

# BOONE COUNTY ISSUES ANALYSIS: INDEPENDENT LIVING

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# **EXECUTIVE SUMMARY**

The City of Columbia, County of Boone, and the Heart of Missouri United Way (HMUW) desire to strengthen and support independent living lifestyles amongst seniors and those with disabilities in Boone County. Collectively, they provided \$530,412 in funding for independent living services in 2011. This report aims to provide pertinent data that will guide future funding strategies and inform HMUW and the Boone County Community Services Advisory Commission on the community's independent living needs and services.

Four sub-issues speak to independent living lifestyles of Boone County's senior population and people living with disabilities: 1) employment, 2) personal well-being, 3) community involvement, and 4) transportation. Some of these sub-issues correspond to quantitative and county-level data, while others rely on qualitative data published in scholarly journals and derived from national studies. Taken together, the quantitative and qualitative data presented in this report accurately summarize independent living lifestyles and challenges for Boone County seniors and people living with disabilities.

# Boone County Quantitative Findings:

- Boone County was ranked fourth best small city to age in according to the Milken Institutes' *Best Cities for Successful Aging*, in 2010
- Of Boone's non-senior population between 2008 and 2010, 7 to 9 percent live with a disability
- Between 2008 and 2010, people with a disability in Boone County make on average 37 percent less than those without a disability
- Poverty measurements for seniors and people with disability are subject to very large margins of error
- Between 2005 and 2010, the average poverty rate among people with disabilities who are 18-64 years of age was 26 percent. The rate for disabled seniors, age 65+, during this same time period was just 13 percent
- Of the Boone County households receiving SNAP benefits during 2010, 43 percent had at least one person with a disability living in the home
- Boone County seniors, age 65-69, tend to be more active in the labor force than those of the same age in Missouri and U.S.
- Seniors, age 70+, in Boone County tend to be less active in the labor force and have very small margins of unemployment– findings that are consistent at the state and national levels
- In 2010, approximately 2,428 Boone County seniors relied on friends, family or public transit for their transportation needs

*Review of Literature and National-level Qualitative Findings:* Seniors and people living with disabilities are very different populations, but they encounter many of the same barriers to personal well-being and community involvement. Many of the findings here have cross-over applications for both populations:



- Approximately half of the 54 million Americans with activity limitations or disabilities use assistive technology such as braces, walkers, wheelchairs, hearing aids, and motorized scooters to adapt to their home environments many pay out-of-pocket for these devices
- Correlations of mistreatment among elderly include low social support and previous traumatic events of abuse
- Quality of life among seniors is compromised by a fear of falling this can lead to activity restriction, balance deterioration, and functional decline
- Community participation is a vital component of independent living and can have positive health implications for seniors
- Community participation among people with disabilities is limited due to transportation barriers and limited social involvement
- People with disabilities report socializing or engaging in recreational activities less often than those without disabilities
- The World Health Organization's *Quality of Life Instrument* outlines six broad measurements which aim to capture quality of life: physical health, psychological health, independence, social relationships, environmental factors, and spiritual/religion/personal beliefs. However, understanding these topics, specifically at the county-level, is challenging due to a lack of primary data
- Transportation is a vital component to personal well-being because it allows access to community involvement opportunities for those who are mobility-challenged

In this report, county level data is presented alongside national studies from scholarly journals to accurately describe and analyze seniors and those living with disabilities' experiences in terms of independent living. Population trends, poverty levels, employment, community involvement, personal well-being, and transportation each play a part in the lifestyles of living independently for these populations. And while these two groups are very different, they share many of the same barriers to community involvement and personal well-being, and both access many of the same social services provided by Boone County. This report includes an inventory of services addressing independent living needs in Boone County that are available to seniors and people with disabilities.



# INTRODUCTION

Independent living can be defined as giving seniors and people with disabilities the opportunity to live just like everyone else – and contrary to its name, independent living should not just be defined in terms of living on one's own.<sup>1</sup> This report assesses independent living in Boone County based upon the following issues: 1) employment, 2) personal well-being, 3) community involvement, and 4) transportation. These speak to the quality of life of Boone County's senior population and people living with disabilities. Understanding the facets of independent living is a necessary step in order to target social service programs and funding.

In 2011, the Heart of Missouri United Way (HMUW), the City of Columbia, and Boone County invested \$530,000 (Appendix A: Table 1) in independent living services. Boone County Community Services Advisory Commission and HMUW are taking steps to know more about aspects of independent living for community residents to make wise use of future funding. The Commission contracted with the Institute of Public Policy (IPP) of the Truman School of Public Affairs at the University of Missouri to conduct an issues analysis of independent living in Boone County. This report and analysis will help guide future independent living funding decisions and inform the Commission and HMUW of pertinent areas of interest in the field. The Commission and HMUW wish to ensure the greatest positive impact of their investments in the community and this report will help achieve this goal by offering sound analysis on independent living in Boone County. In addition to sharing information on the four sub-issues, this report includes a resource inventory and descriptions of services available in Boone County to address independent living needs. This report begins with an examination of a national study on the best cities for successful aging, whereby, Columbia, Missouri, was ranked fourth out of the 259 smaller metropolitan areas included in the study.

# NATIONAL STUDY ON SUCCESSFUL AGING

Columbia, Missouri ranked fourth best small city to age in according to the Milken Institute's *Best Cities for Successful Aging*,<sup>2</sup> published in 2010 and funded by AARP and Humana. The goal of the study aims to spread successful aging across America and shape the future of senior care. Researchers performed in-depth analyses on publicly available empirical data for a total of 359 cities, which were later divided into 100 large and 259 small metropolitan areas to account for disparities of resources. The cities were ranked according to eight subcomponents: general indicators, healthcare, wellness, living arrangements, transportation/convenience, financial wellbeing, employment/education, and community engagement. Each sub-component is composed of multiple indicators, some of which were weighted differently to account for the variance in needs among seniors based upon age.

Columbia's highest scoring category in the report was healthcare services, where it ranked third, falling just behind Rochester, MN and Iowa City, IA. Out of all 259 small metropolitan cities included in the study, Columbia ranked first for the number of hospitals with geriatric services, rehabilitation services, and continuing-care facilities. Columbia's large working-age population means a strong tax base that can help support services for seniors. The study cited Columbia has

<sup>&</sup>lt;sup>2</sup> For more information, visit http://successfulaging.milkeninstitute.org/bcsa.html



<sup>&</sup>lt;sup>1</sup> For more information, visit the Independent Living Institute http://www.independentliving.org/

room for improvement – most notably, the metro area needs more long-term care hospitals and facilities with Alzheimer's units. The Milken report proposed Columbia's high soda consumption and many fast-food outlets contribute to high obesity rates in the area.

While the Columbia area metro is found to be short on recreation and culture, overall it offers excellent educational facilities and healthcare. The abundant university-sponsored research in the area serves as an incubator for innovation and new businesses and the result is seniors have access to cutting-edge technology in healthcare and the community as a whole supports entrepreneurial activities.

# METHODOLOGY

# **Data Collection**

A variety of data and data sources were consulted in the process of this report. The primary data sources are the Bureau of Labor Statistics (BLS), Community Population survey (CPS), American Community Survey (ACS), the U.S. Census, and the Social Security Administration. BLS is part of the U.S. Department of Labor and is the Federal agency responsible for measuring labor market activity.<sup>3</sup> Its mission is to collect, analyze, and disseminate economic information used to support public and private decision-making. Many government agencies, private organizations, individual researchers, and the public-at-large use the data to understand the characteristics of the workforce.

The U.S. Census is conducted every ten years and serves as the leading source of data on the U.S. population.<sup>4</sup> The census collects and houses data on a multitude of topics used to distribute U.S. Congressional seats to states and make decisions about community services to provide a basis for distributing \$400 billion in federal funds to local, state, and tribal governments each year. It also is one of the more important sources for decision-making on a wide array of topics in the private, nonprofit and public sectors.

Prior to the 2010 decennial census, all households completed one of two surveys, either a long or short version. The short version was very brief and took only minutes to complete. The long version, however, was sent to one in six households and, in 2008, it was 38 pages long. In order to make population estimates for the years in between the decennial surveys, the Census Bureau relied upon the Current Population Survey (CPS) to formulate population extrapolations. CPS, sponsored jointly by the U.S. Census Bureau and BLS, is the primary source of labor force statistics for the U.S. population.<sup>5</sup> CPS is the recognized source for economic statistics on the national unemployment rate, and provides data on issues relating to earnings and employment. CPS collects extensive demographic data that complement and enhance the understanding of the labor market conditions at the national, state, and sub-state areas. Much of this information has relevance to population estimates and this is why the Census has historically relied on CPS data. However, beginning in 2005, the Census Bureau moved away from using CPS estimations and relied upon yearly survey data supplied by the American Community Survey (ACS).<sup>6</sup> ACS



<sup>&</sup>lt;sup>3</sup> For more information, visit <u>http://www.bls.gov/</u>

<sup>&</sup>lt;sup>4</sup> For more information, visit <u>http://www.census.gov/</u>

<sup>&</sup>lt;sup>5</sup> For more information, visit <u>http://www.census.gov/cps/</u>

<sup>&</sup>lt;sup>6</sup> For more information, visit <u>http://www.census.gov/acs/www/</u>

samples a small percentage of the population every year and serves two primary functions. First, it gives communities annual<sup>7</sup> information they need to plan services. Second, it replaces the long version of the decennial census. More information on poverty, reporting practices, and data collection methods of the ACS and U.S. Census can be found in *Reading the Fine Print: Use of the U.S. Census and the American Community Survey in Describing Current Conditions in Boone County*, a data supplement by Lucht and Miller provided by IPP.

Census and ACS data are used in this report to determine poverty rates, supplemental nutrition assistance programs, elderly population demographics, median earnings, percent of the population living with disabilities, and transportation practices. U.S. Census and ACS data are published regularly, readily available at the local level and commonly used to monitor population trends.

# Prioritization

Previous *Boone County Issues Analysis* reports supported a primary community-level indicator prioritizing process. This report, however, branches away from the prioritization model due to a lack of viable, county-level data on seniors and people with disabilities in areas of independent living. In a general sense, personal well-being and community involvement indicators are not only difficult to define, but difficult to quantify in useful and meaningful ways. Across disciplines the conversation continues to evolve on ways to conceptualize independent living, quality of life, and personal wellbeing for people with disabilities and seniors. Therefore, in lieu of prioritization, this report contains a review of national studies and publications pertaining to independent living sub-issues and addresses seniors and people with disabilities. The latest national and interdisciplinary findings may guide Boone County's independent living discussion.

# FINDINGS

Before discussing findings for the four sub-issues, it is important to provide some contextual information and population statistics on Boone County seniors and people with disabilities. Following this synopsis, there is analysis on poverty trends for these two populations. Poverty is an important facet of independent living; however, it is too complex and broad in scope to be considered solely a sub-issue. The analysis on population and poverty trends in Boone County are continually compared to state and national rates.

## **Population Trends**

Between 2006 and 2010, the population of 65+ year olds increased in the U.S., Missouri, and Boone County. The Boone County rate increased more quickly than state and national levels (Appendix A: Table 2). Missouri Senior Rank Report, published by the State of Missouri Health and Senior Services<sup>8</sup> showed Boone to be a favorable home for the aging population. The report captures outcome indicators on economic well-being, workforce participation, economic contributions, housing, transportation, housing composition, civil engagement, long term care

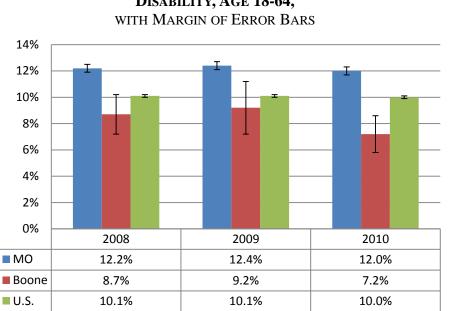
<sup>&</sup>lt;sup>8</sup> For more information, visit http://missouriseniorreport.org/

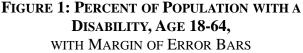


<sup>&</sup>lt;sup>7</sup> Annual data are only available for counties with 100,000+ population

costs, safety, health status, and healthcare access. Boone County's composite score ranked first out of all 115 Missouri counties between 2006 and 2010 (Appendix A: Table 2).

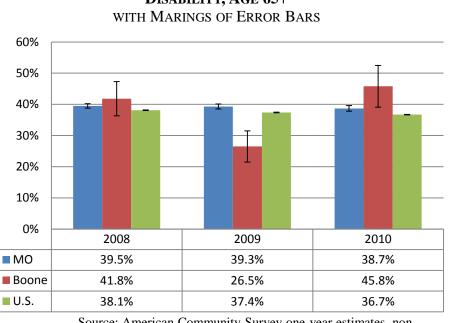
The American Community Survey (ACS) measures the disability status of the noninstitutionalized population by age. Figures 1 & 2 show the percent of the population who live with a disability by different adult age segments. In Figure 1, Missouri has consistently had higher rates of adults, aged 18-64, with disabilities than the U.S. Meanwhile, Boone County sits well below both the national and state rates. In Figure 2, Missouri and U.S. rates for 65+ population with disabilities has remained remarkably consistent, while Boone County has experienced a drop in 2009 and then an increase in 2010. One explanation for this volatility could be the margins of error that impact the Boone County rate (Appendix A: Table 3), in 2010 alone, the margin of error was 6.7 percentage points. These errors are represented with bands surrounding the columns in Figures 1 & 2. Specific error values may be found in Appendix A: Table 3. The ACS reports state, with 90 percent confidence, that the true disability rate falls within the bands. The Boone County error bands are very wide while the U.S. and Missouri's are very small. The reason for this is explained by the law of large numbers – Boone County's ACS survey covers a smaller number of people than the U.S. and Missouri surveys and is therefore subject to greater error. Furthermore, the Boone County population 65+ is considerably smaller than the 18-64 age group, this means the Boone County 65+ segment is vulnerable to even more sampling error in all areas of analysis, not just disability statistics.







Source: American Community Survey one-year estimates, noninstitutionalized population



#### FIGURE 2: PERCENT OF POPULATION WITH A DISABILITY, AGE 65+ WITH MARINGS OF ERROR BARS

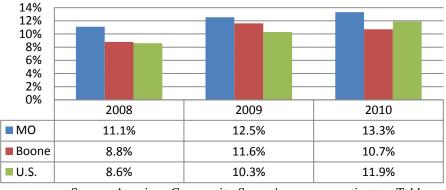
Source: American Community Survey one-year estimates, noninstitutionalized population

# **Poverty Trends**

Poverty among seniors and people with disabilities has been examined at the county level in a number of ways: the number of Boone households participating in Supplemental Nutritional Assistance Program (SNAP), the median earnings for Boone residents, the percentage of the Boone senior population living in poverty, and the percentage of the disabled population living in poverty are included in this report. Additional national and state-level data offer information on populations receiving Supplemental Security Income (SSI) by age and by disability.

**Supplemental Assistance Program (SNAP):** In Boone County, the number of households participating in SNAP benefits rose between 2008 and 2010, a trend consistent with Missouri and the nation (Figure 3). Boone County, however, unlike Missouri and the U.S., experienced a drop in number of households receiving benefits between 2009 and 2010, while the state and nation continued to rise during this time.



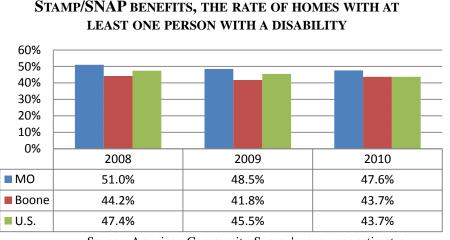


### FIGURE 3: PERCENTAGE OF HOUSEHOLDS RECEIVING FOOD STAMPS/SNAP BENEFITS

Source: American Community Survey's, one-year estimates, Table B22010

Of the households receiving SNAP benefits, a large majority have at least one person with a disability. Figure 4 shows this trend between 2008 and 2010, and shows a dip in the number of homes with a person with a disability receiving SNAP benefits in 2009, but then rose again in 2010. It is not likely that people with disabilities suddenly stopped receiving SNAP benefits or moved out of the county in such large numbers to explain the 2009 dip. Rather, the dip could be explained by an increase in the number of homes without a family member with disabilities participating in SNAP benefits, thereby pushing down the ratio of disabled households. This hypothesis echoes the findings in Figure 3, which shows an almost three point increase in overall benefits between 2008 and 2009. Between 2009 and 2010, the number of homes participating in SNAP with a person having a disability increased (Figure 4). While it is unlikely to find a population increase could account for this rise, one should consider if the number of the households withdrawing from SNAP benefits did not have a person with a disability in the home. If this is the case, the ratio of people with disabilities receiving SNAP would rise. This hypothesis echoes the findings in Figure 3 which shows a drop in the overall SNAP benefits between this same time period. For more information, see Appendix A: Table 4.





# FIGURE 4: OF HOUSEHOLDS RECEIVING FOOD STAMP/SNAP BENEFITS, THE RATE OF HOMES WITH AT

Source: American Community Survey's, one-year estimates, Table B22010

Median Earnings: The median earnings for Boone residents decreased between 2008 and 2010, but the median earnings for those with disabilities rose (Figure 5). In Missouri, the median earnings for people with disabilities have remained the same (Appendix B: Figure 1), while nationally earnings have declined for this population (Appendix B: Figure 2). The gap in median earnings between people with and people without disabilities in Boone has narrowed between 2008 and 2010. Nonetheless, the gap remains very large. Considering the data in Figure 5, Boone County people with disabilities make, on average, 35 percent less than the median earner and 37 percent less than people without disabilities in the county. In Missouri and U.S. the wage gap between those with and without disabilities continues to rise (Figure 6). More information can be found in Appendix A: Table 5.

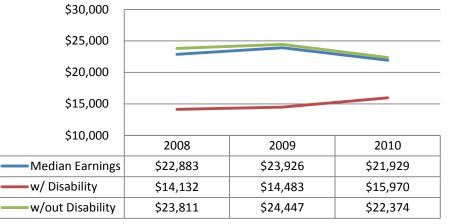
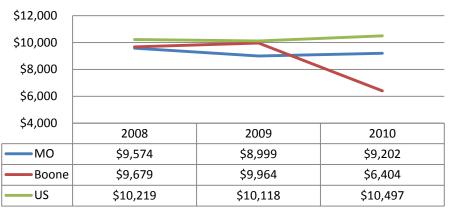


FIGURE 5: MEDIAN EARNINGS, BOONE COUNTY, MO

Source: American Community Survey, one-year estimates





### FIGURE 6: MEDIAN EARNINGS GAP BETWEEN DISABLED AND NON-DISABLED WORKERS

Source: Amercian Community Survey's, one-year estimates

**Home Ownership:** The U.S. Department of Housing and Urban Development (HUD) considers families who pay more than 30 percent of their income for housing as "cost burdened." Housing costs include mortgage or rent, taxes, insurance and utilities. Due to a large percent of their income spent on housing, these families may have difficulty affording other necessities such as food, clothing, transportation and medical care. Seniors living on fixed incomes are particularly vulnerable to fluctuations in housing costs. In 2001 in Boone County, 21.7 percent of seniors were considered "cost burdened." This number increased to 24.8 percent in 2008.<sup>9</sup>

**Poverty Rate:** The percentage of the Boone County senior population living in poverty is depicted graphically in Figure 7a and Figure 7b. Both figures contain vertical error bands which represent margins of error. Margins of error signify the amount of random sampling error present in survey data at each data point. Margins of error are wide for small populations and narrower for large populations. Wide margins of error can mean the data are less reliable, or subject to more variance. Figure 7a data comes from the ACS one-year estimates and has large error bands. Figure 7b has smaller error bands because the data are from the ACS five-year estimate – an aggregate of many years. For this reason, ACS five-year data estimates are more reliable than one-year estimates. More information on data collection methods of the ACS and U.S. Census can be found in *Reading the Fine Print: Use of the U.S. Census and the American Community Survey in Describing Current Conditions in Boone County*, a data supplement by Lucht and Miller provided by IPP.

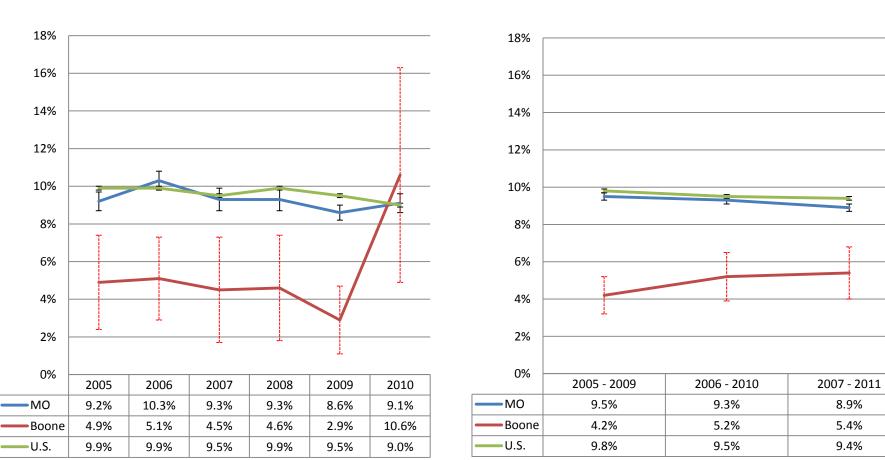
In Figure 7a, between 2005 and 2009, if one assumes the maximum error possible, Boone County senior poverty would remain far below the state and national averages. However, in 2010, there is a strong likelihood that the poverty rate for Boone seniors matches or lies above the state and national rates. Figure 7b contains notable smoother trend lines and has smaller Boone County margins of error than in Figure 7a. The Boone County poverty trend line is increasing but not nearly at the rate shown in the ACS one-year estimates (Figure 7a). More information can be found in Appendix A: Table 6.



<sup>&</sup>lt;sup>9</sup> Missouri Senior Report, 2009. For more information, visit <u>http://missouriseniorreport.org/</u>

FIGURE 7B: POVERTY RATE AMONG 65+

ACS FIVE-YEAR ESTIMATES WITH MARGINS OF ERROR



# **FIGURE 7A: POVERY RATE AMONG 65+** ACS ONE-YEAR ESTIMATES WITH MARGINS OF ERROR

Source: American Community Survey, five-year estimates



Source: American Community Survey, one-year estimates

The number of 65+ year olds living in poverty with a disability has increased dramatically between 2009 and 2010 (Figure 8). The error bars should be noted on this figure because they account for a wide variance in the true poverty rate of this population. The poverty rate for this population in Missouri and the U.S. hover between ten and fifteen percent, also found in Figure 8. More information is found in Appendix A: Table 7.

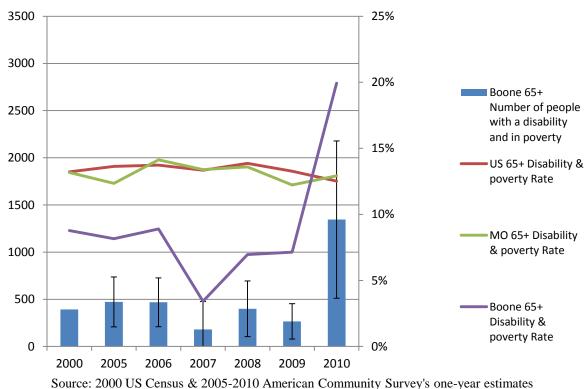
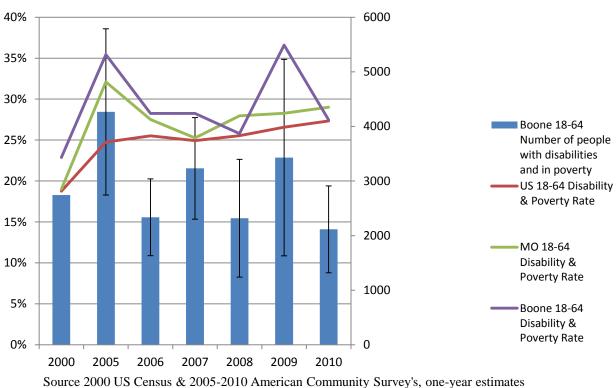


FIGURE 8: POVERTY AMONG AGE 65+ WITH A DISABILITY

Poverty among people with disabilities between 18 and 64 years of age is much higher than the senior segment (Figure 8). Like the seniors, the 16-64 age segment is prone to large margins of error and Figure 9 assists in depicting the number of people with disabilities in poverty as well as their rates at the state and national level. The Missouri poverty rate has the tendency to remain above the national rate for this age segment and time period. More information is found in Appendix A: Table 7.





#### FIGURE 9: POVERTY AMONG AGE 18-64 WITH A DISABILITY

**Supplemental Security Income (SSI):** The Supplemental Security Income (SSI) program is a federal program funded by general tax revenues, not Social Security Taxes. SSI guarantees a minimum level of income for needy aged, blind or disabled individuals by providing cash-transfer payments to meet basic needs for food, clothing, and shelter.<sup>10</sup> Data on populations receiving aid is available in SSI Annual Statistical Reports,<sup>11</sup> which classifies data by age group and by disability type, but is available at the state and national level only. Boone Senior Rank Report takes data published by the Bureau of Labor Statistics to calculate SSI payments as a percentage of total personal income, and in Missouri 0.33 percent of total personal income state wide consisted of SSI payments. In 2001 Boone's estimate was 0.24 percent and later decreased to 0.23 in 2007.<sup>12</sup>

At the state and national levels, SSI payments for people with disabilities constitute the majority of all SSI payments, this number continues to rise between 2002 and 2010 (Figures 10 & 11). Disabled Missourians account for 89 to 93 percent of SSI recipients in the state (Figure 10), while at the national level, the disabled population accounts for 80 and 84 percent of SSI recipients (Figure 11). The number of aged and blind SSI recipients has steadily decreased at the

<sup>&</sup>lt;sup>12</sup> For more information, visit http://missouriseniorreport.org/



<sup>&</sup>lt;sup>10</sup> For more information, visit http://www.ssa.gov/ssi/

<sup>&</sup>lt;sup>11</sup> For more information, visit http://www.ssa.gov/policy/docs/statcomps/ssi\_asr/index.html

state and national levels between the same time periods (Figures 10 & 11). More information is available in Appendix A: Table 8.

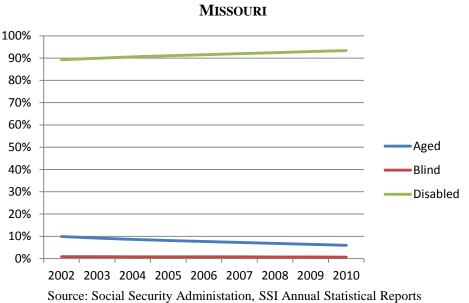
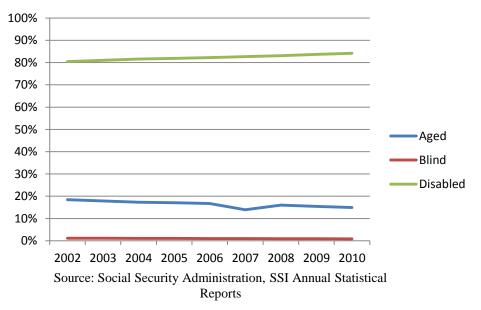


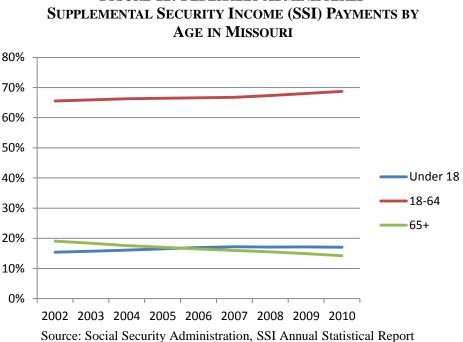


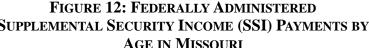
FIGURE 11: FEDERALLY ADMINISTERED SUPPLEMENTAL SECURITY INCOME (SSI) PAYMENTS BY DISABILITY IN U.S.





The 18 to 64 age segment captures the largest population group, thus, it is logical for this age segment to consume the majority of SSI payments in Missouri and in the U.S. (Figure 12 & 13 and Appendix A: Table 8). However, an interesting shift occurred in Missouri between the senior (65+) and children (under 18) populations. Figure 12, 2002 shows the Missouri senior population as receiving more SSI payments than the child population, but between 2005 and 2006 these numbers converge. By 2007, children emerge as receiving more SSI payments than seniors. This trend continues through 2010. A similar change is evident at the national level (Figure 13), however, the senior population began at a considerably higher rate (29 percent) in 2002 than Missouri seniors (19) in the same year, therefore is logical for the U.S. senior and child lines may take more time to converge. This will be an interesting data point to observe in future ACS surveys.







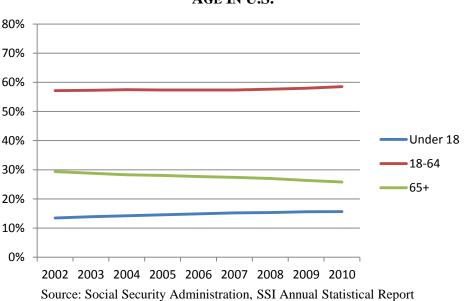


FIGURE 13: FEDERALLY ADMINISTERED SUPPLEMENTAL SECURITY INCOME (SSI) PAYMENTS BY AGE IN U.S.

**Conclusion:** Poverty among seniors and people with disabilities is a challenging demographic to measure at the county level because it contains extreme variance, due to margins of error. The rate of SNAP benefits among households with at least one person with a disability is decreasing at all levels, but the Boone County rate is not falling as quickly as the state and national rates. Median income in Boone County among those with a disability is increasing, while the median income for those without a disability is decreasing. SSI payment analysis shows a shift in the number of payments between the senior population and the child population, while the overwhelming majority of aid recipients continue to be those with disabilities.

# Employment

*Collection of Indicators:* Understanding employment statistics for Boone County seniors and people living with disabilities hinges upon understanding their inclusion or exclusion from the labor force. The Bureau of Labor Statistics (BLS) defines the labor force as all civilians classified as employed and unemployed.<sup>13</sup> The unemployed category includes civilians who have no job, but are available for work, or currently looking for employment. BLS labor force categorization excludes retired, disabled, full-time students, and homemakers from labor statistics. However, if a senior citizen or a person with a disability is actively looking for employment but cannot find a job, or is employed, they are considered part of the labor force. ACS data tracks seniors' and people with disabilities' participation in the Boone County labor force and this data is examined as a sub-issue of independent living. However, IPP emphasizes that the Boone County senior population and the population of people living with disabilities are extremely small in their total number. Therefore, statistical collection methods on these two



<sup>&</sup>lt;sup>13</sup> For more information, visit <u>http://www.bls.gov/home.htm</u>

populations, used by ACS, have large and naturally occurring margins of error. When possible, this report will reference and display margins of error which should be considered alongside the data on hand.

Labor Force Participation among People with Disabilities, Age 18 to 64: Beginning in 2009, ACS uniformly collected labor force participation among people with disabilities between the ages of 18 and 64. Between 2009 and 2010, the unemployment rate of this population in Boone County, decreased from 15.3 percent to 11.1 percent. Missouri and U.S. followed this same trend during the same time period (Appendix A: Table 9). Of all the people excluded from the Boone County labor force in 2009, 23 percent had a disability. This number dropped to 15 percent the following year. Meanwhile, in Missouri's unemployed labor force, there was a higher proportion of people with disabilities, 32.6 percent in 2009, a number which was relatively unchanged the following year. Of all the people excluded from the U.S. labor force in 2006, 26 percent had a disability, a number that was relatively unchanged the following year. Table 9.

**Labor Force Participation among Senior Citizens:** Between 2005 and 2010, 24 to 44 percent of Boone County seniors aged 65-69 participated in the labor force. The majority of which were employed (either full- or part-time) and only twice in the six years of data presented here, was unemployment reported for this age segment (Figure 14). There is noticeable volatility in Boone County's employment rate of seniors of this age segment between 2005 and 2010, with a climax occurring in 2009. Figure 14 includes the margins of error measurements on the employment bar graphic. This is included to depict the potential variance in the rate of employment of seniors in the 65-69 age segment. Boone's 65-69 age segment employment rate generally sits above Missouri and U.S.'s, but unlike Boone, the state and nation have consistent levels of unemployment of seniors within this age group (Appendix B: Figure 3 & Figure 4).

Between 2005 and 2010, 12 to 22 percent of Boone County seniors aged 70-74 participated in the labor force and no unemployment was reported for this age segment (Figure 15). Figure 15 includes the margins of error measurements on the employment bar graphic. This is included to depict the potential variance in the rate of employment of seniors in the 70-74 age segment. Boone's 70-74 age segment employment rate generally mirrors Missouri and U.S.'s, but unlike Boone, the state and nation have consistent levels of unemployment of seniors within this age group (Appendix B: Figure 5 & Figure 6).

Between 2005 and 2010, 1 to 10 percent of Boone County seniors aged 75+ participated in the labor force. The majority of which were employed (either full- or part-time) and only three times in the six years of data presented here, was unemployment reported for this age segment (Figure 16). Figure 16 includes the margins of error measurements on the employment bar graphic. This is included to depict the potential variance in the rate of employment of seniors in the 75+ age segment. Between 2008 and 2010, the error bars dip below zero. This means there is a chance that no 75+ year olds were employed in Boone County. Boone's 75+ age segment employment rate generally mirrors Missouri and U.S.'s, but unlike Boone, the state and nation have consistent levels of unemployment of seniors within this age group (Appendix B: Figure 7 & Figure 8).



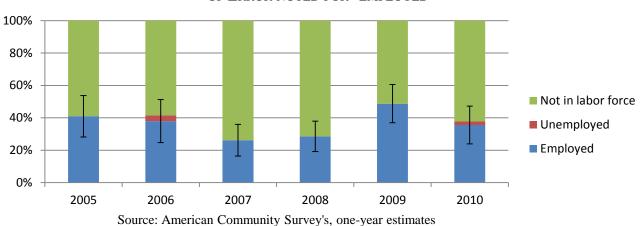
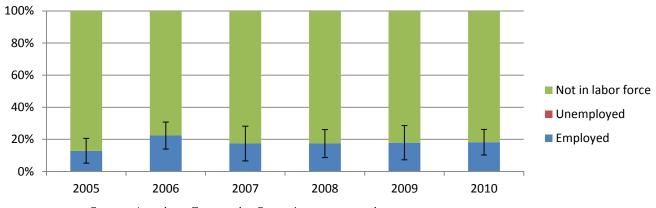


FIGURE 14: BOONE COUNTY SENIOR EMPLOYMENT (AGE 65-69) MARGINS OF ERROR NOTED FOR "EMPLOYED"





Source: American Community Survey's, one-year estimtes

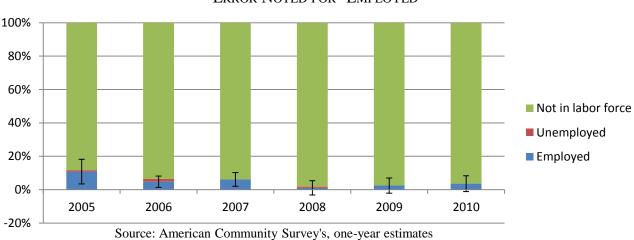
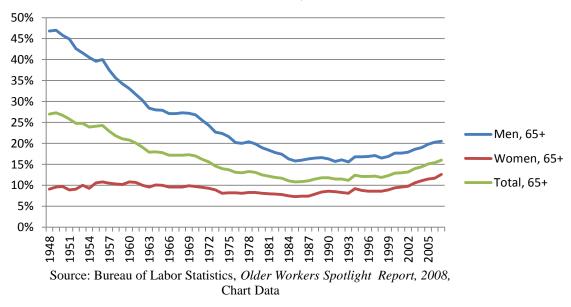
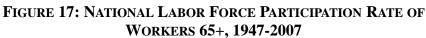


FIGURE 16: BOONE COUNTY SENIOR EMPLOYMENT (AGE 75+) MARGINS OF ERROR NOTED FOR "EMPLOYED"



**U.S. Labor Force Participation Rate by Gender 1948-2007:** In 2007, BLS conducted a special spotlight report on senior's participation in the labor force. Figure 17 describes the trend in males and females work behaviors between 1947 and 2007. During this time, the number of 65+ workers in the labor force has plummeted. The decrease levels off in the late 1980s and early 1990s and a slow increase occurs that continues to trend upwards through 2007. As of 2007, women, age 65+, were participating in the labor force at their highest rates since the BLS began collecting this data.





**Conclusion:** Boone County's labor force participation for seniors behaves more like state and national trends as the age segments for the seniors increase. Meaning, Boone County seniors age 70-74 and 75+ mirror state and national labor force behaviors of individuals in the same age segments. However, Boone's 65-69 age group tend to be more active in the labor force than similar aged individuals in Missouri and U.S. Nationally, there was a decrease in the number of seniors participating in the labor force between 1947 and the late 1980s. Since the late 1990s, this group's work force participation has increased.

# **Personal Well-being**

*Community-Level Indicators:* Understanding personal well-being for Boone County seniors and people with disabilities is challenging due to inconsistency in defining personal well-being for various sub-populations, lack of acceptable personal well-being measures, and more importantly, a dearth of data on personal wellness measures. In Boone County, understanding the senior population and population with disabilities presents more challenges because small population sizes are subject to tremendous measurement error. Nonetheless, useful analysis is achieved in this report by examining information available on long-term care, personal assistance needs, mobility, services for independent living, and elder abuse.



**Long-term Care:** Long-term care represents a significant healthcare cost for seniors, who tend to have limited incomes. The number and monetary value of long-term care insurance policies would be a useful measure for this indicator; however, that information is not reported at the county level. An alternative data option is the portion of long-term care costs paid by Medicaid for in-home and institutional long-term care services on a per capita basis. In 2002 in Boone County, Medicaid paid \$60 per capita for in-home and institutional long-term care. This number increased to \$75 per capita in 2008.<sup>14</sup>

**Personal Assistance Needs:** Personal assistance comes in many forms, including full-time, part-time or temporary personal assistance inside and outside of the home and assistive technology. There is a variety of specialized equipment and new technology that can improve quality of life and enable more individuals to live independently. These include braces, walkers, wheelchairs, motorized scooters, hearing aids, and vision devices. Use of assistive devices has increased significantly over the past 30 years as new technology continues to be developed. Approximately half of the 54 million Americans with activity limitations or disabilities use assistive technology to adapt to their environments.<sup>15</sup> In other studies, Carlson & Ehrkich (2005) found that the most common form of payment for assistive technology is out-of-pocket by the consumer, or by family and friends. While it is not possible to determine how many Americans want/need additional adaptive technologies but are unable to access them, the payment method used could indicate a likely gap in access. Demand for support-services and coordination-of-care assistants are increasing as they can assist individuals in accessing funding for personal assistant equipment and services from state and federal programs.<sup>16</sup>

**Mobility:** The *Journal of Patient Safety* published a study in 2010 examining the fear of falling among seniors. They found this issue has the potential to alter seniors' quality of life and morbidity because activity restriction, rooted in fear of falling, can lead to limited mobility, balance deterioration, and functional decline. The study found anxiety surrounding social and leisure physical activity opportunities can result in compromised quality of life and health.<sup>17</sup> A study in 2009, published in *Topics in Geriatric Rehabilitation*, used focus group data to explore the interconnectedness between independent mobility and personal well-being for older-aged individuals. The study examined the way seniors talk about mobility and adapting to age-related mobility restrictions. Results found seniors believe independent mobility is closely tied to everyday-life routines and serves as a means by which to maintain one's personal lifestyle. The study found that obstacles to independent mobility can be overcome by access to equipment and specialized technology.<sup>18</sup>



<sup>&</sup>lt;sup>14</sup> Missouri Senior Report, 2009. For more information, visit <u>http://missouriseniorreport.org/</u>

<sup>&</sup>lt;sup>15</sup> Carlson & Ehrlich, 2005, Assistive Technology and Information Technology Use and Need by Persons with Disabilities in the United States, 2001. US Department of Education National Institute on Disability and Rehabilitation Research. pg. 145; based on studies conducted over 10 years ago. Accessed at <a href="http://www.ed.gov/rschstat/research/pubs/at-use/2001.doc">http://www.ed.gov/rschstat/research/pubs/at-use/2001.doc</a>.

<sup>&</sup>lt;sup>16</sup> Community Engagement: A necessary condition for self-determination and individual funding (1999). John O'Brien: <u>http://thechp.syr.edu/ComEng.pdf</u>

<sup>&</sup>lt;sup>17</sup> Fletcher, Paula C., Guthrie, Dawn M., Berg, Katherine, & Hirdes, John P, (2010). Risk Factors for Restriction in Activity Associated With Fear of Falling Among Seniors Within the Community. *Journal of Patient Safety*, (6)3, 187-191

<sup>&</sup>lt;sup>18</sup> Siren, Anu, & Hakamies-Blomqvist, Liisa (2009). Mobility and Well-being in Old Age. *Topics in Geriatric Rehabilitation*, (25)1, 3-11

**Services for Independent Living:** The *Archives of Physical Medicine and Rehabilitation* suggests that many of the problems encountered by people with disabilities come from being dependent on professionals, family members, and medical personnel. *Topics in Geriatric Rehabilitation* finds the problems encountered by seniors are center around their living environments.<sup>19</sup> For both seniors and people living with disabilities, the independent living model emphasizes that *all* individuals should be able to make personal decisions regarding community activity, housing, and employment – all of which are components of independence.<sup>20</sup> In Boone County, one of several options for assistance is Services for Independent Living (SIL), a non-profit center that promotes independence for persons with disabilities. Their philosophy states, "All persons, regardless of disability, are entitled to and should have equal access to the rights and responsibilities that other citizens are provided; to be as active and productive a member of society as they choose."

There are four main services proved by SIL in Boone County: advocacy, skills training, information and referrals, and finally, peer support. Advocacy services assist individuals to acquire needed services and benefits. Skills training offers group classes and training based upon consumer needs in areas such as cooking, home management, and work readiness. Information and referral services provide internal and community resources to individuals to make informed decisions and maximize independence. Peer support provides group networking opportunities and one-on-one support. Here, individuals learn from others with disabilities by sharing personal experiences.

**Elder Abuse:** In 2010, the *American Journal of Public Health* published a study examining the correlations among emotional, physical, sexual, and financial mistreatment and neglect of older adults. The study, originally funded by the U.S. Department of Justice, examined a randomly selected nationally representative sample<sup>22</sup> of adults ages 60+ in the U.S. Data was collected on demographic, risk factors, and mistreatment prevalence. Of the individuals included in the sample, the researchers found that at any given point in the course of a year: 4.6 percent experienced emotional abuse, 1.6 percent experienced physical abuse, 0.6 percent experienced sexual abuse, 5.1 percent experienced potential neglect, and 5.2 percent reported current financial abuse by a family member. One in 10 respondents reported emotional, physical, or sexual mistreatment or potential neglect in the past year. The study found the most consistent correlations of mistreatment across abuse types were a) low social support and b) previous traumatic event of abuse. The *American Journal of Public Health* data analysis shows the prevalence of elder abuse in the community and believes that addressing low social support, paired with preventative interventions, could have significant public health implications.<sup>23</sup>

*Conclusion*: Perceptions of aging well have common themes including having good physical health, having a positive mental outlook, being cognitively alert, having a good memory, and

<sup>&</sup>lt;sup>23</sup> Acierno, Ron, Hernandez, Melba A., Amstadter, Amanda B., Resnick, Heidi S., Steve, Kenneth, Muzzy, Wendy, & Kilpatrick, Dean G. (2010). Prevalence and Correlates of Emotional, Physical, Sexual, and Financial Abuse and Potential Neglect in the United States: The National Elder Mistreatment Study, *American Journal of Public Health*, (100)2, 292-297



<sup>&</sup>lt;sup>19</sup> DeJong, G. (1979). Independent Living: From social movement to analytic paradigm. *Archives of Physical Medicine and Rehabilitation*, *60*, 435–446.

<sup>&</sup>lt;sup>20</sup> Frieden, L. (1980). Independent living program models. *Rehabilitation Literature*, *41*, 169–173.

<sup>&</sup>lt;sup>21</sup> Columbia, Missouri Services for Independent Living http://www.silcolumbia.org/

<sup>&</sup>lt;sup>22</sup> N=5,777

being socially involved.<sup>24</sup> Access to personal assistance services, maintaining mobility, and tapping into services for independent living in Boone County contribute to maintaining the personal well-being of seniors and people with disabilities. The *American Journal of Public Health* helps one understand the indicators of abuse among the elderly, and these findings may have relevance in understanding and preventing abuse towards individuals with disabilities. Research suggests that addressing low social support, paired with preventative interventions, could have significant public health implications for seniors – findings that may have cross-over implications for people with disabilities. Finally, the *Archives of Physical Medicine and Rehabilitation* suggests that many of the problems encountered by people with disabilities come from being dependent on professionals, family members, and medical personnel – findings that may have cross-over implications for seniors for seniors. While these two populations are very different, they encounter many of the same barriers to personal well-being and independent living.

# **Community Involvement**

*Community-Level Indicators:* As seen in the Mobility section of this report, fear of falling can prevent community involvement among seniors. According to the NOD/Harris Survey of Americans with Disabilities, the most comprehensive survey of its kind, people with disabilities report socializing or engaging in recreational activities less often than those without disabilities.<sup>25</sup> This is an unfortunate discovery because community participation is a vital component to independent living and individuals should be as active as they desire to be in their communities.<sup>26</sup> County-level data on community involvement is limited; however, understanding components of quality life and opportunities for involvement of the senior population and people with disabilities is a necessary first step to understanding broad-reaching community involvement. In this report, useful analysis is achieved by examining information available on quality of life from the World Health Organization, *Senior Games* participation, and *Special Olympic* participation.

**Quality of Life:** *The National Disability Status and Program Performance Indicators* defines quality of life as "having the means and wherewithal to pursue happiness—however defined by each person,"<sup>27</sup> and goes on to suggest that quality of life issues can hinge upon having choices and being empowered to make those choices. Practitioners in the field find choice is the cornerstone of self-determination for individuals with disabilities and elderly.

The World Health Organization (WHO) defines quality of life as individual's perception of their position in life in the context of culture and value systems in which they live and in relation to their goals, expectations, standards, and concerns.<sup>28</sup> WHO admits quality of life is a broad-ranging concept that is affected by a person's health, psychological state, level of independence, social relationships, and personal beliefs. In 1997, WHO published a report on *Quality of Life* 



<sup>&</sup>lt;sup>24</sup> Laditka, Sarah B., Corwin, Sarah J., Laditka, James M., Liu, Rui, Tseng, Winston, Wu, Bei, Beard, Renée L., Sharkey, Joseph R., & Ivey, Susan L. (2009). Attitudes About Aging Well Among a Diverse Group of Older Americans: Implication for Promoting Cognitive Health. *The Gerontologist* (2009) 49 (S1): S30-S39.

<sup>&</sup>lt;sup>25</sup> Keeping Track: National Disability Status and Program Performance Indicators, April 2008, pg. 67.

<sup>&</sup>lt;sup>26</sup> Keeping Track: National Disability Status and Program Performance Indicators, April 2008, pg 34.

<sup>&</sup>lt;sup>27</sup> Keeping Track: National Disability Status and Program Performance Indicators, April 2008, pg 34.

<sup>&</sup>lt;sup>28</sup> For more information, visit http://www.who.int/mental\_health/media/68.pdf

Instruments which outlines the instrument, its development, how the instrument is scored, and variety in its uses in medical and mental health practices.<sup>29</sup>

The WHO's Quality of Life Instrument outlines six broad domains of measures which aim to measure quality of life cross-culturally and regionally. These domains and facets (Table 1) reflect the issues that a group of scientific experts and lay people in WHO field centers felt were important to quality of life and have no specific classifications based upon age or disability status:

DOMAIN	FACETS INCORPORATED WITHIN DOMAINS
	Energy and fatigue
Physical health	<ul><li>Pain and discomfort</li><li>Sleep and rest</li></ul>
	Bodily image and appearance
	<ul> <li>Negative feelings</li> </ul>
Psychological	<ul> <li>Positive feelings</li> </ul>
rsychologicui	<ul> <li>Self-esteem</li> </ul>
	<ul> <li>Thinking, learning, memory and concentration</li> </ul>
	Mobility
	<ul> <li>Activities of daily living</li> </ul>
Level of independence	<ul> <li>Dependence on medical substances and medical aids</li> </ul>
	<ul> <li>Work capacity</li> </ul>
	Personal relationships
Social relationships	Social support
L	• Sexual activity
	Financial resources
	• Freedom, physical safety and security
	• Health and social care: accessibility and quality
<b>F</b>	Home environment
Environment	• Opportunities for acquiring new information and skills
	Participation in and opportunities for recreation/leisure
	Physical environment (pollution, noise, traffic, climate)
	• Transport
Spirituality /Religion Personal beliefs	Religion, spirituality, personal beliefs

The WHO domains and facets are broad in scope and designed for cross-cultural application in the field of mental health. Quality of life measures are not systematically collected for individuals with disabilities on a national scale much less at the state or county level. <sup>30</sup> For this reason, the WHO quality of life indicators may serve as a guide for understanding and

<sup>&</sup>lt;sup>30</sup> Eustis, Nancy. Consumer-Directed Long-term-Care Services: Evolving Perspectives and Alliances, *Generations*, Fall 2000.



<sup>&</sup>lt;sup>29</sup> Ibid.

conceptualizing quality of life issues for all populations in Missouri and Boone County. Locally, there are ways for some of the WHO quality of life indicators, particularly those related to social involvement, to be satisfied.

**Civic Engagement:** Library membership, taking advantage of parks and recreational complexes, belonging to organizations, church membership, and volunteering are ways in which all community members find engagement and social connections. Seniors contribute to their communities through a wide range of civic activities and capturing rates of participation among these activities remains a challenge. However, one civic engagement measure—voting, is quantifiable. In 2008, 57.5 percent of registered seniors in Boone County participated in elections in 2008, no data was available from the 2004 election cycle.<sup>31</sup>

Opportunities for involvement have different meanings for seniors and people living with disabilities because these groups are not like the rest of the population. *The Journal of Gerontology* examined panel data to assess the long-term impact of volunteering on the life satisfaction and perceived healthy people aged 60+.<sup>32</sup> The results showed older volunteers experienced greater life satisfaction over time as a result of their volunteering experience – especially for those with higher rates of volunteering. *The Journal of Information, Community and Society* found that people with disabilities are less likely to live in homes with computers, less likely to use computers, and are less likely to be on-line. <sup>33</sup> This study examined the connectedness of people with disabilities and helps one understand potential barriers to civic engagement. The cultural shift of community organizations, library services, volunteer opportunities, community organizing, and social networking to web-based access may prevent seniors and people with disabilities from fully realizing their community engagement potential.

Boone County civic engagement outlets for seniors and people with disabilities are many of the same outlets available to non-seniors and people without disabilities. Although tracking participation in civic organizations is challenging, a method of measuring involvement is needed in order to identify gaps in participation, specifically among seniors and people with disabilities. The review of literature in this report has shown community involvement has positive health implications for community members who choose to be socially engaged.

**Senior Games:** The National Senior Games Association (NSGA) is a non-profit member of the United States Olympic Committee dedicated to motivating seniors to lead healthy lifestyles through involvement in the games. NSGA is committed to senior health, wellness, quality of life, and community involvement by providing information to support education and research initiatives enabling senior athletes and others to be better informed about ways to ensure healthy aging. The NSGA support state-level organizations that host Senior Games or Senior Olympics. <sup>34</sup> The Missouri State Senior Games is an affiliate of NSGA and aims to provide an annual

<sup>34</sup> The Missouri State Senior Games is an affiliate of NSGA and aims to provide an annual physical fitness event for Missourians to promote social, competitive, athletic and recreational



<sup>&</sup>lt;sup>31</sup> Missouri Senior Report, 2009. For more information, visit <u>http://missouriseniorreport.org/</u>

<sup>&</sup>lt;sup>32</sup> Van Willigen, Marieka (2000). Differential Benefits of Volunteering Across the Life Course. *The Journal of Gerontology*, 55(5), S308-S318.

<sup>&</sup>lt;sup>33</sup> Dobransky, Kerry & Hargittai, Eszter (2006). The Disability Divide in Internet Access and Use. *The journal of Information, Communication & Society*, 9(3), 313-334.

<sup>&</sup>lt;sup>34</sup> For more information, visit http://www.nsga.com/

activity for older adults while promoting an interest in lifetime sports, physical wellness and enhancing the quality of one's life.<sup>35</sup>

**Special Olympics:** The mission of Special Olympics is to provide year-round sports training and athletic competition in a variety of Olympic-type sports for children and adults with intellectual disabilities, giving them continuing opportunities to develop physical fitness, demonstrate courage, experience joy, and participate in a sharing of gifts, skills and friendship with their families, other Special Olympics athletes, and the community.<sup>36</sup> The Missouri Special Olympics division is admittedly more than just sports. They are proud to focus on developing confidence and skills of athletes with disabilities so they can hold jobs, get better education, and earn respect by providing the opportunity for all individuals to feel accepted and be involved in the community.<sup>37</sup>

**Conclusion:** The breadth of WHO's *Quality of Life Indicators*' touch upon many of the domains and facets of life which apply to seniors and people living with disabilities. The objectives outlined in the Missouri Senior Games and Special Olympics organization mirror many of the WHO indicators including the importance of: personal relationships, self-esteem, social support, mobility, and participation in recreation and leisure. Boone County is fortunate to host both of these events locally and Boone residents may benefit from ease of local participation. Beyond extracurricular games, there are a number of outlets where seniors and people with disabilities could exercise their civic engagement, but there is a need for quantifiable methods of measuring their community involvement. Primary data collection, surveys, and focus groups may present opportunities for further research on Boone County populations of interest.

## **Transportation Barriers**

*Community Level Indicator:* The *Americans with Disabilities Act* was passed in 1990, and since that time the City of Columbia and nonprofit organizations have provided curb-to-curb transportation service to citizens who are ADA-eligible and unable to ride Columbia-Transit's fixed-bus route system.<sup>38</sup> Understanding transportation barriers for Boone County seniors and people with disabilities is challenging due to a lack of data on the topic. Nonetheless, useful analysis is achieved in this report by examining the estimated transit-dependent Boone County population.

**Estimated Transit-Dependent Populations:** Accessible transportation is vital not only to reach necessities like grocery stores, doctors' appointments, and employment, but also to be active participants in the community. According to the Missouri Senior Report in 2008,<sup>39</sup> 83.7 percent of Boone County seniors have a driver's license, which is comparable to the Missouri average. This leaves approximately 16 percent, <sup>40</sup> or 2,428 Boone County seniors to rely on friends, family or public transportation. Adults with disabilities often need transportation services and according to the Boone County Coordinated Transportation Service report from 2006, only about

<sup>&</sup>lt;sup>40</sup> Percentage based upon American Community Survey 2010 one-year estimates



<sup>&</sup>lt;sup>35</sup> For more information, visit http://www.smsg.org/senior\_games/

<sup>&</sup>lt;sup>36</sup> For more information, visit http://www.specialolympics.org/

<sup>&</sup>lt;sup>37</sup> Mo Special Olympics, for more information, visit http://somo.org/

<sup>&</sup>lt;sup>38</sup> For more information, visit http://www.gocolumbiamo.com/PublicWorks/Transportation/

<sup>&</sup>lt;sup>39</sup> Boone County data, 2008 Missouri Senior Report

half of the estimated transportation need for the target population is being met.<sup>41</sup> In addition, based on a client survey of human services agencies in the county, one in five respondents said they had "either lost a job or had problems finding a job due to lack of transportation."<sup>42</sup> The report also estimated the number of potential transit-dependent residents in the county in four groups (see Table 2 below).<sup>43</sup>

TABLE 2: ESTIMATED TRANSIT-DEPENDENT POPULATION, BOONE COUNTY				
	Count	Percent		
Estimated total population	143,241	100%		
Estimated population 60 +	16,488	11.5%		
Estimated mobility-limited population	7,922	5.5%		
Zero-vehicle households	3,673*	6.5%*		
Total below poverty	19,422	13.6%		
* Households				
Source: Boone County Coordinated Transportation Study, 2006				

*Conclusion:* Transportation is a vital component to personal well-being because it can allow access to community involvement opportunities for those who are mobility-challenged. In Boone County, understanding the transportation challenges of seniors and people with disabilities means identifying methods for quantifying the transportation gap and measuring the true impact of initiatives. Primary data collection, surveys, and focus groups may present opportunities for further research on Boone County populations of interest.

# **RESOURCE ASSESSMENT**

An inventory of current resources directed at independent living was conducted using United Way's 211 information center. The resource inventory was a great start to creating a resource list for services available to Boone County residents; it was not and should not be considered a comprehensive list of all independent living services available within Boone County.



<sup>&</sup>lt;sup>41</sup><u>http://www.gocolumbiamo.com/Planning/Documents/Attachment3ExecutiveSummary-CoordinatedTransportationStudy12-14-06.pdf</u>

<sup>&</sup>lt;sup>42</sup> Ibid.

<sup>&</sup>lt;sup>43</sup>See pages VIII 8-9 for a breakdown by census block groups of each of these populations. <u>http://www.lsccs.com/projects/Boone%20County/final/Report.pdf</u>

INDEPENDENT LIVING RESOU	INDEPENDENT LIVING RESOURCES REGISTERED IN 211 DATABASE			
Agency	Program Name	Service Description	Eligibility	
American Home Care, Columbia Office	Respite Care	In home respite care is provided.	Families on Medicaid (both children and adults) and those with VA benefits. Do not need to be homebound.	
American Parkinson Disease Association, Information and Referral Center	Individual and Family Support Services	Patient Services Program: Respite care for caregivers, Adult Day Care for Parkinson's patients and Medical Alert Systems.	Must have Parkinson's Disease Medicaid recipients are not eligible or those receiving services through another agency and financial need- income guidelines	
Boone Council on Aging		Information, referral, volunteer services and case management	No restrictions	
Boone County Family Resource Center	Supported Living	Allow people with disabilities to live independently while receiving assistance and supervision	No restrictions	
Boone County Family Resources	Boone County Group Homes & Family Support		No restrictions	
Burrell Outpatient Clinic	Burrell Behavioral Health, Adult Services		No restrictions	
Central Missouri Area on Aging	Respite Care	Provide temporary relief (respite care services) to unpaid caregivers of the elderly.	Caregiver or Care-recipient must be over 60	
Central Missouri Agency on Aging	Adult Day Care	Provides temporary relief of caregiving responsibilities.	Anyone who is 60 years of age or over or a caregiver of someone 60 years of age or over: the caregiver and the older person must reside at the same residence. Service can be provided through our vendor contract.	



Agency	Program Name	Service Description	Eligibility
		Services offered through the	
		Senior Centers include noon-	
		time congregate meals, home-	
		delivered meals to surrounding	
		communities, social,	
Central Missouri Agency on		recreational, and educational	60 years or older: or married to
Aging	Senior Center with Meals	activities.	someone 60+
		Provides meals and activities	
		while promoting senior citizens'	
		abilities to maintain a lifestyle	
Columbia Area Senior Center		of independence and growth.	No restrictions
		Transportation to those	
		individuals who cannot take	
		established bus routes and need	
		personal transportation	
Columbia Transit	Para Transit	assistance	No restrictions
		Create opportunities for blind	
		and visually impaired persons in	
Department of Social Services:		order that they may attain	
Rehabilitation	Services for the Blind	personal and vocational success	No restrictions
		Non-medical in-home services	
		for seniors- companionship and	
		homemaker services like meal	
		preparation and clean-up,	
		laundry, organizing, light	
		housekeeping, errands, shopping	
Home Instead Senior Care		and incidental transportation.	No restrictions



INDEPENDENT LIVING RESOU	INDEPENDENT LIVING RESOURCES REGISTERED IN 211 DATABASE			
Agency	Program Name	Service Description	Eligibility	
		Homemaker Healthcare helps retain independence with:Nursing Services, Physical Therapy, Occupational Therapy, Evaluation Home Health Aid, Home Telemonitoring, Respite Care, Personal Care, Such as Bathing, Shampoo and Nail Care, Laundry, Housekeeping Duties, Meal Planning and Preparation, Shopping and Errands.		
Homemaker Healthcare, Inc.			Low income seniors or persons with disabilities	
		Evaluates and authorizes in home services for persons age 60 and over and-or permanently and totally disabled. Personal	Program restricted to low income	
Independent Living Center of Mid Missouri	Services for Independent Living	care, homemaker chore and respite services.	Citizenship is required	
Integrity Home Care	Skilled Nursing Care		No restrictions	
Meals on Wheels of Columbia, Inc.	Meals On Wheels	Nutritional Supplementation, home delivery	No restrictions	



INDEPENDENT LIVING RESOURCES REGISTERED IN 211 DATABASE			
Agency	Program Name	Service Description	Eligibility
		Home Access Modifications -	
		Loans may be obtained for	
		home modification purposes	
		such as: wheelchair ramps,	
		stairway lifts, widening	
		doorways, and bathroom	
		modifications and more. Loans	
		toward the purchase of homes	
		are not available. Vehicle	
		Access Modifications - Persons	
		may obtain loans for disability-	
		related modifications to motor	
		vehicles such as wheelchair	
		lifts, ramps, or hand controls.	
		Loans for purchases of vehicles	
		cannot be made.Other assistive	Individuals with a disability, or a
		technology eligible for loans	family member or someone with a
		includes but is not limited to	disability, can apply, and must be
		braille equipment, hearing aids,	purchasing assistive technology
		and environmental controls. For	that will enable one or more
		most borrowers the interest rate	individuals with a disability to
Missouri Assistive Technology	Show Me Loans	will range from 2% to 4%.	become more independent.



INDEPENDENT LIVING RESOURCES REGISTERED IN 211 DATABASE			
Agency	Program Name	Service Description	Eligibility
		The Telecommunications	
		Access Program for Internet	
		(TAP-I) provides Missourians	
		who cannot use traditional	
		computer equipment, the	
		adaptive computer equipment	
		necessary for basic access to the	
		Internet and e-mail. The	
		program provides such	
		equipment as screen	
		enlargement software, screen	
		readers, adaptive keyboards or	
		alternative pointing devices	
		such as trackballs or	
		rollerballs.TAP-I provides web	There are four qualifications for the
		sites that are adapted for	Telecommunications Access
		assistive technology users. Also	Program for Internet. The applicant
		provided: consumer support to	must: (1) be a Missouri resident:
		applicants in determining the	(2) have an annual household $60000$ for the
		adaptive computer equipment	income under \$60,000 for two
		needed for Internet access and	people: with \$5,000 being added
	TADI (Tolocommunication	training on how to use the	for each additional dependent: (3)
Missouri Assistive Technology	TAP-I (Telecommunication		have a computer in their home:
Missouri Assistive Technology	Access Program for the Internet)	the Internet and e-mail.	and, (4) have internet access.



Agency	Program Name	Service Description	Eligibility
~ .	~~~~~	Information is provided to	
		schools, public agencies and	
		individuals on the various	
		aspects of Assistive Technology	
		(access to employment,	
		education, textbook initiatives,	
		and state and local statutes	
		concerning assistive technology	
		standards). Can be accessed	
		through the Internet and by	
Missouri Assistive Technology	Information and Assistance	phone.	No restrictions
		Assistive Technology	
		Demonstration Centers are	
		located in Kansas City,	
		Columbia, Springfield, Cape	
		Girardeau, Kirksville,	
		Farmington, St. Joseph, and St.	
		Louis. These centers are	
		charged with providing hands-	
		on demonstrations of a range of	
		assistive technology. For more	
		info and exact locations, contact	
	Assistive Technology	David at (816) 655-6703 or	
Missouri Assistive Technology	Demonstration Centers	email david.bkr@att.net.	No restrictions



INDEPENDENT LIVING RESOU	RCES REGISTERED IN 211 DATAB	ASE	
Agency	Program Name	Service Description	Eligibility
rgency		MoAT provides technical assistance and resources to individuals with disabilities, their family members, and agencies. Current legislative and policy information is provided to keep consumers and providers informed of important issues. A disability listserv is operated to provide timely information on disability related	Englomey
Missouri Assistive Technology	Assistive Technology, Technical Assistance and Training	legislation and policy. MoAT provides training events on assistive technology, policies and related issues through direct sponsorship of training programs, coordination of training, and production and distribution of training materials.	Individuals with disabilities and their families and agencies supporting them
Missouri School for the Deaf	Educational Attainment	Prepares students for the world of work and for post-secondary education	No restrictions
MU Adult Day Connection	The Eldercare Center	State licensed adult day care offering therapeutic activities, exercise, nursing care and supervision	Older adults or adults with disabling conditions
New Horizons, Community Support Services, Inc.			



Agency	Program Name	Service Description	Eligibility
		Provides transportation for	
		seniors and people with	
		disabilities throughout mid-	
OATS Inc. – Mid-MO Region	Transportation Service	Missouri	No restrictions
		Community based support for	
		adults with disabilities,	
		promotes independent living	
		and maintains a safe	
Woodhaven Learning Center	Community Living	environment	No restrictions



## CONCLUSION

The Boone County analysis of independent living has revealed a dearth of community-level data on senior populations and those people living with disabilities. This report has identified many areas which would benefit from primary data collection including surveys, and/or focus group research. Useful county, state, and national level data is available on population statistics, poverty trends, and employment, while national studies and journal publications supply contextual information and discussions on the majority of independent living sub-issues of this report.

Poverty among Boone County seniors is rising, although it is difficult to understand the true population impact due to large margins of error. The number of Boone County seniors is rising more quickly than in Missouri and the U.S. Boone County seniors age 70-74 and 75+ mirror state and national labor force behaviors of individuals in the same age segments. However, Boone 65-69 age group tend to be more active in the labor force than similar aged individuals in Missouri and U.S.

The WHO's *Quality of Life Instrument* has strong possibilities for guiding future measurements of independent living not just for seniors and people with disabilities, but for all Missourians. Specialized investigation of the WHO's instrument implementation and methodology is still needed. Based on the secondary data presented here, this report finds personal well-being for seniors and people with disabilities is linked to personal assistance technologies, mobility, and transportation services. These bolster community involvement, which has been shown to enhance quality of life. Boone County has outlets for seniors and people with disabilities' involvement in the community. Finally, this report concluded with an extensive list of independent living services available locally for seniors and people with disabilities, and one should not be quick to dismiss the Milken Institute's findings which state Columbia, Missouri, is the fourth best small city in their ranking report, *Best Cities for Successful Aging*.



## APPENDIXES

## A. TABLES

TABLE 1: CURRENT FUNDI	NG FOR ECONOMIC OPPOR	τυνιτy, 2012			
Project	Organization	United Way	City	County	Total Funding
Boone County Council on Aging	Senior Connect	\$81,727	\$23,778	\$13,838	\$119,343
Independent Living Program	CHA Low-Income Services		\$7,000		\$7,000
In-HomeServices(Homemaker,personalcare, respite services)	City of Columbia – Division of Human Services		\$56,000	\$12,776	\$68,776
Home Delivered Meals	Meals on Wheels	\$47,305	\$50,000		\$97,305
Adult Day Care	MU Adult Day Connection (Elder Care)	\$38,000	\$20,000	\$1,900	\$59,900
Transportation	Services for Independent Living (SIL)	\$106,154	\$15,000	\$7,580	\$128,734
Transportation	OATS, Inc.	\$27,690			\$27,690
Respite Care	Alzheimer's Association	\$21,665			\$21,665
Total Agency Allocations for Independent Living		\$322,541	\$171,778	\$36,094	\$530,412
Total funding for Social Services		\$2,219,725	\$893,556	\$98,869	\$3,212,150
Percent of total funding		14.5%	19.2%	36.5%	16.5%
Source: City of Columbia Socia	ll Services Spending Report (20	012) & Heart of I	Missouri United	Way Funding	FY2012



TABLE 2: OVERVIEW OF	F SENIORS IN BO	DONE COUNTY									
Indicator	Geography	2006	2007	2008	2009	2010					
MO Senior Report	Boone	1 <sup>st</sup> out of									
Rank         115         115         115         115											
counties counties counties counties counties											
% Population age 65	Boone	8.9%	9.1%	9.3%	9.2%	10.2%					
and above		(13,369)	(13,895)	(14,498)	(14,347)	(15,741)					
	Missouri	13.3%	13.4%	13.6%	13.7%	14.1%					
	U. S. 12.4% 12.5% 12.8% 12.9% 13.1%										
Sources: Missouri Senior R	eport 2009, US Ce	ensus: American	Community Sur	vey (ACS) one y	ear estimates						

		2008		2009		2010			
		Rate	Margin of Error	Rate	Margin of Error	Rate	Margin of Error		
Percent of population	Boone	8.7% (9,140)	+/- 1.5	9.2%	+/- 2.0	7.2%	+/- 1.4		
with a	Missouri	12.2%	+/- 0.3	12.4%	+/- 0.3	12.0%	+/- 0.3		
disability: 18-64	U.S.	10.1%	+/- 0.1	10.1%	+/- 0.1	10.0%	+/- 0.1		
Percent of population	Boone	41.8% (5,735)	+/- 5.5	26.5%	+/- 5.0	45.8%	+/- 6.7		
with a	Missouri	39.5%	+/- 0.7	39.3%	+/- 0.8	38.7%	+/- 0.9		
disability: 65+	U.S.	38.1%	+/- 0.1	37.4%	+/- 0.1	36.7%	+/- 0.1		



TABLE 4: ]	Househ	OLDS REC	EIVING FOO	D STAM	PS/SNAP	IN THE PAST	12 MON	THS		
	2008			2009			2010			
	Boon	Missour	<i>U.S.</i>	Boon	Missour	<i>U.S.</i>	Boon	Missour	<i>U.S.</i>	
	е	i		е	i		е	i		
Total	63,22	2,330,0	113,101,3	65,89	2,339,6	113,616,2	64,63	2,350,6	114,567,4	
Househol	0	40	29	3	84	29	9	28	19	
ds										
Househol	8.8%	11.1%	8.6%	11.6	12.5%	10.3%	10.7	13.3%	11.9%	
ds	(5,55			%			%			
receiving	0)			(7,67			(6,88			
SNAP				5)			7)			
Househol	44.2	51.1%	47.4%	41.8	48.5%	45.5%	43.7	47.6%	43.7%	
ds with	%			%			%			
1+	(2,45			(3,21			(3,01			
persons	2)			1)			5)			
with a										
disability										
Househol	55.8	48.9%	52.55%	58.1	51.5%	54.4%	56.2	52.3%	56.2%	
ds with	%			%			%			
no	(3,09			(4,46			(3,87			
persons	8)			4)			2)			
with a										
disability										
Source: Am	erican Co	mmunity Su	irvey 2008, 20	009, 2010	, one-year es	stimates, Table	e B22010			



TABLE 5: M	EDIAN EA	RNINGS IN	2008-20	10					
	2008			2009			2010		
	Boone	Missou	<i>U.S.</i>	Boone	Missou	<i>U.S.</i>	Boone	Missou	<i>U.S.</i>
		ri			ri			ri	
Overall	\$22,88	\$26,98	\$29,96	\$23,92	\$26,26	\$28,40	\$21,92	\$26,65	\$29,01
median	3	7	0	6	4	4	9	9	0
earnings									
With a	\$14,13	\$18,12	\$20,25	\$14,48	\$18,11	\$18,86	\$15,97	\$18,03	\$19,50
disability	2	1	0	3	4	5	0	3	0
No	\$23,81	\$27,69	\$30,46	\$24,44	\$27,11	\$28,98	\$22,37	\$27,23	\$29,99
disability	1	8	9	7	3	3	4	5	7
Earnings	\$9,679	\$9,574	\$10,21	\$9,964	\$8,999	\$10,11	\$6,404	\$9,202	\$10,49
gap			9			8			7
between									
disabled									
and non-									
disabled									
populatio									
ns									
Source: ACS			Aedian earn	ings in pas	t 12 months	for non-ins	titutionalize	ed populatio	n 16 years
and over by d	isability sta	tus							

TABLE 6: P	OVERTY AMONG	65+ by A	ACS ONE-Y	YEAR ESTIM	ATES AND	Five-Year	ESTIMATES
WITH MARC	GIN OF ERROR						
		Boone		MO		U.S.	
		Rate	Error	Rate	Error	Rate	Error
	2005	4.9%	2.5%	9.2%	0.5%	9.9%	0.1%
0	2006	5.1%	2.2%	10.3%	0.5%	9.9%	0.1%
One-year ACS	2007	4.5%	2.8%	9.3%	0.6%	9.5%	0.1%
estimates	2008	4.6%	2.8%	9.3%	0.6%	9.9%	0.1%
cstimates	2009	2.9%	1.8%	8.6%	0.4%	9.5%	0.1%
	2010	10.6%	5.7%	9.1%	0.5%	9.0%	0.1%
Five-year	2005-2009	4.2%	1.0%	9.5%	0.2%	9.8%	0.1%
ACS	2006-2010	5.2%	1.3%	9.3%	0.2%	9.5%	0.1%
estimates	2007-2011	5.4%	1.4%	8.9%	0.2%	9.4%	0.1%
Source: Amer	rican Community Su	rvey, one-	year estimate	es and five-yea	ar estimates	-	•



TABLE 7: POVERTY AMONG DISABLED	BY AGE SEGME	nts 18-64 an	D 65+					
	2000	2005	2006	2007	2008	2009	2010	
Boone 18-64 Number of people with	2,744	4,266	2,336	3,232	2,319	3,429	2,115	
disabilities and in poverty	(+/- 0)	(+/- 1,521)	(+/- 702)	(+/- 930)	(+/-	(+/- 1799)	(+/- 795)	
					1,079)			
Boone 65+ Number of people with a	392	472	468	180	399	266	1,345	
disability and in poverty       (+/- 0)       (+/- 265)       (+/- 259)       (+/- 294)       (+/- 295)       (+/- 187)       (+/- 82)								
US 18-64 Disability & Poverty Rate	18.75%	24.75%	25.51%	24.92%	25.53%	26.57%	27.33%	
US 65+ Disability & poverty Rate	13.22%	13.64%	13.73%	13.34%	13.87%	13.27%	12.51%	
MO 18-64 Disability & Poverty Rate	19.01%	32.10%	27.51%	25.26%	27.97%	28.27%	29.01%	
MO 65+ Disability & poverty Rate	13.18%	12.35%	14.13%	13.40%	13.60%	12.23%	12.92%	
Boone 18-64 Disability & Poverty	22.88%	35.44%	28.25%	28.25%	25.78%	36.60%	27.47%	
Rate								
Boone 65+ Disability & poverty	8.77%	8.16%	8.90%	3.42%	6.96%	7.14%	19.93%	
Rate								
Source: 2000 Census & American Comm	unity Survey 200	)5-2010, one-y	ear estimates					



TABLE 8: SUPPLEMENTAL SECURITY INCOME (SSI) - NUMBER OF RECIPIENTS OF FEDERALLY ADMINISTERED PAYMENTS, BY AGE AND DISABILITY 2002-2010

	Missouri								UC					
	wiissouri				A C				U.S			A C		
		Disabili	ty Categ	ory	Age Gro	up			Disability	Category		Age Group	)	
	Total	Aged	Blind	Disabled	Under 18	18-64	65+	Total	Aged	Blind	Disabled	Under 18	18-64	65+
2002	114,127	11,271	973	101,883	17,612	74,774	21,741	6,787,857	1,251,528	77,658	5,458,671	914,821	3,877,752	1,995,284
2003	115,069	10,606	970	103,493	18,075	75,835	21,159	6,902,364	1,232,778	77,082	5,592,504	959,379	3,953,248	1,989,737
2004	116,131	10,006	932	105,193	18,709	76,973	20,449	6,987,845	1,211,167	75,924	5,700,754	993,127	4,017,108	1,977,970
2005	117,613	9,537	955	107,121	19,451	78,126	20,036	7,113,879	1,214,296	75,039	5,824,511	1,036,498	4,082,807	1,994,511
2006	119,795	9,219	975	109,601	20,269	79,800	19,726	7,235,583	1,211,656	73,418	5,950,509	1,078,977	4,152,130	2,004,476
2007	121,876	8,829	950	112,097	20,992	81,393	19,491	7,359,525	1,024,512	71,727	6,083,286	1,121,017	4,221,920	2,016,588
2008	124,449	8,509	916	115,024	21,293	83,822	19,334	7,520,501	1,203,256	70,325	6,246,920	1,153,844	4,333,096	2,033,561
2009	128,132	8,194	911	119,027	21,976	87,179	19,157	7,676,686	1,185,959	69,302	6,421,425	1,199,788	4,451,228	2,025,610
2010	133,843	7,981	879	124,983	22,796	91,969	19,078	7,912,226	1,183,853	69,289	6,659,124	1,239,269	4,631,507	2,041,490
	Missouri								U.S					
		Disabili	ty Categ	ory	Age Gro	սթ			Disability	Category		Age Group	)	
	Total	Aged	Blind	Disabled	Under 18	18-64	65+	Total	Aged	Blind	Disabled	Under 18	18-64	65+
2002	114,127	9.88%	0.85%	89.27%	15.43%	65.52%	19.05%	6,787,857	18.44%	1.14%	80.42%	13.48%	57.13%	29.39%
2003	115,069	9.22%	0.84%	89.94%	15.71%	65.90%	18.39%	6,902,364	17.86%	1.12%	81.02%	13.90%	57.27%	28.83%
2004	116,131	8.62%	0.80%	90.58%	16.11%	66.28%	17.61%	6,987,845	17.33%	1.09%	81.58%	14.21%	57.49%	28.31%
2005	117,613	8.11%	0.81%	91.08%	16.54%	66.43%	17.04%	7,113,879	17.07%	1.05%	81.88%	14.57%	57.39%	28.04%
2006	119,795	7.70%	0.81%	91.49%	16.92%	66.61%	16.47%	7,235,583	16.75%	1.01%	82.24%	14.91%	57.38%	27.70%
2007	121,876	7.24%	0.78%	91.98%	17.22%	66.78%	15.99%	7,359,525	13.92%	0.97%	82.66%	15.23%	57.37%	27.40%
2008	124,449	6.84%	0.74%	92.43%	17.11%	67.35%	15.54%	7,520,501	16.00%	0.94%	83.07%	15.34%	57.62%	27.04%
2009	128,132	6.39%	0.71%	92.89%	17.15%	68.04%	14.95%	7,676,686	15.45%	0.90%	83.65%	15.63%	57.98%	26.39%
2010	133,843	5.96%	0.66%	93.38%	17.03%	68.71%	14.25%	7,912,226	14.96%	0.88%	84.16%	15.66%	58.54%	25.80%
Source	: Social Se	curity Ad	lministrat	ion, SSI An	nual Statis	tical Report	rts, Table 9	)						



	2009			2010		
	Boone	Missouri	United	Boone	Missouri	United
	County		States	County		States
Employed (% in labor force employed	l)					
With disability	4.8%	6.1%	5.0%	3.9%	5.5%	4.8%
	(3,895)			(3,158)		
W/out disability	95.2%	93.9%	95.0%	96.3%	95.4%	95.2%
	(76,569)			(76,567)		
Unemployed (% in labor force not em	ployed)					
With disability	15.3%	14.6%	11.48%	11.1%	13.5%	10.3%
	(831)			(649)		
W/out disability	84.6%	85.3%	88.5%	8.8%	86.5%	89.7%
	(4,573)			(5,829)		
Not in labor force (% of total populati	on not in th	e labor forc	e)			
With a disability	23.6%	32.6%	26.1%	15.4%	32%	26.3%
-	(5,140)			(4,321)		
W/out a disability	76.4%	67.4%	73.9%	84.5%	67.8%	74.7%
•	(16,643)			(23,687)		

TABLE 10: LABOR FORCE PARTICIPATION BY AGE SEGMENTS WITH MARGINS OF ERROR: BOONECOUNTY, MISSOURI, U.S. 2005-2010

	US			MO			Boone		
	Number	Margin Error	of	Number	Margin Error	of	Number	Margin Error	of
	2005								
Total Population 65-	10018548	34938		206255	3819		3485	548	
69									
In labor force	2794537	21918		57394	2627		1428	446	
Employed	2678147	20627		55876	2651		1428	446	
Unemployed	116390	5567		1518	452		0	362	
Not in labor force	7224011	32764		148861	3644		2057	537	
Total Population 70- 74	8341261	34079		183151	3675		3261	547	
In labor force	1332771	17760		27751	2147		420	251	
Employed	1279703	17040		26874	2127		420	251	
Unemployed	53068	3343		877	515		0	362	
Not in labor force	7008490	33012		155400	3747		2841	923	
Total Population 75+	16400718	12825		331732	1502		5273	250	
In labor force	986494	14527		22900	2107		615	400	
Employed	946113	14333		21586	1896		571	388	
Unemployed	40381	2799		1314	993		44	267	
Not in labor force	15414224	13875		308832	2651		4658	375	
	2006								
Total Population 65- 69	10370950	30057		212350	4188		3479	470	
In labor force	2999880	22986		61312	4802		1444	440	
Employed	2886227	22551		58820	2960		1322	463	
Unemployed	113653	5299		2492	712		122	149	
Not in labor force	7371070	20510		151038	4210		2035	309	
Total Population 70- 74	8565736	28793		183569	4042		3650	488	
In labor force	1392428	15451		31075	2345		817	308	
Employed	1341045	15222		30011	2254		817	308	
Unemployed	51383	3110		1064	460		0	357	
Not in labor force	7173308	27763		152494	3905		2833	482	
Total Population 75+	18254318	13025		383686	1268		6436	313	
In labor force	995180	13742		22585	1910		410	246	
Employed	959750	13832		21796	1901		305	217	
Unemployed	35430	2848		789	375		105	283	
Not in labor force	17259138	18288		361101	2282		6026	394	
Continued on next page									



TABLE 10 CON'T.: LABOR FORCE PARTICIPATION BY AGE SEGMENTS WITH MARGINS OF ERROR:
BOONE COUNTY, MISSOURI, U.S. 2005-2010 (CONTINUED)

	US			MO			Boone		
	Number	Margin Error	of	Number	Margin Error	of	Number	Margin Error	of
	2007								
Total Population 65-	10762697	31834		223157	4748		4546	670	
69									
In labor force	3182659	24789		62930	2708		1193	444	
Employed	3069701	24258		60678	2802		1193	444	
Unemployed	112958	5275		2252	637		0	360	
Not in labor force	7580038	28218		160227	4674		3353	635	
Total Population 70- 74	8634566	31553		179022	4551		2792	623	
In labor force	1448128	16761		31999	2382		486	301	
Employed	1397252	16523		31025	2360		486	301	
Unemployed	50876	3217		974	403		0	360	
Not in labor force	7186438	30701		147023	4212		2306	594	
Total Population 75+	18443295	12579		384022	1390		6189	149	
In labor force	1033694	13243		21564	1838		379	255	
Employed	994791	12994		20902	1722		379	255	
Unemployed	38903	2506		662	356		0	360	
Not in labor force	17409601	17796		362458	2156		5810	295	
	2008								
Total Population 65- 69	11377363	32910		231188	3926		4127	615	
In labor force	3521348	25069		70116	3120		1178	386	
Employed	3384806	24174		67652	3006		1178	386	
Unemployed	136542	5060		2464	588		0	363	
Not in labor force	7856015	34260		161072	4156		2949	587	
Total Population 70- 74	8788237	32422		183317	3946		3486	599	
In labor force	1488192	15918		30865	2075		606	304	
Employed	1429986	14753		29697	1995		606	304	
Unemployed	58206	3699		1168	459		0	363	
Not in labor force	7300045	31721		152452	4041		2880	578	
Total Population 75+	18646653	12925		387934	1398		6731	329	
In labor force	1068971	15521		23861	2136		125	151	
Employed	1028405	15606		22844	2052		73	284	
Unemployed	40566	2808		1017	432		52	73793	
Not in labor force	17577682	19398		364073	2334		6606	364	
Continued on next page									



TABLE 10 CON'T.: LABOR FORCE PARTICIPATION BY AGE SEGMENTS WITH MARGINS OF ERROR: BOONE COUNTY, MISSOURI, U.S. 2005-2010 (CONTINUED)

	US						Boone		
	Number	Margin Error	of	Number	Margin Error	of	Number	Margin Error	of
	2009								
Total Population 65-	11809543	33034		250109	4908		4653	608	
69									
In labor force	3633927	23603		75269	3531		2268	549	
Employed	3394122	22514		71628	3386		2268	549	
Unemployed	239805	6918		3641	824		0	366	
Not in labor force	8175616	33945		174840	4819		2385	489	
Total Population 70- 74	9016094	34465		181854	4841		2763	543	
In labor force	1534059	17177		32201	2807		494	294	
Employed	1438624	17442		31137	2766		494	294	
Unemployed	95435	4154		1064	380		0	366	
Not in labor force	7482035	33465		149653	4352		2269	539	
Total Population 75+	18681011	13067		390213	2013		6931	233	
In labor force	1042627	12563		21579	2046		169	317	
Employed	981992	12085		21001	2007		169	317	
Unemployed	60635	3395		578	333		0	366	
Not in labor force	17638384	17191		368634	2766		6762	298	
	2010								
Total Population 65- 69	12495973	33328		254804	4637		4332	714	
In labor force	3848575	28366		74835	3132		1636	519	
Employed	3536512	27931		69691	3154		1543	504	
Unemployed	312063	6971		5144	1052		93	299	
Not in labor force	8647398	32684		179969	4403		2696	706	
Total Population 70- 74	9358062	33190		197861	4698		3995	648	
In labor force	1580950	17365		32057	2521		729	319	
Employed	1461449	16790		30527	2489		729	319	
Unemployed	119501	4760		1530	514		0	366	
Not in labor force	7777112	31326		165804	4338		3266	632	
Total Population 75+	18579490	13904		390220	2226		6889	322	
In labor force	1062352	14813		19409	1902		248	328	
Employed	988925	14208		18265	1791		248	328	
Unemployed	73427	3830		1144	486		0	366	
Not in labor force	17517138	20415		370811	3099		6641	461	
Source: American Com			stimat						



Year	Total, 65+	Men, 65+	Women, 65+	Year	Total, 65+	Men, 65+	Women, 65+
1948	27%	46.80%	9.10%	1978	13.30%	20.40%	8.30%
1949	27.30%	47%	9.60%	1979	13.10%	19.90%	8.30%
1950	26.70%	45.80%	9.70%	1980	12.50%	19.90%	8.10%
1951	25.80%	44.90%	8.90%	1981	12.20%	18.40%	8%
1952	24.80%	42.60%	9.10%	1982	11.90%	17.80%	7.90%
1953	24.80%	41.60%	10%	1983	11.70%	17.40%	7.80%
1954	23.90%	40.50%	9.30%	1984	11.10%	16.30%	7.50%
1955	24.10%	39.60%	10.60%	1985	10.80%	15.80%	7.30%
1956	24.30%	40%	10.80%	1986	10.90%	16%	7.40%
1957	22.90%	37.50%	10.50%	1987	11.10%	16.30%	7.40%
1958	21.80%	35.60%	10.30%	1988	11.50%	16.50%	7.90%
1959	21.10%	34.20%	10.20%	1989	11.80%	16.60%	8.40%
1960	20.80%	33.10%	10.80%	1990	11.80%	16.30%	8.60%
1961	20.10%	31.70%	10.70%	1991	11.50%	15.70%	8.50%
1962	19.10%	30.30%	10%	1992	11.50%	16.10%	8.30%
1963	17.90%	28.40%	9.60%	1993	11.20%	15.60%	8.10%
1964	18%	28%	10.10%	1994	12.40%	16.80%	9.20%
1965	17.80%	27.90%	10%	1995	12.10%	16.80%	8.80%
1966	17.20%	27.10%	9.60%	1996	12.10%	16.90%	8.60%
1967	17.20%	27.10%	9.60%	1997	12.20%	17.10%	8.60%
1968	17.20%	27.30%	9.60%	1998	11.90%	16.50%	8.60%
1969	17.30%	27.20%	9.90%	1999	12.30%	16.90%	8.90%
1970	17%	26.80%	9.70%	2000	12.90%	17.70%	9.40%
1971	16.20%	25.50%	9.50%	2001	13%	17.70%	9.60%
1972	15.60%	24.30%	9.30%	2002	13.20%	17.90%	9.80%
1973	14.60%	22.70%	8.90%	2003	14%	18.60%	10.60%
1974	14%	22.40%	8.10%	2004	14.40%	19%	11.10%
1975	13.70%	21.60%	8.20%	2005	15.10%	19.80%	11.50%
1976	13.10%	20.20%	8.20%	2006	15.40%	20.30%	11.70%
1977	13%	20%	8.10%	2007	16% , 2008, Chart data	20.50%	12.60%



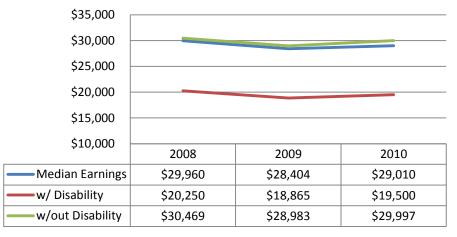
## **B. FIGURES**



FIGURE 1: MEDIAN EARNINGS, MISSOURI

Source: American Community Survey, one-year estimates





Source: American Community Survey, one-year estimates



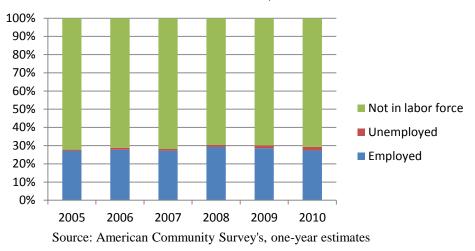


FIGURE 3: MISSOURI, AGE 65-69

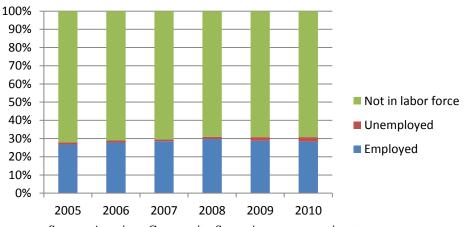


FIGURE 4: U.S., AGE 65-69

Source: American Community Survey's, one-year estimates



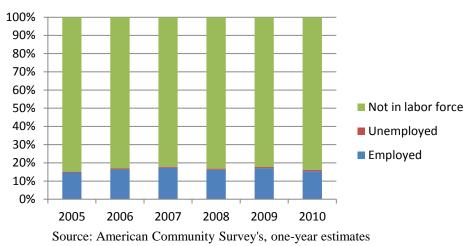
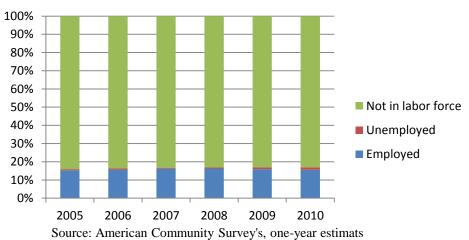


FIGURE 5: MISSOURI, AGE 70-74







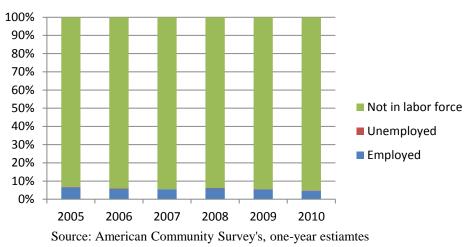
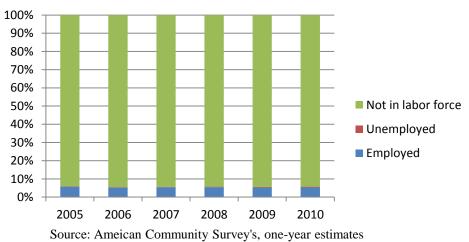


FIGURE 7: MISSOURI, AGE 75+









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