



Oakland County Economic Outlook
Summary Report
2008-2010



L. BROOKS PATTERSON, OAKLAND COUNTY EXECUTIVE

April 17, 2008

Welcome to the 2008 Economic Outlook Forecast Luncheon and this year's view of Oakland County's economic future.

For the 23rd year, Oakland County and the University of Michigan Institute of Labor and Industrial Relations have collaborated to give business and government leaders in Southeastern Michigan a three-year snapshot of the economic growth forecast for the area.

Chase and Oakland Community College, along with Oakland County's Department of Economic Development & Community Affairs, are hosting today's event. Thirteen area sponsors ensure the luncheon's success by helping with production costs. The hosts and sponsors have my sincere thanks for their participation. I'm also grateful to the Board of Commissioners for its continued support of our economic development programming.

Like 2007, 2008 continues to provide challenges for Oakland County, the region and the state. Yet several county initiatives, including our Emerging Sectors® business attraction and retention strategy – which has resulted in new investment of nearly \$1 billion in less than four years – continue to position us as an international business leader. Our coveted AAA bond rating, the 700 foreign-owned firms operating here, the Mandarin language program in our public schools and our outstanding quality of life are significant reasons Oakland County is a preferred global location to live and work.

Oakland County is proud of its long-standing commitment to business and education. We rely on this ongoing partnership to maintain a vital and healthy economic future for our 1.2 million residents and the more than 42,000 businesses and entrepreneurs in our communities. I hope you find this Economic Outlook Forecast valuable and will use it to explore Oakland County's abundant economic opportunities.

Sincerely,

A handwritten signature in black ink, appearing to read "L. Brooks Patterson", written in a cursive style.

L. Brooks Patterson
Oakland County Executive

THE ECONOMIC OUTLOOK FOR OAKLAND COUNTY IN 2008–2010

Summary Report

Prepared by
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Institute of Labor and Industrial Relations



Prepared for



April 2008

The full report will be provided to attendees in June
and will be available on the Web (updated each year) at
www.oakgov.com/peds or www.ilir.umich.edu/lmr

Report Card: Track Record over the Years

Notes

- 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: (1) experience—twenty-three years forecasting the Oakland County economy; (2) good equipment—a high-quality computer model representing the economy, revised yearly to incorporate the most up-to-date information; and (3) luck—circumstances combine to provide exactly what’s 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 in 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 of the hike in the minimum wage in these lower-wage industries.
- With the government sector added into the mix, our forecast error for total jobs 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 cannot make informative historical comparisons of forecast performance for total employment.
- 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.

Table 1

Report Card: Track Record over the Years

Year of Forecast	% Forecast Error for Total Private Jobs	Year of Forecast	% 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

Job Growth in Oakland County, 1991–2007

Notes

- Oakland County’s performance in job creation since 1991 can be divided into four time intervals: (1) the period of 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 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 of the major industry sectors 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 millstones, 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.

Figure 1

Job Growth in Oakland County, 1991–2007

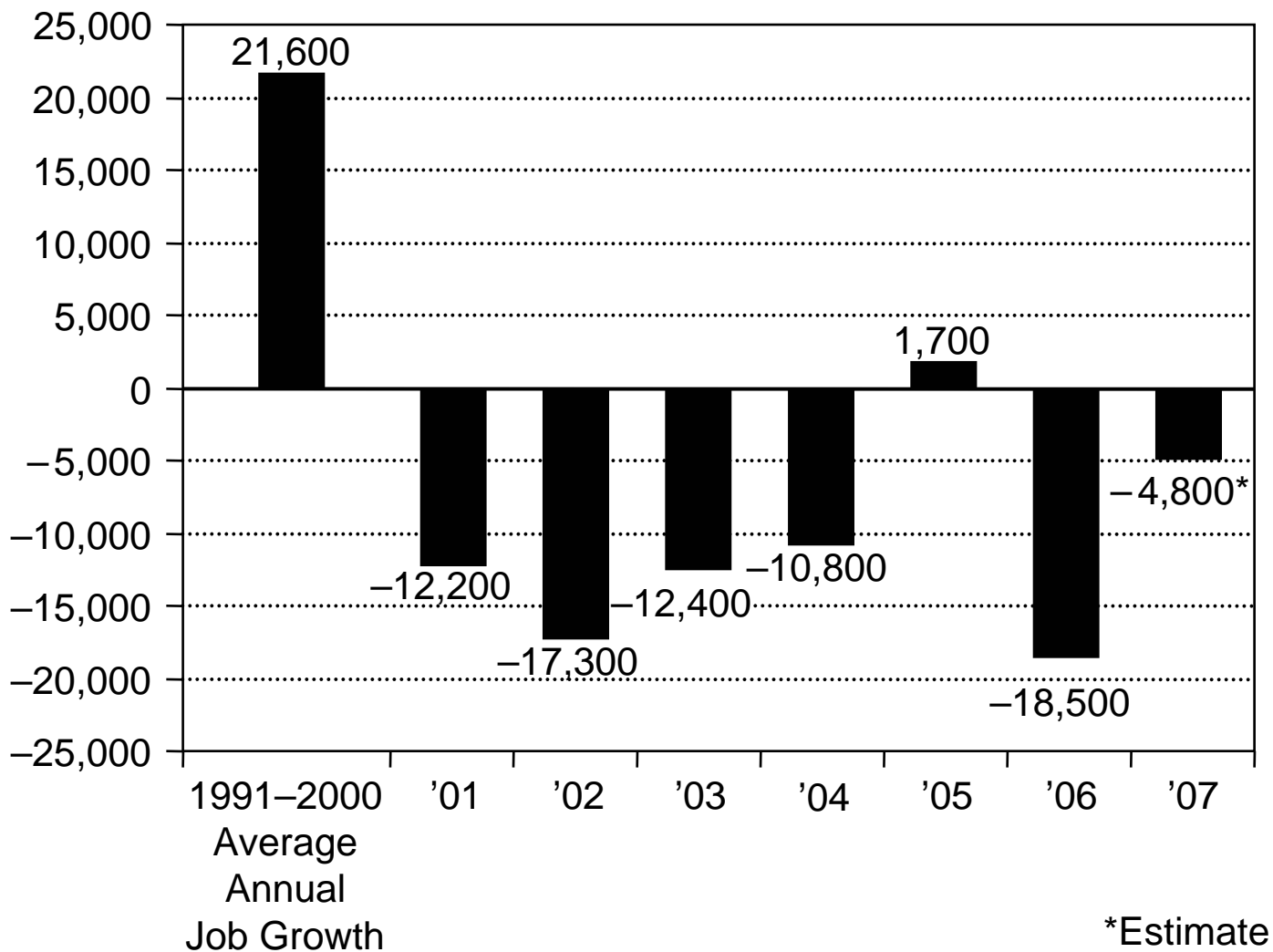


Figure 2

Unemployment Rates for Oakland County and Michigan, 1999–2007

Notes

- The unemployment rate for Oakland County bottomed in 1999 and 2000 at an all-time low of 2.9 percent.
- The unemployment rate for the state registered 7.2 percent in 2007, and has consistently been much higher than the county's rate.
- 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.
- 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.

Figure 2

Unemployment Rates for Oakland County and Michigan, 1999–2007

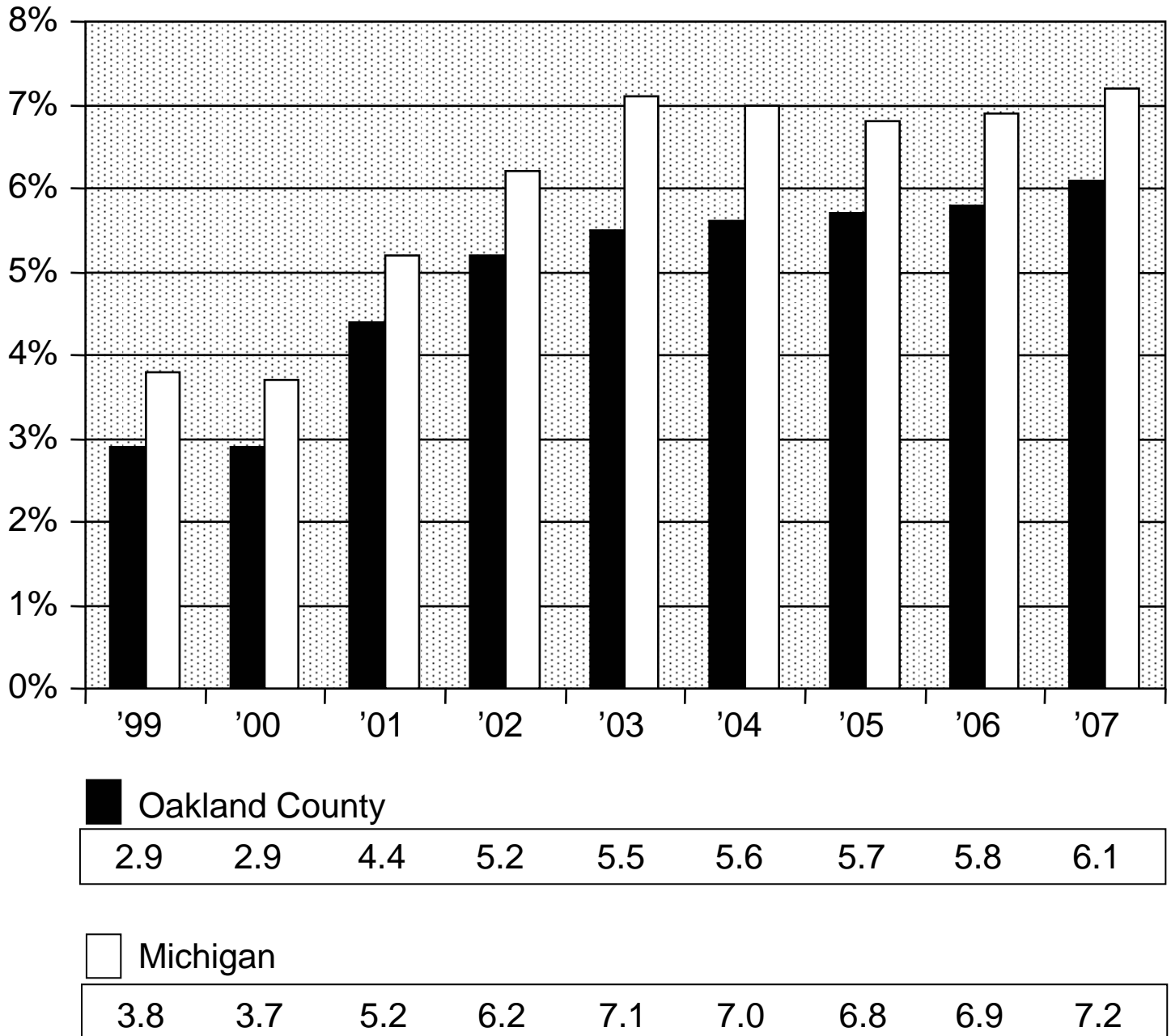


Figure 3

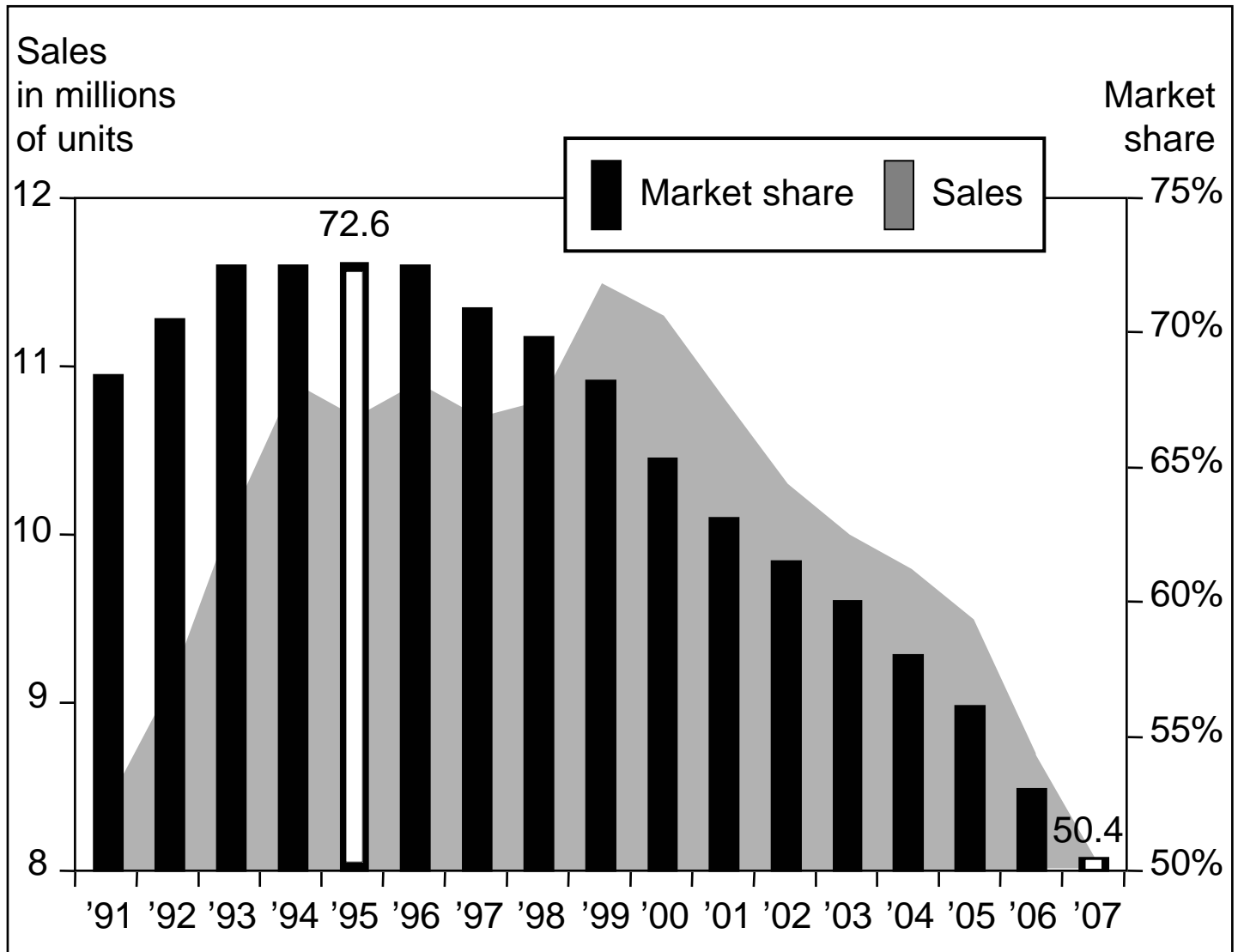
Detroit Three Sales of Light Vehicles vs. Detroit Three Market Share of Sales United States, 1991–2007

Notes

- 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. 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, 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.
- 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.
- Detroit Three 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 in 1991, during the last recession.
- 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 one-seventh of the county economy.
- Additionally, many of the county's professional service and headquarters jobs are connected to the domestic nameplate auto industry.

Figure 3

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



Job Growth in Oakland County by Major Sector and Educational Composition, 1991–2007

Notes

- 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.
- Here we look at recent employment movements in Oakland County by partitioning its 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).
- Second, we divide employment into two other 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 industry falls above or below the U.S. average for all industries.
- For both of these representations of the county workforce, job growth is divided into two time intervals: the expansion of 1991–2000 and the downturn of 2000–07.
- 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). And this time, construction has not bolstered the goods 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, which has thrived over the period and is actually expanding at a slightly faster pace than during the 1990s.
- 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 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 another overarching force influencing the path of the economy, this one on the credit side of the ledger: the growing importance of an educated workforce to economic success.
- 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.

Table 2

Job Growth in Oakland County by Major Sector and Educational Composition, 1991–2007

	Number of Jobs 2007	% Job Change per Year	
		1991–2000	2000–2007
TOTAL NONFARM	693,400	3.3	–1.4
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

Table 3

Job Distribution in Oakland County by Major Sector and Educational Composition, 2000–2007

Notes

- 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). 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 of all jobs in the county.
- 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 activities 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 County 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.

Table 3

Job Distribution in Oakland County by Major Sector and Educational Composition, 2000–2007

	Employment Share (%)		Change 2000–07
	2000	2007	
TOTAL NONFARM	100.0	100.0	
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

Oakland County Compared with Counties of Similar Size Nationwide

Notes

- 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 comparably sized counties in the United States. Thirty-two counties met the size criterion for inclusion: population between 900,000 and 1,500,000.
- The 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.
- 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.
- Oakland County's lowest standing is for median age, 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, where it is exceeded by only two other counties.
- Oakland County's affluent, well-educated community has been, and will continue to be, its own best resource for maintaining a thriving economy.

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
OAKLAND	MI	1,214,255	61	9	24	6	3	11	8
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.

Summary of the U.S. Economic Outlook

Research Seminar in Quantitative Economics, University of Michigan

March 13, 2008

The outlook for the U.S. economy is summarized by four key economic indicators in the figures that follow. The results for 2010 are an informal extrapolation of the official forecast release for 2008–09.

Figure 4

Notes

A. Growth of Real GDP

- 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.
- 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. This 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.

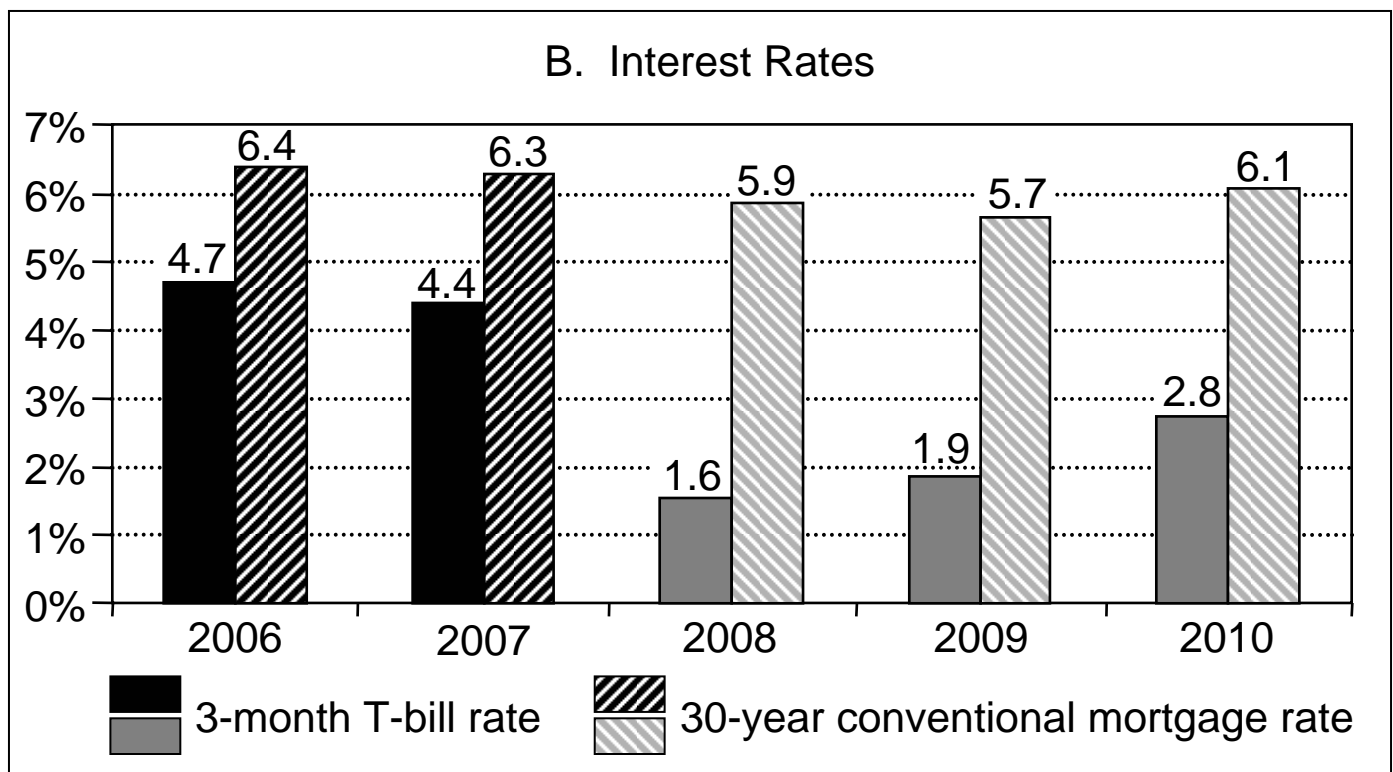
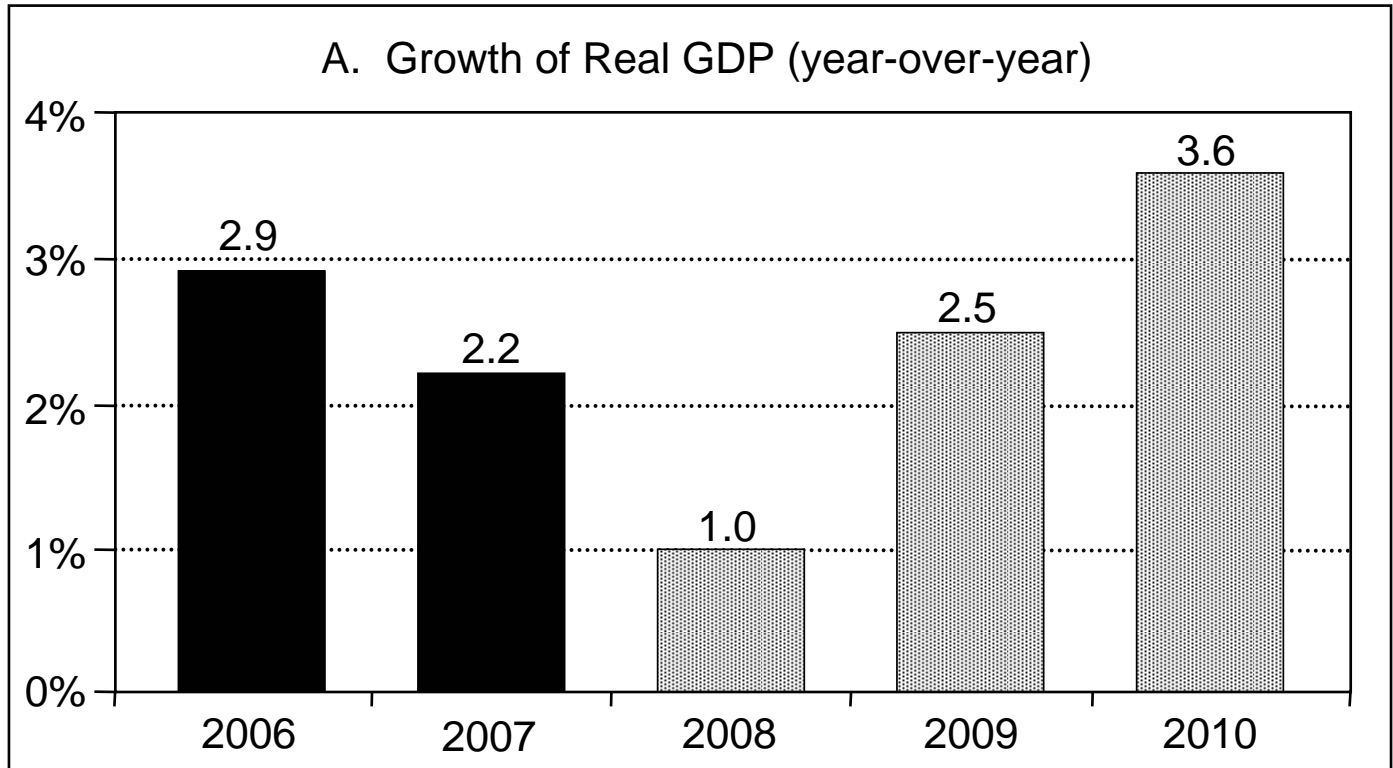
B. Interest Rates

- 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 4

RSQE Summary of the U.S. Economic Outlook

Gross Domestic Product and Price Inflation



RSQE Summary of the U.S. Economic Outlook Housing Starts and Light Vehicle Sales

Notes

A. Housing Starts

- 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 recover to 1.14 million units in 2009, still well below the levels of a few years ago.

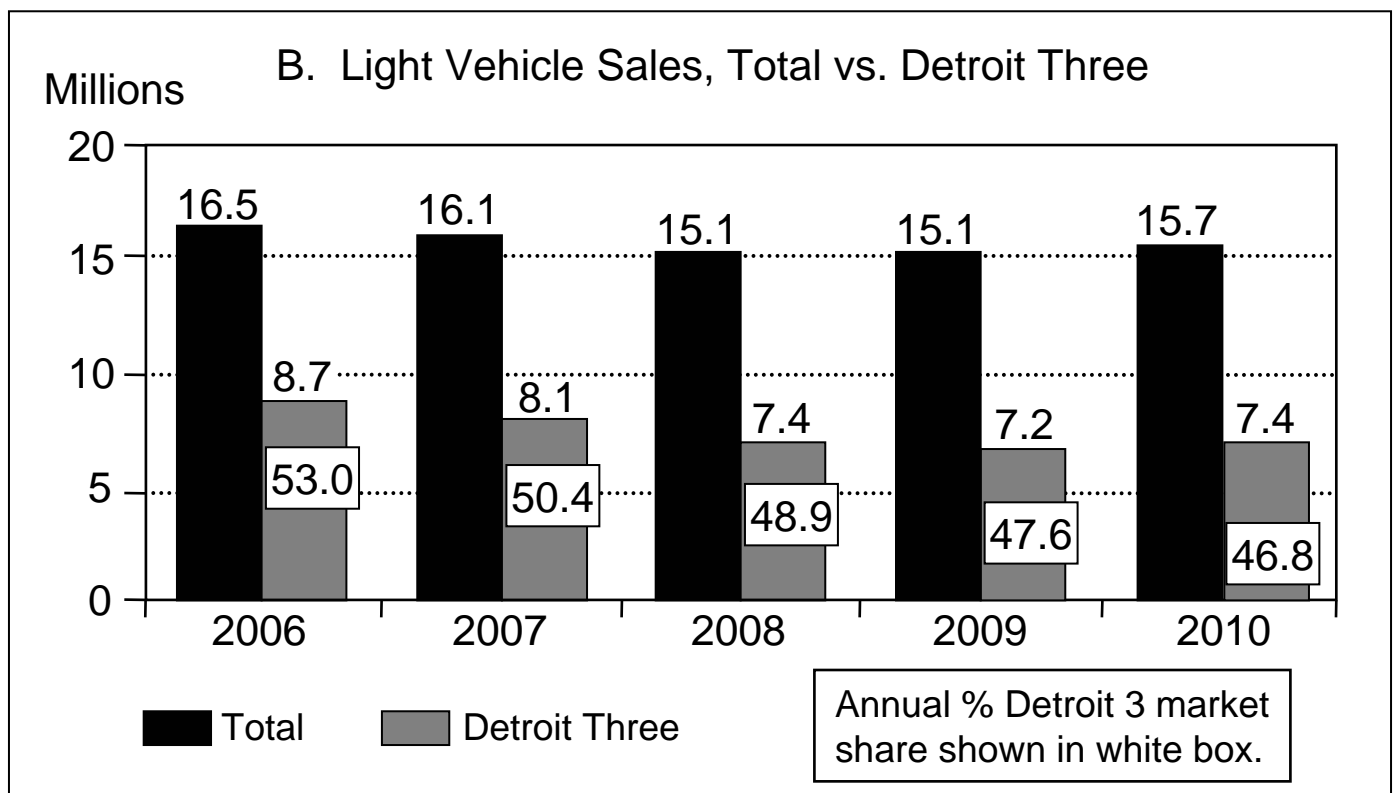
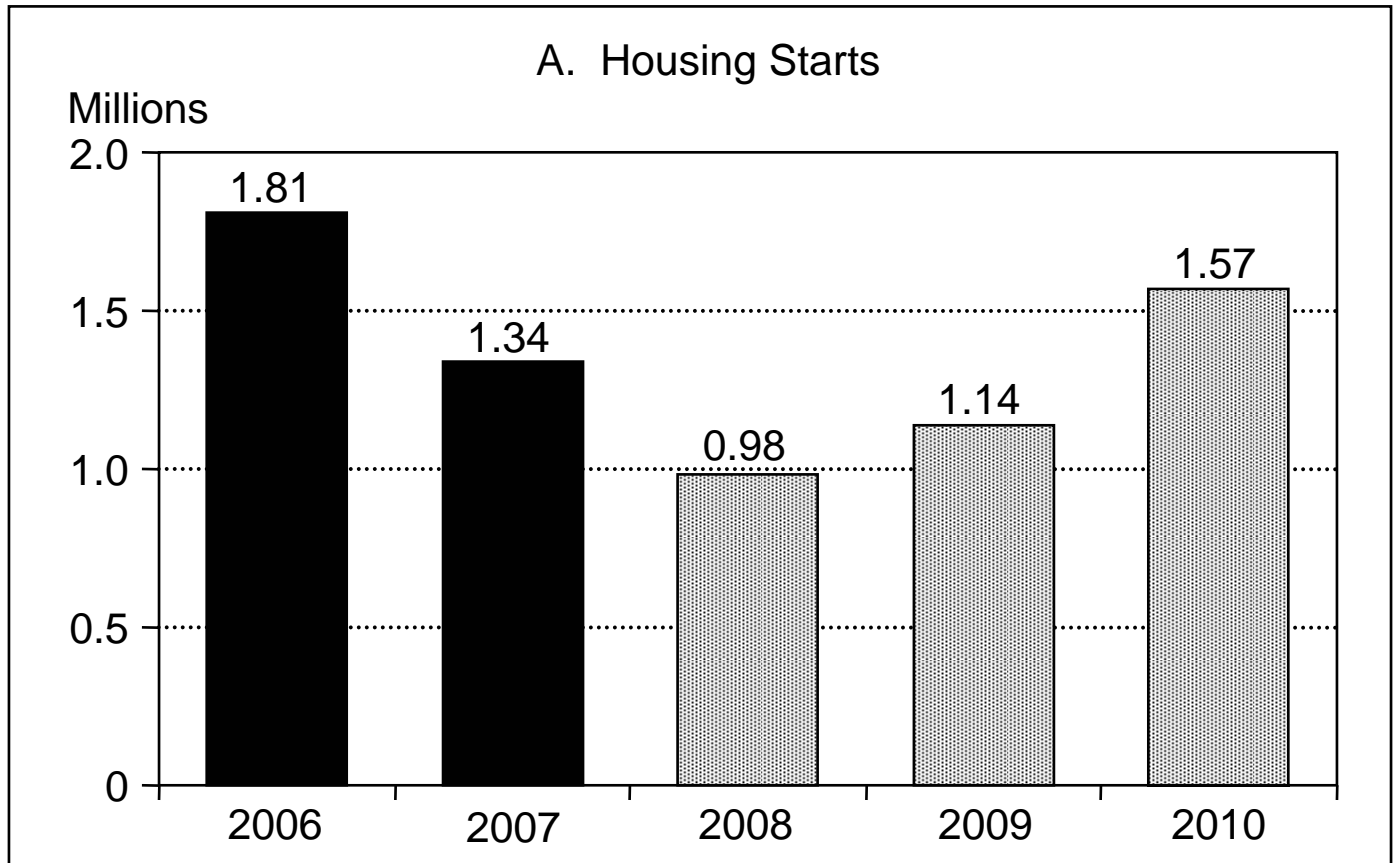
B. Light Vehicle Sales, Total vs. Detroit 3

- 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, 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.
- 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.
- 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.

Figure 5

RSQE Summary of the U.S. Economic Outlook

Housing Starts and Light Vehicle Sales



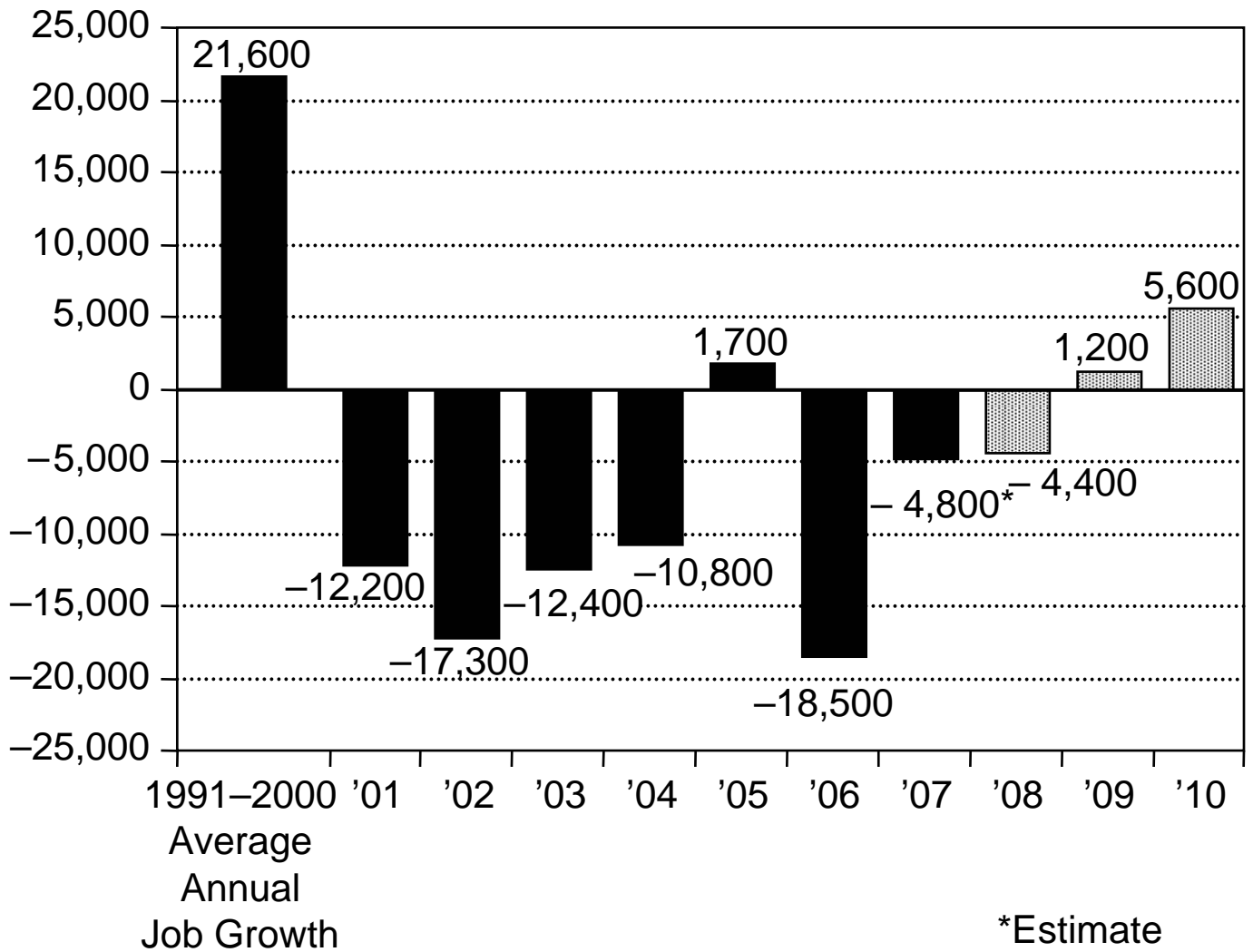
Job Growth in Oakland County, 1991–2010

Notes

- The dramatic improvement in the Oakland County economy in 2007, when job losses dwindled to 4,800 from 18,500 in the previous year, is followed by continued improvement over the next three years.
- We do expect to see greater strength later in 2008, paralleling the pickup in the national economy, which then carries through to 2009 and 2010. Much of the bounce is due to an ebbing 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.
- But with the current weakness in the national economy, auto restructuring yet to run its course, and the downturn in housing persisting, calendar-year 2008 is not expected to show much improvement over calendar 2007, with job losses nudging down from 4,800 to 4,400.
- Job growth turns positive as the momentum from Oakland's traditionally strong sectors begins to dominate, with the county adding 1,200 net new jobs in 2009 and 5,600 in 2010.

Figure 6

Job Growth in Oakland County, 1991–2010



Forecast of Nonfarm Employment in Oakland County 2008–10

Notes

- The table shows our forecast of employment for Oakland in each of the next three years for twenty-eight industry categories. It also includes data on the average annual wage for each industry in 2006. Our forecast of employment for 165 detailed industry categories is provided in the appendix.
- 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 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, although nothing like the plummet 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 roads, 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 jobs in 2009, before turning around to add 100 jobs in 2010. This represents 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. These losses include 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 the number of workers it did in 2000.
- Employment in the machinery manufacturing industry declines by 600 jobs in 2008, 500 in 2009, and 200 in 2010.
- Employment in most of the other manufacturing industries either remains constant or declines by a small number of jobs. 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 exports of American goods and services.

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	
TOTAL NONFARM JOBS	693,400	-4,400	1,200	5,600	2,400	\$50,182
(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

Forecast of Nonfarm Employment in Oakland County 2008–10

Notes

- 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 major job losers among the service-providing industries include financial industries tied to the residential real estate market, corporate headquarters, and low-education industries such as retail trade and leisure and hospitality services.
- Retail trade loses a total of 3,000 jobs over the next three years, with nearly half of the loss (1,300 jobs) occurring in 2008. The greatest losses occur in department stores and other general merchandise stores, food stores, electronics and appliance stores, and building material dealers. 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. For the next few years, weaker consumer discretionary spending and higher labor costs will be putting the brakes on this normally growing 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.
- Jobs at corporate headquarters are projected to decline by 1,300 in 2008 and 100 in 2009, before switching direction and growing by 500 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 jobs in 2008; 800 in 2009; and 1,100 in 2010. The largest job gains over the three-year period are in legal services, specialized design services, custom computer programming services, and scientific, research, and development services.
- Administrative support services adds 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.
- 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, physicians' offices, and home health care services.

Table 5 continued

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	
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, ware- housing, 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

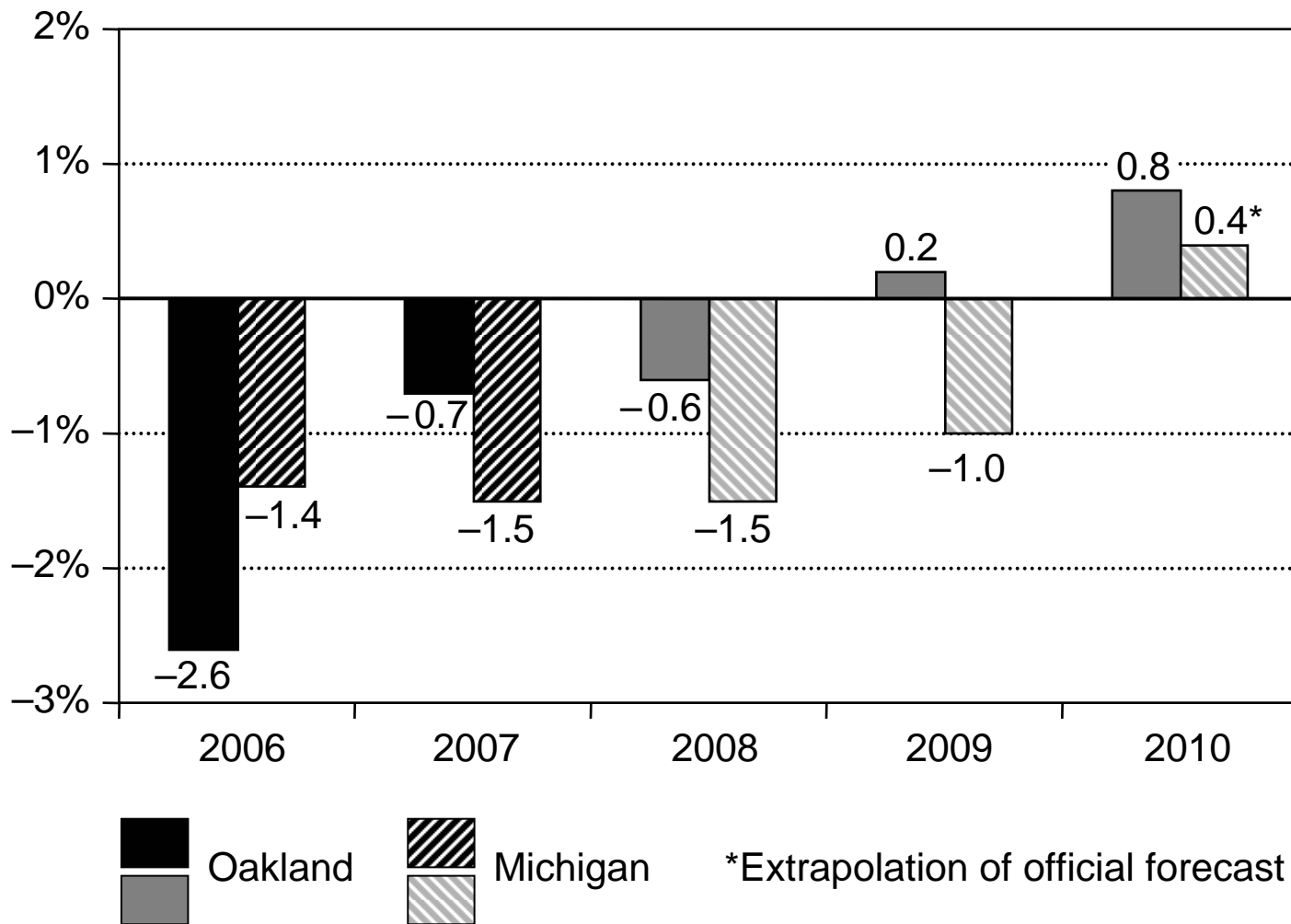
Forecast of Job Growth, Oakland County vs. Michigan 2008–10

Notes

- For both Oakland County and Michigan as a whole, we see labor markets that will repeat their 2007 pace of job declines in 2008, and then show steady improvement over the next two years.
- Oakland's more favorable performance over the forecast horizon reflects the disproportionately severe hit the county took earlier (such as in 2006), and our judgment that Oakland is better positioned in its economic fundamentals to come off the mat more strongly.
- Although the pattern of job movements is similar between the county and the state, Oakland's outlook is brighter throughout the next three years.

Figure 7

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



Forecast of Unemployment and Inflation Oakland County, 2008–10

Notes

A. Unemployment Rate, Oakland County vs. Michigan

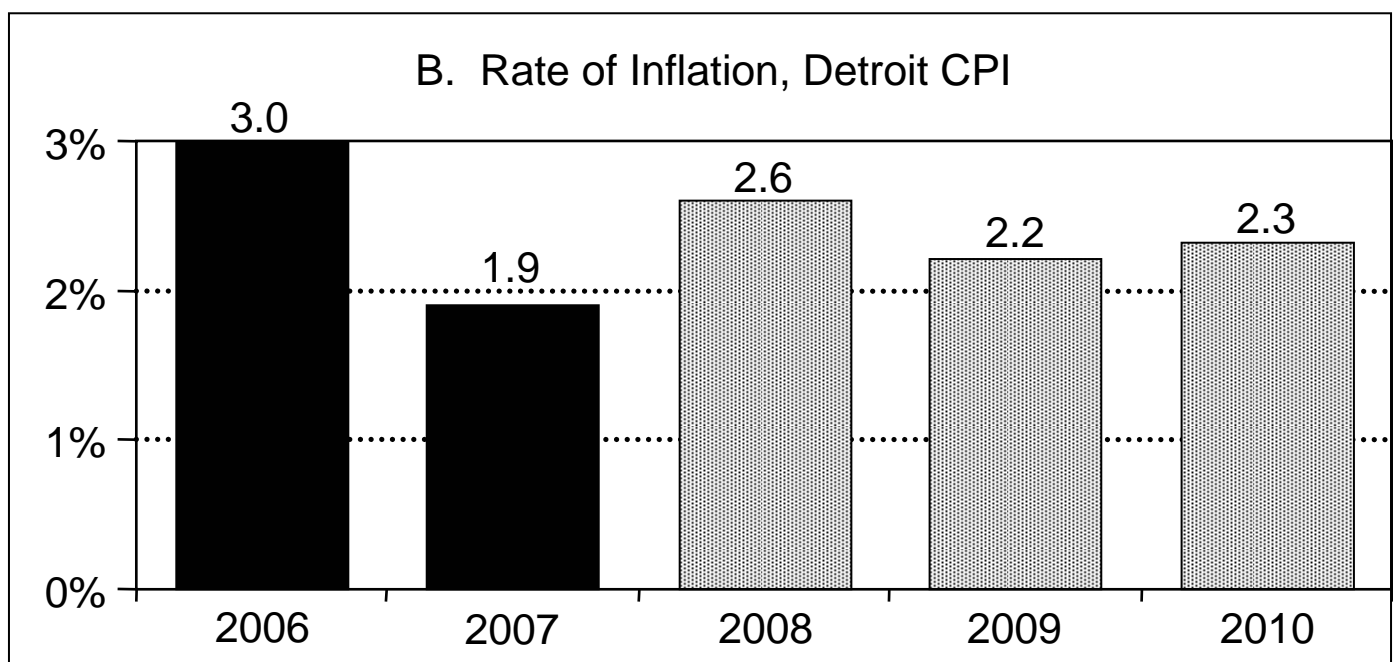
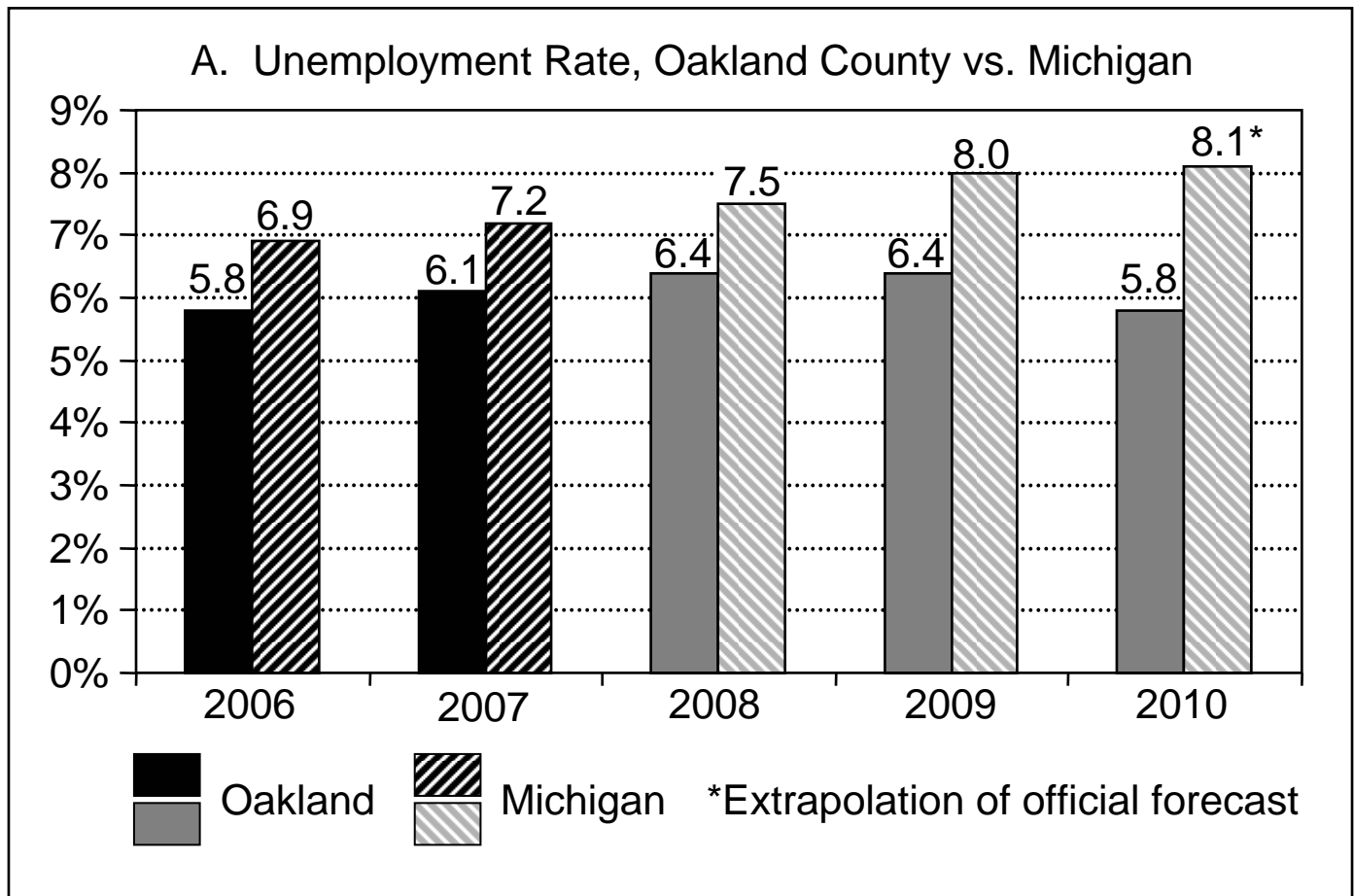
- The weak job market in 2008 will cause the unemployment rate for Oakland County to move up by 0.3 percentage points, to 6.4 percent.
- A projected increase in the number of self-employed workers (not included in our establishment-based employment data but included in the unemployment rate calculation) 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.

B. Rate of Inflation, Detroit CPI

- Local consumer price inflation is measured here by the growth rate of the Detroit CPI, representing the Detroit metro area, 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. On food price inflation: the mandated increase in ethanol usage has driven up the price for corn and affected the production 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.

Figure 8

Forecast of Unemployment and Inflation Oakland County, 2008–10



Long-Term Economic and Demographic Outlook for Oakland County

Notes

- 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.
- Population growth in the county will be slightly slower over the 2010 to 2035 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 to 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 influx of younger workers.
- 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 of 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. One of the major ways to do that is 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.

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%

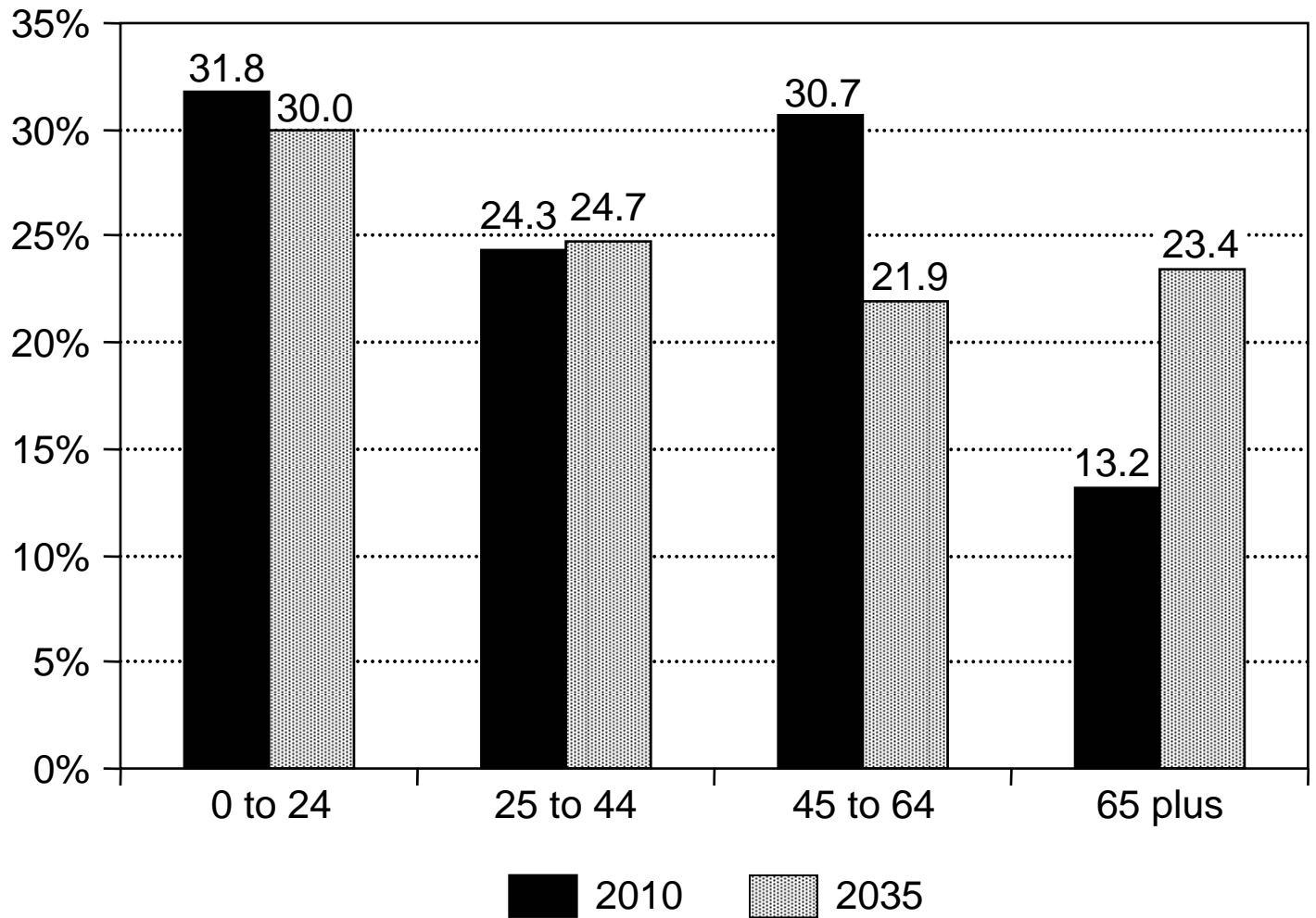
Population Distribution by Age Group 2010 and 2035

Notes

- The reason for the tight labor markets can be seen in 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.

Figure 9

Population Distribution by Age Group 2010 and 2035



Job Growth by Major Sector 2010–35

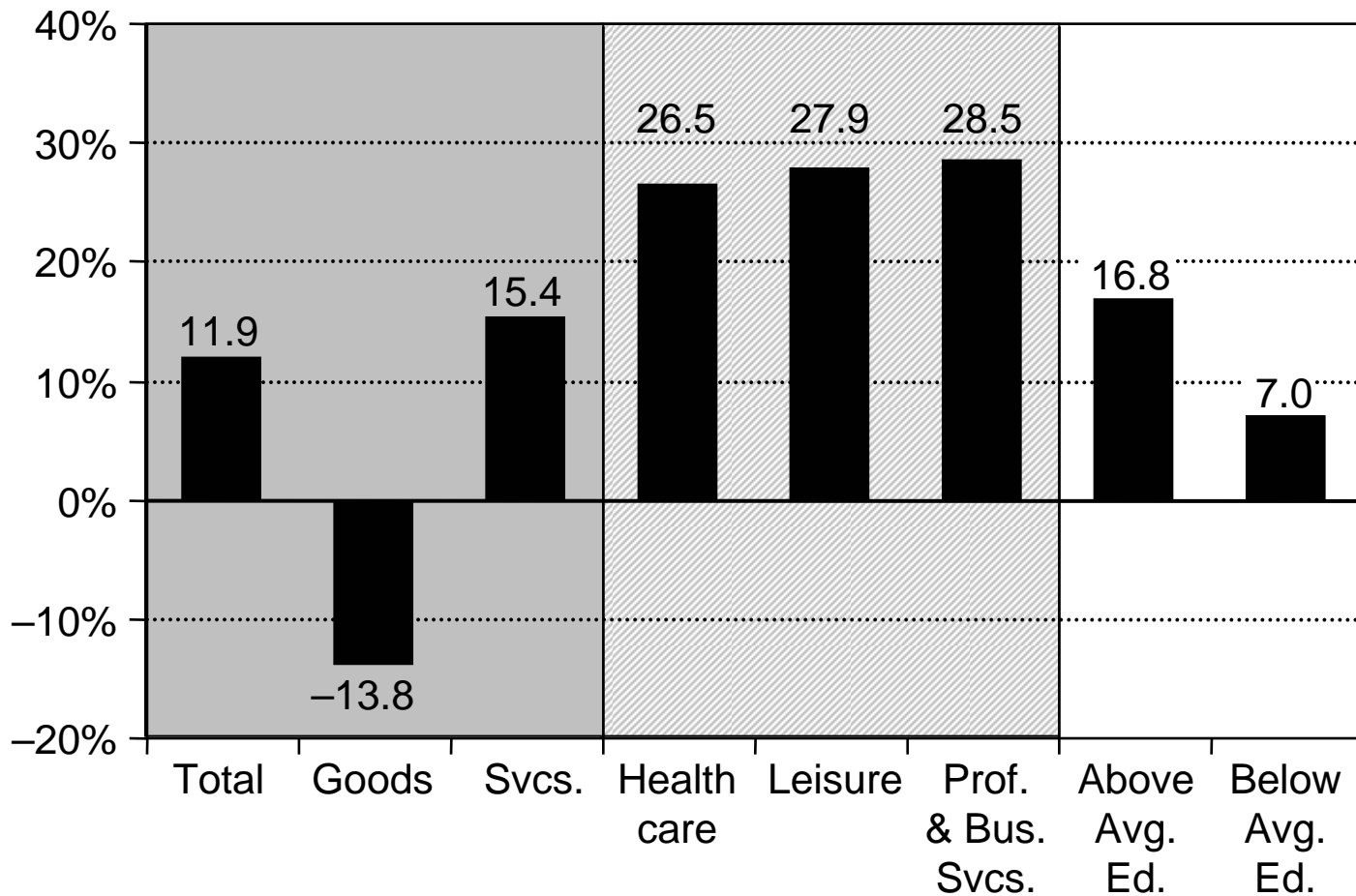
Notes

- 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 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 of an aging population. The fastest-growing industry is professional and business services, increasing at 28.5 percent, as the knowledge economy continues to grow.
- In fact, we forecast that jobs in industries with above-average educational requirements will grow about twice as fast as jobs in industries requiring less education—also continuing a trend we have seen throughout the current decade.

Figure 10

Job Growth by Major Sector 2010–35

Job Growth



Appendix A

Forecast of Employment in Oakland County by Detailed Industry Division

	Actual	Estimate	ILIR Forecast		
	2006	2007	2008	2009	2010
TOTAL NONFARM JOBS (Number of persons)	698,200	693,400	689,000	690,200	695,800
(Annual percentage change)	(-2.6)	(-0.7)	(-0.6)	(0.2)	(0.8)
TOTAL GOVERNMENT	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
TOTAL PRIVATE	643,100	638,800	634,800	636,100	641,400
GOODS-PRODUCING	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
PRIVATE SERVICE-PROVIDING	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

THE INSTITUTE OF LABOR AND INDUSTRIAL RELATIONS

The Institute of Labor and Industrial Relations at the University of Michigan was created in May 1957 to provide a vehicle for research on issues pertaining to employment and labor relations. The Institute brings research together with practice to address a wide variety of topics, such as union-management relations, unemployment and income security, low-wage employment, the globalization of labor, trucking industry regulations and political activism within unions. The Institute's Labor Market Research Program is a pioneer in economic forecasting for regional labor markets, and also has become an integral resource in the area of research-based public policy analysis.

The Institute also functions as an academic resource. Institute staff regularly teach university courses as well as working individually with students, from mentoring undergraduates to serving on dissertation committees. Through its Labor Studies Center, the Institute offers courses related to union education and general programs addressing issues arising in a diverse and rapidly changing employment environment.

The institute has collaborative relationships with many other units in the University, such as the schools of Business, Engineering, Law, Nursing, Medicine, Public Health, Social Work, and the departments of Economics, Psychology, and Sociology.

ABOUT THE RESEARCHERS

George A. Fulton

George A. Fulton received his Ph.D. in Economics from the University of Michigan. He is a research professor affiliated with both the Institute of Labor and Industrial Relations and the Research Seminar in Quantitative Economics (Department of Economics). He directs the Institute's Labor Market Research program and is a member of the Institute's executive committee. Dr. Fulton is a specialist in economic forecasting and regional economic development. For the past twenty-five years, he has been forecasting labor market activity annually for the state of Michigan, Oakland County, and other metropolitan areas of southeastern Michigan, and every three years, for all of the counties in Michigan. His work covers a broad range of analyses; for instance, twice a year he provides testimony to the state legislature and administration on Michigan's fiscal and economic prospects, to help determine the resources available for future spending. His research crosses disciplines, having been published in the *Journal of the American Medical Association*; *Tobacco Control*; *Growth and Change*; the *Journal of Labor Research*; and in diverse sponsored research reports on economic issues. He has also published one book, *A Regional Econometric Forecasting System: Major Economic Areas of Michigan* (co-authored with Harold Shapiro, former president of both the University of Michigan and Princeton University), and co-authored two chapters in a collaborative book, *Michigan at the Millennium*.



Donald R. Grimes

Donald R. Grimes holds a master's degree in Economics from the University of Michigan. He is a senior research specialist at the University of Michigan's Institute of Labor and Industrial Relations. His primary research interests are in labor economics and economic forecasting. For the past two decades, he has worked on forecasting labor market activity in the metropolitan areas of Michigan. He has worked for many years with the Michigan departments of Commerce and Treasury and the Michigan Economic Development Corporation on policy analysis and evaluating economic strategies. He has also participated in economic studies designed to assist firms in their location and expansion decisions. He is co-director of a project to generate long-term economic and demographic projections for all of the counties of Michigan. He recently co-authored a paper on the changing concentration of computer service industry employment, "Change in the Concentration of Employment in Computer Services: Spatial Estimation at the U.S. Metro County Level" (*Growth and Change*, March 2007). He also co-authored a chapter on the location of technology firms in *Michigan at the Millennium*. He has been involved in other research projects sponsored by the U.S. Department of Commerce, the U.S. Department of Labor, the Federal Reserve Bank of Chicago, and the Robert Wood Johnson Foundation.



