

THE CONTEXTUAL FORCES WHICH SHAPE PERFORMANCE DEFINITION: SWINGING TOWARDS AND AWAY FROM SUSTAINABILITY

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Abstract. While it is indisputable that performance measurement has become a centerpiece of governance in the late 20th and early 21st century, it is unclear in many cases if “performance” implies the same concept across cultures and countries. A variety of definitions of performance are in use among political and management actors, media and public opinion. The goal of this study is to use the occasion of two major public crises or disasters, the USA bridge collapse occurred in 2007 and the Italian garbage crisis appeared in the region of Naples at the end of 2007, as natural experiments to examine how, by whom and towards which directions performance expectations are established, altered and enforced over time. From the analysis of the two cases, we built up the concept of “performance equilibrium” which is useful, we argue, for researchers and practitioners in understanding the contextual forces which shape the definition of performance over time approaching or moving away from the concept of sustainability.

Key words: Performance, Public Sector, Sustainability, Crises.

JEL classification: H11, H54, H83, Q10, Q53.

1. THE EVOLVING NATURE OF PERFORMANCE

The literature from public administration and public management reflects our evolving understanding of the adoption, characterization and impact of performance management systems in government at all levels. A substantial literature already exists in understanding the adoption and implementation of performance management. Although the literature is far from consensus, several facts have emerged. One, there has been substantial penetration and adoption of performance management systems across the globe and across all levels of government. Second, the use and impact of this information and this type of management approach has still been limited (Pollitt and Bouckaert 2004; Guthrie et al. 2005). This puzzle remains one of the enduring challenges of scholarship on performance measurement and management. However, this is not the only important research question. In fact, the question itself begs several other important questions, especially in the global context in which government performance management systems have been evolving.

Pollitt (2008) has pointed us towards the need to understand performance measurement systems in a dynamic or evolving context. In other words, what is measured and the actors involved in that process are likely to change over time. He posits that several factors may influence the change in a performance measurement system over time. One factor he and his colleagues cite (Pollitt et al. 2007) is the link between the performance measurement system and managerial or political activities. Over time, for example, as politicians learn of the performance measurement system, they may signal that certain indicators should be used or collected instead of others to suit their purposes. Their research also points to the fact that crises can motivate both the birth and refinement of performance measurement systems.

These findings from Pollitt et al. (2007) have played an important role in shaping the conceptual framework developed in this study. In extending Pollitt's work, in a cross-cultural

context, this analysis seeks to understand the dynamic or changing view of performance definitions and reporting in the face of a public infrastructure disaster. A disaster, while it may have its origins or sources over time, is a point in time where underperformance or failure of performance becomes very visceral or public. This provides a unique quasi-experimental setting in which to assess whether external factors such as a public disaster play a role in the evolving nature of a government performance measurement system.

Two case studies from Italy and the United States serve to highlight the evolving nature of “performance.” Crisis situations were selected because they highlight the dynamic nature of performance and accountability in any government system. A pre-and post-assessment analysis of the forces that shape the performance concept will be analyzed. The analysis presented here represents an advance in the knowledge of the dynamic nature of government performance measurement definition over time. This will also serve to guide future empirical research into this topic.

2. THE SUSTAINABILITY CONCEPT(S)

Sustainability is a multifaceted concept whose definition has morphed many times over the past several decades. Sustainable development has been defined as a development which addresses the present generation’s needs without compromising the capacity to satisfy the future generations’ needs (World Commission on Environment and Development, 1987). Thus, sustainability refers to the longevity or continued existence of a concept. Although sustainability has often been associated with the environmental movement (United Nations Environment Programme, 1998), in point of fact, sustainability can refer to financial, operational or other characteristics beyond the notion of environmental sustainability. For example, Roseland (1998)

introduces the concept of ‘social sustainability’ as the ability of urban infrastructure to make public services affordable and accessible to poorer groups in society. Also, public economics focuses on sustainable fiscal policy formulated in terms of the intertemporal budget constraint of the public sector and introduces the concept of ‘financial sustainability’ defined as ‘a stable debt-to-GDP ratio over some future (possibly infinite) time period.’ (Lindbeck, 2006: 303).

By its very nature, sustainability introduces a notion of time into the concept of performance. An important question of sustainability is whether a decision made today will ensure that an organization and community will continue to thrive or improve over the long term. Financial sustainability may refer to the flows of resources and expenditures and whether these are appropriately balanced out over time to ensure the continued viability of a government entity. Social sustainability focuses on the ability of government to prevent social disparities in the provision of public services. Environmental sustainability refers to whether the decisions of government, for example a local government jurisdiction, makes decisions in a manner that promote both the local environment and biosphere as well as issues such as global climate change. This latter concept is being measured and managed for example related to cities and governments attempting to be ‘green’ and assessing their impact on global climate change (for example, Guthrie and Farneti, 2008). Performance definitions, specific being used, include items such as energy usage, carbon footprint, types of vehicles in a government fleet and acres of parks and green space.

Thus, sustainability enhances and adds a new element to the general notion of performance definitions in government. Most explicitly, it’s a time dimension and in many ways a concept of moving beyond the strict boundaries of the government organization to consider the impact of internal decisions on the larger community. Although this seems like a concept that should

already be embedded, governments are by definition organizations that are designed to take care of and promote the general public welfare as opposed to for example private sector organizations, as a matter of fact, many governments tend to strictly focus on their own organizational boundaries. Sustainability forces a consideration beyond those boundaries as well as the impact of current decisions over time.

3. RESEARCH QUESTIONS AND METHODOLOGY

The intent of the comparative analysis is to determine the similarities and differences in initial performance systems compared to the response and changes to performance system after the public service crisis evaluating whether the performance definitions move away from or approaches the concept of sustainability. The analysis is organized following Barzelay et al.'s (2003) methodological guide for researching the process of public management policy change. This research approach aims to ensure that the country case studies receive the same analytic treatment, therefore allowing us to use our two national cases as basis for comparison and formulation of analytical or logical generalizations (Yin, 2003; Mitchell, 2000) to answer our research questions.

According to Barzelay et al. (2003), the first step is the identification of cases. For this work, two public services crisis cases are examined. The first public crisis is the USA bridge collapse that occurred along Interstate I-35 on August 1, 2007 in Minneapolis, Minnesota. The second is the Italian garbage crisis that arose in five regions of Southern Italy during the last 14 years and achieved its zenith in the area of Naples from December 2007 through July 2008. While the two crisis have a few aspects in common—i.e. they are related to primary public needs, mobility and good hygienic conditions of public spaces, and they received massive coverage by the media all

over the world—they were chosen because of the differences in the public administration systems of the two countries where they came about (Pollitt and Bouckaert, 2004). These differences are hypothesized to be potentially relevant variables which influence changes in the performance regime.

The case outcome, i.e. the dependent variable, of the cases analyzed is the changes of performance expectations and definitions inside accountability mechanisms. According to Romzek and Dubnick (1987), “public administration accountability involves the means by which public agencies and their workers manage the diverse expectations generated within and outside the organization” (1987: 233).

The analysis of the two cases are organized to describe the central sets of events (episode), including events that occurred before the crisis (prior events); the concurrent events; both causal sources of aspects of the crisis (contemporaneous events) and events shaped by the crisis (related events); and events after the crisis (later events). According to Barzelay et al.’s (2003), two kinds of research questions ought to be formulated: The “type A” questions, which are broader, with a high level of generality; and the “type B” questions which inquire about each particular case. In our research design, type A questions are the following:

A1. Which are the variables that are critical in determining the nature of “performance”?

A2. Which are the relationships among these variables?

Type B questions are connected to the specific cases we used in this research:

B1. By whom are performance expectations established, altered and enforced during the crisis episodes analyzed?

B2. How are performance expectations that are established, altered and enforced during the crisis episodes analyzed?

B3. Towards which directions are performance expectations that are established, altered and enforced during the crisis episodes analyzed?

B4. How did the manner in which the crisis episodes were analyzed impact the performance measurement system?

In order to apply the Barzelay case study analysis methodology, several other conceptual frameworks and classification systems are used as the grammar or language upon which to build the analysis. By consolidating these frameworks, a unique classification system is developed that extends our knowledge base upon which to understand the dynamic nature of government performance measurement systems.

The first framework is Colin Talbot's performance regime concept which (Talbot, 2008) is used to address question B1. Under the performance regime approach, Talbot concentrates his attention on the actors which drive the adoption of performance measures and targets, i.e. those which play a significant role in shaping performance policies and practices, such as legislatures, citizens, users and users organizations, courts, audit bodies, inspections bodies, regulatory bodies, partners, and the like. Each of these stakeholders, which may vary across countries, have the power to share the type and impose the use of performance measures which entail the vision of performance itself, especially after a disaster. Citizens may care more about the direct impact of a regional or local governments actions on their own lives and well being where as a central government may impose more technical definitions of sustainability which may not resonate with citizens directly. In this arena, technical or professional associations may impose or at least propagate standards of sustainability. Professions such as civil engineers, city planners and others may have specific notions of the concept of sustainability that are passed down to their members who serve as managers in government bureaucracies. Sustainability and the types of

specific performance definitions proposed will vary by the nature of the actors and the performance regime in place within different regions and countries.

Romzek and Dubnick (1987, 1991) have conceptualized four types of accountability systems: bureaucratic, legal, professional and political. This framework provides the context to question B2. The bureaucratic accountability system is characterized by the top-down answerable relationship between a superior and a subordinate. In the legal accountability system, a wide range of activities are controlled by actors outside the boundaries of the organization who can impose, through legal sanctions or contracts, their priorities and standards. The professional accountability approach is based on the notion that people who have a high level of training are answerable to specific professional operating and ethical codes. Political accountability refers to the relationship between constituents and representatives; the latter are responsive to constituents, given their policy priorities and programmatic needs. Each of the four channels of accountability (bureaucratic, legal, professional and political) are used to conceptualize how performance expectations that are established, altered and enforced during the crisis episodes are analyzed. We expect that after each crisis episode a higher political pressure occurs, but differences may take place in the other accountability channels.

For the issue of “directions” of performance expectations (question B3), we mean the tendency to be focused on the different basic categories of performance: inputs, activities/processes, outputs, and outcomes. A failure in service provision may or may not push a change in viewpoint of certain actors when thinking about performance for a specific service.

Finally, Geert Bouckaert’s 1993 paper provides a useful framework that will serve as the basis for question B4. In this framework, he identified three sets of variables--validity, legitimacy and functionality--which can be used to understand, compare and classify

performance measurements systems. Validity refers to fact that the measures do capture the behavior or results that are actually occurring in a government system. Using Bouckaert's words, "a valid measure is one that is sound, cogent, convincing, and telling" (Bouckaert, 1993: page 31). Legitimacy refers to whether a system is trusted in by agents, or stakeholders, which could include internal groups such as employees, or external groups such as citizens or business associations. Functionality is the third characteristic, which refers to whether the organization receives net benefits from the implementation of performance measures.

To answer these case study questions, the analysis is based on public documents and reports (such as texts of law, published agencies' reports, and press releases), websites, testimonies, and internal reports. As to the latter set of documents, we remark that, because several judicial investigations are in progress, we have analyzed only the portion of documents that public institutions have been willing or able to provide.

4. CASE STUDIES

Minneapolis, MN Bridge Collapse. On August 1, 2007, the I-35W bridge that crosses over the Mississippi River between Minneapolis, MN and St. Paul, MN collapsed, killing 13 people. This collapse set in motion, both in Minnesota and across the nation, an examination and self reflection regarding the performance of the nation's bridges and overall physical infrastructure. The collapse came with the backdrop of a nearly never-ending poor scorecard regarding the nation's overall infrastructure over the years from the American Society of Civil Engineers.

In the context of the bridge collapse and accountability systems, the Minnesota Department of Transportation (MnDOT) has a long track record of using performance measurement systems (National Transportation Board, 2007). Poister (1997) surveyed all state departments of

transportation in the United States to examine the adoption and influence of performance measurement systems. Minnesota was cited as an important player in this regard with its “Family of Measures”. Broad goals that were being measured included: 1) number of congested state highways, 2) minutes of variation in twin cities trip time and 3) average Twin Cities commute time by transportation mode (Poister, 1997).

Some of these measures have very loose ties to the ideas of sustainability although in some cases there may actually be a negative relationship between the currently used measures and sustainability. For example, reducing congestion, which may be perceived to be due to suburban sprawl and less desirable land use patterns, may in fact be measures that is counterintuitive to the concept of sustainability. Overall, it is clear that the federal and state departments of transportation have not, to date, taken any major account of sustainability in assessing their performance. This is true despite the fact that transportation policy and spending may have one of the biggest impacts on our general notions of sustainability.

Under the current performance regime several facets are involved in assessing the “performance” of bridge infrastructure in the United States. Due to the heavy influence of federal funding on state roads and bridges, there is a strong degree of legal accountability mechanisms. The bridge collapse led to a report from the federal government and the U.S. House of Representatives Committee on Transportation and Infrastructure entitled “Report on the National Highway Bridge Reconstruction and Inspection Act of 2007” (US House of Representatives, 2007) which highlights this legal accountability system.

Federal bridge standards were created in 1968 after the collapse of a bridge in West Virginia (US House of Representatives, 2007). These standards, published in 1971, required each state to ensure that all federally financed bridges be inspected every 24 months. In this instance, an input

and workload type performance measurement was created to ensure that a certain process occurs and that this process is reported to a national database and based on a legal accountability.

In 1988, a new performance regime was created due to another bridge failure around this time period (US House of Representatives, 2007). The new Act required more intensive inspection of bridge elements such as underwater components and parts of the bridge deemed “fracture critical.” It also required team leaders and program managers in state bridge inspection programs to have minimum training and qualifications; front line bridge inspectors, however, were not required to meet minimum training levels. This performance regime was primarily based on a legal accountability channel with certain process or time-based standards, as opposed to outcome standards. Again, still, minimal attention was paid to sustainability in these reporting guidelines. It should be noted however, that separately, infrastructure projects were required to review a baseline environmental assessment analysis.

After the collapse, several efforts were made to determine the cause of the bridge collapse and a possible shift in the performance regime and accountability mechanism used. The Minnesota Legislature formed the Joint Committee to Investigate the Bridge Collapse (Minnesota Legislature, 2008). This approach can be viewed as the temporary formation of a new legal accountability mechanism. The commission report was highly critical of the internal operations of department (Gray, Plant and Mooty, 2008). In particular, the report noted that inspection reports were not properly conveyed to the division that directed repairs and maintenance. In their final report, they cited, “money worries, imprecise inspections and disregard of policies” as the main culprit behind the bridge failure. In this case, the Legislature appears to be suggesting that the existing performance regime has failed to carry out its responsibilities.

In the situation of bridge maintenance and repair, there was a regime that emphasized accountability via the reporting of inspection reports. These reports were to be based on very strict criteria established at the federal level via the professional opinion of engineers. A set of adjoining accountability mechanisms were in place as well. The inspection reports were cross-checked by various parties in the system to determine if any problems existed. The debate seems to continue to be engaged by those who argue that the MnDOT did not properly place emphasis on the bridge's problems and that led to a critical failure. Others argue that the bureaucratic system was working and that the failure occurred due to the lack of funding for the bridge maintenance program.

This report, in a general sense, noted that the bureaucratic accountability system was weak and, at least in this report's opinion, was an important part of the problem that was associated with the bridge collapse. In responding to the legislative report, MnDOT noted several issues. First, they noted that the department did acknowledge that there were problems with bureaucratic accountability as well as a general lack of resources devoted to bridge inspections (MnDOT, 2008). In fact, MnDOT has acknowledged its operational problems and stated in its follow up to the legislative report the following comment, "Metro District has also developed a process to review its inspection reports and assign responsibility to follow through when prompt repairs are recommended"(MnDOT, 2008). Expectations and standards, in the case of the bridge collapse, can be measured in terms of several factors. On the performance input side, changes in the number of inspectors or the budget for bridge inspection and repair could be important. In terms of output, changes in the measurement, reporting and use of number of inspections, frequency of inspections and repair dollars per inspection report may signify a shift in expectations. An interesting side note is that given the nature of the disaster, particularly lost lives, there may be

less emphasis or certainly public acknowledgement of items such as efficiency measure such as cost per inspection. Over time, these types of measures may begin to reassert themselves in the performance regime. Despite these acknowledgements, ultimately the department response indicates that they believe there was a technical design failure and that despite some problems in bureaucratic reporting and accountability, the bridge inspection reports did not indicate significant problems with the I-35W bridge and that had these bureaucratic accountability issues been resolved, there remained a fundamental design problem.

Thus, we can see the emerging debate relative to accountability systems or technical design systems concerning the source of the collapse and failure. The MnDOT and Governors Office, citing preliminary evidence from the National Transportation Safety Board (NTSB), clearly are urging a finding that accountability lies with the bridge designer and not the department. In contrast, the legislative special commission was clearly focused on specific practices and funding decisions within the transportation department and the executive branch that led to the bridge collapse. In their report for example, the consultants focus on the miscommunication and lack of coordination among different parts of the transportation department, finding that “responsibility for decision making (for bridge projects) both within Metro District and between Metro District and the Central Bridge Office was often unclear to the individuals involved.” They further noted that “the result is that written documentation is lacking and in some critical areas important information did not always reach consultants or the appropriate staff parties.” Clearly, the legislative report was focused on placing blame on the transportation department operational and management system.

The US House of Representatives report noted earlier, directed by Rep. Obstar of Minnesota, written to support newly proposed highway and bridge legislation, provided evidence of what it

deemed a failure of the current accountability regime. One failure cited was that states failed to calculate and determine bridge load ratings (the safe amount of traffic a bridge can carry given its condition) and the failure of the federal agency to properly oversee this process (US House of Representatives, 2007). A second failure was that many states, including a citation of Minnesota, had failed to fully utilize its access to the Highway Rehabilitation fund. The third failure was the overall number of US bridges that had been rated as deficient or critical in terms of upkeep and maintenance. In this report, the legal accountability system was criticized as being too weak.

Based on these findings, the proposed legislation sought several changes in the accountability regime. One change was the US Department of Transportation would be required to assign a risk factor to bridges determined deficient to guide (although not mandate) state repairs and maintenance (US House of Representatives, 2007). This risk measure is clearly intended to act as an accountability mechanism and be used to assign blame if a bridge failure occurs and insufficient action had been undertaken. States also would be required to inspect all bridges every 24 months and calculate load ratings every 24 months. Another element is that the states would have to develop five-year performance plans for any deficient bridges and that minimum standards of training be required for all personnel involved in bridge inspection and not just managers. These proposed changes represent a significant tightening of the performance regime for bridge inspections, including both input and workload/process type performance standards. Notably, it does not set outcome-based performance measures such as percent of bridges deficient in the United States.

In the case of the Minnesota bridge collapse, there is evidence of a potential shift in performance regimes. The legal accountability mechanisms, which are in place, are designed to

be much stronger, such as an increase in training standards and bridge risk ratings and tighter standards for inspection intervals. There is not an increase in performance accountability mechanisms in terms of direct changes that are evident in outcome-based standards. There are also some changes in bureaucratic accountability mechanisms in terms of changes in the internal organizational reporting and management.

Italy, Garbage Crisis in Naples. The garbage crisis of Naples can be considered as a failure in the management of what can be considered a long-term crisis; the core cause of this disaster is connected to the incapability by the public administration to face the interference of organized crime (Iacueli, 2008).

The garbage crisis affected the region of Naples (Campania), Italy, from December 2007 to July 2008. With its 3 million inhabitants in the metropolitan area (8,400 per square km) and 5.7 million residents in the territory of the administrative region, it constitutes one of the most populated areas of Europe, and is known all around the world for its cultural heritage and history. According to the central government, (Government's Commissioner for Waste Emergency in Campania, 2008) three simultaneous factors converged to cause the crisis: : (1) the complete saturation of the very few landfills available; (2) the saturation of the scant and poorly-working facilities for recycling of waste; (3) the increasing production of garbage as consequence of the holidays at the end of the year. Even if the direct outcome of this disaster was not the death of people, this crisis produced at least two major concerns: the perception of a health risk among the population, and a poor image of Italy at the international level.

In Italy, garbage collection and disposal services are regulated by the Environmental Code issued in 2006. This law ties into the Waste Management Strategy by the European Union,

which has the following aims (European Communities, 1999): (1) waste prevention, (2) increasing of recycling and reuse, and (3) improving final disposal and monitoring of emissions in the environment. Basically, the law provides a comprehensive frame whose aim is to provide a socially, environmentally and financially sustainable service. The Environmental Code depicts an intricate picture of actors, duties, regulations, and goals to be achieved. This has generated a multifaceted and tight performance regime which is outlined in the Annual Report of Waste Management by the Italian Environmental Protection Agency (APAT). This report has the holistic aim to provide a perspective concerning the waste production and management for the following stakeholders: central and local governments, economic operators, and citizens (APAT, 2001). The set of indicators presented are focused on the following: total production of garbage, production per capita per year and per day, recycling rate, recycling per capita total and for each material, amount of garbage divided by type of treatment, quantity of garbage disposed of in each incinerator plant and compost plant, information concerning the activity of disposal plants (e.g. quantity of incoming materials, quantity of effluents produced, status of authorizations, remaining quantity of waste disposable in landfills, etc.), cost per capita and per ton of the service, structure of costs, and use of the PAYP principle for the computation of the fee for service users (APAT, 2001, 2008).

Legambiente, the environmental association acknowledged by the Italian Government as special interlocutor for environmental issues, offers also a wide array of information on disputes through Italy (for example, Legambiente, 2004) and surveys on illegal traffics of waste (the last one is Legambiente, 2008). The analysis revealed that: (1) there is a clear difficulty in the fulfilment of waste prevention goals; (2) recycling is still underdeveloped, especially in Southern Italy (10.2 percent in 2006 vs. a goal of 40 percent in 2007); (3) Southern Italy has a structural

deficit of infrastructure, especially in terms of incinerators; (4) the illegal waste business (“Ecomafia”) has tremendously enlarged over years, especially in Campania, Calabria, Puglia, Lazio and Sicily regions of (Southern, except Lazio) Italy.

These difficulties of waste management which particularly afflicted—and still partially afflicts—five regions of Southern and Central Italy drove the central government to intervene with the proclamation of the state of emergency in 1994 (Campania and Puglia), 1997 (Calabria) and 1999 (Sicily and Lazio). As a consequence, in each regional territory, the Prime Minister appointed a commissioner with extraordinary powers in public contracts, expropriations, public accounting, town planning, building, environment protection, and local government (Court of Audit, 2007). An analysis of the appointing decrees reveals the commissioners’ goals: (1) to draw up the regional waste plan; (2) to define a schedule of activities to deal with the emergency; (3) to set up consortiums among municipalities for the waste management; (4) to build and manage landfills; (5) to reach improvements in recycling; (5) after improvements in recycling, to promote the use of recovered fuel (i.e. the fuel derived from waste) in substitution for fossil fuels and the carrying out of incinerator facilities for energy production; (6) to draw up specific rules for hazardous waste landfills; and (7) to impose limits on waste import from other regions.

When the crisis episode exploded in Naples in December 2007, the five regions still had the central government’s commissioners in charge, without interruption, since each proclamation of emergency. In the same year, an audit report by the Court of Audit addressed to the Legislature revealed the commissioners’ disastrous management: no acceleration of administrative procedure to come out the situation of emergency; total absence of democratic confrontation with local communities and missing enforcement of regulations on public building processes; total lack of focus on recycling; and, with very few exceptions, lack of new disposal plants. Also, auditing

and inspections on the activity of commissioners' offices were neither homogeneous nor incisive (Court of Audit, 2007). The financial auditing has been practically non-existent.

In terms of auditing and inspections from the Department of Civil Protection and the Ministry of the Environment, the commissioner's periodical report represented a powerful source of information. Yet, the execution of it was left to the will of each commissioner who, with few exceptions (e.g. Government's Commissioner for Waste Emergency in Calabria, 2006, 2007, 2008), usually tended to merely address the general purposes (never goals) contained in the appointing decree, with lack of data and information about the administrative and technical key processes.

Unlike previous events when trash left along streets and squares was concentrated in specific areas and was limited in quantity and time, the December 2007 crisis reached huge proportions. The drama of the population invaded by garbage was circulated around the world by media. This didn't arrive without notice. Two special law decrees, issued 2005 and 2006, contained emergency measures to try to remedy the critical lack of disposal plants. Also, in June 2007, the European Union cited the Italian government for an infraction because of the status of the environmental emergency in Campania: "The Commission considers that the region's waste disposal installations are inadequate and pose serious problems for human health and the environment" (European Commission, 2007: 1). And a 2006 Prime Minister's special decree created a special surveillance and control plan with the aim to guarantee an adequate sanitary safety level.

The media coverage on the phenomenon enlarged, giving increasing importance to the linkage of cause and effect between garbage and health (Iacueli, 2008). Particular attention was given to the relationship between cancer mortality rate or the neonatal malformation incidence

and the environmental abuses due to unlawful dumping of hazardous waste. With this in mind, a former study on the Campania region commissioned by the Department of Civil Protection and carried out by prestigious researchers and institutions (Prime Ministry Bureau – Department of Civil Protection, 2006) was given a great consideration. According to this research, in Campania the number of cancer diseases and malformations increased by 84 percent from 1995 to 2002. Even if the conclusions were uncertain, the fragmentary information emerging from this study and the news on the piles of trash had the effect of infusing distrust among citizens in respect to public administration, which turned out into an indiscriminate conflict between local communities and institutions (Government's Commissioner for Waste Emergency in Campania, 2008).

In response to the collapsing situation, the government appointed a new commissioner on January 16, 2008, with a mandate to remove trash from streets and open a temporary warehouse for waste in cooperation with the Ministry of the Environment, the Department of Civil Protection, the Ministry of Defence—with the task to use military forces in the operations of trash removal—and, for the first time, the Ministry of Health. A portion of the garbage left on the streets and in temporary warehouses was sent to treatment plants in other regions of Italy and in Germany, resulting in huge transportation costs.

In April 2008, the Government's Commissioner, in cooperation with other public institutions among which was the Ministry of Health, published a study with the aim to reassure the population, demonstrating through deep scientific analysis supported by dozens of indicators and comments contained in 124 pages, that the alleged epidemic from waste was not supported by the data, but rather that the bad performance of several health indicators was due to social factors such as smoking, diet, level of incomes, and so on.

In accordance to his election platform, the new Prime Minister, Silvio Berlusconi, elected in April 2008, presented on May 21 a new law decree with the aim of solving the emergency in Naples by the end of 2009. The decree requires the Prime Ministry's Deputy Leader, who also is the head of the Department of Civil Protection, to substitute for the Government's Commissioner. The Deputy Leader is in charge of coordinating the entire waste sector in Campania, with special powers in activation of landfills; location of treatment plants; use of military and police forces for security reasons and for transportation of waste and building yards in the constructions of the new plants; and orders to resume work for personnel involved in trash collection and disposal. Recycling was to increase to 25 percent by the end of 2008 and 50 percent by 2010. The decree also identifies the incinerators which have to be built or finished and the sites for the nine new landfills. Still, in May 2008, the Ministry of Health drew up a plan of intervention on health for the waste crisis in Campania (Ministry of Labour, Health and Welfare, 2008) with the aim to: (1) correctly inform the population about real health risk; (2) update healthcare personnel on the situation of waste emergency; (3) monitor health, environment and food. Again, the health outcome received attention that it had not in the past.

On July 18 the Prime Minister publicly declared that the peak of the emergency had been overcome: streets were cleaned up and back to normal, thanks to soldiers and volunteers who collected the trash, and to the opening of temporary warehouses and landfills. In his open letter to the mayors of Campania, he also declared that the incinerator was considered pivotal for the waste cycle system of Naples, and that the bidding process would begin shortly. Also a re-organization, through merging, of the consortiums which operated in the waste cycle were carried out successfully. In August 2008, while trash is out of the streets, the structural emergency still remains, since no new treatment plants have been put to work.

5. DISCUSSION

Given the framing of these case studies, certain points can be highlighted to ascertain the research questions posed earlier in the paper. In the case of Minnesota bridge collapse, one outcome has been dueling reports by different government and private entities in attempting to explain the problems with the accountability and management systems and recommended changes to the regime. Part of the proposed changes to the accountability mechanisms may be explained by the political differences between the executive and legislative branches. The two parties, via their control of the two government branches, are clearly attempting to use the bridge collapse to advance certain agendas and suggest changes to performance regimes and accountability mechanisms. This seems to point to the importance of political affiliations and parties as a casual variable in explaining the transition from prior to post accountability mechanism usage. It also highlights the ever shifting and partially subjective nature of defining performance and performance expectations in government settings.

The current accountability system tends to be legalistic as the federal government, using its monetary influence, is able to set process and workload standards such as inspection training standards and inspection frequency. State departments of transportation have established, on their own accord, a set of customer based performance measurement standards. One system used a legal accountability framework and imposed it via a higher level government, and another focused on direct constituent outcomes.

In terms of changes in performance expectations, a highly charged atmosphere exists. One side seems intent on focusing on the failure of the legal and bureaucratic accountability systems in place and demanding changes and strengthening of standards in those systems. Another side has focused more on technical and design flaws with limited changes in bureaucratic or legal

accountability. The political tension has clearly exacerbated this debate and points to the importance of political systems in determining the changing nature of accountability systems and performance regimes over time. Notably, there has been limited mention of changes in performance accountability and changes in outcome type standards by any party involved in understanding the bridge collapse; while it seems that there is a push towards a more functional performance measurement system which, for the future, might be able to avoid such a disaster.

In the garbage crisis of Naples, performance policies have been heavily affected by the Department of Civil Protection through the commissioned study on the effects over the public health of the waste crisis. Even though the report was presented in 2006, it was ordered in 2004, a good three years before the disaster. This prelude can be explained through bureaucratic accountability, i.e. the supervisory relationship between the Prime Minister and the Government's Commissioner, and political accountability mechanisms, i.e. the inquiries to Parliament and the parliamentary commissions, which have given the input to the Department of Civil Protection to start focusing on outcome-related aspects of performance. This report was prepared by several prestigious public research institutions, with the participation of highly skilled personnel, with the aim to provide valid and reliable information.

After the disaster occurred, media and other parties, such as environmental associations, have given a greater consideration to this study, and this has caused conflicts between constituents and institutions. The Government's Commissioner published another study in April 2008, prepared by several of the same institutions that have been engaged in the previous report, to demonstrate that there was no relationships between refuse not collected and serious public health problems. Also, in his plan of intervention for the crisis, in May 2008 the Ministry of Health presented a specific program to monitor population's health, environment, and food by constantly collecting

specific data within the region of Naples through the network of district doctors—that is by bureaucratic accountability mechanism. Clearly outcome has become the new direction of performance measurement during the crisis. And this, of course, together with the basic output aspect of performance concerning removal of trash from streets and, since this is considered as the central technical cause of the disaster, the process/activity aspect of opening new temporary warehouses, landfills and disposal facilities in general (i.e. incinerators).

For our purposes, it must be highlighted that trash removal was obtained through legal accountability mechanisms instead of normal bureaucratic mechanisms. Since bureaucratic accountability mechanisms failed (through the supervision of a government commissioner) the Prime Minister decided to act via a law decree (approved by the Cabinet) where the implementers (Department of Civil Protection, Ministry of the Environment, Ministry of Health, Ministry of Defence, coordinated by the Prime Ministry's Deputy Leader) were legally obliged to carry out their duties; in other terms, the system moved from an internal source of agency control to an external one.

The pre-crisis performance regime which focused on processes (classification of waste, technical rules concerning disposal facilities, and the like) and output (waste produced, recycling rate, method of disposal, etc.) is still operative. In this respect, after the declaration by the Prime Minister that the emergency had been overcome, the European Commission warned the Italian Government that is not enough to have waste removed to cancel the procedure of infraction opened in June 2007 concerning the emergency status in the area of Naples. The European Commission stressed that the Italian government must follow the EU regulation (and thus the Italian Environmental Code), by building disposal facilities and promoting recycling, or else

sanctions will be applied. This clearly is what Romzek and Dubnick (1987, 1991) label as legal accountability and has had the effect to reinforce the preexisting notion of performance.

Even in this case, several examples of performance expectation contrasts have occurred among the stakeholders. The most common example is improving recycling versus opening new landfills and incinerators sites. While the first expectation is common at the EU, the legislature, the Italian Environmental Protection Agency, Legambiente and research institutions levels, the second performance aspect is considered more significant for the Government's Commissioner. In the former, incinerators are considered as "the last option to solve the problem of waste" under both the environmental and economic aspects (our translation from Court of Audit, 2007: 14); in the latter, incinerators are considered as "a very effective solution to dispose waste" with very limited effects on the environment and the possibility to retrieve energy (our translation from Government's Commissioner for Waste Emergency in Campania, 2008: 101). Therefore, on one hand stand the stakeholders whose final goal is to remove trash with a particular attention to environmental preservation; on the other there are the ones whose goal is limited to trash removal. Table 1 summarizes the two cases in terms of answer to type B questions.

[Table 1 about here]

As far as the Italian case is concerned, performance definition seems to have moved away from the sustainability concept portrayed before the crisis and in the other areas of Italy which are out of the crisis. The disaster occurred in late 2007 seems to have had a perverse effect on the forces who shape the concept of performance in a way that, compared to the ex-ante situation without crisis, the focus is more on short-term aspects of performance, i.e. trash not on the streets

and new treatment plants built, instead on the long-run aspects of sustainability, basically the recycling rate (environmental sustainability), the pay-as-you-pollute principle (financial sustainability) and the proximity of treatment plants (social sustainability). Also, the sustainability of human life with regards to trash pickup and management burst on the scene.

In the Michigan case in the context of sustainability, there was little mention or change with regards to environmental sustainability. A case could be made however that infrastructure or physical sustainability was emphasized. Using the legal accountability mechanism, the federal government is attempting to impose even greater demands in terms of inspection and inspector training to ensure that the physical infrastructure is sustainable over a long period of time. The state government seemed more interested in fighting over which group was more liable or answerable to the fact that the Minneapolis bridge was not sustainable. Thus even in terms of performance and sustainability definitions, the battle can be played with regards to defining sustainability in its several forms or as to who is answerable to why one particular form of sustainability, (in this case , infrastructure sustainability) failed. In the case of a public crisis, it is likely that many parties will fight out in the short term over who is answerable for a sustainability failure and then attempt to impose their own definitions of sustainability onto the existing performance regime. In defining performance, the democratic party also attempted to bring in the definition of financial sustainability in terms of the funding streams for the transportation infrastructure. This attempt was opposed by the republican party and the governor of the state.

6. CONCLUSIONS: CONTEXTUAL FORCES & “PERFORMANCE EQUILIBRIUM”

Given the increasing importance of performance measurement and management in government, a clear definition of performance remains elusive. As argued by Pollitt (2008) in his recent new book, time is a highly neglected element that plays a critical role in our understanding of government and governance. This analysis has attempted to examine situations where performance expectations were tested during a public crisis to determine if changes occurred and how those changes can inform our understanding of what is meant by the term ‘performance’ and its approaching or moving away from the concept of sustainability.

Three elements were identified as influencing the nature of performance: actors, performance measurement systems, and accountability mechanisms. Performance expectations are set by a variety of actors attempting to assert their interests and understanding of the provision of government services and thus the idea of the “performance regime” (Talbot, 2008). Different actors set different types of expectations including the focus on input, workload/process, output or outcome measures. These standards will be challenged when events, particularly public disasters, throw the status quo out of equilibrium.

Those performance indicators are established, altered and enforced by means of specific accountability mechanism, depending on the leverage vis-à-vis the government under discussion, e.g. monetary leverage, political leverage, citizen voices, legal mandates. In the Minnesota case, the bridge collapse was a visceral event that shocked the existing accountability system and performance standards. Both the executive and legislative branches of state government as well as the federal government have engaged in separate investigations of the bridge collapse using the legal accountability framework. While there has been significant movement at both the state and federal level to alter performance standards and challenge the prevailing performance

regime, they have been focused on changing process standards versus outcome based standards again via a legal accountability framework.

The case studies illustrate that a “performance equilibrium” is established where there is little incentive to generate changes by those actors who make up the performance regime. Actors, such as other higher level government entities, non-profit interest groups and legislative bodies, likely come to an agreement over performance standards concerning specific areas. Public disasters force, at a minimum, a discussion over prevailing performance standards and potential changes in those standards that define the performance regime. Factors such as political party structure and administrative structure are part of the defining environment that helps determine the type of changes that are likely to occur in a performance regime during and after a public crisis or other external event. For example, in the case of Minnesota, the divided political control of the legislative and executive branches of the state have led to duelling examinations over the cause and potential remedies for bridge inspection, repair and control both in the state and at the federal level involving many different interest groups. The Minnesota case also highlights that the same event can generate very different perspectives and views regarding the definition of performance, underperformance and the use of information. Also, the disaster remarkably pushed towards the consideration of social sustainability which was minimally considered before.

[Table 2 about here]

In table 2, we have tried to visualize the “performance equilibrium” before and after the crisis in the Naples case, considering the three variables, actors, performance measurement systems,

and accountability mechanisms. Remarkably, the disaster has increased the number of actors, changed the accountability mechanisms and adding another set of performance measures focused on outcome which, in a certain sense, moved away from the concept of environmental and financial sustainability.

Performance definitions are shaped by the actors in a performance regime using performance standards and accountability mechanisms of various types. These definitions are subject to change as external events shock a system and force the actors within a performance regime to re-examine their prevailing views regarding the delivery of government services and provision of capital infrastructure. Each set of actors in the regime seeks out information, such as the cause of external events, upon which to make a judgment regarding changes in performance expectations against which government agencies will be compared.

REFERENCES

- APAT (Italian Environmental Protection Agency). 2001. *Rapporto Rifiuti 2001* [Waste Report 2001]. Rome, Italy: Author.
- _____. 2005. *Rapporto Rifiuti 2005* [Waste Report 2005]. Rome, Italy: Author.
- _____. 2006. *Rapporto Rifiuti 2006* [Waste Report 2006]. Rome, Italy: Author.
- _____. 2008. *Rapporto Rifiuti 2007* [Waste Report 2007]. Rome, Italy: Author.
- _____. 2008. *Rapporto Ecomafia 2008* [Ecomafia Report 2008]. Rome, Italy: Edizioni Ambiente.
- Barzelay, Michael, Francisco Gaetani, Juan Carlos Cortázar Velarde, and Guillermo Cejudo. 2003. Research on Public Management Policy Change in the Latin America Region: A Conceptual Framework and Methodological Guide. *International Public Management Review* 4(1): 20-41.
- Bouckaert, Geert. 1993. Measurement and Meaningful Management. *Public Productivity and Management Review* 27(1): 31-43.
- Court of Audit. 2007. Central Department of Government Agencies' Auditing. *La gestione dell'emergenza rifiuti effettuata dai Commissari straordinari del Governo* [The management of waste emergency by the government's commissioners]. Rome, Italy: Author. Report no. 5/2007/G.
- Dubnick, Melvin J., and Barbara S. Romzek. 1991. *American Public Administration: Politics and the Management of Expectations*. New York: Macmillan
- European Commission. 2007. *Italy: Commission starts legal action over waste crisis in Campania region*. Luxembourg: Office for Official Publications of the European Communities. IP/07/935.
- European Communities. 1999. *EU focus on waste management*. Luxembourg: Office for Official Publications of the European Communities.
- Government's Commissioner for Waste Emergency in Campania. 2008. *Salute e rifiuti in Campania* [Health and waste in Campania]. Naples, Italy: Author.

- Gray, Plant and Mooty. 2008. *Investigative Report to Joint Committee to Investigate the I-35W Bridge Collapse*.
- Guthrie, James, and Federica Farneti. 2008. GRI Sustainability Reporting by Australian Public Sector Organizations. *Public Money & Management* 28(6): 361
- Guthrie, James, Christopher Humphrey, L.R. Jones, and Olov Olson, eds. 2005. *International Public Financial Management Reform: Progress, Contractions and Challenges*. Charlotte, NC: InformationAge Press.
- Iacueli, Alessandro. 2008. *Le vie infinite dei rifiuti. Il sistema campano* [The infinite ways of waste. The Campania's case]. Rome, Italy: Rinascita Edizioni.
- Legambiente. 2004. *Speciale rifiuti* [Waste Report]. Rome, Italy: Author.
- Lindbeck, Assar. 2006. Sustainable social spending. *International Tax and Public Finance* 13(4): 303-24.
- Ministry of Labour, Health and Welfare. 2008. *Piano di intervento operativo sulla salute per l'emergenza rifiuti in Campania* [Health plan for Campania's waste emergency]. Rome, Italy: Author.
- Minnesota Legislature, 2008 [...]
- Mitchell, Clyde J. 2000. Case and situation analysis. In *Case Study Method*, edited by Roger Gomm, Martyn Hammersley, and Peter Foster, 165-86 Sage Publications: Thousand Oaks, CA.
- MnDOT, 2008 [...]
- National Transportation Board, 2007 [...]
- Poister, Theodore H. 1997. A Survey of Performance Measurement Systems in State Transportation Departments. *Public Works Management & Policy* 1(4): 323-41.

- Pollitt, Christopher, and Geert Bouckaert. 2004. *Public management reform: A comparative analysis*. 2d ed. Oxford, UK: Oxford University Press.
- Pollitt, Christopher, Ewan Ferlie, Laurence E. Lynn Jr., eds. 2007. *The Oxford Handbook of Public Management*. Oxford, UK: Oxford University Press.
- Pollitt, Christopher. 2008. *Time, Policy, Management: Governing with the Past*. Oxford, UK: Oxford University Press.
- Prime Ministry Bureau – Department of Civil Protection. 2006. *Trattamento dei rifiuti in Campania: Impatto sulla salute umana. Messa a punto di indicatori sintetici di pericolosità e di esposizione a rifiuti* [Waste treatment in Campania: Impacts on human health. Tweaking the statistics concerning the dangers and effects of exposure to wastes]. Rome, Italy: Author.
- Romzek, Barbara S., and Melvin J. Dubnick. 1987. Accountability in the Public Sector: Lessons from the Challenger Tragedy. *Public Administration Review* 47(3): 227-38.
- Roseland, Mark. 1998. *Toward Sustainable Communities: Resources for Citizens and Their Communities*. Gabriola Island, BC: New Society Publisher.
- Streib, Greg, and Theodore H. Poister. 1999. Assessing the Validity, Legitimacy and Functionality of Performance Measurement Systems in Municipal Government. *The American Review of Public Administration* 29(2): 107-23.
- Talbot, Collin. 2008. Performance Regimes—The Institutional Context of Performance Policies. *International Journal of Public Administration* 31(14):1569-1591.
- U.S. House of Representatives. 2007. Report 110-750, 110th Congress 2nd Session. National Highway Bridge Reconstruction and Inspection Act of 2007
- United Nations Environment Programme. 1998. *Protecting Our Planet, Securing Our Future*. Geneva: Author.

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World Commission on Environment and Development. 1987. *Our Common Future*. Oxford: Oxford University Press.

Yin, Robert K. 2003. *Case study research. Design and methods, third edition*. Sage Publications: Thousand Oaks, CA.

Table 1. Analyzing the two crises

	Bridge collapse in Minnesota	Garbage crisis in Naples
B1. By whom performance expectations are established, altered and enforced during the crisis?	US Congress, US Dept. of Transportation, Minnesota Legislature, Minnesota Department of Transportation.	Legislature, Prime Minister, Department of Civil Protection, Ministry of Environment, Ministry of Health, Ministry of Defence (enforcement), Court of Audit (enforcement), Government's Commissioner, Prime Ministry's Deputy Leader, Legambiente (the main environmental association), media, EU; contrasts occur among actors.
B2. How performance expectations are established, altered and enforced during the crisis?	Legal and bureaucratic accountability systems; legislation and administrative rules establish the performance standards.	Political, legal and bureaucratic accountability, for new performance expectations; legal accountability, for previous performance expectations.
B3. Towards which directions performance expectations are established, altered and enforced during the crisis?	Legislators have drafted legislation at state and national level to change performance standards and expectations, but keeping on the same level of input and process aspects of performance.	New attention on health effects by trash (outcome) and trash removal (output), but pervious performance expectations remain central (process, output).
B4. How the crisis episodes have impacted on the performance measurement system?	No evidence that it has alerted Minnesota Dept of Transportation performance measurement system; likely changes in legislative language establishing process based performance standards (validity); pushing towards a more effective performance measurement system.	Creation of a new performance measurement system to prove the misconnection between health and waste management; the focus is on validity only; no effects on previous performance measurement system.

Table 2. Performance equilibrium by actors, performance measurement systems and accountability mechanisms, before and after the crisis of waste management in Naples

