

# The Work Trip in the Context of Daily Travel

Census Data for Transportation  
Planning Conference,

May 2005

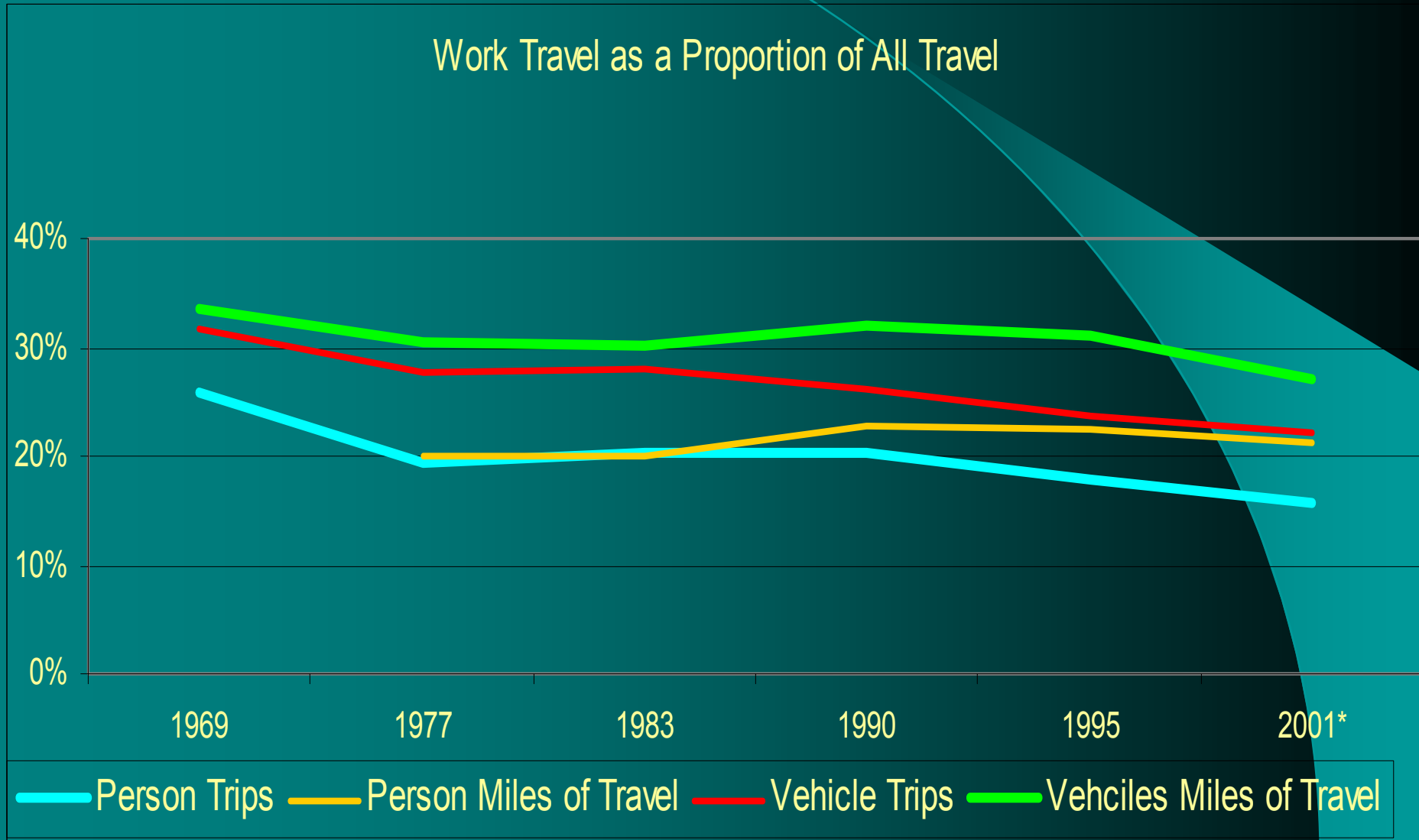
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# Q: How Important is the Work Trip to our Understanding of Daily Travel?

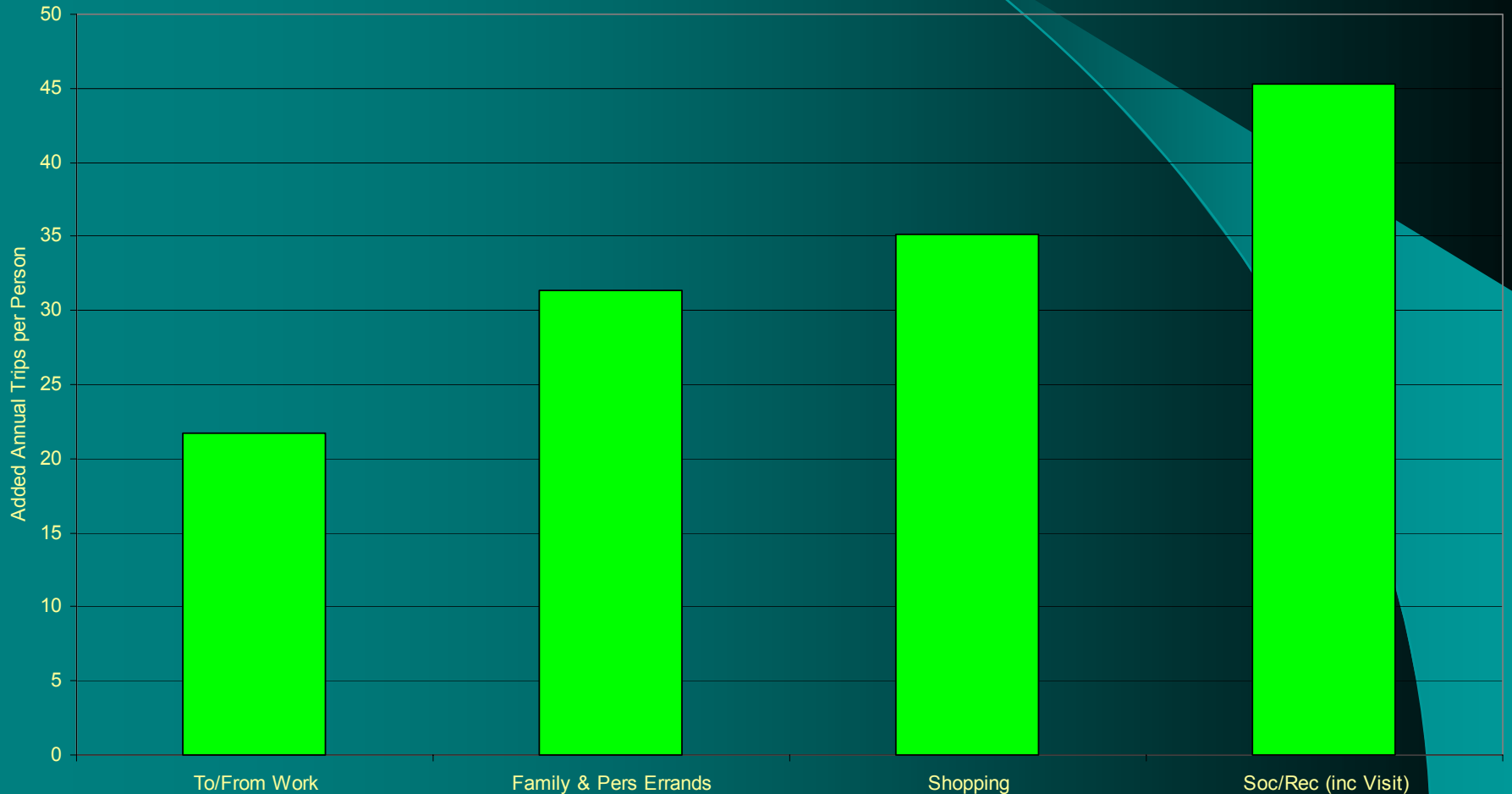
- Overall, one out of five trips and one out of four miles are traveled in commutes.
- For workers, over 40 percent of miles and minutes of travel on weekdays is spent in commutes.
- Commuting continues to predominate weekdays and peak periods, (nearly 72 percent of workers depart between 5:00 and 9:00 am) contributing to congestion.
- The proportion of direct (non-stop) trips to work continues to decline. In 2001, over half of commuters made non-work trips during their commutes.

# Work Trips Have Declined as a Proportion of All Trips



# Other Types of Trips are Growing Faster than Work Trips

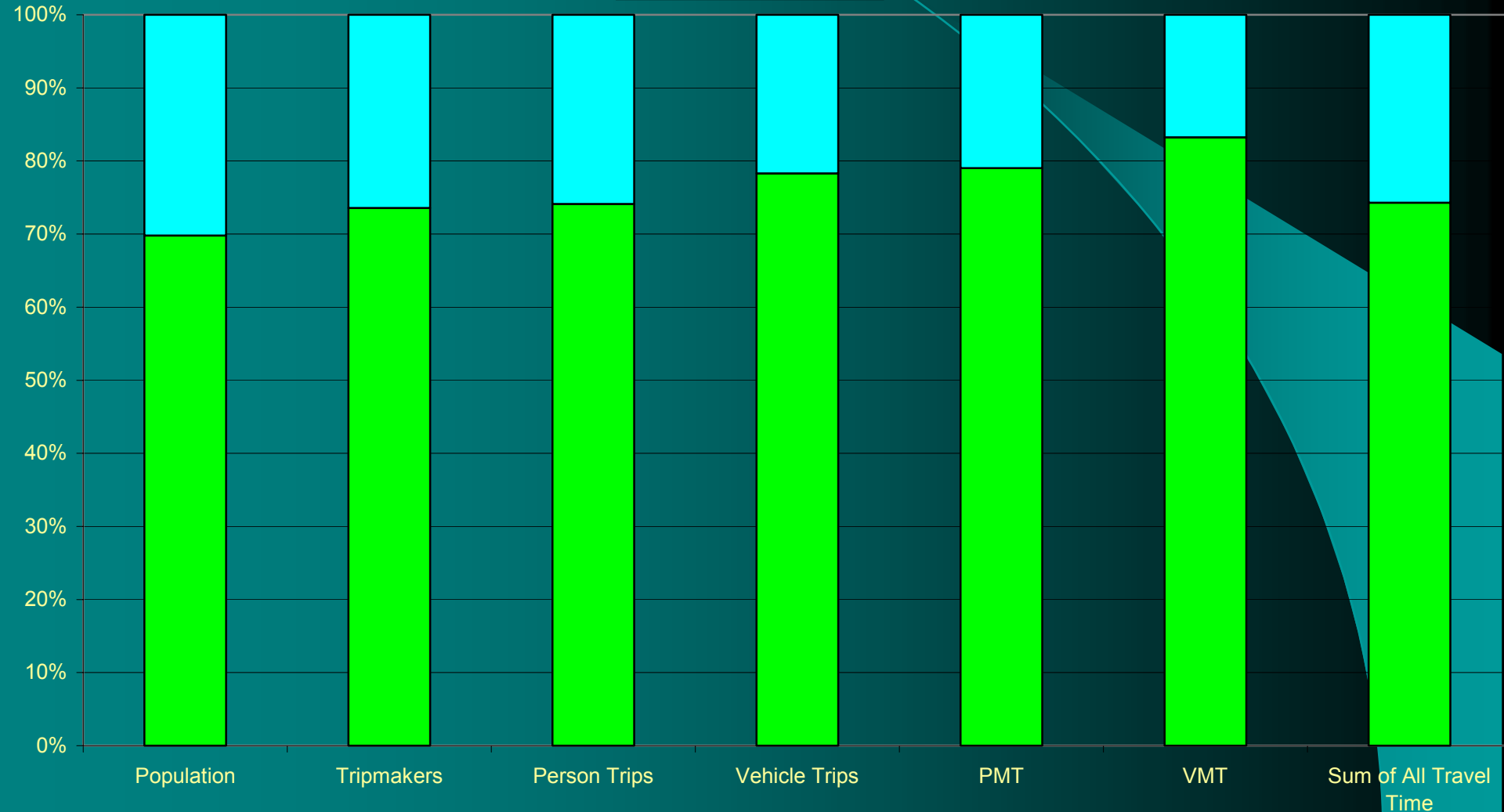
Added Annual Trips per Person by Purpose 1990 - 2001



# Workers Account for A LOT of Daily Travel

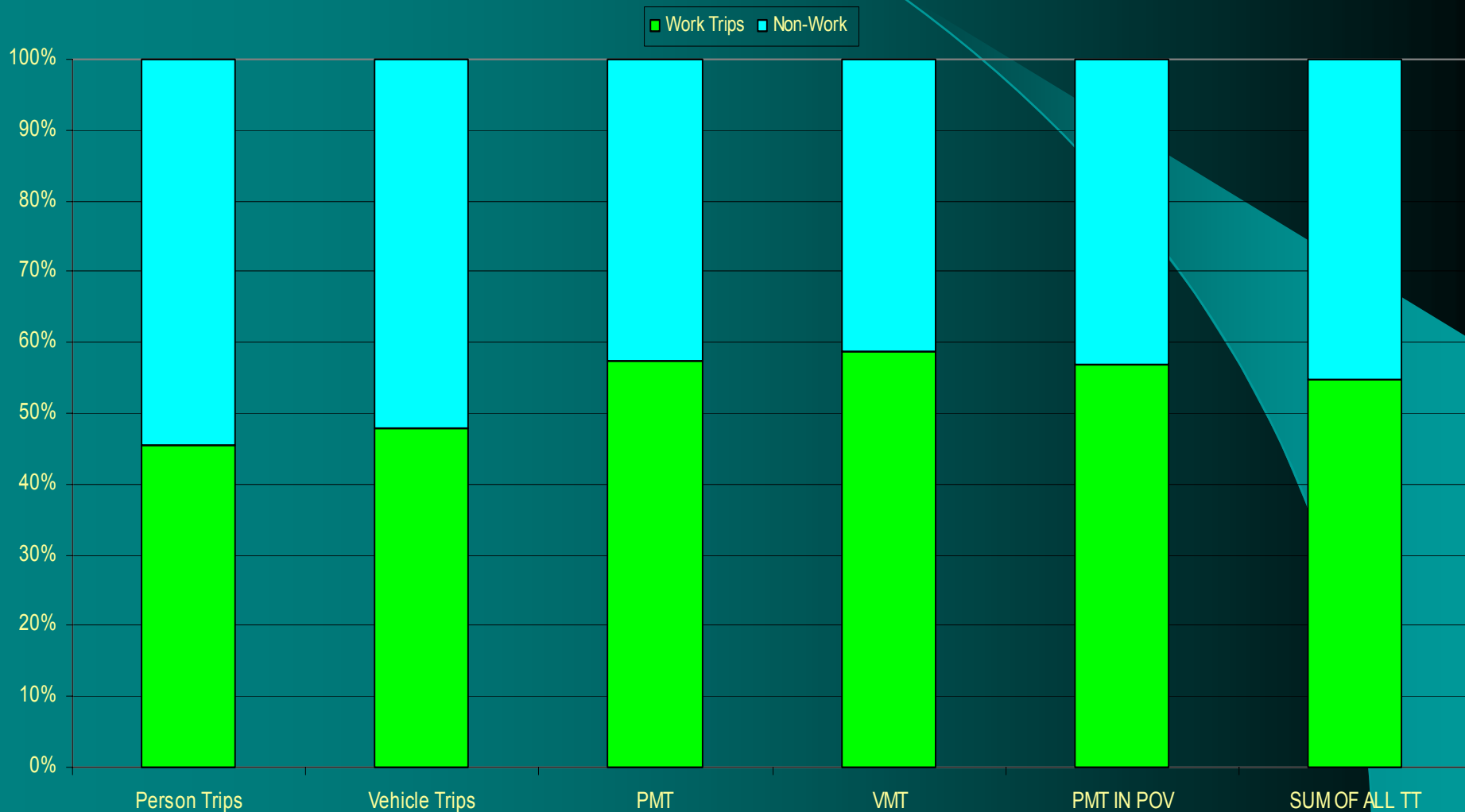
Comparison of Travel by Workers and All Others 16+

Workers All Others 16+

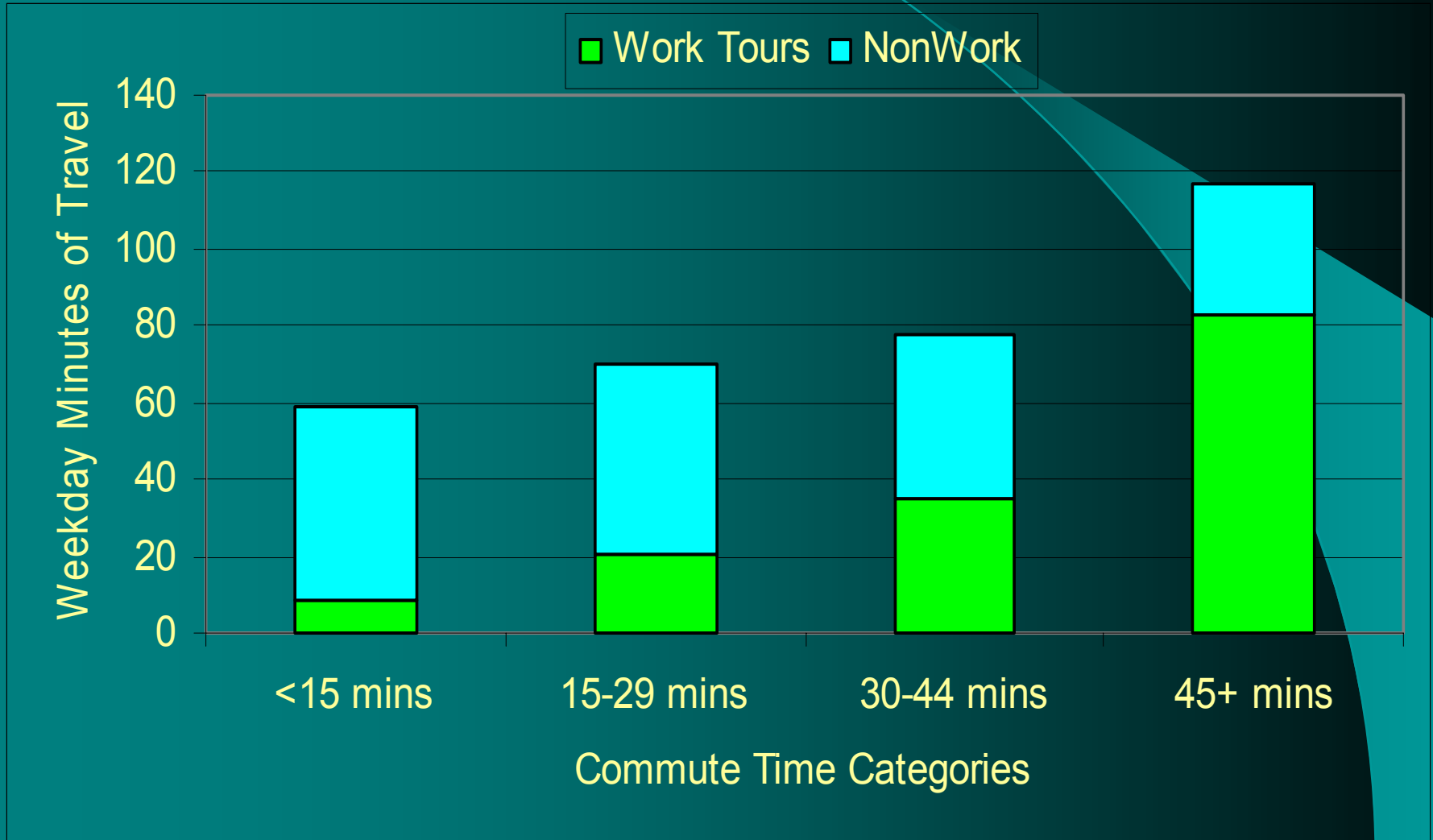


# Workers do More Than Commuting

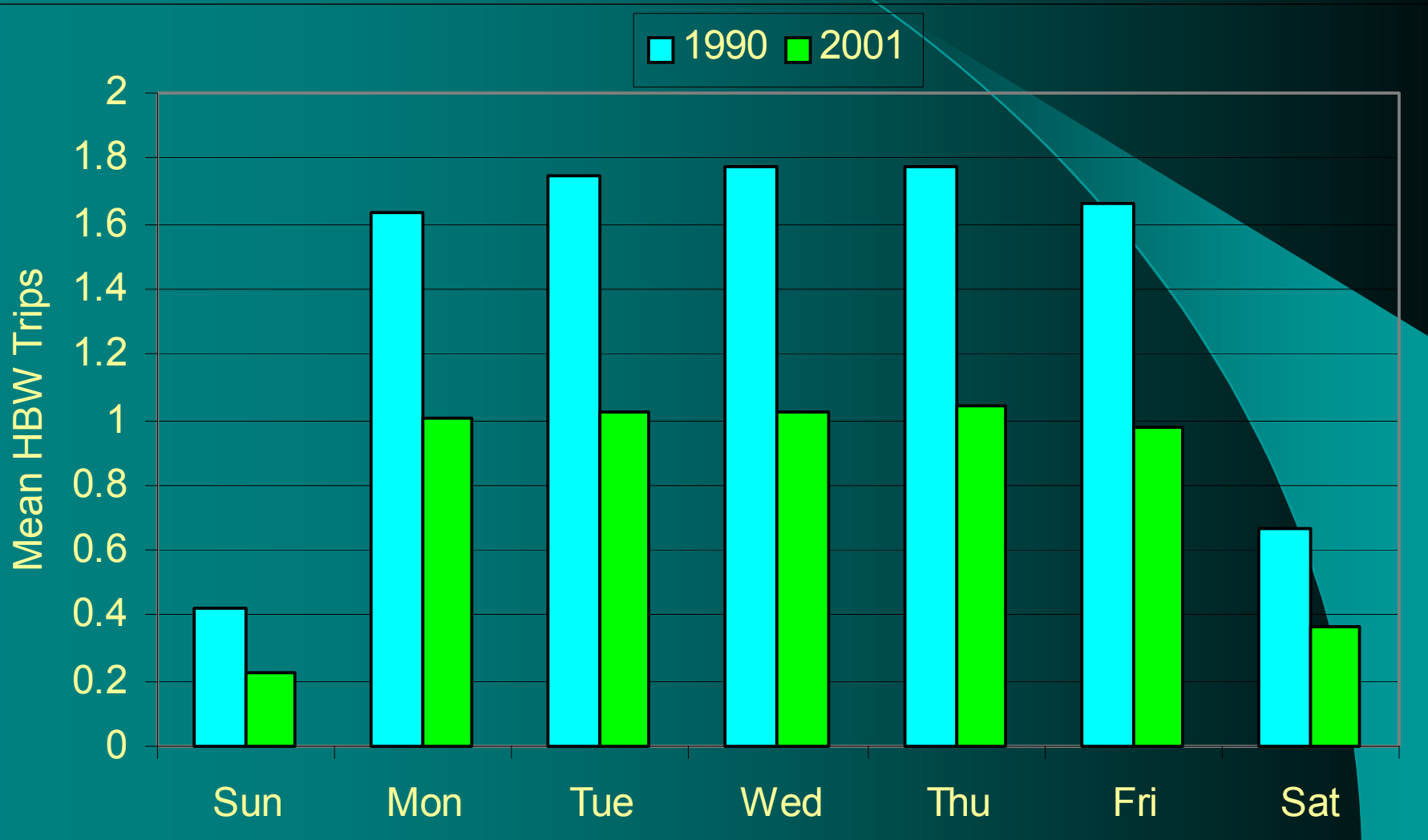
Proportion of Work- and Non-Work Trips Made by Weekday Workers



# Even When They Have Long Commutes



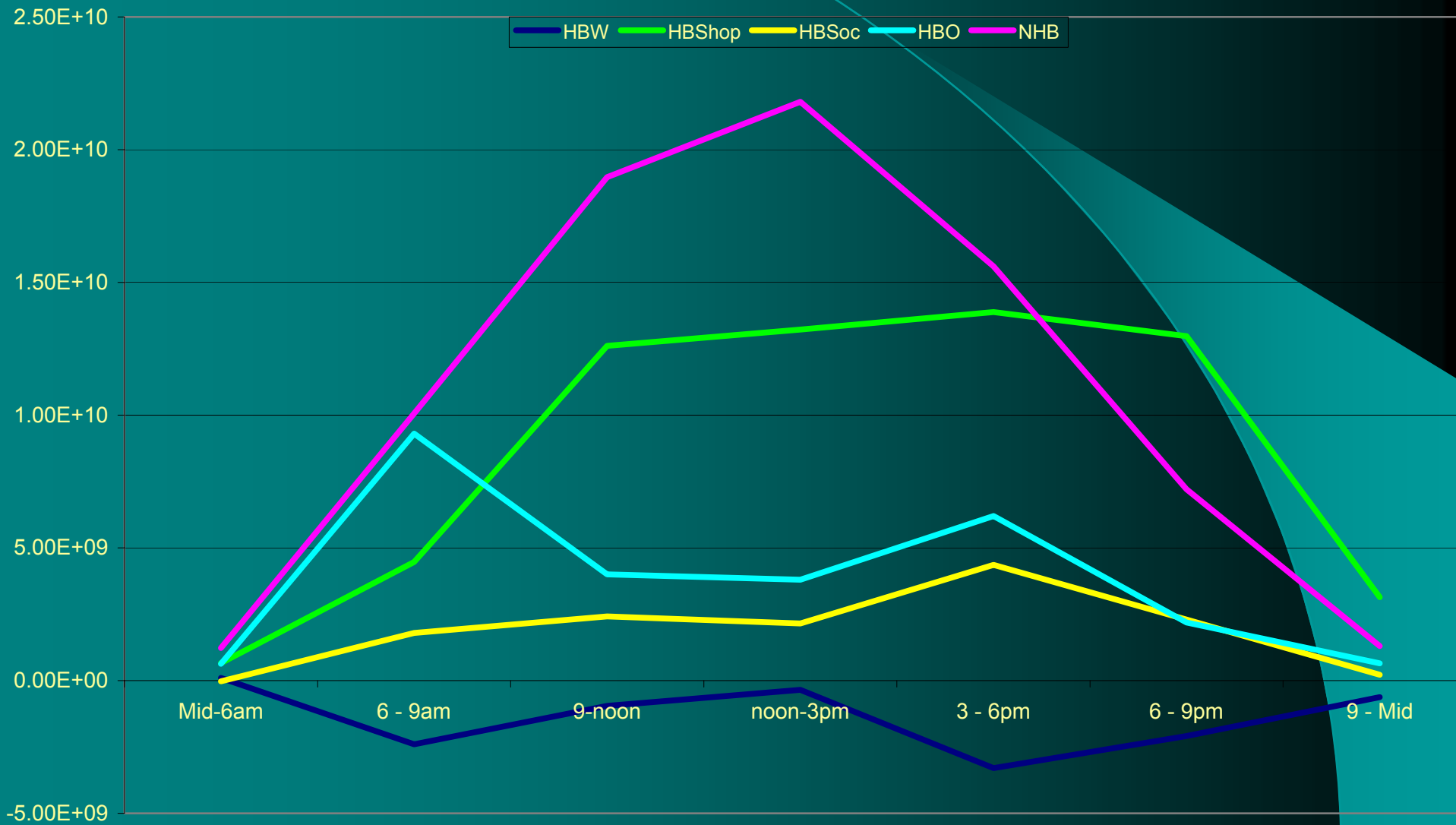
# Less Than Half of Commuters Make Direct Trips to Work





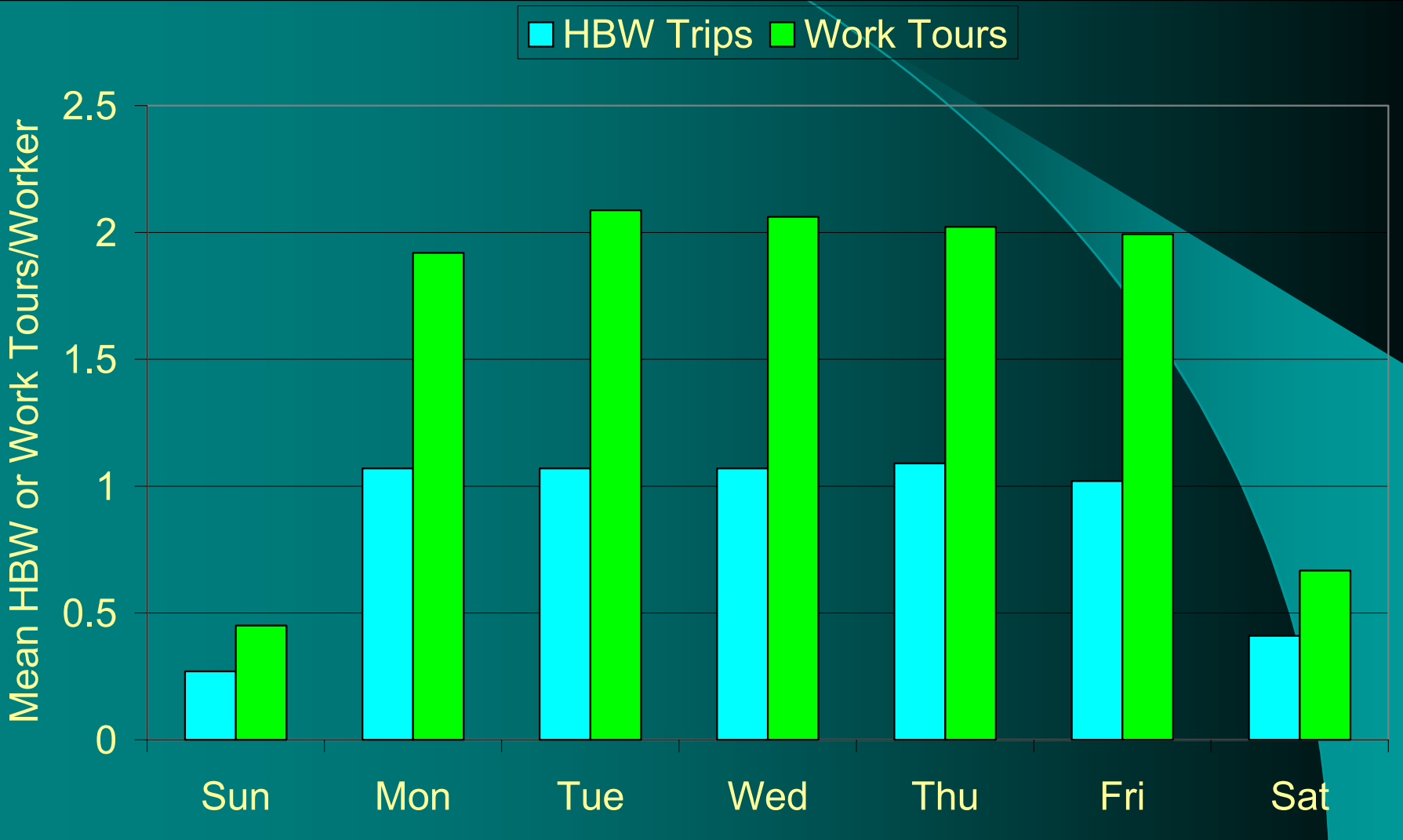
# The Mountain of Growth in is in Non-Work Travel

Difference in Number of Trips by Time of Day, 1990 - 2001



# Using Work Tours

## Captures More Realistic Picture



# We Think We Know What Complex Work Tours Look Like



Home



Drop Child At Daycare



Pick up Present for Boss' Birthday



Work



Pick Child up at Daycare

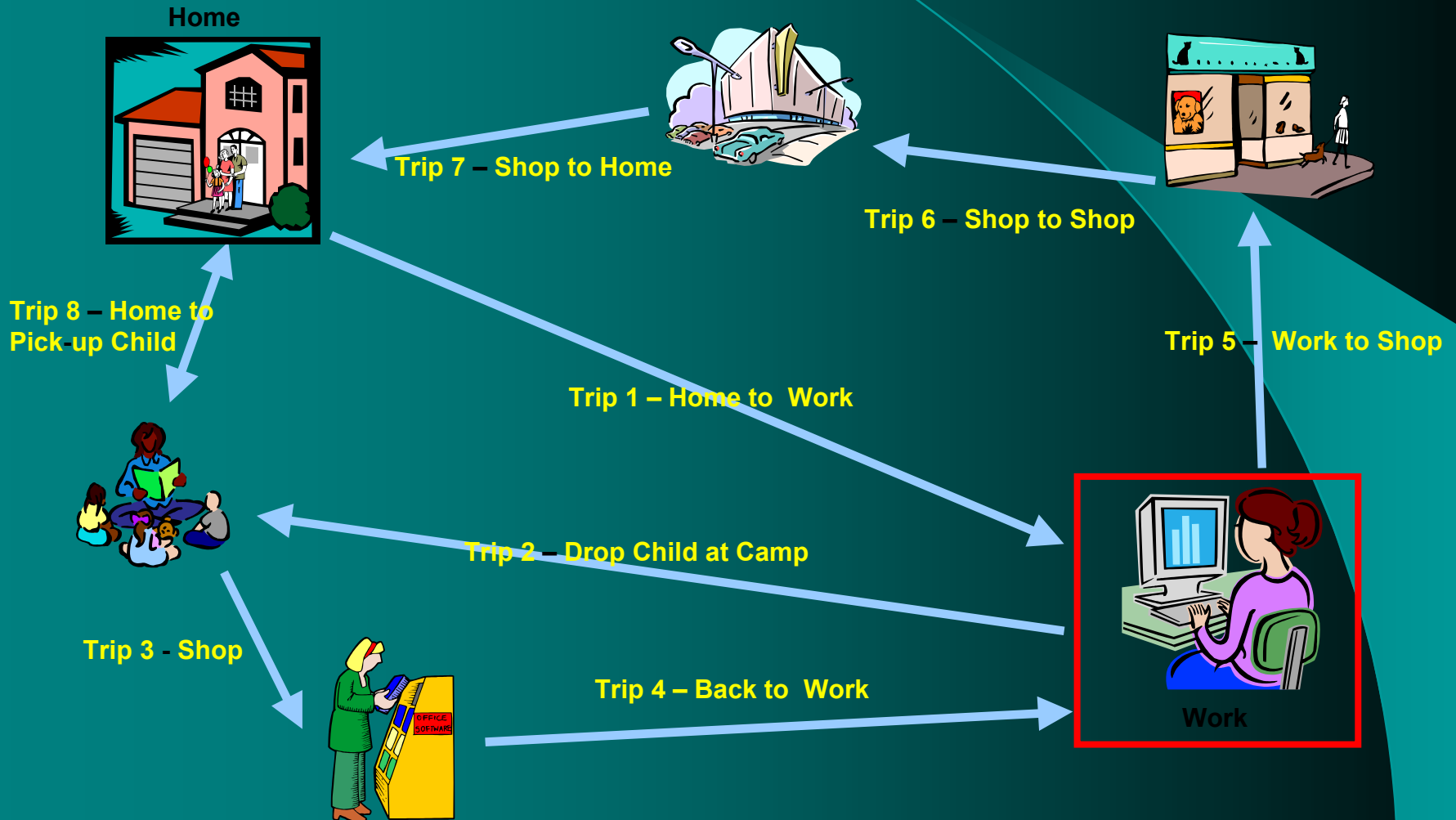


Pick-up Groceries for Dinner

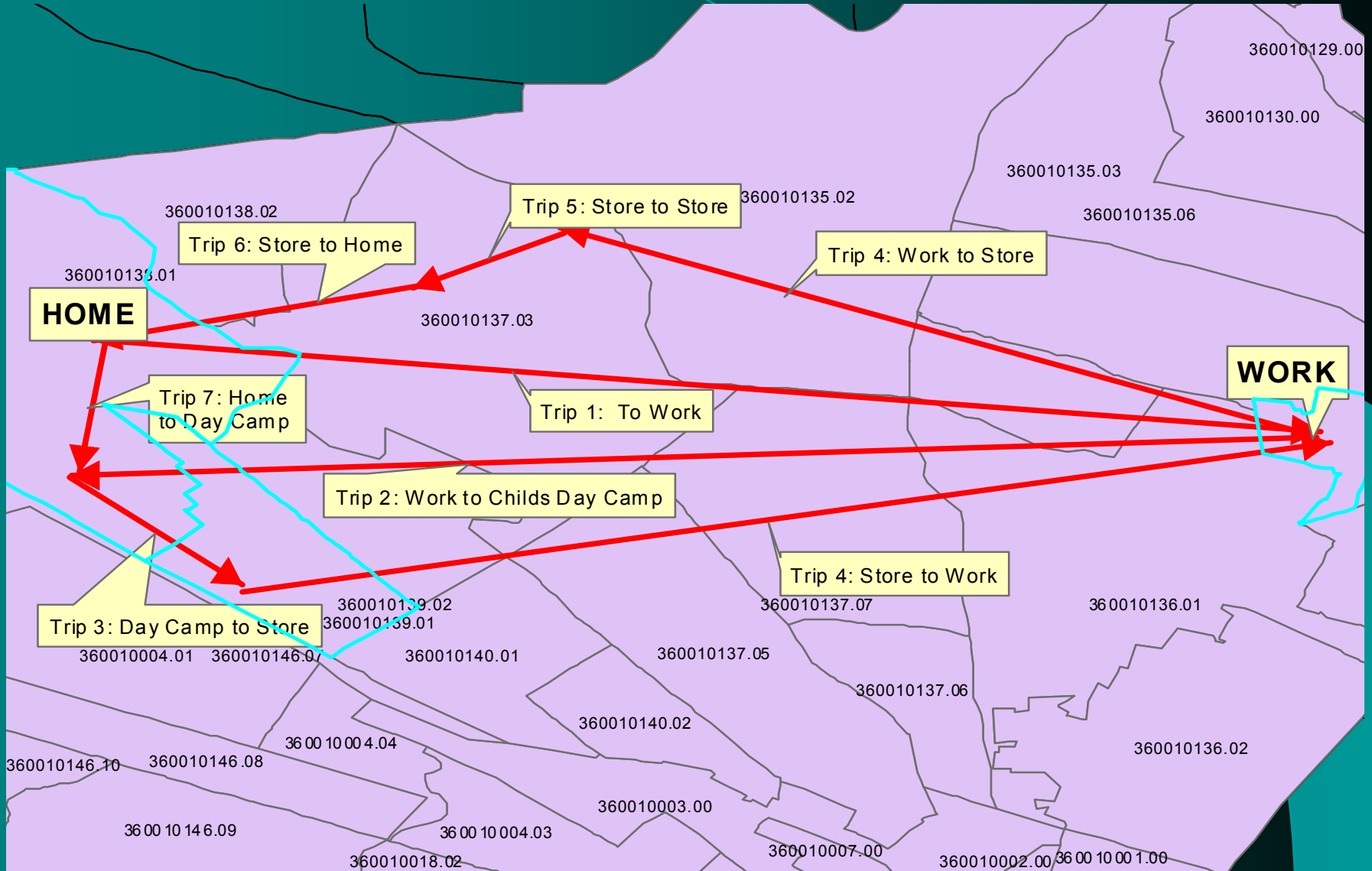


Boss' Birthday Lunch

# But, Do We Really?

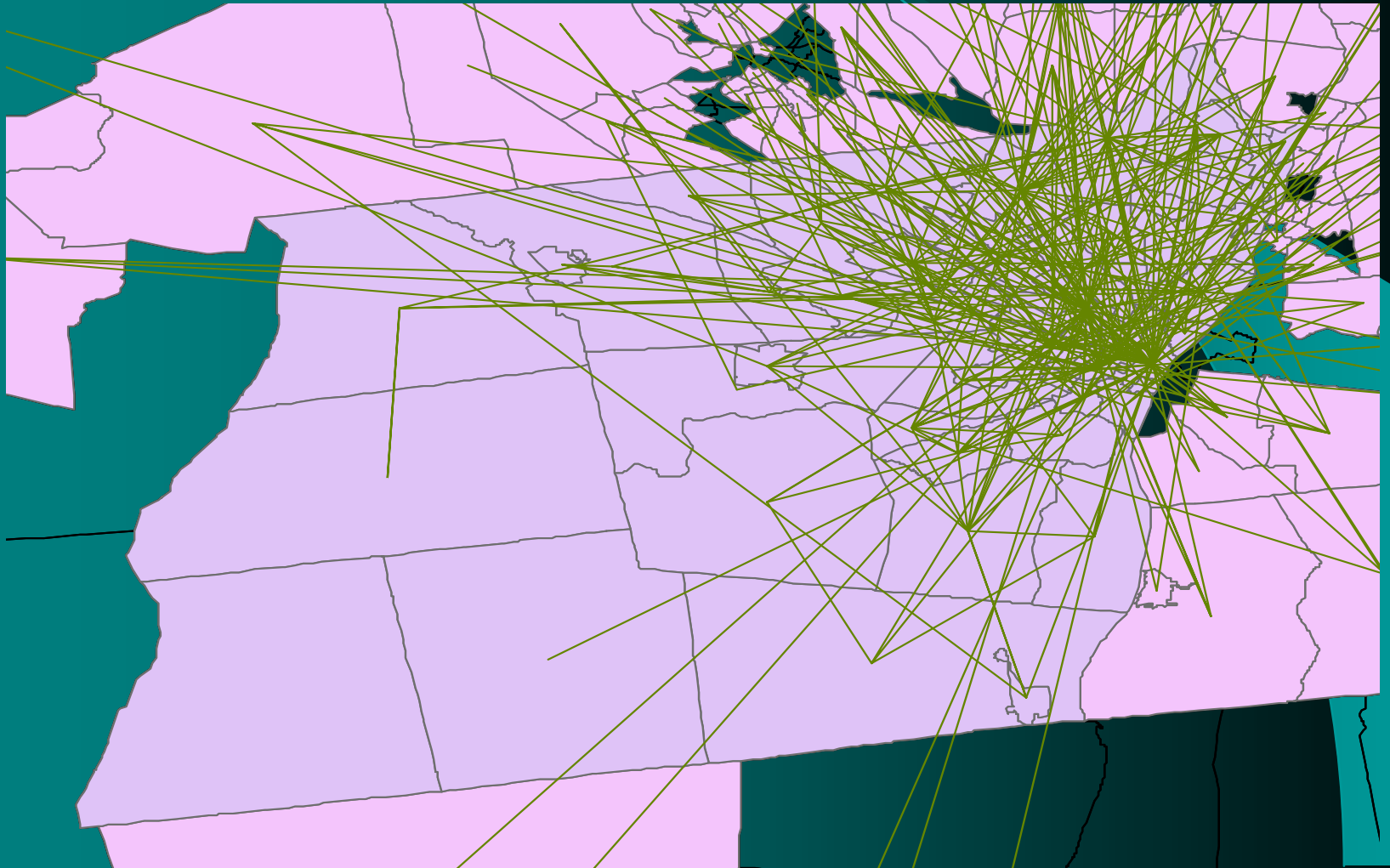


# Real Life is Messy



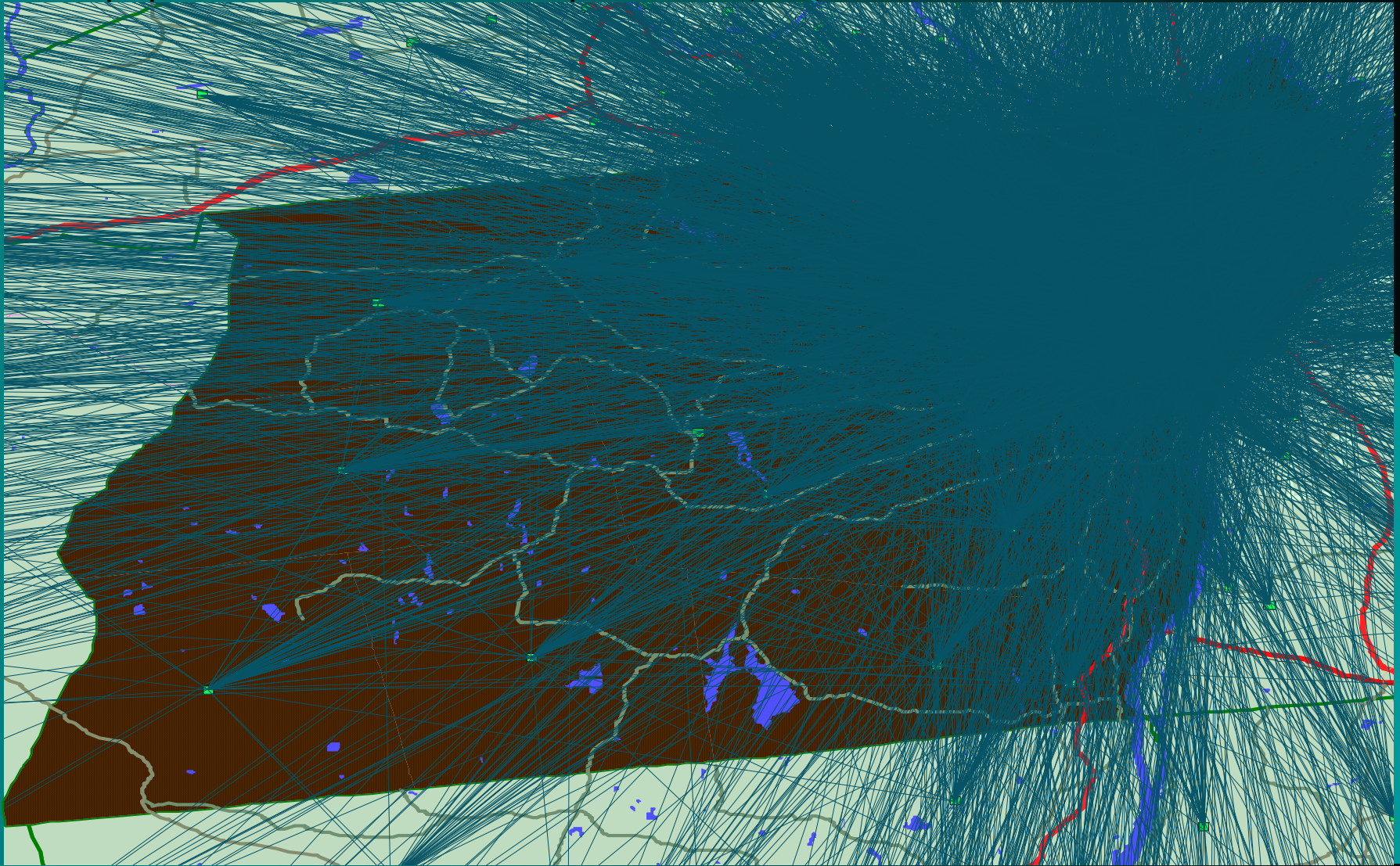
# But, Is a Good Household Travel Survey Good Enough?

Unique pairs of Worker Residence and Work Location Tracts, n=445



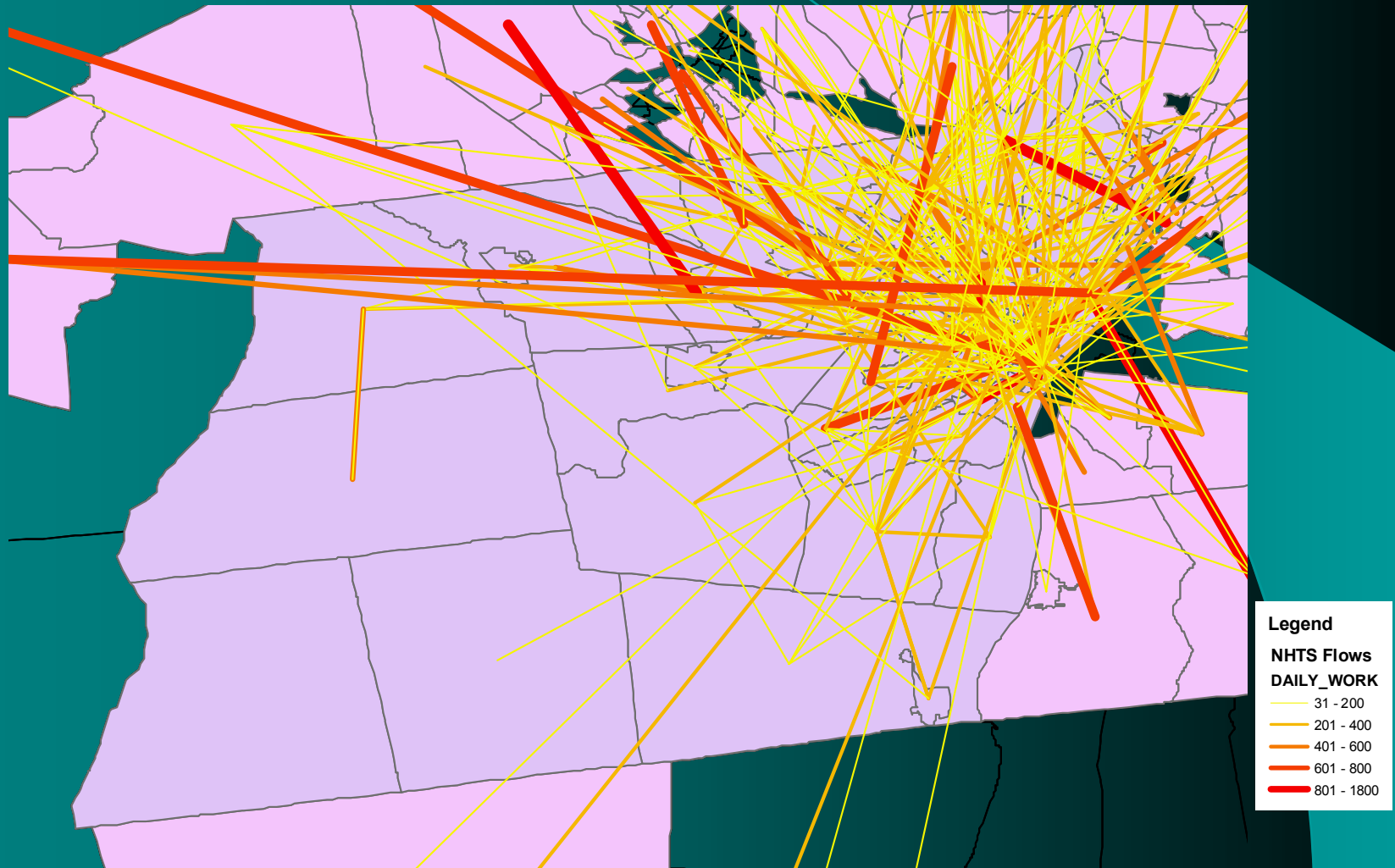
# Not for Small-Area Geographic Coverage

Unique pairs of worker residence and workplace locations,  $n=8,953$



# HTS Overstates Some Potential Flows and Misses Others Completely

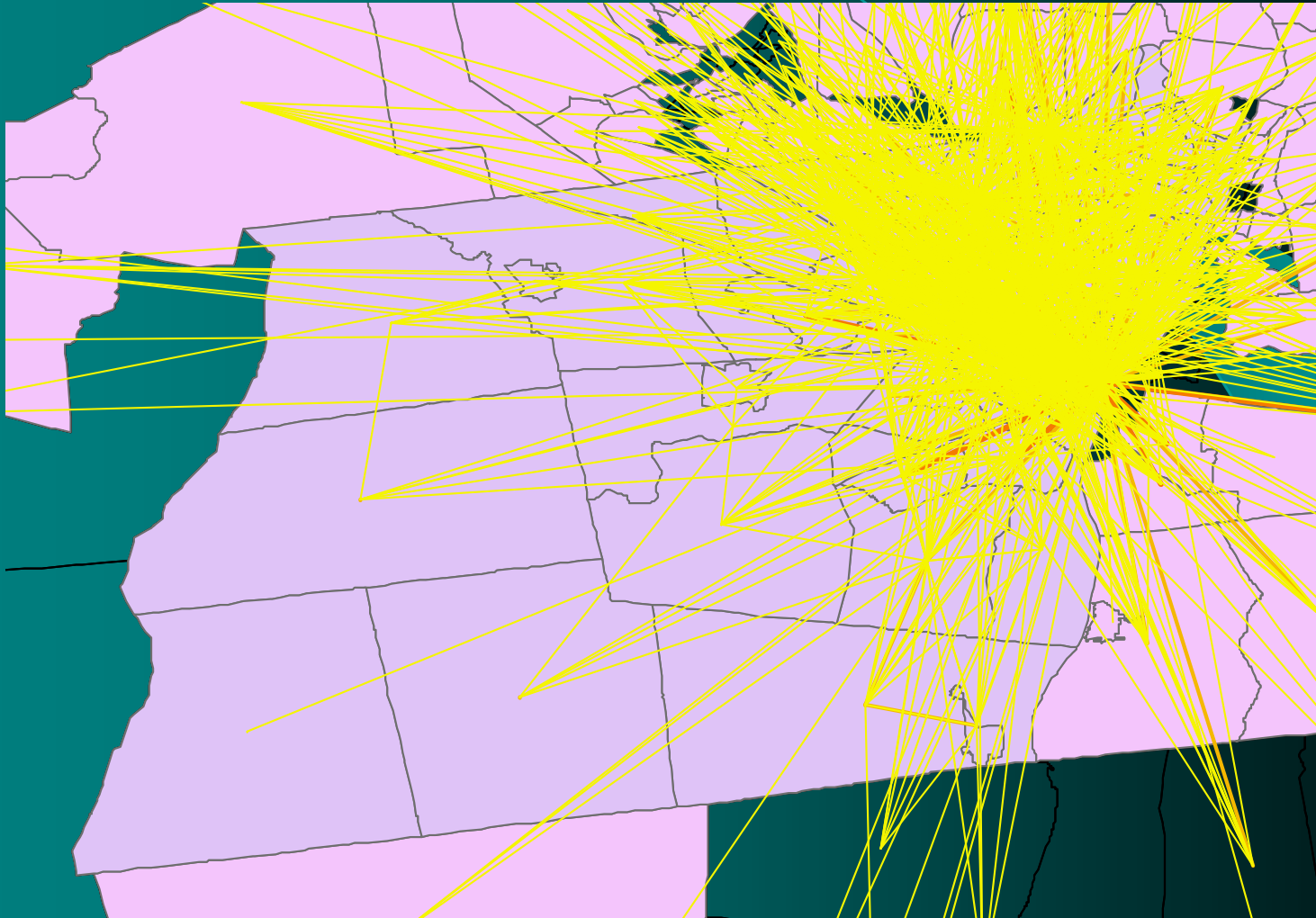
Total Workers Trips into Albany=106,058)





# Journey-to-Work Flows More Reasonable

Total Work Flows into Albany=218,715



# In major characteristics, Census data matches 'real' commutes

How usual is a 'Usual' day:

- Mode of travel matched for over 70 percent of commutes
- Travel time matched better for workers with short commutes (70 percent) than with long travel times (30-50 percent)
- Departure time also very, very similar

# Best of All Possible Worlds:

Work flows at small-area geography

AND

Descriptions of the real-life travel  
behavior from a household travel survey

# Conclusion

- ❖ What makes the JTW invaluable?

It is the work trip data collected *in conjunction* with the residence and workplace locations with such *precise geographic detail*.

- ❖ Transportation planners can evaluate potential work travel at small-area geography

While using *other data sources* to expand their understanding of the work trip to the whole of daily travel.

# Conclusion

The journey-to-work data are still relevant and needed for small-area planning, and are widely used by transportation planners and analysts.

There is a particular need for these data in areas that do not have a local, current household travel survey.

# Looking Forward

- ACS will result in fewer flows, and fewer OD pairs
- Planners hope that they can learn to make these data as useful and relevant as the CTPP
- This conference is a good overview of issues  
(e.g. confidentiality and thresholds, sample sizes, uses in modeling)
- Guidebook will be vital in helping local planners

# We Need to Connect Workplace Data to Daily Trip-making

- Journey-to-work flows are *not trips*
- LED promises comprehensive employment summaries, *but not trip attraction rates*
- For instance, *15* employees at a small fast-food place can attract *1500* daily trips
- We need to know the *1500*, not just the *15*