



2012-2013 ECO₂school Program Impact



In the Fall and Spring of 2013, ECO₂school student leaders surveyed a random sample of High School students who participated in year-long ECO₂school programming and the 2-4 week ECO₂school Challenge at the end of the school year. 769 students in seven high schools (out of a total population of 9,454) were surveyed regarding their school commute transportation habits as well as their feedback on ECO₂school programs.

By increasing their use of alternative and active transportation methods in their commutes, students at participating schools saw a **5.3% reduction** in their VMT (Vehicle Miles Traveled), Carbon dioxide (CO₂) emissions, and gas consumption. The following numbers apply to the 769 students surveyed:

VMT: Miles traveled by participating students in cars decreased by **1,535 miles per week**.

CO₂: Students' Carbon dioxide emissions decreased by **1,210 pounds of carbon per week**.

Gas: Students reduced their use of gas by **65 gallons** of gas per week. In doing so, they saved **\$76 per week**.

When this data is extrapolated to all students at all seven schools, we can assume that every week of the ECO₂school Challenge:

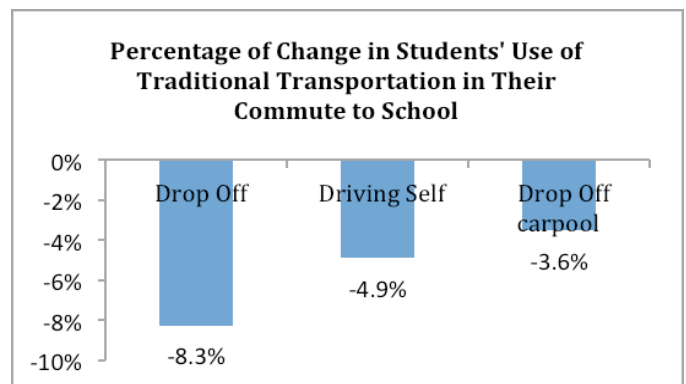
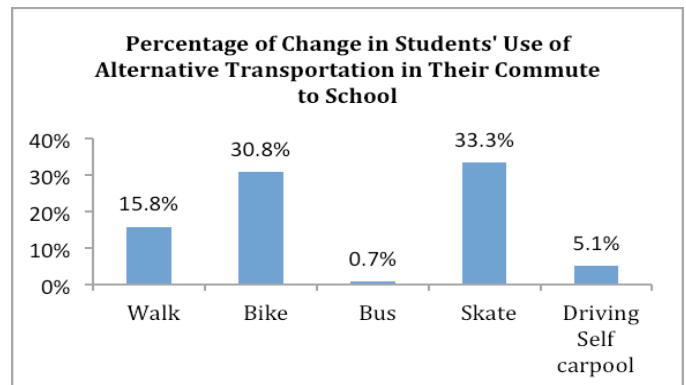
- ***18,876 fewer miles are driven***
- ***14,880 fewer pounds of CO₂ are emitted***
- ***827 fewer gallons of gas are consumed (saving \$3,264)***

How did students' use of transportation change?

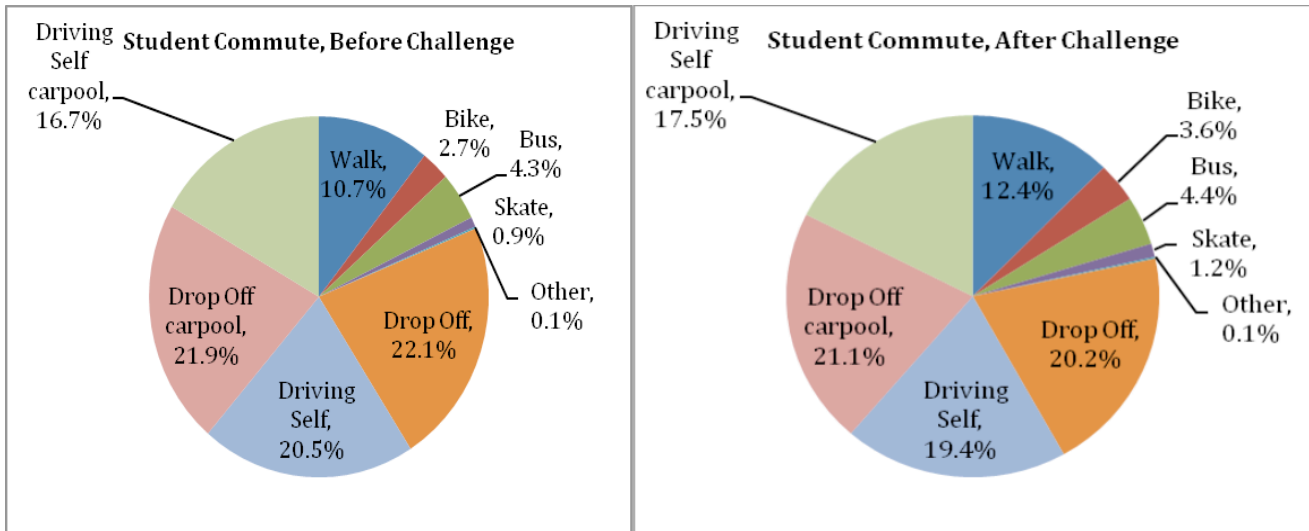
The 769 surveyed students reported that, on average, their use of active and alternative modes of transportation to get to and from school all increased during the ECO₂school Challenge, as opposed to the beginning of the school year. The largest change (33.3% increase) was in students who ride skateboards to school, followed by those who ride bicycles to school (30.8% increase), and those who walk to school (15.8% increase).

Students' use of most traditional transportation methods generally decreased. Students who were dropped off as a car's only passenger decreased 8.3%, students who drove to school alone decreased 4.9%.

Interestingly, students who were dropped off as part of a carpool decreased 3.6%



The following is another way to view the change in transportation habits. The following two graphs provide a snapshot of how students commuted to and from school before and after the ECO₂school Challenge.



What did students think?

Students were asked to rate a few program components on a scale of 1-5. Of the 208 students who answered questions about ECO₂school programming, the most popular programs were the ACE (Alliance for Climate Education) assembly, which received an average rating of 3.27 on a 5-point scale, and the Bike Blender, which received an average rating of 3.15. Other programs, such as the “Share the Road” presentation, Slow Races, and a Community Bike Ride, each received an average rating between 2.5 and 3.

When asked about the features of the ECO₂school Challenge website, 75 students replied that the features that best motivated them were the team aspect (3.71 average rating) and the ability to earn medals (3.59 average rating). The features that motivated them the least were learning about how many calories they burned (2.57 average rating), and learning about their VMT reduction (2.51 average rating).

Of the incentives that ECO₂school offered to students, some were more popular than others. 618 students reported that the incentives that motivated them the most included gift cards (3.53 average rating), pizza (3.51 average rating), and ice cream (3.38 average rating). The incentives that motivated them the least included the online system itself (2.18 average rating) and free reusable grocery bags (2.22 average rating).

610 students also gave feedback on what future ECO₂school programs they would be interested in participating in. The program most frequently requested was a “build-a-bike” class, which received an average rating of 2.42, followed by a “fix-a-bike” class, which received an average rating of 2.18.