CHAPEL HILL TRANSIT RIDERSHIP SURVEY
Acknowledgements

- Advisor: Elizabeth Shay, Institute for the Environment, University of North Carolina
- John Richardson, Sustainability Officer, Town of Chapel Hill
- Chapel Hill Transit staff
- Mike Callahan, MCRP, City and Regional Planning, University of North Carolina
Introduction

- 2005 CRed Carbon Reduction Pledge
- 2008 Chapel Hill Transit Carbon Reduction Capstone Study

Study Goals
- Rider profile
- Assessing reasons for ridership
- Marketing strategy to increase ridership
- Refine efficiency claim of previous capstone group
Background

- Mail and Internet Surveys: The Tailored Design Method by Dillman
- TCRP Synthesis Report #63: On-Board and Intercept Transit Survey Techniques
- 2003 Ridership survey by CB&A Research Inc.
Methods

- Survey instrument design
  - Adapted questions from 2003 ridership survey
  - Additional questions concerning points of interest
  - Anonymous on-board rider survey
Methods

- Survey implementation
  - Target sample size of 400
    - 500 distributed
    - Proportional to ridership by route
  - Data collected March 31 - April 8
  - Peak and off peak hours
  - Inbound and outbound trips
  - English only
  - Random selection
We are interested in your Chapel Hill Transit experience.
This brief survey was designed by a UNC-Chapel Hill student team as a capstone project with the Institute for the Environment, in cooperation with Chapel Hill Transit. Your responses will help us understand the motivating factors behind bus use, and to determine how transit service can be improved and marketed effectively.

These surveys are anonymous and do not ask for personal identifying information.
There is no personal benefit or harm to you.
Please return completed surveys to the researchers on board your bus.
For more information, contact: transitsurvey@unc.edu

1. If you were not riding Chapel Hill Transit, how would you make this trip?
   - [ ] Car or Truck
   - [ ] Motorcycle or Scooter
   - [ ] Carpool
   - [ ] Other
   - [ ] I would not make the trip

   If you chose ‘car or truck,’ the distance of your trip on the bus is:
   - [ ] Shorter than my drive
   - [ ] Longer than my drive
   - [ ] About the same as my drive
   - [ ] I don’t know

2. Was a motor vehicle available to you for making this trip?  
   - [ ] Yes  
   - [ ] No

3. How did you get to this bus?
   - [ ] Walked _____ minutes
   - [ ] Drove and parked
   - [ ] Some other way (specify)
   - [ ] Dropped off
   - [ ] Transferred from another bus

4. Where did you COME FROM before getting on this bus? (Check only one)
   - [ ] Home
   - [ ] Work
   - [ ] Shopping
   - [ ] Eating a meal
   - [ ] UNC-CH
   - [ ] High school/Jr. High school/Middle School
   - [ ] Other school
   - [ ] Personal business
   - [ ] Other (specify)

5. Where are you GOING TO after you get off this bus? (Check only one)
   - [ ] Home
   - [ ] Work
   - [ ] Shopping
   - [ ] Eating a meal
   - [ ] UNC-CH
   - [ ] High school/Jr. High school/Middle School
   - [ ] Other school
   - [ ] Personal business
   - [ ] Other (specify)

6. How will you GET TO where you are going after leaving this bus?
   - [ ] Walk _____ minutes
   - [ ] Drive
   - [ ] Some other way (specify)
   - [ ] Get picked up
   - [ ] Transfer to another bus

7. HOW MANY DAYS A WEEK do you usually ride the bus? (Check only one)
   - [ ] Less than 1 day per week
   - [ ] 1 day per week
   - [ ] 2-3 days per week
   - [ ] 4-5 days per week
   - [ ] 5 or more days per week
   - [ ] This is my first time
8. In the past 12 months, have you changed from riding never/infrequently to frequently?
☐ Yes   ☐ No

9. What is the MOST IMPORTANT REASON you ride Chapel Hill Transit (CHT)? (check only one)
☐ No car in household  ☐ Avoid traffic congestion
☐ I don't drive        ☐ Bus is convenient
☐ Bus is economical    ☐ No convenient parking
☐ Someone else uses the car ☐ Other (specify) 

10. Are you:
☐ Female   ☐ Male

11. What is your EMPLOYMENT STATUS?
☐ Employed full-time (35 hours or more)  ☐ Retired/Homemaker
☐ Employed part-time          ☐ Unemployed

12. What is your STUDENT STATUS?
☐ Middle / Jr. High School student
☐ High School student
☐ Full-time college student
☐ Part-time college student
☐ Not a student

What is the name of the school you attend?
☐ UNC-CH
☐ Other (write in school name) 

13. Do you work or go to school on the UNC-CH campus?
☐ Yes   ☐ No

14. Have you heard of the UNC Commuter Assistance Program (CAP)?
☐ Yes   ☐ No
Do you use the UNC Commuter Assistance Program (CAP)?
☐ Yes   ☐ No

15. Have you heard of the Next Bus text messaging service?
☐ Yes   ☐ No
Do you use the Next Bus text-messaging service?
☐ Yes   ☐ No

16. Where do you receive bus service information? (check all that apply)
☐ On the bus  ☐ Online
☐ Telephone   ☐ At bus stop
☐ Work        ☐ Text message service

17. In which city/town do you LIVE? (Write in city/town)

18. Which of the following would make you ride the bus more often? (check top three choices)
☐ More bus routes  ☐ More available route information
☐ More stops       ☐ Safer on-board environment
☐ More areas served ☐ Better on-time performance
☐ More frequent bus service ☐ Safer environment at stops and shelters
☐ More evening and weekend service ☐ Safer pedestrian access to/from stops
☐ More shelters/benches at stops
☐ Other

19. Do you have any comments you’d like to share with Chapel Hill Transit?
Descriptive results
## Rider Profile

<table>
<thead>
<tr>
<th>Respondents were:</th>
</tr>
</thead>
<tbody>
<tr>
<td>65% female (of the 91% that responded)</td>
</tr>
<tr>
<td>68% employed (36% full-time; 32% part-time)</td>
</tr>
<tr>
<td>65% students (62% college; 3% high/middle school)</td>
</tr>
<tr>
<td>83% affiliated with UNC-CH (work or study)</td>
</tr>
<tr>
<td>58% have access to a car (of the 94% that responded)</td>
</tr>
</tbody>
</table>
## Residency

<table>
<thead>
<tr>
<th>Residence</th>
<th>#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapel Hill</td>
<td>232</td>
<td>47</td>
</tr>
<tr>
<td>Carrboro</td>
<td>104</td>
<td>21</td>
</tr>
<tr>
<td>Durham</td>
<td>52</td>
<td>11</td>
</tr>
<tr>
<td>Raleigh</td>
<td>24</td>
<td>5</td>
</tr>
<tr>
<td>Cary</td>
<td>11</td>
<td>2</td>
</tr>
<tr>
<td>Pittsboro</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>31</td>
<td>6</td>
</tr>
<tr>
<td>No Response</td>
<td>30</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>491</td>
<td>100</td>
</tr>
</tbody>
</table>

Transit survey capstone--spring 2009
Rider Behavior
How many days a week do you usually ride the bus?

- <1 day per week: 6%
- 1 day per week: 3%
- 2-3 days per week: 15%
- 4-5 days per week: 39%
- 5+ days per week: 35%
- First time rider: 3%
- No response: <1%
How would you make this trip?*

*If you were not riding Chapel Hill transit
Bus and car trip distance comparison

- Bus is shorter: 24%
- About the same: 42%
- Bus is longer: 30%
- Unsure: 4%

# Responses
Alternative Mode of Travel when Auto Available

- Drive: 61%
- Carpool: 4%
- Bike, Walk, or Other: 31%
- Would not make this trip: 5%
Transit Trip Type: Origin/Destination Pairs

<table>
<thead>
<tr>
<th>Trip Type</th>
<th>% Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home based-work</td>
<td>20%</td>
</tr>
<tr>
<td>Home based-UNC</td>
<td>35%</td>
</tr>
<tr>
<td>Home based-other</td>
<td>24%</td>
</tr>
<tr>
<td>Non-home based</td>
<td>21%</td>
</tr>
</tbody>
</table>
Transit Trip Type by Vehicle Availability

<table>
<thead>
<tr>
<th>Type</th>
<th>No vehicle available</th>
<th>Vehicle available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home based work</td>
<td>14%</td>
<td>24%</td>
</tr>
<tr>
<td>Home based UNC</td>
<td>24%</td>
<td>44%</td>
</tr>
<tr>
<td>Home based other</td>
<td>31%</td>
<td>18%</td>
</tr>
<tr>
<td>Non-home based</td>
<td>31%</td>
<td>13%</td>
</tr>
</tbody>
</table>
Marketing
What is the most important reason you ride Chapel Hill Transit?

- No car in household: 10%
- I don't drive: 8%
- Bus is economical: 12%
- Someone else uses the car: 1%
- Avoid traffic congestion: 3%
- Bus is convenient: 29%
- No convenient parking: 30%
- Other: 7%

# Responses
What would make you ride the bus more often?

- More bus routes: 14% (220 responses)
- More stops: 6% (130 responses)
- More areas served: 10% (170 responses)
- More frequent bus service: 10% (170 responses)
- Better on-time performance: 7% (110 responses)
- More evening and weekend service: 10% (170 responses)
- More shelters/benches at stops: 5% (85 responses)
- Safer on-board environment: 1% (17 responses)
- Safer environment at stops and shelters: 2% (34 responses)
- Safer pedestrian access to/from stops: 2% (34 responses)
- Other: 3% (51 responses)
Do you have any comments you would like to share with Chapel Hill Transit?

- Good job: 21%
- Bring back full schedule pamphlets: 5%
- More weekend service: 10%
- More evening service: 8%
- More frequent service: 15%
- More extensive service: 7%
- Bad or dangerous drivers: 5%
- Inconsistent arrival times: 17%
- Other: 23%

# Responses: 24
Commuter Alternative Program
(Available to UNC students, staff, faculty without parking permit)

- Unaware of CAP: 59%
- Aware of CAP: 41%
- Use CAP: 17%

# Responses

- Commuter Alternative Program (Available to UNC students, staff, faculty without parking permit)

25
NextBus Text-Messaging Service
(This program still in development)

Bar chart showing:
- 61% Unaware of text service
- 39% Aware of text service
- 11% Use text service

# Responses
- NextBus Text-Messaging Service (This program still in development)
Where do you receive bus service information?
(% respondents for each source; multiple answers possible; sums to more than 1.0)

- On the bus: 30%
- Telephone: 5%
- Work: 4%
- Online: 76%
- At bus stop: 51%
- Text message service: 3%
Conclusions

- Length of bus trips versus personal vehicle trips
- Second-choice mode of bus riders
  - 47% of riders would use personal autos (SOV, carpool)
  - 10% of riders would otherwise bike
  - 33% of riders would otherwise walk
  - 8% of riders would not take the trip
- Warrants deeper analysis to find Transit efficiency:
  - How many vehicle trips are displaced by CH Transit?
  - How many vehicle miles are displaced by CH Transit?
Future Research

- Quantitative and geo-spatial data necessary to estimate travel (trips and miles) that bus trips replace
- Spanish language survey
- Further analysis of data for marketing and route planning purposes
### Selected Rider Comments

<table>
<thead>
<tr>
<th>Comment</th>
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</thead>
<tbody>
<tr>
<td>I think it's a great service to the community and a real asset for the citizenry.</td>
</tr>
<tr>
<td>I wouldn't be able to get some places without the buses.</td>
</tr>
<tr>
<td>My family almost always rides the bus to places off MLK.</td>
</tr>
<tr>
<td>Some drivers are rude and don't even wait till you’re seated before they start driving, which is unsafe for everyone</td>
</tr>
<tr>
<td>Bring back the book with all routes and weekend service. When you don't know what routes and times but want to just get around it helps to have a book of all times and routes for spur of the moment travel.</td>
</tr>
<tr>
<td>I wish more of the buses were hybrids.</td>
</tr>
<tr>
<td>The bus service here is very efficient and safe, I am constantly frustrated by the lack of late night and weekend service. I would use my car even less if there were more service available.</td>
</tr>
<tr>
<td>I'd like more frequent stops to and from the Friday Center from 10am-2pm (when the FCX does not run).</td>
</tr>
<tr>
<td>Stan N is the most outstanding bus driver in Orange County—he goes out of his way to help commuters.</td>
</tr>
<tr>
<td>Don't set bus stop along highway!</td>
</tr>
<tr>
<td>The J route should use the bigger buses in the morning during peak times. I feel like a rat in a cage in the mornings!</td>
</tr>
<tr>
<td>I wish arrival time info on the electronic boards were more reliable. I have, on more than one occasion, been waiting for the CW in front of the HSL watching the estimated arrival time go down to just a few minutes. Then CW doesn't appear anymore and the bus doesn't show up.</td>
</tr>
<tr>
<td>NextBus online makes it easy to check next bus.</td>
</tr>
<tr>
<td>If it weren't for CHT, I would have no way to get from place to place at this time.</td>
</tr>
<tr>
<td>I often do not commute on the route next to my house due to the service stopping at 6:30pm. I've been stuck before with no service to get back to my house and had to walk at night. Did not feel safe.</td>
</tr>
<tr>
<td>One of the best things about Chapel Hill.</td>
</tr>
<tr>
<td>Easier use of text messaging system. I am happy with the bus system but would like to utilize the text messaging system if it were less complicated. I would also like to see more electronic route information at stops.</td>
</tr>
<tr>
<td>Lights in the bus stops. I like using the bus because I don't have a car.</td>
</tr>
</tbody>
</table>