Local government performance in rural Poland: The roles of local government characteristics and inherited conditions

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Abstract

Decentralization of decision-making from central to local government in East-Central Europe aimed at making government more responsive and effective. Outcomes have varied significantly within and across countries. We examine variations in local outcomes in municipalities in Poland in 2003 to 2008. The single-country study holds form of decentralization constant, allowing a focus on the relative importance of local government characteristics versus inherited factors in performance. We analyze the performance of rural governments that, due to limitations on resources and infrastructure, may face the greatest difficulties in improving local conditions.

We find some evidence that more skilled and accountable government is associated with better outcomes. But inherited factors are more strongly related to outcomes. The results suggest that good government may improve outcomes even in poor conditions, the relationship with historical conditions outweighs the relationship to government characteristics. This provides support for the continuation of significant transfers and other support to some local governments.

Keywords: *Local government, rural, decentralization, Poland*

Zusammenfassung

Leistungen von lokalen Verwaltungen im ländlichen Polen: Die Rolle von Charakteristika der lokalen Verwaltungen und historisch bedingten Faktoren

Die Dezentralisierung von Entscheidungsprozessen von zentralen hin zu lokalen Verwaltungen in Mittel- und Osteuropa zielte darauf ab, Verwaltungen reaktionsfähiger und effektiver zu machen. Die Ergebnisse variieren signifikant innerhalb und zwischen Staaten. Wir untersuchen Ergebnisunterschiede auf der Ebene von Gemeinden in Polen zwischen 2003 bis 2008. Die vorliegende Untersuchung innerhalb eines Staates hält die Form der Dezentralisierung konstant und ermöglicht damit, den Fokus auf die lokalen Verwaltungseigenschaften gegenüber historisch bedingten Faktoren zu legen. Wir untersuchen die Leistungen von ländlichen Verwaltungen, die wegen ihrer begrenzten Ressourcen und Infrastruktur bei einer Verbesserung ihrer lokalen Bedingungen mit den größten Schwierigkeiten konfrontiert sein mögen.

Wir finden einige Belege, dass Verwaltungen, welche eine höhere Qualifikation und Verantwortlichkeit haben, bessere Resultate vorweisen. Aber die historisch bedingten Faktoren weisen einen stärkeren Zusammenhang auf. Unsere Ergebnisse weisen darauf hin, dass gute Verwaltung auch unter schlechten Bedingungen Resultate verbessern kann. Die historisch bedingten Faktoren wiegen dabei die Verwaltungscharakteristika auf. Dies liefert Argumente für eine Fortsetzung signifikanter Transfers und anderer Formen der Unterstützung für bestimmte lokale Verwaltungen.

Schlüsselwörter: *Lokale Verwaltung, ländlich, Dezentralisierung, Polen*

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1 Introduction

During the 1990s, countries across the world decentralized government, moving decision-making and control of state revenue from the central to the local level in order to improve public sector performance. In former socialist economies, where governance had been extremely centralized, decentralization had particular resonance (Polishchuk, 2004).

A growing body of empirical work now suggests, however, that decentralization may not provide a simple means of improving government efficiency and service delivery. Outcomes have improved in some localities, while others have fallen further behind. Research points to problems in the design of policies (Rodriguez-Pose and Krøijer, 2009), but performance has also varied significantly among local governments operating within a uniform institutional framework – for example, a single country (Besley and Burgess, 2002).

Bardhan (2002) proposed that differences in performance may be linked to differences in the extent to which mechanisms of accountability and electoral competition can reduce principal agent problems between citizens and local government, ensuring the election of skilled and responsive officials. An alternative explanation (Golley, 2002) is that factors outside the control of local government, including history and geography, may explain differences in outcomes. Empirical studies in Latin America and Asia provide some support for both theories, but the findings are not consistent (Besley and Burgess, 2002; Grindle, 2007). Looking at post-socialist Bulgaria, Meurs (2007) shows that local government performance is related to the characteristics of local governments, but that history and location have a bigger impact.

Understanding the relative impact of local government characteristics, versus history and location, is important. If more skilled, active, and accountable local governments are associated with better local performance, policies to train local government officials and increase their accountability may help localities where local governments have not been able to effectively deliver the goods and services desired by the electorate. If history and geography outweigh the efforts of skilled and accountable local government to improve outcomes, decentralizing decision making from central government to local authorities may not improve outcomes even with skilled and accountable local governments. There will be a rationale for continued transfers to poorly performing localities, even if these negatively impact motivation and accountability of elected officials.

In this paper, we use a unique survey of rural municipalities to examine local government characteristics and performance in post-socialist Poland. Rural municipalities are particularly relevant to the question posed here, as they have greater variance in local government skill, electoral accountability, and inherited infrastructure than urban areas. We examine the skills, mechanisms of accountability, and inherited conditions of local governments, and variation in three measures of performance. Using a simple OLS regression, we analyze the relationship between these.

Poland is an important case for understanding the links between local government conditions and outcomes because it offered strong conditions for success. Decentralization benefited from strong traditions of local government prior to socialism, fairly consistent policy implementation, strong macroeconomic performance (providing resources, so that decentralization did not simply shift central government deficits to localities), and early EU membership (providing technical and financial assistance). This within-country study eliminates variation in the degree of implementation and the mode of local government financing, and allows us to focus instead on the impact of variations in local context.

We find that some measures of local government skill and accountability, particularly voter turnout, are significantly related to outcomes. The relationships, however, are not consistent across time and outcomes. Local historical factors and location, particularly location in the Warsaw region or Western Poland, are more consistently related to outcomes. Overall, our findings support emerging patterns in the literature and have important implications for policies to mitigate uneven outcomes under decentralized government.

2 Explaining varying local outcomes

Decentralization can be defined as "devolution by central… government of specific functions with all the administrative, political and economic attributes that these entail, to regional and local governments that are independent of the center" (Faguet and Sanchez, 2008). Decentralizing decision making is expected to improve outcomes. Citizens face a standard principal-agent problem in assuring the performance of elected representatives. Political participation may be facilitated at the local level, by the smaller scale, allowing populations to hold their representatives more accountable, and there will be better access to relevant information, facilitating monitoring (Alderman, 1998). Decentralization of decision making may thus improve responsiveness to local preferences, raising allocative efficiency, and reduce government waste, raising technical efficiency. Moreover, the efficiency gains should intensify over time (Balaguer-Coll et al., 2010).

However, a number of conditions may affect the potential of decentralization to improve local outcomes. If there is little heterogeneity of preferences across localities, local information may be less useful. Decentralization may yield few allocational benefits, while raising organizational costs. Too little heterogeneity seems an unlikely problem in most developing and transition economies, including Poland, as these are characterized by uneven development. Another factor that may limit the benefits of decentralization is spillover effects from one locality onto another. Where these are important, decentralized decision-making may produce less efficient outcomes, unless other, more aggregated, decision-making units are available to address them (Seabright, 1996).

Variations in the design of fiscal rules and incentives can also explain uneven outcomes of decentralization. Insufficient decentralization of resources and decision-making powers can leave governments unable to respond to local demands. Under these conditions, local governments cannot

be held accountable for outcomes by voters. Dabla-Norris (2006) argues that such design failures are important in many post-socialist cases. Using panel data of 16 Central and East European countries, Rodriguez-Pose and Krøijer (2009) suggest that the design failures are associated with poorer outcomes under decentralization. They find a negative overall relationship between decentralization and economic growth, suggesting that perhaps technical efficiency has not improved, but show that greater decentralization of resources is related to better response to local demands. Zhuravskaya (2000), comparing Chinese and Russian fiscal design, also shows a link between policy design (revenue autonomy) and performance.

Within a single country, municipalities face common policies and laws, and thus a common ability to form aggregate units to address spillovers, and consistent fiscal rules regarding revenue- and cost-sharing with more centralized levels of government. Researchers must look for other explanations for within-country differences in performance under decentralization. Variations in performance under decentralization may be explained by differences in the extent to which mechanisms of accountability and electoral competition are able to reduce principal agent problems between citizens and local government and ensure the election of responsive and skilled officials (Bardhan, 2002; Bardhan and Mookherjee, 2006; Faguet, 2014).

Although decentralization is meant to improve government responsiveness to voters, Bardhan and Mookherjee (2006) argue that local government may be more susceptible to capture than central government, because potential captors are fewer and thus better organized at the local level. Without strong mechanisms of accountability, local governments may be captured by local elites, who then dominate the choices of public goods and services.

The impact of effective monitoring of local government on a variety of local outcomes has been examined in a number of ways. Meurs (2007) found voter turnout rates in Bulgaria to be significantly positively related to levels of net migration into rural localities (but not with improvements in local revenue generation or unemployment). A study of local government in India found voter turnout unrelated to effective local government disaster response, although levels of electoral competition (number of competing candidates) were significantly positively related to response (Besley and Burgess, 2002). In small Mexican municipalities, Grindle (2007) found no relationship between the level of electoral competition and performance, while electoral competition seemed to be important in Bosnia-Herzegovina (Pickering, 2012). The India study also examined the impact of newspaper circulation, as a measure of local voters' information, and found a significant relationship (Besley and Burgess, 2002). Case studies of local rural governance in Poland provide evidence of the ability of local political elites to exert political or financial pressures on local government spending if the proper accountability is not established (Furmankiewicz et al., 2010), while regression analysis shows that electoral conditions do affect policy innovations (Falkowski, 2013).

Citizen monitoring of local government might also be more direct, especially in small and rural municipalities. It might occur in individual meetings with local officials, or through citizen groups. Grindle (2007) found such activity to be unrelated to outcomes in Mexico, however, and argued that meetings are often focused on the extraction of very specific resources by specific groups, and not the meeting of broader needs. This dynamic is also described by Regulski (2009) for Poland. However, Petrick and Gramzow (2012) find, in case studies of local development groups, that citizen efforts to influence the provision of public goods, such as telecommunications infrastructure, could be effective.

Where the supply of skilled officials is limited or there is little competitive pressure, local administrations may lack the skills to generate revenues and respond effectively to local demands (Bardhan, 2002; Bardhan and Mookherjee, 2006). A study of local government and outcomes in Latin American cities found that cities with innovative mayors, skilled at networking, outperformed other cities (Angell et al., 2001). Looking at smaller municipalities in Mexico, Grindle (2007) also found that entrepreneurial skills of local officials were important in outcomes. Studying local government performance in rural Bulgaria, Meurs (2007) found no evidence that mayors' level of education was related to better outcomes, but did confirm that mayoral networking was correlated with greater reductions in the local unemployment rate. Pickering (2012) found that entrepreneurial, consensus-building skills contributed to mayors' success in Bosnia-Herzegovina.

Localities, however, also differ in their infrastructure and resource bases, and this too may affect the performance of local government (mediated by the form of fiscal decentralization). The local resource base, while partly the result of local government decisions, is also affected by a number of factors outside local government control, including history (agglomeration effects), location, and natural resource endowments. Studying regional inequality in China, Golley (2002:786) found a significant impact of agglomeration effects on regional economic outcomes, arguing that "nature" (history) may require as much attention as "nurture" (policy) in explaining outcomes. Angell et al. (2001), studying Latin American cities under decentralization, also find an important role for economic starting pointing in explaining relative performance. Meurs (2007) finds that regional dummies outweigh all other factors in explaining differences in local government performance in Bulgaria. In Mexico, however, Grindle (2007) finds that per capita local government resources are not related to performance, and Besley and Burgess (2002) find no impact of income or central government transfers on local government disaster relief in India.[1]

These studies vary significantly in the outcome measures used, variables controlled for, and measurement techniques, including the degree to which they address the complex (and sometimes endogenous) relationships between local government performance and its determinants. The Latin

[1] This finding controls for state-level effects, which might be picking up some of the effect of income differences.

American studies (Angell et al., 2001; Grindle, 2007) rely on case studies or simple correlations, while the Bulgarian (Meurs, 2007) and Indian (Besley and Burgess, 2002) studies use multivariate regressions and, for India, panel data. There is not yet a consensus on the impact of local conditions and behavior on local outcomes. Leaders' networking skills and efforts seem to matter consistently, but the effect of electoral conditions and inherited conditions is less clear.

In section 4, we examine the characteristics of rural mayors elected in the 2002 local elections in Poland and interviewed in 2005, and of those elections, as well as a range of local economic factors over which mayors have little immediate control, including inherited infrastructure and inherited patterns of economic development. In section 5, we examine the relationship between these factors and three measures of local government performance. First, we review the framework of Polish decentralization.

3 Polish decentralization

Polish municipalities, rural and urban, are subject to a common administrative and fiscal structure, which we review here for the period covered by our study. Although this structure is common, municipalities bring to this structure varied history and local government characteristics.

Historical precedents provide municipalities with a mix of institutional reference points. From 1569 to 1772, provinces of the Polish Crown were divided into counties, each with its own courts, administration, and elected assembly – an important early form of local autonomy. However, in 1815 to 1918, Poland was partitioned between Russia, Austria and Prussia. Local government continued to function, but different forms of governance were practiced. Many of these regional differences remained in place until 1939 (Kerlin, 2005). After 1950, a uniform system of elected peoples' councils, heavily subordinated to national Communist Party, was established. The practice of local autonomy disappeared.

The return of effective local government began in March 1990, with the policy of decentralization. Initially, decentralization involved moving decisions to two tiers of local administration – regions (*województwo*) and municipalities (*gmina*). Counties (*powiat*), an intermediate level of administration, were established in 1999.[2]

With government responsibilities decentralized, Regional Councils are responsible for regional development policy, but have no supervisory authority over the lower-tier of administration. Country-level governments manage secondary schools, hospitals and inter-municipality roads (Regulski, 2003) as well as other activities that "spill over" from one municipality to another.

Municipal-level government includes municipal councils and a mayor, both directly elected for a term of four years (Levitas, 1999; Swianiewicz, 2006). Municipal governments have a broad range of responsibilities, including public transport, water and sewer systems, waste management, power and heating, libraries and local cemeteries, and pre- and (since 1996) primary schools on their territory. They also share responsibility (with higher levels of government) for health care, public welfare, public order, environmental protection, and management of other public spaces (Levitas, 1999). In 2005, there were almost 2500 Polish municipalities, of which approximately 1584 are rural. These are the focus of this study.

The structure of fiscal decentralization affects the local government's ability and incentive to fulfill these responsibilities. In Poland, municipalities are able to exercise some autonomy in raising the revenue needed to fulfill their functions. Revenue comes from fees: for services, like water and waste collection, for stamps on official documents, and for real estate transfers. Local revenue also comes from locally set and collected taxes – on property, dogs, and some large vehicles, as well as farms and inheritance. The Ministry of Finance sets limits on the tax rates (with the exception of the dog tax) (Filas et al., 2002), but municipalities may set rates below the limit, and many municipalities, especially smaller municipalities, do. Municipalities may also grant exemptions to local taxes, and do so. Swianiewicz (2006: 316 to 18) found municipal tax revenue to be more than 10 % below the level expected given centrally-set limits, and smaller, rural municipalities to be more likely to grant tax exceptions and exemptions than their larger, more urban counterparts. Municipalities also receive revenue from rental or sale of municipal property. Overall, local revenue accounted for about 38 % of local budgets in 2004, but a significantly lower share in rural municipalities – 27 % (Table 1).

Table 1
Structure of revenue in different types of municipalities, 2004

Revenue Source (%)	Type of Municipality		
	Cities with County Status	Other Cities	Rural Municipalities
Local Revenue	35.4	38.6	26.6
Shares in Central Taxes	27.5	18.7	9.8
General Grants	23.6	28.1	48.2
Conditional Grants	13.5	14.5	15.4
Total	100	100	100

Source: Swianiewicz, 2006: 315.

Another revenue source for municipalities is the sharing of national taxes collected on their territory. Local governments can affect these, to a certain extent, through their impact on local economic conditions. The local share of personal income tax has been revised upward repeatedly, from 15 % in 1993 to over 39 % from 2004 to 2006. The share of corporate income tax returned to local governments also rose after 2003, from 5 % to 6.7 % for 2004 to 2006. Despite this in-

[2] We will rely on these English language translations throughout the text. Gmina is also translated as "commune," but we use "municipality" as it is more familiar to English-speaking readers.

creased sharing of tax revenue, the importance of shared taxes in the local budget has fallen over time (partly due to rising grant income – see below). In 2004, shared taxes made up about 10 % of revenue of rural municipalities, a lower share than in urban municipalities (Table 1). Rural municipalities also have fewer corporate entities, and less corporate tax revenue, than their urban counterparts (Swianiewicz, 2006: 315 to 323). Perhaps more importantly, farmers pay no personal income tax.[3]

A third source of local revenue is grants from the central budget and, especially after 2006, from the European Union. The 1997 Polish Constitution assures local governments "public funds adequate for the performance of the duties assigned to them" (Kerlin, 2005). Grants help satisfy this requirement, offsetting differences in local revenues. An education grant is calculated separately. It is based on the number of pupils at different types of schools, but rural municipalities get more per pupil than urban municipalities (Swianiewicz, 2006: 315, 327), and lobbying may again have an impact.

Local governments also receive earmarked funds to cover or subsidize costs of specific investments or devolved responsibilities (Levitas, 1999: 15), although this source of funding has become less important over time (Swianiewicz, 2006). These funds are allocated, at least in part, to governments which can effectively show need (Kopanska and Levitas, 2002: 7, 10).

A newer source of investment funds has been European Union pre-accession and then structural and cohesion funds. Local governments can apply for funds for infrastructure improvement (including transportation, social and information infrastructure) as well as environmental protection, tourism and cultural development, for up to 80 % of the value of the project (the municipality must provide at least 20 % of the funds) (Ministry of Regional Development (Warszawa), 2014). The process is competitive, making effective proposals important. In 2004, EU funds made up 20 % of investment in rural municipalities (Swianiewicz, 2006: 334).

Finally, Polish local governments have access to financial markets (although their borrowing is limited to 60 % of their annual revenue, and some other some nationally-set regulations) (Swianiewicz, 2006: 337). Initially, the majority of investment borrowing by municipalities came from the Environmental Fund and Bank for Environmental Protection, especially for water infrastructure (Levitas, 1999: 27). But municipalities rely increasingly on commercial banks and international lending agencies. They may also issue securities (Kopanska and Levitas, 2002). By 1998, municipal bond issues were relatively common, even relatively small municipalities. In 2005, an estimated 20 % of rural municipal debt was issued for matching funds required for EU-funded projects (Danilowska, 2011).

In sum, local governments in Poland have, and exercise, a fair degree of autonomy in raising revenue. Municipalities have even greater freedom to decide how to use their money. This autonomy is the basis for local government characteristics and behavior (skill, networking and accountability) to affect local outcomes. This ability, in turn, creates the basis for populations to hold them accountable, although this effect will depend on local electoral conditions (including the competitiveness of elections and extent of voter turnout).

However, there are still significant limitations on local autonomy, and these may limit the extent to which local government can influence, and be held accountable for, local outcomes. Statutory limits on local tax rates, and central control over some local policy, including fairly detailed control of education policy, limit the ability of local governments to affect certain outcomes. Further, as many authors have noted, the share of municipal revenue coming from the municipalities themselves has fallen over time (Kerlin, 2005; Swianiewicz, 2006), as education transfers have grown and equalization transfers have been used to protect poorer municipalities from dependence of local budgets on (shared) tax revenue. The transfers are an important way to offset inequality, but at the same time, they reduce the link between local government behavior and local outcomes, and thus limit the ability of the local electorate to hold government accountable. The magnitude of this "wedge" between local government actions and outcomes is likely to vary across municipalities, with a weaker link existing in poorer rural, municipalities, which are more dependent on transfers.

4 Characteristics of governments of rural Polish municipalities

4.1 The data

The majority of the data on local government characteristics and activities comes from a unique survey of 160 rural mayors and municipalities carried out in the spring of 2005. The survey sample is nationally representative, drawn from a list of all rural municipalities. Survey enumerators worked with mayors and specialists in the municipal government offices collect data on mayoral behavior and opinions and the characteristics of the local economy and infrastructure. For data on the skill levels of municipal staff, sewer lines, population, the local budgets, as well as unemployment rates and migration, we use the Local Data Bank of Central Statistical Office in Poland (CSO, 2012). Election data for 2002 come from the National Electoral Commission (http://wybory2002.pkw.gov.pl/index.html).

4.2 Local government skills, networking initiative, and accountability

The skills of local government officials can influence outcomes in many ways, including affecting the efficiency of service delivery and producing changes to the local tax base. The survey data indicates that the majority of rural Polish mayors had significant skills related to their job. Seventy-four

[3] They will begin to pay income tax in 2014 (http://www.thenews.pl, August 13, 2012).

percent of rural Polish mayors serving in 2005 had higher education (a completed associate or university degree). Only 3 % of mayors had only a non-specialized secondary education. The majority of mayors also had previous managerial experience – 65 % had worked in white collar, managerial positions, 14 % had owned their own company, and 9 % had been independent professionals. Further, many of the mayors had previous experience as mayor. Only 25 % of respondents were in their first term as mayor. Twenty seven percent were in their second term, 19 % in their third term, 27 % in their fourth term, and two mayors reported being in their 5th and 9th terms.

These mayors were supported by municipal staff with varied levels of skill. On average, 32 % of staff had higher education, but the share varied from 0 % to 92 %. Educated staff did not offset weak educational backgrounds of mayors. Rather, mayors with higher education had more staff with higher education than did less educated mayors.

Mayors tended to be in their middle- to late middle-age (90 % of them were 40 years old or older), but there was a broad range, from 28 to 67 years. Possibly, age reflects the type of skill set which an individual might have – with mayors over 40 having received most of their education in the previous system, and younger mayors possibly having skills more appropriate to the current context. However, very few mayors were young enough to have had a mainly post-socialist education. The vast majority of mayors were male (91 %).

Mayoral networking probably reflects a mix of skill and motivation. There was significant variation in reported networking initiative among mayors, both in the kind of activities and the level of engagement. One common activity was meeting with other levels of government, which might provide services to, or support investments in, localities. Twenty nine percent of mayors reported meeting with national government officials at least monthly, while a slightly smaller share reported never having such meetings. Meetings with regional governments (in charge of regional development planning) were more consistent, with only 3 % of mayors reporting no such meetings and one third reporting meeting least monthly. Most common was meeting with county-level governments, which may serve to coordinate activities between municipal governments or influence direction of country-managed services, including secondary schools and some health care institutions. Almost half of mayors reported having such meetings at least once a month, and most others met every few months.

Networking with the private sector was less frequent, although private sector activity is clearly an important factor in changes to the tax base. The vast majority of mayors met with representatives of private business, but only 60 % reported meeting at least every few months. Most municipalities created an information center or offered some other support for private entrepreneurs. Designating a special municipal agent for supporting private sector entrepreneurs and having a European Union Information Center were common forms of outreach. A few municipalities provided legal or other technical assistance to businesses.

Work with NGOs was another important local government initiative, as found by Regulski (2009) in the late 1990s. NGOs may offer both services and investment support to municipalities. A few mayors (9 %) reported meeting with international NGOs at least every few months, while most met with local NGOs. Only 16 % did not meet with NGOs. The various associations of municipalities were not actively used by most rural mayors, however. For example, only 13 % of mayors reported participating in the National Association of Rural Municipalities. Those mayors who did participate worked actively in this organization, however, attending more than 10 meetings in the past year.

Mayors who met more frequently with one type of NGO often met frequently with other types, and mayors who met with county officials often also met with region officials. But overall, networking activities were not highly correlated.

Mayoral initiative might also be measured by projects implemented (networking outputs rather than inputs). These included both service provision and investments in local economic activity. One type of municipal government project is supporting training courses for the local population. While 28 % of municipalities offered no such courses, 18 % were very active in this area, organizing three or more such courses in 2005. Most common were computer and internet training, offered in more than half of municipalities. Also common were language, entrepreneurship and re-qualification courses.

Nearly all municipalities had infrastructure projects underway in 2005, and most of these had been initiated by the municipality. Many of these were related to water treatment (an EU priority) and transportation, while fewer were for social infrastructure or roads. Half of all projects were funded at least partially out of municipal revenue, but these usually received additional financial support from the national government or foreign (including EU) sources. Three quarters of municipalities had successfully applied for competitive EU funding by 2005. In 2006 to 2008, municipalities received average annual EU project funds (in real 2005 zlotys) of 5835 zlotys per thousand people. A few projects were supported by NGOs.

Mechanisms to hold local officials accountable can also affect local government performance, by providing an external source of motivation to local officials. The accountability mechanisms varied significantly across municipalities. Contact with citizens was generally high, with mayors reporting multiple forms of contact. Almost all mayors held open visiting hours, and over 65 % had regular periodic meetings. Most mayors were also available to be contacted directly by phone and 43 % by email. Half reported receiving people at home. Individual citizens took advantage of these opportunities, as over three-quarters of mayors reported daily meetings with individuals, and 91 % reported meeting individuals at least weekly. Issues raised at meetings with individuals might have involved particularistic lobbying, as described by Grindle (2007). Meetings with citizens' groups were less frequent. Thirty-nine percent of mayors met daily with citizens' groups, while 35 % met weekly.

Local elections provide a more formal means of holding local officials accountable, and some research associates

higher turnout with higher levels of monitoring (Meurs, 2007). In the 2002 local elections (which provided the mandate for interviewed mayors and may have influenced their expectations of monitoring), turnout varied widely, from 30 % to 80 %.

Another common measure of accountability is the level of competition in local elections (Grindle, 2007). In rural Poland, slates often include independent candidates or groupings of small parties. An average of 12 slates competed in rural local elections in 2002, and the number varied little between municipalities. The level of real contestation varied greatly, however. The three slates garnering the most votes captured 91 % of votes in the least contested election, but only 41 % of the votes in the most broadly contested race.

Overall, the data suggests that most mayors were educated and experienced, and in frequent contact with the local population. Local officials varied more in level and type of networking they did, and the apparent level of monitoring by the local population. These variations may be important to local economic and social outcomes.

4.3 Resource constraints

Resources available for local government will be affected by the skills and motivation of local officials, but also by factors exogenous to or predating the local government decisions, which even the most skilled and motivated government cannot change. Such variables include location, the level and type of inherited economic and social development, and other inherited assets. In this section, we examine the budgetary resources of rural municipalities and some developmental differences contributing to variations.

Total per capita budgets varied widely from 1376 zlotys to 4143 zlotys in 2005 (1 Polish zloty equaled about 0.3 USD in June 2005). Revenue generated by the municipality (net of transfers and taxes shared by the central state) varied more widely, with total own revenue varying from 93 to 2159 zlotys, making up 19 % of the budget on average. Shared national taxes generated an additional 13 % of total revenue, with the vast majority coming from personal, not corporate, taxes. But again there were wide variations, with shared personal income taxes ranging from 27 zlotys per person to 1810 zlotys. Some municipalities enjoyed significant income from property rental or sale or providing services although, on average, these provided only small amounts of income (Table 2).

These highly unequal revenue bases were offset by transfers from the national government. On average, municipalities received 721 zlotys per person in untargeted transfers and 304 zlotys in targeted transfers (to support education and other centrally-mandated services). These were augmented with the funds raised from non-governmental sources (77 zlotys per person). EU funds are reported in municipal budget data starting only in 2006, but in 2005 three quarters of mayors reported some support from EU sources.

Table 2 illustrates the importance of own income and transfers in 2005 municipal budgets, and the difference in their relative weights between richer and poorer rural municipalities (defined as those with own revenue above the 75th percentile or below the 25th percentile). Poorer municipalities have smaller per person budgets overall, reducing the amount of services and activities local government can undertake. Poorer municipalities also relied less own their own resources, potentially undermining accountability.

Local government revenue generation is influenced by local government actions (based on skills and motivation), but also by inherited factors which can be changed only slowly, at best. One such factor is infrastructure, which varied greatly across rural municipalities in 2005. Kilometers of sewer line per square kilometer of territory, for example, ranged from 0 to 0.4, with a mean of 0.035. Officials reported no rail station in 47 % of municipalities, while in 34 % they reported two or more rail stations. Almost one-fifth reported no highway access.

Municipalities also differed in their economic orientation, resulting in differing tax bases and growth potential. Seventy percent of surveyed municipalities listed agriculture as their most important sector in 2005. Thirteen percent listed

Table 2

Per person budget shares of revenues and transfers for three rural municipality types: Average, below 25th percentile own revenue, above 75th percentile own revenue

	Average		Municipality below 25th percentile own revenue		Municipality above 75th percentile own revenue	
Budget Category	Zloty	Percent Budget	Zloty	Percent Budget	Zloty	Percent Budget
Total Budget	1874		1609		1973	
Untargeted Transfers	721	39	863	54	59	30
Targeted Transfers	304	16	279	17	322	16
Local Taxes	358	19	200	12	568	29
Shared National Tax	245	13	111	7	448	23
Non-government source	79	4	31	2	74	4
Property, Service Income	87	5	53	2	177	9
Other	80	4	72	5	211	11

industry, while 7 % listed trade. Most listed more than one important sector. About half of agriculturally-oriented municipalities listed trade as the second important sector, while other municipalities were evenly divided between public sector and industry. Few municipalities reported a change in orientation since 1995. These orientations indeed change slowly, leaving mayors heavily dependent on inherited conditions.

Finally, important locational differences may affect performance. One impact of location may be relative proximity to Germany and the Czech Republic, rather than the less dynamic economies of Ukraine and Belarus. A second influence of location may be the persistence of institutional differences developed during the period of partition of Poland between Austria-Hungary, Prussia and Russia from 1815 to 1918 (Davies, 2005; Grosfeld and Zhuravskaya, 2013). These may impact political behavior and economic development.

4.4 Performance

Measuring the performance of local government is complex. An optimal approach is to evaluate the match between goods and services and citizen desires (Tiebout, 1956). Some researchers have used measures of provision of public goods, like famine relief or school availability (Zhuravskaya, 2000; Besley and Burgess, 2002; Faguet and Sanchez, 2008), however, this is usually in the absence of data on local preferences. (Kimenyi and Meagher (2004) is an exception to this). Polish municipalities vary in demographic make up and development level, which is likely to produce significant differences in preferred goods and services. Municipalities with aging populations may be little interested in schools, for example, while areas with high unemployment may be less interest in libraries or lighting than wealthier localities. Other studies have used measures of inputs into government effectiveness (computerization of records, local official training, transparent budgeting) (Grindle, 2007; Pickering, 2012). There is no assurance, however, that these inputs lead to improved delivery of outcomes desired by the population. For these reasons, some research has focused on more general outcomes like local economic growth (Rodríguez-Pose and Krøijer, 2009), revenue generation at the local level (Zhuravskaya, 2000; Meurs, 2007), firm formation at the local level (Zhuravskaya, 2000), and in-migration (Meurs, 2007). We rely on such general measures of performance in this case: net migration, local revenue generation, and change in the local unemployment rate.

In the presence of varying satisfaction with government performance, theory predicts that populations will "vote with their feet," migrating from localities where governments fail to meet their demands, to localities where their preferences will be better satisfied (Tiebout, 1956). Net out-migration might suggest local government is ineffective or unresponsive in creating outcomes preferred by the population. We calculate average net migration per member of the population over the two periods. There is fairly significant mobility in this period. For 2003 to 2005, net migration ranged from a loss of 1 person per hundred of population to a gain of 6 per hundred. Fourteen percent of municipalities lost 0.5 people or more per hundred, while 24 % of municipalities gained more than 0.5 people per hundred of population. Twelve percent of municipalities gained more than 1 per hundred. For the period 2006 to 2008, a similar share of municipalities experienced gains, but the share of municipalities losing 0.5 people or more per hundred rose to 21 %.

A second measure of performance of local government is its ability to raise its own revenue. Greater revenue may result from effective local economic development effort and local tax and fee use, and also will provide the resources needed to meet local demands. We use average own municipality revenue per capita, including both local taxes and fees and national income taxes that are collected from the local population and shared with municipalities.[4] As seen in section 4, local governments differ significantly in their ability to raise revenue. Average annual own revenue per capita in 2005 zlotys varied from 189 zlotys to 2730 zlotys for the period 2003 to 2005, and 185 zlotys to 3339 zlotys for 2006 to 2008. Because of the wide dispersion, we use the natural log of revenue in the regressions. Of course, as noted, the variations in revenue may be more influenced by inherited factors than from the actions of local governments.[5] When examining factors related to successful performance in the regression below, we will attempt to account for these external influences by adding a control for own revenue per capita at the time of the 2002 election.

As a third measure of performance, we use percentage improvement in the unemployment rate (a fall in the unemployment rate, rescaled so that a positive number reflects improvement). Bardhan and Mookherjee (2006) argue that, if accountability is weak, decentralization of government may result in the capture of government by powerful local groups and reduced attention to the needs of disadvantaged households, those most likely to suffer from unemployment. By 2003, post-socialist economic restructuring and firm closures had been long concluded. Falling unemployment rates might reflect the ability or willingness of local governments to respond to the needs of the less powerful, promoting job creation through networking and local development efforts. It may also reflect other local government efforts, including service provision to employers and overall economic development efforts. For the period of 2003 to 2005, average unemployment rate varied from 4 % to 35 %, and change in unemployment rates varied wildly, from a 36 % worsening to a 35 % improvement. Rates fell slightly overall by 2006 to 2008, and local performance varied from a worsening by 5 % to a 70 % improvement, with most municipalities experiencing improvement. The best performing municipality saw unemployment fall by 13 points.

[4] A measure of revenue *net* of expenditure might be a proxy for local government efficiency. However, local governments face significant differences in expenditure needs due to factors which they do not control, including demographic factors. Therefore, we focus on government success in generating revenue to meet local demands.

[5] The increased tax sharing will be an exogenous source of variation of local revenue from 2002 levels (not caused by local characteristics), but this should affect all municipalities equally.

We measure average outcomes separately for the periods of 2003 to 2005 and 2006 to 2008. The first period covers the first three years of the mandate of mayors elected in 2002, while the second period allows more time for a mayor's policy to have been felt by the population. The second period also reflects entrance into the EU, which brought significant changes to the economic context, and is the period in which we have data on the weight of EU funding in local budgets.[6]

These three measures of performance are positively correlated, as can be seen in Table 3. While the level of correlation is not high – performance differs across these three measures suggesting that they capture different aspects of local government performance – the measures do become more highly correlated in the second period.

Table 3
Correlation in performance measures

2003 to 2005	Unemployment Reduction	(ln)Own Revenue per Capita	Net Migration per Population
Unemployment Reduction	1.00		
Own Revenue	0.04	1.00	
Net Migration	-0.23*	0.13*	1.00
2006 to 2008	**Unemployment Reduction**	**(ln)Own Revenue per Capita**	**Net Migration per Population**
Unemployment Reduction	1.00		
Own Revenue	0.10	1.00	
Net Migration	0.31*	0.25*	1.00

*=p < 0.05

5 Performance and local characteristics

To examine whether the measures of overall performance are related to the differences in local government characteristics, we use OLS regressions on the basic model:

$$W_{it} = f(A_i, S_i, N_i, EU_i, P_i, L)$$

where

W_{it} = a 3-year average outcome measure, for municipality i for the three outcomes (net migration, own revenue per capita, and unemployment rate), separately.

A_i = a vector of measures of accountability of local government in 2005

S_i = a vector of measures of skill of the mayor and municipal Staff in 2005

N_i = a vector of measure of networking by the mayor (with national, regional and county government, local and international NGOs, and business) in 2005

EU_i = total per person revenue from EU 2006 to 2008 (for 2006 to 2008 outcomes only).

P_i = a vector of inherited developmental conditions

L = a locational dummy, 1=Western Poland and the Warsaw region.

The model is run separately for years 2003 to 2005 and 2006 to 2008.

A_i, S_i, N_i and EU_i are included as measures of mayoral effort and accountability. As in previous work on this topic, our ability to determine the direction of influence between mayoral and electoral characteristics and local outcomes is limited by the lack of panel data, the strong impact of previous levels on all three outcome variables, and the varying length of mayors' terms in office.[7] To better evaluate the impact of current mayoral and local characteristics on current performance, we include measures of slower changing local conditions (economic orientation, infrastructure, population density)[8], and performance on the respective outcome measure at the end of the previous mandate (2002) in the vector P_i and include a locational dummy, L.

The possibility of reverse causality between government behavior and outcomes is a greater concern for the period 2003 to 2005. While the government began its mandate in 2003 and its characteristics should change little, these were measured in 2005. Reverse causality is less of a concern when examining outcomes in 2006 to 2008, since the outcomes occur after the measurement of the characteristics but, in this case, some outcomes might already be influenced by a new mayor, taking office in 2007. Neither period provides a perfect measure of performance of mayors elected in the 2002 election. Separating the data into these two periods allows us to distinguish clearly the performance during the mandate on which we have data on government characteristics and the one immediately following, while also allowing us to examine the impact of EU funding after 2005. The two sets of results, taken together, provide a more robust test than either alone. A number of findings are consistent across the two periods, indicating that the results are neither driven purely by reverse causality nor by the actions of mayors elected in 2006.

[6] While 2008 marks the beginning of a period of economic crisis, the outcome variables used here remain on trend in 2008. Only in 2009 does the economic crisis appear to impact local government performance in Poland.

[7] Previous work has attempted to deal with this problem to varying degrees. Case study approaches and simple correlation analyses have mainly ignored the problem (Angell et al., 2001; Grindel, 2007), while some econometric work controls for historic levels of outcomes (Meurs, 2007). Only Besley and Burgess (2002) use panel data, but they do not address the problem in detail.

[8] Clearly infrastructure, and also to some extent local economic orientation, are things which local governments seek to influence. However, many forms of infrastructure change relatively slowly (projects must be funded, engineered, and then implemented), as can be seen in municipal data on sewer lines per square kilometer, railroad access or roads (Central Statistical Office, 2012). Sectoral orientation of the local economy also changes slowly, as new sectors emerge and then grow.

The characteristics of local governments are measured as follows, accountability is measured in three ways: voter turnout in the 2002 local elections (percent eligible voters), in which the mayor serving in 2005 was elected, electoral concentration (total share of votes received by the three most popular slates) during the 2002 election, and the frequency of mayoral meetings with citizen groups (6 indicates daily meetings and 0 indicates no meetings) in 2005. Higher levels of voter turnout and greater mayoral interaction with citizen groups may positively affect performance. Higher levels of votes obtained by the three largest parties are expected to be negatively correlated with performance.

Government skill is measured by a dummy variable for whether of mayor has higher (post-secondary) education, and by age of the mayor although, as seen above, there is little variation in the first of these measures.[9] The share of municipal staff with higher education provides a third measure. Skill is expected to improve performance.

The mayor's networking is measured by the level of networking with three key groups in 2005 – the business community, local and international NGOs, and representatives of national, regional and county government. Networking with business is measured as a count of all reported forms of formal and informal outreach to business, as well as a dummy variable for whether the municipality has an information center serving the business community. Networking with government and NGOs is measured by frequency of meeting with those organizations, on a scale of 0 to 6 (6 indicates daily meetings and 0 indicates no meetings). For 2006 to 2008, we include EU project funds per capita as an additional measure of government initiative.[10] Networking initiative is expected to improve outcomes.

In addition to local government characteristics, we consider the impact of inherited conditions – factors which change only slowly, if at all, and are less subject to influence by local government: a dummy for agriculture being identified as the main productive sector in 2005, and a dummy for location in a region in the economically more dynamic Western part of Poland or the Warsaw region,[11] compared to one in the Eastern part of the country. Sewer lines per square kilometer (2005) measure availability of infrastructure, and population per square kilometer gives a rough measure of urbanization. Finally, we include the municipality's own revenue per capita for the period 1999 to 2002 (in natural log form), the period prior to the current mayoral mandate, as an additional control for the impact of inherited conditions. When examining factors related to migration, we control for the level of migration at the start of the mayor's 2002 mandate using mean migration level for the period 1999 to 2002. When examining factors related to change in the unemployment rate, we control for the 2003 unemployment rate – the earliest data we have and the first year of the major's mandate, when his or her policies will have had little time to take effect. Variable means and standard deviations are given in Table 4.

Table 4
Means and standard deviations, local government characteristics and outcomes

	Mean	s.d.
VARIABLES		
Mayor Age	54.7	8.25
Mayor Education	0.72	0.45
Share Staff with Higher Education	5.33	4.77
Meet Citizens Groups	2.90	1.49
Meet Local NGOs	3.03	1.24
Meet International NGO	1.38	0.68
Meet Country Government	3.92	0.95
Meet Region Government	3.83	0.85
Meet National Government	2.06	0.83
Forms Communication Business	2.30	0.91
Information Center Business	0.35	0.48
Share Voter Turnout	0.54	0.11
Share Votes Top 3 Parties	0.71	0.09
Agricultural Municipality	0.72	0.45
Sewer per km^2	0.04	0.05
Warsaw/West	0.55	0.50
EU Funds	0.50	1.31

As can be seen from the regression results presented in Tables 5a and b, characteristics of local government are related to outcomes, but the significant characteristics are not consistent across outcome measures or over time. Only historical factors outside the control of local governments, specifically historical performance and, for the period 2006 to 2008, location in Warsaw or Western Poland, show a consistent relationship with all three performance measures and in both periods, controlling for characteristics of local government and other historical factors.

For the period of 2003 to 2005, active communication with business was positively associated with own revenue per capita and improvement in the unemployment rate, but not with migration outcomes. Networking with local NGOs was also positively associated with improvement in the unemployment rate. The share of voters turning out in local elections was also positively related to own revenue

[9] We also examined the impact of mayor experience in managerial or government jobs and previous experience as mayor, both of which were available in the survey. However, neither of these measures was related to performance, and we decided to use the more general measure of skill.

[10] While these transfers occurred in the last year of the mandate for mayors elected in 2002, and the two following years, they likely reflect projects proposed by mayors we interviewed. A project applied for in 2004 by a mayor, who took office in 2003, might be funded starting in 2005 and take a year or more to complete, particularly in the case of the targeting infrastructure projects.

[11] Region 1 includes regions of Pomorskie, Kujawsko-Pomorskie, Wielkopolskie, Slaskie, Dolnoslaskie, Lubuskie, Zachodno-Pomorskie, Opolskie, and Mazowieckie.

Table 5a:
Regression results, local government performance in Poland, 2003 to 2005

	Mean Migration '03 to '05			(ln) Mean Revenue Per Cap '03 to '05			% Improvement Unemployment Rate '03 to '05		
Adjusted R2	n=155 0.81 Coef.	t-stat		n=155 0.28 Coef.	t-stat		n=155 0.08 Coef.	t-stat	
Voter Turnout '02	0.0044	0.99		0.4443	3.17	**	0.1974	2.19	**
Share Top 3 Parties	0.0000	0.81		-0.0017	-1.20		-0.0008	0.01	
Meet Citizens	0.0001	0.47		0.0056	0.61		-0.0068	-1.18	
Mayor Higher Ed	-0.0001	-0.15		-0.0593	-2.04	**	0.0200	1.10	
Higher Ed Staff	-0.0001	-0.79		-0.0014	-0.27		-0.0056	-1.83	*
Age Mayor	-0.0000	-0.38		0.0002	0.10		-0.0014	-1.33	
Meet Country Gov	-0.0009	-1.05		0.0261	0.92		0.0207	1.17	
Meet Region Gov	0.0013	1.28		-0.0389	-1.20		-0.0372	-1.18	*
Meet National Gov	-0.0004	-0.79		0.0210	1.23		0.0039	0.37	
Meet Local NGO	-0.0006	-1.56		-0.0041	-0.35		0.0124	1.68	*
Meet Internatl NGO	-0.0003	-0.48		-0.0086	-0.42		0.0011	0.08	
Communicate Bus	0.0001	0.31		0.0281	2.00	**	0.0105	1.19	
Info Center	0.0006	0.67		-0.0116	-0.44		-0.0166	-0.98	
Agricultural Locality	0.0002	0.18		-0.0457	-1.65	*	-0.0062	-0.35	
Pop per km2	-0.0000	-0.19		-0.0000	-0.13		0.0000	1.43	
Sewer per km2	0.0093	0.65		1.3458	2.94	**	-0.2937	1.03-	
Warsaw/West	-0.0005	-0.59	*	0.0371	1.43		-0.0379	-2.33	**
ln Own Revenue '02	0.0012	1.92		0.1146	5.87	***	0.0045	0.37	
Mean Migration '99 to '02	1.3846	21.26	***						
Unemployment '03							0.0001	0.07	
Constant	-0.1421	-1.52		6.0087	20.06	***	-3.0627	-1.09	

* = p < 0.10, ** = p < 0.05, *** = p < 0.001

generation and improvements in the unemployment situation. Meetings with regional-level government were associated a worsening of the unemployment rate, suggesting reverse causality – poorly performing municipalities met more frequently with these authorities. An unexpected result is that having a mayor with more education was associated with lower own revenue per capita, and having a more educated municipal staff was associated with poor performance on unemployment. Taken together, these findings provide some evidence that more active and better-monitored governments performed better.

Conditions inherited by local governments were more consistently related to outcomes. Performance on outcome measures at the beginning of the mayors' mandates were strongly correlated with migration and revenue outcomes over the period 2003 to 2005. Mean net migration per capita was significantly positively related to mean net migration per capital in the period of 1999 to 2002, while mean own per capita revenue was strongly related to level in this previous 3-year period. Location in Western Poland or Warsaw was negatively associated with improvement in the unemployment rate.

The period 2006 to 2008 provides some additional evidence that variation in the characteristics of local government and elections are related to economic and social outcomes. High voter turnout in the 2002 election continues to be associated with higher per capita local revenue in 2006 to 2008 and, while it is no longer related to performance on unemployment, it is now associated with greater in-migration. Mayoral interaction with business in 2005 continues to be positively associated with local revenue in 2006 to 2008. Meeting with representatives of the county government in 2005 is also positively associated with own revenue generation in 2006 to 2008. Meeting with regional government is no longer negatively associated with migration, reinforcing the idea that causality in the earlier relationship might have been reverse. In this period, we are able to include inflow of EU funds as a measure of mayor initiative and networking, and these have a positive impact on a municipality's generation of own revenue. The funds, mainly used to support infrastructure development, appear to help municipalities to generate revenue of their own. None of the included characteristics of local government is associated to unemployment performance in this period.

Table 5b
Regression results, local government performance in Poland, 2006 to 2008

	Mean Migration '06 to '08			(ln) Mean Revenue Per Cap '06 to '08			% Improvement Unemployment Rate '06 to '08		
	n=140			n=139			n=138		
Adjusted R2	0.76			0.30			0.24		
	Coef.	t-stat		Coef.	t-stat		Coef.	t-stat	
Voter Turnout '02	0.0168	2.84	**	0.4223	2.94	**	-0.0965	-0.68	
Share Top 3 Parties	-0.0004	-0.06		-0.0011	-0.73		0.0007	0.47	
Meet Citizens	0.0005	1.19		-0.0000	-0.01		-0.0142	-1.55	
Mayor Higher Ed	-0.0019	-1.48		-0.0443	-1.43		-0.0225	-0.77	
Higher Ed Staff	0.0000	0.34		0.0002	0.05		0.0026	0.56	
Age Mayor	-0.0001	-1.26		-0.0002	-0.05		0.0007	0.46	
Meet County Gov	0.0002	0.21		0.0465	1.66	*	-0.0218	-0.82	
Meet Region Gov	-0.0007	-0.57		-0.0432	-1.36		0.0366	1.21	
Meet National Gov	-0.0004	-0.62		0.0086	0.50		-0.0073	-0.45	
Meet Local NGO	-0.0003	-0.54		-0.0113	-0.95		0.0014	0.13	
Meet Internatl NGO	-0.0004	-0.52		-0.0935	-0.46		-0.0255	-1.32	
Communicate Biz	0.0005	0.82		0.0310	2.23	**	0.0185	1.38	
Info Center	-0.0003	-0.28		-0.0131	-0.50		0.0248	0.97	
Agricultural Locality	-0.0035	2.85	**	-0.0191	-0.62		0.0126	0.42	
Pop per km^2	-0.0000	-0.14		-0.0000	-0.23		-0.0000	-1.09	
Sewer per km^2	0.0050	0.28		1.1154	2.56	**	0.4591	1.11	
		1.99							**
Warsaw/West	0.0021		**	0.0571	2.22	**	0.1264	5.18	*
EU Transfers	0.0000	0.33		0.0007	2.97	***	-0.0000	-0.24	
ln Own Revenue '02	0.0008	1.05		0.1058	5.48	***	0.0358	1.94	**
Mean Migration '99 to '02	1.3142	15.98	***						
Unemployment '03							-0.0075	-3.44	***
Constant	-0.0073	-0.59		6.4098	21.19	***	-0.0328	-0.11	

* = p < 0.10, ** = p < 0.05, *** = p < 0.001

Again, inherited factors are more consistently related to outcomes. Performance on outcome measures in the period prior to, or at the beginning of, the mayoral mandate is strongly correlated with outcomes in 2006 to 2008. Higher levels of 2003 unemployment are associated with greater relative improvements in the unemployment situation, as are higher levels of baseline municipal revenue. Surprisingly, controlling for migration levels in 1999 to 2002, having agriculture as the predominant economic sector in 2005 is positively associated with net per capita migration in the period 2006 to 2008, when controlling for other factors. The significant per capita outmigration from agricultural areas appears to have been reversed. Better infrastructure in 2005 continued to have a positive impact on local revenue. Location in Western Poland or the Warsaw region had a positive impact on all outcome measures in this period.

The marginal effects in these models often appear small. To give a general sense of the relative impact of variations in governance and historical factors, in Tables 6a and 6b we construct representative cases, contrasting a representative municipality with strong (at the 75th percentile) performance on the significant variables reflecting characteristics of local government and poor (at the 25th percentile) (significant) inherited and locational factors, and one with poor local government characteristics but strong exogenous conditions (all other factors are held at mean values.)

For the period 2003 to 2005 (Table 6a), the predicted positive role of an activist local government does not outweigh the poor local conditions. A municipality with poor local conditions but a more activist mayor is predicted to rank at the 47th percentile on unemployment performance and the 28th percentile on revenue performance, while governments with good inherited conditions but a less active mayor are predicted to rank at the 78th and 76th percentiles. No characteristics of local government are significantly associated with migration performance in this period but, as can be seen in the 6a, conditions are predicted to have a significant impact on outcomes. A municipality with poor local and inherited

Table 6a
Predicted outcomes for representative municipalities with strong and weak governance and strong and weak inherited conditions, 2003 to 2005

Variable	Migration		Revenue Per Capita		Improvement Unemployment	
	Good Inherited Conditions	Poor Inherited Conditions	Good Inherited Conditions, Poor Government Characteristics	Poor Inherited Condition, Good Government Characteristics	Good Inherited Conditions, Poor Government Characteristics	Poor Inherited Condition, Good Government Characteristics
Voter Turnout			0.46	0.60	0.46	0.60
Mayor Higher Education			0	1		
Ed Municipal Staff					2	7
Meet Region Gov					2.5	4
Communicate with Business			1.25	2.5		
Agricultual Locality			0	1		
Sewer per km^2			0.032	0.012		
Warsaw/West	1	0			0	1
Baseline Revenue			11.50	10.28		
Baseline Migration						
Baseline Unemployment						
Predicted Outcome	0.0042 (74th Percentile)	-0.0032 (31st Percentile)	7.50 (76th Percentile)	7.31 (28th Percentile)	-0.69 (78th Percentile)	-0.14 (47th Percentile)

Table 6b
Predicted outcomes for representative municipalities with strong and weak governance and strong and weak inherited conditions, 2006 to 2008

Variable	Migration		Revenue Per Capita		Improvement Unemployment	
	Good Inherited Conditions, Poor Government Characteristics	Poor Inherited Conditions, Good Government Characteristics	Good Inherited Conditions, Poor Government Characteristics	Poor Inherited Condition, Good Government Characteristics	Good Inherited Conditions	Poor Inherited Conditions
Voter Turnout	0.46	0.60	0.46	0.60		
Meet Citizens Groups						
Meet Country Gov			3	4		
Communicate with Business			1.25	2.5		
Agricultural Locality	0	1				
Sewer per km2			0.032	0.012		
Warsaw/West	1	0	1	0	1	0
Baseline Revenue			16.20	14.04	11.50	10.28
EU Transfer per Capita			0.06	20.15		
Baseline Migration	0.0025	-0.0036				
Baseline Unemployment					10.35	19.75
Predicted Outcome	0.0070 (81st Percentile)	-0.0043 (24th Percentile)	7.76 (53rd Percentile)	7.70 (33rd Percentile)	0.49 (75th Percentile)	0.25 (19th Percentile)

conditions will rank at the 31st percentile, all else equal, while one with good conditions will rank at the 74th.

For 2006 to 2008, migration is again more closely associated with inherited conditions than with local government characteristics. A municipality with poor accountability but good inherited conditions is predicted to rank at the 81st percentile, compared to one with a well-monitored local government but poor inherited conditions, which is predicted to be at the 24th percentile. Performance on own revenue per capita for 2006 to 2008 is similarly more strongly

related to local historical characteristics. A municipality with an activist mayor, networking with local business, applying successfully for EU funding, and expecting high voter turnout, but in a poor location with poor inherited conditions, is predicted to rank lower (33rd percentile) than a municipality with a less activist and less well-monitored mayor, but which is in a good location with good inherited conditions (predicted to fall at the 53rd percentile). For the period 2006 to 2008, no characteristics of local government are significantly associated with unemployment performance, but local conditions are predicted to have a significant impact. A municipality with poor conditions is predicted to rank at the 19th percentile, while one with good conditions is predicted to rank at the 75th.

6 Conclusions

Recent work has shown that decentralization of government does not always provide expected improvements in outcomes at the local level. Research has thus increasingly focused on identifying the conditions necessary for decentralization to contribute to improved outcomes (Loayza, et al., 2011). In this paper, we have examined characteristics of rural local governments and elections in Poland and the relationship of these to outcomes.

We find that some measures of government accountability and skill, particularly voter turnout, communication with businesses, and securing EU support for projects, are related to some outcomes. However, results are not consistent. What "works" depends on which, among many possible, proxies for government performance are chosen, and how local characteristics are measured. Our finding that some measures of networking and accountability are related to outcomes echoes previous work.

An additional important finding is that factors outside the control of local governments, including location, inherited infrastructure, levels and types of economic activity, and previous performance are strongly related to outcomes but, again, the significant variables differ across outcomes. After historical levels of performance, being in the Western, versus Eastern part of Poland, has the most consistent relationship to performance for the period 2006 to 2008, a result which could be driven by difference in the current economic conditions on Poland's Western and Eastern borders.

As seen in the representative cases, municipalities with good inherited conditions but less active and accountable governments are associated with better migration and revenue performance than municipalities with favorable government characteristics but poor historical conditions. The link between government actions and performance is weakened by the strong association with location and history, and this provides the justification for continued significant transfers of income from central to local governments. At the same time, as discussed by Dabla-Norris (2006) and Meurs (2007) this transfer process undermines local accountability, especially in poorer municipalities that, as a result of transfers, depend less on their own revenue. Decentralization can thus create a complex problem in providing incentives to local governments, and research is needed into how best to offset inherited disadvantages while enhancing accountability.

Finally, it is important to note that, like other studies, this study is unable to completely control for the possible endogeneity of some government characteristics. We have attempted to attenuate this problem by controlling for historical levels of performance, and including lagged outcomes, but this is not a perfect solution. Availability of panel data or carefully constructed instruments would be beneficial for future work in this area.

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