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## Vehicle Availability in the Chicago Region as of 2007

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## Vehicle Availability in the Chicago Region as of 2007

## 1. Executive Summary

CMAP has compiled an overview of household vehicle data for the Chicago region over the period 2000 to 2007. Data was gathered from the 2000 Census - Summary File 3 (SF3), and the American Community Survey (ACS) 3-year estimate for the period 2005 through 2007. The availability of passenger vehicles is an important factor in explaining commuting patterns and travel mode choice. As a result, vehicle availability data has value within the regional transportation planning process, and is adopted as a Regional Indicator for metropolitan Chicago.

This report discusses several aspects of these major changes in the Chicago region over the time period 2000 to 2007, and offers the following observations:

- Benchmark data from the 2000 Census:
- $67.5 \%$ of the region's households were within Cook County.
- $36.3 \%$ of the region's households were within the City of Chicago.
- The regional average for vehicles per household was at 1.54 , with the City of Chicago average at 1.08 compared to an average of 1.80 for remainder of Cook County and the other six counties in the Chicago region.
- Over the period 2000 to 2007 , passenger vehicles in the region grew at a faster rate than both licensed drivers and population. Specific statistics include:
- The number of persons in households increased by $4.0 \%$, while the number of households increased by $2.9 \%$, resulting in a $1.1 \%$ increase in the average household size.
- Passenger vehicles in the Chicago region are estimated to have increased by 8.8\%.
- The regional average for vehicles per household shifted up to 1.62 , with the City of Chicago average at 1.15 compared to 1.86 for remainder of Cook and the other six counties.
- The average of vehicles per household ( $\mathrm{V} / \mathrm{HH}$ ) increased by $5.2 \%$,
- The percentage of zero-vehicle households decreased by $16.7 \%$, while the percentage of $3+$ vehicle households increased by $18.8 \%$,
- An analysis of Illinois Secretary of State data shows that registered passenger vehicles in the region increased $50 \%$ faster than licensed drivers.


## 2. Introduction and Overview of the Data Sources

Changes in vehicle availability have been identified as an important factor in changing travel patterns. The FHWA report Journey to Work Trends in the United States and its Major Metropolitan Areas, 1960 to 2000, identified four major changes that have impacted metropolitan commuting trends. Two of the changes involve the subject of this report:

- changes in family structure and workforce composition,
- growth in area, population, and workers in suburban counties of major MSAs,
- large increases in households with multiple vehicles, along with declining average household sizes, and
- increases in private vehicles and significant increases in commute times. ${ }^{1}$

[^0]This report provides an overview of auto ownership trends in terms of vehicle availability per household for the Chicago region. The primary data sources for this report included the 2000 Census, the 2000 Census Transportation Planning Package (CTPP), the 20052007 American Community Survey (ACS), the FHWA report Journey to Work Trends in the United States and its Major Metropolitan Areas, 1960 to 2000, as well as additional background information on vehicle registration and licensed drivers from the Illinois Secretary of State's Office.

The Census Bureau collected household vehicle data in eight categories from zero to seven or more vehicles available per household. This data was gathered for a large sample of the population and was included in the Census 2000 Summary File 3 (SF3) and the Census Transportation Planning Pack (CTPP). SF3 and CTPP summary presentations of this data usually collapse the data into four (4) categories: zero, one, two and three or more vehicles per household.

Currently, one-year and three-year estimates are available from the American Community Survey (ACS). For example, data for the 1-year 2007 ACS was collected through calendar year 2007; while data for the 3-year 2005-07 ACS was collected over the 3 year period. The 3 -year estimates were developed with a larger sample size, but are less current that the 1-year estimate. The first 5-year ACS estimates are planned for release in 2010.

## 3 National Perspective

National trends of vehicle growth and household size decline were reported in The Journey to Work Trends in the United States and its' Major Metropolitan Areas 19602000 (Publication No. FHWA-EP-03-058). As shown in Exhibit 1, on the national level, each decade since 1960 has seen between 22 to 26 million vehicles added, except for the 1970's, when there were more than 50 million vehicles added.

Exhibit 1. Number of Vehicles Added per Decade (Millions), U.S., 1960-2000
Source: Journey to Work Trends in the United States and its Major Metropolitan Areas, 1960 - 2000


Exhibit 2. National Trends-Population, Motor Vehicles and Licensed Drivers since 1960 Millions


Source: Highway Statistics 2008, Office of Highway Policy Information - Federal Highway Administration http://www.fhwa.dot.gov/policyinformation/statistics/2008/dlchrt.cfm

As shown in Exhibit 2, since 1960 the national growth rate for the number of licensed drivers has roughly kept pace with the population growth rate, while the number of motor vehicles have grown faster rate than both. In 1960 there was a ratio of .851 motor vehicles per licensed driver. By 2007, there was a $41 \%$ increase to a ratio of 1.205 motor vehicles per licensed driver.

Exhibit 3. Distribution of Licensed Drivers by Age Group Percentage
National Trends 2000 to 2007


Source: Highway Statistics Table DL-20 for 2000 \& 2007, Office of Highway Policy Information - Federal Highway Administration
Older drivers have tended to have lower driver licensing rates than middle-aged individuals. Cohorts now in middle age also have slightly higher driver licensing rates than younger adults. National changes in the share of driver licenses by age group from 2000 to 2007 are shown in Exhibit 3.

As shown in Exhibit 4, for the time period 1960 to 2000, national trends for household size have declined by approximately $25 \%$, compared to an almost $60 \%$ increase in the average vehicles per households.

Exhibit 4. Household Size and Auto-ownership: 1960-2000
Source: Journey to Work Trends in the United States and its Major Metropolitan Areas 1960-2000

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As shown in Exhibit 5, reviewing 2000 Census data, the 7-county Chicago regional average of 1.54 vehicles per household was approximately $10 \%$ below the national average, and $6 \%$ below the average for 49 major metropolitan areas across the nation. Also, as of the 2000 Census:

- $\underline{14.4 \%}$ of households in the Chicago region reported no vehicles, which was $40 \%$ higher than and the national average, and $20 \%$ higher than the 49 Metro Area average.
- $\underline{13.3 \%}$ of households in the Chicago region reported three or more vehicles per household, which was $22 \%$ less and the national average, and $15 \%$ less than the 49 Metro Area average.

Exhibit 5 ACS 2005-2007 data also shows that the Chicago regional average for vehicles per household has risen $5.2 \%$ (from 1.54 to 1.62), the percentage of households with 3+ vehicles has risen by $18.8 \%$ (from $13.3 \%$ to $15.8 \%$ ), and the percentage of households with zero vehicles have declined by $16.7 \%$ (from $14.4 \%$ to $12.0 \%$ ).

Exhibit 5. Vehicles per Household from the 2000 Census versus Chicago Region 2007

| Vehicles Available <br> /HH | National | 49 Metro <br> Areas | Remainder <br> of Nation | Chicago <br> Region <br> $\mathbf{2 0 0 0}$ | Chicago <br> Region ACS <br> $\mathbf{2 0 0 5 - 0 7}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Vehicles /HH | 1.69 | 1.63 | 1.77 | 1.54 | 1.62 |
| Total Vehicles | $178,344,236$ | $97,334,931$ | $81,009,305$ | $4,495,244$ | $4,888,890$ |
| \% 0 Vehicles | $10.3 \%$ | $12.1 \%$ | $7.9 \%$ | $14.4 \%$ | $12.0 \%$ |
| \% 1 Vehicles | $34.3 \%$ | $34.8 \%$ | $33.5 \%$ | $36.3 \%$ | $35.3 \%$ |
| \% 2 Vehicles | $38.3 \%$ | $37.5 \%$ | $39.6 \%$ | $36.0 \%$ | $36.9 \%$ |
| \% 3+ Vehicles | $17.1 \%$ | $15.6 \%$ | $19.0 \%$ | $13.3 \%$ | $15.8 \%$ |

The data for the 49 Metro areas was based reported in The Journey to Work Trends in the United States and its' Major Metropolitan Areas 1960-2000, and no current updated estimate was available for comparison.

Exhibit 6 shows a comparison of household vehicle data at the national, Illinois statewide, and regional levels. Average household size in the Chicago region increased at almost three times the growth at the state and national levels. Additional comparative statistics for the Chicago region include the following trends:

- Persons in households showed only about $66 \%$ of the national growth.
- Total households showed only about $50 \%$ of the national growth.
- But estimated passenger vehicles showed about $80 \%$ of the national growth.
- Average vehicles per household increased about $20 \%$ more than the national and Illinois statewide averages.

Exhibit 6. Household Vehicle Data - National Comparison

| Level | Data Category | Persons in Households | Total Households | Average Household Size | Average <br> Vehicles per Household | Estimated Passenger Vehicles (1) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Nation | Census 2000 | 273,637,396 | 105,539,122 | 2.59 | 1.69 | 178,361,116 |
|  | ACS 2005-2007 | 290,655,225 | 111,609,629 | 2.60 | 1.77 | 197,549,043 |
|  | Change | 17,017,829 | 6,070,507 | 0.01 | 0.08 | 19,187,927 |
|  | \% Change | 6.2\% | 5.8\% | 0.4\% | 4.7\% | 10.8\% |
| Illinois | Census 2000 | 12,096,973 | 4,592,740 | 2.63 | 1.62 | 7,440,239 |
|  | ACS 2005-2007 | 12,460,070 | 4,724,462 | 2.64 | 1.70 | 8,031,585 |
|  | Change | 363,097 | 131,722 | 0.01 | 0.08 | 591,347 |
|  | \% Change | 3.0\% | 2.9\% | 0.4\% | 4.9\% | 7.9\% |
| $\begin{aligned} & \hline \text { Chicago } \\ & \text { Region } \end{aligned}$ | Census 2000 | 7,998,552 | 2,926,404 | 2.73 | 1.54 | 4,495,244 |
|  | ACS 2005-2007 | 8,320,521 | 3,010,658 | 2.76 | 1.62 | 4,888,890 |
|  | Change | 321,969 | 84,254 | 0.03 | 0.08 | 393,646 |
|  | \% Change | 4.0\% | 2.9\% | 1.1\% | 5.2\% | 8.8\% |

(1) - Estimated Passenger Vehicles calculated as Total Households x Average Vehicles per Household

## 4 Regional Overview

Driver Licensing. Exhibit 7 shows county-level driver license data for the years 2000, 2005, 2006, and 2007. The pattern in the exhibit mirrors population trends, showing moderate declines in licensed drivers in Cook County and increases in the collar counties. Kane, Kendall, McHenry, and Will Counties had substantial increases in licensed drivers over the analysis period.

Exhibit 8 shows the estimated percent of the resident population with driver licenses for Illinois for 2008. ${ }^{2}$ The estimates, based on Federal Highway Administration estimates of driver licensing and Census Bureau population estimates, indicate that $81.9 \%$ of residents ages 16 and over have driver licenses. Age cohorts from 40 to 75 have higher license participation. Females over age 75 have substantially lower driver licensing rates. Young adult cohorts below age 25 have somewhat lower driver licensing rates.

[^1]Exhibit 7. Licensed Drivers in the Chicago Region, 2000-2007

| County | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ | $\mathbf{2 0 0 7}$ | Change 2000 <br> to 2007 | Regional <br> Share |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Cook | $3,315,668$ | $3,214,311$ | $3,204,391$ | $3,208,898$ | $\mathbf{- 3 . 2 \%}$ | $58.7 \%$ |
| DuPage | 689,630 | 687,298 | 686,970 | 690,572 | $\mathbf{0 . 1 \%}$ | $12.6 \%$ |
| Kane | 277,157 | 307,797 | 314,396 | 320,184 | $\mathbf{1 5 . 5 \%}$ | $5.9 \%$ |
| Kendall | 41,123 | 58,989 | 64,901 | 70,625 | $\mathbf{7 1 . 7 \%}$ | $1.3 \%$ |
| Lake | 451,255 | 480,786 | 486,017 | 490,333 | $\mathbf{8 . 7 \%}$ | $9.0 \%$ |
| McHenry | 193,813 | 223,122 | 227,781 | 230,988 | $\mathbf{1 9 . 2 \%}$ | $4.2 \%$ |
| Will | 348,399 | 429,993 | 444,723 | 455,324 | $\mathbf{3 0 . 7 \%}$ | $8.3 \%$ |
| Total Licensed <br> Drivers | $5,317,045$ | $5,402,296$ | $5,429,179$ | $5,466,924$ | $\mathbf{2 . 8 \%}$ |  |

Source: Driver Services Department, Office of the Illinois Secretary of State' December 2009
Note: Exhibit 7 includes totals for all classes of licensed drivers.

Exhibit 8. Licensed Drivers as a Percent of Illinois Residents by Age and Sex, 2008


Sources: Driver Licensing: Federal Highway Administration, Highway Statistics 2008. Table DL-22, Licensed Drivers by State, sex, and age group. Posted at http://www.fhwa.dot.gov/policyinformation/statistics/2008/. Population: U.S. Census Bureau, Population Estimates, "State Single Year of Age and Sex Population Estimates: April 1, 2000 to July 1, 2008 - RESIDENT" dataset, posted at http://www.census.gov/popest/states/asrh/.

Further analysis of this statewide data showed that from 2000 to 2008, the share of the population age 16 and above with driver licenses fell from $83.4 \%$ to $81.9 \%$. Some, but not all, of the decline may be the result of the implementation of the graduated driver licensing system in Illinois in 2008. Exhibit 9 shows the percent of young adults in Illinois with driver licenses in 2000, 2005, and 2008. The chart shows that the greatest decline in licensing is among the youngest cohorts, and was most pronounced for the
period from 2005 to 2008. Referencing Exhibit 7 data, Exhibit 10 shows regional driver license participation rate data through 2007.

Exhibit 9. Driver Licensing by Age for Young Adults in Illinois, 2000-2008


Sources: Driver Licensing: Federal Highway Administration, Highway Statistics 2008. Table DL-22, Licensed Drivers by State, sex, and age group. Posted at http://www.fhwa.dot.gov/policyinformation/statistics/2008/. Population: U.S. Census Bureau, Population Estimates, "State Single Year of Age and Sex Population Estimates: April 1, 2000 to July 1, 2008 - RESIDENT" dataset, posted at http://www.census.gov/popest/states/asrh/

Exhibit 10. Population 16 \& Over and Driver License Rates, Northeastern Illinois, 2000 \& 2007

$\left.$| County | County Populations, Ages <br> 16 |  | 2000 | 2007 |
| :--- | ---: | ---: | ---: | ---: | | Proportion of Population Age 16 and Over |
| ---: |
| with Driver Licenses, 2000 and 2007 | \right\rvert\,

Sources: Driver Services Department, Office of the Illinois Secretary of State' December 2009; Population: Average of July 1
estimates for study year and following year, US Census Bureau, Population Estimates. "Annual Estimates of the Resident Population by Selected Age Groups and Sex for Counties: April 1, 2000 to July 1, 2008." Posted at
http://www.census.gov/popest/counties/asrh/CC-EST2008-agesex.html.

Exhibit 10 shows that the region mirrors the statewide trend of slightly lower driver licensing rates in recent years. The exhibit also shows regional variation in driver licensing rates, with Cook County being below the statewide rates for licensing, with the remaining counties having driver licensing rates above statewide totals.

Passenger Vehicle Registrations. As shown in Exhibit 11, Illinois Secretary of State data for passenger vehicle registrations mirror county-level patterns of change for licensed drivers over the period 2000 to 2007 (see also Exhibit 7). High vehicle registration growth (often double digit) was present in the five least populated collar counties. Cook County experienced approximate decreases for both licensed drivers and registered passenger vehicles. The relatively low average regional growth of $4.2 \%$ for registered passenger vehicles was heavily influenced by the almost $60 \%$ Cook County regional share for both licensed drivers and passenger vehicles. Overall, the $4.2 \%$ rate of growth was slightly lower than the growth rate of $5.5 \%$ for the regional population age 16 and over.

Exhibit 11: Registered Passenger Vehicles in the Chicago Region

| County | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ | $\mathbf{2 0 0 7}$ | Change <br> $\mathbf{2 0 0 0}$ to <br> $\mathbf{2 0 0 7}$ | Regional <br> Share |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Cook | $2,900,332$ | $2,826,255$ | $2,813,044$ | $2,795,454$ | $\mathbf{- 3 . 6 \%}$ | $56.8 \%$ |
| DuPage | 656,453 | 661,420 | 659,385 | 690,366 | $\mathbf{5 . 2 \%}$ | $14.0 \%$ |
| Kane | 253,255 | 281,718 | 287,564 | 294,111 | $\mathbf{1 6 . 1 \%}$ | $6.0 \%$ |
| Kendall | 32,458 | 43,973 | 48,786 | 56,733 | $\mathbf{7 4 . 8 \%}$ | $1.2 \%$ |
| Lake | 417,087 | 446,454 | 450,574 | 481,663 | $\mathbf{1 5 . 5 \%}$ | $9.8 \%$ |
| McHenry | 165,875 | 189,198 | 193,603 | 209,398 | $\mathbf{2 6 . 2 \%}$ | $4.3 \%$ |
| Will | 293,173 | 358,572 | 371,577 | 391,138 | $\mathbf{3 3 . 4 \%}$ | $8.0 \%$ |
| Total <br> Passenger <br> Vehicles | $4,718,633$ | $4,807,590$ | $4,824,533$ | $4,918,863$ | $\mathbf{4 . 2 \%}$ |  |

Source: Driver Services Department, Office of the Illinois Secretary of State website
Note: Exhibit 11 includes all registered passenger vehicles, and excludes B-Truck and motorcycle classes.
Regional Household Vehicle Availability. The following exhibits return to householdlevel data, reflecting survey data on household vehicle availability. While it is reasonable to expect that this data will differ from Secretary of State vehicle registration data, the data is largely consistent at a level-of-magnitude level (though the Census Bureau data seem to show somewhat faster growth rates in vehicles available).

Exhibit 12 demonstrates several important trends. First, household size increased in all counties but DuPage County. Second, household growth from 2000 to 2007 was concentrated in the collar counties, particularly those with lower initial numbers of households. Cook County's number of households were estimated to have declined. Third, the initial household vehicle availability rates were highest in counties with the fastest growth in the number of households. Because of the lopsided growth in areas with high vehicle availability, while the vehicles per household rose in all counties, the regional vehicle availability rate increase from 2000 to 2005-2007, $5.2 \%$ was slightly greater than the rate increase in all of the region's component counties.

By county, the highest vehicle availability rates for 2005-2007 were in Kendall County (2.10 vehicles per household), McHenry County (2.07), and Will County (2.05). Cook County had the fewest vehicles per household 1.43.

As already stated, Census Bureau survey data indicates that vehicles per household (and the number of vehicles) grew in all counties. However, Cook County had the highest growth rate in vehicles per household (5.1\%), while Kendall County had the lowest growth in vehicles per household (1.0\%).

Exhibit 12: Household Vehicle Data in the Chicago Region by County

| County | Data Category | Persons in Households | Total Households | Average Household Size | Average <br> Vehicles per Household | Estimated <br> Passenger <br> Vehicles (1) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cook | Census 2000 | 5,283,086 | 1,974,408 | 2.68 | 1.36 | 2,685,195 |
|  | ACS 2005-2007 | 5,193,812 | 1,935,764 | 2.68 | 1.43 | 2,768,143 |
|  | Change | $(89,274)$ | $(38,644)$ | 0.00 | 0.07 | 82,948 |
|  | \% Change | -1.7\% | -2.0\% | 0.0\% | 5.1\% | 3.1\% |
| DuPage | Census 2000 | 889,024 | 326,011 | 2.73 | 1.85 | 603,120 |
|  | ACS 2005-2007 | 912,444 | 335,292 | 2.72 | 1.91 | 640,408 |
|  | Change | 23,420 | 9,281 | -0.01 | 0.06 | 37,287 |
|  | \% Change | 2.6\% | 2.8\% | -0.4\% | 3.2\% | 6.2\% |
| Kane | Census 2000 | 397,580 | 133,733 | 2.97 | 1.90 | 254,093 |
|  | ACS 2005-2007 | 484,211 | 160,402 | 3.02 | 1.95 | 312,784 |
|  | Change | 86,631 | 26,669 | 0.05 | 0.05 | 58,691 |
|  | \% Change | 21.8\% | 19.9\% | 1.7\% | 2.6\% | 23.1\% |
| Kendall | Census 2000 | 54,353 | 18,789 | 2.89 | 2.08 | 39,081 |
|  | ACS 2005-2007 | 87,288 | 28,793 | 3.03 | 2.10 | 60,465 |
|  | Change | 32,935 | 10,004 | 0.14 | 0.02 | 21,384 |
|  | \% Change | 60.6\% | 53.2\% | 4.8\% | 1.0\% | 54.7\% |
| Lake | Census 2000 | 623,371 | 216,484 | 2.88 | 1.87 | 404,825 |
|  | ACS 2005-2007 | 688,037 | 233,617 | 2.95 | 1.95 | 455,553 |
|  | Change | 64,666 | 17,133 | 0.07 | 0.08 | 50,728 |
|  | \% Change | 10.4\% | 7.9\% | 2.4\% | 4.3\% | 12.5\% |
| McHenry | Census 2000 | 258,556 | 89,377 | 2.89 | 2.00 | 178,754 |
|  | ACS 2005-2007 | 308,169 | 105,901 | 2.91 | 2.07 | 219,215 |
|  | Change | 49,613 | 16,524 | 0.02 | 0.07 | 40,461 |
|  | \% Change | 19.2\% | 18.5\% | 0.7\% | 3.5\% | 22.6\% |
| Will | Census 2000 | 492,582 | 167,602 | 2.94 | 1.97 | 330,176 |
|  | ACS 2005-2007 | 646,560 | 210,889 | 3.07 | 2.05 | 432,322 |
|  | Change | 153,978 | 43,287 | 0.13 | 0.08 | 102,147 |
|  | \% Change | 31.3\% | 25.8\% | 4.4\% | 4.1\% | 30.9\% |
| Region Totals | Census 2000 | 7,998,552 | 2,926,404 | 2.73 | 1.54 | 4,495,244 |
|  | ACS 2005-2007 | 8,320,521 | 3,010,658 | 2.76 | 1.62 | 4,888,890 |
|  | Change | 321,969 | 84,254 | 0.03 | 0.08 | 393,646 |
|  | \% Change | 4.0\% | 2.9\% | 1.1\% | 5.2\% | 8.8\% |

(1) - Estimated Passenger Vehicles calculated as Total Households x Average Vehicles per Household

Exhibit 13 shows household vehicle data for the seven largest municipalities in the Chicago region. Two municipalities (Aurora and Joliet) show high double digit growth in terms of persons in households, total households, and estimated passenger vehicles.

Three municipalities (Chicago, Waukegan, and Cicero) show declines in terms of persons in households and total households, but even in these cases estimated passenger vehicles grew by $2 \%$ to $6 \%$, while the average vehicles per household increased by $5.6 \%$ to 13.6\%.

The suburban municipalities of Aurora, Naperville, Joliet, Elgin and Waukegan added an estimated total of 60,000 passenger vehicles, while the City of Chicago and Cicero added an estimated 19,000 and 2,000 , respectively.

Exhibit 13: Household Vehicle Data in the Chicago Region - 7 Largest Municipalities

| Municipality | Data Category | Persons in <br> Households | Total Households | Average Household Size | Average <br> Vehicles per <br> Household | Estimated <br> Passenger <br> Vehicles(1) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Chicago | Census 2000 | 2,836,388 | 1,061,964 | 2.67 | 1.08 | 1,146,921 |
|  | ACS 2005-2007 | 2,679,317 | 1,014,120 | 2.64 | 1.15 | 1,166,238 |
|  | Change | $(157,071)$ | $(47,844)$ | -0.03 | 0.07 | 19,317 |
|  | \% Change | -5.5\% | -4.5\% | -1.1\% | 6.5\% | 1.7\% |
| Aurora | Census 2000 | 141,707 | 46,649 | 3.04 | 1.77 | 82,569 |
|  | ACS 2005-2007 | 174,430 | 57,614 | 3.03 | 1.81 | 104,281 |
|  | Change | 32,723 | 10,965 | -0.01 | 0.04 | 21,713 |
|  | \% Change | 23.1\% | 23.5\% | -0.3\% | 2.3\% | 26.3\% |
| Naperville | Census 2000 | 126,309 | 43,667 | 2.89 | 1.94 | 84,714 |
|  | ACS 2005-2007 | 142,138 | 47,975 | 2.96 | 1.97 | 94,511 |
|  | Change | 15,829 | 4,308 | 0.07 | 0.03 | 9,797 |
|  | \% Change | 12.5\% | 9.9\% | 2.4\% | 1.5\% | 11.6\% |
| Joliet | Census 2000 | 101,647 | 36,332 | 2.80 | 1.68 | 61,038 |
|  | ACS 2005-2007 | 134,582 | 44,188 | 3.05 | 1.85 | 81,748 |
|  | Change | 32,935 | 7,856 | 0.25 | 0.17 | 20,710 |
|  | \% Change | 32.4\% | 21.6\% | 8.9\% | 10.1\% | 33.9\% |
| Elgin | Census 2000 | 91,984 | 31,563 | 2.91 | 1.78 | 56,182 |
|  | ACS 2005-2007 | 98,595 | 33,486 | 2.94 | 1.82 | 60,945 |
|  | Change | 6,611 | 1,923 | 0.03 | 0.04 | 4,762 |
|  | \% Change | 7.2\% | 6.1\% | 1.0\% | 2.2\% | 8.5\% |
| Waukegan | Census 2000 | 85,873 | 27,676 | 3.10 | 1.60 | 44,282 |
|  | ACS 2005-2007 | 82,660 | 27,692 | 2.98 | 1.69 | 46,799 |
|  | Change | $(3,213)$ | 16 | -0.12 | 0.09 | 2,518 |
|  | \% Change | -3.7\% | 0.1\% | -3.9\% | 5.6\% | 5.7\% |
| Cicero | Census 2000 | 85,419 | 23,124 | 3.69 | 1.47 | 33,992 |
|  | ACS 2005-2007 | 82,945 | 21,533 | 3.85 | 1.67 | 35,960 |
|  | Change | $(2,474)$ | $(1,591)$ | 0.16 | 0.20 | 1,968 |
|  | \% Change | -2.9\% | -6.9\% | 4.3\% | 13.6\% | 5.8\% |

(1) - Estimated Passenger Vehicles calculated as Total Households x Average Vehicles per Household Note: Summary totals are not included since the City of Chicago's $36 \%$ regional share of population would dominate any statistics.

Exhibit 14: Vehicles per Household County and Municipal - Census 2000


As of the 2000 Census, among the geographic areas analyzed, only Cook County (1.36), the City of Chicago (1.08) and the Village of Cicero (1.47) showed V/HH values below the regional average of $1.54 \mathrm{~V} / \mathrm{HH}$. Otherwise, as shown in Exhibit 14, the counties ranged from 1.85 in DuPage to $2.08 \mathrm{~V} / \mathrm{HH}$ in Kendall; and with the municipalities ranging from 1.60 in Waukegan to 1.94 in Naperville.

In most cases, municipal V/HH values were lower than the surrounding county, except in the case of Naperville which extends over two counties. Naperville V/HH of 1.94 was lower than the 1.97 of Will County, but higher than the DuPage County V/HH of 1.85 .

Exhibit 15: Vehicles per Household County and Municipal - ACS 2005-2007


Based on ACS 2005-2007 data, among geographic areas analyzed and as with Census 2000 data, only Cook County (1.43) and the City of Chicago (1.15) showed V/HH values below the regional average of $1.62 \mathrm{~V} / \mathrm{HH}$. Otherwise, as shown in Exhibit 15, the counties ranged from 1.91 in DuPage to 2.10 V/HH in Kendall; and with the municipalities ranging from 1.69 in Waukegan to 1.97 in Naperville.

Exhibits 16 and 17 show the special tabulations of household vehicle data supporting the vehicles per household data for the "Remainder of Cook County", and the "Remainder of Chicago Region".

Exhibit 16: Household Vehicle Data - Chicago versus the Remainder of Chicago Region

| Municipality | Data Category | Persons in Households | Total Households | Average Household Size | Average <br> Vehicles per <br> Household | Estimated Passenger Vehicles (1) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Chicago | Census 2000 | 2,836,388 | 1,061,964 | 2.67 | 1.08 | 1,146,921 |
|  | ACS 2005-2007 | 2,679,317 | 1,014,120 | 2.64 | 1.15 | 1,166,238 |
|  | Change | $(157,071)$ | $(47,844)$ | -0.03 | 0.07 | 19,317 |
|  | \% Change | -5.5\% | -4.5\% | -1.1\% | 6.5\% | 1.7\% |
| Remainder of Chicago Region | Census 2000 | 5,162,164 | 1,864,440 | 2.77 | 1.80 | 3,348,323 |
|  | ACS 2005-2007 | 5,641,204 | 1,996,538 | 2.83 | 1.86 | 3,722,652 |
|  | Change | 479,040 | 132,098 | 0.06 | 0.07 | 374,329 |
|  | \% Change | 9.3\% | 7.1\% | 2.0\% | 3.8\% | 11.2\% |
| Chicago Region | Census 2000 | 7,998,552 | 2,926,404 | 2.73 | 1.54 | 4,495,244 |
|  | ACS 2005-2007 | 8,320,521 | 3,010,658 | 2.76 | 1.62 | 4,888,890 |
|  | Change | 321,969 | 84,254 | 0.03 | 0.08 | 393,646 |
|  | \% Change | 4.0\% | 2.9\% | 1.1\% | 5.2\% | 8.8\% |

(1) - Estimated Passenger Vehicles calculated as Total Households x Average Vehicles per Household

Exhibit 17: Household Vehicle Data - Chicago versus the Remainder of Cook County

| Municipality | Data Category | Persons in Households | Total Households | Average Household Size | Average <br> Vehicles per <br> Household | Estimated Passenger Vehicles (1) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Chicago | Census 2000 | 2,836,388 | 1,061,964 | 2.67 | 1.08 | 1,146,921 |
|  | ACS 2005-2007 | 2,679,317 | 1,014,120 | 2.64 | 1.15 | 1,166,238 |
|  | Change | $(157,071)$ | $(47,844)$ | -0.03 | 0.07 | 19,317 |
|  | \% Change | -5.5\% | -4.5\% | -1.1\% | 6.5\% | 1.7\% |
| Remainder of Cook County | Census 2000 | 2,446,698 | 912,444 | 2.68 | 1.69 | 1,538,274 |
|  | ACS 2005-2007 | 2,514,495 | 921,644 | 2.73 | 1.74 | 1,601,905 |
|  | Change | 67,797 | 9,200 | 0.05 | 0.05 | 63,631 |
|  | \% Change | 2.8\% | 1.0\% | 1.7\% | 3.1\% | 4.1\% |
| Cook County | Census 2000 | 5,283,086 | 1,974,408 | 2.68 | 1.36 | 2,685,195 |
|  | ACS 2005-2007 | 5,193,812 | 1,935,764 | 2.68 | 1.43 | 2,768,143 |
|  | Change | $(89,274)$ | $(38,644)$ | 0.00 | 0.07 | 82,948 |
|  | \% Change | -1.7\% | -2.0\% | 0.0\% | 5.1\% | 3.1\% |

(1) - Estimated Passenger Vehicles calculated as Total Households x Average Vehicles per Household

These final exhibits illustrate the impact that City of Chicago statistics have on Cook County and regional averages. The City of Chicago has distinctly unique demographics, vehicle ownership characteristics, and more accessible transit services compared to the rest of Cook County and to the region. Furthermore, with an approximate $35 \%$ share of households in the region, the City of Chicago had a significant impact on regional statistics and averages.


[^0]:    ${ }^{1}$ http://www.fhwa.dot.gov/ctpp/jtw/executive.htm. Emphasis added.

[^1]:    ${ }^{2}$ Age-sex driver licensing estimates have not been published at the county level.

