



Workforce and Education

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Education and earning potential have a significant impact on economic autonomy.ⁱ Not since the Great Depression has the U.S. seen such a decline in household incomes. Now more than ever households' expenses are being shared and in some cases solely supported by women. In addition women, as single heads of households, are relying solely on their own earning potential. It is with this in mind that the report indicators reflect the status of women in the workplace and the education levels completed in order to compete at this level.

While women may have narrowed the gender wage gapⁱⁱ throughout the United States in recent decades, it is incumbent upon state and local policymakers to understand how women in Missouri have, comparatively, narrowed the margin. As the federal government further embraces the strategy of delivering federal dollars to states in the form of block grants, state legislatures, governors, and administrative agencies will be increasingly responsible for ensuring that state policies, rules, and programs for economic and workforce development are structured and delivered in a manner fair to both the men and women of Missouri as they prepare for and contribute to the state's workforce.

Though women may now have equity in their representation in higher education and workforce training opportunities, the key issue remains: Does women's access to and success in preparing for the workforce result in equity between genders in career opportunity, earnings, and wealth?ⁱⁱⁱ To understand the issues of gender equity and parity in Missouri's economy, it is important to consider how the state's women and men compare in completing different levels of education required for employment in different occupations. Currently, the quality of accurate information from reliable sources about differences in outcomes for women based on race, ethnicity, and age for comparable geographies is poor. However, because we know disparities exist in areas such as poverty, health status, and household composition, one can reasonably combine that knowledge with the understanding of the persistent wage gap to understand that these known disparities likely exist across workforce and education issues too.

Armed with this information women will be able to strategically plan their educational and professional goals, and state and local policymakers will have measurable outcomes on which to base their policy initiatives.

Missouri Women in the Workforce

Definition: This indicator refers to the percent of women, ages 16 and older, working full- or part-time in 2009 as reported through the Quarterly Workforce Indicators program of the U.S. Census Bureau.^{iv}

Significance: The 62% of women participating in the workforce represent a significant contribution to the economic and social well-being of Missouri households and communities, as do the women who own and operate 27% of Missouri's businesses. Whether as single heads of households or as a partner in a dual-earning household, women's income and earnings stabilize household budgets, replace potential income lost to static wages, and contribute to economic activity and stability in the marketplace.

Missouri Findings: Overall, approximately 62% of Missouri's women, age 16 and older, are working full- or part-time in Missouri. This represents an increase of 15.3% since 2000, when slightly less than half of Missouri women worked full or part-time.

Regional Findings: While the overall percent of women working in Missouri is over 60%, women's workforce participation varies throughout the state. More than 50% of women in Missouri's more urbanized areas work part- or full-time, including the Kansas City and St. Louis metropolitan areas, as well as the Cape Girardeau, Hannibal, Springfield, Joplin, Columbia, and Jefferson City metropolitan areas.

In rural Missouri, women's participation in the workforce is more varied due to demographic and economic factors. In the lake region of south central and southwestern Missouri, 30% or fewer women report

62% of Missouri women work full- or part-time.

working, reflecting a generally older demographic of relatively affluent retirees in conjunction with relatively low-wage, low-skill jobs associated with a tourism and retirement-oriented economy. The percent of women in the labor force in the Bootheel is relatively high (approximately 40% to 75%) in the context of a region of persistently low job growth and persistently high rates of poverty, reflecting the comparatively high percent of female-headed households in this region. Women's workforce participation in the northern tier of counties also reflects the demographics of an aging rural population.

Policy Implications: The continued increase in women's labor force participation will require women, families, and communities to find strategies to replace women's historically uncompensated labor in areas

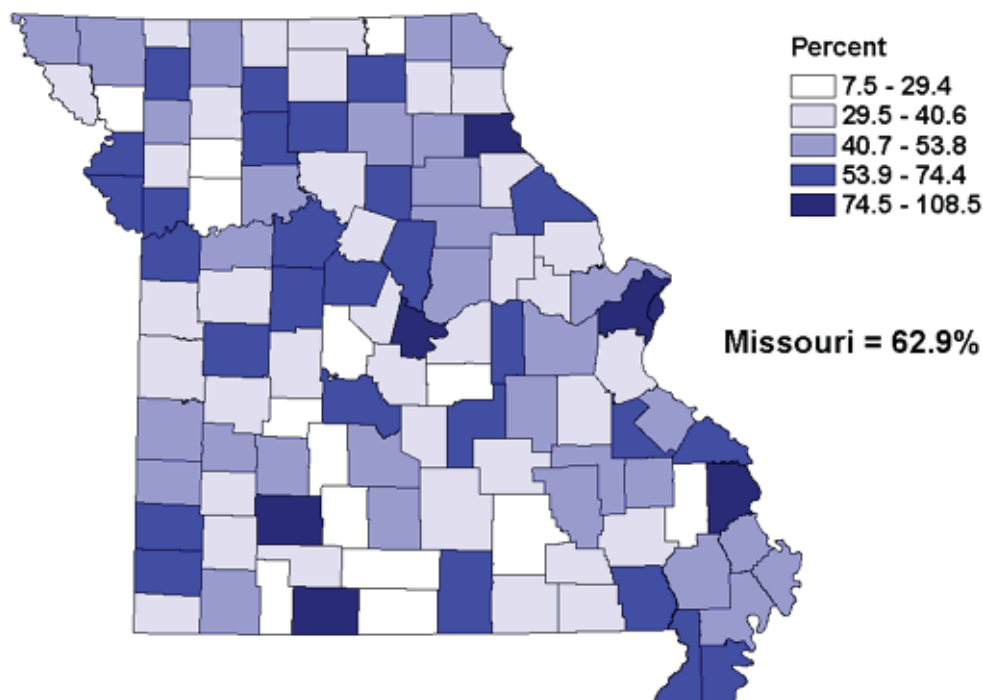
such as child care, care for aging family members, community service and volunteerism, and household management.

Ratio of Women's to Men's Educational Status

Definition: This is a comparison of women's to men's level of educational attainment in 1990, 2000, and 2009. The 1990 and 2000 data are from the U.S. decennial census. The 2009 data are from the U.S. Census Bureau's American Community Survey.^v

Significance: Educational attainment is strongly correlated with economic opportunity, income, wealth, and health. A mother's level of educational attainment is also an established and critical predictor of her children's success in school. Tracking educational attainment over time is a useful way to understand likely long-term outcomes for specific demographic

Percent of Women in the Labor Force by County, 2009



Source: U.S. Census Bureau, Quarterly Workforce Indicators (QWI), Public Use Data, 2009
Map Prepared By: University of Missouri Extension, Office of Social and Economic Data Analysis (OSED)A
Map Generated On: 14, August 2011

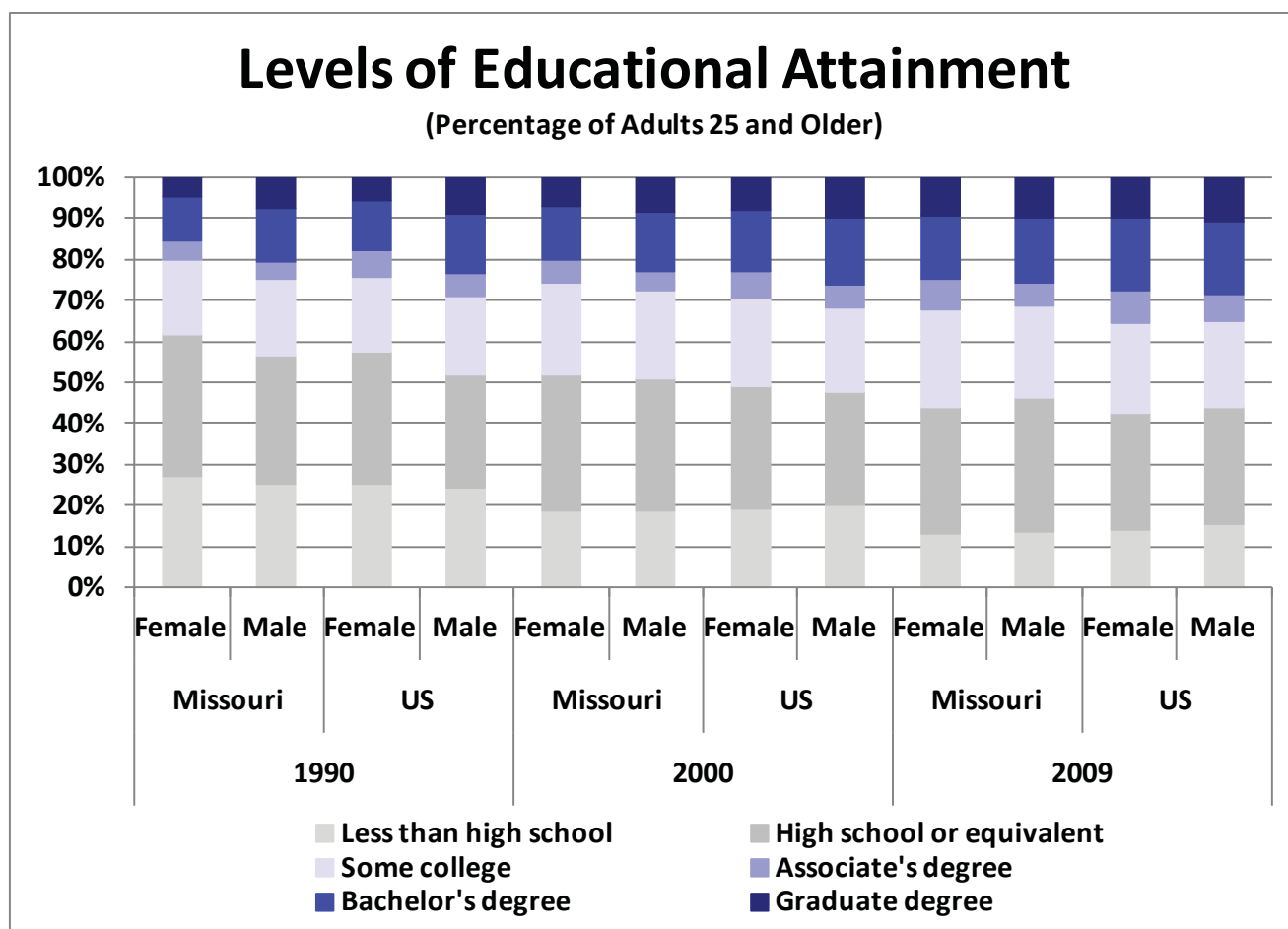
groups, such as women, as well as to predict socioeconomic trends by geographies, such as school districts, neighborhoods, and communities.

Missouri Findings: Between 1990 and 2009, women in Missouri have essentially achieved parity with men in terms of holding two-year and four-year college and graduate degrees. Twenty-five percent of Missouri’s women have earned a college degree or higher, compared to 26% of men. However, in 1990, 35% of women completed high school, compared to 33% in 2000 and 31% in 2009. The percent of males in Missouri completing high school, on the other hand, has increased incrementally from 31% in 1990 to 32% and 33% in 2000 and 2009 respectively.

Policy Implications: The concurrent increase in women completing college and graduate education and women dropping out of high school reflects increasing economic stratification, a bifurcated culture of haves

and have-nots. The opportunities for earners without a high school degree have become increasingly limited to low-skill, low-wage, no-benefit intermittent jobs. While this has been a growing economic reality for several decades, if Missouri is successful in implementing economic development initiatives focused on high-tech manufacturing and information technology, those without a high school degree will likely see the ‘opportunity for opportunity’ continue to decrease.

It is incumbent upon women and their advocates to ensure that the parity that has been achieved between women and men in completing higher education translates into parity in earnings, income, and wealth. Girls at risk for dropping out of high school and women without high school degrees should be afforded opportunities to complete their education and increase their skills and competitiveness.



Source: U.S. Census Bureau; 1990, 2000 SF3; 2009 American Community Survey

Ratio of Women to Men Enrolled in and Completing Higher Education

Definition: This indicator is a ratio of females to males enrolled in and completing Missouri's public and private institutions of higher education during the 2009-2010 academic year. Institutions of higher education include post-secondary technical schools, community colleges, and four-year colleges and universities.

Significance: Completion of higher education is positively correlated with health status, social well-being, and economic security for women and men. Understanding the characteristics of who is likely to enroll and graduate with higher education degrees facilitates policy and programmatic responses that will encourage both enrollment and persistence in education completion. These data^{vi} from the 2009-2010 academic year provide a contemporary snapshot of the relative status of women currently as well as a baseline measure from which to track the value of investment in higher education for women as they mature into the workforce.

Missouri Findings: Of all students enrolled in Missouri institutions of higher education during the 2009-2010 academic year, 40% more were women than men. During the same academic year, of all students graduating, 50% more were women than men.

Regional Findings: Within Missouri regions and counties, the enrollment ratio of women to men varied widely. With the exceptions of urban Kansas City/Jackson County and St. Louis City, women and men were more equally represented in college enrollment along the relatively more metropolitan I-70 corridor. Similarly, in rural counties home to colleges and universities, the ratio was more even. However, in more rural, isolated counties, women tend to enroll in higher education programs at ratios ranging from 1.5 to more than 2-to-1 to their male counterparts.

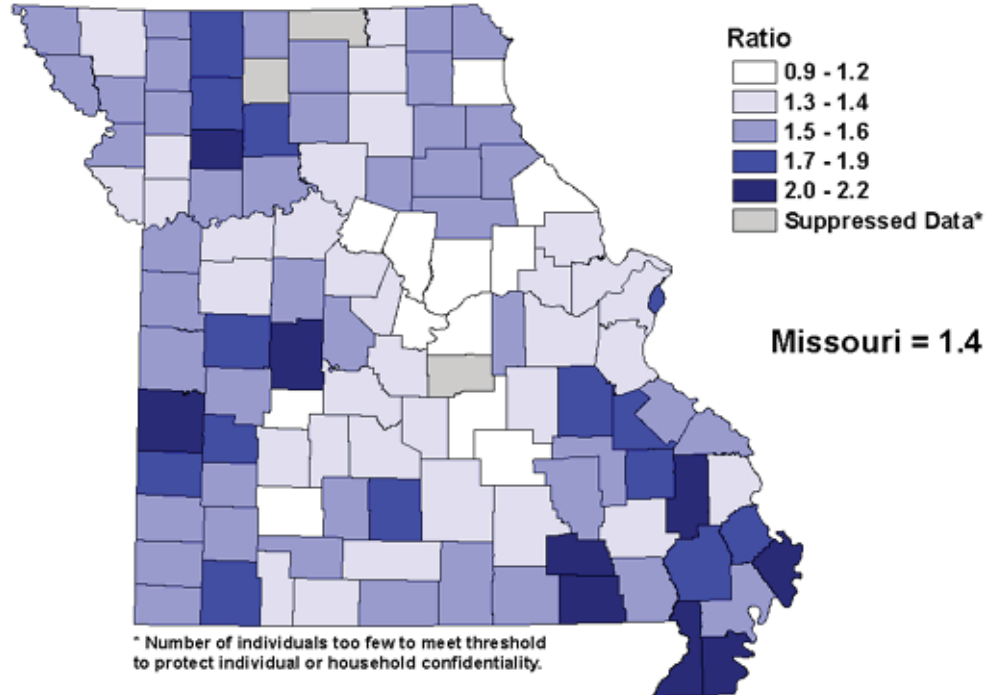
While the general trend of parity between sexes holds in completion ratios in the more metropolitan regions of the state, the gaps between genders in both college enrollment and completion remain in rural Missouri. In a handful of counties in the central Ozarks and northern Missouri, the ratio of women to men completing a degree is as low as 4 in 10, some of which can be attributed to Missouri's Amish and Mennonite populations which discourage the education of girls beyond the primary grades. Conversely, in the northwest, central Ozarks, and Bootheel regions, some counties graduate ratios of 2 to 4 women for every male graduate.

Policy Implications: In general, women have closed the higher education gap in regard to both enrollment, a reasonable proxy for the cultural expectation that women require skill and knowledge development to compete in the workforce, and graduation, a reasonable proxy for women's ability to invest in long-term economic competitiveness. However, it is important to understand that these data include certification programs and degrees associated with relatively low-skill, low-wage occupations typically staffed by women such as licensed practical nursing, paraprofessional positions in primary and secondary public education, and administrative 'pink collar' positions. In many cases, the 'blue collar' jobs that have historically and currently remain the corollary to low and moderate income 'women's work,' do not require legally-sanctioned certification and licensing applied to 'women's work' (e.g., child care provider).

To fully understand the relative value of investment in higher education, it is necessary to understand how the relative value of educational attainment for women and men translates into earnings potential.

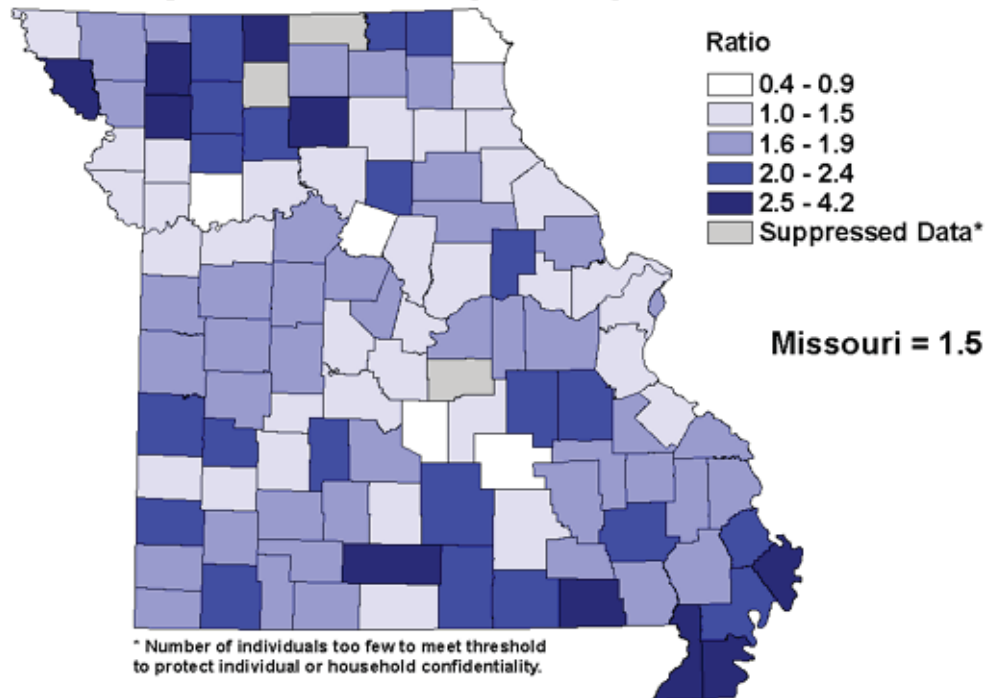
The higher education enrollment ratio of women to men varies widely within regions of Missouri.

Ratio of Women to Men Enrolled in Higher Education by County, 2009-2010



Source: Missouri Department of Higher Education, Academic Year 2009-2010
 Map Prepared By: University of Missouri Extension, Office of Social and Economic Data Analysis (OSED)A
 Map Generated On: 14, August 2011

Ratio of Women to Men Completing a Degree in Higher Education by County, 2009-2010



Source: Missouri Department of Higher Education, Academic Year 2009-2010
 Map Prepared By: University of Missouri Extension, Office of Social and Economic Data Analysis (OSED)A
 Map Generated On: 14, August 2011

Ratio of Women's to Men's Earnings with and without Degree

Definition: This indicator is reported per the Missouri Department of Higher Education's regions as a ratio of female to male earnings for students in Missouri enrolled in or graduating during the 2009-2010 academic year. Institutions of higher education include post-secondary technical schools, community colleges, and four-year colleges and universities.^{vii}

Significance: Investment in higher education costs a great deal for students and their families. Upfront costs include tuition, fees, housing, travel, etc. Deferred costs include payment of principal and interest on student loans, foregone income that could have been realized during the time spent pursuing education and training beyond high school, and deferred investments that create wealth like buying a house or starting a business. The conventional wisdom remains, and research substantiates, that higher education continues to be a worthwhile investment in the long term for most students most of the time.

However, discrepancies remain between the payoff of the investment in higher education for women and men in Missouri. These data from the 2009-2010 academic year provide a snapshot of the relative earnings competitiveness realized by women today and can serve as a guide for women weighing the relative value of an investment in higher education.

Missouri Findings: Women graduating from Missouri institutions of higher education in the 2009-2010 academic year reported earnings that, on average, were 90% of what male graduates reported. Women, who were enrolled in the 2009-2010 academic year but did not graduate, earned 85% of their male counterparts.

Regional Findings: Women graduates in the northwest region and the Bootheel—both relatively

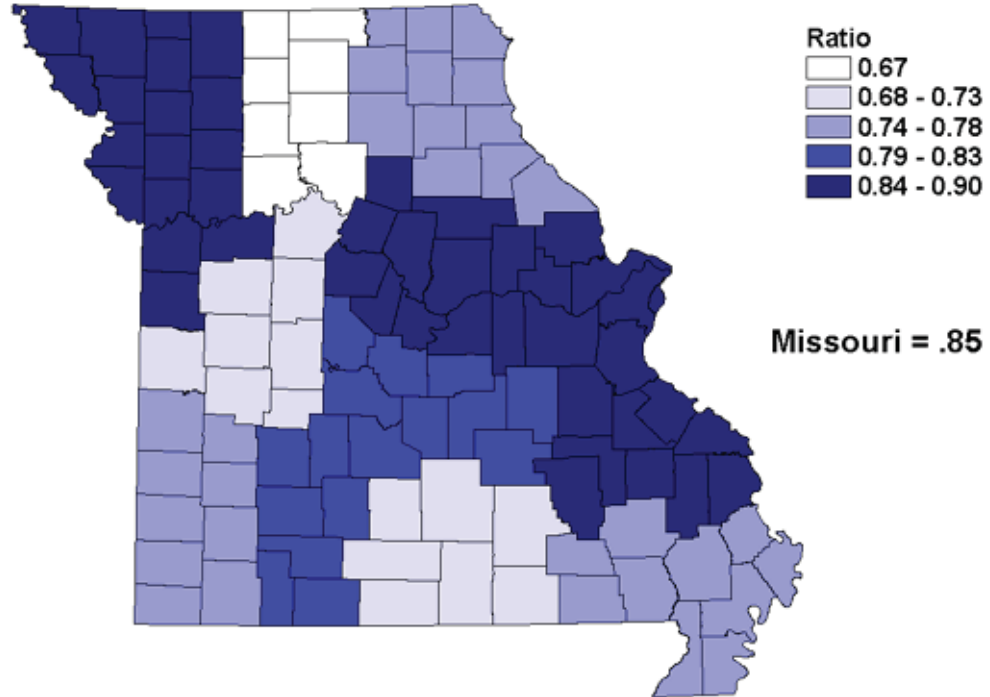
Missouri women college graduates earn 90% of what men college graduates earn.

low-wage, high-poverty regions of Missouri—achieved the greatest parity in earnings during the 2009-2010 academic year, while women graduates from the rural northeast counties and the retirement/tourist-oriented lakes corridor earned between 81 and 84% of what male graduates reported during this snapshot. In the remainder of the state, including the metro areas and I-70 corridor, women graduates earned between 85 and 94% of men's earnings.

While the geographic trends are reasonably similar for non-college graduate women's to men's earnings during the same time period, the ratio of earnings expands importantly. In the north central Green Hills region of Missouri, non-graduating women enrolled in higher education earned 67 cents per dollar earned by non-graduating enrolled men. Non-college graduate women in the remainder of non-metropolitan Missouri earned between 68 and 83% earned by their male counterparts. Non-graduate women in the St. Louis metro region, the Columbia and Jefferson City metro regions, the Jackson County and northern Kansas City metro region as well as the Kansas City to Des Moines I-35 corridor, reported closer to parity—earning between 84 and 90% of their male counterparts.

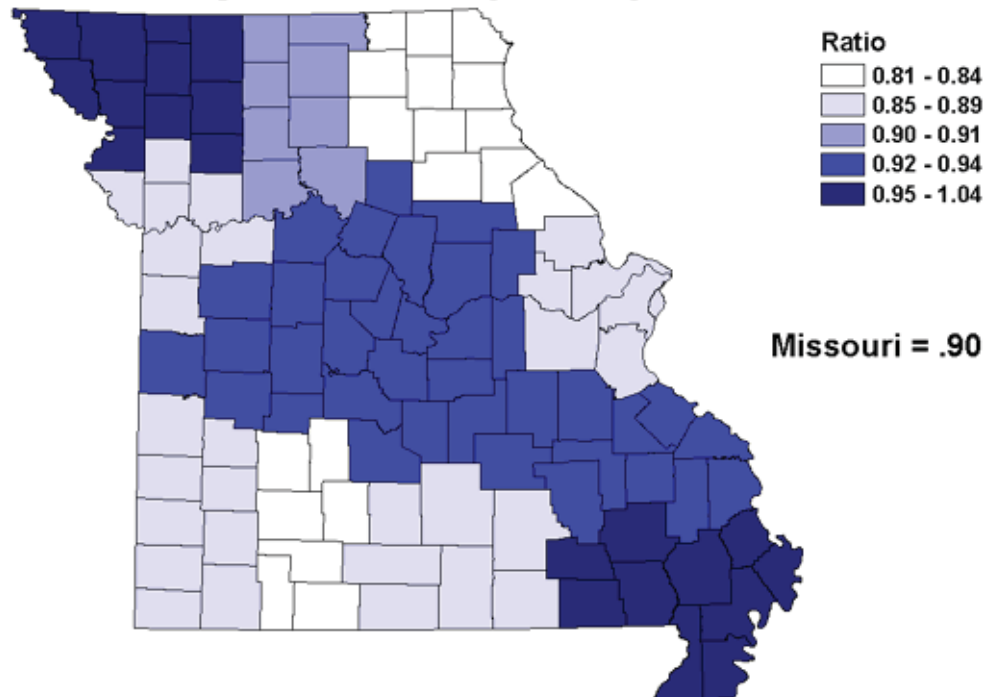
Policy Implications: A continued lack of parity in earnings by women diminishes the value of investment in higher education. When women with consistent qualifications are systematically undercompensated for the same jobs and positions, it not only affects the well-being of their households, it diminishes their capacity to accrue wealth over time and diminishes their return on investment for higher education degrees and certifications.

Ratio of Higher Education-Enrolled Women's to Men's Earnings by County, 2009-2010



Source: Missouri Department of Higher Education, Academic Year 2009-2010
 Map Prepared By: University of Missouri Extension, Office of Social and Economic Data Analysis (OSED)A
 Map Generated On: 14, August 2011

Ratio of Women's to Men's Earnings for College Graduates by County, 2009-2010



Source: Missouri Department of Higher Education, Academic Year 2009-2010
 Map Prepared By: University of Missouri Extension, Office of Social and Economic Data Analysis (OSED)A
 Map Generated On: 14, August 2011

Ratio of Women's to Men's Earnings by County

Definition: The average annual ratio of women's earnings (income, salary, and dividends) to men's earnings was calculated for all and selected occupations from the U.S. Census Bureau's Quarterly Workforce Indicators (QWI) public-use database. These data include all earnings by workers, age 16 and over, for all full- and part-time employment.

Significance: While the earnings ratio between women and men enrolled and graduating from Missouri's institutions of higher education provide a snapshot of women and men preparing for and entering the workforce, the QWI data provide a broader comparison between all women and men, throughout the career cycle, working in Missouri across all occupations.

Missouri Findings: In 2009, on average, women's earnings were slightly less than three-fourths (74%) of men's earnings, a nominal improvement from 73% in 2004. When considered by selected occupations, the story is more complex. In the field of education, women averaged 89% of men's earnings in 2004 and 88% five years later. The wage gap in women's earnings in the food services sector decreased slightly between 2004 and 2009 from 78% to 81% respectively. Women gained ground in the generally higher wage occupations in management and professional, technical, and scientific services, though women's average earnings in these sectors were 58 and 57% of men's respectively. In the typically "blue collar" occupations of manufacturing and utility services, women earn between approximately 70 and 75% of what their male counterparts do.

Between 2004 and 2009, the ratio of women's earnings to men's increased in the retail trade occupations from 60% to 65%. However, during the same period, the

ratio of women to men's earning in health-care jobs decreased from 46 to 43%.

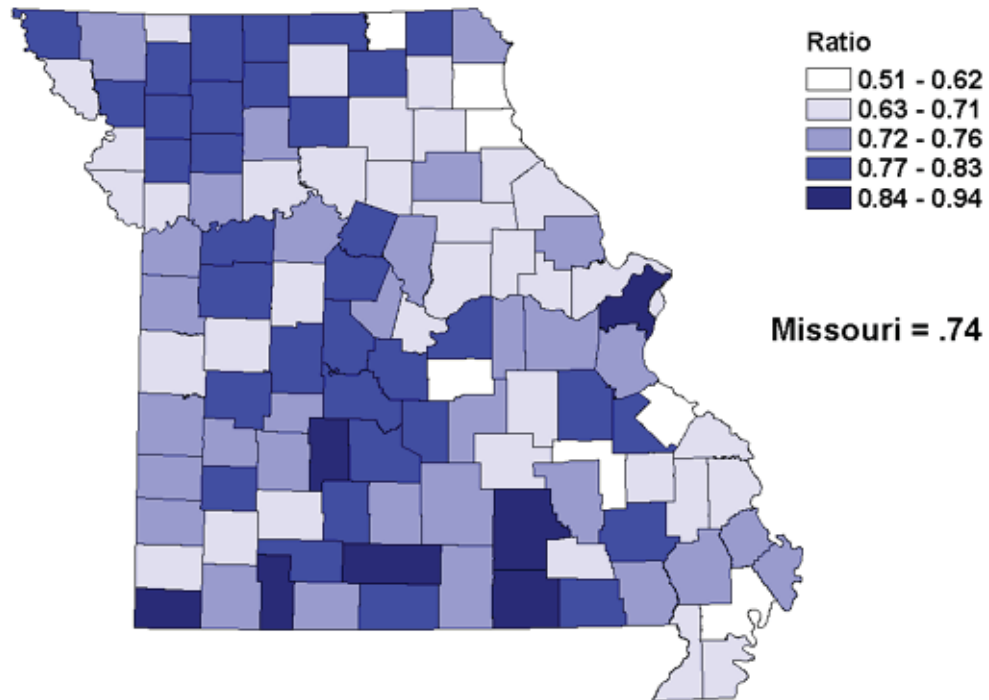
Regional Findings: Interestingly, the ratio of women's to men's earnings is closest in the relatively affluent St. Louis County, 94%, and six of Missouri's relatively poorer counties: Dallas (90%), Douglas (90%), McDonald (89%), Oregon (85%), Shannon (86%), and Stone (86%). The greatest disparities exist in counties in south central, southeast, and the Bootheel region, including Iron, Maries, New Madrid, and Ste. Genevieve. Women in those counties earn 51 to 62% of men.

Policy Implications: When the earnings of the entire population of women in the workforce is compared to men's earnings, it becomes apparent that a significant gap continues to disadvantage women in their capacity to independently provide for their households, accumulate wealth, and contribute fully and equitably to the social well-being and economic vitality of their communities.

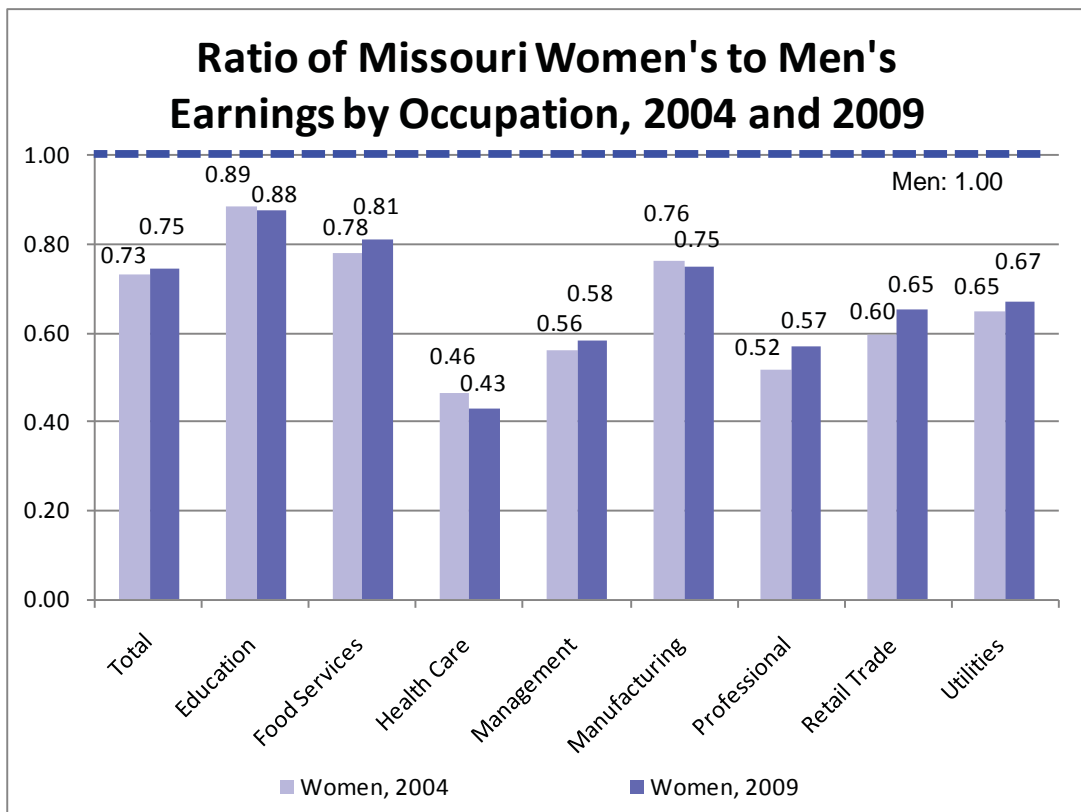
While it's useful to understand the ratio of women's to men's earnings at the state level; earnings capacity, job and career opportunities, access to capital, and quality of life are inherently realities that are experienced and navigated at the local level. For this reason, it is important to understand the real differences between economic opportunities for women in the smallest geographic units (i.e., what types of jobs are available in a community) and to implement policy initiatives that address disparities in opportunity.

A significant earnings gap continues to disadvantage women.

Ratio of Women's to Men's Earnings by County, 2009



Source: U.S. Census Bureau, Quarterly Workforce Indicators (QWI), Public Use Data, 2009
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Source: U.S. Bureau of Labor Statistics

Workforce and Education Conclusion

The number of Missouri women who are working is increasing, now reaching 62%. Many women are single heads of households and therefore rely solely on their own earning potential.

Educational attainment is positively correlated with economic security, social well-being, and health. So it is encouraging to note that between 1990 and 2009, women in Missouri achieved parity with men in terms of earning college and graduate degrees. Indeed, women now outnumber men as students enrolled in Missouri institutions of higher education, and in the number of students graduating, although within specific regions, ratios vary widely. Unfortunately, the

percent of women dropping out of high school has increased, along with a decreasing number of high-wage jobs available to earners without a high school degree.

Despite great disparity between regions, women graduating from Missouri institutions of higher education report average earnings that were 90% of what male graduates reported. Highlighting the importance of obtaining a degree, a comparison between all working women and men indicates that women's earnings were only 74% of men's.

When the earnings of all women in the workforce are compared to men's earnings, it is apparent that a significant gap continues to disadvantage women in their capacity to achieve economic self-sufficiency.

WPA Policy Recommendations:

Develop strategies to replace women's historically uncompensated labor within families and communities, as women's participation in the labor force increases.

Provide opportunities for girls at risk for dropping out of high school, and women without high school degrees, to complete their education and gain job skills.

Encourage women who are at high risk of underemployment to pursue higher education in order to maximize their economic autonomy.

Fund programs that help women investigate careers that are focused on math, science, and technology.

Initiate policies that reduce disparities in opportunity for women in regions of the state where these differences are the greatest.

Enhance collection of education, workforce, and employment data to facilitate analysis of differences in outcomes for women by race, ethnicity, and age.

ⁱ Moghadam, Valentine & Lucie Senflova, *Measuring Women's Empower: participation and rights in civil, political, social, economic, and cultural domains*, 2005. Retrieved March 31, 2011 from <http://www.scribd.com/doc/20245696/Moghadam-and-Senftova-Measuring-Women-s-Empowerment-Participation-and-Rights-in-Civil-P>

ⁱⁱ Miller, Stephen, *Despite Strides by U.S. Women, Wage Gap Remains*, Society for Human Resource Management, March 4, 2011, Retrieved March 31, 2011 from <http://www.shrm.org/hrdisciplines/compensation/Articles/Pages/WageGap.aspx>

ⁱⁱⁱ *Educational Attainment in the United States: 2003*, U.S. Census Bureau, Current Population Reports, Issued June, 2004

^{iv} U.S. Census Bureau, *Quarterly Workforce Indicators, Public Use Data*, 2009

^v *Women in America, Indicators of Social and Economic Well-being*, U.S. Dept. of Commerce, Executive Office of the President, Office of Management and Budget, March, 2011 and the U.S. Census Bureau, *American Community Survey*, 2009

^{vi} Missouri Department of Higher Education, Research and Data Unit, *Special Report*, 2010

^{vii} Ibid.