

2008

# The Dallas Application of Responsible Transportation: How can public transportation systems work effectively for a city subject to urban sprawl? DART as a case study.

Christina Chermak  
*Southern Methodist University*

Kent Spenner  
*Southern Methodist University*

Jennifer Bell  
*Southern Methodist University*

Juliana Jones  
*Southern Methodist University*

Ricardo Leon  
*Southern Methodist University*

*See next page for additional authors*

Follow this and additional works at: [http://scholar.smu.edu/big\\_ideas\\_2008\\_fall](http://scholar.smu.edu/big_ideas_2008_fall)

---

## Recommended Citation

Chermak, Christina; Spenner, Kent; Bell, Jennifer; Jones, Juliana; Leon, Ricardo; Webb, Joanna; Heydari, Tim; and Aranda, Martha, "The Dallas Application of Responsible Transportation: How can public transportation systems work effectively for a city subject to urban sprawl? DART as a case study." (2008). *Big iDeas 2008 Fall Updates*. 4.  
[http://scholar.smu.edu/big\\_ideas\\_2008\\_fall/4](http://scholar.smu.edu/big_ideas_2008_fall/4)

---

**Authors**

Christina Chermak, Kent Spenner, Jennifer Bell, Juliana Jones, Ricardo Leon, Joanna Webb, Tim Heydari, and Martha Aranda



# **THE DALLAS APPLICATION OF RESPONSIBLE TRANSPORTATION**

**How can public transportation work for a city  
subject to urban sprawl? DART as a case study.**

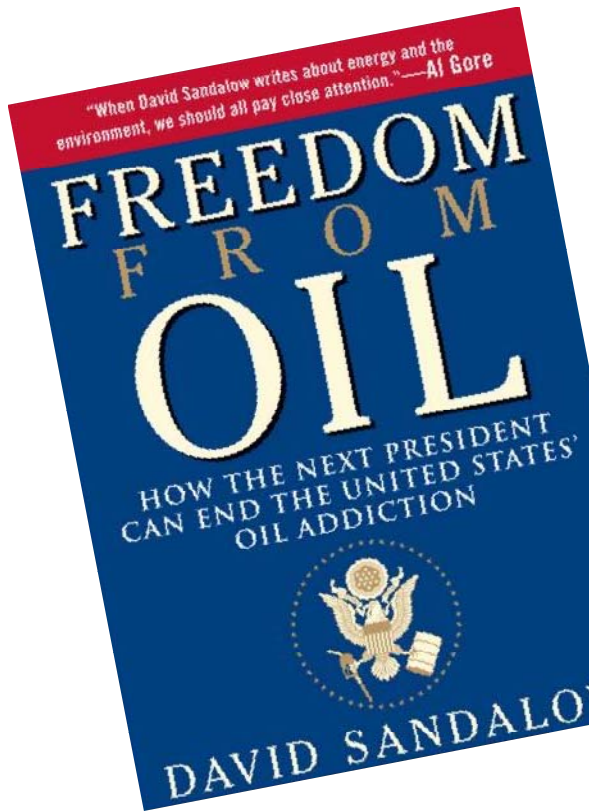
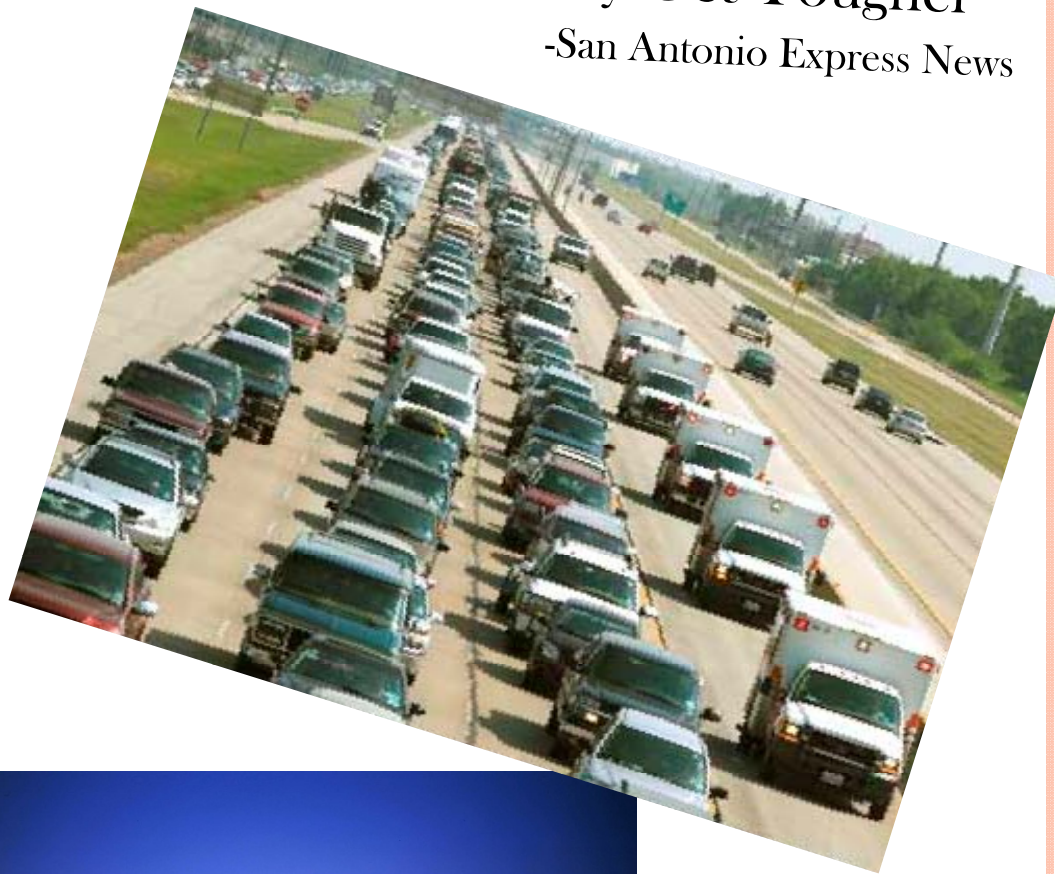
# OUTLINE


- The relevance of this study
- Dallas' specific issue
- The History of the Issue
- DART's Plan
- The Assumption of the Plan
- Verifying or Disproving the Assumption
- What we've done already
- Future Plans



# EPA Says Dallas Air Rules May Get Tougher

-San Antonio Express News





“IF SKY-HIGH GAS PRICES SENT DALLAS  
RESIDENTS LOOKING FOR SEATS ON DART  
BUSES AND TRAINS THIS SUMMER, WILL  
FALLING PRICES SEND THE COMMUTERS  
BACK TO THEIR CARS?”

DALLAS MORNING NEWS  
OCTOBER 24 2008



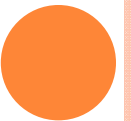








Build Something  
Include Developers  
Funding

















# Current and Future Services

## DART's 2030 Transit System Plan includes:

- 110 miles of light rail transit (DART Rail)
- 60 miles of express or commuter rail
- 116 miles of managed high occupancy vehicle (HOV) lanes
- 97 miles of enhanced and rapid bus corridors
- Mobility programs (Intelligent Transportation Systems, Transportation System Management, Passenger Facilities, Travel Demand Management, Bicycle/Pedestrian Integration, Safety and Security, and System Accessibility)



RAIL		MANAGED HOV LANES		FACILITIES	
					
RAIL LINES & STATIONS	TRE & STATIONS	GREEN LINE (UNDER CONSTRUCTION)	BLUE LINE (UNDER DESIGN)	HOV LANES	BUS TRANSFER CENTER/ TRANSFER LOCATION
					
		ORANGE LINE (UNDER DESIGN-BUILD)	FUTURE EXTENSIONS	OUTSIDE DART SERVICE AREA (NO DART FUNDING)	BUS TRANSIT CENTERS (parking available)
					
				FUTURE HOV LANES	PARKING AVAILABLE
					
				FUTURE HOV LANES (NO DART FUNDING)	FUTURE TRANSIT CENTER/ PARK & RIDE






BUT WHAT ABOUT THE USERS?





## WHAT WE'VE DONE

- Chosen a Target Group
  - Determined Dallas Business Locations
  - Written and Began Survey Distribution
  - Completed Real Time Run-Throughs
- 



Morning

Evening

Average Dart Trip

53 min 52 sec

54 min 6 sec

Average Car Trip

36 min 5 sec

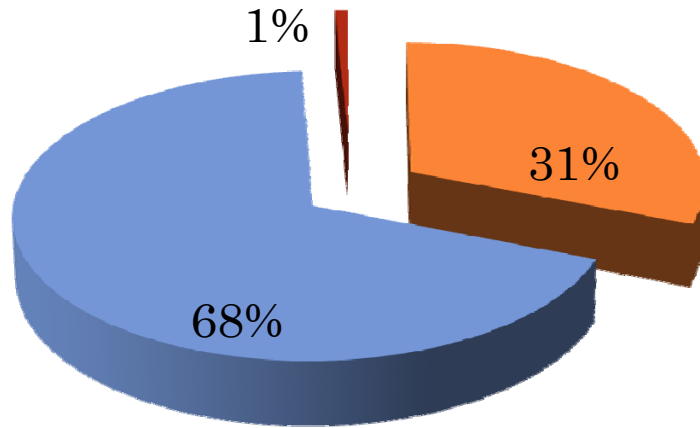
48 min 33 sec

Difference

17 min 47 sec

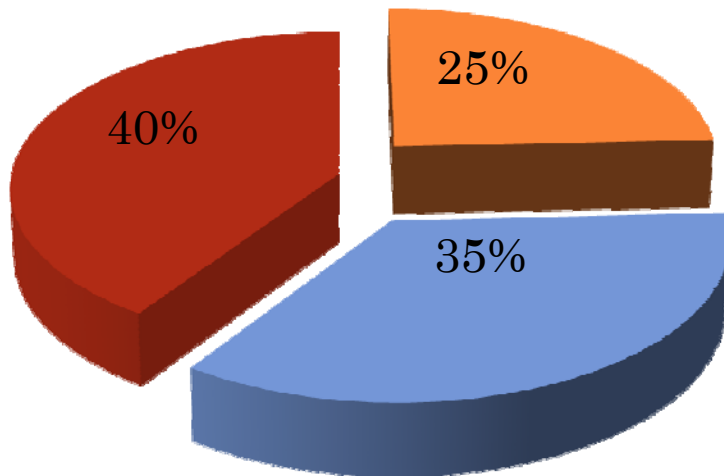
5 min 33 sec

# Morning Commute



- additional wait for train to arrive
- additional wait for time at station
- addition due to trip time

# Evening Commute



- additional wait for train to arrive
- additional wait for time at station
- addition due to trip time



# WHAT'S NEXT

- Compile and Analyze Survey Results
- Focus on another target group
- Propose solutions to attract more DART riders
- Analyze the impact of these solutions

