

# Appendix F: Performance Measures Additional Information

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## Purpose

This document is a brief paper to review information collected as a follow-up to requests made by committee members during the 6/10/2014 Pedestrian Master Plan Steering Committee and Technical Advisory Committee meeting.

## Goals

The Plan goals are listed below.

- Goal 1: Provide a safe and welcoming pedestrian network
- Goal 2: Improve community accessibility and connections for pedestrians
- Goal 3: Promote a citywide culture of walking

## **Benchmark: Increase the amount of walking in Wichita over the next 10 years by 50%.**

Base lines:

1. Census data – The U.S. Census Bureau 2010-2012 American Community Survey 3-Year Estimate reports that walking is the primary means of transportation to work for 1.3 percent of Wichita resident workers age 16 and over.
2. WAMPO – The WAMPO bicycle and pedestrian counts reported 724 pedestrians recorded during the count periods.

Notes

- Increasing the amount of people who indicate that walking is their primary means of transportation to work would increase the number from 2,321 people to 3,482 people (see the Census data later in this document for more information).

## Benchmark: Reduce the Pedestrian Fatality Rate by one third over the next 10 years.

Baseline:

3. The Pedestrian Fatality Rate per 10,000 daily pedestrian commuters is calculated by taking **average number of annual pedestrian fatalities from crashes with motor vehicles** (calculated from KDOT data) divided by the **estimated annual number of commuters walking to work**, divided by 10,000 (from Census American Community Survey three year average). The Alliance for Biking and Walking 2014 Benchmarking Report reports the 2009-2011 Pedestrian Fatality Rate for **Wichita at 16.8**.

### Notes

- There is a discrepancy between the Pedestrian Fatality Rate calculated in the 2014 Bicycling and Walking Benchmarking report and my calculations. I suspect this is due the data source for the number of pedestrian fatalities.
- If the Pedestrian Fatality Rate was reduced by 1/3<sup>rd</sup> then it would be approximately 11.1. This can be accomplished by:
  - increasing the number of people who walk to work by 50 percent (this matches the current benchmark);
  - reducing the average number pedestrians killed in motor vehicle crashes each year by approximately 65 percent; or
  - a combination of the two.
- The **average number of pedestrian fatalities from motor vehicle crashes** has remained fairly consistent since 2005 –around 4 deaths per year (see the KDOT crash data).
- The **number of people 16 years and older that report walking as their primary means of transportation to work** has fallen since 2005, but remained relatively stable since 2008.
- The calculated Pedestrian Fatality Rate for Wichita has remained fairly consistent with a score around 17. One exception was the period 2008-2010, when the average number of pedestrian fatalities went down by 1 fatality. This resulted in a score of 12.9 (see the Pedestrian Fatality Rate Data for more info).
- The Pedestrian Fatality Rate for the Peer Cities reviewed as part of this planning process.

City	2007-2009	2009-2011
Kansas City, MO	10.6	20.7
Denver, CO	5.1	7.7
Omaha, NE	1.6	4.6
Oklahoma City, OK	12.1	20.0

**Benchmark: Increase to 60 percent the percent of survey respondents rating ease of walking in Wichita as “excellent or good”.**

Baseline:

1. Year 2012: As part of the National Citizen Survey, 47 percent of Wichita survey respondents rated the ease of walking in Wichita as “excellent” or “good”.

Notes

- o The results of the survey are proprietary to each community, so there is no master list to compare communities.
- o A quick internet search shows the following responses from residents for the question related to the ease of walking in the city. The percentage indicates those that responded good or excellent.

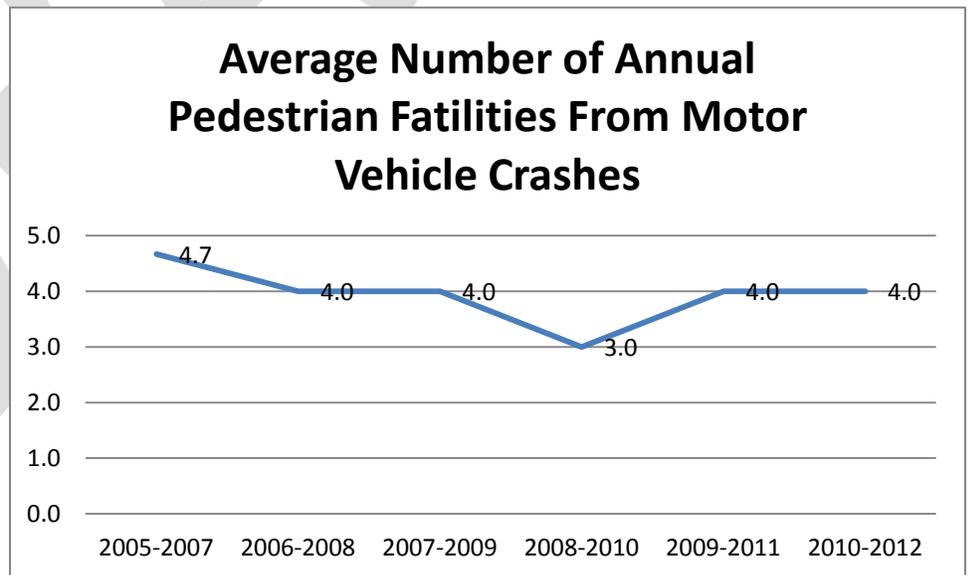
	2012	2011	2010	2009	2008
Kansas City, MO	Different survey company and questions				
Denver, CO	68%	71%	70%	67%	68%
Omaha, NE	No results online				
Oklahoma City, OK	Different survey company and questions				

## KDOT Crash Data

KDOT Data - Crashes Involving Pedestrians in the Wichita City Limits				
	All	Deaths	Injuries	Unharmmed
2000	91	1	92	1
2001	115	6	112	0
2002	116	3	115	1
2003	93	1	97	0
2004	87	3	86	2
2005	82	3	82	2
2006	102	5	102	0
2007	114	6	111	0
2008	77	1	80	0
2009	88	5	87	0
2010	80	3	81	0
2011	77	4	78	0
2012	102	5	108	0
2013	72	5	78	0
	1,296	51	1,309	6

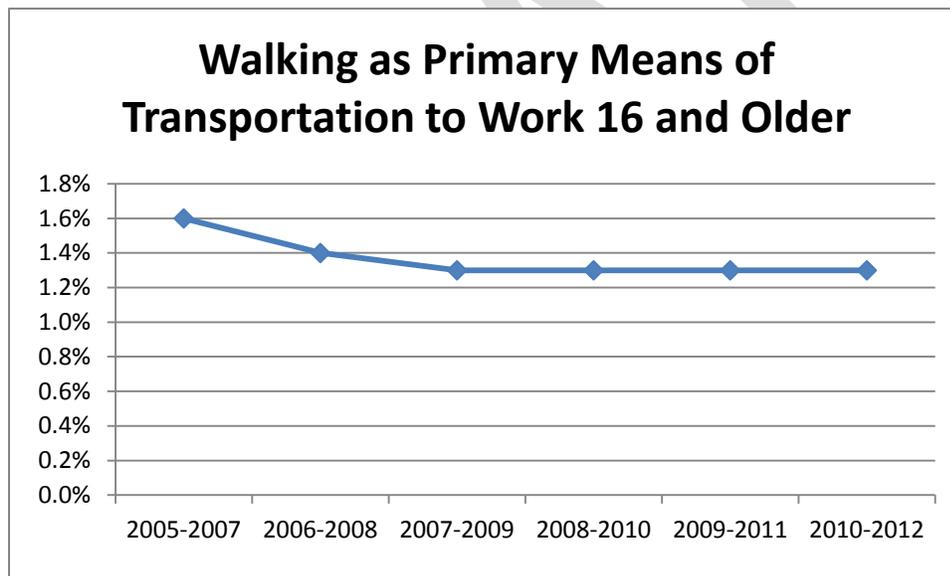
Average Pedestrian Deaths from Motor Vehicle Crashes

Years	Deaths
2005-2007	4.7
2006-2008	4.0
2007-2009	4.0
2008-2010	3.0
2009-2011	4.0
2010-2012	4.0

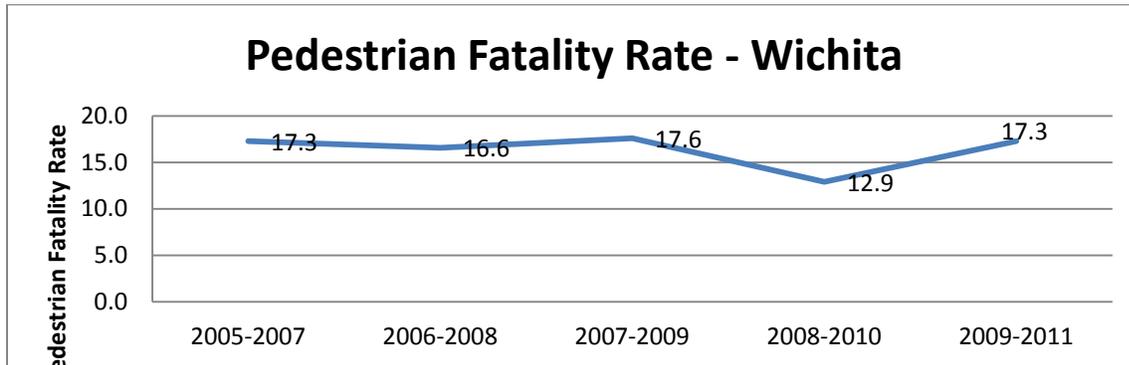


## Census Data (Walking to Work)

ACS 3 Year Estimates			
Year	Walking as Primary Means of Transportation to Work 16 and Older	Total Pop Workers 16 years and over	Number - walking as primary means of transportation to work and 16 or over
2005-2007	1.6%	168,908	2,703
2006-2008	1.4%	172,468	2,415
2007-2009	1.3%	175,002	2,275
2008-2010	1.3%	179,047	2,328
2009-2011	1.3%	177,915	2,313
2010-2012	1.3%	178,565	2,321
2024 - 50% increase			3,482
2024 - 300% increase			6,964
Source: table S0801			



## Pedestrian Fatality Rate Data



	Average number of pedestrian and motor vehicle crash pedestrian fatalities (KDOT)	Estimated annual number of commuters walking to work (ACS)	Pedestrian Fatality Rate	Ped. Fatalities rate per 10K daily ped commuters
2005-2007	4.7	2,703	17.3	0.27
2006-2008	4.0	2,415	16.6	0.24
2007-2009	4.0	2,275	17.6	0.23
2008-2010	3.0	2,328	12.9	0.23
2009-2011 City of Wichita	4.0	2,313	17.3	0.23
2024 Wichita - increased pedestrians by 50%	4.0	3,470	11.5	0.35
2024 Wichita - reduced deaths by 35%	2.6	2313	11.2	0.23

## Pedestrian Safety in Cities

**Pedestrians account for 27% of traffic fatalities in major U.S. cities.**

Despite comprising 5% of trips to work and nearly 13% of all trips, pedestrians in major U.S. cities account for over a quarter of traffic fatalities. In Honolulu, New York, and San Francisco, roughly half of all traffic fatalities are pedestrians. Boston has the lowest pedestrian fatality rate.

**Legend:**  
 = High value  
 = Low value

**Sources:** FARS 2007-2009, ACS 2009  
**Notes:** (1) All fatality data in this table are based on the 3-year average number of fatalities from 2007-2009. (2) Pedestrian fatality rate was calculated by dividing the number of annual pedestrian fatalities (averaged between 2007-2009) by population (weighted, or multiplied, by share of the population walking to work). (3) All averages are weighted by population except for annual reported pedestrian fatalities.

City	Annual reported pedestrian fatalities (1)	Ped. fatalities Rate per 10K daily peds (1,2)	% Of all traffic fatalities that are pedestrians (1)	% Of pedestrian fatalities (1)	
				Under age 16	Over age 60
Albuquerque	12.3	11.3	26.1%	0%	16%
Arlington, TX	5.0	7.0	18.1%	7%	7%
Atlanta	14.7	6.4	25.4%	16%	2%
Austin	17.7	11.0	29.0%	2%	11%
Baltimore	14.3	3.4	32.3%	7%	16%
Boston	8.3	0.9	34.2%	0%	32%
Charlotte	12.3	8.9	18.5%	3%	8%
Chicago	46.7	2.8	27.3%	14%	21%
Cleveland	4.3	2.3	11.7%	0%	23%
Colorado Springs	1.7	1.7	7.6%	20%	20%
Columbus	12.3	6.0	21.6%	5%	3%
Dallas	33.0	14.4	24.1%	6%	10%
Denver	12.7	5.1	31.4%	5%	26%
Detroit	29.3	9.8	26.9%	6%	13%
El Paso	12.3	9.2	25.5%	8%	22%
Fort Worth	17.3	20.0	25.7%	8%	12%
Fresno	8.3	8.8	24.8%	12%	12%
Honolulu	8.7	2.9	45.6%	0%	69%
Houston	51.3	10.4	23.0%	8%	8%
Indianapolis	10.3	6.0	14.2%	10%	16%
Jacksonville	23.0	18.7	18.1%	4%	13%
Kansas City, MO	11.0	10.6	18.9%	18%	6%
Las Vegas	9.7	8.4	24.0%	3%	28%
Long Beach	10.0	7.2	30.9%	10%	17%
Los Angeles	86.0	6.4	31.9%	6%	22%
Louisville	13.3	10.2	19.5%	13%	5%
Memphis	12.0	8.8	12.1%	6%	11%
Mesa	5.3	6.0	17.0%	0%	6%
Miami	17.0	10.4	34.7%	6%	31%
Milwaukee	11.7	4.2	33.0%	17%	26%
Minneapolis	4.0	1.6	18.2%	0%	25%
Nashville	10.0	9.9	14.8%	3%	10%
New Orleans	12.3	5.9	30.8%	8%	5%
New York	148.7	1.7	53.9%	6%	35%
Oakland	7.3	4.1	22.9%	18%	0%
Oklahoma City	9.3	12.1	13.0%	14%	4%
Omaha	2.0	1.6	9.4%	0%	0%
Philadelphia	32.0	2.5	31.1%	15%	28%
Phoenix	42.3	14.9	25.1%	7%	12%
Portland, OR	7.7	2.6	27.1%	4%	22%
Raleigh	8.7	8.2	28.3%	15%	8%
Sacramento	8.7	5.7	24.8%	4%	23%
San Antonio	24.7	9.1	20.5%	3%	16%
San Diego	21.7	5.8	25.6%	3%	29%
San Francisco	20.7	2.5	48.8%	3%	50%
San Jose	13.7	7.4	29.7%	5%	34%
Seattle	10.0	1.9	40.5%	0%	43%
Tucson	10.3	5.3	20.7%	6%	29%
Tulsa	12.0	13.8	23.4%	8%	8%
Virginia Beach	4.3	4.7	15.5%	0%	23%
Washington, DC	14.0	2.0	39.3%	7%	29%
<b>Mean/Average (3)</b>	<b>18.8</b>	<b>4.0</b>	<b>26.9%</b>	<b>7%</b>	<b>21%</b>
<b>Median</b>	<b>12.0</b>	<b>6.0</b>	<b>24.8%</b>	<b>6%</b>	<b>16%</b>
<b>High</b>	<b>148.7</b>	<b>20.0</b>	<b>53.9%</b>	<b>20%</b>	<b>69%</b>
<b>Low</b>	<b>1.7</b>	<b>0.9</b>	<b>7.6%</b>	<b>0%</b>	<b>0%</b>

## CHAPTER 3

### Pedestrian Safety in Large Cities

	Average annual pedestrian fatalities reported	Pedestrian fatalities per 10k walking commuters <sup>(1)</sup>	% of all traffic fatalities that are pedestrians	% of pedestrian fatalities	
				Under age 16	Over age 64
Albuquerque	9.7	19.1	22.7%	6.9%	10.3%
Arlington, TX	4.3	13.9	14.8%	30.8%	15.4%
Atlanta	12.7	14.6	28.6%	13.2%	7.9%
Austin	15.7	14.0	27.5%	2.1%	10.6%
Baltimore	11.7	6.7	33.7%	8.6%	22.9%
Boston	4.0	0.9	25.5%	0.0%	33.3%
Charlotte	17.0	22.0	32.1%	5.9%	5.9%
Chicago	34.0	4.5	24.9%	9.8%	28.4%
Cleveland	3.3	5.2	10.9%	30.0%	0.0%
Colorado Springs	2.0	3.4	10.0%	33.3%	16.7%
Columbus	12.3	11.1	22.8%	5.4%	8.1%
Dallas	26.0	26.3	23.4%	2.6%	15.4%
Denver	9.7	7.7	26.6%	6.9%	17.2%
Detroit	25.7	40.1	27.1%	2.6%	13.0%
El Paso	13.0	24.7	21.9%	2.6%	28.2%
Fort Worth	11.7	29.6	18.5%	2.9%	11.4%
Fresno	9.3	25.6	29.5%	3.6%	10.7%
Honolulu	8.7	5.2	41.9%	0.0%	46.2%
Houston	43.0	20.1	20.8%	1.6%	8.5%
Indianapolis	15.0	19.9	21.5%	15.6%	17.8%
Jacksonville	20.3	41.6	20.5%	6.6%	18.0%
Kansas City, MO	10.0	20.8	15.4%	6.7%	10.0%
Las Vegas	8.3	17.1	29.1%	4.0%	24.0%
Long Beach	7.0	12.4	24.7%	4.8%	28.6%
Los Angeles	89.0	14.0	38.9%	4.5%	24.3%
Louisville	13.3	24.2	21.9%	7.5%	22.5%
Memphis	14.7	29.1	18.0%	4.5%	6.8%
Mesa	3.7	10.6	12.6%	0.0%	9.1%
Miami	14.0	21.2	37.2%	4.8%	40.5%
Milwaukee	10.0	7.7	24.6%	16.7%	13.3%
Minneapolis	5.7	4.5	29.3%	0.0%	17.6%
Nashville	10.7	20.4	16.5%	3.1%	12.5%
New Orleans	8.0	9.6	23.8%	8.3%	4.2%
New York City	148.7	4.0	55.0%	6.3%	30.7%
Oakland	4.7	6.3	18.7%	7.1%	42.9%
Oklahoma City	8.7	20.0	11.9%	3.8%	7.7%
Omaha	2.7	4.6	13.1%	0.0%	12.5%
Philadelphia	30.3	5.8	33.1%	13.2%	17.6%
Phoenix	37.7	29.6	26.4%	6.2%	17.7%
Portland, OR	9.0	5.8	30.0%	3.7%	11.1%
Raleigh	7.0	17.2	25.0%	19.0%	19.0%
Sacramento	12.7	21.9	31.9%	0.0%	21.1%
San Antonio	30.7	24.5	24.8%	6.5%	13.0%
San Diego	21.7	11.4	30.4%	7.7%	20.0%
San Francisco	17.0	4.0	51.0%	0.0%	41.2%
San Jose	12.3	15.6	31.4%	0.0%	37.8%
Seattle	8.0	2.7	32.0%	0.0%	37.5%
Tucson	15.3	19.0	28.9%	10.9%	19.6%
Tulsa	6.7	19.3	14.0%	10.0%	20.0%
Virginia Beach	4.0	6.9	16.7%	16.7%	8.3%
Washington, DC	11.7	3.3	43.8%	8.6%	22.9%
Wichita	4.0	16.8	13.8%	8.3%	16.7%
Large cities average	17.2	8.3	27.8%	6.2%	20.8%
Large cities median	11.7	14.3	24.9%	6.1%	17.4%
High	148.7	41.6	55.0%	33.3%	46.2%
Low	2.0	0.9	10.0%	0.0%	0.0%

Sources: FARS 2009–2011, ACS 2009–2011. Notes: All fatality data are based on the 3-year average number of fatalities from 2009–2011. Because of the great fluctuations in fatality data from year to year, this rate should be seen as a rough estimate. (1) Pedestrian fatality rate was calculated by dividing the number of annual pedestrian fatalities (averaged between 2009–2011) by the estimated annual number of commuters walking to work (ACS 2009–2011).