

**THE ECONOMIC OUTLOOK FOR
WASHTENAW COUNTY
IN 2010–12**

Prepared by

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Prepared for



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The Economic Outlook for Washtenaw County in 2010–12

By GEORGE A. FULTON, research professor, and DONALD R. GRIMES, senior research specialist, Institute for Research on Labor, Employment, and the Economy, University of Michigan

Introduction

With this year's outlook for the Washtenaw County economy, we have reached a milestone—this marks the twenty-fifth year we have produced a forecast for the local community. To reflect on how much time has passed since we first dabbled in this venture: When we published our inaugural forecast in the local newspaper in early 1986, Ronald Reagan was president, Jim Blanchard was governor, Ed Pierce was mayor of Ann Arbor, and Harold Shapiro, who was on the ground floor of developing the economic models we use to generate our forecasts, was president of the University of Michigan. In the sports world, Olympic gold medal swimmer Michael Phelps was born about the time our first forecast was released and Michael Jordan was soon to be named NBA rookie of the year.

In 1986, the local economy was entering the mature stage of a recovery from a severe downturn earlier in the decade, and our primary task was to anticipate how much longer we could sustain the good times. At that time we were also witnessing an apparent permanent shift away from manufacturing activity and toward a more service- and retail-based economy, with emphasis on the more technology-oriented service economy.

Fast-forward to 2010. As in the early 1980s, we've suffered through a severe downturn, but unlike the mid-eighties, it does not feel like we have emerged from the pain. In 2008, the county lost 3,883 jobs and the unemployment rate moved up to 5.9 percent, its worst economic performance since 1991. That was followed by the events of 2009, when job loss accelerated to 5,858 workers (by our estimate) and the unemployment rate soared to 8.8 percent. But it does

appear that conditions improved in the second half of 2009. For the residents of Washtenaw, it's been a long night's journey toward daylight, and our main task in this year's outlook is to tell the community if we see any sunbeams.

As in 1986, our charge this year is also to sort out the movements in individual industry sectors, and again to evaluate where the local economy should be heading in order to play to its assets and ensure longer-term economic prosperity. When we compare the messages in our first report with those in our latest study, we're struck by the adage, "the more things change, the more they stay the same." And for Washtenaw County's prospects, that's mostly a good thing. There's more in the report on comparing the county economies of 1986 and 2010, and much more on where we're heading from here.

The local forecast is generated from a regional model constructed specifically for this study at the University of Michigan's Institute for Research on Labor, Employment, and the Economy. We now move to a review of 2009, to see how difficult a year it was for the Washtenaw County economy and to gauge how well we anticipated developments as 2009 began.

Review of the Forecast for 2009: A Report Card

A year ago (March 22, 2009), our twenty-fourth annual economic outlook for Washtenaw County (coterminous with the Ann Arbor metropolitan area) was published in the Ann Arbor News Outlook edition. Last year's forecast of employment, unemployment, and inflation for 2009 can now be compared with estimates of the outcome for that year, to see how accurate our forecast was.

In our very first forecast report, prepared in February 1986, we observed that "Economic forecasting on a local level is a challenging endeavor, complicated by the problems of limited

data availability and sensitivity of the economic profiles to actions of individual firms.” In that regard, nothing has changed; it is as difficult an undertaking as ever. Some years are even more difficult, though, and 2009 was such a year. One recurring theme in descriptions of last year’s economy, both at the national and regional levels, was the uncertainty hovering over its developments.

How was our performance in forecasting county job growth for 2009 when we took on the task last March? Our record is summarized in table 1. Our forecast error for overall job growth was 1.0 percent, or one worker per 100. (For perspective, this error rate is equivalent to landing a tee shot six feet from the pin on a 200-yard hole in golf). We did expect another down year for employment in Washtenaw County, but we did not nail the severity of the downturn. Our error was our largest since 2003, and exceeded our average error over the past twenty-four years of 0.6 percent. Considering the significant uncertainties characterizing last year’s economy, however, for us this forecast was one of the most successful—perhaps only exceeded in satisfaction by the three years where we recorded errors of zero.

The industry details underlying last year’s forecast record on job growth tell us something about our overshoot. Among the major industry divisions, three errors stand out; for the rest of the divisions, our errors were relatively small despite the unexpected twists in the local economy. We under-predicted the losses that transpired in the trade, transportation, and utilities (TTU) sector and the professional and business services sector, and we under-predicted the gains in government. For TTU, the errors were concentrated in transportation and warehousing and retail trade, with our largest misses in retail associated with an overly optimistic outlook for food stores and book stores. For professional and business services, we were too bullish on high-wage industries such as engineering, computer systems design, and

Table 1
Report Card:
Track Record over the Years

Year of forecast	Percentage forecast error for total jobs
1986	-1.4
1987	-0.8
1988	-1.2
1989	-0.6
1990	+0.8
1991	+1.4
1992	+0.5
1993	+1.3
1994	n.a.
1995	+0.2
1996	+0.3
1997	+0.4
1998	-0.5
1999	0
2000	0
2001	+0.3
2002	+0.3
2003	+1.0
2004	+0.2
2005	+0.4 (estimate)
2006	+0.7
2007	0
2008	+0.6
2009	+1.0

(Positive numbers indicate that the forecast was too high;
negative, too low.)

Average absolute forecast error 1986-2009: 0.6%

	Forecast 2009	Actual 2009
Unemployment rate	8.2%	8.8%
Consumer inflation rate	-1.0%	-0.7%

Forecast date: March 2009

technical consulting, as well as on lower-paid temporary employment services. We did anticipate that the government sector would grow, but its expansion was much stronger than what we had pegged. All of the net growth in the public sector occurred in state government, whose major components are Eastern Michigan University and both the campus and health system of the University of Michigan.

The observed and forecast numbers for the unemployment and local consumer price inflation rates in 2009 are reported at the bottom of table 1. By not fully capturing the weakness in employment, we were also too optimistic on the unemployment rate. We correctly anticipated that the rate would move up dramatically in 2009 from its reading of 5.9 percent for 2008, but our prediction was only 8.2 percent, not the rate of 8.8 percent now recorded. We were closer on local consumer inflation, which registered a 0.7 percent decline compared with our forecast decline of 1.0 percent.

It appears that 2010 will be another challenging year for the business of forecasting. Before we attempt to see where we're heading beyond 2009, we first reverse direction and visit 1986, when it all started for us in scoping out the Washtenaw outlook.

Washtenaw County's Economy Yesterday and Today

In the premise of a movie now showing, a hot tub doubles as a time machine that transports its occupants back to 1986, where of course much is different and there are both ironies and foreshadowing for those with knowledge of 2010. For our purpose here, it is both amusing and informative to look back on the Washtenaw County economy in 1986, to see how our observations then correlate with what we see happening now. To travel back to 1986, our time machine is the first of our twenty-five annual forecast reports that we have provided to the local community, which was published on February 4, 1986.

Some general economic measures remind us of how long ago 1986 seems: the price of a first class postage stamp was 22 cents, world oil prices dipped below \$10 a barrel, and the Dow Jones Industrial Average hit a record level of 1955.57. To focus more on the Washtenaw economy, we have extracted half a dozen statements or themes from our inaugural report and displayed them in table 2, paired with commentary based on what we know now in 2010.

Table 2
The Washtenaw County Economy Yesterday and Today

According to our first forecast report in 1986:	What we know now in 2010:
1. Washtenaw County has long been one of the jewels in the state's economic crown.	1. Still true today.
2. Per capita income has grown rapidly in Washtenaw.	2. Washtenaw held a high ranking among U.S. metro areas for per capita income until 2001, but has slipped significantly since then.
3. A number of manufacturing jobs have been lost permanently.	3. The beat goes on: Almost 34,000 county jobs in manufacturing in 1990 had shrunk to 12,700 by 2009; motor vehicle manufacturing employment declined from about 19,000 in 1990 to 4,000 in 2009 . . . with more losses to come.
4. Jobs were acquired chiefly in services and retail trade.	4. Since 2001, retail has lost 3,100 jobs, and in the current forecast is not seen as a growth sector over the next several years.
5. Washtenaw County has a disproportionate share of its service employment in the high technology sector.	5. Still true, and these research-oriented jobs with a high scientific content remain one of the foundations for longer-term prosperity locally.
6. Our focus is on the quality of jobs being created locally: higher-paying, high-skilled jobs requiring advanced education.	6. This focus continues, and the numbers in the current forecast put forward the notion that future economic prosperity will be even more linked to an educated work force.

The first two statements in the table on the era of 1986 speak to the overall stature of the Washtenaw economy: a jewel in the state's economic crown with rapidly growing per capita income, often considered the single-best measure of economic welfare. Still a jewel indeed in 2010, but Washtenaw's ranking on per capita income among the metro areas of the nation has slipped precipitously since 2001. This will be discussed further in the next section of the report.

The next two statements on the era of 1986 point to major changes in industry mix at that time: the permanent loss of manufacturing jobs and the growth in services and retail trade. Of course, the collapse in the number of manufacturing jobs, particularly those related to the auto industry, is a major story in the 2010 economy, but it is interesting that concerns about manufacturing go that far back, and that we anticipated those trends would continue. Retail, touted as an industry of promise twenty-five years ago, has also struggled the past several years, and has little prospect of being viewed as a notable growth sector over the next several years.

The final two statements in the table go to the heart of where Washtenaw's potential for long-term prosperity does lie: higher-paying, high-skilled jobs requiring advanced education, including, but certainly not limited to, high technology. This was the focus of the report in 1986, and it remains the focus of the current report. This will become most apparent in our local forecast section—but to lay the groundwork for the forecast, we first need to establish where we are at present in the local economy. We now turn to that task.

The Current State of Washtenaw County's Economy

In this section we come back from 1986 to the 2000s, with the purpose of forming a better picture of the current economic situation in Washtenaw County. We first look at how the county economy has performed recently by examining its path for total establishment employment since 2002. Following that, we assess the profile of the county economy with the

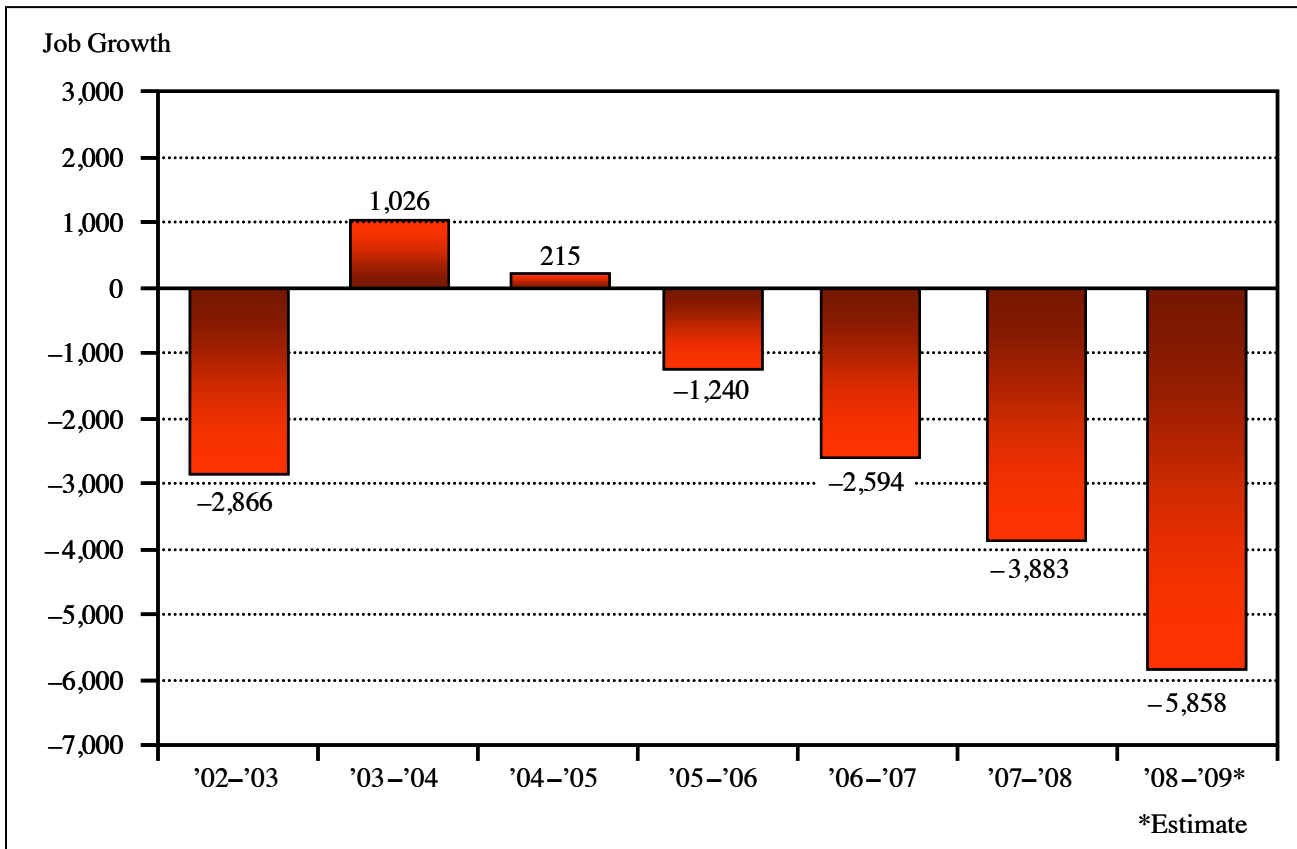
unemployment rate as the measure of performance. Finally, we evaluate the performance of the local economy based on measures of income compared with the United States and its metropolitan areas.

Employment Path of the Washtenaw County Economy

Washtenaw County's performance in job creation since 2002, measured by the net annual change in establishment employment, is shown in figure 1. The economy turned down sharply in 2003, losing 2,866 jobs, reflecting sluggish employment growth nationally that was magnified locally by the structural problems of the domestic nameplate automakers. By 2004 the county economy seemingly had turned the corner, posting a gain of 1,026 workers for the calendar year. This turned out to be a false recovery, however, as a year later the economy was softening again, adding a modest 215 jobs before reversing itself by 2006 with the loss of 1,240 jobs, accelerating to a drop of 2,594 in 2007. The boomerang effect in this path resulted largely from the shrinkage of the Detroit Three automakers joined by a severely slumping housing market nationwide and exacerbated by Pfizer's phased departure largely during 2007.

But the worst was yet to come. The onset of the Great Recession hit the nation in 2008 and deepened in the first half of 2009, while General Motors and Chrysler went through bankruptcy proceedings in 2009 and home foreclosure rates soared. Job loss in the county accelerated to 3,883 in 2008, and further mushroomed to 5,858 in 2009 (by our estimate), the largest annual drop in the past twenty years. The job declines slowed in the second half of 2009, however, as the national economy began its recovery phase and General Motors and Chrysler emerged from bankruptcy.

Figure 1
Job Growth in Washtenaw County
2002–09



In the forecast section of this report, we will extend figure 1 and offer our view of the county's job path through 2012.

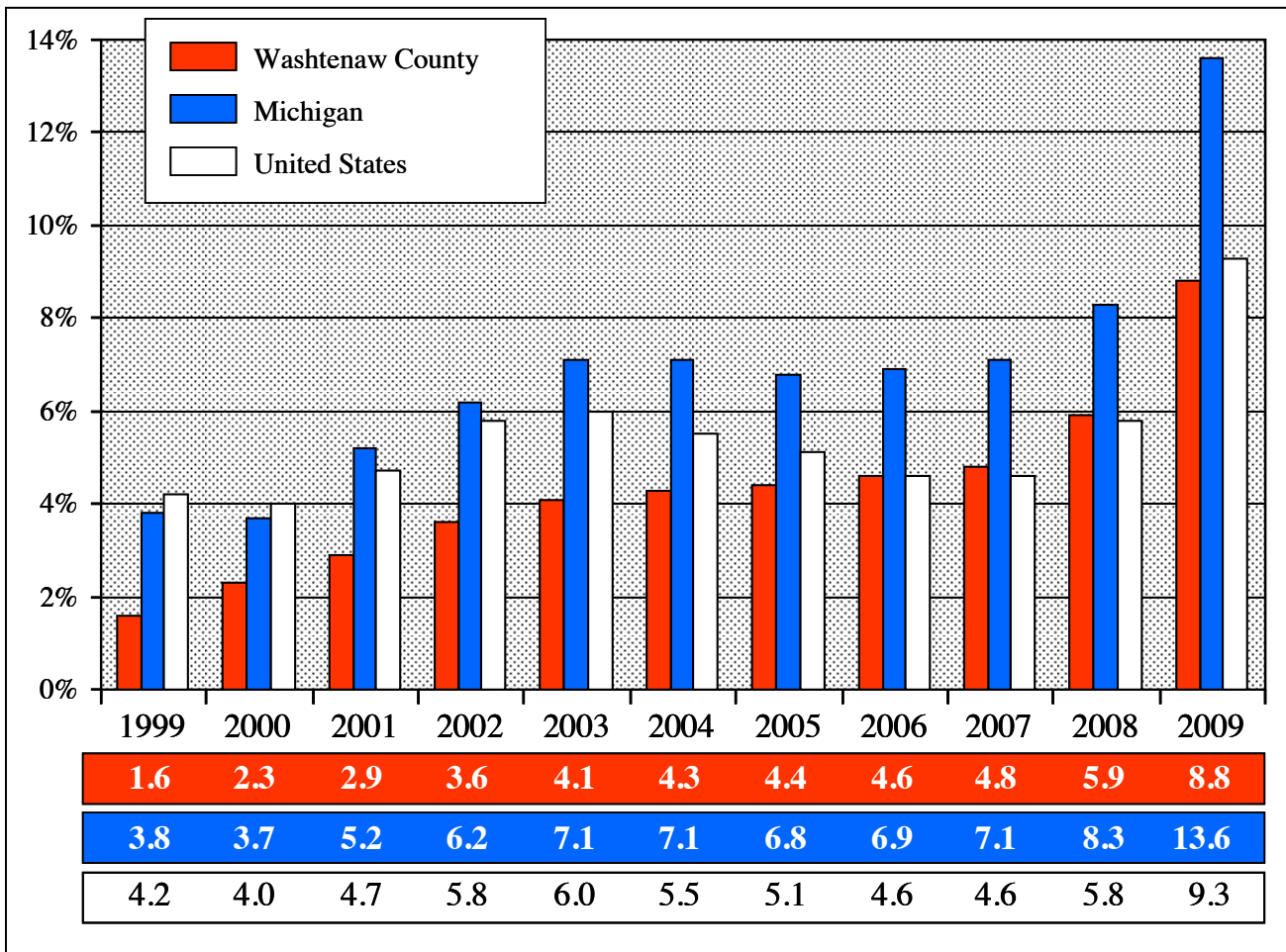
Unemployment Path of the Washtenaw County Economy

The performance of the economy can also be evaluated with unemployment as the measure. The path of Washtenaw County's yearly unemployment rate since 1999 is shown in figure 2. (Note that this rate is for the county, and should not be confused with the rate for the city of Ann Arbor). The rates for Michigan and the United States are included for comparison.

The unemployment rate for Washtenaw hit its low point in 1999, coming in at an enviable 1.6 percent. The rate has increased every year since then, reaching 4.8 percent in 2007

before shooting up by over a percentage point in 2008, to 5.9 percent, the highest rate in the data that go back to 1990. From that high point, the rate then soared by almost 3 percentage points for 2009, spiking to 8.8 percent.

Figure 2
Unemployment Rates for Washtenaw County, for Michigan,
and for the United States, 1999–2009



The jobless rate for the state came in almost five percentage points higher than the county in 2009, recording a rate of 13.6 percent, greatly widening the disparity between the two rates, which had lingered around 2.5 percentage points in the county’s favor for the past several years. The current distress felt locally thus pales in comparison with most other areas in the state.

After registering lower rates than the nation each year for as far back as we can remember, Washtenaw’s unemployment rate was at or a little above the U.S. rate from 2006 to 2008. In 2009, Washtenaw moved back into the preferred position, posting a rate half a percentage point lower than the U.S. rate, the result of smaller job losses in the county that year.

Our expectation of where the county jobless rate will head over the next three years is discussed in the local forecast section of the report.

Income Performance of the Washtenaw County Economy

A final measure to evaluate the performance of the Washtenaw County economy is personal income. Personal income is the sum of the wage bill (employment times the average wage) and non-wage income (such as dividends, interest, and rent). Personal income and its components for Washtenaw in 2001 and 2008 are shown in table 3, along with personal income per capita, often regarded as the single-best measure of economic welfare. The growth rates of each of the income components for the county and the nation are shown in the last two columns of the table. Washtenaw’s rank in personal income per capita among the 365 localities in the United States designated as metropolitan statistical areas (MSAs) can be found in the last row of the table.

Table 3

**Economic Performance of Washtenaw County Compared with
the United States and Other Metropolitan Statistical Areas (MSAs)**

Indicator	Washtenaw 2001	Washtenaw 2008	Growth rate 2001–08 (%)	
			Washtenaw	U.S.
1. Employment	195,562	186,883	–4.4	4.0
2. Average wage	\$40,249	\$48,987	21.7	25.8
3. Wage bill (1 x 2)	\$7,871,174,938	\$9,154,837,521	16.3	30.8
4. Non-wage income	\$3,903,301,062	\$5,156,661,479	32.1	45.4
5. Personal income (3 + 4)	\$11,774,476,000	\$14,311,499,000	21.5	37.7
6. Personal income per capita	\$35,763	\$41,199	15.2	29.1
Rank among 365 MSAs	20	57	357	n.a.

The item that stands out in the table is Washtenaw's disappointing performance since 2001 related to income per capita. Washtenaw ranked 20th among the MSAs in the country in 2001 in the level of per capita income, after ranking 14th in 1986; by 2008, Washtenaw's position had fallen to 57th. This is not surprising considering that the county's growth in per capita income from 2001 to 2008 ranked 357th out of the 365 metro areas. As shown in the last two columns of table 3, Washtenaw's growth was slower than the nation's in every listed component of income over the period. The lag in the wage bill growth is undoubtedly tied to the substantial loss of higher-paying jobs in the county over the period, particularly those jobs related to the auto industry. The sources for the shortfall in non-wage income growth are less immediately evident.

A trademark of the local economy has long been its high-income image. How the county economy grows from here, and how that growth is configured among its economic sectors, will determine how resilient that image will be. We now extend our analysis into the future, starting with a summary of the national outlook.

National Outlook: 2010–12

The outlook for the Washtenaw County economy is influenced by what happens in the national economy. Forecasts of economic indicators for the U.S. economy in 2010–11 were provided by the Research Seminar in Quantitative Economics (RSQE) at the University of Michigan, along with internally generated extensions for 2012. The national outlook, summarized by three key economic indicators in figures 3–8, comes from an RSQE forecast released on March 17, 2010, by Joan P. Crary, Daniil Manaenkov, and Stanley A. Sedo.

After a turnaround from negative to positive output growth last summer (as measured by inflation-adjusted Gross Domestic Product), the U.S. economy appears to be advancing on the

road to recovery. The economy is forecast to continue to recover at a fairly steady pace this year before picking up a bit over the next two years. We have made progress toward righting the housing and financial markets, but neither is back to business as usual. Increased consumer spending, a rise in business capital spending later this year, and an upsurge in residential building in 2011 will help drive the moderately growing U.S. economy. As the federal stimulus program begins to unwind, however, government purchases no longer provide the boost to the economy seen in 2009, and in fact are a source of negative growth beginning in the second half of 2010.

The recovery forecast here is put in historical context in figure 3, which charts the annual growth in real GDP since 1930. It is apparent from over eighty years of history that recoveries from most other sharp downturns were more rapid; it takes until 2012 to reach even the 3.2 percent growth rate averaged since World War II. It is more apparent from the figure that the recession just passed, dubbed the Great Recession, was nowhere near as severe as the Great Depression of the 1930s, a claim sometimes heard in casual conversation.

The specific calendar-year growth rates forecast for real GDP from 2010 to 2012 are shown in figure 4. On an annual basis, real GDP follows a 2.4 percent decline in 2009 with increases of 2.9 percent, 2.7 percent, and 3.2 percent, respectively, for 2010 to 2012.

The labor market, represented in figure 5 by the U.S. unemployment rate, typically lags the recovery, as it does in this forecast. Signs do suggest that renewed job growth is on the horizon, however, although hiring will be sluggish during the first half of this year before accelerating in 2011. The unemployment rate peaked at 10 percent in November and December last year, double its reading of 5 percent in late 2007, and is forecast to drift down slowly throughout the forecast period. Employment does grow, but only a little faster than the growth in the labor force, resulting in disappointingly small declines in the unemployment rate. The

calendar-year rate projected for 2010 of 9.5 percent exceeds all annual readings since 1982–83, as shown in the figure, and the rate remains well above the post-World War II average of 5.6 percent. Take note, however, that as high as the jobless rate is expected to linger over the forecast period, it is still well below the rates suffered during the 1930s.

Figure 3
U.S. GDP Growth, 1930–2009
and Forecast, 2010–12

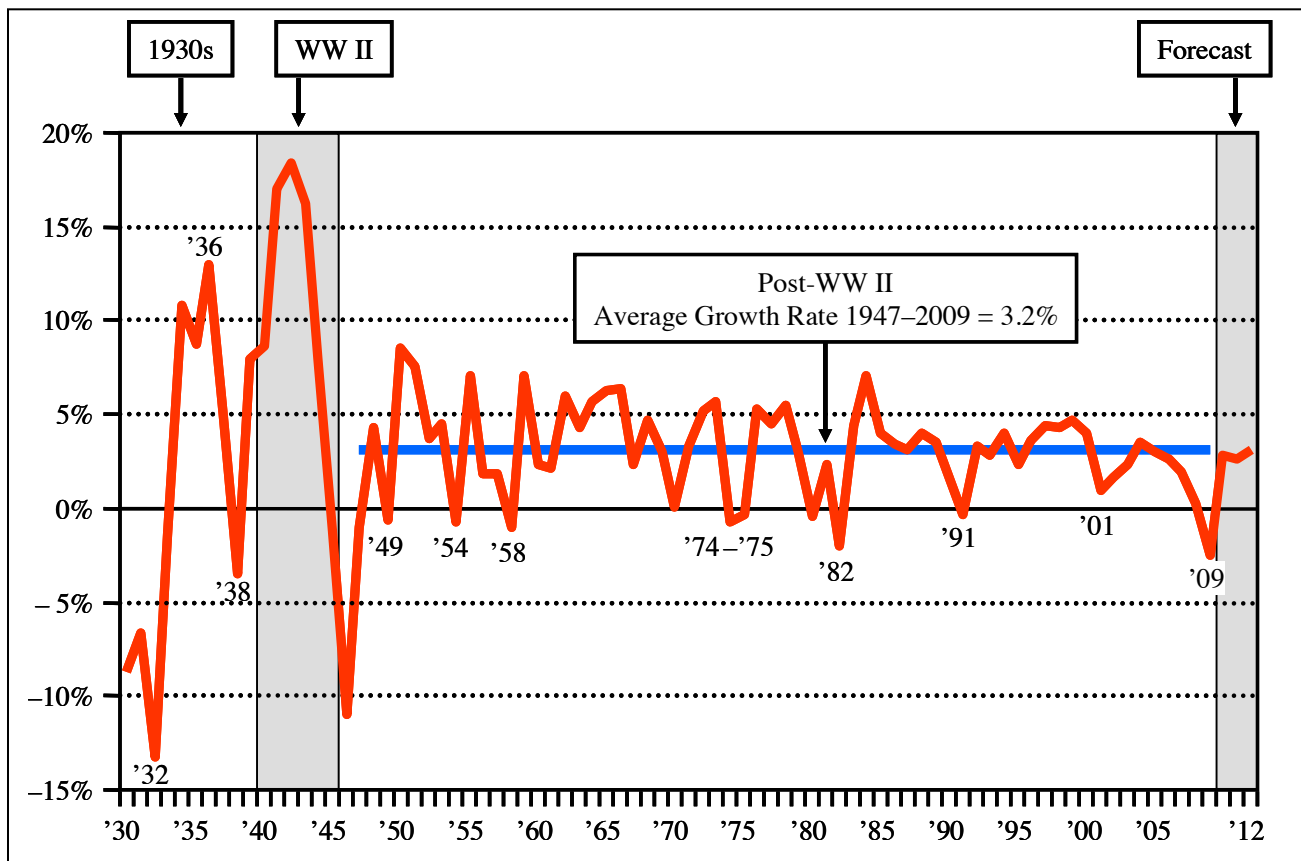


Figure 4
Forecast of Growth in U.S. GDP
2010–12

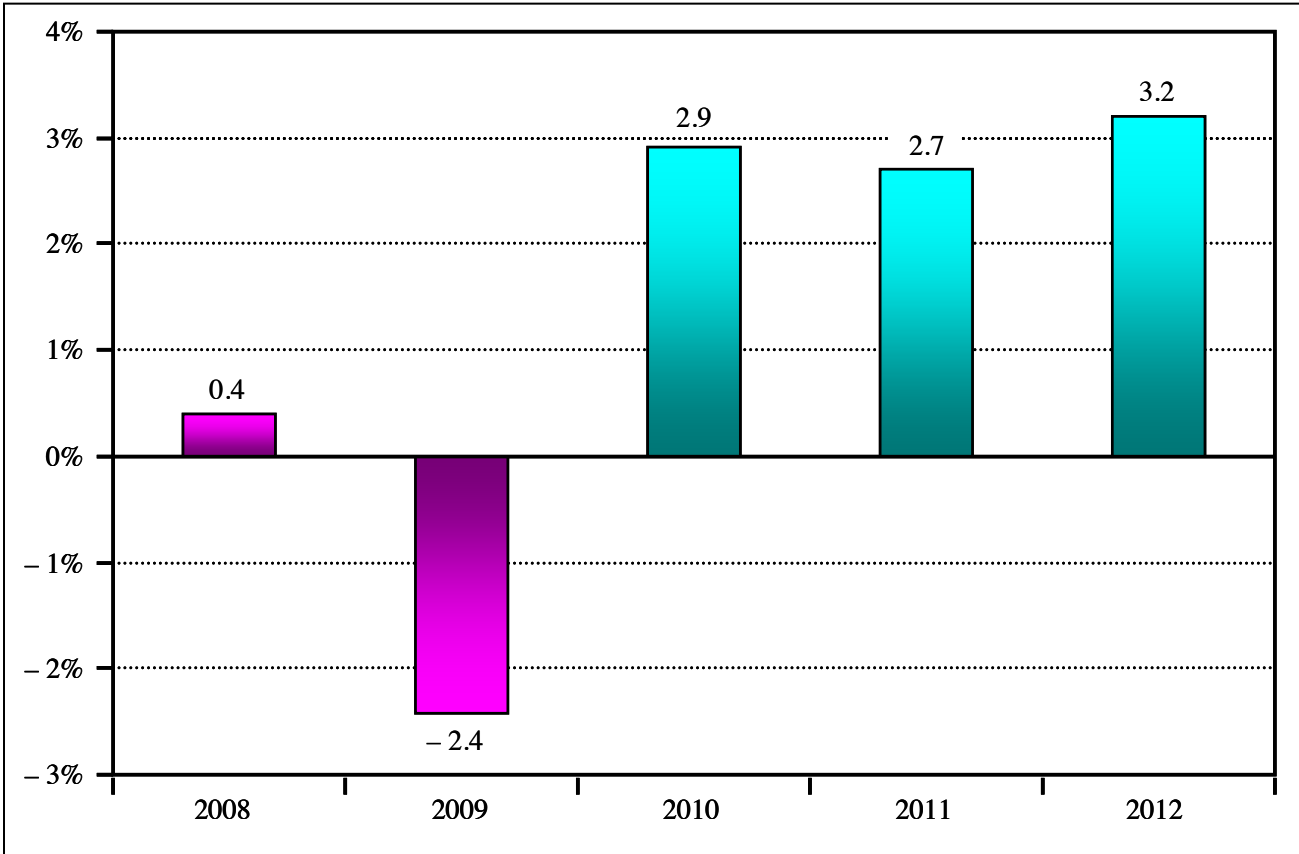
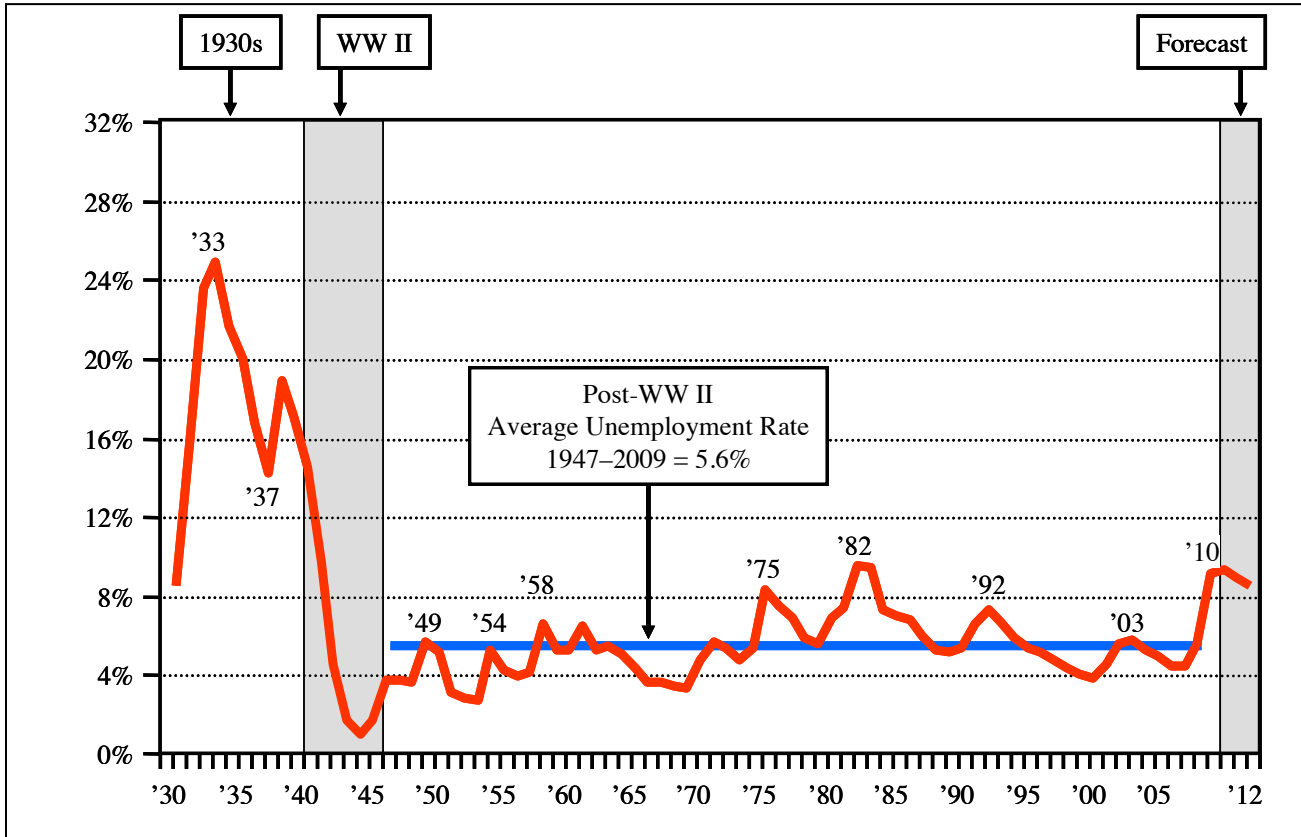
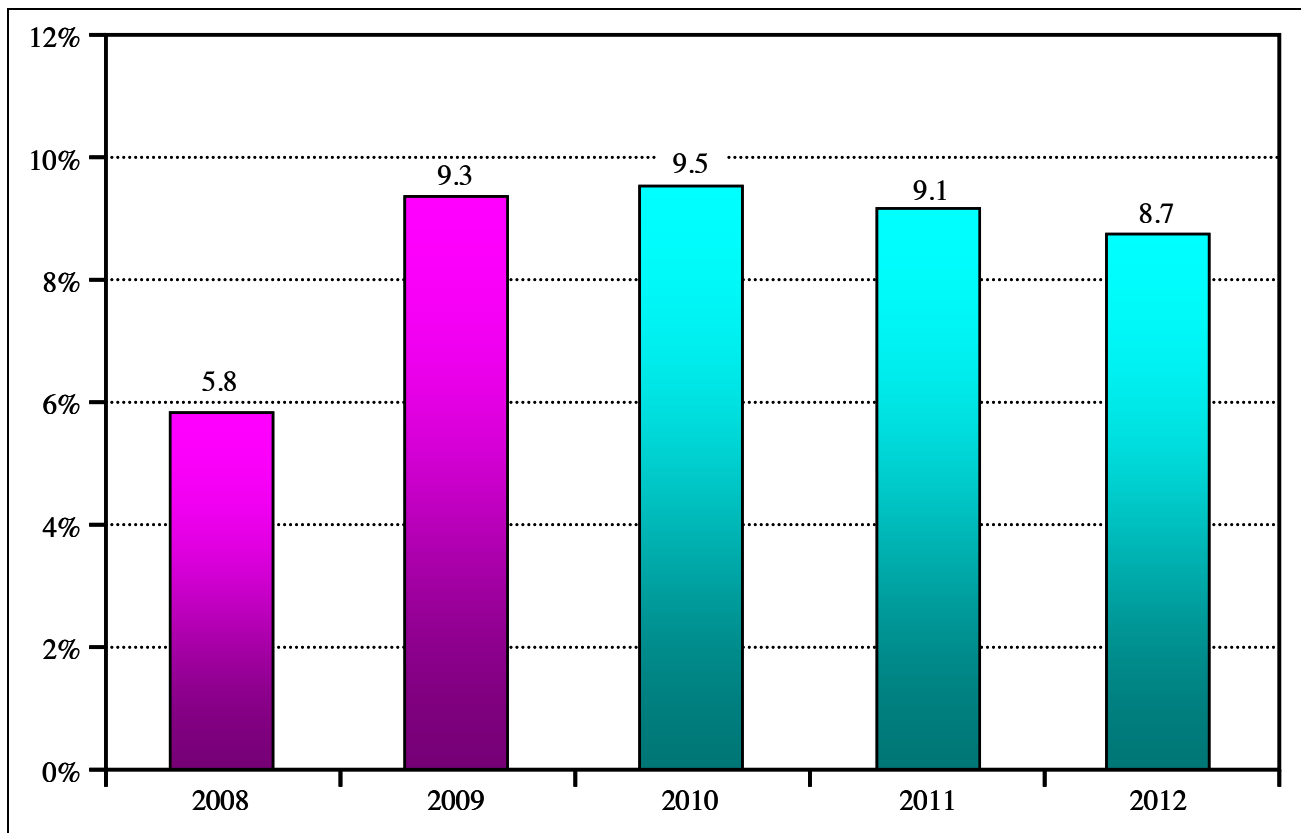


Figure 5
U.S. Unemployment Rate, 1930 –2009
and Forecast, 2010–12



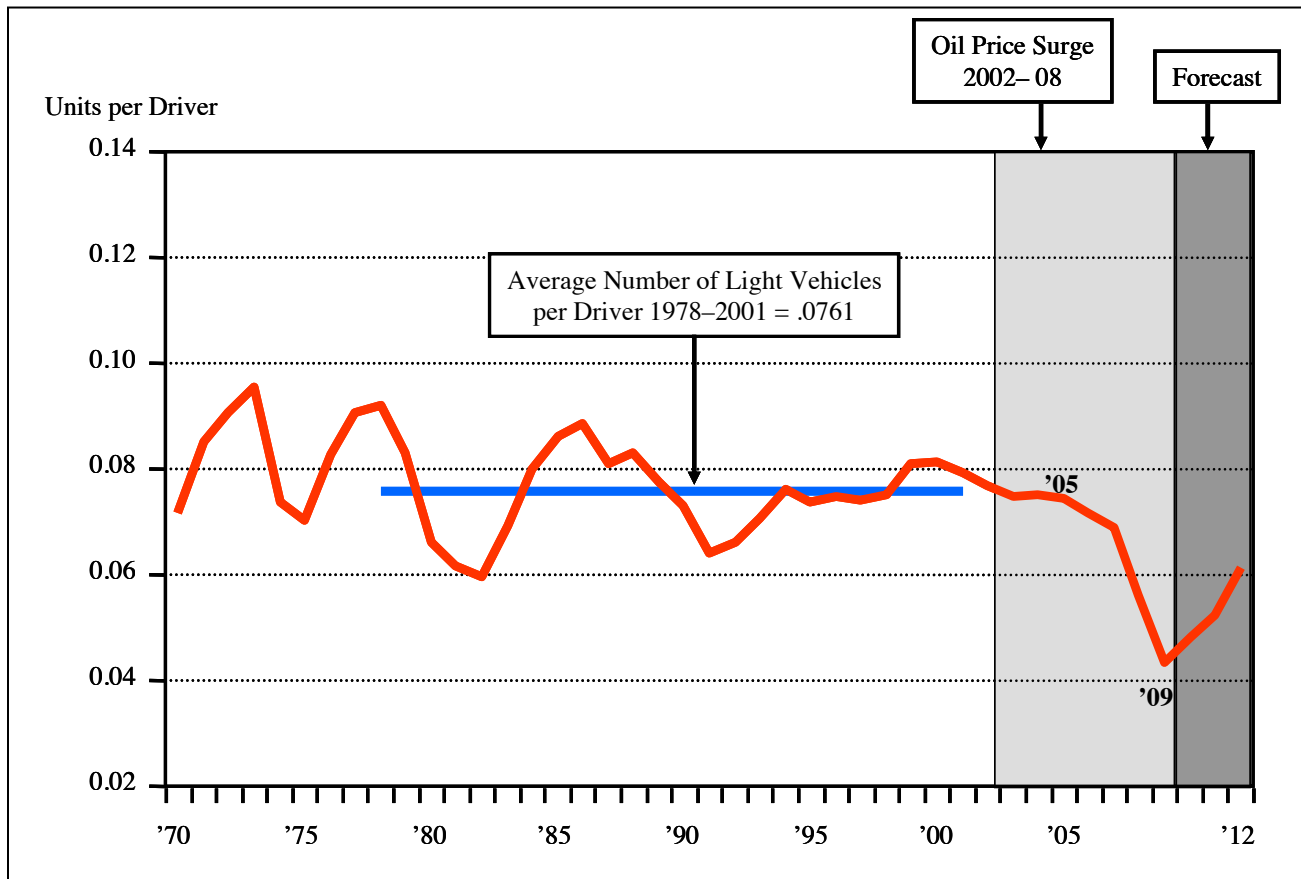
If we put the forecast information in figure 5 under a microscope, we narrow it down to the view shown in figure 6. The unemployment rate that averages 9.5 percent for 2010 is down slightly from the current reading of 9.7 percent, and then improves to 9.1 percent for 2011 and 8.7 percent for 2012.

Figure 6
Forecast of U.S. Unemployment Rate
2010–12



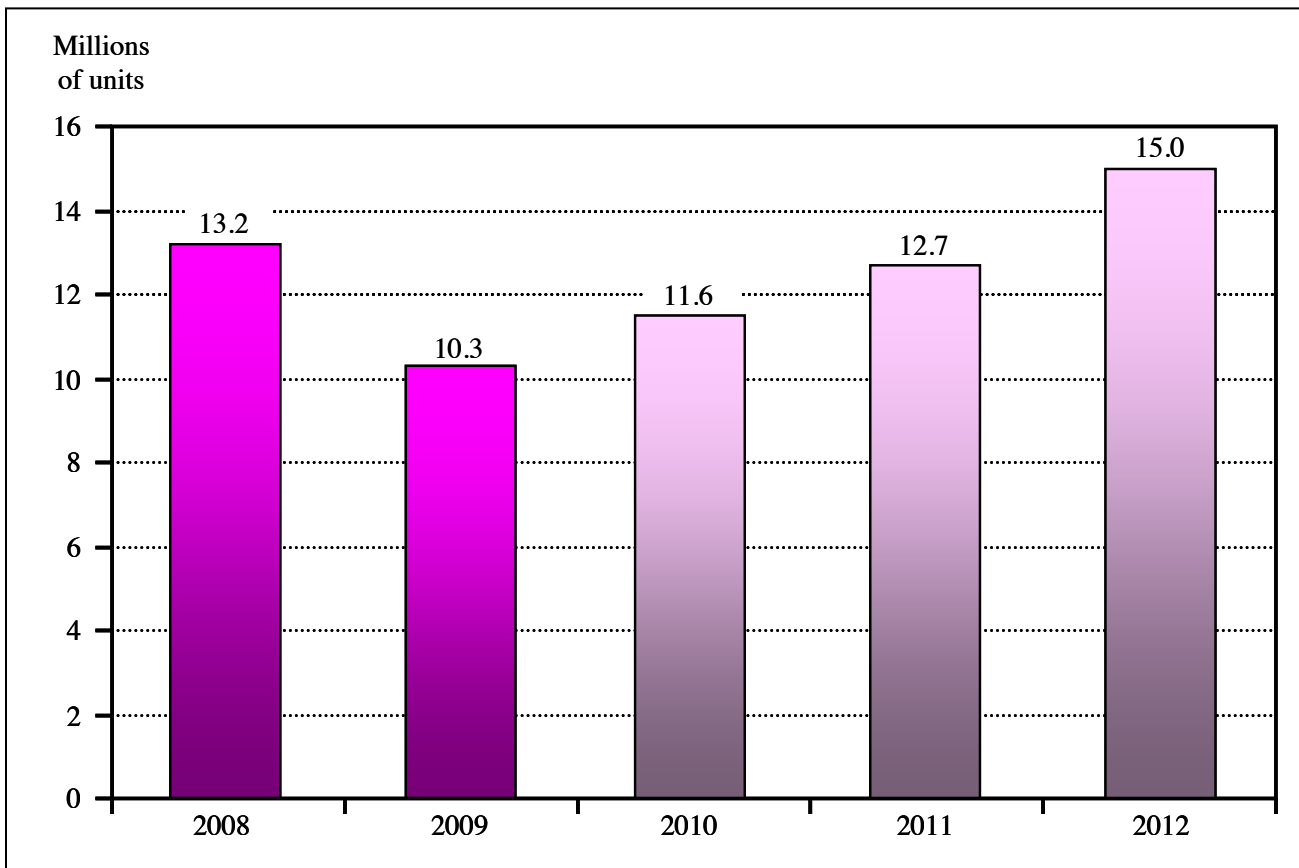
U.S. light vehicle sales—cars, minivans, sport utility vehicles, crossovers, and pickup trucks—are adjusted in figure 7 for changes in the driving-age population to aid in making longer-term comparisons. For 2009 through 2011, we see the lowest light vehicle sales per driving-age population since at least 1970. The decline started with the oil price surge of 2002–08, and was exacerbated by the recent recession. Some improvement is forecast from 2009 through 2012, with the value for 2012 just nosing above the low point recorded in 1982.

Figure 7
Light Vehicle Sales per Driver
1970–2012



Unadjusted for driving-age population, unit sales of light vehicles are forecast to rebound from 10.3 million last year (the lowest annual total since at least 1970) to 11.6 million in 2010, 12.7 million in 2011, and 15 million in 2012 (figure 8). This is another sign of a stabilizing U.S. economy, despite a slow start in the first two months of 2010 that has been attributed to Toyota's recall troubles and the unusually harsh weather in February. The bad news: these sales levels are well below the 16–17 million units of the recent past. The better news: because of restructuring, the companies' break-even sales levels are now lower than they were previously.

Figure 8
National Light Vehicle Sales
2008–12



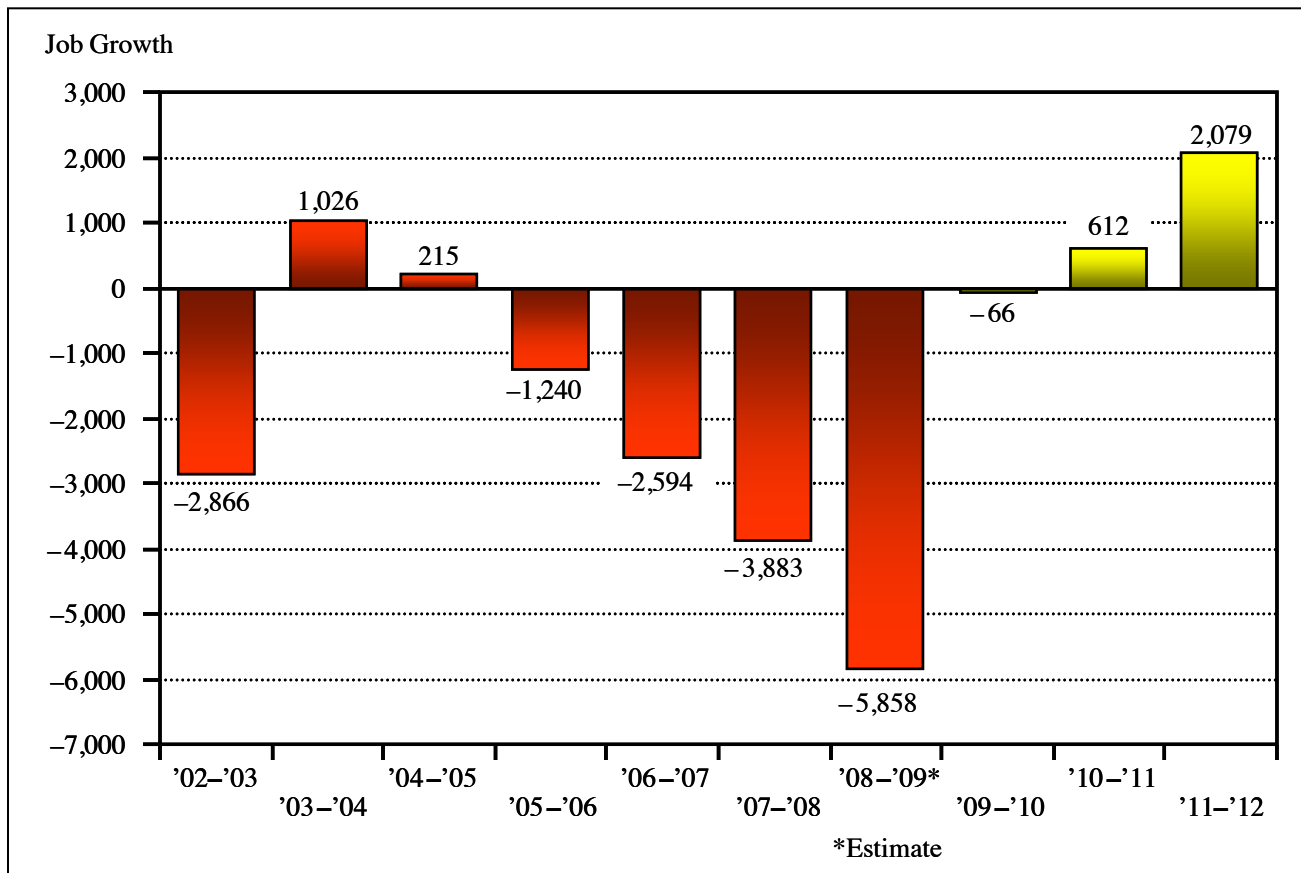
We now turn to our view of the prospects for the local economy through 2012.

Washtenaw County Outlook: 2010–12

The economic outlook for Washtenaw County through 2012 is measured using information on employment and unemployment. First, we evaluate the county's prospects for total job growth, putting that in context with the recent weakness. Second, we consider the industry detail behind the job numbers. Then we present forecasts of the county unemployment rate and price inflation in the Detroit region. Finally, we investigate the role of educational attainment in the outlook for employment.

As shown in figure 9, we estimate that Washtenaw County lost 5,858 jobs in 2009 (this number includes two quarters of preliminary data and two forecast quarters), reflecting the sharp decline in the national economy and the fallout from the shrinkage of the domestic auto industry.

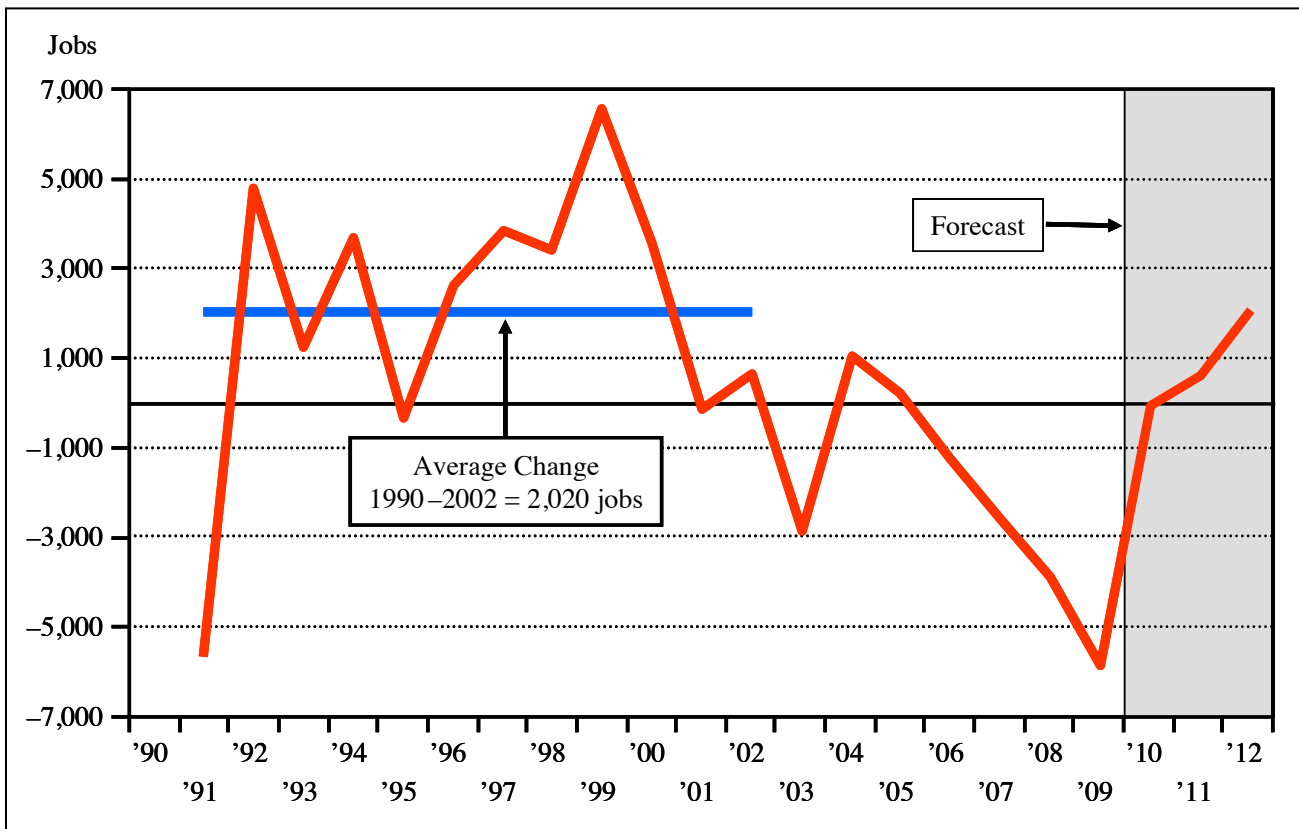
Figure 9
Job Growth in Washtenaw County
2002–12



In fact, the decline in employment nationally was larger than the decline in Washtenaw County in 2009 (4.3 percent and 3.1 percent, respectively). This is the first time since 2002 that the county has outperformed the nation, measured in terms of job growth or decline. Nevertheless, 2009 was a very painful year for the county, especially following job losses in the prior three years.

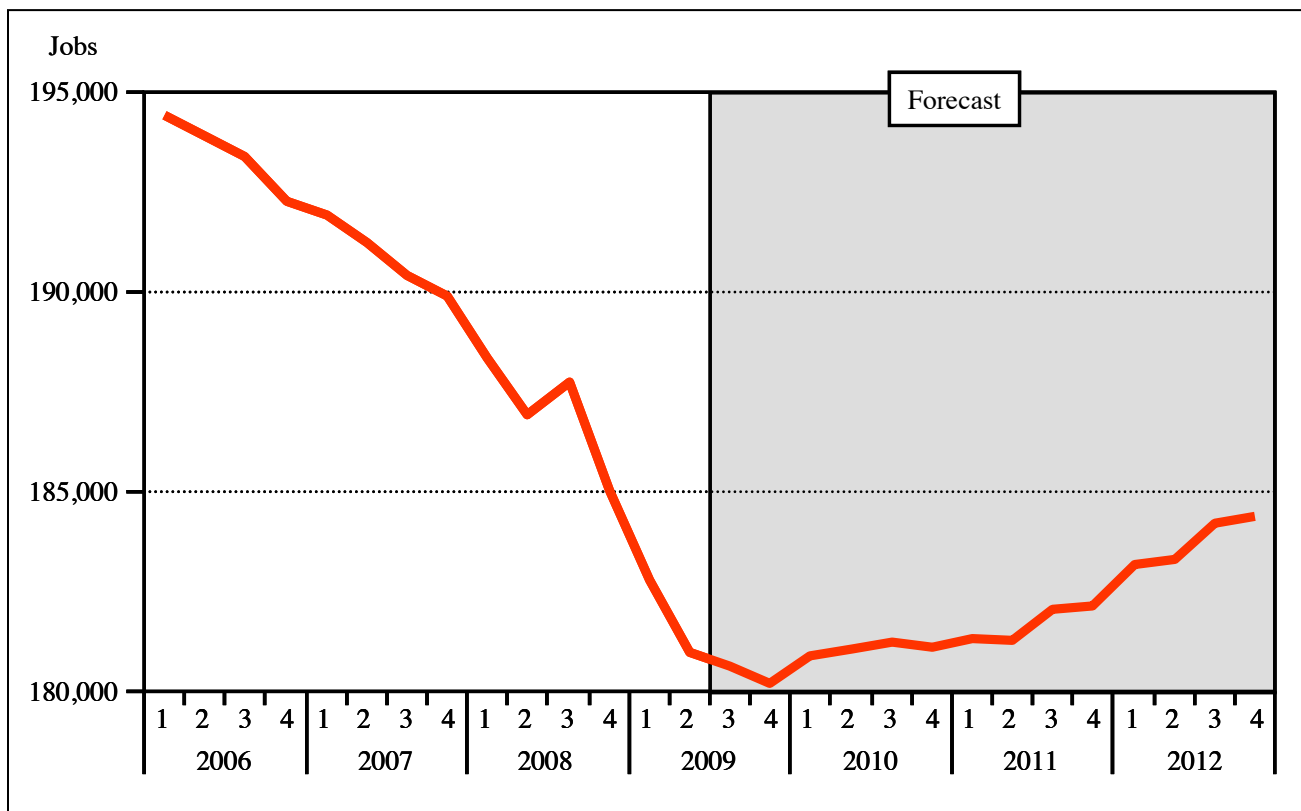
On a calendar-year basis, we are forecasting that this regime of job loss will continue in 2010, although the decline amounts to only a paltry 66 jobs. Then the county begins to gain jobs, 612 in 2011 and 2,079 in 2012. As shown in figure 10, job growth in 2012 is slightly higher than the average number of jobs gained in the county between 1990 and 2002. Following more than a decade of sub-par performance, it appears that the county will be returning to a healthier rate of employment growth in 2012.

Figure 10
Change in Washtenaw County
Establishment Employment, 1990–2009, and Forecast, 2010–12



The quarterly path of county employment from the start of 2006 to the end of 2012, adjusted for seasonal variations, is shown in figure 11. Employment had been declining steadily from the beginning of 2006 to the middle of 2008, then notched up in the third quarter of 2008 before resuming its downward path. In the last quarter of 2008 and the first half of 2009, employment in the county declined precipitously, a loss of 6,769 jobs in only three quarters of a year. According to our estimate, the job losses continued in the second half of 2009, but at a subdued rate.

Figure 11
Total Establishment Employment, Seasonally Adjusted
Washtenaw County
First Quarter of 2006 to Fourth Quarter of 2012



The good news is that our forecast shows the county turning around to add jobs in the first quarter of 2010, continuing to add a modest number of net new jobs in the second and third quarters of this year, and then remaining relatively flat until the middle of 2011. As noted earlier, on a calendar-year basis the county loses 66 jobs in 2010. If instead we look at the employment change from the end of 2009 to the end of 2010, the picture becomes a little brighter, with an addition of 892 jobs during 2010.¹

Starting in the second half of 2011, the economy adds jobs at an annual rate of about 1.1 percent. During 2011 (from fourth quarter 2010 to fourth quarter 2011) the county gains 1,043 jobs, while during 2012 (fourth quarter 2011 to fourth quarter 2012) the gain increases to 2,257 jobs, somewhat stronger job growth than as measured by the change in calendar-year averages shown in figure 9.

The return to positive job growth is a very welcome improvement, but these job gains must be put in perspective: By the end of 2012, the county will still have fewer jobs than it had at the end of 2008.

¹Since employment generally does not grow or decline evenly over the quarters of a year, employment changes measured from the end of one year to the end of the following year will usually differ from the more commonly cited employment changes based on calendar-year averages. Both calculations are correct; the discrepancies simply reflect differences in timing, and thus take on a different perspective.

Table 4
Forecast of Employment in Washtenaw County by Major Industry Division*
2010–12

	Actual 2008	Employment Change					Average Annual Wage 2008
		Estimate '08–'09	'09–'10	Forecast		'08–'12	
			'10–'11	'11–'12			
TOTAL JOBS (Number of persons)	186,883	-5,858	-66	612	2,079	-3,233	\$ 48,987
(Annual percentage change)	(-2.0)	(-3.1)	(0)	(0.3)	(1.1)		
TOTAL PRIVATE	120,688	-7,216	-160	482	1,787	-5,107	47,618
GOODS-PRODUCING	19,720	-3,362	-361	-748	127	-4,344	66,550
Natural resources, mining, construction	4,296	-598	-106	38	122	-544	50,845
Manufacturing	15,424	-2,764	-255	-786	5	-3,800	70,924
Motor vehicles	5,764	-1,596	-57	-783	-47	-2,483	95,857
Other manufacturing	9,660	-1,168	-198	-3	52	-1,317	56,046
PRIVATE SERVICE-PROVIDING	100,968	-3,854	201	1,229	1,661	-763	43,920
Trade, transportation, and utilities	25,460	-1,604	-204	164	298	-1,346	38,424
Wholesale trade	4,682	-232	-51	53	118	-112	65,080
Retail trade	16,990	-759	-196	28	92	-835	25,546
Transportation, warehousing, and utilities	3,788	-613	43	83	88	-399	63,239
Information	3,479	79	66	102	96	343	60,760
Financial activities	5,456	63	63	72	93	291	49,864
Professional and business services	24,785	-2,143	61	504	603	-975	63,746
Professional, scientific, and technical	13,445	-875	89	335	389	-62	82,425
Management of companies and enterprises	1,602	-250	-21	79	104	-88	71,890
Administrative support and waste management	9,737	-1,017	-6	89	109	-825	36,614
Private education and health services	23,268	175	272	354	439	1,240	44,885
Leisure and hospitality	13,746	-403	-137	-44	46	-538	15,472
Other services	4,774	-22	80	79	84	221	28,446
GOVERNMENT	66,195	1,357	96	129	292	1,874	51,485
State government	50,758	1,435	375	431	280	2,521	52,993

*Some subtotals do not add to totals due to rounding of annual average computations.

The industrial detail of the employment forecast presented in table 4 includes the level of employment in 2008; the estimated calendar-year change in employment in 2009 (including two quarters of preliminary data); the forecast change for 2010, 2011, and 2012; and the cumulative change over the four-year period 2008–12. The table also includes information on the average annual wage for each industry in 2008.² Greater detail on the employment forecast can be found in the appendix, which covers 173 industries.

The natural resources, mining, and construction sector is estimated to have lost 598 jobs in 2009, all of them in the construction industry. The much smaller natural resources and mining part of this sector, which mostly consists of wage and salary farm workers, actually added 15 jobs in 2009, and will continue to add a small number of jobs during the next three years. The construction industry is expected to continue losing jobs in 2010 before recouping some of the loss in 2011 and 2012. Even with these job gains, however, the local construction industry employs only 3,523 workers in 2012, down 43 percent from its peak employment of 6,196 in 2005.

The manufacturing sector lost 2,764 jobs in 2009 (17.9 percent), and is on track to lose another 255 jobs in 2010. The closure of the General Motors Willow Run transmission plant in 2011 accounts for more job losses in 2011, but in 2012 the manufacturing sector finally shows a miniscule net increase of 5 jobs.

The weakness in manufacturing is consistently concentrated in motor vehicle manufacturing.³ This industry, once one of the mainstays of the local economy, employed

²The average annual wage includes both full- and part-time workers, weighted equally. Consequently, the average wage for industries that employ a disproportionately large number of part-time workers, such as retail trade and leisure and hospitality, are much lower than they would be if the wage were calculated only for full-time workers.

³Officially this industry is the transportation equipment manufacturing industry, but since virtually all of the jobs in this aggregate category in Washtenaw County are in motor vehicle parts manufacturing, we refer to it as motor vehicle manufacturing.

19,120 people in 1990, accounting for 11.1 percent of total employment in the county. By 2012, employment in motor vehicles drops to only 3,281 workers, or 1.8 percent of total county employment. Because wages in this industry are almost double the average wage in Washtenaw, motor vehicle manufacturing will continue to account for a sizable share of total wages in the county (about 3.5 percent in 2012).

The manufacturing sector outside of motor vehicles is a mixed bag. Virtually all of the industries suffered substantial job losses in 2009, with the exception of food and medical equipment manufacturing, but most of them are expected to see small job gains between 2009 and 2012. The exceptions are printing, especially book printing, and fabricated metal products, which are forecast to lose 349 jobs and 33 jobs, respectively, over the next three years. The industries where we see the largest job gains between 2009 and 2012 are chemical manufacturing, including pharmaceuticals (46); plastics manufacturing (35); machinery manufacturing (24); miscellaneous manufactured products, including medical equipment (41); and other manufacturing (65).

Both wholesale trade and retail trade lose jobs in 2010, but then show modest gains in 2011 and 2012. The weakness in 2010 reflects the slow recovery of consumer spending anticipated in our national forecast. In addition, retail trade stores continue to lose market share to Internet-based purchases, and they continue to replace labor with capital as technology permits. Thus, even if the economy fully recovers, we anticipate few job opportunities in the retail trade industry.

Relatively strong job growth is projected for transportation, warehousing, and utilities over the next three years, following a hefty loss of 16.2 percent in 2009. The strength in this

sector reflects increased production by local area manufacturers, even if manufacturers do take it slow in hiring additional workers.

The information sector is forecast to show healthy job growth over the next three years (264 net new jobs), following the addition of 79 jobs in 2009. Job growth in software publishing (which includes Google), as well as in other information services, more than offsets job losses in traditional publishers, including newspapers. The weakness in “paper” publishers and printing manufacturing undoubtedly reflects the movement of information delivery from hard copy to electronic media.

Another local source of job gains in 2009 was the financial activities sector. While the crisis in the financial markets undoubtedly hurt Wall Street, local financial institutions as a whole did just fine in 2009, and we see them continuing to add jobs over the next three years (63 in 2010, 72 in 2011, and 93 in 2012). The largest gains occur at depository credit intermediation establishments (banks, savings and loans, and credit unions), which we project will add 140 jobs over the next three years.

Professional and technical services lost 875 jobs (6.5 percent) in 2009, partly because of the way some of the losses related to the Pfizer closure show up in the data. Nevertheless, job growth is expected to resume in 2010, and by 2012 is forecast to recoup almost all of the jobs lost in 2009. The biggest gains are in computer systems design and related services (540) and testing laboratories (227), while the biggest losses are in engineering services (91). Employment in the professional and technical services sector is boosted by plans at the start-up technology company Systems in Motion to set up an IT services delivery center in Pittsfield Township. When fully staffed, it would be the largest IT-related company in the area.

Jobs at local corporate offices declined by 250, or 15.6 percent, in 2009. We expect that corporate downsizing will continue in 2010 but at a subdued pace, followed by a relatively strong rebound in 2011 and 2012. The county is very attractive as a place to live and do business, and we anticipate that there will be more relocation of corporate offices to this area.

Jobs in administrative support and waste management declined by 1,017, or 10.4 percent, in 2009. Most of the losses were in employment services (668), as employers reacted to the depth of the recession by shedding temporary and leased employees. We see this sector losing a small number of jobs in 2010, but then beginning to add jobs in 2011 and 2012. One exception is that the part of the industry providing services to buildings and dwellings, which includes lawn care, continues to lose a few jobs in 2011 and 2012. Evidently, many homeowners are reacting to unease over their financial status by cutting their own grass.

What can we say about private education and health care services, except thank you? This sector added jobs once again in 2009, both in the county and in the state overall. Over the four-year period 2008 to 2012, it is forecast to add 1,240 jobs locally; we see substantial job gains at private education facilities (463), ambulatory health care facilities (537), and nursing and residential care facilities (712). Employment at local private hospitals, however, declines by about 340 jobs.

Employment in leisure and hospitality services fell by 403 jobs in 2009, and the drop is expected to continue in 2010 and 2011. In fact, we anticipate that leisure and hospitality services will be the only major sector outside of manufacturing to lose jobs in 2011, before adding a very small number of jobs in 2012. The weakness is concentrated in food services and drinking places, while the arts, entertainment, and recreation industry and the accommodation industry

both start adding jobs in 2010. It appears that constrained consumer spending will continue to make life difficult for a local industry dependent on discretionary spending.

The projection for the other services industries (repair, maintenance, personal services, member associations, households) is a return to steady job growth in 2010, for a total addition of 221 jobs between 2008 and 2012.

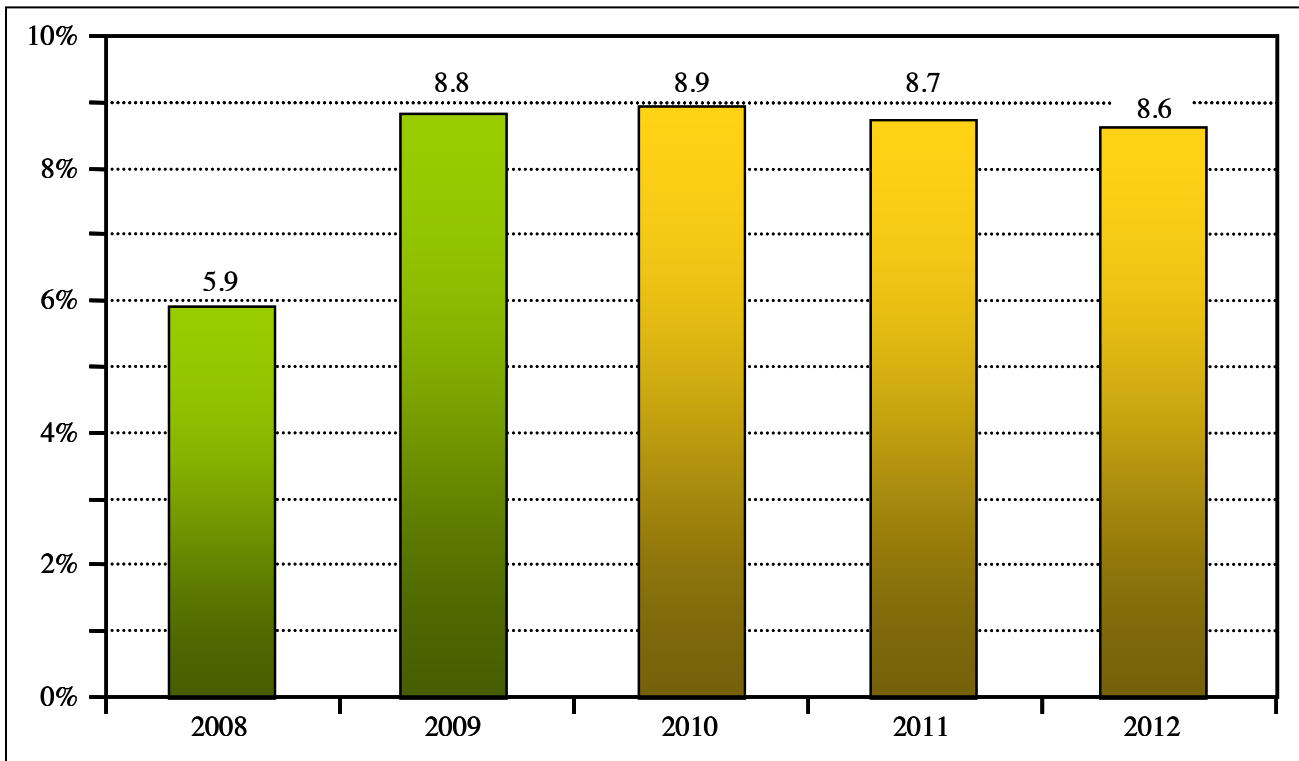
Employment in the government sector increased by 1,357 jobs in 2009. All of these jobs were in state government, which includes the campus and the health system of the University of Michigan; federal and local government employment declined in 2009. The loss of jobs in federal government was concentrated in the postal service, along with a small loss of jobs at the Veterans Administration hospital in Ann Arbor. There was an increase in other federal government jobs, mostly because of hiring for the upcoming Census. The Census-related hiring helps sustain federal government employment in 2010, but the completion of the Census and the ongoing decline in postal service employment combine to result in a drop in federal government employment in 2011 and 2012.

Local government employment declines by 372 jobs (3.0 percent) in 2010 and 119 jobs (1.0 percent) in 2011, as tight budgets force local government agencies, including the public school districts, to retrench. The budget situation is expected to ease a bit in 2012, allowing local governments to add 17 jobs (0.1 percent).

State government employment is expected to grow in each of the next three years, albeit at a much slower pace than in the past few years. The universities and the University of Michigan Health System have been able to expand, despite declines in state support, because of their ability to attract external research funding, the generosity of their alumni and friends, and the growing demand for medical and higher education services.

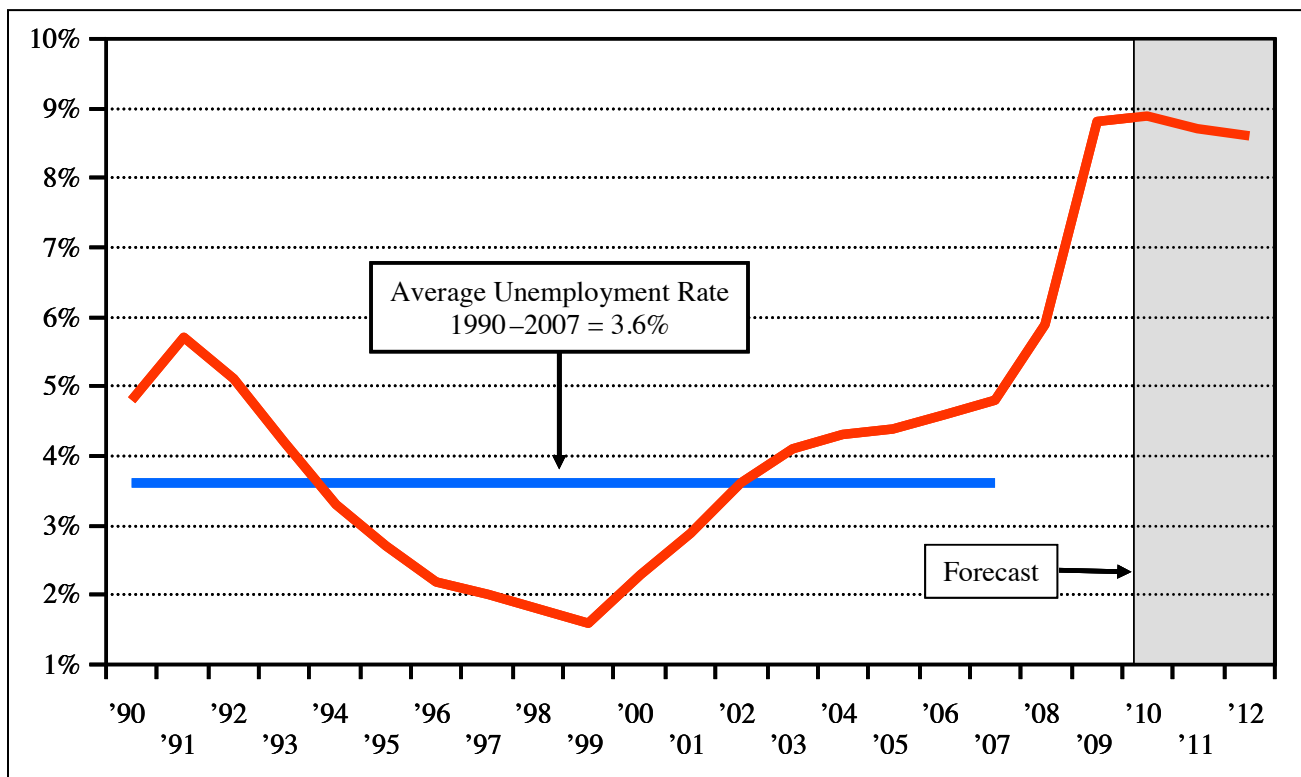
As shown in figure 12, the unemployment rate is expected to nudge up to 8.9 percent in 2010, reflecting a small decline in the number of jobs in the county. Job growth in 2011 and 2012 allows the unemployment rate to slip to 8.7 percent and 8.6 percent, respectively. It would fall even more in 2012, except for a rebound in the labor force as people who had given up even looking for work during the recession once again begin seeking employment.

Figure 12
Forecast of the Unemployment Rate
in Washtenaw County, 2010–12



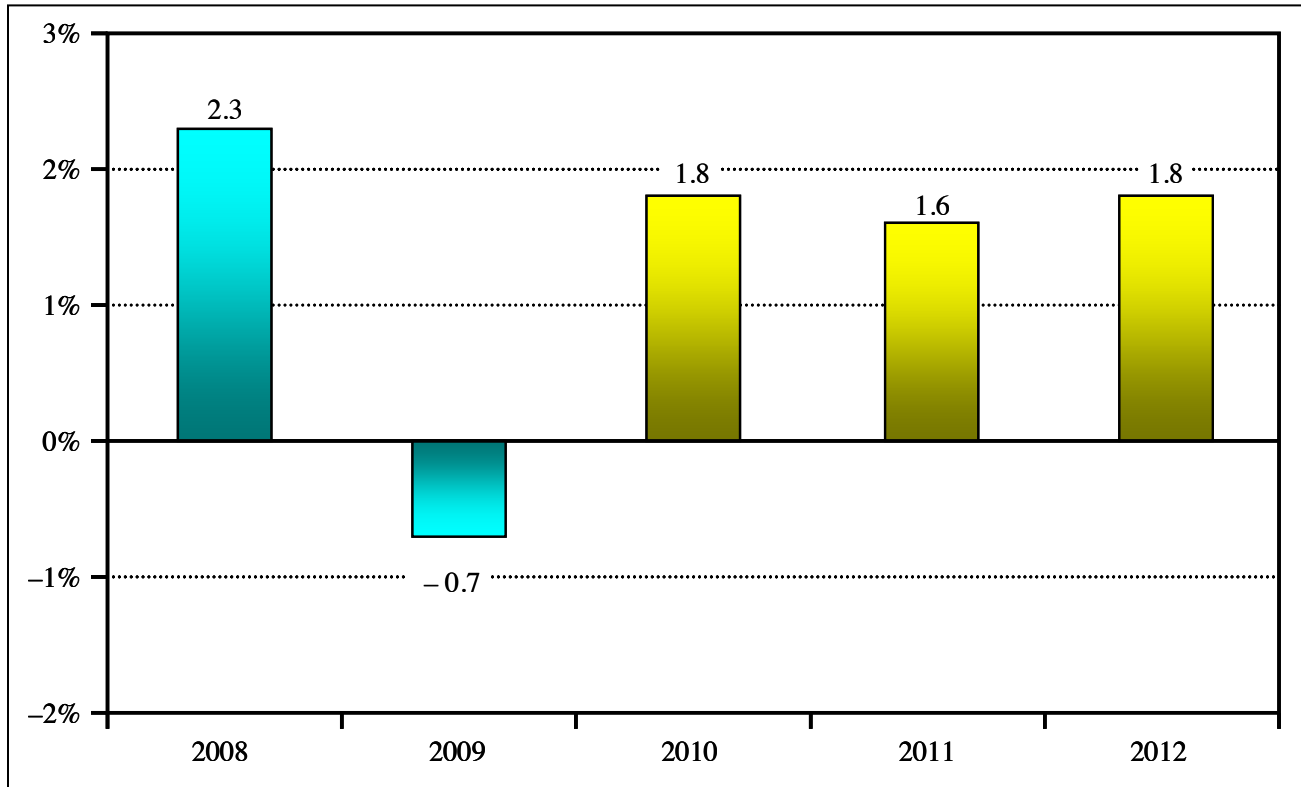
As shown in figure 13, the small decline in the unemployment rate in 2011 and 2012 will still leave it well above its 1991 peak, and more than twice as high as the average over the 1990 to 2007 period. The local economy will eventually be growing once again at a healthy pace, but for many residents it will take a while longer for the pain of unemployment to subside.

Figure 13
Washtenaw County
Unemployment Rate, 1990–2009
and Forecast, 2010–12



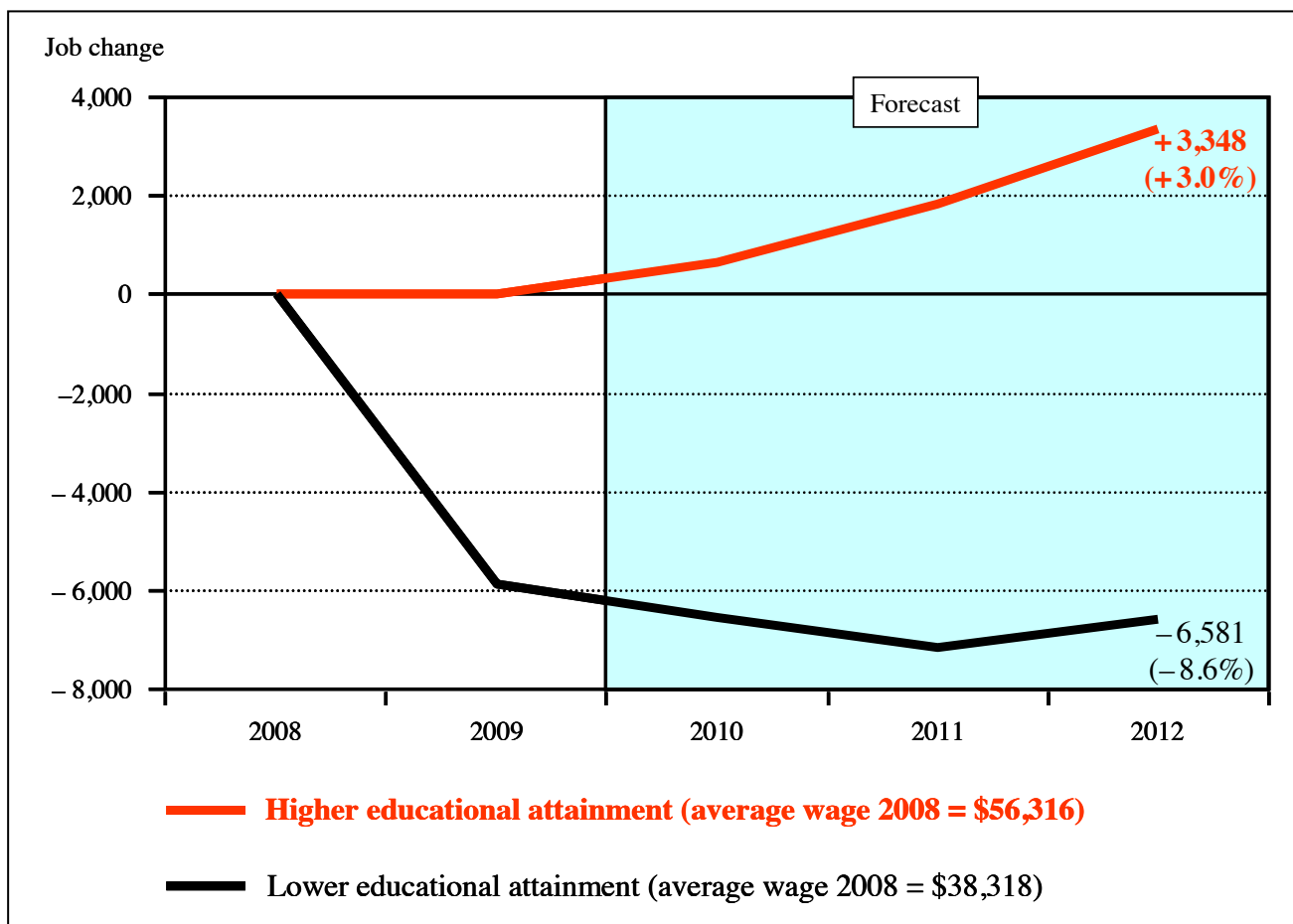
One beneficial consequence of the loose labor market is that price inflation remains very subdued. As shown in figure 14, consumer prices in the Detroit region increase at an average rate of between 1.6 and 1.8 percent in each of the next three years.

Figure 14
Forecast of Detroit CPI Inflation Rate
2010–12



One of the most important lessons to be learned from developments of the past year and in the next three years is that not all labor markets are created equal. As can be seen in figure 15, employment in industries that tend to employ workers with higher levels of educational attainment barely declined in 2009 (by one job), while the number of jobs in industries that tend to employ people with lower levels of educational attainment declined by 5,857 (7.7 percent). Employment in the higher educational attainment category is expected to begin growing in 2010, but in the lower educational attainment industries it continues to decline. The decline persists in 2011, turning to modest but positive growth in 2012.

Figure 15
Cumulative Job Change by Educational Attainment
Washtenaw County, 2008–12



By 2012, the number of jobs in the lower educational attainment industries is down by 6,581 (8.6 percent) compared with 2008 levels. In stark contrast, the number of jobs in higher educational attainment industries is greater by 3,348 (3.0 percent) in 2012 than it was in 2008.

For years, we have been arguing that the future prosperity of the state and especially the Ann Arbor metro area lies in the growth of knowledge-based industries and the people that they employ. It appears that the future has arrived, and while it will create new opportunities for the better educated, it will continue to be an obstacle for people with lower levels of educational attainment.

Conclusion

According to our forecast, Washtenaw County begins to see positive job growth in the first quarter of 2010, albeit at a modest pace. Growth is then sustained through 2012, the end of our forecast horizon. Welcome news indeed to the community after four consecutive years of job loss, but we also caution that while gaining jobs is far better than losing them, the local unemployment rate is expected to remain painfully high through 2012. To misquote Winston Churchill, this is not the end of our pain but merely the beginning of the end.

While we forecast that the total number of jobs will increase over the next three years, these jobs will be concentrated in industries that tend to employ large numbers of well-educated workers—medical services, state government (including the universities and U-M health care services), finance, information technology services, and research. Residents with lower levels of education are going to continue to see their job opportunities shrink over the next two years, and even when their prospects begin to improve in 2012, it will be at a very slow pace. Nothing could better illustrate this point than the declining share of auto industry jobs, from 11.1 percent

of total county employment in 1990 to 1.8 percent in 2012. By 2012, there will be fewer people employed in the local auto industry than in grocery stores.

The loss of all of those lower-education, high-paid jobs has been a long and painful experience, but we no longer have very many of them to lose. Consequently, the growth of knowledge industry jobs will begin to dominate the economic landscape, displacing the loss of motor vehicle manufacturing jobs as the focal point in the scene.

There are clearly some risks to our forecast, that is, certain outcomes that could diverge from our expectations and affect the accuracy of the forecast. For the first time in a while, though, the risks appear to be more equally balanced between a stronger economy and a weaker economy, rather than being definitively tilted toward a weaker scenario. The primary downside risks involve the financial and housing markets (where progress is being made but much work remains before we're back to normal business), and the ability and desire of consumers to increase spending. Consumer debt remains high, and it could act as a greater brake on consumer activity than we anticipate. A large shadow inventory of homes currently held off the market is likely to keep downward pressure on home prices well into our forecast horizon, further affecting consumers' balance sheets.

The primary upside risk, which we believe could be substantial, is that the knowledge economy, especially that part of it centered on research activities at the University of Michigan, will grow even faster than we anticipate. All periods of economic upheaval create opportunity, and the knowledge-based part of our local economy appears to be the golden ring to reach for this time around.

Appendix

Forecast of Employment in Washtenaw County by Detailed Industry Division

	Actual 2008	Estimated 2009	2010	Forecast 2011	2012	Average Wage 2008
Total wage and salary employment	186,883	181,025	180,959	181,571	183,650	\$ 48,987
Total government	66,195	67,552	67,648	67,777	68,069	51,485
Federal government	2,902	2,892	2,985	2,803	2,797	48,172
Post Office	641	606	590	582	577	53,266
Hospital	1,392	1,384	1,376	1,368	1,362	33,163
Other federal government	870	903	1,019	853	858	68,430
State government	50,758	52,193	52,568	52,999	53,279	52,993
Local government	12,535	12,467	12,095	11,976	11,993	46,147
Education and health services	7,853	7,969	7,728	7,683	7,737	44,801
Other local government	4,682	4,498	4,366	4,292	4,256	48,405
Total private	120,688	113,472	113,312	113,794	115,581	47,618
Goods-producing	19,720	16,358	15,997	15,249	15,376	66,550
Natural resources and mining	188	203	218	224	229	26,465
Construction	4,108	3,495	3,374	3,406	3,523	51,959
Buildings	968	734	695	715	736	53,932
Residential	460	377	369	401	425	38,109
Nonresidential	508	358	326	314	311	68,276
Heavy and civil engineering construction	714	526	461	461	519	47,811
Specialty trade contractors	2,426	2,235	2,218	2,229	2,268	52,394
Building foundation and exterior	411	291	300	311	322	44,869
Building equipment	1,129	1,139	1,153	1,168	1,196	61,877
Building finishing	525	462	439	424	413	42,436
Other specialty trade	361	342	326	326	338	45,765
Manufacturing	15,424	12,660	12,405	11,619	11,624	70,924
Food	648	687	691	695	700	38,285
Printing and related support activities	2,281	2,052	1,874	1,772	1,703	42,516
Books	1,735	1,566	1,445	1,393	1,364	42,759
Other printing and related	546	486	428	379	339	41,745
Chemicals	721	646	656	672	692	72,012
Plastics and rubber products	867	753	766	777	788	62,878
Fabricated metal products	1,111	856	827	823	823	48,686
Machine shops and threaded products	615	452	445	450	458	47,306
Other fabricated metal products	496	404	382	373	365	50,396
Machinery	1,161	918	897	917	942	65,045
Commercial and service industry	408	378	383	401	421	63,344
Metalworking	418	262	252	259	267	61,447
Other machinery	335	277	262	257	254	71,601
Computer and electronic products	1,243	1,030	1,010	1,022	1,038	72,009
Computer and peripheral products	202	179	168	161	154	90,526
Semiconductor and electronic components	427	337	337	347	362	72,039
Electronic instruments	592	496	489	498	507	65,332
Other computer and electronic products	21	17	16	16	15	81,755
Transportation equipment	5,764	4,168	4,111	3,328	3,281	95,857
Miscellaneous manufacturing	1,159	1,175	1,184	1,200	1,216	60,456
Medical equipment and supplies	757	781	781	783	786	69,611
Other miscellaneous manufacturing	403	394	403	416	430	43,250
Other manufacturing	468	376	391	413	441	51,207

Appendix (continued)

Forecast of Employment in Washtenaw County by Detailed Industry Division

	Actual 2008	Estimated 2009	2010	Forecast 2011	2012	Average Wage 2008
Private service-providing	100,968	97,114	97,315	98,544	100,205	\$ 43,920
Trade, transportation, and utilities	25,460	23,856	23,652	23,816	24,114	38,424
Wholesale trade	4,682	4,450	4,399	4,452	4,570	65,080
Merchant wholesalers, durable goods	2,231	2,130	2,094	2,090	2,105	63,438
Merchant wholesalers, nondurable goods	1,893	1,697	1,647	1,664	1,718	65,854
Electronic markets and agents and brokers	558	623	658	698	747	69,020
Retail trade	16,990	16,231	16,035	16,063	16,155	25,546
Motor vehicles	1,723	1,561	1,505	1,521	1,537	48,964
Automobiles	1,345	1,225	1,169	1,182	1,196	49,835
Other motor vehicles	377	335	336	339	341	45,863
Furniture and home furnishings	517	430	426	448	466	29,933
Electronics and appliances	998	970	974	985	997	36,488
Building materials and garden supplies	1,114	1,076	1,043	1,034	1,047	32,144
Food and beverages	4,433	4,263	4,135	4,066	4,034	22,039
Grocery stores	3,388	3,881	3,748	3,679	3,646	20,981
Specialty food stores	931	271	278	279	281	26,214
Beer, wine, and liquor stores	114	111	109	108	107	19,399
Health and personal care stores	949	877	869	867	867	27,449
Pharmacies and drug stores	615	584	579	578	579	24,950
Other health and personal care stores	334	293	290	289	288	32,051
Gasoline stations	472	457	461	466	471	16,372
Clothing and accessories	1,465	1,396	1,402	1,406	1,411	16,631
Sporting goods, hobby, book, music stores	1,155	1,099	1,127	1,161	1,194	17,127
Sporting goods and musical instruments	525	539	541	546	551	14,951
Books, periodicals, and music	630	560	586	615	643	18,940
General merchandise	2,967	2,928	2,921	2,914	2,907	19,903
Department stores	1,742	1,653	1,621	1,596	1,571	18,988
Other general merchandise stores	1,225	1,275	1,300	1,318	1,335	21,204
Miscellaneous store retailers	755	767	799	827	855	18,601
Nonstore retailers	444	406	372	368	370	29,938
Transportation and warehousing	3,280	2,705	2,754	2,839	2,928	53,657
Truck transportation	1,347	1,095	1,055	1,072	1,093	55,136
Other transportation and warehousing	1,932	1,610	1,698	1,767	1,835	52,625
Utilities	508	469	465	463	461	125,063
Information	3,479	3,558	3,624	3,726	3,822	60,760
Publishing industries, except Internet	1,921	2,121	2,180	2,263	2,337	66,718
Newspaper, book, and directory publishers	858	729	691	683	676	51,324
Software publishers	1,063	1,392	1,490	1,580	1,661	79,137
Telecommunications	318	297	296	295	294	64,716
Data processing, hosting, and related services	475	431	429	431	433	68,587
Other information	766	710	719	737	759	39,312
Financial activities	5,456	5,519	5,582	5,654	5,747	49,864
Finance and insurance	2,853	2,976	3,047	3,120	3,193	60,159
Credit intermediation and related activities	1,746	1,747	1,805	1,863	1,920	49,492
Depository credit intermediation	1,333	1,396	1,444	1,491	1,536	47,738
Other credit intermediation and related	413	351	360	372	384	55,153
Insurance carriers and related activities	819	842	853	867	881	67,409
Insurance carriers	305	323	333	346	359	74,833
Insurance agencies and brokerages	514	519	520	521	522	63,013
Other finance	287	388	389	390	392	104,303

Appendix (continued)

Forecast of Employment in Washtenaw County by Detailed Industry Division

	Actual 2008	Estimated 2009	2010	Forecast 2011	2012	Average Wage 2008
Financial activities (continued)						
Real estate and rental and leasing	2,603	2,543	2,535	2,534	2,554	\$ 38,583
Real estate	2,087	2,085	2,085	2,090	2,113	37,783
Lessors of real estate	965	924	924	925	929	36,861
Offices of real estate agents and brokers	491	453	436	429	438	36,823
Activities related to real estate	631	709	726	736	746	39,939
Rental and leasing services	372	333	319	307	296	33,886
Lessors of nonfinancial intangible assets	144	125	131	137	145	62,347
Professional and business services	24,785	22,642	22,703	23,207	23,810	63,746
Professional and technical services	13,445	12,570	12,659	12,994	13,383	82,425
Legal services	983	994	1,016	1,024	1,033	73,611
Accounting and bookkeeping	654	678	697	719	735	47,264
Architectural and engineering	3,866	3,607	3,650	3,729	3,811	87,126
Engineering	1,353	1,228	1,189	1,162	1,137	86,482
Testing laboratories	1,853	1,848	1,910	1,989	2,075	95,730
Other architectural and engineering	660	531	552	579	599	64,289
Specialized design	188	188	188	190	193	48,484
Computer systems design and related services	1,754	1,656	1,781	1,991	2,196	80,823
Management and technical consulting	1,888	1,780	1,707	1,683	1,695	81,025
Scientific research and development	2,981	2,570	2,513	2,525	2,552	105,978
Physical, engineering, and bio. research	2,742	2,325	2,265	2,271	2,291	110,618
Social science and humanities research	240	245	247	254	261	52,901
Advertising, PR, and related services	235	239	240	246	252	54,923
Other professional and technical services	895	858	867	886	915	39,480
Management of companies and enterprises	1,602	1,352	1,331	1,410	1,514	71,890
Administrative and waste services	9,737	8,720	8,714	8,803	8,912	36,614
Administrative and support services	9,443	8,420	8,418	8,508	8,617	36,173
Office administrative services	938	856	838	837	849	79,120
Employment services	5,046	4,378	4,384	4,472	4,550	29,066
Business support	836	784	798	808	818	59,303
Services to buildings and dwellings	2,070	1,953	1,941	1,931	1,934	25,644
Other administrative and support services	553	449	457	461	466	32,593
Waste management and remediation services	295	301	295	294	295	50,770
Private education and health services	23,268	23,443	23,715	24,069	24,508	44,885
Private educational services	2,197	2,353	2,426	2,530	2,660	30,645
Private elementary and secondary schools	791	940	986	1,044	1,111	31,649
Other private educational services	1,406	1,413	1,439	1,485	1,549	30,081
Private health care and social assistance	21,070	21,090	21,290	21,539	21,848	46,370
Ambulatory health care services	8,011	8,004	8,156	8,337	8,548	62,503
Offices of physicians	3,373	3,199	3,211	3,251	3,314	89,984
Offices of dentists	1,178	1,195	1,199	1,201	1,206	43,962
Offices of other health practitioners	623	666	701	740	781	30,106
Home health care services	1,539	1,577	1,602	1,625	1,644	37,392
Other ambulatory health care services	1,298	1,368	1,442	1,520	1,604	53,240
Nursing and residential care facilities	4,162	4,481	4,628	4,750	4,874	28,238
Community care facilities for the elderly	1,701	1,914	1,937	1,959	1,987	31,445
Other nursing and residential care facilities	2,461	2,567	2,691	2,791	2,887	26,021
Individual and family services	711	635	632	635	640	20,863
Child day care services	1,118	1,049	1,046	1,049	1,058	18,351

Appendix (continued)

Forecast of Employment in Washtenaw County by Detailed Industry Division

	Actual 2008	Estimated 2009	2010	Forecast 2011	2012	Average Wage 2008
Private health care and social assistance (cont.)						
Hospitals, emergency relief, and vocational rehabilitation services	7,068	6,921	6,827	6,767	6,728	\$ 45,761
Leisure and hospitality	13,746	13,343	13,206	13,162	13,208	15,472
Arts, entertainment, and recreation	2,041	1,881	1,889	1,918	1,966	18,439
Amusements, gambling, and recreation	1,737	1,599	1,600	1,623	1,664	15,569
Golf courses and country clubs	702	728	736	756	790	15,161
Fitness and recreational sports centers	739	598	592	593	598	16,476
Other amusements, gambling, recreation	297	273	272	274	276	14,279
Performing arts, spectator sports, museums, and parks	304	282	289	295	303	34,866
Accommodation and food services	11,705	11,462	11,317	11,243	11,242	14,955
Accommodation	1,317	1,297	1,316	1,329	1,343	18,860
Food services and drinking places	10,388	10,165	10,001	9,914	9,899	14,460
Full-service restaurants	5,267	5,028	4,913	4,866	4,859	15,266
Limited-service eating places	4,095	4,103	4,081	4,057	4,051	12,700
Special food services	438	424	413	404	396	23,264
Drinking places, alcoholic beverages	588	609	593	588	592	12,939
Other services	4,774	4,752	4,832	4,911	4,995	28,446
Repair and maintenance	915	908	908	910	912	35,128
Automotive repair and maintenance	802	752	754	756	759	35,343
Other repair and maintenance	113	156	154	153	153	33,609
Personal laundry services	1,555	1,528	1,532	1,545	1,567	29,379
Personal care services	1,012	992	988	993	1,008	34,377
Other personal and laundry services	543	536	544	552	559	20,070
Membership associations and organizations	1,831	1,823	1,889	1,946	1,995	27,147
Civic and social organizations	569	668	675	678	682	22,478
Labor unions and similar labor organizations	148	138	132	130	130	28,974
Other membership associations and org.	1,114	1,017	1,082	1,137	1,183	29,292
Private households	474	492	503	511	521	17,499
Unallocated private services	1	1	0	0	0	39,502
<u>Addendum</u>						
Unemployment rate	5.9	8.8	8.9	8.7	8.6	N.A.