

Ulster County

Transit System Development Plan

Tech Memo 3: Peers Analysis and Route Profiles

March 2012



Table of Contents

	Page
Chapter 1.Introduction	1-1
Chapter 2.Peers Analysis	2-1
Overview	2-1
Methodology	2-1
Analysis	2-3
Chapter 3.Route Profiles.....	3-1
Overview	3-1
Methodology	3-1
Profiles	3-1
Citibus A Route – Kingston	3-3
Strengths	3-11
Weaknesses	3-11
Potential Improvements	3-12
Citibus B Route - Kingston.....	3-13
Strengths	3-20
Weaknesses	3-20
Potential Improvements	3-21
Citibus C Route - Kingston.....	3-22
Strengths	3-29
Weaknesses	3-29
Potential Improvements	3-30
UCAT E/E1 Route – SUNY Ulster / Ellenville / Spring Glen.....	3-31
Strengths	3-36
Weaknesses	3-37
Potential Improvements	3-37
UCAT F Route – Woodstock/Saugerties.....	3-38
Strengths	3-45
Weaknesses	3-45
Potential Improvements	3-45
UCAT G Route – Kingston/Marlboro.....	3-47
Strengths	3-52
Weaknesses	3-52
Potential Improvements	3-52
UCAT H Route – New Paltz/Highland.....	3-54
Strengths	3-59
Weaknesses	3-59
Potential Improvements	3-59
UCAT K Route – Kingston/Ulster Mall Area	3-61
Strengths	3-69
Weaknesses	3-69
Potential Improvements	3-70

ULSTER COUNTY TRANSIT DEVELOPMENT PLAN

UCAT M Route – Ulster Mall Area	3-71
Strengths	3-75
Weaknesses	3-75
Potential Improvements	3-76
UCAT N Route – SUNY Ulster/Rosendale.....	3-77
Strengths	3-82
Weaknesses	3-82
Potential Improvements	3-83
UCAT NPL Route – New Paltz Loop.....	3-84
Strengths	3-89
Weaknesses	3-89
Potential Improvements	3-89
UCAT R Route – Kingston/New Paltz.....	3-91
Strengths	3-96
Weaknesses	3-96
Potential Improvements	3-96
UCAT S Route – Ulster Mall/Saugerties.....	3-98
Strengths	3-106
Weaknesses	3-106
Potential Improvements	3-107
UCAT U Route – Kingston/SUNY Ulster	3-103
Strengths	3-111
Weaknesses	3-111
Potential Improvements	3-111
UCAT UPL Route – Ulster - Poughkeepsie LINK	3-113
Strengths	3-122
Weaknesses	3-122
Potential Improvements	3-122
UCAT W Route – New Paltz/Walkill/ Plattekill	3-124
Strengths	3-127
Weaknesses	3-127
Potential Improvements	3-128
UCAT X Route – New Paltz/Newburgh.....	3-129
Strengths	3-134
Weaknesses	3-134
Potential Improvements	3-134
UCAT Z Route – Kingston/Woodstock/ Pine Hill/Belleayre	3-136
Strengths	3-144
Weaknesses	3-144
Potential Improvements	3-144
Demand-Responsive Services	3-146
Key Findings	3-150

Table of Figures

	Page
Figure 2-1	Geographic Distribution and Operating Environment of Peers2-1
Figure 2-2	Service Characteristics of Peers2-2
Figure 2-3	Fixed Route Revenue Hours per Capita (2010).....2-4
Figure 2-4	Fixed Route Passenger Trips per Capita (2010).....2-4
Figure 2-5	Fixed Route Passengers per Revenue Hour (2010).....2-5
Figure 2-6	Fixed Route Passengers per Revenue Mile (2010)2-6
Figure 2-7	Fixed Route Operating Cost per Revenue Hour (2010).....2-7
Figure 2-8	Fixed Route Operating Cost per Revenue Mile (2010)2-8
Figure 2-9	Fixed Route Operating Cost per Passenger Trip (2010).....2-8
Figure 2-10	Fixed Route Total Farebox Recovery (2010).....2-9
Figure 2-11	Fixed Route Fare per Passenger (2010).....2-10
Figure 2-12	Demand-Responsive Revenue Hours per Capita (2010).....2-12
Figure 2-13	Demand-Responsive Passengers per Capita (2010).....2-12
Figure 2-14	Demand-Responsive Passengers per Revenue Hour (2010).....2-13
Figure 2-15	Demand-Responsive Passengers per Revenue Mile (2010)2-13
Figure 2-16	Demand-Responsive Operating Cost per Revenue Hour (2010).....2-14
Figure 2-17	Demand-Responsive Operating Cost per Revenue Mile (2010)2-15
Figure 2-18	Demand-Responsive Operating Cost per Passenger Trip (2010).....2-15
Figure 2-19	Demand-Responsive Total Farebox Recovery (2010).....2-16
Figure 2-20	Demand-Responsive Fare per Passenger Trip (2010)2-17
Figure 3-1	Citibus A Route Map3-3
Figure 3-2	Citibus A Schedule Statistics3-4
Figure 3-3	Citibus A Ridership Statistics3-5
Figure 3-4	Citibus A Average Weekday Ridership3-5
Figure 3-5	Citibus A Average Saturday Ridership.....3-5
Figure 3-6	Citibus A Average Weekday Ridership per Trip.....3-5
Figure 3-7	Citibus A Average Saturday Ridership per Trip3-5
Figure 3-8	Citibus A Weekday Ridership by Trip - To Uptown3-6
Figure 3-9	Citibus A Weekday Ridership by Trip - To Downtown3-7
Figure 3-10	Citibus A Saturday Ridership by Trip - To Uptown.....3-7
Figure 3-11	Citibus A Saturday Ridership by Trip - To Downtown3-8
Figure 3-12	Citibus A Weekday Ridership by Stop Map3-9
Figure 3-13	Citibus A Saturday Ridership by Stop Map3-10
Figure 3-14	Citibus A Service Productivity Measures3-10
Figure 3-15	Citibus A Weekday Passengers per Revenue Hour3-11
Figure 3-16	Citibus A Saturday Passengers per Revenue Hour3-11
Figure 3-17	Citibus A On-time Performance Measures.....3-11
Figure 3-18	Citibus B Route Map3-13
Figure 3-19	Citibus B Schedule Statistics3-15
Figure 3-20	Citibus B Ridership Statistics3-15
Figure 3-21	Citibus B Average Weekday Ridership3-16
Figure 3-22	Citibus B Average Saturday Ridership.....3-16
Figure 3-23	Citibus B Average Weekday Ridership per Trip.....3-16
Figure 3-24	Citibus B Average Saturday Ridership per Trip3-16
Figure 3-25	Citibus B Weekday Ridership by Trip.....3-17

ULSTER COUNTY TRANSIT DEVELOPMENT PLAN

Figure 3-26	Citibus B Saturday Ridership by Trip	3-17
Figure 3-27	Citibus B Weekday Ridership by Stop Map	3-18
Figure 3-28	Citibus B Saturday Ridership by Stop Map	3-19
Figure 3-29	Citibus B Service Productivity Measures	3-19
Figure 3-30	Citibus B Weekday Passengers per Revenue Hour	3-20
Figure 3-31	Citibus B Saturday Passengers per Revenue Hour	3-20
Figure 3-32	Citibus B On-time Performance Measures.....	3-20
Figure 3-33	Citibus C Route Map.....	3-22
Figure 3-34	Citibus C Schedule Statistics	3-24
Figure 3-35	Citibus C Ridership Statistics	3-24
Figure 3-36	Citibus C Average Weekday Ridership	3-24
Figure 3-37	Citibus C Average Saturday Ridership.....	3-24
Figure 3-38	Citibus C Average Weekday Ridership per Trip.....	3-25
Figure 3-39	Citibus C Average Saturday Ridership per Trip	3-25
Figure 3-40	Citibus C Weekday Ridership by Trip	3-25
Figure 3-41	Citibus C Saturday Ridership by Trip	3-26
Figure 3-42	Citibus C Weekday Ridership by Stop Map	3-27
Figure 3-43	Citibus C Saturday Ridership by Stop Map.....	3-28
Figure 3-44	Citibus C Service Productivity Measures	3-28
Figure 3-45	Citibus C Weekday Passengers per Revenue Hour	3-29
Figure 3-46	Citibus C Saturday Passengers per Revenue Hour.....	3-29
Figure 3-47	Citibus C On-time Performance Measures	3-29
Figure 3-48	UCAT E/E1 Route Map.....	3-31
Figure 3-49	UCAT E Route Schedule Statistics	3-32
Figure 3-50	UCAT E Route Ridership Statistics.....	3-32
Figure 3-51	UCAT E Route Average Weekday Ridership.....	3-33
Figure 3-52	UCAT E Route Average Saturday Ridership	3-33
Figure 3-53	UCAT E Route Average Weekday Ridership per Trip	3-33
Figure 3-54	UCAT E Route Average Saturday Ridership per Trip	3-33
Figure 3-55	UCAT E Route Weekday Ridership by Trip - To SUNY Ulster.....	3-34
Figure 3-56	UCAT E Route Weekday Ridership by Trip - To Ellenville.....	3-34
Figure 3-57	UCAT E Route Weekday Ridership by Stop Map	3-35
Figure 3-58	UCAT E Route Service Productivity Measures	3-36
Figure 3-59	UCAT E Route Weekday Passengers per Revenue Hour	3-36
Figure 3-60	UCAT E Route Saturday Passengers per Revenue Hour.....	3-36
Figure 3-61	UCAT E Route On-time Performance Measures	3-36
Figure 3-62	UCAT F Route Map	3-38
Figure 3-63	UCAT F Route Schedule Statistics	3-39
Figure 3-64	UCAT F Route Ridership Statistics	3-39
Figure 3-65	UCAT F Route Average Weekday Ridership.....	3-40
Figure 3-66	UCAT F Route Average Saturday Ridership.....	3-40
Figure 3-67	UCAT F Route Average Weekday Ridership per Trip.....	3-40
Figure 3-68	UCAT F Route Average Saturday Ridership per Trip	3-40
Figure 3-69	UCAT F Route Weekday Ridership by Trip - To Saugerties.....	3-41
Figure 3-70	UCAT F Route Weekday Ridership by Trip - To Woodstock	3-41
Figure 3-71	UCAT F Route Saturday Ridership by Trip - To Saugerties	3-42
Figure 3-72	UCAT F Route Weekday Ridership by Stop Map	3-43
Figure 3-73	UCAT F Route Saturday Ridership by Stop Map.....	3-44
Figure 3-74	UCAT F Route Service Productivity Measures	3-44

ULSTER COUNTY TRANSIT DEVELOPMENT PLAN

Figure 3-75	UCAT F Route Weekday Passengers per Revenue Hour	3-45
Figure 3-76	UCAT F Route Saturday Passengers per Revenue Hour	3-45
Figure 3-77	UCAT F Route On-time Performance Measures	3-45
Figure 3-78	UCAT G Route Map	3-47
Figure 3-79	UCAT G Route Schedule Statistics	3-48
Figure 3-80	UCAT G Route Ridership Statistics	3-49
Figure 3-81	UCAT G Route Average Weekday Ridership	3-49
Figure 3-82	UCAT G Route Average Saturday Ridership	3-49
Figure 3-83	UCAT G Route Average Weekday Ridership per Trip	3-49
Figure 3-84	UCAT G Route Average Saturday Ridership per Trip	3-49
Figure 3-85	UCAT G Route Weekday Ridership by Trip - To Kingston	3-50
Figure 3-86	UCAT G Route Weekday Ridership by Trip - To Marlboro	3-50
Figure 3-87	UCAT G Route Weekday Ridership by Stop Map	3-51
Figure 3-88	UCAT G Route Service Productivity Measures	3-51
Figure 3-89	UCAT G Route Weekday Passengers per Revenue Hour	3-52
Figure 3-90	UCAT G Route Saturday Passengers per Revenue Hour	3-52
Figure 3-91	UCAT G Route On-time Performance Measures	3-52
Figure 3-92	UCAT H Route Map	3-54
Figure 3-93	UCAT H Route Schedule Statistics	3-55
Figure 3-94	UCAT H Route Ridership Statistics	3-55
Figure 3-95	UCAT H Route Average Weekday Ridership	3-56
Figure 3-96	UCAT H Route Average Saturday Ridership	3-56
Figure 3-97	UCAT H Route Average Weekday Ridership per Trip	3-56
Figure 3-98	UCAT H Route Average Saturday Ridership per Trip	3-56
Figure 3-99	UCAT H Route Weekday Ridership by Trip - To New Paltz	3-57
Figure 3-100	UCAT H Route Weekday Ridership by Trip - To Highland	3-57
Figure 3-101	UCAT H Route Weekday Ridership by Stop Map	3-58
Figure 3-102	UCAT H Route Service Productivity Measures	3-58
Figure 3-103	UCAT H Route Weekday Passengers per Revenue Hour	3-59
Figure 3-104	UCAT H Route Saturday Passengers per Revenue Hour	3-59
Figure 3-105	UCAT H Route On-time Performance Measures	3-59
Figure 3-106	UCAT K Route Map	3-61
Figure 3-107	UCAT K Route Schedule Statistics	3-62
Figure 3-108	UCAT K Route Ridership Statistics	3-63
Figure 3-109	UCAT K Route Average Weekday Ridership	3-63
Figure 3-110	UCAT K Route Average Saturday Ridership	3-63
Figure 3-111	UCAT K Route Average Weekday Ridership per Trip	3-63
Figure 3-112	UCAT K Route Average Saturday Ridership per Trip	3-63
Figure 3-113	UCAT K Route Weekday Ridership by Trip - To Kingston	3-64
Figure 3-114	UCAT K Route Weekday Ridership by Trip - To Ulster Mall	3-65
Figure 3-115	UCAT K Route Saturday Ridership by Trip - To Kingston	3-65
Figure 3-116	UCAT K Route Saturday Ridership by Trip - To Ulster Mall	3-66
Figure 3-117	UCAT K Route Weekday Ridership by Stop Map	3-67
Figure 3-118	UCAT K Route Saturday Ridership by Stop Map	3-68
Figure 3-119	UCAT K Route Service Productivity Measures	3-68
Figure 3-120	UCAT K Route Weekday Passengers per Revenue Hour	3-69
Figure 3-121	UCAT K Route Saturday Passengers per Revenue Hour	3-69
Figure 3-122	UCAT K Route On-time Performance Measures	3-69
Figure 3-123	M Route Map	3-71

ULSTER COUNTY TRANSIT DEVELOPMENT PLAN

Figure 3-124	M Route Schedule Statistics	3-71
Figure 3-125	M Route Ridership Statistics	3-71
Figure 3-126	M Route Average Weekday Ridership	3-72
Figure 3-127	M Route Average Saturday Ridership	3-72
Figure 3-128	M Route Average Weekday Ridership per Trip	3-72
Figure 3-129	M Route Average Saturday Ridership per Trip	3-72
Figure 3-130	M Route Weekday Ridership by Trip	3-73
Figure 3-131	M Route Weekday Ridership by Stop Map	3-74
Figure 3-132	M Route Service Productivity Measures	3-74
Figure 3-133	M Route Weekday Passengers per Revenue Hour	3-75
Figure 3-134	M Route Saturday Passengers per Revenue Hour	3-75
Figure 3-13	M Route On-time Performance Measures	3-75
Figure 3-136	N Route Map	3-77
Figure 3-137	N Route Schedule Statistics	3-78
Figure 3-138	N Route Ridership Statistics	3-78
Figure 3-139	N Route Average Weekday Ridership	3-79
Figure 3-140	N Route Average Saturday Ridership	3-79
Figure 3-141	N Route Average Weekday Ridership per Trip	3-79
Figure 3-142	N Route Average Saturday Ridership per Trip	3-79
Figure 3-143	N Route Weekday Ridership by Trip - To SUNY Ulster	3-80
Figure 3-144	N Route Weekday Ridership by Trip - To Rosendale	3-80
Figure 3-145	N Route Weekday Ridership by Stop Map	3-81
Figure 3-146	N Route Service Productivity Measures	3-81
Figure 3-147	N Route Weekday Passengers per Revenue Hour	3-82
Figure 3-148	N Route Saturday Passengers per Revenue Hour	3-82
Figure 3-149	N Route On-time Performance Measures	3-82
Figure 3-150	NPL Route Map	3-84
Figure 3-151	NPL Route Schedule Statistics	3-85
Figure 3-152	NPL Route Ridership Statistics	3-85
Figure 3-153	NPL Route Average Weekday Ridership	3-86
Figure 3-154	NPL Route Average Saturday Ridership	3-86
Figure 3-155	NPL Route Average Weekday Ridership per Trip	3-86
Figure 3-156	NPL Route Average Saturday Ridership per Trip	3-86
Figure 3-157	NPL Route Weekday Ridership by Trip	3-87
Figure 3-158	NPL Route Weekday Ridership by Stop Map	3-88
Figure 3-159	NPL Route Service Productivity Measures	3-88
Figure 3-160	NPL Route Weekday Passengers per Revenue Hour	3-89
Figure 3-161	NPL Route Saturday Passengers per Revenue Hour	3-89
Figure 3-162	NPL Route On-time Performance Measures	3-89
Figure 3-163	R Route Map	3-91
Figure 3-164	R Route Schedule Statistics	3-92
Figure 3-165	R Route Ridership Statistics	3-93
Figure 3-166	R Route Average Weekday Ridership	3-93
Figure 3-167	R Route Average Saturday Ridership	3-93
Figure 3-168	R Route Average Weekday Ridership per Trip	3-93
Figure 3-169	R Route Average Saturday Ridership per Trip	3-93
Figure 3-170	R Route Weekday Ridership by Trip - To Kingston	3-94
Figure 3-171	R Route Weekday Ridership by Trip - To New Paltz	3-94
Figure 3-172	R Route Weekday Ridership by Stop Map	3-95

ULSTER COUNTY TRANSIT DEVELOPMENT PLAN

Figure 3-173	R Route Service Productivity Measures.....	3-95
Figure 3-174	R Route Weekday Passengers per Revenue Hour.....	3-96
Figure 3-175	R Route Saturday Passengers per Revenue Hour.....	3-96
Figure 3-176	R Route On-time Performance Measures.....	3-96
Figure 3-177	S Route Map.....	3-99
Figure 3-178	S Route Schedule Statistics.....	3-100
Figure 3-179	S Route Ridership Statistics.....	3-100
Figure 3-180	S Route Average Weekday Ridership.....	3-101
Figure 3-181	S Route Average Saturday Ridership.....	3-101
Figure 3-182	S Route Average Weekday Ridership per Trip.....	3-101
Figure 3-183	S Route Average Saturday Ridership per Trip.....	3-101
Figure 3-184	S Route Weekday Ridership by Trip - To Saugerties.....	3-102
Figure 3-185	S Route Weekday Ridership by Trip - To Ulster Mall.....	3-102
Figure 3-186	S Route Saturday Ridership by Trip - To Saugerties.....	3-103
Figure 3-187	S Route Saturday Ridership by Trip - To Ulster Mall.....	3-103
Figure 3-188	S Route Weekday Ridership by Stop Map.....	3-104
Figure 3-189	S Route Saturday Ridership by Stop Map.....	3-105
Figure 3-190	S Route Service Productivity Measures.....	3-105
Figure 3-191	S Route Weekday Passengers per Revenue Hour.....	3-106
Figure 3-192	S Route Saturday Passengers per Revenue Hour.....	3-106
Figure 3-193	S Route On-time Performance Measures.....	3-106
Figure 3-194	U Route Map.....	3-103
Figure 3-195	U Route Schedule Statistics.....	3-105
Figure 3-196	U Route Ridership Statistics.....	3-105
Figure 3-197	U Route Average Weekday Ridership.....	3-105
Figure 3-198	U Route Average Saturday Ridership.....	3-105
Figure 3-199	U Route Average Weekday Ridership per Trip.....	3-106
Figure 3-200	U Route Average Saturday Ridership per Trip.....	3-106
Figure 3-201	U Route Weekday Ridership by Trip - To Kingston.....	3-107
Figure 3-202	U Route Weekday Ridership by Trip - To SUNY Ulster.....	3-107
Figure 3-203	U Route Saturday Ridership by Trip - To Kingston.....	3-108
Figure 3-204	U Route Saturday Ridership by Trip - To SUNY Ulster.....	3-108
Figure 3-205	U Route Weekday Ridership by Stop Map.....	3-109
Figure 3-206	U Route Saturday Ridership by Stop Map.....	3-110
Figure 3-207	U Route Service Productivity Measures.....	3-110
Figure 3-208	U Route Weekday Passengers per Revenue Hour.....	3-111
Figure 3-209	U Route Saturday Passengers per Revenue Hour.....	3-111
Figure 3-210	U Route On-time Performance Measures.....	3-111
Figure 3-211	UPL Route Map.....	3-113
Figure 3-212	UPL Route Schedule Statistics.....	3-114
Figure 3-213	UPL Route Ridership Statistics.....	3-115
Figure 3-214	UPL Route Average Weekday Ridership.....	3-115
Figure 3-215	UPL Route Average Saturday Ridership.....	3-115
Figure 3-216	UPL Route Average Weekday Ridership per Trip.....	3-115
Figure 3-217	UPL Route Average Saturday Ridership per Trip.....	3-115
Figure 3-218	UPL Route Weekday Ridership by Trip - To Poughkeepsie.....	3-116
Figure 3-219	UPL Route Weekday Ridership by Trip - To Ulster County.....	3-116
Figure 3-220	UPL Route Saturday Ridership by Trip - To Poughkeepsie.....	3-117
Figure 3-221	UPL Route Saturday Ridership by Trip - To Ulster County.....	3-117

ULSTER COUNTY TRANSIT DEVELOPMENT PLAN

Figure 3-222	UPL Route Sunday Ridership by Trip - To Poughkeepsie	3-118
Figure 3-223	UPL Route Sunday Ridership by Trip - To Ulster County	3-118
Figure 3-224	UPL Route Weekday Ridership by Stop Map	3-119
Figure 3-225	UPL Route Saturday Ridership by Stop Map	3-120
Figure 3-226	UPL Route Sunday Ridership by Stop Map	3-121
Figure 3-227	UPL Route Service Productivity Measures	3-121
Figure 3-228	UPL Route Weekday Passengers per Revenue Hour	3-122
Figure 3-229	UPL Route Saturday Passengers per Revenue Hour	3-122
Figure 3-230	UPL Route On-time Performance Measures	3-122
Figure 3-231	W Route Map	3-124
Figure 3-232	W Route Schedule Statistics	3-125
Figure 3-233	W Route Ridership Statistics	3-125
Figure 3-234	W Route Average Weekday Ridership	3-126
Figure 3-235	W Route Average Saturday Ridership	3-126
Figure 3-236	W Route Average Weekday Ridership per Trip	3-126
Figure 3-237	W Route Average Saturday Ridership per Trip	3-126
Figure 3-238	W Route Service Productivity Measures	3-127
Figure 3-239	W Route Weekday Passengers per Revenue Hour	3-127
Figure 3-240	W Route Saturday Passengers per Revenue Hour	3-127
Figure 3-241	W Route On-time Performance Measures	3-127
Figure 3-242	X Route Route Map	3-129
Figure 3-243	X Route Schedule Statistics	3-130
Figure 3-244	X Route Ridership Statistics	3-131
Figure 3-245	X Route Average Weekday Ridership	3-131
Figure 3-246	X Route Average Saturday Ridership	3-131
Figure 3-247	X Route Average Weekday Ridership per Trip	3-131
Figure 3-248	X Route Average Saturday Ridership per Trip	3-131
Figure 3-249	X Route Weekday Ridership by Trip - To New Paltz	3-132
Figure 3-250	X Route Weekday Ridership by Trip - To Newburgh	3-132
Figure 3-251	X Route Weekday Ridership by Stop Map	3-133
Figure 3-252	X Route Service Productivity Measures	3-133
Figure 3-253	X Route Weekday Passengers per Revenue Hour	3-134
Figure 3-254	X Route Saturday Passengers per Revenue Hour	3-134
Figure 3-255	X Route On-time Performance Measures	3-134
Figure 3-256	Z Route Map	3-136
Figure 3-257	Z Route Schedule Statistics	3-138
Figure 3-258	Z Route Ridership Statistics	3-138
Figure 3-259	Z Route Average Weekday Ridership	3-138
Figure 3-260	Z Route Average Saturday Ridership	3-138
Figure 3-261	Z Route Average Weekday Ridership per Trip	3-139
Figure 3-262	Z Route Average Saturday Ridership per Trip	3-139
Figure 3-263	Z Route Weekday Ridership by Trip - To Belleayre	3-140
Figure 3-264	Z Route Weekday Ridership by Trip - To Kingston	3-140
Figure 3-265	Z Route Saturday Ridership by Trip - To Belleayre	3-141
Figure 3-266	Z Route Saturday Ridership by Trip - To Kingston	3-141
Figure 3-267	Z Route Weekday Ridership by Stop Map	3-142
Figure 3-268	Z Route Saturday Ridership by Stop Map	3-143
Figure 3-269	Z Route Service Productivity Measures	3-143
Figure 3-270	Z Route Weekday Passengers per Revenue Hour	3-144

ULSTER COUNTY TRANSIT DEVELOPMENT PLAN

Figure 3-271 Z Route Saturday Passengers per Revenue Hour.....3-144
Figure 3-272 Z Route On-time Performance Measures3-144
Figure 3-273 UCAT Paratransit Boardings..... 3-147
Figure 3-274 UCAT Rural Route Schedule3-148
Figure 3-275 UCAT Rural Route Boardings.....3-149

Chapter 1. Introduction

Ulster County and Ulster County Transportation Council (UCTC) retained Nelson\Nygaard Consultant Associates, along with Fitzgerald & Halliday, Inc. (FHI) to evaluate existing transit services and determine how service can be improved for county residents over the next decade. The study will identify service needs and opportunities, review existing service performance and productivity, and use this information to lay out a strategic plan to address gaps and opportunities with the goal of improving service delivery over a ten-year planning period. The analysis and resulting recommendations are intended to include the full spectrum of service delivery spanning organizational, communication, capital, and service structures.

This memo, Technical Memo 3: Peers Analysis and Route Profiles, compares Ulster County's transit services to several peer transit agencies and provides a route-by-route analysis of both systems. The technical memo is organized into three chapters immediately following this introduction:

- **Chapter 2: Peers Analysis** – a comparative analysis of system-wide service performance metrics for UCAT, Citibus, and eight regional peers, followed by key findings.
- **Chapter 3: Route Profiles** – a route-by-route review of ridership and service performance for every UCAT and Citibus service, followed by key findings.

Technical Memo 3 is the third memo in a series and is intended as a working paper. All findings and recommendations should be considered preliminary.

Chapter 2. Peers Analysis

Overview

This chapter provides a system-wide comparison of UCAT and Citibus services to several peer transit providers in the region (New York State and Vermont). This review will help Ulster County and the City of Kingston understand how they compare against peer systems, and will provide reasonable benchmarks for the services and policies of the agency.

Methodology

The first step in the peers analysis review was to identify a number of transit agencies that could potentially be compared with UCAT and Citibus. The peer transit providers were selected based on a number of factors including geographic proximity, operating environment, and service characteristics. As UCAT and Citibus are themselves quite different by these measures, the list of peers was similarly diverse.

A summary of the transit systems and locations chosen for the peers analysis is shown in Figure 2-1 below:

Figure 2-1 Geographic Distribution and Operating Environment of Peers

System	UZA	Service Area Size (sq mi)	Service Area Population	Population Density (pop/sq mi)
Ulster County Area Transit (UCAT)	Poughkeepsie-Newburgh, NY	1,126	181,670	161
Kingston Citibus	Kingston, NY	9	23,893	2,655
Watertown Citibus	Watertown, NY	9	27,023	3,003
Capital District Transportation Authority (CDTA)	Albany, NY	1,760	794,293	451
Tompkins Consolidated Area Transit (TCAT)	Ithaca, NY	491	101,564	207
Dutchess County Division of Mass Transportation (LOOP Bus)	Poughkeepsie-Newburgh, NY	1,067	351,997	330
City of Poughkeepsie Transit System	Poughkeepsie-Newburgh, NY	5	28,844	5,769
Greater Glens Falls Transit (GGFT)	Glens Falls, NY	46	59,743	1,299
Chittenden County Transportation Authority (CCTA)	Burlington, VT	61	86,468	1,418

Data on each peer system's service characteristics was collected through the National Transit Database whenever possible in order to ensure a standardized data base. The Citibus system in Watertown does not report to NTD because it does not meet the vehicle number threshold that requires reporting. The system, however, was of particular interest to the project team for its similarities to Kingston, thus data was collected from the transit operator. Kingston Citibus also does not report to NTD. Data for Citibus was calculated based on the following methods:

- **Ridership:** Average daily fixed-route ridership for a typical weekday and Saturday was collected during an on-board ridership survey (ridecheck). This was interpolated to an annual total. For demand-response service, Citibus operators reported that, on average,

this service carries 28-30 trips per weekday. It was assumed that Saturdays carry 50% of weekday service.¹

- Operating Cost: The City of Kingston budget was used to calculate bus operations cost. The budget also lists revenues, including fares, which was used to calculate farebox recovery.²
- Revenue Hours: The schedules were used to calculate fixed-route hours of service per weekday and Saturday. For demand-response service, Citibus operators reported that two vehicles are in service on weekdays, one from 6 AM-1 PM and the other from 9 AM-4 PM. On Saturdays, one vehicle runs from 9:30 AM-5:30 PM. These operating hours were used to calculate demand-response annual revenue hours.
- Revenue Miles: Schedules were used to calculate fixed-route miles of service per weekday and Saturday. For demand-response service, the average miles per trip for Watertown Citibus was calculated at 3.2 miles. Since Watertown and Kingston are the same size, it was assumed that average trip length for demand-response would be the same for both systems.

Figure 2-2 Service Characteristics of Peers

System	Number of Bus Routes	Annual Ridership (2010)	Annual Revenue Miles (2010)	Annual Revenue Hours (2010)	Peak Fleet (2010)	Total Operating Budget (2010)
Ulster County Area Transit (UCAT)	16	317,058	1,096,506	55,483	20	\$4,803,538
Kingston Citibus	3	97,484	67,313	13,232	3	\$1,010,870
Watertown Citibus	5	150,366	138,898	15,062	3	\$746,990
Capital District Transportation Authority (CDTA)	56	13,801,196	8,315,877	673,065	257	\$75,498,763
Tompkins Consolidated Area Transit (TCAT)	36	3,640,207	2,110,749	148,059	62	\$12,178,431
Dutchess County Division of Mass Transportation (LOOP Bus)	9	467,593	1,013,469	55,963	44	\$6,055,517
City of Poughkeepsie Transit System	5	423,632	191,076	15,275	6	\$1,339,880
Greater Glens Falls Transit (GGFT)	12	325,117	343,833	20,641	6	\$1,316,268
Chittenden County Transportation Authority (CCTA)	16	2,498,883	1,456,955	117,250	62	\$9,382,711

¹ Citibus provided STOA reporting numbers for the past five-year period; however, there was no way to separate these statistics into fixed-route and demand-response.

² City of Kingston General Budget, <http://ci.kingston.ny.us/filestorage/76/78/1007/2012AdoptedBudget.pdf>, p 151

Analysis

Peer system fixed-route and demand-response services were analyzed based upon categories that illustrate the following performance measures:

1. Service Availability / Market Penetration
 - a. Revenue Hours per Capita
 - b. Passengers per Capita
2. Service Productivity
 - a. Passengers per Revenue Hour
 - b. Passengers per Revenue Mile
3. Cost Efficiency
 - a. Operating Cost per Revenue Hour
 - b. Operating Cost per Passenger
 - c. Operating Cost per Revenue Mile
4. Farebox Recovery
 - a. Total Farebox Recovery
 - b. Fare per Passenger

Many of these metrics are directly related to ridership (passenger trips), and it should be noted that due to extensive inter-lining, UCAT may be unintentionally undercounting passenger, and thus appear less competitive by many measures than its peers. Inter-lining is the practice of using one transit vehicle on more than one route. After completing a route, the driver may simply change the destination sign on the bus and proceed directly to the next route. Any passengers still onboard the vehicle, are then essentially on a new route. This can be convenient for passengers as it allows them a one seat connection, but it can result in undercounted ridership.

At many transit system that make extensive use of interlining, bus drivers are instructed to count all passenger still on the bus at the inter-line point as transferring passengers. This is a reasonable approach, as it reflects a transfer of passengers from one route to another, even though the two routes happen to be operated by the same vehicle. UCAT does not follow this approach. Passengers that board a bus while it is on one route (Route S in Saugerties for example) are only counted once, even if the bus subsequently transitions into a different route (Route K in Kingston for example).

This information should be kept in mind when reviewing the following analysis.

Fixed Route Service Analysis

Service Availability / Market Penetration

Service availability and market penetration are measures of the amount of service being provided to the public and the degree to which the service is being consumed. Service availability can be expressed in terms of revenue hours per capita (Figure 2-3) while market penetration is measured in terms of passenger trips per capita (Figure 2-4).

Figure 2-3 Fixed Route Revenue Hours per Capita (2010)

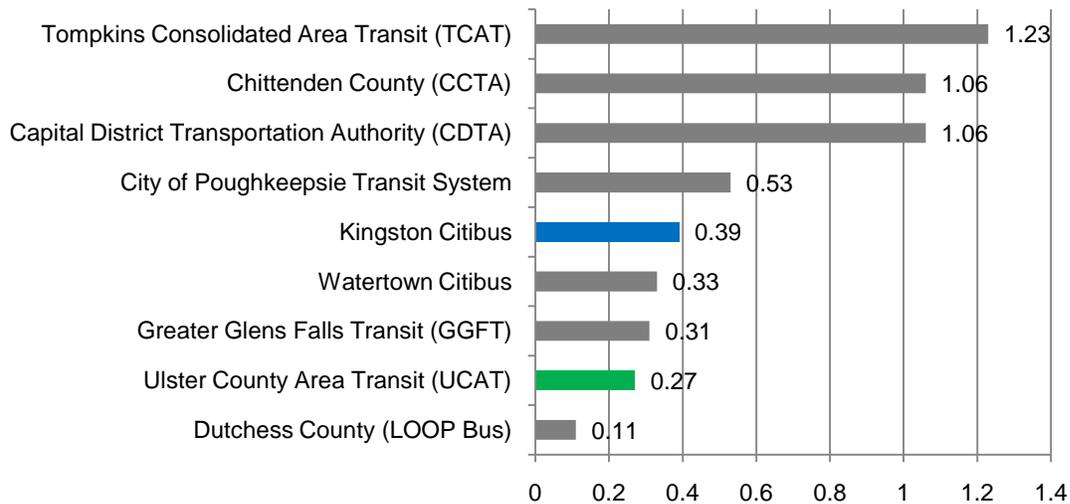
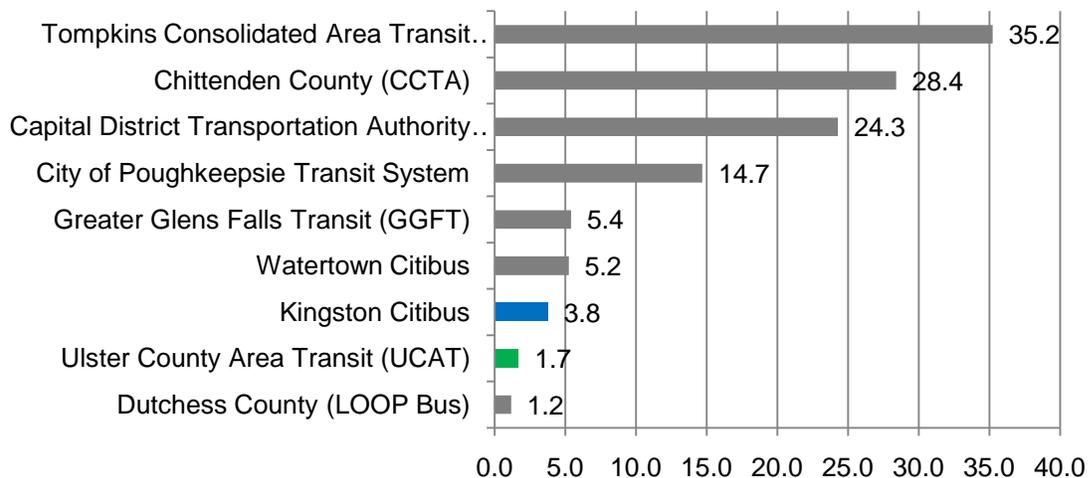


Figure 2-4 Fixed Route Passenger Trips per Capita (2010)



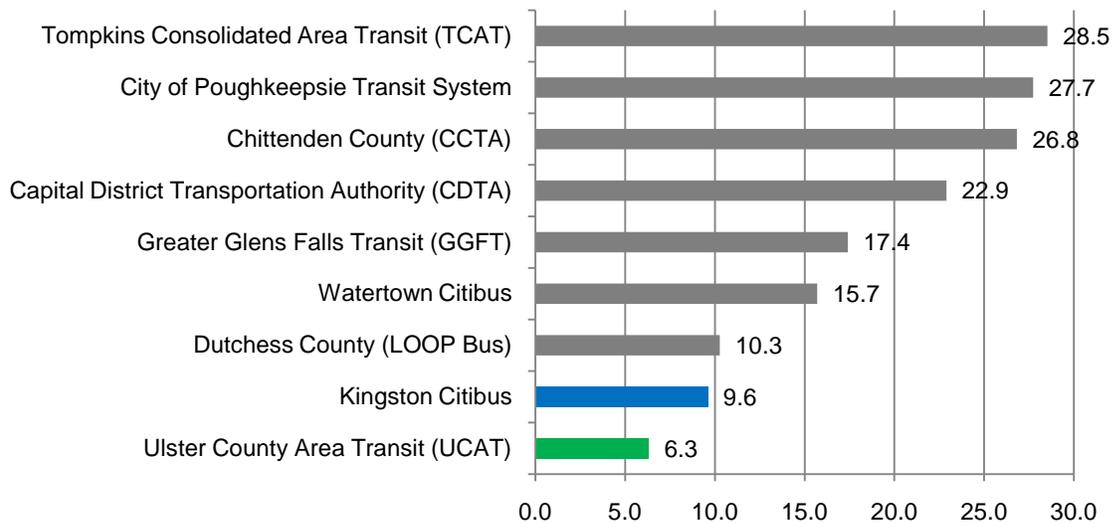
Fixed Route Revenue Hours per Capita / Passenger Trips per Capita. Citibus ranks in the middle of the pack for hours per capita, but ranks low for passengers per capita, meaning more service is being provided to the public than is actually being used. UCAT's hours per capita are

low, but its passengers per capita is also low among the peers. Thus, it is expending a comparable level of resources to ridership.

Service Productivity

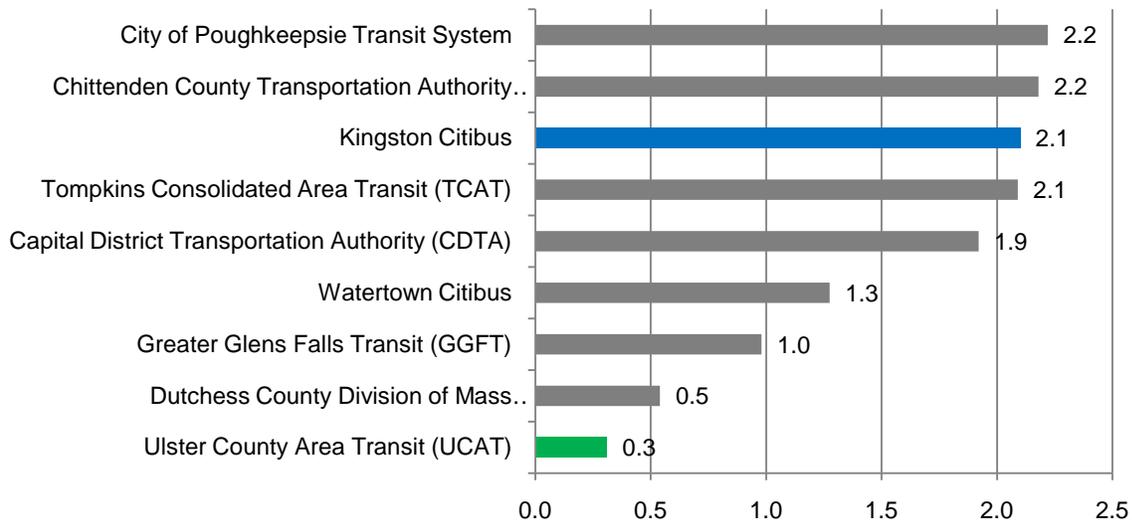
Service productivity illustrates how much ridership is being generated relative to the amount of service available. Service productivity is often expressed in terms of passengers per revenue hour (Figure 2-5) and passengers per revenue mile (Figure 2-6).

Figure 2-5 Fixed Route Passengers per Revenue Hour (2010)



Fixed Route Passengers per Revenue Hour. Figure 2-5 shows that UCAT ranks lowest on this metric, due to the county's rural nature and the long distances (and hence time) it takes to connect people to destinations. The Dutchess County system showed a somewhat similar low number of passengers per revenue hour, and this system, like UCAT, covers a large rural county. Citibus ranks second lowest and carries less than 10 passengers per revenue hour. Its closest peer, Watertown Citibus, operates 54% more hours than Kingston Citibus, and carries more than 15 passengers per hour (63% more than Kingston Citibus).

Figure 2-6 Fixed Route Passengers per Revenue Mile (2010)



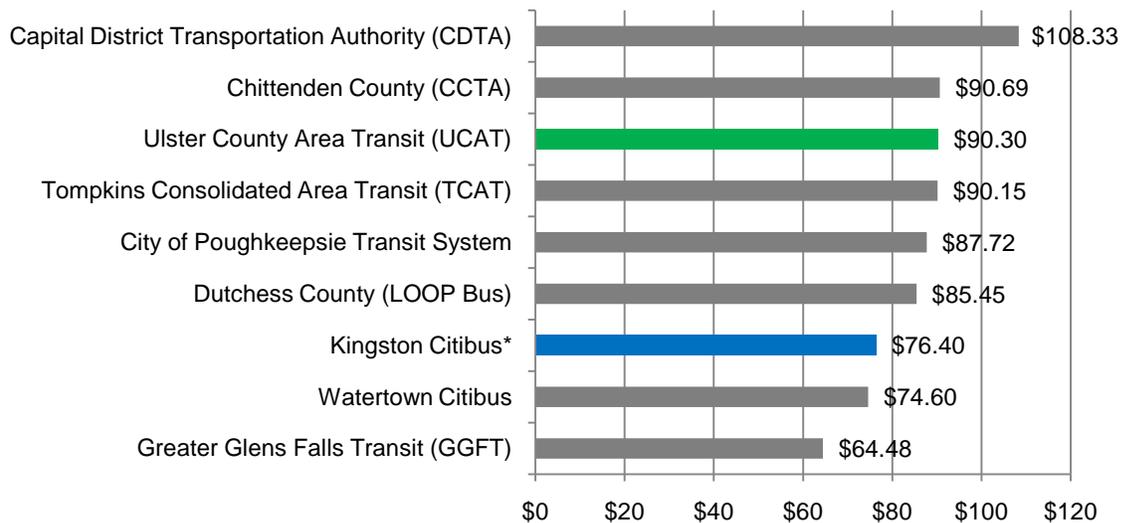
Fixed Route Passengers per Revenue Mile. Similar to passengers per hour, the county-wide rural system of UCAT and Dutchess County carry a low number of passengers per mile. Both Ulster and Dutchess Counties are the only peer system who cover a more than 1,000 square mile service area. Citibus does well on this metric, as the service area is just 9 square miles.

Cost Efficiency

Cost efficiency is a measure of the cost to achieve a particular result – in the case of transit operations, a particular level of service or level of ridership. Cost efficiency can be shown in terms of operating cost per revenue hour (Figure 2-7), operating cost per revenue mile (Figure 2-8), and operating cost per passenger (Figure 2-9).

Fixed Route Operating Cost per Revenue Hour. As shown below, UCAT's operating costs are akin to county systems like Tompkins and Chittenden Counties. However, given the much higher ridership in the peer counties as well as the much lower number of hours provided by UCAT in comparison to the other two counties, costs are high for the service provided. Numerous elements can contribute to high operating costs, from union requirements to staff size. Kingston Citibus' costs to operate are fairly standard for a small urban system.

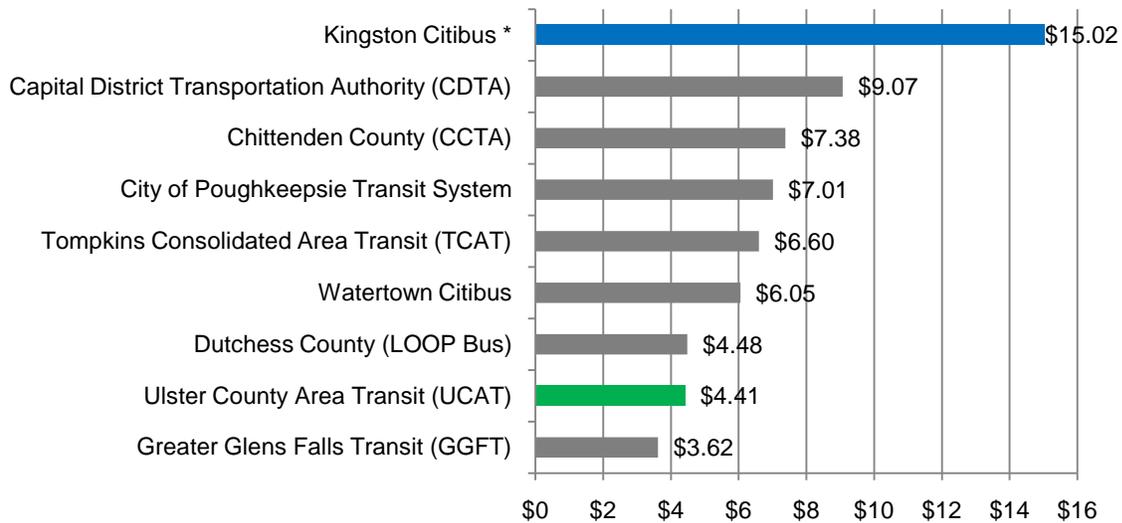
Figure 2-7 Fixed Route Operating Cost per Revenue Hour (2010)



* Operating costs per fixed-route and demand-response were not available. This represents system-wide metrics.

Fixed Route Operating Cost per Revenue Mile. Although Kingston and Watertown Citibus are similarly sized systems, Kingston Citibus runs far less miles, thus although their operating cost per hour is similar, based upon their mileage Kingston Citibus' costs are very high. UCAT runs a fairly efficient service according to miles.

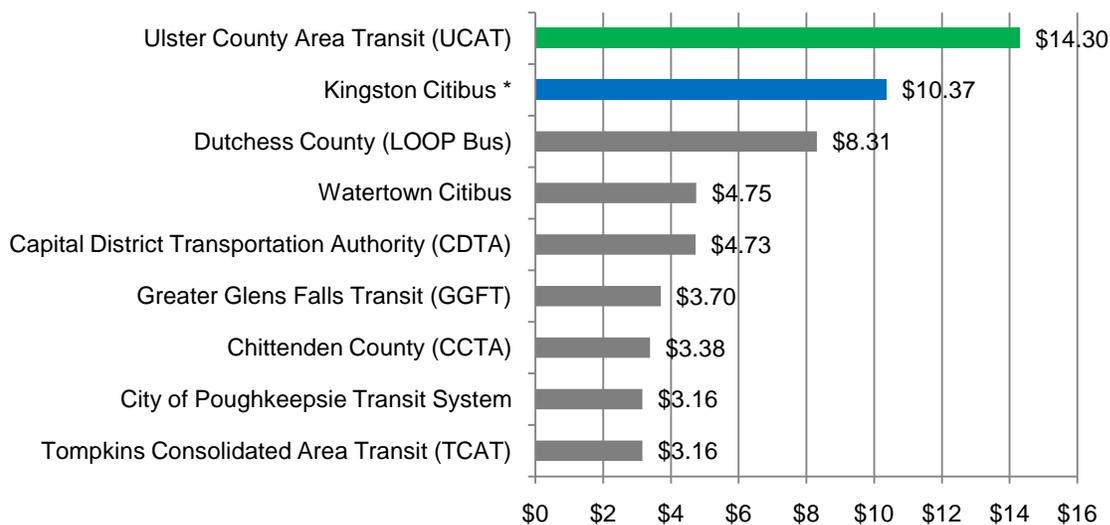
Figure 2-8 Fixed Route Operating Cost per Revenue Mile (2010)



* Operating costs per fixed-route and demand-response were not available. This represents system-wide metrics.

Fixed Route Operating Cost per Passenger Trip. In general, fixed-route service cost per passenger trip should be around \$5 at the high end. As shown below, UCAT and Citibus cost per passenger is very high. Even taking into account the rural nature of the county, UCAT's return on investment is low. The high cost per passenger trip on Citibus shows that, while service per hour is being operated in a fairly cost-effective manner, the system is yielding little ridership.

Figure 2-9 Fixed Route Operating Cost per Passenger Trip (2010)



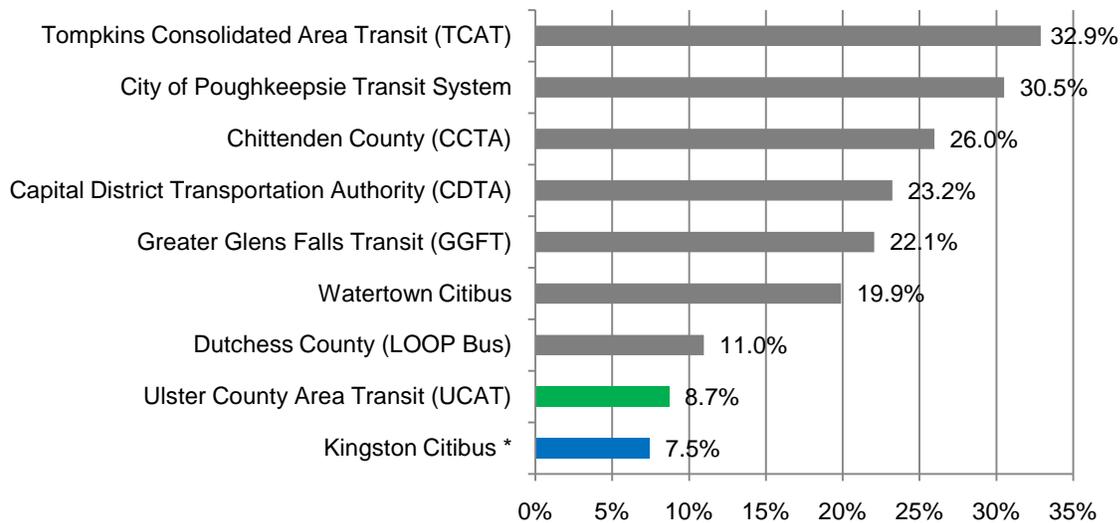
* Operating costs per fixed-route and demand-response were not available. This represents system-wide metrics.

Farebox Recovery

Farebox recovery (10) is the ratio of fare revenue to total operating costs. A general rule of thumb for a small to medium transit operation is to maintain a recovery rate of 10-15% (e.g., fares cover 10-15% of operating costs). The fare per passenger (Figure 11) is another measure of efficiency, as it normalizes the fares collected by the number of people riding the system.

Total Fixed Route Farebox Recovery. Both UCAT and Citibus recover a low percent of operating cost through fares. UCAT's fares are quite low when considering the miles the service provided. Kingston to Pine Hill measures 36 miles and a one-way fare covers five zones and costs \$2, which is fairly low in comparison to peers. Dutchess County's base fare is \$1.75 for one-way trips. In Tompkins County, fares were recently raised to \$2.50 for trips originating in rural areas and destined for Ithaca. Citibus farebox is low but that is due to low ridership rather than low fares - base fare is \$1.25 and the service area is small.

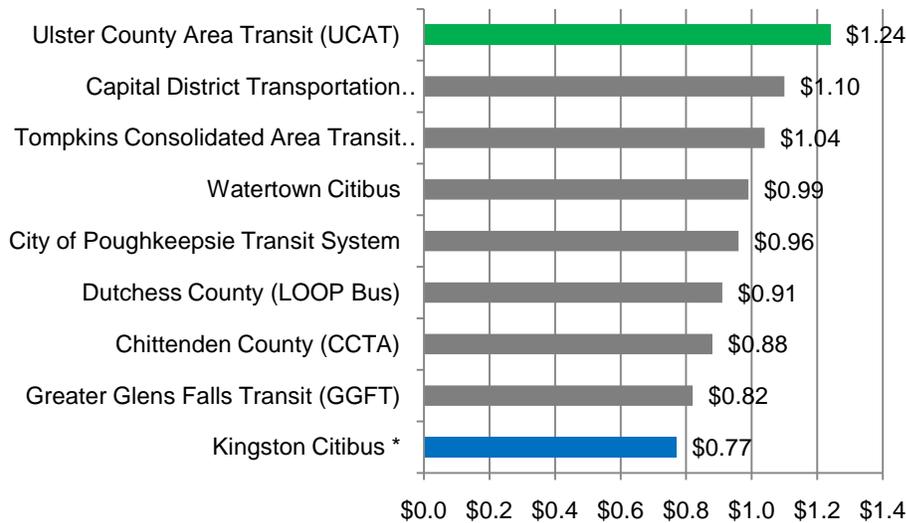
Figure 2-10 Fixed Route Total Farebox Recovery (2010)



* Operating costs per fixed-route and demand-response were not available. This represents system-wide metrics.

Fixed Route Fare per Passenger. UCAT fare per passenger is \$1.24, indicating that most patrons are traveling over at least two zones (base fare is \$1, and additional zones are 25 cents).

Figure 2-11 Fixed Route Fare per Passenger (2010)



* Operating costs per fixed-route and demand-response were not available. This represents system-wide metrics.

Demand-Responsive Service Analysis

The following section applies service productivity metrics to demand-responsive service. In general, demand-responsive service often makes up a small portion of ridership but can be costly because of the higher number of miles per trip and lower ridership per vehicle.

Service Availability / Market Penetration

As with fixed-route service, service availability for demand-responsive service is expressed in terms of revenue hours per capita (Figure 2-12), and market penetration is measured in terms of passenger trips per capita (Figure 2-13).

Demand-Responsive Revenue Hours per Capita & Passengers per Capita. While UCAT's passengers per hour and mile are fairly low, UCAT also does not provide a high level of demand-response service. For example, UCAT provides just under 7,000 annual hours of demand-responsive service compared to over 16,000 in Dutchess County. Given that passengers per capita is also quite low, this might exhibit a low need for demand-response service in the county. Citibus ranks in the middle of the peers for both hours and passengers per capita.

Figure 2-12 Demand-Responsive Revenue Hours per Capita (2010)

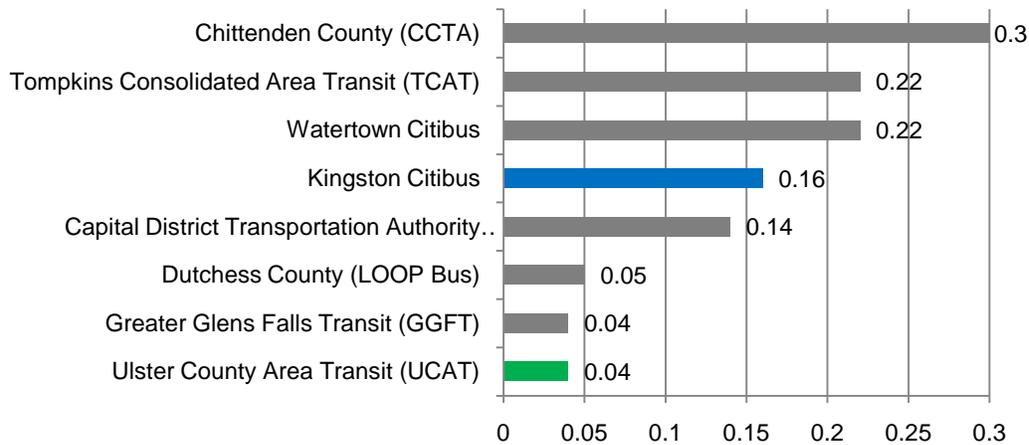
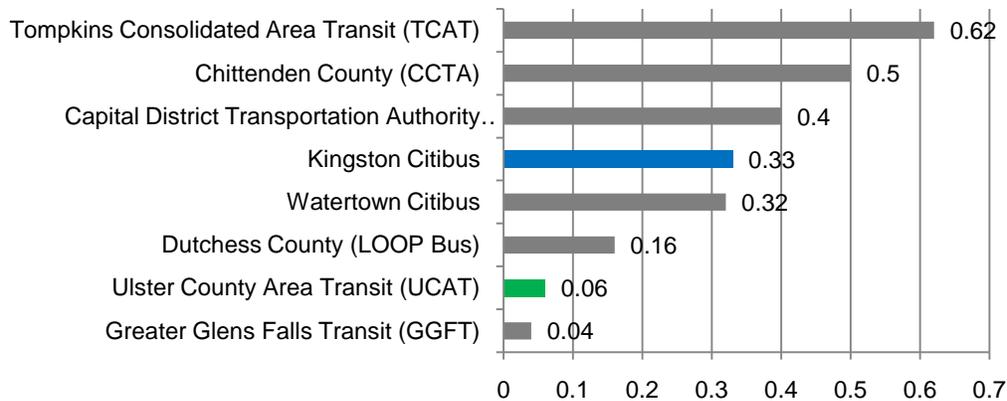


Figure 2-13 Demand-Responsive Passengers per Capita (2010)

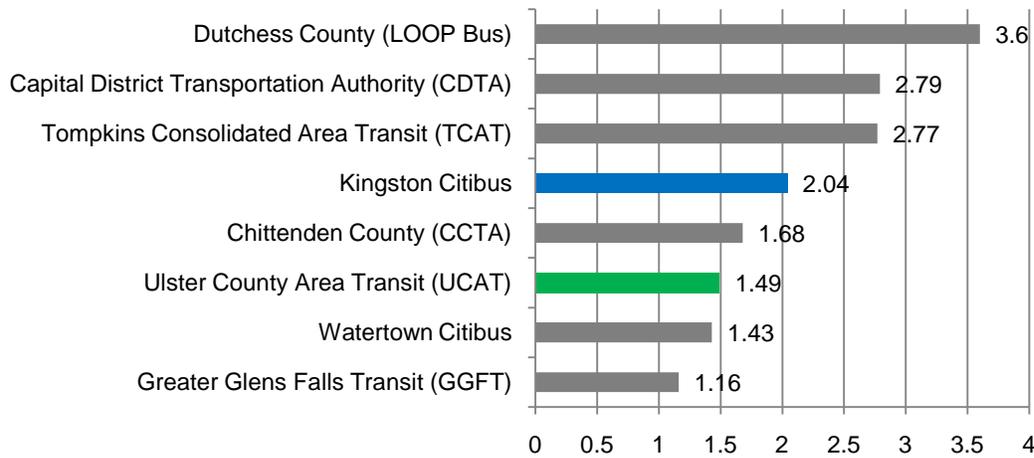


Service Productivity

A lower service productivity is expected for demand-responsive service compared to fixed-route service, but the methods of measuring productivity are the same: passengers per revenue hour (Figure 2-14) and passengers per revenue mile (Figure 2-15).

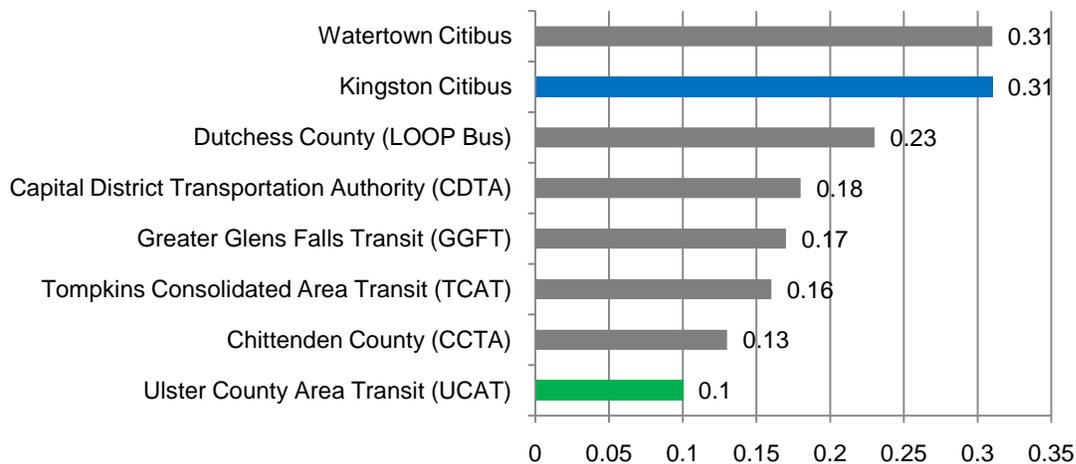
Demand-Responsive Passengers per Revenue Hour. As a rule of thumb, demand-response service averages 2 passengers per revenue hour. Citibus meets this threshold, while UCAT is just below at 1.5.

Figure 2-14 Demand-Responsive Passengers per Revenue Hour (2010)



Demand-Responsive Passengers per Revenue Mile. The results of this metric are indicative of the different service areas of UCAT and Citibus. The large UCAT service area makes for low productivity in this characteristic. In addition UCAT has defined their paratransit service area as within 1.5 miles of a fixed route, whereas the ADA mandates only a 3/4 mile service area from a fixed route.

Figure 2-15 Demand-Responsive Passengers per Revenue Mile (2010)



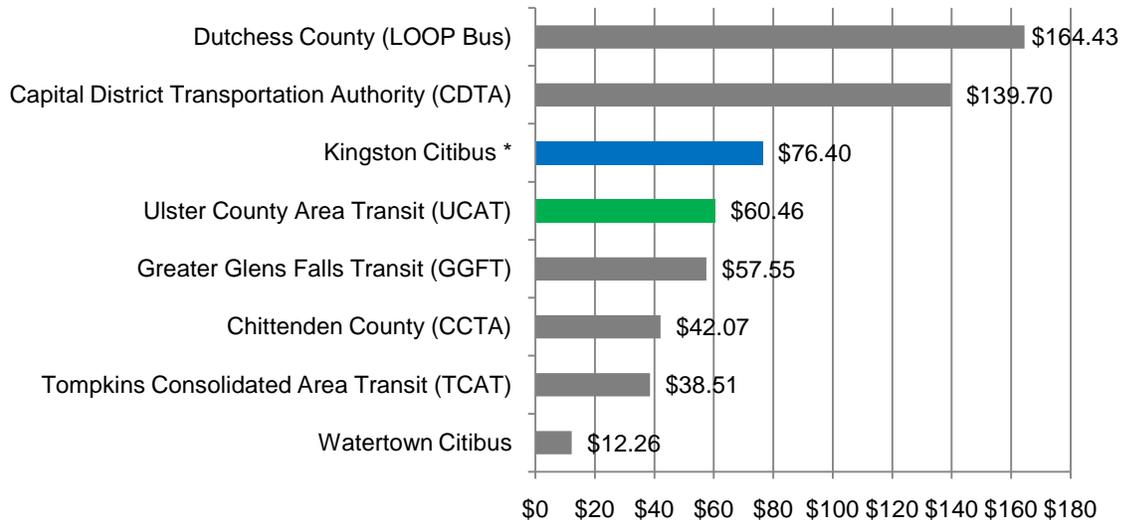
Cost Efficiency

Demand-responsive service typically costs less to operate than fixed-route as it consists of a smaller operation overall; however, the cost per passenger trip is quite high since typically just one or two people are on each vehicle and distances to destinations may be long.

Demand-Responsive Operating Cost per Revenue Hour. Demand-responsive cost per revenue hour for UCAT falls in the medium range of \$60.46, compared to \$90.30 for fixed-route.

Costs are quite low in the case of Watertown Citibus as the city contracts to an ambulette company for its ADA-complementary paratransit. This contract includes handling all calls and booking trips as well. Since the ambulette company already had dispatching and vehicle infrastructure in place, Watertown pays a very low operating cost for its demand-response service.

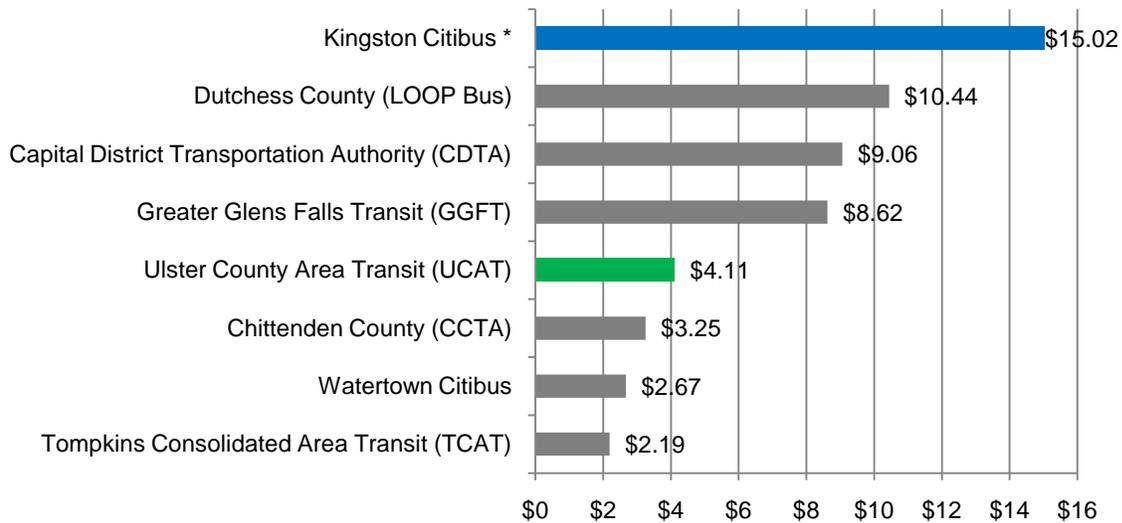
Figure 2-16 Demand-Responsive Operating Cost per Revenue Hour (2010)



* Operating costs per fixed-route and demand-response were not available. This represents system-wide metrics.

Demand-Responsive Operating Cost per Revenue Mile. Operating costs for Kingston Citibus are not broken out by fixed-route and demand responsive costs, so the cost shown for Citibus in Figure 2-17 represents the system-wide cost per revenue hour. Never-the-less, based on its service area, it is likely that Kingston Citibus runs fewer miles than the other peers, resulting in a high cost per revenue mile. UCAT, on the other hand, covers long distances and has an operating cost per revenue mile in the middle of the pack.

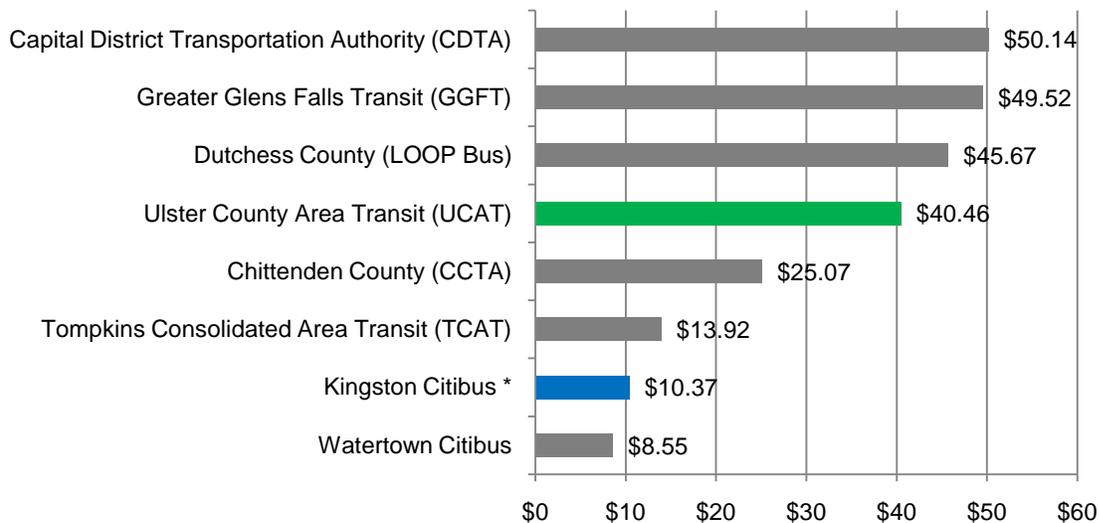
Figure 2-17 Demand-Responsive Operating Cost per Revenue Mile (2010)



* Operating costs per fixed-route and demand-response were not available. This represents system-wide metrics.

Demand-Responsive Operating Cost per Passenger Trip. While cost per fixed-route passenger trip is typically around the \$5 range, for demand-response, costs typically hover more in the \$25 range. Given that UCAT provides county-wide service, its demand-responsive service area thus becomes quite large and that is reflected in the costs.

Figure 2-18 Demand-Responsive Operating Cost per Passenger Trip (2010)



* Operating costs per fixed-route and demand-response were not available. This represents system-wide metrics.

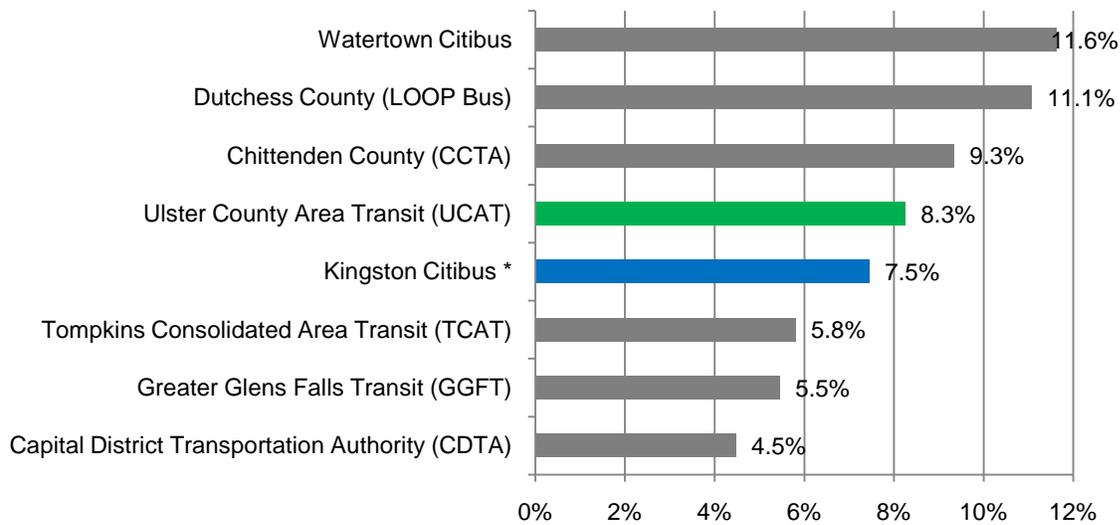
Farebox Recovery

Fares for ADA demand-responsive service are no more than twice the fixed-route fare as mandated by law. However, fares may be higher for demand-responsive service provided beyond the ADA requirement of ¾ of a mile from a fixed-route.

Demand-Responsive Total Farebox Recovery and Fare per Passenger. For a demand-responsive system, UCAT has a good farebox recovery ratio. UCAT allows for ADA pick-up requests of up to 1.5 miles from a fixed-route. This is beyond the ¾ mile buffer mandated by ADA. The UCAT fare for service within the standard ADA zone is double the equivalent fixed-route fare, but passengers requesting service in the expanded zone of up to 1.5 miles from a fixed route are charged an additional dollar. As a result, UCAT riders pay the second highest fare for service among the group of peers. Thus, it appears that the wider deviation catchment policy may help UCAT reap revenues for its demand-responsive service.

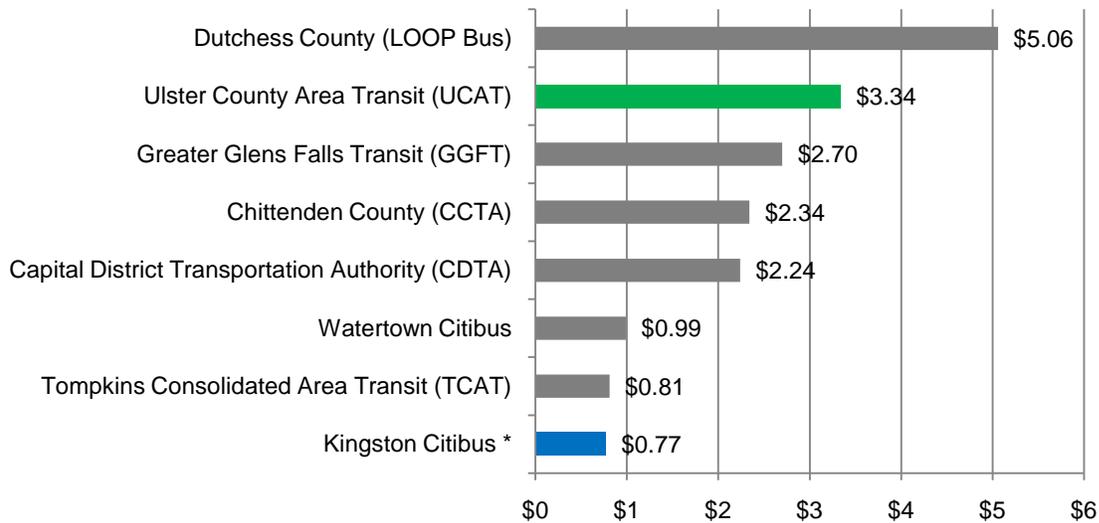
Again, as Citibus does not break out costs by fixed-route and demand-responsive service, the Citibus fare per passenger trip shown in Figure 2-20 is reflective of the system-wide

Figure 2-19 Demand-Responsive Total Farebox Recovery (2010)



* Operating costs per fixed-route and demand-response were not available. This represents system-wide metrics.

Figure 2-20 Demand-Responsive Fare per Passenger Trip (2010)



* Operating costs per fixed-route and demand-response were not available. This represents system-wide metrics.

Key Findings

UCAT's fixed-route service has low passengers per hour and mile, although this may be partially due to extensive interlining, resulting in undercounted ridership. Besides a re-examination of the agencies policies with regarding passenger counting, one potential solution would be to make low-ridership route portions on-demand only, thus reducing hours and miles but still serving customers who need the service. Another solution might be to make certain towns on-demand, similar to the rural route service, and increase level of service in the higher-ridership routes. More service in areas with latent demand typically results in higher ridership, as it gives people more options for travel times. Specific areas of low and high ridership on each route will be discussed in the route profiles in the following chapter.

UCAT's operating costs for fixed route service are \$1 million higher than Dutchess County's, yet ridership is 100,000 less passengers per year. A further analysis may reveal the cause of such high operating costs. UCAT should consider raising its base fare, which would improve farebox recovery and account for the long trip lengths passengers are making.

UCAT's demand-responsive service carries the lowest number of passengers per mile. Many paratransit systems create trip priorities for booking or other policies that encourage grouping of trips. For example, the dispatcher may ask a caller to switch an appointment to a different day so two neighbors can be carried together. These policies can also help bring down UCAT's very high operating cost per trip. The service does have fairly productive operating costs per hour and mile. In some systems, such as Dutchess County and CDTA, demand-response services are much more expensive to operate than fixed route. Understanding why UCAT's demand-response system is more cost-efficient than the fixed-route system may highlight policies and procedures that can reduce the fixed-route cost.

Citibus overall has low ridership considering the level of service it offers. Improvements such as clearer information, route changes, and service restructuring will be addressed in the route

profiles chapter and have the potential to better serve the riding and non-riding public. Costs per hour are fairly productive but cost per trip is double what it should be, resulting from the very low ridership. Service is currently provided from around 6:30 AM until 7:00 PM, and the system provides extensive coverage in the city. Thus increasing revenue hours or miles is not the primary solution to increasing ridership and lowering costs. Instead, Citibus needs to restructure current routes into more user-friendly and direct connections between places that attract riders.

Chapter 3. Route Profiles

Overview

To develop a detailed understanding of existing services, the project team examined each UCAT and Citibus route individually. The route profiles below describe each route based on a range of quantitative and qualitative metrics.

Qualitatively, each route is examined for how well it serves its intended markets and what role it plays within the regional transit network. Quantitatively, the routes are measured for productivity and efficiency expressed in terms of ridership, passengers per trip, passengers per revenue hour, and on-time performance.

Methodology

Quantitative data for route profiles was calculated based on the following methods:

- **Ridership:** Typical weekday and Saturday ridership was collected through a 100% survey of each route. A 100% survey is a survey of every scheduled trip that is available on a route for each unique service period (weekday service period, Saturday service period, and Sunday service period). Thus, it is possible that some ridership for any given route may have been collected on different days, as long as both days were of the same service period type (weekday for example). If half of the scheduled trips on a route were collected on one weekday, and the other half on another weekday, the data would be combined to create one full virtual weekday of service. Citibus ridership data was collected and compiled by Nelson\Nygaard staff, while UCAT data was collected by UCAT staff and compiled by Nelson\Nygaard staff.
- **Passenger Trips:** UCAT and Citibus passenger schedules were used to determine the number of fixed-route trips offered on each route per weekday, Saturday, and Sunday.
- **Revenue Hours:** UCAT and Citibus passenger schedules were used to calculate fixed-route hours of service per weekday, Saturday, and Sunday.
- **On-time Performance:** Passenger boarding and alighting times were recorded as part of the 100% survey. When these events took place at time-points noted on passenger schedules, the actual times were compared to the published times to determine on-time performance.

Profiles

The following sections are a route-by-route profile of each UCAT and Citybus route.

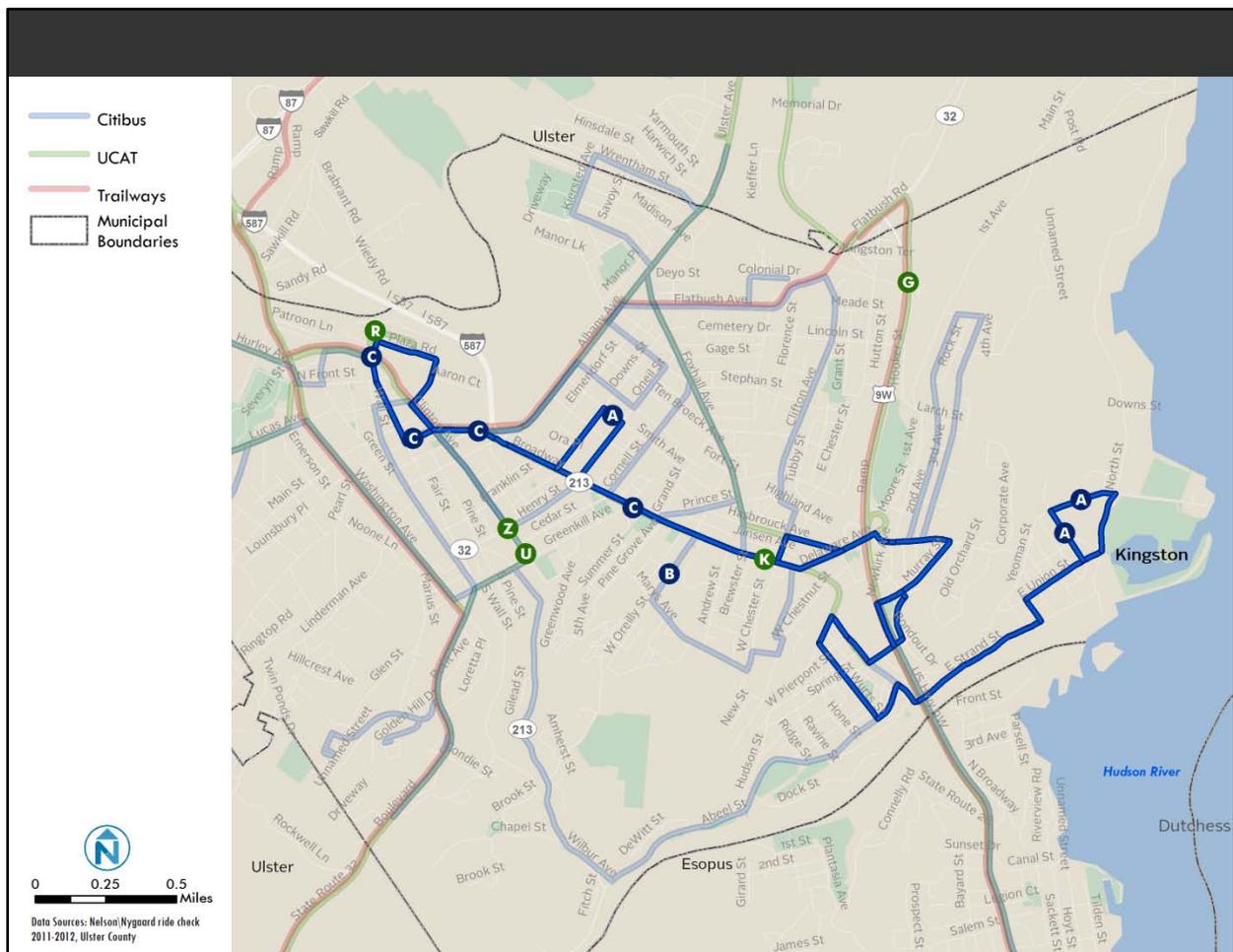
CITIBUS PROFILES

Citibus A Route – Kingston

Service Design. The Citibus A Route is a local route connecting the uptown and downtown neighborhoods of Kingston, via Broadway. The route operates year-round, six days a week. Major destinations served by the A Route include:

- Hannaford / Kingston Plaza
- Academy Green Park and Residences
- Broadway Corridor Commercial District
- YMCA
- Kingston High School
- Rondout Gardens Residences
- Kingston City Court
- West Strand Historic District

Figure 3-1 Citibus A Route Map



Transfer Opportunities. The A Route presents numerous on-street and off-street transfer opportunities, including at Kingston Plaza where passengers can transfer to or from the following other services:

- Citibus B Route
- Citibus C Route
- UCAT G Route
- UCAT K Route
- UCAT R Route
- UCAT U Route
- UCAT Z Route

Although these route all converge at Kingston Plaza, their schedules do not “pulse,” meaning that passengers must often wait long periods of time to transfer from one route to another.

On-street transfer opportunities to other Citibus routes include several bus stops along Broadway, Delaware, Murray, Garraghan, and Abeel Street, where The A Route intersects the B and C routes. In addition, during certain times of the day, UCAT routes G and K operate along Broadway between uptown and Broadway, providing connections to the Ulster Mall Area.

Alignment/Service Patterns. The A Route operates along a single, mostly consistent routing throughout its service day. From Kingston Plaza, the route travels primarily on Broadway, to Rondout Gardens, then to Garraghan Drive and the downtown neighborhoods on either end of the Strand. The return trip to Kingston Plaza follows nearly the same routing, but in reverse.

The A Route provides bi-directional service (or paired one-way segments) along most of its alignment, with the exception of two relatively small turn-around loops at either end of the route. The only inconsistency in its routing is a loop serving O’Neil Street, Smith Avenue, and Downs Street that is served in the uptown direction, but not in the downtown direction.

Service Schedule. The A Route operates from 6:30 AM to 7:10 PM on weekdays and from 9:30 AM to 5:00 PM on Saturday. Service is generally available on an hourly frequency, but like all Citibus routes, the service frequency is interrupted in the morning and afternoon with one-hour lunch breaks for drivers. These breaks occur from 10:00 to 11:00 AM and from 2:00 to 3:00 PM on weekdays, and from 12:00 to 1:00 PM on Saturdays. During these periods, service frequency drops to two-hours between trips.

Figure 3-2 Citibus A Schedule Statistics

Service Day	Span of Service	Frequency (min) Peak / Off-Peak	Daily Trips (D/U)
Weekday	6:30 AM – 7:10 PM	60/120	11/11
Saturday	9:30 AM – 5:00 PM	60/120	7/6

Source: published Citibus schedules

Note: "D" = To downtown, "U" = To uptown

Ridership by Service Day. On an average weekday, the A Route has 107 passenger boardings or 9.7 passengers per trip. This is consistent with the Citibus average and 61% higher than the combined average for UCAT and Citbus (Figure 3-6).

On Saturdays, total ridership drops to 68 passenger boardings, but ridership per trip remains the same, as there are fewer total trips. 9.7 Saturday passengers per trip is above both the Citibus and county averages for Saturdays (Figure 3-7).

Figure 3-3 Citibus A Ridership Statistics

Service Day	Average Daily Ridership		Average Daily Ridership per Trip	
	A Route	A Route	Citibus Avg	County Avg
Weekday	107	9.7	9.7	6.0
Saturday	68	9.7	8.7	7.8

Source: Nelson\Nygaard ride check 2011-2012

Figure 3-4 Citibus A Average Weekday Ridership

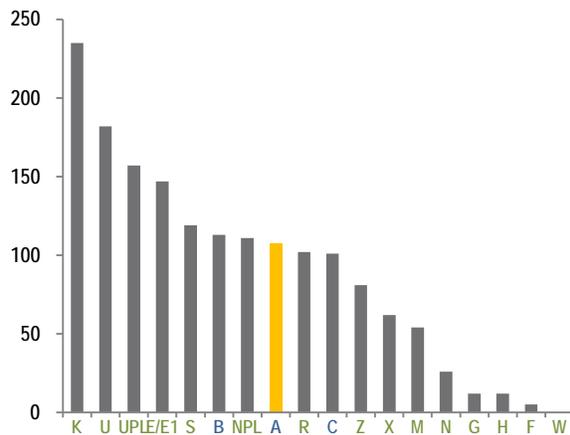


Figure 3-5 Citibus A Average Saturday Ridership

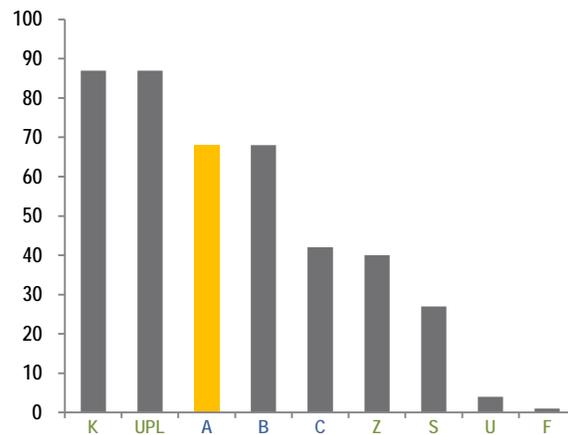


Figure 3-6 Citibus A Average Weekday Ridership per Trip

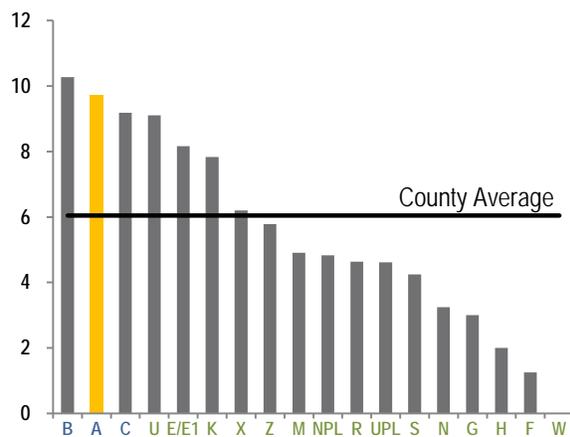
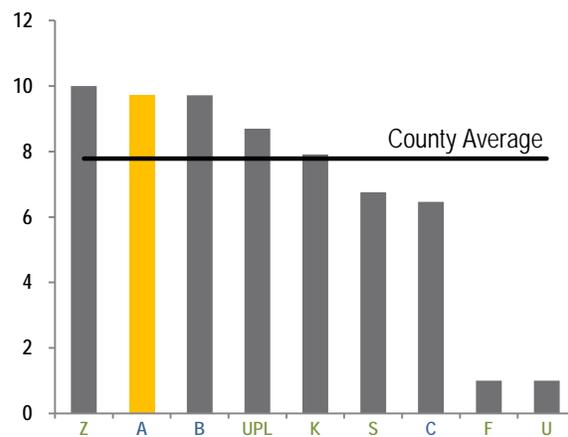


Figure 3-7 Citibus A Average Saturday Ridership per Trip



Source: Nelson\Nygaard ride check 2011-2012

Ridership by Trip. Weekday ridership per trip on the A Route has two distinct peaks per direction. For uptown-bound trips, ridership peaks at 7:30 AM trip and 12:30 PM trip (Figure 3-8). Trips heading downtown, experience their heaviest morning ridership at 11:00 AM and heaviest over-all ridership at 5:00 PM (Figure 3-9). Saturday ridership is highest on the 9:30 AM trip to uptown and the 1:00 PM trip to downtown.

These ridership patterns show that the one-hour service interruptions for driver breaks are aligned relatively well with weekday demand, but less so with Saturday demand for service. The heavy spike in ridership at 1:00 PM (Figure 3-11) suggests that a 12:00 PM departure from uptown would likely be supported by riders. Similarly, the relatively heavy demand for 9:30 AM Saturday departure from downtown (Figure 3-10), indicates a pent-up demand for earlier service.

Figure 3-8 Citibus A Weekday Ridership by Trip - To Uptown

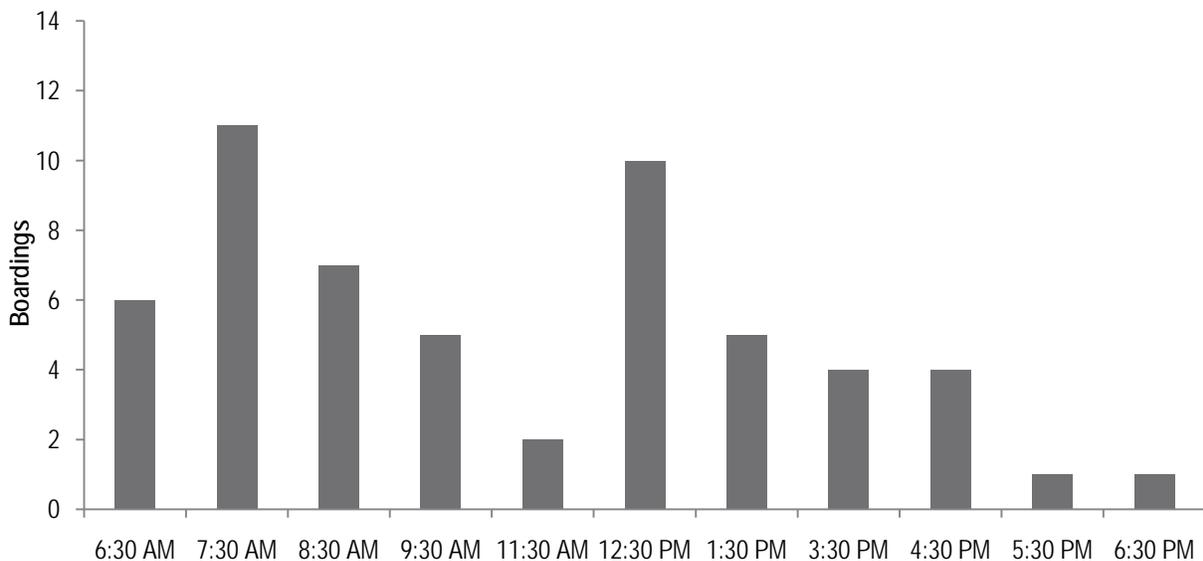


Figure 3-9 Citibus A Weekday Ridership by Trip - To Downtown

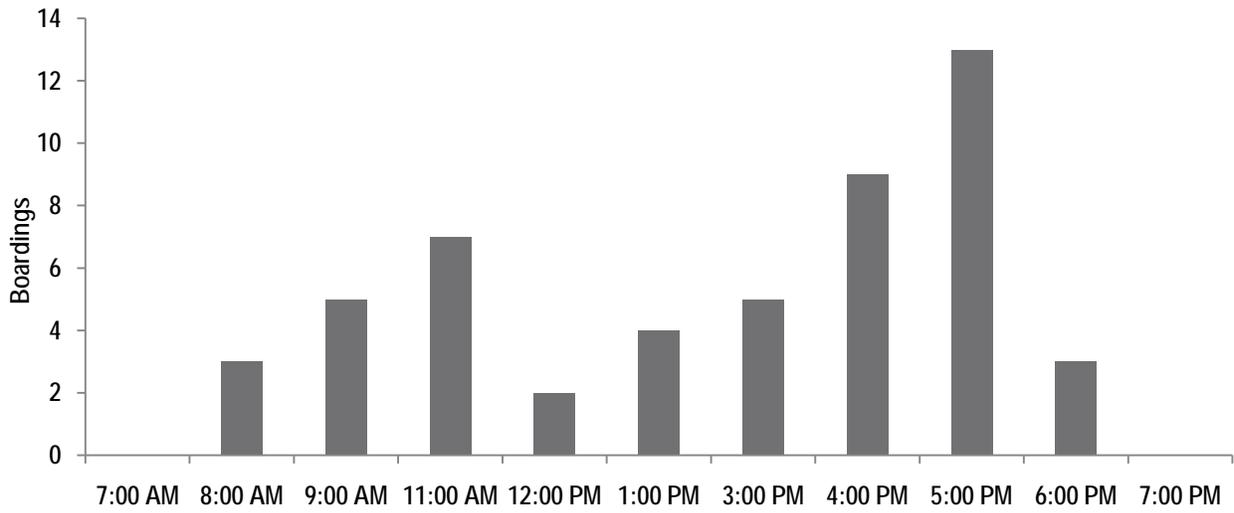


Figure 3-10 Citibus A Saturday Ridership by Trip - To Uptown

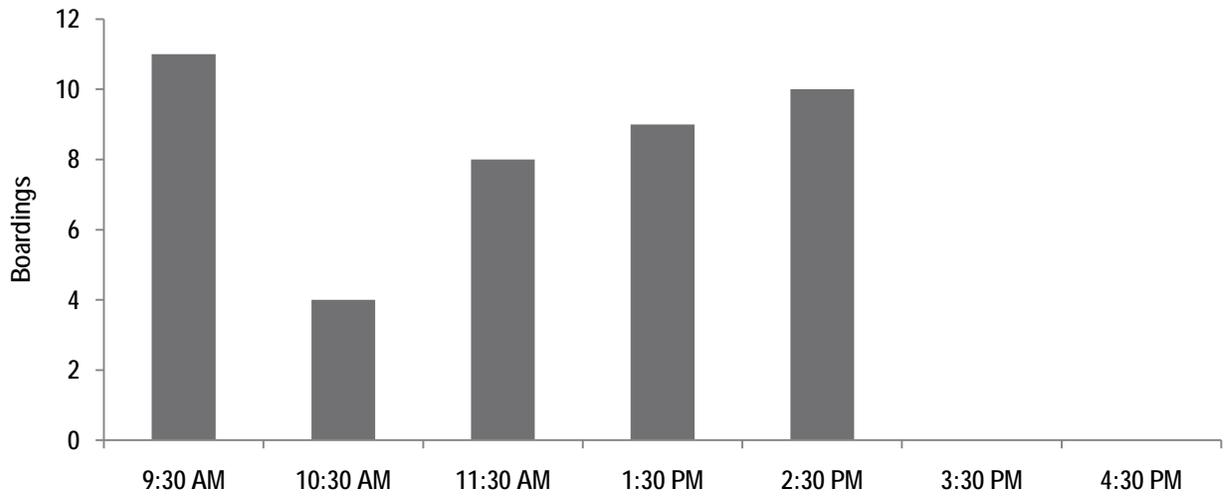
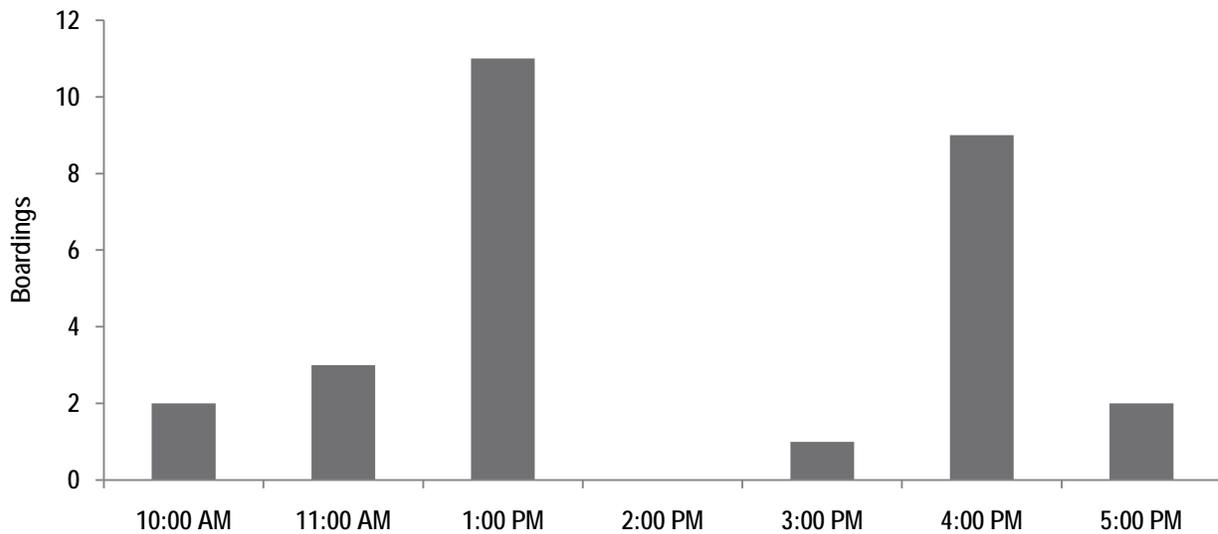


Figure 3-11 Citibus A Saturday Ridership by Trip - To Downtown



Source: Nelson\Nygaard ride check 2011-2012, published Citibus schedules

Ridership by Stop. The heaviest boarding and alighting activity on the A Route takes place at Kingston Plaza, which serves as a major transit hub for both Citibus and UCAT. Other notable bus stop locations with relatively high ridership activity (more than 5 cumulative boardings and alightings per day) include the following:

- **Albany at Clinton.** This location serves Academy Green Park, Academy Green Residences, the YWCA, and Kingston Hospital Dialysis Center.
- **Broadway at Hoffman.** This location serves the Citybus operations office, Behavioral Healthcare of New York, and the YMCA.
- **Broadway at Andrew.** This location serves Kingston High School and Kingston Hospital.
- **Broadway at West Chester.** This location serves a retail cluster including Burger King and Walgreens.
- **Murray at Jarrold.** This location serves the Rondout Gardens Residences
- **Garrighan at Broadway.** This location serves the Kingston City Court and The Kingston Police Department.
- **Wurts at Pierpont.** This location serves St. Peter’s Catholic Church and Redeemer Lutheran Church.

Figure 3-12 Citibus A Weekday Ridership by Stop Map

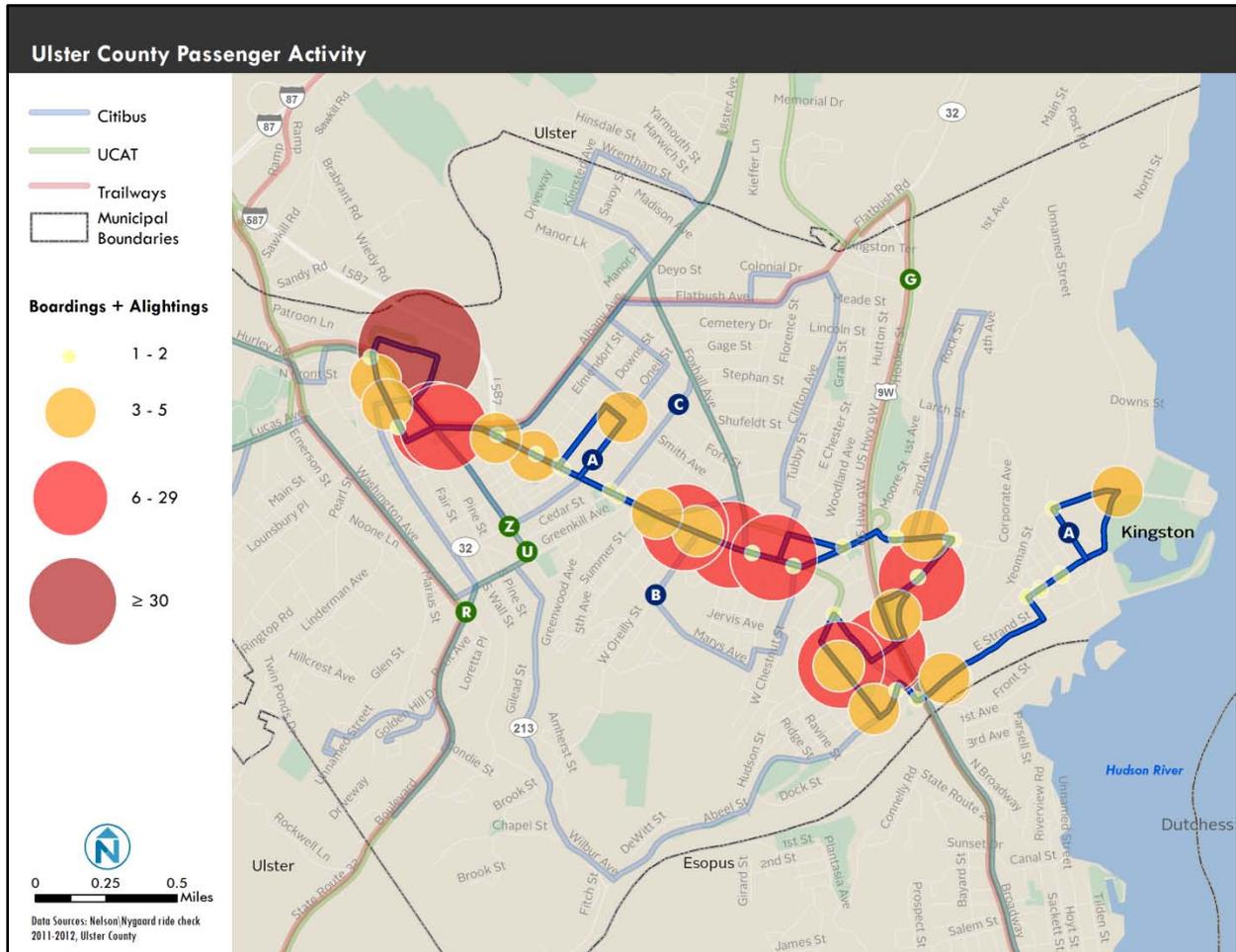
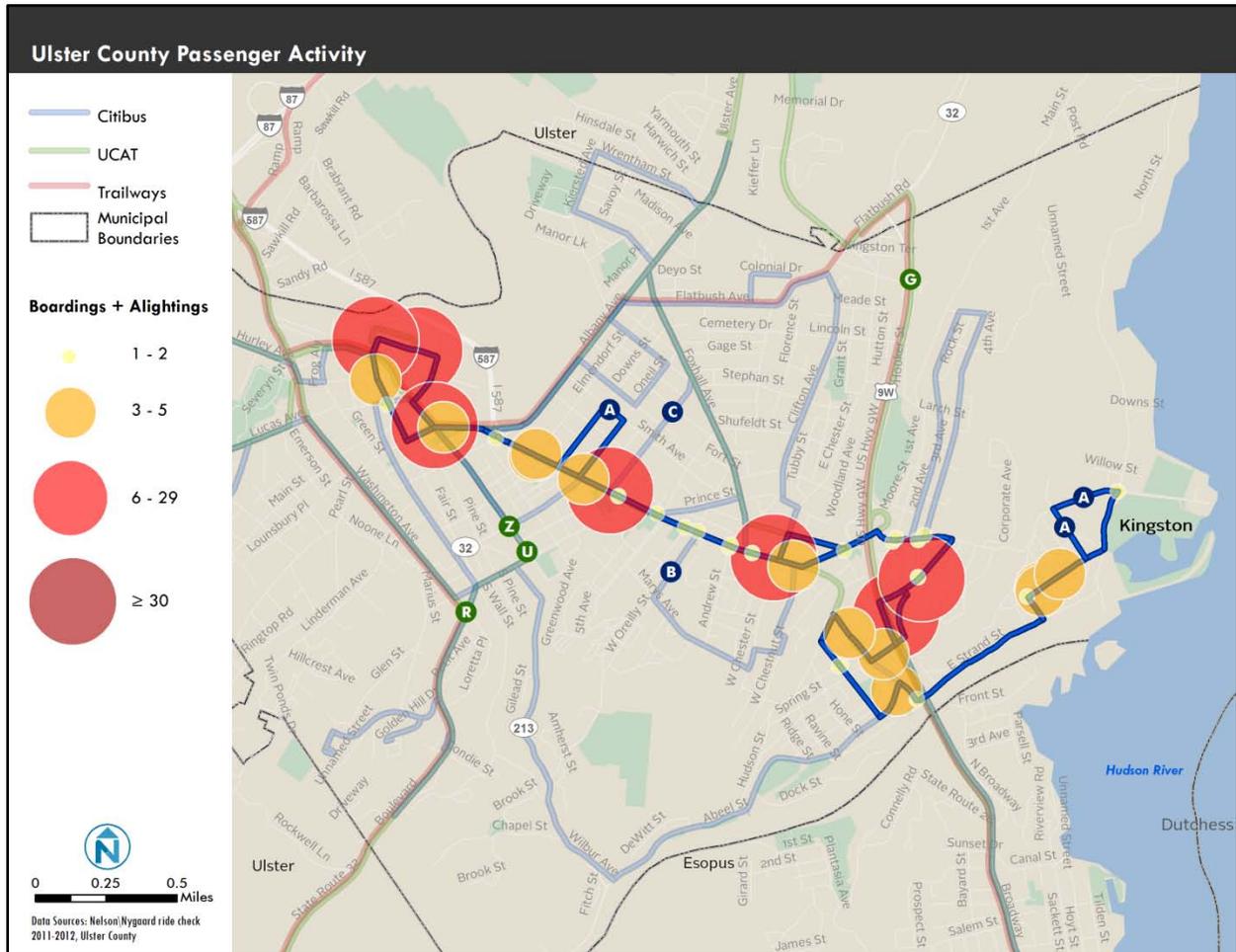


Figure 3-13 Citibus A Saturday Ridership by Stop Map



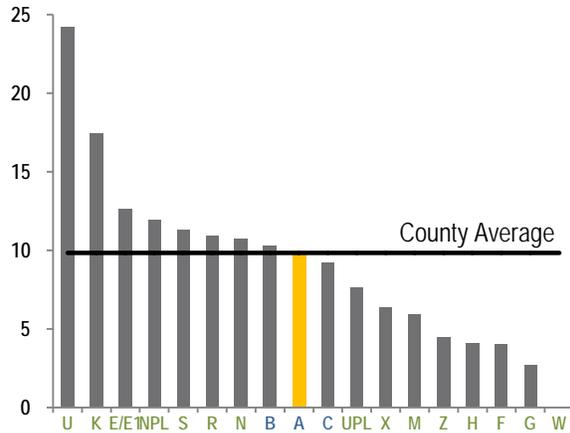
Service Productivity. The A Route attracts 9.7 passenger boardings per revenue hour on weekdays and Saturdays (Figure 3-14). This puts it on par with the Citibus average for weekdays, and slightly below the combined average for UCAT and Citibus (Figure 3-15). On Saturday, the route is more productive than the Citibus average but 9% below the county average (Figure 3-16).

Figure 3-14 Citibus A Service Productivity Measures

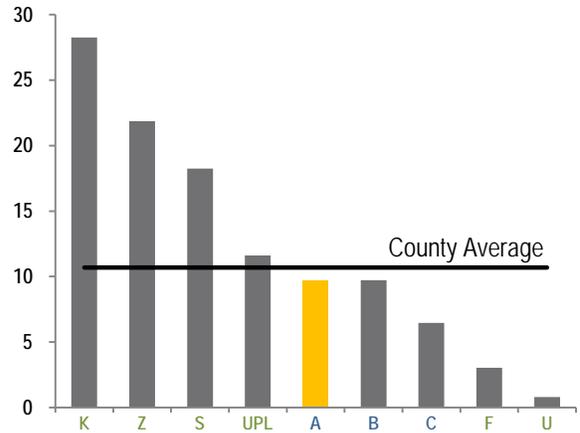
Performance Measure	Weekday			Saturday		
	A Route	Citibus Avg	County Avg	A Route	Citibus Avg	County Avg
Passengers per Revenue Vehicle Hour	9.7	9.7	9.8	9.7	8.7	10.7

Source: Nelson\Nygaard ride check 2011-2012, published Citibus schedules

**Figure 3-15 Citibus A Weekday
Passengers per Revenue Hour**



**Figure 3-16 Citibus A Saturday
Passengers per Revenue Hour**



Source: Nelson\Nygaard ride check 2011-2012, published Citibus schedules

On-time Performance. During the survey period, 82% of A Route trips were observed to be on time on weekdays and 71% were on time on Saturday. This tops the on-time performance rate for both the Citibus and county average for weekdays. Saturday on-time performance is below the Citibus average, but above the county-wide average.

Figure 3-17 Citibus A On-time Performance Measures

Performance Measure	Weekday		Saturday			
	A Route	Citibus Avg	County Avg	A Route	Citibus Avg	County Avg
On-time Performance (%)	82	64	68	71	86	69

Source: Nelson\Nygaard ride check 2011-2012

Strengths

- Fairly direct route with few deviations.
- Connects two well-defined anchors (uptown and downtown) and runs along a good transit corridor (Broadway) with a mix of uses (retail, restaurant, healthcare, educational, government).

Weaknesses

- Circuitous routing in downtown (Broadway, McEntee, Wurst, Spring, Abeel) which adds to travel time, but generates little ridership.
- Inconsistent service along O'Neil, Smith, Downs loop (served in uptown direction only).
- Service gaps during driver breaks.

Potential Improvements

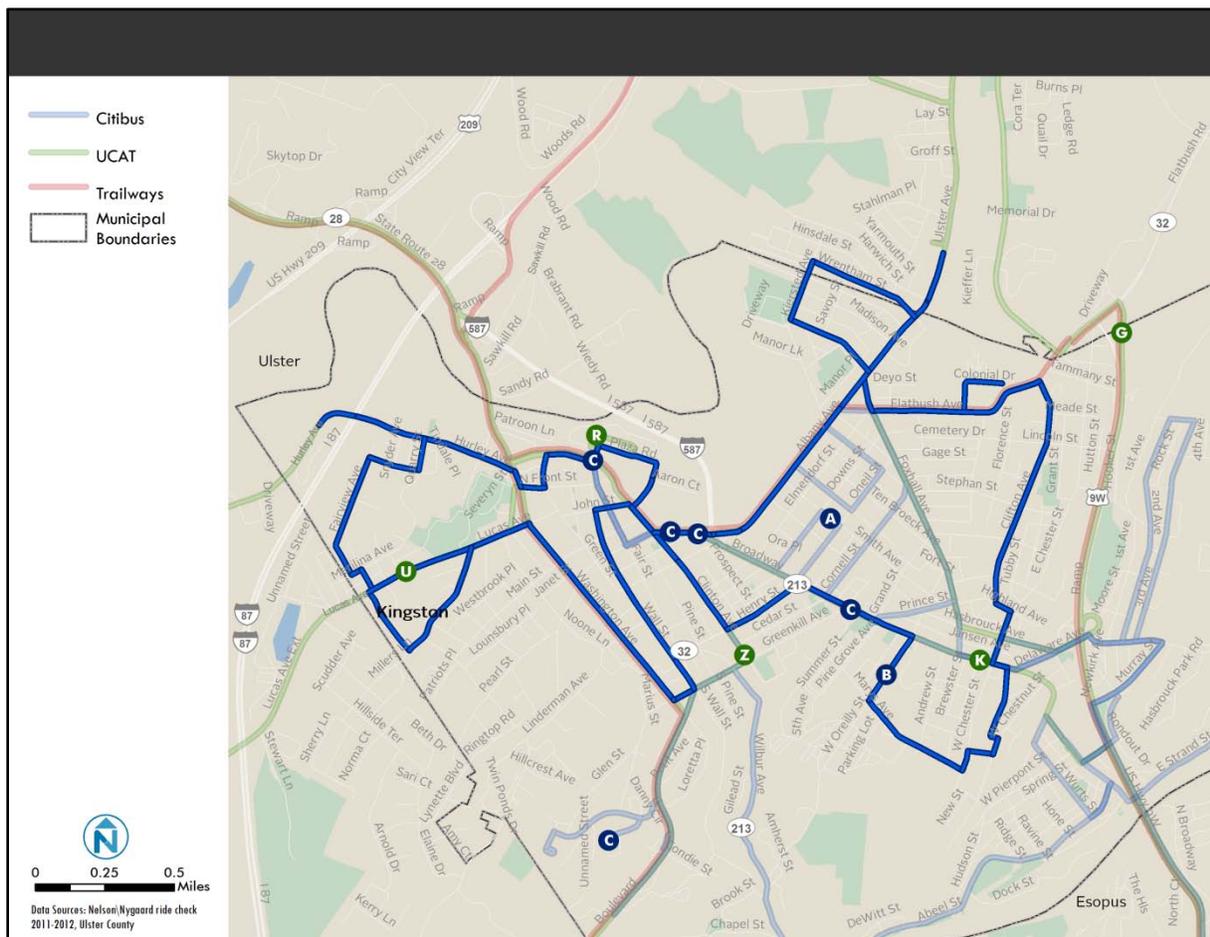
- **Simplify routing in downtown to help speed up service.** Ridership in downtown is mostly concentrated at a single location (Wurts at Pierpont). Routing through downtown could be simplified to speed up service and still retain the majority of ridership. As downtown is relatively compact and walkable, all current stop locations would still be accessible.
- **Provide consistent routing as much as possible.** As a general rule, transit service has a better chance of attracting ridership when it is simple and consistent. The A Route currently only serves O'Neil, Smith, and Downs Street in the uptown direction. Seasoned passengers may know that the C Route provides service near-by from Kingston Plaza, but new users may be confused by this complex system. Ideally this location would be served in both directions by a single route.
- **Eliminate service disruptions associated with driver breaks.** As the current schedule is designed, the A Route has 60-minute frequency for most of its service day, but drops down to a 120-minute frequency at two points in the day. Not only is this a very long time for passengers to wait for service, it is also confusing for new passengers considering the service. If budget considerations permit, a relief driver could be rotated through the three Citibus routes, giving each regular driver a chance to take a lunch break and still allow service to continue uninterrupted for passengers.
- **Pulse schedules.** Since Citibus routes run once an hour, and sometimes even less frequently, passengers transferring from one route to another often face a long wait. If schedules are designed to "pulse" at Kingston Plaza (meaning they arrive at the same time), passengers could make transfer connections quickly, and avoid long waits.

Citibus B Route - Kingston

Service Design. The Citibus B Route is a local route serving Kingston that is best described as a collection of one-way loops. The route operates year-round, six days a week, and allows for on-request route deviation in certain neighborhoods. Major destinations served by the B Route include:

- Hannaford / Kingston Plaza
- VA Kingston Clinic
- Kingston Trailways Bus Station
- Stony Run Apartments
- Bailey Middle School
- Fairview Garden Apartments
- Hudson Valley Senior Residences
- Ulster County Supreme Court
- Academy Green Park and Residences
- Kingston Library
- YMCA
- Ulster High School
- Benedictine Hospital
- Colonial Gardens Residences
- Kingston Business Resource Center
- Ulster-Greene ARC Kingston

Figure 3-18 Citibus B Route Map



Transfer Opportunities. The B Route presents numerous on-street and off-street transfer opportunities, including at Kingston Plaza where passengers can transfer to or from the following other services:

- Citibus A Route
- Citibus C Route
- UCAT G Route
- UCAT K Route
- UCAT R Route
- UCAT U Route
- UCAT Z Route

Although these route all converge at Kingston Plaza, their schedules do not “pulse,” meaning that passengers must often wait long periods of time to transfer from one route to another.

On-street transfer opportunities to other Citibus routes include several bus stops along Broadway, Greenkill, Clinton, and Albany Avenue where The B Route intersects the A and C routes.

In addition, it should be noted that the B Route overlaps several UCAT routes in the following corridors:

- UCAT K Route along Albany Avenue
- UCAT R Route along Washington Avenue and Clinton Avenue
- UCAT U Route along Hurley Avenue and Lucas Avenue

Current UCAT operating procedures do not allow buses to transport passengers between any two points within Kingston (passengers may board in Kingston, if they alight outside of the city), so passenger are not able to fully take advantage of these UCAT service as they travel through the city.

Citibus passengers wishing to access Trailways service can take the B Route to Frog Alley at Front Street, one block away from the Trailways Station at 400 Washington Avenue.

Alignment/Service Patterns. The B Route has a very circuitous routing and provides primarily one-way service. The route begins at Kingston Plaza and travels along Hurley Avenue to Stony Run Apartments, just west of the Thruway. Then, it continues to Fairview Avenue and Lucas Avenue, serving the neighborhood south of Lucas on-request only. The route then travels south on Washington Avenue to Greenkill and doubles back almost all the way to Kingston Plaza before turning and going down Clinton Avenue and serving Benedictine Hospital campus along Marys Avenue. The route then continues up Clifton Avenue to Colonial Gardens apartments and up Albany Avenue to the Business Resource Center and back to Kingston Plaza, while serving the neighborhood west of Albany on-request only.

Service Schedule. The B Route operates from 6:30 AM to 7:10 PM on weekdays and from 9:30 AM to 4:30 PM on Saturday. Service is generally available on an hourly frequency, but like all Citibus routes, the service frequency is interrupted in the morning and afternoon with one-hour lunch breaks for drivers. These breaks occur from 9:30 to 10:30 AM and from 3:30 to 4:30 PM on weekdays, and from 12:30 to 1:30 PM on Saturdays. During these periods, service frequency drops to two-hours between trips.

Figure 3-19 Citibus B Schedule Statistics

Service Day	Span of Service	Frequency (min)		Daily Trips (loop)
		Peak	Off-Peak	
Weekday	6:30 AM – 7:10 PM	60	120	11
Saturday	9:30 AM – 4:30 PM	60	120	6

Source: published Citibus schedules

Ridership by Service Day. On an average weekday, the B Route attracts 113 total passenger boardings or 10.3 passengers per trip. This is somewhat higher than the Citibus average and 72% above the combined average for UCAT and Citibus (Figure 3-23).

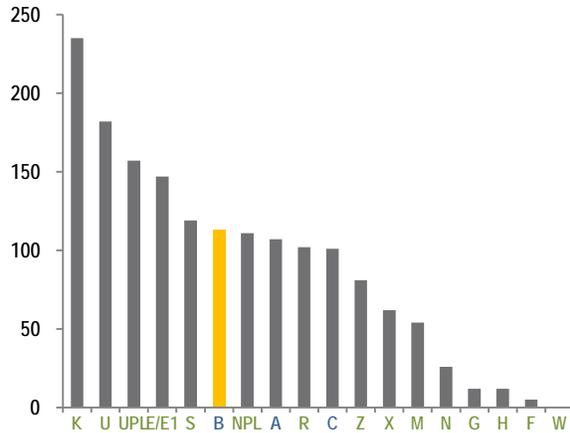
On Saturdays, total ridership drops to 68 boardings, or 9.7 passengers per trip. Again, this is higher than the Citibus combined Saturday average for Citibus and UCAT (Figure 3-24).

Figure 3-20 Citibus B Ridership Statistics

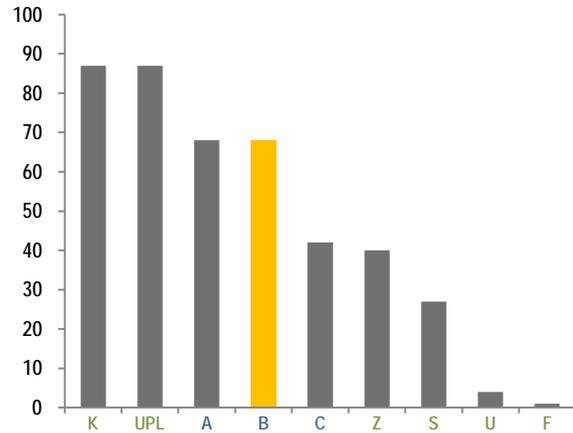
Service Day	Average Daily Ridership		Average Daily Ridership per Trip	
	B Route	B Route	Citibus Avg	County Avg
Weekday	113	10.3	9.7	6.0
Saturday	68	9.7	8.7	7.8

Source: Nelson\Nygaard ride check 2011-2012

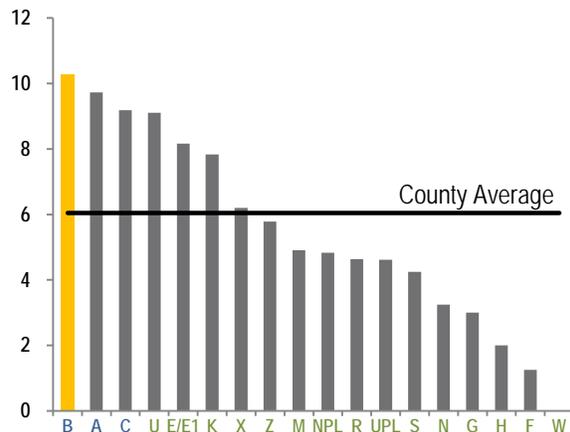
**Figure 3-21 Citibus B
Average Weekday Ridership**



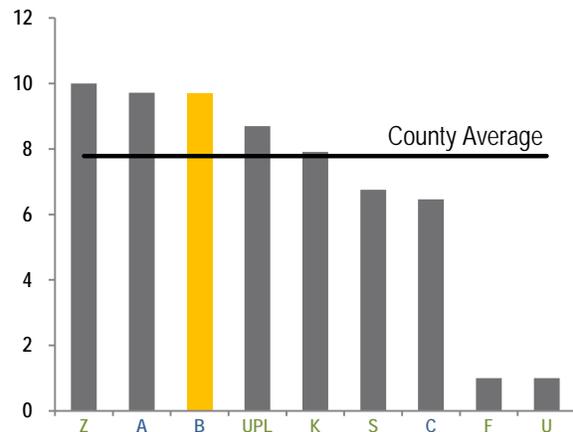
**Figure 3-22 Citibus B
Average Saturday Ridership**



**Figure 3-23 Citibus B Average Weekday
Ridership per Trip**



**Figure 3-24 Citibus B Average Saturday
Ridership per Trip**



Source: Nelson\Nygaard ride check 2011-2012

Ridership by Trip. Weekday ridership per trip on the B Route has two distinct peak periods: a morning peak at 8:30 AM and prolonged mid-day peak beginning at 12:30 PM (Figure 3-25). Saturday ridership is highest on the 10:30 AM trip, followed closely by the 1:30 PM trip.

These ridership patterns show that the one-hour service interruptions for driver breaks are aligned relatively well with demand for service. However, the heavy ridership on trips immediately preceding the weekday break periods and just following the weekend break period suggests that passengers may be adjusting their travel times to work around the breaks and that if service were available during the break periods it would be supported by passenger ridership.

Figure 3-25 Citibus B Weekday Ridership by Trip

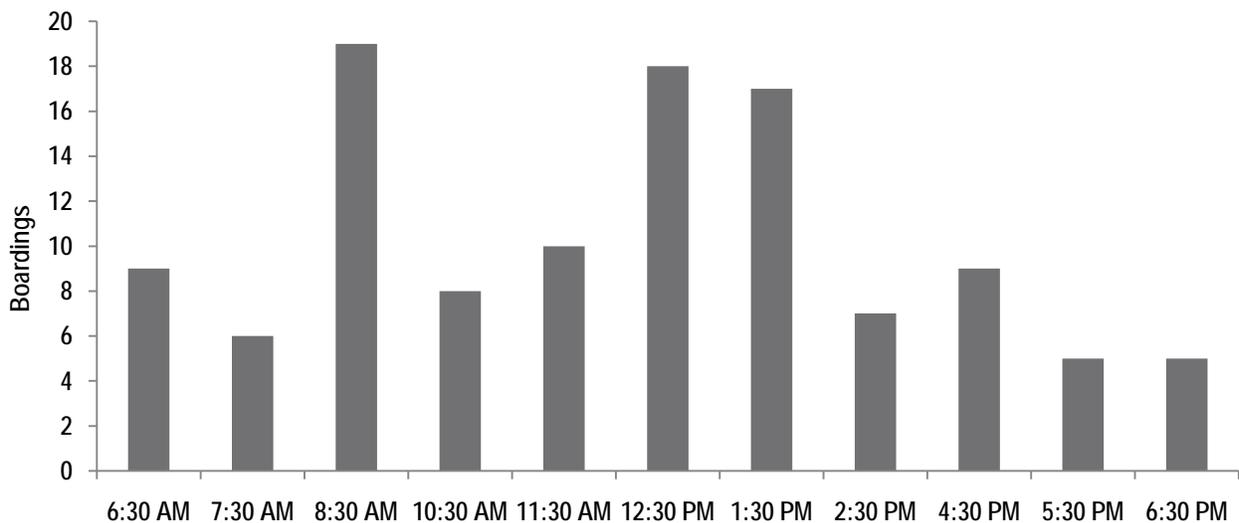
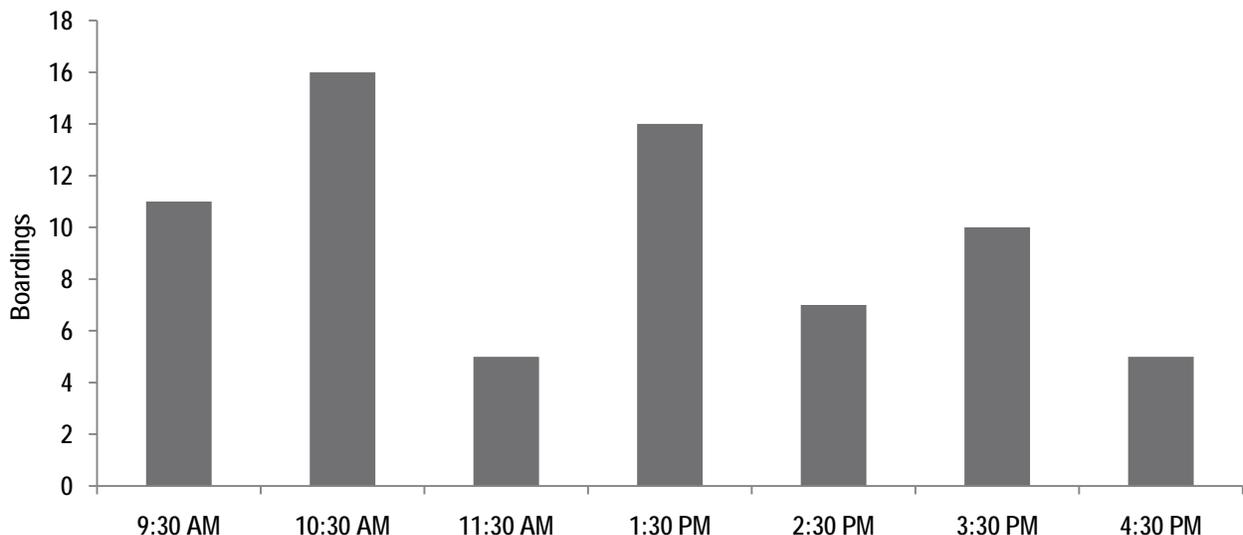


Figure 3-26 Citibus B Saturday Ridership by Trip

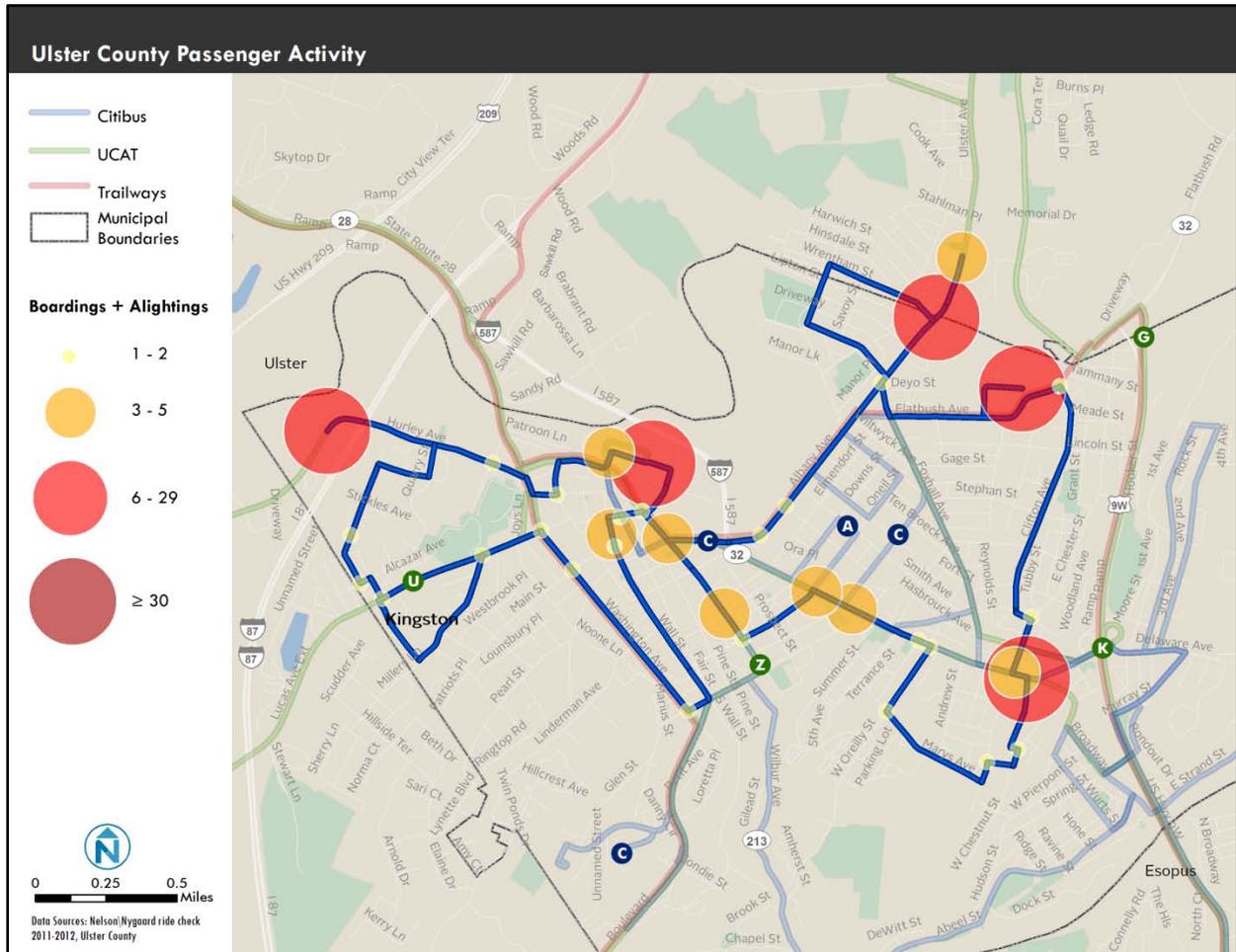


Source: Nelson\Nygaard ride check 2011-2012, published Citibus schedules

Ridership by Stop. The heaviest boarding and alighting activity on the B Route takes place at Kingston Plaza, which serves as a major transit hub for both Citibus and UCAT. Other notable bus stop locations with relatively high ridership activity (more than 5 cumulative boardings and alightings per day) include the following:

- **Frog Alley at Front.** This location serves the Trailways Bus Station.
- **Stony Run Apartments.** This location has heavy ridership on Saturdays.
- **Greenkill at Boulevard.** This location serves Boulevard Liquors, several restaurants and cafes including Stewart’s, and provides a transfer opportunity to the C Route.

Figure 3-28 Citibus B Saturday Ridership by Stop Map



Source: Nelson\Nygaard ride check 2011-2012, Ulster County

Service Productivity. The B Route attracts 10.3 passengers per revenue hour on weekdays and 9.7 on Saturdays (Figure 3-29). This puts it above both the Citibus and county average for weekdays. On Saturday, the route is more productive than the Citibus average but below the county average (Figure 3-32).

Figure 3-29 Citibus B Service Productivity Measures

Performance Measure	Weekday	Saturday				
		Citibus Avg	County Avg	Route	Citibus Avg	County Avg
Passengers per Revenue Vehicle Hour	10.3	9.7	9.8	9.7	8.7	10.7

Source: Nelson\Nygaard ride check 2011-2012, published Citibus schedules

Figure 3-30 Citibus B Weekday Passengers per Revenue Hour

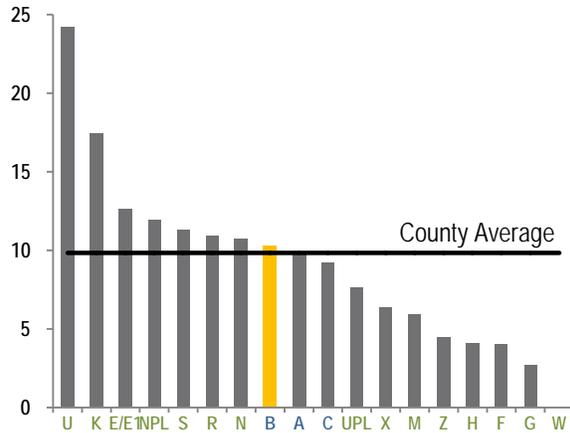
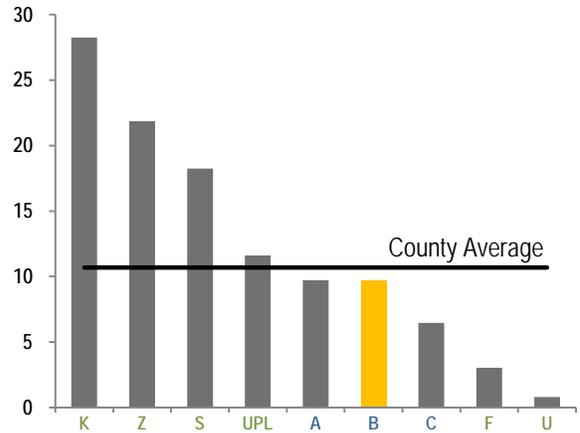


Figure 3-31 Citibus B Saturday Passengers per Revenue Hour



Source: Nelson\Nygaard ride check 2011-2012, published Citibus schedules

On-time Performance. During the survey period, the B Route was observed to be on-time only 54% of the time on weekdays and 100% of the time on Saturday. The weekday results are low by any standards and below both Citibus and county averages.

Figure 3-32 Citibus B On-time Performance Measures

Performance Measure	Weekday			Saturday		
	B Route	Citibus Avg	County Avg	B Route	Citibus Avg	County Avg
On-time Performance (%)	54	64	68	100	86	69

Source: Nelson\Nygaard ride check 2011-2012

Strengths

- Highest weekday ridership among Citibus routes, and highest weekday ridership per trip of all routes.
- Serves several major ridership generators including Stony Run Apartments, Kingston Plaza, Colonial Gardens Residences, and the Kingston Business Resource Center.
- Route is well-used on both weekdays and Saturdays.

Weaknesses

- Route is long and circuitous, resulting in poor weekday on-time performance and long travel times for passengers
- Large loops do not provide bi-directional service, reducing directness of trips for passengers. For example, the Kingston Business Resource Center is a 50 minute trip from Kingston Plaza on the B Route while it takes roughly five minutes on the UCAT K Route.
- Several long route segments with very low ridership, including Washington Avenue and Clifton Avenue.

- Route is over-stretched and serving outlying destinations such as the Stony Run Apartments and Kinston Business Resource Center that could easily be served by UCAT routes if operating rules allowed for UCAT service within Kingston.

Potential Improvements

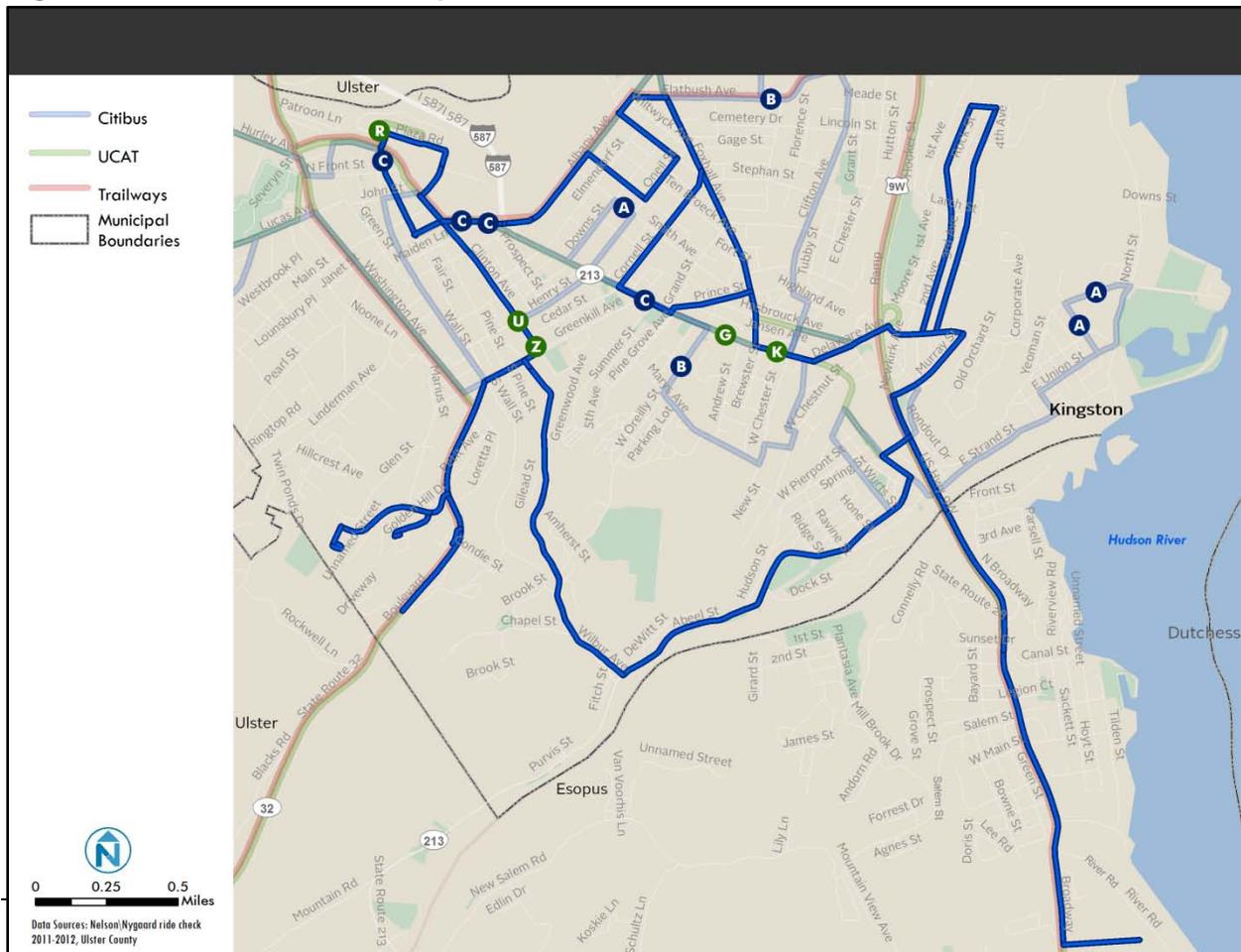
- **Simplify routing and focus on major destinations.** Unlike the A Route which has clearly defined anchors, the B Route meanders through much of Kingston, and is thus difficult to define in terms of intended markets served. Focusing on major ridership generators and eliminating unproductive route segments would help simplify the route and better define it for users.
- **Provide bi-directional service along well-defined corridors.** The current one-way route structure forces passengers to endure long trips to reach destinations that would be a very short distance away if service operated in both directions. Such a situation makes it difficult to attract all but the most transit dependent riders for whom time is not a primary consideration. Bi-directional service also helps define certain streets as transit corridors, and can help focus transit infrastructure and pedestrian improvement projects.
- **Consider transitioning to anchored “flex” service.** Anchored flex service is a service that includes two main anchors (for example: Kingston Plaza and Benedictine Hospital) that are served at designated times. However, the path between the two points is not defined, allowing for on-request service between scheduled time points. This allows for predictable connections between major destinations and flexibility in areas of dispersed ridership.

Citibus C Route - Kingston

Service Design. The Citibus C Route is primarily a local route serving Kingston, but also provides a regional link to Port Ewan. The route operates as a large one-way loop around Kingston, with several spurs serving the Golden Hill, Port Ewan, and 2nd and 3rd Avenues (on-request). The route operates year-round, six days a week. Major destinations served by the C Route include:

- Ulster County Infirmary
- Ulster County Mental Health
- UCAT Operations and Maintenance Facility
- Gateway Industries Employment Center
- Ulster County Sheriff's Department and Jail
- Kingston Library
- Academy Green Park and Housing
- Hannaford / Kingston Plaza
- Wall Street / Fair Street business district
- Kingston Hospital
- Rondout Gardens Residences
- Ulster BOCES
- The Birches Senior Residences
- Kingston City Court

Figure 3-33 Citibus C Route Map



Transfer Opportunities. The C Route presents numerous on-street and off-street transfer opportunities, including at Kingston Plaza where passengers can transfer to or from the following other services:

- Citibus A Route
- Citibus B Route
- UCAT G Route
- UCAT K Route
- UCAT R Route
- UCAT U Route
- UCAT Z Route

Although these route all converge at Kingston Plaza, their schedules do not “pulse,” meaning that passengers must often wait long periods of time to transfer from one route to another.

On-street transfer opportunities to other Citibus routes include several bus stops along Broadway, Greenkill, Clinton, and Albany Avenue where The C Route intersects the A and B routes.

In addition, it should be noted that the C Route overlaps several UCAT routes in the following corridors:

- UCAT R Route along Boulevard / NY 32
- UCAT K Route along Albany Avenue
- UCAT Route G along Broadway / US 9W

Current UCAT operating procedures do not allow buses to transport passengers between any two points within Kingston (passengers may board in Kingston, if they alight outside of the city), so passenger are not able to fully take advantage of these UCAT service as they travel through the city.

Alignment/Service Patterns. The C Route is the only Citibus route whose scheduled service does not begin at Kingston Plaza. Instead the route begins near Stewart's at Greenkill and Boulevard, then serves the Golden Hill complex including Ulster County Mental Health, Ulster County Infirmary (on-request), Ulster County Jail (on-request), and Gateway Industries, before heading to Kingston Plaza. From Kingston Plaza, Route C then travels up Albany Avenue and down Foxhall Avenue to Broadway and Delaware Avenue. 2nd Avenue, Kingston Street and 3rd Avenue are then served on-request only, and the route continues to Rondout Gardens, and then via 9W to Port Ewan. From Port Ewan, the bus then heads back north to Garraghan Drive, west on Abeel Street and north again on Wilbur Avenue toward Stewart's on Greenkill.

Service Schedule. The C Route operates from 6:25 AM to 7:15 PM on weekdays and from 8:45 AM to 5:20 PM on Saturday. Service is generally available on an hourly frequency, but like all Citibus routes, the service frequency is interrupted in the morning and afternoon with one-hour lunch breaks for drivers. These breaks occur from 8:45 to 9:45 AM and from 2:45 to 3:45 PM on weekdays, and from 12:45 to 1:45 PM on Saturdays. During these periods, service frequency drops to two-hours between trips.

Figure 3-34 Citibus C Schedule Statistics

Service Day	Span of Service	Frequency (min) Peak / Off-Peak	Daily Trips (loop)
Weekday	6:25 AM – 7:15 PM	60/120	13
Saturday	8:45 AM – 5:20 PM	60/120	9

Source: published Citibus schedules

Ridership by Service Day. On an average weekday, the C Route attracts 101 total passenger boardings or 9.2 passengers per trip. This is slightly lower than the Citibus average but 53% higher than the combined average for UCAT and Citbus (Figure 3-38).

On Saturdays, total ridership drops to 42 passengers, or 6.5 passengers per trip. This is lower than both the Citibus average and the combined Saturday average for Citibus and UCAT (Figure 3-39).

Figure 3-35 Citibus C Ridership Statistics

Service Day	Average Daily Ridership		Average Daily Ridership per Trip	
	C Route	C Route	Citibus Avg	County Avg
Weekday	101	9.2	9.7	6.0
Saturday	42	6.5	8.7	7.8

Source: Nelson\Nygaard ride check 2011-2012

Figure 3-36 Citibus C Average Weekday Ridership

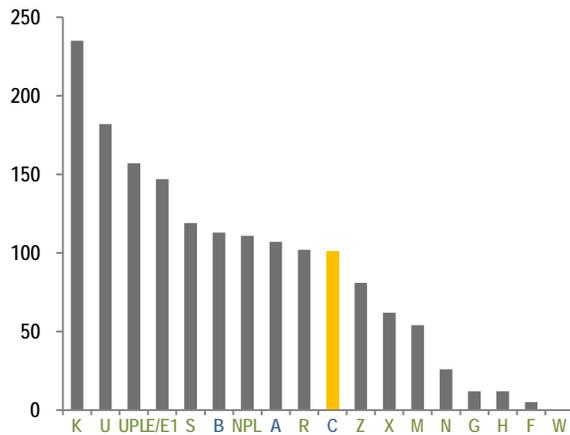
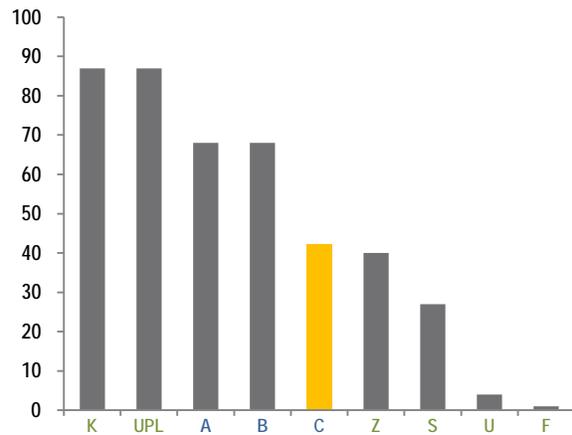


Figure 3-37 Citibus C Average Saturday Ridership



Source: Nelson\Nygaard ride check 2011-2012

Figure 3-38 Citibus C Average Weekday Ridership per Trip

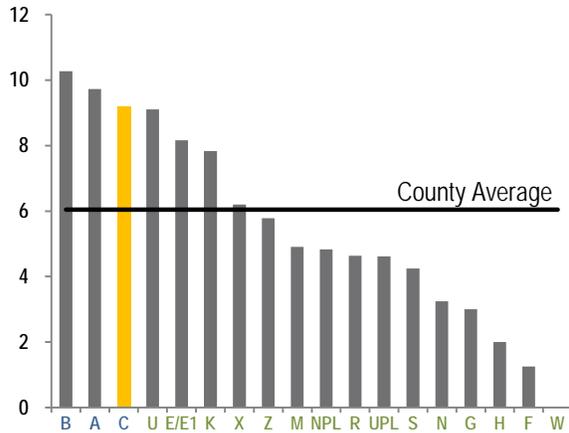
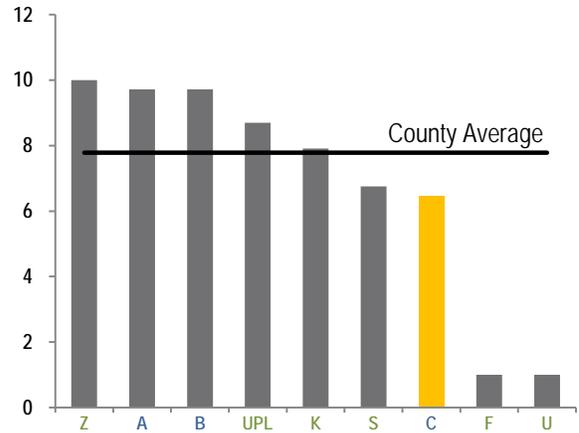


Figure 3-39 Citibus C Average Saturday Ridership per Trip



Ridership by Trip. Weekday ridership per trip on the C Route has two distinct peak periods: a morning peak at 7:25 AM and an afternoon peak at 1:25 PM (Figure 3-40). Saturday ridership is highest on the 1:25 PM trip.

These ridership patterns show that the one-hour service interruptions for driver breaks are aligned relatively well with demand for service. However, the spike in ridership on Saturday following the break period suggests that passengers may be adjusting their travel times to work around the breaks and that if service were available during the break period it would be supported by passenger ridership.

Figure 3-40 Citibus C Weekday Ridership by Trip

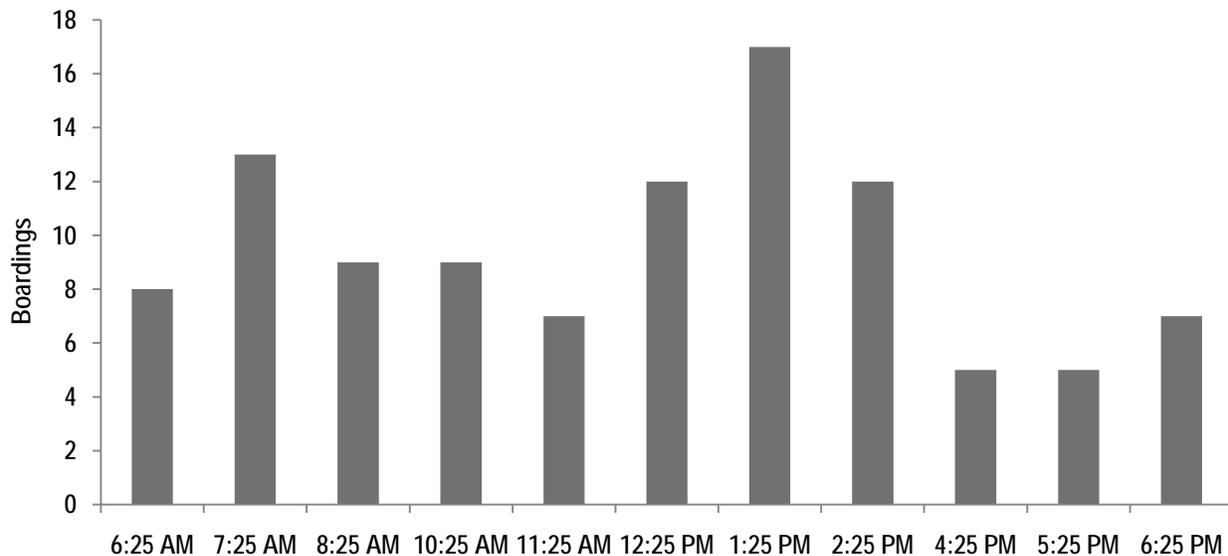
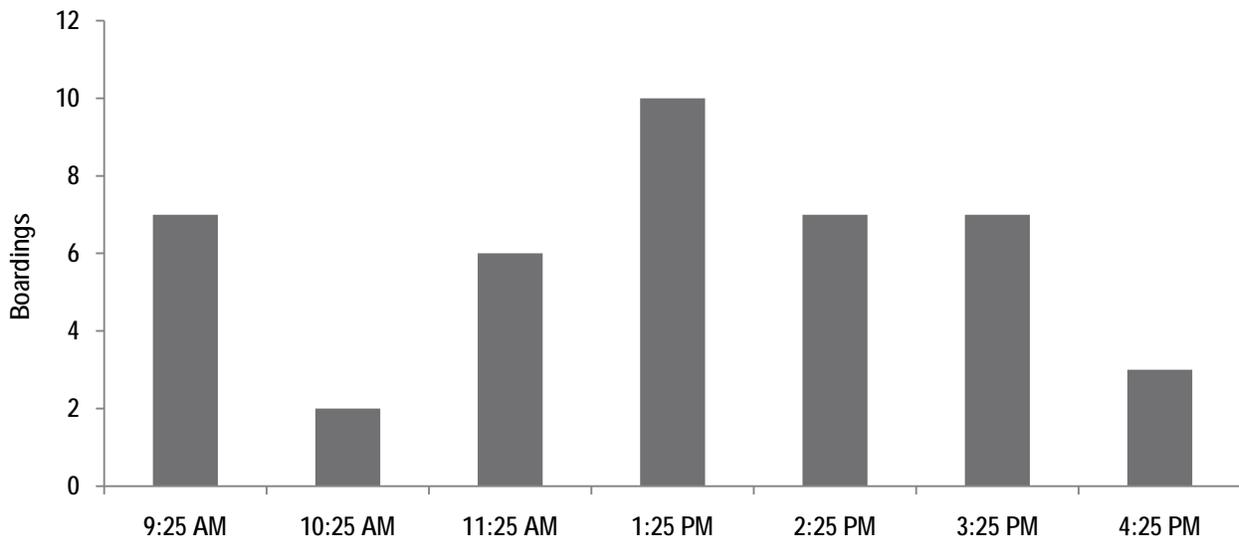


Figure 3-41 Citibus C Saturday Ridership by Trip



Source: Nelson\Nygaard ride check 2011-2012, published Citibus schedules

Ridership by Stop. The heaviest boarding and alighting activity on the C Route takes place at Kingston Plaza, which serves as a major transit hub for both Citibus and UCAT. Other notable bus stop locations with relatively high ridership activity (more than 5 cumulative boardings and alightings per day) include the following:

- **Golden Hill Drive.** This location serves Ulster County Mental Health.
- **Amy Hill Parkway.** This location serves the Gateway Industries Employment Center.
- **Front at Fair Street.** This location serves the Wall Street / Fair Street business district.
- **Albany at Bruyn.** This location serves St. John’s Episcopal Church and Temple Emanuel.
- **Albany at Manor.** This location serves the residential neighborhood north of Albany and East of Manor. The neighborhood is served on-request by the B Route as well, but only toward the end of its hour-long route. The C Route serves it some five minutes after departing Kingston Plaza.
- **Foxhall at Broadway.** This location serves Kingston High School and Kingston Hospital.
- **Broadway at Orchard.** This location serves a retail cluster including Walgreens and Burger King, and provides a transfer opportunity to the A and B routes.
- **Murray at Maple.** This location serves the Rondout Gardens Residences.
- **Garrighan at Broadway.** This location serves the Kingston City Court and The Kingston Police Department.
- **Broadway at Stout, in Port Ewan.** This location serves the Broadway Retail Corridor in Port Ewan.
- **Sorbello Lane in Port Ewan.** This location serves the Ulster BOCES, and The Birches Senior Residences.

Figure 3-42 Citibus C Weekday Ridership by Stop Map

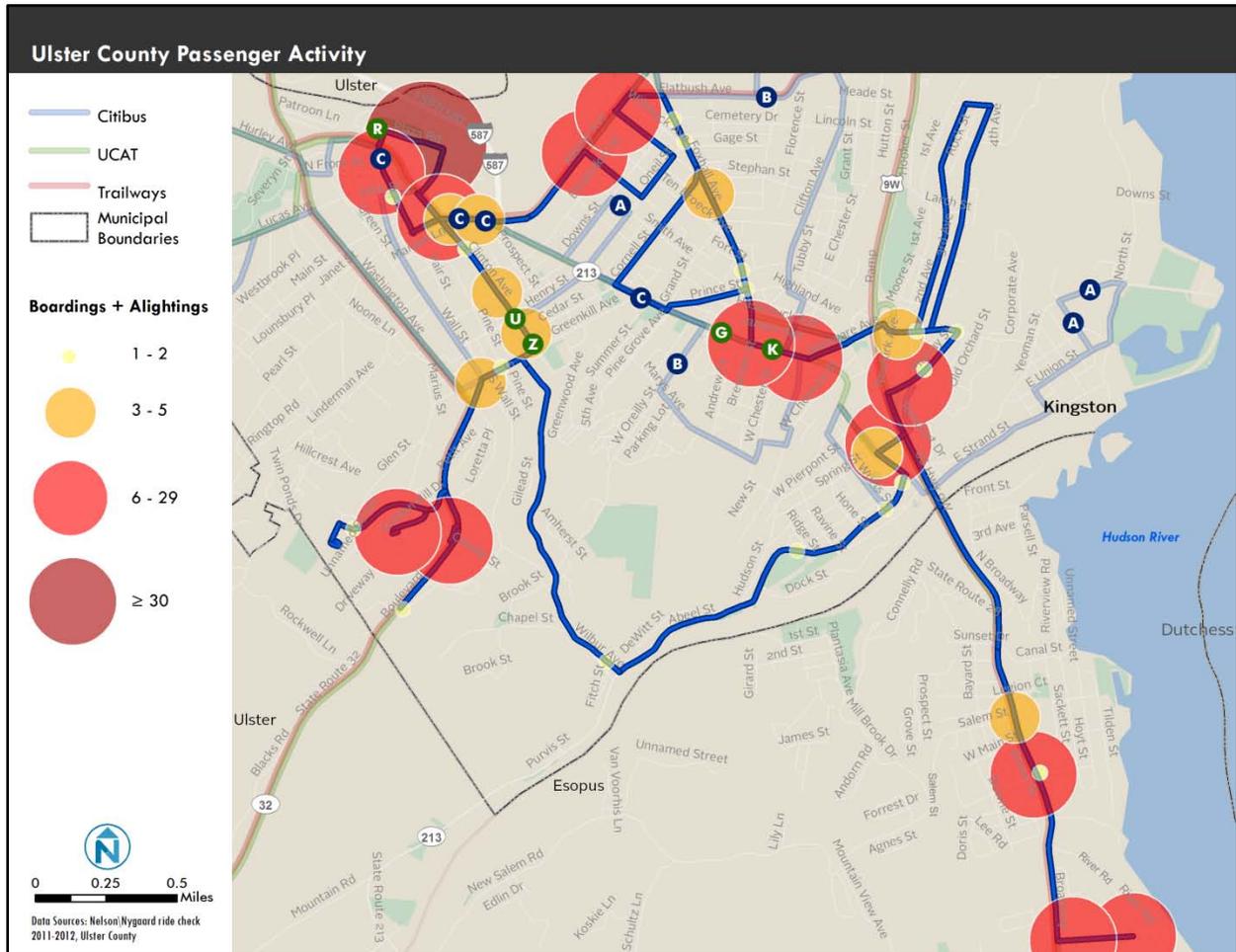
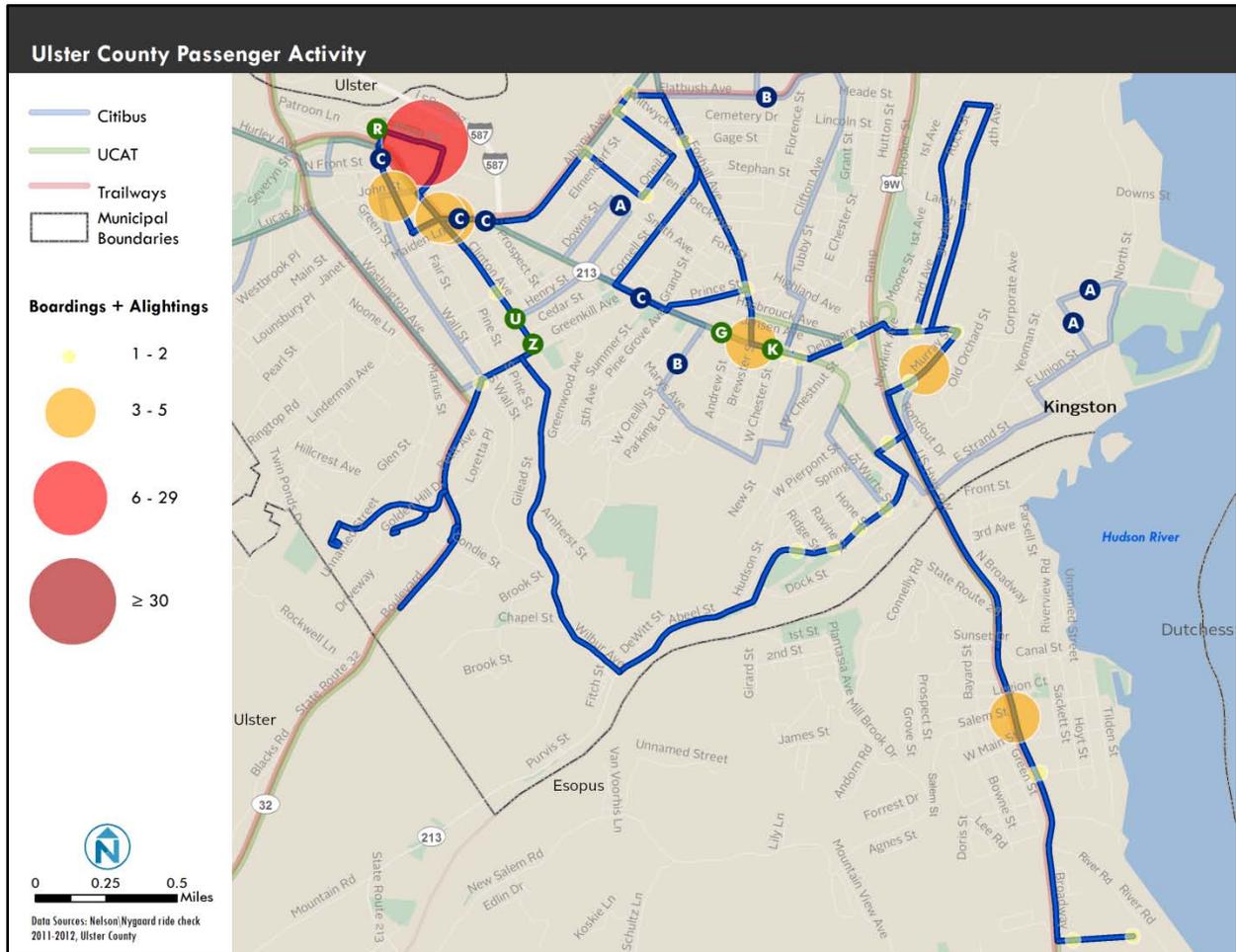


Figure 3-43 Citibus C Saturday Ridership by Stop Map



Source: Nelson\Nygaard ride check 2011-2012, Ulster County

Service Productivity. The C Route attracts 9.2 passenger boardings per revenue hour on weekdays and 6.5 on Saturdays (Figure 3-44). This puts it just below both the Citibus and county average for weekdays and substantially below both averages for Saturday (Figure 3-46).

Figure 3-44 Citibus C Service Productivity Measures

Performance Measure	Weekday		Saturday			
	Route	Citibus Avg	County Avg	C Route	Citibus Avg	County Avg
Passengers per Revenue Vehicle Hour	9.2	9.7	9.8	6.5	8.7	10.7

Source: Nelson\Nygaard ride check 2011-2012, published Citibus schedules

Figure 3-45 Citibus C Weekday Passengers per Revenue Hour

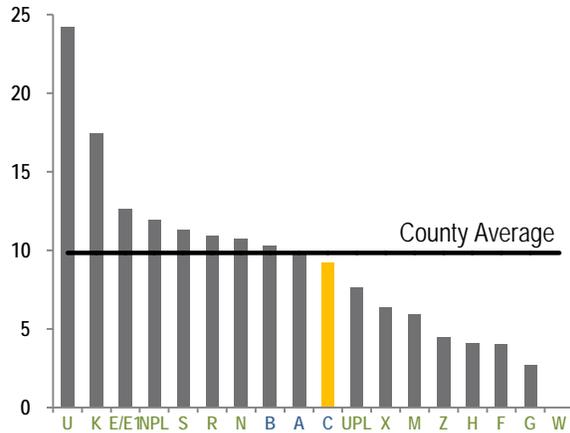
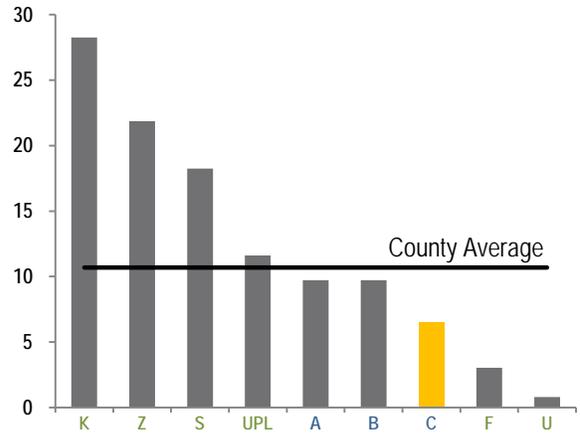


Figure 3-46 Citibus C Saturday Passengers per Revenue Hour



Source: Nelson\Nygaard ride check 2011-2012, published Citibus schedules

On-time Performance. During the survey period, the C Route was observed to be on-time only 54% of the time on weekdays and 86% of the time on Saturday. The weekday results are low by any standards and below both Citibus and county averages.

Figure 3-47 Citibus C On-time Performance Measures

Performance Measure	Weekday		Saturday			
	Route	Citibus Avg	County Avg	C Route	Citibus Avg	County Avg
On-time Performance (%)	54	64	68	86	86	69

Source: Nelson\Nygaard ride check 2011-2012

Strengths

- High ridership in Port Ewen shows the potential of service across municipal borders without restrictions.
- Route has pockets of high ridership which highlight areas of Kingston with high transit need.

Weaknesses

- Route is long and circuitous, resulting in poor weekday on-time performance and long travel times for passengers.
- Large loops do not provide bi-directional service, reducing directness of trips for passengers.
- Several long route segments with very low ridership, including Abeel Street and Wilbur Avenue.
- Route serves several destinations on Saturday that are closed and have no potential for ridership, including several in the Golden Hill Complex.

Potential Improvements

- **Adjust route on Saturdays so as not to serve closed locations.** The C Route has lower Saturday ridership than any other Citibus route and many stops have no Saturday ridership at all. Yet, Saturday routing is identical to weekday routing.
- **Consider new anchored “flex” service for southern portion of Kingston.** Anchored flex service is a service that includes two main anchors (for example: Kingston Plaza and the Golden Hill Complex) that are served at designated times. However, the path between the two points is not defined, allowing for on-request service between scheduled time points. This allows for predictable connections between major destinations and flexibility in areas of dispersed ridership.
- **Simplify routing and provide bi-directional service focusing on major destinations.** Like the B Route, the C Route meanders through much of Kingston, and is thus difficult to define in terms of intended markets served. Focusing on major ridership generators and providing bi-directional service would help improve service productivity and directness of travel.
- **Consider serving other destinations beyond Kingston border.** High ridership in Port Ewan show the value of direct service to destinations outside of Kingston, but closely linked to Kingston socially, culturally, or economically. This would likely include destinations in the Ulster Mall Area that are now only served by UCAT, but could be served by Citibus if operating rules allowed it. One possible solution would be to allow both systems to operate in Kingston and to the mall, but for UCAT to provide limited-stop service along the Albany Avenue corridor while Citibus provides a more local level of service. UCAT stops could be spaced every five to ten blocks or just at major intersections, while Citibus could have stops every two to three blocks, or even operate along local streets such as Downs or O’Neil, parallel to Albany on the way to Hudson Valley Mall.

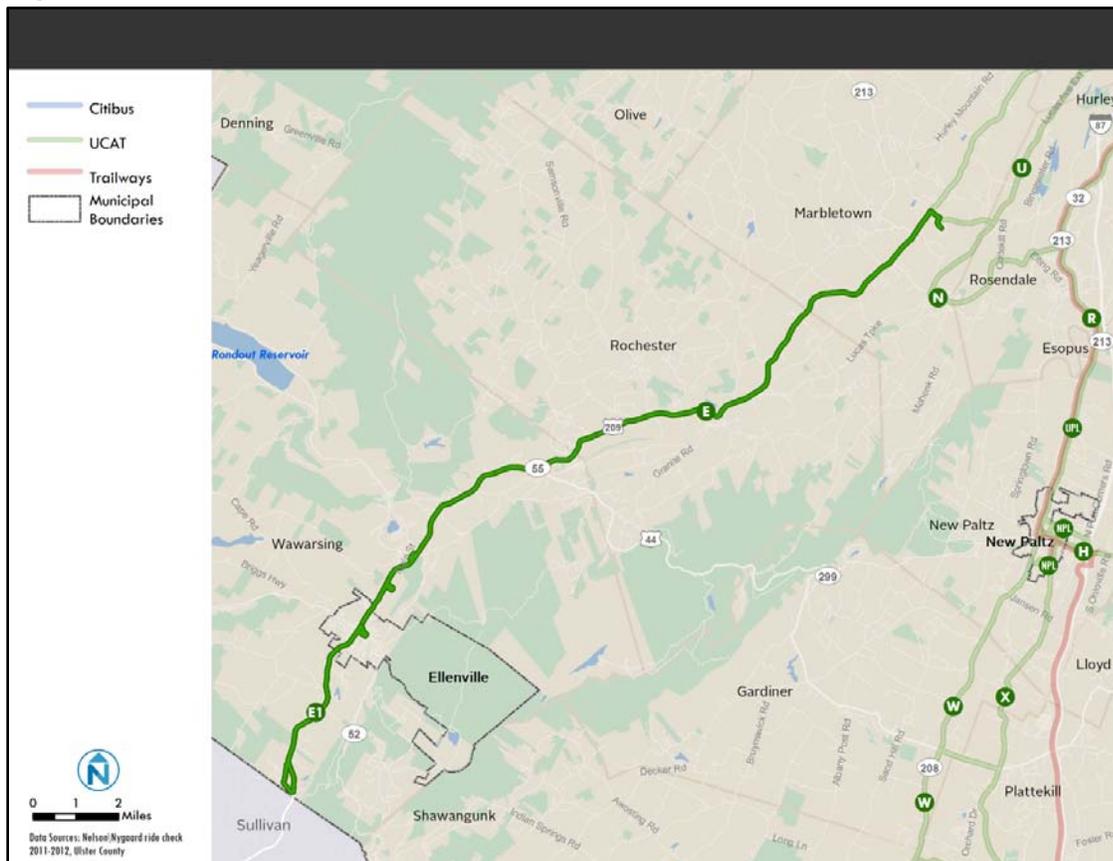
UCAT PROFILES

UCAT E/E1 ROUTE – SUNY ULSTER / ELLENVILLE / SPRING GLEN

Service Design. The UCAT E Route is a regional route linking SUNY Ulster in Stone Ridge with Ellenville via US 209. Twice a day, the route extends from Ellenville to serve Spring Glen upon request. This extension is designated as the E1 Route on passenger schedules. The route operates year-round, five days a week. Major destinations served by the E Route include:

- Hannaford / Kingston Plaza
- Hudson Valley Mall
- Ulster BOCES (Port Ewan)
- Rondout Valley High School
- Hamlet of Accord
- Hamlet of Kerhonkson
- Hamlet of Napanoch
- Eastern New York Correctional Facility
- Ellenville ShopRite
- Village of Ellenville
- Hamlet of Spring Glen (on-request)

Figure 3-48 UCAT E/E1 Route Map



Transfer Opportunities. The E and E1 routes are operated using the same vehicle, so passengers wishing to transfer from one route to the other simply stay on the bus when it reaches Main Street in Ellenville. Also in Ellenville, passengers can transfer to Short Line intercity bus service along Canal Street.

At SUNY Ulster, passengers may transfer between the E Route and the UCAT U Route with service to Kingston or the N Route with service to Rosendale. The connection times between the three routes are generally well-coordinated and in some cases interlined (one bus continuing from one route to another).

Alignment/Service Patterns. With the exception of the first trip in the morning, all E Route trips begin at SUNY Ulster in Stone Ridge. From there, the route operates primarily along US 209 to Ellenville. The only deviations from US 209 are for on-request service to Valley Mall in Napanoch and for regular service to ShopRite and Ellenville Regional Hospital on Shoprite Boulevard.

Service Schedule. The E Route operates from 5:37 AM to 10:05 PM on weekdays only. Two E1 trips are available to Spring Glen at 9:10 AM and 4:50 PM on weekdays, but only operate upon request.

Figure 3-49 UCAT E Route Schedule Statistics

Service Day	Span of Service	Frequency (min) Peak / Off-Peak	Daily Trips (S/E)
Weekday	5:37 AM – 10:05 PM (E)	Varies (60-210)	9/9
	9:10 AM – 5:10 PM (E1)		2/2
Saturday	No service	-	-

Source: published UCAT schedules

Note: "S" = To SUNY Ulster, "E" = To Ellenville

Ridership by Service Day. On an average weekday, the E Route attracts 147 total passenger boardings or 8.2 passengers per trip. This is nearly 50% higher than the UCAT average and 36% higher than combined average for UCAT and Citbus (Figure 3-50).

Figure 3-50 UCAT E Route Ridership Statistics

Service Day	Average Daily Ridership	Average Daily Ridership per Trip		
	E Route	E Route	UCAT Avg	County Avg
Weekday	147	8.2	5.5	6.0
Saturday	-	-	7.2	7.8

Source: Nelson\Nygaard ride check 2011-2012

Figure 3-51 UCAT E Route Average Weekday Ridership

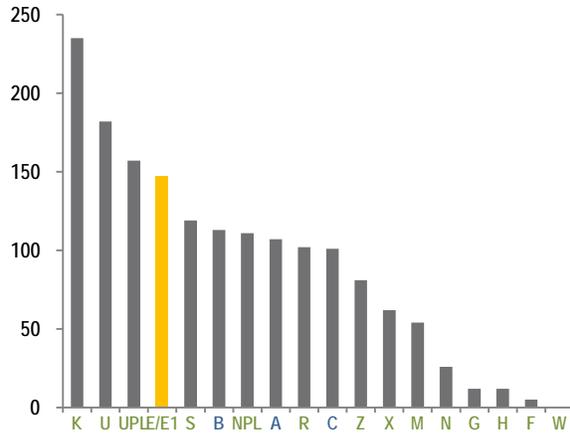


Figure 3-52 UCAT E Route Average Saturday Ridership

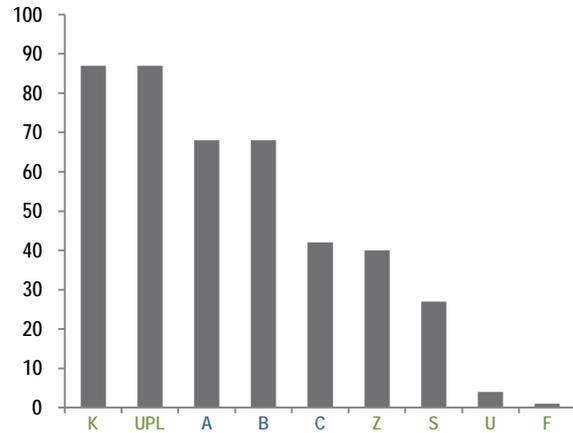


Figure 3-53 UCAT E Route Average Weekday Ridership per Trip

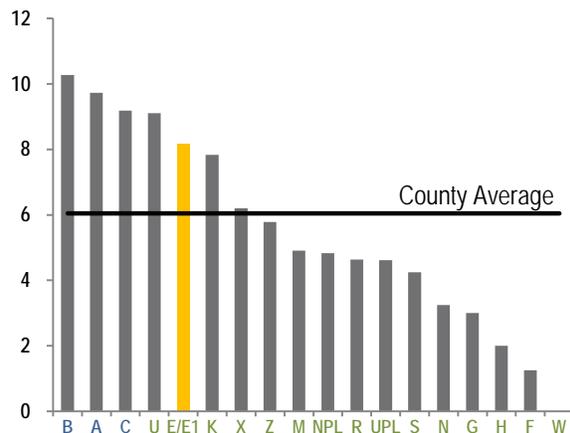
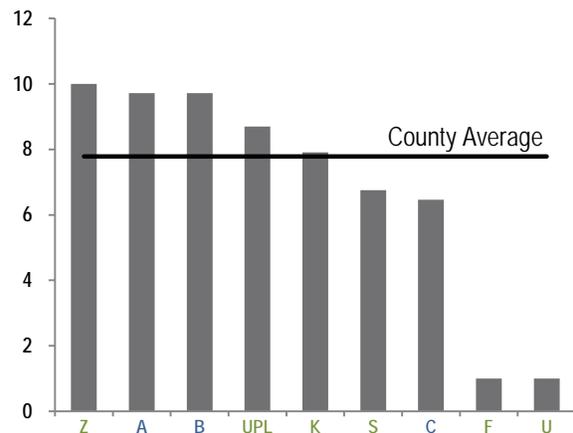


Figure 3-54 UCAT E Route Average Saturday Ridership per Trip



Source: Nelson\Nygaard ride check 2011-2012

Ridership by Trip. Northbound ridership per trip on the E Route peaks on the 7:45 AM trip. This ridership is closely tied to the start time of classes at SUNY Ulster, but likely also includes some commuters continuing on to Kingston. Southbound ridership from SUNY Ulster to Ellenville is less concentrated. This is a common travel pattern for colleges and universities, as students are more likely to have a common start time than end time. Some students may have half a day of classes, while others stay on campus until later afternoon or early evening.

Figure 3-55 UCAT E Route Weekday Ridership by Trip - To SUNY Ulster

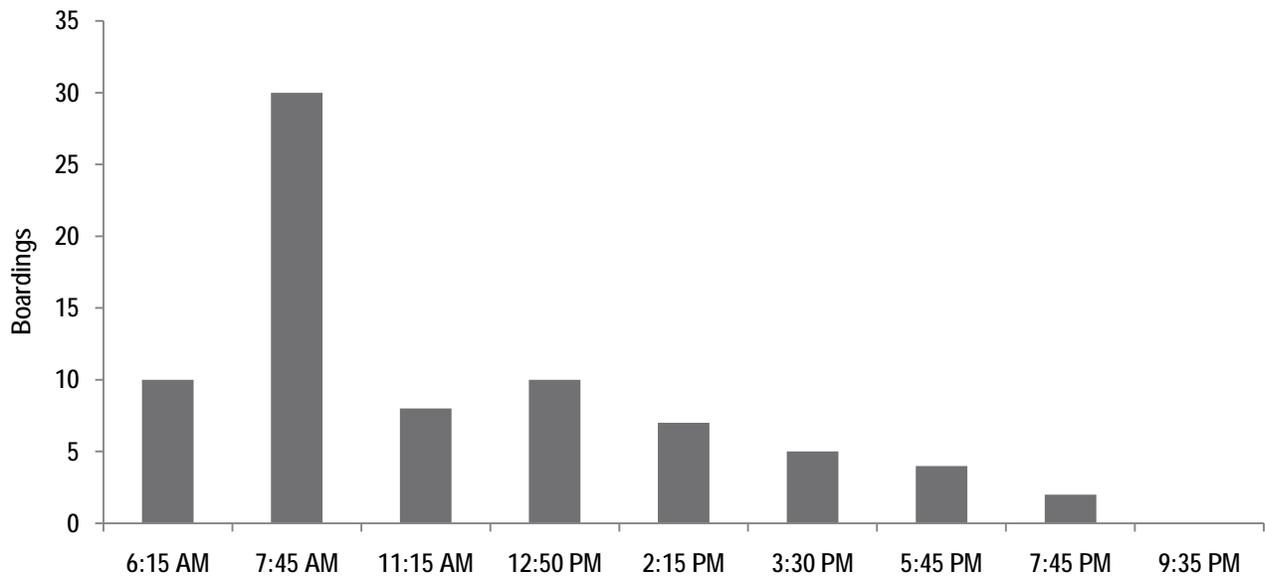
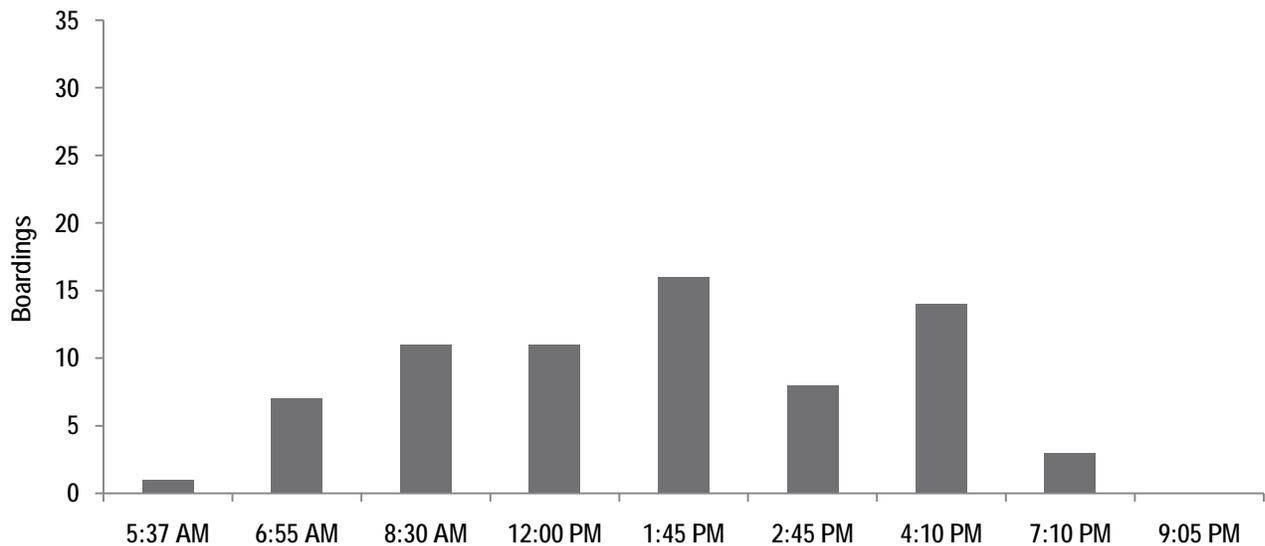


Figure 3-56 UCAT E Route Weekday Ridership by Trip - To Ellenville



Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

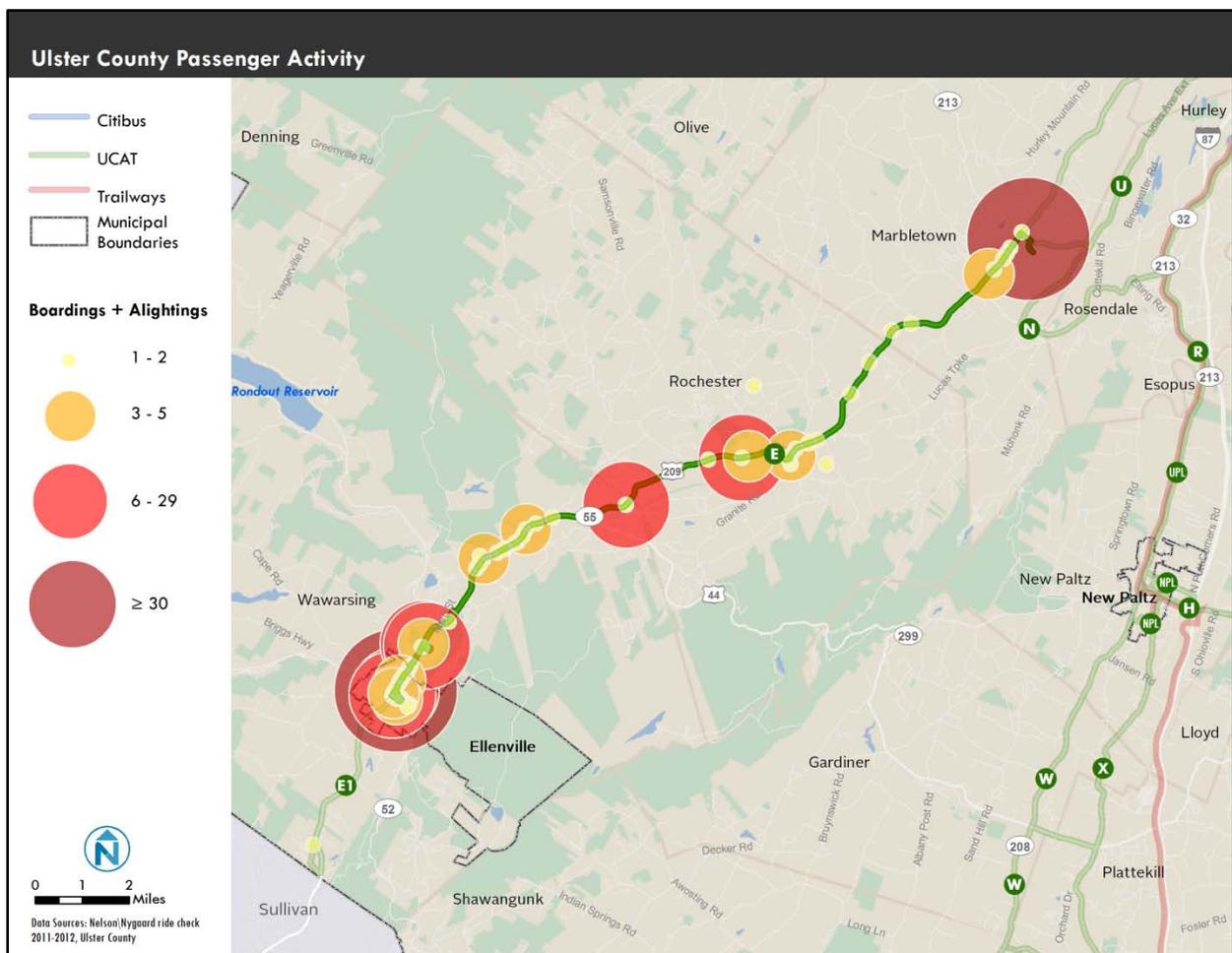
Ridership by Stop. The heaviest ridership activity on Route E takes place at SUNY Ulster, which is not only a major regional destination, but also serves as a transit hub where passengers can transfer between the E, N, and U Routes. Other notable stop request locations with relatively high ridership activity (more than 5 cumulative boardings and alightings per day) include the following:

- **US 209 at Mettakahonts Road, in Accord.** This location serves the Skate Time 209 family entertainment center.

- **US 209 at 42nd Street, in Kerhonkson.** This location serves the main service and retail cluster in Kerhonkson, including a post office, a pharmacy, two banks, and several restaurants.
- **ShopRite Boulevard, in Ellenville.** This location serves Ellenville Regional Hospital and ShopRite supermarket.
- **Main Street, between Liberty Street and Center Street, in Ellenville.** This location serves the main retail, commercial, and government cluster of Ellenville.

No stops along the E1 branch serving Spring Glen generate more than 5 boardings and alightings per day.

Figure 3-57 UCAT E Route Weekday Ridership by Stop Map



Source: Nelson\Nygaard ride check 2011-2012, Ulster County

Service Productivity. The E Route attracts 12.6 passenger boardings per revenue hour on weekdays (Figure 3-58), which is higher than both the UCAT and county averages for weekdays (Figure 3-58). The route does not operate on Saturdays.

Figure 3-58 UCAT E Route Service Productivity Measures

Performance Measure	Weekday			Saturday		
	E Route	UCAT Avg	County Avg	E Route	UCAT Avg	County Avg
Passengers per Revenue Vehicle Hour	12.6	9.9	9.8	-	12.9	10.7

Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

Figure 3-59 UCAT E Route Weekday Passengers per Revenue Hour

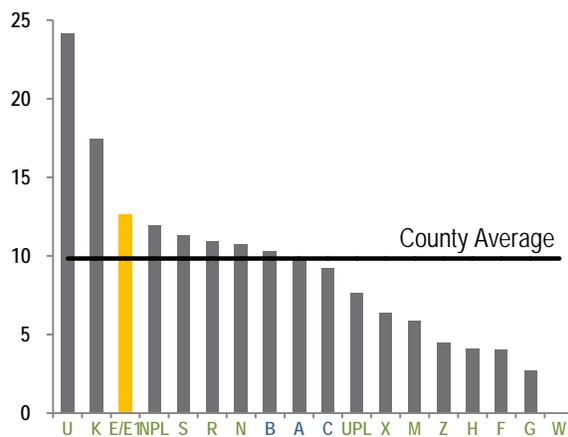
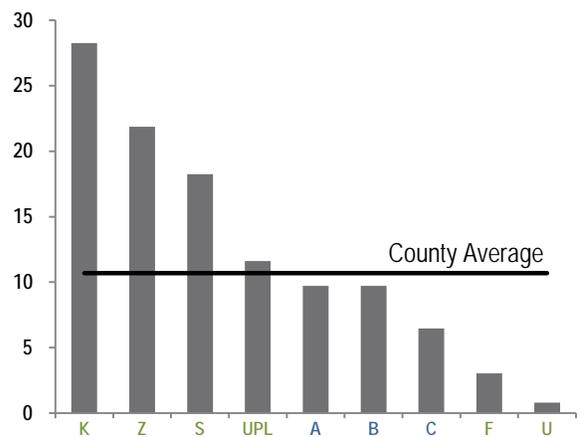


Figure 3-60 UCAT E Route Saturday Passengers per Revenue Hour



Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

On-time Performance. During the survey period, 67% of E Route trips were observed to be on-time, which is just below both the UCAT average and the combined average for UCAT and Citibus.

Figure 3-61 UCAT E Route On-time Performance Measures

Performance Measure	Weekday			Saturday		
	E Route	UCAT Avg	County Avg	E Route	UCAT Avg	County Avg
On-time Performance (%)	67	68	68	-	58	69

Source: Nelson\Nygaard ride check 2011-2012

Strengths

- 4th highest ridership among UCAT and Citibus routes
- Above county average for ridership per trip and ridership per revenue hour.
- Very direct route with few deviations.
- Connects two well-defined anchors (SUNY Ulster and Ellenville).
- Well-coordinated connections to other UCAT routes.

Weaknesses

- No reference to E1 route in E schedule. Passengers may not realize that service is available on-request, as this is only explained in fine print in a separate E1 passenger schedule.
- No Saturday service.

Potential Improvements

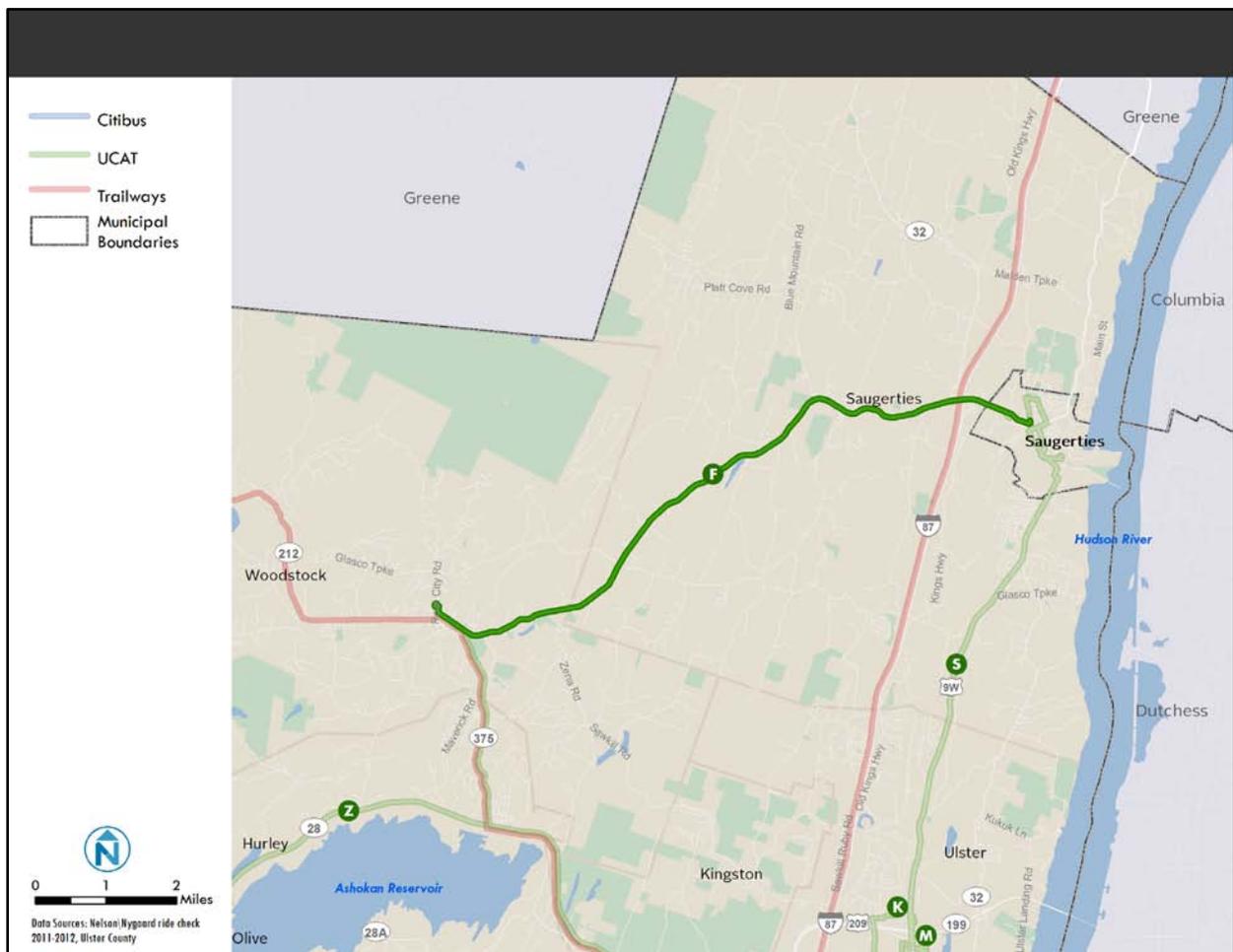
- **Add Saturday service.** The E Route is the highest ridership route without Saturday service. This makes it difficult for transit dependent residents of Ellenville to get to local retail destinations like ShopRite or regional destinations like Hudson Valley Mall for work or shopping.
- **Combine E and E1 passenger schedules.** As E1 is simply an on-request extension of Route E, it would be helpful to indicate this on-request opportunity on the E Route schedule, as is currently done with the Ellenville ShopRite on some trips.
- **Modify E1 Schedule.** The current E1 schedule is not well timed to accommodate work or school trips. This limits the ability of the route to attract daily riders. If an earlier trip was available to get students to SUNY Ulster in time for 8:40 classes, ridership may increase.
- **Eliminate route.** If schedule adjustments fail to attract more riders, UCAT should consider eliminating the E1 route and serving Spring Glen with rural route service only.

UCAT F ROUTE – WOODSTOCK/SAUGERTIES

Service Design. The UCAT F Route is a limited service regional route linking Woodstock with Saugerties via NY 212. The route operates year-round, six days a week. Major destinations served by the E Route include:

- Saugerties Post Office
- Ulster-Greene ARC Saugerties
- Saugerties Price Chopper
- Saugerties Trailways Bus Station (Sunoco Mart)
- Woodstock Trailways Bus Station (Houst & Son Hardware)
- Hamlet of Shokan

Figure 3-62 UCAT F Route Map



Transfer Opportunities. The F Route provides passengers with transfer opportunities to other UCAT routes and to Trailways service. In Saugerties, transfers can be made to and from the S Route. The connection times between the routes are well-coordinated and in some cases interlined (one bus continuing from one route to another). Trailways serves Saugerties from a Sunoco Mart along NY 32, within walking distance of NY 212 (although there are no sidewalks).

In Woodstock, passengers can transfer between the F Route and the UCAT Z Route, although some waiting times are quite long. Trailways service is also available from Woodstock, providing another transfer opportunity for F Route passengers.

Alignment/Service Patterns. The F Route runs along a single consistent routing for all trips. From the Saugerties Post Office, the route travels west along Ulster Avenue and US 212 to Woodstock, terminating at the Woodstock Municipal Parking lot on Rock City Road. Eastbound trips use the same routing, but in reverse.

Service Schedule. The F Route operates two trips per direction per weekday. Trips from Woodstock to Saugerties depart at 10:50 AM and 2:55 PM, while trips from Saugerties to Woodstock depart at 10:30 AM and 2:35 PM. These times are not in line with typical commuting times.

On Saturdays, a single trip operates from Woodstock to Saugerties, but no service is available in the opposite direction.

Figure 3-63 UCAT F Route Schedule Statistics

Service Day	Span of Service	Frequency (min) Peak / Off-Peak	Daily Trips (S/W)
Weekday	10:30 AM – 11:10 AM	-/-	2/2
	2:35 PM – 3:20 PM		
Saturday	10:40 AM – 11:00 AM	-/-	1/0

Source: published UCAT schedules

Note: "S" = To Saugerties, "W" = To Woodstock

Ridership by Service Day. On an average weekday, the F Route attracts 5 total passenger boardings or 1.3 passengers per trip. This is significantly lower than both the UCAT average and the combined average for UCAT and Citibus (Figure 3-64). During the survey period only one passenger trip was recorded on Saturday.

Figure 3-64 UCAT F Route Ridership Statistics

Service Day	Average Daily Ridership F Route	Average Daily Ridership per Trip		
		F Route	UCAT Avg	County Avg
Weekday	5	1.3	5.5	6.0
Saturday	1	1.0	7.2	7.8

Source: Nelson\Nygaard ride check 2011-2012

Figure 3-65 UCAT F Route Average Weekday Ridership

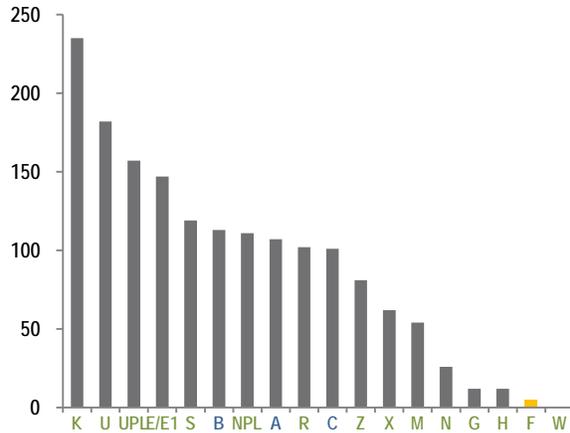


Figure 3-66 UCAT F Route Average Saturday Ridership

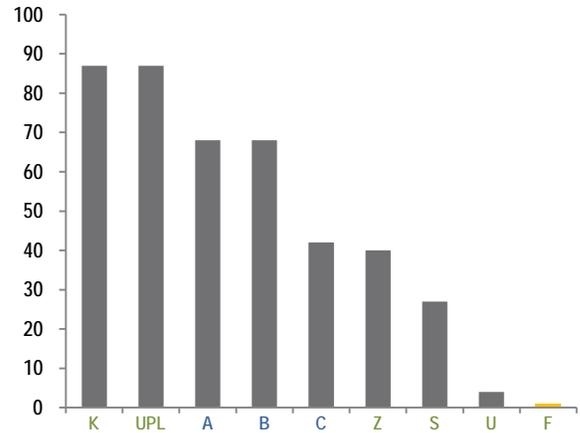


Figure 3-67 UCAT F Route Average Weekday Ridership per Trip

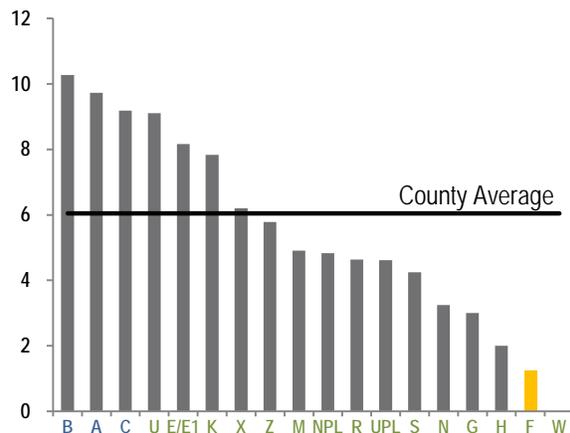
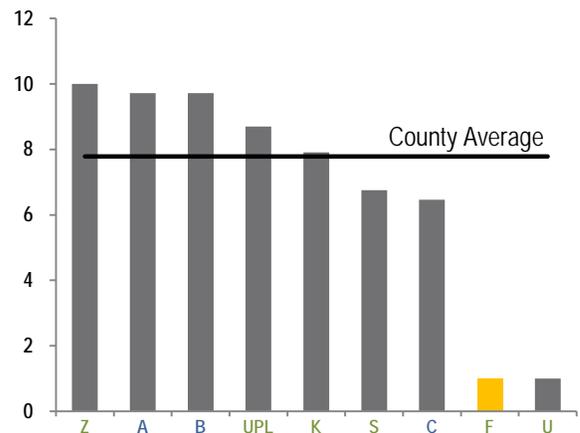


Figure 3-68 UCAT F Route Average Saturday Ridership per Trip



Source: Nelson\Nygaard ride check 2011-2012

Ridership by Trip. During the survey period, ridership on the F Route was limited to just three people traveling from Woodstock to Saugerties in the morning, and two people returning in the evening. One person made the trip to Saugerties on Saturday, but no return trip was available.

Figure 3-69 UCAT F Route Weekday Ridership by Trip - To Saugerties

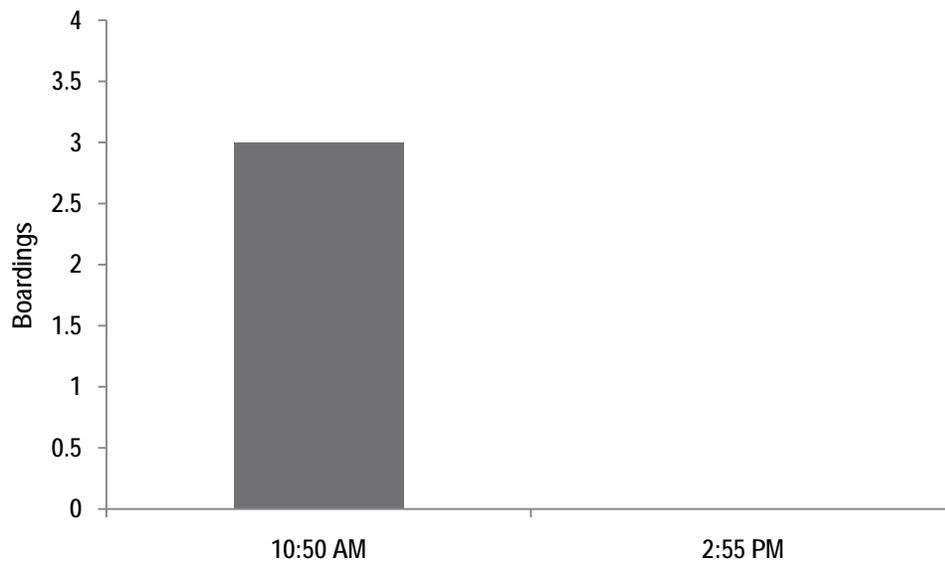


Figure 3-70 UCAT F Route Weekday Ridership by Trip - To Woodstock

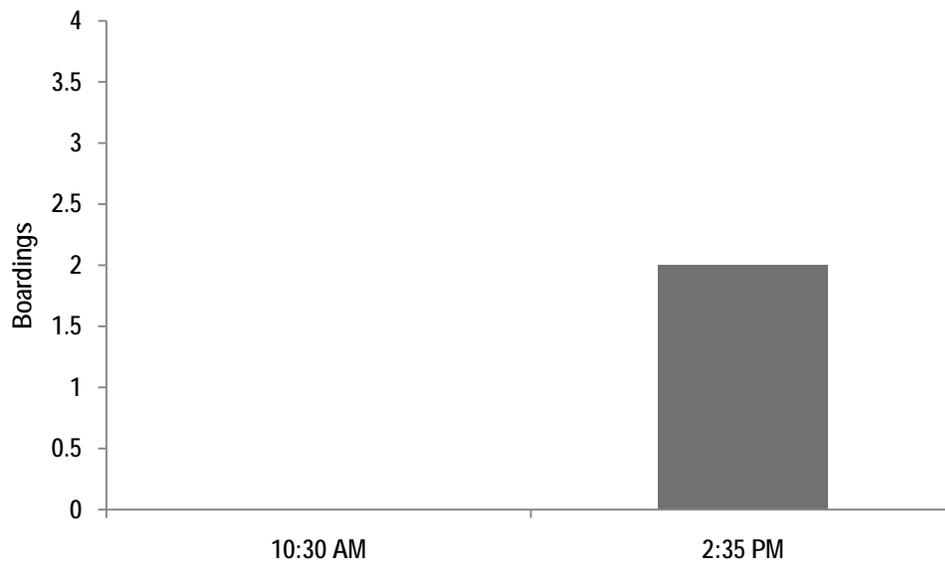
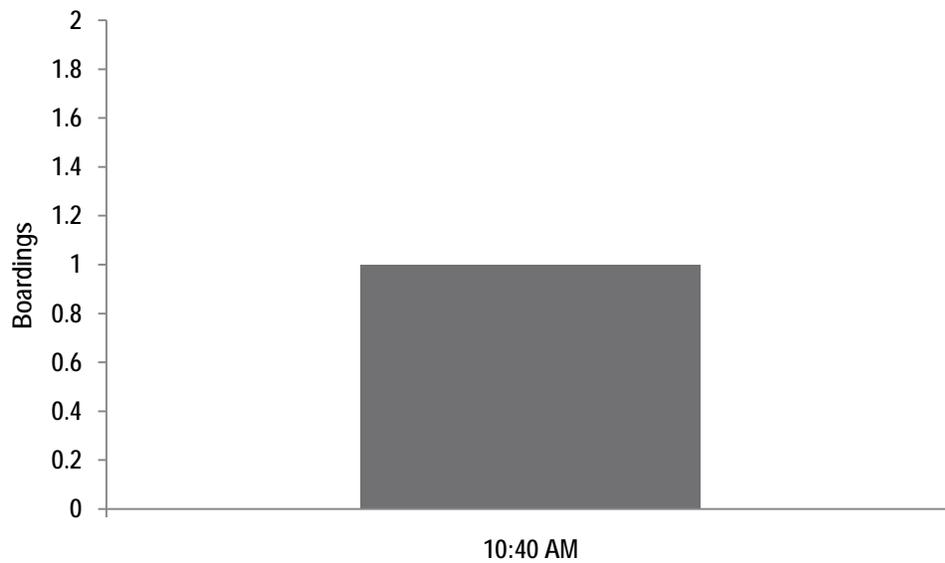


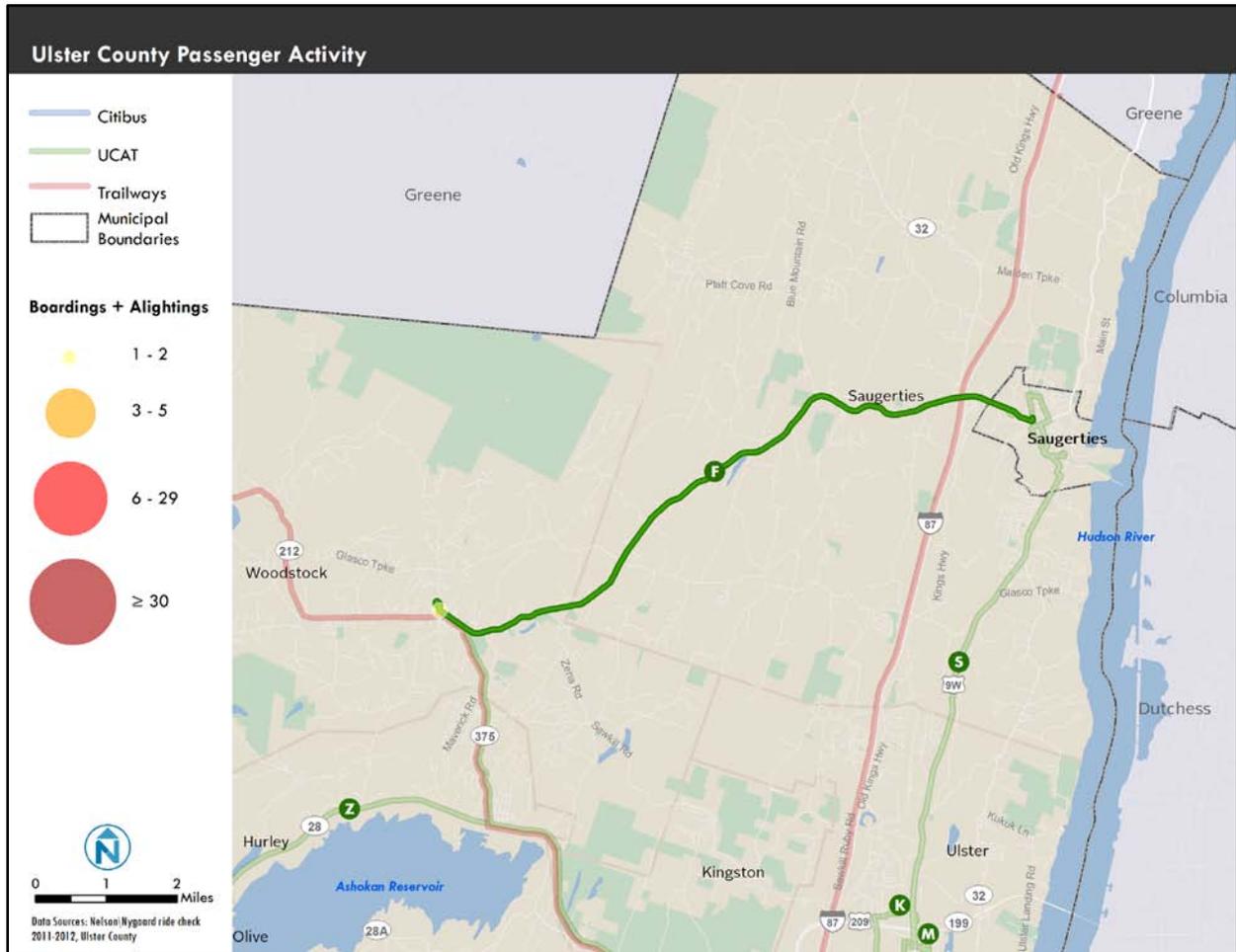
Figure 3-71 UCAT F Route Saturday Ridership by Trip - To Saugerties



Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

Ridership by Stop. During the survey period, no stops along the route generated more than 5 boardings and alightings per day on weekdays or Saturday.

Figure 3-73 UCAT F Route Saturday Ridership by Stop Map



Source: Nelson\Nygaard ride check 2011-2012, Ulster County

Service Productivity. The F Route carries just 4 passengers per revenue hour on weekdays and 3 passengers per revenue hour on Saturday. This is far below the UCAT and county-wide averages for both service periods.

Figure 3-74 UCAT F Route Service Productivity Measures

Performance Measure	Weekday			Saturday		
	F Route	UCAT Avg	County Avg	F Route	UCAT Avg	County Avg
Passengers per Revenue Vehicle Hour	4.0	9.9	9.8	3.0	12.9	10.7

Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

Figure 3-75 UCAT F Route Weekday Passengers per Revenue Hour

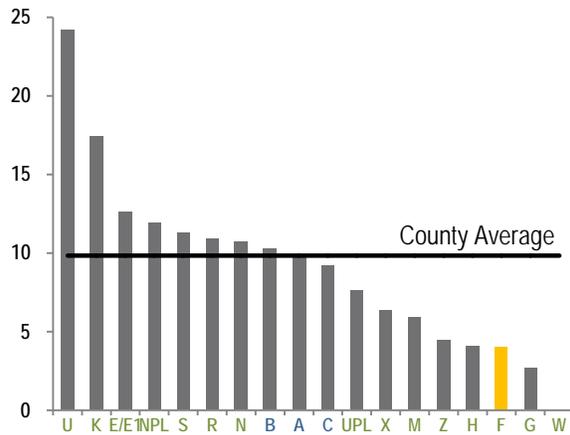
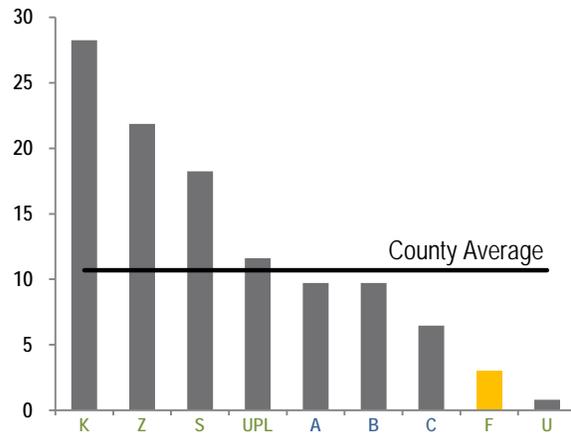


Figure 3-76 UCAT F Route Saturday Passengers per Revenue Hour



Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

On-time Performance. During the survey period, 50% of F Route trips were observed to be on-time, which is substantially below the UCAT average and the combined average for UCAT and Citibus.

Figure 3-77 UCAT F Route On-time Performance Measures

Performance Measure	Weekday			Saturday		
	Route	UCAT Avg	County Avg	Route	UCAT Avg	County Avg
On-time Performance (%)	50	68	68	0	58	69

Source: Nelson\Nygaard ride check 2011-2012

Strengths

- Provides direct link between Woodstock and Saugerties.

Weaknesses

- Very low ridership.
- Poor on-time performance.
- Service schedule does not match typical commuting times.
- Service is too infrequent to accommodate diverse travel times.

Potential Improvements

- **Modify F Schedule.** The current F schedule is not well timed to accommodate work or school trips. This limits the ability of the route to attract daily riders. If service were available at times that facilitate work and school trips to and from Tech City, SUNY Ulster and other major destination, then daily ridership may increase.

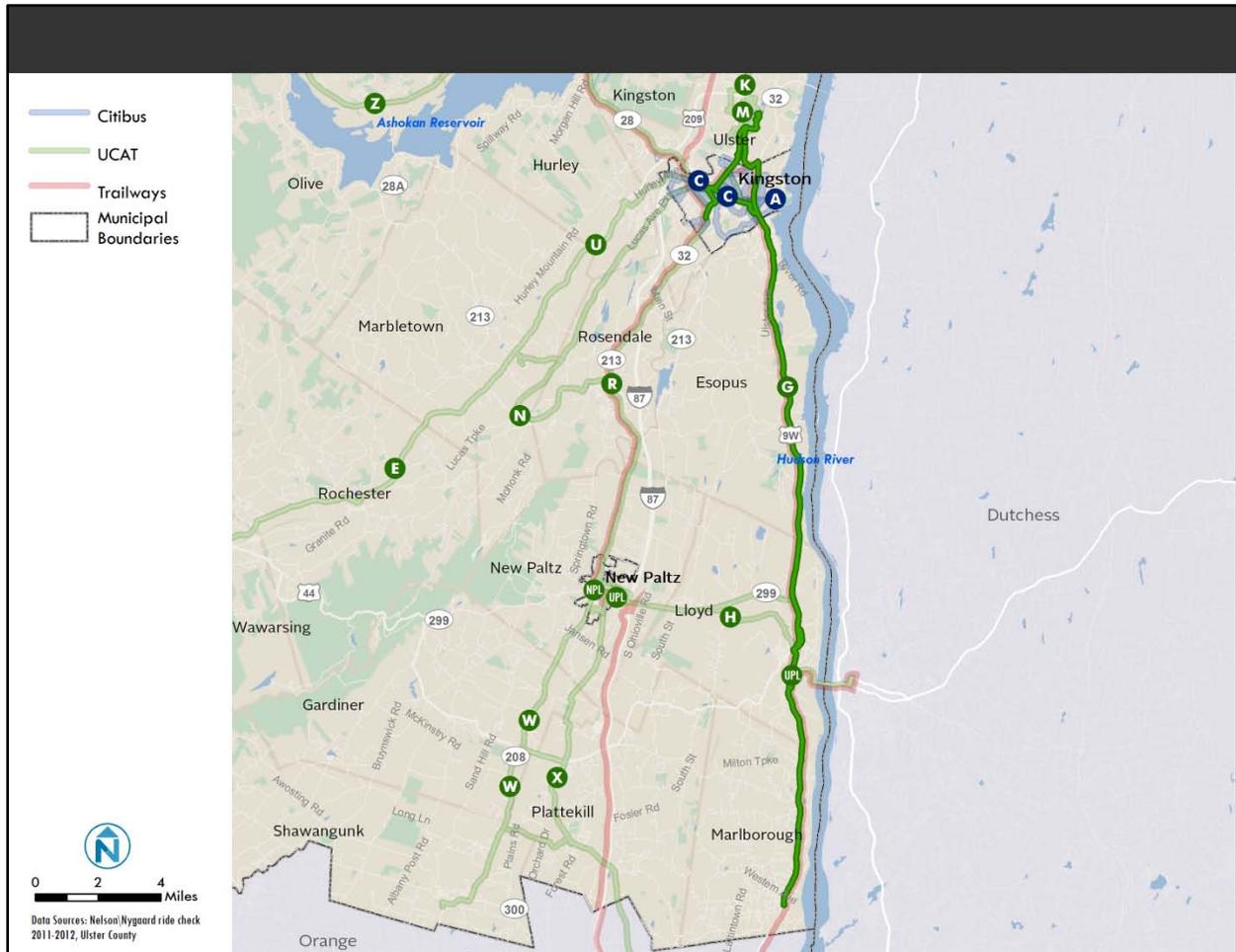
- **Eliminate route.** If schedule adjustments fail to attract more riders, UCAT should consider eliminating the F Route and serving the area it serves in a similar fashion to the Saugerties rural route service.

UCAT G ROUTE – KINGSTON/MARLBORO

Service Design. The UCAT G Route is a limited service regional route linking Kingston, Highland, and Marlboro via US 9W. The route operates year-round, five days a week. Major destinations served by the G Route include:

- Hannaford / Kingston Plaza
- Hudson Valley Mall
- Ulster BOCES (Port Ewan)
- Hamlet of Esopus
- Hamlet of West Park
- Highland Park & Ride
- Hamlet of Highland
- Hannaford / Bridgeview Plaza
- Hamlet of Milton
- Hamlet of Marlboro

Figure 3-78 UCAT G Route Map



Transfer Opportunities. The G Route provides passengers with transfer opportunities to other UCAT routes and to Citibus routes in Kingston. At Hudson Valley Mall, transfers can be made between the G Route and the UCAT K, M, and S Routes. In Kingston passengers can transfer to or from the following services at Kingston Plaza:

- Citibus A Route
- Citibus B Route
- Citibus C Route
- UCAT K Route
- UCAT R Route
- UCAT U Route
- UCAT Z Route

Although these routes all converge at Kingston Plaza, their schedules do not “pulse,” meaning that passengers must often wait long periods of time to transfer from one route to another.

In Highland, transfers can be made to the H Route serving New Paltz (although connection times are poor) or the Ulster-Poughkeepsie LINK (UPL) bus which provides numerous trips throughout the day. UPL transfers can also be made at Highland Park & Ride on US 9W.

Alignment/Service Patterns. Routing for the G Route varies by trip. From Kingston Plaza, the first trip of the day heads directly to Port Ewan along US 9W and then on to Highland and Marlboro. The same routing is followed in reverse on the last trip of the day from Marlboro to Kingston. However, the second trip from Kingston to Marlboro takes Albany / Ulster Avenue to Hudson Valley Mall, before heading south on US 9W toward Marlboro. The reverse of this routing is used on the first trip of the day from Marlboro to Kingston. On northbound trips, G Route buses circulate through the parking lot of Bridge View Plaza, while on southbound trips buses stop along US 9W to serve the plaza.

Service Schedule. The G Route operates two trips per direction per weekday. Trips from Kingston to Marlboro depart at 6:30 AM and 4:35 PM, while trips from Marlboro to Kingston depart at 7:40 AM and 5:45 PM. No Saturday service is available.

Figure 3-79 UCAT G Route Schedule Statistics

Service Day	Span of Service	Frequency (min) Peak / Off-Peak	Daily Trips (K/M)
Weekday	6:30 AM – 9:00 AM	-/-	2/2
	4:35 PM – 6:45 PM		
Saturday	No service	-	-

Source: published UCAT schedules

Note: "K" = To Kingston, "M" = To Marlboro

Ridership by Service Day. On an average weekday, the G Route attracts 12 total passenger boardings or 3 passengers per trip. This is 45% lower than the UCAT average and half of the combined average for UCAT and Citibus (Figure 3-80).

Figure 3-80 UCAT G Route Ridership Statistics

Service Day	Average Daily Ridership	Average Daily Ridership per Trip	
	G Route	G Route	UCAT Avg
Weekday	12	3.0	5.5
Saturday	-	-	7.2
			County Avg
			6.0
			7.8

Source: Nelson\Nygaard ride check 2011-2012

Figure 3-81 UCAT G Route Average Weekday Ridership

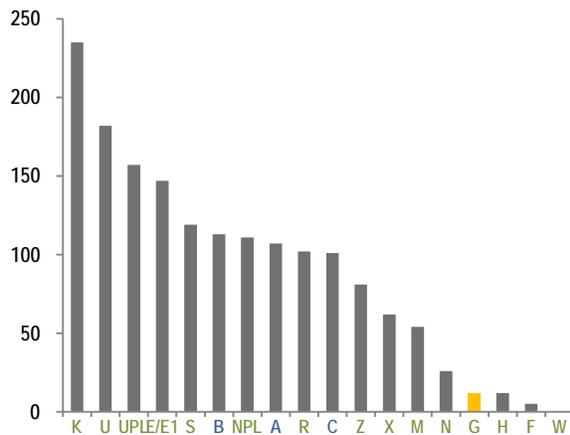


Figure 3-82 UCAT G Route Average Saturday Ridership

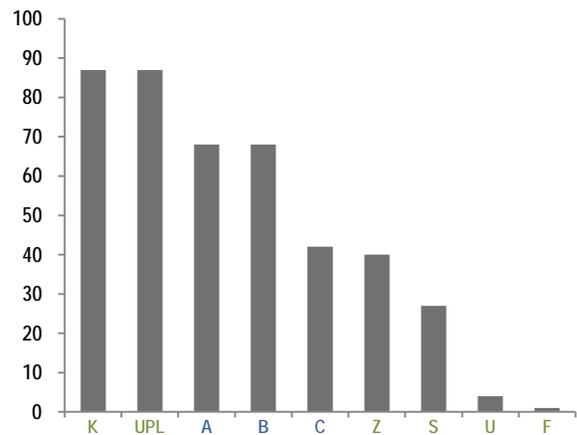


Figure 3-83 UCAT G Route Average Weekday Ridership per Trip

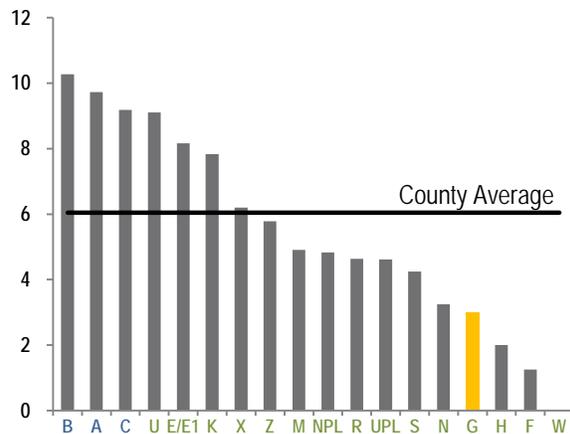
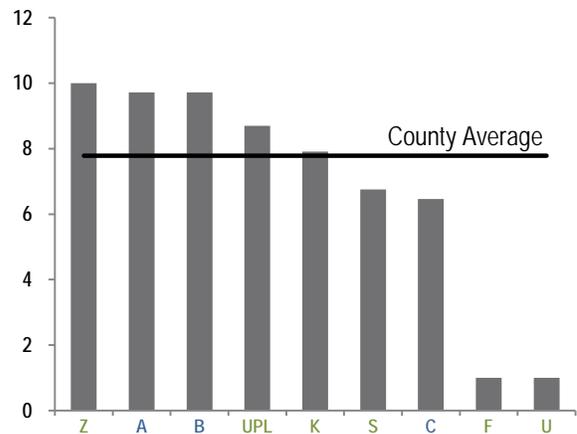


Figure 3-84 UCAT G Route Average Saturday Ridership per Trip



Source: Nelson\Nygaard ride check 2011-2012

Ridership by Trip. The majority of passengers on the G Route travel to Kingston in the morning and from Kingston in the afternoon. A smaller commute period survey period, ridership on the F Route was limited to just three people traveling from Woodstock to Saugerties in the

morning, and two people returning in the evening. One person made the trip to Saugerties on Saturday, but no return trip was available.

Figure 3-85 UCAT G Route Weekday Ridership by Trip - To Kingston

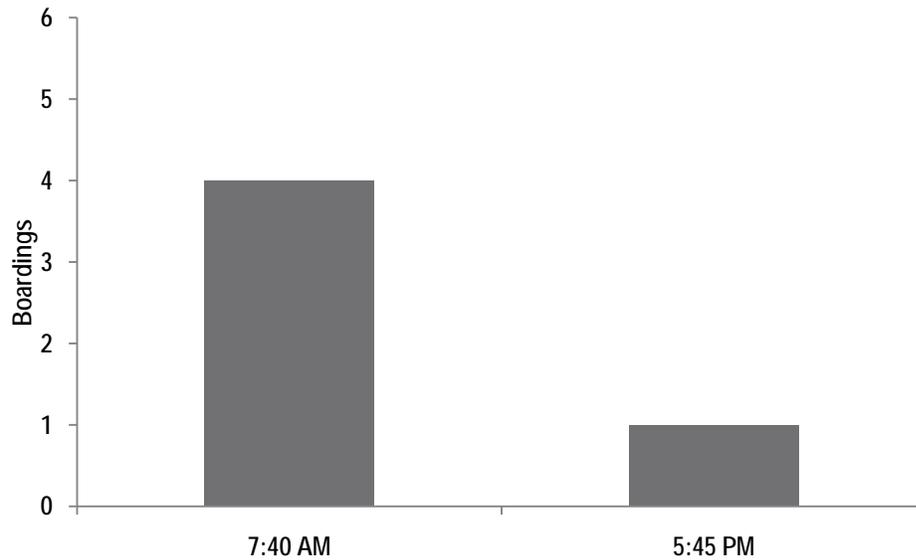
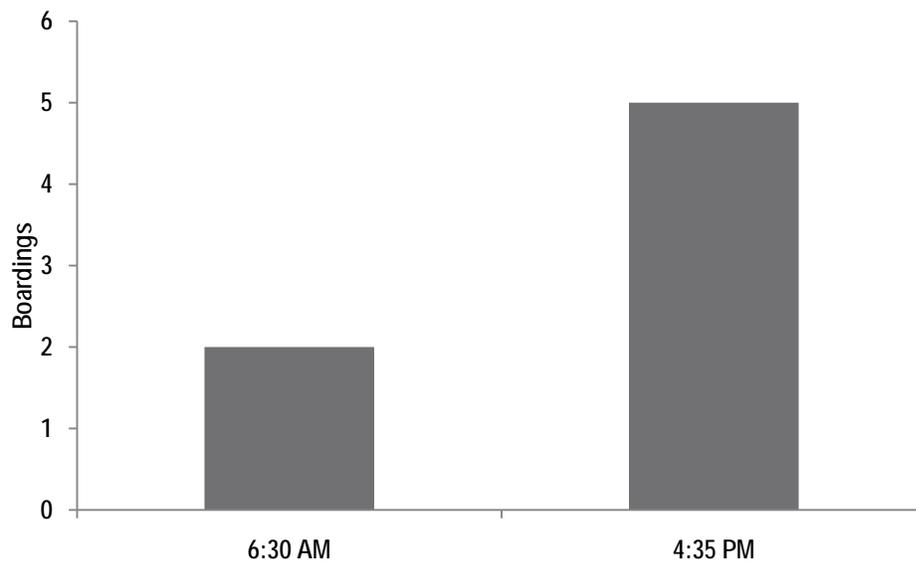


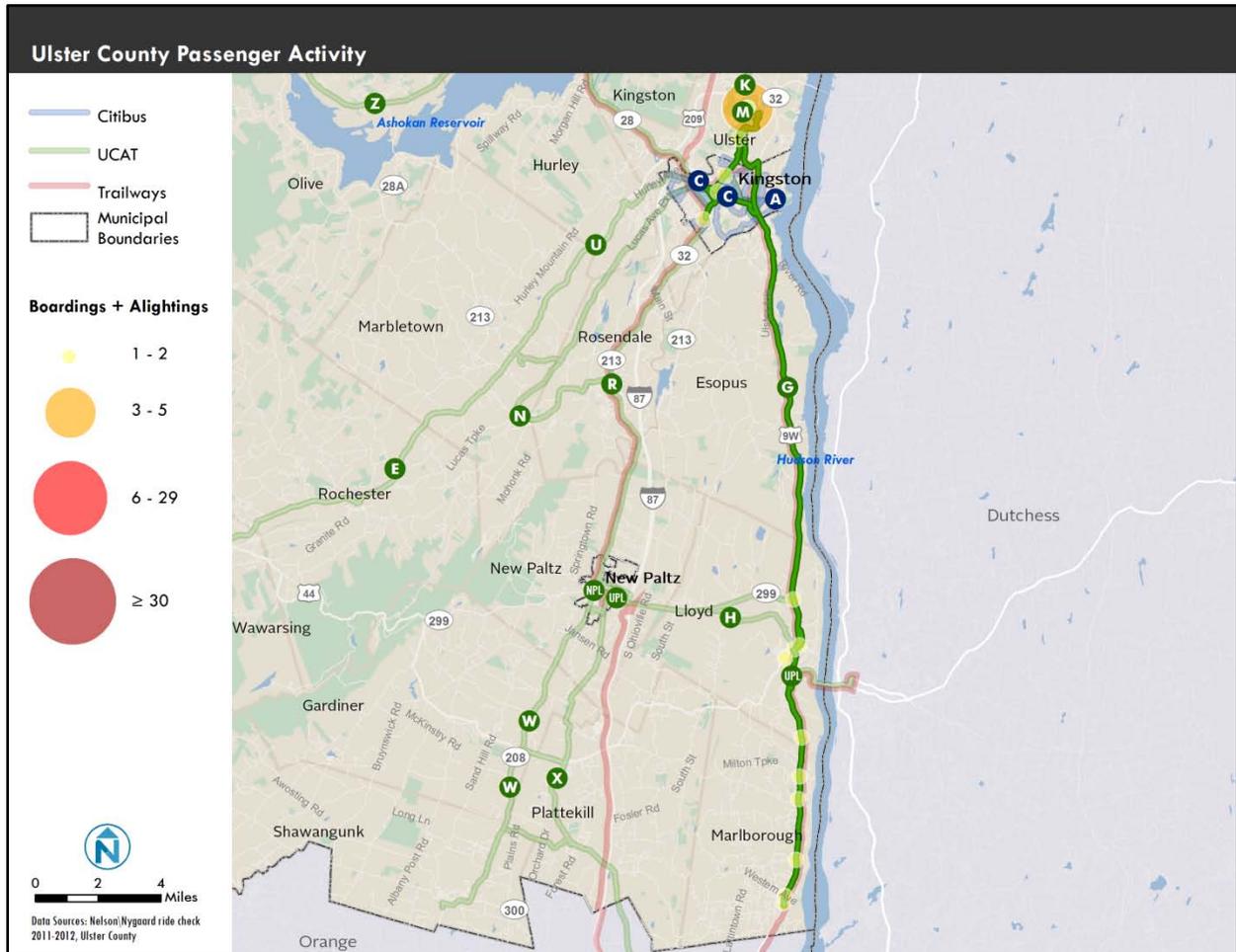
Figure 3-86 UCAT G Route Weekday Ridership by Trip - To Marlboro



Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

Ridership by Stop. During the survey period, no stops along the route generated more than 5 boardings and alightings per day.

Figure 3-87 UCAT G Route Weekday Ridership by Stop Map



Source: Nelson\Nygaard ride check 2011-2012, Ulster County

Service Productivity. The G Route attracts 2.7 passenger boardings per revenue hour on weekdays, which is significantly lower than both the UCAT and county averages for weekdays (Figure 3-88). The route does not operate on Saturdays.

Figure 3-88 UCAT G Route Service Productivity Measures

Performance Measure	Weekday			Saturday		
	G Route	UCAT Avg	County Avg	G Route	UCAT Avg	County Avg
Passengers per Revenue Vehicle Hour	2.7	9.9	9.8	-	12.9	10.7

Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

Figure 3-89 UCAT G Route Weekday Passengers per Revenue Hour

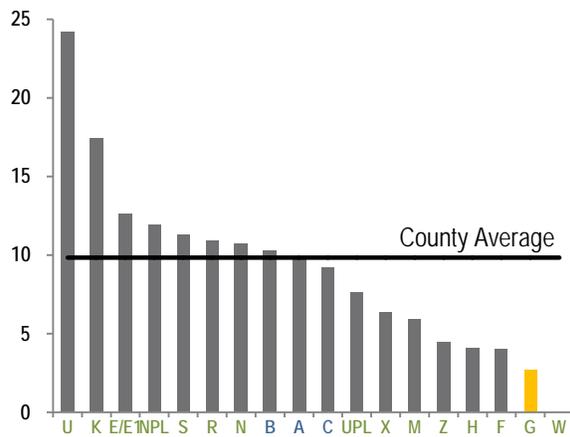
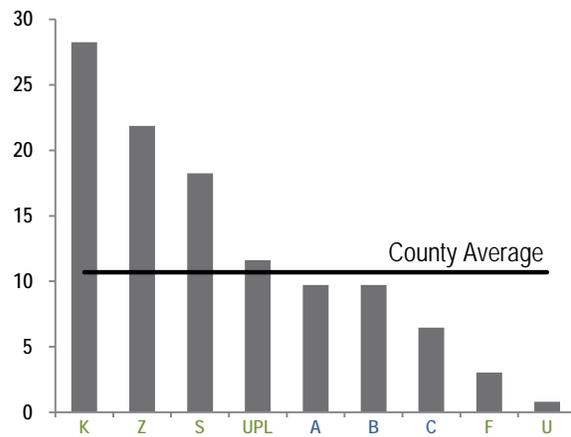


Figure 3-90 UCAT G Route Saturday Passengers per Revenue Hour



Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

On-time Performance. During the survey period, 67% of G Route trips were observed to be on-time, which is just below both the UCAT average and the combined average for UCAT and Citibus.

Figure 3-91 UCAT G Route On-time Performance Measures

Performance Measure	Weekday			Saturday		
	G Route	UCAT Avg	County Avg	G Route	UCAT Avg	County Avg
On-time Performance (%)	67	68	68	-	58	69

Source: Nelson\Nygaard ride check 2011-2012

Strengths

- Provides direct link between Kingston and Marlboro.
- Well designed schedule that matches typical commuting times.

Weaknesses

- Very low ridership despite limited but well designed schedule.
- Below average ridership per trip and ridership per revenue hour.
- Service is too infrequent to accommodate diverse travel times.

Potential Improvements

- **Replace fixed-route service with anchored “flex” service.** The Ulster County hamlets south of New Paltz and Highland are too widely dispersed to serve effectively with fixed-route transit. However, they do generate ridership on rural route service and the G Route. Instead of fixed-route service, these communities could be served by

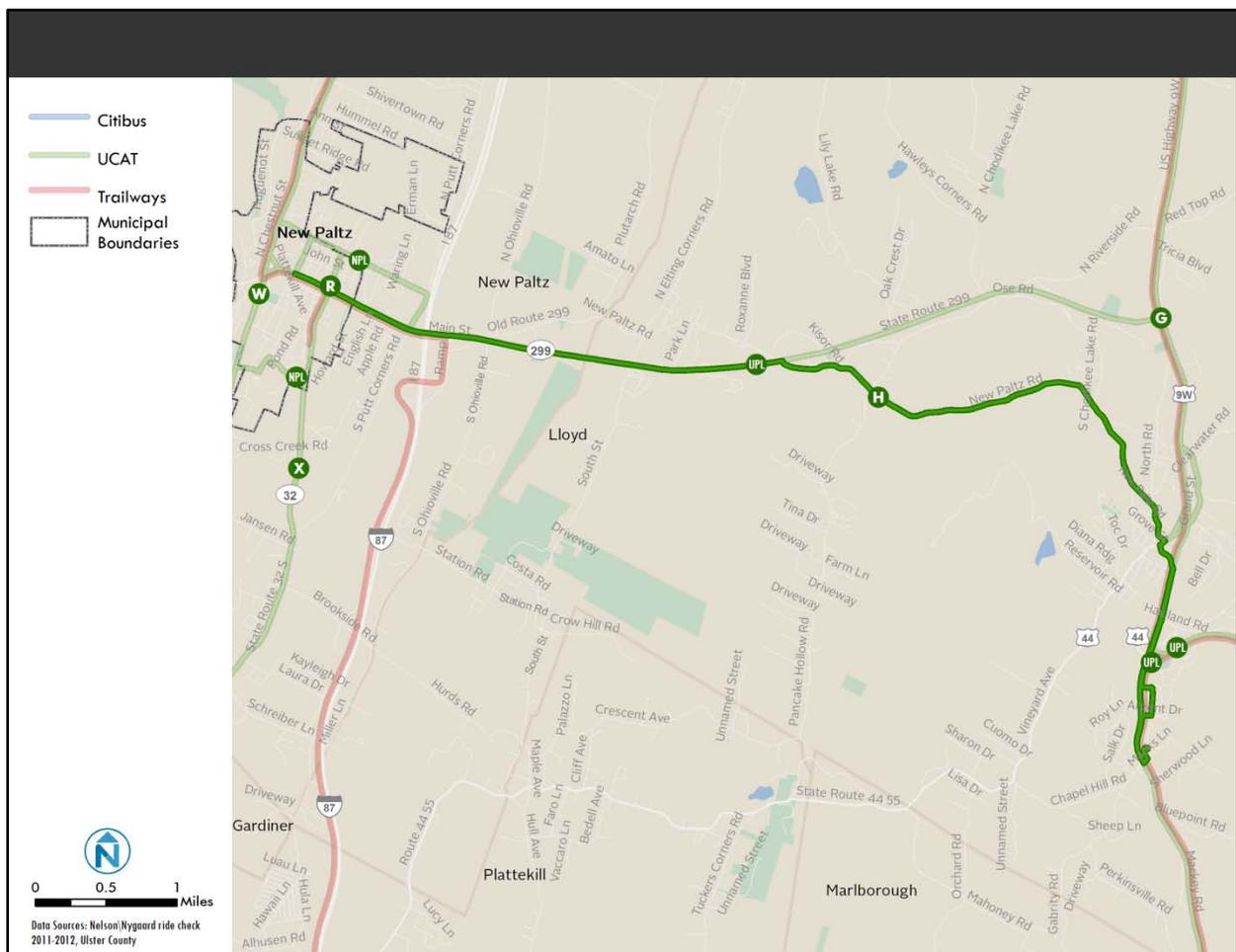
anchored “flex” service. Anchored flex service is a service that includes two or more main anchors (for example: Marlboro, Highland, and Wallkill) that are served at designated times. However, the path between the points is not defined, allowing for on-request service between scheduled time points. This allows for predictable connections between major destinations and flexibility in areas of dispersed ridership. Passengers picked up outside the scheduled time points could make connections to fixed-route service at the designated time points or anywhere else a transfer opportunity exists. Anchored flex service would not necessitate ADA complementary paratransit service, which is required for fixed-route service.

UCAT H ROUTE – NEW PALTZ/HIGHLAND

Service Design. The UCAT H Route is a limited service regional route linking Highland and New Paltz via NY 299. The route operates year-round, five days a week. Major destinations served by the H Route include:

- Wingate Nursing Home
- Bridgeview Plaza
- Hamlet of Highland
- Hamlet of Lloyd
- Ulster County Mental Health (Highland)
- New Paltz Stop & Shop
- New Paltz ShopRite
- New Paltz Trailways Bus Station

Figure 3-92 UCAT H Route Map



Transfer Opportunities. The H Route provides passengers with several transfer opportunities in New Paltz and Highland. The H Route, R Route, X Route, New Paltz Loop (NPL) and UPL all operate along Main Street in New Paltz. Transfers between any of these routes can be made along this street. Trailways service is also available from a bus station at

Main and Prospect. Some transfer times are well-coordinated through interlines, but others are more random and result in long waits for passengers. The high frequency of UPL and NPL service makes timed transfers less critical, as wait times tend to be relatively short. Passengers wishing to transfer from H Route to W Route can do so by walking about three blocks along Main Street to Chestnut Street.

In Highland, transfers can be made to the G Route serving Marlboro (although connection times are poor) or the UPL bus which provides numerous trips to and from Poughkeepsie throughout the day.

Alignment/Service Patterns. The H Route runs along a single consistent routing for all trips. From the Main Street and Prospect in New Paltz, the route heads east along NY 299 and then into Highland on New Paltz Road / County Road 12. The route serves Wingate Nursing Home and Bridgeview Plaza before returning to Highland along the same alignment.

Service Schedule. The H Route operates three trips per direction per weekday. Trips from New Paltz to Highland depart at 9:15 AM, 12:45 PM, and 2:15 PM, while trips from Highland to New Paltz depart at 9:45 AM, 1:15 PM, and 2:45 PM. The route does not operate on Saturdays.

Figure 3-93 UCAT H Route Schedule Statistics

Service Day	Span of Service	Frequency (min) Peak / Off-Peak	Daily Trips (N/H)
Weekday	9:15 AM – 3:15 PM	90/210	3/3
Saturday	No service	-	-

Source: published UCAT schedules

Note: "N" = To New Paltz, "H" = To Highland

Ridership by Service Day. On an average weekday, the H Route attracts 12 total passenger boardings or 2 passengers per trip. This is 66% lower than the combined average for UCAT and Citibus (Figure 3-94).

Figure 3-94 UCAT H Route Ridership Statistics

Service Day	Average Daily Ridership		Average Daily Ridership per Trip	
	H Route	H Route	UCAT Avg	County Avg
Weekday	12	2.0	5.5	6.0
Saturday	-	-	7.2	7.8

Source: Nelson\Nygaard ride check 2011-2012

Figure 3-95 UCAT H Route Average Weekday Ridership

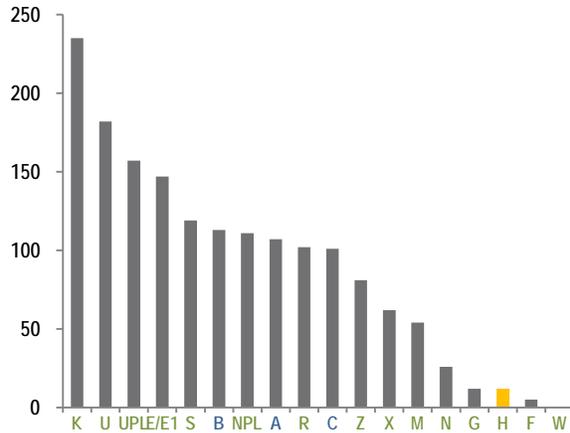


Figure 3-96 UCAT H Route Average Saturday Ridership

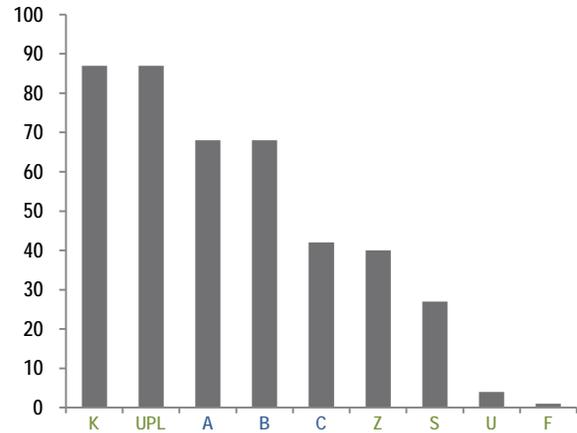


Figure 3-97 UCAT H Route Average Weekday Ridership per Trip

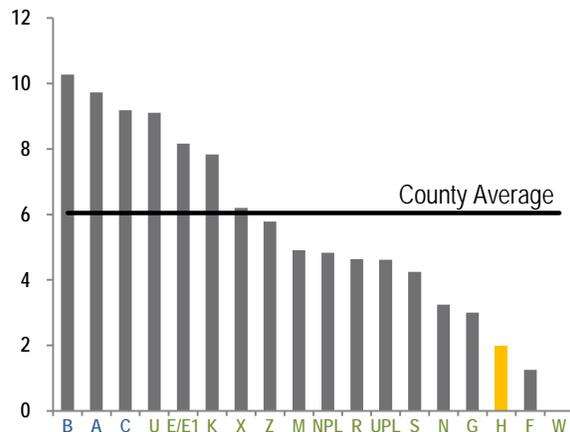
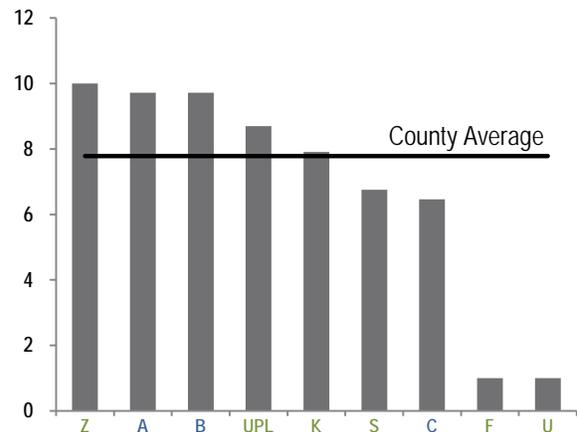


Figure 3-98 UCAT H Route Average Saturday Ridership per Trip



Source: Nelson\Nygaard ride check 2011-2012

Ridership by Trip. The highest ridership on the H Route was recorded on the 2:45 trip from Highland to New Paltz. Most of this ridership was internal to Highland with passengers traveling from Bridgeview Plaza to Main Street in Highland, rather than to New Paltz. Over-all ridership on the H Route is light. However, H Route trips are interlined with the R Route in New Paltz, meaning that even trips that show no boarding activity, such as the 9:15 AM trip to Highland may actually be carrying passengers who boarded the bus when it was operating on the R Route in Kingston but do now show up as boardings on the H Route.

Figure 3-99 UCAT H Route Weekday Ridership by Trip - To New Paltz

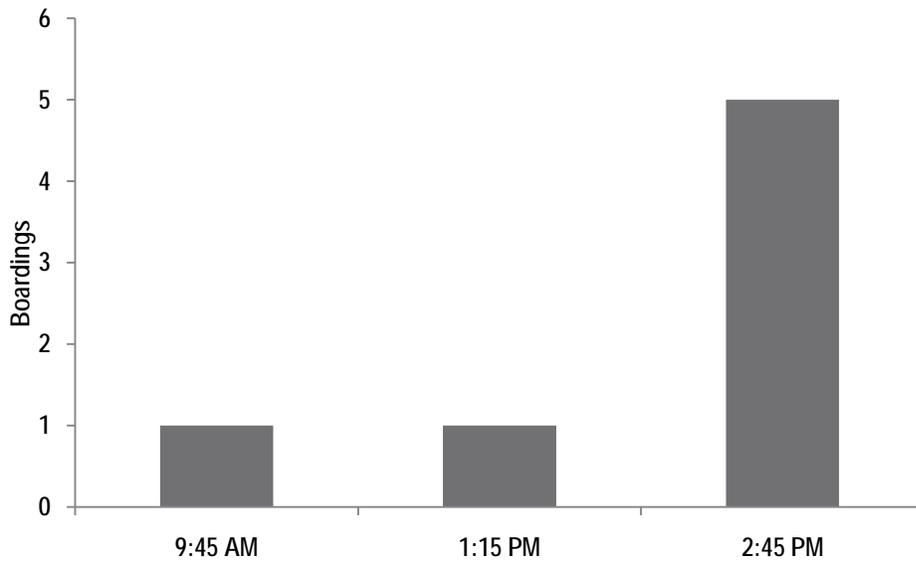
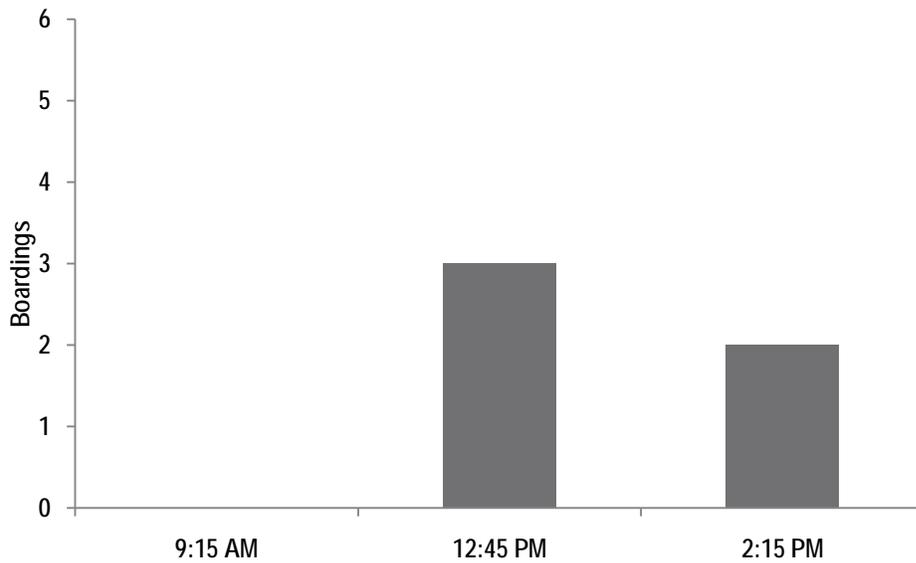


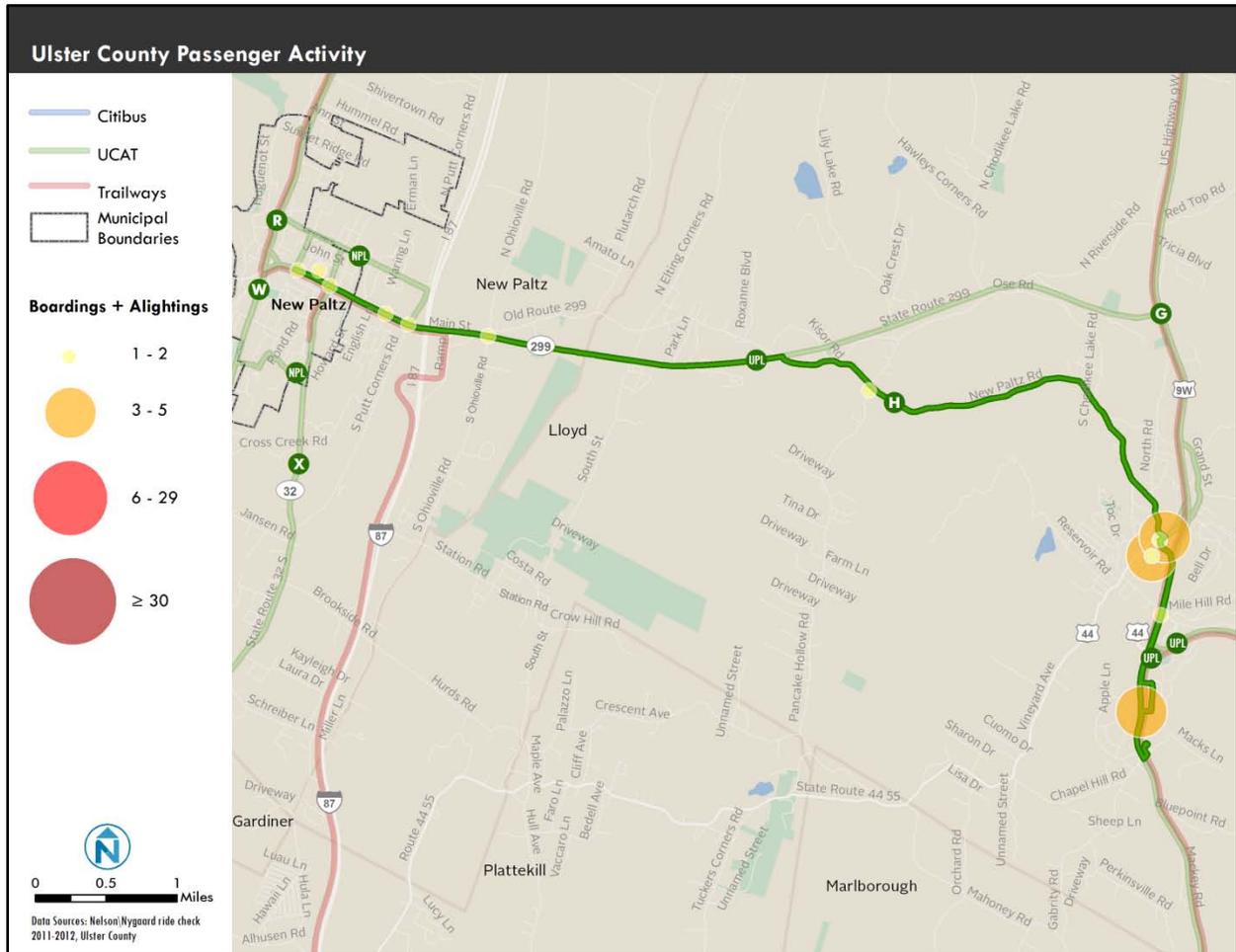
Figure 3-100 UCAT H Route Weekday Ridership by Trip - To Highland



Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

Ridership by Stop. During the survey period, no stops along the H Route generated more than 5 boardings and alightings per day.

Figure 3-101 UCAT H Route Weekday Ridership by Stop Map



Source: Nelson\Nygaard ride check 2011-2012, Ulster County

Service Productivity. The H Route attracts just 4.1 passenger boardings per revenue hour on weekdays. This is less than half the UCAT and county-wide averages for weekday service productivity.

Figure 3-102 UCAT H Route Service Productivity Measures

Performance Measure	Weekday			Saturday		
	H Route	UCAT Avg	County Avg	H Route	UCAT Avg	County Avg
Passengers per Revenue Vehicle Hour	4.1	9.9	9.8	-	12.9	10.7

Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

Figure 3-103 UCAT H Route Weekday Passengers per Revenue Hour

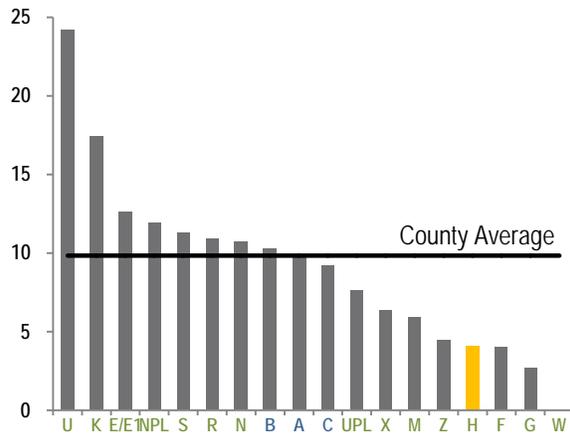
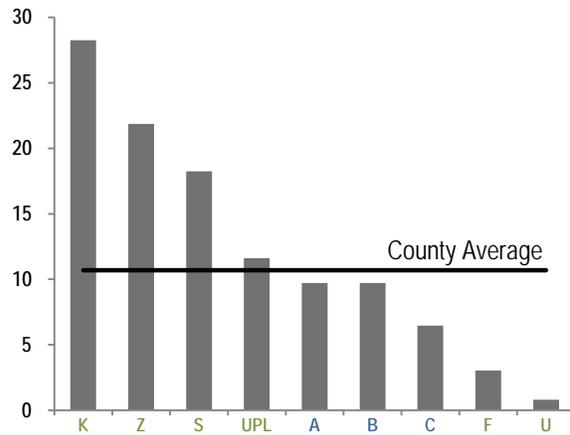


Figure 3-104 UCAT H Route Saturday Passengers per Revenue Hour



Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

On-time Performance. During the survey period, the H Route was observed to be on-time 100% of the time. This is rare among UCAT and Citibus services.

Figure 3-105 UCAT H Route On-time Performance Measures

Performance Measure	Weekday			Saturday		
	H Route	UCAT Avg	County Avg	H Route	UCAT Avg	County Avg
On-time Performance (%)	100	68	68	-	58	69

Source: Nelson\Nygaard ride check 2011-2012

Strengths

- Provides direct link between New Paltz and parts of Highland not served by the UPL.
- Serves important destinations such Wingate Plaza and Wingate Nursing Home.

Weaknesses

- Much of the route is redundant with the UPL Route.
- Very low ridership.
- Possible undercounting of ridership due to extensive inter-lining.
- Lack of information on inter-line opportunities on passenger schedules.
- Schedule does not match typical commuting times.

Potential Improvements

- **Advertise inter-line opportunities on passenger schedules.** Passengers from Kingston may not be aware that the H Route provides a one-seat connection from

Kingston to Highland. For trips that include an inter-line, passenger schedules should note the route that bus transitions to and from. This gives passengers a more complete picture of their travel options, and may encourage passengers who are averse to transfers.

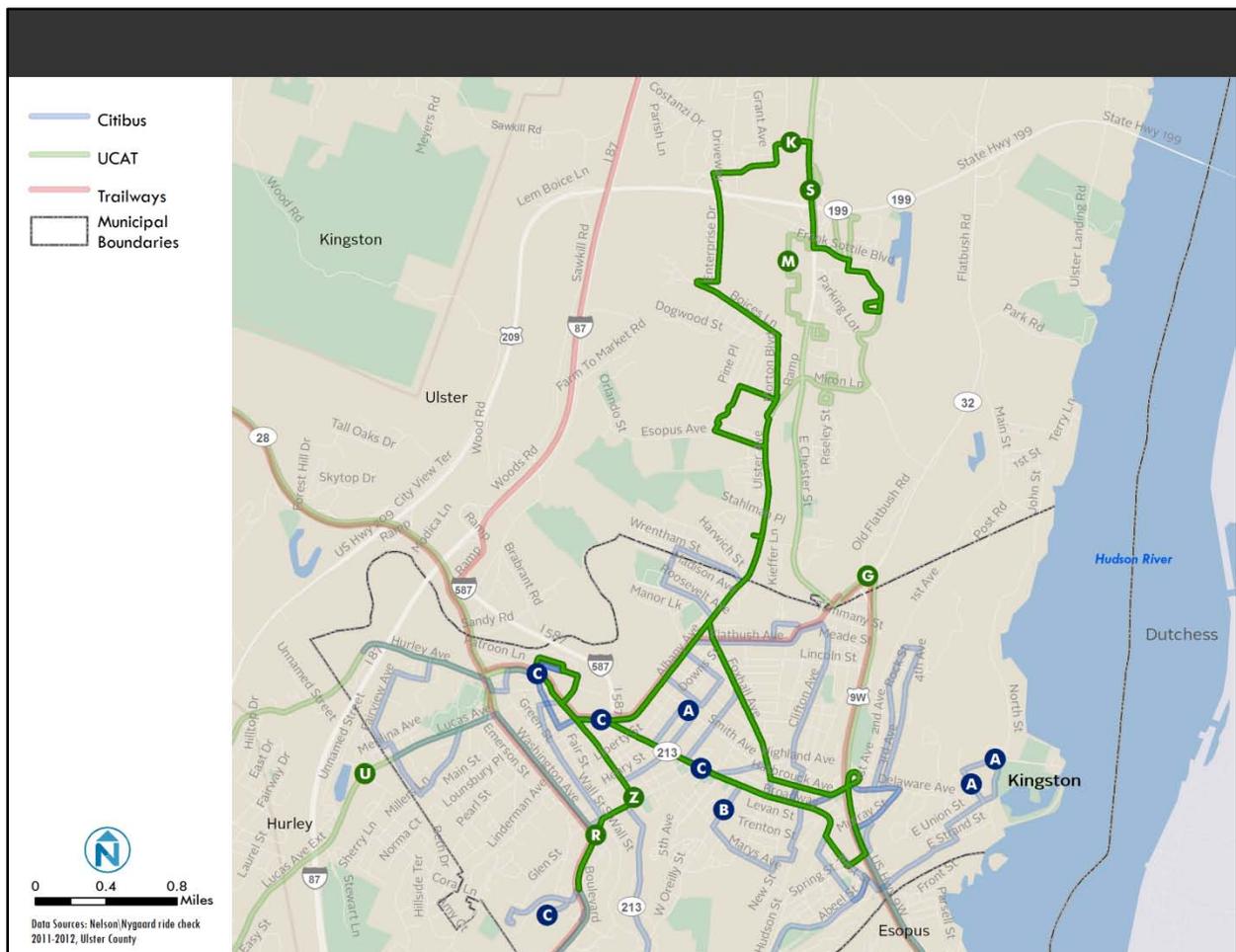
- **Replace fixed-route service with anchored “flex” service.** The Ulster County hamlets south of New Paltz and Highland are too widely dispersed to serve effectively with fixed-route transit. However, they do generate ridership on rural route service and the G Route. Instead of fixed-route service, these communities could be served by anchored “flex” service. Anchored flex service is a service that includes two or more main anchors (for example: Marlboro, Highland, and Walkill) that are served at designated times. However, the path between the points is not defined, allowing for on-request service between scheduled time points. This allows for predictable connections between major destinations and flexibility in areas of dispersed ridership. Passengers picked up outside the scheduled time points could make connections to fixed-route service at the designated time points or anywhere else a transfer opportunity exists. Anchored flex service would not necessitate ADA complementary paratransit service, which is required for fixed-route service.

UCAT K ROUTE – KINGSTON/ULSTER MALL AREA

Service Design. The UCAT K Route is a regional route linking Kingston and the Ulster Mall Area, including Hudson Valley Mall and Tech City. The route operates year-round, six days a week. Major destinations served by the K Route include:

- Hannaford / Kingston Plaza
- Kinston Business Resource Center
- Tech City Office Park
- Social Security Administration
- Hudson Valley Mall
- Kingston Business Resource Center

Figure 3-106 UCAT K Route Map



Transfer Opportunities. The K Route provides passengers with transfer opportunities to other UCAT routes and to Citibus routes in Kingston. At Hudson Valley Mall, transfers can be made between the K Route and the UCAT G, M, and S Routes. In Kingston passengers can transfer to or from the following services at Kingston Plaza:

- Citibus A Route
- Citibus B Route
- Citibus C Route
- UCAT G Route
- UCAT R Route
- UCAT U Route
- UCAT Z Route

Although these route all converge at Kingston Plaza, their schedules do not “pulse,” meaning that passengers must often wait long periods of time to transfer from one route to another.

Alignment/Service Patterns. For most weekday trips, the K Route follows a single consistent routing. From Kingston Plaza, the route takes Albany Avenue to Ulster County Business Resource Center, then continues north on Ulster Avenue, looping around Van Keuren, Chambers and Esopus. From there, the route serves Tech City on Enterprise Drive and continues on to the Social Security Administration on Grant Avenue before finally reaching Hudson Valley Mall. Most Route K buses return to Kingston Plaza along the same route.

The weekday morning trip from Kingston Plaza and two weekday evening trips from Hudson Valley Mall take an alternate routing serving Broadway, Garraghan, and Foxhall Avenue instead of the more direct Albany Avenue route. These trips provide a link for Kingston residents to and from the Ulster Mall Area at hours when Citibus services are not available.

Most Saturday trips to the mall follow the alternate weekday routing to fill in for gaps in Citibus service. Return trips to Kingston Plaza follow the primary weekday routing, and no Saturday trips serve the Social Security Administration office.

Service Schedule. The K Route operates from 5:20 AM to 10:10 PM on weekdays and from 7:50 AM to 6:15 PM on Saturdays. On weekdays, service is available hourly for most of the service day with trips departing from Hudson Valley Mall at the top of each hour and trips departing from Kingston Plaza half past every hour. Trips after 5:30 PM have a more irregular schedule. On Saturdays, six trips per direction are provided on an irregular schedule.

Figure 3-107 UCAT K Route Schedule Statistics

Service Day	Span of Service	Frequency (min) Peak / Off-Peak	Daily Trips (K/U)
Weekday	5:20 AM – 10:10 PM	60/varies (45-105)	15/15
Saturday	7:50 AM – 6:15 PM	Varies (15-195)	6/6

Source: published UCAT schedules

Note: "K" = To Kingston, "U" = To Ulster Mall

Ridership by Service Day. On an average weekday, the K Route attracts 235 total passenger boardings or 7.8 passengers per trip. This is the highest total ridership of any UCAT or Citibus route and the sixth highest ridership per trip (Figure 3-6).

On Saturdays, total ridership drops to 87 passengers, but ridership per trip remains about the same, as there are fewer total trips. 7.9 Saturday passengers per trip is slightly above both the UCAT and county average for Saturdays (Figure 3-108).

Figure 3-108 UCAT K Route Ridership Statistics

Service Day	Average Daily Ridership	Average Daily Ridership per Trip		
	K Route	K Route	UCAT Avg	County Avg
Weekday	235	7.8	5.5	6.0
Saturday	87	7.9	7.2	7.8

Source: Nelson\Nygaard ride check 2011-2012

Figure 3-109 UCAT K Route Average Weekday Ridership

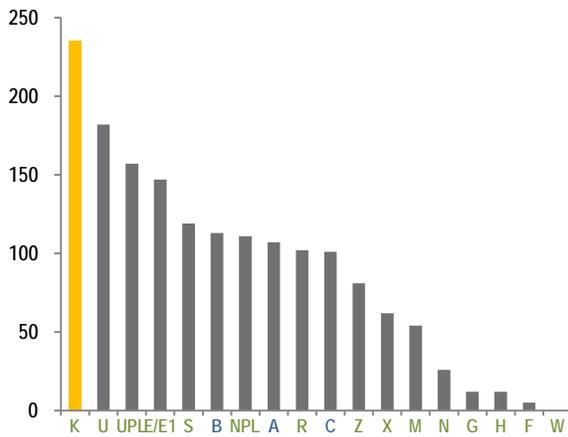


Figure 3-110 UCAT K Route Average Saturday Ridership

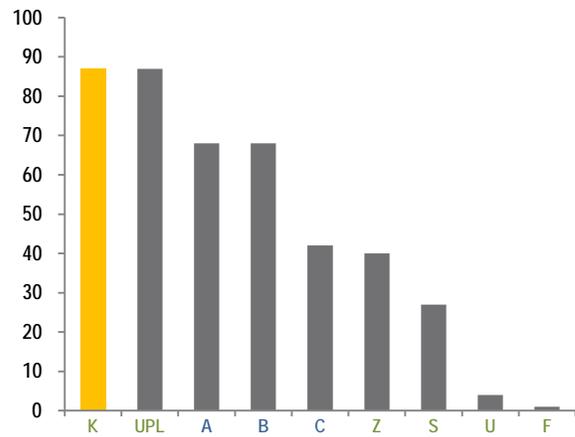


Figure 3-111 UCAT K Route Average Weekday Ridership per Trip

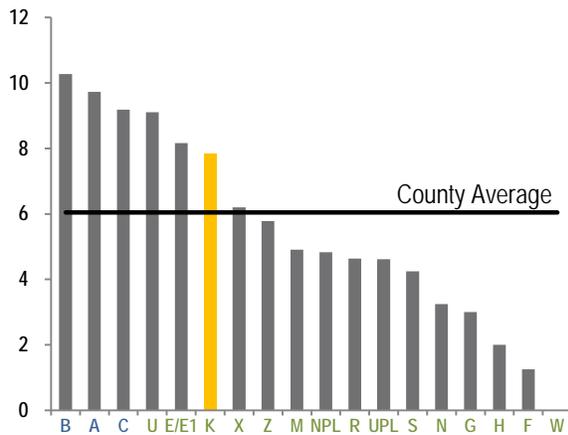
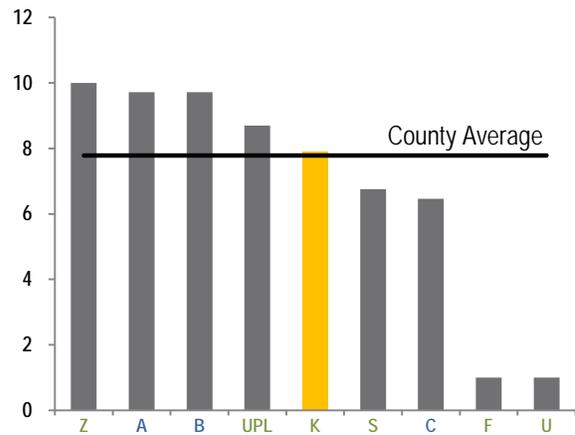


Figure 3-112 UCAT K Route Average Saturday Ridership per Trip



Source: Nelson\Nygaard ride check 2011-2012

Ridership by Trip. Weekday ridership to the Ulster Mall Area grows from early morning to mid-day (peaking at 11:30 AM) as passengers make their way from Kingston to Tech City and the Mall Area. Ridership toward Kingston is highest in the mid-day as Kingston residents begin to make their way back home. Besides the 11:30 AM peak, there are two smaller peaks in ridership to the Mall Area at 6:10 AM and 3:20 PM. On the 6:10 trip, UCAT picks up passengers along Broadway in Kingston, as Citibus is not yet running. Ridership on the 3:20 trip may include students making their way to the Mall Area for shopping or after-school work, as well as students making connections from UCCC to points north such as Saugerties.

The K Route is inter-line with the S Route on nearly every trip. Thus, there is little doubt that the actual passenger loads on K Route buses are higher than the recorded boardings, especially on early morning trips to Kingston. On these trips, many passengers board the S Route in Saugerties and stay on the bus after it transitions to the K Route at Hudson Valley Mall.

Saturday ridership to the Mall Area peaks at 10:15 AM and at 4:15 PM in the return direction.

Figure 3-113 UCAT K Route Weekday Ridership by Trip - To Kingston

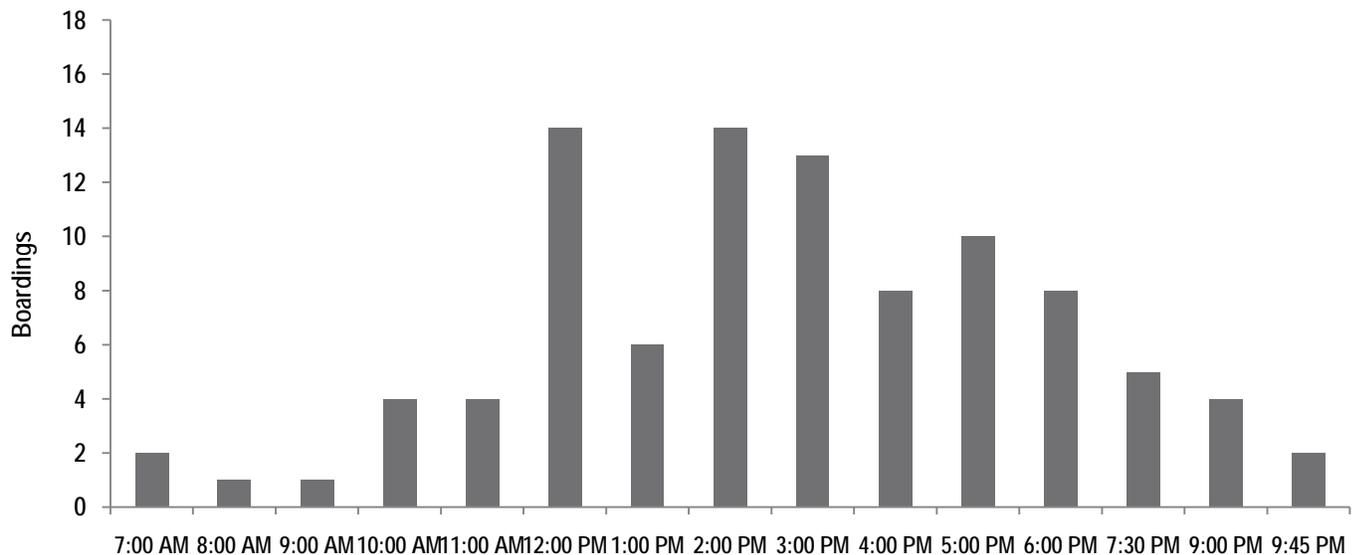


Figure 3-114 UCAT K Route Weekday Ridership by Trip - To Ulster Mall

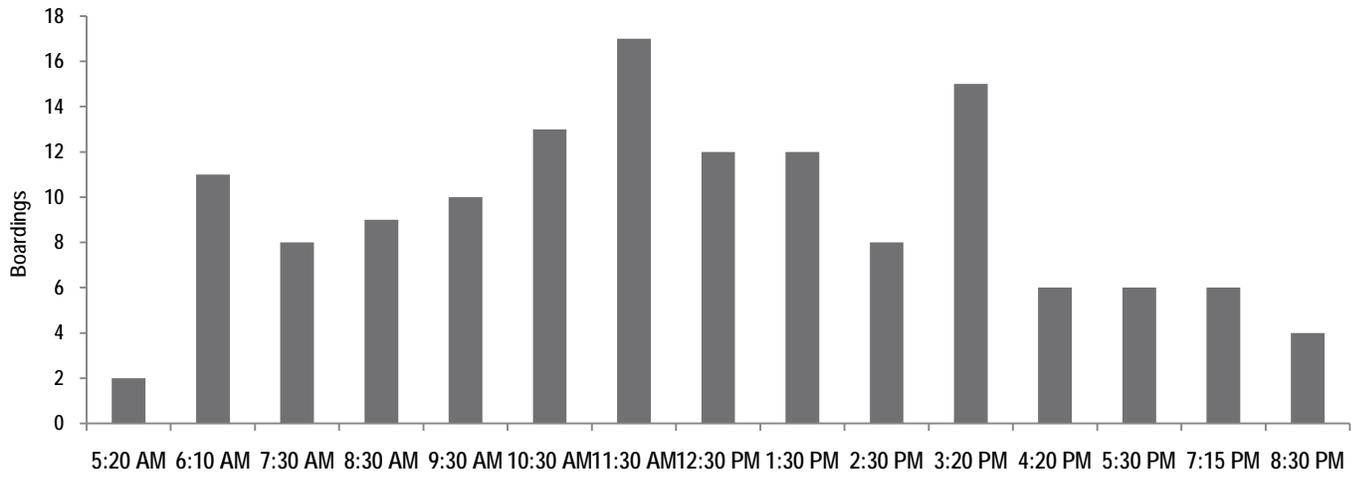


Figure 3-115 UCAT K Route Saturday Ridership by Trip - To Kingston

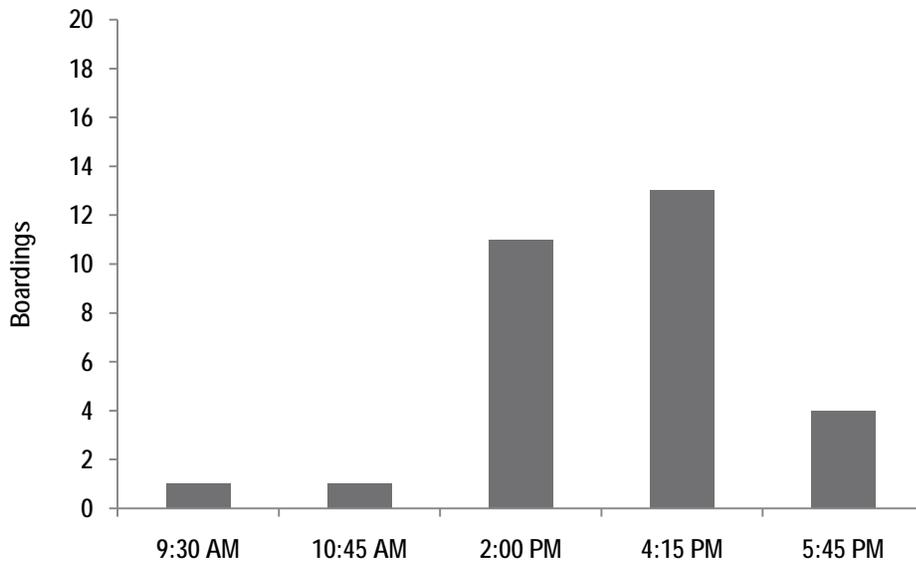
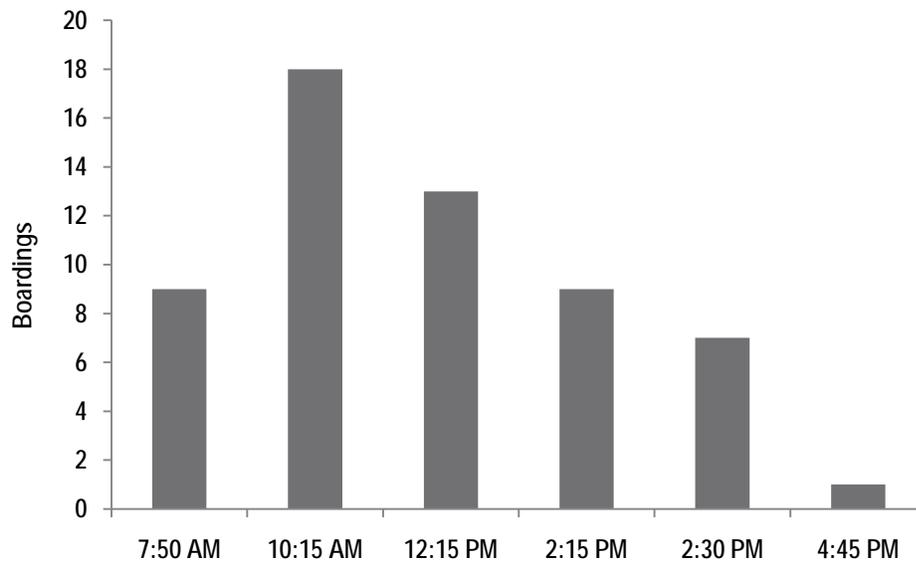


Figure 3-116 UCAT K Route Saturday Ridership by Trip - To Ulster Mall



Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

Ridership by Stop. The heaviest boarding and alighting activity on the K Route takes place at Kingston Plaza and Hudson Valley Mall, which are both major destination and serve as transit hubs for other Citibus and UCAT services. Other notable bus stop locations with relatively high ridership activity (more than 5 cumulative boardings and alightings per day) include the following:

- **Clinton at Albany.** This location serves Academy Green Park and Academy Green Residences.
- **Broadway at Albany.** This location serves several residential neighborhoods and the Broadway Corridor Commercial District.
- **Albany at Temper.** This location serves several residential neighborhoods and St. John's Episcopal Church.
- **Albany at Development.** This location serves the Kingston Business Resource Center.
- **Albany at Esopus.** This location serves the Town of Ulster Library and several residential neighborhoods.
- **Chambers at Lawrence.** This location serves the Chambers Court Apartments.
- **Morton at Boces.** This location serves the Kings Mall Retail Plaza.
- **Enterprise and Boces.** This location serves the Tech City Office Park.
- **Frank Sottile Boulevard.** This location serves Wal-Mart, Sam's Club, and Hudson Valley Mall.

Figure 3-117 UCAT K Route Weekday Ridership by Stop Map

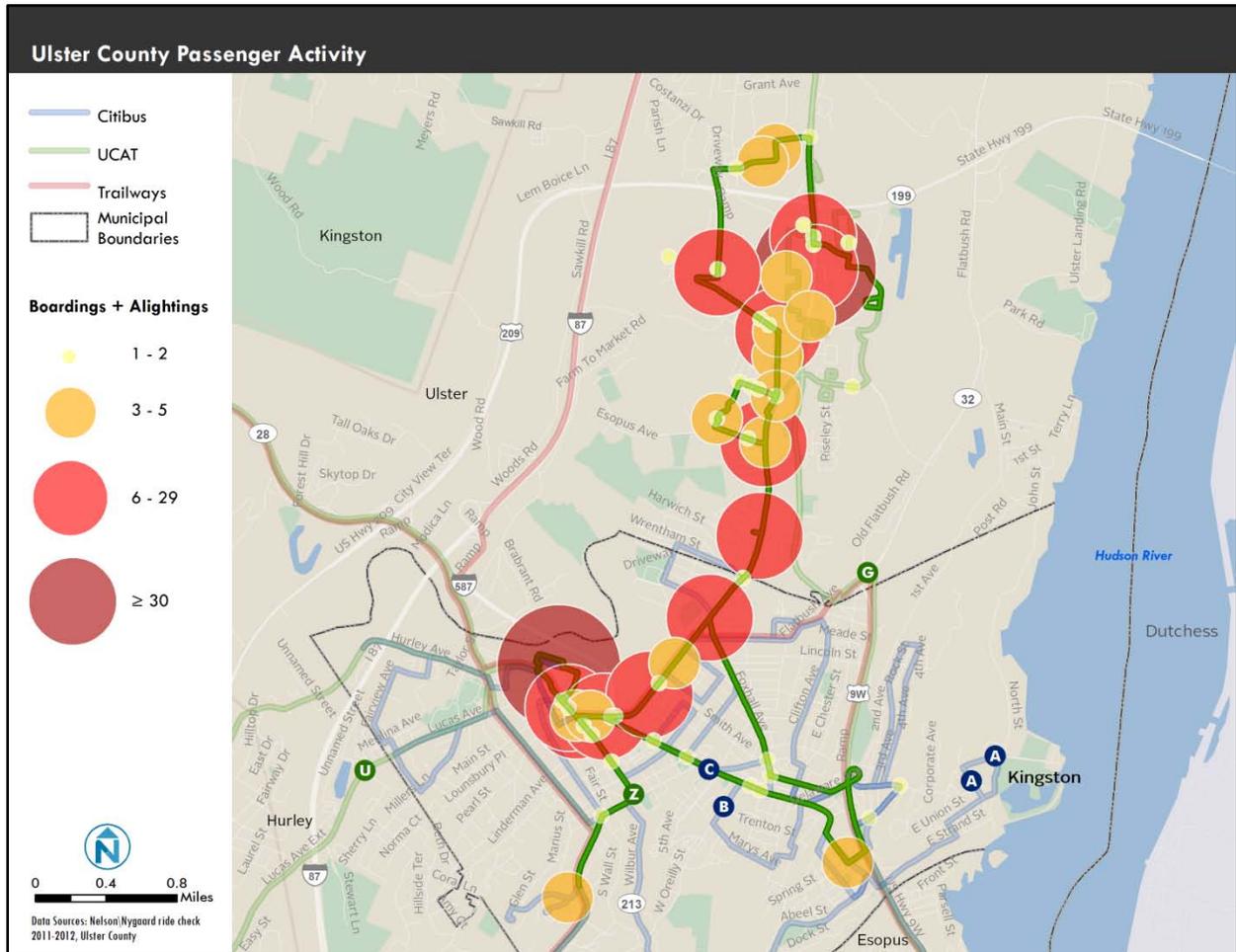
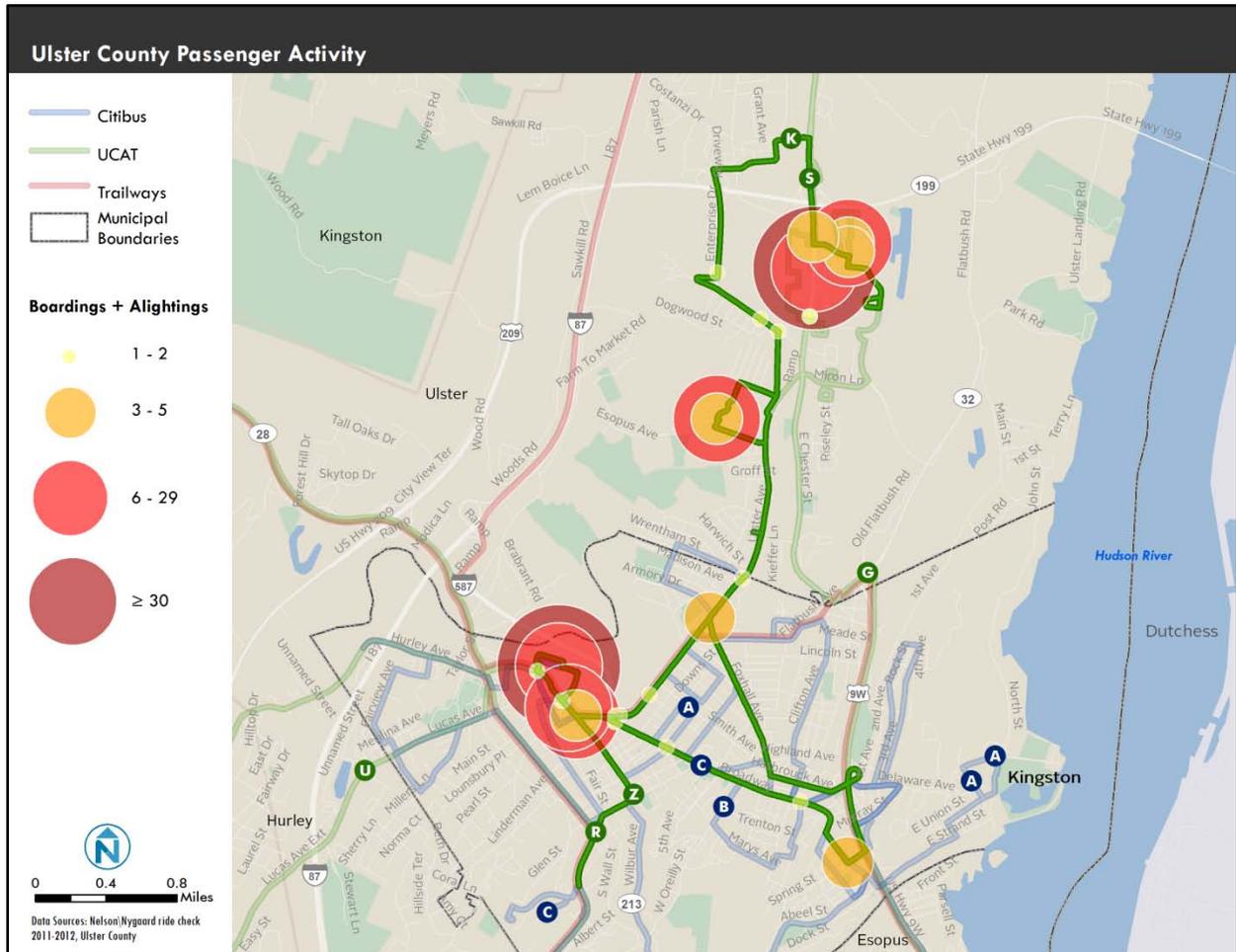


Figure 3-118 UCAT K Route Saturday Ridership by Stop Map



Source: Nelson\Nygaard ride check 2011-2012, Ulster County

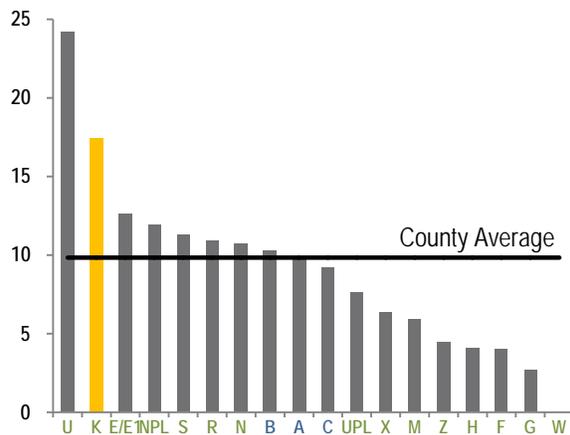
Service Productivity. The K Route attracts 17.4 passenger boardings per revenue hour on weekdays and 28.3 passenger boardings per revenue hours on Saturday (Figure 3-119). These figures are far above the UCAT and county averages for both service periods.

Figure 3-119 UCAT K Route Service Productivity Measures

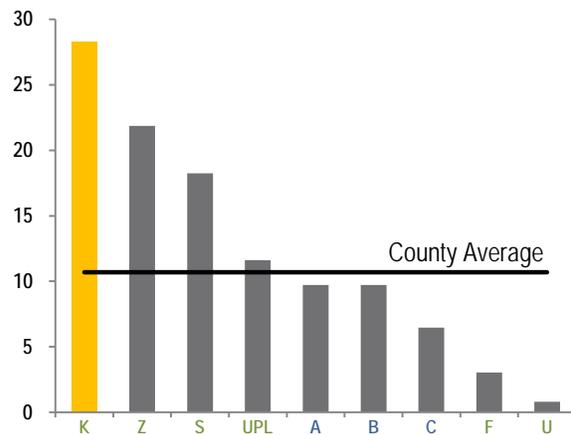
Performance Measure	Weekday			Saturday		
	K Route	UCAT Avg	County Avg	K Route	UCAT Avg	County Avg
Passengers per Revenue Vehicle Hour	17.4	9.9	9.8	28.3	12.9	10.7

Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

**Figure 3-120 UCAT K Route
Weekday Passengers per
Revenue Hour**



**Figure 3-121 UCAT K Route
Saturday Passengers per
Revenue Hour**



Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

On-time Performance. During the survey period, the K Route was observed to be on-time just 80% of the time on weekdays, and 45% of the time on Saturday. On Saturdays the route serves the Broadway corridor in Kingston on most trips to the Mall Area. There does not appear to be enough time provided in the schedule to accommodate this routing.

Figure 3-122 UCAT K Route On-time Performance Measures

Performance Measure	Weekday			Saturday		
	K Route	UCAT Avg	County Avg	K Route	UCAT Avg	County Avg
On-time Performance (%)	80	68	68	45	58	69

Source: Nelson\Nygaard ride check 2011-2012

Strengths

- The K Route has the highest total ridership of all UCAT and Citibus routes on weekdays and Saturdays.
- Among the highest ridership per trip and ridership per revenue hour on weekdays and Saturdays.
- Provides needed service in Kingston when Citibus is not running.
- Relatively direct route with well defined anchors (Kingston Plaza and Ulster Mall Area).

Weaknesses

- Poor Saturday on-time performance due to expanded routing.
- Operates “closed-door” along Albany Avenue.
- Time consuming routing through the Mall Area.
- No indication of inter-line with S Route on passenger schedules

Potential Improvements

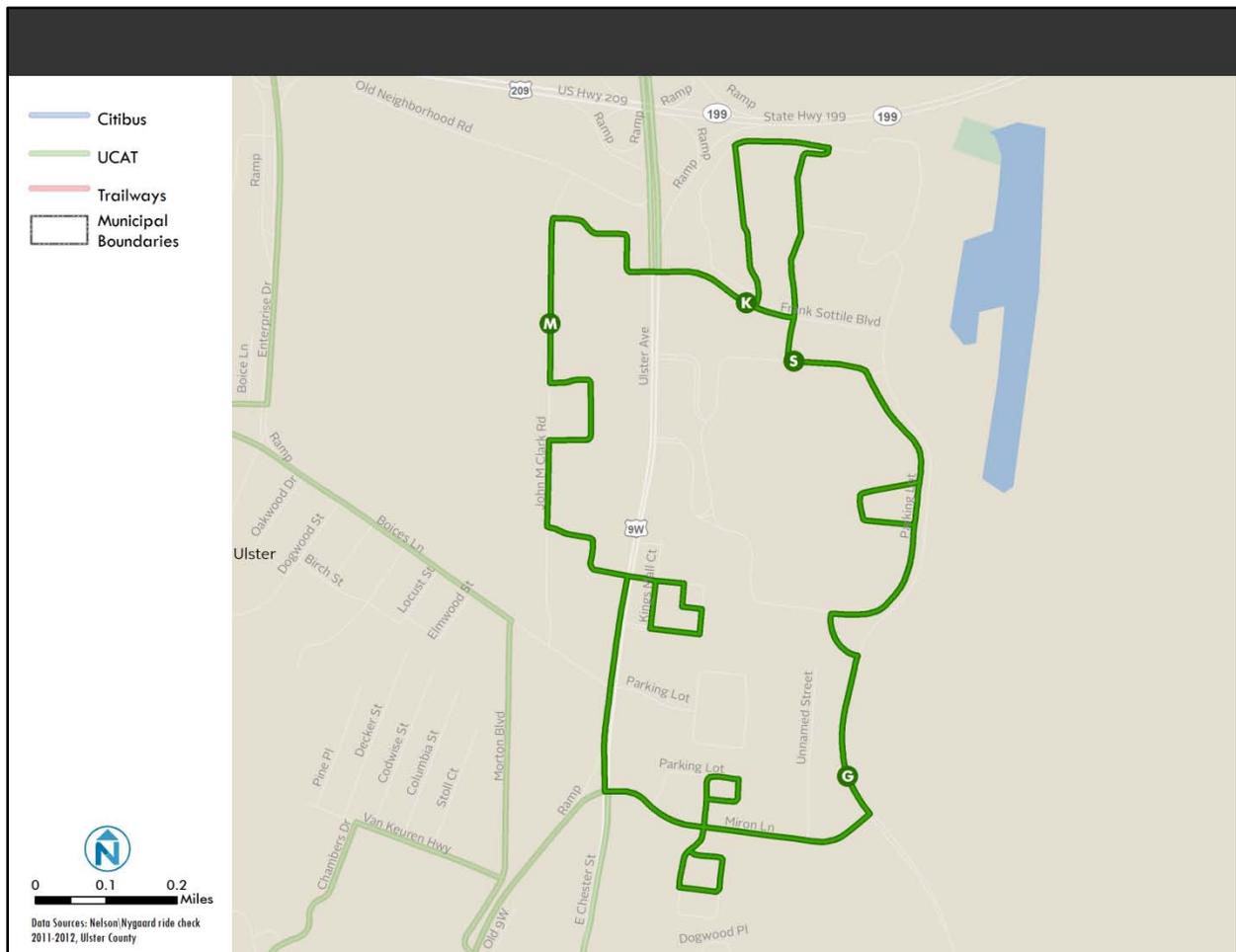
- **Avoid Hudson Valley Mall if the M Route is operating.** Providing service into and out of Hudson Valley Mall consumes nearly 20 minutes of running time. This time could be better spent improving service frequency, on time-performance, or both on the K and S Routes. A combination of frequent service on the M Route, and improved pedestrian connections throughout at the Mall Area could allow passengers to access the various retail destinations in the Mall Area with relative ease, while allowing the K and S Routes to avoid time consuming deviations.
- **Consolidate K Route and S Route into one route.** If both the K and S Routes can avoid serving Hudson Valley Mall directly, then service from Saugerties to Kingston could be considerably sped up. To simplify the service further, a single route name could be applied to both legs of the route, reducing the number of schedules that passengers would need to keep up with.

UCAT M ROUTE – ULSTER MALL AREA

Service Design. The UCAT M Route is a local circulator linking several retail destinations lining US 9W between Ulster Avenue / Miron Lane and US 209. The route operates year-round, five days a week on a seasonably variable schedule. Major destinations served by the K Route include:

- Hudson Valley Mall
- ShopRite
- Kohl's
- Kings Mall
- Hannaford
- Burlington Coat Factory
- Toys-R-Us
- Wal-Mart
- Sam's Club

Figure 3-123 M Route Map



Transfer Opportunities. The M Route provides passengers with transfer opportunities to UCAT routes G, K, and S. Although these routes all serve the Hudson Valley Mall Food Court entrance, transfers are often made at other points in the Ulster Mall Area, as the M Route intersects other routes operating on various schedules, or running behind schedule.

Alignment/Service Patterns. The M Route follows a single consistent routing throughout its service day. From Hudson Valley Mall Food Court, the route heads east to Wal-Mart / Gander Mountain, then crosses Ulster Avenue to serve Burlington Coat Factory, Hannaford and Bed Bath & Beyond. From there, it crosses Ulster Avenue again to serve Kings Mall before continuing west on US 9W to Miron to serve Kohls and ShopRite, and then return to Hudson Valley Mall.

Service Schedule. The M Route operates from 7:00 AM to 9:22 PM on weekdays, except from November 28th to January 1st, when it operates from 7:00 AM to 5:25 PM. Service frequency is every thirty minutes except during the November to January period when it drops to hourly service because traffic congestion in the Mall Area is too heavy to maintain a 30-minute frequency.

Figure 3-124 M Route Schedule Statistics

Service Day	Span of Service	Frequency (min) Peak / Off-Peak	Daily Trips (loop)
Weekday	7:00 AM – 9:22 PM	30/60-90	22
Saturday	No service	-	-

Source: published UCAT schedules

Ridership by Service Day. On an average weekday, the M Route attracts 54 total passenger boardings or 4.9 passengers per trip. This is 11% below the UCAT average, and 18% lower than the combined average for UCAT and Citbus (Figure 3-128). The M Route does not operate on Saturdays.

Figure 3-125 M Route Ridership Statistics

Service Day	Average Daily Ridership		Average Daily Ridership per Trip	
	M Route	M Route	UCAT Avg	County Avg
Weekday	54	4.9	5.5	6.0
Saturday	-	-	7.2	7.8

Source: Nelson\Nygaard ride check 2011-2012

Figure 3-126 M Route Average Weekday Ridership

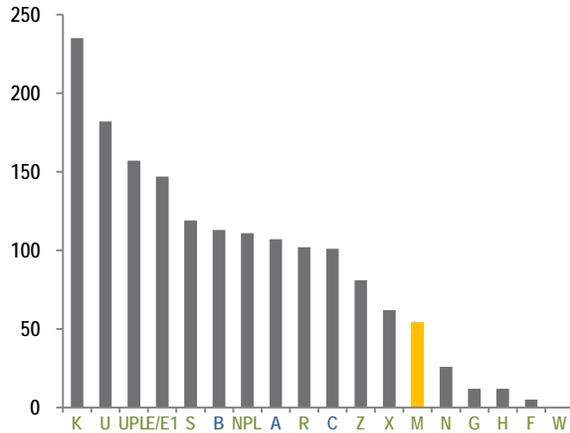


Figure 3-127 M Route Average Saturday Ridership

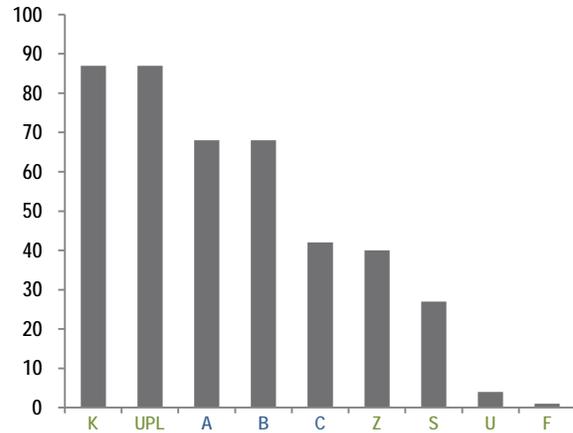


Figure 3-128 M Route Average Weekday Ridership per Trip

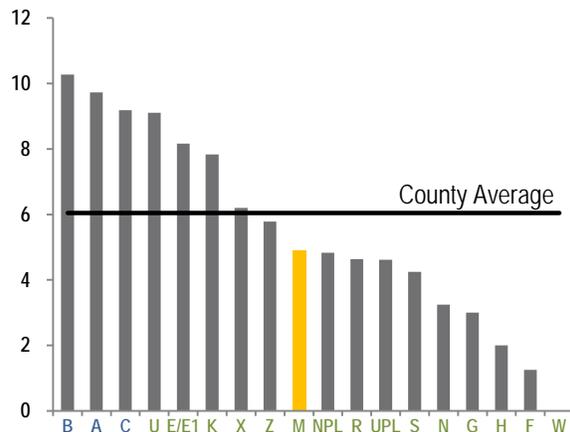
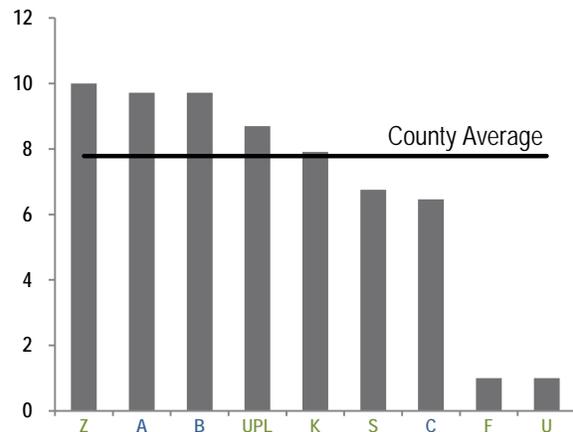


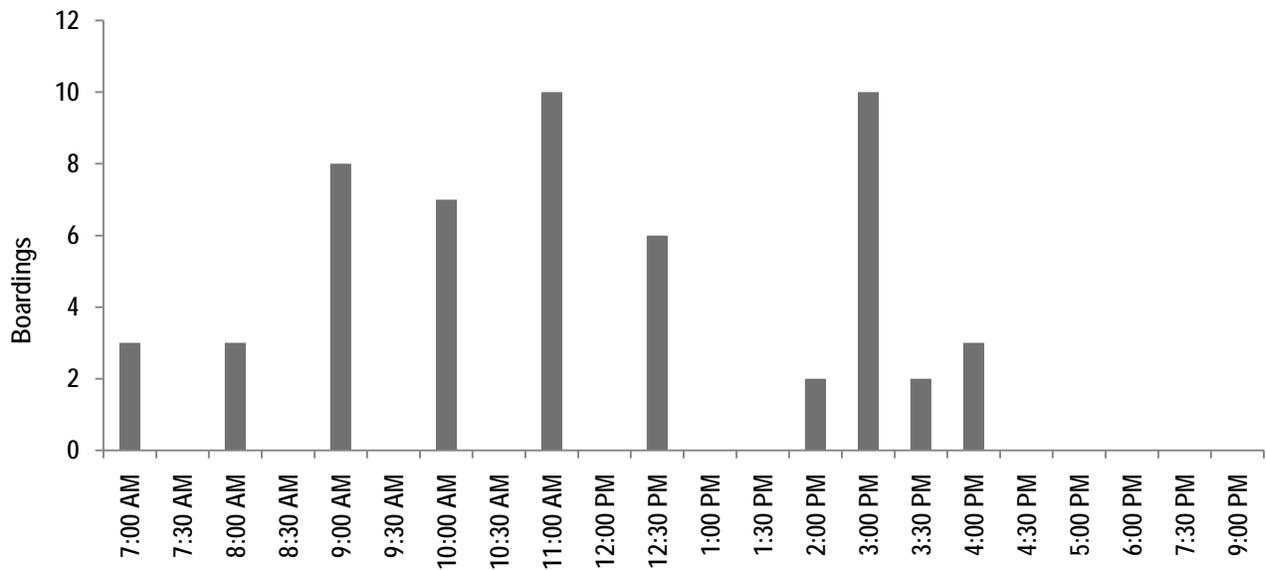
Figure 3-129 M Route Average Saturday Ridership per Trip



Source: Nelson\Nygaard ride check 2011-2012

Ridership by Trip. During the survey period, the M Route was operating on the reduced Thanksgiving to New Year service schedule so service was only available once an hour until 5:00 PM. No ridership was observed after the 4:00 PM trip. The highest ridership was on the 11:00 AM and 3:00 PM trips at 10 passengers boardings each.

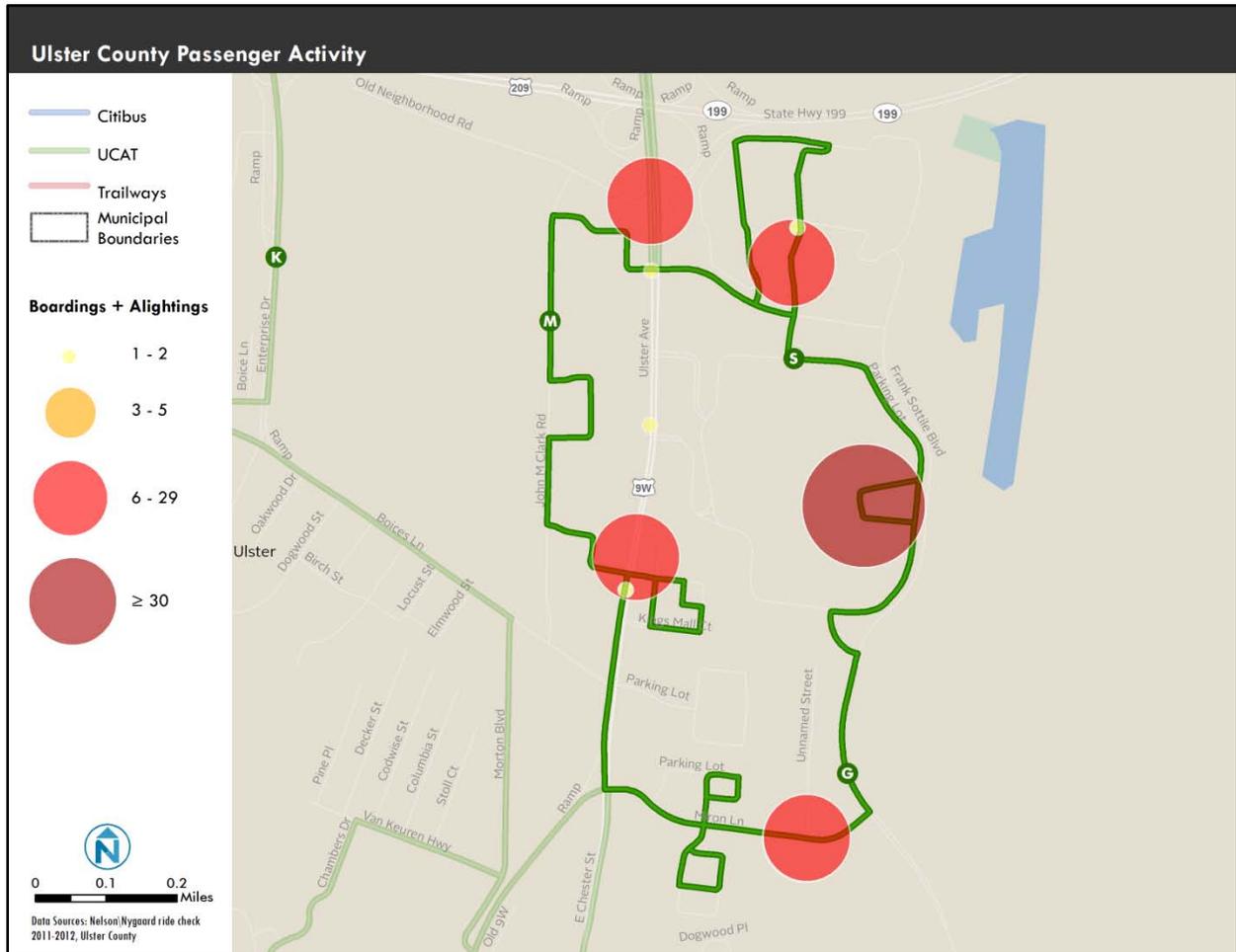
Figure 3-130 M Route Weekday Ridership by Trip



Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

Ridership by Stop. The heaviest boarding and alighting activity on the M Route takes place at Hudson Valley Mall. Other notable bus stop locations with relatively high ridership activity (more than 5 cumulative boardings and alightings per day) include Burlington Coat Factory, Kings Mall, Shoprite and Kohl's.

Figure 3-131 M Route Weekday Ridership by Stop Map



Source: Nelson\Nygaard ride check 2011-2012, Ulster County

Service Productivity. The M Route attracts 5.9 passenger boardings per revenue hour on weekdays (Figure 14). This is approximately 40% lower than the UCAT and county averages for both service periods.

Figure 3-132 M Route Service Productivity Measures

Performance Measure	Weekday			Saturday		
	M Route	UCAT Avg	County Avg	M Route	UCAT Avg	County Avg
Passengers per Revenue Vehicle Hour	5.9	9.9	9.8	-	12.9	10.7

Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

Figure 3-133 M Route Weekday Passengers per Revenue Hour

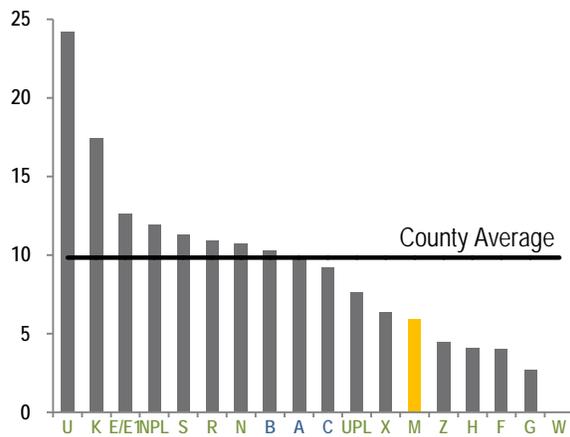
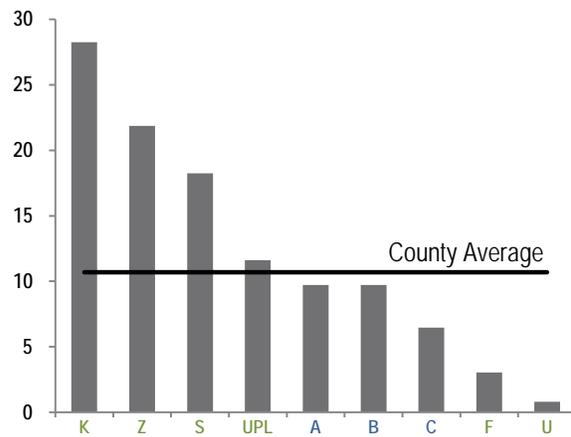


Figure 3-134 M Route Saturday Passengers per Revenue Hour



Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

On-time Performance. During the survey period, 80% of M Route trips were observed to be on-time. This is a high on-time performance rate compared to the UCAT and county averages but it should be noted that the survey was conducted during the reduced service period between Thanksgiving and New Year. During this period the M Route is expected to make half as many trips as during the rest of the year. Thus, there is likely to be more recovery time for buses.

Figure 3-135 M Route On-time Performance Measures

Performance Measure	Weekday			Saturday		
	M Route	UCAT Avg	County Avg	M Route	UCAT Avg	County Avg
On-time Performance (%)	80	68	68	-	58	69

Source: Nelson\Nygaard ride check 2011-2012

Strengths

- The M Route connects many major retail destinations and provides circulation in an environment that is very challenging for pedestrians (especially crossing US 9W).
- Well positioned to serve a greater role in the future (including connections to Tech City)

Weaknesses

- Relatively low total ridership.
- Below average ridership per trip and ridership per revenue hour.
- Service frequency is reduced during the busiest shopping season of the year.
- Circuitous routing.

Potential Improvements

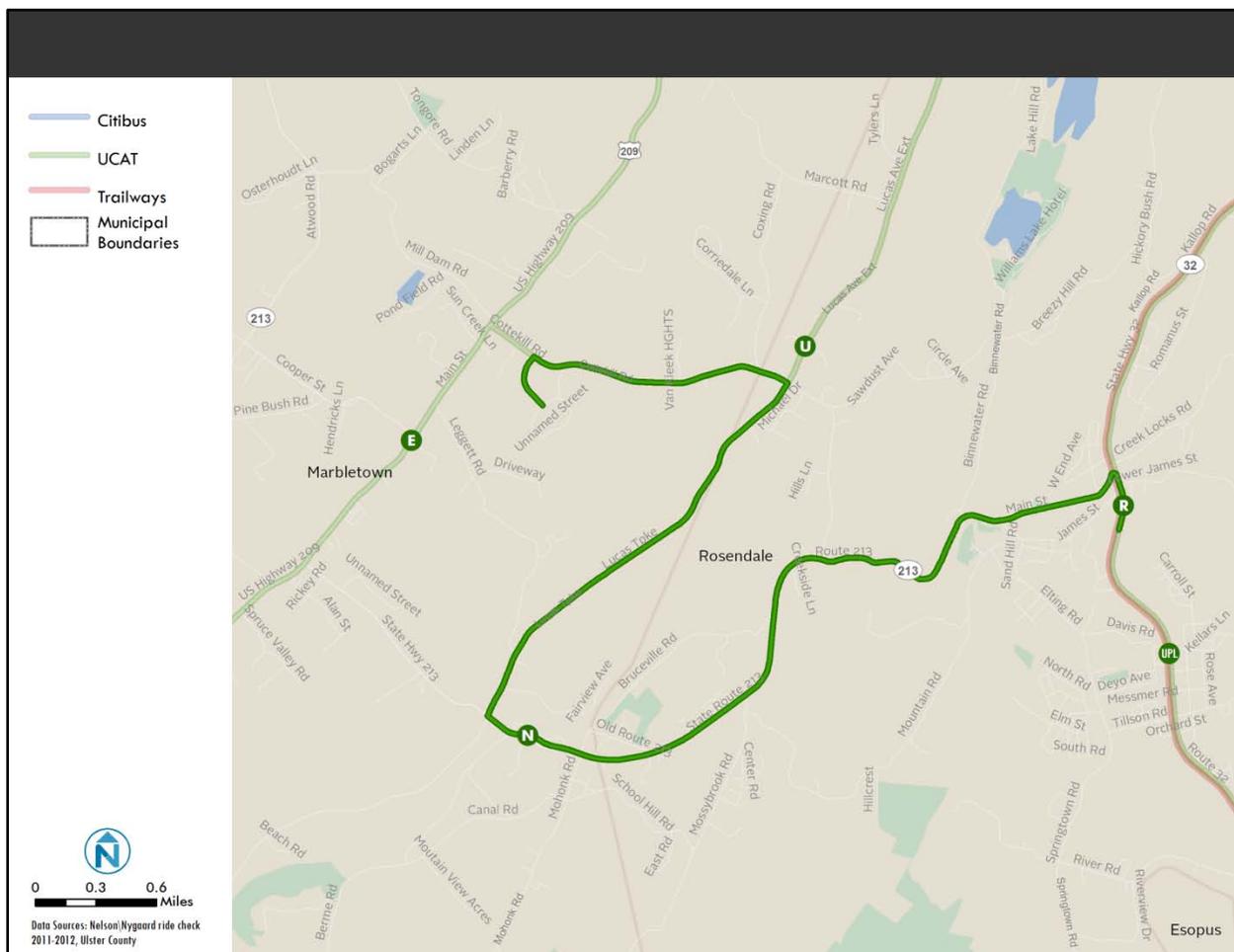
- **Extend route to serve Tech City.** Several stops on the M Route generate relatively strong passenger activity (boardings and alightings), but over-all there is little ridership relative to the amount of service being delivered. Extending the M Route to serve Tech City could generate additional lunch-time trips by Tech City workers. This could also translate into more commuter trips on other routes as workers who often go out to eat or shopping on their lunch breaks would have a reliable means to do so without a car. Extending service to Tech City would certainly affect the routes ability to maintain 30-minute frequency, but there may be opportunities to strategically increase frequency during specific times of the day (lunch hour for example) with an added vehicle.
- **Brand service.** The M Route has the potential to attract choice-riders who may not be accustomed to transit service, especially if service is extended to Tech City. Creating a distinct brand for the M Route can help increase its appeal to these users by alleviating fears that they may get on the wrong bus and fail to make it back to work on time.
- **Work with developer to improve pedestrian links.** The Ulster Mall Area can be difficult of pedestrians to navigate, and thus creates a role for the M Route. However, small improvements such as sidewalks and a crosswalk connecting Kohl's and ShopRite or from Wal-Mart to Frank Sottile Boulevard could speed up routing and possibly allow for greater service frequency. The installation of passenger amenities such as bus shelters could improve the passenger experience during inclement weather.
- **Increase service during peak shopping season.** Rather than reducing service in the Thanksgiving to New Year period, UCAT should considering temporarily adding another vehicle to the route to ensure both high frequency and on-time performance.

UCAT N ROUTE – SUNY ULSTER/ROSENDALE

Service Design. The UCAT N Route is a limited service regional route linking SUNY Ulster, High Falls, and Rosendale via NY 213. The route operates year-round, five days a week. Major destinations served by the N Route include:

- SUNY Ulster / Ulster Community College
- Hamlet of Cottekill
- Hamlet of High Falls
- Rosendale Park & Ride

Figure 3-136 N Route Map



Transfer Opportunities. The N Route provides passengers with transfer opportunities to UCAT routes at SUNY Ulster, Cottekill, and Rosendale, and to Trailways

service in Rosendale. At SUNY Ulster, transfers can be made between the N and the R Route. The U Route intersects with the N Route both at SUNY Ulster and in Cottekill. The Rosendale Park & Ride serves as a transfer location between the N Route, the R Route, the UPL, and Trailways service. Most connection times between these UCAT routes are well-coordinated and in some cases interlined (one bus continuing from one route to another).

Alignment/Service Patterns. The N Route follows a single consistent routing throughout its service day. From SUNY Ulster the route heads east along Cottekill Road, then south on Lucas Avenue to US 213, and east to the Rosendale Park & Ride. Trips to SUNY Ulster follow the same routing but in reverse.

Service Schedule. The N Route operates four trips per direction per weekday. Trips from SUNY Ulsters to Rosendale depart at 8:30 AM, 12:00 PM, 1:20 PM, and 4:10 PM. Trips to SUNY Ulster depart Rosendale at 8:10, 11:40, 1:35, and 3:40. The route does not operate on Saturdays.

Figure 3-137 N Route Schedule Statistics

Service Day	Span of Service	Frequency (min) Peak / Off-Peak	Daily Trips (S/R)
Weekday	8:10 AM – 4:30 PM	Varies (80-210)	4/4
Saturday	No service	-	-

Source: published UCAT schedules

Note: "S" = To SUNY Ulster, "R" = To Rosendale

Ridership by Service Day. On an average weekday, the N Route attracts 26 total passenger boardings or 3.3 passengers per trip. This is lower than both the UCAT average and the combined average for UCAT and Citibus. However, do to extensive inter-lining, N Route ridership is almost certainly undercounted. Most N Route trips to SUNY Ulster begin as R Route trips in New Paltz and transition to the N Route in Rosendale, with the majority of passengers continuing on to SUNY Ulster. Thus, this ridership is recorded on the R Route, rather than the N Route.

Figure 3-138 N Route Ridership Statistics

Service Day	Average Daily Ridership N Route	Average Daily Ridership per Trip		
		N Route	UCAT Avg	County Avg
Weekday	26	3.3	5.5	6.0
Saturday	-	-	7.2	7.8

Source: Nelson\Nygaard ride check 2011-2012

Figure 3-139 N Route Average Weekday Ridership

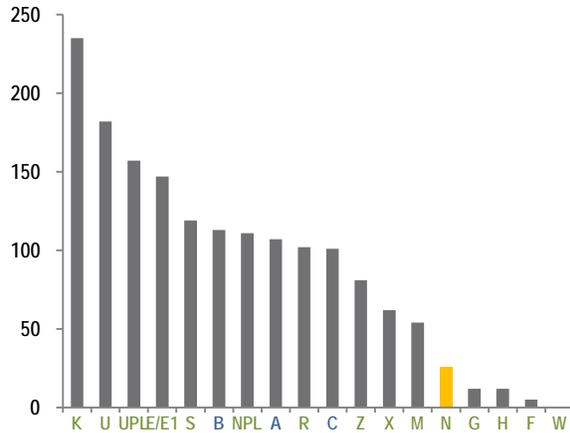


Figure 3-140 N Route Average Saturday Ridership

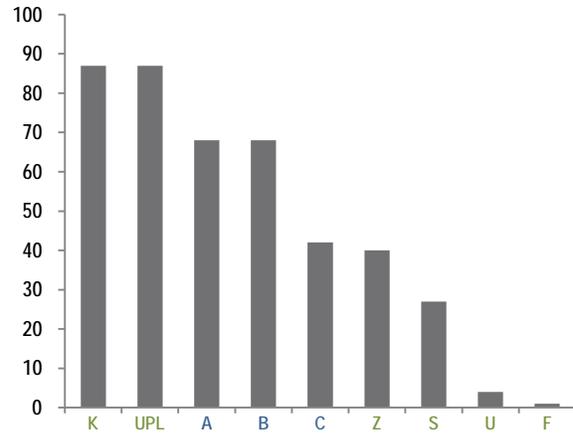


Figure 3-141 N Route Average Weekday Ridership per Trip

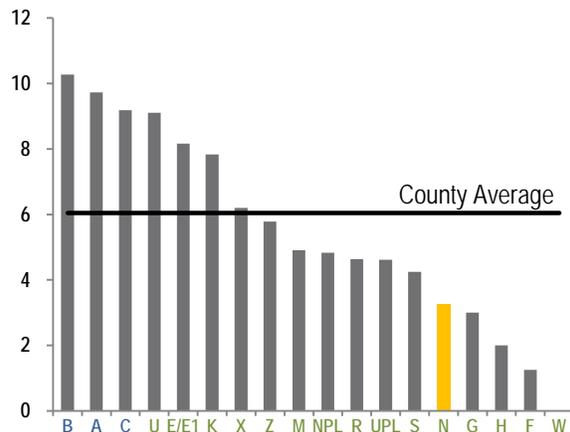
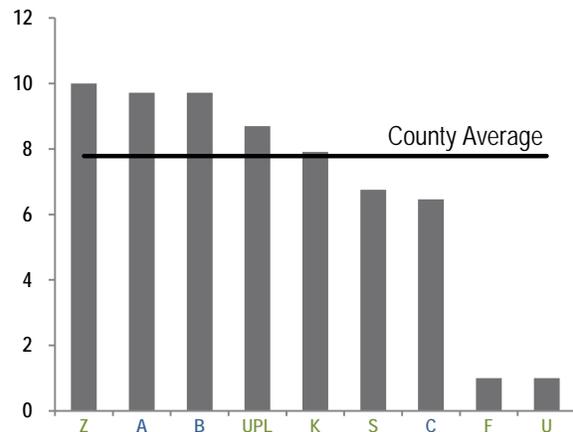


Figure 3-142 N Route Average Saturday Ridership per Trip



Source: Nelson\Nygaard ride check 2011-2012

Ridership by Trip. The highest ridership on the N Route to SUNY Ulster was recorded on the 8:10 AM trip, which allows students to make it to the college in time for 8:40 classes. As noted previously, due to extensive inter-lining the ridership shown below is certainly undercounted. A review of ridership on the R Route reveals that the 8:00 AM departure from New Paltz, which then become the 8:10 AM N Route departure from Rosendale, has the heaviest boarding activity of all R Route trips. These passengers then continue on to SUNY Ulster, but do not show up as new boardings on the N Route.

Ridership to Rosendale appears to carry morning commuters connecting to UPL service and returning college students in the afternoon. No ridership was recorded on the 12:00 PM trip to Rosendale.

Figure 3-143 N Route Weekday Ridership by Trip - To SUNY Ulster

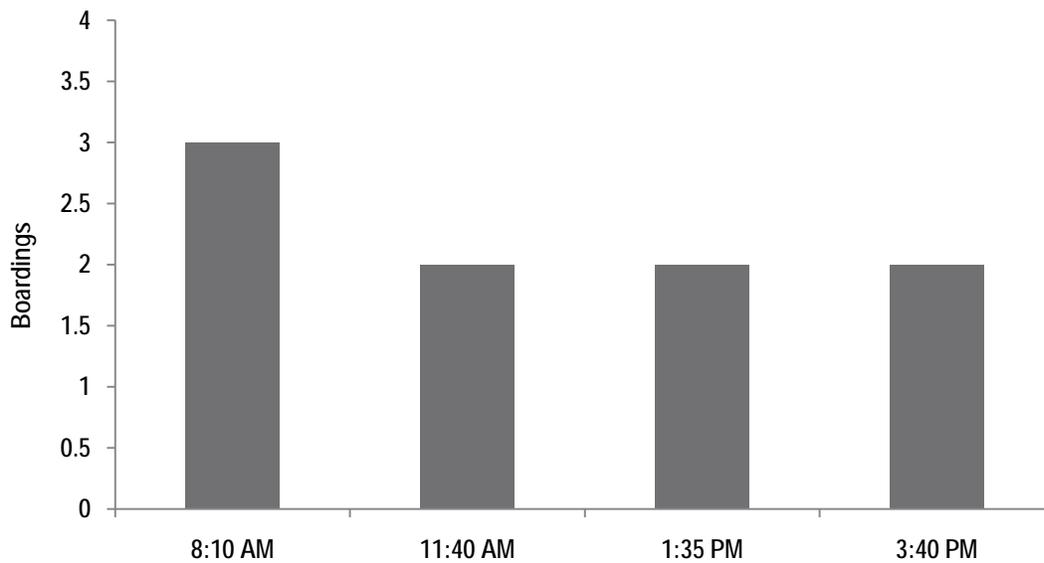
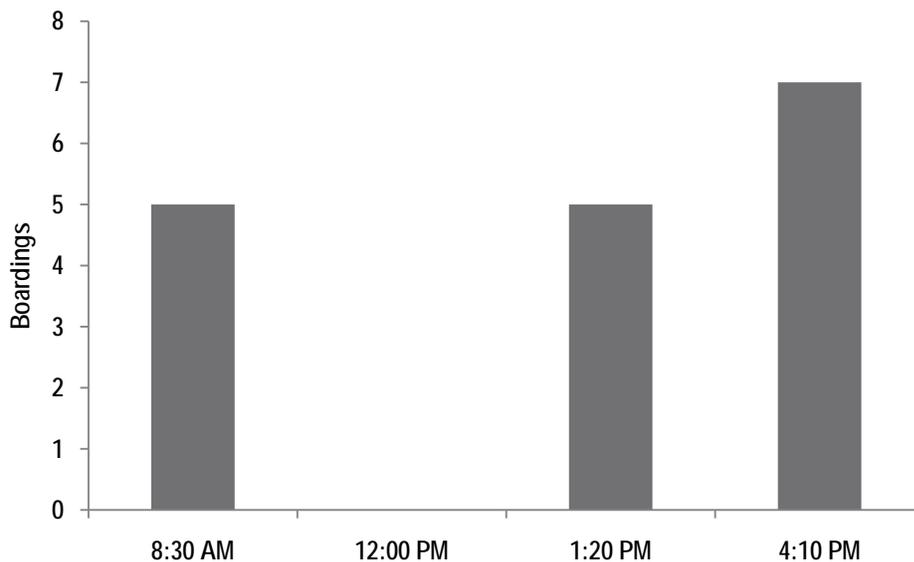


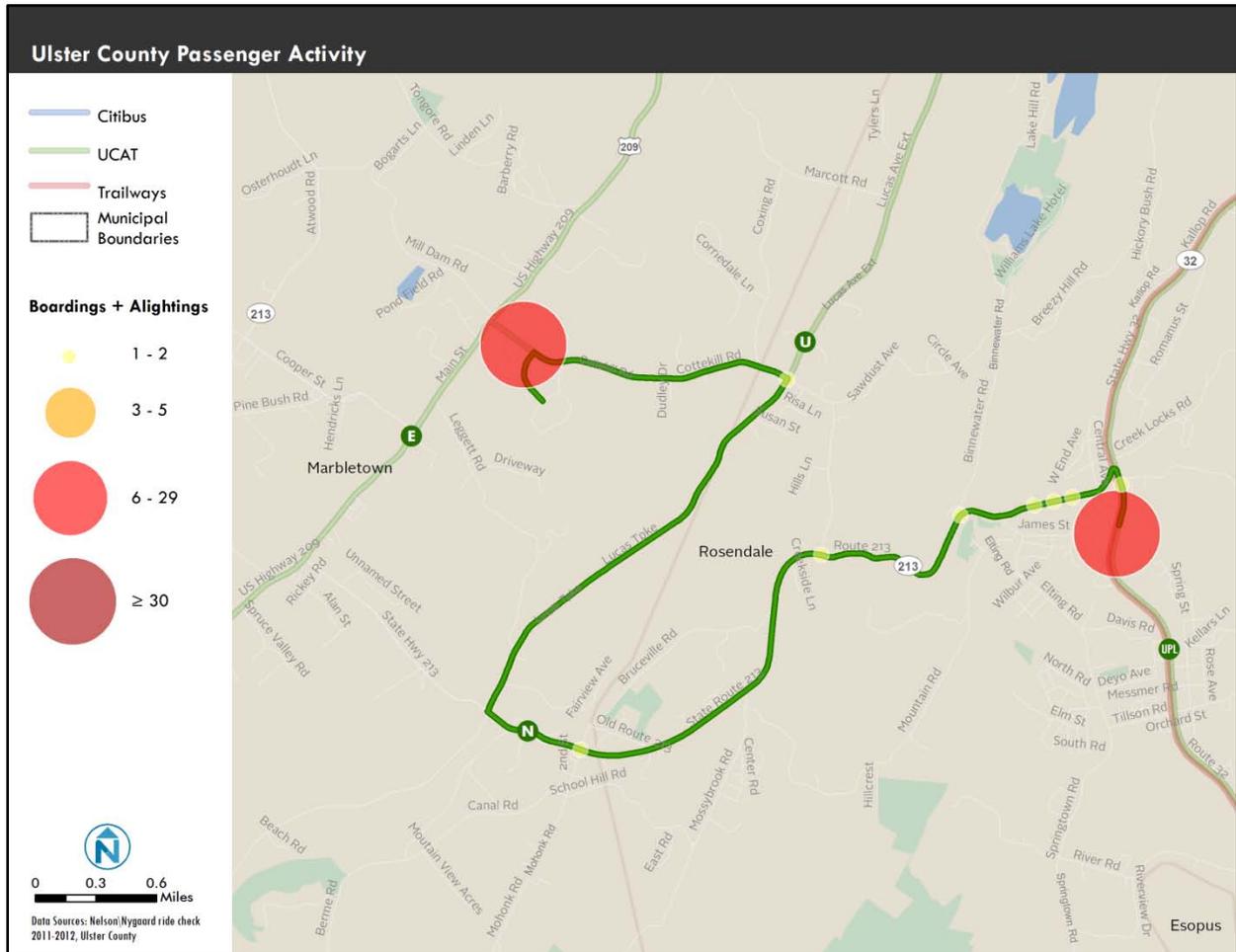
Figure 3-144 N Route Weekday Ridership by Trip - To Rosendale



Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

Ridership by Stop. The heaviest boarding and alighting activity on the N Route takes place at SUNY Ulster and the Rosendale Park & Ride, which are both major destinations and serve as transit hubs for other transit services. During the survey period, no other stops along the N Route generated more than 5 boardings and alightings per day.

Figure 3-145 N Route Weekday Ridership by Stop Map



Source: Nelson\Nygaard ride check 2011-2012, Ulster County

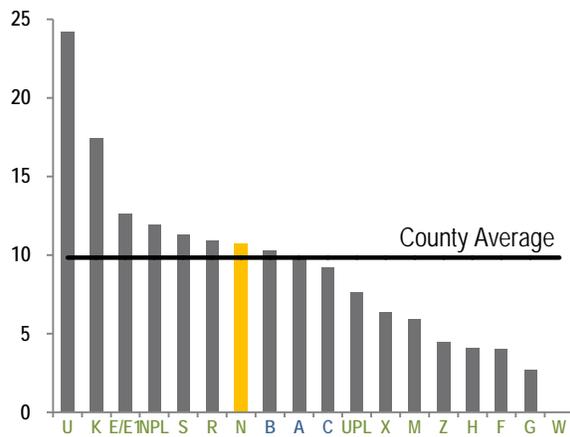
Service Productivity. The N Route attracts 10.7 passenger boardings per revenue hour on weekdays, although as noted previously, this is certainly an under-representation of actual passenger loads because of the extensive use of inter-lining. Even with this undercounting, the N Route is more productive than the combined average for UCAT and Citibus.

Figure 3-146 N Route Service Productivity Measures

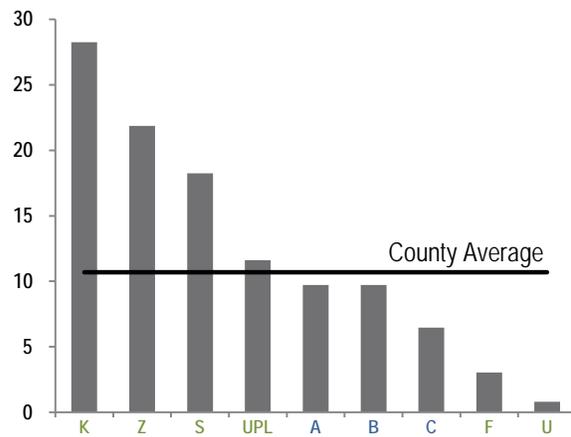
Performance Measure	Weekday			Saturday		
	N Route	UCAT Avg	County Avg	N Route	UCAT Avg	County Avg
Passengers per Revenue Vehicle Hour	10.7	9.9	9.8	-	12.9	10.7

Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

**Figure 3-147 N Route
Weekday Passengers per
Revenue Hour**



**Figure 3-148 N Route
Saturday Passengers per
Revenue Hour**



Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

On-time Performance. During the survey period, 33% of N Route trips were observed to be on-time. All N Route trips are inter-lined with other routes (usually the R Route), so on-time performance issues that begin in other parts of the county can affect the N Route as well.

Figure 3-149 N Route On-time Performance Measures

Performance Measure	Weekday			Saturday		
	N Route	UCAT Avg	County Avg	N Route	UCAT Avg	County Avg
On-time Performance (%)	33	68	68	-	58	69

Source: Nelson\Nygaard ride check 2011-2012

Strengths

- The N Route provides a critical link between SUNY Ulster and Rosendale (with one-seat connection to New Paltz). Without this link, passengers would have to travel into Kingston to get from the US 209 corridor to the NY 32 corridor.
- Passengers per revenue hour is above average due to the low number of revenue hours provided.
- N Route ridership is likely much stronger than it appears, due to the results of inter-lining on ridership assignment.

Weaknesses

- Limited schedule for such an important link.
- Lack of information on inter-line opportunities on passenger schedules.

Potential Improvements

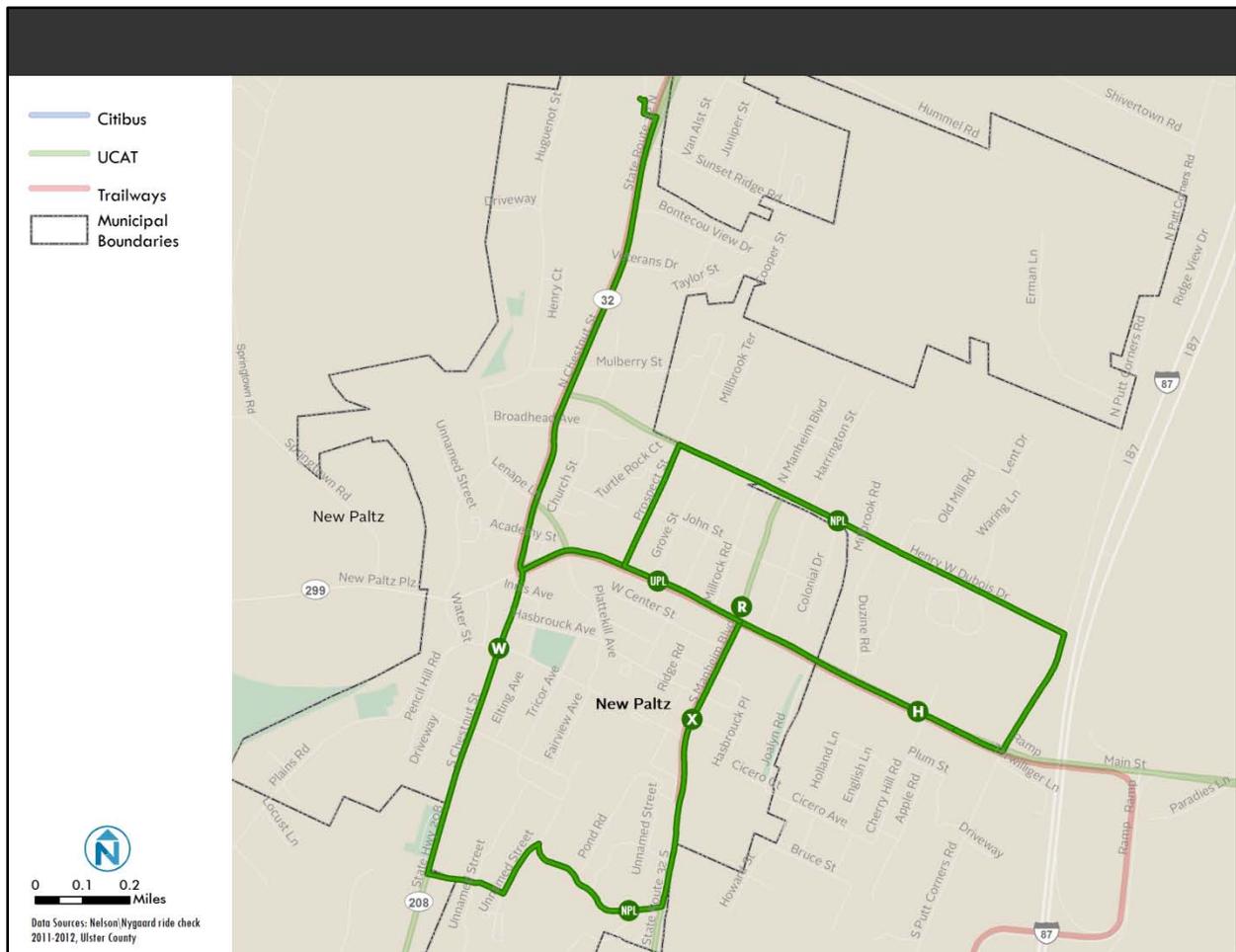
- **Advertise inter-line opportunities on passenger schedules.** Passengers may not be aware that the N Route provides a one-seat connection from SUNY Ulster to New Paltz, which is a particularly important piece of information for students taking classes at both SUNY Ulster and SUNY New Paltz. For trips that include an inter-line, passenger schedules should note the route that bus transitions to and from. This gives passengers a more complete picture of their travel options, and may encourage passengers who are averse to transfers.
- **Consider different inter-lining arrangements to increase service.** The N Route serves as a critical link between the US 209 corridor and the NY 32 corridor, and between SUNY Ulster and SUNY New Paltz. Without it, passengers would be forced to travel into Kingston to move between the two corridors. Such an important link would likely support more service if it were available. One possibility is to inter-line the E Route with the X Route to provide greater frequency across this “bridge.”

UCAT NPL ROUTE – NEW PALTZ LOOP

Service Design. The UCAT NPL Route is a local route connecting the SUNY New Paltz campus with other major destinations within the town of New Paltz. The route operates year-round, five days a week. Major destinations served by the NPL Route include:

- New Paltz BOCES
- New Paltz Park & Ride
- SUNY New Paltz
- New Paltz Trailways Bus Station
- New Paltz Stop & Shop
- New Paltz ShopRite

Figure 3-150 NPL Route Map



Transfer Opportunities. The NPL Route provides passengers with several transfer opportunities in New Paltz. The H Route, R Route, X Route, and UPL all operate along Main Street, while the W Route serves Chestnut Street. Transfers between any of these routes and the NPL can be made along these two streets. Trailways service is also available from a bus station at Main and Prospect. Some transfer times are well-coordinated through interlines, but others are more random and result in long waits for passengers. The high frequency of UPL and NPL service makes timed transfers less critical, as wait times tend to be relatively short.

Alignment/Service Patterns. The NPL Route alternates between two routing patterns throughout its service day. All trips begin at the New Paltz BOCES, and head south on NY 32, and then east on Main Street. At Main and Prospect, buses alternate between heading north on Prospect and continuing east on Main.

Buses that turn north on Prospect then serve several large apartment complexes on Dubois Drive and the retail plazas along Main Street, including ShopRite and Stop & Shop. The two routing variants then converge again at Main and Manheim, with buses performing a clockwise loop along Manheim, Southside, South, Hawk, and Chestnut Street to serve the SUNY Ulster campus. From Chestnut Street the route returns to BOCES.

With the exception of Chestnut Street between Main and BOCES, the NPL Route provides one-way service along most route segments.

Service Schedule. The NPL Route operates from 7:30 AM to 10:00 PM on weekdays. No Saturday service is provided. Service frequency is every 30 minutes during the morning peak period and parts of the mid-day and early evening. Service is hourly at all other times.

Figure 3-151 NPL Route Schedule Statistics

Service Day	Span of Service	Frequency (min)	Daily Trips (loop)
		Peak / Off-Peak	
Weekday	7:30 AM – 10:00 PM	30/60	23
Saturday	No service	-	-

Source: published UCAT schedules

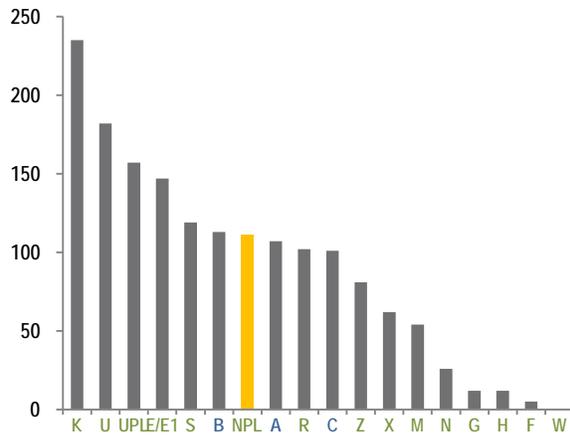
Ridership by Service Day. On an average weekday, the NPL Route attracts 111 total passenger boardings or 4.8 passengers per trip. This is 12% below the UCAT average and 20% lower than the combined average for UCAT and Citibus.

Figure 3-152 NPL Route Ridership Statistics

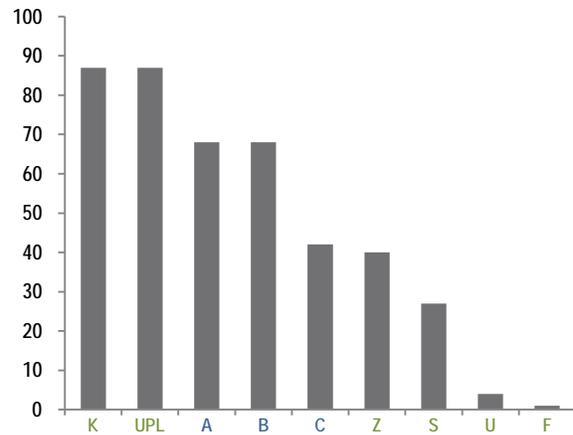
Service Day	Average Daily Ridership NPL Route	Average Daily Ridership per Trip		
		NPL Route	UCAT Avg	County Avg
Weekday	111	4.8	5.5	6.0
Saturday	-	-	7.2	7.8

Source: Nelson\Nygaard ride check 2011-2012

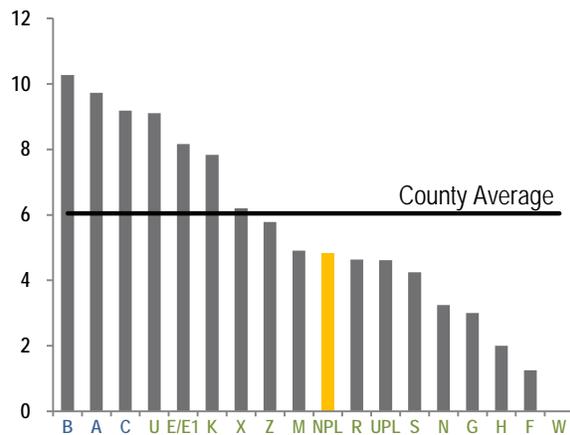
**Figure 3-153 NPL Route
Average Weekday Ridership**



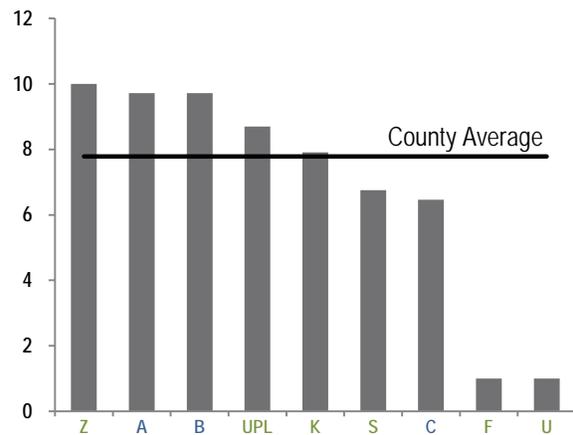
**Figure 3-154 NPL Route
Average Saturday Ridership**



**Figure 3-155 NPL Route
Average Weekday
Ridership per Trip**



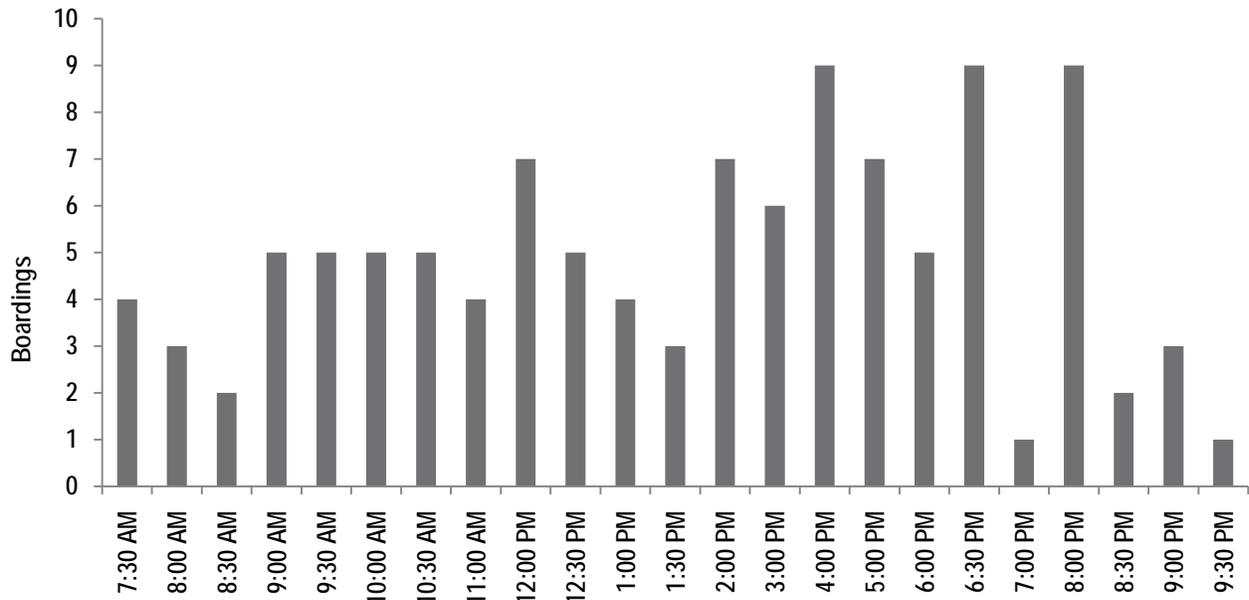
**Figure 3-156 NPL Route
Average Saturday
Ridership per Trip**



Source: Nelson\Nygaard ride check 2011-2012

Ridership by Trip. Ridership per trip on the NPL Route is higher on afternoon trips than on morning trips. This is likely a function of the greater service frequency during most of the morning period. The lower afternoon frequency results in service demand build-up and higher ridership per trip when service is provided. The highest ridership was recorded on the 4:00 PM, 6:30 PM, and 8:00 PM trips, each with 9 passenger boardings. These are likely a combination of students leaving SUNY New Paltz for the day and shopping trips to ShopRite and Stop & Shop Plaza.

Figure 3-157 NPL Route Weekday Ridership by Trip

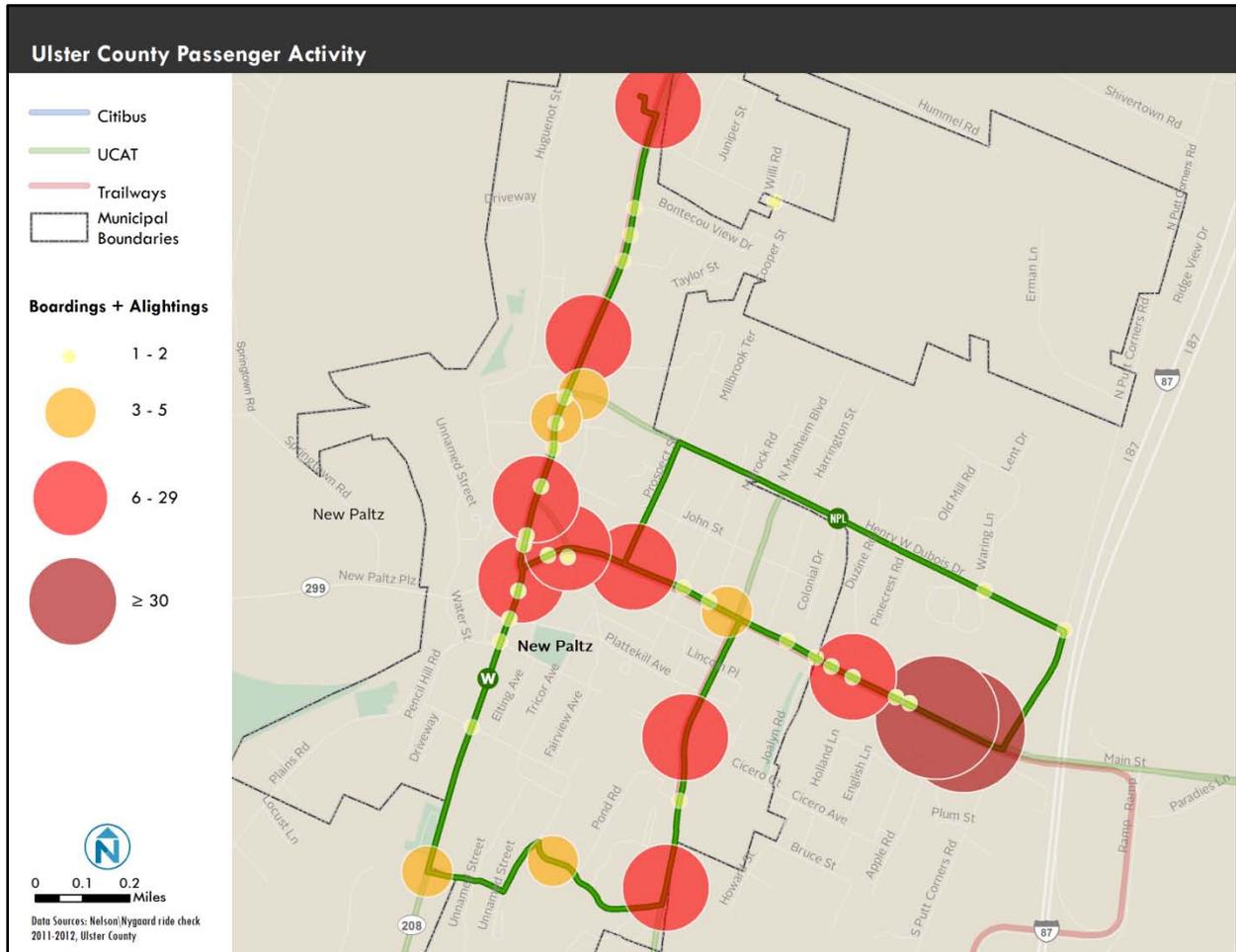


Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

Ridership by Stop. The heaviest boarding and alighting activity on the NPL Route takes place along Main Street between ShopRite and Stop & Shop. Other notable bus stop locations with relatively high ridership activity (more than 5 cumulative boardings and alightings per day) include the following:

- **Old Kingston at Chestnut.** This location serves New Paltz BOCES.
- **Chestnut at Mulberry.** This location serves the New Paltz Park & Ride.
- **Chestnut at Front.** This location serves the retail and commercial cluster bound by Front, Main, and Chestnut Street, and allows passengers wishing to travel north on Chestnut to avoid riding around the SUNY Ulster loop first.
- **Main at Chestnut.** This location serves the retail and commercial cluster bound by Front, Main, and Chestnut Street, and is the point where buses take one of two alternate routings described above.
- **Chestnut at Main.** This location serves the retail and commercial cluster bound by Front, Main, and Chestnut Street, and allows passengers wishing to travel to Main Street to avoid riding to BOCES first.
- **Manheim, between Southside Loop and Main Street.** These stop locations serve the SUNY Ulster Campus
- **Main at Dunzine.** This location serves the Rite Aid shopping plaza
- **Main at Cherry Hill.** This location serves the ShopRite and Stop & Shop plazas.

Figure 3-158 NPL Route Weekday Ridership by Stop Map



Source: Nelson\Nygaard ride check 2011-2012, Ulster County

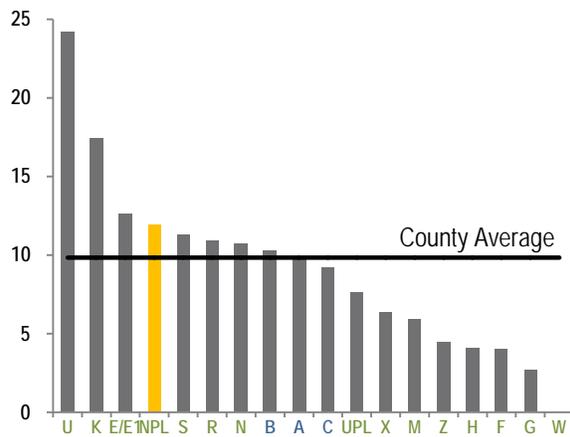
Service Productivity. The NPL Route attracts 11.9 passenger boardings per revenue hour on weekdays, which is about 20% above both the UCAT and county averages.

Figure 3-159 NPL Route Service Productivity Measures

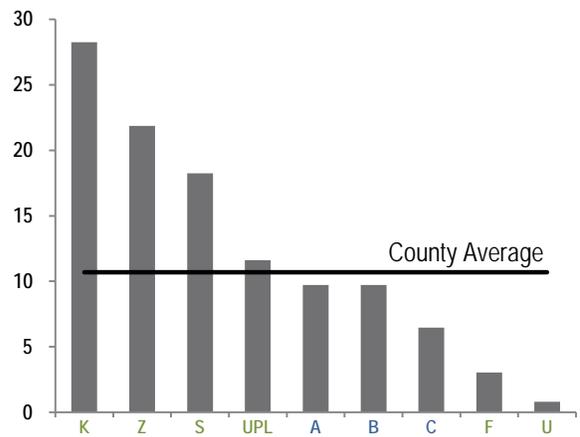
Performance Measure	Weekday			Saturday		
	NPL Route	UCAT Avg	County Avg	NPL Route	UCAT Avg	County Avg
Passengers per Revenue Vehicle Hour	11.9	9.9	9.8	-	12.9	10.7

Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

**Figure 3-160 NPL Route
Weekday Passengers per
Revenue Hour**



**Figure 3-161 NPL Route
Saturday Passengers per
Revenue Hour**



Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

On-time Performance. During the survey period, 68% of NPL Route trips were observed to be on-time, which is exactly the average for all UCAT routes and the combined average for UCAT and Citibus routes.

Figure 3-162 NPL Route On-time Performance Measures

Performance Measure	Weekday			Saturday		
	NPL Route	UCAT Avg	County Avg	NPL Route	UCAT Avg	County Avg
On-time Performance (%)	68	68	68	-	58	69

Source: Nelson\Nygaard ride check 2011-2012

Strengths

- The NPL Route connects several important destinations in New Paltz.
- Fourth highest ridership per revenue hour.

Weaknesses

- Below average ridership per trip.
- Passengers traveling from SUNY New Paltz to destinations along Main Street must first travel north on Chestnut to BOCES.
- Low ridership along Dubois Drive.

Potential Improvements

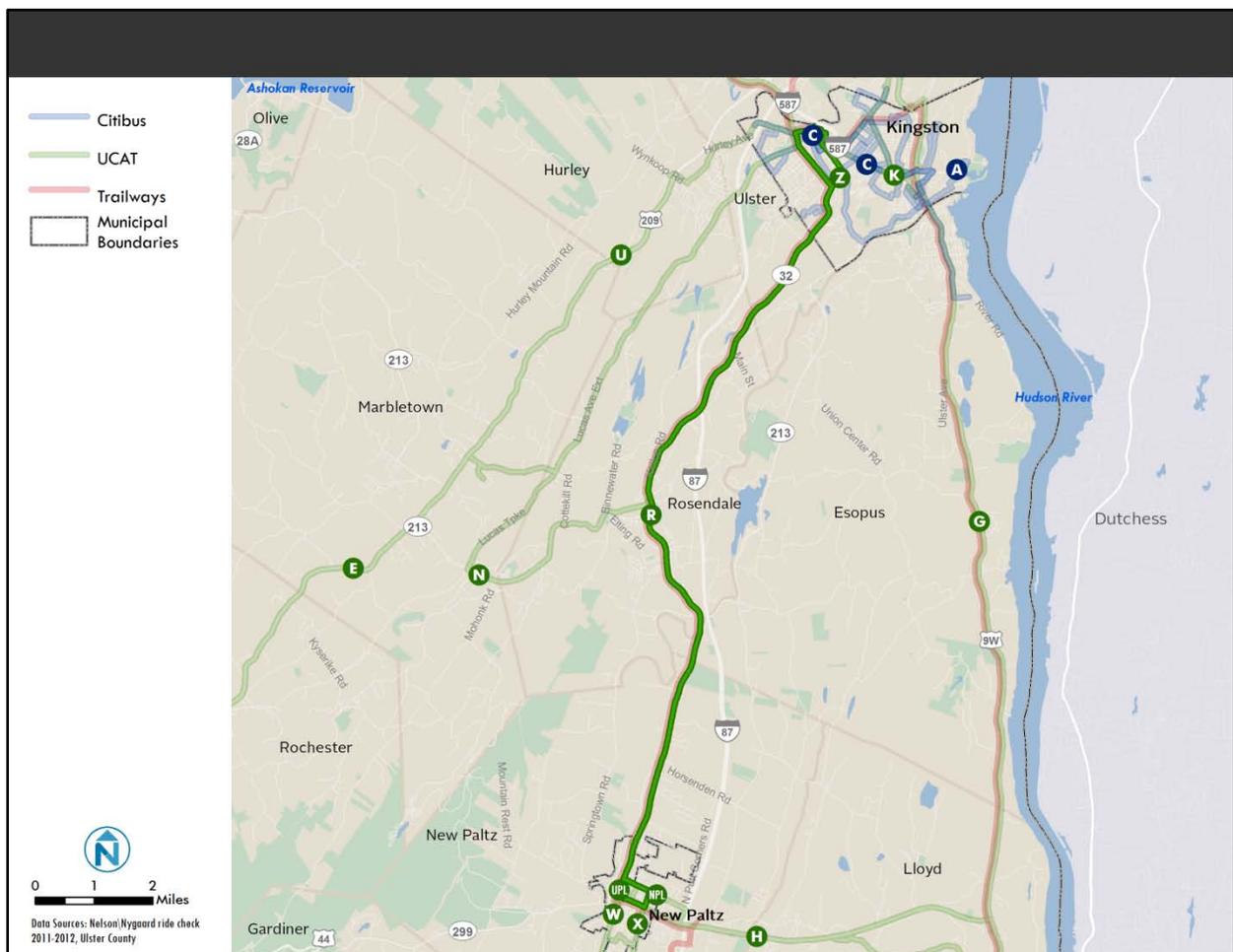
- **Eliminate NPL service along Chestnut Street, north of Main.** Chestnut Street, north of Main Street is currently served by the NPL Route as well as the UPL and R Route, both of which also serve Main Street. Eliminating NPL service along this stretch of Chestnut could allow for increased service frequency on the route, and more direct trips for passengers. Higher frequency and more direct NPL routing would likely increase ridership among students living in apartments along Dubois Drive.

UCAT R ROUTE – KINGSTON/NEW PALTZ

Service Design. The UCAT R Route is a limited service regional route linking Kingston, Rosendale, and New Paltz via NY 32. The route operates year-round, five days a week. Major destinations served by the R Route include:

- Hannaford / Kingston Plaza
- Golden Hill Complex
- Hamlet of Bloomington
- Rosendale Park & Ride
- Hamlet of Tillson
- New Paltz Park & Ride
- New Paltz Trailways Bus Station

Figure 3-163 R Route Map



Transfer Opportunities. The R Route provides passengers with transfer opportunities to other UCAT routes and to Citibus and Trailways services at several points in

Ulster County. In Kingston, passengers can transfer to or from the following services at Kingston Plaza:

- Citibus A Route
- Citibus B Route
- Citibus C Route
- UCAT G Route
- UCAT R Route
- UCAT U Route
- UCAT Z Route

Although these routes all converge at Kingston Plaza, their schedules do not “pulse,” meaning that passengers must often wait long periods of time to transfer from one route to another.

Trailways service is available at the Kingston Trailways Bus Station on Washington and Front Street, as well as at the Rosendale Park & Ride and the New Paltz Trailways Bus Station on Main Street. The Rosendale Park & Ride also allows for transfer between the R Route and the N and UPL Routes.

The R Route provides passengers with several transfer opportunities in New Paltz. The H Route, X Route, NPL and UPL all operate along Main Street, while the W Route serves Chestnut. Transfers between the R Route and these other routes can be made along these two streets. Some transfer times are well-coordinated through interlines, but others are more random and result in long waits for passengers. The high frequency of UPL and NPL service makes timed transfers less critical, as wait times tend to be relatively short.

Alignment/Service Patterns. The R Route has several routing variants throughout its service day. Some trips depart Golden Hill and serve Kingston Plaza, while others head directly south toward Bloomington. A few trips do not serve Kingston at all, operating instead between Rosendale and New Paltz only. In New Paltz, some trips serve the Park & Ride, others the Trailways Station, and yet others serve both. In short, there is little consistency to the routing.

Service Schedule. The R Route operates from 5:00 AM to 10:15 PM on weekdays. No Saturday service is provided on the route. Service frequency is irregular, with some departures as close as 15 minutes together and others more than three hours apart.

Figure 3-164 R Route Schedule Statistics

Service Day	Span of Service	Frequency (min) Peak / Off-Peak	Daily Trips (K/N)
Weekday	5:00 AM – 10:15 PM	Varies (15-225)	11/11
Saturday	No service	-	-

Source: published UCAT schedules

Note: "K" = To Kingston, "N" = To New Paltz

Ridership by Service Day. On an average weekday, the R Route attracts 102 total passenger boardings or 4.6 passengers per trip. This is below the UCAT average and roughly 22% lower than the combined average for UCAT and Citibus. However, do to extensive interlining, R Route ridership is almost certainly undercounted.

Figure 3-165 R Route Ridership Statistics

Service Day	Average Daily Ridership	Average Daily Ridership per Trip		
		R Route	R Route	R Route
Weekday	102	4.6	UCAT Avg	County Avg
Saturday	-	-	5.5	6.0
			7.2	7.8

Source: Nelson\Nygaard ride check 2011-2012

Figure 3-166 R Route Average Weekday Ridership

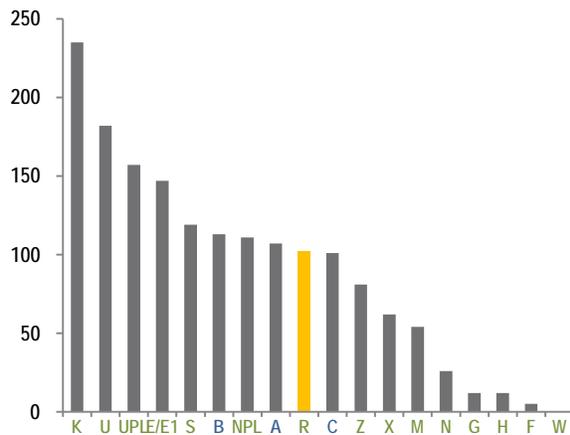


Figure 3-167 R Route Average Saturday Ridership

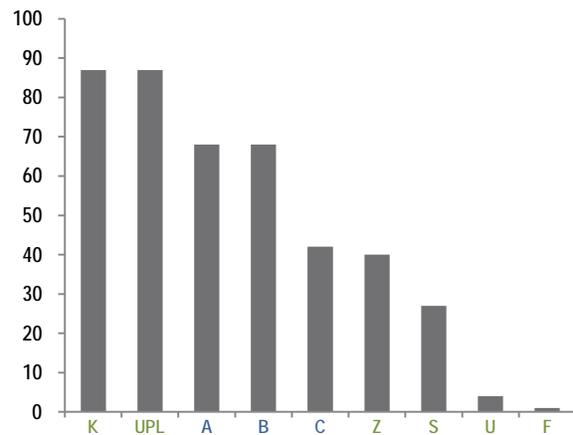


Figure 3-168 R Route Average Weekday Ridership per Trip

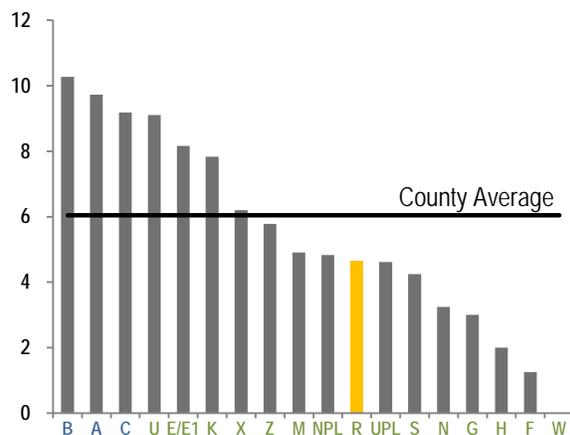
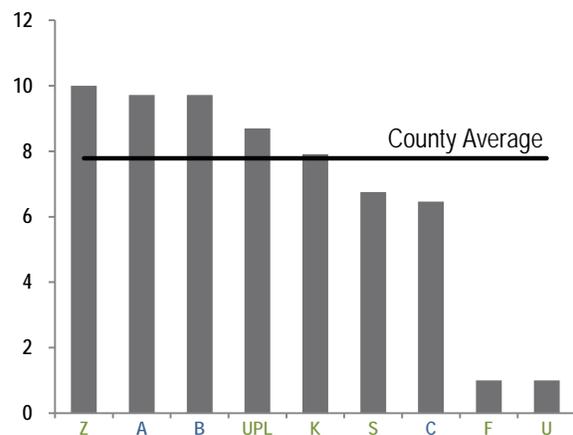


Figure 3-169 R Route Average Saturday Ridership per Trip



Source: Nelson\Nygaard ride check 2011-2012

Ridership by Trip. The heaviest ridership on the R Route occurs on the 8:00 departure from New Paltz. This particular trip does not travel to Kingston, but instead inter-lines at the Rosendale Park & Ride to become the N Route with service to SUNY Ulster in time for 8:40 classes. The strong ridership indicates a high demand for service connecting New Paltz and SUNY Ulster. It should be noted that although the 4:30 PM trip to New Paltz shows no

passenger boardings, this is actually a heavily used trip that begins as the N Route at SUNY Ulster and then inter-lines to become the R Route in Rosendale. Thus all of the boarding activity shows up on the N Route instead of the R Route, even though many people are on the bus. Again, this points to the importance of linking SUNY Ulster with New Paltz.

Figure 3-170 R Route Weekday Ridership by Trip - To Kingston

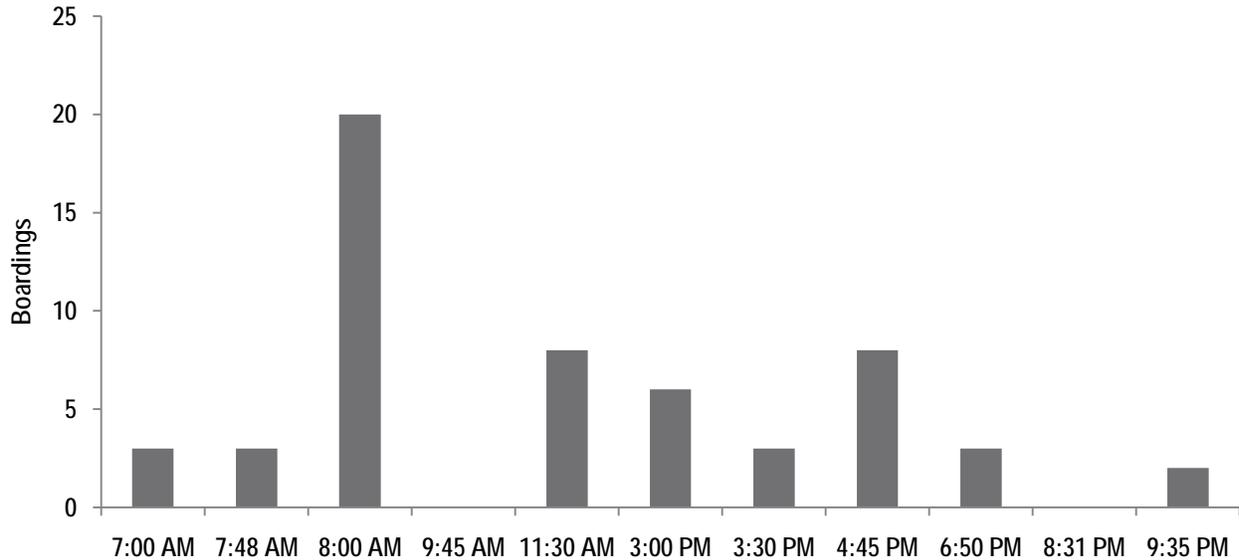
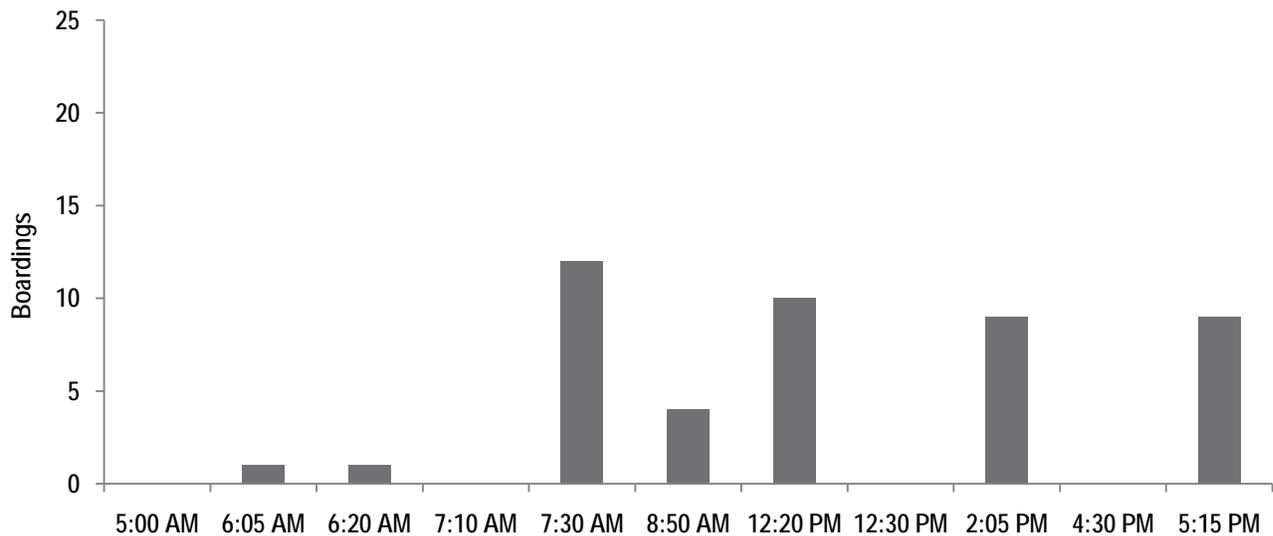


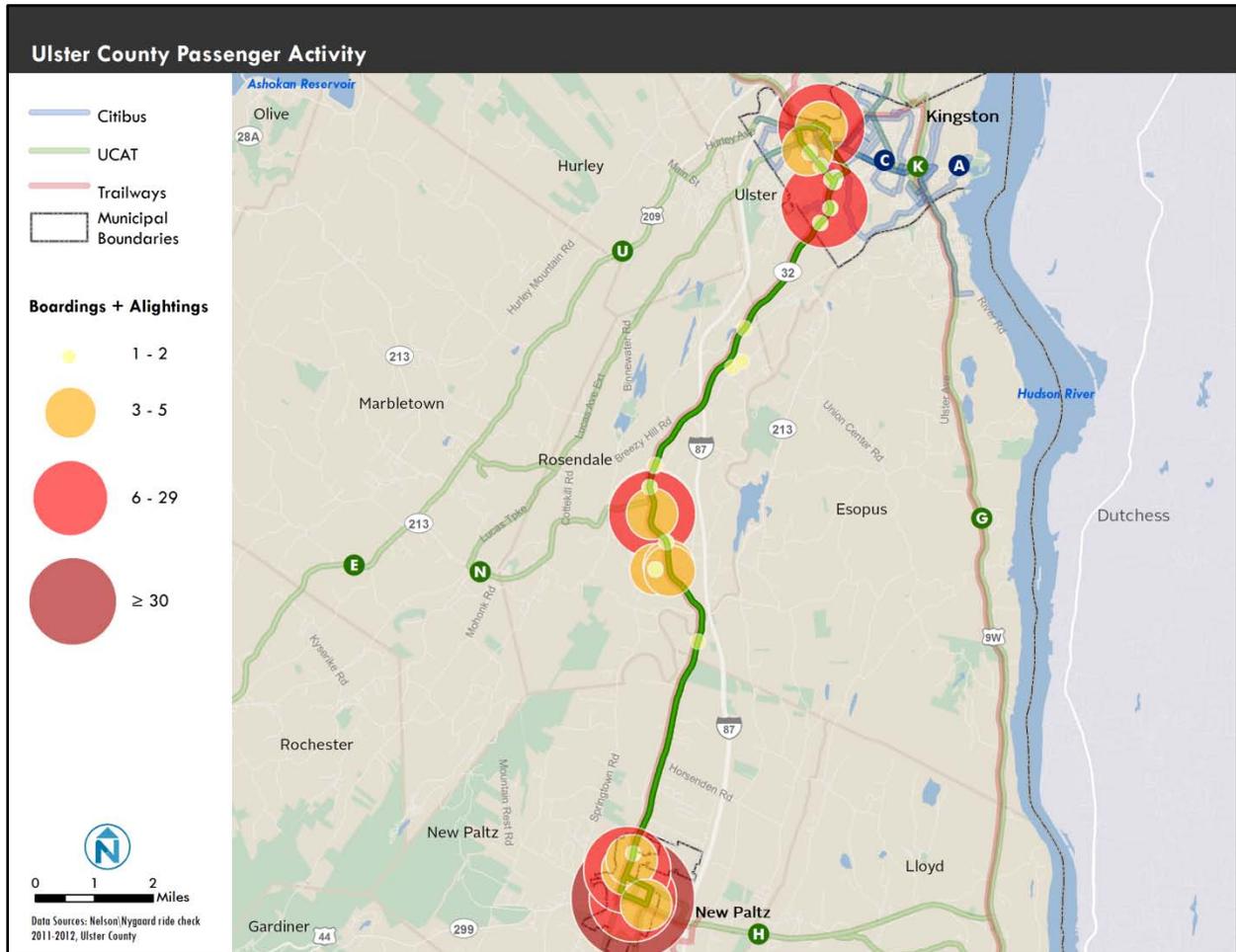
Figure 3-171 R Route Weekday Ridership by Trip - To New Paltz



Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

Ridership by Stop. The heaviest boarding and alighting activity on the R Route takes place at transit hubs including Kingston Plaza, Rosendale Park & Ride, New Paltz Park and Ride, and the New Paltz Trailways Bus Station. The only other bus stop locations with more than 5 cumulative boardings and alightings per day is at Golden Hill Drive in Kingston.

Figure 3-172 R Route Weekday Ridership by Stop Map



Source: Nelson\Nygaard ride check 2011-2012, Ulster County

Service Productivity. The R Route attracts 10.9 passenger boardings per revenue hour on weekdays. However, because of extensive inter-lining, this value is likely even higher.

Figure 3-173 R Route Service Productivity Measures

Performance Measure	Weekday			Saturday		
	R Route	UCAT Avg	County Avg	R Route	UCAT Avg	County Avg
Passengers per Revenue Vehicle Hour	10.9	9.9	9.8	-	12.9	10.7

Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

Figure 3-174 R Route Weekday Passengers per Revenue Hour

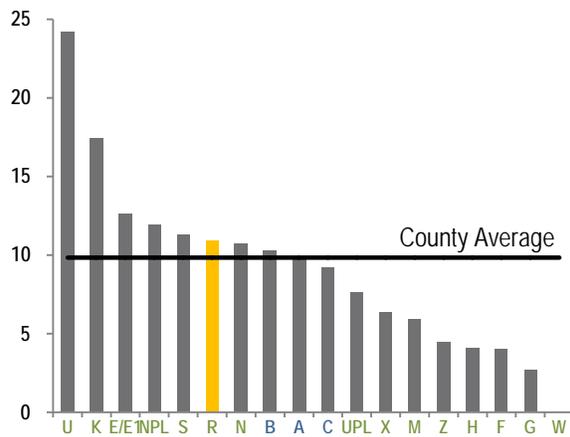
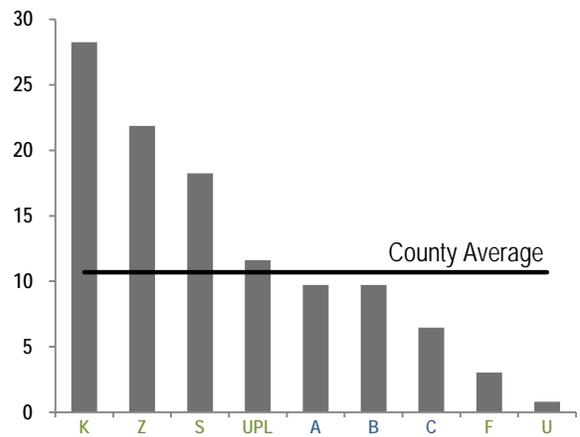


Figure 3-175 R Route Saturday Passengers per Revenue Hour



Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

On-time Performance. During the survey period, 69% of the R Route trips were observed to be on time, which is about average for UCAT and all county routes combined.

Figure 3-176 R Route On-time Performance Measures

Performance Measure	Weekday			Saturday		
	R Route	UCAT Avg	County Avg	R Route	UCAT Avg	County Avg
On-time Performance (%)	69	68	68	-	58	69

Source: Nelson\Nygaard ride check 2011-2012

Strengths

- Above average ridership per revenue hour.
- One-seat connection between New Paltz and SUNY Ulster through inter-lined service
- Provides most direct link between Golden Hill Complex and Kingston Plaza.

Weaknesses

- Long stretch of unproductive service between Golden Hill Complex and Rosendale.
- Redundant with UPL Route between New Paltz and Rosendale.

Potential Improvements

- **Eliminate R Route, interline E and X Route.** The R Route performs several important functions, but none of them are reflective of its “Kingston / New Paltz” designation. Through inter-lines with the N Route, the Route provides a highly utilized one-seat connection between New Paltz and SUNY Ulster. The route also offers the most direct

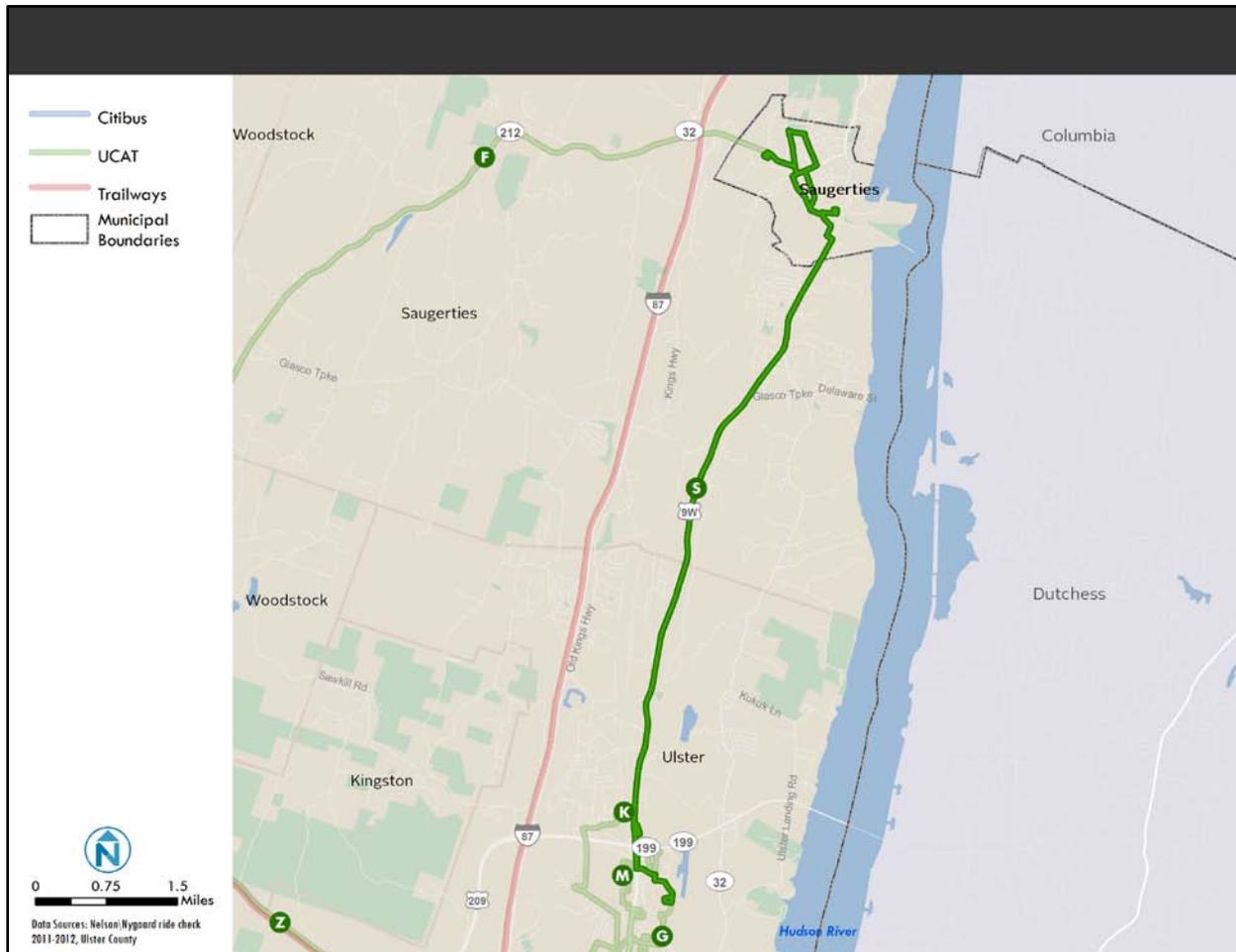
and convenient link between the Golden Hill Complex and Kingston Plaza. Both of these functions could be handled by other routes with some modifications. For example, inter-lining the E Route with the X Route could provide a bridge between the US 209 corridor and the NY 32 corridor, and allow for the elimination of both the N and R Route. Ridership between the Golden Hill Complex and Rosendale is very light and is served by Trailways flag stop service in the NY 32 corridor. Eliminating R Route service in this corridor would also reduce UCAT's paratransit obligation in the corridor. Service from the Golden Hill Complex to Kingston Plaza could be preserved through additional Z Route service to the area (discussed in the Z Route profile) or by additional Citibus Service to the area (discussed in the C Route profile).

UCAT S ROUTE – ULSTER MALL/SAUGERTIES

Service Design. The UCAT S Route is a regional route linking Saugerties and Lake Katrine with the Ulster Mall Area via US 9W. The route operates year-round, six days a week, although weekend service is very limited. Major destinations served by the S Route include:

- Saugerties Price Chopper
- Saugerties Post Office
- Greco Memorial Senior Citizens Recreation Center
- Saugerties Public Library
- Saugerties Main Street Commercial District
- The Mill Senior Residences
- Simmons Retail Plaza
- Lake Katrine Adams Faircare Farm
- Social Security Administration
- Hudson Valley Mall

Figure 3-177 S Route Map



Transfer Opportunities. The S Route provides passengers with transfer opportunities to other UCAT routes in Saugerties and in the Ulster Mall Area. In Saugerties, passengers can transfer between the S Route and the F Route serving Woodstock. Connection times between the two routes are well-coordinated.

At Hudson Valley Mall, transfers can be made between the S Route and the UCAT K, G, and M Routes. Schedules are well-coordinated or interlined on most trips, but can be disrupted by heavy traffic in the mall area during certain times of the day and months of the year. When connections are missed, the M Route, which circulates through the Ulster Mall Area and intersects with the other routes at various points, can provide passengers with a secondary opportunity to make a transfer.

Alignment/Service Patterns. On weekdays, the S Route operates along a mostly consistent routing throughout the service day. Northbound trips begin at Hudson Valley Mall and end at Price Chopper in Saugerties. Southbound trips operate between Saugerties Post Office and Hudson Valley Mall. However, a few trips of the day begin mid-route, including a 5:50 AM northbound trip starting at Adams Faircare Farms, an 11:22 AM trip starting at

Washington Avenue and Main Street in Saugerties, and a 3:20 PM trip that begins at the Saugerties Post Office.

Two southbound trips of the day skip major destinations that are served on all other trips. The 7:15 PM departure does not serve The Mill, while the 9:30 PM passes by Adams Faircare Farms.

On Saturdays, scheduled service is available along US 9W between Hudson Valley Mall and the Saugerties Post Office, with on-request service offered to Adams Faircare Farms and The Mill Senior Residences. Price Chopper is not served on Saturdays.

Service Schedule. The S Route operates from 5:30 AM to 9:45 PM on weekdays and from 8:50 AM to 4:15 PM on Saturdays. On weekdays, service is available hourly for most of the service day. Trips generally depart from Hudson Valley Mall at the top of the hour and from Saugerties Post Office at half past the hour.

On Saturday, two trips travel from Hudson Valley Mall to Saugerties at 8:50 AM and 3:15 PM. Three trips depart Saugerties Post Office for the mall at 9:15 AM, 11:00 PM, and 4:00 PM.

Figure 3-178 S Route Schedule Statistics

Service Day	Span of Service	Frequency (min) Peak / Off-Peak	Daily Trips (S/U)
Weekday	5:50 AM – 9:45 PM	60/120 3 AM trips (1 “S”, 2 “U”)	14/13
Saturday	8:50 AM – 4:15 PM	2 PM trip (in each direction)	2/3

Source: published UCAT schedules

Note: "S" = To Saugerties, "U" = To Ulster Mall Area

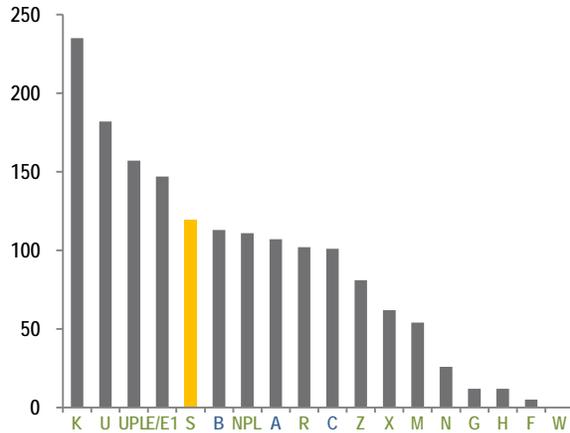
Ridership by Service Day. On an average weekday, the S Route attracts 119 total passenger boardings or 4.3 passengers per trip. This is lower than the UCAT average and 28 % below the combined average for UCAT and Citbus. On Saturdays, ridership drops to 27 total passengers, but due to the reduced service schedule, passengers per trip increases to 6.8, compared to 7.2 for the UCAT average and 7.8 for the county average.

Figure 3-179 S Route Ridership Statistics

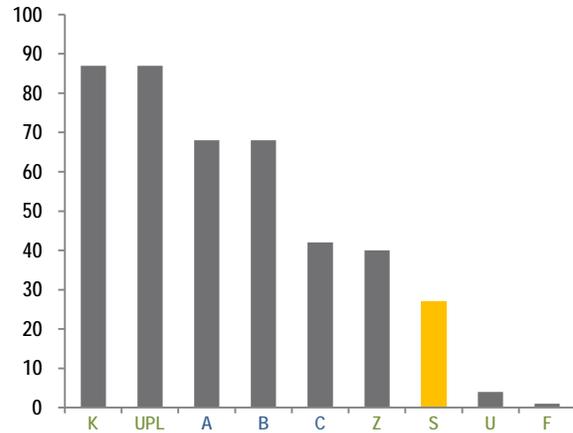
Service Day	Average Daily Ridership S Route	Average Daily Ridership per Trip		
		S Route	UCAT Avg	County Avg
Weekday	119	4.3	5.5	6.0
Saturday	27	6.8	7.2	7.8

Source: Nelson\Nygaard ride check 2011-2012

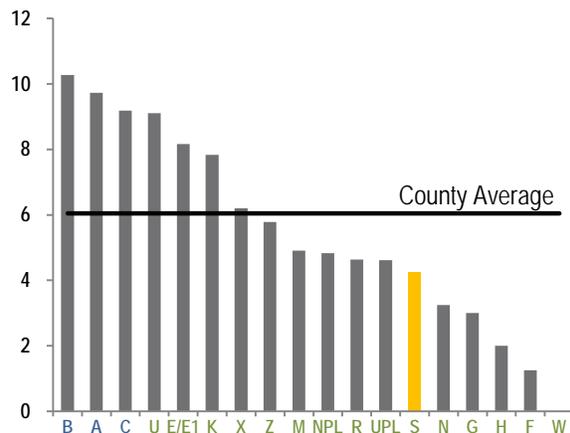
**Figure 3-180 S Route
Average Weekday Ridership**



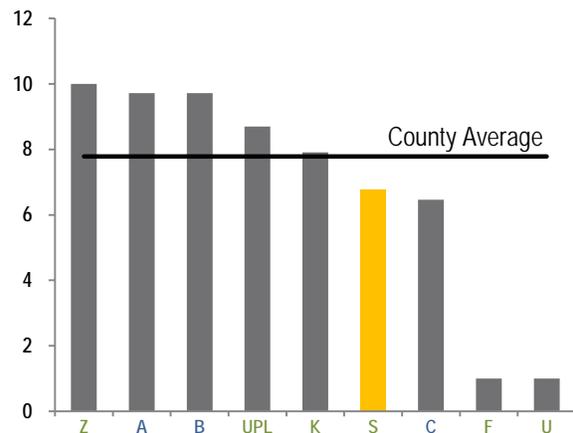
**Figure 3-181 S Route
Average Saturday Ridership**



**Figure 3-182 S Route
Average Weekday Ridership per Trip**



**Figure 3-183 S Route
Average Saturday Ridership per Trip**



Source: Nelson\Nygaard ride check 2011-2012

Ridership by Trip. Generally speaking, ridership to the Ulster Mall Area appears to be heavier than ridership to Saugerties. However, given that most S Route trips are inter-lined with the K Route, actual ridership volumes to Saugerties are somewhat hidden. For example, if a passenger boards a K Route bus in Kingston, and continues on the same bus once it inter-lines to the S Route at Hudson Valley Mall, that rider is only recorded on the K Route, resulting in a deceptively low passenger count on the S Route.

The highest ridership recorded on the S Route is on the 8:30 AM trip to the Mall Area, followed by the 12:30 PM trip and the 6:25 AM trip. The 6:25 AM trip is the only trip that allows students from Saugerties to connect to the U Route in Kingston and make it to SUNY Ulster in time for 8:40 classes.

Figure 3-184 S Route Weekday Ridership by Trip - To Saugerties

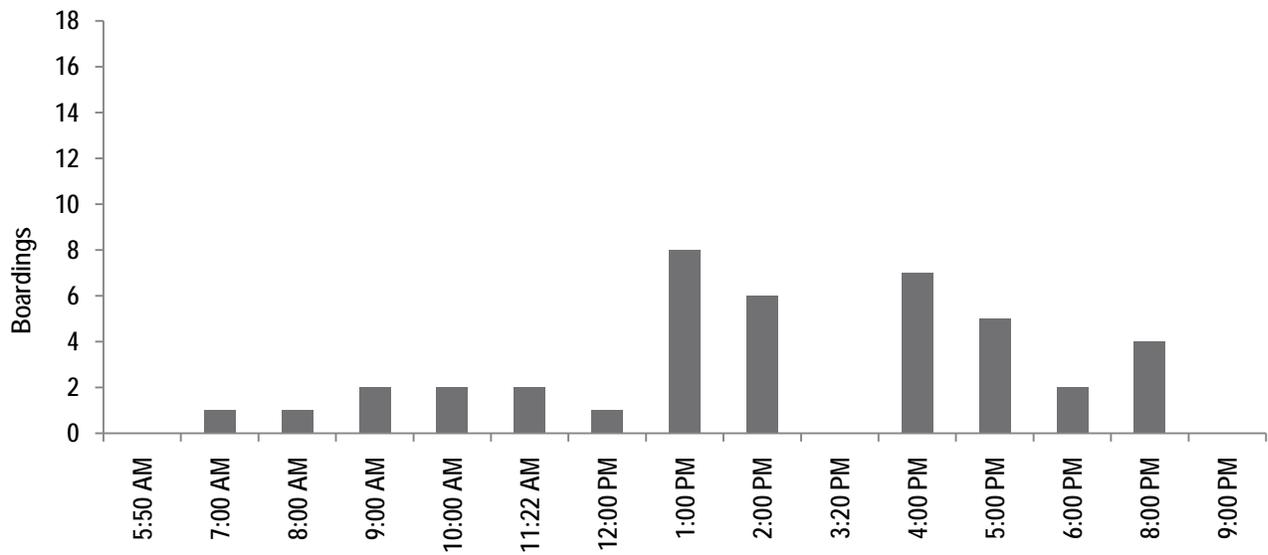


Figure 3-185 S Route Weekday Ridership by Trip - To Ulster Mall

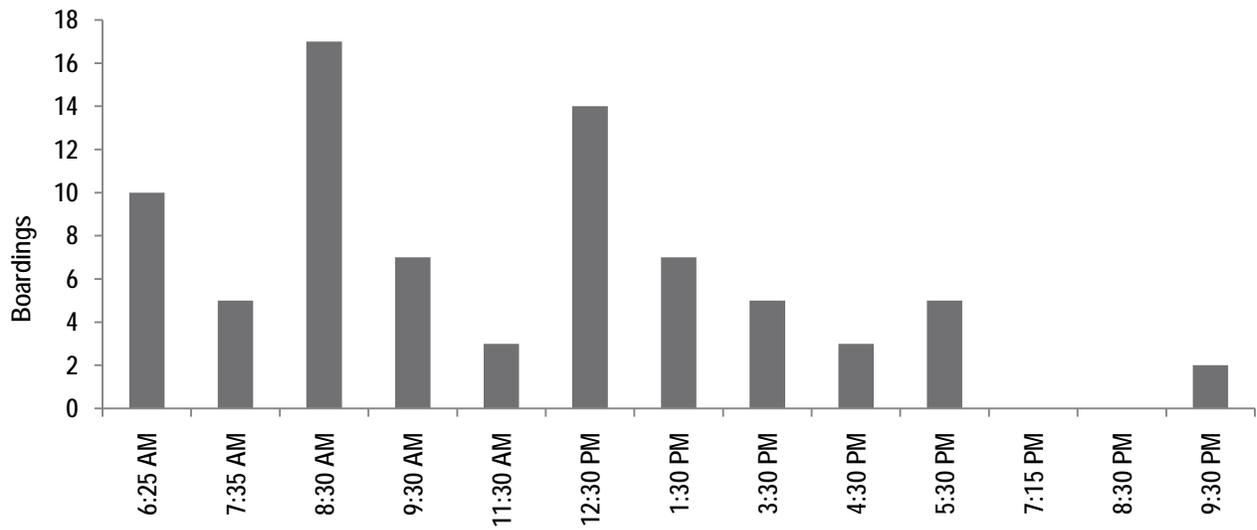


Figure 3-186 S Route Saturday Ridership by Trip - To Saugerties

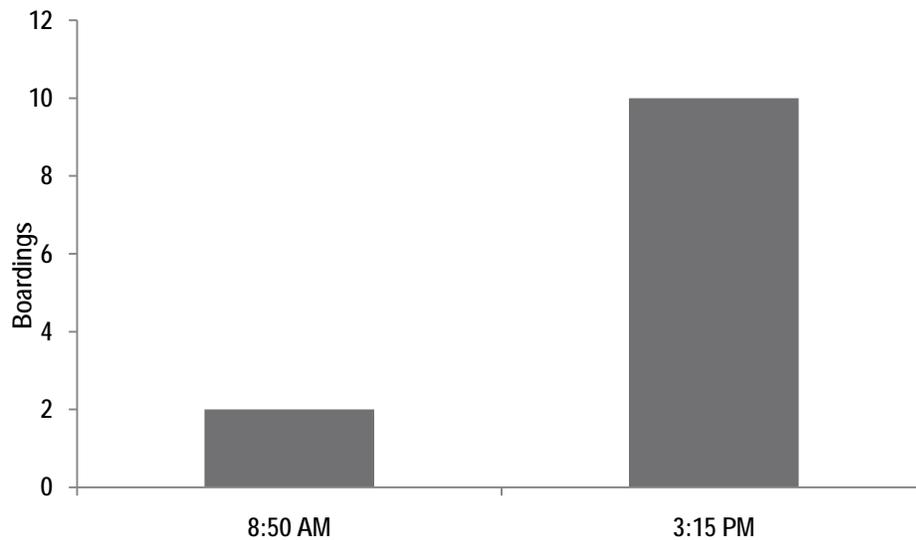
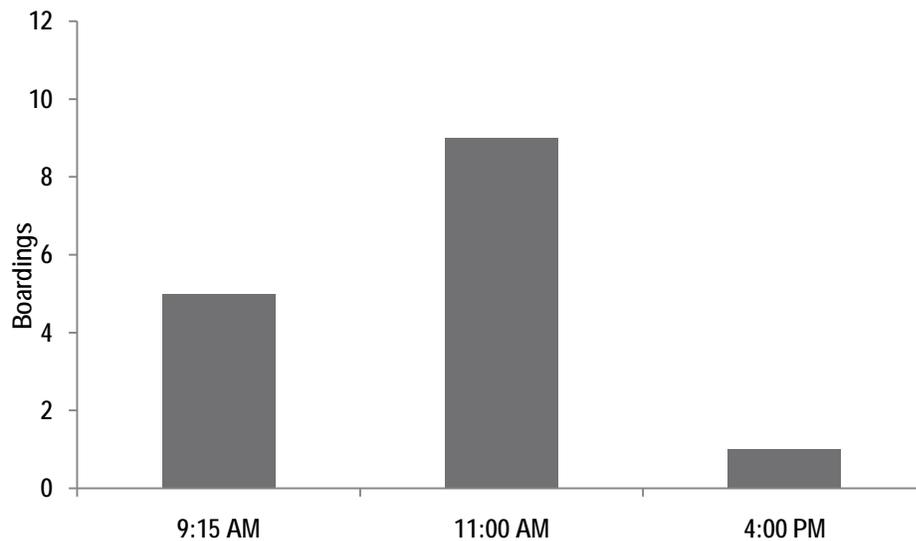


Figure 3-187 S Route Saturday Ridership by Trip - To Ulster Mall



Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

Ridership by Stop. The heaviest boarding and alighting activity on the S Route takes place at Hudson Valley Mall, which is both major destination and serve as transit hubs for several UCAT routes. Other notable bus stop locations with relatively high ridership activity (more than 5 cumulative boardings and alightings per day) include the following:

- **Ulster at Grant, in Lake Katrine.** This location serves the Social Security Administration office.
- **Bridge at Mill, in Saugerties.** This location serves the Mill Senior Residences
- **Ulster at North, in Saugerties.** This location serves the Saugerties Price Chopper.

- **Market at Lafayette, in Saugerties.** This location serves the Saugerties Post Office and is a transfer point between Route S and Route F.
- **Washington at Main, in Saugerties.** This location serves the Saugerties Public Library and Saugerties Main Street Commercial District.
- **Partition at Montross, in Saugerties.** This location serves the residential neighborhoods on either side of Partition Street.

Figure 3-188 S Route Weekday Ridership by Stop Map

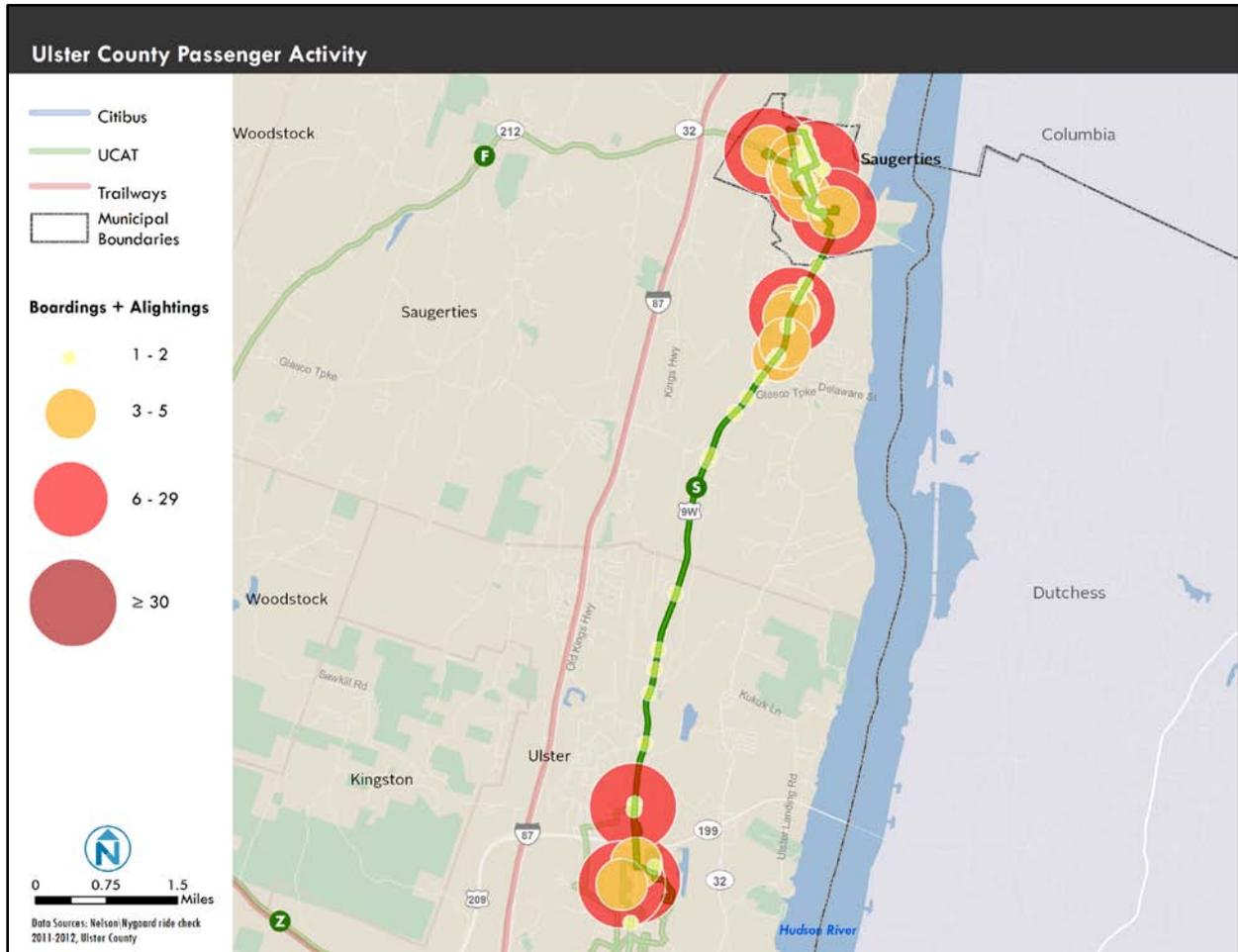
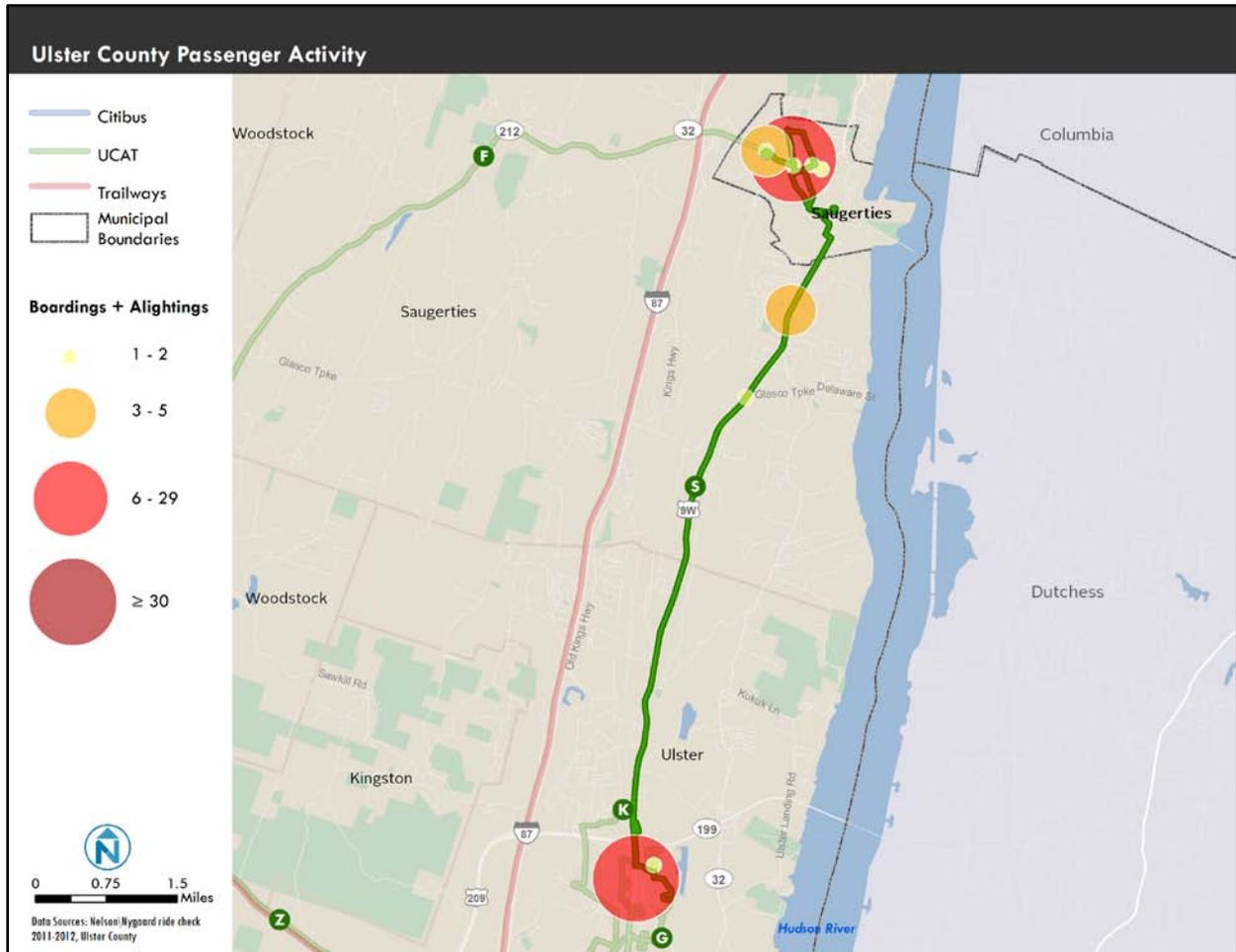


Figure 3-189 S Route Saturday Ridership by Stop Map



Source: Nelson\Nygaard ride check 2011-2012, Ulster County

Service Productivity. The S Route attracts 11.3 passenger boardings per revenue hour on weekdays, or roughly 14 percent more than the UCAT and county averages. On Saturday, passengers per revenue hour increases to 18.2, due to the reduced number of revenue hours provided. This is 70 percent higher than the combined Saturday average for UCAT and Citibus.

Figure 3-190 S Route Service Productivity Measures

Performance Measure	Weekday			Saturday		
	S Route	UCAT Avg	County Avg	S Route	UCAT Avg	County Avg
Passengers per Revenue Vehicle Hour	11.3	9.9	9.8	18.2	12.9	10.7

Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

Figure 3-191 S Route Weekday Passengers per Revenue Hour

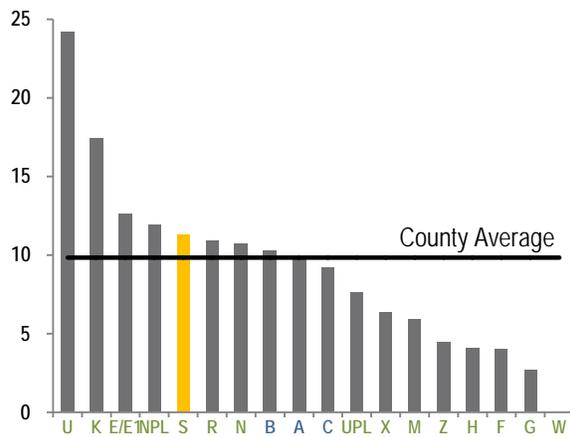
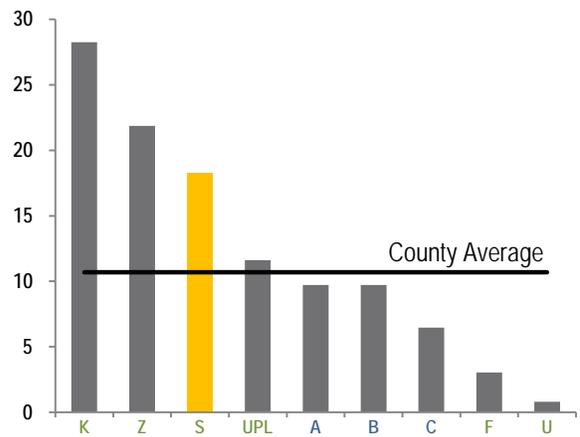


Figure 3-192 S Route Saturday Passengers per Revenue Hour



Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

On-time Performance. During the survey period, 65% of S Route trips were observed to be on time. This is just below the on-time performance rate of UCAT and Citibus combined.

Figure 3-193 S Route On-time Performance Measures

Performance Measure	Weekday		Saturday		
	UCAT Avg	County Avg	UCAT Avg	County Avg	
On-time Performance (%)	65	68	50	58	69

Source: Nelson\Nygaard ride check 2011-2012

Strengths

- Above average ridership per revenue hour.
- Fifth highest ridership of all UCAT and Citibus Routes, even with likely undercounting due to inter-lining.
- Provides one-seat connection to Kingston through inter-line with Route K

Weaknesses

- Long stretch of unproductive service between Golden southern end of Saugerties and Lake Katrine.
- Unproductive deviation to serve Adams Faircare Farms.
- Time consuming routing through the Mall Area for passengers riding through to K Route.
- No indication of inter-line with K Route on passenger schedules.
- Long travel times for passengers heading from Saugerties to SUNY Ulster.

Potential Improvements

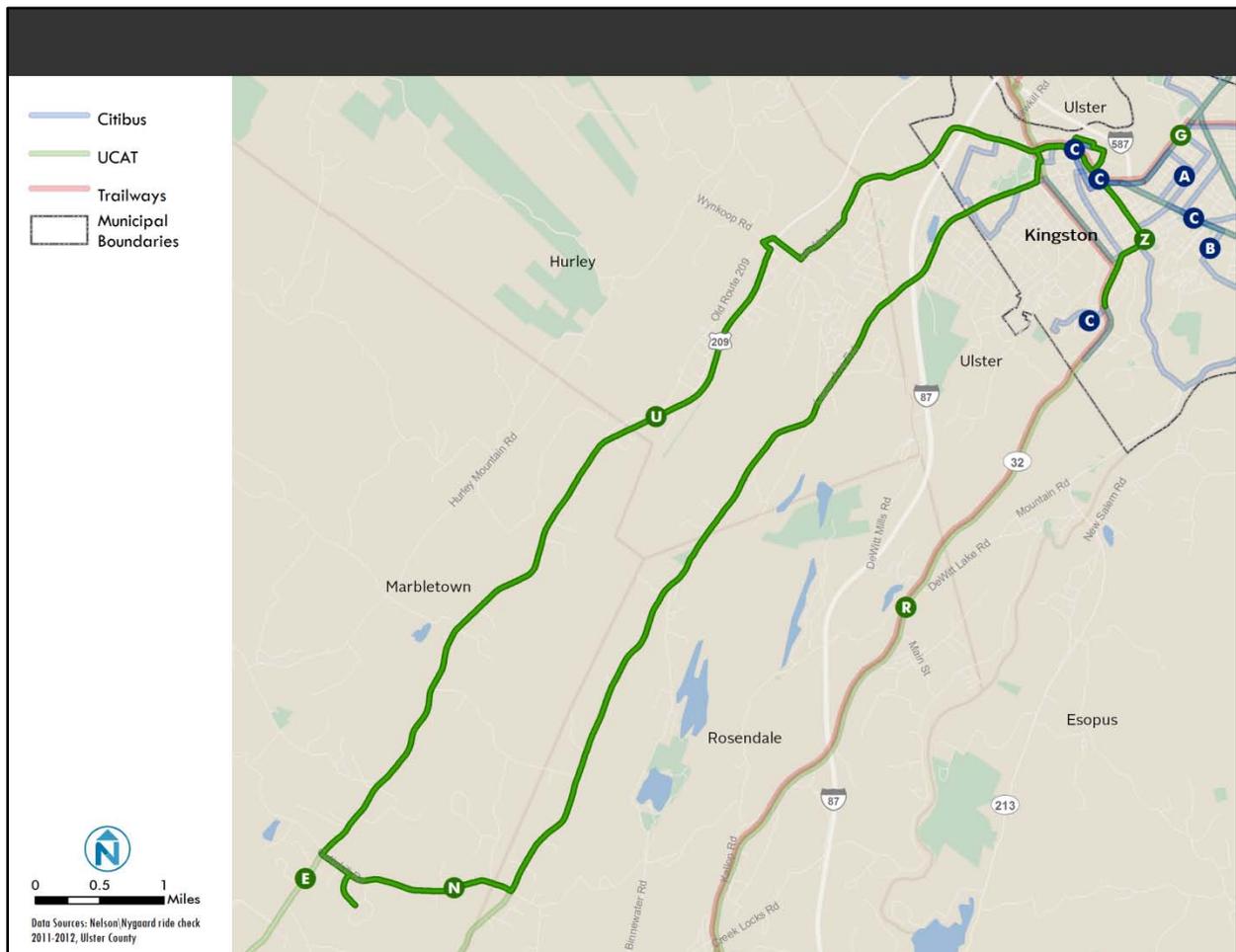
- **Avoid Hudson Valley Mall if the M Route is operating.** Providing service into and out of Hudson Valley Mall consumes nearly 20 minutes of running time. This time could be better spent improving service frequency, on time-performance, or both on the K and S Routes. A combination of frequent service on the M Route, and improved pedestrian connections throughout at the Mall Area could allow passengers to access the various retail destinations in the Mall Area with relative ease, while allowing the K and S Routes to avoid time-consuming deviations.
- **Consolidate K Route and S Route into one route.** If both the K and S Routes can avoid serving Hudson Valley Mall directly, then service from Saugerties to Kingston could be considerably sped up. To simplify the service further, a single route name could be applied to both legs of the route, reducing the number of schedules that passengers would need to keep up with.
- **Express service to SUNY Ulster.** Saugerties is the most populated point in Ulster County, north of Kingston. Saugerties residents likely represent a significant component of the SUNY Ulster student population. However, transit connections between Saugerties and the college are very long and inconvenient, compelling most commuters on this route to drive (if they have a car available to them). To attract more Saugerties students to use UCAT service, a handful of express trips should be considered to the college, perhaps using I -87 and US 209. These trips should be timed to coincide with the top one or two most popular class start and end times.

UCAT U ROUTE – KINGSTON/SUNY ULSTER

Service Design. The UCAT U Route is a regional route linking Kingston and SUNY Ulster via two separate corridors: US 209 and County Road 1 / Lucas Turnpike. Trips alternate between the two corridors for most of the service day. The route operates year-round, six days a week, although weekend service is very limited. Major destinations served by the U Route include:

- Hannaford / Kingston Plaza
- Kingston Trailways Bus Station
- VA Kingston Clinic
- Stony Run Apartments
- Hamlet of Hurley
- Hamlet of Marbletown
- SUNY Ulster
- Hamlet of Cottekill

Figure 3-194 U Route Map



Transfer Opportunities. The U Route provides passengers with transfer opportunities to other UCAT routes in Kingston and at SUNY Ulster, and to Citibus routes in Kingston. The following transfers are available at Kingston Plaza:

- Citibus A Route
- Citibus B Route
- Citibus C Route
- UCAT G Route
- UCAT K Route
- UCAT R Route
- UCAT Z Route

Although these route all converge at Kingston Plaza, their schedules do not “pulse,” meaning that passengers must often wait long periods of time to transfer from one route to another. Trailways service is also available in Kingston at the Trailways Bus Station at Washington and Front Street.

At SUNY Ulster, transfers are available between the U Route and the E and N Routes. Connection times between these routes are generally well-coordinated and in some cases interlined (one bus continuing from one route to another).

Alignment/Service Patterns. On weekdays, the U Route alternates between two routing patterns throughout the service day. With the exception of pull-out trips from UCAT Operations and Maintenance Facility, all trips begin at Kingston Plaza and travel west on Schwenk Drive. From there, buses head toward SUNY Ulster along either Hurley Avenue and US 209 or Joys Lane and County Road 1 / Lucas Turnpike. The last two southbound and three northbound trips of the day use the US 209 routing. All weekend trips use the US 209 routing as well.

Buses coming into service or out of service also serve Golden Hill Drive and stops along Clinton Street (when Citibus is not in service).

Service Schedule. The U Route operates from 5:05 AM to 10:30 PM on weekdays and from 7:55 AM to 2:15 PM on Saturdays. Weekday, service frequency is irregular, with departures ranging from one hour apart to more than three hours apart. Service is even more infrequent at points between Kingston Plaza and SUNY Ulster because buses alternate between US 209 and Lucas Avenue on trips between Kingston and SUNY Ulster.

On Saturday, two trips travel from Kingston to SUNY Ulster at 7:55 AM and 1:30 PM. Departures from SUNY Ulster to Kingston are at 8:20 AM and 1:50 PM.

Figure 3-195 U Route Schedule Statistics

Service Day	Span of Service	Frequency (min) Peak / Off-Peak	Daily Trips (S/K)
Weekday	5:05 AM – 10:30 PM	Varies (60-195)	10/10
Saturday	7:55 AM – 2:15 PM	1 AM trip (each direction) 1 PM trip (each direction)	2/2

Source: published UCAT schedules

Note: "S" = To SUNY Ulster, "K" = To Kingston

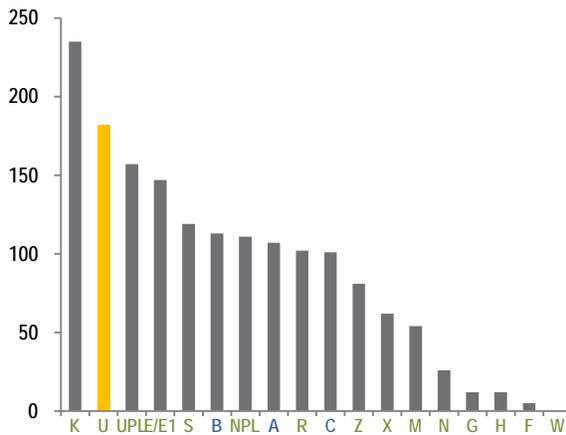
Ridership by Service Day. On an average weekday, the U Route attracts 182 total passenger boardings or 9.1 passengers per trip. This is higher than the UCAT average and 52% above the combined average for UCAT and Citbus (Figure 3-196). On Saturdays, ridership drops to just four total passengers, or 1 passenger per trip compared to 7.2 for the UCAT average and 7.8 for the county average.

Figure 3-196 U Route Ridership Statistics

Service Day	Average Daily Ridership	Average Daily Ridership per Trip		
	U Route	U Route	UCAT Avg	County Avg
Weekday	182	9.1	5.5	6.0
Saturday	4	1.0	7.2	7.8

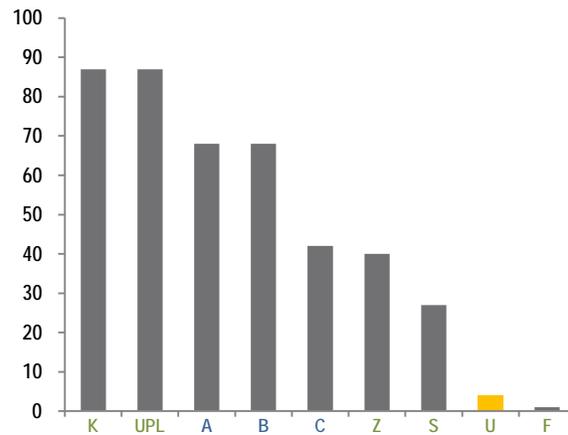
Source: Nelson\Nygaard ride check 2011-2012

Figure 3-197 U Route Average Weekday Ridership

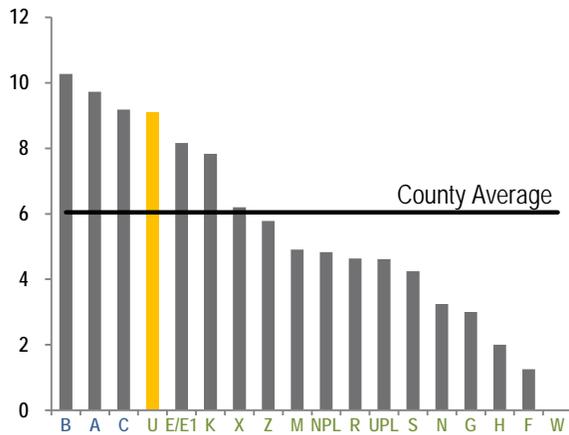


Source: Nelson\Nygaard ride check 2011-2012

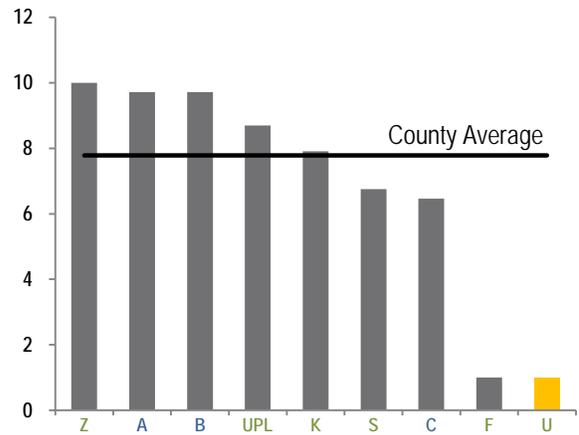
Figure 3-198 U Route Average Saturday Ridership



**Figure 3-199 U Route
Average Weekday
Ridership per Trip**



**Figure 3-200 U Route
Average Saturday
Ridership per Trip**



Ridership by Trip. U Route ridership to Kingston is heaviest on the trips that travel along Lucas Avenue, rather than US 209. This appears to be tied to the connection opportunities between the E Route and U Route. The trips that travel along Lucas are generally well- coordinated with the U Route, while those traveling along US 209 are not. So, when passengers from Ellenville are able to make convenient connections, ridership on the U Route increases. This also points to the strong demand for service from Ellenville to Kingston.

Ridership toward SUNY Ulster is highest on the 7:45 AM trip which arrives at the college in time for 8:40 AM classes. This trip allows for passengers to transfer from the S / K Route in Kingston to reach the college.

On Saturday, the U Route appears to only attract passengers traveling to Kingston in the morning, and returning in the afternoon. No ridership was recorded in the opposite direction, which is not surprising given that there are neither classes nor connections to other services at SUNY Ulster on Saturday.

Figure 3-201 U Route Weekday Ridership by Trip - To Kingston

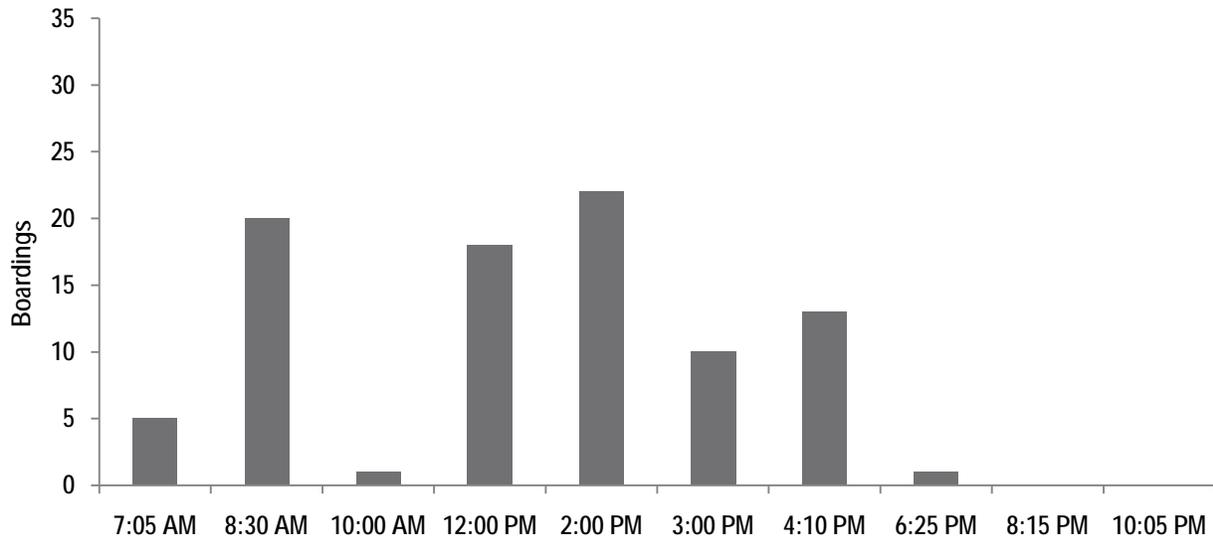


Figure 3-202 U Route Weekday Ridership by Trip - To SUNY Ulster

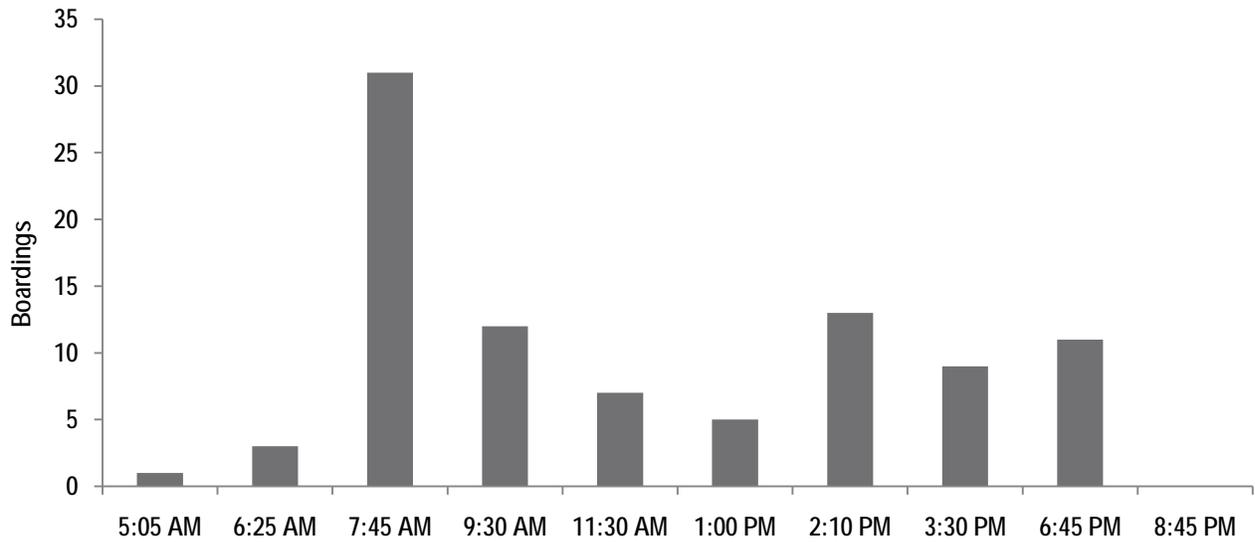


Figure 3-203 U Route Saturday Ridership by Trip - To Kingston

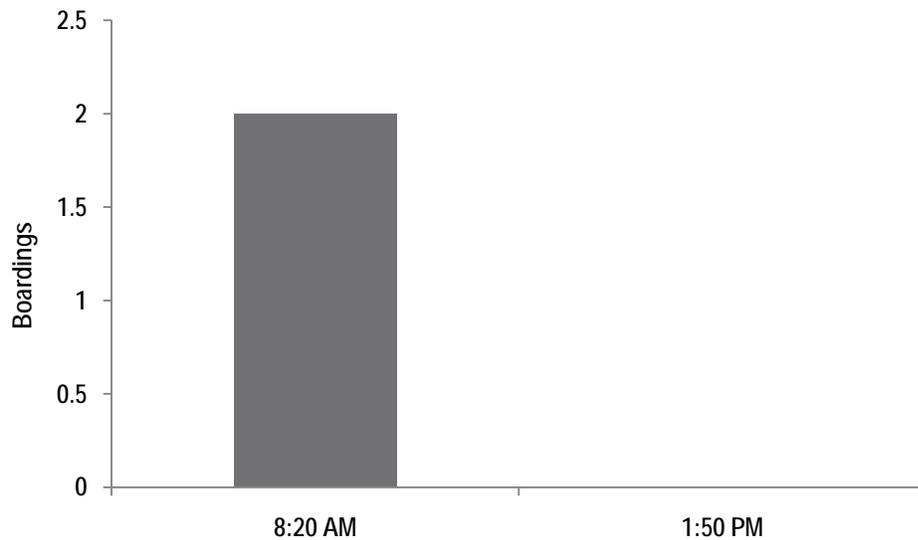
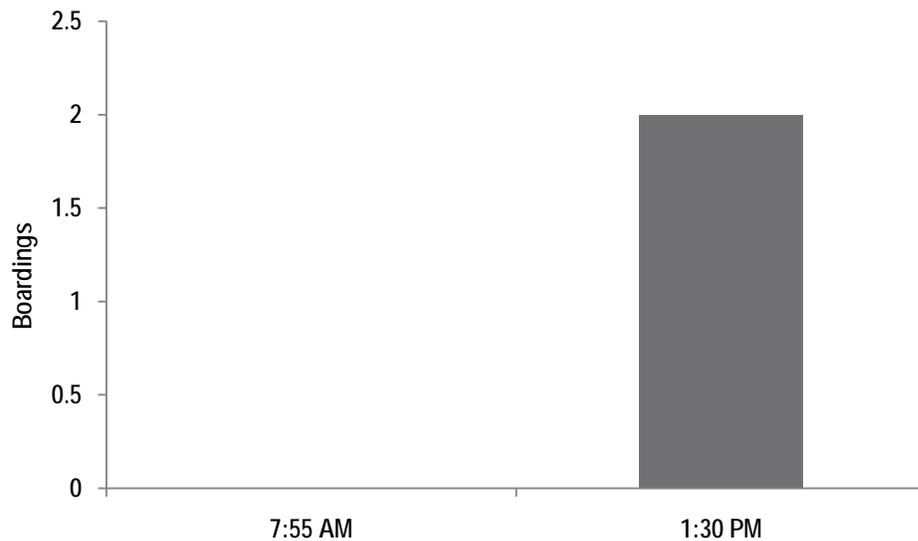


Figure 3-204 U Route Saturday Ridership by Trip - To SUNY Ulster



Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

Ridership by Stop. The heaviest boarding and alighting activity on the U Route takes place at Kingston Plaza and SUNY Ulster in Stone Ridge, which are both major destination and serve as transit hubs for several UCAT routes. Other notable bus stop locations with relatively high ridership activity (more than 5 cumulative boardings and alightings per day) include the following:

- **Clinton at Albany, in Kingston.** This location serves Academy Green Park and Residences (only available when Citibus routes are not in service).

- **Clinton at John Street, in Kingston.** This location serves the Stockade district and Ulster Mental Health Association (only available when Citibus routes are not in service).

Figure 3-205 U Route Weekday Ridership by Stop Map

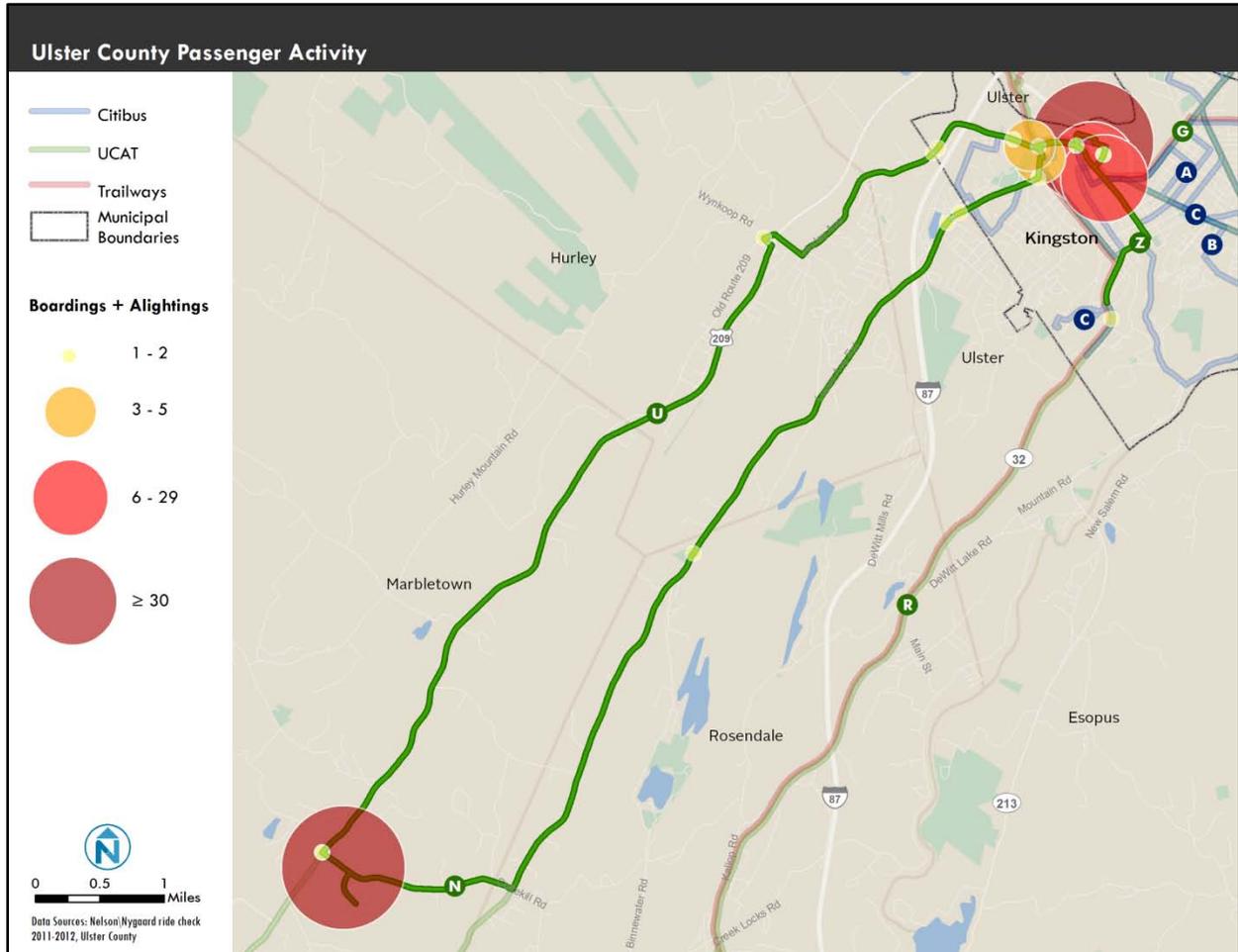
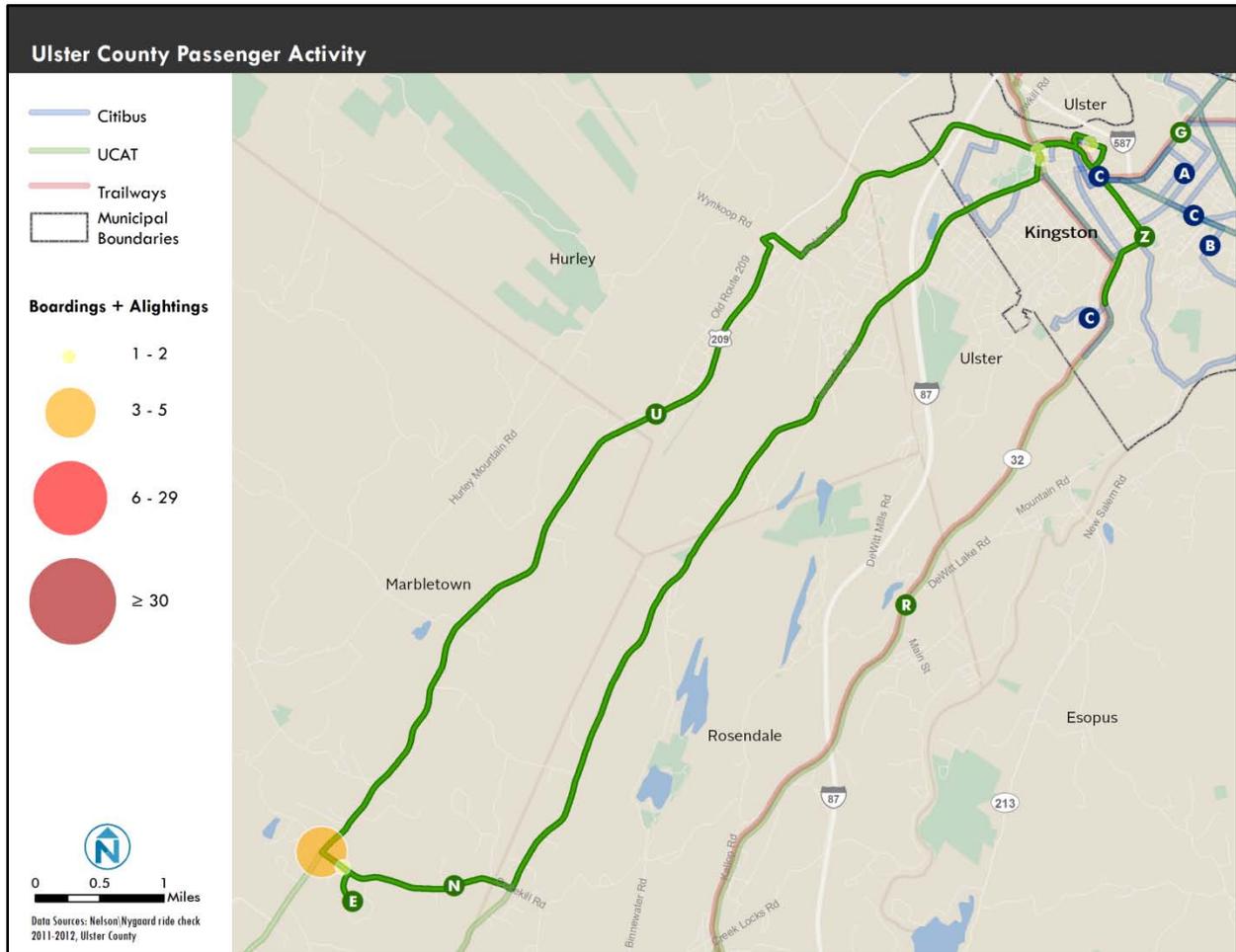


Figure 3-206 U Route Saturday Ridership by Stop Map



Source: Nelson\Nygaard ride check 2011-2012, Ulster County

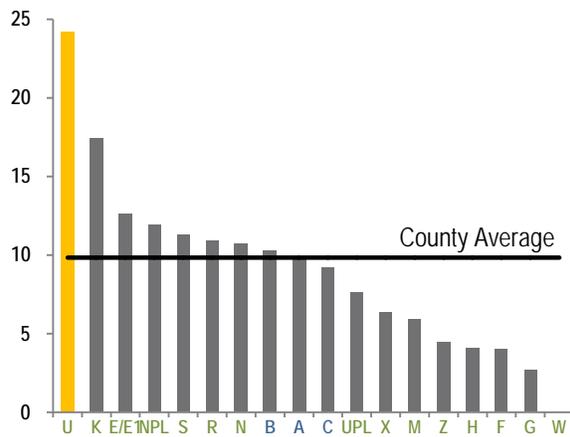
Service Productivity. The U Route attracts 24.2 passenger boardings per revenue hour on weekdays, or more than twice the UCAT and county averages. On Saturday, productivity drops below 1 passenger per revenue hour.

Figure 3-207 U Route Service Productivity Measures

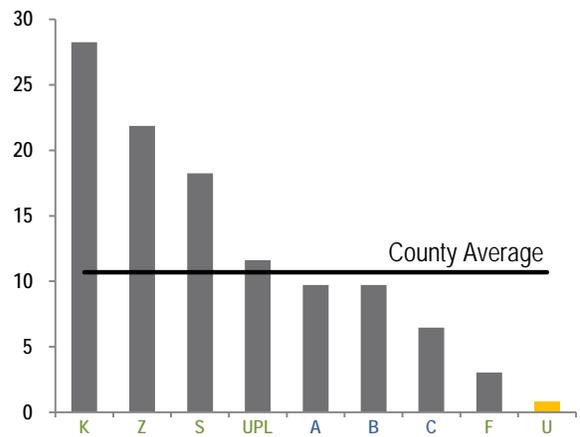
Performance Measure	Weekday			Saturday		
	U Route	UCAT Avg	County Avg	U Route	UCAT Avg	County Avg
Passengers per Revenue Vehicle Hour	24.2	9.9	9.8	0.8	12.9	10.7

Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

**Figure 3-208 U Route Weekday
Passengers per Revenue
Hour**



**Figure 3-209 U Route Saturday
Passengers per Revenue
Hour**



Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

On-time Performance. During the survey period, 69% of weekday trips and 100% of Saturday trips were observed to be on time. This is just above the combined weekday average for UCAT and Citibus, and far higher than the weekend averages for both.

Figure 3-210 U Route On-time Performance Measures

Performance Measure	Weekday			Saturday		
	U Route	UCAT Avg	County Avg	U Route	UCAT Avg	County Avg
On-time Performance (%)	69	68	68	100	58	69

Source: Nelson\Nygaard ride check 2011-2012

Strengths

- 2nd highest weekday ridership among all UCAT and Citibus routes.
- Highest ridership per revenue hour of all UCAT and Citibus routes.
- Clever alternating routing between US 209 and Lucas Avenue to provide appropriate frequency for low-demand area.
- Very direct route connecting well-defined anchors (Kingston and SUNY Ulster).

Weaknesses

- Very low Saturday ridership.

Potential Improvements

- **Add Saturday service to E Route.** The E Route feeds passengers to the U Route on weekdays, and without the service operating on Saturday, the U Route just serves an empty college campus. The E Route is the highest ridership route without Saturday

service. This makes it difficult for transit dependent residents of Ellenville to get to local retail destinations like ShopRite or regional destinations like Hudson Valley Mall for work or shopping.

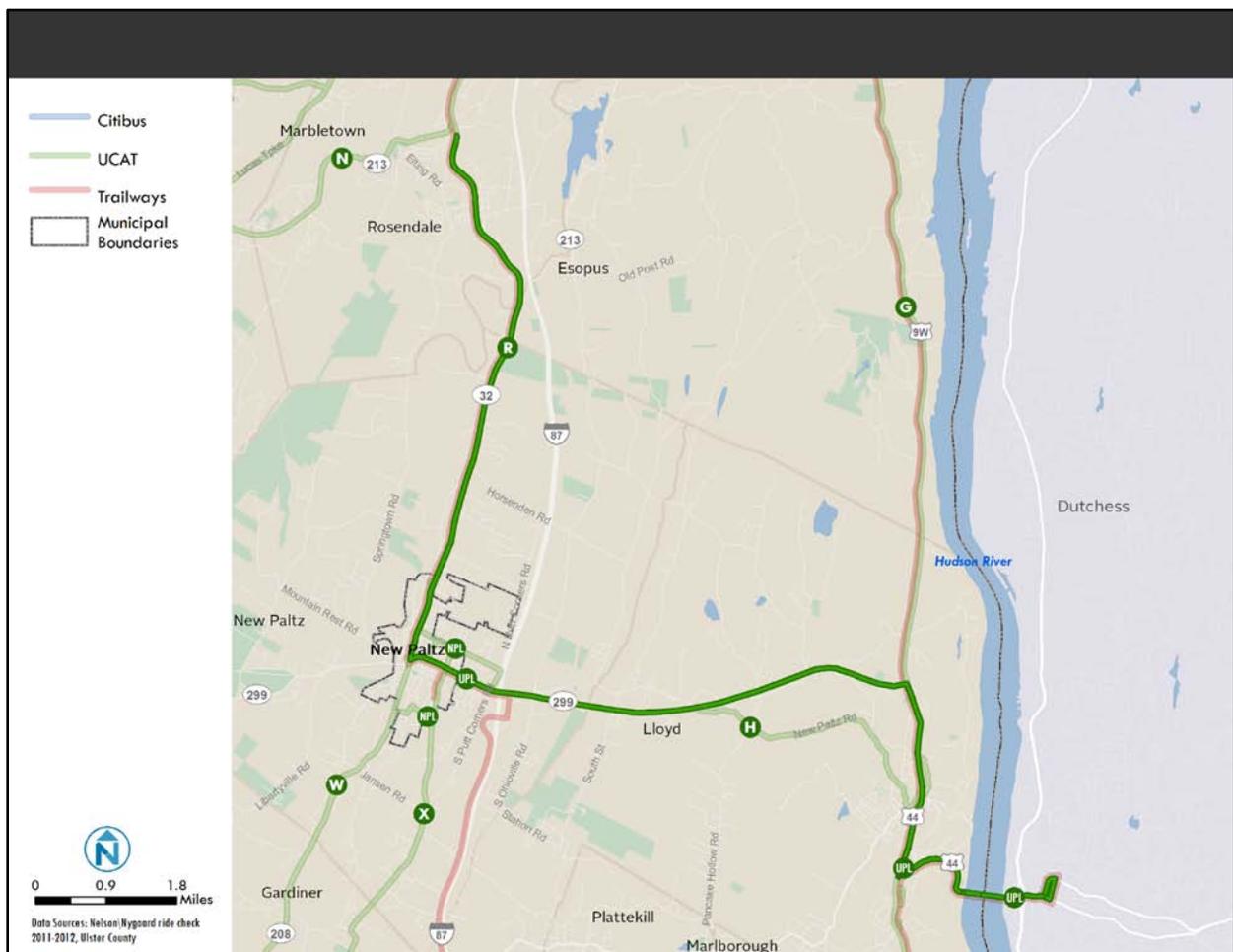
- **Eliminate Saturday service.** Without E Route feeder service on Saturdays, there is little point in operating the U Route. If E Route service is not added on Saturdays, the U Route service on this day should be eliminated.

UCAT UPL ROUTE – ULSTER - POUGHKEEPSIE LINK

Service Design. The UPL Route is a regional route linking Rosendale, New Paltz, and Highland with the Metro North Railroad Station in Poughkeepsie, Dutchess County. Service is designed to meet commuter trains traveling to and from New York City. The route operates year-round, six days a week. Major destinations served by the E Route include:

- Rosendale Park & Ride
- Hamlet of Tillson
- New Paltz Park & Ride
- New Paltz Trailways Bus Station
- New Paltz Stop & Shop
- New Paltz ShopRite
- Highland Park & Ride
- Hamlet of Highland
- Downtown Poughkeepsie
- Poughkeepsie Station

Figure 3-211 UPL Route Map



Transfer Opportunities. The UPL Route provides passengers with several transfer opportunities in Rosendale, New Paltz, Highland and Poughkeepsie. At Rosendale Park & Ride, connections are available to UCAT Routes R and N, as well as Trailways Service. Trailways service is also available in New Paltz, along with connections to UCAT Routes R, W, X, and NPL.

In Highland, transfers can be made between the UPL and the G and H Routes, although connection times are not coordinated. Passengers can transfer to the Metro North Railroad and several Poughkeepsie City Bus routes in Poughkeepsie.

Alignment/Service Patterns. The UPL Route has several slightly different variants with few trips sharing the same sequence of stops. From Poughkeepsie Station, the route serves downtown Poughkeepsie and then crosses the Mid-Hudson Bridge into Highland. On some trips, Bridgeview Plaza, Wingate Nursing Home, and Highland Village are served in addition to Highland Park & Ride, while on other trips some of those destinations are served on-request or not at all. SUNY New Paltz is served on select off-peak trips, while New Paltz Park & Ride is served on almost every trip. Many, but not all, trips also serve Rosendale Park & Ride. Trips to Poughkeepsie are equally varied. Saturday and Sunday service is limited but more consistent with all trips serving Rosendale Park & Ride, New Paltz Park & Ride, SUNY New Paltz, Highland Park & Ride, and Poughkeepsie Station.

Service Schedule. Service to the Rosendale Park & Ride begins at 6:00 AM on weekdays and 9:45 AM on weekends. Frequencies vary throughout the day but are between 15 and 60 minutes in during morning and evening peak hours. During mid-day, frequency drops to approximately every two hours. Service to Poughkeepsie Station follows a similar pattern with service starting at 5:05 AM on weekdays and 8:30 AM on weekends. On Saturdays, there are five trips in each direction every two hours exactly. Four of the ten Saturday trips also run on Sunday – 9:45 AM and 5:45 PM to the Rosendale Park & Ride and 8:30 AM and 4:30 PM to Poughkeepsie Station.

Figure 3-212 UPL Route Schedule Statistics

Service Day	Span of Service	Frequency (min) Peak / Off-Peak	Daily Trips (U/P)
Weekday	5:05 AM – 10:15 PM	Varies (15-125)	17/17
Saturday	8:30 AM – 6:30 PM	120/120	5/5
Sunday	8:30 AM – 11:21 AM	1 AM trip (in each direction)	2/2
	4:30 PM – 6:30 PM	1 PM trip (in each direction)	

Source: published UCAT schedules

Note: "U" = To Ulster County, "P" = To Poughkeepsie

Ridership by Service Day. On an average weekday, the UPL Route attracts 157 passenger boardings, third highest among all routes in Ulster County (Figure 3-214). Though ridership falls on the weekend, the route still serves 87 passengers on the average Saturday, the second highest among all Saturday routes (Figure 3-215). Average daily ridership per trip is more variable, however. There is an average of 4.6 passengers per trip on weekdays, well below the UCAT and county averages, but passengers per trip on Saturdays climbs to 8.7, 1.5 passengers above the UCAT average. The UPL is one of only two routes with Sunday service, and the only route with observed Sunday ridership during the study period.

Figure 3-213 UPL Route Ridership Statistics

Service Day	Average Daily Ridership	Average Daily Ridership per Trip		
	UPL Route	UPL Route	UCAT Avg	County Avg
Weekday	157	4.6	5.5	6.0
Saturday	87	8.7	7.2	7.8
Sunday	33	8.3	4.1	4.1

Source: Nelson\Nygaard ride check 2011-2012

Figure 3-214 UPL Route Average Weekday Ridership

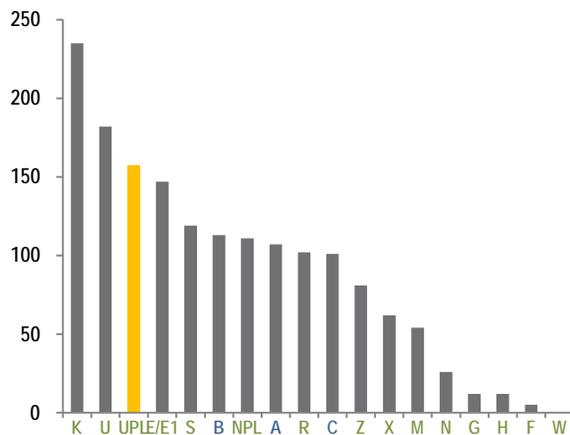


Figure 3-215 UPL Route Average Saturday Ridership

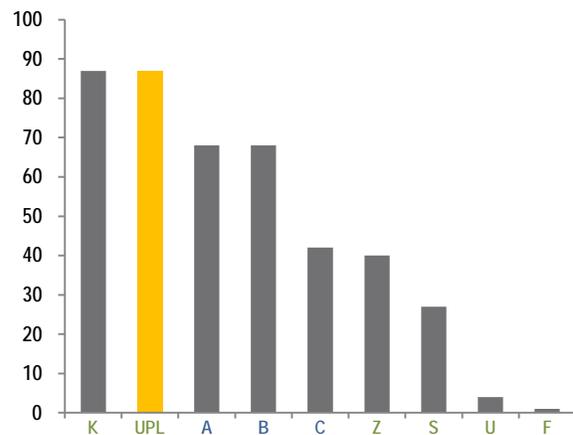


Figure 3-216 UPL Route Average Weekday Ridership per Trip

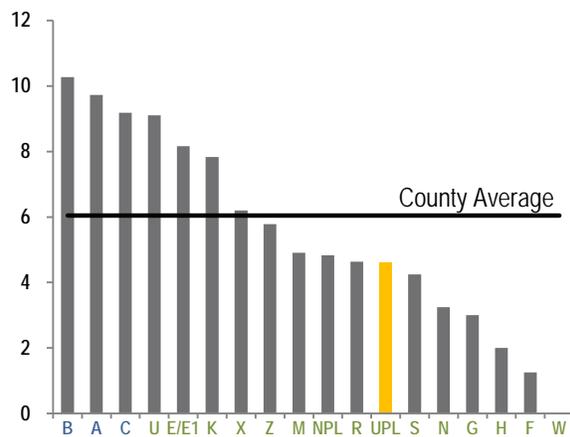
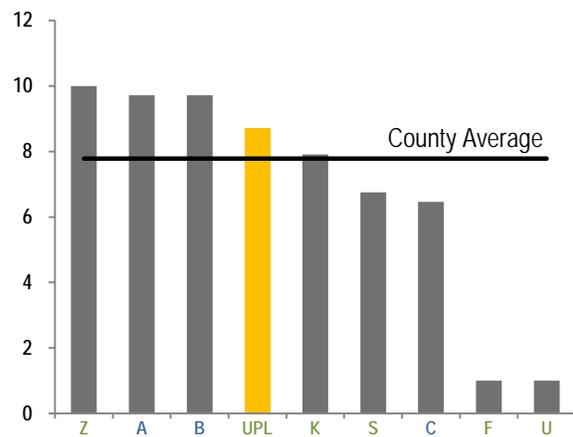


Figure 3-217 UPL Route Average Saturday Ridership per Trip



Source: Nelson\Nygaard ride check 2011-2012

Ridership by Trip. During the study period, ridership to Ulster County on weekdays was slightly higher than ridership headed to Poughkeepsie, with two trips over 10 riders; all other trips in both directions carry 10 riders or less. However, ridership to Ulster County steadily

increases throughout the day until reaching a peak of 17 riders on the 4:45 PM trip. After this peak at the end of the workday, ridership varies with no riders on some trips and others carrying up to six. Ridership to Poughkeepsie is steadier with five or more riders on over half of its trips; ridership is lowest in the early morning and after 6:00 PM.

On weekends, ridership is relatively steady with slight peaks between 10:30 AM to 11:45 AM and between 4:30 PM and 5:45 PM. Ridership peaks at 15 riders on the 4:30 PM trip to Poughkeepsie; most other trips have 10 riders or less.

Figure 3-218 UPL Route Weekday Ridership by Trip - To Poughkeepsie

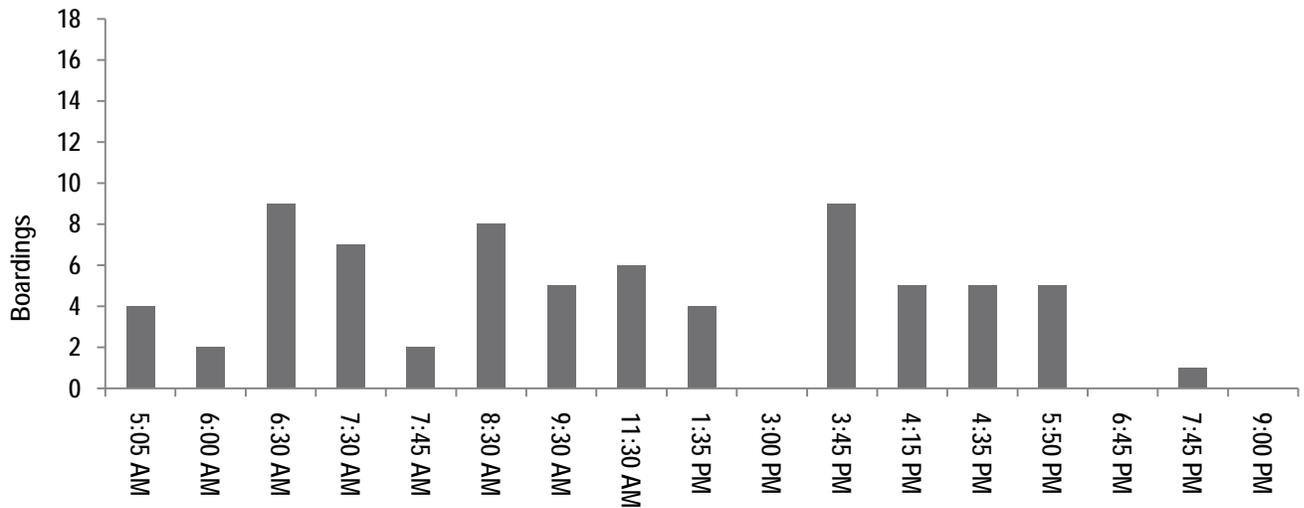


Figure 3-219 UPL Route Weekday Ridership by Trip - To Ulster County

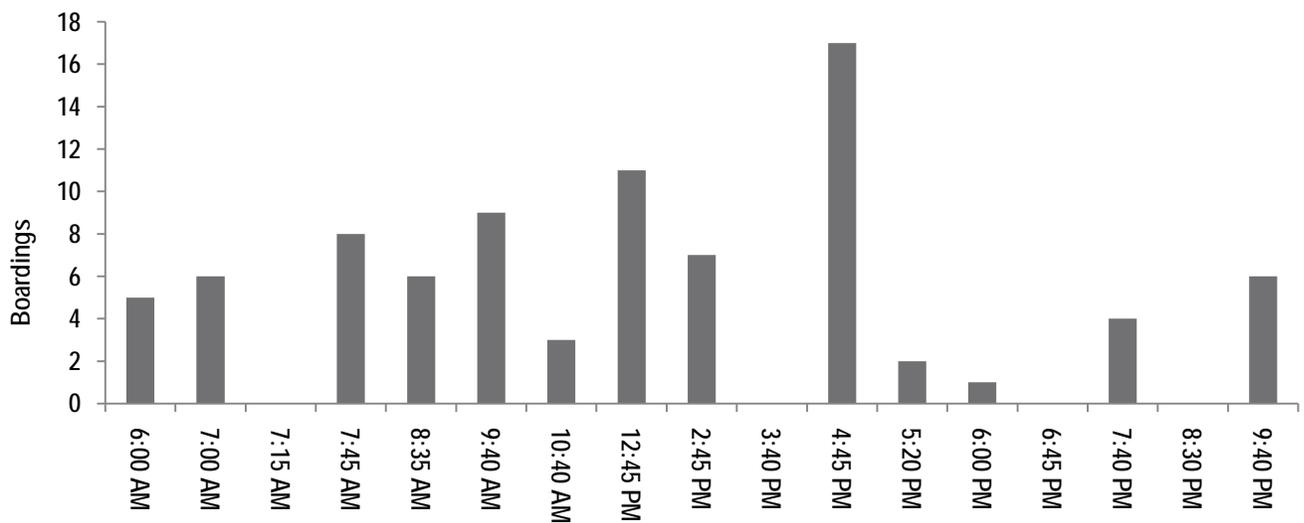


Figure 3-220 UPL Route Saturday Ridership by Trip - To Poughkeepsie

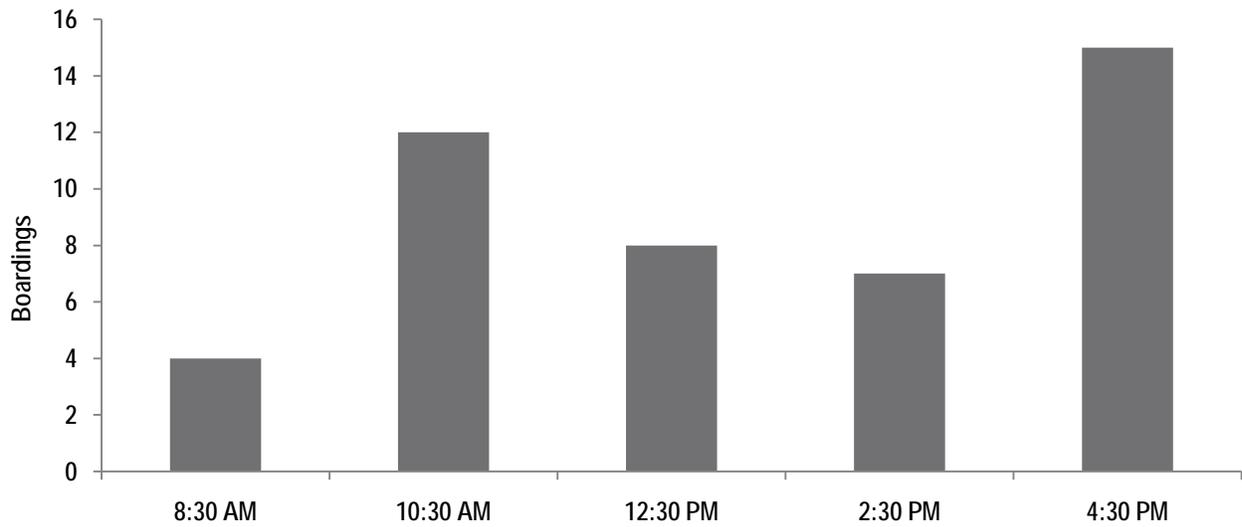


Figure 3-221 UPL Route Saturday Ridership by Trip - To Ulster County

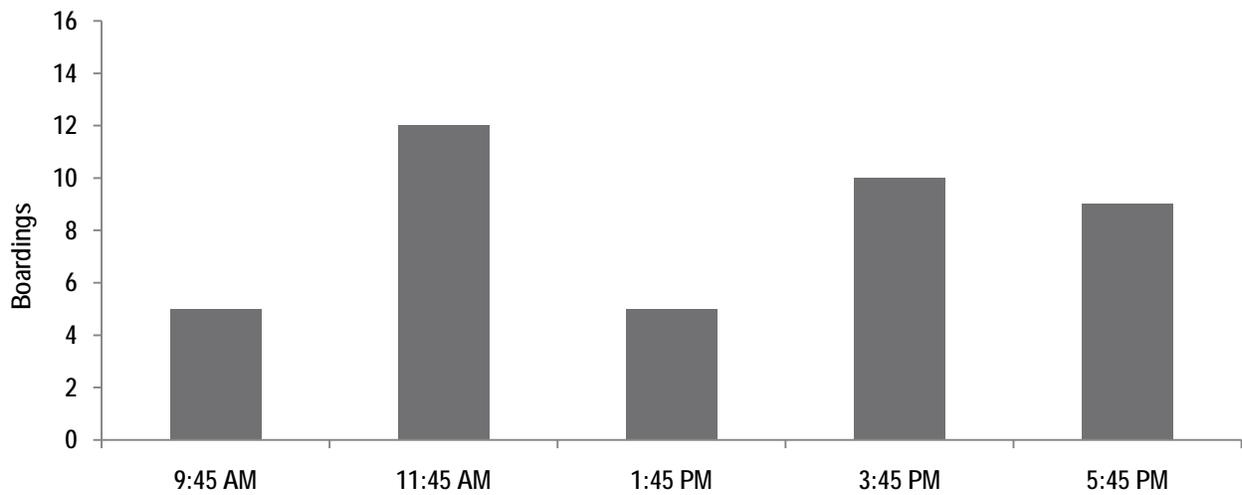


Figure 3-222 UPL Route Sunday Ridership by Trip - To Poughkeepsie

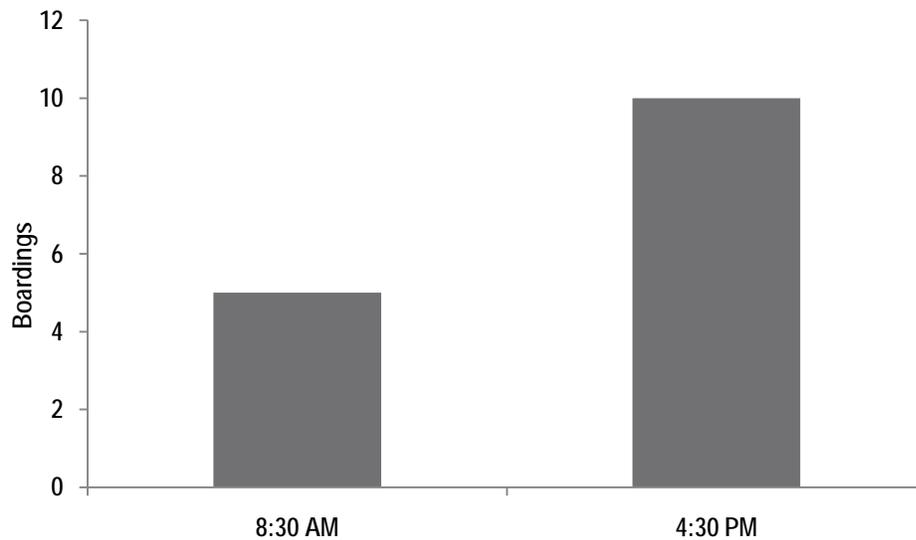
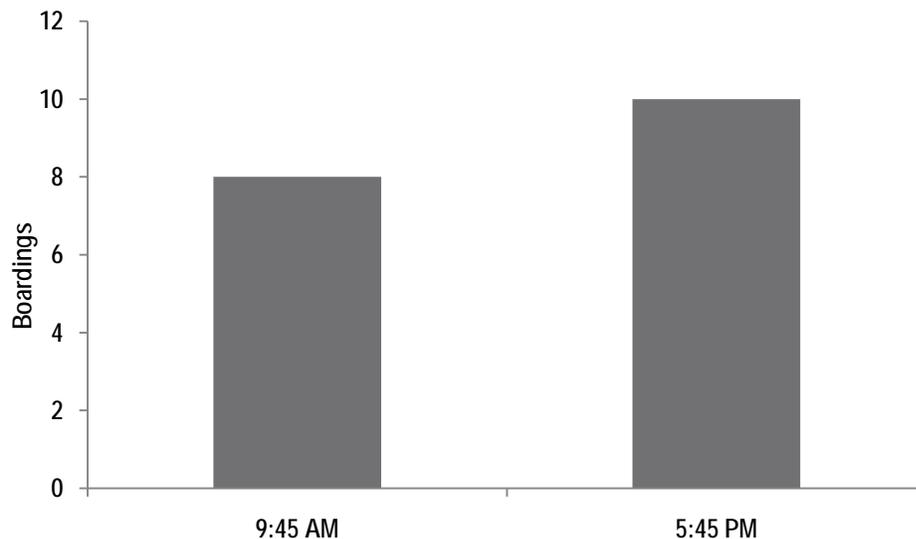


Figure 3-223 UPL Route Sunday Ridership by Trip - To Ulster County



Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

Ridership by Stop. The heaviest boarding and alighting activity on the UPL Route takes place in downtown Poughkeepsie, which is both a major destination and serves as a transit hub for Poughkeepsie City Bus. Other notable bus stop locations with relatively high ridership activity (more than 5 cumulative boardings and alightings per day) include the following:

- **Poughkeepsie Station.** This location allows passengers to transfer to and from Metro-North Railroad commuter trains serving New York City.
- **US 9W at NY 299, in Highland.** This location serves the Highland Park & Ride

- **Manheim at Southside Loop, in New Paltz.** This location serves SUNY New Paltz.
- **Main at Prospect, in New Paltz.** This location serves the New Paltz Trailways Bus Station.
- **Chestnut at Mulberry, in New Paltz.** This location serves the New Paltz Park & Ride.
- **US 32 at Madeline, in Rosendale.** This location serves the Rosendale Park & Ride.

Figure 3-224 UPL Route Weekday Ridership by Stop Map

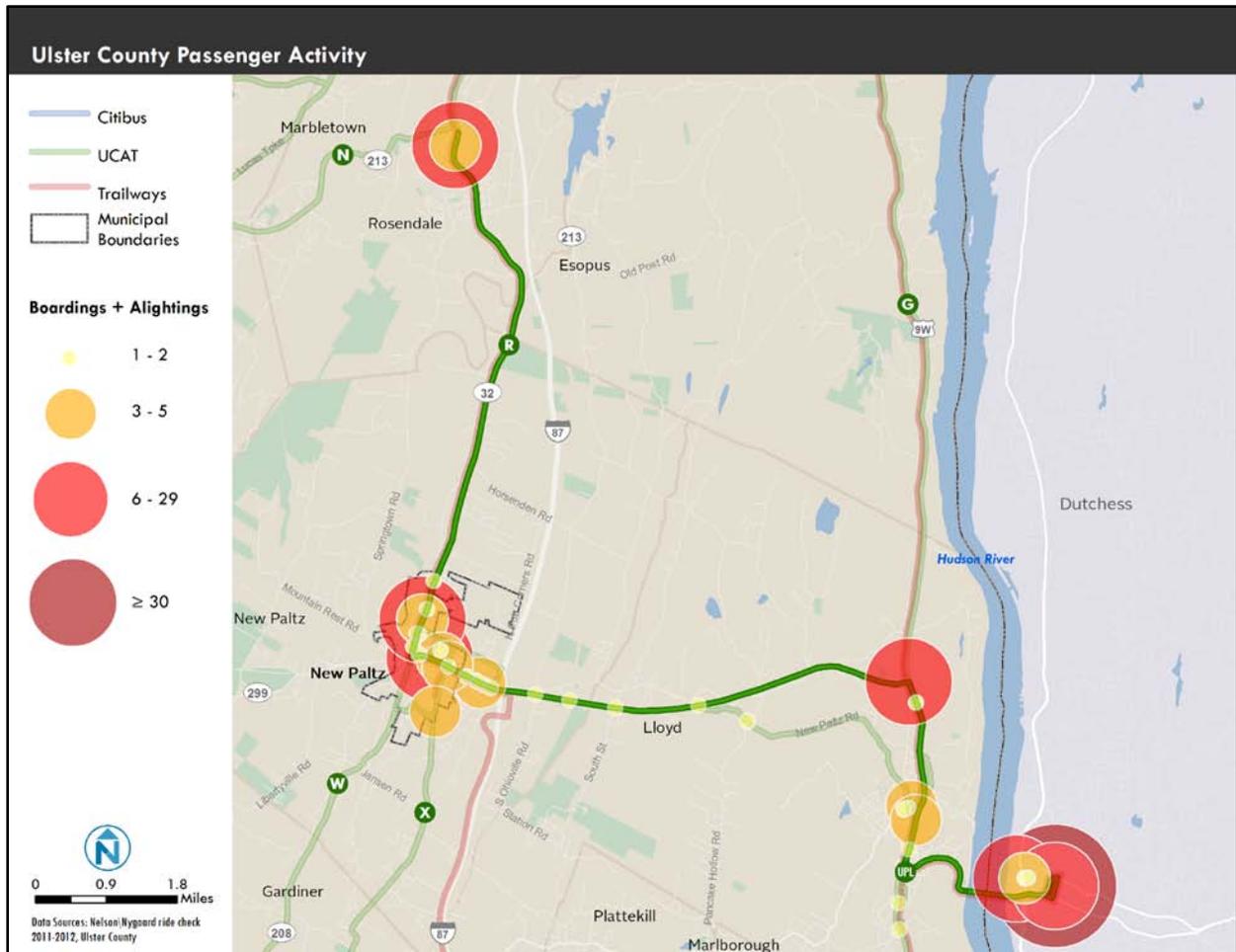


Figure 3-225 UPL Route Saturday Ridership by Stop Map

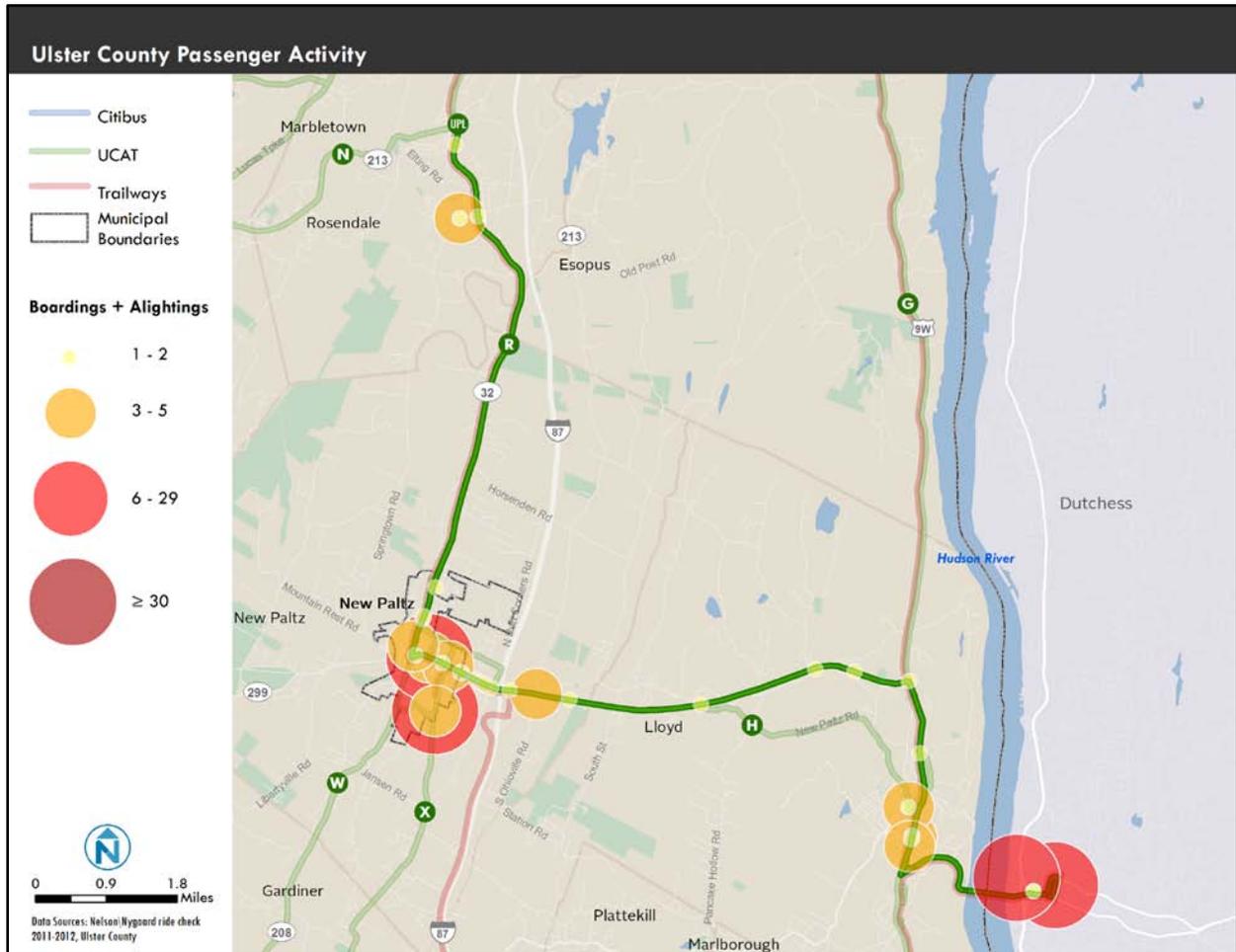
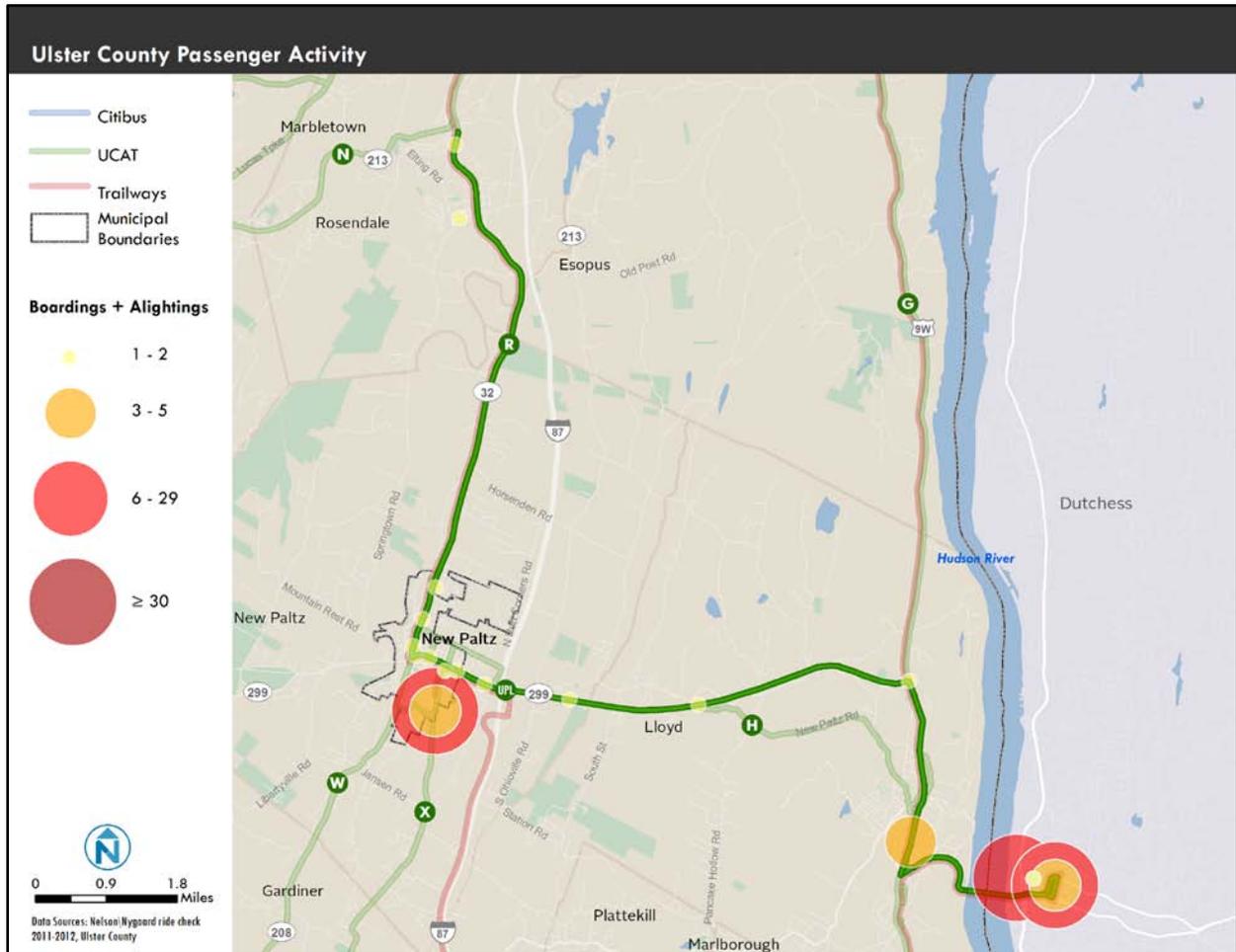


Figure 3-226 UPL Route Sunday Ridership by Stop Map



Source: Nelson\Nygaard ride check 2011-2012, Ulster County

Service Productivity. The UPL Route attracts 7.6 passenger boardings per revenue hour on weekdays; this is about 30% less than the UCAT and county average. With low ridership per trip and per revenue hour on weekdays, the UPL route may benefit from altering the number of trips offered or schedule changes. On Saturdays, the UPL route has 11.6 passenger boardings per revenue hour, which is above the county average but below the UCAT average.

Figure 3-227 UPL Route Service Productivity Measures

Performance Measure	Weekday			Saturday			Sunday		
	UPL Route	UCAT Avg	County Avg	UPL Route	UCAT Avg	County Avg	UPL Route	UCAT Avg	County Avg
Passengers per Revenue Vehicle Hour	7.6	9.9	9.8	11.6	12.9	10.7	11.0	4.3	4.3

Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

Figure 3-228 UPL Route Weekday Passengers per Revenue Hour

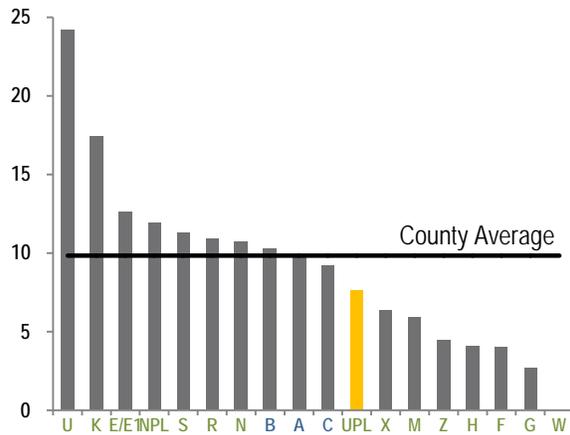
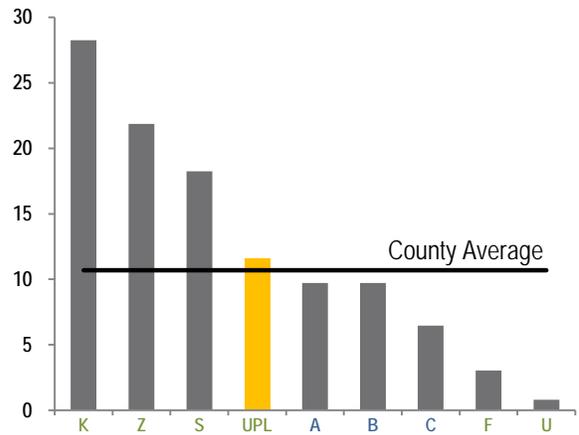


Figure 3-229 UPL Route Saturday Passengers per Revenue Hour



Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

On-time Performance. During the survey period, 87% of UPL weekday trips, 80% of Saturday trips, and 75% of Sunday trips were observed to be on time. This is significantly better than the combined average for UCAT and Citibus on each of these service days.

Figure 3-230 UPL Route On-time Performance Measures

Performance Measure	Weekday			Saturday			Sunday		
	UPL Route	UCAT Avg	County Avg	UPL Route	UCAT Avg	County Avg	UPL Route	UCAT Avg	County Avg
On-time Performance (%)	87	68	68	80	58	69	75	75	75

Source: Nelson\Nygaard ride check 2011-2012

Strengths

- Provides important regional connections to Poughkeepsie / Dutchess County and the Metro-North Railroad with service to New York City.
- 3rd highest weekday ridership and highest weekend ridership of all UCAT and Citibus routes.
- Joint fare and marketing efforts with Metro-North Railroad for passenger convenience.

Weaknesses

- Very irregular schedule with multiple variants can be confusing for passengers.

Potential Improvements

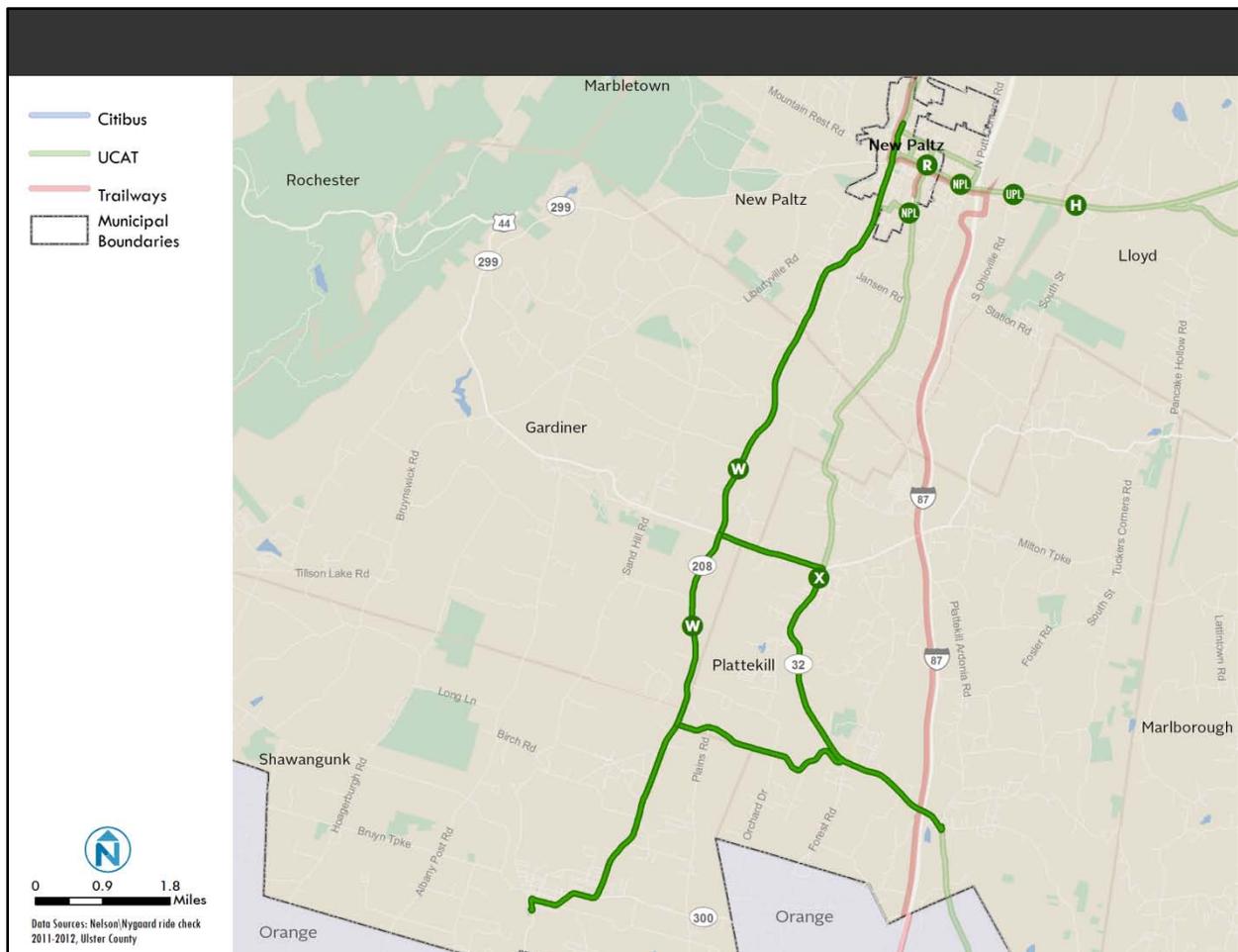
- **Simplify passenger schedule.** The UPL passenger schedule has multiple variants, with almost no two trips alike in their routing. As a general rule, transit services attract more passengers if they are simple and consistent, and this is especially true for a high-profile regional commuter routes. These types of routes should avoid deviating from their path of travel to serve local destinations like Wingate and Bridgeview Plaza. Instead, connecting services can shuttle passengers to and from designated UPL stops to local destinations.

UCAT W ROUTE – NEW PALTZ/WALLKILL/ PLATTEKILL

Service Design. The UCAT W Route is a limited service regional route linking New Paltz with Wallkill and Plattekill via NY 208 and NY 32. The route operates year-round, five days a week. Major destinations served by the W Route include:

- New Paltz Park & Ride
- SUNY New Paltz
- Hamlet of Modena
- Hamlet of Plattekill
- Hamlet of Wallkill

Figure 3-231 W Route Map



Transfer Opportunities. The W Route provides passengers with several transfer opportunities in New Paltz. The H Route, X Route, NPL and UPL all operate along Main Street, while the R Route serves Chestnut. Transfers between the W Route and these other routes can be made along these two streets. Trailways service is available at the New Paltz Trailways Bus Station on Main Street.

Alignment/Service Patterns. Starting at the New Paltz Park & Ride, Route W travels south along US 208. In the morning, the route serves Walkill, then Plattekill and Modena before returning to New Paltz. In the evening, Modena is served first, then Plattekill and Walkill are served before the bus returns to New Paltz.

Service Schedule. The W Route has one trip in each direction in the morning and afternoon. In the Plattekill-bound direction, trips depart from the New Paltz Park & Ride at 6:45 AM and 5:45 PM. In the New Paltz-bound direction, trips depart from Plattekill at 7:30 AM and 6:20 PM.

Figure 3-232 W Route Schedule Statistics

Service Day	Span of Service	Frequency (min) Peak / Off-Peak	Daily Trips (N/P)
Weekday	6:45 AM – 6:40 PM	1 AM trip (each direction) 1 PM trip (each direction)	2/2
Saturday	No service	-	-

Source: published UCAT schedules

Note: "N" = To New Paltz, "P" = To Plattekill

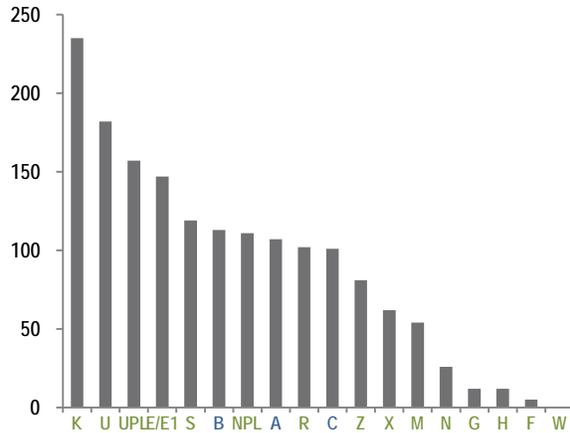
Ridership by Service Day. During the survey period, no ridership was observed on the W Route.

Figure 3-233 W Route Ridership Statistics

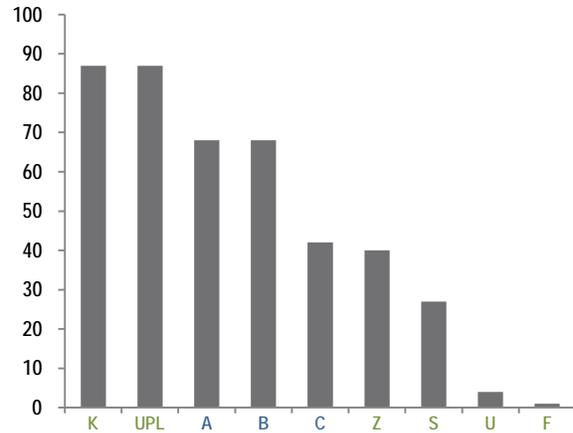
Service Day	Average Daily Ridership W Route	Average Daily Ridership per Trip		
		W Route	UCAT Avg	County Avg
Weekday	0	0.0	5.5	6.0
Saturday	-	-	7.2	7.8

Source: Nelson\Nygaard ride check 2011-2012

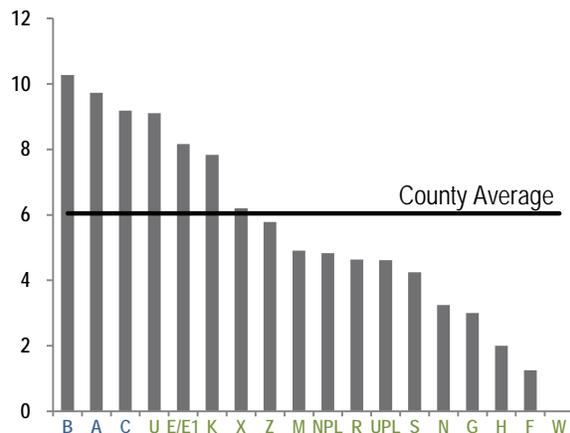
**Figure 3-234 W Route
Average Weekday Ridership**



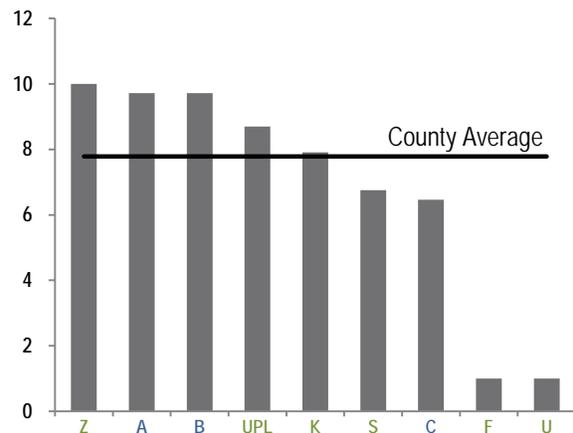
**Figure 3-235 W Route
Average Saturday Ridership**



**Figure 3-236 W Route
Average Weekday
Ridership per Trip**



**Figure 3-237 W Route
Average Saturday
Ridership per Trip**



Source: Nelson\Nygaard ride check 2011-2012

Ridership by Trip. During the survey period, no ridership was observed on the W Route.

Ridership by Stop. During the survey period, no ridership was observed on the W Route.

Service Productivity. During the survey period, no ridership was observed on the W Route.

Figure 3-238 W Route Service Productivity Measures

Performance Measure	Weekday			Saturday		
	W Route	UCAT Avg	County Avg	W Route	UCAT Avg	County Avg
Passengers per Revenue Vehicle Hour	0.0	9.9	9.8	-	12.9	10.7

Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

Figure 3-239 W Route Weekday Passengers per Revenue Hour

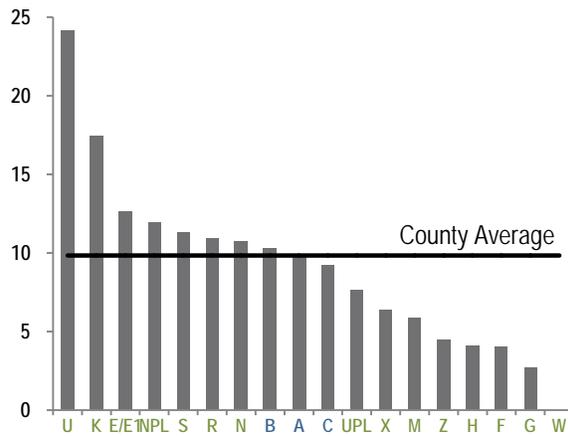
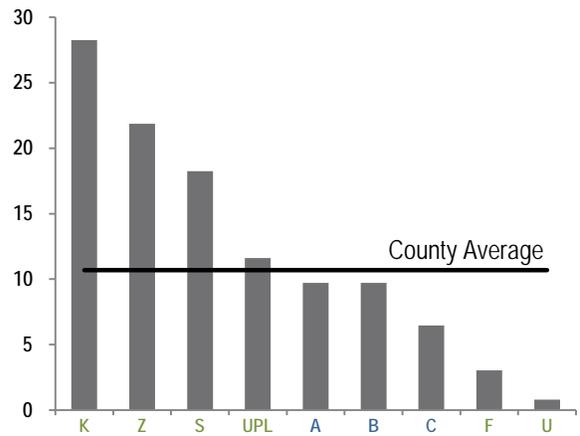


Figure 3-240 W Route Saturday Passengers per Revenue Hour



Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

On-time Performance. As on-time performance was calculated by comparing boarding and alighting times at certain time-points with scheduled arrival times at those time points, the lack of ridership activity prevented this calculation.

Figure 3-241 W Route On-time Performance Measures

Performance Measure	Weekday			Saturday		
	W Route	UCAT Avg	County Avg	W Route	UCAT Avg	County Avg
On-time Performance (%)	0	68	68	-	58	69

Source: Nelson\Nygaard ride check 2011-2012

Strengths

- Provides service to several dispersed communities south of New Paltz.

Weaknesses

- Circuitous routing.
- Apparently very low ridership.

Potential Improvements

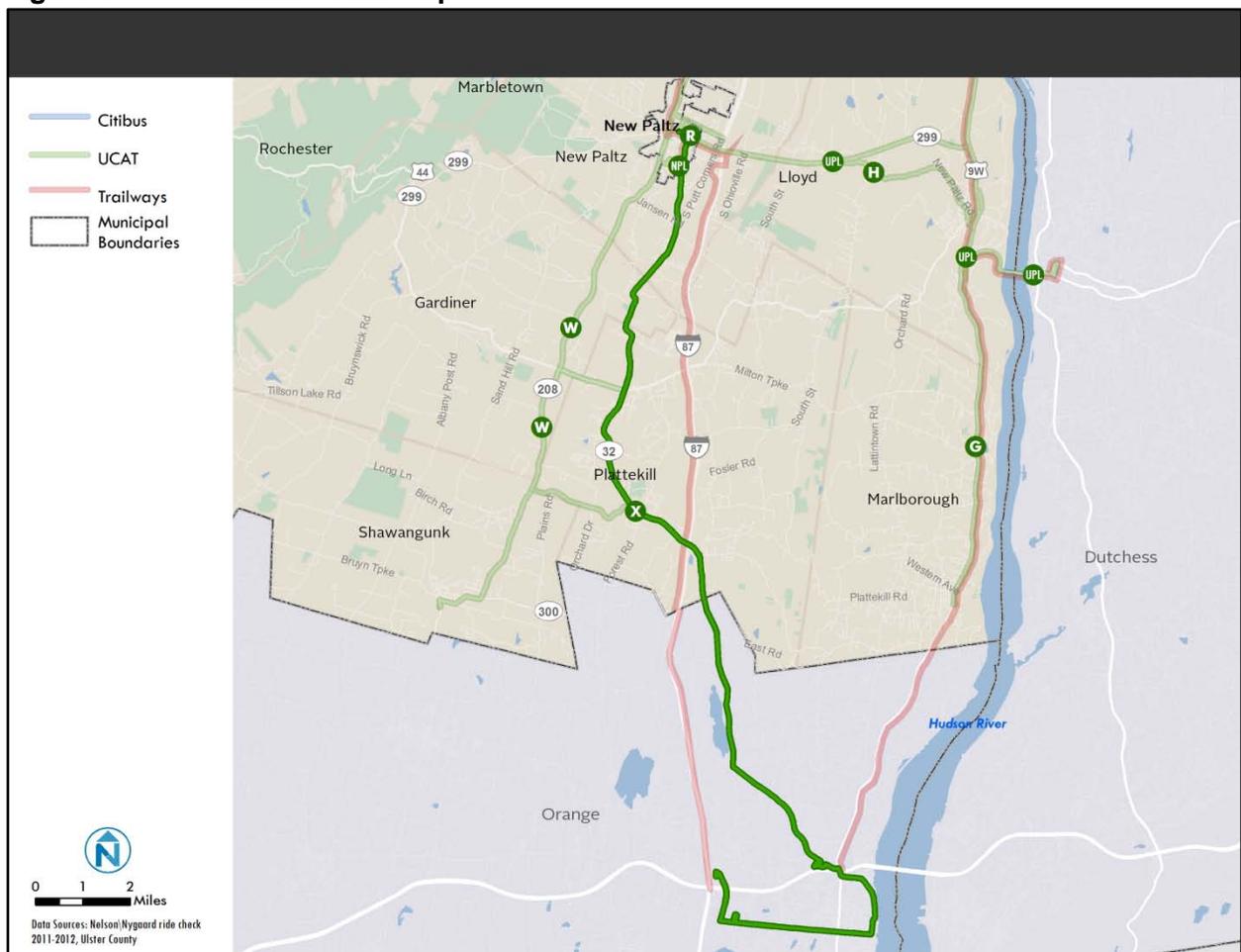
- **Replace fixed-route service with anchored “flex” service.** The Ulster County hamlets south of New Paltz and Highland are too widely dispersed to serve effectively with fixed-route transit. However, they do generate ridership on rural route service and the G Route. Instead of fixed-route service, these communities could be served by anchored “flex” service. Anchored flex service is a service that includes two or more main anchors (for example: Marlboro, Highland, and Walkill) that are served at designated times. However, the path between the points is not defined, allowing for on-request service between scheduled time points. This allows for predictable connections between major destinations and flexibility in areas of dispersed ridership. Passengers picked up outside the scheduled time points could make connections to fixed-route service at the designated time points or anywhere else a transfer opportunity exists. Anchored flex service would not necessitate ADA complementary paratransit service, which is required for fixed-route service.

UCAT X ROUTE – NEW PALTZ/NEWBURGH

Service Design. The UCAT X Route is a limited service regional route linking New Paltz with Newburgh in Orange County primarily via NY 32. The route operates year-round, five days a week. Major destinations served by the X Route include:

- New Paltz Trailways Bus Station
- SUNY New Paltz
- Hamlet of Modena
- Hamlet of Plattekill
- Newburgh Justice Center
- Newburgh ShopRite
- Mid-Valley Mall
- Newburgh Waterfront
- SUNY Orange
- Orange-Ulster BOCES
- Newburgh Target
- Newburgh Shortline Bus Terminal
- Newburgh Mall

Figure 3-242 X Route Route Map



Transfer Opportunities. The X Route provides passengers with several transfer opportunities to other UCAT routes as well as Trailways and Shortline services. In New Paltz, The H Route, W Route, NPL and UPL all operate along Main Street, while the R Route serves Chestnut Street. Transfers between the X Route and these other routes can be made along these two streets. Some transfer times are well-coordinated through interlines, but others are more random and result in long waits for passengers. The high frequency of UPL and NPL service makes timed transfers less critical, as wait times tend to be relatively short. Trailways service is available at the New Paltz Trailways Bus Station on Main Street.

The X Route shares its routing with the W Route between Plattekill and Modena, but the schedules are off-set, providing more frequency in the corridor than transfer opportunities.

In Newburgh, passengers can connect to local bus service provided by the Newburgh Beacon Bus Corporation at Mid-Valley Mall, along Broadway, or at Newburgh Mall. Shortline inter-city bus service is available at the Shortline Bus Terminal along NY 17K in Newburgh.

Alignment/Service Patterns. The X Route follows a single consistent routing throughout its service day. From Main Street in New Paltz, the route travels south along NY 32 toward Newburgh in Orange County. Just north of Newburgh, buses deviate off of NY 32 to circulate through the parking lots of ShopRite and Mid-Valley Mall before continuing south to Waterfront in Newburgh. From the Waterfront, Route X runs west along Broadway / NY 17k, serving the Shortline Bus Terminal, before finally heading north on NY 300 / Union Avenue, and terminating at Newburgh Mall. Buses return to New Paltz along the same routing, but in reverse.

Service Schedule. The X Route has two AM and three PM trips in each direction during the week. There is no weekend service on the X Route. The first trips to Newburgh and to New Paltz are at 5:25 AM and 6:25 AM, respectively. The last trips of the day are at 6:30 PM to Newburgh and 7:30 PM to New Paltz. There is roughly two hours between the two morning trips and two to three hours between the three afternoon trips.

Figure 3-243 X Route Schedule Statistics

Service Day	Span of Service	Frequency (min) Peak / Off-Peak	Daily Trips (N/NB)
Weekday	5:25 AM – 8:30 PM	2 AM trips (in each direction) 3 PM trips (in each direction)	5/5
Saturday	No service	-	-

Source: published UCAT schedules

Note: "N" = To New Paltz, "NB" = To Newburgh

Ridership by Service Day. On an average weekday, the X Route attracts a total of 62 passenger boardings, which is low compared to other UCAT routes. However, at 6.2 passengers per trip, the X Route is well above the UCAT average and slightly higher than the county average (Figure 3-244). This indicates that there are an efficient number of trips offered for the existing riders.

Figure 3-244 X Route Ridership Statistics

Service Day	Average Daily Ridership	Average Daily Ridership per Trip	
	X Route	X Route	UCAT Avg
Weekday	62	6.2	5.5
Saturday	-	-	7.2
			County Avg
			6.0
			7.8

Source: Nelson\Nygaard ride check 2011-2012

Figure 3-245 X Route Average Weekday Ridership

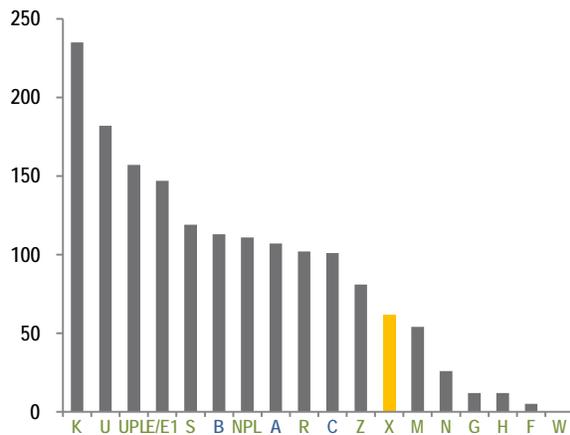


Figure 3-246 X Route Average Saturday Ridership

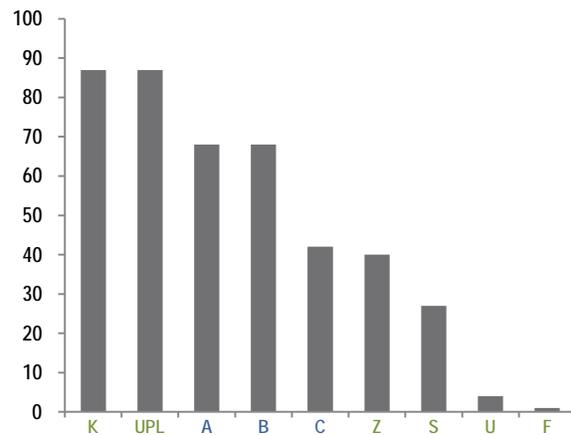


Figure 3-247 X Route Average Weekday Ridership per Trip

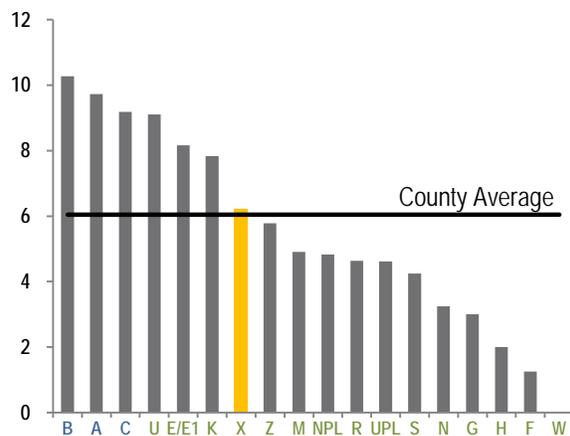
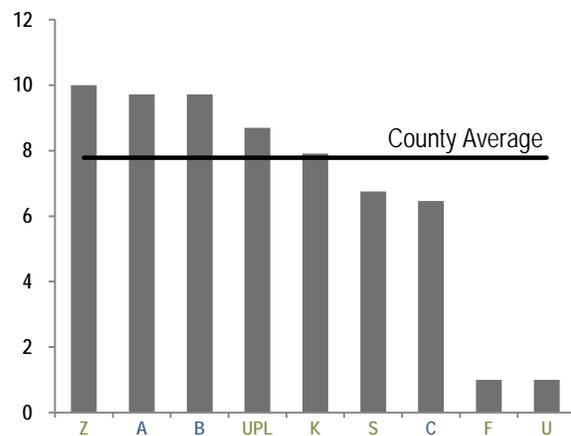


Figure 3-248 X Route Average Saturday Ridership per Trip



Source: Nelson\Nygaard ride check 2011-2012

Ridership by Trip. All trips on the X Route show 10 riders or less, with morning ridership consistently six riders or less. As a result, ridership overall in both directions is strongest in the mid-afternoon and evening hours. Ridership is lowest during mid-day (Figures 3-249 and 3-250).

Figure 3-249 X Route Weekday Ridership by Trip - To New Paltz

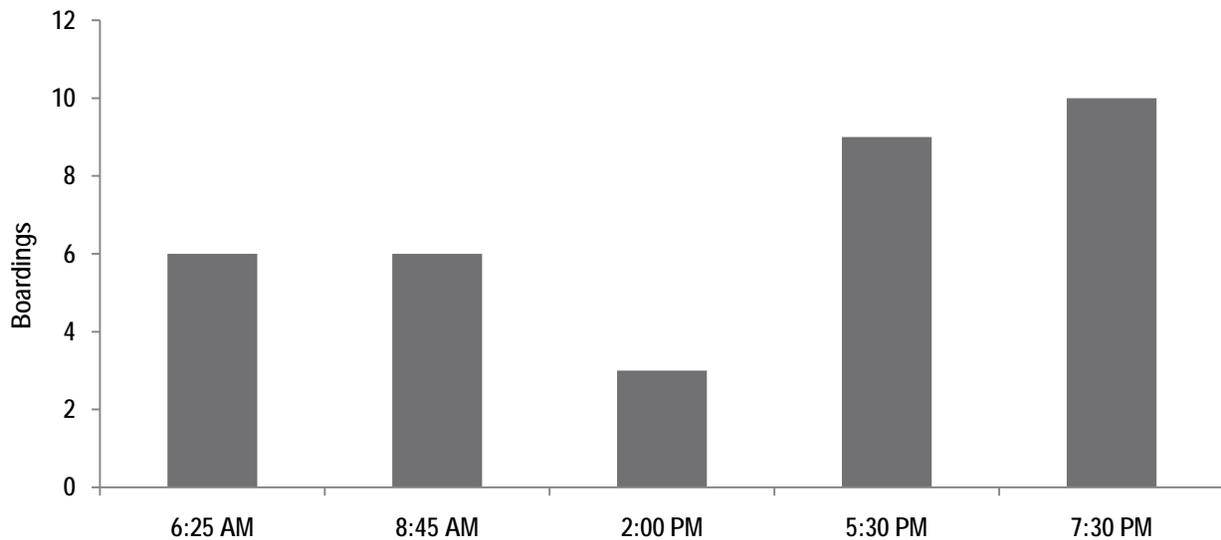
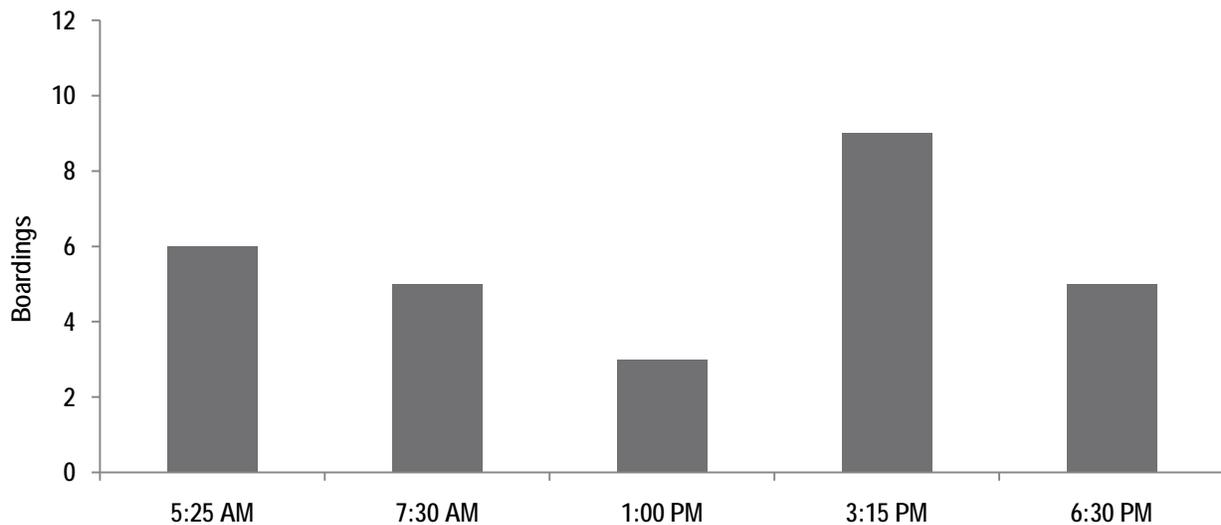


Figure 3-250 X Route Weekday Ridership by Trip - To Newburgh



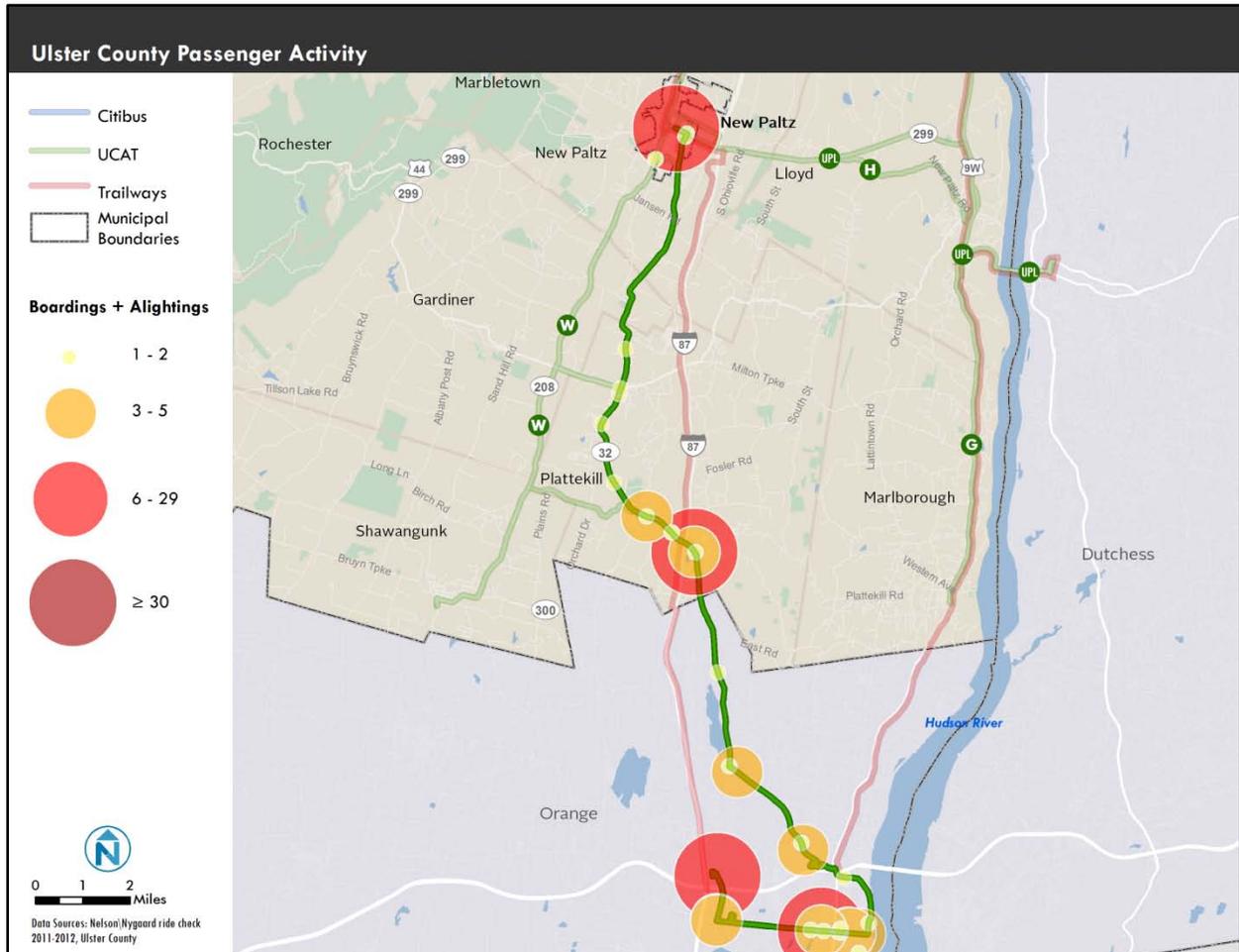
Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

Ridership by Stop. The heaviest boarding and alighting activity on the X Route takes place in New Paltz near the Trailways Bus Station. This location serves as transit hub for Trailways and several UCAT routes. Other notable bus stop locations with relatively high ridership activity (more than 5 cumulative boardings and alightings per day) include the following:

- **US 32 at Old Firehouse Road, in Plattekill.** This location serves a branch of Ulster Community Action.

- **Broadway at Fullerton, in Newburgh.** This location serves the Orange-Ulster BOCES.
- **Newburgh Mall**

Figure 3-251 X Route Weekday Ridership by Stop Map



Source: Nelson\Nygaard ride check 2011-2012, Ulster County

Service Productivity. The X Route attracts 6.3 passenger boardings per revenue hour on weekdays; this is about 36% less than the UCAT and county average (Figure 3-252). This is among the lowest of all UCAT routes.

Figure 3-252 X Route Service Productivity Measures

Performance Measure	Weekday			Saturday		
	X Route	UCAT Avg	County Avg	X Route	UCAT Avg	County Avg
Passengers per Revenue Vehicle Hour	6.3	9.9	9.8	-	12.9	10.7

Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

Figure 3-253 X Route Weekday Passengers per Revenue Hour

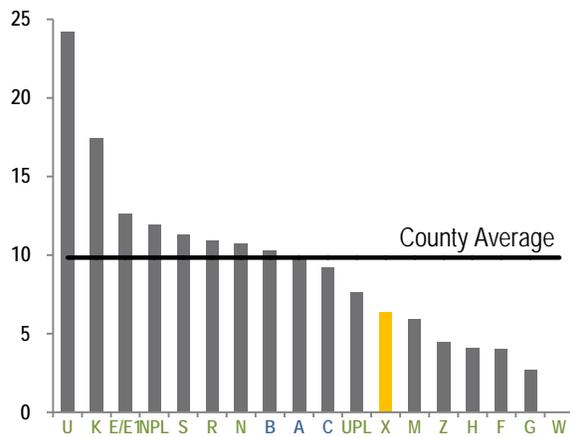
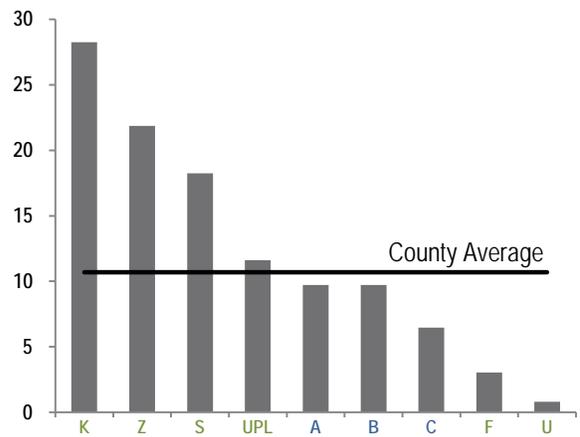


Figure 3-254 X Route Saturday Passengers per Revenue Hour



Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

On-time Performance. During the survey period, 44% of X Route trips were observed to be on-time, which is significantly lower than both the UCAT and county averages.

Figure 3-255 X Route On-time Performance Measures

Performance Measure	Weekday			Saturday		
	X Route	UCAT Avg	County Avg	X Route	UCAT Avg	County Avg
On-time Performance (%)	44	68	68	-	58	69

Source: Nelson\Nygaard ride check 2011-2012

Strengths

- Provides important regional connections to Newburgh / Orange County.
- Direct route with clean schedule and three strong anchors (New Paltz, Plattekill, Newburgh).
- Above average ridership per trip.

Weaknesses

- Poor on-time performance.
- Below average ridership per revenue hour.

Potential Improvements

- **Interline or consolidate X and E Route.** Inter-lining the E Route with the X Route could provide a bridge between the US 209 corridor and the NY 32 corridor, and allow for the elimination of both the N and R Route. The two routes provide relatively

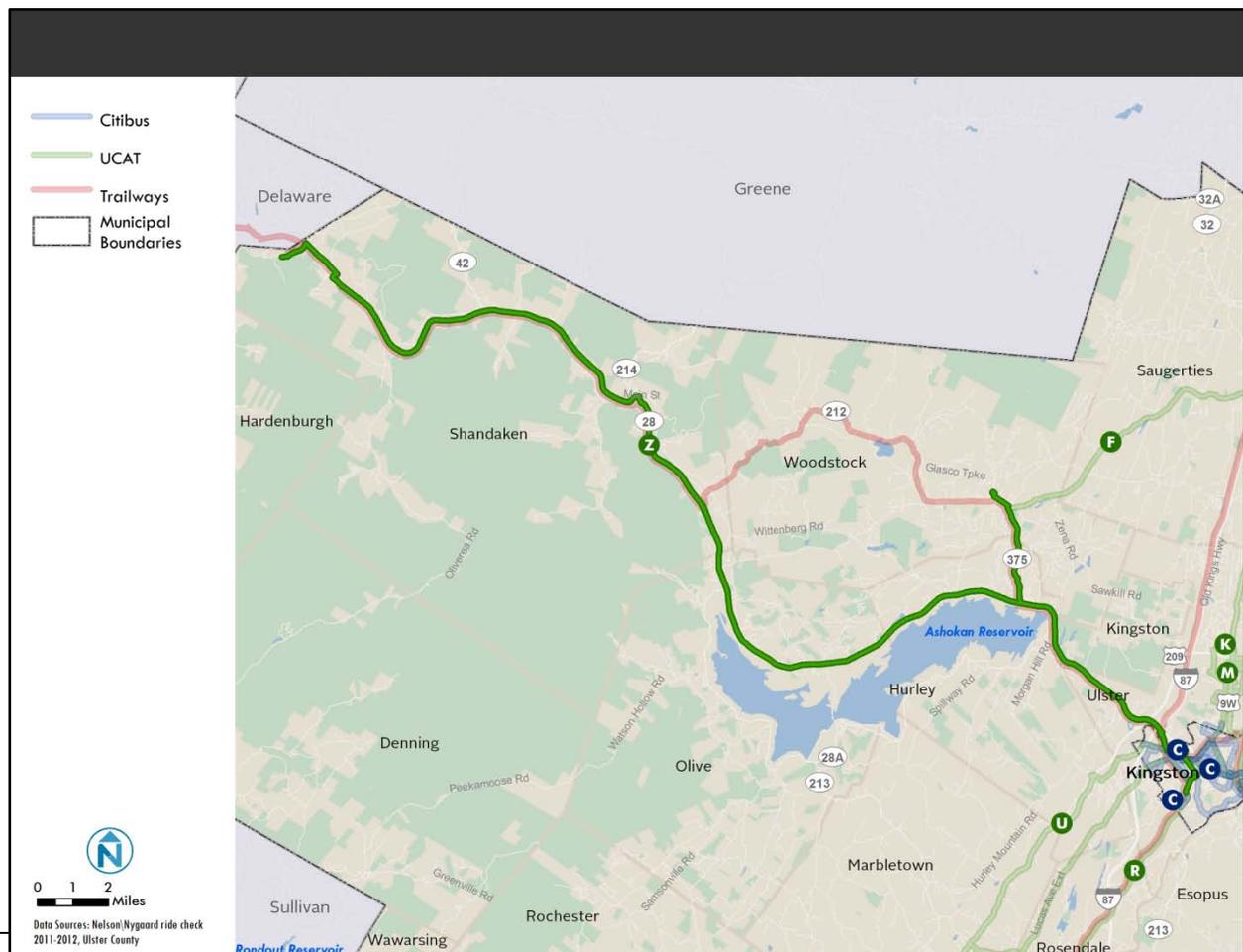
comparable levels of service, making them a good match for inter-lining. For the sake of simplicity, a single route name can be assigned to the consolidated service – perhaps X to signify the cross-corridor and cross-county connections the route would provide.

UCAT Z ROUTE – KINGSTON/WOODSTOCK/ PINE HILL/BELLEAYRE

Service Design. The UCAT Z Route is a regional route linking Kingston, West Hurley, Boiceville, Phoenicia, and Pine Hill, primarily via NY 28. A spur from the route along NY 375 serves Woodstock as well. The route operates Monday through Saturday year-round, and on Sundays during ski season (November 15 to April 15). Major destinations served by the E Route include:

- Hannaford / Kingston Plaza
- Kingston Trailways Bus Station
- Hamlet of West Hurley
- Woodstock Trailways Bus Station (Houst & Son Hardware)
- Hamlet of Boiceville
- Hamlet of Mt. Tremper
- Phoenicia Trailways Bus Station (Morne Imports)
- Hamlet of Shandaken
- Hamlet of Big Indian
- Hamlet of Pine Hill
- Belleayre Mountain Ski Resort (No November 15 to April 15)

Figure 3-256 Z Route Map



Transfer Opportunities. The Z Route provides passengers with transfer opportunities to other UCAT routes in Kingston and Woodstock, and to Citibus routes in Kingston. The following transfers are available at Kingston Plaza:

- Citibus A Route
- Citibus B Route
- Citibus C Route
- UCAT G Route
- UCAT K Route
- UCAT R Route
- UCAT U Route

Although these routes all converge at Kingston Plaza, their schedules do not “pulse,” meaning that passengers must often wait long periods of time to transfer from one route to another.

Trailways service is available in Kingston at the Trailways Bus Station at Washington and Front Street and at on-street Trailways stops in Woodstock and Phoenicia.

In Woodstock, passengers can also transfer between the Z Route and the UCAT F Route, although some waiting times are quite long.

Alignment/Service Patterns. On weekdays, the Z Route follows a single consistent routing between Kingston Plaza and Pine Hill. From Kingston Plaza, the route heads west on Schwenk Drive and north on Washington Ave to NY 28. Buses continue west on NY 28 to West Hurley, and then north on NY 375 to serve Woodstock, turning around at the Woodstock Municipal Parking Lot. From Woodstock, the route returns to West Hurley, and then heads west along NY 28 to Phoenicia where it deviates off of NY 28 to serve Bridge Street and Main Street before returning to NY 28 and continuing west to Pine Hill. During ski season select trips continue on to Belleayre ski resort. Return trips to Kingston use the same routing but in reverse. Buses going into or out of service also serve Golden Hill Drive in Kingston.

Saturday service is limited to two trips in each direction. In the morning, one westbound trip operates between Kingston and Pine Hill, but does not serve Woodstock, while the morning eastbound trip operates between Pine Hill and Woodstock only. Evening Saturday trips make all stops and also serve the Kingston Mall Area. During ski season, Belleayre Mountain is served on-request on Saturdays. Sunday service is the same as Saturday, but only operates during ski season.

Service Schedule. Between Kingston Plaza and Pine Hill, the Z Route's primary alignment, service operates from 5:05 AM to 8:00 PM on weekdays and 8:45 AM to 5:15 PM on weekends. The first trip to Belleayre and Kingston are at 5:05 AM and 6:15 AM on weekdays, respectively. Similarly, the last trip of the day begins at 5:30 PM to Belleayre and 6:45 PM to Kingston. Frequency varies throughout the day with service in the morning ranging from 75 to 90 minutes. There is a three hour and 15 minute gap between the last morning trip and first afternoon trip, but service in the afternoon leaves every two or three hours at 30 minutes past the hour. Saturday and Sunday (when in operation) service are the same with trips to Belleayre leaving Kingston Plaza at 8:45 AM and 2:15 PM, and trips to Kingston leaving Pine Hill at 10:00 AM and 4:05 PM.

Figure 3-257 Z Route Schedule Statistics

Service Day	Span of Service	Frequency (min) Peak / Off-Peak	Daily Trips (B/K)
Weekday	4:55 AM – 8:10 PM	Varies (65-210)	7/7
Saturday	8:35 AM – 5:30 PM	1 AM trip (in each direction) 1 PM trip (in each direction)	2/2
Sunday (Nov 15 – April 15)	8:35 AM – 5:30 PM	1 AM trip (in each direction) 1 PM trip (in each direction)	2/2

Source: published UCAT schedules

Note: "B" = To Belleayre, "K" = Kingston

Ridership by Service Day. The Z Route attracts 81 passenger boardings on an average weekday, or about 5.8 passengers per trip. Ridership overall is moderate to low, while the number of passengers per trip is close to the UCAT and county average (Figure 3-258).

On Saturdays, ridership drops to 40 passengers per day, which is still moderate to low among Saturday service. However, ridership per trip is 72% higher than on weekdays and is the highest among all Saturday service (Figure 3-260). During the survey period, the Z Route had no ridership on Sunday.

Figure 3-258 Z Route Ridership Statistics

Service Day	Average Daily Ridership		Average Daily Ridership per Trip	
	Z Route	Z Route	UCAT Avg	County Avg
Weekday	81	5.8	5.5	6.0
Saturday	40	10.0	7.2	7.8
Sunday	0	0.0	4.1	4.1

Source: Nelson\Nygaard ride check 2011-2012

Figure 3-259 Z Route Average Weekday Ridership

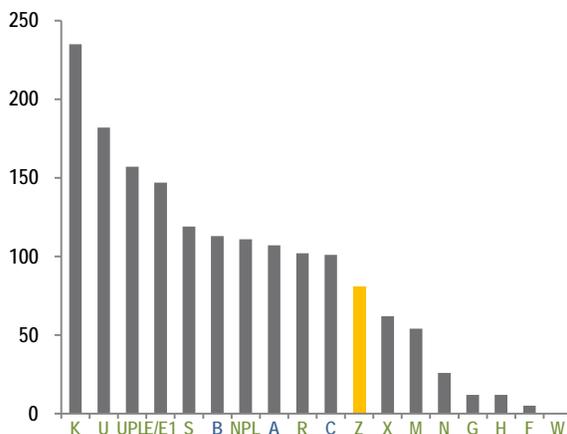
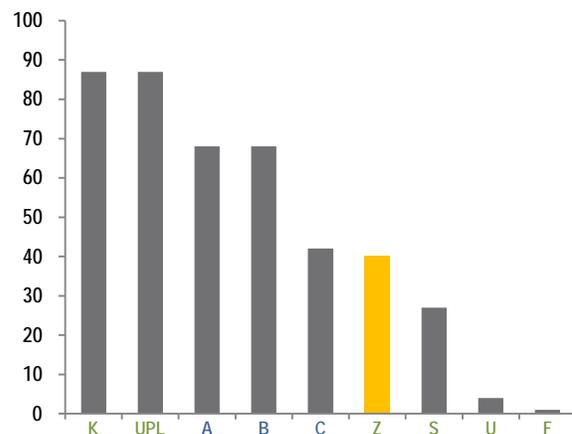
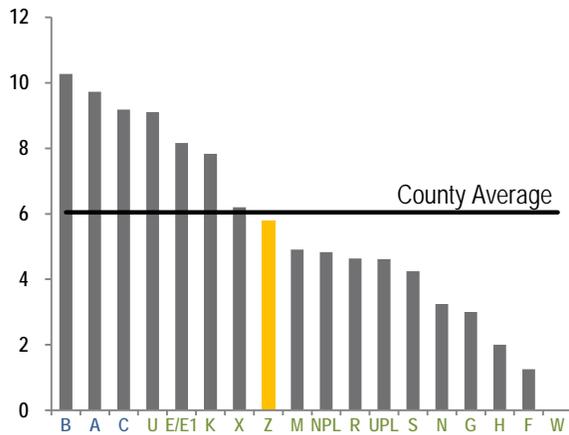


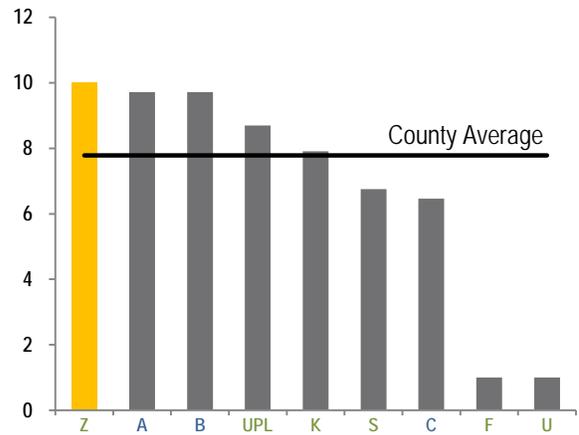
Figure 3-260 Z Route Average Saturday Ridership



**Figure 3-261 Z Route
Average Weekday
Ridership per Trip**



**Figure 3-262 Z Route
Average Saturday
Ridership per Trip**



Source: Nelson\Nygaard ride check 2011-2012

Ridership by Trip. The number of passengers on a trip on the Z Route during the week is typically 10 riders or less with just one peak of 14 passengers at 12:30 PM heading to Belleayre. For Belleayre-bound trips, ridership is low in the morning, with no riders at 4:55 AM on weekdays, and consistently grows throughout the day. Conversely, for Kingston-bound trips, ridership is strongest in the morning and decreases throughout the day; there were no riders on the 6:45 PM weekday trip during the survey period. This suggests that the hours of operation for the Z Route may not match well with demand, with service to Belleayre starting and ending too early and service to Kingston starting and ending too late. Saturday ridership data shows the opposite with strong ridership to Belleayre in the morning and Kingston in the evening, which may be due to increased recreational trips to the ski resort on weekends.

Figure 3-263 Z Route Weekday Ridership by Trip - To Belleayre

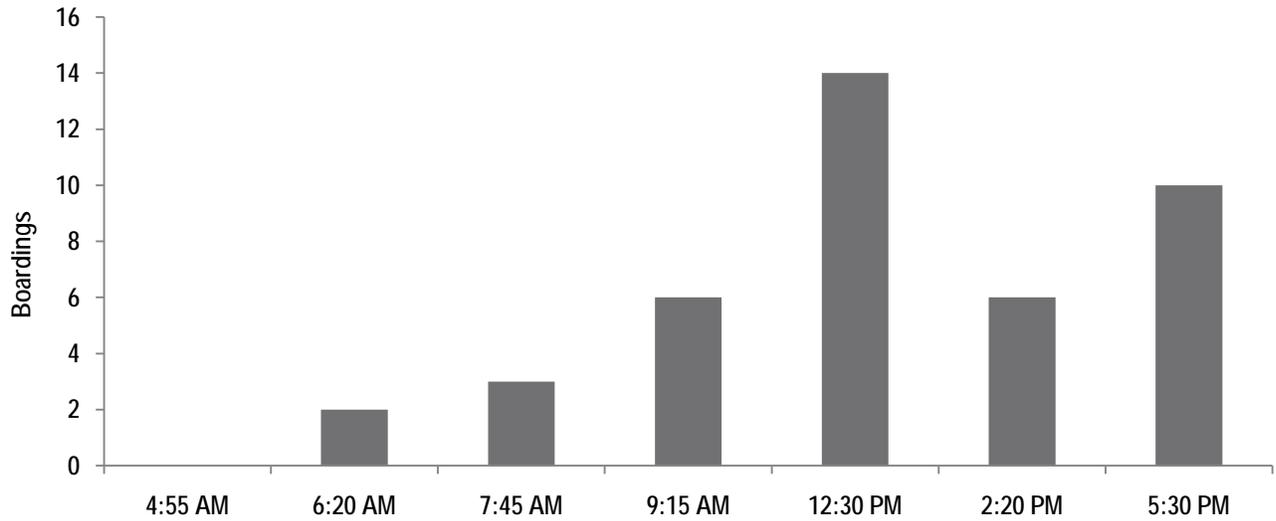


Figure 3-264 Z Route Weekday Ridership by Trip - To Kingston

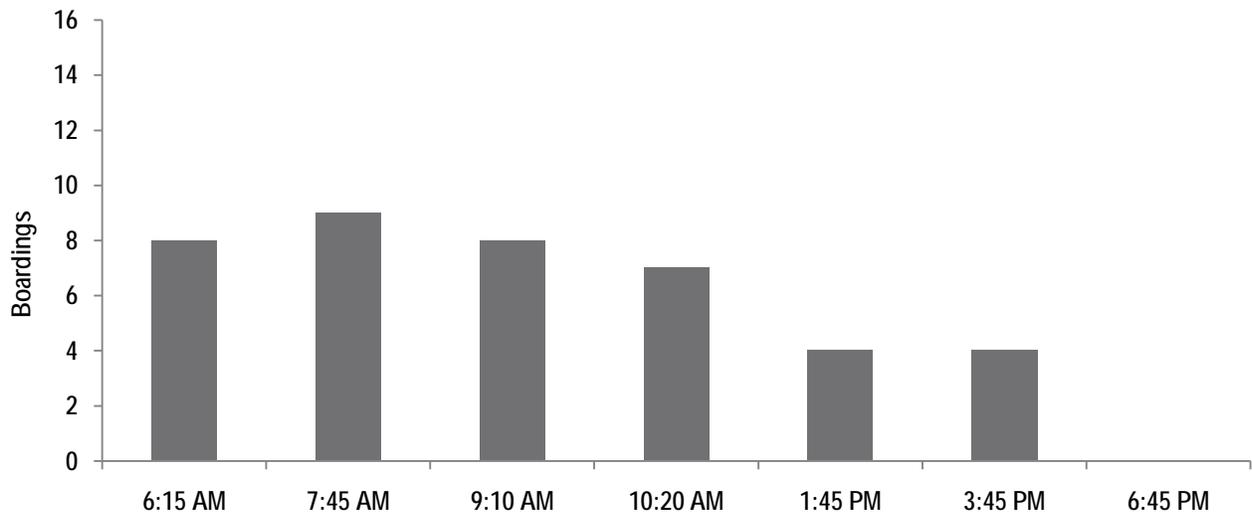


Figure 3-265 Z Route Saturday Ridership by Trip - To Belleayre

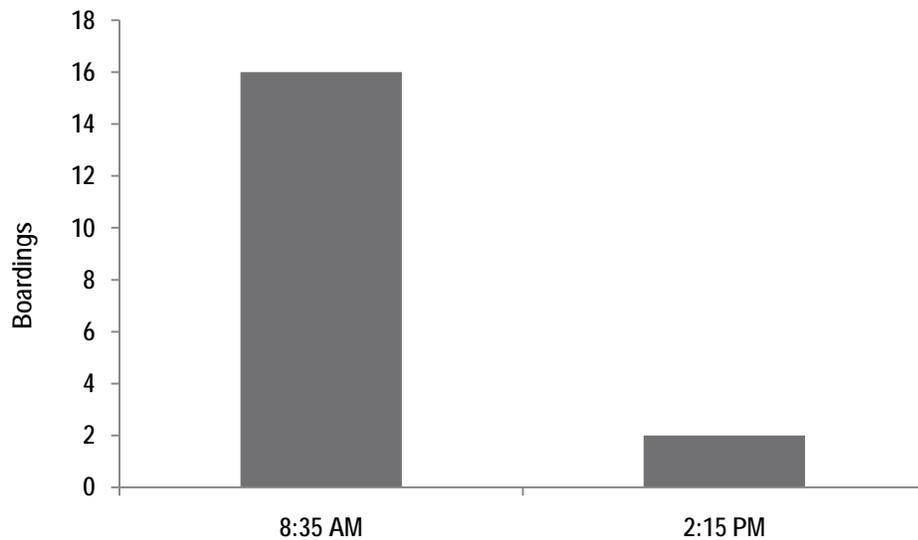
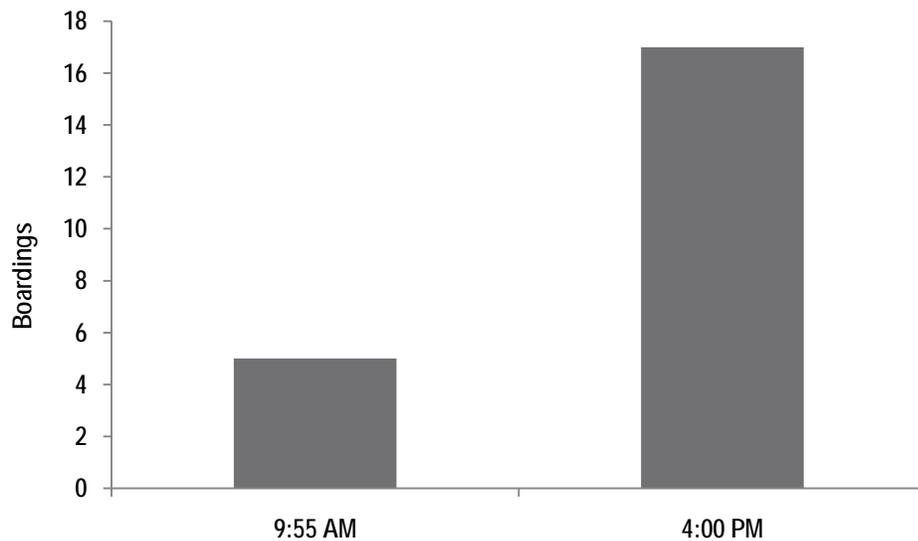


Figure 3-266 Z Route Saturday Ridership by Trip - To Kingston



Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

Ridership by Stop. The heaviest boarding and alighting activity on the Z Route takes place at Kingston Plaza which is both a major destination and serves as a transit hubs for several UCAT and Citibus routes. Other notable bus stop locations with relatively high ridership activity (more than 5 cumulative boardings and alightings per day) include the following:

- **NY 212 at Rock Hill Road, in Woodstock.** This location serves the main retail and commercial cluster in Woodstock and provides connections to Trailways service and Route F.
- **Belleayre Ski Resort**

Figure 3-267 Z Route Weekday Ridership by Stop Map

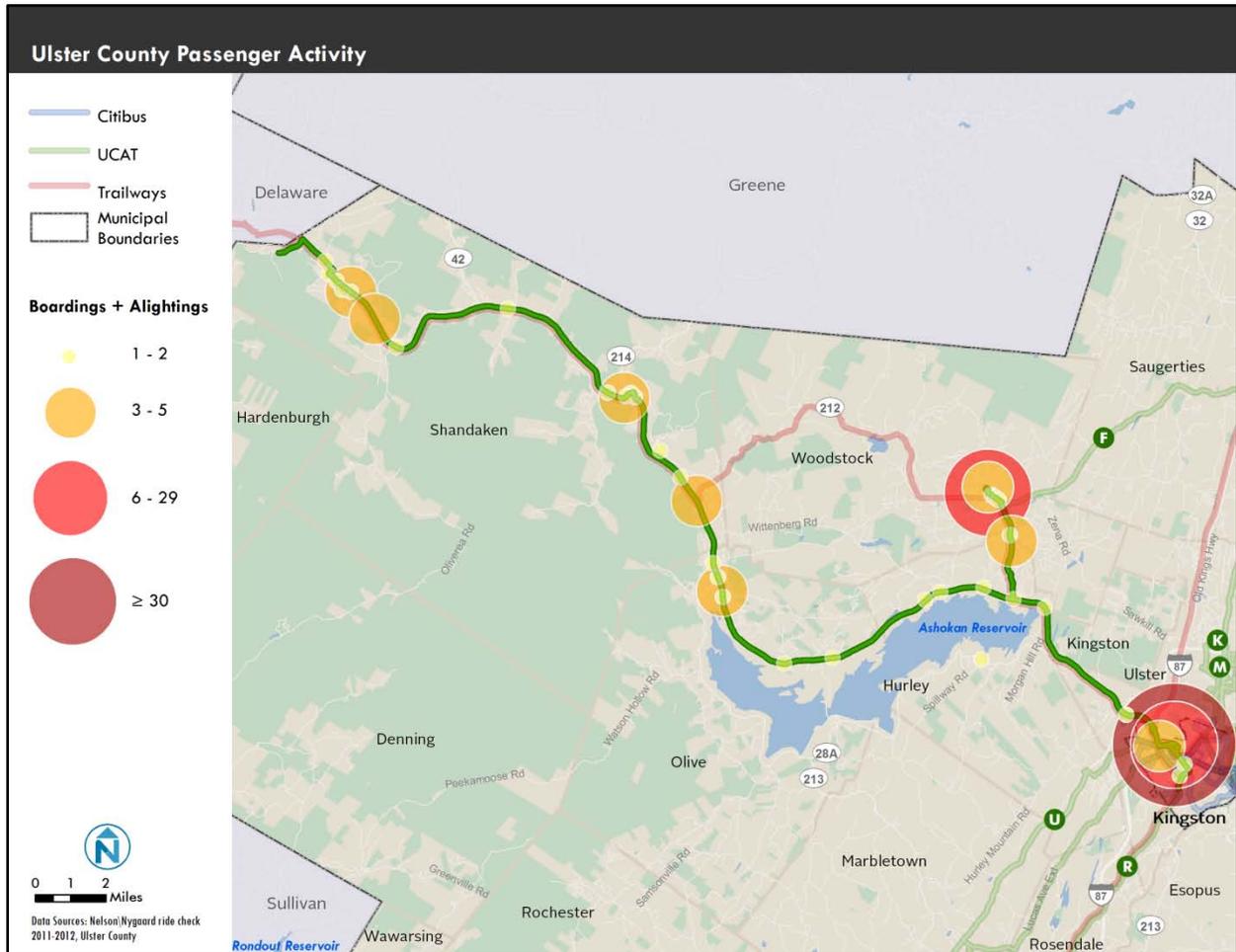
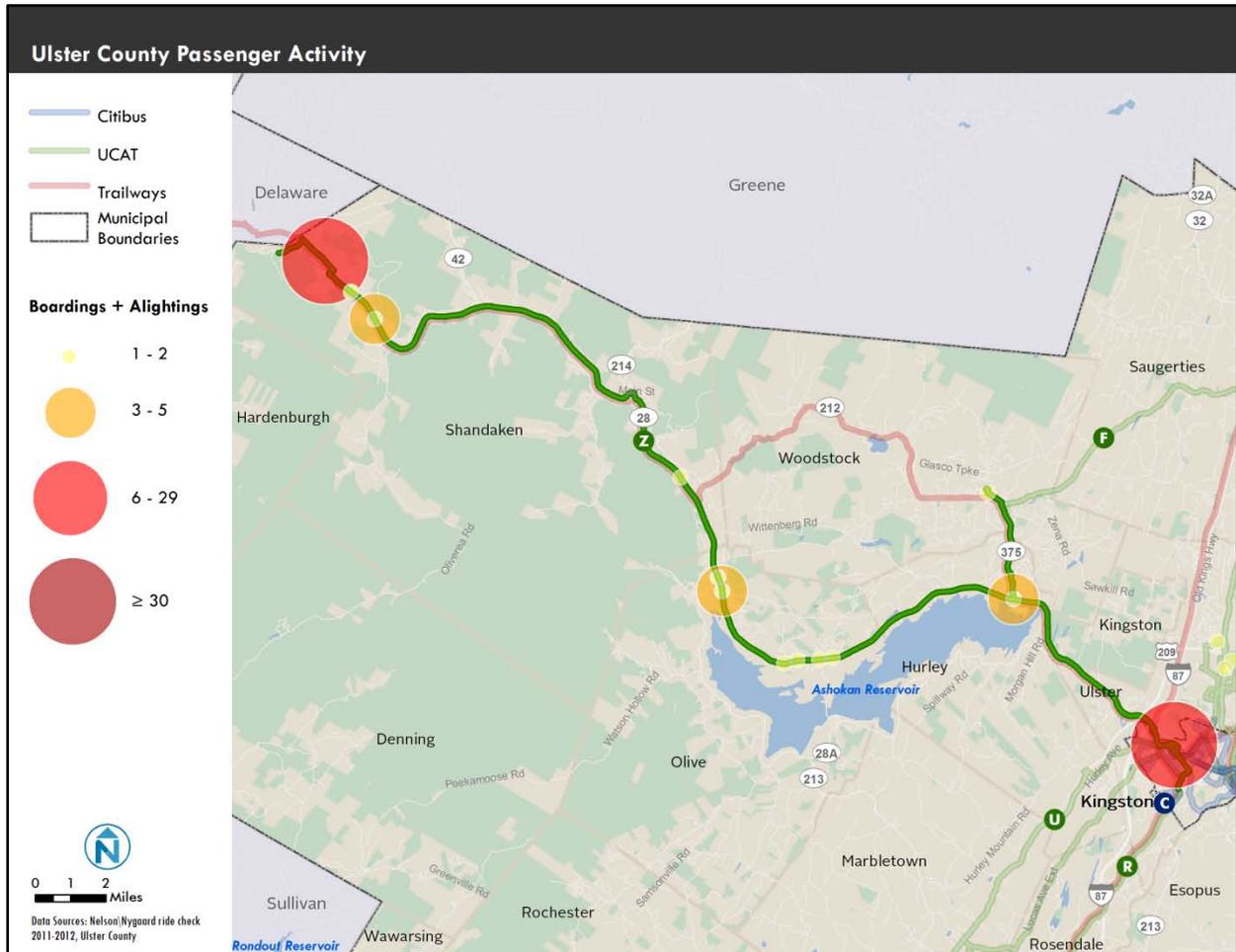


Figure 3-268 Z Route Saturday Ridership by Stop Map



Source: Nelson\Nygaard ride check 2011-2012, Ulster County

Service Productivity. The Z Route attracts 4.5 passenger boardings per revenue hour on weekdays, which is roughly 55% less than the UCAT and county average. Productivity improves significantly on Saturdays; ridership per revenue hour is over double that of the county and approximately 70% higher than the UCAT average. This is second highest among all service offered on Saturdays.

Figure 3-269 Z Route Service Productivity Measures

Performance Measure	Weekday			Saturday			Sunday		
	Z Route	UCAT Avg	County Avg	Z Route	UCAT Avg	County Avg	Z Route	UCAT Avg	County Avg
Passengers per Revenue Vehicle Hour	4.5	9.9	9.8	21.9	12.9	10.7	0.0	4.3	4.3

Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

Figure 3-270 Z Route Weekday Passengers per Revenue Hour

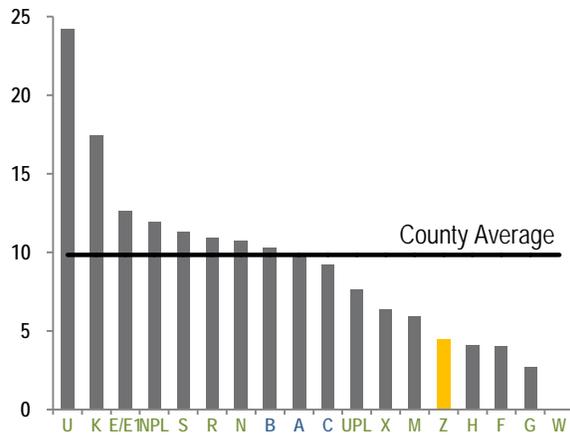
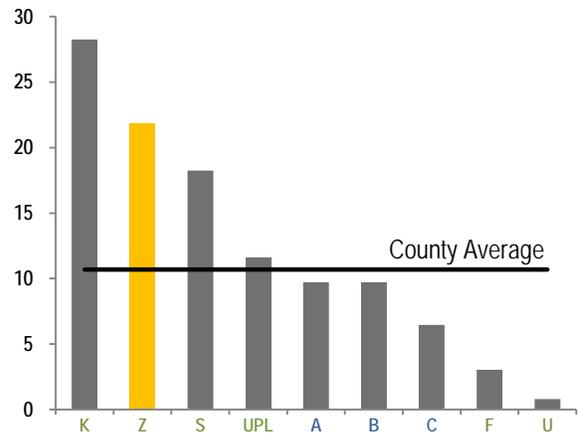


Figure 3-271 Z Route Saturday Passengers per Revenue Hour



Source: Nelson\Nygaard ride check 2011-2012, published UCAT schedules

On-time Performance. During the survey period, 85% of Z Route weekday trips and 25% of weekend trips were observed to be on time. This tops the on-time performance rate for both the UCAT and county average on weekdays. However, Saturday on-time performance is significantly below the UCAT and county averages.

Figure 3-272 Z Route On-time Performance Measures

Performance Measure	Weekday			Saturday			Sunday		
	Z Route	UCAT Avg	County Avg	Z Route	UCAT Avg	County Avg	Z Route	UCAT Avg	County Avg
On-time Performance (%)	85	68	68	25	58	69	N/A	75	75

Source: Nelson\Nygaard ride check 2011-2012

Strengths

- Provides important regional connections to Woodstock and Pine Hill Ski Area.
- Strong Saturday ridership, highest Saturday ridership per trip of all UCAT and Citibus services.

Weaknesses

- Very long trips to Pine Hill, made even longer by deviation to Woodstock.
- Service times out of balance with demand on some trips.

Potential Improvements

- **Consider satellite bus storage location.** Kingston to Pine Hill is a very long trip. In order to get to Pine Hill in time to serve morning commuters to Kingston, buses have to leave Kingston before 5:00 AM. This outbound trip is too early to attract any riders, and is thus a very unproductive trip. A similar situation occurs on the last trip back to

Kingston in the evening. If a suitable satellite bus storage facility were available in the Pine Hill area, and a driver who lived near-by were assigned to the route, the Z Route schedule could be adjusted to match travel demand, thus avoiding long, unproductive dead-head runs. Buses assigned to the route could be rotated out periodically, so that regular preventative maintenance can be performed at the main UCAT maintenance facility.

DEMAND-RESPONSIVE SERVICES

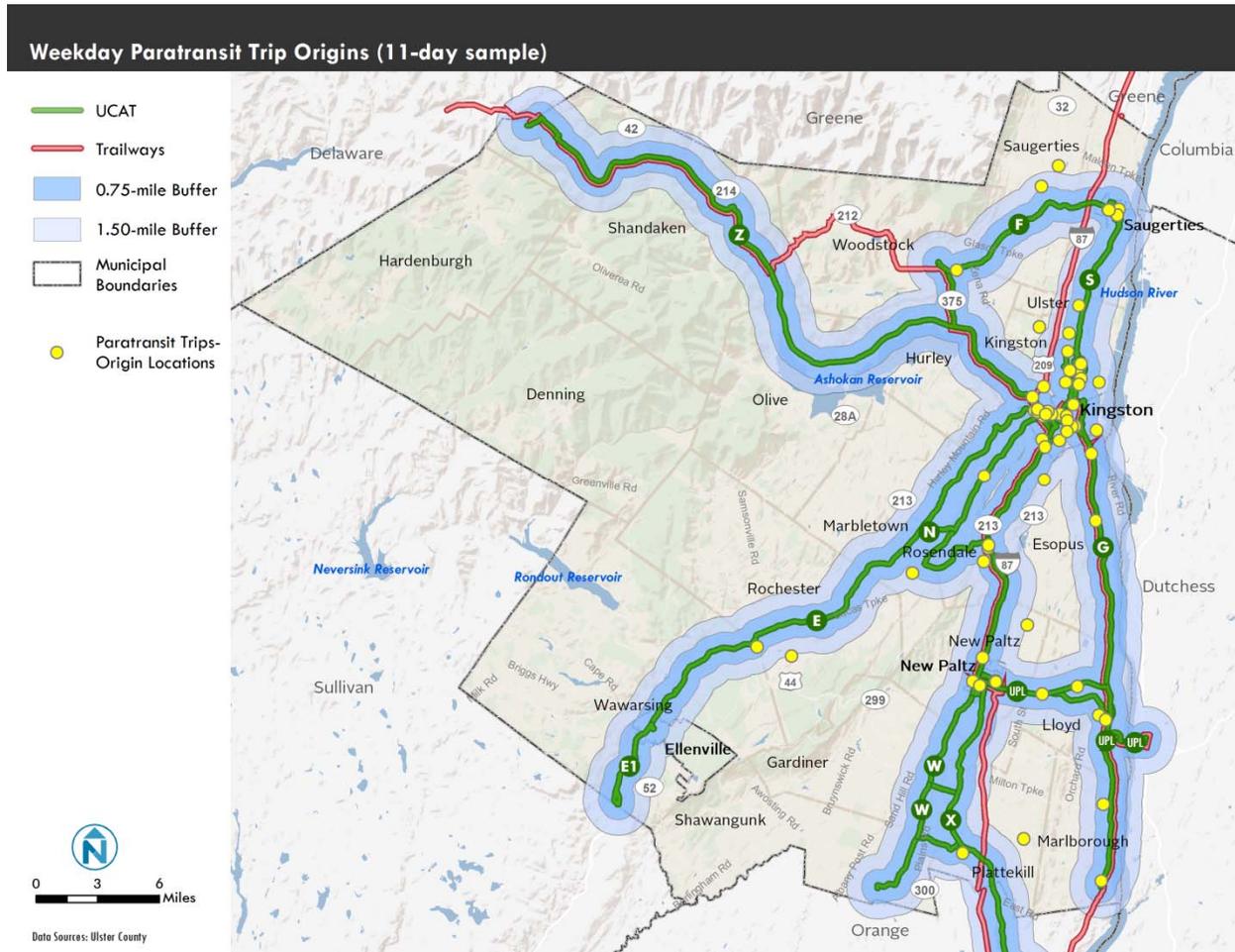
Citibus Paratransit. Citibus circulates two vehicles per weekday and one on Saturdays providing ADA complementary paratransit service in Kingston. No electronic records are kept of pick-up and drop-off locations. Instead, Citibus dispatch staff keeps a written log of paratransit pick-up and drop-off requests. Without electronic records, it can be difficult to compile ridership data and identify trends. However, Citibus staff indicate that there are seven regular riders who are transported to and from the Gateway Industries location on Amy Kay Parkway, one to three days per week. Since the C Route serves Gateway, some of those riders might be able to use the fixed-route service with proper travel training. Two UARC clients are also regular paratransit riders.

UCAT Paratransit. UCAT operates ADA complementary paratransit service in every corridor where it operates fixed-route service. Service is matched to the operating hours of fixed-route service, so in some cases there is a very small window of opportunity for paratransit users to request service. Three to four buses are used to provide UCAT's paratransit service, depending on demand. In the mornings, three paratransit vehicles are assigned to Marlboro, Rosendale, and Saugerties, respectively, to handle subscription trips. Subscription trips are regularly recurring trips that are pre-scheduled rather than requested on a daily basis. Between morning and afternoon subscription trips, the three paratransit vehicles provide paratransit service throughout the county on-request.

UCAT allows for paratransit pick-up requests of up to 1.5 miles from a fixed-route. This is beyond the $\frac{3}{4}$ mile buffer mandated by ADA. Passengers requesting service in the expanded zone, between $\frac{3}{4}$ mile and 1.5 miles from a fixed route are charged an additional dollar, on top of the regular paratransit fare (which is double the equivalent fixed-route fare). Figure X shows a distribution of UCAT paratransit pick-up requests for an eleven-day period between September 6th 2011 and September 16th 2011.

During this survey period, there were a total of 316 paratransit trips. 288 (91.14%) of those were within $\frac{3}{4}$ mile of a fixed-route. The remaining 28 (8.86%) were beyond of the $\frac{3}{4}$ mile buffer. However, 14 of the 28 were actually outside of even the 1.5 miles, though they were generally close by.

Figure 3-273 UCAT Paratransit Boardings



UCAT Rural Route Service. UCAT Rural Route service is available in different parts of Ulster County on different days according to the schedule below. The Rural Route service is intended to provide shopping and errand opportunities for residents who are not served by fixed-route service. Fares are based on the equivalent fixed-route fare, plus 50 cents. However, residents 60 years of age or older who are registered with the Office for the Aging may take one-free round trip per week (donations are accepted).

Figure 3-274 UCAT Rural Route Schedule

Day	Monday		Tuesday		Wednesday				Thursday				Friday			
	All (except 5th)		All		1st	2nd, 4th		3rd	5th	1st, 3rd, 5th		2nd, 4th		All		
Trip	I	O	I	O	I	O	I	O	I	O	I	O	I	O	I	O
Clintondale											10:00	2:00	8:45	2:00		
Connelly															9:30	1:15
East Kingston			9:20	1:15												
Ellenville Spec.					9:45	3:00										
Gardiner										8:45	2:00	10:00	2:00			
Highland							10:15	2:00	10:15	2:00						
Marlboro							9:45	2:00	9:45	2:00						
New Paltz							10:30	2:00								
Olivebridge			9:30	2:00												
Pine Bush										9:15	2:00	9:30	2:00			
Port Ewen/Ulster Park															9:15	1:15
Rosendale/Tillson					9:15	1:15	9:15	1:15	9:15	1:15	9:15	1:15				
Saugerties					#											
Sawkill	9:45	1:15														
Wallkill										9:30	2:00	9:15	2:00			

By appointment only

Notes: 1) Rural Route Service is an on-demand service operating to and from shopping and medical areas within Ulster County; 2) "I" = Inbound trip departure time (all AM) to Kingston area, "O" = Outbound trip departure time from Kingston area (all PM); 3) passengers may request to stop at other shopping or medical areas along the way to or from Kingston; 4) all pick-up times are approximate and may vary depending on how many riders are going on that specific trip

Key Findings

Overall, both UCAT and Citibus are stretched very thin and trying to do a lot with limited resources. For Citibus, the main limiting factor is fleet size. Although the service operates in a relatively small service area, providing service frequencies that are attractive to all but the most transit-dependent populations often requires multiple vehicles per route. Even with a limited fleet size, Citibus is admirable attempting to serve as much of the community as possible. However, the result is a system that sacrifices directness service and productivity for coverage. The routes, especially B and C, are circuitous, serving areas that are netting just a few riders per day. In an effort to assign only one vehicle to each route, and still maintain hourly frequency, Citibus employs large one-way loops on the B and C Route. While, this allows vehicles to avoid “retracing their steps,” it also imposes very long trip lengths on passengers wishing to go to a destination that is very near-by, but in the opposite direction of travel from the one-way loop. Rather than trying to link every possible destination with a fixed route, Citibus should consider a two-pronged approach to service:

1. Develop two or three key transit corridors with frequent bi-directional service, strong anchors (major destinations), and improved passenger amenities. Broadway to Port Ewan and Albany Avenue to Hudson Valley Mall would be two strong candidates.
2. Use innovative approaches to serve more dispersed ridership activity. This could include anchored “flex” service that defines specific time points, but not the path of travel between those points. This would allow for predictable connections between major destinations and flexibility in areas of dispersed ridership.

The issue of territory and jurisdiction affect Citibus, UCAT, and Ulster County residents. In passenger surveys, the Hudson Valley Mall is the most often-cited destination where Citibus passengers would like buses to go. However, due to current operating rules, this destination is off-limits to Citibus. Similarly, UCAT vehicles traveling to the mall operate closed-door through most of Kingston, frustrating potential passengers who must travel to Kingston Plaza to access the service. A possible solution would be to allow both systems to operate in Kingston and to the mall, but in somewhat different ways: UCAT could provide limited-stop service along the Albany corridor while Citibus provides a more local level of service. UCAT stops could be spaced every five to ten blocks or just at major intersections, while Citibus could have stops every two to three blocks, or even operate along local streets such as Downs or O’Neil, parallel to Albany on the way to Hudson Valley Mall.

Whereas Citibus is limited by its fleet size, UCAT’s greatest challenge is its 1,126 square mile service area featuring several population centers and two major educational institutions separated by large swaths of sparsely populated territory. As with Citibus, UCAT is making a valiant effort to provide service to as many people and places as possible, relying extensively on inter-lining to cobble together a wide variety of connections, sometimes just once or twice a day. However, if service is too limited, it is only likely to accommodate the travel needs of a very small number of passengers. Like Citibus, UCAT should concentrate on serving its most productive corridors well, and consider methods like anchored flex service to reach more dispersed pockets of ridership.

Other changes recommended for UCAT include better passenger information regarding the opportunities of single-seat connections through inter-lines, express service from Saugerties to SUNY Ulster a few times a day, the introduction of Saturday service to Ellenville, and the elimination and consolidation of redundant services in and around New Paltz.

These general service improvement concepts will form the basis for specific service change recommendation in Technical Memorandum #4: Identification and Evaluation of Alternatives.