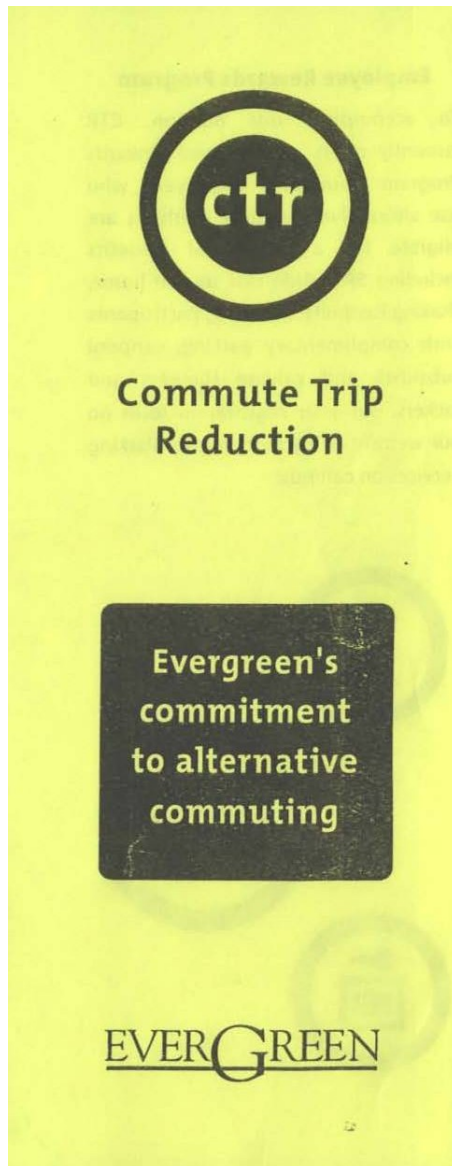


Estimating Commute Trips

The Evergreen State College

Office of Institutional Research and Assessment

Reason for study



- Parking Office wanted information on student and employee commuting patterns as part of the Commute Trip Reduction Program.
- Institutional Research wanted to support the effort and experiment with geocoding addresses for other research.

What is Commute Trip Reduction?







Commute Trip Reduction is a law that the Washington State Legislature passed in 1991. It requires large employers in affected counties to implement programs to reduce the number of people who drive to work or school alone.



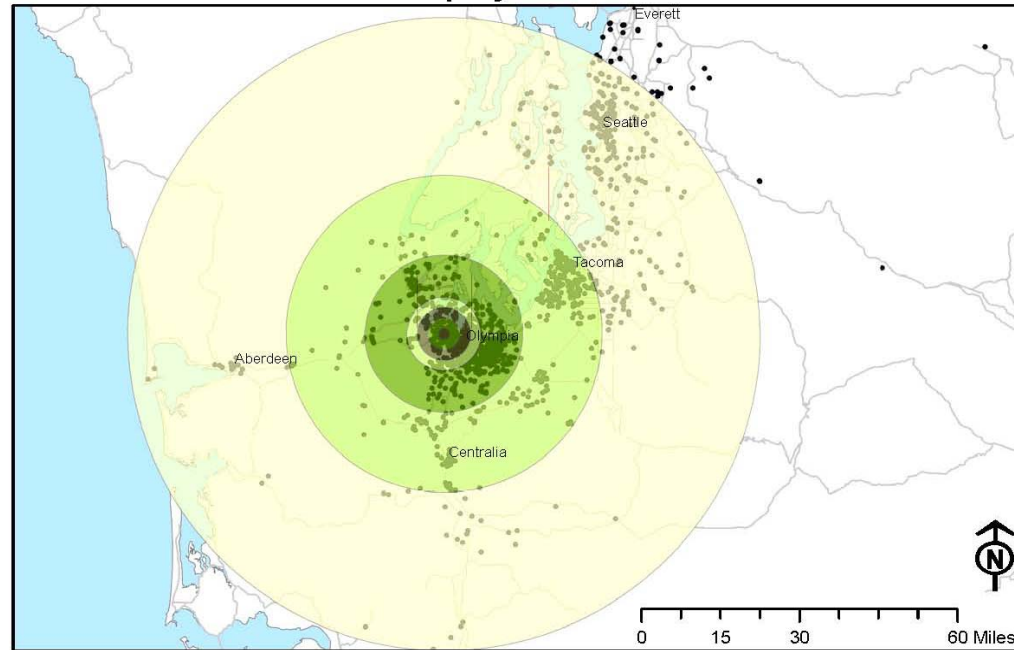
Our Mission

Our mission here at Evergreen is to help significantly reduce the annual amount of air pollution, traffic congestion and energy consumption by promoting and facilitating safe and accessible alternative commuting options to the Evergreen community.

Methodology

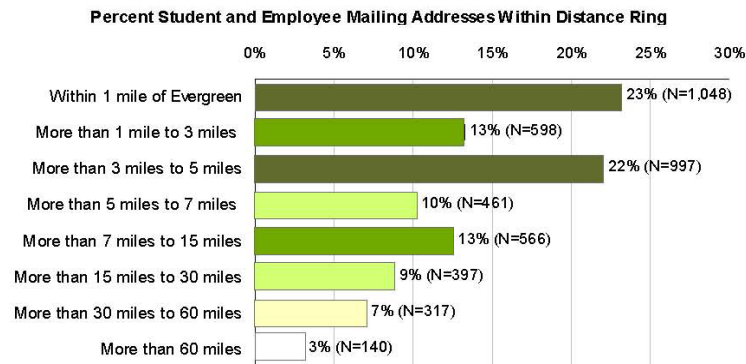
-  Geocoding - addresses were mapped as points relative to a reference file (Census Tiger files)
-  Student mailing addresses from Fall 2004 snapshot were used.
-  If addresses were out-of-state, PO Boxes, billing, and/or parent addresses then attempts were made to identify other address.
-  Employee addresses from Spring 2005 were used. PO Boxes were excluded.
-  The records from Commute Trip Survey reviewed to confirm addresses or provide more accurate commuting addresses.
-  Total of 92% of student and employee addresses were geocoded.

Commute Trip Analysis: Location of Student and Employee Addresses



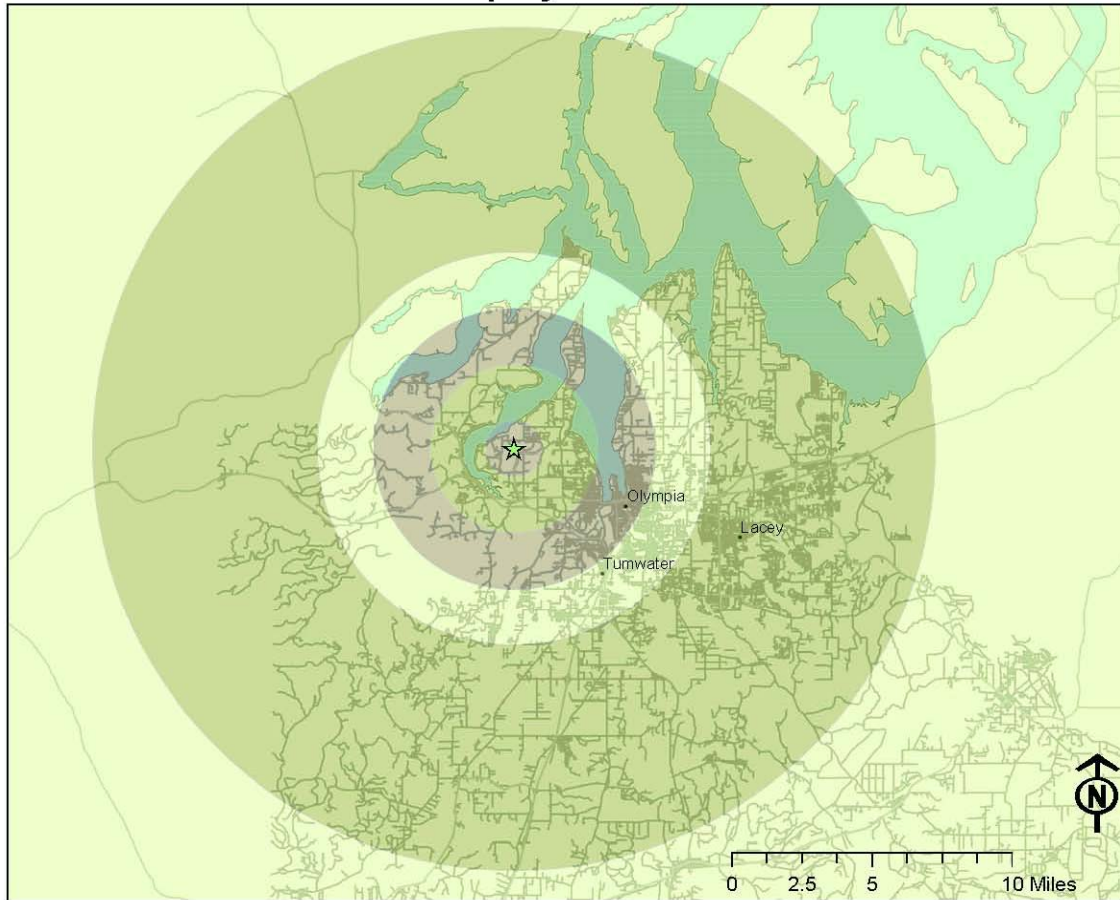
- Address of Student or Employee

This map shows the number and percentage of mailing addresses that are within particular distances from The Evergreen State College, Olympia campus. Mailing addresses were geocoded only for those students and employees who had a street address. Some employees may be working off of the Olympia campus. Addresses are for students studying primarily in Olympia. A total of 3,733 (or 92% of Fall Quarter 2004 Olympia campus students) are represented on the map. A total of 791 (92% of employees as of Spring 2005) are represented on the map.

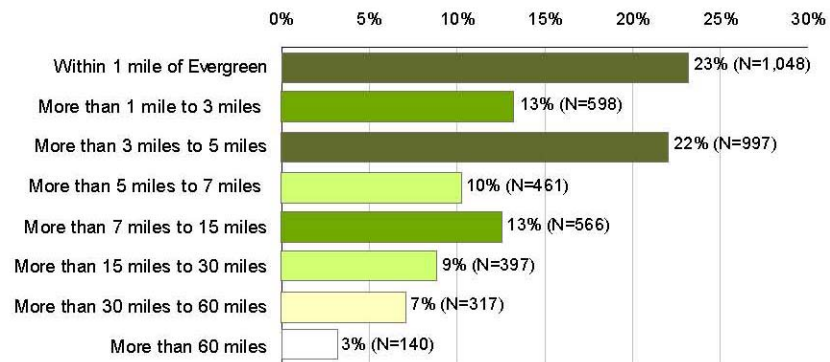


Map developed by The Evergreen State College, Office of Institutional Research and Assessment with data from the The Evergreen State College Human Resources office, BANNER data, and commute trip survey/traffic count data from the Parking Office.
December 16, 2005

Commute Trip Analysis: Location of Student and Employee Addresses



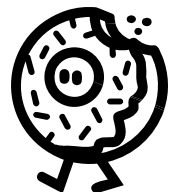
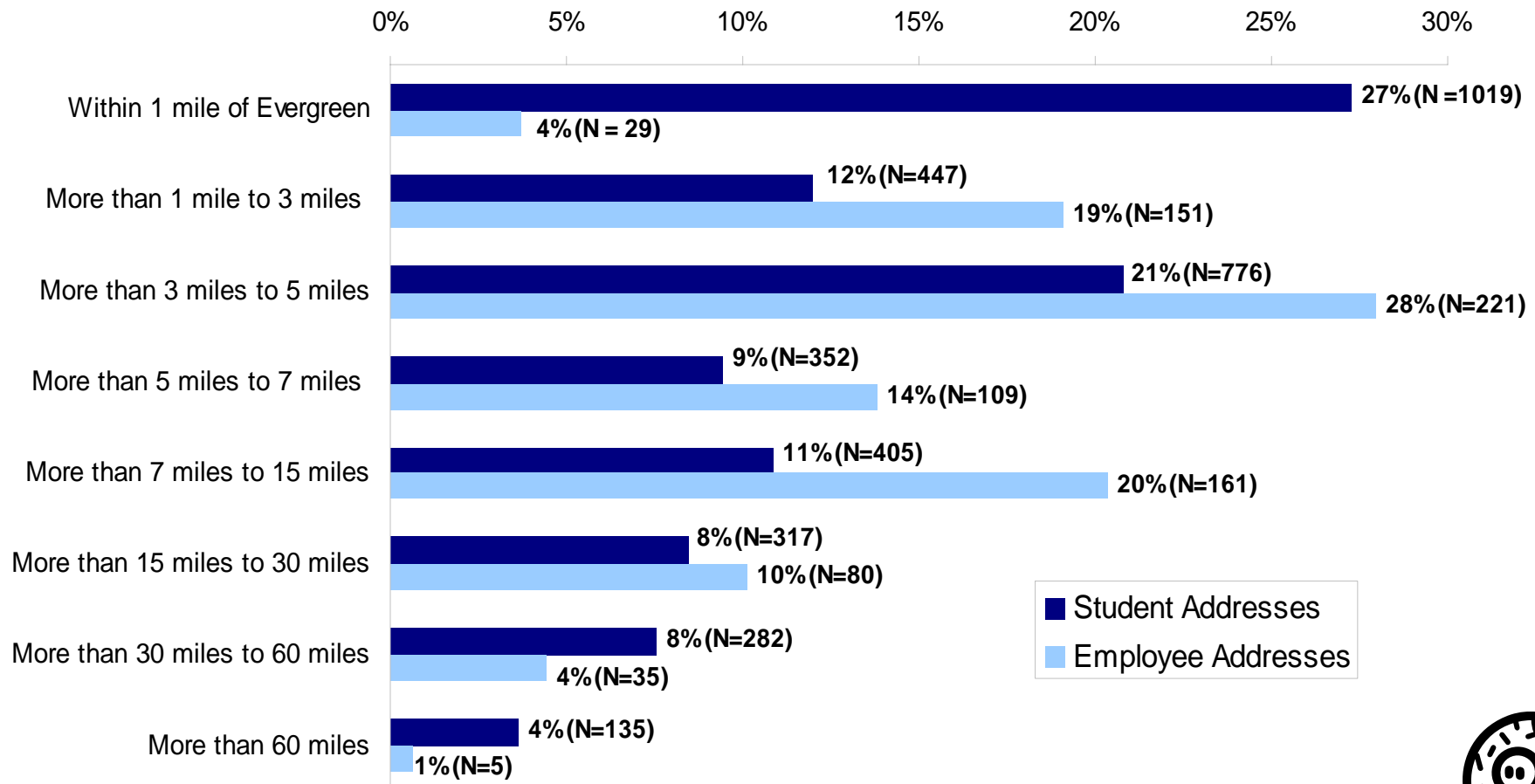
Percent Student and Employee Mailing Addresses Within Distance Ring



Students' Commute Distances Compared to Employees'

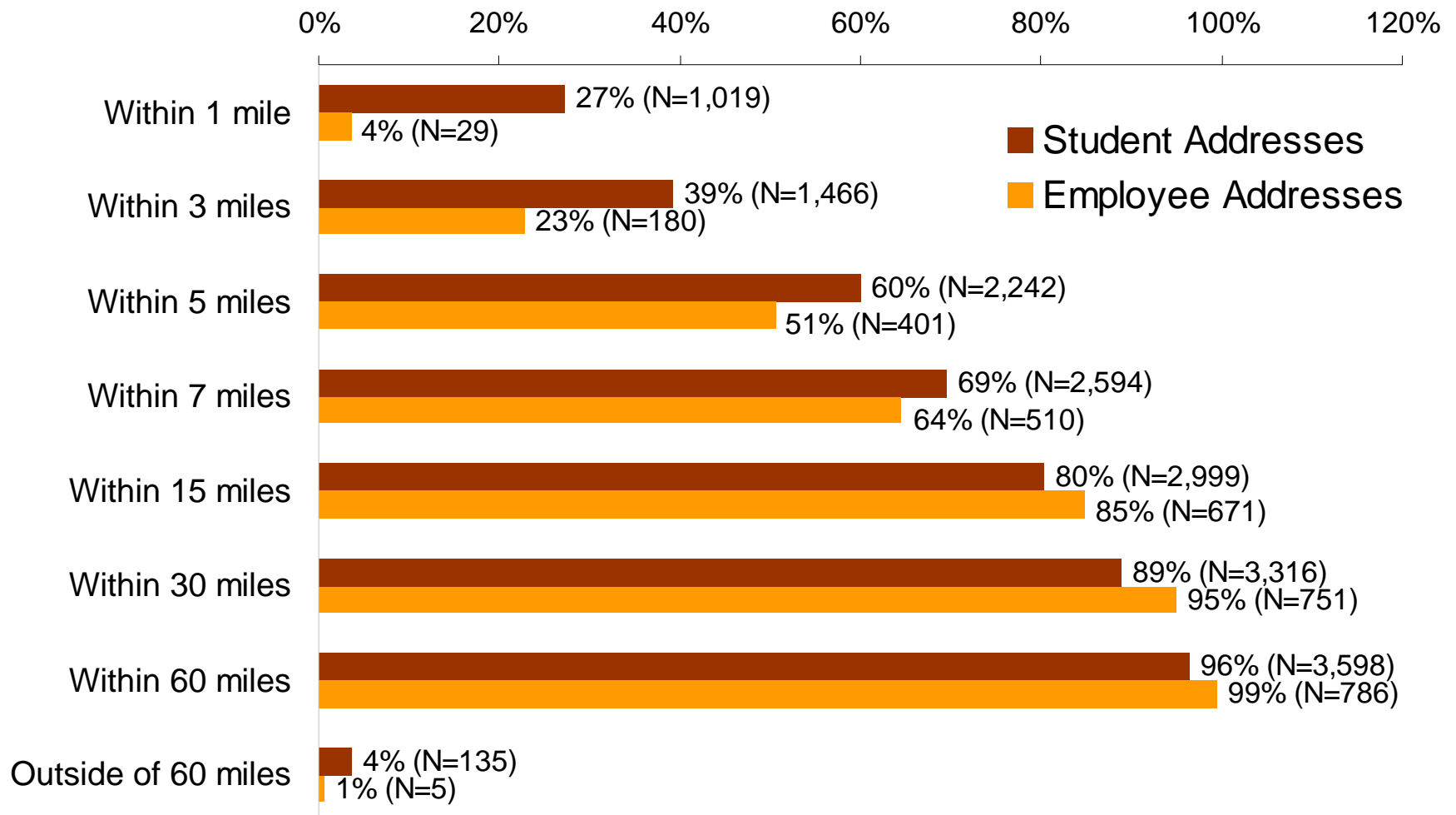
"The Donut Analysis"

Distance from The Evergreen State College, Olympia campus



Students' Commute Distances Compared to Employees'

Distance from The Evergreen State College, Olympia Campus

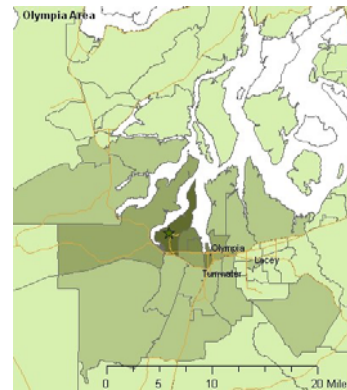
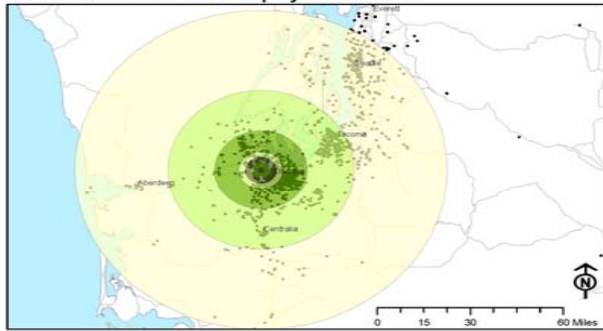


Observations

- Greatest percentages of students live within 1 mile of Olympia campus (27%, N=1,019)
- Greatest percentage of employees between 3 to 5 miles of Olympia campus (28%, N=221)
- 39% of students live within 3 miles of the Olympia campus compared to 23% of employees.
- The greater percentage of student addresses outside of 60 miles (4%) may reflect both students independent learning opportunities and some out-of-date addresses.

Other ways to view the data...

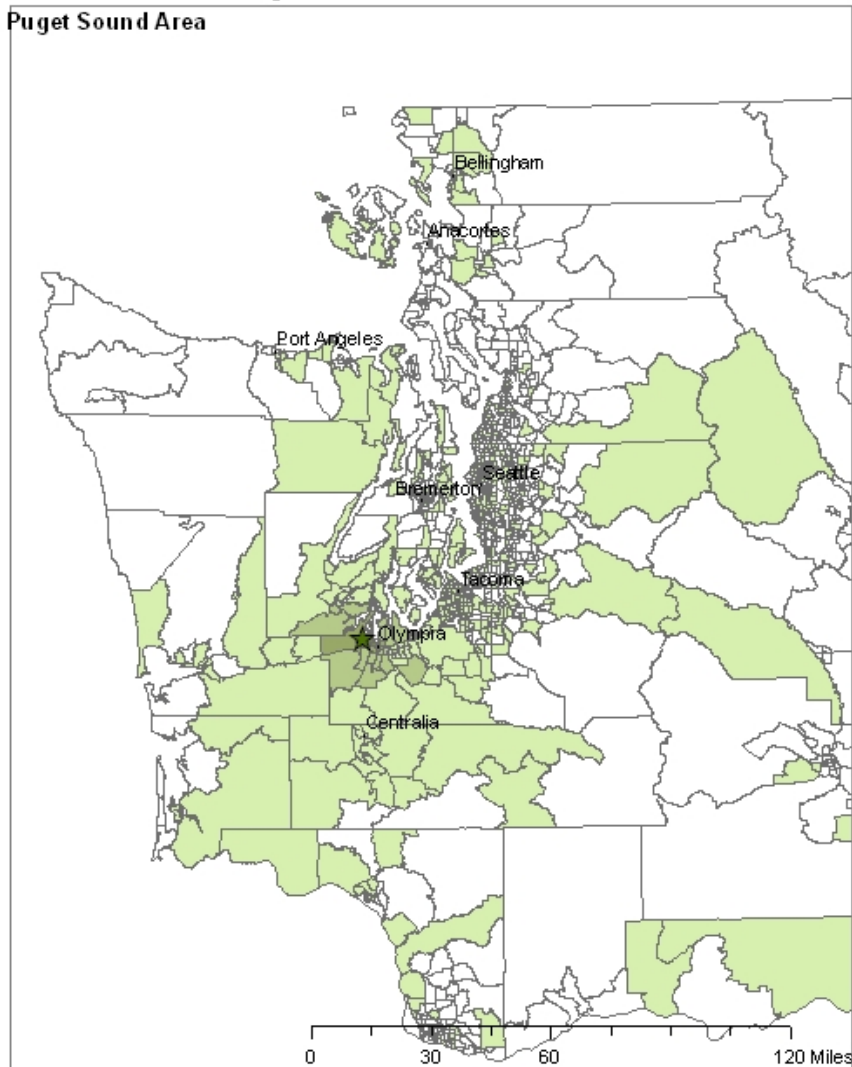
- Instead of addresses as points or rings showing distance choropleth maps can be used.



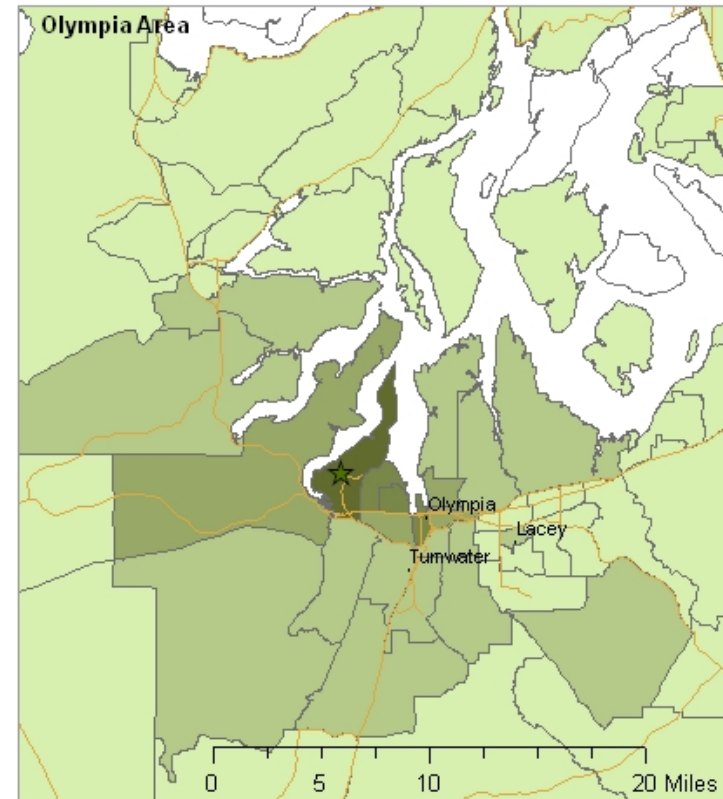
- The map on the next page was normalized, the map shows concentrations of students and employees per 100 people in each census tract. This controls for differences in the population of each census tract.

Number of Evergreen Student and Employee Mailing Addresses Per 100 People in Census Tract

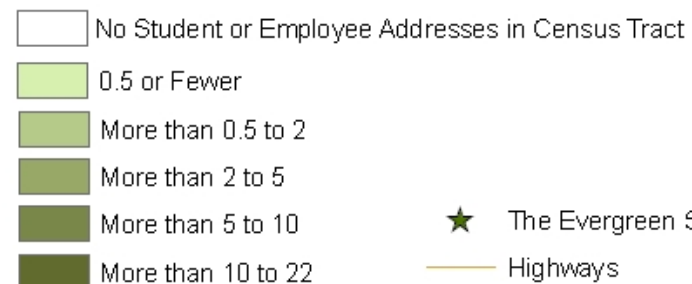
Puget Sound Area



Produced by The Evergreen State College, Office of Institutional Research and Assessment with data from the Evergreen Parking Office and Human Resources Fall 2004 Student data; Spring 2005 Employees Data.
Total population in 2000 from U.S. Census Bureau.
Map Produced October 2005



Number of Evergreen Student and Employee Mailing Addresses Per 100 People in Census Tract

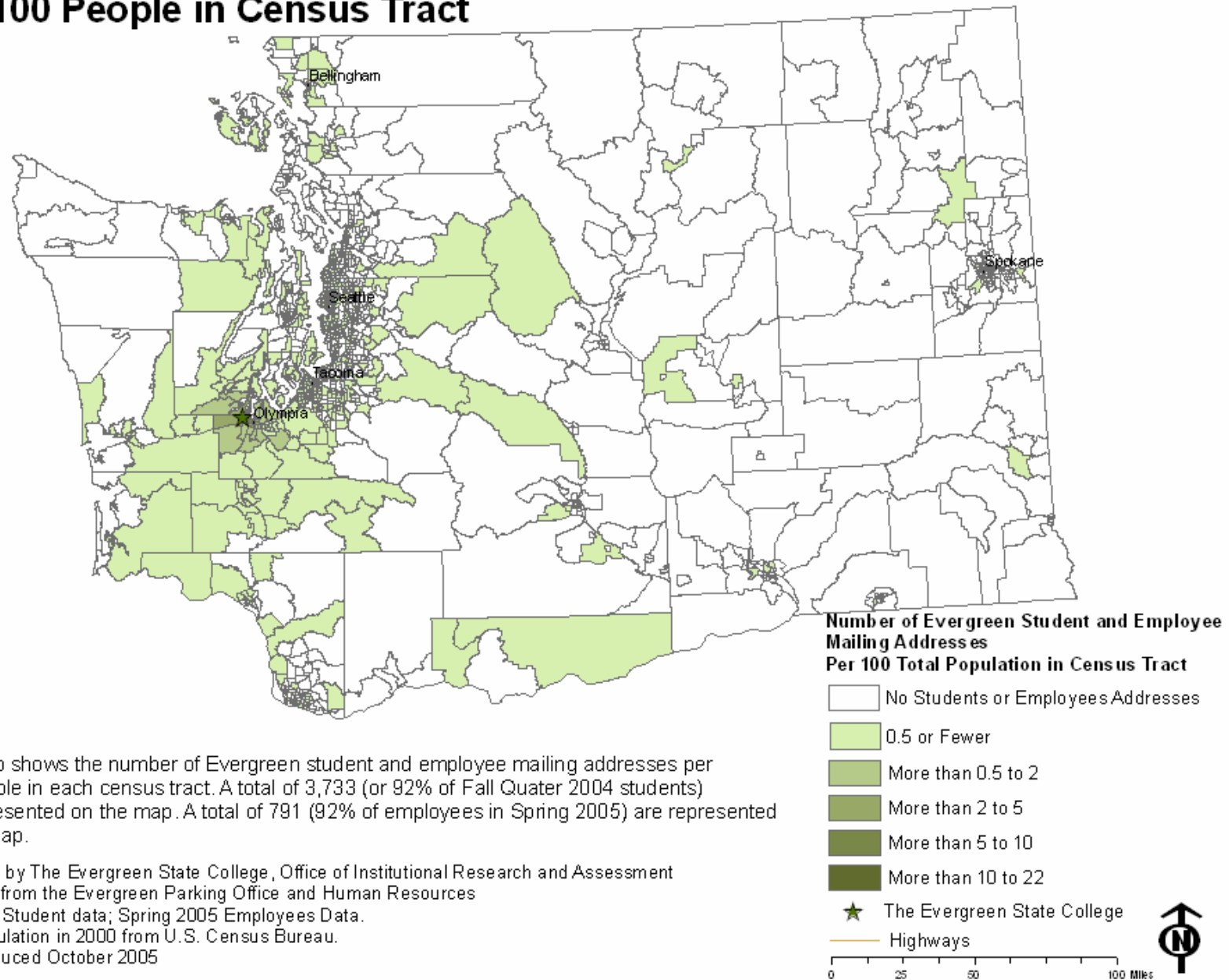


★ The Evergreen State College

— Highways



Number of Evergreen Student and Employee Mailing Addresses Per 100 People in Census Tract



This map shows the number of Evergreen student and employee mailing addresses per 100 people in each census tract. A total of 3,733 (or 92% of Fall Quarter 2004 students) are represented on the map. A total of 791 (92% of employees in Spring 2005) are represented on the map.

Produced by The Evergreen State College, Office of Institutional Research and Assessment
with data from the Evergreen Parking Office and Human Resources
Fall 2004 Student data; Spring 2005 Employees Data.
Total population in 2000 from U.S. Census Bureau.
Map Produced October 2005

Lessons Learned

- Geocoding is time consuming and requires close auditing of geocoded addresses, doing some matches by hand, and making edits to the reference file.
- These maps are estimates; mailing addresses are a best guess as to where people are commuting from.

Other Analyses

- Part-time and full-time attributes in the database, so that differences in commute patterns could be analyzed.
- With a complete bus route map, an analysis of the number of students and employees that live within walking distance to a bus stop.
- Find concentrations to suggest neighborhood carpools or other alternatives.

Other Institutional Research Maps

- Student County of Origin
- Student State of Origin
- Transfer Institutions

www.evergreen.edu/institutionalresearch