

Women Business Leaders Across Wisconsin 1990-2011

Tessa Conroy and Steven Deller

*Department of Agricultural and Applied Economics and
Center for Community and Economic Development
University of Wisconsin-Madison/Extension*

***Patterns of Economic Growth and Development
Study Series No. 2***

Table of Contents

<i>Key Points</i>	1
<i>Introduction</i>	2
<i>Establishments</i>	4
<i>Employment</i>	6
<i>Sales</i>	10
<i>Sector Analysis</i>	
<i>Educational Services</i>	15
<i>Health Care and Social Assistance</i>	15
<i>Accommodation and Food Services</i>	16
<i>Retail Trade</i>	16
<i>Arts, Entertainment, and Recreation</i>	17
<i>Professional, Scientific, and Technical Services</i>	18
<i>Administrative and Support and Waste Management and Remediation Services</i>	18
<i>Information</i>	17
<i>Conclusion</i>	19
<i>Data Appendix</i>	22
<i>County Data Table</i>	22

We appreciate the helpful comments of Courtney Berner, Gary Green, and Stephan Weiler as we developed this study. All errors are the responsibility of the authors.

Key Points

- In 2011, women owned or managed nearly 19% of businesses in Wisconsin.
- The number of women-owned or managed businesses more than tripled between 1990 and 2011 growing significantly during the 1990s and then stabilizing between 2000 and 2011.
- In 2011, women owned or managed 80,000 Wisconsin businesses, employed over 550,000 workers, and earned \$45 B in sales.
- Women-owned or managed establishments employ fewer workers on average than the typical Wisconsin business regardless of industry sector.
- Women-owned or managed businesses are most common in educational, health care and social assistance services.

Bottom-line Policy Implication: Women as business owners may be an underutilized resource for economic development and growth. Policies aimed at equitably enhancing business ownership should consider the unique nature of women-owned and managed businesses. These policies should reflect the unique manner in which women approach entrepreneurship.

Women-Owned or Managed Establishments in Wisconsin

Introduction

The surge of women entrepreneurs and business owners in recent decades coupled with the increasing number of women in management has changed the gender composition of business leaders in the U.S. Women-led businesses have grown in number, market presence, and economic importance. In Wisconsin, the number of women-owned or managed businesses more than tripled between 1990 and 2011. In 2011, women owned or managed 80,000 Wisconsin businesses, employed over 550,000 workers, and earned \$45 B in sales.

Despite the growth, the share of women-owned business may still be considered relatively small. Women comprise roughly half of the labor force, yet own less than one-third of firms in the U.S. (U.S. Dept. of Commerce 2010). According to estimates from the National Establishment Time Series (NETS, see Data Appendix for details), 19% of businesses in Wisconsin were women-owned or managed in 2011 and their shares of sales and employment were even smaller.

If the scarcity and small size of women-owned and managed businesses is not entirely a function of female preferences, and instead reflects barriers to female entrepreneurship, then policy interventions may be necessary to equitably enhance business ownership. Encouraging women business-leaders could also prove to be part

of successful economic development strategy given how valuable women are to their organizations and communities. As reported by their peers, women are more effective than men in leadership positions (Paustian-Underhaul et al. 2014). Having a female CFO and a gender-diverse board of executives coincides with more ethical decision-making (Gilblom 2015).

Businesses with women on their boards outperform peer companies with all male boards in share price performance (Credit Suisse Research Institute 2012) and return on sales (Catalyst 2011). Gender diversity is also associated with more customers, increased sales revenue, and greater profits relative to similar businesses (Herring 2009).

In addition to having a valuable role within organizations, women business owners can play a valuable role within their communities. Between 1997 and 2007, privately-held women-owned businesses added 500,000 jobs whereas other privately-held firms lost over 2 million jobs (U.S. Dept. of Commerce 2010). Even during an economic downturn women-owned firms are important, as they are less likely than firms owned by men to lay off workers (Matsa and Miller 2014). The growth of women-owned businesses and their employment performance during a period when other private firms were losing jobs affirms the importance of women-owned business to the economy.

To the extent that women-owned businesses create new jobs, income, products and services, places with few women-owned businesses may be missing a valuable component of economic growth and development. The Organization for Economic Cooperation and Development (OECD) identified women entrepreneurs as a latent source of economic growth (2004). Given the relatively low rates of business-ownership among Wisconsin women, they could be an underutilized economic resource within their communities.

Local communities may have an opportunity to support economic growth and development through their women business-leaders. Knowledge, resources, and opportunities are distributed differently across members of society and certainly across gender. Women can be expected to assess the local market, respond to their communities, start businesses, and manage their employees differently from men. Hence, a better understanding of women-owned business is necessary to constructively incorporate women business owners into local economic development strategies.

In the following analysis we track women-owned or managed business in Wisconsin using estimates of establishments, sales, and employment from the National Establishment Time Series. We detail outcomes at the county-level and across industry sectors. We study the period from 1990 to 2011, focusing on the change between the beginning of the period

Figure 1: Women-Owned or Managed Establishments

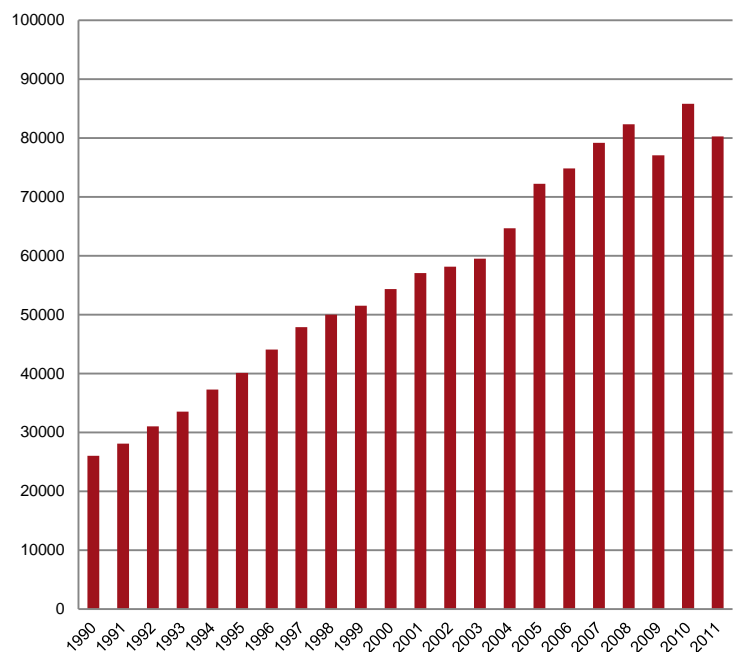
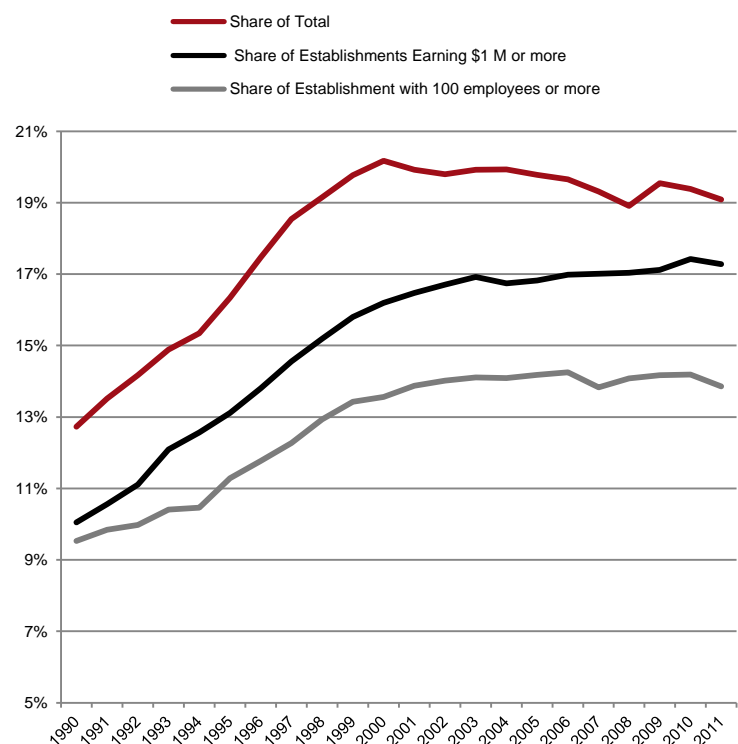
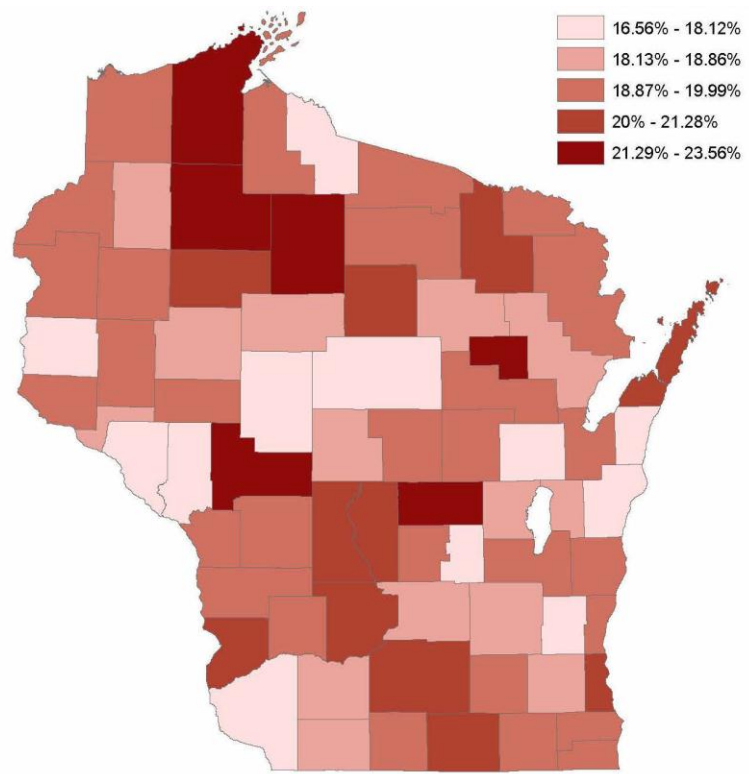


Figure 2: Women-owned or Managed Establishments as a Share of Total



prior to the rapid growth of women-owned business in the 1990s and the outcome over 20 years later.

Figure 3: The Share of Women-Owned or Managed Businesses in Wisconsin, 2011



Establishments

The number and share of women-owned or managed (WOM) establishments in Wisconsin increased dramatically between 1990 and 2011. In Figure 1, we show the number of WOM establishments for each year during the study period. In 1990, there were nearly 25,000 WOM establishments in Wisconsin. Since 1990, the number of WOM establishments increased by an average of 2,600 businesses each year. By 2011, there were over 80,000 establishments with female leadership, more than three times the number in 1990.

Though the number of WOM business has grown dramatically over the past 20 years, the total number of businesses has grown too. In Figure 2, we show WOM businesses as a share of total businesses in Wisconsin. The share of WOM establishments, represented by the top red line, increased dramatically between 1990 and 2011, growing from near 12% to just under 20%, however, most of the growth occurred between 1990 and 2000. From 2000 to 2011 the share was relatively stable at 20% indicating that the growing number of WOM establishments did not exceed but kept pace with overall growth in the number of businesses.

We also track the share of women leading the largest Wisconsin establishments in Figure 2. In 1990, women led just 10% of high sales businesses, represented by the black line. By 2011, despite growth, women still led a relatively small share at 17%. Of establishments that employed over 100 people, women led an even smaller share, represented by the gray line. As of 2011,

The National Establishment Time Series may identify establishments as either women-owned or as having a female CEO. In our calculations an establishment is defined as women-owned or managed (WOM) if it is identified as women-owned or as having a female CEO. We assume that the gender of the owner or CEO does not change over the life of the establishment.

less than 14% of Wisconsin's largest employers were women-owned or managed.

On average in Wisconsin, nearly 20% of establishments were women-owned or managed in 2011. The share of WOM establishments does, however, vary across Wisconsin. At the lowest WOM establishments represented 17% of businesses, but over 23% in Price County, and close to 22% in Jackson and Bayfield Counties (Figure 3).

We provide the share of women-owned or managed establishments for each industrial classification in 1990 and 2011 in Figure 4. In every classification the share of WOM establishments increased over the 20-year period signaling greater gender parity across industries. Most recently, educational services, healthcare and social assistance had the largest shares of WOM establishments, reflecting the concentration of women in service and care industries. Management, agriculture, and construction had the lowest shares of WOM establishments at less than 10% in 2011.

We provide the change in the share of WOM establishments by sector for the period from 1990 to 2011 in Figure 5. The share of WOM establishments increased the most in healthcare and social assistance, retail trade, and management sectors. The share of women-led business in healthcare and social

Figure 4: Share of Women-Owned Establishments by Sector

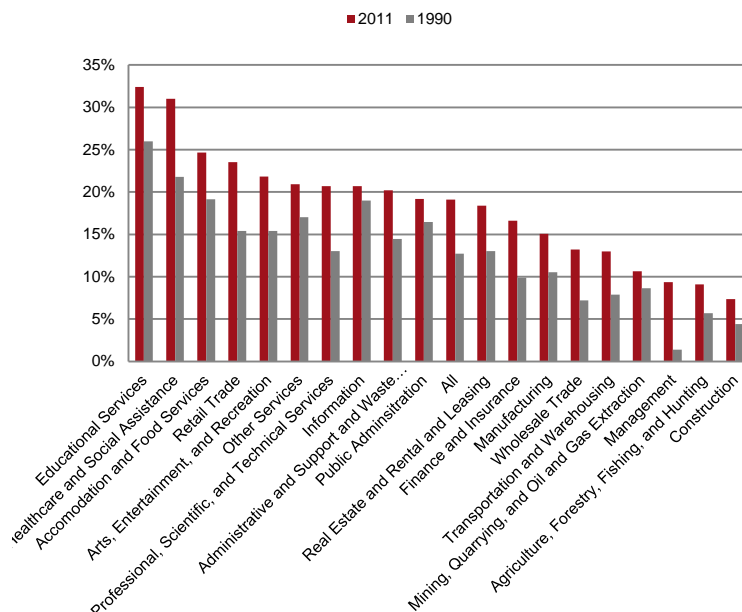
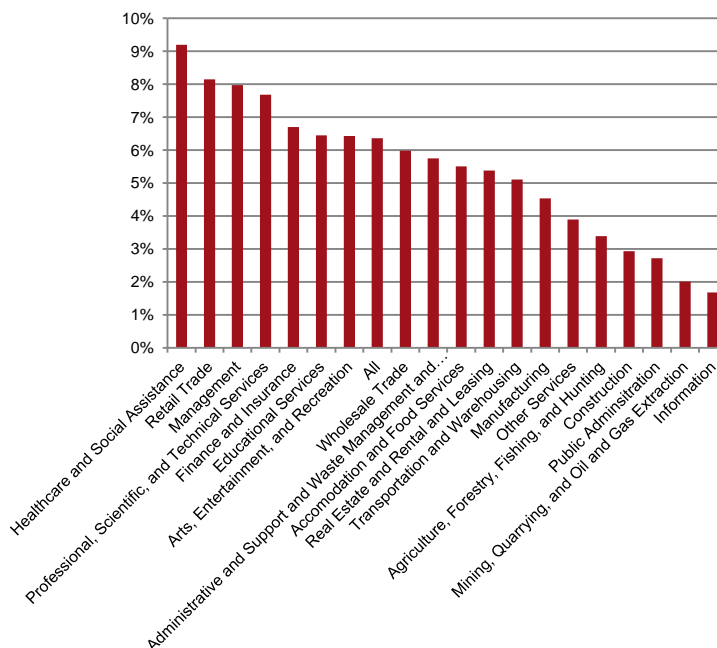


Figure 5: Change in the Share of Women-Owned Establishments by Sector, 1990-2011



assistance grew from 22% of all businesses in 1990 to 31% in 2011, an increase of over 40%. The share of women-led business in retail trade increased from 15% to 24% during the

same period. The increase in WOM businesses in the management sector was the most remarkable going from just over 1% of all businesses in 1990 to nearly 10% in 2011.

Employment

As the number of women-owned and managed businesses in Wisconsin has increased, so has the number of workers they employ. In 1990, WOM businesses employed 300 thousand workers. On average between 1990 and 2000, an additional 12,600 people went to work in WOM businesses each year. By 2000, nearly 550 thousand people worked for a woman business leader. From 2000 to 2011 employment levels were fairly stable despite the growing number of establishments. This could indicate a trend toward leaner businesses with fewer employees or disproportional growth in the number of smaller WOM establishments over the past ten years.

If we explore the share of employment in women-owned or managed establishments for Wisconsin we see that in 1990, women-led businesses employed just over 11% of workers (Figure 7). Similar to the share of WOM establishments, most growth in the share of employment occurred between 1990 and 2000, increasing by five percentage points during the decade.

Figure 6: Employment in Women-Owned or Managed Establishments

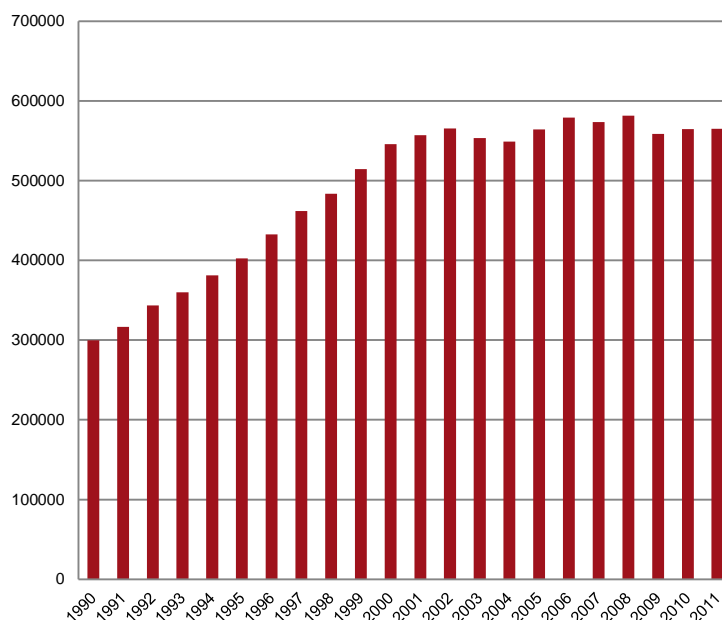
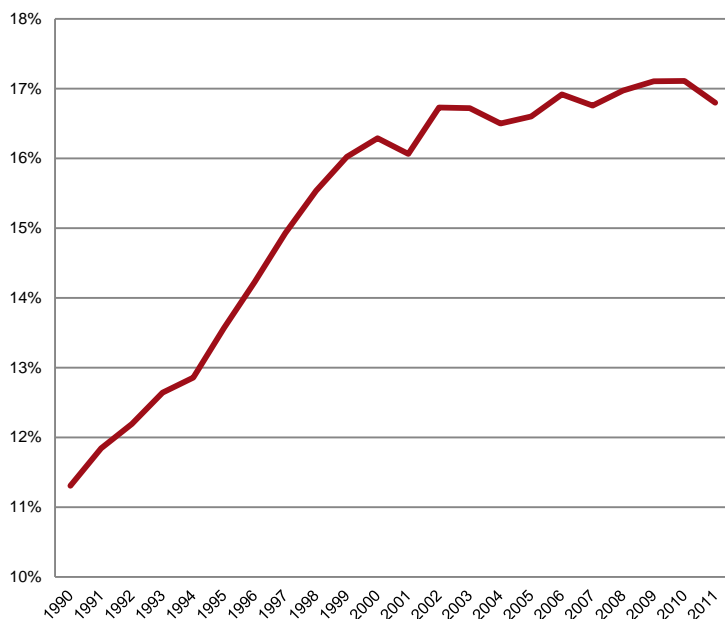


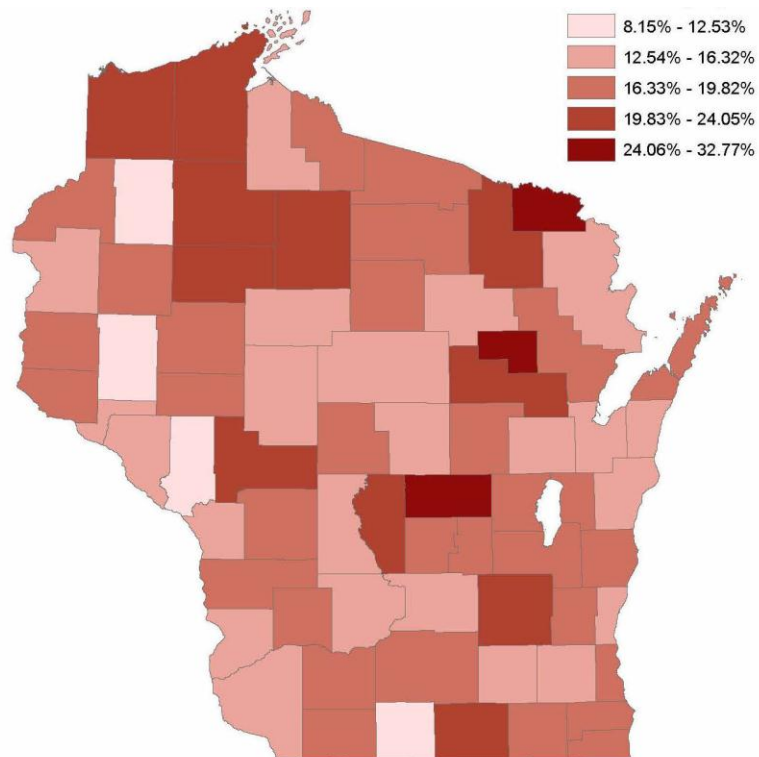
Figure 7: Share of Employment in Women-Owned or Managed Establishments



The share of employment in WOM between 2000 and 2011 stabilized at close to 17%.

On average for the entire state of Wisconsin in 2011, women-owned or managed businesses employed 17% of workers. The state average, however, conceals variation across the state. In Figure 8, we show the share of employment accounted for by women-owned or managed establishments for all Wisconsin counties as of 2011. At the highest, 31% of workers were employed by WOM businesses in Menominee County. At the lowest 8% of workers were employed by WOM establishments.

Figure 8: The Share of Employment in Women-Owned or Managed Establishments, 2011



In Figure 9, we show the share of employment in WOM establishments for each sector in 1990 and 2011. In almost every sector, the share of employment in WOM establishments increased between 1990 and 2011, as could be expected given the increase in establishments. Educational services and healthcare sectors are the two sectors with the largest share of employees who work for women. WOM establishments in the manufacturing, construction, and wholesale trade sectors employ the smallest shares of workers.

Figure 9: The Share of Employment in Women-Owned or Managed Establishments, by Sector

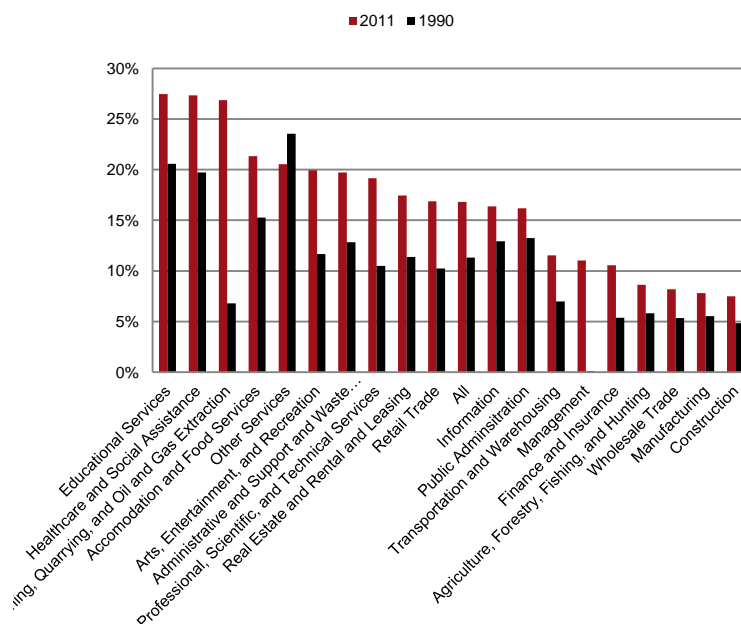
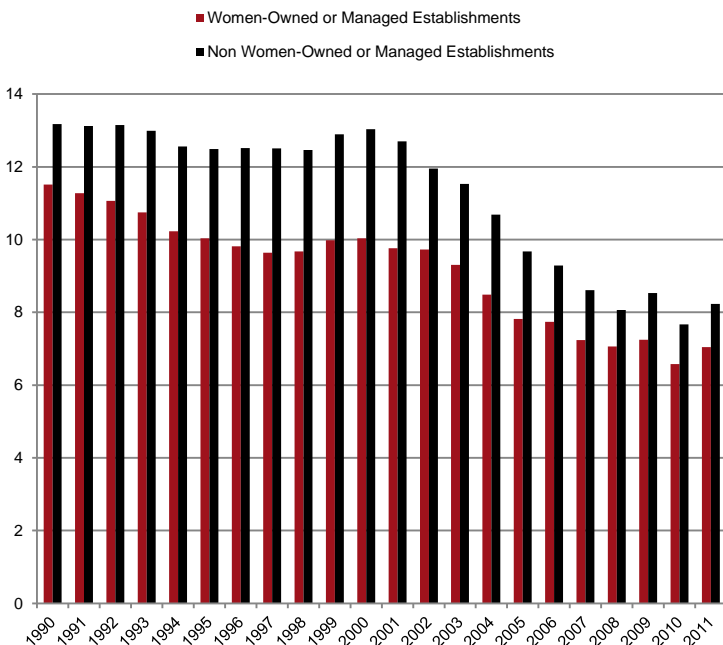


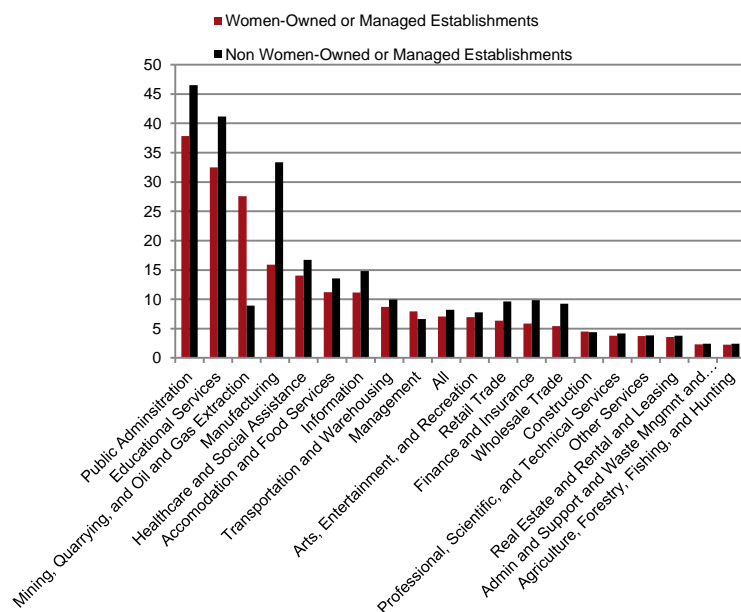
Figure 10: Average Employment Per Establishment



Between 2000 and 2011, the average size of WOM and non-WOM establishments declined by nearly 40% (Figure 10).

Independent of the owner's gender, the leaner business model is likely due, at least in part, to technological advancement and an economy that is shifting toward "micro-entrepreneurs" (Weiler and Conroy 2013). While there is no standard definition of a microenterprise they generally have less than five employees and often the business employs only the owner with no other employees. The difference in average employment between WOM and non-WOM establishments has also narrowed from nearly three employees in 2000 to just over one in 2011.

Figure 11: Average Employment by Sector, 2011

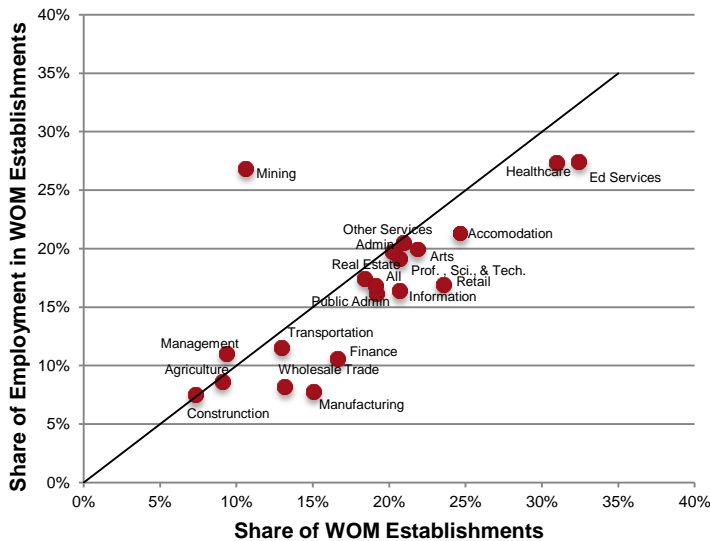


We show the disparity in average employment by sector in Figure 11. In nearly all sectors, average employment in 2011 was higher in non-WOM establishments.

Average employment in non-WOM establishments was greater than WOM establishments by the widest margin (17 employees) in the manufacturing sector.

Average employment was near equal at close to two employees in the agriculture and administrative sectors. This again points to the trend toward more microenterprises and to the growing importance of economic

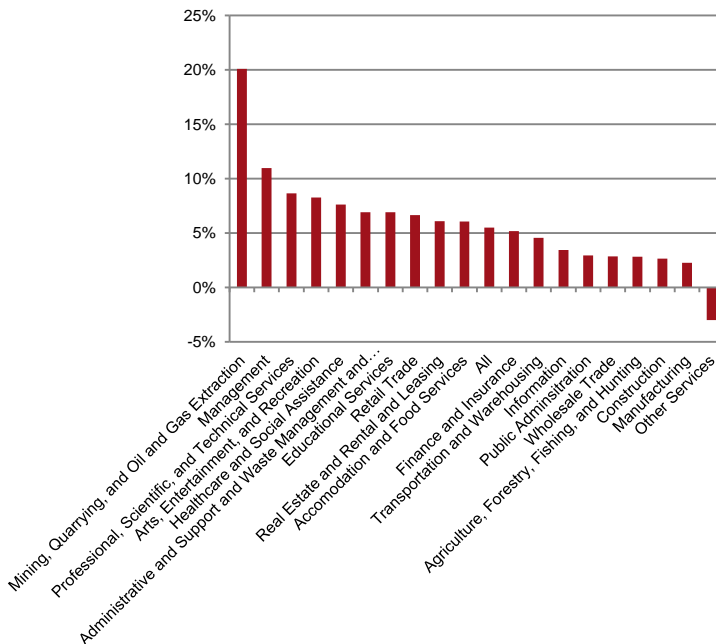
Figure 12: Share of Women-Owned or Managed Establishments vs. Share of Employment in Women-Owned or Managed Establishments , 2011



growth and development policies to reflect that shift.

We compare the share of WOM establishments in 2011 with their share of employment in Figure 12. Each point on the graph represents an industry sector such as manufacturing or construction. The graph shows the percent of WOM businesses in each industry versus the percent of employment in WOM businesses in that industry. Mosts points are below the 45-degree line, indicating that the percent of employment by WOM establishments is less than their concentration in that industry in terms of the number of businesses.

Figure 13: Change in the Share of Women-Owned or Managed Establishments, 1990-2011



We show growth in the share of employment in WOM establishments by sector in Figure 13. Over the study period we see that the share of total employment in Wisconsin that is associated with WOM establishments increased in all industry sectors save for the broad category "other services". The share in mining and quarrying grew the most. Because it is such a small sector, the growth could be explained by the activity in one or just a few establishments. Most sectors grew between five and ten percentage points between 1990 and 2011. While we have noted that much of this occurred in the 1990s the general trend has been

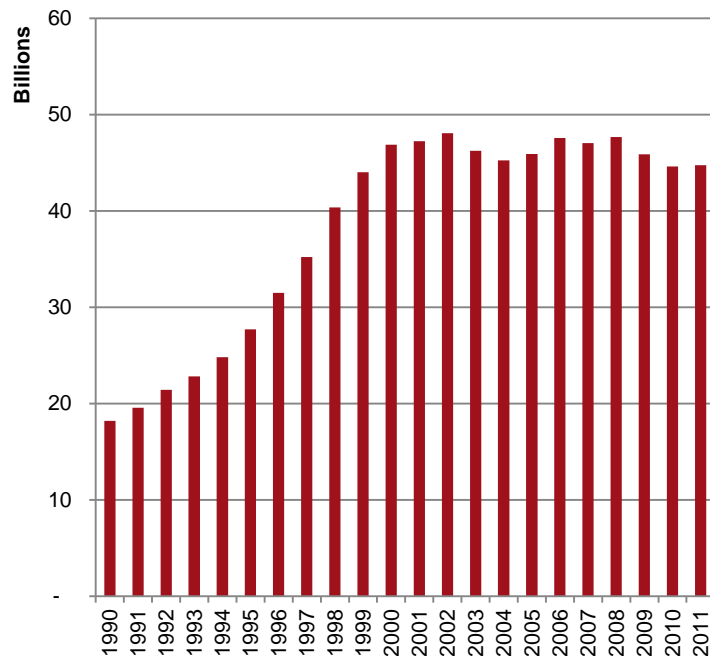
to higher levels of employment in Wisconsin attributed to WOM businesses.

Sales

As we have documented, the number and share of WOM establishments and their employees have increased over the past 20 years. The share of sales attributable to WOM establishments has also increased. Though there is some evidence that the NETS sales figures used for this analysis are biased upward, they are available annually and gender-disaggregated making them a reasonable data source where there is no other publicly available option (see the Data Appendix for a discussion on the limitations of the sales data). While we are confident in the establishment and employment data from NETS, we suspect the sales data are less precise.

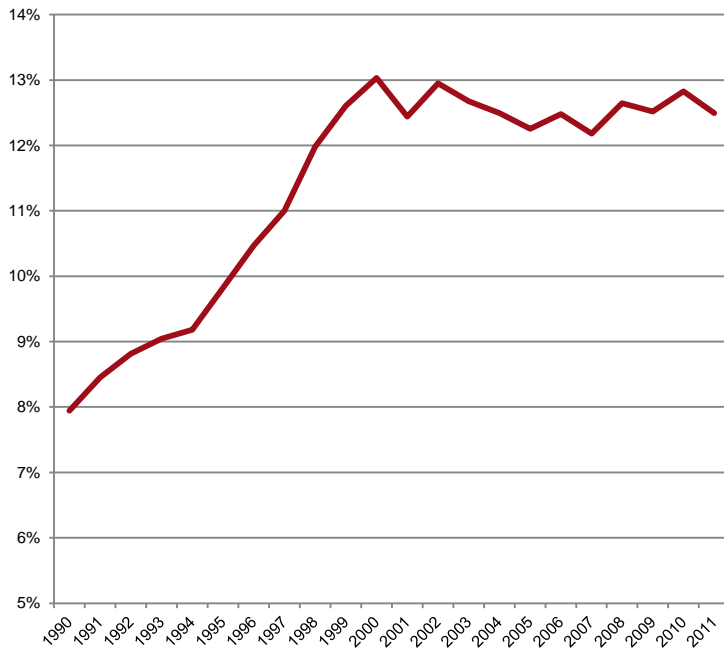
In Figure 14, we show sales earned by women-owned or managed establishments annually in Wisconsin from 1990 to 2011. Total sales earned by WOM establishments generally follow the same pattern as establishments and employment, increasing consistently in the 1990s and stabilizing between 2000 and 2011. Sales more than doubled across the 20-year period, but growth was low compared to growth in the number of establishments, which nearly tripled during the same period.

Figure 14: Sales Earned by Women-Owned or Managed Establishments



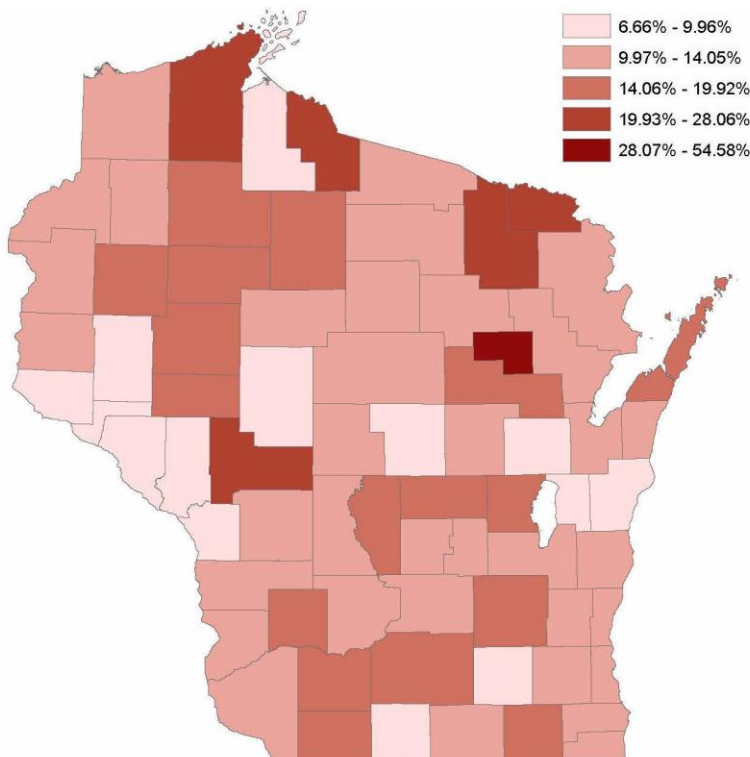
The share of sales earned by WOM establishments in Wisconsin increased from 8% in 1990 to 13% in 2000 (Figure 15). Between 2000 and 2011, sales in WOM establishments fluctuated slightly, but less than might be expected given the recession. Sales remained above 12% for the entire 11-year period.

Figure 15: Share of Sales Earned by Women-Owned or Managed Establishments



In Wisconsin, women-owned and managed businesses earned 12.5% of 2011 sales. Within the state the share of sales differs considerably by county (Figure 16). At the highest, WOM businesses earned more than half of all sales, but well below 10% in other counties. As with other metrics of WOM businesses, there appears to be a higher concentration in the northern counties.

Figure 16: Share of Sales Earned by Women-Owned or Managed Establishments, 2011



WOM establishments earn roughly 12.5% of sales in Wisconsin (Figure 15), however the share varies by sector (Figure 17). WOM businesses earned the largest share of sales in the Educational Services sector. WOM establishments also earned a large share of sales in the Arts, Entertainment, and Recreation sector but small shares in Construction and Manufacturing. Perhaps most important are the changes from 1990 to 2011. Other than “other services” the share of sales attributable to WOM businesses increased across all sectors. For example, in retail trade WOM businesses accounted for 7.4% of all sales in 1990 and 12.4% in 2011, an increase of 68%. For all businesses the share of sales attributed to WOM business increased from 7.9% in 1990 to 12.5% in 2011, an increase of 57%.

Average sales earned by non-WOM establishments was consistently higher than that earned by WOM establishments in every year from 1990 to 2011 (Figure 18). Generally, WOM establishments earned half to two-thirds of sales earned by non-WOM establishments. Similar to the downward trend in average employment, average sales have also declined in WOM and non-WOM establishments alike. Average sales in each category of ownership fell by over 35% between 2000 and 2011, again reflecting a trend toward smaller business.

Figure 17: Share of Sales Earned by Women-Owned or Managed Establishments by Sector

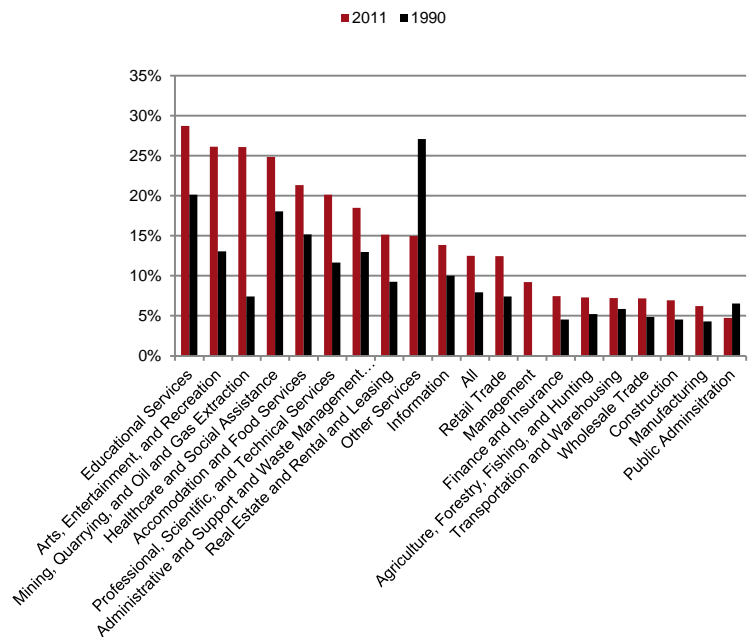
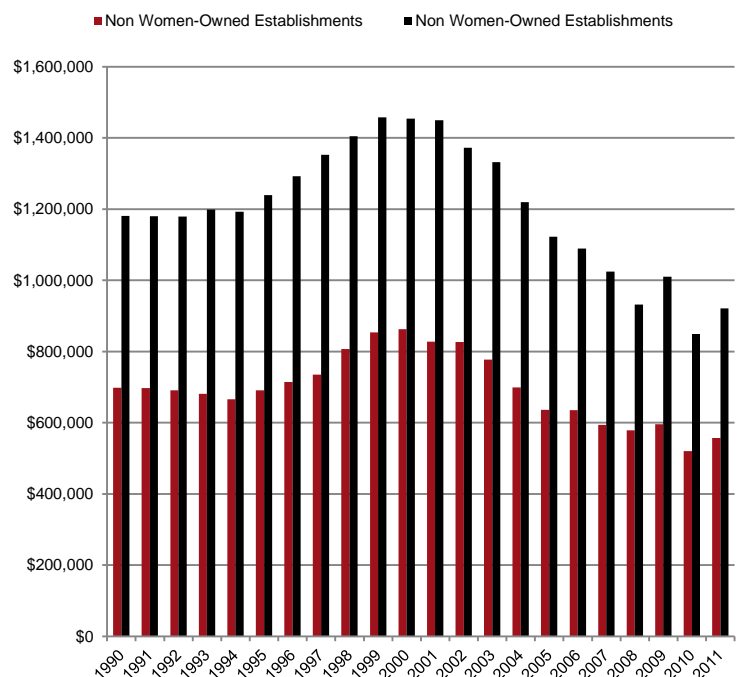
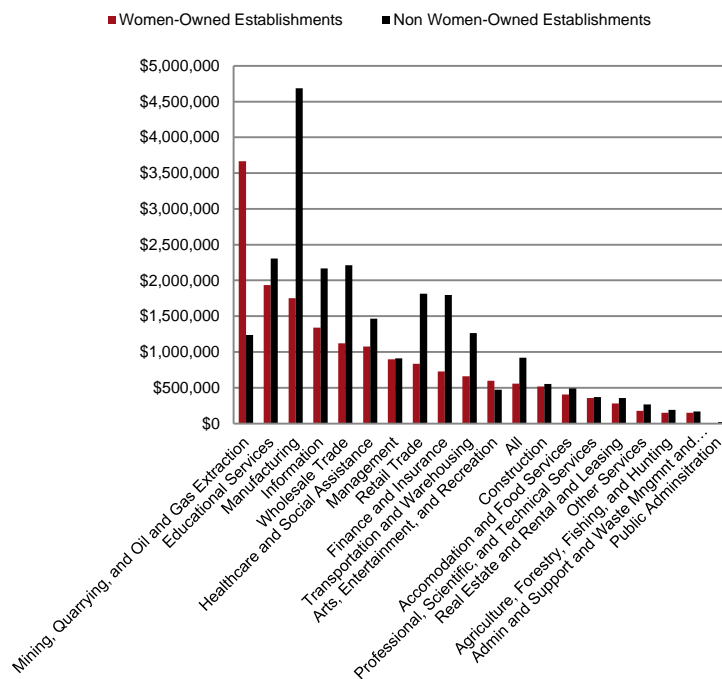


Figure 18: Average Sales



In Figure 19, we show average sales in WOM and non-WOM establishments by sector in 2011. For the “average” business in Wisconsin a non-WOM business had sales of \$921,000 in 2011 and the average WOM business had sales of just under \$557,000. Clearly, the disparity in average sales is largest in manufacturing, where non-WOM establishments earn nearly triple the sales of WOM establishments. Similarly, in the wholesale trade sector, non-WOM establishments earn double the average sales in WOM establishments. WOM establishments out earn their counterparts in only a few sectors, namely, the arts and mining sectors.

Figure 19: Average Sales By Sector



In the graph at right (Figure 20), we compare the share of WOM establishments in 2011 with their share of sales for each sector in the economy. As in Figure 12, most points are below the 45-degree line, indicating that the percent of sales earned by WOM establishments is less than their concentration in that sector. Across the Wisconsin economy, women-owned firms earn disproportionately low sales compared with non-women owned businesses.

Figure 20: Share of WOM Establishments vs. Share of Sales in WOM Establishments, 2011

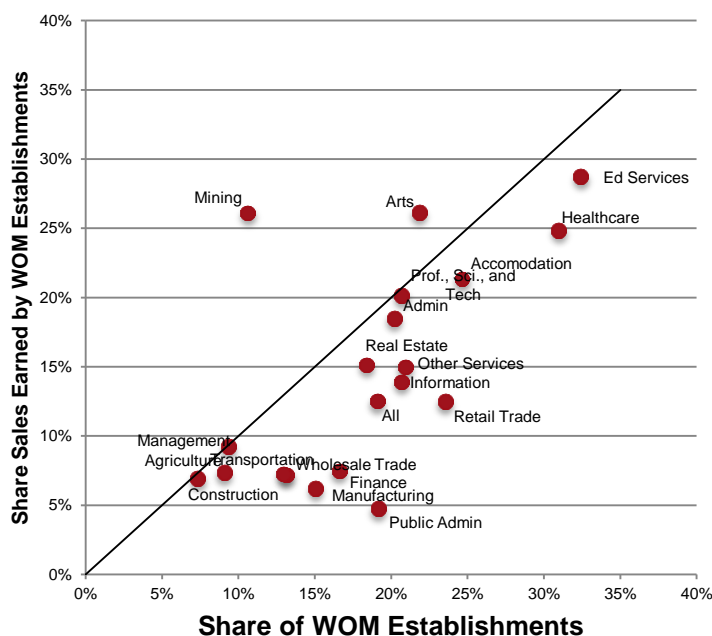
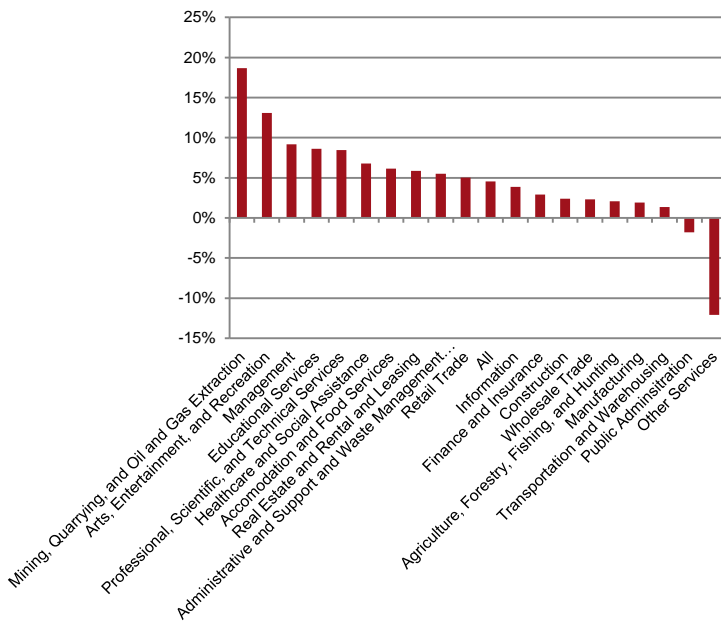


Figure 21: Change in the Share of Sales Earned by Women-Owned or Managed Establishments



In most sectors, the share of sales earned by WOM establishments grew between 1990 and 2011. In the mining sector, the share of sales in WOM establishment grew nearly 20 percentage points, the largest increase of any sector, which may be the result of one or very few businesses given that it is small sector. The share of sales earned by women-led businesses in the arts sector increased by close to 15 percentage points. Unlike most sectors, the share of sales earned by WOM establishments decreased in the broadly defined Other Services sector.

Sector Analysis

In this section of the report we provide graphical analysis for selected sectors showing the share of women-owned or managed establishments in each sector as well as their share of sales and employment annually from 1990 to 2011. The sectors are among those with the largest shares of WOM establishments as of 2011. This analysis is descriptive and should be viewed as a broad overview of each sector.

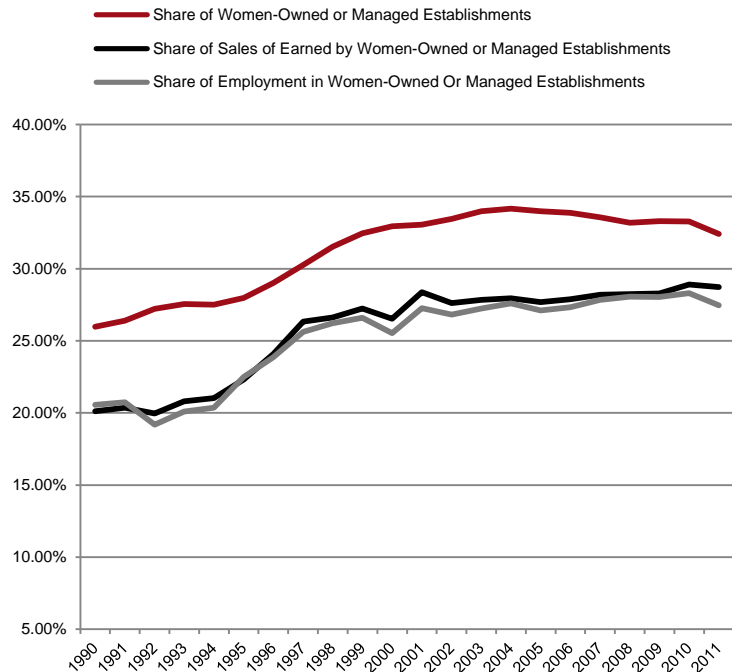
Educational Services

The educational services sector includes establishments that provide instruction and training across many subjects. It includes elementary, secondary, and higher education establishments as well as technical and trade schools. This sector does *not* include public education institutions but rather reflects private schools. This could also include early childhood educational centers. The share of WOM establishments, their share of employment, and their share of sales generally increased consistently between 1990 and 2002, stabilizing thereafter. As of 2011, educational services had the largest share of WOM establishments at well over 30%.

Health Care and Social Assistance

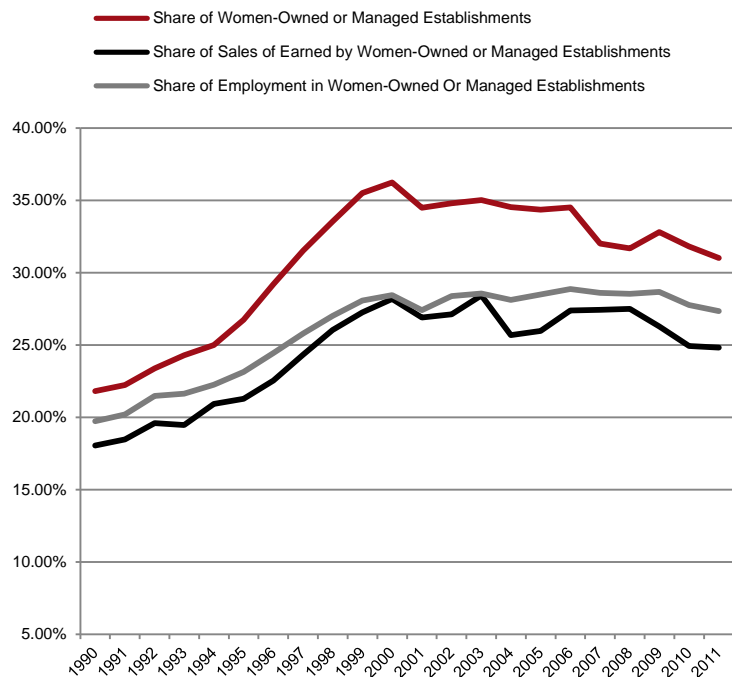
Establishments in the health care and social assistance sector include establishments where health

Figure 22: Educational Services



professionals and social workers provide

Figure 23: Healthcare and Social Assistance



their services such as hospitals and

residential care facilities. Again, this would exclude those in the public sector. The share of WOM establishments in this sector grew in the 1990s but stalled in 2000s. As we show in Figure 23, the share of WOM establishments was actually lower in 2011 than in 2000. Despite the decrease, the health care and social assistance sector had the second largest share of WOM establishment as of 2011.

Accommodation and Food Services

The accommodation and food services sector includes restaurants and drinking places, as well as hotels and resorts, and is commonly associated with the tourism and recreation industries. The share of WOM establishments seemed to have peaked in the late 1990s at close to 30% and gently declined since then, with the share of sales and employment following roughly the same pattern. Still, in 2010, 25% of establishments were women-owned or managed and generated 20% of sales and employment.

Retail Trade

The retail trade sector includes retailers of all sorts such as car dealerships, clothing stores, grocery stores, and gas stations. The share of WOM establishments, their sales, and employment all followed similar growth patterns from 1990 to 2011. In this sector in particular, the share of sales and employment are much lower than the share of establishments, a

Figure 24: Accommodation and Food Services

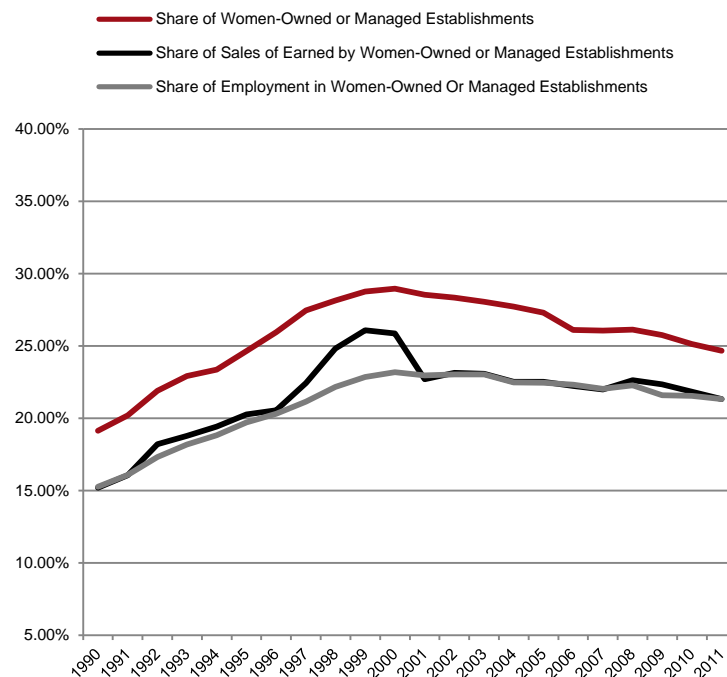
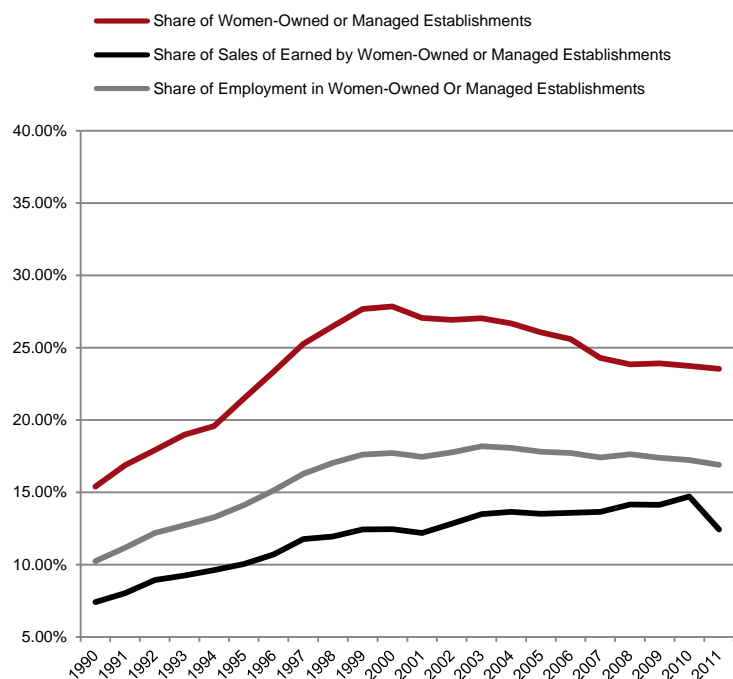


Figure 25: Retail Trade



reflection of lower average sales and employment in WOM establishments.

Arts, Entertainment, and Recreation

In the arts, entertainment, and recreation sector, establishments are engaged in the performing arts, spectator sports, gambling, and recreation. The share of WOM establishments grew mostly in the 1990s, reaching approximately 25% in 1999 and fluctuating little in the 2000s. The share of sales and employment grew fairly consistently each year reaching over 20% in 2010.

Information

The Information sector includes the publishing, motion picture and sound recording, broadcasting, telecommunications, and data processing industries. The share of WOM establishments in information was fairly stable compared to other sectors, starting and ending the study period at roughly 20%. In general, sales and employment were more volatile.

Figure 26: Arts, Entertainment, and Recreation

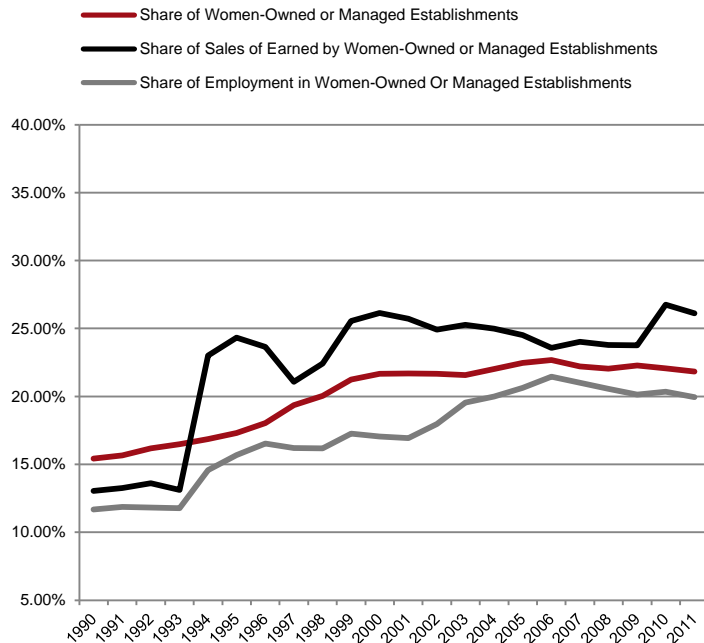


Figure 27: Information

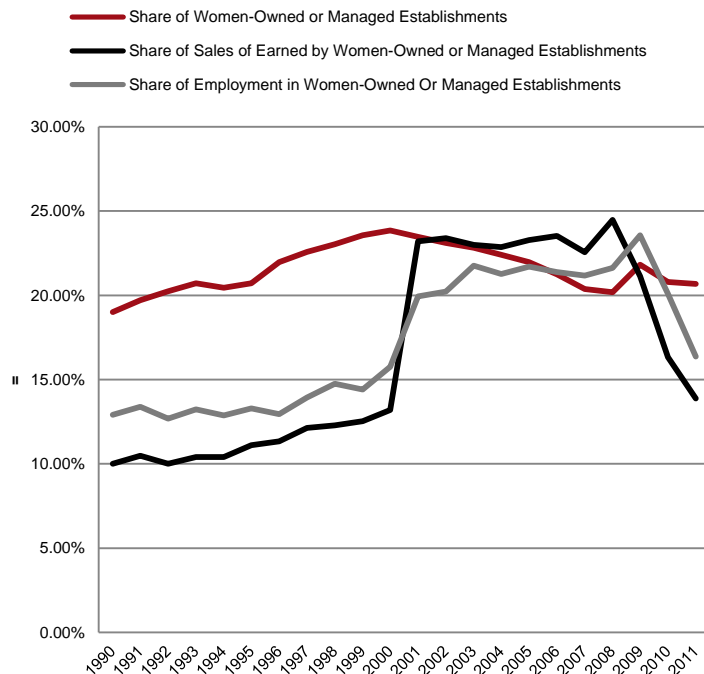


Figure 28: Professional, Scientific, and Technical Services

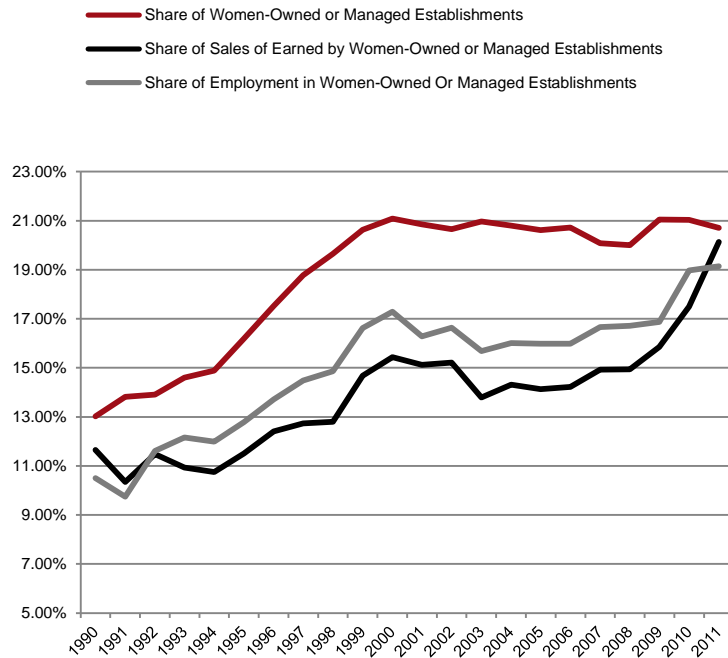
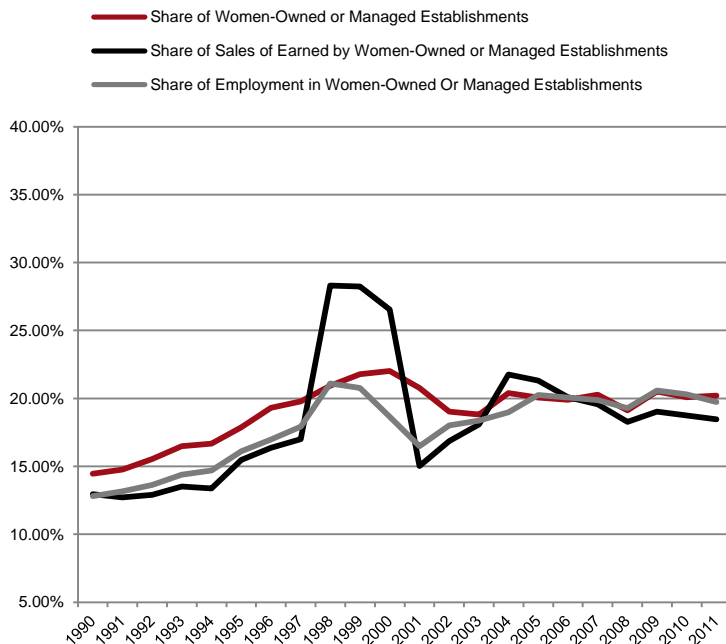


Figure 29: Administrative and Support and Waste Management and Remediation Services



Professional, Scientific, and Technical Services

The professional, scientific, and technical services sector includes law and consulting firms, veterinary practices, as well as architectural and engineering companies. It can also include computer software development companies. In general, establishments in this sector engage in activities that require a high degree of training and expertise. The growth in this sector is consistent with the trends in education outcomes by gender. Women have earned the majority of bachelor's degrees since 1996 and surpassed men in graduate degrees in 2010 (Canning et al. 2012).

Administrative and Support and Waste Management and Remediation Services

Establishments in this sector provide routine services essential to the daily operation of other businesses such as human resource activities, office administration, security and surveillance, grounds keeping, and maintenance. Administration and Support is one of few sectors where the WOM share of sales and employment are roughly equal to the share of establishments instead of disproportionately low.

Discussion and Conclusion

Women-owned or managed businesses have become an important part of the Wisconsin economic growth and development process. The decade of the 1990s experienced significant growth in women-owned or managed (WOM) businesses but growth slowed during the 2000s. In 2011, women-owned or managed nearly one in five (19%) of all businesses in Wisconsin. That translates into 80,000 businesses, which employ over 550,000 workers and earn \$45 billion in sales.

Within the context of national averages, Wisconsin has a relatively low-rate of female business ownership and this presents an opportunity for economic growth and development. In addition, compared to other Wisconsin businesses, WOM businesses tend to be smaller in terms of employment and sales. Though there is some evidence that women-owned businesses are fewer and smaller at least partly by choice, there is also evidence that women-owned businesses face constraints that inhibit growth. Addressing these obstacles through policy could prove an effective strategy for equitably enhancing local business ownership.

Tapping into women business leaders, a currently underutilized economic resource, could result in a number of advantages for businesses and communities. Recent research points to a number of benefits from female business leadership:

- Based on peer-evaluations, women are more effective leaders than men (Paustian-Underhaul et al. 2014).
- Having a female CFO and a gender-diverse board of executives can lead companies to make more ethical decisions (Weng 2015).
- Businesses with women on their boards outperform their peers with all male boards in share price performance (Credit Suisse Research Institute 2012).
- Fortune 500 companies with a more diverse board of directors, specifically a relatively large share of women members, outperform their peers in return on sales (Catalyst 2011).
- Innovative businesses with more women in top management perform better than businesses dominated by men (Dezso and Ross 2012).
- Companies with more gender diversity have more customers, increased sales revenue, and greater profits relative to similar businesses (Herring 2009).
- Women-owned firms are less likely than firms owned by men to lay off workers during an economic downturn (Matsa and Miller 2014).

The evidence suggests that women can be exemplary managers and ethical decision-makers. Having women in upper-level management position enhances firm performance and broadens the consumer base. Women-owned businesses also contribute to job

creation and stability within their communities. In order to take advantage of the potential of women business owners, a community may

need to consider policy interventions that address issues relevant to women business owners.

References

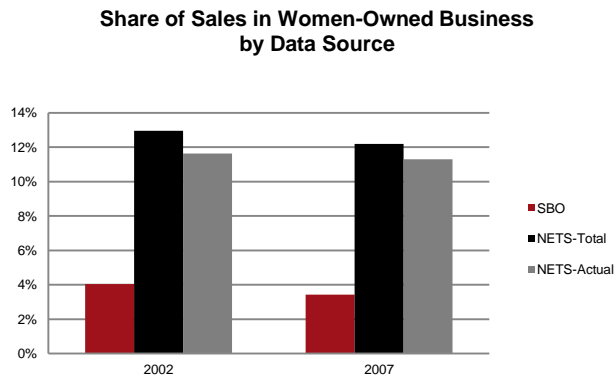
- Canning, Jessica, Maryam Haque, and Yimeng Wang. (2012). *Women at the Wheel: Do Female Executives Drive Start-Up Success*.
- Carter, Nancy M. (2011). *The Bottom Line: Corporate Performance and Women's Representation on Boards (2004-2008)*. Print.
- Credit Suisse Research. (2012). "Gender Diversity and Corporate Performance." Print.
- Dezső, Cristian, and David Gaddis Ross. (2012). "Does Female Representation in Top Management Improve Firm Performance? A Panel Data Investigation." *Strategic Management Journal* 33: 1072–1089.
- Fairlie, Robert W., and Alicia M. Robb. (2009). "Gender Differences in Business Performance: Evidence from the Characteristics of Business Owners Survey." *Small Business Economics* 33(4): 375–395.
- Gilblom, Kelly. (2015). "More Female Executives Means Less Tax Evasion , Study Finds." *Bloomberg Business* <http://www.bloomberg.com/news/articles/2015-02-12/more-female-executives-means-less-tax-evasion-study-finds>
- OECD. (2004). *Women's Entrepreneurship: Issues and Policies*. Istanbul.
- Paustian-Underdahl, Samantha C., Lisa Slattery Walker, and David J Woehr. (2014). "Gender and Perceptions of Leadership Effectiveness : A Meta-Analysis of Contextual Moderators." *Journal of Applied Psychology* 99(6): 1129–1145.
- U.S. Department of Commerce, Economics and Statistics Administration. (2010). *Women-Owned Businesses in the 21st Century*. Washington, DC.
- Weiler, Stephan, Tessa Conroy, and Michael Yeadon. (2013). *Colorado Innovation Report*. Denver, CO.
- White, Gillian B. (2015). "For Less Corporate Fraud, Add Female Executives." *The Atlantic*. Feb.

Data Appendix

Data Description

The National Establishment Time Series (NETS) is a database of U.S. establishments continually updated by Dun & Bradstreet (D&B) in partnership with Walls & Associates. The University of Wisconsin Center for Cooperatives has access to data on U.S. business establishments and their parent firms from 1990 through 2011, the most recent year available. The NETS database is uniquely detailed providing an important advantage over other available data sources. The data includes the gender of the CEO and an indicator for the gender of the owner.

The sales data reported by NETS, if not the actual figure, is an estimate by Dun & Bradstreet or Walls & Associates. Some of the estimates are based on industry sales per employee, which may bias sales upward for women-owned or managed establishments. The NETS estimates of the share of sales earned by women-owned or managed establishments in Wisconsin counties are approximately 3x higher than firm-level estimates from the 2002 and 2007 Survey of Business Owners (SBO) conducted by the U.S. Census Bureau.



County Estimates: 2011

	Share of WOM Establishments	Share of Sales Earned by WOM Establishments	Share of Employment in WOM Establishments			Share of WOM Establishments	Share of Sales Earned by WOM Establishments	Share of Employment in WOM Establishments
Adams	20.80%	14.38%	21.73%		Marathon	17.69%	13.73%	14.32%
Ashland	19.58%	9.39%	14.43%		Marinette	18.38%	11.85%	14.74%
Barron	18.96%	15.25%	19.32%		Marquette	19.64%	11.65%	16.63%
Bayfield	21.84%	23.44%	22.52%		Menominee	21.70%	53.84%	30.67%
Brown	19.28%	10.31%	15.46%		Milwaukee	19.55%	13.89%	17.60%
Buffalo	17.09%	8.06%	13.17%		Monroe	19.21%	12.64%	16.77%
Burnett	19.82%	10.72%	17.03%		Oconto	18.17%	11.69%	15.18%
Calumet	18.76%	8.68%	18.83%		Oneida	19.17%	14.62%	17.11%
Chippewa	18.01%	15.76%	18.75%		Outagamie	17.99%	9.37%	15.85%
Clark	16.84%	6.19%	14.75%		Ozaukee	19.02%	13.17%	15.71%
Columbia	18.65%	16.01%	17.00%		Pepin	18.66%	8.89%	13.31%
Crawford	21.54%	9.71%	13.11%		Pierce	18.92%	11.22%	17.71%
Dane	20.08%	14.36%	17.36%		Polk	18.77%	11.19%	15.79%
Dodge	18.54%	20.18%	23.33%		Portage	19.26%	8.55%	12.57%
Door	20.98%	14.73%	17.71%		Price	23.54%	13.98%	21.51%
Douglas	19.29%	12.71%	20.49%		Racine	19.61%	13.24%	16.37%
Dunn	19.18%	8.87%	10.45%		Richland	19.23%	13.41%	17.99%
Eau Claire	19.21%	16.87%	16.51%		Rock	19.90%	13.51%	19.74%
Florence	20.17%	21.29%	26.65%		Rusk	20.98%	15.68%	21.24%
Fond du Lac	19.31%	10.59%	15.77%		St. Croix	17.76%	11.69%	17.42%
Forest	19.92%	0.71%	22.40%		Sauk	20.28%	14.58%	16.69%
Grant	18.11%	11.96%	14.25%		Sawyer	21.24%	22.86%	24.65%
Green	19.26%	8.87%	12.38%		Shawano	18.80%	17.61%	20.30%
Green Lake	17.61%	12.01%	17.17%		Sheboygan	19.47%	13.50%	17.50%
Iowa	18.60%	13.18%	19.36%		Taylor	18.04%	10.44%	12.85%
Iron	18.19%	23.23%	13.46%		Trempealeau	18.20%	6.32%	8.22%
Jackson	21.87%	26.56%	23.38%		Vernon	19.16%	10.82%	18.28%
Jefferson	19.10%	8.47%	13.68%		Vilas	19.67%	10.00%	16.90%
Juneau	19.94%	11.99%	13.58%		Walworth	18.97%	14.21%	17.16%
Kenosha	19.39%	13.12%	17.86%		Washburn	19.04%	11.36%	11.40%
Kewaunee	16.20%	13.17%	15.20%		Washington	17.66%	12.18%	16.95%
La Crosse	18.53%	9.19%	13.97%		Waukesha	18.10%	11.10%	15.35%
Lafayette	17.99%	15.45%	19.27%		Waupaca	19.07%	11.67%	17.59%
Langlade	18.51%	14.66%	16.18%		Waushara	21.65%	21.78%	27.57%
Lincoln	20.03%	12.31%	17.75%		Winnebago	18.84%	16.44%	19.15%
Manitowoc	18.06%	8.91%	14.53%		Wood	18.22%	10.02%	19.43%