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Laudo M. Ogura
Grand Valley State University

Brian C. Boyce
Grand Valley State University

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Unemployment and Property Crime in West Michigan

Laudo M. Ogura, Ph.D., Assistant Professor, Department of Economics

Brian C. Boyce, Economics Major, Seidman College of Business

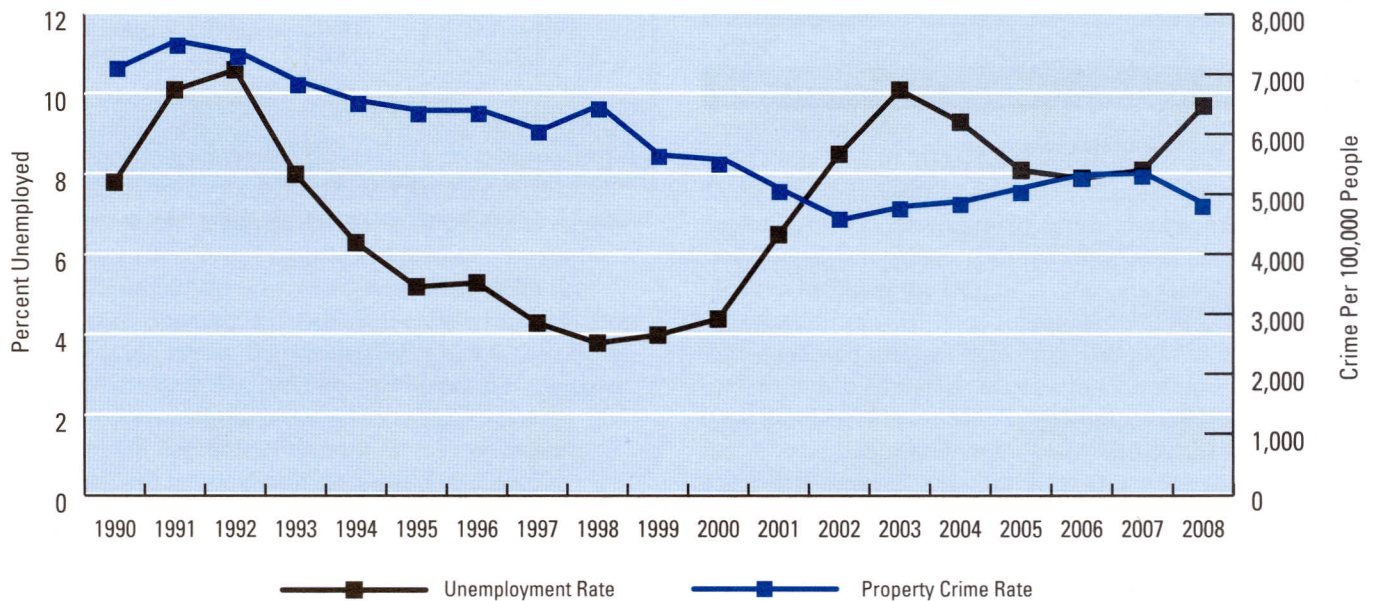
Reports on the Michigan economy have been dismal over the past few years. The unemployment rate in the state reached 15.3% in September 2009 (Bureau of Labor Statistics (BLS), 2009), aggravated by the downturn of the auto industry and the recent nationwide economic crisis. Although West Michigan has been considered by many as an economic bright spot in the state, the region has also experienced the effects of the rough state and national economy. In the same period, the unemployment rate in the Grand Rapids-Wyoming metropolitan area (Barry, Ionia, Kent, and Newaygo Counties) was 11.9%, which is well above the 2.5% rate seen 10 years ago at the end of 1999 (BLS, 2009).

Unemployment puts many strains on individuals and families, but it might impose yet another cost on society: increased crime rates. While results of studies have differed with regard to the extent of this effect and whether all types of crimes are affected by unemployment, there is evidence of the relationship between crime and economic activity. The hypothesis that criminal behavior responds to economic incentives was formalized by Nobel Prize-winning economist Gary S. Becker, 1968. According to this view, because the ability to earn income from legitimate activities is reduced in a poor labor market, some people resort to criminal means to support themselves and/or their families. On the

other hand, legitimate labor opportunities generally make crime less attractive because someone who is gainfully employed has more to lose in case of imprisonment. Since unemployment affects the financial motivations to commit crime, it should disproportionately affect property crime as opposed to violent crime rates.

While numerous studies have found evidence of an effect of unemployment on crime, there is no consensus on whether this effect exists and, if so, its size. Skeptical authors suggest that unemployment reduces the availability of easy targets, while others point to problems in the measurement of both crime and unemployment rates (doubting views are surveyed by Chiricos, 1987). Indeed, some of the recent academic studies fail to find a clear relationship between unemployment and crime. However, most find at least a weak positive relationship, suggesting a 1 to 2% increase in property crime rates for a 1% increase in unemployment rate, (Most studies do not find significant effects of unemployment on violent crime.). There are exceptions, however, that suggest a stronger relationship, Lin, 2008, finds a 4 to 6% increase in property crime rates for a 1% increase in the unemployment rate during 1974–2000 in the U.S. Variations in estimated effects are due to differences in statistical methods or the use of data for different periods or regions.

Figure 1: Unemployment and Property Crime Rates in Grand Rapids, MI



Sources: Local Area Unemployment Statistics (BLS, 2009) and Uniform Crime Report (FBI, 2009).

Looking at the period of 1990–2008, the major West Michigan cities (Grand Rapids, Holland, and Muskegon) have experienced similar trends in crime and unemployment rates (see Figure 1 for Grand Rapids). Overall, both crime and unemployment rates fell during most of the 1990s, but unemployment rates began to increase in the late 1990s. Property crime rates stopped falling in 2003. Thus, one could conclude that the decrease in property crime rates in the 1990s was related to the declining unemployment rates, while the slight increase in crime rates after 2002 was related to the rising unemployment rates in the 2000s. However, it is not possible to determine whether unemployment affects crime by just comparing the trends for these two variables because many other factors affect individuals' decisions to commit crime.

Table 1
Crime Rates Per 100,000 People in Major West Michigan Cities

		1990	2000	2005	2008
Grand Rapids	property crime	7072.0	5475.7	5000.7	4769.1
	burglary	1979.1	1320.5	1043.7	1183.9
	theft	4303.0	3720.4	3610.3	3350.7
	motor vehicle theft	789.9	434.8	346.7	234.6
	robbery	360.1	300.3	345.2	397.2
Holland	property crime	4696.7	3897.5	3398.4	3563.2
	burglary	429.3	413.7	589.0	549.1
	theft	4104.7	3321.2	2696.8	2919.6
	motor vehicle theft	162.6	162.6	112.6	94.5
	robbery	16.3	22.8	23.1	67.9
Muskegon	property crime	10125.9	7829.4	7044.8	6020.0
	burglary	2658.7	1580.9	1307.9	1439.5
	theft	6945.9	5181.4	5141.7	4216.8
	motor vehicle theft	521.3	1067.2	595.2	363.7
	robbery	320.2	204.5	247.6	256.9

Note: The property crime rate is the sum of burglary, theft, and motor vehicle theft rates. Robbery is counted as violent crime in the FBI Uniform Crime Report.
Source: Uniform Crime Report (FBI, 2009).

Although all three cities mentioned have similar crime rate trends, actual rates differ as do demographic characteristics. Table 1 shows differences in crime rates across cities and time, while Table 2 shows how these cities differ in some of the demographic aspects that might influence crime. For example, the higher crime rates in Muskegon might be explained by lower median household income, lower levels of education, greater proportion of males and people in minority groups, and higher rate of single parenthood rate. In fact, studies have shown that young males are more likely to be involved in crime, and education reduces the benefits from crime (likely because it increases the ability to earn income from legitimate sources). Peer effects among racial or cultural groups and family structure can also affect children's moral values and discipline, thus affecting crime rates. A more detailed review

of how demographic characteristics might affect crime is provided by Levitt (2004).

To better understand how unemployment has affected crime in West Michigan (and thus to better predict whether increasing unemployment might lead to higher crime rates), we performed a statistical regression analysis using annual unemployment and crime data available for 55 Michigan cities during the 1990–2008 period (data from BLS, 2009; FBI, 2009; and U.S. Census Bureau, 2009b). Considering the demographic factors that might affect crime (Table 2), our analysis indicates that unemployment had a negligible effect on four types of property-related crime for which data is available (burglary, theft, motor vehicle theft, and robbery). One possible explanation for the weak relationship between unemployment and crime rates is that the duration of unemployment is more significant than the level of unemployment. Moreover, government and community programs (unemployment insurance, welfare programs, food pantries, etc.) might help attenuate the income needs of unemployed workers

It is also important to note that our analysis is based on unemployment, crime, and demographic data observed in Michigan cities in the last two decades. The relationship between unemployment and crime might change over time. On the other hand, cities differ on other factors that can affect crime but that are not accounted for by demographics (community organization, efficiency of the local police agency, and alcohol and drug consumption). These differences might impact the actual effect of unemployment on crime in each city. While effects are negligible on average, they might be relevant for some cities. For instance, the Grand Rapids Police Department (2009) announced that there was a 4% increase

Table 2 City Demographic Characteristics (2006–2008)

	Grand Rapids	Holland	Muskegon
Population	187,695	32,259	41,085
White	69.1%	80.7%	59.6%
Black or African-American	22.0%	2.9%	35.4%
Hispanic	16.2%	24.7%	8.0%
Male	49.0%	47.5%	53.5%
Age 15–19	7.7%	9.0%	6.4%
Age 20–34	26.0%	26.1%	26.0%
Age 35–59	30.8%	27.9%	32.3%
Age 60 or older	14.4%	17.0%	14.4%
Median household income	\$39,269	\$44,935	\$27,241
BA or higher degree*	27.2%	28.3%	20.6%
No high school diploma*	18.7%	16.4%	9.5%
Single parent family**	44.0%	24.1%	52.6%

* Among adults 25 years or older.

** Among families with children under 18 years.

Source: 2006–2008 American Community Survey (U.S. Census Bureau, 2009a).

in the number of burglaries in the first six months of 2009 compared to 2008; robberies, on the other hand, actually decreased by 31% while the average unemployment rate in the city went up from 8.7 to 14.7%. In comparison, the Kalamazoo, Michigan Department of Public Safety reported a 42% increase in the number of recorded burglaries and a 4% decrease in the number of robberies in the same period (Liberty, 2009). In Kalamazoo, the average unemployment rate increased from 7.8 to 13.2% in that period (BLS, 2009).

In conclusion, despite the lack of definitive evidence that unemployment affects crime, we cannot rule out the possibility that property crime rates might increase during the current economic downturn. Crime can affect not only the financial and emotional lives of the population, but also the quality of life and business activities in the neighborhoods. **In bad economic times, general frustration can fuel crime which is hard to capture with objective data. Moreover, unemployment rates and crime might have a slow-moving lag relationship that is difficult to capture in a short period. Having a better understanding of the predictors of crime can facilitate the development of effective solutions. ■**

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