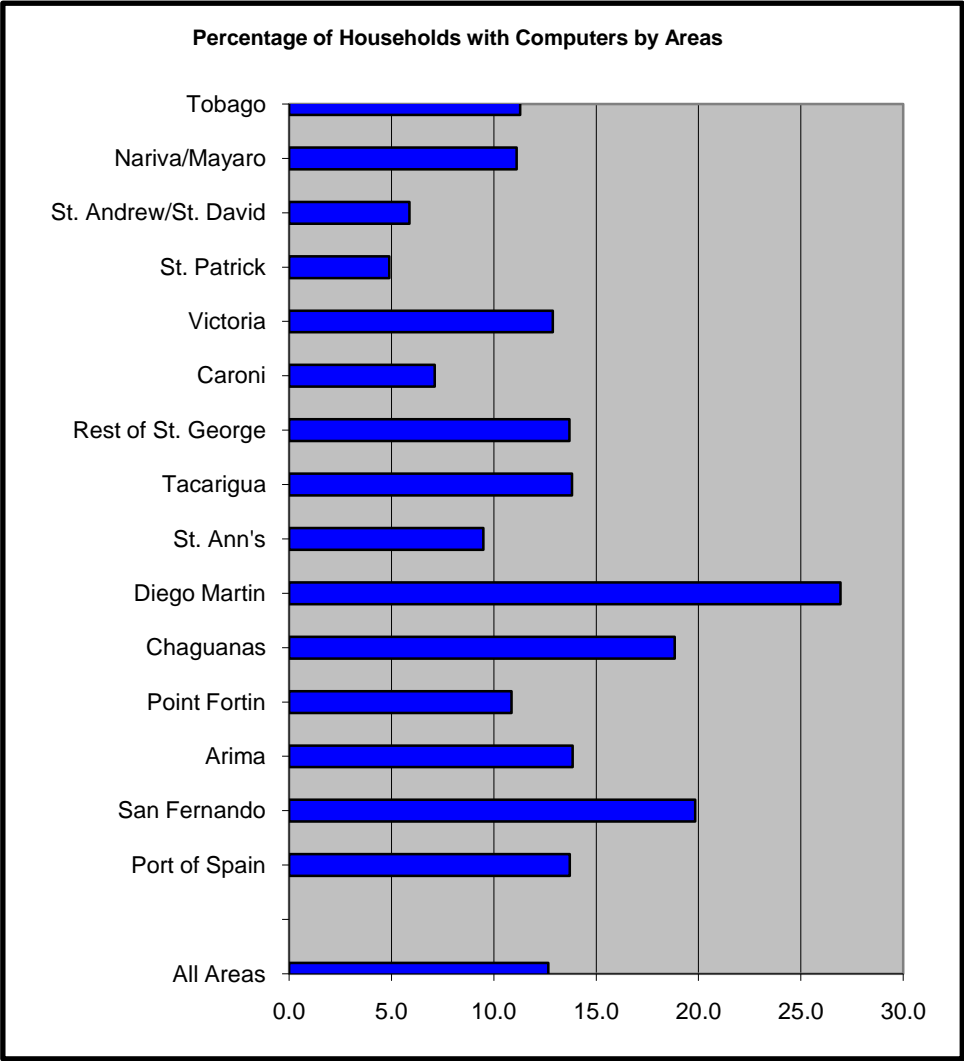
Table 2: Reasons for No Computer in Households by Administrative Areas, 2001

Administrative Areas	Total number of Households without computers	Reasons for no computer					
		High Cost	Lack of computer education/ training	Not necessary/ no one to use it	Use at workplace	Other *	Not stated
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
All Areas	**2456**	**1382**	**164**	**638**	**122**	**125**	**25**
Port of Spain	107	47	0	48	5	5	2
San Fernando	101	55	3	22	12	9	0
Arima	56	29	5	14	1	7	0
Point Fortin	41	32	3	2	3	1	0
Chaguanas	125	65	1	46	5	8	0
Diego Martin	160	71	7	46	21	11	4
St. Ann's	315	207	6	77	9	15	1
Tacarigua	262	130	22	66	20	24	0
Rest of St. George	126	85	3	12	5	8	13
Caroni	235	132	20	72	10	1	0
Victoria	338	199	11	111	8	9	0
St. Patrick	233	137	51	29	13	2	1
St. Andrew/St. David	128	68	13	27	1	19	0
Nariva/Mayaro	64	34	13	14	2	0	1
Tobago	165	91	6	52	7	6	3

* Includes - not a priority

Percentage of Households by Reason for no Computer

Legend:
- High Cost
- Lack of computer education/ training
- Not necessary/ no one to use it
- Use at workplace
- Other *
- Not stated

Pie chart values: 56%, 7%, 26%, 5%, 5%, 1%
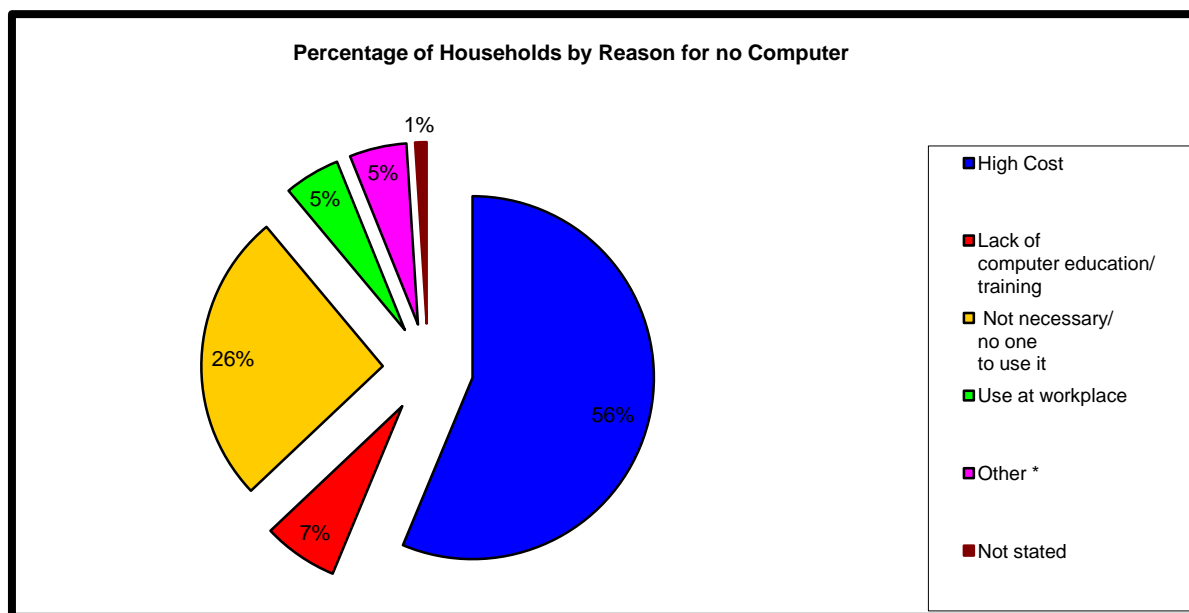
Of the 2456 households without computers, 56.3% and 26.0% stated that `high cost' and `not necessary/no one to use it' respectively, were the reasons for not purchasing computers.

Table 3: Source of Finance for Computers Purchased by Administrative Areas, 2001

Administrative Areas	Total number of households	Source of finance for computers purchased					
		Savings	Government	Credit Unions	Banks/ Financial Institutions	Other*	Not stated
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
All Areas	**356**	**184**	**48**	**14**	**37**	**62**	**11**
Port of Spain	17	9	1	0	4	3	0
San Fernando	25	14	6	0	1	4	0
Arima	9	1	0	0	1	6	1
Point Fortin	5	3	0	0	0	2	0
Chaguanas	29	14	7	1	5	2	0
Diego Martin	59	36	3	0	6	8	6
St. Ann's	33	17	5	1	2	8	0
Tacarigua	42	26	5	2	0	9	0
Rest of St. George	20	6	1	2	8	3	0
Caroni	18	8	2	0	4	4	0
Victoria	50	22	7	6	6	7	2
St. Patrick	12	7	3	1	0	1	0
St. Andrew/St. David	8	4	3	0	0	0	1
Nariva/Mayaro	8	5	0	0	0	3	0
Tobago	21	12	5	1	0	2	1

* Includes gifts

Percentage of Computers Purchased by Source of Financing
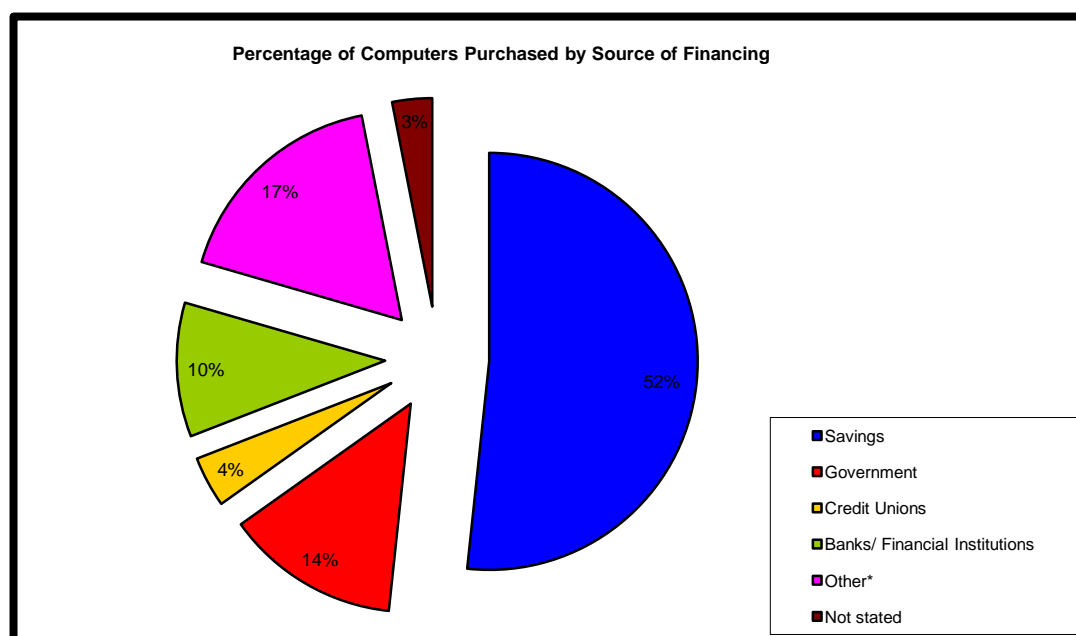
At the end of June 2001, more than half (51.7%) of the households purchased computers from private savings, while only 13.5% had accessed government funding for this purpose. The other sources of funding were banks/financial institutions (10.4%) and credit unions (3.9%). A relatively large number of households (17.4%) indicated that they mainly received computers as gifts.

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Table 4: Households with Computers by Gross Monthly Household Income and Administrative Areas, 2001

Administrative Areas	Total number of households	Gross monthly household income								
		<$999	$1,000-$1,999	$2,000-$3,999	$4,000-$5,999	$6,000-$7,999	$8,000-$9,999	$10,000-$14,999	$15,000 and over	Not stated
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
All Areas	356	4	14	49	55	71	48	38	38	39
Port of Spain	17	0	0	2	3	3	3	3	3	0
San Fernando	25	0	0	1	3	9	3	3	3	3
Arima	9	0	1	1	2	2	1	1	0	1
Point Fortin	5	0	0	0	0	3	1	0	0	1
Chaguanas	29	0	0	3	3	6	4	4	4	5
Diego Martin	59	0	1	5	5	5	9	10	12	12
St. Ann's	33	0	4	1	7	3	5	5	4	4
Tacarigua	42	3	1	12	8	7	6	2	3	0
Rest of St. George	20	0	1	3	3	5	5	2	1	0
Caroni	18	1	2	6	2	6	1	0	0	0
Victoria	50	0	3	5	11	11	4	5	6	5
St. Patrick	12	0	1	2	1	4	4	0	0	0
St. Andrew/St. David	8	0	0	0	2	1	1	0	0	4
Nariva/Mayaro	8	0	0	6	0	0	1	1	0	0
Tobago	21	0	0	2	5	6	0	2	2	4

Percentage of Households with Computers by Monthly Income

Legend:
- <$999
- $1,000-$1,999
- $2,000-$3,999
- $4,000- $5,999
- $6,000- $7,999
- $8,000- $9,999
- $10,000- $14,999
- $15,000 and over
- Not stated
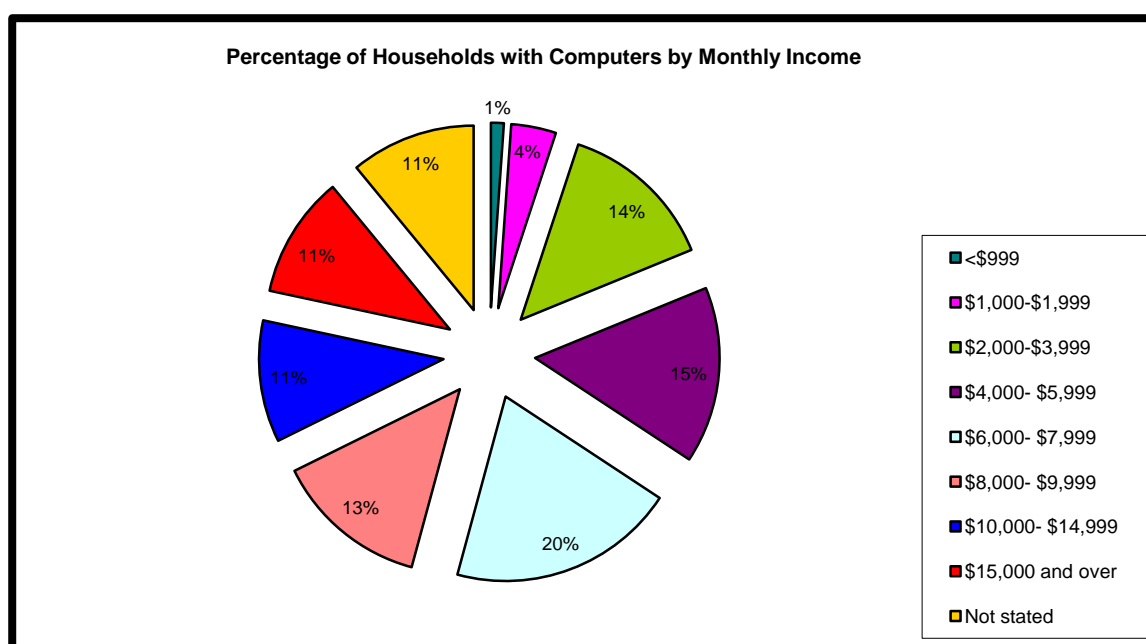
Of the households with computers, 54.8% reported a gross monthly income of $6,000 and more and 29.2% had monthly incomes between $2,000 and $5,999. The modal household income group with computers (19.9%) was $6,000 - $7,999 whereas only 5.1% of households with a gross monthly income of less than $2,000 had a home computer.

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**Table 5: Number of Computers Acquired by Period and
Administrative Areas, 2001**

Administrative Areas	Number of computers acquired by period							
	Total	1996 and earlier	1997	1998	1999	2000	January - June 2001	Not stated
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
All Areas	**356**	**38**	**24**	**59**	**84**	**96**	**49**	**6**
Port of Spain	17	1	1	2	2	10	1	0
San Fernando	25	5	2	3	8	6	1	0
Arima	9	2	2	2	1	1	1	0
Point Fortin	5	0	0	1	1	1	2	0
Chaguanas	29	3	1	5	7	11	2	0
Diego Martin	59	10	2	7	14	13	12	2
St. Ann's	33	9	1	4	7	9	10	0
Tacarigua	42	5	1	10	14	10	2	0
Rest of St. George	20	2	2	4	7	1	4	0
Caroni	18	1	3	1	3	7	3	0
Victoria	50	5	6	10	7	14	7	1
St. Patrick	12	3	1	3	4	1	0	0
St. Andrew/St. David	8	0	0	1	3	2	1	1
Nariva/Mayaro	8	0	0	2	3	2	0	1
Tobago	21	0	2	4	3	8	3	1

Percentage of Computers Acquired by Period

Legend:
- 1996 and earlier
- 1997
- 1998
- 1999
- 2000
- January - June 2001
- Not stated
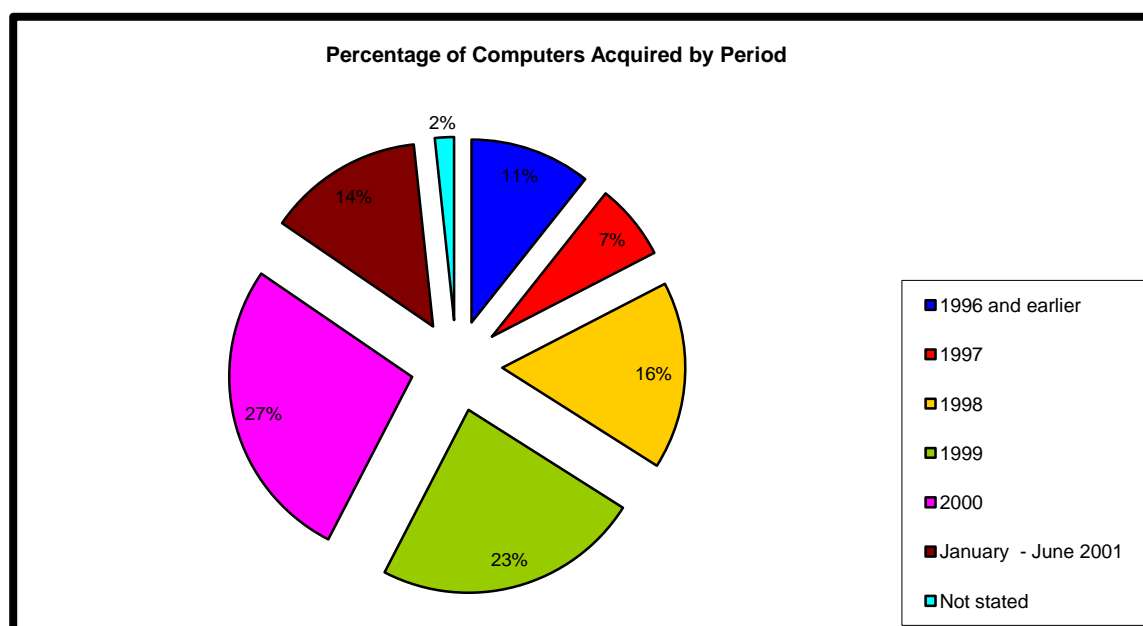
The number of computers acquired by households continued to increase during the last four years, rising from 6.7% in 1997 to 27.0% in 2000.

**Table 6: Average Household Size and Number of Computer
Users per Household by Administrative Areas, 2001**

Administrative Areas	Average household size (persons)	Average number of computer users/household	Percentage of users/household
	(1)	(2)	(3)
All Areas	**4.0**	**2.9**	**72.5**
Port of Spain	3.5	2.5	71.4
San Fernando	4.2	3.1	73.8
Arima	4.3	3.9	90.7
Point Fortin	4.2	3.4	81.0
Chaguanas	4.1	2.7	65.9
Diego Martin	4.0	3.1	77.5
St. Ann's	4.0	3.2	80.0
Tacarigua	3.7	2.4	64.9
Rest of St. George	3.3	2.9	87.9
Caroni	4.5	3.1	68.9
Victoria	4.0	2.9	72.5
St. Patrick	4.6	3.8	82.6
St. Andrew/St. David	4.6	3.7	80.4
Nariva/Mayaro	4.5	3.6	80.0
Tobago	3.5	2.4	68.6

Percentage of Computer Users/Household
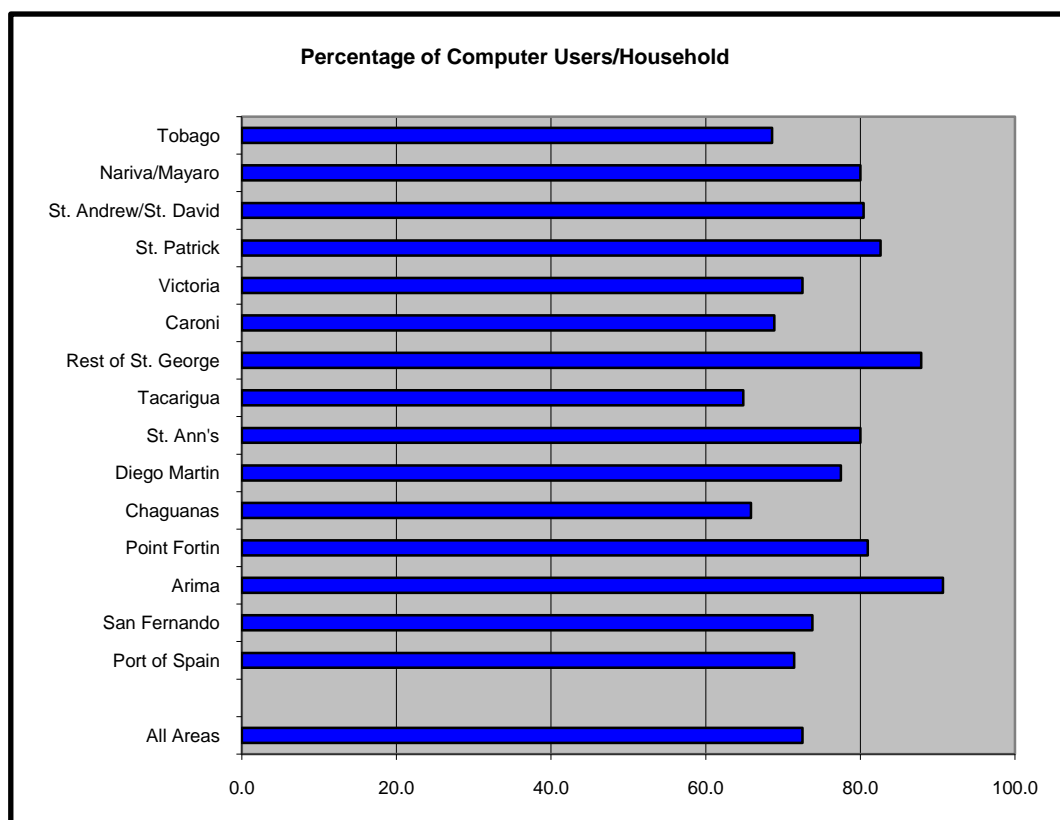
The survey results revealed an average household size of four persons and an average of 2.9 users per household, indicating a significant proportion (72.5%) of computer users amongst members in each household.

Table 7: Distribution of Computer Users by Gender and Age, 2001

Age group (yrs)	Number of computer users			Percentage		
	Total	Male	Female	Total	Male	Female
	(1)	(2)	(3)	(4)	(5)	(6)
All ages	**1033**	**531**	**502**	**100.0**	**100.0**	**100.0**
<10	97	54	43	9.4	10.2	8.6
10 - 14	126	67	59	12.2	12.6	11.8
15 - 19	171	87	84	16.6	16.4	16.7
20 - 24	124	61	63	12.0	11.5	12.5
25 - 29	97	49	48	9.4	9.2	9.6
30 - 39	168	78	90	16.3	14.7	17.9
40 - 49	150	79	71	14.5	14.9	14.1
50 and over	86	50	36	8.3	9.4	7.2
Not stated	14	6	8	1.4	1.1	1.6

Percentage of Users by Gender

49%   51%

■ Male
■ Female

Percentage of Users by Gender and Age
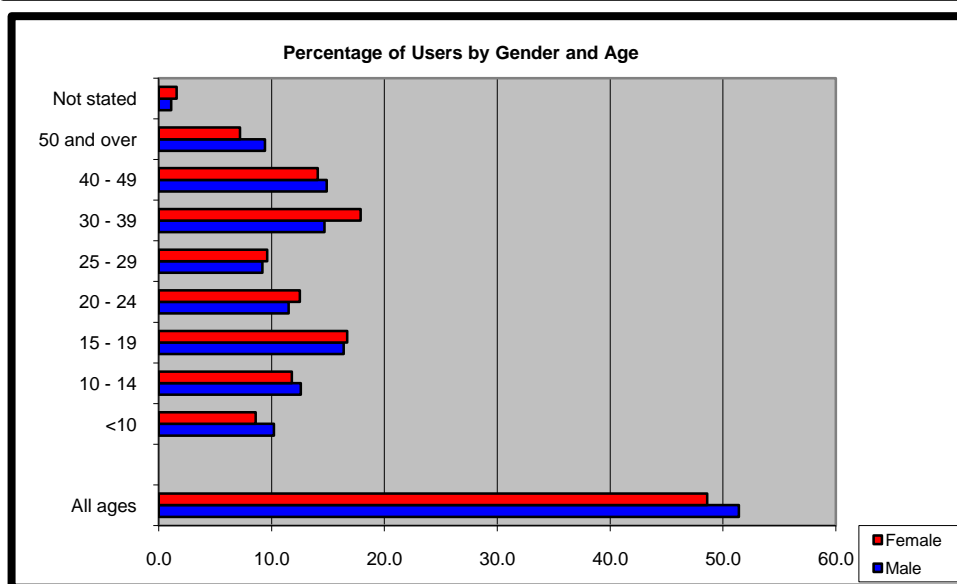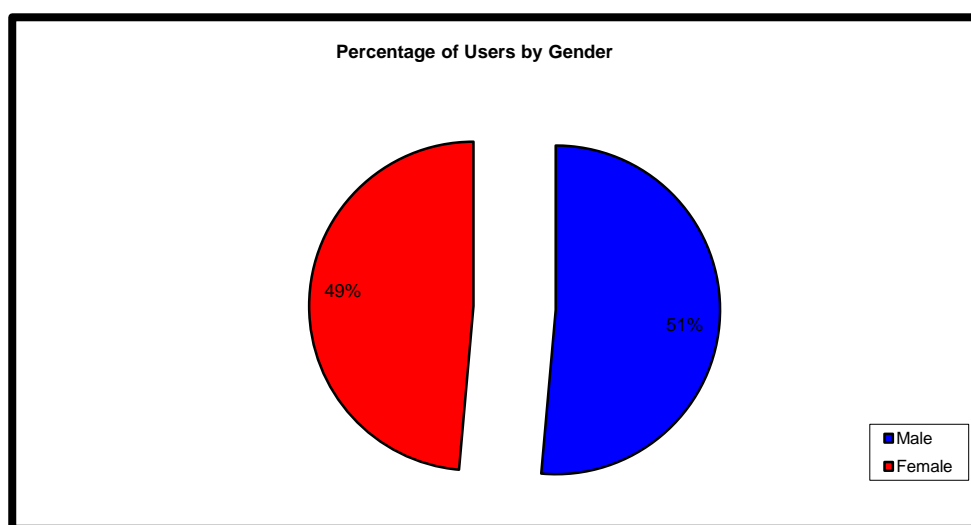
■ Female
■ Male

The distribution of computer users by gender was available for 1,033 persons of which 51.4% were males and 48.6% were females. The largest proportion of male users (16.4%) was observed in the age group 15-19 while that of female users (17.9%) was in the 30-39 age group.

**Table 8: Distribution of Computer Users by
Highest Level of Education and Age, 2001**

Age group (yrs)	Highest level of education				
	Total	Primary	Secondary	Technical	University
	(1)	(2)	(3)	(4)	(5)
All ages	**1033**	**158**	**519**	**110**	**246**
<10	97	97	0	0	0
10 - 14	126	47	79	0	0
15 - 19	171	0	153	3	15
20 - 24	124	0	52	19	53
25 - 29	97	0	48	16	33
30 - 39	168	2	84	29	53
40 - 49	150	5	58	29	58
50 and over	86	7	37	14	28
Not stated	14	0	8	0	6
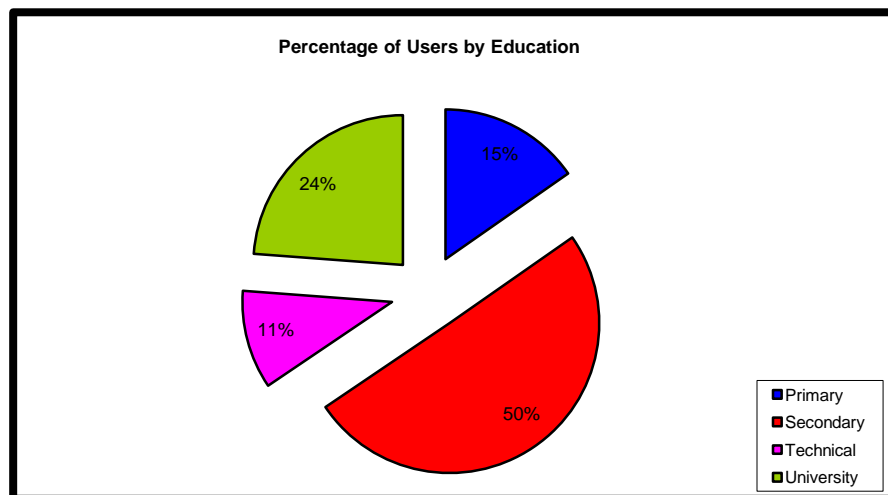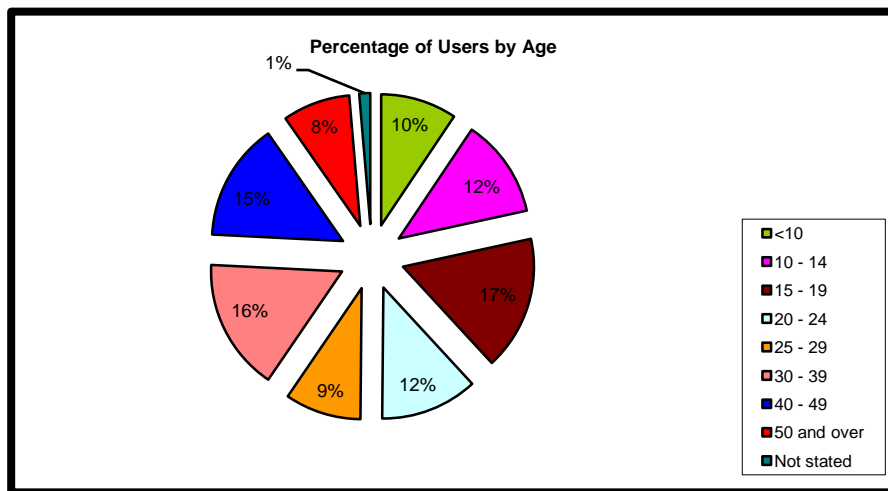
It can be observed that half (50.2%) of the total computer users had attained a secondary level education whereas 23.8% had acquired education at university level. The highest level of education for 15.3% of the users was primary. The above results show that 16.6% of the total computer users were in the age group 15-19, 16.3% in the age group 30-39, 14.5% in the age group 40-49, 12.2% in the age group 10-14 and a similar percentage in the age group 20-24.

**Table 9: Distribution of Computer Users by Gender and Highest
Level of Education, 2001**

Highest Level of Education	Gender			Percentage		
	Total	Male	Female	Total	Male	Female
	(1)	(2)	(3)	(4)	(5)	(6)
All levels	**1033**	**531**	**502**	**100.0**	**100.0**	**100.0**
Primary	158	89	69	15.3	16.8	13.7
Secondary	519	255	264	50.2	48.0	52.6
Technical	110	74	36	10.6	13.9	7.2
University	246	113	133	23.8	21.3	26.5

Percentage of Users by Gender and Education
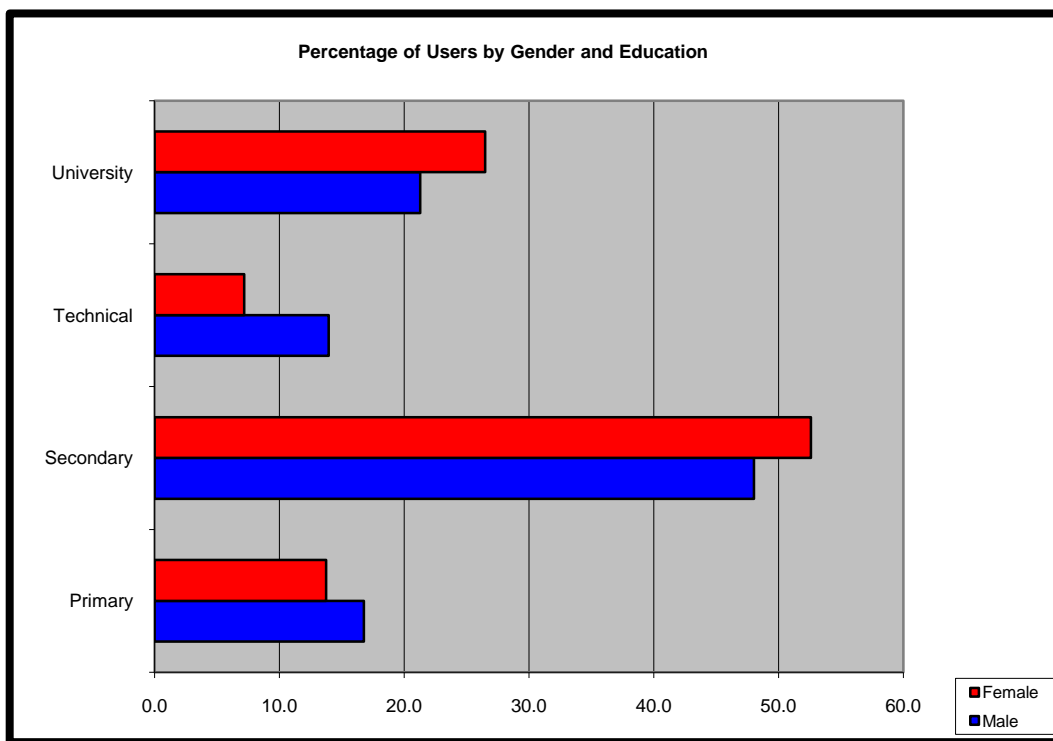
Of all male users, 48.0% had obtained secondary level education compared with 52.6% for female. However, with university level education, 21.3% of the users were males compared with 26.5% for their female counterparts.

Table 10: Distribution of Computer Users by Type of Computer Education and Age, 2001

Age group (yrs)	Type of computer education					
	All	Computer Literacy	Application	Graphics	Professional Certificate	University
	(1)	(2)	(3)	(4)	(5)	(6)
All ages	**1033**	**414**	**393**	**102**	**92**	**32**
<10	97	83	12	2	0	0
10 - 14	126	84	39	3	0	0
15 - 19	171	50	84	20	12	5
20 - 24	124	23	60	13	23	5
25 - 29	97	20	36	9	25	7
30 - 39	168	54	67	26	16	5
40 - 49	150	64	50	16	12	8
50 and over	86	32	37	11	4	2
Not stated	14	4	8	2	0	0

Percentage of Users by Type of Computer Education
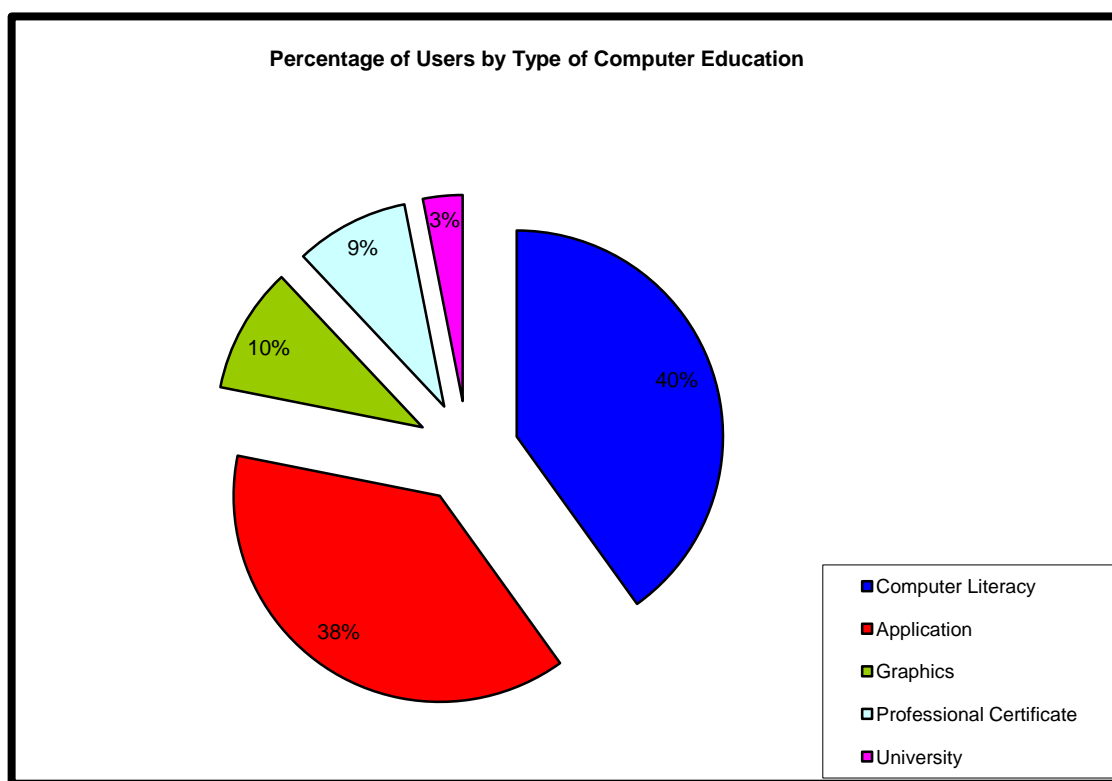
It can be observed that the majority of users (88.0%) in the responding households had some computer education including computer literacy, software application and graphics; 9.1% had obtained professional certificates and only 3.1% reported a university level education in computer studies.

Table 11: Distribution of Computer Users by Gender and Type of Computer Education, 2001

Type of Computer Education	Computer users			Percentage		
	Total	Male	Female	Total	Male	Female
	(1)	(2)	(3)	(4)	(5)	(6)
All Education	**1033**	**531**	**502**	**100.0**	**100.0**	**100.0**
Computer Literacy	414	214	200	40.1	40.3	39.8
Application	393	184	209	38.0	34.7	41.6
Graphic Application	102	65	37	9.9	12.2	7.4
Professional Certificate	92	55	37	8.9	10.4	7.4
Tertiary	32	13	19	3.1	2.4	3.8

Percentage of Users by Gender and Computer Education
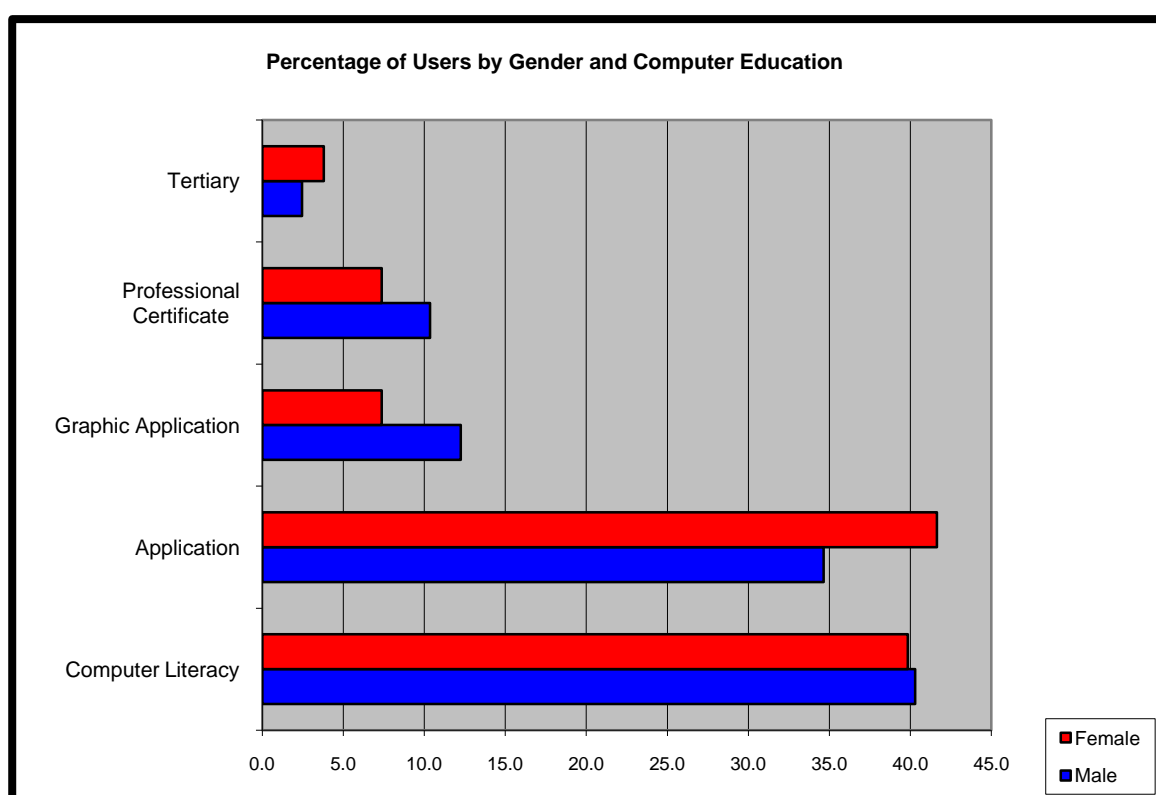
Of the users with professional certificates, 59.8% were males and 40.2%, females. Only 3.1% of all users had tertiary level education in computer studies.

**Table 12: Distribution of Computer Users by
Employment Status and Age, 2001**

Age group (yrs)	Employment status						
	Total	Employed	Self-employed	Unemployed	Student	Home Duties	Retired
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
All ages	**1033**	**451**	**61**	**50**	**407**	**43**	**21**
<10	97	0	0	0	97	0	0
10 - 14	126	0	0	0	126	0	0
15 - 19	171	14	1	14	142	0	0
20 - 24	124	71	1	17	34	1	0
25 - 29	97	73	6	8	6	4	0
30 - 39	168	125	26	5	1	11	0
40 - 49	150	113	16	3	0	18	0
50 and over	86	45	10	2	0	8	21
Not stated	14	10	1	1	1	1	0

Percentage of Users by Employment Status
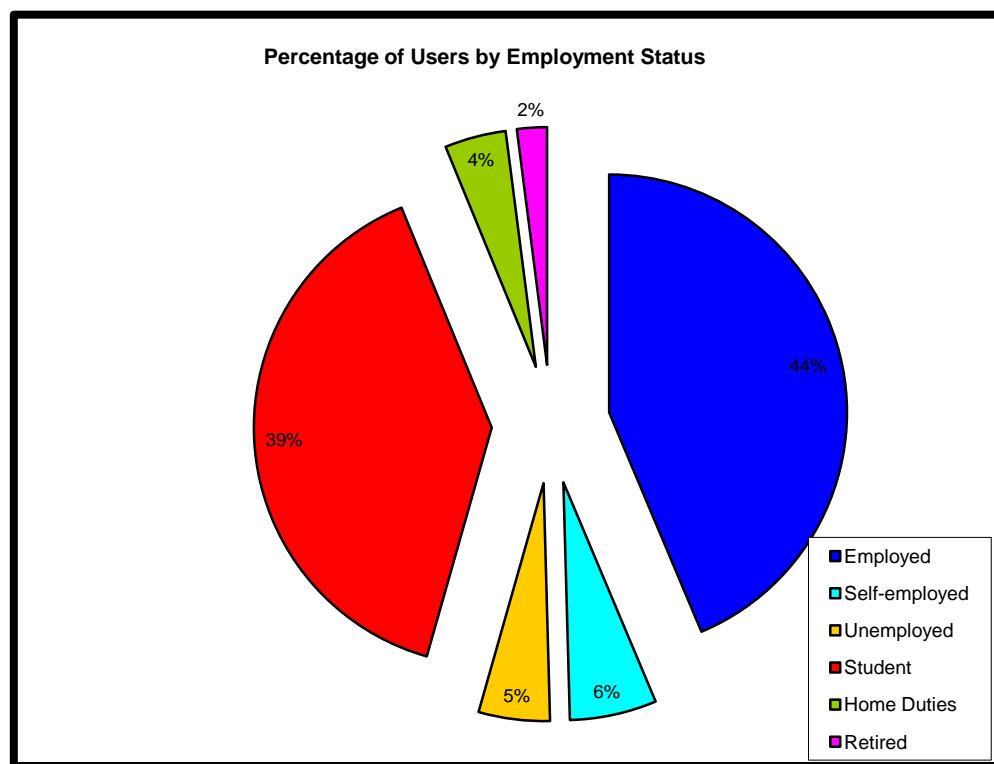
Of the computer users, 49.6% were either employed or self-employed. The next significant proportion of users (39.4%) were students. Of the unemployed users, 62.0% were in the age group 15-24.

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Table 13: Distribution of Computer Users by Gender and Employment Status, 2001

Employment Status	Computer users			Percentage		
	Total	Male	Female	Total	Male	Female
	(1)	(2)	(3)	(4)	(5)	(6)
All Status	**1033**	**531**	**502**	**100.0**	**100.0**	**100.0**
Employed	451	244	207	43.7	46.0	41.2
Self-employed	61	37	24	5.9	7.0	4.8
Unemployed	50	17	33	4.8	3.2	6.6
Student	407	216	191	39.4	40.7	38.0
Home Duties	43	1	42	4.2	0.2	8.4
Retired	21	16	5	2.0	3.0	1.0

Percentage of Users by Gender and Employment Status
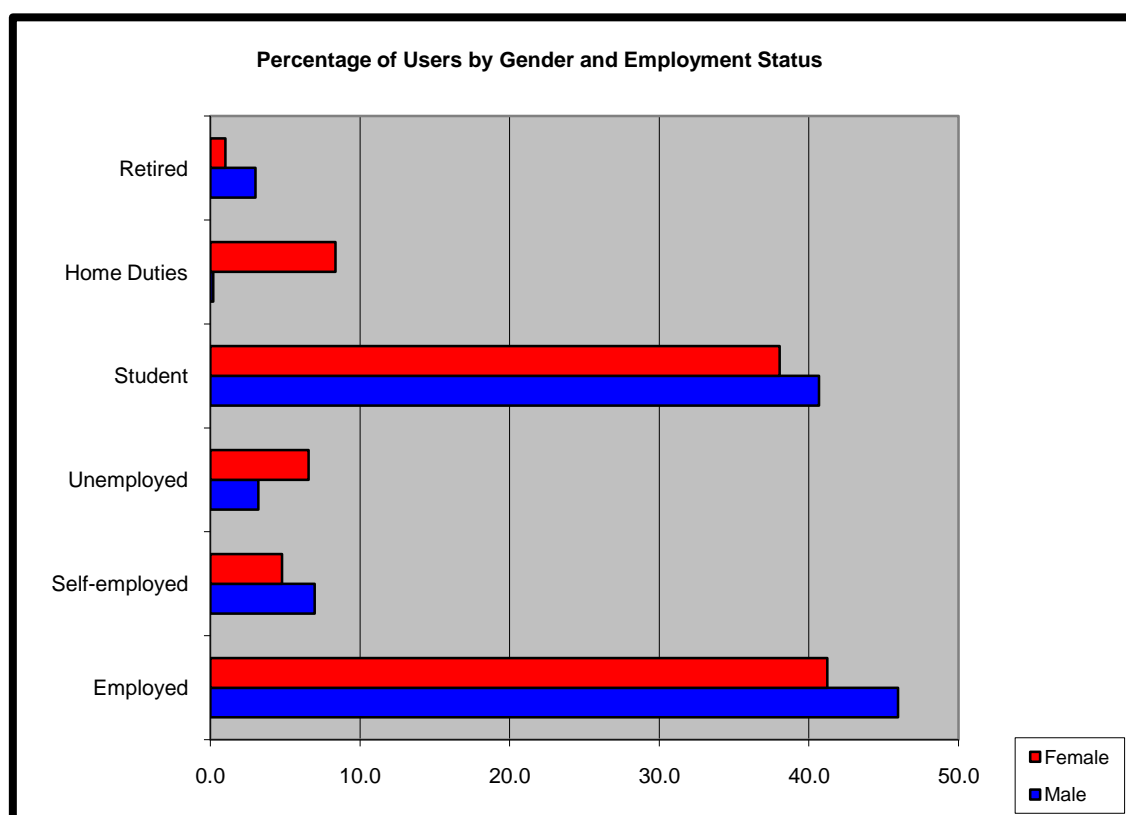
Of the total labour force of computer users (employed and unemployed), unemployment stood at 8.9%. The number of unemployed males was 3.0% and females 5.9%.

Table 14: Distribution of Computer Users by
Type of Worker and Age, 2001

Age group (yrs)	Type of worker				
	Total	Government	State Enterprises	Private Enterprises	Not stated
	(1)	(2)	(3)	(4)	(5)
All ages	**512**	**152**	**50**	**306**	**4**
15 - 19	15	0	1	13	1
20 - 24	72	14	6	51	1
25 - 29	79	19	8	52	0
30 - 39	151	44	14	92	1
40 - 49	129	51	17	61	0
50 and over	55	20	4	30	1
Not stated	11	4	0	7	0

Percentage of Users by Type of Worker
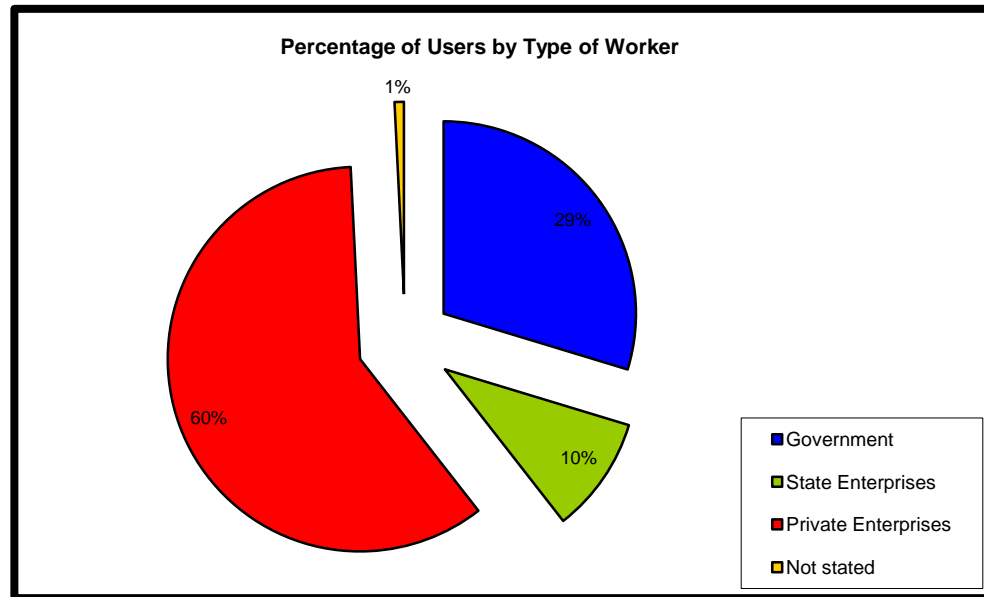
Of the total employed computer users, 59.8% were in Private Enterprises, 29.7% in Government Ministries/Departments and 9.8% in State Enterprises. A significant proportion of employed computer users in Government (75.6%) and State Enterprises (70.0%) were more than 30 years of age whereas in the case of Private Enterprises, this proportion was 59.8%.

Table 15: Distribution of Computer Users by Gender and Type of Worker, 2001

Type of Worker	Computer users			Percentage		
	Total	Male	Female	Total	Male	Female
	(1)	(2)	(3)	(4)	(5)	(6)
All workers	**512**	**281**	**231**	**100.0**	**100.0**	**100.0**
Government	152	82	70	29.7	29.2	30.3
State Enterprises	50	29	21	9.8	10.3	9.1
Private Enterprises	306	169	137	59.8	60.1	59.3
Not Stated	4	1	3	0.8	0.4	1.3

Percentage of Users by Gender and Type of Worker
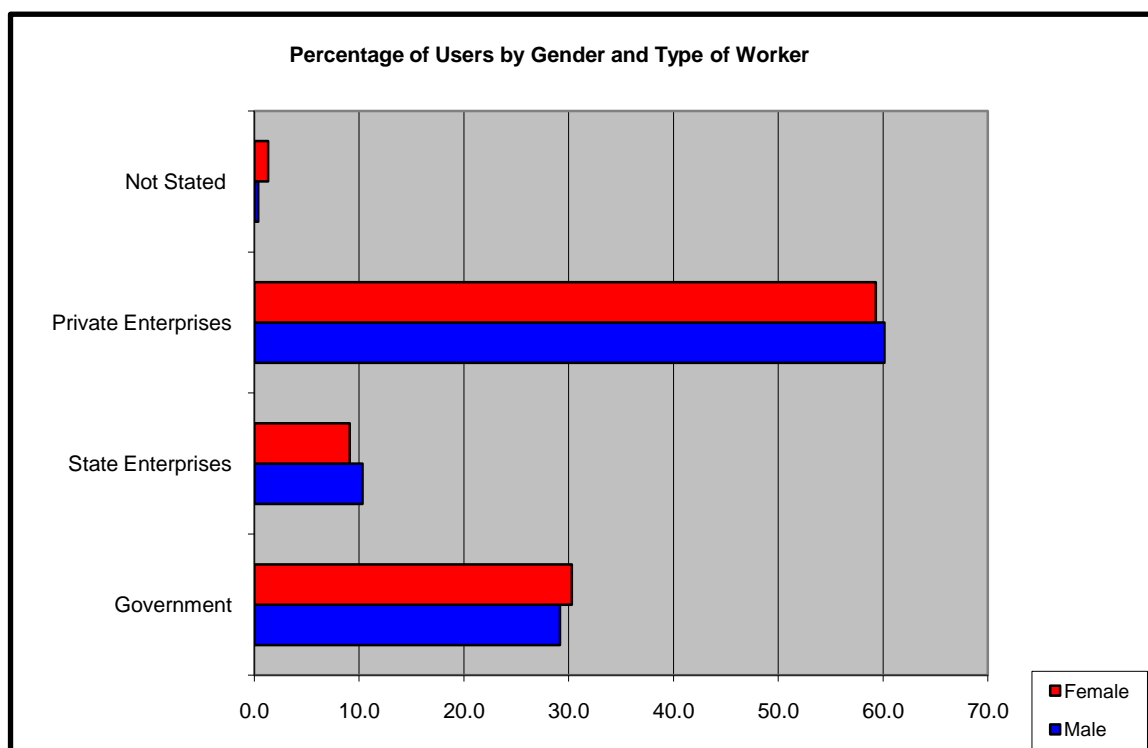
A review of the data by gender revealed that 54.9% of the total employed computer users were males and 45.1% were females. However, taken separately, the proportion of users was similar in all sectors by gender.

**Table 16: Distribution of Households by
Type of Operating System, 2001**

Type of Operating System	Number of households	Percentage
	(1)	(2)
Total	**356**	**100.0**
DOS	7	2.0
PC Running UNIX	1	0.3
Macintosh (other than system 8)	5	1.4
Macintosh system 8	2	0.6
Windows 98	218	61.2
Windows 95	47	13.2
Other*	62	17.4
Don't know	8	2.2
Not stated	6	1.7

*Includes Windows 2000, Millennium and Windows ME.

Percentage of Households by Operating System
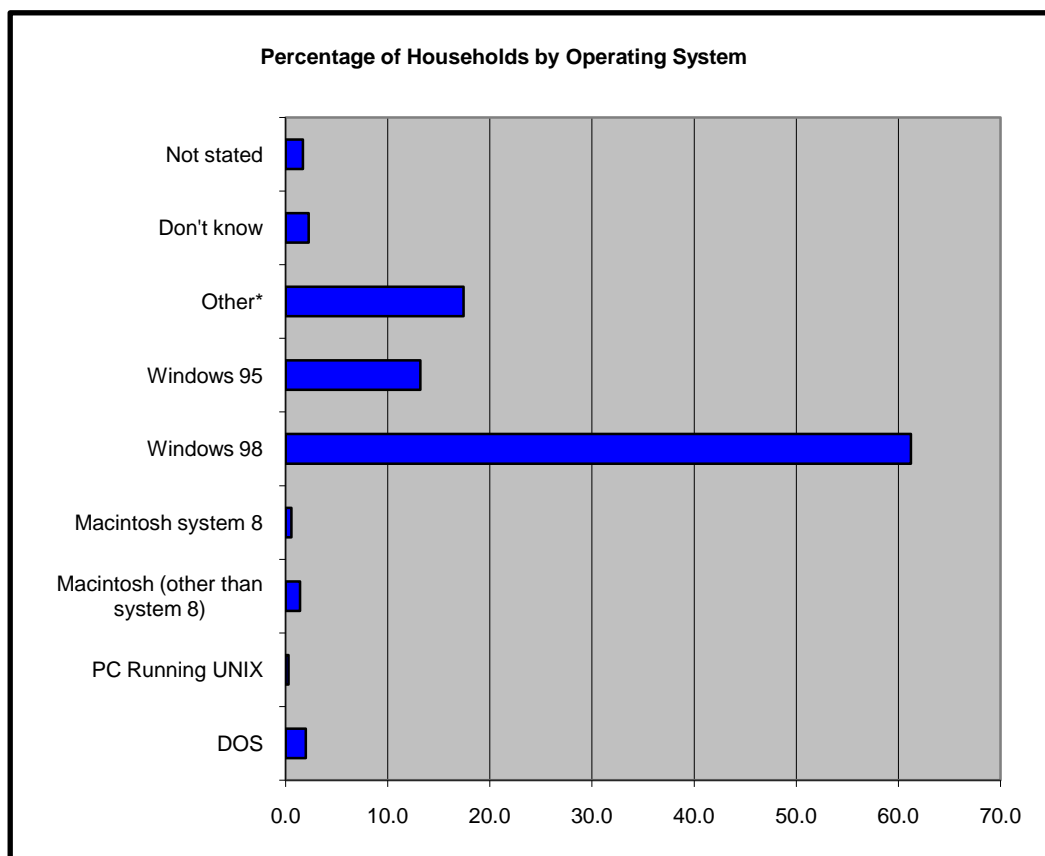
Almost three quarters (74.4%) of the households with computers used Windows 98 or Windows 95 as the predominant operating system while 17.4%, shown in the other category, utilised Windows 2000, Millennium or Windows ME operating system.

Table 17: Distribution of Households by Time Spent and Frequency of Computer Usage, 2001

Frequency of Usage	Time spent on computer							
	Total	1 hour	2 hours	3 hours	4 hours	5 hours	> 5 hours	Not stated
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Total Usage	**356**	**42**	**82**	**74**	**53**	**26**	**70**	**9**
Daily	252	23	57	52	38	22	55	
Every two days	36	2	10	10	7	1	6	
Every three days	23	5	7	3	4	1	3	
Weekly	26	4	6	8	3	2	3	
Fortnightly	4	8	1	0	0	0	0	
Monthly	2	0	0	0	0	0	2	
Other	4	0	1	1	1	0	1	
Not stated	9							

Percentage of Households by Frequency of Usage

- Daily — 71%
- Every two days — 10%
- Every three days — 6%
- Weekly — 7%
- Fortnightly — 1%
- Monthly — 1%
- Other — 1%
- Not stated — 3%
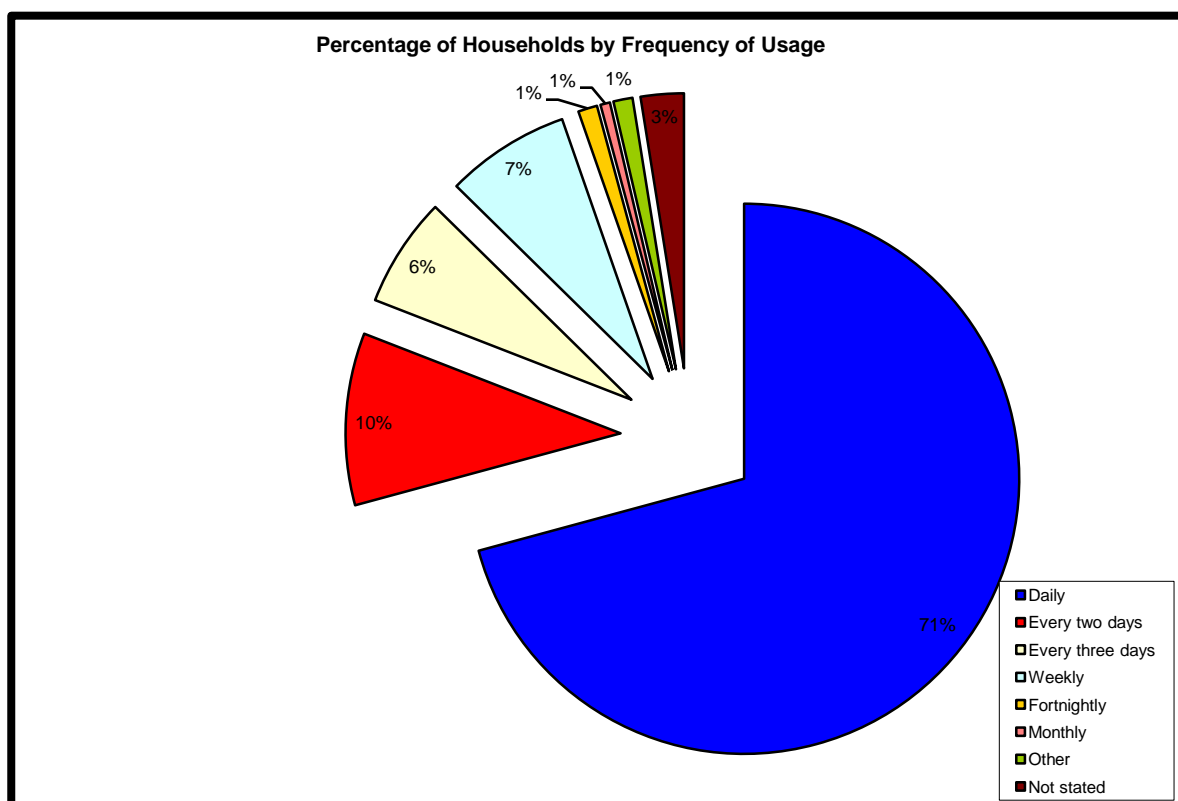
A significant proportion (70.8%) of the total households used the computer daily, and of these, 22.6% used the computer for approximately 2 hours, 21.8% for 5 or more hours and 20.6% for 3 hours.

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**Table 18: Distribution of Households by
Type of Computer Usage, 2001**

Type of Usage	Number of households	Percentage/ 356
	(1)	(2)
Microsoft Office	235	66.0
Graphics	125	35.1
Computer Aided Design (CAD)	38	10.7
Software development	42	11.8
Games	279	78.4
Multi-media	136	38.2
E-mail	222	62.4
E-commerce	45	12.6
Web searches	219	61.5
Distance learning/education	72	20.2

Percentage of Households by Usage
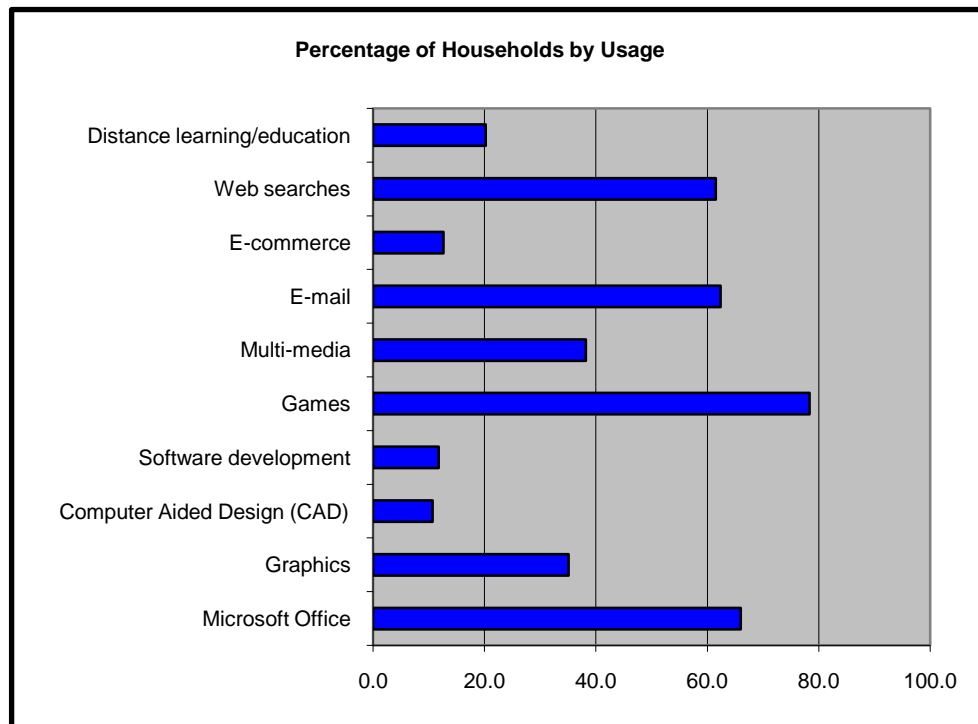
On usage of the computer, households provided multiple answers where applicable. A substantial proportion of households (78.4%) reported that the computer was used for games, 66.0% identified Microsoft Office, 62.4% indicated e-mail, and 61.5% stated web searches. A relatively small number of households (11.8%) were engaged in software development and 20.2% accessed distance learning/education.

**Table 19: Distribution of Households With and Without
Internet Connections by Administrative Areas, 2001**

Administrative Areas	Number of households				Percentage of households		
	Total	With Internet	Without Internet	Not stated	Total	With Internet	Without Internet
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
All Areas	**356**	**231**	**119**	**6**	**100.0**	**100.0**	**100.0**
Port of Spain	17	13	4	0	4.8	5.6	3.4
San Fernando	25	20	5	0	7.0	8.7	4.2
Arima	9	3	6	0	2.5	1.3	5.0
Point Fortin	5	0	5	0	1.4	0.0	4.2
Chaguanas	29	24	5	0	8.1	10.4	4.2
Diego Martin	59	40	18	1	16.6	17.3	15.1
St. Ann's	33	24	9	0	9.3	10.4	7.6
Tacarigua	42	27	15	0	11.8	11.7	12.6
Rest of St. George	20	10	10	0	5.6	4.3	8.4
Caroni	18	10	8	0	5.1	4.3	6.7
Victoria	50	30	18	2	14.0	13.0	15.1
St. Patrick	12	6	6	0	3.4	2.6	5.0
St. Andrew/St. David	8	5	2	1	2.2	2.2	1.7
Nariva/Mayaro	8	2	6	0	2.2	0.9	5.0
Tobago	21	17	2	2	5.9	7.4	1.7

Percentage of Households With and Without Internet

2%

33%

65%

- With Internet
- Without Internet
- Not stated
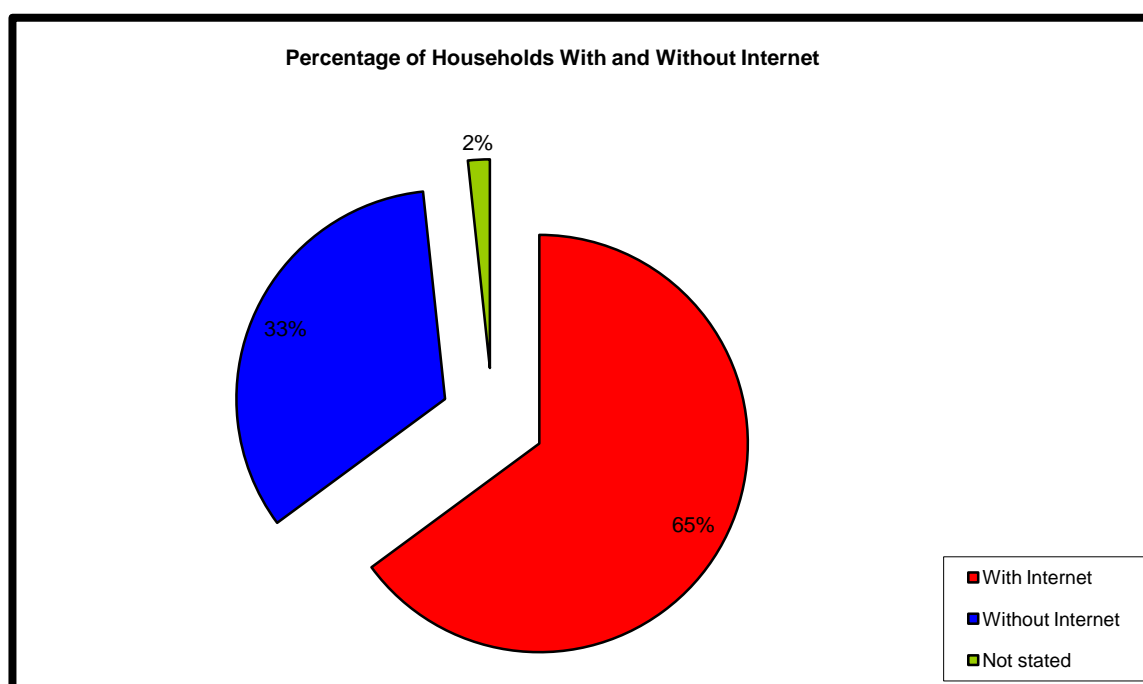
Of 356 households with computers, 64.9% had Internet facility. Relatively large proportions of Internet connections were observed in Diego Martin (16.6%), Victoria (14.0%) and Tacarigua (11.8%) compared with other areas. Internet access by households within areas was significant in Chaguanas (82.8%), Tobago (81.0%) and San Fernando (80.0%).

**Table 20: Distribution of Households by Time Spent and
Frequency of Internet Usage, 2001**

Frequency of Internet Usage	Time spent							
	Total households	< 1 hour	1 hour	2 hours	3 hours	4 hours	5 hours	> 5 hours
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Total Usage	**231**	**27**	**62**	**61**	**33**	**18**	**16**	**14**
Daily	142	16	35	30	26	12	14	9
Every two days	46	7	16	15	3	2	0	3
Weekly	33	3	9	12	4	3	2	0
Fortnightly	3	0	2	1	0	0	0	0
Monthly	1	0	0	0	0	1	0	0
Other	6	1	0	3	0	0	0	2

Percentage of Households by Frequency of Internet Usage

Legend:
- Daily
- Every two days
- Weekly
- Fortnightly
- Monthly
- Other
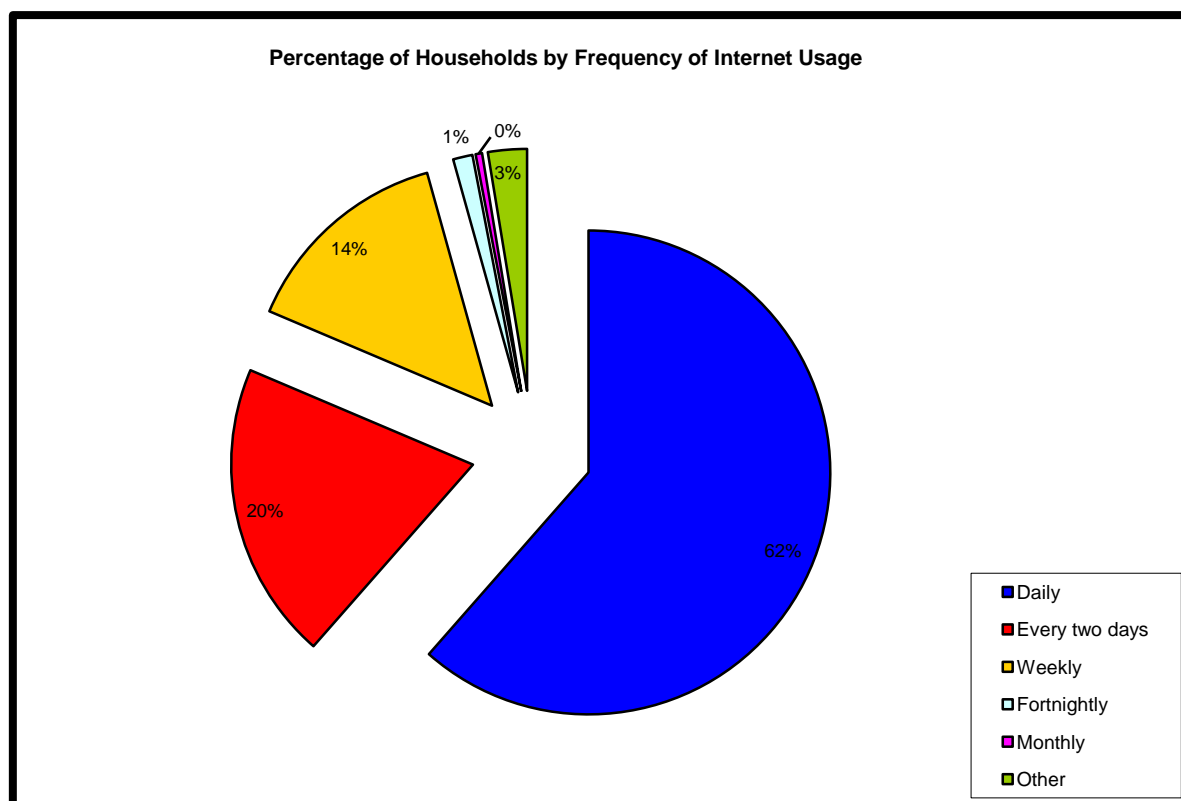
On a daily basis, 61.5% of the households accessed the Internet whereas 19.9% did so every two days. A further review of the data showed that 45.8% of the users spent 1-2 hours and 43.0% spent 3 hours or more daily on the Internet.

**Table 21: Distribution of Households by
Type of Internet Account, 2001**

Type of Account	Number of households	Percentage
	(1)	(2)
Total	**231**	**100.0**
20 hours	57	24.7
40 hours	21	9.1
50 hours	53	22.9
75 hours	10	4.3
100 hours	25	10.8
Unlimited	59	25.5
Not stated	6	2.6

Percentage of Households by Type of Internet Account
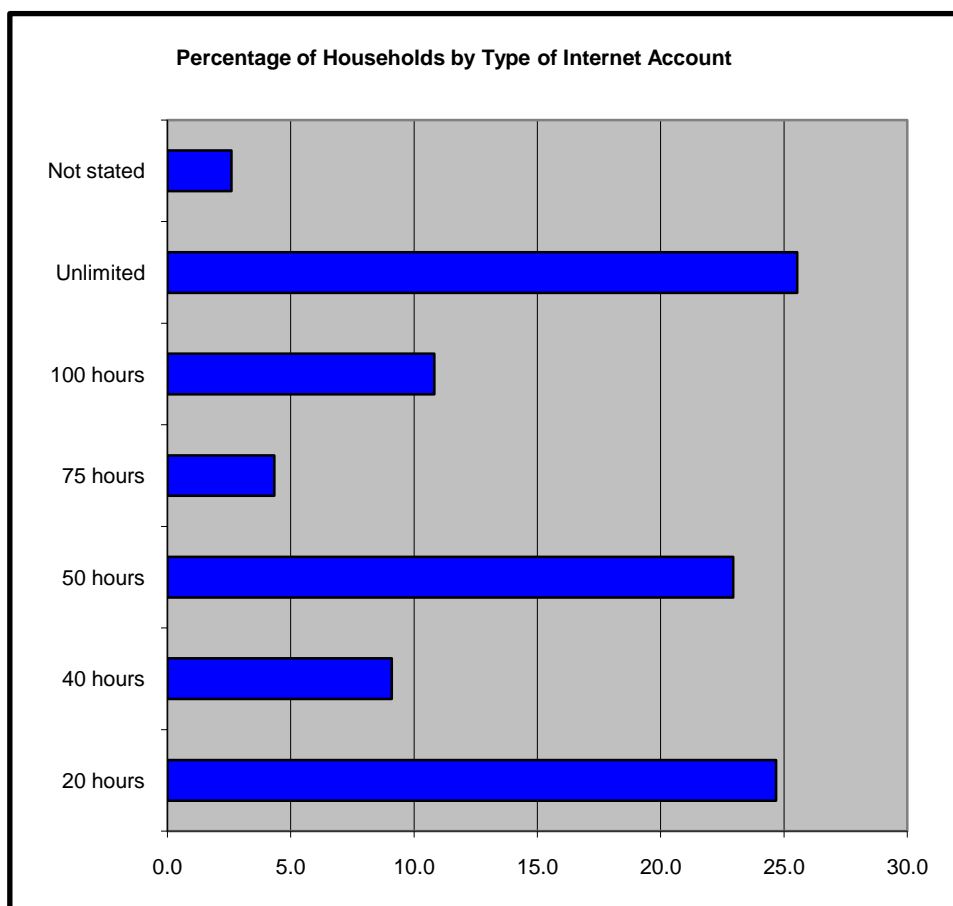
By type of Internet account, 25.5% of the households reported unlimited time, 24.7% indicated 20 hours and 22.9% had 50 hours.

Table 22: Number of Satisfied and Dissatisfied Households With Internet Connections by Administrative Areas, 2001

Administrative Areas	Number of households with Internet				Percentage	
	Total households	Satisfied	Dissatisfied	Not stated	Satisfied	Dissatisfied
	(1)	(2)	(3)	(4)	(5)	(6)
All Areas	**231**	**138**	**92**	**1**	**59.7**	**39.8**
Port of Spain	13	10	3	0	76.9	23.1
San Fernando	20	11	9	0	55.0	45.0
Arima	3	1	2	0	33.3	66.7
Point Fortin	0	0	0	0	0.0	0.0
Chaguanas	24	9	15	0	37.5	62.5
Diego Martin	40	28	11	1	70.0	27.5
St. Ann's	24	13	11	0	54.2	45.8
Tacarigua	27	17	10	0	63.0	37.0
Rest of St. George	10	7	3	0	70.0	30.0
Caroni	10	5	5	0	50.0	50.0
Victoria	30	18	12	0	60.0	40.0
St. Patrick	6	1	5	0	16.7	83.3
St. Andrew/St. David	5	3	2	0	60.0	40.0
Nariva/Mayaro	2	2	0	0	100.0	0.0
Tobago	17	13	4	0	76.5	23.5

Percentage of Households Satisfied and Dissatisfied with Internet Connections

- 40%
- 60%
- ■ Satisfied
- ■ Dissatisfied
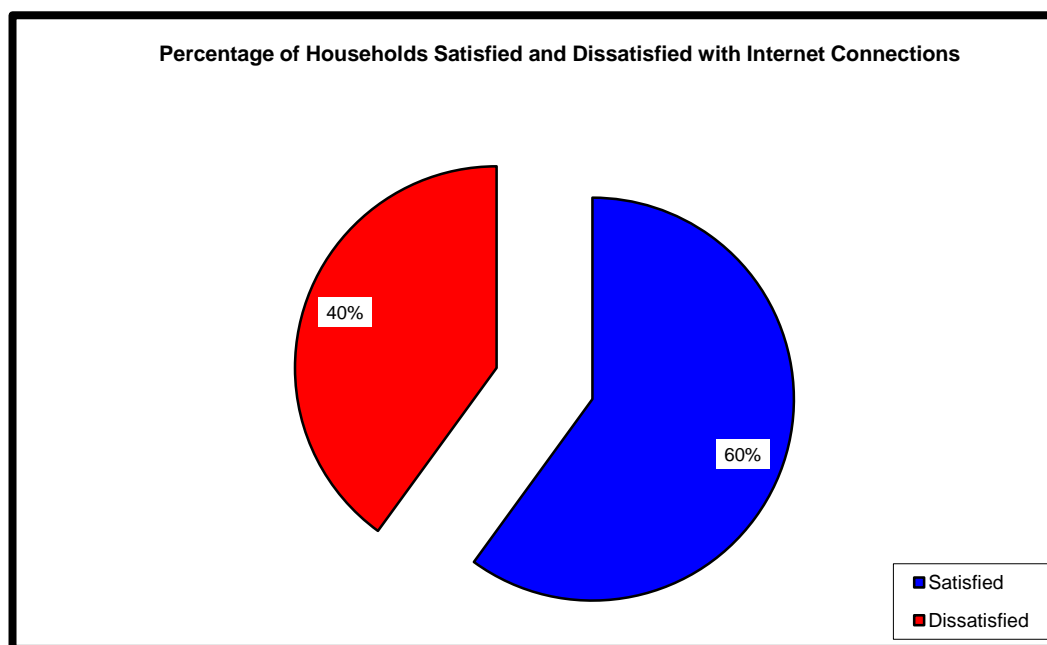
As can be observed from the table above, while 59.7% of the households were satisfied, a substantial proportion of 39.8% were found to be dissatisfied with the service of Internet access providers. The proportion of dissatisfied households was relatively significant in St. Patrick (83.3%), Arima (66.7%), Chaguanas (62.5%) and Caroni (50.0%).

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Percentage of Satisfied and Dissatisfied Households with Internet by Areas
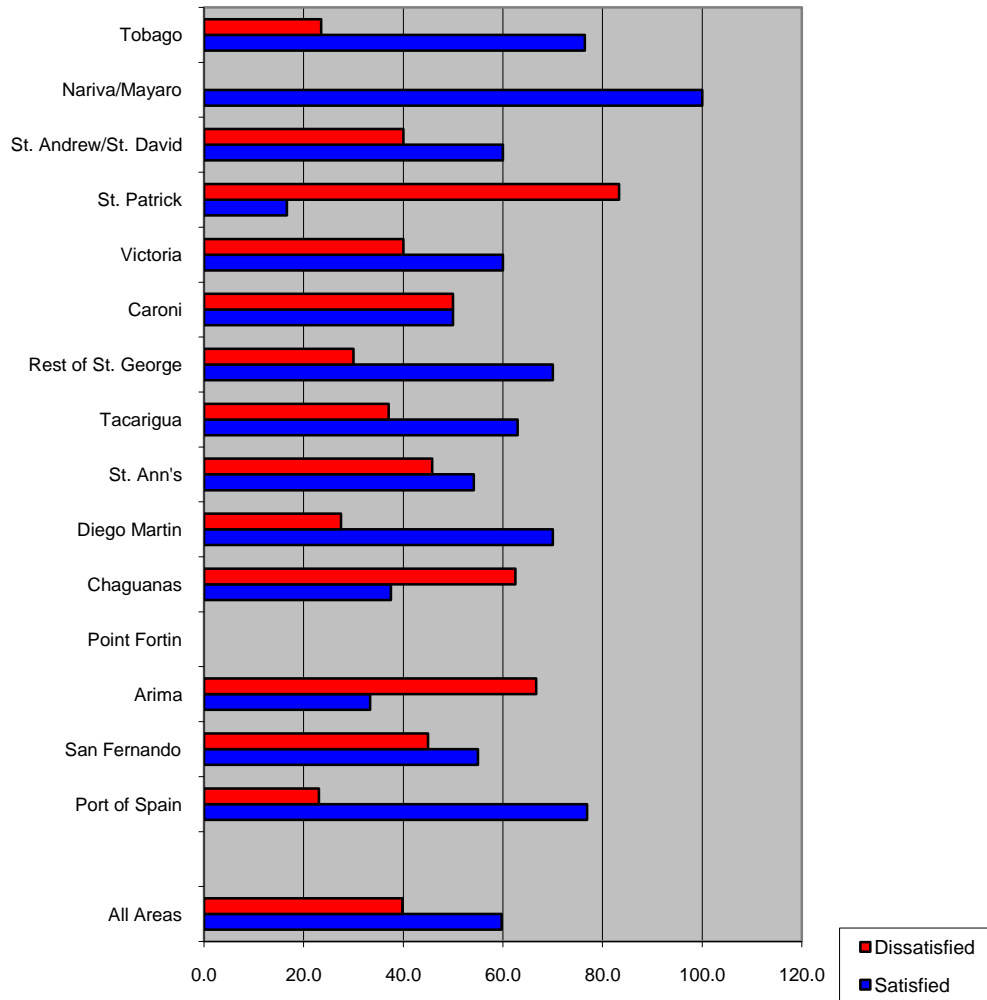
Table 23: Distribution of Households by Reasons for Dissatisfaction with Internet Connections by Administrative Areas, 2001

Administrative Areas	Reasons for Dissatisfaction with Internet connection				
	Total households	High cost	Too much time for connection	Interruption while working	Other
	(1)	(2)	(3)	(4)	(5)
All Areas	**92**	**22**	**41**	**19**	**10**
Port of Spain	3	0	2	1	0
San Fernando	9	5	3	0	1
Arima	2	0	2	0	0
Point Fortin	0	0	0	0	0
Chaguanas	15	5	8	1	1
Diego Martin	11	2	5	4	0
St. Ann's	11	1	2	3	5
Tacarigua	10	1	5	3	1
Rest of St. George	3	0	0	3	0
Caroni	5	2	1	2	0
Victoria	12	3	5	2	2
St. Patrick	5	2	3	0	0
St. Andrew/St. David	2	0	2	0	0
Nariva/Mayaro	0	0	0	0	0
Tobago	4	1	3	0	0

Percentage of Households by Reason for Dissatisfaction with Internet Connection

- High cost — 24%
- Too much time for connection — 44%
- Interruption while working — 21%
- Other — 11%
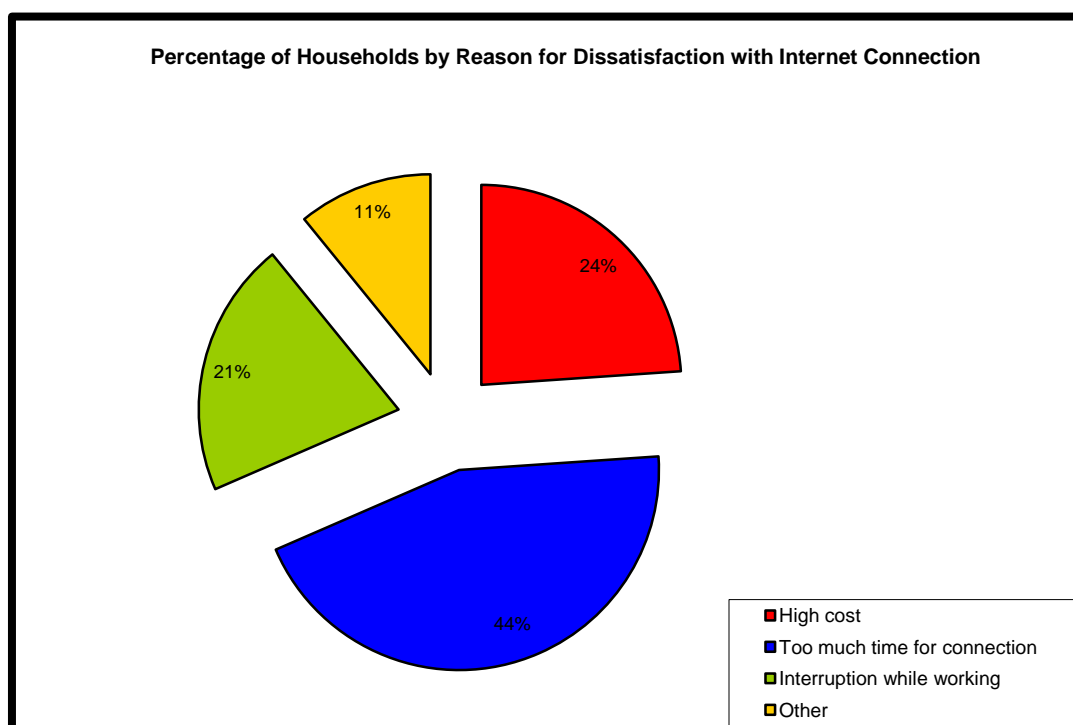
It can be seen that 44.6% of the households identified `too much time for connection', 23.9% stated `high cost' and 20.7% reported `interruption while working' as the major reasons for dissatisfaction with the Internet Service Providers.

Table 24: Number of Households by Concern for Security on the Internet, 2001

Concern for Security	No. of households	Percentage of Households
	(1)	(2)
All households	**231**	**100.0**
Not at all concerned	78	33.8
Somewhat concerned	83	35.9
Very much concerned	68	29.4
Not stated	2	1.0

Percentage of Households by Concern for Security on the Internet

- ■ Not at all concerned
- ■ Somewhat concerned
- ■ Very much concerned
- ■ Not stated
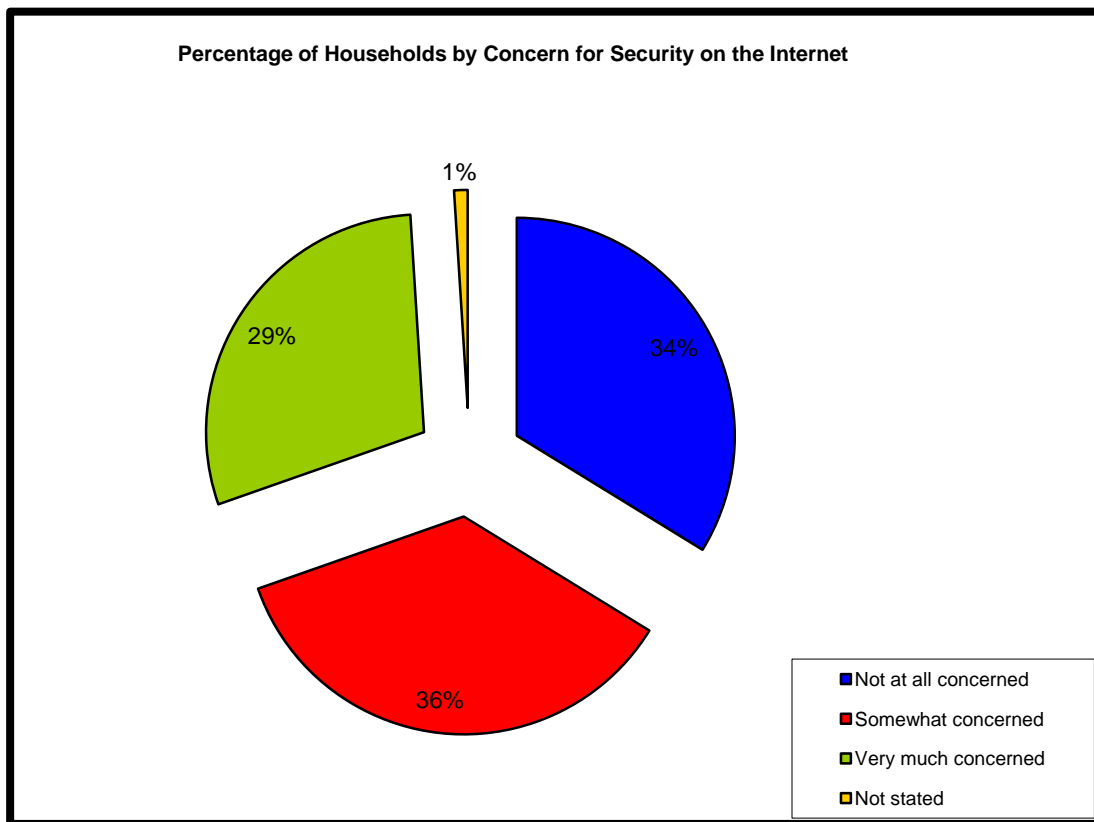
When households were asked about their concern for security on the Internet, 29.4% stated that they were very much concerned and 35.9% were somewhat concerned. A relatively large proportion (33.8%) were not at all concerned.

**Table 25: Number of Households in Agreement with New Laws Required to
Protect Privacy on the Internet, 2001**

New Laws of Privacy	No. of households	Percentage
	(1)	(2)
All households	**231**	**100.0**
Strongly Agree	132	57.1
Somewhat Agree	61	26.4
Neither Agree nor Disagree	27	11.7
Somewhat Disagree	6	2.6
Strongly Disagree	3	1.3
Not stated	2	0.9

Percentage of Households Agree/Disagree with New Laws for Privacy

Legend:
- Strongly Agree
- Somewhat Agree
- Neither Agree nor Disagree
- Somewhat Disagree
- Strongly Disagree
- Not stated
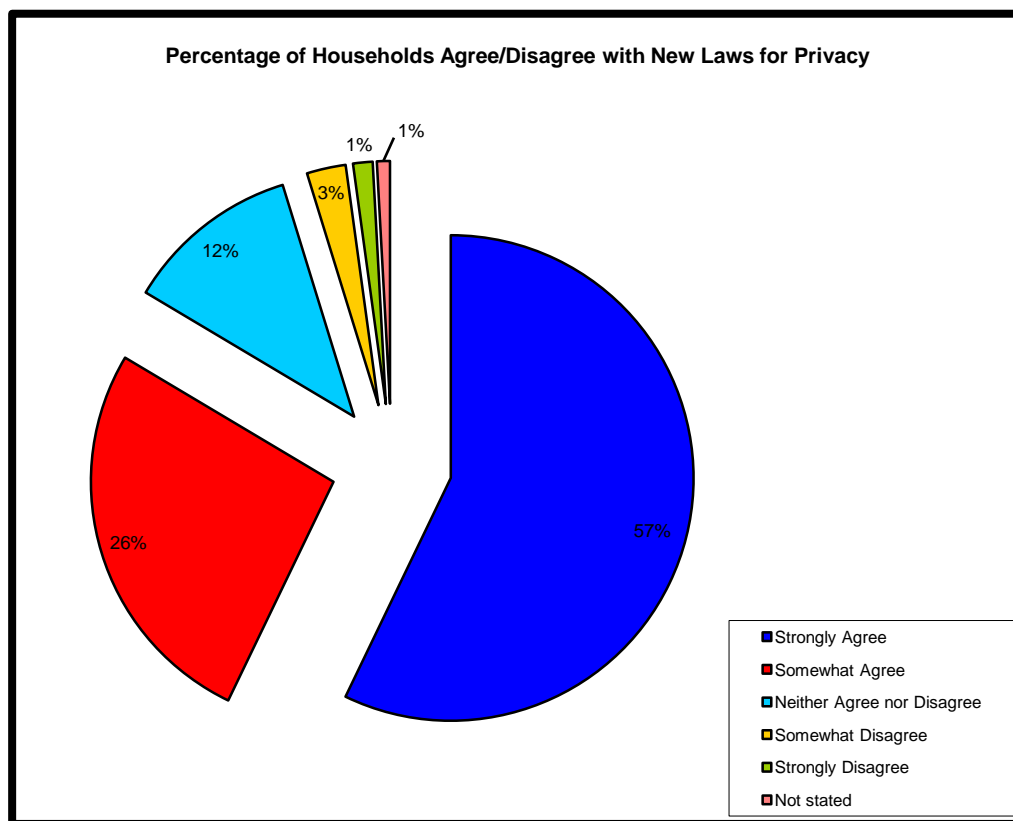
On the requirement of new laws to protect privacy on the Internet, a substantial proportion of households (57.1%) strongly agreed and 26.4% somewhat agreed.

Table 26: Number of Households Using Computer for E-commerce by Administrative Areas, 2001

Administrative Areas	Total households with Internet	Households using computers for e-commerce	Percentage
	(1)	(2)	(3)
All Areas	**231**	**45**	**19.5**
Port of Spain	3	1	33.3
San Fernando	20	5	25.0
Arima	3	0	0.0
Point Fortin	0	0	0.0
Chaguanas	24	4	16.7
Diego Martin	40	12	30.0
St. Ann's	24	6	25.0
Tacarigua	27	6	22.2
Rest of St. George	10	0	0.0
Caroni	10	2	20.0
Victoria	30	2	6.7
St. Patrick	6	2	33.3
St. Andrew/St. David	5	0	0.0
Nariva/Mayaro	2	0	0.0
Tobago	27	5	18.5

Percentage of Households Using Computers for E-commerce by Areas
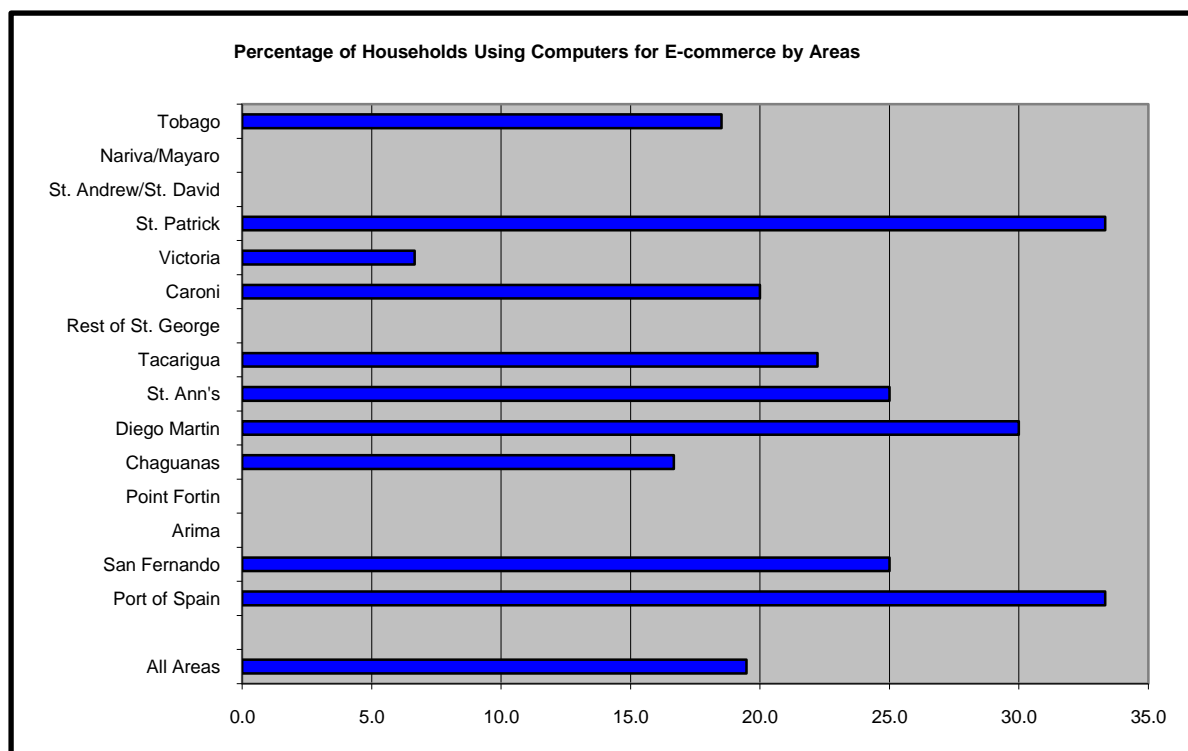
Of the 231 households with Internet connections, only 19.5% used computers for e-commerce.

Table 27: Number of Households by Value of Internet Purchases and Administrative Areas, 2001

| Administrative Areas	Total households	Value of purchase						
		<$500	$500-$999	$1,000-$1,999	$2,000-$2,999	$3,000-$3,999	$4,000 and more	Not stated
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
All Areas	**45**	**19**	**5**	**5**	**6**	**2**	**7**	**1**
Port of Spain	1	0	0	0	0	0	0	1
San Fernando	5	2	0	0	1	0	2	0
Arima	0	0	0	0	0	0	0	0
Point Fortin	0	0	0	0	0	0	0	0
Chaguanas	4	2	0	1	1	0	0	0
Diego Martin	12	3	2	1	2	1	3	0
St. Ann's	6	3	0	1	1	1	0	0
Tacarigua	6	4	1	0	0	0	1	0
Rest of St. George	0	0	0	0	0	0	0	0
Caroni	2	1	0	1	0	0	0	0
Victoria	2	2	0	0	0	0	0	0
St. Patrick	2	0	1	1	0	0	0	0
St. Andrew/St. David	0	0	0	0	0	0	0	0
Nariva/Mayaro	0	0	0	0	0	0	0	0
Tobago	5	2	1	0	1	0	1	0

Percentage of Households by Value of Internet Purchases
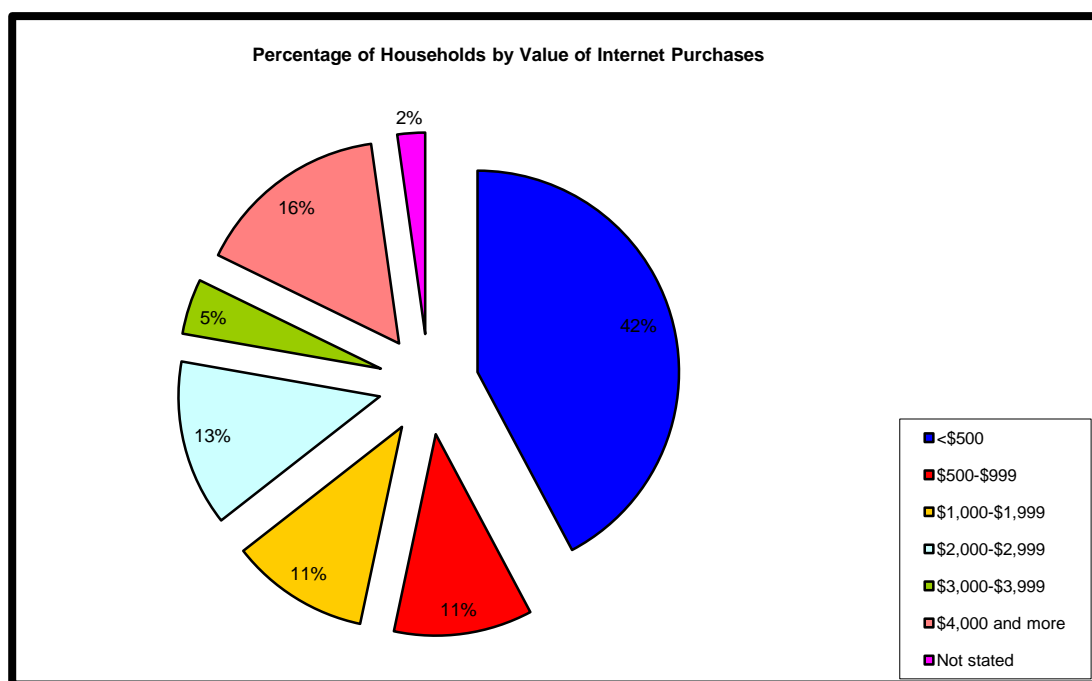
More than half (53.3%) of the households indicated that they spent less than $1,000, 24.4% stated $1,000 - $2,999 and 20.0% reported more than $3,000 on purchases made through the Internet over the six-month period ending May/June, 2001.

Table 28: Number of Internet Purchases of Consumer Goods
by Administrative Areas, 2001

Administrative Areas	Number of consumer goods								
	All goods	Computer hardware/ software	Household appliances	Electronics	Food	Clothing	Pharmaceuticals	Motor-cars /accessories	Other*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
All Areas	**84**	**19**	**8**	**18**	**1**	**11**	**3**	**8**	**16**
Port of Spain	1	1	0	0	0	0	0	0	0
San Fernando	11	3	1	3	1	1	0	2	0
Arima	0	0	0	0	0	0	0	0	0
Point Fortin	0	0	0	0	0	0	0	0	0
Chaguanas	6	0	1	1	0	1	1	0	2
Diego Martin	30	6	3	7	0	5	2	4	3
St. Ann's	9	3	0	1	0	2	0	1	2
Tacarigua	11	2	1	3	0	1	0	0	4
Rest of St. George	0	0	0	0	0	0	0	0	0
Caroni	2	0	1	0	0	0	0	0	1
Victoria	2	0	0	0	0	0	0	0	2
St. Patrick	2	2	0	0	0	0	0	0	0
St. Andrew/St. David	0	0	0	0	0	0	0	0	0
Nariva/Mayaro	0	0	0	0	0	0	0	0	0
Tobago	10	2	1	3	0	1	0	1	2

*Includes books and magazines

Percentage of Purchases of Consumer Goods
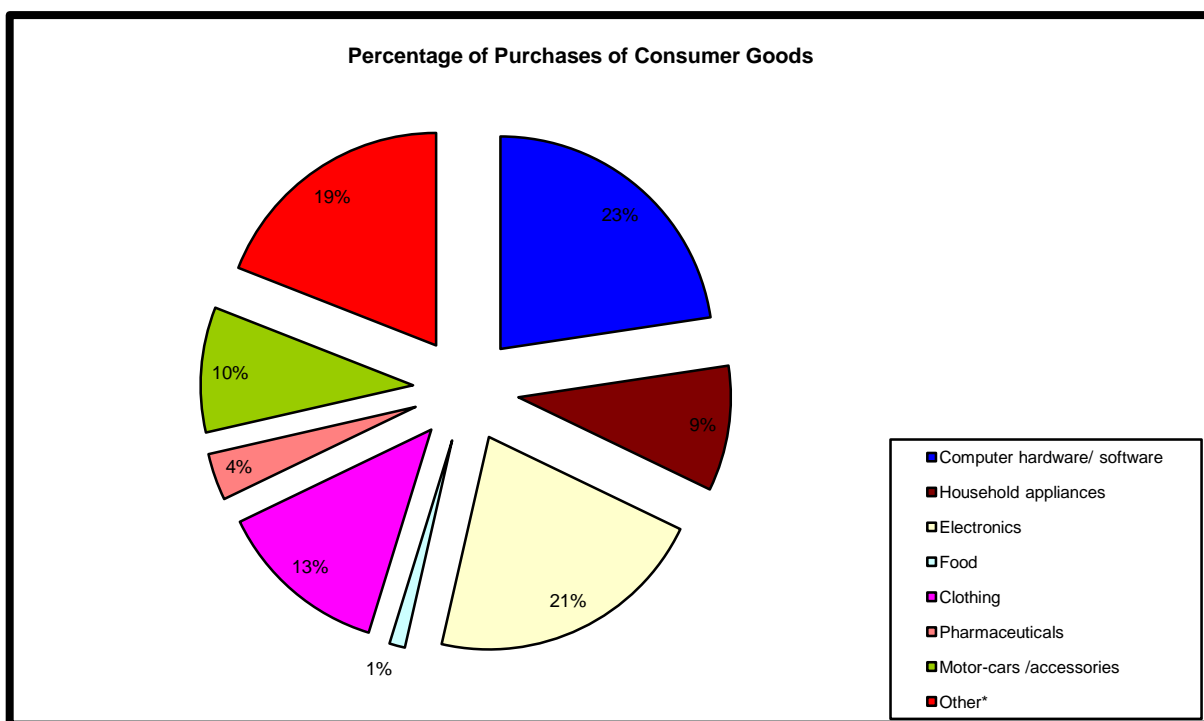
A total of 84 purchases of consumer items were made by the 45 households using e-commerce. The most common consumer goods purchased through e-commerce included computer hardware/software (22.6%), electronics (21.4%), clothing (13.1%) and books and