

## Promoting data sharing in U.S. local governments

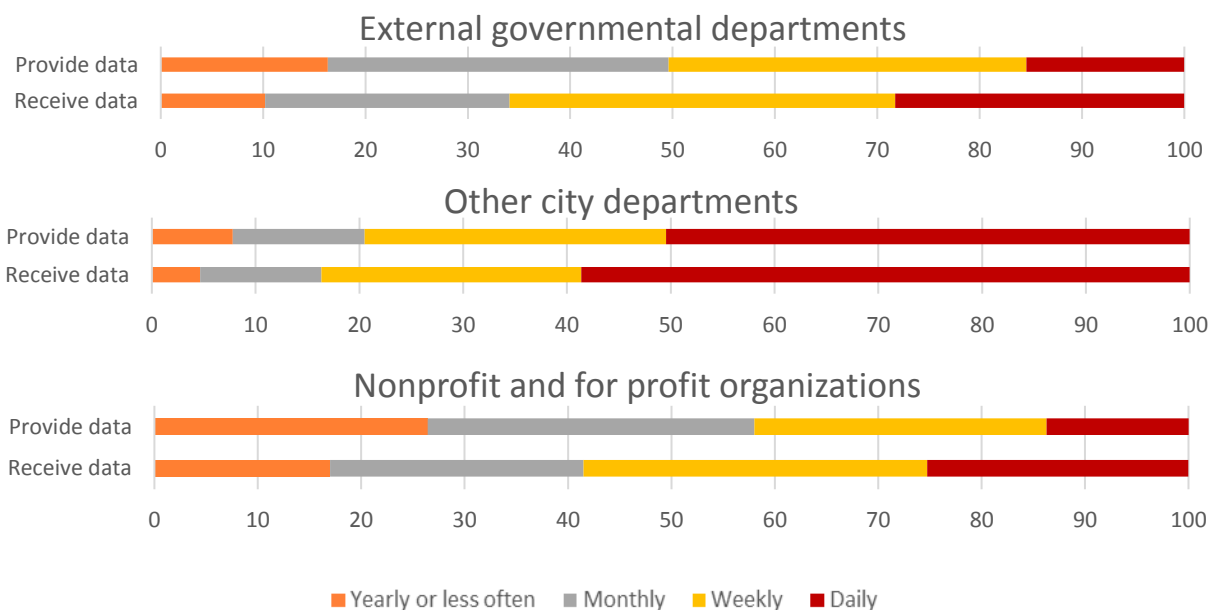
Federica Fusi, ffusi@asu.edu

Politicians, policy makers, and citizens are increasingly paying attention to public organizations **sharing data with stakeholders**, including other departments in the city, governmental organizations outside the city, and private for profit and nonprofit organizations. Data sharing between governments and stakeholders is expected to promote innovation, improve service provision, increase government accountability, and create more opportunities for public participation in the policy-making process.

Results from our survey show, however, that city governments more frequently receive data than provide data to stakeholders. **Figure 1** shows the percentage of city governments that daily, weekly, monthly or less frequently receive and provide data to stakeholders. The maroon and the gold bar, which respectively represent the percentage of respondents who daily and weekly share data, are larger for “providing data” than “receiving data”.

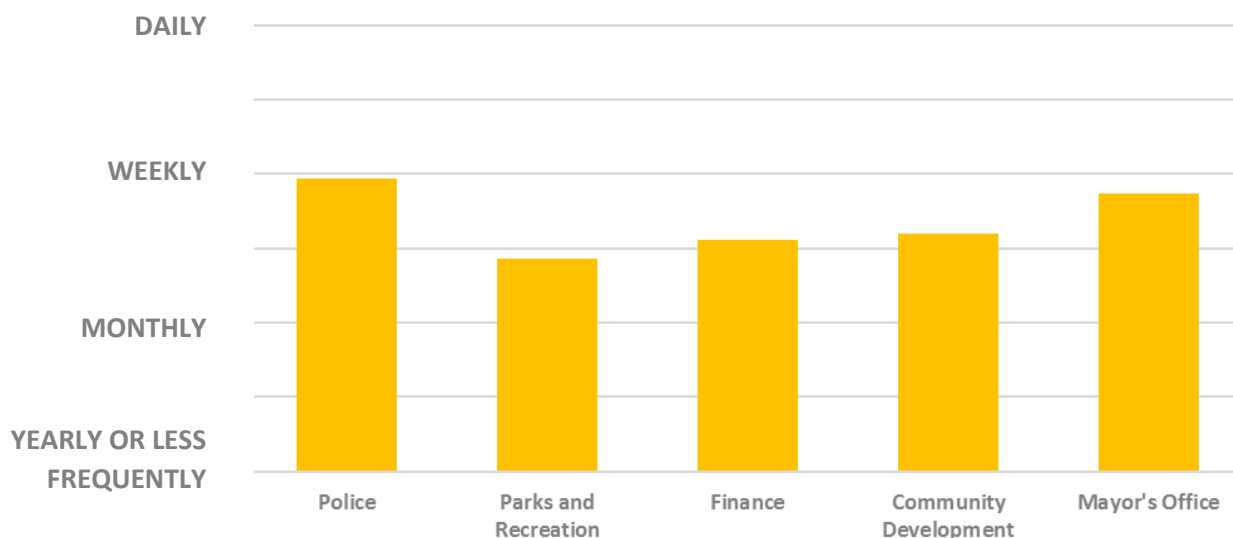
**City departments are more likely to receive than provide data.**

**Figure 1. Frequency of providing and receiving data from stakeholders**



There are also **differences across city departments** in the average frequency of providing data to stakeholders. **Figure 2** shows that, on average, managers in police departments and Mayor’s offices provide data to stakeholders more frequently than those in parks and recreation, finance, and community development departments. Both police and Mayor’s office managers weekly provide data to stakeholders. Parks and recreation, finance, and community development managers provide data once a week or once a month.

**Figure 2. Average frequency of providing data to stakeholders, by department**



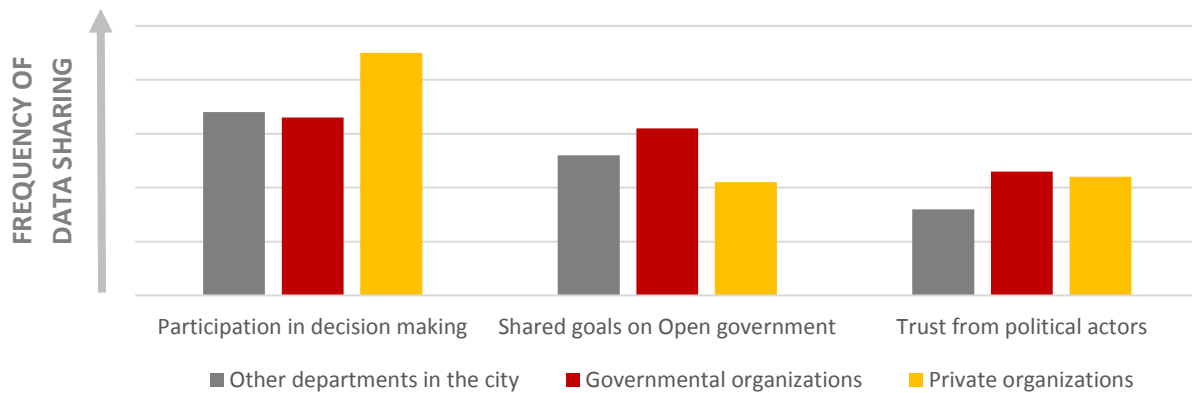
**Why are city departments less likely to provide data than receive them? What factors encourage public managers to share data with stakeholders?** Research suggests several barriers that might prevent public managers from providing data to stakeholders, in addition to technical reasons such as the lack of software and hardware infrastructure. Public managers might abstain from sharing data to avoid exposure to the environment (Attard, Orlandi, Scerri, and Auer, 2015), lower the risk of public questioning (Janssen, Charalabidis, and Zuiderwijk, 2012), and prevent misuse of data (Tulloch and Harvey, 2007).

**There are several barriers to data sharing in city governments.**

Our survey shows that public managers can overcome some of those barriers by **leveraging socio-political factors**. Socio-political factors are important because they describe the environment in which data sharing takes place, including previous relationships between the local government and stakeholders, trust between managers and local politicians, and shared understanding of open government goals.

**Figure 3** illustrates socio-political factors that encourage provision of data to stakeholders. In the graph, **the highest bars represent the most important factors** for increasing data sharing with other departments in the city (in grey), governmental organizations outside the city (in maroon), and private (nonprofit and for-profit) organizations (in gold). These socio-political factors are significant predictors even when controlling for city population, technology capacity, department type, and form of government (Mayor-Council or Council-Manager).

**Figure 3. Social factors influencing data sharing with external stakeholders**



**Participation in decision-making** is the first factor in figure 3. Data sharing more frequently occurs when stakeholders are involved in decision-making processes. Previous experience is important to build trust and common understanding, which in turn facilitates data sharing. The graph suggests that building strong relationships is particularly important when engaging private organizations as local managers might face greater cultural, legal, and organizational differences.

**Participation, political trust and an open government plan facilitate data sharing.**

**Shared goals on open government** is the second factor in figure 3. Local governments that develop a common vision about open governments, establish a plan to implement open government, or train employees to use technology more frequently share data with stakeholders.

**Trust from political actors** is the last factor in figure 3. Trust from local politicians provides the political support needed to bring relevant stakeholders to the table and allocate responsibility for data use and exchange. Political trust is particularly important when external stakeholders – other governmental and private organizations – are involved as compared to other city departments.

## RECOMMENDATIONS

While city governments are more often collectors rather than providers of data, public managers can support data sharing with stakeholders in at least three ways:

1. Look for and encourage **support and trust from local politicians** towards organizational activities to promote data sharing with stakeholders.
2. Develop **a plan dedicated to implementing open government.**
3. Build **strong relationships with external stakeholders** to facilitate data sharing.

## Our study

Data are drawn from a **national survey** “Technology in US Local Governments” conducted at the Center for Science, Technology and Environmental Policy Studies (CSTEPS) at ASU in **2016**.

**2,500 public managers in 500 U.S. cities** with populations from 25,000 to 250,000.

**5 departments:** Mayor’s Office, Community Development, Parks and Recreation, Police, and Finance.

30% response rate

Questions on technology & social media use and perceptions, online services, participation, data sharing, organizational culture, and policies.

## Research Team

Mary Feeney, *Principal Investigator*

Eric Welch, *Co-Principal Investigators*

*PhD Students*  
Leonor Camarena  
Seongkyung Cho  
Federica Fusi  
Fengxiu Zhang