

APPENDIX G

CONTRACTOR FINANCIAL REPORTING FOR NTD

Contractor Reporting for NTD

Transit contractors (seller of services) need to report percentages of the total amount charged the government agency (buyer of services) for accrued expenditures in four functional categories during the annual reporting period. This document has been prepared to assist transit contractors prepare their reports to government agencies.

The sum of the four category percentages will equal 100 percent of the total annual charges. Each of the four categories may contain expenditures that include:

- **salaries and wages** of owners and employees;
- **fringe benefits** of owners and employees including uniform and work clothing allowances;
- **services** such as management, professional, and/or technical services performed by outside organizations or persons;
- **materials and supplies** such as fuel, lubricants, tires and tubes, vehicle maintenance parts, cleaning materials, and office supplies;
- **casualty and liability costs** incurred for physical damage, public liability and property damage, and corporate insurance premiums; recoveries of physical damage losses, public liability and property damage settlements, and corporate losses; and payouts for uninsured public liability and property damage settlements;
- **taxes** such as federal and state income taxes; property taxes; vehicle licensing and registration fees; fuel and lubricant taxes;
- **miscellaneous expenses** including dues and subscriptions, travel and meetings, tolls, entertainment expense, charitable donations, fines and penalties, bad debts, and advertising/promotion media expenses;
- **interest expenses** such as interest on both short-term and long-term obligations;
- **leases and rentals** including passenger revenue vehicles, service vehicles, buildings, shops and garages, operating yards, other facilities and equipment;
- **depreciation** of passenger revenue vehicles, service vehicles, buildings, shops and garages, operating yards, other facilities and equipment;
- **purchase lease payments** for passenger revenue vehicles, service vehicles, buildings, shops and garages, operating yards, other facilities and equipment.

The four categories for which a percentage value is to be reported to the government agency include the following expenditures where applicable:

1. **Vehicle Operations** includes all labor wages and fringe benefits of employees who drive or operate revenue vehicles in service, supervise service such as street supervisors, dispatch and control service and support such as radio communications, schedule service, collect and process revenues, and provide or supervise security services. Vehicle operations also include any expenditures for operations management, professional, and/or technical services; revenue vehicle

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propulsion fuel and lubricants including taxes; revenue vehicle tires and tubes; revenue vehicle licensing and registration fees; vehicle leases and rentals; vehicle depreciation; and vehicle purchase lease payments. The amount that vehicle operations expenditures are of total charges will vary depending on contract provisions but should range between 55 and 75 percent.

2. **Vehicle Maintenance** includes all labor wages and fringe benefits of employees who inspect, maintain, repair, service and clean, fuel, supervise, and administer maintenance of revenue and service vehicles. Vehicle maintenance also includes any expenditures for vehicle maintenance management, professional and/or technical services such as outside vehicle maintenance contractors; cleaning equipment and supplies; vehicle maintenance parts, supplies, and small tools; premiums for physical vehicle damage insurance; recoveries of physical damage losses to vehicles; service vehicle propulsion fuel and lubricants including taxes; service vehicle tires and tubes; service vehicle licensing and registration fees; shop and garage leases and rentals; shop and garage depreciation; and shop and garage purchase lease payments. The amount that vehicle maintenance expenditures are of total charges will vary depending on contract provisions but should range between 10 and 25 percent.
3. **Non-Vehicle Maintenance** includes all labor wages and fringe benefits of employees who inspect, maintain, repair, service and clean, supervise, and administer facilities, grounds, and equipment. Non-vehicle maintenance includes expenditures for radio communications equipment, fareboxes, buildings and grounds, custodial services, facility and equipment management, professional and/or technical services such as outside copy machine repairs or lift equipment maintenance; facility cleaning equipment and supplies; non-vehicle maintenance parts and supplies, non-vehicle maintenance equipment leases and rentals; non-vehicle maintenance equipment depreciation; and non-vehicle maintenance equipment purchase lease payments. The amount that non-vehicle maintenance expenditures are of total charges will vary depending on contract provisions but should range between 5 and 10 percent.
4. **General Administration** includes all labor wages and fringe benefits of employees as well as outside management, professional, and technical services and materials/supplies involved in general management and administration, finance and accounting, legal services, data processing, premiums for public liability and property damage insurance and settlements, general public liability insurance, safety-related expenses, personnel administration, purchasing and stores, office management and services, real estate management, office utilities, taxes, dues and subscriptions, travel and meetings, bad debts, customer services, promotion, market research, planning and engineering, office facilities and equipment leases and rentals; office facilities and equipment depreciation; and office facilities and equipment purchase lease payments. The amount that general administration expenditures are of total charges will vary depending on contract provisions but should range between 5 and 25 percent.

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Profits for the contract service will account for the difference between expenditures and charges to the government agency. Profits can be assumed distributed among the four functional categories, for example, based on functional expenditures or simply added to the General Administrative function.

APPENDIX H

VIRGINIA METROBUS SERVICE SURVEY SAMPLING PLAN

APPENDIX H

Virginia MetroBus Service On-Board Survey Sampling Plan

Bus Trips Scheduled by Route and Start Time Period (Utrps)
 Estimated Boardings by Route and Start Time Period (Ubrds)
 Required Responses by Route and Start Time Period (Rrsps)
 Bus Trips to Survey by Route and Start Time Period (Strps)
 Estimated Responses by Route and Start Time Period (Ersps)
 Accuracy Projected (Accuracy)

Route/Period Confidence Level = 68%
 Route/Period Accuracy = 10%
 Weekday Usable Survey Rate = 45%
 Weekend Usable Survey Rate = 25%

Route	Statistic	Weekday						Saturday				Sunday			
		AM	MD	PM	EV	NT	Daily	MO	EV	NT	Daily	MO	EV	NT	Daily
		5:30A-9:30A	9:31A-2:59P	3:00P-7:00P	7:01P-10:00P	10:01P-5:29A		6:00A-1:59P	2:00P-9:59P	10:00P-5:59A		6:00A-1:59P	2:00P-9:59P	10:00P-5:59A	
1B	Utrps	12	11	11	5	1	40	14	15	0	29				
	Ubrds	314	347	288	158	32	1139	363	389	0	752				
	Rrsps	23	23	23	22	14	105	23	24	0	47				
	Strps	2	2	2	2	1	9	4	4	0	8				
	Ersps	24	28	24	28	14	118	26	26	0	52				
	Accuracy	9.8%	9.1%	9.8%	8.6%	10.2%	7.2%	9.5%	9.5%		11.0%				
1C	Utrps	8	11	8	5	0	32	14	16	2	32				
	Ubrds	209	347	209	158	0	923	363	415	52	830				
	Rrsps	22	23	22	22	0	89	23	24	17	64				
	Strps	2	2	2	2	0	8	4	4	2	10				
	Ersps	24	28	24	28	0	104	26	26	13	85				
	Accuracy	9.6%	9.1%	9.6%	8.6%		7.6%	9.5%	9.5%	12.1%	9.8%				
1D	Utrps	2	0	4	1	0	7								
	Ubrds	52	0	105	32	0	189								
	Rrsps	17	0	20	14	0	51								
	Strps	2	0	2	1	0	5								
	Ersps	23	0	24	14	0	61								
	Accuracy	7.9%		9.0%	10.2%		8.7%								
1E	Utrps	5	0	5	0	0	10								
	Ubrds	131	0	131	0	0	262								
	Rrsps	21	0	21	0	0	42								
	Strps	2	0	2	0	0	4								
	Ersps	24	0	24	0	0	48								
	Accuracy	9.3%		9.3%			10.8%								
1F	Utrps	3	0	2	2	6	13	3	1	6	10	24	27	2	53
	Ubrds	79	0	52	63	189	383	78	26	155	259	268	301	22	591
	Rrsps	19	0	17	18	22	76	19	13	22	54	23	23	12	58
	Strps	2	0	2	2	2	8	3	1	4	8	9	9	2	20
	Ersps	24	0	23	28	28	103	20	7	26	53	25	25	6	56
	Accuracy	8.6%		7.9%	7.1%	8.7%	7.0%	9.7%	16.5%	9.0%	10.1%	9.5%	9.6%	17.8%	10.5%
1Z	Utrps	5	0	5	0	0	10								
	Ubrds	131	0	131	0	0	262								
	Rrsps	21	0	21	0	0	42								
	Strps	2	0	2	0	0	4								
	Ersps	24	0	24	0	0	48								
	Accuracy	9.3%		9.3%			10.8%								
2A	Utrps	1	0	0	0	6	7	2	0	6	8	8	5	2	15
	Ubrds	29	0	0	0	136	165	48	0	143	191	321	201	80	602
	Rrsps	14	0	0	0	21	35	17	0	21	38	23	22	19	64
	Strps	1	0	0	0	3	4	2	0	4	6	3	3	2	8
	Ersps	13	0	0	0	31	44	12	0	24	36	30	30	20	80
	Accuracy	10.5%				7.9%	10.7%	12.6%		9.3%	12.4%	8.7%	8.4%	9.7%	8.6%
2B	Utrps	11	11	8	7	2	39	15	16	1	32				
	Ubrds	324	250	236	159	45	1014	358	382	24	764				
	Rrsps	23	23	23	22	16	107	23	24	13	60				
	Strps	2	3	2	3	2	12	4	5	1	10				
	Ersps	27	31	27	31	20	136	24	30	6	60				
	Accuracy	9.2%	8.4%	9.1%	8.1%	8.4%	8.6%	9.9%	8.8%	18.1%	10.2%				

APPENDIX H

Virginia MetroBus Service On-Board Survey Sampling Plan

Bus Trips Scheduled by Route and Start Time Period (Utrps)

Estimated Boardings by Route and Start Time Period (Ubrds)

Required Responses by Route and Start Time Period (Rrsps)

Bus Trips to Survey by Route and Start Time Period (Strps)

Estimated Responses by Route and Start Time Period (Ersp)

Accuracy Projected (Accuracy)

Route/Period Confidence Level = 68%

Route/Period Accuracy = 10%

Weekday Usable Survey Rate = 45%

Weekend Usable Survey Rate = 25%

Route	Statistic	Weekday						Saturday				Sunday			
		AM	MD	PM	EV	NT	Daily	MO	EV	NT	Daily	MO	EV	NT	Daily
		5:30A-9:30A	9:31A-2:59P	3:00P-7:00P	7:01P-10:00P	10:01P-5:29A		6:00A-1:59P	2:00P-9:59P	10:00P-5:59A		6:00A-1:59P	2:00P-9:59P	10:00P-5:59A	
2C	Utrps	15	11	14	6	3	49	16	16	0	32	9	10	0	19
	Ubrds	442	250	413	136	88	1309	382	382	0	764	361	401	0	762
	Rrsps	24	23	24	21	18	110	24	24	0	48	23	24	0	47
	Strps	2	3	2	3	2	12	5	5	0	10	3	3	0	6
	Ersp	27	31	27	31	20	136	30	30	0	60	30	30	0	60
	Accuracy	9.3%	8.4%	9.3%	7.9%	9.5%	6.7%	8.8%	8.8%		10.2%	8.8%	8.8%		10.2%
2G	Utrps	4	0	6	0	0	10								
	Ubrds	118	0	177	0	0	295								
	Rrsps	21	0	22	0	0	43								
	Strps	2	0	2	0	0	4								
	Ersp	27	0	27	0	0	54								
	Accuracy	8.5%		8.9%			10.2%								
2W	Utrps	7	0	5	2	0	14								
	Ubrds	96	0	69	27	0	192								
	Rrsps	20	0	19	0	0	39								
	Strps	4	0	4	0	0	8								
	Ersp	25	0	25	0	0	50								
	Accuracy	8.6%		8.0%			10.1%								
3A	Utrps	14	12	13	6	0	45	14	13	0	27	12	11	0	23
	Ubrds	345	181	320	90	0	936	250	232	0	482	264	242	0	506
	Rrsps	23	22	23	20	0	88	23	23	0	46	23	23	0	46
	Strps	3	4	3	3	0	13	6	6	0	12	5	5	0	10
	Ersp	33	27	33	20	0	113	27	27	0	54	28	28	0	56
	Accuracy	8.3%	8.9%	8.3%	9.9%		7.3%	9.1%	9.1%		10.6%	9.0%	8.9%		10.4%
3B	Utrps	14	10	15	2	0	41	15	12	0	27				
	Ubrds	345	150	370	30	0	895	268	214	0	482				
	Rrsps	23	22	23	14	0	82	23	22	0	45				
	Strps	3	4	3	2	0	12	6	5	0	11				
	Ersp	33	27	33	14	0	107	27	22	0	49				
	Accuracy	8.3%	8.7%	8.3%	9.9%		7.5%	9.1%	10.1%		11.2%				
3E	Utrps	3	0	1	2	10	16	3	4	8	15	5	4	2	11
	Ubrds	74	0	25	30	150	279	54	71	143	268	110	88	44	242
	Rrsps	19	0	13	14	22	68	17	19	21	57	21	20	16	57
	Strps	2	0	1	2	4	9	3	4	5	12	4	4	2	10
	Ersp	22	0	11	14	27	74	14	18	22	54	22	22	11	55
	Accuracy	9.0%		11.5%	9.9%	8.7%	8.2%	11.6%	10.3%	9.8%	10.1%	9.6%	9.3%	13.2%	9.8%
3F	Utrps	0	0	0	3	0	3	0	3	0	3				
	Ubrds	0	0	0	45	0	45	0	54	0	54				
	Rrsps	0	0	0	16	0	16	0	17	0	17				
	Strps	0	0	0	3	0	3	0	3	0	3				
	Ersp	0	0	0	20	0	20	0	14	0	14				
	Accuracy				8.4%		13.9%		11.6%		19.2%				
3W	Utrps	4	0	5	0	0	9								
	Ubrds	53	0	66	0	0	119								
	Rrsps	17	0	18	0	0	35								
	Strps	3	0	4	0	0	7								
	Ersp	18	0	24	0	0	42								
	Accuracy	9.7%		8.2%			10.3%								

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Route/Period Confidence Level = 68%

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Weekday Usable Survey Rate = 45%

Weekend Usable Survey Rate = 25%

Route	Statistic	Weekday						Saturday				Sunday				
		AM	MD	PM	EV	NT	Daily	MO	EV	NT	Daily	MO	EV	NT	Daily	
		5:30A-9:30A	9:31A-2:59P	3:00P-7:00P	7:01P-10:00P	10:01P-5:29A		6:00A-1:59P	2:00P-9:59P	10:00P-5:59A		6:00A-1:59P	2:00P-9:59P	10:00P-5:59A		
3Z	Utrps	5	0	6	0	0	11									
	Ubrds	66	0	79	0	0	145									
	Rrsps	18	0	19	0	0	37									
	Strps	4	0	4	0	0	8									
	Ersps	24	0	24	0	0	48									
	Accuracy	8.2%		8.6%			9.8%									
4A	Utrps	14	14	14	1	0	43									
	Ubrds	283	148	283	11	0	725									
	Rrsps	23	22	23	8	0	76									
	Strps	3	5	3	1	0	12									
	Ersps	27	24	27	5	0	83									
	Accuracy	9.2%	9.4%	9.2%	17.3%		8.5%									
4B	Utrps	9	15	14	8	5	51	16	15	3	34	15	16	0	31	
	Ubrds	182	158	283	85	53	761	173	162	32	367	300	321	0	621	
	Rrsps	22	22	23	19	17	103	22	22	14	58	23	23	0	46	
	Strps	3	5	3	4	4	19	9	9	3	21	5	5	0	10	
	Ersps	27	24	27	19	19	116	24	24	8	56	25	25	0	50	
	Accuracy	8.9%	9.4%	9.2%	10.2%	9.3%	7.1%	9.5%	9.4%	15.6%	10.2%	9.6%	9.6%		11.2%	
4E	Utrps	6	0	0	0	0	6									
	Ubrds	121	0	0	0	0	121									
	Rrsps	21	0	0	0	0	21									
	Strps	3	0	0	0	0	3									
	Ersps	27	0	0	0	0	27									
	Accuracy	8.5%					14.1%									
4H	Utrps	0	0	0	8	4	12	15	9	0	24					
	Ubrds	0	0	0	85	42	127	162	97	0	259					
	Rrsps	0	0	0	19	16	35	22	20	0	42					
	Strps	0	0	0	4	4	8	9	8	0	17					
	Ersps	0	0	0	19	19	38	24	22	0	46					
	Accuracy				10.2%	8.6%	11.2%	9.4%	9.4%		11.1%					
4S	Utrps	5	0	5	0	0	10									
	Ubrds	101	0	101	0	0	202									
	Rrsps	20	0	20	0	0	40									
	Strps	3	0	3	0	0	6									
	Ersps	27	0	27	0	0	54									
	Accuracy	8.3%		8.3%			9.6%									
7A	Utrps	5	10	7	6	7	35	15	17	5	37	13	16	6	35	
	Ubrds	107	278	150	167	195	897	434	492	145	1071	282	347	130	759	
	Rrsps	20	23	22	22	22	109	24	24	21	69	23	23	21	67	
	Strps	3	2	3	2	2	12	4	4	3	11	5	5	4	14	
	Ersps	29	25	29	25	25	133	29	29	22	80	27	27	22	76	
	Accuracy	8.0%	9.6%	8.4%	9.2%	9.4%	6.6%	9.0%	9.0%	9.9%	8.9%	9.2%	9.3%	9.8%	9.0%	
7B	Utrps	5	0	5	0	0	10									
	Ubrds	107	0	107	0	0	214									
	Rrsps	20	0	20	0	0	40									
	Strps	3	0	3	0	0	6									
	Ersps	29	0	29	0	0	58									
	Accuracy	8.0%		8.0%			9.3%									

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Bus Trips Scheduled by Route and Start Time Period (Utrps)

Estimated Boardings by Route and Start Time Period (Ubrds)

Required Responses by Route and Start Time Period (Rrsps)

Bus Trips to Survey by Route and Start Time Period (Strps)

Estimated Responses by Route and Start Time Period (Ersp)

Accuracy Projected (Accuracy)

Route/Period Confidence Level = 68%

Route/Period Accuracy = 10%

Weekday Usable Survey Rate = 45%

Weekend Usable Survey Rate = 25%

Route	Statistic	Weekday						Saturday				Sunday			
		AM	MD	PM	EV	NT	Daily	MO	EV	NT	Daily	MO	EV	NT	Daily
		5:30A-9:30A	9:31A-2:59P	3:00P-7:00P	7:01P-10:00P	10:01P-5:29A		6:00A-1:59P	2:00P-9:59P	10:00P-5:59A		6:00A-1:59P	2:00P-9:59P	10:00P-5:59A	
7C	Utrps	8	0	7	0	0	15								
	Ubrds	172	0	150	0	0	322								
	Rrsps	22	0	22	0	0	44								
	Strps	3	0	3	0	0	6								
	Ersp	29	0	29	0	0	58								
	Accuracy	8.5%		8.4%			9.8%								
7D	Utrps	4	0	4	0	0	8								
	Ubrds	86	0	86	0	0	172								
	Rrsps	20	0	20	0	0	40								
	Strps	3	0	3	0	0	6								
	Ersp	29	0	29	0	0	58								
	Accuracy	7.6%		7.6%			8.8%								
7E	Utrps	18	0	17	0	0	35								
	Ubrds	386	0	364	0	0	750								
	Rrsps	24	0	23	0	0	47								
	Strps	3	0	3	0	0	6								
	Ersp	29	0	29	0	0	58								
	Accuracy	8.9%		8.9%			10.4%								
7F	Utrps	7	11	5	7	2	32	15	14	1	30				
	Ubrds	150	306	107	195	56	814	434	405	29	868				
	Rrsps	22	23	20	22	18	105	24	24	14	62				
	Strps	3	2	3	2	2	12	4	4	1	9				
	Ersp	29	25	29	25	25	133	29	29	7	65				
	Accuracy	8.4%	9.6%	8.0%	9.4%	7.5%	6.5%	9.0%	9.0%	16.8%	9.8%				
7H	Utrps	2	0	2	0	0	4								
	Ubrds	43	0	43	0	0	86								
	Rrsps	16	0	16	0	0	32								
	Strps	2	0	2	0	0	4								
	Ersp	19	0	19	0	0	38								
	Accuracy	8.7%		8.7%			10.1%								
7P	Utrps	9	0	6	0	0	15								
	Ubrds	193	0	129	0	0	322								
	Rrsps	22	0	21	0	0	43								
	Strps	3	0	3	0	0	6								
	Ersp	29	0	29	0	0	58								
	Accuracy	8.6%		8.2%			9.8%								
7W	Utrps	16	0	16	0	0	32								
	Ubrds	343	0	343	0	0	686								
	Rrsps	23	0	23	0	0	46								
	Strps	3	0	3	0	0	6								
	Ersp	29	0	29	0	0	58								
	Accuracy	8.9%		8.9%			10.4%								
7X	Utrps	8	0	10	0	0	18								
	Ubrds	172	0	214	0	0	386								
	Rrsps	22	0	22	0	0	44								
	Strps	3	0	3	0	0	6								
	Ersp	29	0	29	0	0	58								
	Accuracy	8.5%		8.7%			10.0%								

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Route/Period Confidence Level = 68%
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 Weekday Usable Survey Rate = 45%
 Weekend Usable Survey Rate = 25%

Route	Statistic	Weekday						Saturday				Sunday			
		AM	MD	PM	EV	NT	Daily	MO	EV	NT	Daily	MO	EV	NT	Daily
		5:30A-9:30A	9:31A-2:59P	3:00P-7:00P	7:01P-10:00P	10:01P-5:28A		6:00A-1:59P	2:00P-9:59P	10:00P-5:59A		6:00A-1:59P	2:00P-9:59P	10:00P-5:59A	
8S	Utrps	6	0	5	0	0	11								
	Ubrds	119	0	99	0	0	218								
	Rrsps	21	0	20	0	0	41								
	Strps	3	0	3	0	0	6								
	Ersp	27	0	27	0	0	54								
	Accuracy	8.5%		8.2%			9.8%								
8W	Utrps	6	0	7	0	0	13								
	Ubrds	119	0	139	0	0	258								
	Rrsps	21	0	21	0	0	42								
	Strps	3	0	3	0	0	6								
	Ersp	27	0	27	0	0	54								
	Accuracy	8.5%		8.7%			10.0%								
8X	Utrps	7	0	7	0	0	14								
	Ubrds	139	0	139	0	0	278								
	Rrsps	21	0	21	0	0	42								
	Strps	3	0	3	0	0	6								
	Ersp	27	0	27	0	0	54								
	Accuracy	8.7%		8.7%			10.1%								
8Z	Utrps	14	0	14	1	0	29								
	Ubrds	278	0	278	20	0	576								
	Rrsps	23	0	23	11	0	57								
	Strps	3	0	3	1	0	7								
	Ersp	27	0	27	9	0	63								
	Accuracy	9.2%		9.2%	12.7%		9.8%								
9A	Utrps	17	21	16	11	15	80	32	32	12	76	16	16	9	41
	Ubrds	815	808	767	423	577	3390	1321	1321	495	3137	645	645	363	1653
	Rrsps	24	24	24	24	24	120	25	25	24	74	24	24	23	71
	Strps	2	2	2	2	2	10	3	3	3	9	3	3	3	9
	Ersp	43	35	43	35	35	191	31	31	31	93	30	30	30	90
	Accuracy	7.4%	8.3%	7.4%	8.1%	8.2%	5.8%	8.9%	8.9%	8.7%	8.4%	8.9%	8.9%	8.8%	8.5%
9E	Utrps	5	0	6	0	0	11								
	Ubrds	240	0	288	0	0	528								
	Rrsps	23	0	23	0	0	46								
	Strps	2	0	2	0	0	4								
	Ersp	43	0	43	0	0	86								
	Accuracy	6.9%		7.0%			8.1%								
10A	Utrps	17	21	17	9	8	72	30	27	9	66	15	16	3	34
	Ubrds	530	463	530	198	176	1897	671	604	201	1476	326	347	65	738
	Rrsps	24	24	24	22	22	116	24	24	22	70	23	23	18	64
	Strps	2	3	2	3	3	13	5	5	4	14	5	5	3	13
	Ersp	28	30	28	30	30	146	28	28	22	78	27	27	16	70
	Accuracy	9.2%	8.8%	9.2%	8.4%	8.3%	6.6%	9.3%	9.2%	10.1%	9.1%	9.2%	9.3%	10.9%	9.4%
10E	Utrps	8	0	8	0	0	16								
	Ubrds	249	0	249	0	0	498								
	Rrsps	23	0	23	0	0	46								
	Strps	2	0	2	0	0	4								
	Ersp	28	0	28	0	0	56								
	Accuracy	8.9%		8.9%			10.4%								

APPENDIX H

Virginia MetroBus Service On-Board Survey Sampling Plan

Bus Trips Scheduled by Route and Start Time Period (Utrps)
 Estimated Boardings by Route and Start Time Period (Ubrds)
 Required Responses by Route and Start Time Period (Rrsps)
 Bus Trips to Survey by Route and Start Time Period (Strps)
 Estimated Responses by Route and Start Time Period (Ersps)
 Accuracy Projected (Accuracy)

Route/Period Confidence Level = 68%
 Route/Period Accuracy = 10%
 Weekday Usable Survey Rate = 45%
 Weekend Usable Survey Rate = 25%

Route	Statistic	Weekday						Saturday				Sunday			
		AM	MD	PM	EV	NT	Daily	MO	EV	NT	Daily	MO	EV	NT	Daily
		5:30A-9:30A	9:31A-2:59P	3:00P-7:00P	7:01P-10:00P	10:01P-5:29A		6:00A-1:59P	2:00P-9:59P	10:00P-5:59A		6:00A-1:59P	2:00P-9:59P	10:00P-5:59A	
10B	Utrps	6	9	3	5	4	27	18	14	7	39	16	16	3	35
	Ubrds	384	371	192	206	165	1318	700	545	272	1517	677	677	127	1481
	Rrsps	24	23	22	22	22	113	24	24	23	71	24	24	21	69
	Strps	1	2	1	2	2	8	3	3	3	9	3	3	2	8
	Ersps	29	37	29	37	37	169	29	29	29	87	32	32	21	85
	Accuracy	8.9%	7.8%	8.6%	7.5%	7.3%	5.9%	9.1%	9.0%	8.8%	8.6%	8.6%	8.6%	10.0%	8.7%
10C	Utrps	13	12	13	6	2	46								
	Ubrds	832	495	832	247	82	2488								
	Rrsps	24	24	24	23	19	114								
	Strps	1	2	1	2	2	8								
	Ersps	29	37	29	37	37	169								
	Accuracy	9.1%	7.9%	9.1%	7.6%	6.1%	6.1%								
10D	Utrps							14	12	0	26				
	Ubrds							545	467	0	1012				
	Rrsps							24	24	0	48				
	Strps							3	3	0	6				
	Ersps							29	29	0	58				
	Accuracy							9.0%	9.0%		10.5%				
11P	Utrps	8	0	8	0	0	16								
	Ubrds	27	0	27	0	0	54								
	Rrsps	13	0	13	0	0	26								
	Strps	8	0	8	0	0	16								
	Ersps	12	0	12	0	0	24								
	Accuracy	11.0%		11.0%			12.7%								
11Y	Utrps	3	0	3	0	0	6								
	Ubrds	91	0	91	0	0	182								
	Rrsps	20	0	20	0	0	40								
	Strps	2	0	2	0	0	4								
	Ersps	27	0	27	0	0	54								
	Accuracy	8.1%		8.1%			9.4%								
12C	Utrps	4	0	5	1	1	11								
	Ubrds	84	0	104	21	21	230								
	Rrsps	19	0	20	12	12	63								
	Strps	3	0	3	1	1	8								
	Ersps	28	0	28	9	9	74								
	Accuracy	7.8%		8.1%	12.9%	12.9%	7.9%								
12D	Utrps	3	0	4	0	0	7								
	Ubrds	63	0	84	0	0	147								
	Rrsps	18	0	19	0	0	37								
	Strps	2	0	3	0	0	5								
	Ersps	19	0	28	0	0	47								
	Accuracy	9.7%		7.8%			10.0%								
12E	Utrps	5	0	5	0	0	10								
	Ubrds	106	0	106	0	0	212								
	Rrsps	20	0	20	0	0	40								
	Strps	3	0	3	0	0	6								
	Ersps	29	0	29	0	0	58								
	Accuracy	8.0%		8.0%			9.3%								

APPENDIX H

Virginia MetroBus Service On-Board Survey Sampling Plan

Bus Trips Scheduled by Route and Start Time Period (Utrps)
 Estimated Boardings by Route and Start Time Period (Ubrds)
 Required Responses by Route and Start Time Period (Rrsps)
 Bus Trips to Survey by Route and Start Time Period (Strps)
 Estimated Responses by Route and Start Time Period (Ersp)
 Accuracy Projected (Accuracy)

Route/Period Confidence Level = 68%
 Route/Period Accuracy = 10%
 Weekday Usable Survey Rate = 45%
 Weekend Usable Survey Rate = 25%

Route	Statistic	Weekday					Saturday				Sunday				
		AM	MD	PM	EV	NT	Daily	MO	EV	NT	Daily	MO	EV	NT	Daily
		5:30A-9:30A	9:31A-2:59P	3:00P-7:00P	7:01P-10:00P	10:01P-5:29A		6:00A-1:59P	2:00P-9:59P	10:00P-5:59A		6:00A-1:59P	2:00P-9:59P	10:00P-5:59A	
12F	Utrps	3	0	3	1	0	7								
	Ubrds	64	0	64	21	0	149								
	Rrsps	18	0	18	12	0	48								
	Strps	2	0	2	1	0	5								
	Ersp	19	0	19	9	0	47								
	Accuracy	9.7%		9.7%	12.9%		10.0%								
12L	Utrps	5	0	7	0	0	12								
	Ubrds	122	0	171	0	0	293								
	Rrsps	21	0	22	0	0	43								
	Strps	2	0	3	0	0	5								
	Ersp	22	0	33	0	0	55								
	Accuracy	9.7%		7.8%			10.0%								
12M	Utrps	3	0	4	0	0	7								
	Ubrds	73	0	98	0	0	171								
	Rrsps	19	0	20	0	0	39								
	Strps	2	0	2	0	0	4								
	Ersp	22	0	22	0	0	44								
	Accuracy	9.0%		9.4%			10.7%								
12R	Utrps	3	0	3	0	0	6								
	Ubrds	38	0	38	0	0	76								
	Rrsps	15	0	15	0	0	30								
	Strps	3	0	3	0	0	6								
	Ersp	17	0	17	0	0	34								
	Accuracy	9.1%		9.1%			10.6%								
12S	Utrps	7	0	7	0	0	14								
	Ubrds	89	0	89	0	0	178								
	Rrsps	20	0	20	0	0	40								
	Strps	4	0	4	0	0	8								
	Ersp	23	0	23	0	0	46								
	Accuracy	9.0%		9.0%			10.5%								
13A	Utrps	16	0	10	3	5	34	6	8	3	17	6	8	3	17
	Ubrds	284	0	178	24	41	527	43	57	21	121	49	66	25	140
	Rrsps	23	0	22	13	16	74	16	18	12	46	17	18	13	48
	Strps	3	0	3	3	5	14	6	8	3	17	6	8	3	17
	Ersp	24	0	24	11	18	77	11	14	5	30	12	17	6	35
	Accuracy	9.8%		9.5%	11.3%	8.9%	8.7%	13.2%	11.7%	20.0%	13.1%	12.7%	10.5%	18.2%	12.1%
13B	Utrps	12	1	14	0	0	27	4	4	0	8				
	Ubrds	213	8	249	0	0	470	29	29	0	58				
	Rrsps	22	6	23	0	0	51	14	14	0	28				
	Strps	3	1	3	0	0	7	4	4	0	8				
	Ersp	24	4	24	0	0	52	7	7	0	14				
	Accuracy	9.6%	18.9%	9.7%			10.8%	16.8%	16.8%		19.4%				
13F	Utrps							3	0	1	4	3	0	0	3
	Ubrds							21	0	7	28	25	0	0	25
	Rrsps							12	0	6	18	13	0	0	13
	Strps							3	0	1	4	3	0	0	3
	Ersp							5	0	2	7	6	0	0	6
	Accuracy							20.0%		32.3%	27.5%	18.2%			30.0%

APPENDIX H

Virginia MetroBus Service On-Board Survey Sampling Plan

Bus Trips Scheduled by Route and Start Time Period (Utrps)
 Estimated Boardings by Route and Start Time Period (Ubrds)
 Required Responses by Route and Start Time Period (Rrsps)
 Bus Trips to Survey by Route and Start Time Period (Strps)
 Estimated Responses by Route and Start Time Period (Ersps)
 Accuracy Projected (Accuracy)

Route/Period Confidence Level = 68%
 Route/Period Accuracy = 10%
 Weekday Usable Survey Rate = 45%
 Weekend Usable Survey Rate = 25%

Route	Statistic	Weekday						Saturday				Sunday			
		AM	MD	PM	EV	NT	Daily	MO	EV	NT	Daily	MO	EV	NT	Daily
		5:30A-9:30A	9:31A-2:59P	3:00P-7:00P	7:01P-10:00P	10:01P-5:29A		6:00A-1:59P	2:00P-9:59P	10:00P-5:59A		6:00A-1:59P	2:00P-9:59P	10:00P-5:59A	
13G	Utrps							4	0	1	5	3	0	1	4
	Ubrds							29	0	7	36	25	0	8	33
	Rrsps							14	0	6	20	13	0	6	19
	Strps							4	0	1	5	3	0	1	4
	Ersps							7	0	2	9	6	0	2	8
	Accuracy							16.8%		32.3%	24.2%	18.2%		32.7%	25.8%
13M	Utrps	0	10	0	0	0	10								
	Ubrds	0	81	0	0	0	81								
	Rrsps	0	19	0	0	0	19								
	Strps	0	6	0	0	0	6								
	Ersps	0	22	0	0	0	22								
	Accuracy		9.2%				15.1%								
15K	Utrps	7	0	12	1	0	20								
	Ubrds	109	0	187	16	0	312								
	Rrsps	20	0	22	10	0	52								
	Strps	3	0	4	1	0	8								
	Ersps	21	0	28	7	0	56								
	Accuracy	9.8%		8.7%	14.6%		10.0%								
15L	Utrps	5	0	0	0	0	5								
	Ubrds	78	0	0	0	0	78								
	Rrsps	19	0	0	0	0	19								
	Strps	3	0	0	0	0	3								
	Ersps	21	0	0	0	0	21								
	Accuracy	9.4%					15.5%								
16A	Utrps	8	12	7	2	0	29								
	Ubrds	291	422	254	70	0	1037								
	Rrsps	23	24	23	19	0	89								
	Strps	2	2	2	2	0	8								
	Ersps	33	32	33	32	0	130								
	Accuracy	8.2%	8.5%	8.1%	6.6%		6.8%								
16B	Utrps	9	0	0	1	9	19	2	3	5	10	0	2	5	7
	Ubrds	327	0	0	35	317	679	75	112	186	373	0	71	177	248
	Rrsps	23	0	0	15	23	61	19	21	22	62	0	19	22	41
	Strps	2	0	0	1	2	5	2	3	3	8	0	2	3	5
	Ersps	33	0	0	16	32	81	19	28	28	75	0	18	27	45
	Accuracy	8.3%			9.3%	8.4%	8.6%	10.0%	8.2%	8.7%	8.5%		10.3%	8.9%	11.1%
16C	Utrps	7	11	9	6	5	38	23	22	6	51	15	16	6	37
	Ubrds	254	387	327	211	176	1355	858	820	224	1902	530	565	212	1307
	Rrsps	23	24	23	22	22	114	24	24	23	71	24	24	22	70
	Strps	2	2	2	2	2	10	3	3	3	9	3	3	3	9
	Ersps	33	32	33	32	32	162	28	28	28	84	27	26	27	80
	Accuracy	8.1%	8.5%	8.3%	8.2%	8.0%	6.1%	9.3%	9.3%	8.9%	8.8%	9.4%	9.6%	9.0%	8.9%
16D	Utrps	8	10	9	1	0	28								
	Ubrds	291	352	327	35	0	1005								
	Rrsps	23	23	23	15	0	84								
	Strps	2	2	2	1	0	7								
	Ersps	33	32	33	16	0	114								
	Accuracy	8.2%	8.4%	8.3%	9.3%		7.3%								

APPENDIX H

Virginia MetroBus Service On-Board Survey Sampling Plan

Bus Trips Scheduled by Route and Start Time Period (Utrps)
 Estimated Boardings by Route and Start Time Period (Ubrds)
 Required Responses by Route and Start Time Period (Rrsps)
 Bus Trips to Survey by Route and Start Time Period (Strps)
 Estimated Responses by Route and Start Time Period (Ersps)
 Accuracy Projected (Accuracy)

Route/Period Confidence Level = 68%
 Route/Period Accuracy = 10%
 Weekday Usable Survey Rate = 45%
 Weekend Usable Survey Rate = 25%

Route	Statistic	Weekday						Saturday				Sunday			
		AM	MD	PM	EV	NT	Daily	MO	EV	NT	Daily	MO	EV	NT	Daily
		5:30A-9:30A	9:31A-2:59P	3:00P-7:00P	7:01P-10:00P	10:01P-5:29A		6:00A-1:59P	2:00P-9:59P	10:00P-5:59A		6:00A-1:59P	2:00P-9:59P	10:00P-5:59A	
16E	Utrps	0	0	0	3	0	3	22	20	1	43	15	14	0	29
	Ubrds	0	0	0	106	0	106	820	746	37	1603	530	494	0	1024
	Rrsps	0	0	0	20	0	20	24	24	15	63	24	24	0	48
	Strps	0	0	0	2	0	2	3	3	1	7	3	3	0	6
	Ersps	0	0	0	32	0	32	28	28	9	65	27	26	0	53
	Accuracy				7.4%		12.2%	9.3%	9.3%	14.7%	10.0%	9.4%	9.6%		11.0%
16F	Utrps	12	0	11	0	0	23								
	Ubrds	436	0	399	0	0	835								
	Rrsps	24	0	24	0	0	48								
	Strps	2	0	2	0	0	4								
	Ersps	33	0	33	0	0	66								
	Accuracy	8.4%		8.3%			9.8%								
16G	Utrps	6	0	5	0	0	11								
	Ubrds	218	0	182	0	0	400								
	Rrsps	23	0	22	0	0	45								
	Strps	2	0	2	0	0	4								
	Ersps	33	0	33	0	0	66								
	Accuracy	8.0%		7.9%			9.3%								
16J	Utrps	11	11	13	2	0	37								
	Ubrds	399	387	472	70	0	1328								
	Rrsps	24	24	24	19	0	91								
	Strps	2	2	2	2	0	8								
	Ersps	33	32	33	32	0	130								
	Accuracy	8.3%	8.5%	8.4%	6.6%		6.9%								
16S	Utrps	5	0	5	0	0	10								
	Ubrds	107	0	107	0	0	214								
	Rrsps	20	0	20	0	0	40								
	Strps	3	0	3	0	0	6								
	Ersps	29	0	29	0	0	58								
	Accuracy	8.0%		8.0%			9.3%								
16U	Utrps	7	0	7	0	0	14								
	Ubrds	149	0	149	0	0	298								
	Rrsps	22	0	22	0	0	44								
	Strps	3	0	3	0	0	6								
	Ersps	29	0	29	0	0	58								
	Accuracy	8.4%		8.4%			9.7%								
16W	Utrps	11	0	12	3	0	26								
	Ubrds	235	0	256	64	0	555								
	Rrsps	23	0	23	18	0	64								
	Strps	3	0	3	2	0	8								
	Ersps	29	0	29	19	0	77								
	Accuracy	8.7%		8.8%	9.7%		8.7%								
16X	Utrps	7	0	8	0	0	15								
	Ubrds	149	0	171	0	0	320								
	Rrsps	22	0	22	0	0	44								
	Strps	3	0	3	0	0	6								
	Ersps	29	0	29	0	0	58								
	Accuracy	8.4%		8.5%			9.8%								

APPENDIX H

Virginia MetroBus Service On-Board Survey Sampling Plan

Bus Trips Scheduled by Route and Start Time Period (Utrps)

Estimated Boardings by Route and Start Time Period (Ubrds)

Required Responses by Route and Start Time Period (Rrsps)

Bus Trips to Survey by Route and Start Time Period (Strps)

Estimated Responses by Route and Start Time Period (Ersps)

Accuracy Projected (Accuracy)

Route/Period Confidence Level = 68%

Route/Period Accuracy = 10%

Weekday Usable Survey Rate = 45%

Weekend Usable Survey Rate = 25%

Route	Statistic	Weekday						Saturday				Sunday			
		AM	MD	PM	EV	NT	Daily	MO	EV	NT	Daily	MO	EV	NT	Daily
		5:30A-9:30A	9:31A-2:59P	3:00P-7:00P	7:01P-10:00P	10:01P-5:29A		6:00A-1:59P	2:00P-9:59P	10:00P-5:59A		6:00A-1:59P	2:00P-9:59P	10:00P-5:59A	
17A	Utrps	5	1	4	4	1	15								
	Ubrds	49	10	40	40	10	149								
	Rrsps	17	7	16	16	7	63								
	Strps	4	1	4	4	1	14								
	Ersps	18	5	18	18	5	64								
	Accuracy	9.5%	16.7%	8.9%	8.9%	16.7%	7.8%								
17B	Utrps	2	1	1	2	0	6								
	Ubrds	20	10	10	20	0	60								
	Rrsps	11	7	7	11	0	36								
	Strps	2	1	1	2	0	6								
	Ersps	9	5	5	9	0	28								
	Accuracy	12.7%	16.7%	16.7%	12.7%		11.5%								
17F	Utrps	6	0	5	0	0	11								
	Ubrds	59	0	49	0	0	108								
	Rrsps	18	0	17	0	0	35								
	Strps	5	0	4	0	0	9								
	Ersps	22	0	18	0	0	40								
	Accuracy	8.5%		9.5%			10.4%								
17M	Utrps	6	0	8	0	0	14								
	Ubrds	59	0	79	0	0	138								
	Rrsps	18	0	19	0	0	37								
	Strps	5	0	5	0	0	10								
	Ersps	22	0	22	0	0	44								
	Accuracy	8.5%		9.1%			10.3%								
17G	Utrps	6	0	10	0	0	16								
	Ubrds	119	0	198	0	0	317								
	Rrsps	21	0	22	0	0	43								
	Strps	3	0	3	0	0	6								
	Ersps	27	0	27	0	0	54								
	Accuracy	8.5%		9.0%			10.2%								
17H	Utrps	8	0	8	0	1	17								
	Ubrds	158	0	158	0	20	336								
	Rrsps	22	0	22	0	11	55								
	Strps	3	0	3	0	1	7								
	Ersps	27	0	27	0	9	63								
	Accuracy	8.8%		8.8%		12.7%	9.4%								
17K	Utrps	5	0	8	0	0	13								
	Ubrds	99	0	158	0	0	257								
	Rrsps	20	0	22	0	0	42								
	Strps	3	0	3	0	0	6								
	Ersps	27	0	27	0	0	54								
	Accuracy	8.2%		8.8%			10.0%								
17L	Utrps	5	0	6	0	0	11								
	Ubrds	99	0	119	0	0	218								
	Rrsps	20	0	21	0	0	41								
	Strps	3	0	3	0	0	6								
	Ersps	27	0	27	0	0	54								
	Accuracy	8.2%		8.5%			9.8%								