AUSTIN PEAY STATE UNIVERSITY

Parking and Transportation Review

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INTRODUCTION

Austin Peay State University is the fastest growing public university in Tennessee that surpassed the 10,000 student headcount milestone during the fall 2009 semester. Enrollment growth is expected to continue at a minimum rate of 4 percent each year for the next several years. Consequently, there is growing concern about the number of commuter parking spaces needed to accommodate that growth. In addition building projects at the downtown campus are displacing commuter parking on a temporary and, in some cases, a permanent basis. Several new parking lots are under construction but there is concern that these may not be sufficient to meet the growing enrollment and parking demand for the fall 2010.

The purpose of this review was to determine the exact inventory of commuter parking spaces and what additional spaces will be required to meet projected demand. In addition, parking strategies and best practices will be evaluated for possible use to encourage alternative transportation options for a growing student population.

While this review has a short-term focus a more comprehensive study is recommended to develop a plan to address long-term parking needs. Such a plan would consider current parking adequacy, anticipated population changes, campus development projects, projected transit changes, and elements of the approved Campus Master Plan. The plan would evaluate alternative parking measures and costs to mitigate parking shortfalls including but not limited to the following:

- Parking policy and pricing
- Allocation and assignment of parking
- Parking enforcement and adjudication
- Modifications to current shuttle operations
- Funding alternatives to support needed parking improvements
- Location and capacity of additional parking facilities
- Creation of a parking and transportation auxiliary services department

A recent study was completed in January 2008 for East Tennessee State University by Desman Associates. The cost of this study was approximately $48,000. Desman Associates also completed a study last year for the City of Clarksville which resulted in several substantive changes to the downtown parking management system.

II ASSESSMENT OF EXISTING & FUTURE SUPPLY AND DEMAND CONDITIONS

A Parking Inventory Fall 2009

On Street	Open	Employee	Student Commuter	Student Resident	Visitor	Reserved	Handicapped	Total
Primarily Student								
Cumberland Bank			115					115
Drane Street		12	75		4			91
Henry Street			26					26
Main Street			53					53
Marion Street			65					65
Pettus Park			82					82
7th Street			23					23
West Avenue				29				29
Primarily Open (Staff)								
Hannum Street	30							30
Marion Street	34							34
Temporary								
First Baptist Church			215					215
Off Street								
Eighth Street Lot			227					227
Eighth and Farris Lot			184					184
Ninth and College (Britt)			100					100
Blount/Sevier				97	1		4	102
Browning Drive		49			9		16	74
Burt Lot			510				12	522
Dunn Ctr West		31	54				4	89
Dunn Ctr. North		58					1	59
Ellington		20			17		3	40
Emerald Hill				148	7		7	162
Foy Lot		10	603				8	621
Gov's Lane				42			1	43
Greek Village				34				34
Hand, Cross, Kill			27	317			16	360
Henry St.		15		23			8	46
Henry St. Lot		54					6	60
Jackson Alley		10						10
Kimbrough		5					3	8
Marion Apts		25						25
Marion St. Lot			73					73
Marks		42					4	46
McCord		101					3	104
McReynolds		7			8		4	19
Meacham				129			2	131

On Street	Open	Employee	Student Commuter	Student Resident	Visitor	Reserved	Handicapped	Total
Miller		9		10			2	21
Rawlins				81			1	82
Foust House		16				6		22
Sexton		20			13		2	35
Shasteen		29			4		1	34
Summer Street		6	19					25
Sundquist						6		6
Trahern		193		18			4	215
Two Rivers				40				40
University Ave.			60					60
West Ave Lot				45				45
Total	64	712	2511	1013	63	12	112	4487

B Parking Permits Issued as of November 2009

Parking Permits Issued		Total	Parking Space Inventory	Percent of Inventory
Commuter Student *	5,469			
Motorcycle - Student	34			
		5,503	2,511	46%
Employee	809			
Motorcycle - Employee	5			
		814	712	87%
Handicap Student	76			
Handicap Employee	20			
		96	112	117%
Housing - Brown	53			
Housing -Orange	213			
Housing - Silver	124			
Housing - White	531			
		921	865	94%
TOTAL Permits		**7,334**	4,200	57%
Open Parking			64	
Visitor			63	
Reserved			12	
Emerald Hill -- Family Housing			148	
Total Inventory			4,487	

* Includes Emerald Hills -- Family Housing Students

C Frequently Heard Stakeholder Comments

- *There is enough parking but it's not convenient*
- *There is not enough parking near the building that I work in*
- *There is not enough parking near the building that I have classes in*
- *There is not enough parking enforcement*
- *Prohibiting freshmen resident student from having vehicles on campus would hurt enrollment*
- *This is a commuter campus*
- *Students do not utilize the Peay Pick-up*
- *It is difficult to drive a vehicle from one side of campus to another*
- *There is not enough visitor parking*
- *While an evening campus escort program does exist it is largely unknown*
- *When is the university going to finally build a parking garage*
- *Employees don't pay much for parking*
- *Students don't pay much for parking*
- *There are no reserved parking spaces except for the admissions vans and Center for Field Biology vehicles*

D Projected Parking Inventory Fall 2010

On Street	Open	Employee	Student Commuter	Student Resident	Visitor	Reserved	Handicapped	Total
Primarily Open Commuter								
Drane Street		12	75		4			91
Henry Street			26					26
Main Street			53					53
Marion Street			65					65
Pettus Park			82					82
7th Street			23					23
West Avenue				29				29
Primarily Open (Staff)								
Hannum Street	30							30
Marion Street	34							34
Temporary								
First Baptist Church								0
Off Street								
Eighth Street Lot			227					227
Eighth and Farris Lot			184					184
Ninth and College (Britt)			100					100
Blount/Sevier				97	1		4	102
Browning Drive		49			9		16	74
Burt Lot			510				12	522
Dunn Ctr West		31	54				4	89
Dunn Ctr. North		58					1	59
Ellington		20			17		3	40
Emerald Hill				148	7		7	162
Ford and College Street (Sunshine)			70					70
Foy Lot		10	603				8	621
Gov's Lane				42			1	43
Greek Village				34				34
Hand, Cross, Kill				256			16	272
Henry St.		15		23			8	46
Henry St. Lot		54					6	60
Jackson Alley		10						10
Kimbrough		5					3	8
Marion Apts		25						25
Marion St. Lot			73					73
Marion Street West			42					42
Marks		42					4	46
McCord		101					3	104
McReynolds		7			8		4	19

On Street	Open	Employee	Student Commuter	Resident	Visitor	Reserved	Handicapped	Total
Meacham				129			2	131
Miller		9		10			2	21
Parham Lot			124					124
Rawlins				81			1	82
Foust House		16				6		22
Sexton		20			13		2	35
Shasteen		29			4		1	34
Summer Street		6	19					25
Sundquist						6		6
Trahern		193		18			4	215
Two Rivers				40				40
University Ave.			60					60
West Ave Lot				45				45
Total	64	712	2390	952	63	12	112	4305

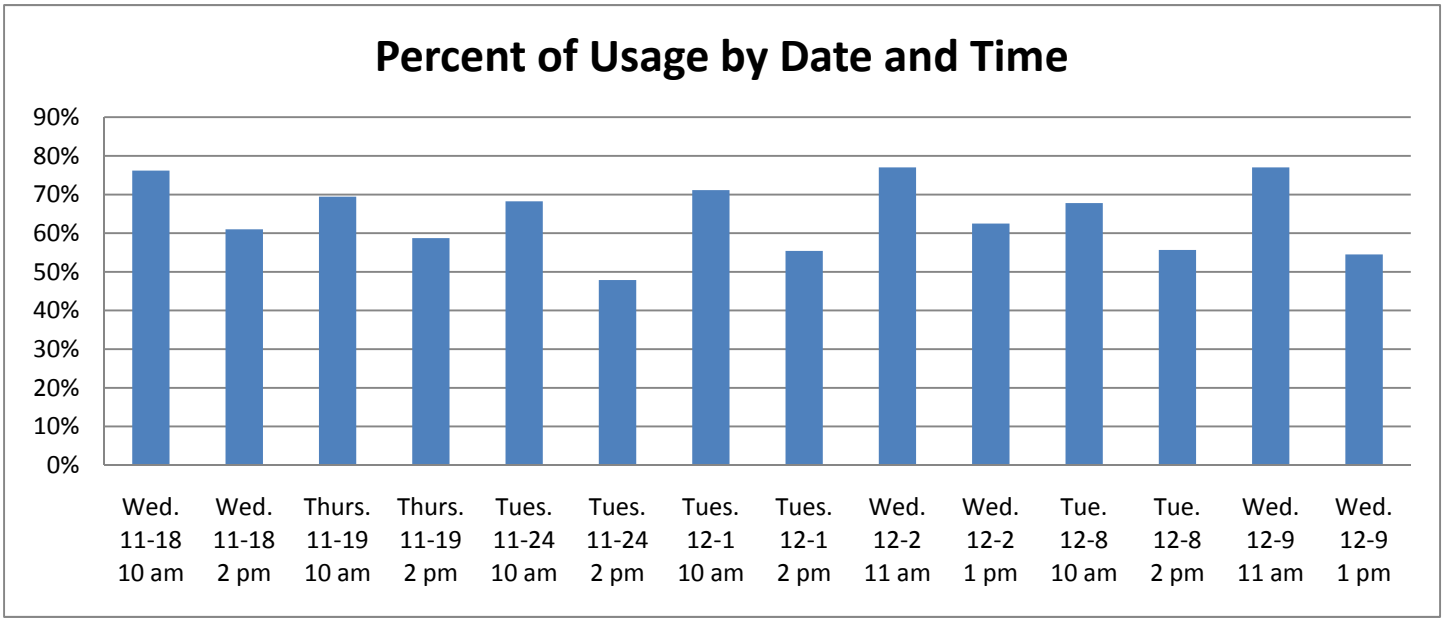
E Projected Future Commuter Parking Occupancy and Estimated Surplus/(Deficit)

Commuter parking occupancy surveys (a representative sample survey is shown in Table 2) were conducted from November 18, 2009 to December 9, 2009 to determine the peak occupancy for commuter parking at APSU. Parking counts were made on the dates and times reflected in Table 1. Peak commuter parking occupancy occurred on Wednesday, December 2 at 11:00 a.m. Each survey day exhibited a similar parking accumulation pattern. As expected the survey readings for the 10 and 11:00 a.m. time periods reflect the highest occupancy by commuter students which generally mirrors and is driven by enrollment and class scheduling. While counts for early fall 2009 are not available it is reasonable to assume that commuter parking occupancy was higher then. A more representative sample might have been best collected during September (after the 14 day census) and in early October.

Table 1:

Commuter Parking Occupancy Counts

Date	Time	Occupancy
Wed. 11-18	10:00 AM	1,893
Wed. 11-18	2:00 PM	1,515
Thurs. 11-19	10:00 AM	1,725
Thurs. 11-19	2:00 PM	1,459
Tues. 11-24	10:00 AM	1,695
Tues. 11-24	2:00 PM	1,189
Tues. 12-1	10:00 AM	1,767
Tues. 12-1	2:00 PM	1,377
Wed. 12-2	11:00 AM	1,913
Wed. 12-2	1:00 PM	1,552
Tue. 12-8	10:00 AM	1,684
Tue. 12-8	2:00 PM	1,383
Wed. 12-9	11:00 AM	1,752
Wed. 12-9	1:00 PM	1,354


Percent of Usage by Date and Time
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Wed. 11-18 10 am
Wed. 11-18 2 pm
Thurs. 11-19 10 am
Thurs. 11-19 2 pm
Tues. 11-24 10 am
Tues. 11-24 2 pm
Tues. 12-1 10 am
Tues. 12-1 2 pm
Wed. 12-2 11 am
Wed. 12-2 1 pm
Tue. 12-8 10 am
Tue. 12-8 2 pm
Wed. 12-9 11 am
Wed. 12-9 1 pm

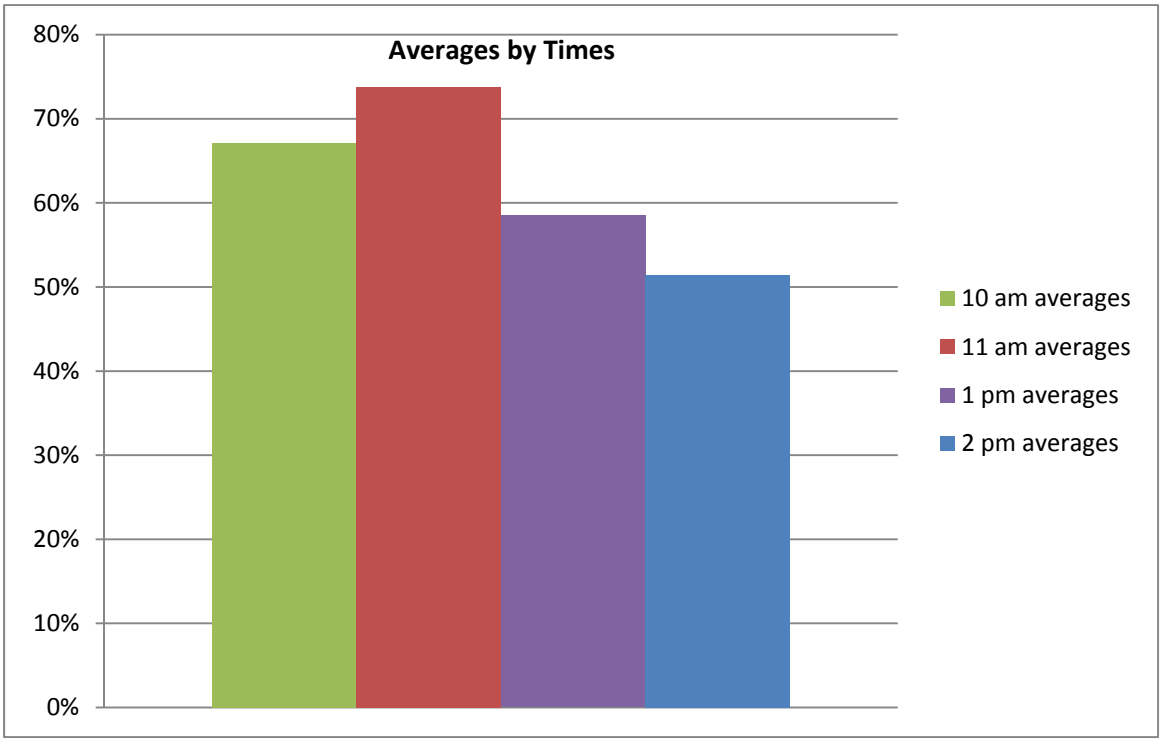

Averages by Times
80%
70%
60%
50%
40%
30%
20%
10%
0%
10 am averages
11 am averages
1 pm averages
2 pm averages

Table 2

Sample Commuter Lot Counts

December 8,2009, 11:00 a.m.

Lot	Cap	Parked	Open	% Used
Britt's	100	98	2	98%
8th St.	227	227	0	100%
8th&Ferris	184	22	162	12%
Foy	603	433	170	72%
Marion Lot	73	11	62	15%
Univ. Lot	60	60	0	100%
Dunn West	54	25	29	46%
Burt Lot	510	510	0	100%
Summer St	19	18	1	95%
Drane St.	75	75	0	100%
Marion St.	65	65	0	100%
Henry St.	26	26	0	100%
Total on:	***1996***	***1544***	***426***	***77%***
Church Lot	215	35	180	16%
Main St.	53	46	7	87%
7th St.	23	21	2	91%
Brary	115	105	10	91%
Pettus Pk	82	1	81	1%
Total off:	***488***	***208***	***280***	***43%***
Total all:	**2484**	**1752**	**706**	**71%**

Based on the occupancy survey results APSU is experiencing a practical commuter parking surplus of 571 or 23% of available commuter parking spaces. While this may seem to be a high number, there are future building projects planned that will effective eliminate commuter parking spaces in the next five years. Replacement and additional commuter parking will become very important over the next year or two. Table 3 estimates the future occupancy for commuter parking using an enrollment growth rate of 6% per year and Table 4 uses an 8% per year enrollment growth.

Table 3

Estimate of Future Peak Commuter Parking Demand

Base Peak Demand	Annual Growth Rate	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
1913	6%	2028	2149	2278	2415	2560	2714	2876	3049	3232	3426	3631
Net Increase		115	236	365	502	647	801	963	1136	1319	1513	1718
Inventory		2390	2390	2390	2390	2390	2390	2390	2390	2390	2390	2390
Surplus/(Deficit)		362	241	112	(25)	(170)	(324)	(486)	(659)	(842)	(1036)	(1241)
2000	6%	2120	2247	2382	2525	2676	2837	3007	3188	3379	3582	3797
Net Increase		120	334	469	612	763	924	1094	1275	1466	1669	1884
Inventory		2390	2390	2390	2390	2390	2390	2390	2390	2390	2390	2390
Surplus/(Deficit)		270	143	8	(135)	(286)	(447)	(617)	(798)	(989)	(1192)	(1407)

Table 4

Estimate of Future Peak Commuter Parking Demand

Base Peak Demand	Annual Growth Rate	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
1913	8%	2066	2190	2321	2461	2608	2765	2931	3107	3293	3491	3700
Net Increase		153	277	408	548	695	852	1018	1194	1380	1578	1787
Inventory		2390	2390	2390	2390	2390	2390	2390	2390	2390	2390	2390
Surplus/(Deficit)		324	200	69	(71)	(218)	(375)	(541)	(717)	(903)	(1101)	(1310)
2000	8%	2160	2290	2427	2573	2727	2891	3064	3248	3443	3649	3868
Net Increase		160	377	514	660	814	978	1151	1335	1530	1736	1955
Inventory		2390	2390	2390	2390	2390	2390	2390	2390	2390	2390	2390
Surplus/(Deficit)		230	100	(37)	(183)	(337)	(501)	(674)	(858)	(1053)	(1259)	(1478)

III PHYSICAL AND OPERATIONAL RECOMMENDATIONS

A Location, Capacity, and Cost of Peripheral Surface Lots

Additional surface based commuter parking could be added these locations:

1. Ford Street: The University recently acquired another property on Ford Street. This property combined with an adjacent vacant lot the university owns can be converted to yield about 60 additional commuter parking spaces. The estimated cost of this lot would be between $100,000 and $150,000 or about $2,500 per space.

2. Helen Street: This property, located on the west side of campus near the Dunn Center, could be used to establish a parking lot from York Street to Robb Avenue. It is estimated that approximately 150 spaces could be created costing about $1 million or $6,700 per space. The high cost for this lot is the amount of dirt work needed to fill-in in the area between Robb and Helen Street.

3. The vacant lot bordering Robb Avenue, Patrick and Polk Streets could be used to establish a parking lot. The estimated cost would be approximately $100,000 dollars for a gain of about 50 spaces or $2,000 per space. A recently acquired house adjacent to the lot could probably add another 30 spaces; however, the cost per space would increase somewhat since removal of the existing house would be required.

4. Castle Heights (South side): The Campus Master Plan indicates additional residential parking could be created along Castle Heights to support expanded residential capacity (2013). No estimate of cost has been developed for this site as significant leveling is needed to reduce sloping topography.

5. West Avenue and Second Street: Additional residential parking can be created at the corner of West Avenue and Second Street to support Meacham Apartments and Hand Village Residents. Cost to create this parking lot is estimated to be about $200,000 yielding approximately 80-100 parking spaces. Cost per space would be around $2,000.

Temporary Parking:

1. Seek a long-term agreement with First Baptist Church for future use of the church parking facilities. 215 parking spaces.

2. Negotiate with Cumberland Bank the purchase of property located at the corner of Main and University Avenue. This gravel lot would provide parking for approximately 115 vehicles. Estimated cost to purchase this property would be approximately

$700,000 or $6,087 per space. Renovation costs such as paving would be in addition to the purchase price.

3. Continue to explore remote parking locations serviced by the city bus system and Peay Pick-up.

B Location, Capacity, and Cost of Parking Structures

The APSU Master Plan approved in January 2008 identifies 3 sites for structured parking:

- McCord parking lot
- Foy Center parking lot
- Burt school parking lot (sometimes referred to as the Music Mass Communications parking lot)

The primary site chosen for its location near the core of campus is the 603 space parking lot located behind the Foy Recreation Center. Convenience location to athletic venues was also considered when selecting this site. The structure would provide up to 1,000 parking spaces but the next inventory would be less due to displaced spaces. Current estimates are that a 1,000 space parking garage would displace approximately 250 spaces netting 750 spaces for inventory expansion.

The cost to building a structured parking facility vary but it would range from a low of $15,000 to a high of $18,000 per space (according to a recent study performed for East Tennessee State University). A cost per space of $16,000 will be used for cost estimation for this report. Operational and maintenance costs are projected to be approximately $500 per space per year (utilities, maintenance, hazardous materials disposal, etc).

Table 5

Structured Parking Capacity and Construction Cost Comparisons

Foy Recreation Center Parking Lot Site

Number of Spaces to be Developed	1,000	750	500
Number of Spaces to be Displaced	250	188	125
Number of Spaces to be Gained	750	562	375
Estimated Construction Costs	$ 19,063,700	$14,449,000	$9,829,000
Construction Cost Per Space	19,064	19,265	19,658
Cost Per Space Gained	25,418	25,710	26,211

Student campus access fees and faculty and staff parking fees could increase as much as $307 per year or $153.50 per semester for a 1,000 space parking garage. This assumes that the financing and operational costs are spread evenly to all parking users.

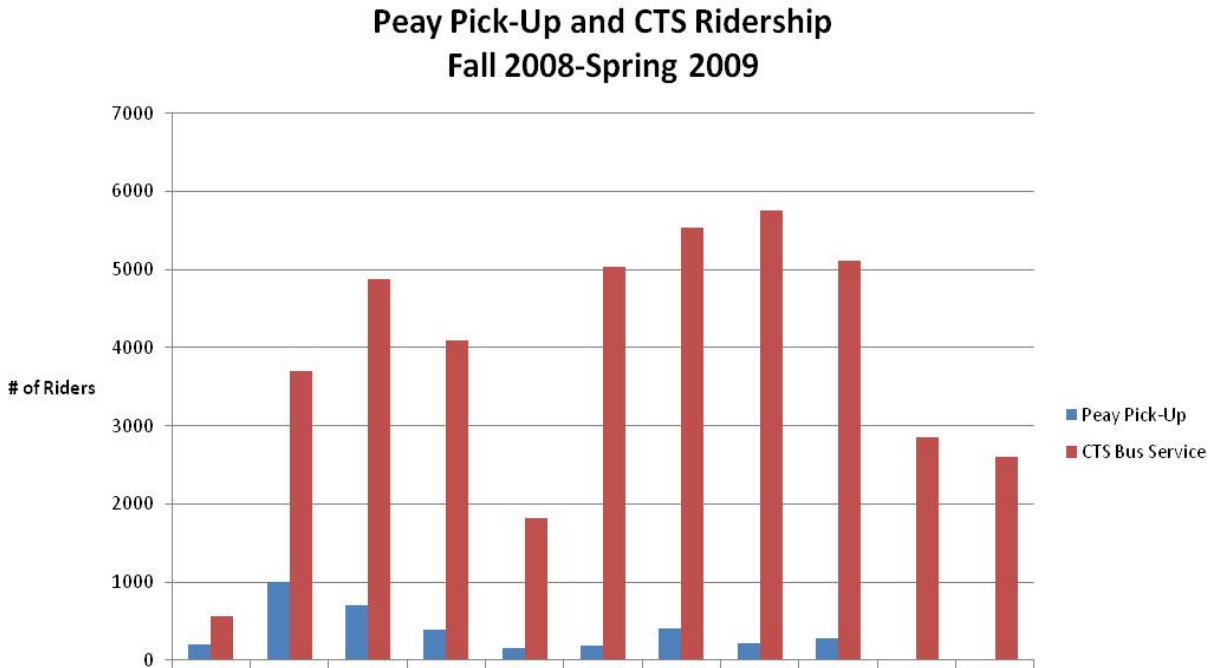
Now if the parking structure only consisted of reserved parking and financing and operational costs were spread only to those students, faculty and staff with reserved spaces, then the cost would increase as much as $2,114 per user per year or about $1,057 per semester.

C Other Strategies to Reduce Future Commuter Parking Demand

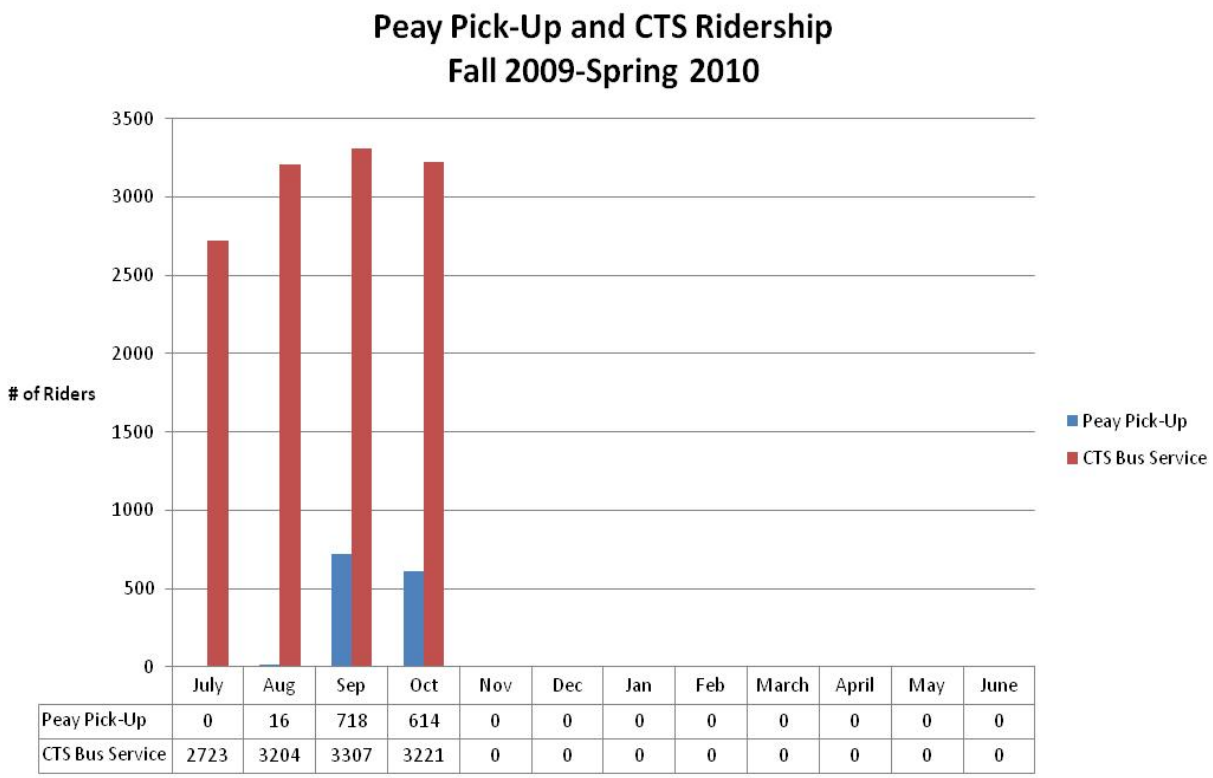
Transit

The most significant initiative of Transportation Demand Management system (TDM) is transit, or busing. The University can strive to improve traffic flow and reduce the number of single occupant vehicles traveling through campus by providing well publicized alternatives.

The Peay Pick-up provides transportation services from perimeter parking lots about every 20 minutes. While ridership has not been outstanding a more aggressive public relations campaign might help to increase it. The opening of perimeter parking lots might also cause an increase in ridership.



	Aug	Sep	Oct	Nov	Dec	Jan	Feb	March	April	May	June
Peay Pick-Up	204	998	709	397	159	189	414	226	276	4	0
CTS Bus Service	560	3695	4880	4095	1812	5036	5531	5753	5107	2852	2597



	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	March	April	May	June
Peay Pick-Up	0	16	718	614	0	0	0	0	0	0	0	0
CTS Bus Service	2723	3204	3307	3221	0	0	0	0	0	0	0	0

Parking

Parking initiatives that would provide flexible parking options for APSU employees and visitors include the following:

- Designate reserved area(s) in "prime" parking locations

- Limit the selling of permits in reserved areas to obtain no more than a 100% assignment rate.

- Increased enforcement.

Rideshare will be a program that helps commuters find easy and economical ways to get to and from work through carpooling or vanpooling. Carpooling reduces traffic congestion, improves air quality, and is convenient and flexible.

The Rideshare Program could be administered by the institution. Upon registration in the program, the institution could use a listing of participants to match individuals from the surrounding communities who share the same commute.

Rideshare should be a reduced fee program that helps commuters find easy and economical ways to either get to and from work through carpooling or vanpooling.

Carpooling reduces traffic congestion, improves air quality, and is convenient and flexible. Each participant will receive a listing of zip code and office telephone. The participant will call these people and make arrangements. Individuals who apply are not obligated to participate.

All members of a car pool may register their vehicle under one parking permit that may be transferred among car pool members. Each participant will receive three (3) one-day parking permits at no charge, each fiscal year, to accommodate the occasional need to drive independently.

Guaranteed Ride Home (GRH) - The most important concern of carpooling is what to do in an emergency. All participants (a rider or driver) in the program are enrolled in the GRH Program which would provide free transportation to participants (usually a taxi ride. A rental car, taxi or transport by shuttle could be utilized.

Emergencies may include medical emergencies, campus shutdown, disasters, and work related emergencies. Subsidized carpooling could include gift cards or certificates for gas, maintenance, minor repairs, and car washes.

Preferential parking - Participants who carpool or vanpool could receive reserved spaces near the work site/area entrance.

Biking

Bicycle circulation on campus may become an important means of travel for the University Community. Presently, no formal network of bicycle paths exists on campus.

A bicycling commitment would calls for bike paths to be determined.

The creation of new bicycle paths should be consistent with the Campus Master Plan and any local / regional bike system.

Incoming freshman signing a pledge to not bring a vehicle on to campus – If incoming freshman sign the pledge, they receive a new Bicycle, Helmet, and lock for transportation around campus. Free!

Bike Sharing – Participants could check a bike out at the parking location (these would be secure kiosks with solar power for the electronics locking, unlocking). The first 15 minutes could be free of charge, and then a minimal cost for time

increments (15 minutes). These bikes are constructed so that their parts are not compatible with other bikes. Some institutions have a single bike rental stationed in a central location, such as a University Center to rent out bicycles.

St. Xavier University in Chicago recently started a bike share program in a contract with OyBike of England. Their website is available at:

http://www.sxu.edu/Administrative/Facilities_Mgmt/green_bike.asp

Another vendors that provide this type of service is EcoTrip:

http://www.collegebikeshare.com/ .

D Creation of a Parking and Transportation Auxiliary Services Department

Austin Peay State University has no one individual or office assigned specific responsibility in charge of managing its parking resources. Most parking related questions are sent to campus police, the physical plant or the vice president for finance and administration. Requests range from responding to students, faculty and staff complaints about the lack of adequate (close proximity) parking to enforcement of designated parking lots. Additionally, there is no one individual on campus that has or maintains a level of operational and planning experience required to deal with the parking concerns of a growing campus such as APSU. Several TBR institutions either already have dedicated full-time parking administrators and staff or are consider the development of parking and transportation auxiliary department. Without an individual or department to own the responsibility of managing parking resources, the parking system lacks direction or mission and ongoing attention. Consequently the delivery of parking service is fragmented and unorganized. Parking and transportation management services should not be a part-time endeavor assigned to more than one department or multiple individuals. It must be deliberate and full-time.

One option APSU could consider is the creation of a parking and transportation auxiliary services department similar to the one operated at Middle Tennessee State University. As an auxiliary unit, parking management functions would be financially self-supporting. Therefore the current cost of the Peay Trolley and all parking related improvements and expansions would need to be quantified and evaluated against current and/or anticipated parking related revenues. Dedicated sources of revenue for a parking and transportation auxiliary services department would include student access fees (parking portion only), faculty and staff parking fees, student shuttle fees, parking ticket citations, and service charges to off-campus groups.

A parking and transportation auxiliary services department would necessitate the hiring of an experienced parking and shuttle administrator and required support staff. Related office staff might include two account clerks to assist with responsibilities over parking enforcement, selling permits, and processing parking fines. A student parking enforcement patrol would also be needed. This is already being funded in the public safety budget. Parking enforcement would then be under the parking and transportation services auxiliary unit and allow public safety to focus on their core safety responsibilities.

To follow is a list of typical responsibilities (not inclusive) and support personnel of a centralized parking and transportation auxiliary support services department.

- Oversee the daily operation of all areas of the Parking and Transportation Auxiliary Support Services Department
- Oversee all daily management and coordination of activities related to parking and transportation operations, property maintenance, and financial budgeting and report.
- Responsible for direct supervision of the parking enforcement staff
- Responsible for short-term and long-term parking planning.
- Responsible for direct interaction with members of the parking public including faculty, staff, students, vendors, contractors and visitors.
- Responsible for working with the athletic department on Athletic Event parking.
- Serves as coordinator for all special event parking.
- Responsible for providing input on parking related construction projects.

A more detailed analysis of what it would take to create and operate a parking and transportation auxiliary services department can be developed.