

## BEYOND THE USUAL SUSPECTS

### An Analysis of the Performance Measurement Literature on Social Equity Indicators in Policing

ETIENNE CHARBONNEAU

*Rutgers University, Newark*

NORMA M. RICCUCCI

*Rutgers University, Newark*

**ABSTRACT:** *This article provides an analysis of the empirical and theoretical research on performance measurement in the field of policing. The primary purpose is to ascertain the degree to which measures of social equity are relied on as performance indicators. The literature tells us that social equity indicators do exist, but they remain marginal. Rather, performance measures for effectiveness are largely prominent, whereas efficiency indicators occupy a less influential place. Relying heavily on effectiveness as well as efficiency indicators at the expense of social equity has serious repercussions, particularly in policing. Suggestions for future research are offered that stress the importance of the need for a balanced mix of performance indicators that includes social equity.*

**KEYWORDS:** *policing, performance measurement, social equity*

There is a good deal of research on performance measurement in government at every level (see, e.g., Berman & Wang, 2000; Callahan & Gilbert, 2005; Gormley & Weimer, 1999; Hatry, 2006; Ho & Ni, 2005; Holzer & Yang, 2004; Jennings & Haist, 2003; Yang & Holzer, 2006).<sup>1</sup> The reinventing movement of the 1990s led to a burgeoning of research in this area and particularly on the use of citizen satisfaction as a measure of performance or service quality. Whether governments rely on administrative measures of performance or citizen surveys, the indicators of service quality have tended to revolve around effectiveness and efficiency. On the other hand, very little is known about the use of other government performance measures, most notably social equity.

This article provides an exploratory analysis of the empirical and theoretic-

cal research on performance measurement in the field of policing. Through an examination of academic studies, it provides a preliminary look at the degree to which social equity serves as an indicator of performance as compared with the more traditional measures of effectiveness and efficiency.<sup>2</sup> The article begins with a cursory review of the reliance on performance measurement in the public sector. It then looks specifically at performance indicators relied on in policing. The area of policing was selected given the importance of such factors as social equity to this profession and to the social repercussions if such factors are ignored. A comparison of performance indicators employed in policing is presented followed by suggestions for future research on the importance of incorporating a balanced set of measures of government performance, which includes social equity.

### Performance Measurement

As a management tool, Holzer and Yang characterized performance measurement as

[an] opportunity to present evidence that the public sector is a public bargain, to highlight the routine but important services that public servants quietly provide and to answer the public's sometimes angry questions and implicit suggestions on a dispassionate basis. (2004, p. 16)

The primary focus of performance measurement is achieving results. It hinges on developing measurable indicators to track program performance and, ultimately, outcomes. Performance measurement systems are now widespread among municipal governments (Chan, 2004; Hatry, 2006; Poister & Streib, 1999; Wang, Vardalis, & Cohn, 2000), and, despite some shortcomings, they have been seen as beneficial to government entities in their efforts to improve public services (Gormley & Weimer, 1999; Johnsen, 2005; McGowan & Poister, 1985; Wholey & Hatry, 1992; Willoughby, 2004; Yang & Holzer, 2006). Jennings and Haist (2003), for example, found systematic evidence that the use of performance indicators influences the behaviors of managers and front-line service providers while generally improving performance.

Notwithstanding these results, the focus on measurable outputs has raised some concerns about its use in the public sector. Performance management has its roots in private business, which is not driven by democratic values. Private firms are simply not held accountable to the general citizenry for such values as equity, fairness, and due process (Frederickson, 1980, 1990; Rosenbloom, 2005). An emerging concern in the area of performance measurement is that attention to the improvement of effectiveness and efficiency of service delivery may sacrifice the democratic constitutional values of fairness, justice, due process, and equity, sometimes referred to collectively as *social equity* (Brunet, 2006; Jennings, 2005; Piotrowski & Rosenbloom, 2002). Social equity is concerned with whether citi-

zens of different social groups are treated equitably or fairly and whether they receive the same treatment and experience similar outcomes. It is possible that, consciously or not, public managers, in their pursuit of effectiveness and efficiency, may neglect the values of social equity. One of the most obvious areas in which this is occurring is policing (Brunet, 2006). It is thus critical to examine the different types of indicators in policing and how they affect the performance of the police on the streets.

### **Indicators of Performance in Policing**

Performance indicators in general have typically fallen into two categories: those that seek to measure efficiency and those that seek to measure effectiveness. The literature defines efficiency as the relation of the amount of input required to the amount of output produced. Effectiveness has been referred to as “the impacts and quality of the service delivery, whether the service achieves its purpose, and how responsive it is to community needs” (Hatry, 1980, p. 312). Tracking both effectiveness and efficiency has revealed that one measure may be improved at the expense of the other (Grizzle, 2002, p. 368).

Both effectiveness and efficiency measures are widely used in the area of policing.<sup>3</sup> Effectiveness measures include, for example, crime rate, number of arrests, and clearance rates, whereas performance measures for efficiency include crime arrests per sworn officer, cost per patrol officer hour, and unit cost of police vehicles. However, there has been a growing concern that heavy reliance on effectiveness and efficiency measures in policing overshadows the democratic constitutional values of fairness, due process, and equity—values that are central to policing (Brunet, 2006; Jennings, 2005; Young, 1991). As Collier found, when police officers believe that their performance is assessed solely by “the numbers,” they “may be tempted to give less regard to human rights issues, either to suspects or to the victims of crime” (2001, p. 37).

### **The Need for Social Equity Measures**

Although the concept of social equity involves diverse connotations and dimensions,<sup>4</sup> it has generally been viewed, especially in the criminal justice literature, as fairness, justice, due process, equality, and equity (Brunet, 2006; Chitwood, 1974; Collier, 2006; Jennings, 2005; Young, 1991). Social equity has become a critical public value, but it has often been overshadowed by other values such as efficiency and effectiveness. Quite simply, affording citizens due process and fairness, in the traditional Weberian sense, is viewed by government agencies as inefficient and costly. However, as Frederickson (1980) and others have argued, social equity should be held to the same level of importance as efficiency, effectiveness, and productivity (see also Brunet, 2006). In the end, to ignore questions of

social equity can be more costly to taxpayers (e.g., in court costs) and ultimately hinder the overall delivery of public services.

Brunet (2006) argued that in the 1980s and 1990s a paradigmatic shift occurred in policing that necessitated the use of social equity performance measures. He noted:

The new approach to policing was based on closer, more sustained interactions with the community. The police were to strike up partnerships with citizens, businesses, and other governmental actors to solve community problems. The trust relationship between police and community became a primary focus. New measures, especially ones that focused on fairness and equal treatment, were in order. (p. 5)

Despite the calls for greater reliance on social equity measures in police performance (see Moore & Braga, 2003), very little research has examined the extent to which police departments have actually incorporated such measures in their performance management systems (see Van Ryzin & Muzzio, 2004). The next section systematically addresses this issue.

### **A Comparison of Performance Measures in Policing**

A systematic review of the literature on performance measurement in policing is presented in Table 1.<sup>5</sup> To provide a better understanding of the relative importance given to social equity indicators, traditional measures of police performance—efficiency and effectiveness—are also presented. The articles are ordered chronologically. The studies originate predominantly in the field of public administration, but some draw from the fields of economics and organizational behavior.

As Table 1 shows, much more attention has been given to effectiveness than to efficiency or social equity. Overall, out of 128 indicators, 96 (75 percent) are related to effectiveness, 18 (14.1 percent) to efficiency, and 14 (10.9 percent) to social equity. These results correspond with a study by Pollanen (2005, p. 18), who found that effectiveness measures dominate in police administration in Canada. The proportions we observe are not surprising, given the overwhelming attention to performance indicators that seek to measure effectiveness in the public sector. Policing in particular is distinct in the sense that measures of effectiveness or “getting the job done” seem to be a priority for police departments.

Also noteworthy is that social equity indicators seem evenly distributed over time. As seen in Table 1, social equity was valued as a performance measure as early as 1977 and appears across the time horizon through the most recent study, conducted in 2007.

In addition, it appears that respect and integrity are themes that guide social equity indicators. Fairness and equality are also seen as crucial. By operationalizing performance indicators in this fashion, police departments are stating that the behavior of police officers should not vary across groups, nor should there be

**Table 1. Comparison of Performance Indicators in Policing**

<i>Source</i>	<i>Scope of sample</i>	<i>Efficiency</i>	<i>Effectiveness</i>	<i>Social equity (equity, integrity, respect, fairness)</i>
Lucius & Heaphy (1977, p. 274)	Local (various regions, U.S.)	<ol style="list-style-type: none"> <li>1. Crime arrests per sworn officer</li> <li>2. Crime arrests per thousand-dollar expenditure</li> </ol>	<ol style="list-style-type: none"> <li>1. % of citizens evaluating police services as outstanding</li> <li>2. % of police evaluating their services to citizens as outstanding</li> <li>3. % of crimes in a jurisdiction cleared by arrest</li> </ol>	<ol style="list-style-type: none"> <li>1. Citizen satisfaction with perceived respect and language used by police officers</li> </ol>
McDavid (1977, p. 10)	Local (St. Louis area, Missouri)			
Pachon & Lovrich (1977, p. 44)	Local (various regions, U.S.)		<ol style="list-style-type: none"> <li>1. Citizen satisfaction with quality of police protection</li> <li>2. Citizen satisfaction with police response time</li> </ol>	<ol style="list-style-type: none"> <li>1. Citizen satisfaction with perceived respect and language used by police officers</li> </ol>
Shin (1977, p. 212)	Local (Decatur, Peoria, and Springfield, Illinois)		<ol style="list-style-type: none"> <li>1. Citizen satisfaction with quality of police services</li> </ol>	<ol style="list-style-type: none"> <li>1. Extent of variations in citizen satisfaction with the same service</li> </ol>
Poister & McDavid (1978, pp. 136-137)	Local (Harrisburg, Pennsylvania)		<ol style="list-style-type: none"> <li>1. Citizen satisfaction with quality of police services (subsets with citizens who interacted with police)</li> </ol>	
Brown & Coulter (1983, p. 53)	Local (Tuscaloosa, Alabama)		<ol style="list-style-type: none"> <li>1. Citizen perception of how safe they felt walking in their neighborhoods at night</li> </ol>	

Parks (1984, p. 125)	Local (St. Louis, Missouri)	1. Citizen perception of police response time
McGowan & Poister (1985, p. 534)	Local (various regions, U.S.)	1. Cost per patrol officer hour
Brown & Pyers (1988, p. 738)	Local (various regions & Wooster, Ohio)	1. Cost per patrol officer hour
Watson, Juster & Johnson (1991, p. 233)	Local (Auburn, Alabama)	1. Miles patrolled by police officers
Gianakis (1994, p. 308)	Local (Florida)	1. Supervisor and police officers' self-perception of, e.g., driving skills, accident investigation, use of force, complaints, physical fitness, height/weight ratio, self-defense skills, number of arrests, time-management skills, number of traffic tickets issued 1. Supervisor and police officers' self-perception of, e.g., protection of crime scenes or evidence, court demeanor, courtesy, integrity/ethics, judgment, fairness, self-control, sensitivity, knowledge of the law
Thanassoulis (1995, p. 645)	Local (various regions, England and Wales)	1. No. of violent crimes 2. Violent crime clear-up rate 3. No. of burglaries 4. Burglary clear-up rate 5. No. of officers
Roberts (1996, p. 366)	Local (undisclosed mid-Atlantic city, U.S.)	1. Police commander's appraisal of police officers, e.g., appearance, written & oral communications, initiative, relations with peers, job knowledge, care of equipment, acceptance of authority, driving

(continues)

**Table 1** (continued)

<i>Source</i>	<i>Scope of Sample</i>	<i>Efficiency</i>	<i>Effectiveness</i>	<i>Social equity (equity, integrity, respect, fairness)</i>
Carrington, Puthucheary, Rose, & Yaisawang (1997, p. 420)	Local (New South Wales, Australia) 1. Average total police vehicle cost per kilometer 2. Unit cost of police vehicles	1. No. of hospitalization and fatal road crashes 2. % of vehicles stolen in the year that were recovered in the same year 3. No. of complaints about police behavior 4. Crime rate 5. Crime clearance rates (the success of bringing offenders to justice) 6. No. of deaths in custody 7. No. of offenses 8. No. of arrests 9. No. of summonses 10. No. of major car accidents 11. Kilometers traveled by police cars	1. Citizen satisfaction with the way the police officer(s) handled the [entire] incident, by race of the victim and race of the police officer 2. Citizen perception of police's response time, by race of the victim 3. Police's response time, by race of the victim and race of the police officer 4. Citizen perception of police's investigative effort, by race of the victim and race of the police officer	
Chandek (1999, pp. 679-681)	Local (Midwest region, U.S.)			

<p>Coe (1999, p.111)</p>	<p>Local and national (various regions, U.S.)</p>	<p>1. Cost of emergency and nonemergency calls</p>
<p>Kopczyński &amp; Lombardo (1999, p. 127)</p>	<p>Local and county (various regions, U.S.)</p>	<p>1. Response time of police to call service 2. Response time of police to highest priority call 1. No. of crimes per 1,000 population (deterrence/patrol) 2. No. of violent crimes per 1,000 population (deterrence/patrol) 3. No. of property crimes per 1,000 population (deterrence/patrol) 4. Average response time to top priority calls from dispatch to arrival (deterrence/patrol) 5. Percent of violent crime arrests that are juveniles (criminal investigations) 6. Percentage of Part 2 drug abuse violation arrests that are juveniles (criminal investigations) 7. No. of traffic fatalities per 1,000 population (traffic) 8. No. of injury-producing traffic accidents per 1,000 population (traffic). 9. No. of DUI arrests per 1,000 population (traffic)</p>
<p>Cheurprakobkit (2000, p. 330)</p>	<p>Local (Midland and Odessa, Texas)</p>	<p>1. Citizens' perception of police regarding, e.g., level of police protection, professional knowledge, ability to fight and prevent crime</p>

(continues)

Table 1 (continued)

Source	Scope of sample	Efficiency	Effectiveness	Social equity (equity, integrity, respect, fairness)
Wisniewski & Dickson (2001, p. 1063)	Local (Dumfries and Galloway, Constabulary, Scotland)	<ol style="list-style-type: none"> <li>1. Level of budget variance for the initiatives</li> <li>2. Amount of external sponsorship raised</li> <li>3. Estimates of cost of prevented/reduced vandalism</li> <li>4. Additional cost of initiative</li> </ol>	<ol style="list-style-type: none"> <li>1. Crime count statistics</li> <li>2. % of security advice actually implemented</li> <li>3. Change in no. of incidents reported by the public</li> <li>4. Change in total no. of target areas identified</li> <li>5. Change in quality of information about known hotspots</li> <li>6. No. of target initiatives successfully completed</li> <li>7. Change in patrol deployment hours</li> <li>8. Change in no. of reported calls</li> <li>9. Change in no. of related intelligence reports generated</li> </ol>	
Wang (2002, p. 812)	Local (Florida)		<ol style="list-style-type: none"> <li>1. No. of calls for police services</li> <li>2. Patrol miles per police employee</li> <li>3. No. of police investigations per year</li> <li>4. No. of arrests per police employee</li> <li>5. No. of patrol dispatches per police employee</li> <li>6. % of residents rating police service as excellent or good, by reason for satisfaction</li> <li>7. % of crimes solved by police (clearance rate)</li> <li>8. No. of reported crimes per 1,000 population (crime rate)</li> </ol>	<ol style="list-style-type: none"> <li>1. % of residents who feel police are generally fair and courteous in dealing with them</li> </ol>

Diez-Tico & Mancebon (2002, p. 357)	Local (various regions, Spain)	<ol style="list-style-type: none"> <li>1. Property-related crime clear-up rate</li> <li>2. Violent crime clear-up rate.</li> </ol>
Carmona & Grolund (2003, p. 1486)	Local and national (Sweden)	<ol style="list-style-type: none"> <li>1. No. of breathalyzers/month</li> <li>2. No. of drug crimes/month</li> <li>3. No. of cases investigated/month</li> <li>4. No. of cases with a searched suspect</li> </ol>
Drake & Simper (2003a, p. 706)	National (Wales and England)	<ol style="list-style-type: none"> <li>1. No. of persons arrested for notifiable offenses</li> <li>2. No. of offenses cleared up</li> <li>3. No. of recorded crime incidents</li> <li>4. Weighted no. of incidents of crime above (below) expected</li> <li>5. No. of road traffic accidents leading to death or serious injury</li> <li>6. Estimated no. of people very worried about burglary</li> </ol>
Drake & Simper (2003b, p. 172)	Local (England and Wales)	<ol style="list-style-type: none"> <li>1. Total crimes per 1,000 population</li> <li>2. Total crime, % detected</li> <li>3. Burglaries per 1,000 households</li> <li>4. Violent crime per 1,000 population</li> <li>5. No. of road traffic collisions involving death or serious injury per 1,000 population</li> <li>6. No. of cleared-up crimes</li> </ol>
Kelly (2003, pp. 861-862)	Local (various regions, U.S.)	<ol style="list-style-type: none"> <li>1. Violent and property crimes reported per 1,000 population</li> <li>2. No. of juveniles arrested for drug violations</li> <li>3. 1999 UCR Crime Index clearance rate for UCR Part I (felony) crimes</li> </ol>

(continues)

**Table 1** (continued)

Source	Scope of sample	Efficiency	Effectiveness	Social equity (equity, integrity, respect, fairness)
Ho & Ni (2005, p. 67)	Local (various regions, U.S.)		<ol style="list-style-type: none"> <li>1. No. of arrests</li> <li>2. Cases cleared or successfully resolved by law enforcement</li> </ol>	
Melkers & Wiloughby (2005, p. 183)	Local and county (various regions, U.S.)		<ol style="list-style-type: none"> <li>1. No. of serious crimes reported</li> <li>2. Clearance rate for serious crimes</li> <li>3. Citizens' perception of their neighborhood safeness</li> </ol>	
Collier (2006, p. 166)	Local and national (England and Wales)	<ol style="list-style-type: none"> <li>1. No. of sickness absence</li> <li>2. No. of medical retirements</li> </ol>	<ol style="list-style-type: none"> <li>1. No. of emergency calls to the police</li> <li>2. No. of crimes</li> <li>3. No. of public order incidents</li> <li>4. No. of road traffic collisions</li> <li>5. Time spent by officers in public</li> <li>6. Response times</li> <li>7. Incidence of stop/search</li> <li>8. No. of arrests and detections</li> </ol>	<ol style="list-style-type: none"> <li>1. Adequacy and timeliness of case files for prosecution</li> </ol>
Orr & West (2007, p. 657)	Local (Providence, Rhode Island)			<ol style="list-style-type: none"> <li>1. Courtesy (citizen survey)</li> <li>2. Fairness (citizen survey)</li> <li>3. Treatment of the races (citizen survey)</li> <li>4. Security feeling (citizen survey)</li> </ol>

a *perception* that it varies. Of course, it should be noted that respect, equality, and fairness are often measured by citizen surveys. Although these are important, more objective measures are also needed. These might include, for example, statistics on the use of police force against people of color versus whites or a comparison of whether African-American and Latino motorists are more likely than whites to be pulled over in traffic incidents or physically searched by police. The point here is that social equity indicators in policing may not necessarily reflect reality but rather serve as an estimation of reality.

Interestingly, the data in Table 1 also show that effectiveness measures tend to outweigh the use of efficiency performance indicators. Also, in most cases where effectiveness indicators are present, efficiency measures are absent. As noted at the outset of this article, tracking effectiveness may prove easier in most cases, and the extent to which police departments seek to improve effectiveness may hinder their ability to achieve efficiency. Thus, police departments may tend to favor one measure (*viz.*, effectiveness over efficiency; see Grizzle, 2002; Hatry, 1980). Ultimately, however, as argued later, a more balanced mix of indicators, including social equity, is necessary for policing in this nation.

## Discussion and Conclusions

The importance of social equity performance measures, particularly in law enforcement professions, is self-evident. First, constitutional and statutory laws require equal treatment of all persons. Beyond this, public attitudes toward equity have become very favorable over the past few decades, compelling police departments to ensure that their law enforcement officers treat all groups fairly and equitably (Brunet, 2006). The elevated status of social equity within the academy also impels the greater use of equity indicators in performance measurement in the public sector (Brunet, 2006; Jennings, 2005). Finally, the repercussions of ignoring social equity are vast and costly.

Consider, for example, racial profiling. Tens of thousands of innocent drivers and pedestrians across the country are victims of racial profiling each year (Glaser, 2006; Harris, 1999). This has led to an increase in litigation for cities, states, and counties, the cost of which is passed on to the taxpayers. This diminishes, in the minds of the citizenry—especially the victims of racial profiling—the overall performance of law enforcement agencies and ultimately the ability to trust and respect police officers and officials.

Another repercussion of racial profiling is that it increases differences in incarceration rates among groups. That is to say, it is one factor that helps explain the disparities in the incarceration rates of African Americans compared with whites (Glaser, 2006). This, too, has led to widespread criticism and costly lawsuits around unjust incarcerations throughout the nation's prisons.

Even beyond policing, the importance of social equity performance indicators becomes evident in the recent experience in New Orleans with Hurricane Katrina, where the government failed to treat all citizens fairly and equitably. The images of mostly African-American victims stranded on rooftops were broadcast internationally, and the government's slow response to the disaster has been attributed to race. The mere perception that race played a part in the government's response to Katrina set off a tidal wave of criticism and anger throughout the world. Such images can only further deteriorate the public image of government, a phenomenon that the public administration community in particular continues to battle and counter.

In short, the costs of excluding social equity indicators are very high. The study presented here is exploratory, and further research is needed to not only track the use of social equity indicators in police departments but also to determine if there is a link between the presence of such indicators and increased social equity in practice.<sup>6</sup> Social equity indicators must be part of a balanced mix of performance measures for government services. Ultimately, this can only improve the delivery of government throughout this nation's communities.

## Notes

1. It is important to note that although there is a good body of research on performance measurement in government, there is a dearth of research on policing performance. This study focuses on performance measurement in policing. It should further be noted that there are a number of critics of the performance measurement and management movements (see, e.g., Radin, 2006).

2. This article examines published academic studies on social equity measures. Those studies essentially entail the use of surveys, case studies, or other instruments by the respective researchers to ascertain the existence of social equity measures, as codified by the researchers. There may be other instances in which social equity measures are used but are not known to researchers and practitioners. For example, undocumented practices may not be known and thus cannot be reported. Importantly, however, this is an exploratory study, intended to stimulate further research on the extent to which social equity measures are relied on not only in policing but in other professions as well.

3. It should be noted, however, that there are a number of criticisms regarding the use of performance measurement in policing. For example, Reuss-Lanni expressed it clearly "since there are no figures on crimes that do not occur because uniformed officers are patrolling the streets, crime statistics tell us what the criminals, not the police, are doing" (1983, p. 93; see also Wadman & DeLadurantey, 1984). Moreover, as discussed later in the text, the measures of efficiency and effectiveness are often played off one another, whereby one is pursued at the expense of the other. Others point out that performance indicators in policing are more useful for political rather than management ends (see, e.g., Hoogenboezem & Hoogenboezem, 2005).

4. H. George Frederickson (1980) was one of the first scholars to emphasize the importance of social equity to public administration. In writing about the New Public Administration, he stated: "Social equity, then, would be a criterion for effectiveness in public administration in the same way that efficiency, economy, and productivity, and other criteria are used" (p. 36). However, as the research reviewed for our study shows, the concept of effectiveness continues to be distinct and discrete from social equity.

5. As part of a research project funded by the Sloan Foundation, the Public Performance

Measurement and Reporting Network at Rutgers University–Newark reviewed the academic literature for performance measures. To accomplish this, the first task was to identify, using keywords, publications that had at least one article addressing performance measurement, in part or in its entirety. Importantly, this research (a) cast a wide net in terms of journals (e.g., public administration, public policy, criminal justice, organization behavior and theory, etc.); (b) had an open-ended timeframe (journal articles addressing police performance as early as the 1970s were identified); and (c) set search terms to capture studies on performance in general, and any study with police performance databases was targeted for review. A total of 101 journals were identified. Through a manual review of all those journal articles, any study on performance measurement and reporting in policing was included in this study. For additional information on the methodology regarding how articles were selected, see Charbonneau (2006).

6. Importantly, however, additional studies on the use of social equity measures will not necessarily lead police departments to adopt such measures.

## References

- Berman, E., & Wang, X.H. (2000). Performance measurement in U.S. counties: Capacity for reform. *Public Administration Review*, 60(5), 409–420.
- Brown, K., & Coulter, P.B. (1983). Subjective and objective measures of police service delivery. *Public Administration Review*, 43(1), 50–58.
- Brown, R.E., & Pyers, J.B. (1988). Putting teeth into the efficiency and effectiveness of public services. *Public Administration Review*, 48(3), 735–742.
- Brunet, J.R. (2006, February). *Measuring social equity performance in the criminal justice system*. Paper presented at the Fifth Social Equity Leadership Conference, Omaha, NE.
- Callahan, R.F., & Gilbert, G.R. (2005). End-user satisfaction and design features of public agencies. *American Review of Public Administration*, 35(1), 57–73.
- Carmona, S., & Gronlund, A. (2003). Measures vs. actions: The balanced scorecard in Swedish law enforcement. *International Journal of Operations & Production Management*, 23(12), 1475–1496.
- Carrington, R., Puthuchery, N., Rose, D., & Yaisawarnng, S. (1997). Performance measurement in government service provision: The case of police services in New South Wales. *Journal of Productivity Analysis*, 8(4), 415–430.
- Chan, Y.-C.L. (2004). Performance measurement and adoption of balanced scorecards: A survey of municipal governments in the USA and Canada. *International Journal of Public Sector Management*, 17(3), 204–221.
- Chandek, M.S. (1999). Race, expectations and evaluations of police performance: An empirical assessment. *Policing: An International Journal of Police Strategies & Management*, 22(4), 675–695.
- Charbonneau, E. (2006). Citizen use of citizen's survey: Repackaged research format as an empowerment tool. *Public Performance & Management Review*, 30(2), 262–296.
- Cheurprakobkit, S. (2000). Police-citizen contact and police performance attitudinal differences between Hispanics and non-Hispanics. *Journal of Criminal Justice*, 28(4), 325–336.
- Chitwood, S. R. (1974). Social equity and social service productivity. *Public Administration Review* 34(1), 29–35.
- Coe, C. (1999). Local government benchmarking: Lessons from two major multigovernment efforts. *Public Administration Review* 59 (2): 110–123.
- Collier, P.M. (2001). Police performance measurement and human rights. *Public Money & Management*, 21(3), 35–40.
- Collier, P.M. (2006). In search of purpose and priorities: Police performance indicators in England and Wales. *Public Money & Management*, 26(3), 165–172.

- Diez-Tico, A., & Mancebon, M.-J. (2002). The efficiency of the Spanish police service: An application of the multiactivity DEA model. *Applied Economics*, 34(3), 352–362.
- Drake, L.M., & Simper, R. (2003a). An evaluation in the choice of inputs and outputs in the efficiency measurement of police forces. *Journal of Socio-Economics*, 32(6), 701–710.
- Drake, L., & Simper, R. (2003b). The measurement of English and Welsh police force efficiency: A comparison of distance function models. *European Journal of Operational Research*, 147(1), 165–186.
- Frederickson, H.G. (1980). *New public administration*. University: University Press of Alabama.
- Frederickson, H.G. (1990). Public administration and social equity. *Public Administration Review*, 50(2), 228–237.
- Gianakis, G.A. (1994). Appraising the performance of “street-level bureaucrats”: The case of police patrol officers. *American Review of Public Administration*, 24(3), 299–315.
- Glaser, J. (2006). The efficacy and effect of racial profiling: A mathematical simulation approach. *Journal of Policy Analysis & Management*, 25(2), 395–416.
- Gormley, W.T., Jr., & Weimer, D.L. (1999). *Organizational report cards*. Cambridge: Harvard University Press.
- Grizzle, G.A. (2002). Performance measurement and dysfunction: The dark side of quantifying work. *Public Performance & Management Review*, 25(4), 363–369.
- Harris, D.A. (1999). *Driving while black: Racial profiling on our nation's highways*. New York: American Civil Liberties Union. [www.aclu.org/racialjustice/racialprofiling/15912pub19990607.html](http://www.aclu.org/racialjustice/racialprofiling/15912pub19990607.html), accessed June 28, 2007.
- Hatry, H.P. (1980). Performance measurement principle and techniques: An overview for local government. *Public Productivity Review*, 4(4), 312–339.
- Hatry, H.P. (2006). *Performance measurement: Getting results*. 2d ed. Washington, DC: Urban Institute Press.
- Ho, A.T.-K., & Ni, A.Y. (2005). Have cities shifted to outcome-oriented performance reporting? A content analysis of city budgets. *Public Budgeting & Finance*, 25(2), 61–83.
- Holzer, M., & Yang, K. (2004). Performance measurement and improvement: An assessment of the state of the art. *International Review of Administrative Sciences*, 70(1), 15–31.
- Hoogenboezem, J.A., & Hoogenboezem, D.B. (2005). Coping with targets: Performance measurement in the Netherlands police. *International Journal of Productivity and Performance Management*, 54(7), 568–578.
- Jennings, E.T., Jr. (2005, September–October). *Social equity and the Government Performance and Results Act*. Paper presented at the Public Management Research Conference, Los Angeles.
- Jennings, E.T., Jr., & Haist, M. (2003). *Performance measurement—Symbol of substance?* Working paper, University of Kentucky.
- Johnsen, Å. (2005). What does 25 years of experience tell us about the state of performance measurement in public policy and management? *Public Money & Management*, 25(1), 9–17.
- Kelly, J.M. (2003). Citizen satisfaction and administrative performance measures: Is there really a link? *Urban Affairs Review*, 38(6), 855–866.
- Kopczynski, M., & Lombardo, M. (1999). Comparative performance measurement: Insights and lessons learned from a consortium effort. *Public Administration Review*, 59(2), 124–134.
- Lucius, J.R., & Heaphy, J.F. (1977). Apprehension productivity of police in large U.S. cities. *Journal of Criminal Justice*, 5(4), 271–278.
- McDavid, J.C. (1977). The effects of interjurisdictional cooperation on police performance in the St. Louis metropolitan area. *Publius*, 7(2), 3–30.

- McGowan, R.P., & Poister, T.H. (1985). Impact of productivity measurement systems on municipal performance. *Policy Studies Review*, 4(3), 532–540.
- Melkers, J., & Willoughby, K. (2005). Models of performance-measurement use in local governments: Understanding budgeting, communication, and lasting effects. *Public Administration Review*, 65(2), 180–190.
- Moore, M.H., & Braga, A.A. (2003). Measuring and improving police performance: The lessons of Compstat and its progeny. *Policing: An International Journal of Police Strategies and Management*, 26(3), 439–453.
- Orr, M., & West, D.M. (2007). Citizen evaluations of local police personal experience or symbolic attitudes? *Administration & Society*, 38(6), 649–668.
- Pachon, H.P., & Lovrich, N.P.J. (1977). The consolidation of urban public services: A focus on the police. *Public Administration Review*, 37(6), 38–47.
- Parks, R.B. (1984). Linking objective and subjective measures of performance. *Public Administration Review*, 44(2), 118–127.
- Piotrowski, S., & Rosenbloom, D.H. (2002). Nonmission-based values in results-oriented public management: The case of freedom of information. *Public Administration Review*, 62(6), 643–657.
- Pollanen, R.M. (2005). Performance measurement in municipalities: Empirical evidence in Canadian context. *International Journal of Public Sector Management*, 18(1), 4–24.
- Poister, T.H., & McDavid, J.C. (1978). Victims' evaluation of police performance. *Journal of Criminal Justice*, 6(2), 133–149.
- Poister, T.H., & Streib, G. (1999). Performance measurement in municipal government: Assessing the state of the practice. *Public Administration Review*, 59(4), 325–335.
- Radin, B. (2006). *Challenging the performance movement: Accountability, complexity and democratic values*. Washington, DC: Georgetown University Press.
- Reuss-Lanni, E. (1983). *Two cultures of policing, street cops and management cops*. New Brunswick, NJ: Transaction.
- Roberts, G.E. (1996). A case study in performance appraisal system development: Lessons from a municipal police department. *American Review of Public Administration*, 26(3), 361–385.
- Rosenbloom, D.H. (2005). Taking social equity seriously in MPA education. *Journal of Public Affairs Education*, 11(3), 247–252.
- Shin, D.C. (1977). The quality of municipal service: Concept, measure and results. *Social Indicators Research*, 4(1), 207–229.
- Thanassoulis, E. (1995). Assessing police forces in England and Wales using data envelopment analysis. *European Journal of Operational Research*, 87(3), 641–657.
- Van Ryzin, G.G., & Muzzio, D. (2004). Explaining the race gap in satisfaction with urban services. *Urban Affairs Review*, 39(5), 613–632.
- Wadman, R.C., & DeLadurantey, J.C. (1984). Overcoming limitations to police productivity measurement: The Omaha experience. *Public Productivity Review*, 8(3), 225–235.
- Wang, X. (2002). Perception and reality in developing and outcome performance measurement system. *International Journal of Public Administration*, 25(6), 805–829.
- Wang, X., Vardalis, J.J., & Cohn, E.G. (2000). Testing a typology of police performance measures: An empirical study of police service. *Criminal Justice Policy Review*, 11(1), 63–83.
- Watson, D.J., Juster, R.J., & Johnson, G.W. (1991). Use of citizen surveys in the budgetary and policy-making processes: A small city case study. *Public Administration Review*, 51(3), 232–239.
- Wholey, J.S., & Hatry, H.P. (1992). The case for performance monitoring. *Public Administration Review*, 52(6), 604–610.

- Willoughby, K.G. (2004). Performance measurement and budget balancing: State government perspective. *Public Budgeting & Finance*, 24(2), 21–39.
- Wisniewski, M., & Dickson, A. (2001). Measuring performance in Dumfries and Galloway constabulary with the balanced scorecard. *Journal of the Operational Research Society*, 52(10), 1057–1066.
- Yang, K., & Holzer, M. (2006). The performance-trust link: Implications for performance measurement. *Public Administration Review*, 66(1), 114–126.
- Young, M. (1991). *An inside job: Policing and police culture*. Oxford, UK: Clarendon Press.

*Etienne Charbonneau is a doctoral student at the School of Public Affairs and Administration at Rutgers University–Newark. He holds a master's degree in policy analysis from Université Laval (Canada). His interests are performance measurement, social equity, and methodology. E-mail: etienne@pegasus.rutgers.edu.*

*Norma M. Riccucci is a professor of public administration at Rutgers University–Newark. In 2005, she was inducted into the National Academy of Public Administration.*