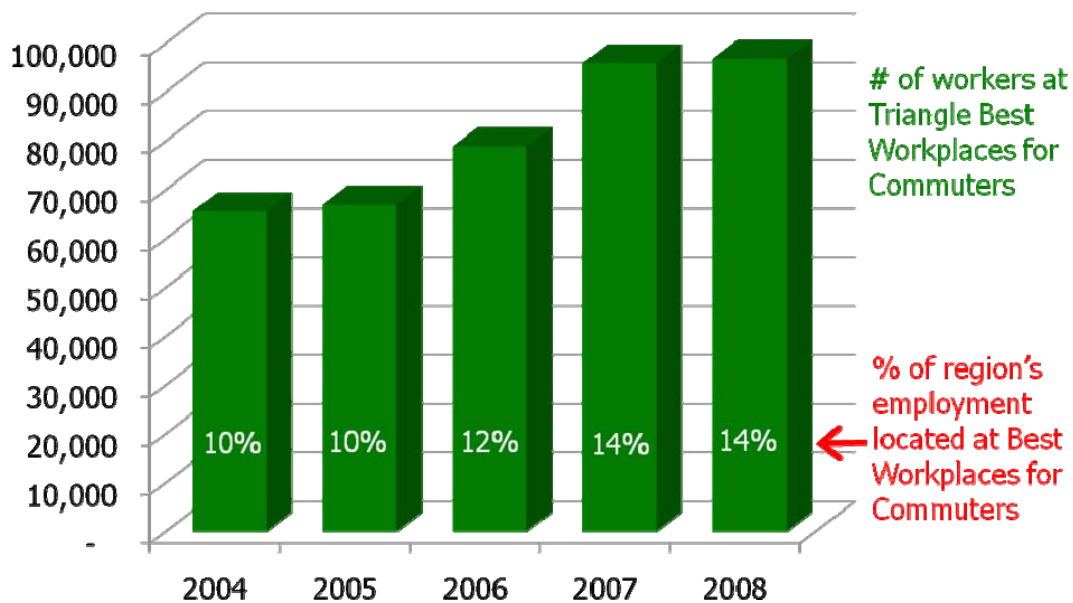


The region's transportation demand management program can be a crucial component of the overall transportation system, prompting employers to encourage the use of alternatives to driving alone and assisting commuters in understanding and using these alternatives, as evidenced by Figure 7.7.2 which tracks the growth in employees who work for organizations that offer specific alternative commuting benefits and have committed to an alternative commuting target.

*Figure 7.7.2 – Participation in the Best Workplaces for Commuters Program in Durham, Orange and Wake Counties*



## 7.8 Intelligent Transportation Systems (ITS)

Intelligent Transportation Systems (ITS) is a set of diverse technologies that make the existing transportation infrastructure more efficient and safer. Indeed, efficiency and safety are among the principal goals of the 2035 LRTP. These technology systems tend to be region wide because of the interconnection among our road systems and our travel patterns, and subsequently require a high level of coordination that often demands new institutional arrangements.

The CAMPO, DCHC MPO, NCDOT and private consultants are working together to plan and implement a coordinated framework of ITS solutions for the region. A considerable ITS investment has already been made, as evidenced by the many closed circuit television, freeway management, incident management, traffic signal control and other ITS projects in operation throughout the region. Figure 7.8.1 – Intelligent Transportation Systems Investments shows the new systems proposed in the 2035 LRTP. This table breaks the ITS systems into ten different types, lists systems under each type, and forecasts the costs of each type for the two MPOs. This list is not expected to be exhaustive because the solutions and technologies will continue to evolve with the specific challenges of our transportation system and the advance of transportation technology.

Figure 7.8.1 – Intelligent Transportation Systems Investment

Intelligent Transportation System (ITS)	2035 LRTP Costs		
	Total	CAMPO	DCHC
<b>Freeway Management</b> (Interstates, US highways and other freeways)	\$17,550,000	\$ 11,583,000	\$ 5,967,000
Electronic surveillance and traffic monitoring	Highway advisory radios		
Ramp metering	Closed circuit television (with public access)		
Dynamic message sign	Incident management assistance patrols (IMAP)		
<b>Incident Management System</b>	\$7,450,000	\$ 4,917,000	\$ 2,533,000
Surveillance cameras	On-call service patrol/towing services		
Incident management algorithms	Road access and disruption management system		
Cell phone communication	Work zone safety monitoring		
<b>Arterial Management</b> (advanced signal/traffic control systems)	\$79,740,000	\$ 52,628,400	\$ 27,111,600
Closed circuit television (with public access)	Traffic adaptive signals		
Dynamic message sign	Signal systems upgrade and enhancements		
Fibers/communications			
<b>Public Transportation ITS</b> (regional rail, fixed route, demand-responsive buses, BRT, circulators, and regional express.)	\$21,000,000	\$ 13,860,000	\$ 7,140,000
Automated vehicle tracking-AVL/AVI	Web-based scheduling system and trip planner		
Electronic fare payment including smart card fare system	Transit corridor priority systems and multi-modal coordination		
Public transportation (transit center)	Transit security		
Real time bus information (bus stops and transfer centers)	Transit center		
<b>Rail Operation Information Network</b>	\$2,300,000	\$ 1,518,000	\$ 782,000
Operation network	Rail crossing		
<b>Advanced Traveler Information System</b>	\$4,000,000	\$ 2,640,000	\$ 1,360,000
<b>Electronic Toll</b> (toll roads and HOT)	\$4,000,000	\$ 2,640,000	\$ 1,360,000
Electronic toll	Smart cards		
Transponders			
<b>Emergency Management</b>	\$4,900,000	\$ 3,234,000	\$ 1,666,000
HAZMAT management	Weather Information Processing and Distribution		
Emergency routing			
<b>ITS Data Warehouse and Archive</b>	\$2,800,000	\$ 1,848,000	\$ 952,000
<b>Commercial Vehicle ITS</b>	\$2,700,000	\$ 1,782,000	\$ 918,000
<b>Total ITS Investment</b>	<b>\$146,440,000</b>	<b>\$96,650,400</b>	<b>\$49,789,600</b>