

## B. Context: The Dane County Region

The following sections take a broad look at population growth trends and economic makeup and growth within Dane County and compared to Wisconsin and to the United States. They also address race and ethnicity, age, income and housing. Additional detail is provided in Appendix A.

### Dane County Snapshot

Population 2010: 488,073

Estimated Population 2013: 495,921\*

Population growth 2000-2010: 14.43% (61,547)

Projected population 2040: 606,620 \*

Housing Units: 203,750

Employment 2011: 249,351

**Employment growth:** 2001-2011: 8.73%

**Major Sectors:** Health Care and Social Assistance, Retail Trade, Accommodation and Food Services, Manufacturing, Finance and Insurance, Professional, Scientific, and Technical Services

**Major employers:** UW-Madison, University of Wisconsin Hospitals, Epic Systems, Madison Metropolitan School District, American Family Mutual Insurance Company, Department of Corrections, UWWMF, Department of Health Services, City of Madison, SSM Health Care of Wisconsin Inc., Dean Medical Center, Meriter Hospital Inc., Madison Area Technical College, County of Dane, WPS

\* DOA, 2013 Estimate

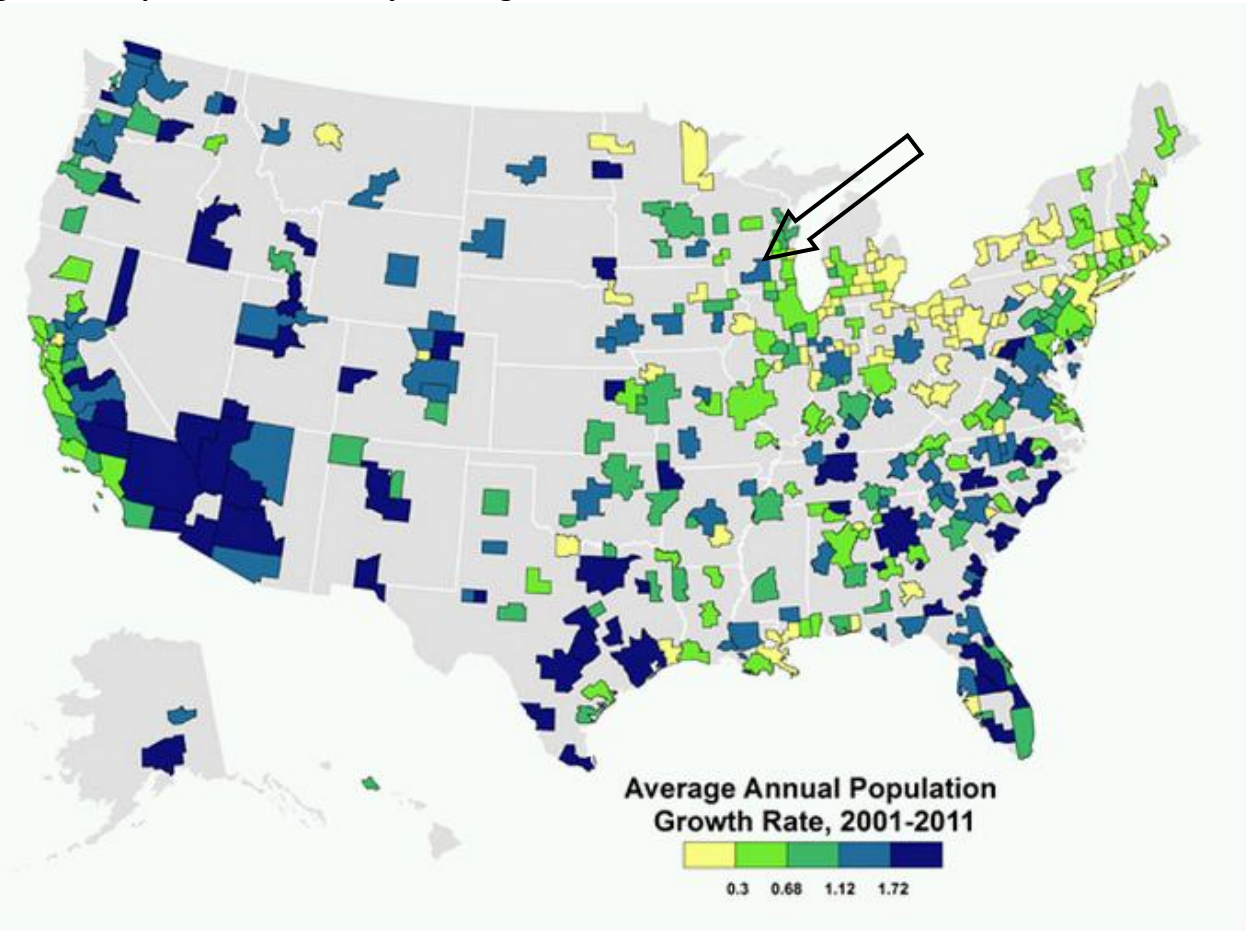
## Population Trends

The Madison region (Dane, Columbia and Iowa counties) experienced higher population growth between 2001 and 2011 than the national average, as shown in Figure 7. Madison and Dane County are expected to remain the highest growth areas in the state. Going out to 2040, Dane County is expected to add 118,500 people. The next largest county increase is Milwaukee County with a 68,500 increase. Similarly, Madison will gain more people during this period than any other city. Its projected increase of 43,150 compares to 30,900 for the City of Milwaukee, the next largest increase.

**Dane County experienced the largest numerical population increase in the state with 61,547 additional people during this period.** Growth in Dane County also outpaced statewide growth from 2000 to 2010 at more than double Wisconsin's rate of change. While Wisconsin's population increase was around 6%, Dane County's growth rate was just over 14%.

*Dane County experienced higher levels of population growth over the past decade.*

**Figure 7 – Population Growth by Sub Region, 2000—2010**



Source: Martin Prosperity Institute, University of Toronto, September 2013

Within Dane County, the largest increase in population between 2000 and 2010 occurred in the City of Madison. Madison grew by 25,155 people, which is 41% of the total population increase in Dane County. Growth of “Second Ring Suburbs” accounted for one third of Dane County population gain, or 20,690 people.<sup>3</sup> (See Sidebar Below) These suburbs experienced a 32% relative gain in their population—or 20,690 people in the past decade—whereas Madison only experienced an 11% gain.

“Figure 8 – Population Growth in Dane County by Sub-Region, 2000-2010” breaks down Dane County’s population into the following groups: City of Madison, First Ring Suburbs, Second Ring Suburbs, Outlying Communities, and Rural. These groups correspond to concentric rings which are further and further removed from the City of Madison, located roughly in the center of Dane County.

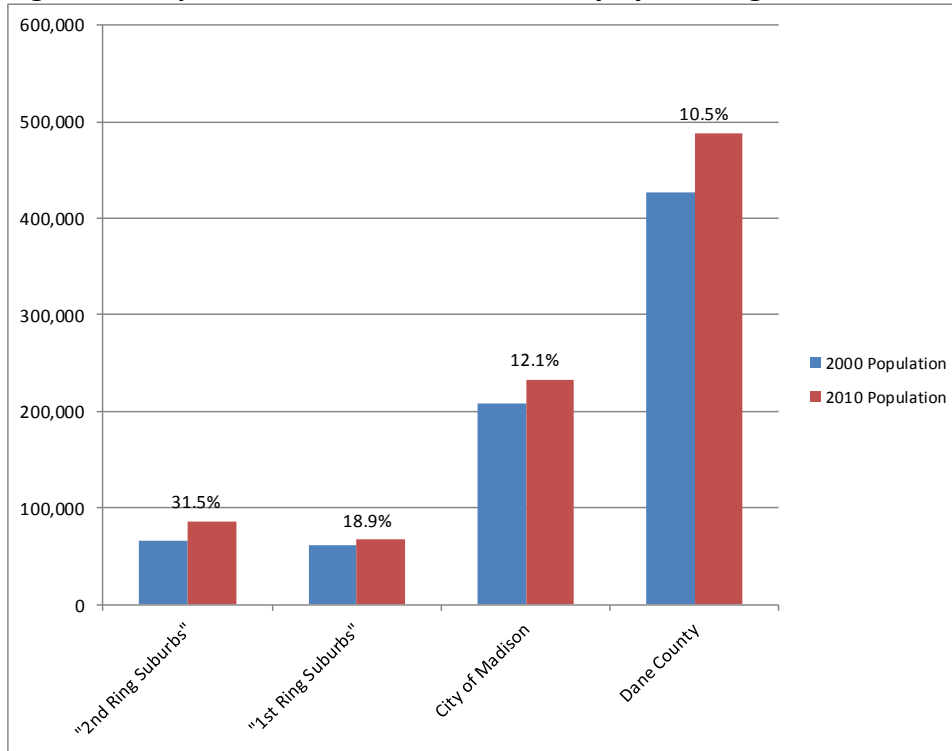
<sup>3</sup> First Ring Suburbs are defined as those communities that are not Madison but within the Central Urban Service Area (CUSA): City of Fitchburg, Town of Madison, City of Monona, City of Middleton, Village of McFarland, Village of Maple Bluff, and Village of Shorewood Hills. Second Ring Suburbs are defined as all those within the Dane County Metropolitan Planning Organization’s (MPO) planning area excluding First Ring Suburbs and City of Madison: City of Stoughton, City of Sun Prairie, City of Verona, Village of Cottage Grove, Village of Waunakee, Town of Burke, City of Middleton, Village of DeForest, and the Town of Windsor. Outlying communities includes all other villages in the County not included in the first two groupings. Rural refers to the remaining towns within Dane County.

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“Outlying Communities” also grew faster than the county as a whole at a 19% rate of change, amounting to 7,015 additional Dane County residents. For the sake of comparison, the growth rates for the United States and for Wisconsin were 10% and 6% respectively over the same ten year period.

*Suburbs in Dane County are growing at a faster rate than Madison or Dane County as a whole.*

**Figure 8 – Population Growth in Dane County by Sub-Region, 2000-2010**



Source: U.S. Census Table DP-1: Profile of General Population and Housing Characteristics: 2000, 2010

### Population Projections

Madison and Dane County are expected to remain the highest growth areas in the state. Going out to 2040, Dane County is expected to add 118,500 people. The next largest county increase is Milwaukee County with a 68,500 increase. Similarly, Madison will gain more people during this period than any other city. Its projected increase of 43,150 compares to 30,900 for the City of Milwaukee, the next largest increase.

### Age

As people progress through life they play different roles in society and have different contributions and desires. Demographers group people in age categories to better understand community dynamics such as education and housing. Figure 9 below serves to illustrate a rough delineation of these groups and highlights some of their roles or needs in each stage of life.

Different generations have smaller and larger numbers of people. The “Baby Boomers” are one well-known cohort. Their children explain a swell in school enrollment through the 2000s and their retirement from the workforce will be responsible for the strong increases in the number of empty nesters and elderly Dane County residents through about 2025 and 2025—2040 respectively (See Figure 11 below).

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*People play different roles and have different needs during stages in their lives.*

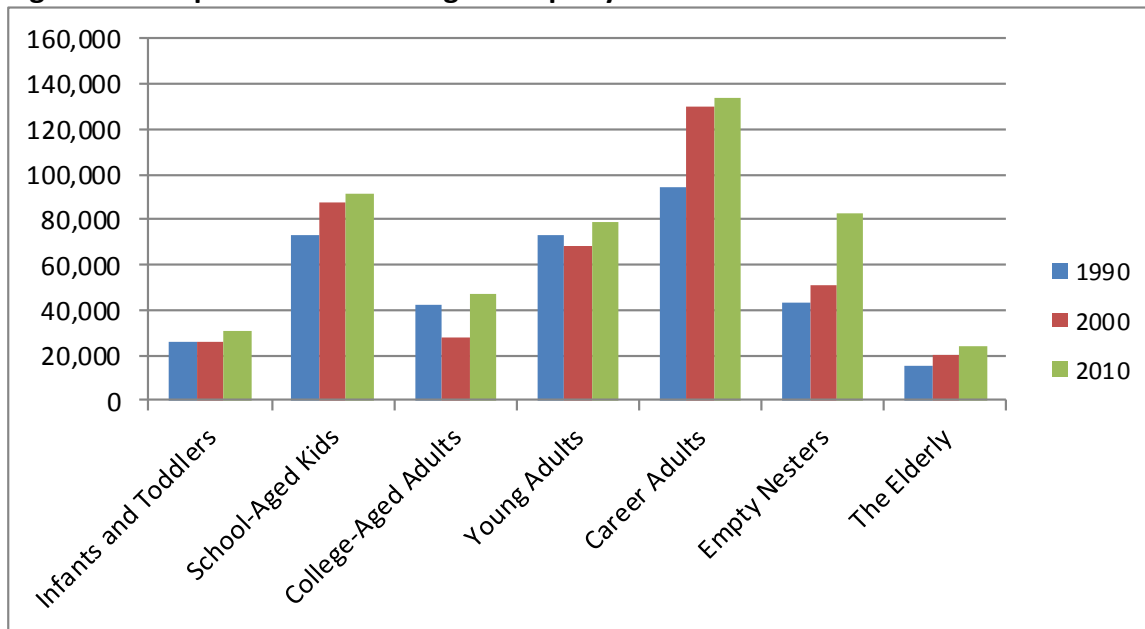
**Figure 9 – Life Stage Categories**

Age	Description	Role
0-4	Infants and Toddlers	Families, dependents
5-19	School-Aged Children	Families, dependents, primary through higher education
20-24	College-Aged Adults	Higher education, new household formation
25-34	Young Adults	New households, first-time homebuyers, young children
35-54	Career Adults	Highest earning, move-up homebuyers, older children
55-74	Empty Nesters	College-aged children, decreased housing needs, retiring
75+	Elderly	Increasing needs for housing and medical services

Source: CARPC

*Distribution of the population in different age groups has shifted over the past three decades.*

**Figure 10 – Population of Life Stage Groups by Decade**



Source: U.S. Census Table DP-1: Profile of General Population and Housing Characteristics:1990- 2010

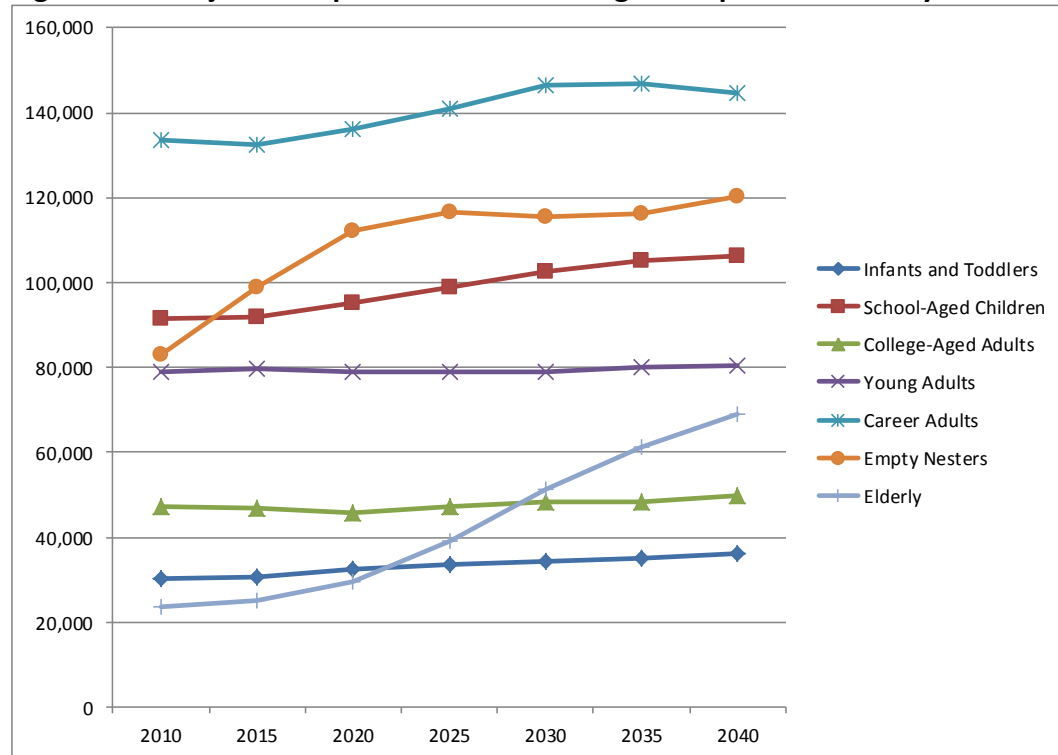
Age group distribution for Dane County is skewed by the relatively large population of students at UW-Madison (and other colleges and universities), and this high proportion of students has large impacts on statistics for the county as a whole. As an example, data from a Census Bureau working paper entitled

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“Examining the Effects of Off-Campus College Students on Poverty Rates”<sup>4</sup> indicates that **Dane County’s poverty rate dropped from 13% to 9% when students living off campus, on their own were excluded from the calculation.**

*Retiring Baby Boomers will be responsible for the strong increases in the number of empty nesters and elderly Dane County residents through about 2025 and 2025—2040 respectively.*

**Figure 11 – Projected Population Trends for Age Groups: Dane County**



Source: State of Wisconsin Department of Administration Population Projections (2013)

## Race and Ethnicity

A region ties people together through a shared sense of place, identity and culture. Underlying and strengthening these commonalities are diversities. This section looks at the diversities of the Dane County region based on characteristics including race and ethnicity, national origin, ability, age, and family.

Like many other communities, the face of Dane County has become more diverse as its population grows. In 2010, 18% of residents were people of color, similar to Wisconsin with just under 17% people of color. (See Figure 12) Nationally over one third of the population is people of color.

<sup>4</sup> [Examining the Effect of Off-Campus College Students on Poverty Rates](#)

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Population increase is occurring at different rates among the different racial and ethnic groups. On the whole, the number of people of color increased more quickly across all of Dane County than White, non-Hispanics between 2000 and 2010. **Percent change in the White, non-Hispanic population of Dane County was around seven percent whereas people of color increased by 64%.** The single racial or ethnic group growing at the fastest rate across Dane County is Hispanic and Latino residents which doubled in the ten year period in question.

*Like many other communities, the face of Dane County has become more diverse as its population grows.*

**Figure 12 – Racial and Ethnic Composition US vs. WI vs. Dane County, 2000, 2010**



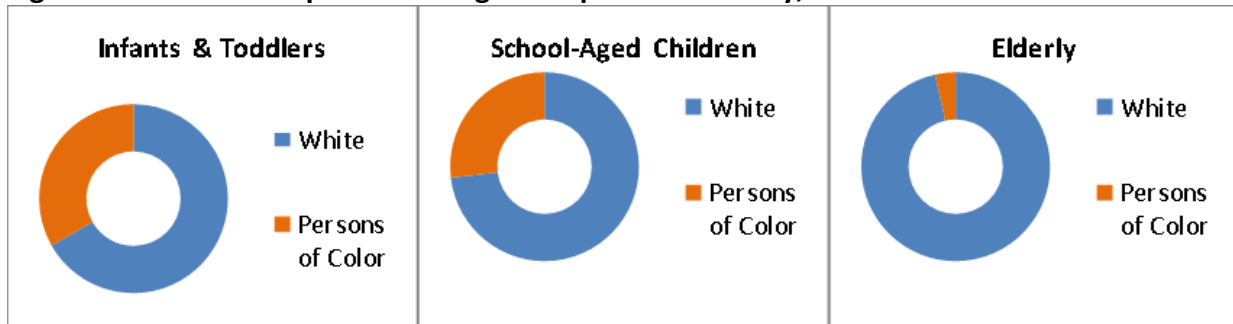
Source: U.S. Census Bureau, 2010 Decennial Census, QT-P3; QT-P4

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Figure 13 illustrates the stark contrast between the older and younger generations in Dane County in terms of racial composition. People of color make up only around five percent of adults aged 65 and older in Dane County whereas they comprise 33% of children under five years old. Generational shifts such as this will have a profound effect on the future workforce and school system.

*People of color make up only around five percent of adults aged 65 and older in Dane County whereas they comprise 33% of children under five years old.*

**Figure 13 – Racial Composition of Age Groups: Dane County, 2010**



Source: U.S. Census Table DP-1: Profile of General Population and Housing Characteristics: 2010

### Dane County Asian Communities

The composition of Dane County's Asian population roughly mirrors that of the U.S. with Chinese, Filipino, Asian Indian, Vietnamese, Korean, and Japanese making up the largest segments of the population. Unlike the nation as a whole, the Vietnamese, Thai, and Filipino communities are proportionally smaller in Dane County. Additionally, Dane County's Hmong community comprises 15% of its Asian population and is the third largest subset of the Asian population, compared to the national Hmong community which accounts for only one percent of Asians. The large Hmong population in Dane County and throughout Wisconsin can be linked to immigration practice during the periods following the Vietnam War and the passage of the *Refuge Act of 1980*. Wisconsin's Hmong population was 49,240 as of the 2010 Census, making Wisconsin one of the states with the largest Hmong populations in the nation. Dane County joins Milwaukee, Marathon, Outagamie, Sheboygan, and Brown counties which also have significant populations of Hmong.

### Geography of Race

Understanding racial and ethnic populations involves looking at where people live. People of different races and ethnicities are not uniformly distributed throughout Dane County, but tend to concentrate in certain communities and areas. This section examines where people of different races and ethnicities live. Later sections will explore reasons why and equity implications.

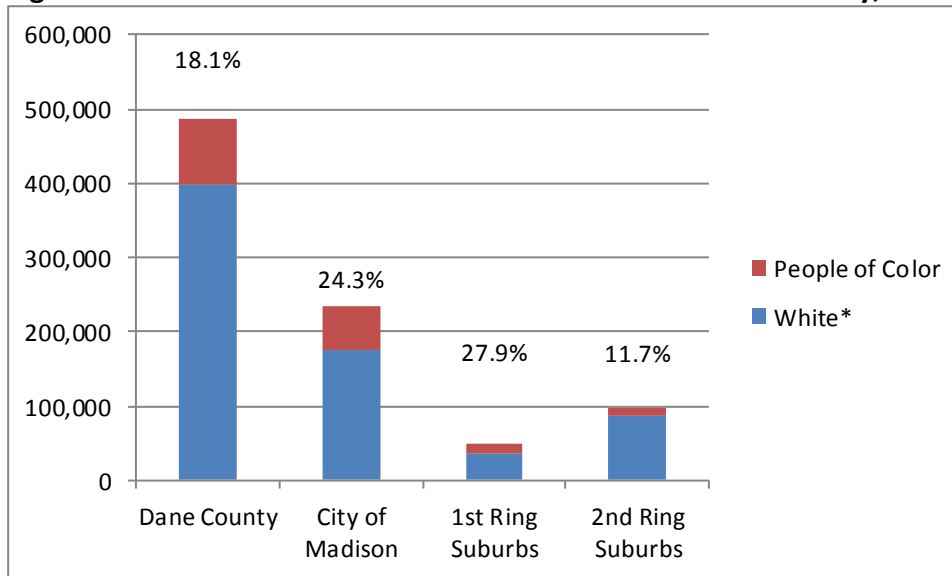
Figure 14 shows that the largest proportion of persons of color is located in the City of Madison and first ring suburbs; with approximately a fourth of the population in those communities. The City of Fitchburg accounts for most of the persons of color among first ring suburbs, with 35% of their population.

As shown in Figure 15, recent population growth of persons of color occurred throughout the county, and fastest outside of Madison. Almost all White population growth occurred outside of Madison.

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People of color make up a greater proportion of the population in Madison and first ring suburbs than the rest of the county.

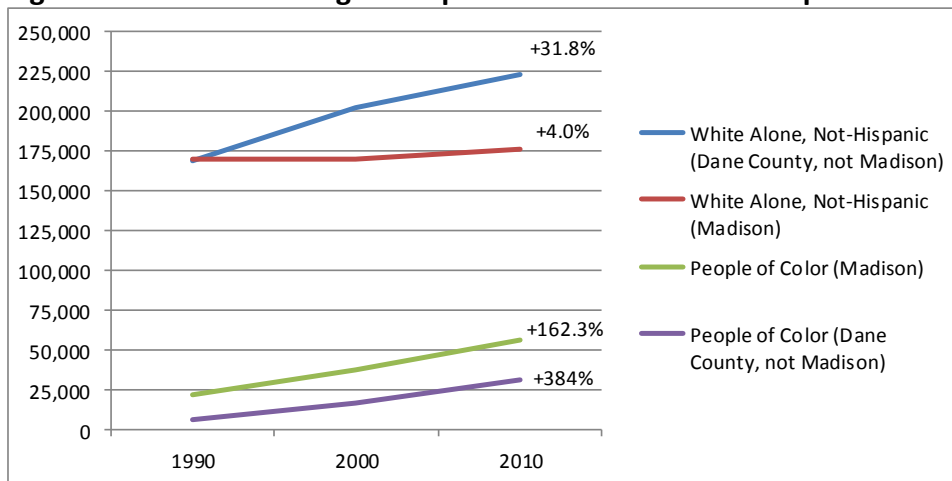
**Figure 14 – Percent Persons of Color in Sub-Areas of Dane County, 2010**



\*Race Alone, Not Hispanic or Latino;  
Source: U.S. Census Table QT-P3 & QT-P4: 2010

The population of people of color is growing at a much faster rate in outlying areas of Dane County.

**Figure 15 – Percent Change in Population of Whites and People of Color, 1990—2010**



\*Race Alone, Not Hispanic or Latino;  
Source: U.S. Census Table DP-1: 1990, 2000, And 2010

The maps below show the distribution of people within Dane County and the central urban area by race. People of color are shown by different colored dots; one dot equals 10 people. Levels of White, non-Hispanic people are shown in greyscale: darkest greyscale areas have highest percent of White persons.

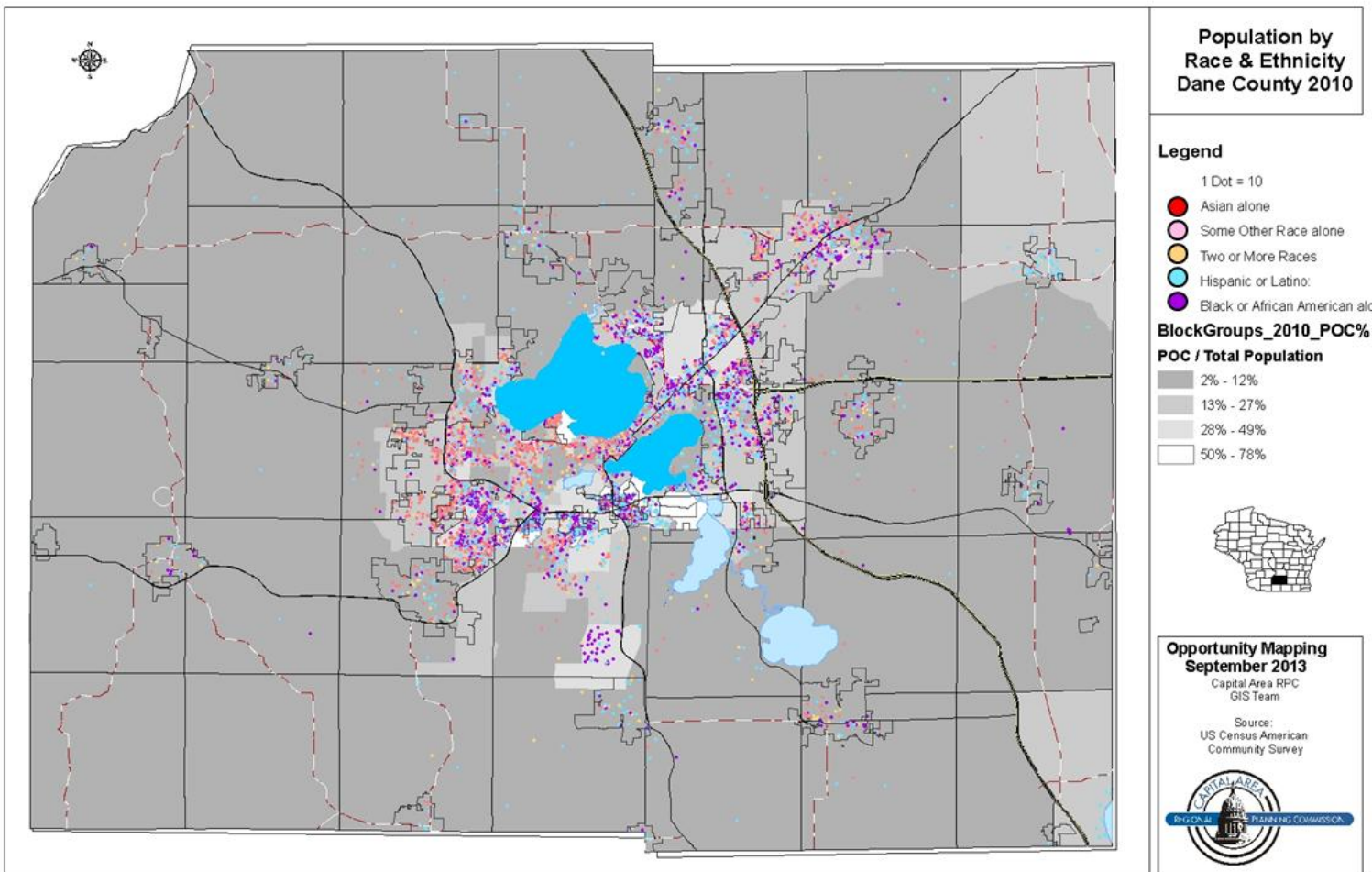


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The maps show African-American persons clustered along the south beltline highway in Madison, Fitchburg and the Town of Madison, in southeast Madison and in north and east Madison. Hispanic persons are similarly concentrated and also show up in some rural areas. Asian persons are more widely dispersed with concentrations in south Madison and across west Madison. As discussed later, Asian is a broad category that combines people from different backgrounds: Hmong, Chinese, Indian and Japanese among others.

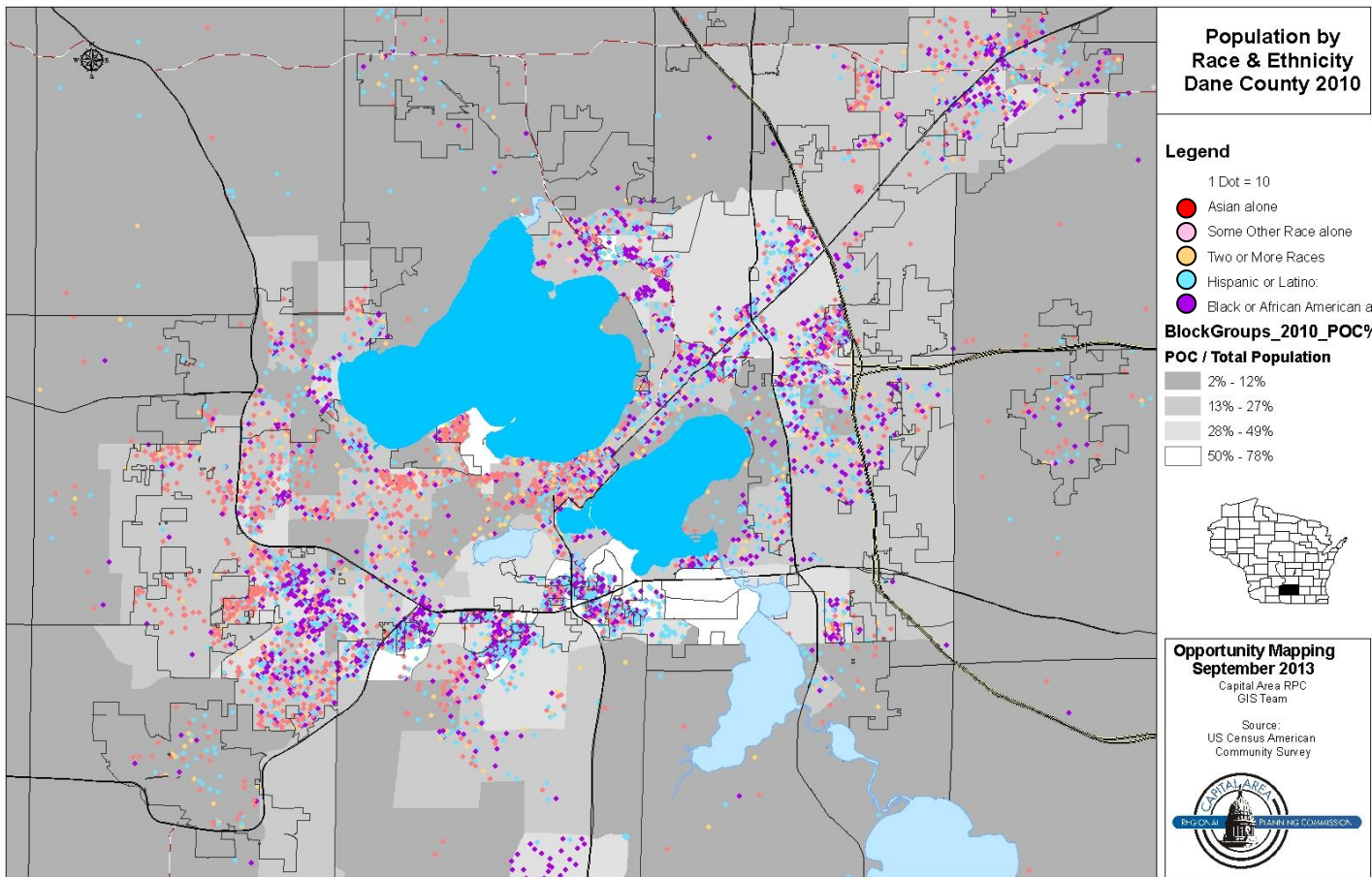
*Racial and ethnic groups are distributed in different areas of the county.*

**Figure 16 – Dot Map Distribution of Population by Race, Dane County 2010**



Source: U.S. Census Table DP-1: Profile of General Population and Housing Characteristics: 2010

**Figure 17 – Dot Map Distribution of Population by Race, Dane County-Central Area 2010**



Source: U.S. Census Table DP-1: Profile of General Population and Housing Characteristics: 2010

As shown in the dot maps above, areas of high concentration for Black residents include several locations south of the beltline, near Park Street, along Northport Road, Hwy 30 and near East Towne Mall. There is also a relatively large population in the southeast corner of Fitchburg (Oak Hill Prison) and Sun Prairie. Additional maps showing geography of different racial and ethnic groups are included in Appendix B.

## Persons with Disabilities

It is estimated that 43,009 members of the civilian, non-institutionalized population of Dane County lived with a disability in 2011, representing 9% of the population. The proportion of the population with a disability differs with the segment of the population in question. The Census Bureau reports disability status in four large age groups: under five, 5—17, 18—64, and 65 and up. One percent, five percent, seven percent, and 30% of each of these groups (respectively) live with a disability. To avoid being misled by the data, it is useful to look at what is included in the definition of “disability.”

Disabilities for children under the age of five are only reported under two categories, “Hearing Difficulty” and “Vision Difficulty.” While hospitals and doctors are required to test for, and are able to easily discern these categories of disability at a very young age, other types of disability may not be applicable to that age group, or are difficult to discern at such a young age. Beginning at the age of five, the Census Bureau begins to record responses in the following disability categories: “Cognitive,” “Ambulatory,” and “Self-Care.” At the age of 18, “Independent Living” is added to the list of disabilities. (A disability which would not apply to a child who lives with parents.)

### Under 65

Not surprising, the proportion of the population experiencing hearing, vision, or ambulatory difficulty is higher in people over 18 compared to those under 18. This is due to the natural aging process and the passage of time allowing for assessment and determination of the presence of a disability. In most cases these disabilities affect a proportion of the 18-64 population two to three times larger than the population aged 5—17. Still, no single category of disability affects more than 4% of either population. Cognitive disabilities are by far the most pervasive, affecting 4% of the population aged 5—17 and 3% of the population aged 18—64. Again, due to the natural aging process and assessment processes, ambulatory difficulties are reported as affecting 3% of the 18—64 population, as compared with 0.6% of the 5—17 population.

### Over 65

While the incidence of disability among the population aged 64 and under is relatively consistent, the proportion of disabilities among the population aged 65 and older are much higher. As one might expect, aging has its effect on hearing, sight, cognitive function, locomotion, and the ability to live independently. *Almost 30% of the population over 65 lives with a disability.* Ambulatory, hearing, and independent living difficulties are the most common disabilities at 18%, 14%, and 13% respectively. As the Baby Boom generation continues to retire and as medical advances further lengthen life expectancies, the proportion of the population who are retired and, as defined previously, are elderly will continue to increase beyond levels that have previously been experienced. As a result, the proportion of the population living with a disability can be expected to increase in the coming years.

## Economy

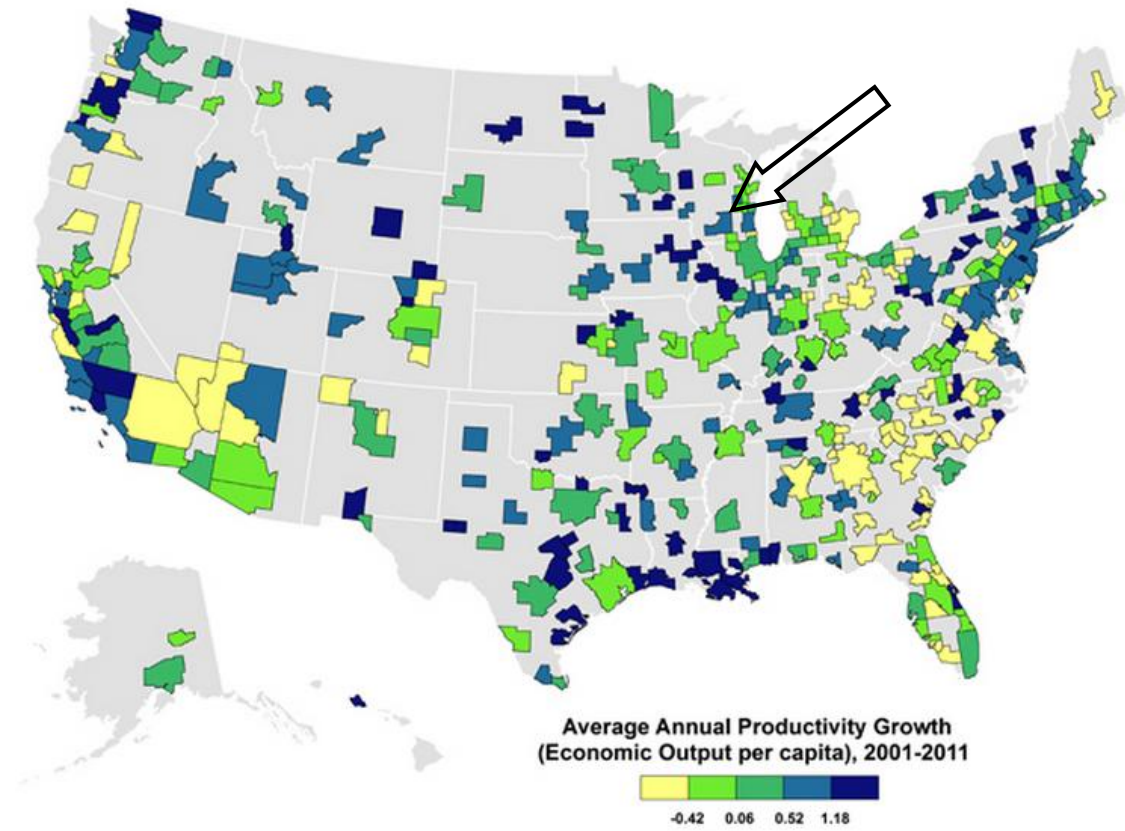
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The Madison region experiences strong economic performance as measured by employment and gross domestic product.

Overall, job growth in Dane County is recovering from the 2007 recession. Strong job growth through the recession was seen in the Healthcare and Social Services sector (+37% during 2001—2011); Retail Trade, Accommodation and Food Services, Manufacturing, Finance and Insurance, Professional, Scientific, and Technical Services also continue to be areas of strong job growth.

*The region had strong growth in domestic product per capita over the past decade.*

**Figure 18 – Average Annual Growth in Economic Output per Capita**



Source: Martin Prosperity Institute, University of Toronto, September 2013

The region had strong growth in gross domestic product per capita, as shown in Figure 18. **The Madison metro area was one of the few areas experiencing both higher than average population and productivity growth.**<sup>5</sup>

Dane County's **major employment sectors**, and the number of jobs in 2011, are:

- |                                   |        |
|-----------------------------------|--------|
| 1. Healthcare & Social Assistance | 42,465 |
| 2. Retail Trade                   | 29,184 |
| 3. Accommodation & Food Services  | 23,620 |
| 4. Manufacturing                  | 22,515 |
| 5. Finance & Insurance            | 22,163 |

Source: U.S. Census Bureau: County Business Patterns, 2011

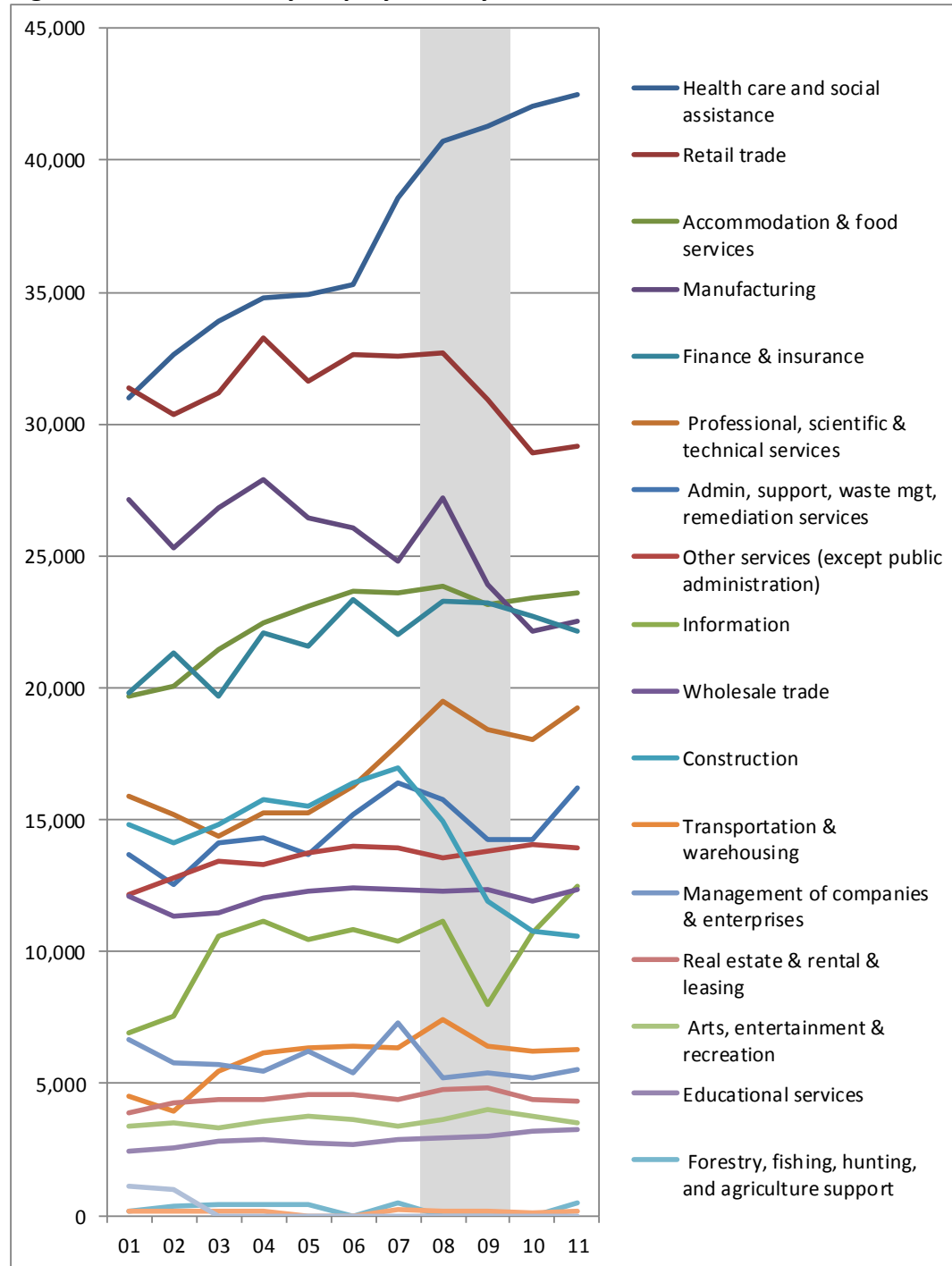
These five sectors<sup>6</sup> accounted for 39% of total Dane County employment in 2011. They also comprise the top five sectors in Wisconsin. Figure 19 below shows employment trends from 2000 to 2010 for Dane County by sector. Overall, employment is fairly diversified across sectors. Health Care and Social Assistance jobs increased significantly approximately 31,000 to 42,500, and experienced no downturn during the recession (indicated by grey bar). In contrast, many sectors experienced job loss during the recession; especially construction, retail trade and manufacturing.

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<sup>5</sup> Source: Martin Prosperity Institute, University of Toronto, September 2013. See: <http://www.theatlanticcities.com/jobs-and-economy/2013/09/great-growth-disconnect-population-growth-does-not-equal-economic-growth/5860/> and [http://martinprosperity.org/2013/06/06/insight-untangling-regional-gdp-and-population-growth/?utm\\_source=Insight%3A+Untangling+Regional+GDP+and+Population+Growth&utm\\_campaign=GDP-Population-Growth&utm\\_medium=email](http://martinprosperity.org/2013/06/06/insight-untangling-regional-gdp-and-population-growth/?utm_source=Insight%3A+Untangling+Regional+GDP+and+Population+Growth&utm_campaign=GDP-Population-Growth&utm_medium=email)

<sup>6</sup> The term "sector" in this document refers subsets of the whole economy inclusive of both public and private employment which are themselves often referred to as being "sectors."

**Figure 19 – Dane County Employment by Sector, 2000—2010**



Source: U.S. Census Bureau: County Business Patterns: 2001—2011

In addition to employment diversity, industry clusters are important to the strength of regional economies. Industry clusters reflect unique concentrations of employment, by sector, within a region.

Important industry clusters in Dane County, as measured by Location Quotients<sup>7</sup>, include “Information,” “Professional, Scientific, and Technical Services,” “Real Estate and Rental & Leasing ” and “Finance and Insurance.” “Agriculture, Forestry, Fishing, and Hunting” has a high LQ, but also low employment levels. **Chief among exporting sectors is “Information”** which has an LQ of 2.18 relative to Wisconsin and an LQ of 1.82 relative to the nation as a whole (LQ above 1.25 designates a potential export industry). Additionally, employment in the “Information” sector grew almost 56% in the period from 2009-2011. Much of this growth can be attributed to expansion at Epic Systems, an electronic health records software company with more than 7,000 employs in 2014.

Finally, while manufacturing does not emerge as an area with high LQ, it continues to be an important economic engine for the region. Most manufacturing businesses export products outside the region, thus importing dollars into the area. In addition, manufacturing jobs typically pay above average wages and offer entry points that do not require college degrees.

## Labor Force, Occupations and Unemployment

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As of 2013, there were 335,847 jobs in a wide range of occupations in Dane County. Of these jobs, close to a fourth (23%) paid median hourly wages below the City of Madison’s “livable wage,” as established by ordinance, of \$12.45 per hour. Nineteen percent of the occupations paid below Dane County’s livable wage level of \$11.33 per hour.

About a third of jobs (32%) pay more than double the City of Madison livable wage level (\$25.00 or more per hour). These high paying jobs typically require post-secondary degrees or training.

Figure 20 shows the 17 occupations in the county that comprise a third of all jobs in 2013. Occupations paying below the City of Madison and Dane County livable wage levels are highlighted, accounting for 32% of the this top tier of occupations. A third of these jobs pay more than \$25.00 per hour.

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<sup>7</sup> A common measure of such concentrations is Location Quotient (LQ), which measures the relative proportion of a sector in the regional economy compared to that of a larger geography, such as the nation. If the regional portion of employment in a sector is equal to the portion nationally, the LQ for that sector is 1.0.<sup>7</sup> For example, if manufacturing comprises 10% of jobs within both a region and the nation, the manufacturing LQ for the region is 1.0. LQs above 1 reflect stronger regional concentrations, and hence regional strength in an industry sector. High LQs for a sector can indicate that it exports goods or services outside the region. An LQ of at least 1.25 is generally required to consider classifying an area industry as an exporter (although it could also reflect excessive local demand).

**Figure 20 – Dane County Occupations with High Numbers of Jobs**

Description	2001 Jobs	2013 Jobs	Change	% Change	Median Hourly Earnings	Avg. Hourly Earnings
Building Cleaning Workers	7,637	9,155	1,518	20%	\$10.74	\$11.63
Office Clerks, General	8,646	8,969	323	4%	\$15.24	\$15.52
Secretaries and Administrative Assistants	8,012	8,533	521	7%	\$18.18	\$18.45
Postsecondary Teachers	7,415	8,469	1,054	14%	\$29.22	\$33.05
Laborers and Material Movers, Hand	8,318	8,247	(71)	(1%)	\$13.15	\$13.42
Registered Nurses	6,259	7,956	1,697	27%	\$34.56	\$35.16
Retail Salespersons	8,510	7,947	(563)	(7%)	\$9.86	\$11.94
Fast Food and Counter Workers	6,008	7,884	1,876	31%	\$8.98	\$9.35
Customer Service Representatives	6,614	7,151	537	8%	\$15.50	\$16.71
Cashiers	6,294	6,429	135	2%	\$9.13	\$9.71
Nursing, Psychiatric, and Home Health Aides	4,165	5,266	1,101	26%	\$12.11	\$12.41
Waiters and Waitresses	3,868	4,752	884	23%	\$9.01	\$10.15
Software Developers and Programmers	3,034	4,609	1,575	52%	\$37.94	\$38.71
Driver/Sales Workers and Truck Drivers	5,106	4,606	(500)	(10%)	\$16.17	\$17.43
Sales Representatives, Wholesale and Manufacturing	3,973	4,547	574	14%	\$30.87	\$34.20
Bookkeeping, Accounting, and Auditing Clerks	4,088	4,371	283	7%	\$17.85	\$18.34
Computer Support Specialists	3,092	4,335	1,243	40%	\$26.55	\$26.82

Source: EMSI Analyst, QCEW Employees, Non-QCEW Employees & Self-Employed - 2014.2 "Class of Worker"  
 Shaded occupations pay less than the Dane County's adopted "livable wage" of \$11.33 per hour.

Figure 21 shows the top 19 occupations in Dane County with most growth (20% or greater increase in jobs from 2001 to 2013, and that had 1500 or more jobs in 2001). These jobs represent almost a fourth (23%) of all jobs in 2013. Five of the occupations, comprising four in ten of top growing jobs, jobs paid less than Dane County's livable wage. Thus, while two of 10 jobs in the county pay below county livable wage, four in 10 jobs in top growing occupations pay below that level.

While about 2 in ten jobs in the county pay less than Dane County's livable wage, 4 in ten of the jobs in top growing occupations pay below that level.

On the other hand, a large portion (42%) of the top growing jobs pays high wages - \$25 per hour or more. In other words, almost all of the top growing jobs are either below the livable wage or are in high-paying occupations. This is consistent with overall trends towards shrinking of jobs in occupations paying middle-level wages.

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**Figure 21 – Dane County Occupations with High Growth Rates and Significant Jobs**

Description	2001 Jobs	2013 Jobs	Change	% Change	Median Hourly Earnings	Avg. Hourly Earnings
Personal Care Aides	2,519	3,848	1,329	53%	\$10.88	\$11.53
Software Developers and Programmers	3,034	4,609	1,575	52%	\$37.94	\$38.71
Computer Support Specialists	3,092	4,335	1,243	40%	\$26.55	\$26.82
Computer and Information Analysts	2,015	2,661	646	32%	\$34.21	\$34.96
Fast Food and Counter Workers	6,008	7,884	1,876	31%	\$8.98	\$9.35
Miscellaneous Teachers and Instructors	2,151	2,806	655	30%	\$15.61	\$17.41
Elementary and Middle School Teachers	2,598	3,348	750	29%	\$25.04	\$25.12
Grounds Maintenance Workers	1,761	2,280	519	29%	\$14.28	\$15.06
Registered Nurses	6,259	7,956	1,697	27%	\$34.56	\$35.16
Nursing, Psychiatric, and Home Health Aides	4,165	5,266	1,101	26%	\$12.11	\$12.41
Management Analysts	2,386	2,969	583	24%	\$30.87	\$31.22
Supervisors of Food Preparation and Serving Workers	1,580	1,954	374	24%	\$15.99	\$16.56
Waiters and Waitresses	3,868	4,752	884	23%	\$9.01	\$10.15
Secondary School Teachers	1,563	1,928	365	23%	\$25.48	\$25.67
Insurance Sales Agents	1,524	1,869	345	23%	\$22.37	\$22.88
Cooks	3,035	3,709	674	22%	\$11.23	\$11.35
Miscellaneous Healthcare Support Occupations	2,082	2,513	431	21%	\$16.26	\$16.47
Database and Systems Administrators and Network Architects	1,902	2,300	398	21%	\$35.44	\$35.33
Building Cleaning Workers	7,637	9,155	1,518	20%	\$10.74	\$11.63

Source: EMSI Analyst, QCEW Employees, Non-QCEW Employees & Self-Employed - 2014.2 "Class of Worker"

\* Fastest growing are occupations with 20% or greater increase in jobs from 2001 to 2013.

Shaded occupations pay less than the Dane County's adopted "livable wage" of \$11.33 per hour.

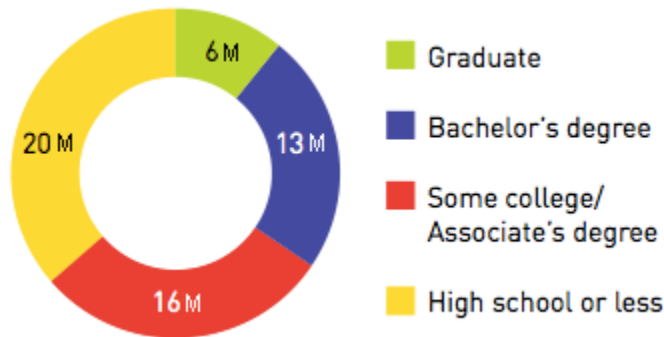
## Jobs and Educational Requirements

As noted above, higher paying occupations typically require post-secondary education. Yet, a growing number of moderately paying jobs require education beyond high school.

Between 2010 and 2020, there will be a projected 55 million new job openings in the United States, with 36 million, or about two thirds, requiring some form of post-secondary education (Figure 22). It is estimated that there will be a deficit of 5 million workers nationwide due to lagging levels of post-secondary educational attainment.

*About two thirds of projected jobs will require some form of post-secondary education.*

**Figure 22 – United States Job Openings by Educational Requirement, 2010-2020**



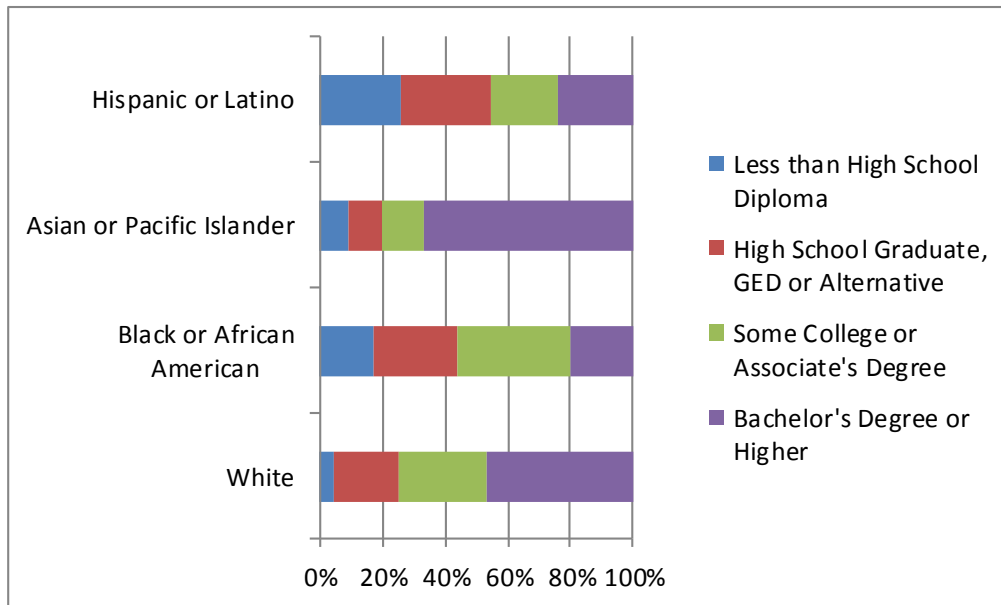
Source: Anthony Carnevale and Jeff Strohl, "Separate and Unequal": Georgetown University, Center on Education and the Workforce, July 2013 and PolicyLink "All in Nation", July 2013.

Despite the growing demand for workers with post secondary education, significant portions of the county's fastest growing populations do not meet these requirements. In Dane County 56% of Black adults and 45% of Hispanic adults have some college or associate's degree or higher that will be required for new job openings; compared to 75% of White and 80% of Asian adults. This mismatch between job educational requirements and educational attainment of persons of color in the Madison region highlights the importance of closing educational achievement gaps in the region.

The mismatch between job educational requirements and educational attainment of persons of color in the Madison region highlights the importance of closing educational achievement gaps in the region.

*Fifty-six percent of Black adults and 45% of Hispanic adults have some college or associate's degree or higher that will be required for projected job openings...*

**Figure 23 – Highest Level of Educational Attainment by Race and Ethnicity, Dane County, 2008-12\***



\*Note: Highest level of educational attainment applies to all persons aged 25 and older in Dane County  
Source: U.S. Census Bureau, American Community Survey 2008-12 (Five Year Estimates)

### Workforce Composition

The gap in education levels between White and Black or Latino persons can also be seen in the racial and ethnic composition within low and high-paying occupations. People of color comprise 13% to 14% of Dane County’s workforce. However, people of color appear to be disproportionately either over- or under-represented in a number of occupations in the region.

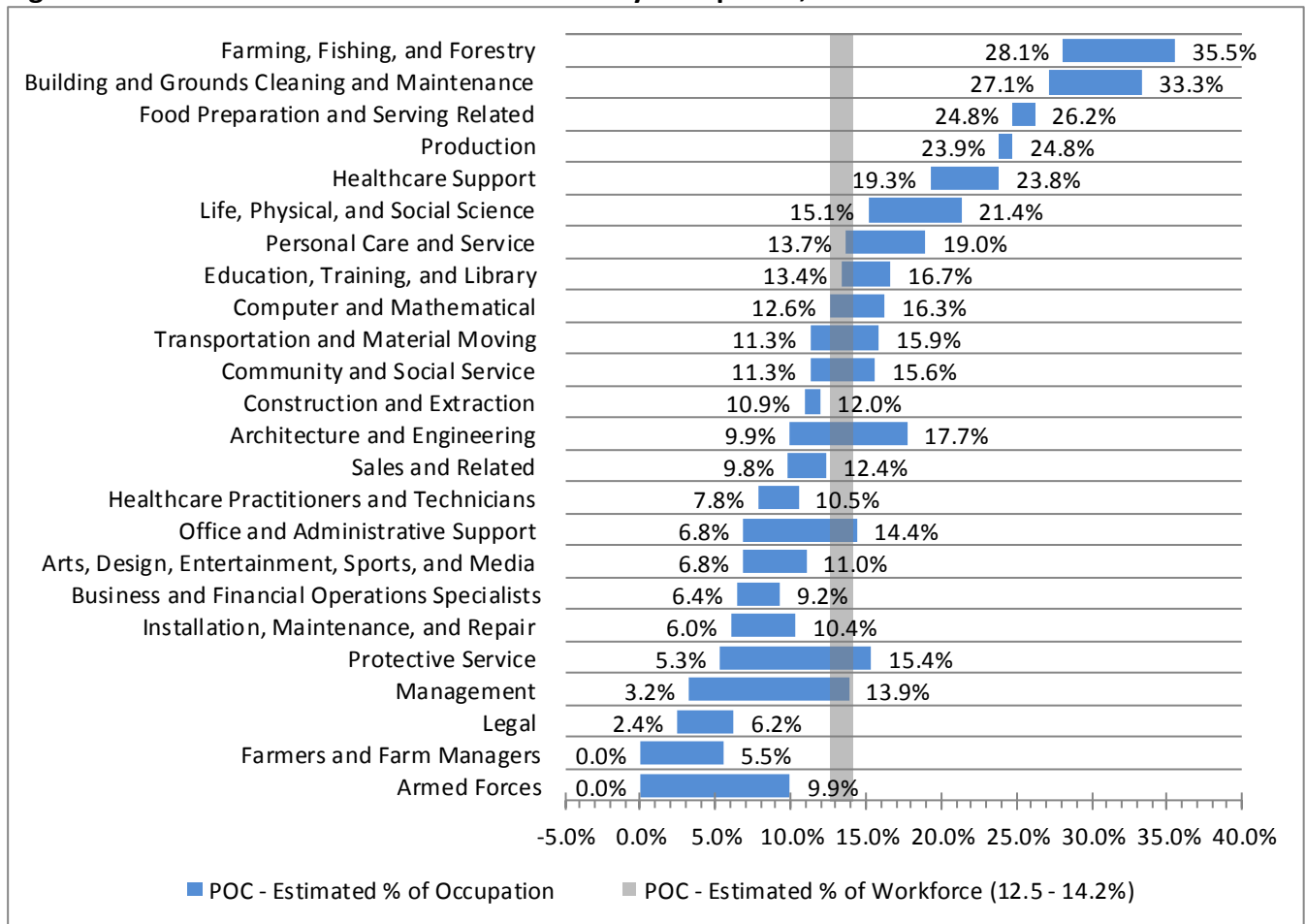
In terms of occupational categories: “Farmers and Farm Managers,” “Legal Occupations,” “Business and Financial Operations Specialists,” and “Armed Forces” all have proportionally fewer people of color than Dane County as a whole. Conversely, “Farming, Fishing, & Forestry Occupations,” “Building & Grounds Cleaning and Maintenance Occupations,” “Food Preparation and Serving Related Occupations,” “Production Occupations,” and “Healthcare Support Occupations” employ proportionally more people of color.

People of color appear to be overrepresented in lower skill, service or support work and underrepresented in those occupations described as “management/managing” as well as some of the highly credentialed, professional occupations. This is especially clear in the following occupation groups:

- Healthcare—People of color make up 19.3 to 23.8% of healthcare support staff but only 7.8 to 10.5% of healthcare practitioners and technicians. (Average hourly wages in these occupational groups were \$34.59 and \$14.00 respectively during the second quarter of 2014.<sup>8</sup>)
- Farming—Fewer than 5.5% of farmers and farm managers are people of color but they make up around 28 – 35% of those who work in other farming, fishing, and forestry capacities.

<sup>8</sup> Source: EMSI Analyst, QCEW Employees, Non-QCEW Employees & Self-Employed - 2014.2 “Class of Worker”

**Figure 24 – Estimated Percent Persons of Color by Occupation, 2006–2010**



Source: U.S. Census Bureau, American Community Survey 2006-2010 Five-year estimates. Special Tabulation: Census Transportation Planning

## Unemployment

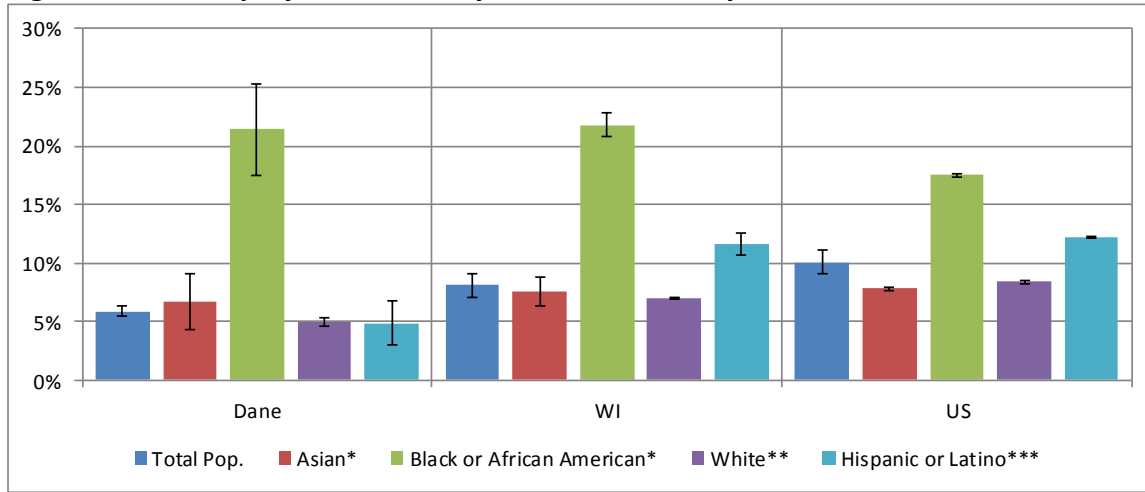
Unemployment rates in Dane County (Figure 25) were two to four percentage points below the national average and two percentage points below state unemployment levels during the period from 2006–2012, increasing by almost two percentage points to 6% total unemployment over the last three years. This is not the case across all groups.

The widest gaps in employment rates between racial and ethnic groups are the Black-White and Black-Hispanic disparities in the period from 2010–2012. Blacks were between three to five and a half times more likely than Whites or Hispanics to be unemployed. During this period it was estimated that 21% of Blacks in Dane County were unemployed (+/-4%), compared to 18% of Blacks unemployed nationally—an unemployment rate *at least 50%* higher than any of the other major racial and ethnic group in Dane County.

Blacks were between three to five and a half times as likely as Whites or Hispanics to be unemployed in 2012: 21% Black unemployment vs. less than 5% White unemployment. Black unemployment in Dane County was also higher than Black U.S. unemployment (17%).

Blacks were between three to five and a half times more likely than Whites or Hispanics to be unemployed.

**Figure 25 – Unemployment Rates by Race and Ethnicity, 2010—2012**



\*Race Alone; \*\*Race Alone, Not Hispanic or Latino; \*\*\*Any Race or Combination of Races

Source: U.S. Census Bureau, ACS, S2301 "Employment Status," Three Year Estimates

\*Margin of Error indicators are included in these data and were taken from American Community Survey estimated values. The upper and lower whiskers on these bars represent the estimated range of values for each characteristic; the bars themselves indicate the predicted value. Unless otherwise noted data in this report are taken from Decennial Census datasets and are not published with margins of error.

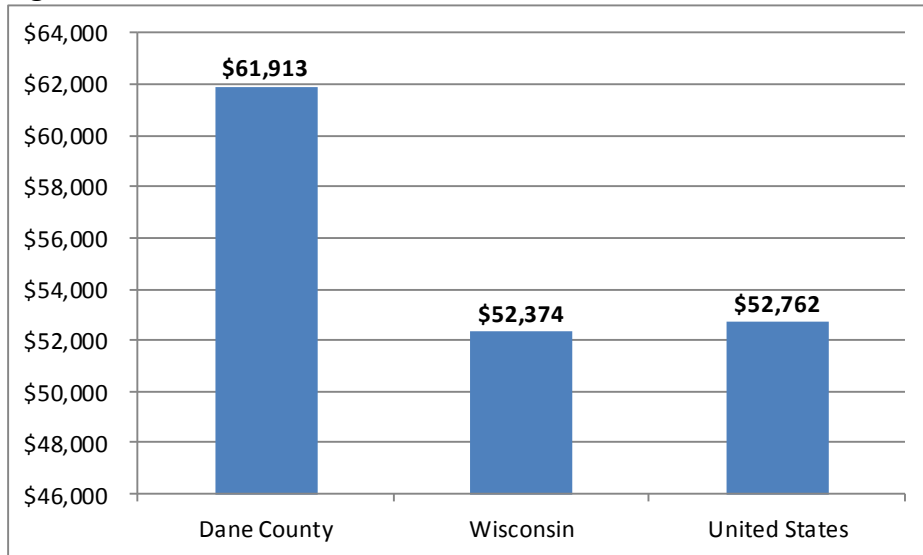
Source: Anthony Carnevale and Nicole Smith, "The Midwest Challenge": Georgetown University, Center on Education and the Workforce, September 2011.

## Income

Median household income in Dane County for the period between 2007 and 2011 was \$61,913 (Figure 26), around \$9,000 higher than the median for both the Wisconsin and the United States. This higher median income in Dane County is due to economic strengths described above. Dane County's higher income and lower unemployment rates are strengths for the Madison area overall. However, this level of prosperity is not uniformly shared.

Incomes are higher on average than in Wisconsin and throughout the United States.

**Figure 26 – Median Annual Household Income and Benefits, 2007-2011**



Source: U.S. Census Bureau: American Community Survey: 2011 (5-Year Estimate)

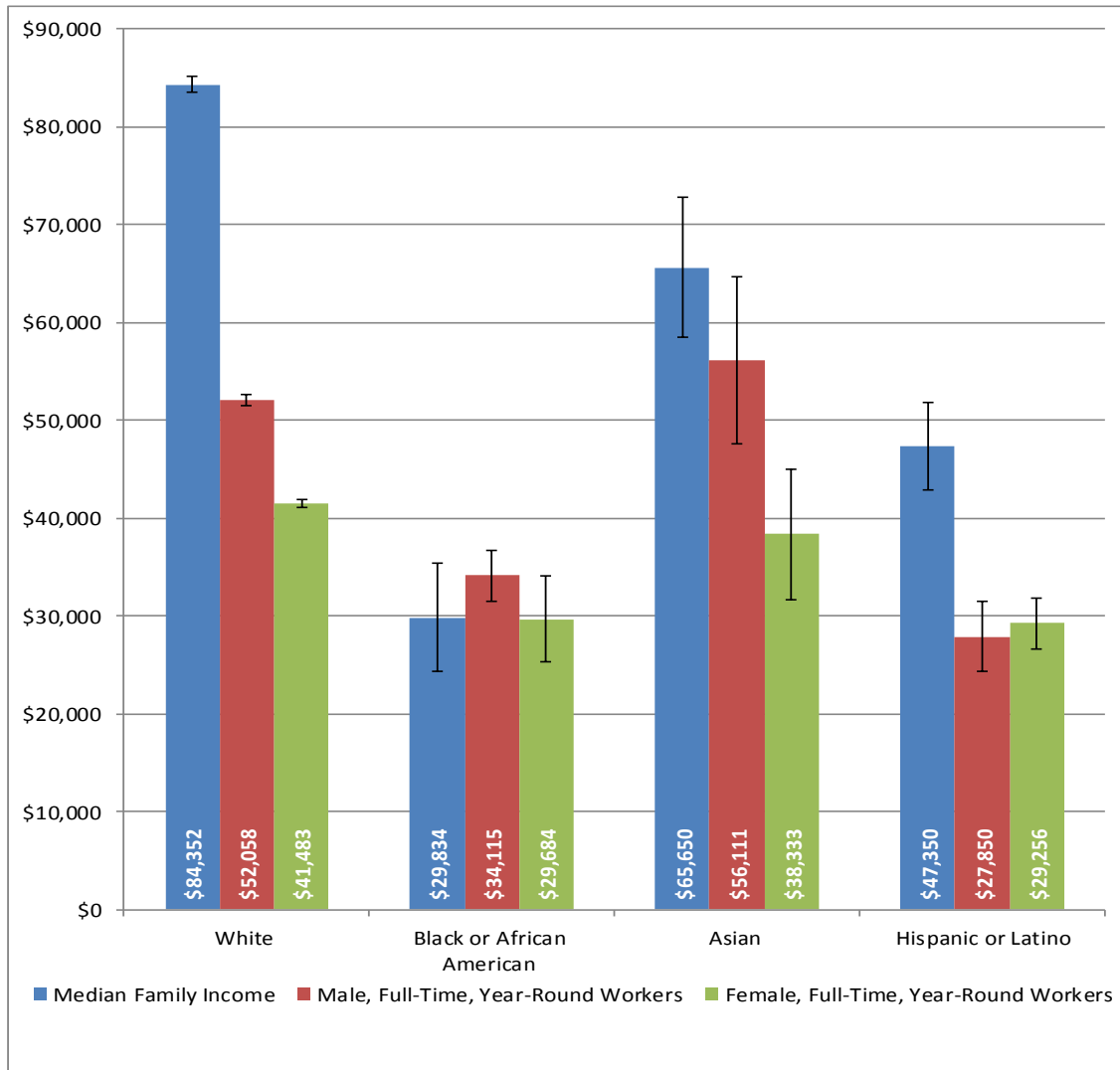
As shown in Figure 27 below, Dane County has wide racial disparity in income. Median family income (2007—2011) for Blacks in Dane County is two thirds that of Asian and Hispanic families and a little over one third that of White families.

The average Black male—working full-time, year-round—made a third less than a White or Asian male. Female, Black workers saw similar discrepancies. Male, Hispanic workers individually earned a lower median income than any other reported group: \$27,850. Median female pay is generally lower than for males of the same racial/ethnic background, the one exception being Hispanic females who earned a median yearly income \$2,000 higher than their male counterparts.

Median family income for Blacks in Dane County is two thirds that of Asian and Hispanic families and a little over one third that of White families.

**Figure 27 – Median Income and Benefits by Race and Ethnicity, 2007-2011**

(In 2011 Inflation-Adjusted Dollars)



Source: U.S. Census Bureau: American Community Survey: 2011 (5-Year Estimate)

\*Margin of Error indicators are included in these data and were taken from American Community Survey estimated values. The upper and lower whiskers on these bars represent the estimated range of values for each characteristic; the bars themselves indicate the predicted value. Unless otherwise noted data in this report are taken from Decennial Census datasets and are not published with margins of error.

The previous sections described the people of Dane County in terms of population trends, race and ethnicity, the types of jobs they hold, occupations, and disabilities. Another important aspect to understanding a region is how people group together in living situations. This section explores how the people of Dane County live, in terms of the households they form, and the housing units they occupy.

## Households

Dane County follows the national trends in household size and composition: decreasing household and family sizes, increasing numbers of single-parent families, a decline in the percentage of married couples and an increase in unmarried, cohabitating pairs. Additionally, Dane County is seeing an increasing percentage of single, never-married persons and increasing variety of family arrangements e.g. children living with grandparents, aunts, uncles, and in other guardianship arrangements.

*Family and household size is decreasing in Dane County while the number and variety of household composition is increasing.*

**Figure 28 – Changes to Household and Family Size, 2000—2010**

	1990	2000	2010
<b>Total Number of Households</b>	142,231	173,484	203,750
<b>Average Household Size</b>	2.76	2.37	2.33
<b>Average Family Size</b>	3.04	2.97	2.95

Source: U.S. Census Table DP-1: Profile of General Population and Housing Characteristics: 2010

Households can be grouped into two general categories: Households with Children (Families) and Households without Children, which may or may not be “Families.” The term “family” indicates that two or more of the household’s residents are related by marriage or by blood.

Households with Children	Households without Children
Married couple families	Married-Couple families
Domestic partner families	Domestic Partner families
Single parent families	Unrelated people together
Families with other guardians	Single persons

Figure 29 below shows changes in number of different types of households between 1990 and 2010 in Dane County. Non-family households increased 59% during this period, from 54,885 to 86,998. More than three fourths of this growth was the result of increasing numbers of single-person households. Single-persons living alone accounted for 30% of households in 2012. In 1970 that figure was 17%.

While there are more family households than non-family, they increased at a slower rate (34%, from 87,346 to 116,752).

Figure 29 also shows trends in married and other family arrangements. Overall, the make-up of families is changing. Although the number of married-couple families increased, the numbers of “traditional” families – married couples with own children – is declining. From the 2005-7 to the 2010-12 periods, the number of “traditional families” declined from

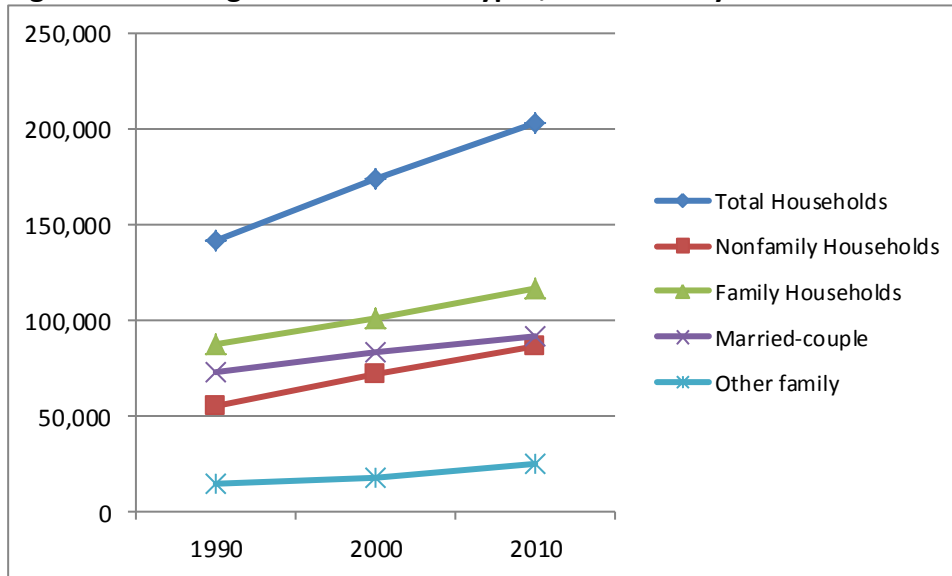
Non-family households accounted for most new households from 1990-2010. The make-up of families is changing. The number of married couples with their own children is declining, while other family types are increasing.



40,333 to 39,258.<sup>9</sup> They now comprise 28% of households, compared to 40% in 1970. “Non-traditional” families (see listing above), in contrast, increased 17% during this period. The proportion of single parent families increased significantly since 1980. In 2010, 2% of Dane County households were single father households and 6% were single mother households.<sup>10</sup>

*Although the number of married-couple families increased, the numbers of “traditional” families—married couples with own children—is declining.*

**Figure 29 – Changes to Household Types, Dane County 1990—2010**



Source: U.S. Census Table DP-1: Profile of General Population and Housing Characteristics: 1990, 2000, 2010

Discrepancies in the number of single parent households can be seen between racial/ethnic groups in Figure 30 below. **Almost half of African American and almost a fourth of Latino homes are single parent households.** Many of these families also encounter other challenges related to a single parent raising children, including poverty, incarceration of a parent, food insecurity, and instability due to frequent moves.

*Almost half of African American households and almost a fourth of Latino households are single parent households*

**Figure 30 – Single Parent Family Households in Dane County, 2010<sup>11</sup>**

	Total Households	Single Parent Households	% of Households
Asian*	4,517	697	15.4%
Black or African American*	5,316	2,577	48.5%
White**	100,034	11,452	11.4%
Hispanic or Latino***	5,481	1,323	24.1%
*Race Alone; **Race Alone, Not Hispanic or Latino; ***Any Race or Combination of Races			

Source: U.S. Census Bureau: Decennial Census: QT-P11 “Profile of General Population and Housing Characteristics,” 2010

<sup>9</sup> U.S. Census, American Community Survey 3-Year Estimates

<sup>10</sup> Source: U.S. Census Bureau: Decennial Census: QT-P11 “Profile of General Population and Housing Characteristics,” 2010

<sup>11</sup> “female/male householder, no husband/wife present”

Under such conditions, it becomes very difficult for a single parent to fully meet the developmental needs of children. Research shows that children encountering such multiple challenges experience greater stress, and that higher stress hinders brain development, likely reducing educational and earnings potential over the course of their lives.<sup>12</sup> Infants born to single mothers have more adverse outcomes than infants born to married mothers across races.<sup>13</sup>

Research shows that single-parent homes contribute to, and combine with, other challenges to hinder childhood brain development and life outcomes.

## Housing

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Production of new housing units in Dane County fell from a high of more than 5,000 in 2003 to about 1,000 in 2010, due to the great recession, before rebounding slightly in 2011-12. Housing production in the county is roughly split between Madison and non-Madison, and between single-family and multi-family units (with more multi-family units being built in Madison). Median sales price peaked at close to \$220,000 before falling slightly to about \$200,000 in 2012. Low production and growing demand for apartments led to a very low vacancy rate of 2%, putting upward pressure on rents and fueling a boom in apartment construction, especially in Madison. The apartment boom also reflects shifting demand for more walkable areas, as identified in a recent CRSC-sponsored market study. See Appendix A for additional information about housing supply and demand trends.

### Housing supply

Prior to the great recession, housing production in Dane County reached a high of 5,458 new housing units in 2002 (See Figure). Production dropped precipitously to 1,070 in 2010 before rebounding during the following years.

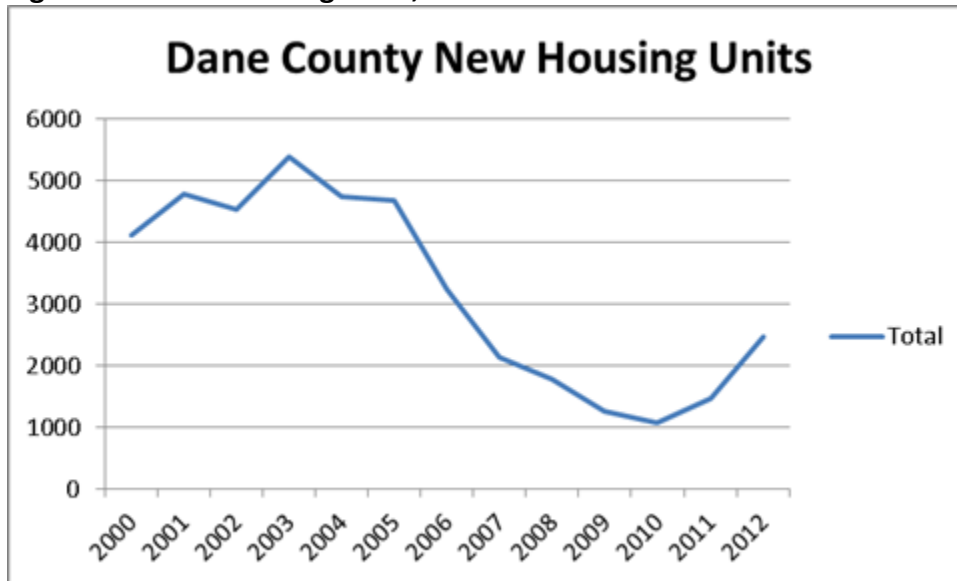
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<sup>12</sup> 2014 Franklin County Children's Report: How Toxic Stress Threatens Success, <http://liveunitedcentralohio.org/our-work/education/champion-of-children/franklin-county-childrens-report/>

<sup>13</sup> Alio, A.P., Richman, R.R., Clayton, H.B., Jeffers, D.F., Wathington, D.J., & Salihu, H.M., 2010, *An Ecological approach to understanding black-white disparities in perinatal mortality*, Maternal and Child Health Journal, 14(4) 557-66

Prior to the great recession, housing production in Dane County reached a high of 5,458 new housing units in 2002

**Figure 31 – New Housing Units, 2000—2012**



Source: CARPC Building Permit data

### Housing demand – shifting demand

Demographic shifts towards greater number of elderly and the millennial generation are projected to influence changes in housing demand.<sup>14</sup> Demand is expected to shift demand away from large-lot, single-family detached homes to other housing types, ranging from small-lot homes to town homes to large and small multi-family homes.

### Housing Affordability

Housing is considered affordable, according the U.S. Department of Housing and Urban Development, if it costs 30% or less of household income.<sup>15</sup> Of particular concern are low and moderate income (LMI) households that bear this cost burden because they have less money available for other essential needs. In Dane County, for the period 2008 to 2010, 51,195 LMI households pay more than 30% of income for housing.<sup>16</sup> These **cost-burdened households represent 26% of all households in the county.**

As shown in Figure 32, the vast majority of the very low-income households – those making at or below 30% of the county’s median income<sup>17</sup> – are renters. Conversely, most of the moderate-income households (between 50% and 80% of median) are owners.

<sup>14</sup> Center for Neighborhood Technologies with Peloton Research Partners and Seth Harry & Associates, 2014, [http://www.capitalregionscrpg.org/2013\\_postings/Market\\_Study/Final\\_Madison\\_WTS\\_Study-1-9-14.pdf](http://www.capitalregionscrpg.org/2013_postings/Market_Study/Final_Madison_WTS_Study-1-9-14.pdf)

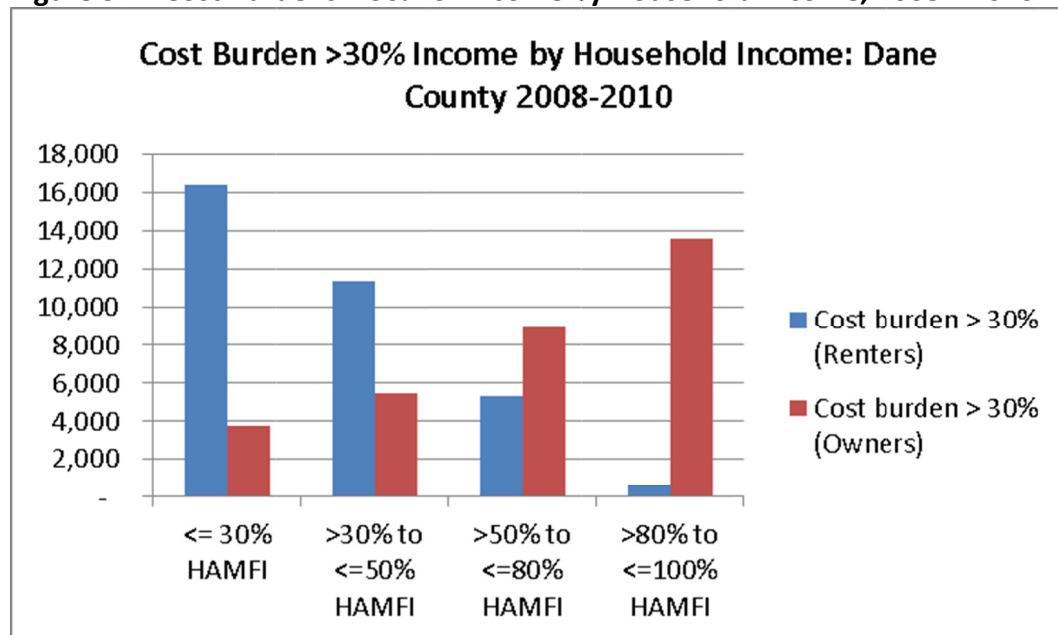
<sup>15</sup> “Families who pay more than 30 percent of their income for housing are considered cost burdened and may have difficulty affording necessities such as food, clothing, transportation and medical care.” [http://portal.hud.gov/hudportal/HUD?src=/program\\_offices/comm\\_planning/affordablehousing/](http://portal.hud.gov/hudportal/HUD?src=/program_offices/comm_planning/affordablehousing/)

<sup>16</sup> US Census, Special CHAS tabulation, by US HUD, of 3-Year American Community Survey Data, 2008-2010.

<sup>17</sup> HAMFI, or Housing Urban Development Median Family Income, which is reported for Dane County here.

The vast majority of the very low-income households are renters.

**Figure 32 – Cost Burdens > 30% of Income by Household Income, 2008–2010**



Source: US Census, Special CHAS tabulation, by US HUD, of 3-Year American Community Survey Data

As shown in Figure 34, most of the cost burdened renters live in the City of Madison, while most of the cost burdened owners in Dane County live outside Madison. This reflects, in part, a higher rate of home ownership outside Madison. Maps showing a more detailed distribution of housing affordability are presented in “Access to Opportunity/Housing.”

About a quarter of county households are “cost burdened:” pay more than 30 percent of their income for housing. About one in seven households pay more than half of income for housing. Most of these “extremely cost burdened” households are very low-income renters.

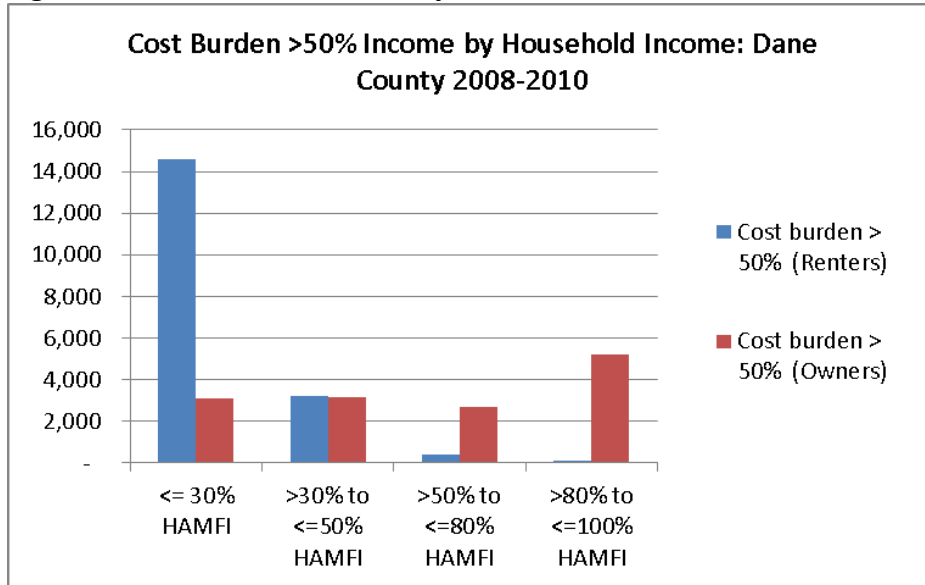
It is important to note that another aspect of housing affordability is the cost of transportation. Transportation costs vary with location. A measure of affordability that combines housing and transportation costs is discussed in Section F, Barriers to Accessing Opportunity.

Another way to understand housing affordability is to consider the income required to afford housing. In 2014 in Dane County, an hourly wage of \$17.27 (annual income of \$35,920) is needed to afford a two-bedroom apartment at “fair market rent” of \$898. Yet the hourly mean wage of the 81,320 rental households in the county is \$12.23. With this wage a renter could afford rent (at 30% of income) of \$636 per month. At that wage it would take 1.4 full-time jobs to afford the 2-bedroom fair market rent unit.<sup>18</sup>

<sup>18</sup> *Out of Reach*, National Low Income Housing Coalition, [www.nilhc.org/oor/2014](http://www.nilhc.org/oor/2014). Fair Market Rents are established by the U.S. Department of Housing and Urban Development.

A high number of renters making less than 30% of the Median Family Income have a cost burden greater than 50%.

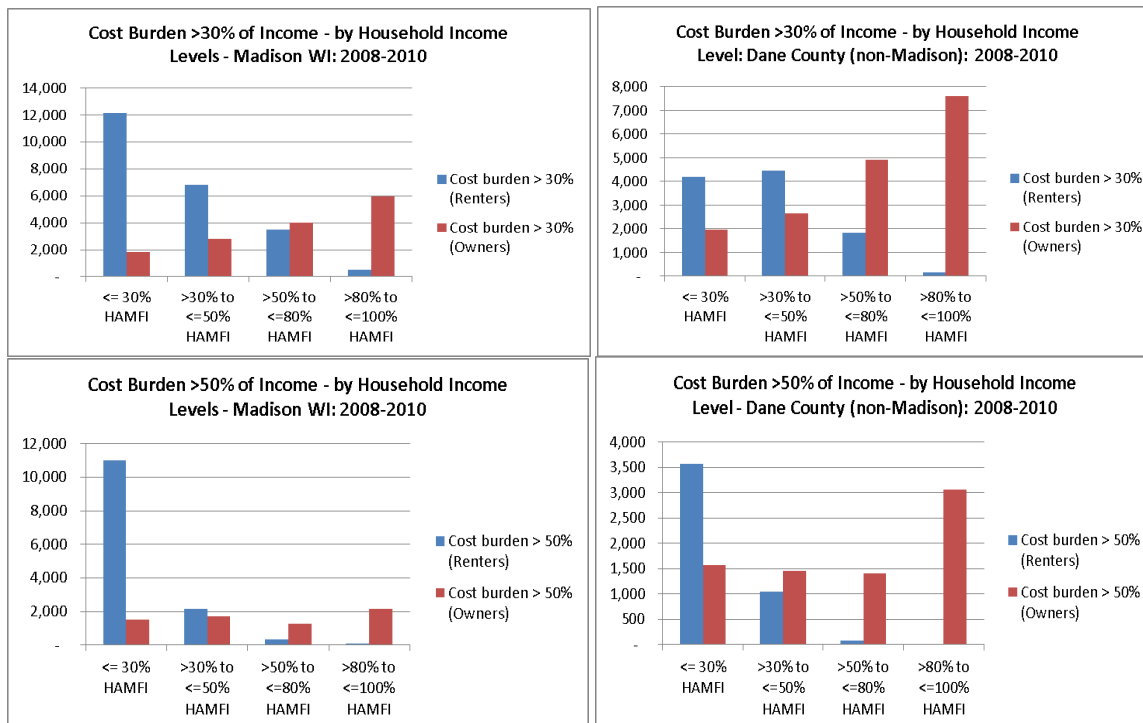
**Figure 33 – Cost Burden > 50% by Household Income, 2008—2010**



Source: US Census, Special CHAS tabulation, by US HUD, of 3-Year American Community Survey Data

Most of the cost burdened renters live in the City of Madison, while most of the cost burdened owners in Dane County live outside Madison.

**Figure 34 – Cost Burdens by Household Income, Madison and Dane County (non-Madison), 2008—2010**



Source: US Census, Special CHAS tabulation, by US HUD, of 3-Year American Community Survey Data

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