

## Price Street Bike Lane: Before-and-After Study of Bicycle Volumes

The Price Street bike lane was installed in the spring of 2012. A common question in the realm of bicycle planning is whether dedicated bicycle facilities, in contrast to sharing standard travel lanes, would lead to increased use of bicycles, due to a perceived and perhaps actual increase in traffic safety. The Price Street project presented the opportunity to observe whether there was a noticeable difference in bicycle volumes after installation. Naturally, many other factors also influence a traveler's decision to use a bicycle, including weather, distance, and temperature, for example. In the interest of sharing information, this comparison simply looks at the available data from the limited number bicycle counts that have been conducted; it does not draw definitive conclusions by controlling for all possible factors and incorporating a rigorous number of samples.

The Price Street project consisted of converting a two-lane, one-way, southbound street to a one-lane, one-way, southbound street with a bike lane and on-street parking.



*Price Street prior to May 2012: two wide travel lanes.*



*Price Street after May 2012: one regular travel lane, a bike lane, and on-street parking.*

This analysis looks at Lincoln Street and Habersham Street, along with Price Street, in order to investigate the possibility that an increase of bicycle trips on Price Street after installation of the bike lane was actually revealing shifts from these parallel routes rather than “new” trips. Lincoln Street is a one-lane, one-way, northbound street with a northbound bike lane throughout this study – i.e. it's design remained the same while Price Street's design was modified. Similarly, Habersham Street, throughout the study, is a two-lane, two-way street on a signed bicycle route with no dedicated space for bicycles. Price Street may attract trips, at least southbound ones, from either of the parallel routes -- by providing a more exclusive facility than Habersham Street provides and by providing such facility for southbound travel, in contrast to northbound bike lane on Lincoln Street, where wrong-way riding occurs to some extent.

The Price Street data from before the street conversion was collected only in 2011, because that was the earliest year that MPO staff became aware of the upcoming project. (Lincoln Street and Habersham Street have been included in the regular count program since it started in 2009, because of long-existing facilities and routes there. However, this analysis can only go back as far as the data exists for all three routes.) At the time of this report, six years of data from after the conversion project are available: 2012-2017. Each year's data consists of two or three two-hour samples, usually taken in September. This is a very limited amount of data, due to the manual count method that has been used until automated bicycle and pedestrian counting equipment can be obtained and installed by an appropriate agency.

The data in the chart below suggest, but do not prove, that bicyclists prefer a bike lane over a shared lane route. The data is less consistent on the question of whether bike lanes attract new trips that previously weren't made by bicycle or weren't made at all. After the installation of the bike lane between the 2011 and 2012 samples, bicycle trips on Price Street increased by a factor of three or four, from about 12 trips per two-hour count period in 2011 to 35-49 trips per two-hour count period in the years 2012-2017. Until 2017, the data also suggested that some of the trips on Price Street are indeed new trips, because the combined total from all three parallel routes rose to a new level starting in 2012. Habersham Street, with merely shared lanes, saw its share of trips decrease, but not by enough to cancel out the increase on Price Street. However, in 2017, for the first time since the bike lane installation, the combined total of the three routes fell back down below the 2011 "before bike lane" level, although Price Street held onto its number of the trips. The reason for this drop in the combined total is not known, but weather may be a factor: one of the count periods in 2017 experienced drizzle, while count periods in all other years in this analysis had "acceptable" weather (no rain, temperature between 50°F and 90°F). A possible reason for an uneven effect of weather on each of the three routes may be that Price Street carries more commuters in the two weekday evening count periods, while many of the bicyclists on these segments of Habersham Street and Lincoln Street are accessing the Kroger grocery – a discretionary trip that is more likely to be postponed until weather improves. Future bicycle count data will help reveal whether 2017 is an anomaly or part of a downward trend in the combined total of bicycle trips in the three corridors. A continuing limitation in the analysis is the fact that there very little data for Price Street from the period prior to the bike lane implementation. It is possible that 2011 itself was an anomaly.

