

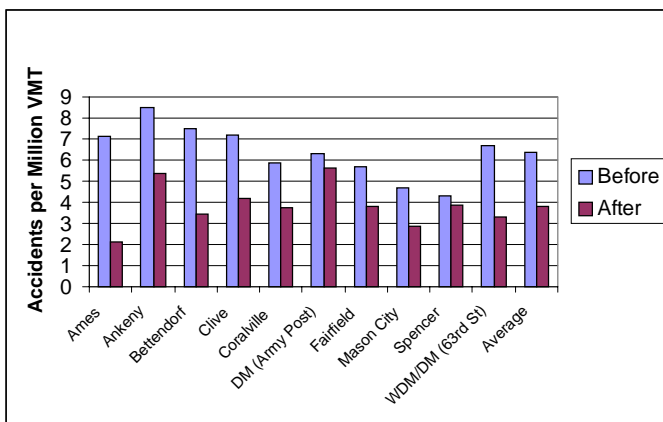
Benefits of Access Management

An effective, local access management program can play an important role in preserving highway capacity, reducing crashes, and avoiding or minimizing costly remedial roadway improvements. The traveling public would then benefit from faster and safer travel. The great majority of businesses would benefit from increased economic vitality along a well-managed corridor. Taxpayers would benefit from more efficient use of existing facilities. And public agencies would benefit from the relatively low cost of access management; they could then use their resources for other needs.

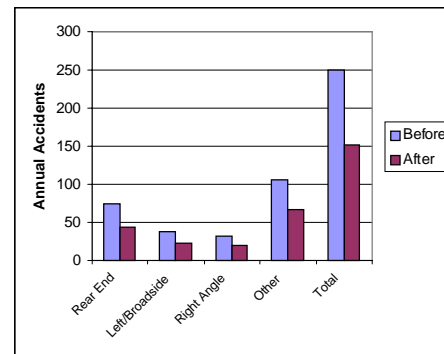
What are the safety benefits of access management?

Access management is a powerful tool for improving highway safety. All but two of the case studies conducted in Iowa (US 71 in Spencer and Army Post/Southwest 9th in Des Moines) led to an absolute reduction in highway crashes. All resulted in reductions in crash rates per million vehicle-miles of travel; the range of crash rate reductions was from 10 to 70 percent, with 40 percent being a typical reduction postproject. The most significant reductions occurred in terms of property-damage-only crashes, rear-end collisions, and broadside/left-turn collisions. Overall, improvements in safety tended to vary with the degree of access management applied—higher reductions in crash rates were found with the more comprehensive projects that involved a combination of access management approaches, such as those related to turn lanes, driveway management and consolidation, and medians.

Crash Reduction by City



Crash Reduction by Type of Crash



What are the operational benefits of access management?

Each new driveway that is located on an arterial reduces the roadway's traffic-carrying capacity. After several new driveways have been installed it often becomes clear that turning traffic has a negative impact on traffic speeds on the arterial. Studies indicate that average travel speeds during peak hours are considerably higher on well managed roads than on roads that are less well managed, even though the two types of roads carry approximately the same number of vehicles. In Iowa, the series of before and after studies of access management projects found that the level of service was raised one full level during the peak traffic hour at sites studied.

Access management projects in Iowa are typically initiated on routes with moderate levels of traffic by national standards. On the case study routes in Iowa the access management projects resulted in significant increases in the ability of roads to carry traffic at levels of service to motorists that amounts to little or no congestion and delay at peak travel periods (see table).

Project Location	Project Type ^a	LOS Before ^b	LOS After ^b
Ames	TWLTL	C	B
Ankeny	Median	C/D	B
Bettendorf	TWLTL	C	B
Clive	Median	D	B/C
Coralville	TWLTL	D	C
Des Moines, SE 14th	Median	D	B/C
Des Moines, Army Post/SW 9th	Median at intersection	C	C
Fairfield	Driveway	B	B
Mason City	Median at intersection	B	B
Spencer	TWLTL	B	B
West Des Moines/Des Moines	Median	B/C	A

^aTWLTL = two-way left-turn lane.

^bSix levels of service (LOS) describe operating conditions: A represents best conditions (uninterrupted flow and very low delay); F represents worst conditions (build-up of queues and delay); other letters identify intermediate conditions; E most often represents flow at or near capacity.

What are the economic impacts of access management?

The most compelling results (besides safety benefits) from the Iowa case studies came in terms of examining impacts on businesses and business customers along the routes. Perceived impacts of access management on adjacent commercial businesses and landowners are often major impediments to projects moving forward. The case studies showed that in fact access management projects are rather benign in terms of business impacts. Access-managed corridors generally had lower rates of business turnover than other parts of their communities. They had more rapid growth in retail sales once projects were completed. When surveyed, far more business owners indicated that their sales had been stable or increased following project completion than reported sales losses.



Most of the study corridors in Iowa show retail trade growth performance as good or better than their surrounding communities. The only notable exception found in the Iowa case studies was the city of Clive, a suburb of Des Moines. This is attributable to the explosive retail growth of newly developing areas of the city