

# **THE ECONOMIC OUTLOOK FOR OAKLAND COUNTY IN 2008–2010**

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## INTRODUCTION

It was a much better year for the Oakland County economy in 2007 than the year before. In 2006, the local economy had to face a wave of automotive employee buyout programs and the emergence of the slump in residential housing, and the county suffered an unprecedented loss of 18,500 workers. In 2007, the employment loss dwindled to a quarter of that number, an estimated 4,800 jobs. Yet the high-profile problems remain: domestic nameplate auto automakers not done with their restructuring, and soaring foreclosures resulting from the bursting of the housing bubble.

Last year's performance can be viewed both positively and negatively. On the positive side: while problems remain, the Oakland economy has improved appreciably in a trying environment. This reflects the time-proven resiliency of the Oakland economy, precisely as "resilient" is defined: an ability to recover from or adjust to misfortune or change. Also, 2007 was a much better year than 2006 for the local auto manufacturing industry. On the negative side: the trying economic environment is still here, will be here for a while longer, and Oakland is still losing jobs, albeit at a much more modest pace.

This is not to say that the county is losing ground across the board. Health care services are striding ahead, for example, and technology, including wireless, is emerging. It's more to say that the economy has been running at a pace that could be described as two steps forward, three steps back. Because workforce numbers have been slipping, at times it seems as if there is no movement but backward. But that's not all there is to the story; the two steps forward also have something to tell us. What they say is that the potential is there for the forward momentum to break through and eventually dominate. Employment trends are the end product of a tug of war between establishments that are opening or expanding and establishments that are closing or declining. Currently, the losses exceed the gains.

Herein is cause for optimism: alongside the losses, Oakland's economy consistently scores a significant number of job gains. And there's ample reason to expect that when the county is done absorbing its major hits, job gains will again dominate job losses. The local auto industry is expected to see stability on the horizon of our three-year forecast, and besides, half of its workforce has already departed. There is an open question of *when* the housing crisis will be resolved, but there is no question that it *will* be resolved. The next crisis could be looming, of course, but the point is that because of its endowments and ongoing investments, Oakland is a resilient economy—and resilient economies recover from their setbacks.

Where do we go beyond 2010? With its knowledge-based economy, the longer-term prospects for the community appear promising. And as the population ages dramatically in the decades to come with the baby-boomer generation moving into retirement, the area can provide many of the amenities sought out by older people, such as access to health care; educational, recreational, and cultural events; and good restaurants.

We elaborate on Oakland County's outlook in the rest of the report, first over the next few years with our short-term forecast through 2010, and then over the next few decades with a summary of our long-term forecast through 2035. The short-term forecast is generated from a regional model constructed specifically for this study at the University of Michigan's Institute of Labor and Industrial Relations. The regional model uses as inputs national economic indicators from the University's Research Seminar in Quantitative Economics. The Oakland model was constructed with the support of the Oakland County Planning & Economic Development Services

*Oakland has improved appreciably in a trying environment, thanks to the resiliency of the county's economy.*

*There is an open question of **when** the housing crisis will be resolved, but there is no question that it **will** be resolved.*

Division. The long-term forecast results come from a recently completed study sponsored by the Michigan Department of Transportation.

Before we look forward to anticipate the movements in the Oakland County economy in the future, we first follow our tradition of looking back a year to consider how the outcomes for 2007 square with what we forecast at last year’s Economic Outlook Luncheon.

### REVIEW OF THE FORECAST FOR 2007: A REPORT CARD

A year ago (April 26, 2007), we presented our twenty-second economic outlook for Oakland County at the annual Economic Outlook Luncheon. Last year’s forecast of employment, unemployment, and inflation for 2007 can now be compared with the estimated outcome for that year, based on data released by the Michigan Department of Labor & Economic Growth, to see how accurate our forecast was.

*We scored a hole-in-one last year, with a forecast error of zero.*

We report our overall forecast performance for private-sector job growth in the main body of table 1. For 2007, we scored a hole-in-one: our forecast of a 0.7 percent decline in private-sector jobs matches the 0.7 percent decline now estimated for Oakland County. Thus, we were correct in anticipating the dramatic improvement achieved last year after the 2.8 percent drop in private-sector employment the year before.

As in golf, such a feat can be attributed to three factors. The first is experience: we’ve been at the game of analyzing the local economy for almost a quarter of a century. The second factor is good equipment: in golf that means good clubs and in the forecasting business it means a high-quality computer model to represent the

**Table 1. Report Card: Track Record over the Years**

Year of Forecast	Percentage Forecast Error for Total Private Jobs	Year of Forecast	Percentage Forecast Error for Total Private Jobs
1986	+1.4	1997	+0.6
1987	+0.7	1998	+1.3
1988	-1.8	1999	-1.2
1989	-1.9	2000	+0.6
1990	+2.2	2001	+1.9
1991	+3.9	2002	+2.5
1992	-2.0	2003	+1.6
1993	+0.5	2004	+2.6
1994	-1.3	2005	+1.4
1995	+0.2	2006	+3.3
1996	-0.5	2007	0

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

Average absolute forecast error 1986–2007: 1.5%

	Forecast 2007	Actual 2007
Total jobs	-0.6%	-0.7%
Unemployment rate	5.6%	6.1%
Consumer inflation rate	1.5%	1.9%

Forecast date: April 2007

economy. Every year before we generate our forecast we revise our model to incorporate the most up-to-date information on the economy. Last year we also benefited from the accuracy of the national forecast provided to us by our colleagues at the Research Seminar in Quantitative Economics. The third factor contributing to our posting an ace is, of course, luck—circumstances combined to provide exactly what was needed for the ball to find the cup.

Our individual forecast errors within the major industry divisions were modest. We understood that it would be another year of job loss for manufacturing, but the hit was a little smaller than we expected. On the other hand, retail trade and the leisure and hospitality industry fared more poorly than we predicted, in part because we did not fully account for the effects on employment resulting from the hike in the minimum wage in these lower-wage industries.

The observed and forecast numbers for total employment and the unemployment and local consumer price inflation rates in 2007 are reported at the bottom of table 1. Our forecast error for total jobs—that is, with government now added to private-sector employment—is also virtually on target, a miss of only one-tenth of a percentage point (a forecast decline of 0.6 percent versus an observed drop of 0.7 percent). Since this is only the fourth year we have included government in our forecast, we use the private sector to measure our forecast success.

We were not quite as accurate on our forecasts of local unemployment and consumer inflation rates, coming in a little low on both for 2007. We anticipated correctly that inflation would slow considerably from its 3 percent pace in 2006, but over-predicted the cool-down because we did not foresee last year’s hike in energy prices.

We hope to continue our tradition of forecast accuracy, but however we score when we check in at this time next year, we know that one element critical to success is to have an understanding of recent movements in the Oakland County economy. We turn now to that perspective.

## THE CURRENT STATE OF OAKLAND COUNTY’S ECONOMY

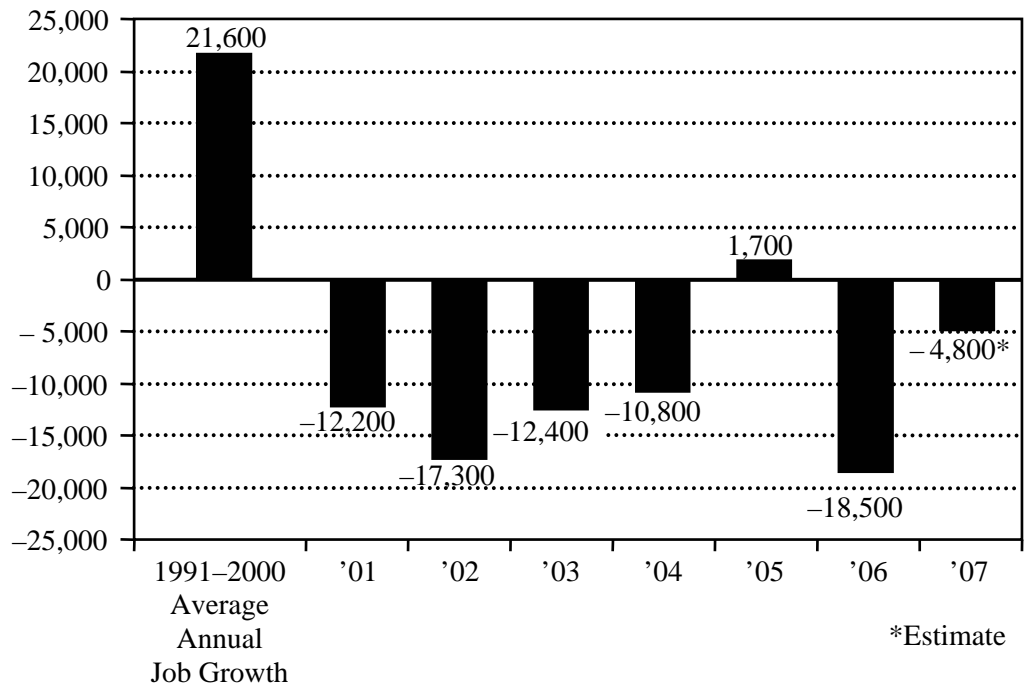
To put our forecast in a historical context, in this section we look at how the Oakland County economy has performed during the 1990s and since 2000, when county employment peaked. We review the employment path of the local economy in recent years to set the stage for our short-term forecast, which runs through the next three years, as well as for our long-term forecast, which extends through 2035. We then assess the profile of the local economy with the unemployment rate as the measure. Following that, we consider the structure of the local economy, focusing on the employment performance of its major industry sectors and their educational composition. Interspersed is a discussion of two major forces underlying the movements in the county economy, forces that will also influence where we are heading in the decades to come. Finally, we compare Oakland to thirty-one other counties of comparable size nationwide on a series of indicators that we judge to be fundamental to cultivating future prosperity.

### *Employment Path of the Oakland County Economy*

Oakland County’s performance in job creation since 1991, based on calendar-year averages, is shown in figure 1. The period range can be divided into four time intervals: (1) the rapid growth from 1991 to 2000, (2) the downturn of 2001–04, (3) the “false recovery” of 2005, and (4) the retrenchment of 2006 and 2007.

*Job loss in manufacturing was a little smaller than we expected, but greater than we predicted for some lower-wage industries where we underestimated the effects of the hike in the minimum wage.*

**Figure 1. Job Growth in Oakland County, 1991–2007**



*Despite lingering problems in the auto industry and the housing market, Oakland’s economy improved dramatically over the past year.*

*The health care and technology sectors show much promise as the economy moves away from its industrial roots and prepares to accommodate an aging populace.*

Job growth between 1991 and 2000 is summarized by a single bar, showing an average of 21,600 net new jobs per year over that period—the golden age for the county. All the major industry categories expanded over the period, led by professional and business services and including manufacturing.

By 2001, however, the Oakland County economy was on the way down, hit by a triple whammy: the cyclical downturn in the national economy, a crippling event in the form of the terrorist attack, and the structural problems of the domestic nameplate automakers.

By 2005, the county economy had apparently turned the corner, posting a moderate gain of 1,700 workers for the calendar year after recording progressively slower decline since 2002. This turned out to be a false start.

The local economy reversed itself in 2006, as auto restructuring was taken to the next level, with an offer of buyout or retirement extended to most production workers in the system. Piling onto the difficulties in the auto industry came a severely slumping housing market nationwide, contributing to a weakness that dampened much of the local service-providing sector.

In 2007, the auto worker buyout environment lingered and the housing market continued to suffer. Despite these burdens, the Oakland County economy improved dramatically from 2006, with job losses shrinking from 18,500 to a much more modest 4,800 in 2007.

In general, the improvement is a tribute to the underlying resiliency of the Oakland County economy. One sector in particular that has bolstered the county economy in these times is health care. Technology, including wireless, also has emerged recently. These are sectors that show much promise as the economy continues to transition away from its industrial roots and prepares to accommodate an aging populace.

In the short-term forecast section of the report, we will extend figure 1 and present our view of how the local economy will shake out over the next three years.

*Unemployment Path of the Oakland County Economy*

The performance of the economy can also be evaluated in terms of unemployment. Oakland County’s performance since 1999 as measured by the unemployment rate is shown in figure 2. The unemployment rate for Michigan is included for comparison.

Oakland’s unemployment rate bottomed in 1999 and 2000 at an all-time low of 2.9 percent. The jobless rate has increased since the onset of the downturn in the county economy in 2001, more rapidly through 2003 when it reached 5.5 percent, and more slowly thereafter, coming in at 6.1 percent in 2007.

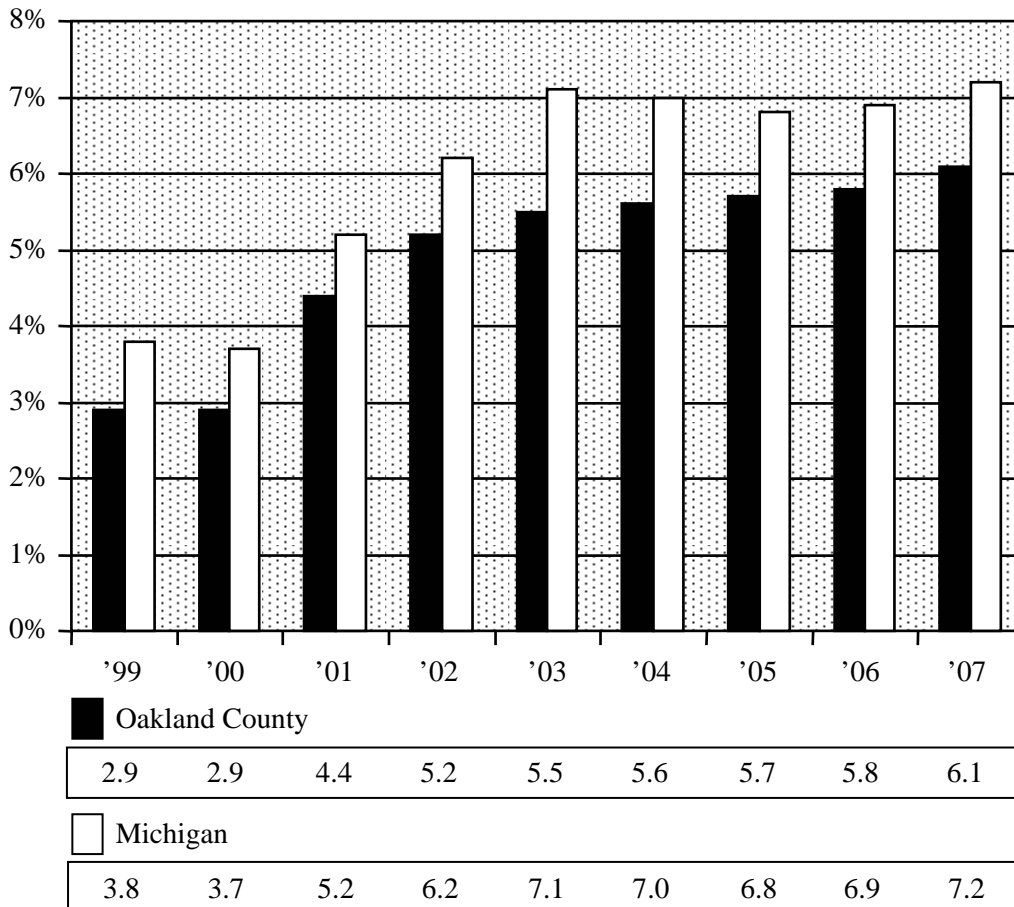
The unemployment rate for the state registered 7.2 percent in 2007, and it has consistently been much higher than the county’s rate. Over the past five years, the county’s rate has been over a percentage point lower than the state’s rate. In each of the past three years, the gap between the rates has been 1.1 percentage points in Oakland County’s favor.

Our expectation of how the Oakland County and Michigan unemployment rates will look for 2008–10 is discussed in the local forecast section of the report.

*Oakland’s unemployment rate has climbed from its all-time low of 2.9 percent in 1999 and 2000 to 6.1 percent in 2007.*

*The county’s unemployment rate has consistently been much lower than the state’s.*

**Figure 2. Unemployment Rates for Oakland County and Michigan, 1999–2007**



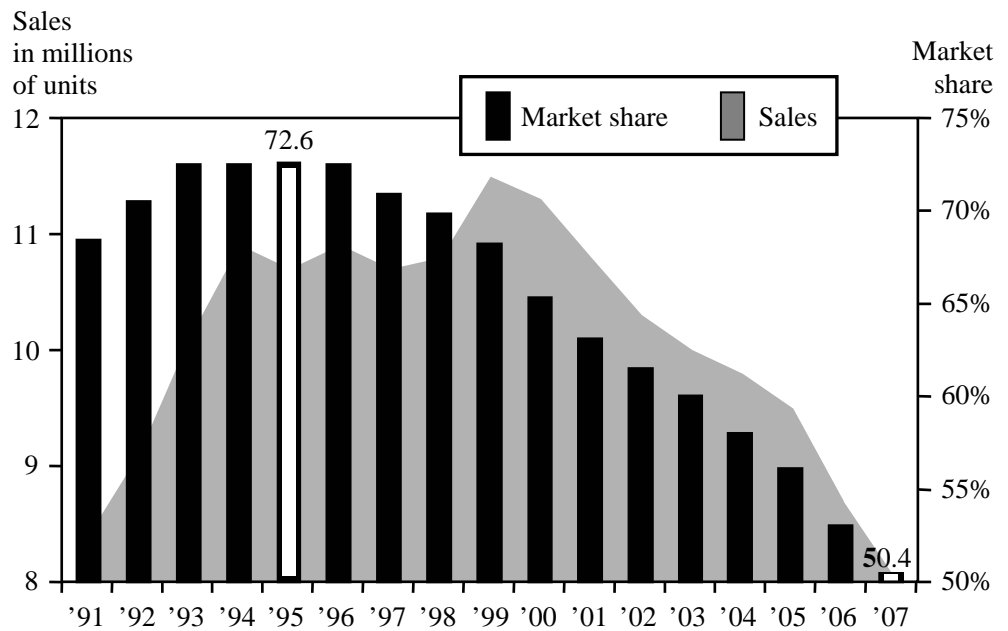
*Detroit Three Market Share and Sales of Vehicles*

A few overarching forces profoundly influence where we are now in the local economy and where we are heading over the next few years and decades. We pause here to consider one such force, and will identify a second in our discussion of tables 2 and 3 that follow.

*The Detroit Three's market share has declined dramatically over the past twelve years, and there is every reason to believe it will continue to shrink.*

The most significant force on the debit side of the ledger is the declining trend in the Detroit Three automakers' share of light vehicle sales in the United States, and the associated decline in Detroit Three sales. The market share for the Detroit Three has declined more than 22 percentage points over the past twelve years, as shown in figure 3, from 72.6 percent in 1995 to 50.4 percent in 2007. There is every reason to believe it will continue to shrink over the next few years.

**Figure 3. Detroit Three Sales of Light Vehicles vs. Detroit Three Market Share of Sales, United States, 1991–2007**



*The auto industry contributed 28 percent of the local job loss over the past seven years. At the beginning of that period, it made up only 6 percent of county jobs.*

Also shown in figure 3, sales of light vehicles by the Detroit Three continued to increase from 1995 to 1999, despite the drop-off in market share, because the total market was growing rapidly enough. That is, the Detroit Three were getting a smaller slice of an expanding pie. After 1999, the size of the total market no longer compensated for the Detroit Three's shrinking share, and their sales then plummeted from 11.5 million units in 1999 to 8.1 million in 2007, a 30 percent drop in vehicle sales in eight years. The Detroit Three sales levels in 2007 are 300,000 units below those recorded during the last recession, in 1991.

Much of the recent travail in the Oakland County economy stems from the shrinkage of the industrial economy, particularly the segment that pertains to the domestic nameplate automotive industry. The auto industry contributed 28 percent of the local job loss over the past seven years even though, at the beginning of that period, it made up only 6 percent of county jobs. Manufacturing as a whole, much of it associated with the domestic nameplate auto industry, contributed over half of the job loss while making up a much smaller one-seventh of the county economy in 2000. Additionally, many of the county's professional service and headquarters jobs are connected to the domestic auto industry.

Our short-term forecast for Detroit Three market share and sales of light vehicles is presented in the section on the national outlook—it does not bring with it any expectation for a halt to the long-term shrinkage of the goods-producing sector.

*Structure of the Oakland County Economy*

Over time, the varying strengths of the sectors that make up the economy can alter its structural composition, which in turn affects its future prospects—as already suggested by the previous statistics on the auto industry. In table 2, we look at recent employment movements in Oakland County by partitioning the workforce in two distinct ways. First, we divide employment into its two major industry sectors: goods-producing (natural resources-mining-construction and manufacturing) and service-providing (the rest of the private sector and government). Job growth is divided into two time intervals: the expansion of 1991–2000 and the downturn of 2000–07. For each interval we show average job growth per year for each sector. In the first column of data are the employment levels for each sector, to show scale.

**Table 2. Job Growth in Oakland County by Major Sector and Educational Composition, 1991–2007**

	Number of Jobs		% Job Change per Year	
	2007	1991–2000	2000–2007	
<b>TOTAL NONFARM</b>	<b>693,400</b>	<b>3.3</b>	<b>–1.4</b>	
GOODS-PRODUCING	95,700	3.6	–5.7	
SERVICE-PROVIDING	597,700	3.2	–0.6	
Above-average-education industries	329,700	3.4	0	
Below-average-education industries	363,700	3.2	–2.6	
Addendum				
Construction	26,200	5.6	–4.3	
Motor vehicle manufacturing	25,100	5.7	–8.3	
Private education and health services	100,100	2.9	3.1	

When the local economy was bursting at the seams, from 1991 to 2000, employment grew at a brisk clip that averaged 3.3 percent a year. Not only did the goods-producing sector contribute, but it actually outpaced the service-providing sector by a little, 3.6 percent per year compared with 3.2 percent.

The story changes post-2000. The goods-producing sector declined by 5.7 percent per year between 2000 and 2007, led by an astounding 8.3 percent drop per year in the troubled auto industry (see the addendum to table 2). And this time, construction has not bolstered the goods-producing sector as it has done in the past, a reflection of the industry’s exposure to the current slump in residential homebuilding. Employment in the service-providing sector also declined in these troubled times, but at a much more modest 0.6 percent per year. The nugget in all of this has been the private education and health services sector (90 percent of which is health care), which has thrived over the period and is actually expanding at a slightly faster pace than during the 1990s.

We sort these employment movements in Oakland County into a second pair of categories: above-average-education industries and below-average-education industries. The division is based on whether the share of workers with a bachelor’s degree or more in each underlying industry fell above or below the U.S. average for all industries (27.2 percent in 2000). This method of assignment is not precise, of course,

*The local economy was bursting at the seams from 1991 to 2000, but that story changes after 2000, when most sectors began a steady decline.*

*The bright spot is in private education and health services, which has thrived and is actually expanding slightly faster than it did during the 1990s.*

*Even under severe economic conditions, employment held its own among industries that require higher levels of education, pointing up the growing importance of an educated workforce.*

and a bachelor’s degree is not the only measure of educational attainment. The assignments seem reasonable, though, and they do turn out to be instructive.

When the industries are sorted by educational composition, it is apparent that prospects are more promising in those industries that require higher levels of education—in good times and in bad. A much bigger contrast, however, is evident in the more recent and more difficult period of the past seven years. Employment among the high-education industries held its own under severe economic conditions, whereas employment in low-education industries took the hit, retreating by 2.6 percent per year.

This suggests the second overarching force influencing the path of the economy to go along with the negative trend of Detroit Three vehicle sales, but this time on the credit side of the ledger—the growing importance of an educated workforce.

In our long-term forecast through 2035, we will again isolate the prospects for employment in goods-producing versus service-providing and high-education versus low-education. Whether the trends of the current decade persist over the decades to come is critical knowledge for strategic planning.

The job growth statistics presented in table 2 have implications for the distribution of employment across sectors, which is shown in table 3. The table has the same basic layout as table 2, but now shows the share of each sector’s employment in the local workforce for 2000 and 2007. The last column, which we will focus on, indicates the change in the employment share for each sector between 2000 and 2007.

**Table 3. Job Distribution in Oakland County by Major Sector and Educational Composition, 2000–2007**

	Employment Share (%)		Change 2000–07
	2000	2007	
<b>TOTAL NONFARM</b>	<b>100.0</b>	<b>100.0</b>	
GOODS-PRODUCING	18.8	13.8	–5.0
SERVICE-PROVIDING	81.2	86.2	5.0
Above-average-education industries	43.1	47.5	4.4
Below-average-education industries	56.9	52.5	–4.4
Addendum			
Construction	4.7	3.8	–0.9
Motor vehicle manufacturing	6.0	3.6	–2.4
Private education and health services	10.6	14.4	3.8

*The employment mix is shifting away from industries that require no more than below-average education to those that require above-average education.*

As implied by the previous statistics on job growth, there has been a significant shift in the mix of employment away from goods-producing and toward service-providing industries in the seven-year interval between 2000 and 2007—a swap of 5 percentage points. The largest loss is in motor vehicle manufacturing, which now makes up only 3.6 percent of the county’s workforce compared with 6 percent in 2000 (see the addendum to table 3). Construction’s share has dropped almost a percentage point in the past seven years as well. The largest gain in concentration is also no surprise: private education and health services, which employed 10.6 percent of the local workforce in 2000 and now accounts for 14.4 percent.

Another significant shift in the mix of employment is away from below-average-education industries and toward above-average-education industries—a 4.4 percentage point switch since 2000.

The continuation into the future of these trends—be it from goods to services, manufacturing to health care, low-education to high-education activities—seems to attract the most favorable odds. How Oakland County stacks up in the emerging sectors will determine the area’s future prosperity.

Oakland is already out front in developing programs to ride this wave into the future. The Emerging Sectors business attraction and retention strategy, and Automation Alley, Oakland’s well-established business technology association, have taken hold as hallmarks of the county’s image as a player in the New Economy. Also, the creation of a medical school at Oakland University will help meet the demand for health care services and encourage the development of medical-research-related businesses.

#### *Comparable Counties in the United States*

Current conditions notwithstanding, Oakland is still one of the most successful counties in the nation, with every reason to expect a bright future. Our comparison is based on statistics for Oakland County and similarly sized counties in the United States from the 2006 American Community Survey. Thirty-two counties met the size criterion for inclusion: population between 900,000 and 1,500,000.

The thirty-two counties are then ranked on each of a series of indicators that we judge to be fundamental to cultivating future prosperity. The measures include: (1) the proportion of the population aged 25 to 64 with a bachelor’s degree or more; (2) the median age of the population; (3) the proportion of the population under 18 years old living in poverty; (4) the median earnings of all year-round, full-time workers; (5) the median household income; and (6) the percentage of owner-occupied housing units where the monthly cost of housing exceeds 35 percent of household income. The rankings are shown in table 4; the data underlying these rankings are presented in appendix B.

Greater educational attainment, a younger population, fewer children in poverty, higher earnings and income, and fewer households where monthly housing costs are excessive, all are considered important elements for promoting economic success. The thirty-two counties are ordered by a summation of all of the rankings, where a ranking of 1 signifies the best standing for each category. The summation of rankings is not meant to be a rigorous measure of overall standing, as the individual categories are not weighted for importance and some of the categories overlap. The overall ranking is suggestive, however, of relative standing.

Oakland comes in fourth in the aggregate sum of rankings. Only two counties suburban to Washington, D.C. (Fairfax, Virginia, and Montgomery, Maryland) and one county outside Chicago (DuPage, Illinois) rank higher than Oakland.

Among the individual indicators, Oakland’s lowest standing is for median age (39.4 years), where it ranks twenty-fourth. This can have its advantages, however, since older often means more affluent.

Oakland’s highest score is in median earnings of year-round, full-time workers (\$55,453), where it is exceeded by only two other counties. Oakland’s standing is helped by the fact that 45.4 percent of its prime-working-age population (those aged 25 to 64) has achieved at least a bachelor’s degree, compared with 28.9 percent in the United States as a whole.

Oakland County’s affluent, well-educated community has been, and will continue to be, its own best resource for maintaining a thriving economy.

*How Oakland County stacks up in the emerging sectors will determine its future prosperity, and Oakland is already out front in developing programs to ride this wave.*

*Among counties of similar size across the nation, Oakland ranks fourth in indicators judged to be fundamental to cultivating future prosperity.*

*Oakland’s affluent, well-educated community will continue to be its own best resource.*

**Table 4. Oakland County Compared with Counties of Similar Size Nationwide\***  
(Ranking based on selected indicators of current and future prosperity)

County	State	Population 2006	Sum of Rankings	Bachelor's or More	Median Age	Child Poverty	Median Earnings	Median Household Income	Affordable Housing
Fairfax	VA	1,010,443	36	1	19	5	1	1	9
Montgomery	MD	932,131	37	2	19	1	2	2	11
DuPage	IL	932,670	56	6	16	2	10	9	13
<b>Oakland</b>	<b>MI</b>	<b>1,214,255</b>	<b>61</b>	<b>9</b>	<b>24</b>	<b>6</b>	<b>3</b>	<b>11</b>	<b>8</b>
Westchester	NY	949,355	70	4	22	9	5	7	23
Middlesex	MA	1,467,016	72	3	21	8	8	10	22
Fairfield	CN	900,440	73	8	23	7	6	5	24
Hennepin	MN	1,122,093	77	11	15	17	13	14	7
Bergen	NJ	904,037	77	5	29	3	9	6	25
Nassau	NY	1,325,662	79	10	28	4	4	3	30
St. Louis	MO	1,000,510	88	13	27	14	15	17	2
Salt Lake	UT	978,701	88	23	1	13	27	18	6
Travis	TX	921,006	88	12	2	23	21	20	10
Contra Costa	CA	1,024,319	89	15	17	11	7	8	31
Franklin	OH	1,095,662	92	17	5	26	17	23	4
Alameda	CA	1,457,426	92	14	12	15	11	12	28
Honolulu	HI	909,863	93	18	14	12	18	13	18
Fulton	GA	960,009	93	7	10	28	14	15	19
Suffolk	NY	1,469,715	95	19	18	10	12	4	32
Sacramento	CA	1,374,724	108	27	4	19	16	16	26
Allegheny	PA	1,223,411	112	16	30	20	19	24	3
Orange	FL	1,043,500	114	20	6	16	31	21	20
Pima	AZ	946,362	120	25	12	24	29	25	5
Erie	NY	921,390	121	22	25	25	22	26	1
Hillsborough	FL	1,157,738	123	26	11	22	28	22	14
Milwaukee	WI	915,097	132	30	8	29	24	29	12
Shelby	TN	911,438	139	29	7	30	26	30	17
Palm Beach	FL	1,274,013	139	21	31	18	23	19	27
Cuyahoga	OH	1,314,241	140	24	26	27	20	28	15
Philadelphia	PA	1,448,394	142	31	8	31	25	31	16
Pinellas	FL	924,413	159	28	32	21	30	27	21
Bronx	NY	1,361,473	160	32	3	32	32	32	29

\*All counties in the United States with a population between 900,000 and 1,500,000.

Source: Compiled by Donald Grimes and George Fulton, University of Michigan, using data from the American Community Survey 2006, except for population data which is from the Census Bureau population estimates program.

## NATIONAL OUTLOOK: 2008–10

The outlook for the Oakland County economy is influenced by what happens in the national economy. Forecasts of economic indicators for the U.S. economy in 2008–09 were provided by the Research Seminar in Quantitative Economics (RSQE) at the University of Michigan. The national outlook, summarized by four key economic indicators in figures 4 and 5, comes from an RSQE forecast released on March 13, 2008, by Saul H. Hymans, Joan P. Crary, and Janet C. Wolfe. The results for 2010 are an informal extrapolation of the official forecast release for 2008–09.

Inflation-adjusted Gross Domestic Product (real GDP) increased by just 2.2 percent in 2007, a sizeable drop from the 2.9 percent increase in 2006, as shown in panel A of figure 4. The worsening slide in the housing market and the related freeze-up in credit markets were the biggest economic problem of 2007 nationally—a 26 percent decline in housing starts was enough by itself to take one percentage point out of 2007’s GDP growth.

With the housing market still skidding and consumers tightening their belts, a bad start to 2008 is unfolding. The forecast sees a decline in real GDP in the first quarter followed by a zero-change second quarter. Whether technically in recession or not, it is certainly a weak economy currently that is expected to persist through mid-2008. The economy perks up in the second half of 2008, with help from lower interest rates spawned by the Federal Reserve and the fiscal stimulus package passed by Congress, the latter featuring a \$120 billion income tax rebate to be distributed to taxpayers during the months of May to July. The drag from homebuilding lessens, and business and consumer spending improve.

By the second half of 2009, output is accelerating, buoyed by widespread improvement in private-sector demand. The movements in real GDP translate into calendar-year growth rates of one percent, 2.5 percent, and 3.6 percent, respectively, for 2008 through 2010.

Since the subprime mortgage crisis hit late last summer, the Federal Reserve has taken a number of steps to calm financial markets and provide liquidity—including lowering the federal funds rate, its short-term policy rate, by a total of 3 percentage points. This forecast assumes one more quarter-point cut in the fed funds rate this spring, dropping the rate to 2 percent, where it holds until the late summer of 2009. The Fed is then assumed to begin raising short-term interest rates as the economy gains more solid footing, bringing the fed funds rate to 3 percent by the close of 2009.

The pattern of this policy implies a 3-month Treasury bill rate that reaches a low of 1.3 percent this spring and then edges up to about 1.5 percent by the end of this year. It remains close to that level through mid-2009, moving up to 2.4 percent by the end of the year. The 30-year conventional mortgage rate, which averaged just under 6 percent in March, declines to 5.6 percent by mid-2009 before moving back up to 5.9 percent at yearend (figure 4B).

The excesses of the housing bubble era came home to roost in 2007, as sales of new and existing homes plummeted and single-family housing starts suffered the worst annual drop since the beginning of the data series in the late 1950s.

The national downturn in housing persists through this year. Home prices are forecast to bottom in late 2008 and start to edge up in the summer of 2009. Homebuilding activity begins to recover around the turn of the year, and existing home sales start to pick up next spring.

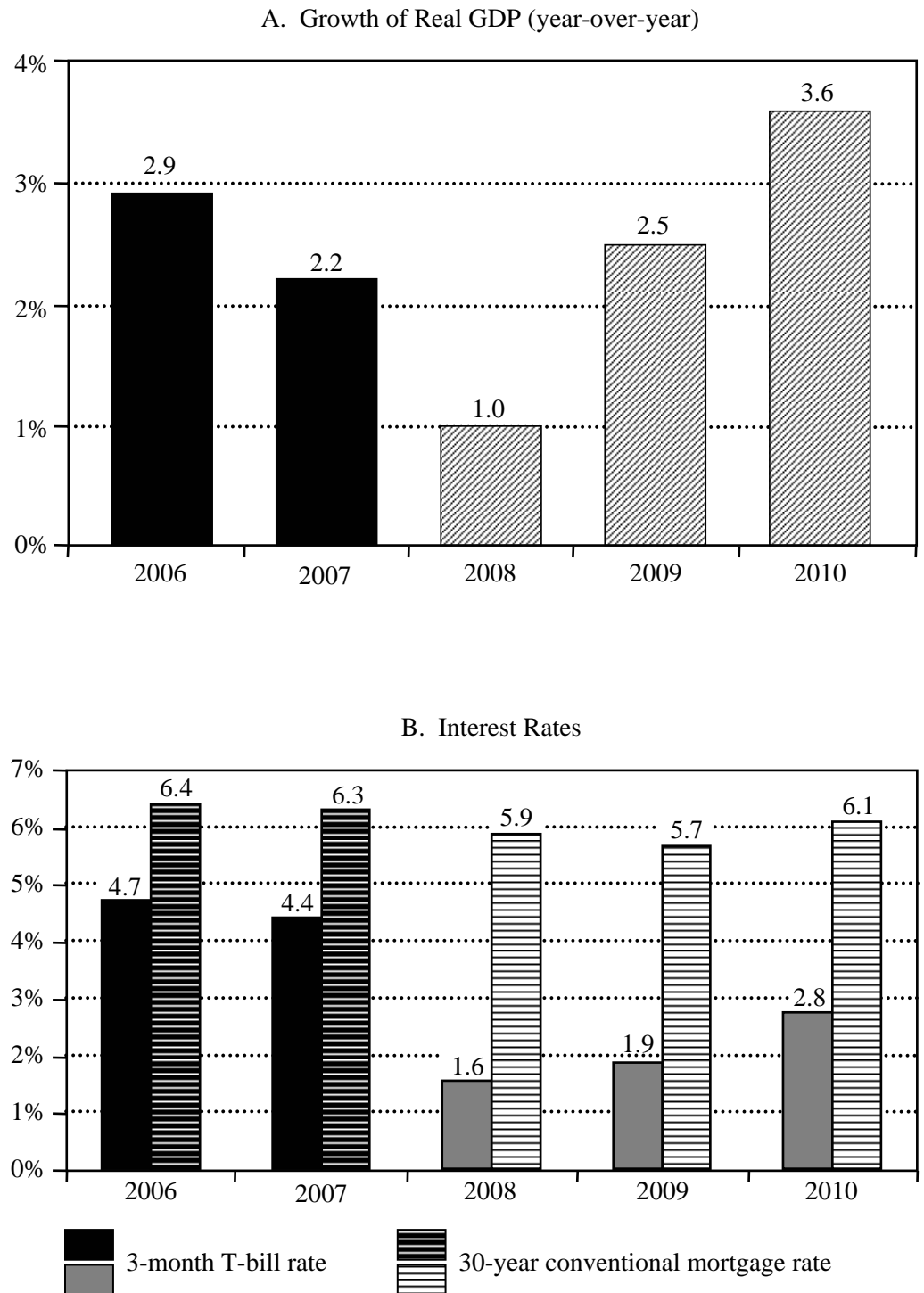
Housing starts in total plunge from 1.34 million units in 2007 to 980,000 units in 2008—nearly 53 percent below their 2005 peak of 2.07 million units. Housing starts

*The worsening slide in the housing market and the related freeze-up in credit markets were the biggest economic problem of 2007 nationally.*

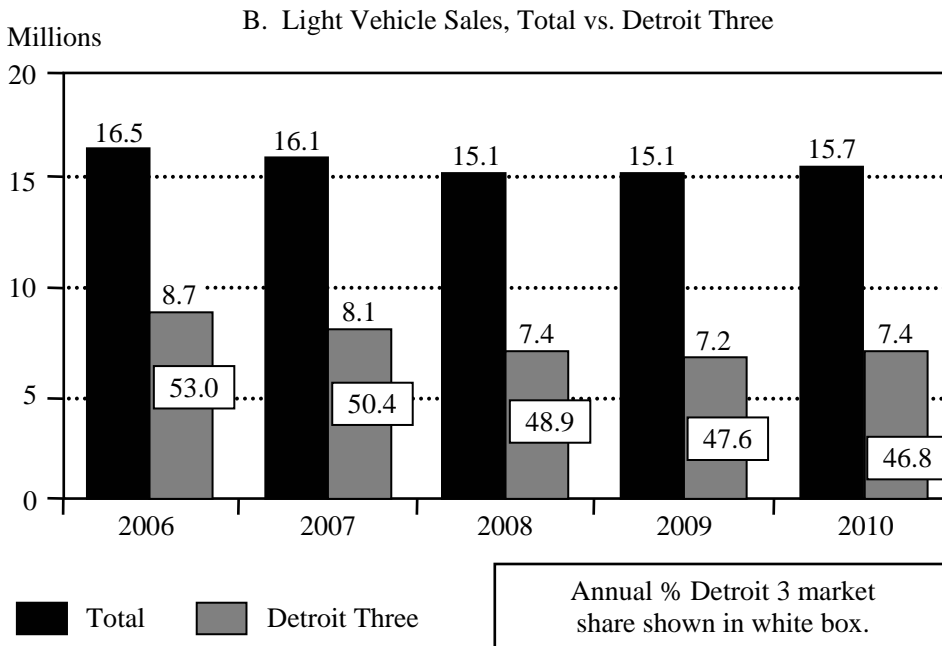
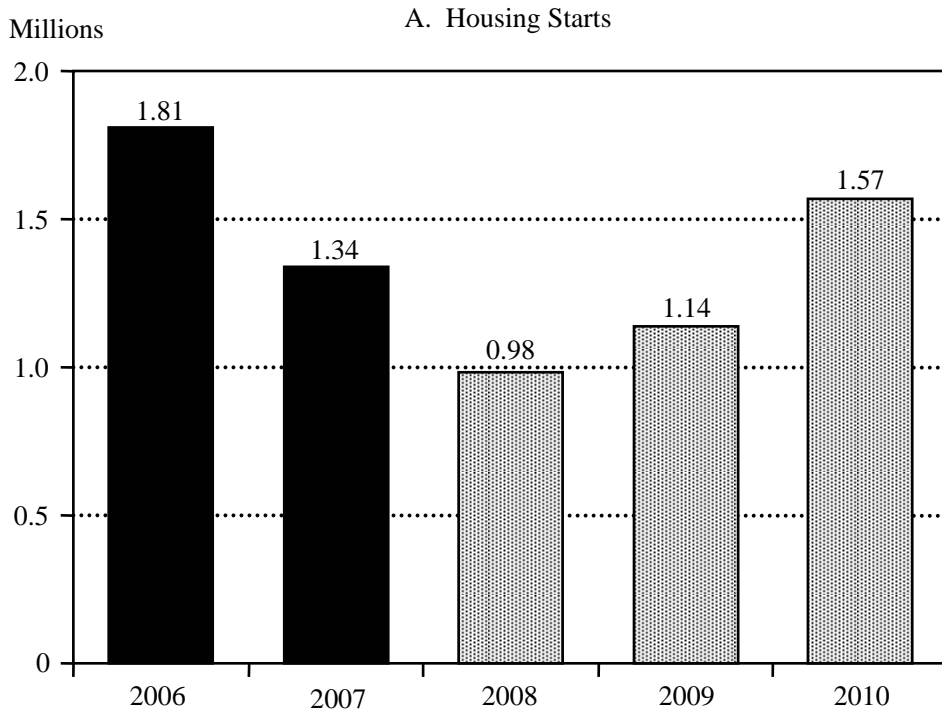
*The national economy perks up in the second half of 2008, and by mid-2009 output is accelerating.*

*Homebuilding activity begins to recover around the turn of the year, and existing home sales start to pick up next spring.*

**Figure 4. RSQE National Outlook: Gross Domestic Product and Interest Rates**



**Figure 5. RSQE National Outlook: Housing Starts and Light Vehicle Sales**



*Most relevant locally is domestic nameplate motor vehicle sales. By 2009, the total market stabilizes and Detroit Three sales and market share both decline more slowly.*

recover to 1.14 million units in 2009, still well below the levels of a few years ago (figure 5A).

Demand for new cars and light trucks (minivans, sport utility vehicles, and pickup trucks) has been slipping since 2005, as high gasoline prices and lower home values are having a dampening effect on vehicle sales. Light vehicle sales are expected to total 15.1 million units in both 2008 and 2009, as shown in figure 5B, down from 16.1 million units in 2007 and representing the lowest annual sales since 1997.

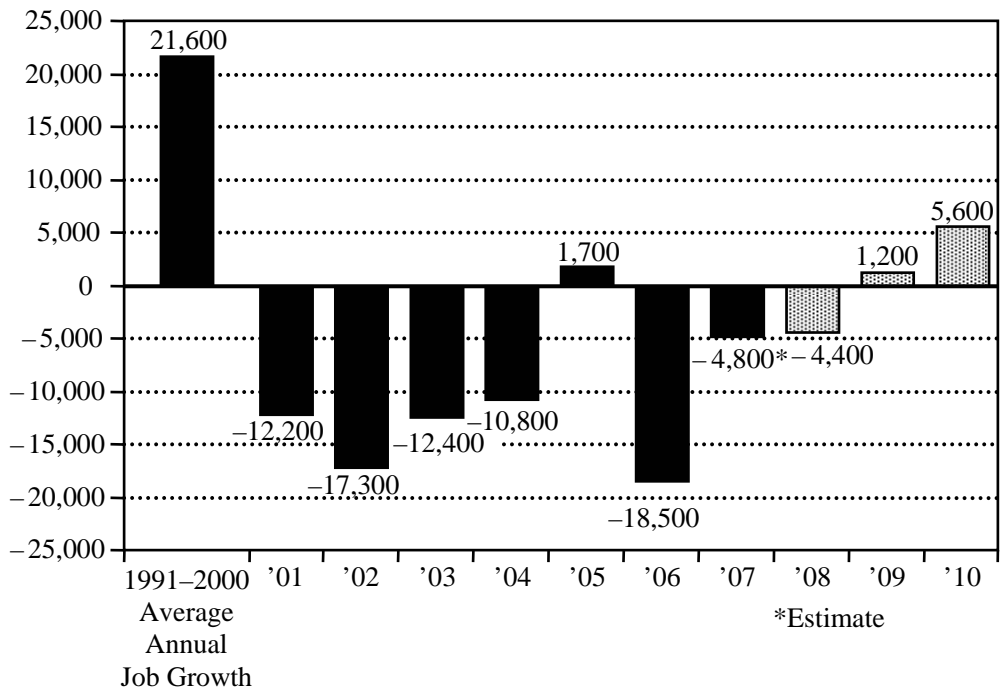
What is most relevant for Oakland County, and Michigan in general, is the motor vehicle sales associated with the domestic nameplates. We are forecasting a continuing decline (since peaking in 1999) in sales of Detroit Three light vehicles, down by 700,000 units between 2007 and 2008 following a decline of 600,000 units from 2006 to 2007. As shown in figure 5B, the drop for 2008 reflects the projected sales decline of one million units in the light vehicle market overall, combined with a loss of 1.5 percentage points (to below 50 percent) in the Detroit Three’s share of that market (indicated in the insert to the bar representing Detroit Three sales). By 2009, Detroit Three sales fall by a more modest 200,000 units, as the total market stabilizes and the Detroit Three’s market share declines a little more slowly.

### OAKLAND COUNTY OUTLOOK: 2008–10

*The rate of job loss slowed dramatically in 2007, and we expect the county will pare its job loss further in 2008.*

The rate of job loss in Oakland County slowed dramatically in 2007, coming in with a decline of 4,800 jobs compared with a loss of 18,500 in 2006. Despite the current weakness in the national economy, the continued job losses due to the restructuring of the auto industry, and the downturn in the housing market, we expect that Oakland will pare its job loss further in 2008 to only 4,400 jobs, as shown in figure 6.

**Figure 6. Job Growth in Oakland County, 1991–2010**



While the first half of 2008 remains weak, we expect to see greater strength later in the year, paralleling the pickup in the national economy, which then carries through to 2009 and 2010. Much of the bounce is due to the winding down of the debilitating effects expected from autos, where much of the hit has already landed—but the rebound also includes a strengthening service-providing sector.

Job change is expected to turn positive in 2009, adding 1,200 workers as the momentum from Oakland’s traditionally strong sectors begins to dominate. Job growth then accelerates in 2010, generating a net job gain of 5,600. While this rate of job gain is much smaller than the county enjoyed during the 1990s, it is likely close to the maximum that the county will be able to sustain in the years after 2010, as we will describe later.

Our forecast of employment in each of the next three years for twenty-eight major industry categories is presented in table 5. The table also includes data on the average annual wage for each industry in the county in 2006.<sup>1</sup> The average wage of nonfarm workers in Oakland County (\$50,182) was 18 percent higher than that for nonfarm workers in the United States (\$42,535). A more detailed forecast of employment, showing 165 industry categories, is provided in appendix A.

We use employment to measure a county’s economic performance because production data are not available at the county level as they are at the national level. In addition to the job outlook, we also project the unemployment rate for the county and consumer price inflation for the metropolitan Detroit area.

Government employment is forecast to decline by 400 jobs in 2008 and 100 jobs in 2009, before rebounding in 2010 by 300 jobs. The job losses in 2008 are due to retrenchment in the local school districts, while much of the gain in 2010 reflects the hiring of temporary census workers. Our forecast includes modest job gains at Oakland University with the coming of the new medical school. Most of the benefits of that expansion, however, would occur beyond our forecast horizon.

Job losses in the goods-producing sector continue to be significant—3,800 in 2008—but nothing like the plummet of 9,400 that occurred in 2006.

Construction and the natural resource industries are projected to lose 1,800 jobs over the next three years, half of them in 2008. Residential construction accounts for all of these job losses, due to a profoundly subdued local housing market. Heavy construction, such as road construction and maintenance, adds 200 jobs over the 2008–10 period, a gain that could evaporate if government expenditures on these activities cannot be sustained.

Manufacturing loses 2,900 jobs in 2008 and 1,100 in 2009, before turning around to add 100 jobs in 2010. While these losses will be painful, they represent a substantial improvement over recent history: between 2000 and 2007, the manufacturing sector lost an average of 5,600 jobs per year.

Motor vehicle manufacturing takes another hit in 2008, resulting in the loss of 1,700 jobs. A large part of the loss is due to the elimination of a shift at Pontiac Assembly later this year and the impact of the American Axle strike on production activity in the county. The rate of job loss diminishes in 2009, and posts a small (100) job gain in 2010. By then, however, the local motor vehicle manufacturing industry will employ about half as many workers as it did a decade earlier in 2000.

*Job change is expected to turn positive in 2009 and accelerate in 2010.*

*Job losses in the goods-producing sector continue to be significant, but nothing like the plummet that occurred in 2006.*

*By 2010, the local motor vehicle manufacturing industry will employ about half as many workers as it did a decade earlier.*

<sup>1</sup>Note that both full- and part-time workers are included; consequently, industries with a relatively large share of part-time workers tend to have lower wages because the average employee works fewer hours. The actual data for employment and wages are from the Quarterly Census of Employment and Wages (ES 202 series) operated by the Michigan Department of Labor & Economic Growth.

**Table 5. Forecast of Nonfarm Employment in Oakland County, 2008–10**

	Estimate 2007	Forecast Employment Change				Average Annual Wage 2006
		'07-'08	'08-'09	'09-'10	'07-'10	
<b>TOTAL NONFARM JOBS</b>	<b>693,400</b>	<b>-4,400</b>	<b>1,200</b>	<b>5,600</b>	<b>2,400</b>	<b>\$50,182</b>
(Annual percentage change)	(-0.7)	(-0.6)	(0.2)	(0.8)		
TOTAL GOVERNMENT	54,600	-400	-100	300	-200	43,999
TOTAL PRIVATE	638,800	-4,000	1,300	5,300	2,600	50,711
GOODS-PRODUCING	95,700	-3,800	-1,700	-200	-5,700	62,622
Natural resources, mining, construction	26,800	-900	-600	-300	-1,800	57,465
Manufacturing	68,900	-2,900	-1,100	100	-3,900	64,585
Fabricated metal products	10,700	-200	-200	200	-200	53,100
Machinery	11,200	-600	-500	-200	-1,300	68,017
Transportation equipment (motor vehicles)	25,100	-1,700	-300	100	-1,900	81,766
Other manufacturing	21,900	-400	-100	0	-500	49,350
PRIVATE SERVICE-PROVIDING	543,100	-200	3,000	5,500	8,300	48,538
Trade, transportation, and utilities	121,600	-1,500	-1,300	-700	-3,500	43,551
Wholesale trade	36,700	-200	-200	100	-300	74,699
Retail trade	77,200	-1,300	-1,000	-700	-3,000	28,162
Transportation, warehousing, and utilities	7,700	0	-100	-100	-200	52,202
Information	16,100	200	200	200	600	63,278
Financial activities	56,100	-600	-200	0	-800	59,984
Finance and insurance	40,400	-300	0	200	-100	68,334
Real estate and rental and leasing	15,700	-300	-200	-200	-700	38,479
Professional and business services	167,900	-500	2,200	3,300	5,000	64,398
Professional, scientific, and technical	88,900	500	800	1,100	2,400	77,949
Management of companies and enterprises	13,900	-1,300	-100	500	-900	102,741
Administrative support and waste management	65,100	300	1,500	1,700	3,500	36,366
Private education and health services	100,100	2,300	2,300	2,600	7,200	42,579
Private education services	9,900	300	300	500	1,100	30,426
Health care and social assistance	90,200	2,000	2,000	2,100	6,100	43,940
Leisure and hospitality	60,600	-200	-200	0	-400	16,965
Other services	20,700	100	0	100	200	28,992

Employment in the machinery manufacturing industry declines by 600 jobs in 2008, 500 in 2009, and 200 in 2010. Employment in this industry has been in long-term decline since it peaked in 1997, reflecting a shift in the composition of business investment away from industrial equipment and toward information technology.

Employment in most of the other manufacturing industries either remains constant or declines by a small number of jobs. The job losers are: printing (–100); plastics (–100); fabricated metals (–200); computer and electronics products (–300); furniture (–100); and other manufacturing (–100). The exceptions are chemical manufacturing and primary metals, each of which adds 100 jobs over the next three years. These job gains, and the muting of job losses, primarily result from a continued increase in the export of American goods and services.

The private service-providing sector is forecast to lose 200 jobs in 2008, followed by job gains of 3,000 in 2009 and 5,500 in 2010. The industries suffering the greatest job losses over the next three years are headquarters jobs tied to the automobile industry; finance and real estate brought down by the difficulties in the local residential housing market; and low-education, low-wage industries hit hard by weakness in discretionary consumer spending and increased labor costs, such as retail trade and leisure and hospitality services.

Retail trade loses a total of 3,000 jobs over the next three years, nearly half of the loss (1,300) occurring in 2008. The greatest losses are in department stores and other general merchandise stores (1,300), food stores (600), electronics and appliance stores (400), and building material dealers (600). These losses reflect several factors: the weakness in the local economy, the greater use of labor-saving technology such as self-service checkout at grocery stores, the burgeoning growth of Internet shopping, and the effect of the increase in the minimum wage.

The leisure and hospitality industry loses 400 jobs over the next three years, following the loss of 800 jobs in 2007. These are concentrated in hotels and other accommodations, and special food services such as caterers and food service contractors. For the next few years, weaker consumer discretionary spending and higher labor costs will be putting the brakes on this normally robust sector.

Job gains in banking and brokerage services are expected to be more than offset by losses in real estate, real-estate-related non-bank lenders and mortgage brokers, and insurance carriers, resulting in a net loss of 800 jobs in financial activities over the next three years.

White-collar employment at corporate headquarters, mostly related to the auto industry, has been hit hard in recent years due to the retrenchment of the Detroit Three. Substantial job losses are also expected in this industry in 2008 (1,300), but the number is expected to diminish to only 100 in 2009, before switching direction and growing by 500 jobs in 2010.

The information industry adds 200 jobs in each of the next three years. Software publishers and wireless telecommunications carriers are the source of most of these job gains.

Employment in professional and technical services steadily increases: 500 net new jobs in 2008; 800 in 2009; and 1,100 in 2010. The largest job gains over the three-year period are in legal services (600), specialized design services (1,000), custom computer programming services (700), and scientific, research, and development services (600). Not all of the professional service industries are expected to do so well, however; engineering services, closely tied to the automobile industry, is forecast to lose 300 jobs.

*Job gains and the muting of job losses in much of manufacturing primarily result from an increase in the export of American goods and services.*

*Weakness in the local economy, self-service checkouts, Internet shopping, and the increase in the minimum wage all contribute to job loss in retail trade.*

*Employment steadily increases in professional and technical services, except for engineering services which is closely tied to the auto industry.*

*The largest job gains are in health care and social assistance, an industry that has added jobs every year since 1999.*

*Both the state and Oakland County are forecast to show steady improvement in 2009 and 2010, but the outlook in Oakland is substantially brighter.*

Administrative support services gains 3,500 jobs over the next three years, with most of the gains occurring in 2009 and 2010. Virtually all of these job gains are in employment services, which includes temporary help services and professional employer organizations.

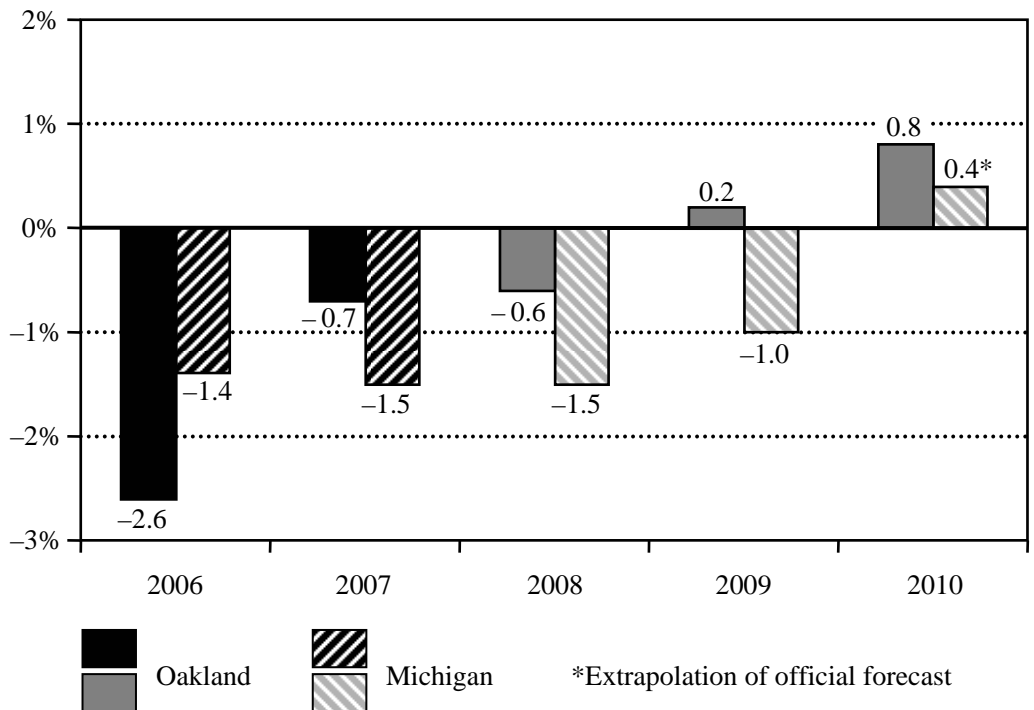
Private education services adds 1,100 jobs over the next three years, and religious, grantmaking, civic, and professional organizations are forecast to gain 200 jobs.

The largest gains, however, are in health care and social assistance, amounting to 6,100 jobs over the forecast period. This industry has added jobs every year since 1999, totaling 19,500 jobs by 2007. Much of the forecast employment gain occurs in hospitals (2,700), physicians' offices (1,100), and home health care services (600). Social assistance is also expected to add 600 jobs over the next three years.

The outlook for employment in Oakland County is compared with the state of Michigan as a whole in figure 7.<sup>2</sup> Total wage and salary employment in Oakland is forecast to decline by 0.6 percent in 2008, while the state overall is forecast to decline by over twice as much (1.5 percent), both roughly repeating their performance in 2007. Both the state and Oakland County are forecast to show steady improvement over the following two years. The outlook in Oakland is substantially brighter, however. In 2009, employment is forecast to grow by 0.2 percent in Oakland while continuing to decline in the state, and in 2010 the rate of job growth in Oakland is forecast to be twice that of the state as a whole.

Oakland's more favorable performance relative to the state over the forecast horizon reflects our judgment that Oakland is better positioned in its economic fundamentals to come off the mat more strongly.

**Figure 7. Forecast of Job Growth, Oakland County vs. Michigan, 2008–10**



<sup>2</sup> The forecast for the state of Michigan was prepared by RSQE and released on April 4, 2008.

As can be seen in figure 8A, the continuing weakness in the job market in 2008 will cause the county’s unemployment rate to move up by 0.3 percentage points, to 6.4 percent.

A projected increase in the number of self-employed workers (not included in our establishment-based employment data but included in the unemployment rate calculation) keeps the unemployment rate from drifting higher in 2008, as does the departure of people from the labor force. Some of those departures are auto workers who participated in the buyout programs and have opted for retirement or have returned to school.

As the county economy recovers over the next two years, the jobless rate holds in 2009 and then gravitates down to 5.8 percent in 2010.

The Michigan unemployment rate is forecast to remain above the county rate over the next three years, holding at least the one-percentage-point differential that has prevailed since 2002.

Our forecast of local consumer price inflation is shown in figure 8B. Local inflation is measured here by the growth rate of the Detroit metropolitan area Consumer Price Index, as consumer price data are not compiled for the county in isolation.

Local inflation registered a tame 1.9 percent in 2007, but accelerating food and energy prices drive consumer prices up by a projected 2.6 percent this year. With respect to food price inflation, the mandated increase in ethanol usage has driven up the price of corn and affected the prices of a wide variety of foodstuffs tied to corn.

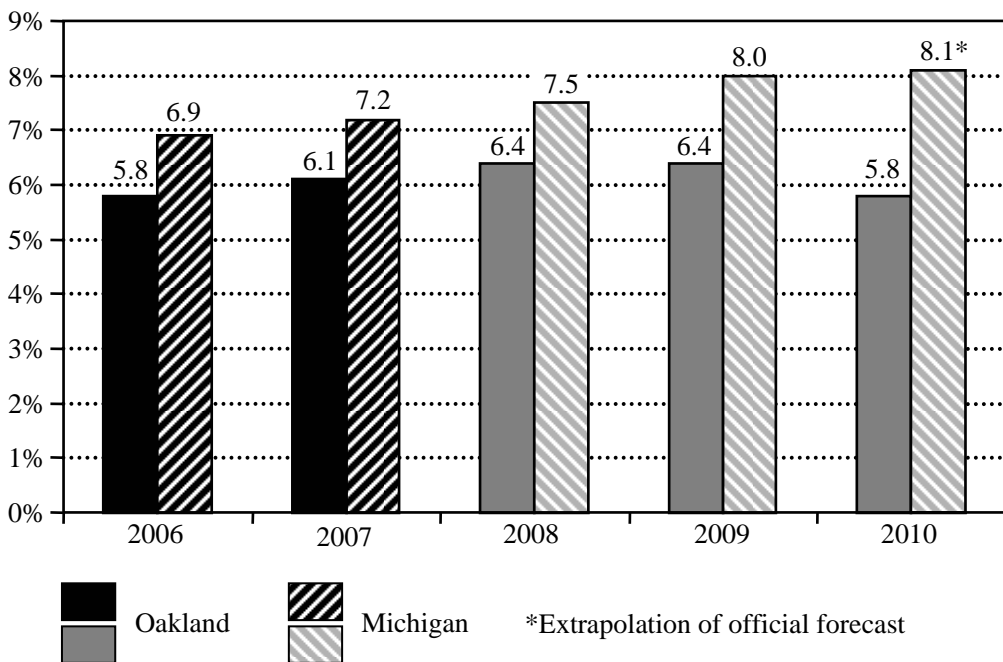
With food price inflation easing and energy prices retreating in 2009, local consumer inflation edges back to 2.2 percent next year.

The price of oil is forecast to back off from current levels, reaching \$92 a barrel by late 2008 and bottoming in the spring of 2009 at \$87 a barrel. This is still high by historical standards, however, and gasoline prices will likely remain above \$3 a gallon.

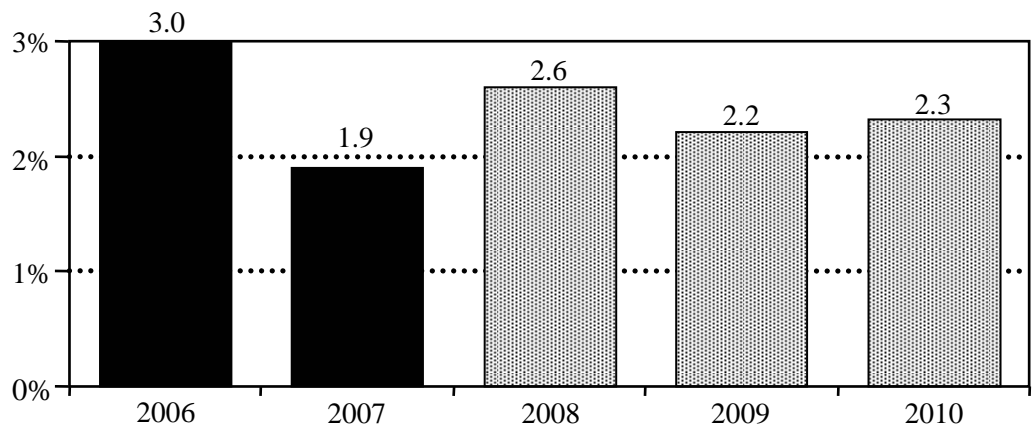
*An increase in the number of self-employed and the departure of people from the labor force keep the unemployment rate from drifting higher in 2008.*

*The mandated increase in ethanol usage has driven up the price of corn and affected the prices of foodstuffs tied to corn.*

**Figure 8A. Forecast of Unemployment Rate, Oakland County vs. Michigan, 2008–10**



**Figure 8B. Forecast of Inflation Rate, Detroit CPI, 2008–10**



### OAKLAND COUNTY OUTLOOK: 2010–35

Looking beyond 2010, it is apparent that Oakland County, along with all communities in the United States, will face a variety of new challenges and opportunities—some of the most important of which are revealed by our twenty-five-year population and employment forecasts extending to 2035.<sup>3</sup>

As shown in table 6, population growth in the county will be slightly slower over the 2010–35 period than it was during the previous twenty-five-year period, from 1985 to 2010 (15.7 percent compared with 19.3 percent earlier).

The number of residents of prime working age, those aged 25 to 64, will actually decline from 2010 to 2035, by 2.1 percent. In contrast, during the 1985–2010 period, the prime-working-age population grew more rapidly than the total population in the county. The decline in the prime-working-age population virtually ensures a severe shortage of potential workers in the period after 2010—that is, absent a large, and difficult to imagine, influx of younger residents.

**Table 6. Long-Term Economic and Demographic Outlook for Oakland County**

	25-Year Growth Rate		
	Population		Employment
	Total	Aged 25–64	
2010–2035	15.7%	-2.1%	11.9%
1985–2010	19.3%	23.4%	52.1%

Such limitations on workforce growth show up in the employment projections. We are forecasting that employment in the county will increase by only 11.9 percent between 2010 and 2035, less than one-quarter the pace sustained between 1985 and 2010—and even this relatively small gain will require a substantial increase in the labor force participation rate of older residents.

The limitations on workforce growth highlight the critical importance of enhancing its productivity, if total income in the county is going to increase in inflation-adjusted terms and standards of living are to rise. One of the major ways to increase productivity is through education and training.

<sup>3</sup> This long-run forecast was prepared by ILIR for the Michigan Department of Transportation and released February 12, 2008.

*A decline in the prime-working-age population after 2010 virtually ensures a severe shortage of potential workers.*

*The limitations on workforce growth highlight the critical importance of enhancing productivity, which can be done through education and training.*

We stress that this is not a challenge unique to Oakland County. Most communities in this country will be facing this trend in varying degrees, and how they respond will go a long way toward shaping their economic prospects over the next few decades.

The reason for the tight labor markets can be seen in figure 9. This diagram shows the share of the county’s population by age category in 2035 compared with 2010.

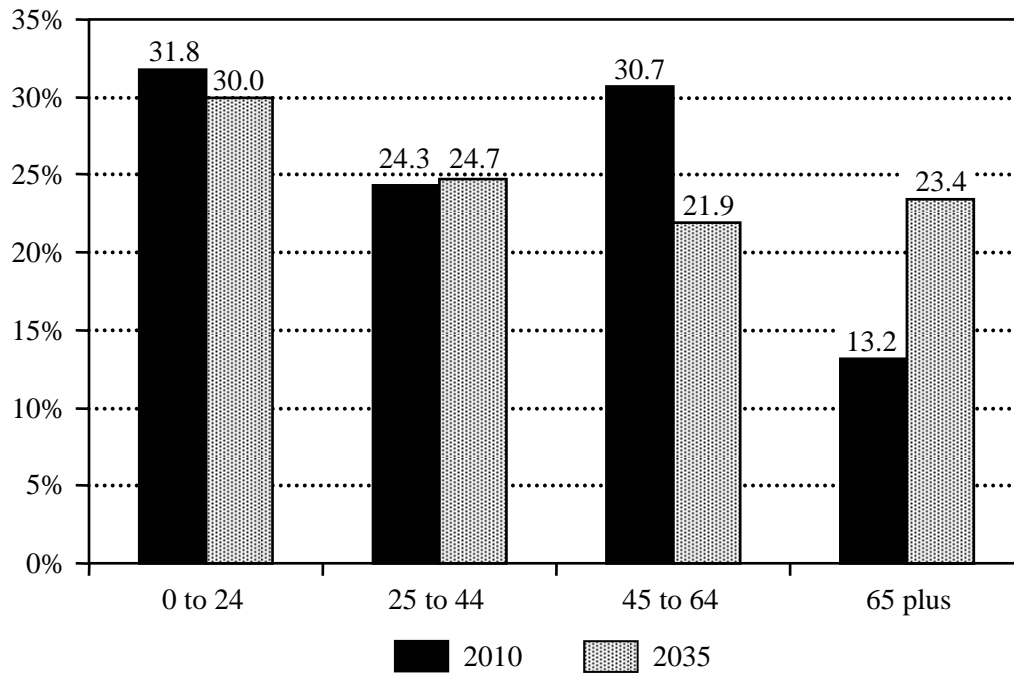
The share of the population aged 45 to 64 is forecast to fall dramatically, from 30.7 percent to 21.9 percent between 2010 and 2035. In contrast, the share of the population aged 65 or older is expected to nearly double, from 13.2 percent to 23.4 percent.

In Oakland County today, about one person in eight is 65 or older, but by 2035 that ratio will change to almost one in four. To put this in context, in Florida—known to locals as “God’s waiting room”—about 17 percent of the population today is 65 or older. In a couple of decades, Oakland County will look much older than Florida does today.

*The share of the population aged 45 to 64 is forecast to fall by almost one-third between 2010 and 2035, while the population 65 or older is expected to nearly double.*

*In a couple of decades, Oakland County will look much older than Florida does today.*

**Figure 9. Oakland County Population Distribution by Age Group, 2010 and 2035**



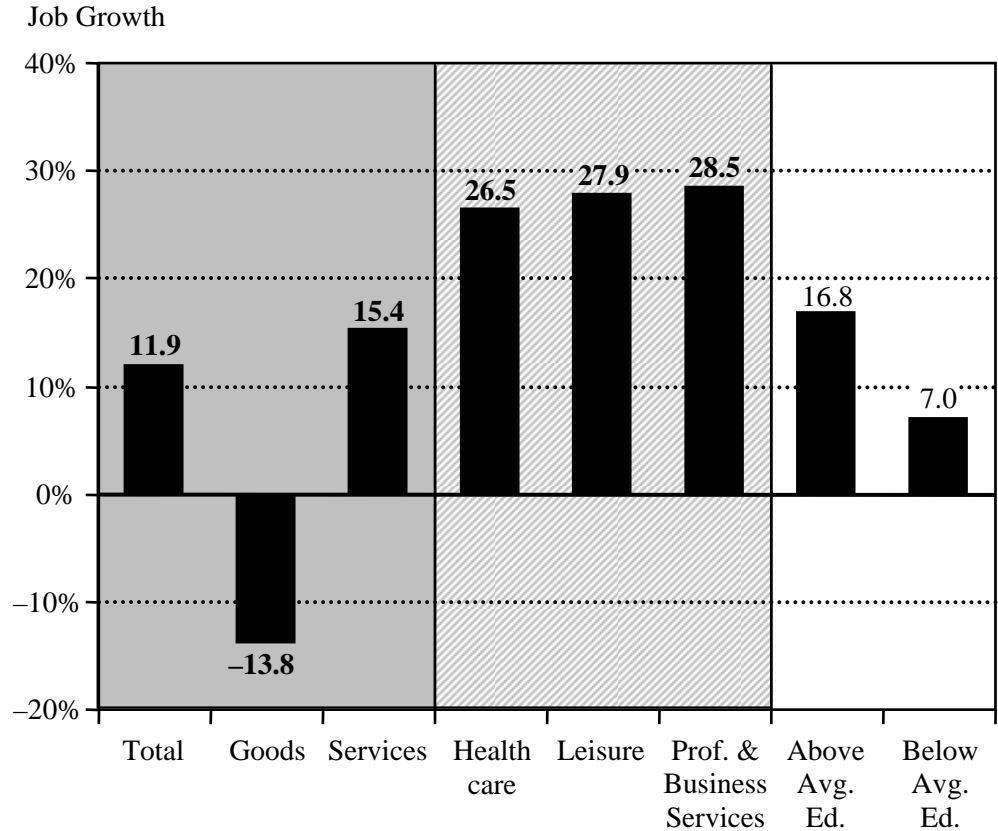
The aging of the baby-boomer generation will have a dramatic influence not only on the labor force, but also on the types of goods and services demanded by the residents of the county. The industrial composition of our employment forecast to 2035, shown in figure 10, represents the choices we expect to be made by such a populace. Employment in the goods-producing sector is forecast to decline by 13.8 percent between 2010 and 2035, while employment in the service-providing sector is expected to increase by 15.4 percent—continuing the trend that we have seen throughout the current decade.

Among the industries we foresee as having the fastest employment growth are health care and the leisure and hospitality industry, growing at 26.5 percent and 27.9 percent, respectively—expanding to meet the needs and wants of an aging population. The fastest-growing industry, however, is professional and business services, increasing by 28.5 percent, as the knowledge economy continues to grow in importance.

*The aging of baby-boomers will have a dramatic influence on the types of goods and services demanded by county residents.*

In fact, we are forecasting that jobs in industries with above-average educational requirements will grow about twice as fast, overall, as jobs in industries requiring less education—also continuing a trend we have seen throughout the current decade.

**Figure 10. Job Growth in Oakland County by Major Sector, 2010–35**



## CONCLUSION

*The Oakland economy did much better in 2007 than it did in 2006, but it still lost jobs.*

It was not a very good year for the Oakland economy in 2007—the county lost an estimated 4,800 jobs. But it was a much better year than 2006, when the local economy dropped an unprecedented 18,500 jobs. So, we saw a dramatic improvement for sure, but a down year nonetheless. We are forecasting another improvement for 2008, albeit a small one: further slowing of the job loss to 4,400 jobs. With the current weakness in the national economy, a sharp decline in motor vehicle sales, and the ongoing difficulties in the residential real estate market, the local economy can't get much more traction at the moment.

*In the constant tug of war between expanding and declining industries, our view is that the expanding industries will begin to dominate in 2009, putting Oakland back in the black.*

In the constant tug of war between expanding and declining industries, our view is that the expanding industries will begin to dominate in 2009, putting Oakland back in the black with a modest net job gain of 1,200. Employment growth will become more robust in 2010, netting 5,600 jobs then—the first years of back-to-back job growth since 1999–2000. An appropriate bumper sticker for Oakland's economic prospects over the next three years would be: a little more pain, then some gain. The continued improvement in a trying environment is a tribute to the resiliency of the Oakland County economy.

Manufacturing, construction, real-estate-related financial activities, auto-related corporate headquarters, retail trade, and leisure and hospitality will continue to lose jobs over the next three years, although in some cases there will be a small gain in

2010. Job growth will occur in health care, professional and business services, education, and information—industries that for the most part require higher levels of educational attainment and that tend to pay above-average wages.

Beyond 2010, it appears that Oakland County has most of the right ingredients for a prosperous long-run future. These include a well-educated workforce, relatively high wages and incomes, low poverty rates, and reasonable housing costs—as well as a solid strategic plan to build a 21<sup>st</sup> Century knowledge-based economy.

Like other communities in the United States, however, in the next few decades Oakland will look much different in certain respects, particularly in terms of the mix of its population: by 2035, almost one in four of its residents will be 65 or older, compared with about one in eight today. The implications for the county are profound, both in terms of the available workforce and the goods and services that its residents will seek out.

What about the risks to our short-term and long-term forecasts? For the short-term forecast, three risks are center stage: the price of oil, credit market conditions, and the housing sector. The forecast sees a retreat from prices of over \$100 a barrel to the upper \$80s by the spring of next year, but oil price movements contain a huge speculative component, and oil prices could end up much higher or lower. The forecast also allows for relief in the turmoil in financial markets, but the process may prove more protracted than we expect it to be, delaying an upturn in economic activity. Also, depending on the movement in home prices and the associated price expectations of consumers, together with credit market conditions, the housing sector recovery could be put off even longer. On balance, there seems to be more downside than upside risk to our forecast; that is, it's more likely to be too optimistic than it is to understate the prospects for Oakland's economy over the next year.

In the longer term, the risk to the forecast is an even more severe shortage than we anticipate of qualified labor to meet the needs of a significantly older population. The long-run labor shortage problem and the need to attract and retain workers will be more enduring issues than the disruptions to the flow of the economy that we are facing at this time.

What should the leadership in Oakland, both public and private, be doing to adapt to the economic situation? With respect to the high-profile disruptions tugging the economy in a negative direction currently—auto restructuring, the housing slump, credit market conditions, the price of oil—there is little that they can do. What can be done is to invest in those activities that show promise for future growth. As indicated in our long-term forecast, these include health care, elder-friendly ventures, and knowledge-based activities. Leadership is pressing forward on this already: the Emerging Sectors business attraction and retention strategy, Automation Alley, the initiative to create a medical school at Oakland University, the promotion of higher education, the introduction of Mandarin Chinese language classes in the public schools. These efforts are evidence of an understanding of where the economies of the future will be, and having the energy and will to get there. The county also has in place an affluent, well-educated community that continues to be its own best resource. Oakland County does not have to change its essence to thrive in the economy of the future.

*There is little that local leaders can do about auto restructuring, the housing slump, credit market conditions, or the price of oil. What they can do is invest in activities that show promise for future growth—and that is precisely what they are doing.*

**APPENDIX A****Forecast of Employment in Oakland County by Detailed Industry Division**

	Actual 2006	Estimate 2007	ILIR Forecast		
			2008	2009	2010
<b>TOTAL NONFARM JOBS (Number of persons)</b>	698,200	693,400	689,000	690,200	695,800
(Annual percentage change)	(-2.6)	(-0.7)	(-0.6)	(0.2)	(0.8)
<b>TOTAL GOVERNMENT</b>	55,100	54,600	54,200	54,100	54,400
Federal government	4,800	4,700	4,700	4,600	4,800
Postal Service	4,200	4,100	4,100	4,100	4,100
Other federal government	600	600	600	500	700
State and local government	50,300	49,900	49,500	49,500	49,600
Local education services	29,000	28,300	27,900	27,900	28,000
State and other local government	21,300	21,600	21,600	21,600	21,600
<b>TOTAL PRIVATE</b>	643,100	638,800	634,800	636,100	641,400
<b>GOODS-PRODUCING</b>	100,000	95,700	91,900	90,200	90,000
Natural resources and mining	700	600	600	600	600
Agriculture, forestry, fishing, and hunting	400	400	400	400	400
Mining	300	200	200	200	200
Construction	28,300	26,200	25,300	24,700	24,400
Construction of buildings	7,400	6,500	6,100	5,800	5,700
Heavy and civil engineering construction	2,500	2,600	2,700	2,800	2,800
Specialty trade contractors	18,400	17,100	16,500	16,100	15,900
Manufacturing	71,000	68,900	66,000	64,900	65,000
Food	2,400	2,400	2,400	2,300	2,400
Printing and related support activities	2,100	2,200	2,100	2,100	2,100
Chemicals	2,900	2,800	2,800	2,900	2,900
Plastics and rubber products	3,400	3,200	3,100	3,100	3,100
Nonmetallic mineral products	1,400	1,400	1,300	1,300	1,400
Primary metals	900	800	900	900	900
Fabricated metal products	11,200	10,700	10,500	10,300	10,500
Machinery	12,200	11,200	10,600	10,100	9,900
Computer and electronic products	3,400	3,200	3,100	3,000	2,900
Electrical equipment, appliances, components	1,000	1,000	1,000	1,000	1,000
Transportation equipment (motor vehicles)	25,000	25,100	23,400	23,100	23,200
Furniture and related products	600	700	600	600	600
Miscellaneous manufacturing	2,800	2,600	2,600	2,600	2,600
Other manufacturing	1,700	1,600	1,600	1,600	1,500
<b>PRIVATE SERVICE-PROVIDING</b>	543,100	543,100	542,900	545,900	551,400
Trade, transportation, and utilities	123,600	121,600	120,100	118,800	118,100
Wholesale trade	36,800	36,700	36,500	36,300	36,400
Merchant wholesalers, durable goods	24,700	24,800	24,700	24,700	24,900
Merchant wholesalers, motor vehicles, parts	5,500	5,600	5,500	5,500	5,500
Merchant wholesalers, commercial equipment	5,900	6,100	6,000	6,000	6,100
Merchant wholesalers, electric goods	3,300	3,200	3,200	3,100	3,100
Merchant wholesalers, machinery and supply	5,300	5,500	5,600	5,700	5,800
Merchant wholesalers, other durable goods	4,700	4,400	4,400	4,400	4,400
Merchant wholesalers, nondurable goods	7,200	7,200	7,200	7,200	7,200
Wholesale electronic markets, agents, brokers	4,900	4,700	4,600	4,400	4,300
Retail trade	79,000	77,200	75,900	74,900	74,200
Motor vehicle and parts dealers	9,300	9,200	9,100	9,100	9,100
Furniture and home furnishings stores	3,900	3,500	3,600	3,700	3,700

## APPENDIX A continued

## Forecast of Employment in Oakland County by Detailed Industry Division

	Actual 2006	Estimate 2007	ILIR Forecast		
			2008	2009	2010
Retail trade (continued)					
Electronics and appliance stores	4,500	4,300	4,100	3,900	3,900
Building material dealers	6,000	5,600	5,300	5,100	5,000
Food and beverage stores	11,600	10,900	10,600	10,400	10,300
Health and personal care stores	5,600	5,600	5,600	5,700	5,800
Gasoline stations	2,000	1,900	1,900	1,900	1,800
Clothing and clothing accessories stores	9,800	10,100	10,200	10,200	10,200
Sporting goods, hobby, book, music stores	4,100	4,000	4,000	3,900	3,800
General merchandise stores	15,900	15,500	15,000	14,600	14,200
Department stores	10,200	10,000	9,700	9,500	9,300
Other general merchandise stores	5,700	5,500	5,300	5,100	4,900
Miscellaneous store retailers	4,900	5,200	5,100	5,000	5,000
Nonstore retailers	1,400	1,400	1,400	1,400	1,400
Transportation, warehousing, and utilities	7,800	7,700	7,700	7,600	7,500
Transportation and warehousing	6,800	6,500	6,400	6,300	6,300
Truck transportation	1,900	1,800	1,700	1,700	1,600
Couriers and messengers	1,600	1,600	1,600	1,600	1,600
Warehousing and storage	1,300	1,200	1,200	1,200	1,200
Other transportation and warehousing	2,000	1,900	1,900	1,800	1,900
Utilities	1,000	1,200	1,300	1,300	1,200
Information	15,500	16,100	16,300	16,500	16,700
Publishing (except Internet)	3,800	3,600	3,600	3,600	3,700
Newspaper, book, and directory publishers	2,700	2,500	2,500	2,400	2,400
Software publishers	1,100	1,100	1,100	1,200	1,300
Motion pictures and sound recording	2,200	2,400	2,400	2,500	2,500
Broadcasting (except Internet)	1,600	1,800	1,800	1,800	1,800
Telecommunications	6,100	6,500	6,600	6,700	6,700
Wireless telecommunications carriers	2,200	2,600	2,700	2,800	2,800
Other telecommunications	3,900	3,900	3,900	3,900	3,900
ISPs, search portals, data processing services	1,600	1,600	1,700	1,700	1,700
Other information	200	200	200	200	300
Financial activities	56,600	56,100	55,500	55,300	55,300
Finance and insurance	40,800	40,400	40,100	40,100	40,300
Credit intermediation and related	20,400	20,100	20,000	20,100	20,300
Depository credit intermediation	10,400	10,800	11,000	11,100	11,300
Nondepository credit intermediation	7,600	7,400	7,300	7,300	7,400
Activities related to credit intermediation	2,400	1,900	1,700	1,700	1,600
Securities and commodity contracts	4,400	4,500	4,600	4,800	4,900
Insurance carriers and related	15,600	15,400	15,100	14,800	14,700
Insurance carriers	9,400	9,300	9,100	8,900	8,700
Insurance agencies, brokerages, and related	6,200	6,100	6,000	5,900	6,000
Other finance and insurance	400	400	400	400	400
Real estate and rental and leasing	15,800	15,700	15,400	15,200	15,000
Real estate	12,500	12,500	12,300	12,200	12,000
Rental and leasing services	2,900	2,700	2,600	2,500	2,500
Lessors of nonfinancial intangible assets	400	500	500	500	500
Professional and business services	167,600	167,900	167,400	169,600	172,900
Professional, scientific, and technical services	88,700	88,900	89,400	90,200	91,300
Legal services	10,100	10,400	10,600	10,800	11,000

**APPENDIX A** continued**Forecast of Employment in Oakland County by Detailed Industry Division**

	Actual 2006	Estimate 2007	ILIR Forecast		
			2008	2009	2010
Professional and business services (continued)					
Accounting and bookkeeping services	6,400	6,400	6,400	6,400	6,400
Architectural and engineering services	34,400	34,300	34,200	34,100	34,100
Engineering services	18,000	18,000	17,900	17,800	17,700
Testing laboratories	14,000	14,000	14,100	14,200	14,300
Other architectural services	2,400	2,300	2,200	2,100	2,100
Specialized design services	1,600	2,000	2,200	2,600	3,000
Computer systems design, related services	19,600	19,500	19,700	20,000	20,300
Custom computer programming services	4,600	4,600	4,800	5,100	5,300
Computer systems design services	12,800	12,600	12,600	12,600	12,600
Other computer services	2,200	2,300	2,300	2,300	2,400
Management, technical consulting services	5,500	5,500	5,600	5,600	5,600
Scientific, research, and development services	2,200	1,800	1,900	2,100	2,400
Advertising and related services	5,500	5,200	5,200	5,100	5,100
Other professional, technical services	3,400	3,800	3,600	3,500	3,400
Management of companies and enterprises	15,200	13,900	12,600	12,500	13,000
Administrative support and waste management	63,700	65,100	65,400	66,900	68,600
Administrative and support services	62,800	64,200	64,500	66,000	67,700
Office administrative services	3,200	3,100	3,000	3,000	3,000
Employment services	39,300	40,100	40,500	42,000	43,500
Employment placement agencies	1,200	1,300	1,300	1,300	1,300
Temporary help services	17,200	20,300	20,000	19,800	19,700
Professional employer organizations	20,900	18,500	19,200	20,900	22,500
Business support services	4,100	4,000	4,000	4,000	4,100
Investigation and security services	4,600	5,400	5,400	5,300	5,300
Services to buildings and dwellings	8,400	8,600	8,600	8,700	8,800
Janitorial services	4,100	4,600	4,600	4,700	4,700
Landscaping services	3,300	3,000	3,000	3,000	3,100
Other services to buildings and dwellings	1,000	1,000	1,000	1,000	1,000
Other administrative support services	3,200	3,000	3,000	3,000	3,000
Waste management	900	900	900	900	900
Private education and health services	97,900	100,100	102,400	104,700	107,300
Private education services	9,900	9,900	10,200	10,500	11,000
Elementary and secondary schools	4,200	4,600	4,700	4,800	5,000
Colleges and universities	2,500	2,200	2,300	2,400	2,600
Other private education services	3,200	3,100	3,200	3,300	3,400
Health care and social assistance	88,000	90,200	92,200	94,200	96,300
Ambulatory health care	35,100	36,100	36,800	37,500	38,300
Offices of physicians	13,300	13,600	13,900	14,200	14,700
Offices of dentists	5,600	5,700	5,700	5,800	5,900
Offices of other health practitioners	3,600	3,600	3,600	3,600	3,600
Outpatient care centers	2,200	2,200	2,200	2,300	2,300
Medical and diagnostic laboratories	2,000	2,100	2,200	2,300	2,300
Home health care services	7,300	7,700	8,000	8,100	8,300
Other ambulatory health care services	1,100	1,200	1,200	1,200	1,200
Hospitals	31,600	32,500	33,400	34,300	35,200
Nursing and residential care facilities	12,500	12,900	13,100	13,300	13,500
Nursing care facilities	4,600	5,100	5,200	5,300	5,400
Residential mental health facilities	3,100	3,000	3,000	3,000	3,000

**APPENDIX A** continued**Forecast of Employment in Oakland County by Detailed Industry Division**

	Actual 2006	Estimate 2007	ILIR Forecast		
			2008	2009	2010
Nursing and residential care facilities (continued)					
Community care facilities for the elderly	3,900	3,900	4,000	4,000	4,100
Other residential care facilities	900	900	900	1,000	1,000
Social assistance	8,800	8,700	8,900	9,100	9,300
Child day care services	3,900	4,000	4,000	4,100	4,200
Other social assistance	4,900	4,700	4,900	5,000	5,100
Leisure and hospitality	61,400	60,600	60,400	60,200	60,200
Arts, entertainment, and recreation	10,700	10,500	10,600	10,600	10,700
Spectator sports	1,400	1,500	1,600	1,600	1,600
Golf courses and country clubs	2,500	2,500	2,500	2,500	2,600
Fitness and recreational sports centers	4,400	4,300	4,400	4,400	4,400
Other arts, entertainment, and recreation	2,400	2,200	2,100	2,100	2,100
Accommodation and food services	50,700	50,100	49,800	49,600	49,500
Accommodation	4,000	3,700	3,600	3,500	3,300
Food services and drinking places	46,700	46,400	46,200	46,100	46,200
Full-service restaurants	21,300	21,400	21,600	21,700	21,900
Limited-service eating places	19,400	19,200	19,100	19,100	19,200
Special food services	3,900	3,900	3,700	3,500	3,300
Drinking places, alcoholic beverages	2,100	1,900	1,800	1,800	1,800
Other services	20,500	20,700	20,800	20,800	20,900
Repair and maintenance	5,900	5,800	5,800	5,800	5,800
Personal and laundry	7,800	8,100	8,000	8,000	8,000
Religious, grantmaking, civic, professional	6,000	6,100	6,200	6,200	6,300
Private households	800	700	800	800	800

**APPENDIX B****Selected Indicators of Current and Future Prosperity: All Counties in the United States with a Population between 900,000 and 1,500,000**

County	State	Population 2006	Bachelor's or More Age 25-64	Median Age	Child Poverty Under 18	Median Earnings Year-round Full-time	Median Household Income	Affordable Housing (% of Owner's Costs Exceed 35% of HH Income)
NA	US	NA	28.94%	36.4	18.33%	\$38,463	\$48,451	23.14%
Pima	AZ	946,362	30.03%	36.6	20.73%	\$35,937	\$42,984	20.52%
Alameda	CA	1,457,426	41.12%	36.6	14.05%	\$51,324	\$64,424	34.73%
Contra Costa	CA	1,024,319	38.55%	37.5	9.82%	\$53,449	\$74,241	36.88%
Sacramento	CA	1,374,724	29.09%	34.1	16.75%	\$42,663	\$53,930	33.67%
Fairfield	CN	900,440	45.96%	39.2	8.06%	\$53,690	\$76,671	30.89%
Hillsborough	FL	1,157,738	29.17%	36.3	18.66%	\$36,140	\$46,766	25.74%
Orange	FL	1,043,500	31.93%	34.7	15.87%	\$34,394	\$48,986	27.11%
Palm Beach	FL	1,274,013	31.40%	42.3	16.38%	\$37,441	\$51,677	34.22%
Pinellas	FL	924,413	29.03%	44.7	17.66%	\$35,322	\$41,945	27.74%
Fulton	GA	960,009	46.65%	35.6	23.80%	\$46,406	\$54,755	26.74%
Honolulu	HI	909,863	33.96%	36.9	9.97%	\$40,185	\$63,372	26.69%
DuPage	IL	932,670	47.02%	37.4	5.79%	\$51,846	\$73,677	24.56%
Montgomery	MD	932,131	59.05%	38.4	4.64%	\$60,574	\$87,624	24.01%
Middlesex	MA	1,467,016	52.70%	38.5	8.11%	\$52,102	\$70,954	28.14%
Oakland	MI	1,214,255	45.40%	39.4	7.87%	\$55,453	\$66,483	22.72%
Hennepin	MN	1,122,093	44.59%	37.2	16.02%	\$47,101	\$58,272	22.18%
St. Louis	MO	1,000,510	42.65%	40.1	13.39%	\$45,788	\$53,186	19.54%
Bergen	NJ	904,037	47.24%	40.8	5.92%	\$51,965	\$75,851	33.52%
Bronx	NY	1,361,473	17.66%	32.2	41.33%	\$32,313	\$31,494	35.32%
Erie	NY	921,390	31.17%	39.7	21.52%	\$38,130	\$42,494	17.42%
Nassau	NY	1,325,662	44.61%	40.7	6.01%	\$54,839	\$85,994	35.33%
Suffolk	NY	1,469,715	32.78%	38.3	8.54%	\$50,268	\$76,847	37.76%
Westchester	NY	949,355	48.02%	39.1	8.40%	\$54,760	\$75,472	30.08%
Cuyahoga	OH	1,314,241	30.12%	39.9	22.47%	\$40,101	\$41,522	26.30%
Franklin	OH	1,095,662	36.31%	34.5	21.63%	\$40,662	\$45,803	20.39%
Allegheny	PA	1,223,411	37.61%	41.7	17.42%	\$40,158	\$43,691	19.72%
Philadelphia	PA	1,448,394	22.78%	35.4	35.26%	\$36,908	\$33,229	26.53%
Shelby	TN	911,438	28.36%	34.9	27.67%	\$36,514	\$41,175	26.68%
Travis	TX	921,006	43.73%	32.0	20.41%	\$38,711	\$50,777	23.39%
Salt Lake	UT	978,701	30.58%	30.5	13.29%	\$36,426	\$52,879	21.80%
Fairfax	VA	1,010,443	60.56%	38.4	6.16%	\$66,746	\$100,318	23.12%
Milwaukee	WI	915,097	27.27%	35.4	27.65%	\$37,217	\$41,308	24.48%

Source: Compiled by Donald Grimes and George Fulton, University of Michigan, using data from the American Community Survey 2006, except for population data which is from the Census Bureau population estimates program.