



Sharing Information Across Boundaries

MetroGIS 2007 Performance Measurement Report

For the period October 1, 2006 through September 30, 2007

December 6, 2007

This Report was prepared by MetroGIS Staff, accepted by the MetroGIS Coordinating Committee on December 18, 2007, and approved by the MetroGIS Policy Board on January 30, 2008.

Excerpt
MetroGIS Policy Board Meeting Summary
January 30, 2008

d) 2007 Performance Measures Annual Report

Chris Kline, member of the MetroGIS Staff Support Team, provided an overview of the performance measures reporting process and major findings outlined in the 2007 annual report. He called attention to the large increase of downloads during the 2007 reporting period, which contrasted with a substantial decrease in website activity from the previous calendar year. Kline also commented that another change from the 2006 findings was that only four of the regionally endorsed datasets were among the top 10 download datasets for the year, compared to six from the previous reporting period.

Staff Coordinator Johnson commented that while these findings do not include access to datasets via web service technology, that is, only downloads of the actual source data are counted because an effective means to count access to services has not been defined. He also mentioned that the suspicion is that more use of the data is occurring because there is no indication of discontent with the endorsed regional datasets. He closed his remarks by stating a new means of measuring this activity and participant satisfaction will be investigated when MetroGIS's Performance Measurement Plan is updated, a project that is tentatively scheduled to begin later this year.

Motion: Member Lake moved and Member Pistilli seconded to approve the 2007 MetroGIS Performance Measurement Report.

Motion carried, ayes all.

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I. Authority and Context

This report is the sixth in series of annual reports on Performance Measurement Results for MetroGIS's efforts, covering the period from October 1, 2006 through September 30, 2007.

In April 2002 MetroGIS adopted a Performance Measurement Plan¹, to more clearly state desired outcomes, demonstrate accountability for results, and support continuous organizational improvement. This process is also designed to foster continued dialogue about outcomes that MetroGIS should focus on and how MetroGIS can demonstrate value to its stakeholders.

The foundation for measurement of MetroGIS's performance is its Mission Statement that was established in 1996:

MetroGIS's mission is to provide an ongoing, stakeholder-governed, metro-wide mechanism through which participants easily and equitably share geographically referenced graphic and associated attribute data that are accurate, current, secure, of common benefit and readily usable.

The Performance Measurement Plan identifies four "outcomes", to be achieved through MetroGIS's efforts, which parallel MetroGIS's core functions².

These "outcomes" involve desired improvements in the following general areas:

- Ease of data discovery and access
- Data currency
- Internal efficiencies, level of cooperation
- Decision making, service delivery

Ten performance measures provide the structure through which to assess progress toward achieving the four outcomes. Key findings are summarized in Section II and a detailed explanation of the results for each of the ten measures is provided in Section III.

The focus of these performance measures is not only on data-related preferences from the user's and producer's perspectives but also on broader desired organizational efficiencies and effectiveness. Assessment of MetroGIS's progress, by way of these measures, to achieve the desired outcomes comprises the substance of this annual report, culminating a year-long process. Performance measurement data are generally analyzed by staff on an ongoing basis to better understand trends that may be occurring, and reports are made quarterly to the Coordinating Committee and annually to the Policy Board.

The first annual performance measurement report, accepted by the MetroGIS Policy Board in January 2003, established baseline measurement information. It was largely descriptive. After the initial year of experience, more detailed metrics were devised. Consequently, some measures include data for 2002 and some do not.

This 2007 report provides more insight into trends as at least four years of data are now available for most of the current metrics. Map services, introduced in 2007, have been tracked thus far. Continuing to monitor these map services and refining data collection will allow us to gain a better grasp of changing methods of data delivery. As a result, a better understanding of causal relationships between resources allocated to specific activities and desired outcomes is possible. Revisions of MetroGIS Performance Measures will occur in 2008, resulting in new methods of data collection, reporting, and analysis.

II. Summary of Key Findings

Key results for 2007 are summarized in this section for each of the ten established performance measures arranged by their respective statement of desired outcome. No attempt is made to explain the meaning of these results in this Section. A more in-depth analysis of findings for each measure is provided in Section III, including comparison and contrast with results for similar monitoring data captured in previous years.

OUTCOME A. EASE OF DATA DISCOVERY AND ACCESS

“Understanding the purpose and components of the MetroGIS DataFinder (www.datafinder.org) application is important to gleaning the meaning of the performance measures data used to report on progress toward achieving Outcome 1. A summary of the functionality achieved via DataFinder is provided in Section III.”

Four distinct performance measures have been adopted to evaluate progress relative to the “Ease of Data Discovery and Access” performance outcome, each of which is related to MetroGIS DataFinder. The trend in each case, despite problems experienced using DataFinder Café during the 2006, was essentially the same or a slightly greater amount of activity than experienced in previous years. A fifth informal measure was added in 2003 by staff following adoption of the 2003-2005 Business Plan in accordance with growing interest in defining a role for MetroGIS in fostering collaborative solutions to common application needs. Key findings for 2007 were:

1. Number of visitor sessions to DataFinder (*Data Discovery via Catalog and Café*)
13,583 events, **down 13.6 percent from 2006**
2. Number of partial or whole datasets downloaded via DataFinder (*Catalog and Café*)
10,299 events, **up 40.2 percent from 2006**
- 2a. Number of visits to regional applications (informally added when two applications added)
1389 visits, **up 151 percent from 2006**
3. Number and type of sector/stakeholder groups using Web Mapping Services
62,085 hits for the first year of operation
- 3a. Location of sector/stakeholder groups accessing data from DataFinder
(informally added 2005, discontinued).
4. Number of datasets downloadable and metadata records on DataFinder
214 metadata records, **up 9 from 2006**
167 datasets, **up 9 from 2006**

OUTCOME B. DATA CURRENCY, USEFULNESS

One performance measure has been established for this outcome. Eight MetroGIS-endorsed regional data solutions have been implemented. No new regional data solutions were implemented in 2007.

5. Percent of regionally endorsed datasets maintained to agreed upon currency specification
100 percent, as was the case in 2005

There was no change in the number (**21**) of custodian roles and responsibilities associated with maintaining these regional solutions that are performed by **10** different **organizations**.

While these solutions comprise only 4.5 percent of the total datasets available via DataFinder, they continue to be the **most popular datasets** downloaded, decreasing from 55.5 percent of the total downloads in 2006 to **28.1 percent** in 2007, a reduction of **27.4 percent**.

OUTCOME C. INTERNAL EFFICIENCIES, LEVEL OF COOPERATION

Four distinct performance measures are used to evaluate progress relative to this “Internal Efficiencies, Level of Cooperation” performance outcome. Data is not available to utilize two of the measures. Key findings in 2007 were:

6. Number of manual vs. self-service requests for data (by producer type)
(No effective means defined to measure)
7. Hours of staff time saved in data distribution tasks (by producer type – focus on counties and the Metropolitan Council)
(No effective means defined to measure)
8. Number (and names) of entities listing metadata records (which includes entities listing datasets) on DataFinder
18 publishers of metadata, same as 2006
(The names of each are maintained in the source performance data file)
9. Number (and names) of entities using DataFinder as a data distribution method
10 publishers of data, same as 2006
(The names of each are maintained in the source performance data file)

OUTCOME D. DECISION MAKING, SERVICE DELIVERY

One performance measure has been established for this outcome.

10. Testimonials/case studies on how data access and delivery, and the MetroGIS forum, were used to improve operations/systems/decision-making by sector/stakeholder group
10 testimonials, same as 2006

III. Summary of Results by Measure

INTRODUCTION

In this sixth annual report, the following findings and conclusions are identified for each of ten performance measures, organized by each of the four outcomes described in the previous section.

With the data obtained during the 2007 reporting period, at least five years of comparable monitoring data are available for many of the ten defined performance measures.

OUTCOME A. EASE OF DATA DISCOVERY AND ACCESS

Preface: A key to understanding the meaning of the measures associated with Outcome 1 is one's understanding of the mechanism developed by MetroGIS to support online discovery and access to geospatial data³ produced by others which is important to carrying out business responsibilities of other organizations. This mechanism is MetroGIS DataFinder (www.datafinder.org).

MetroGIS DataFinder is intended to provide a one-stop-shop through which MetroGIS stakeholders discover and obtain geospatial data which are produced by multiple entities and which pertain to the seven– county, Minneapolis-St. Paul Metropolitan Area. DataFinder has two principle components – Catalog and Café. The Catalog contains metadata records⁴ for each dataset available via the DataFinder website and for a limited number of datasets that one must go directly to the producer to obtain. For those datasets available via DataFinder, a hyperlink is provided in the corresponding metadata records searchable in the Catalog. Clicking on a hyperlink permits the user to download a particular dataset in its entirety⁵. Café, on the other hand, provides the user with the ability to download self-selected portions of available datasets, as well as, bundle selections of multiple datasets in to a single download event. The Catalog initially went on line in spring 1998 DataFinder and Café was initially launched in summer 2002. Following upgrades to the Java language that the Café was originally designed for, the Café was also upgraded and re-launched in October 2006.

INTRODUCTION

Users continued start a search for data using both the DataFinder Catalog and Café. An upgraded version of DataFinder Café was launched in October 2006. In January 2007, an RSS service was established where regular users can subscribe to updates to datasets and allow for direct downloads of the data through the metadata without visiting the DataFinder catalog web page.

PERFORMANCE MEASURE 1: Number of visitor sessions to DataFinder (Data Discovery via Catalog and Café)

Table 1: Total Visitor Sessions to DataFinder

Year	Events	Annual Change	Change since inception	Target
2003	13,841			N/A
2004	15,258	10.2 %		Not Set
2005	15,658	2.6 %		Not Set
2006	15,720	0.4 %	3.0 %	Not Set
2007	13,583	-13.6 %	-11.0 %	Not Set

Website visit activity collected via WebTrends software is used to measure use of DataFinder for discovering data through searching metadata records, reviewing data characteristics provided in the metadata, and viewing the actual data online. Supporting a Web-base tool to improve efficiencies related to data discovery and distribution (DataFinder) is a core function of MetroGIS.

FINDINGS:

Data **discovery activity** in 2007, via MetroGIS DataFinder, **decreased 13.6 percent** to a total of 13,583 events versus 15,720 events experienced in 2007 or down 11.0 percent since 2003. This finding could be the result of the user community accessing the metadata and downloading the data directly from the metadata without viewing the catalog. Also, the availability of an RSS feeds that allows access to the data without visiting the catalog page could be responsible for the

increase in downloads with a simultaneous decrease in catalog usage. In addition, using the visits to the Catalog and Café web pages may no longer be an appropriate measure of data discovery since the numbers show that users **are** discovering data and downloading it.

Patterns in visits to the DataFinder site are not strong. The closest candidate to a usage pattern is the drop in visits during the third quarter of 2004, 2005, and 2007. Potential trends identified in previous reports have not continued as a whole. Overall, with continually changing technology and new methods of data discovery such as the RSS feed being implemented, staff believes that long term usage trends may not exist.

Figure 1a: Data Discovery via DataFinder

(Quarterly, 2003 - 2007)

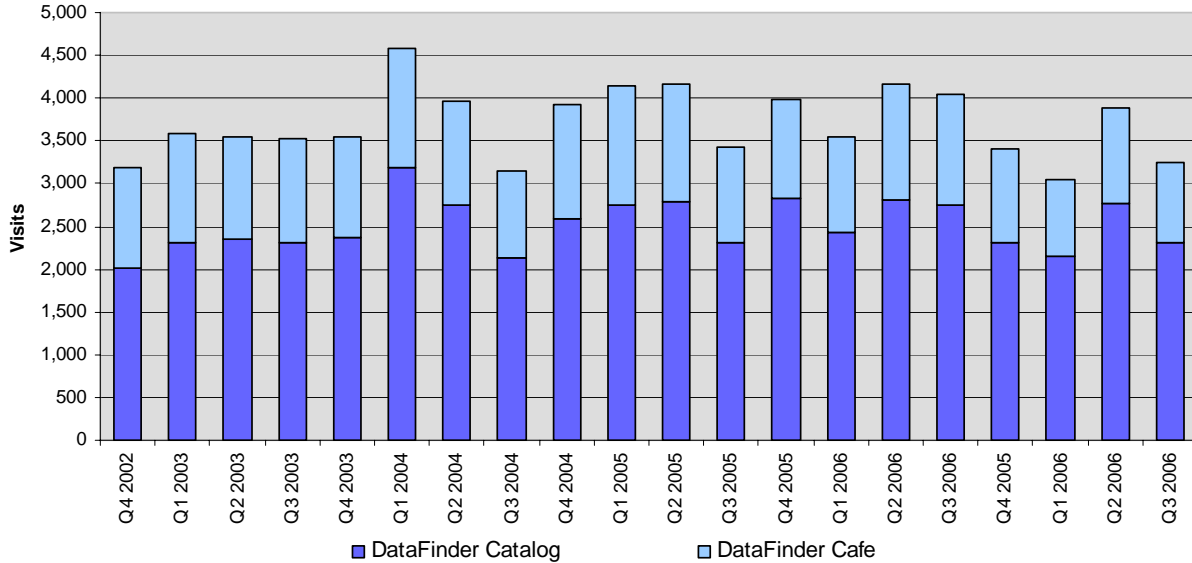
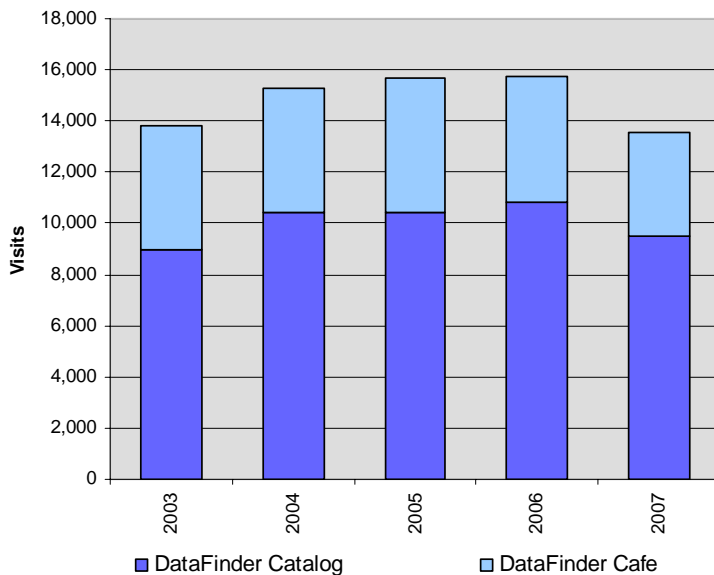


Figure 1b: Data Discovery via DataFinder

(Annually, 2003 - 2007)



DataFinder **Café activity** continued to comprise nearly 30 percent of the data discovery activity supported by DataFinder. In 2007, **29.9 percent of total data** discovery activity was via Café, a slight decrease of 1.2 percent from the previous reporting year. The highest percentage occurred in 2003 with Café accounting for 35.1 percent of the total data download events. This modest decrease could also be related to the leveling off of data discovery activity associated with the DataFinder Catalog, as noted above. Minor software problems experienced by Café in 2006 were corrected with the launch of the new Café in October 2006.

In addition to maintaining data discovery metrics for DataFinder, metrics are also maintained for discovery of data activity experienced via the **MetroGIS Socioeconomic Resources Page**. Use of the Socioeconomic Web Resources Page in 2007 has tripled compared to 2006. In 2007, the average monthly usage increased to 356.3 visits per month that involved viewing of at least one data source page. (See the Regional Applications section, below, for additional information.) When the Performance Measurement Plan is updated, staff suggests that an effective means to integrate these application related metrics with other data discovery metrics should be investigated to insure the breadth of data discovery activities are comprehensively monitored.

PERFORMANCE MEASURE 2: Number of whole or partial datasets downloaded through DataFinder [Catalog and Café] (by dataset, and by sector/stakeholder group if possible).

The primary benefit of DataFinder is that it provides a centralized location from which to obtain geospatial data pertaining to the seven-county, Twin Cities Metropolitan Area. DataFinder Café, a component of DataFinder, also supports subsetting of data and multiple data formats, which help the user put needed data into to use more quickly once downloaded.

The DataFinder website serves as a one-stop-shop home for 150 datasets, eight of which have been endorsed by MetroGIS as meeting high-priority common information needs for the region, and as meeting MetroGIS-defined data standards. The other datasets, although not components of current endorsed regional solutions, are being made accessible via DataFinder to act on the goal of maintaining a one-stop-shop for data access and because some of these data datasets may be of potential regional interest.

Table 2: Total Data Downloads

Year	All Data Download Events	Annual Change	Change since inception	Target
2003	7,073	-	-	N/A
2004	7,608	7.6 %	-	Not Set
2005	7,463	-1.9 %	-	Not Set
2006	7,347	-1.6 %	3.8 %	Not Set
2007	10,299	40.2 %	45.6 %	Not Set

FINDINGS:

Data download activity was at its highest levels recorded, increasing 40.2 percent to 10,299 events, as opposed to 7,347 events experienced 2006 and up 45.6 percent since 2003.

Figure 2a: Downloads via DataFinder

(Quarterly, 2003 - 2007 by Year)

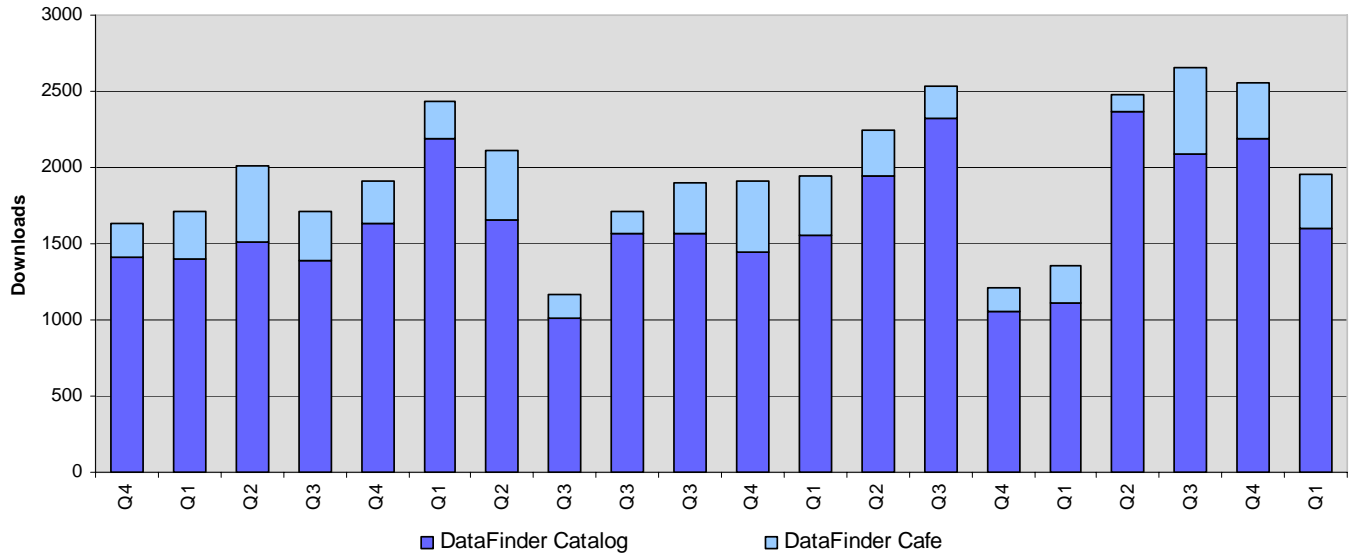


Figure 2b: Downloads via DataFinder

(Annually, 2003 - 2007 by Year)

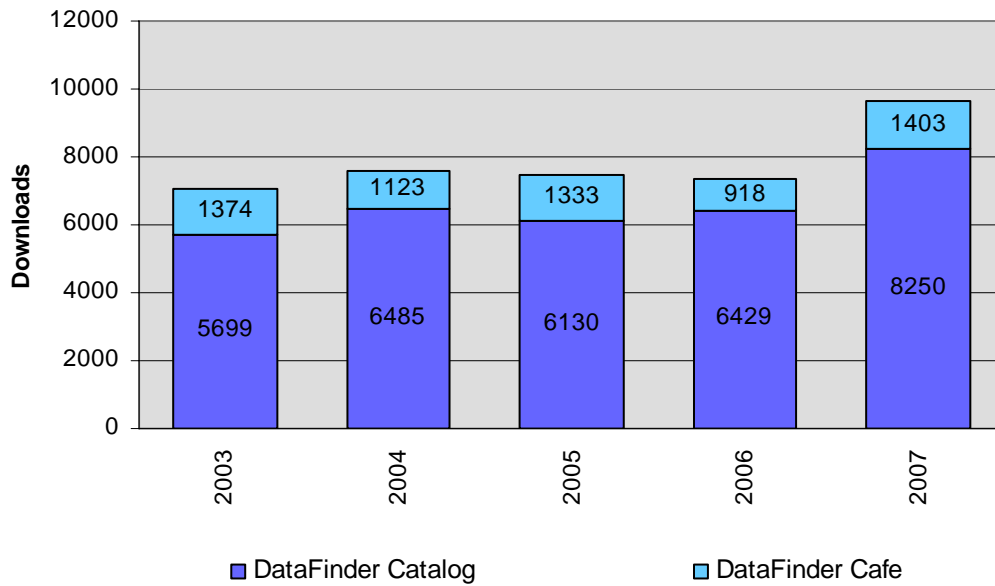


Figure 3a: Downloads via Café Relative to Total Data Downloads
(Quarterly, 2003 - 2007)

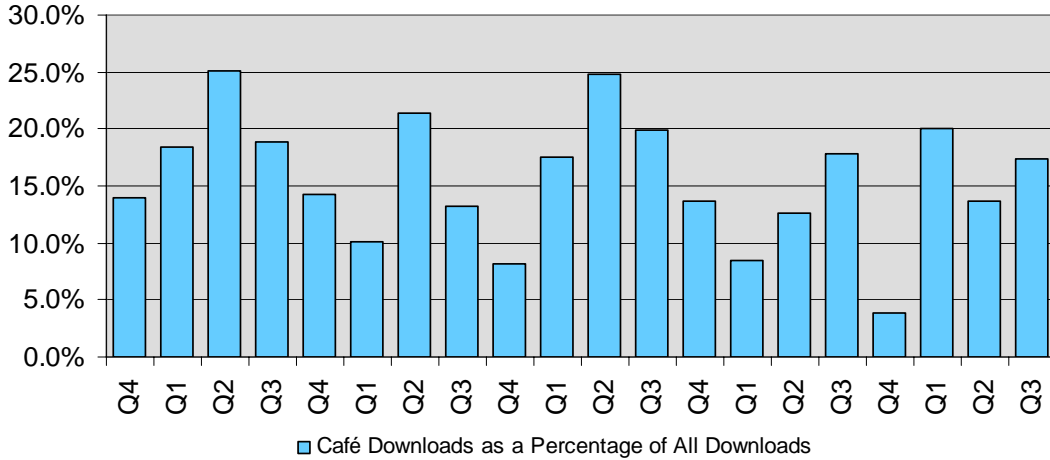
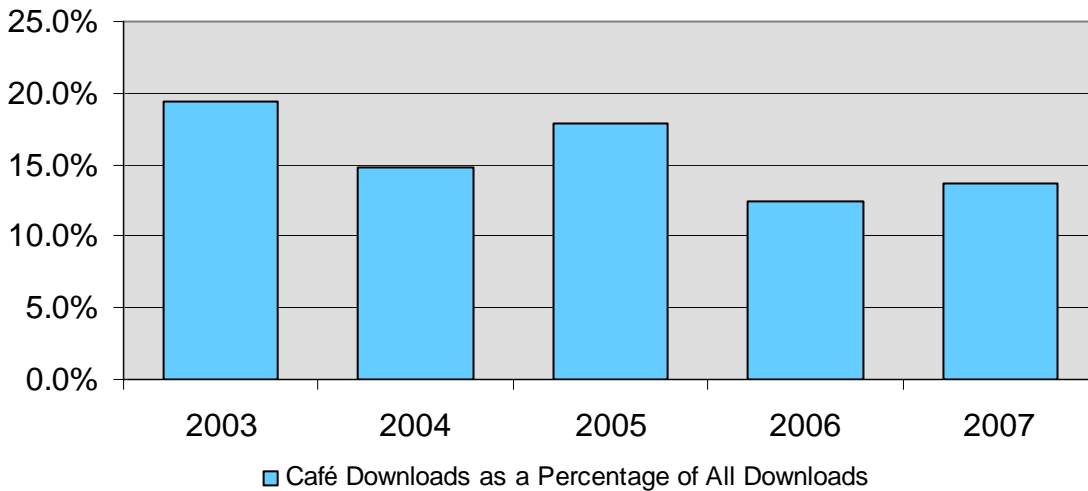


Figure 3b: Downloads via Café Relative to Total Data Downloads
(Annually, 2003 - 2007)



Several explanations for the increased level of downloads during the reporting period are available:

First, the introduction of RSS notification of datasets allows persons to directly download the data via the Catalog. Notification via RSS simplifies access for the persons most likely to have regular data needs.

Second, the launch of the new DataFinder Café in October 2006 allowed Café downloads to increase to pre-2006 levels.

Finally, regular notification of quarterly updates of TLG Street Centerlines and Regional Parcel datasets increased downloads of those datasets on months where the notifications were issued.

Downloads of MetroGIS Endorsed Regional Datasets decreased to pre-2006 levels during the reporting period. This was not unexpected, as the number of downloads in 2006 was much higher than normal.

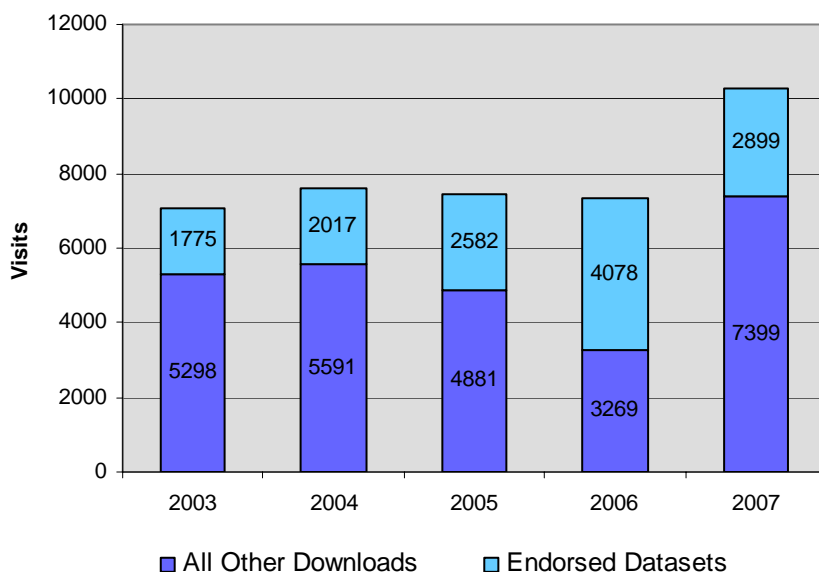
Table 3: Downloads of MetroGIS Endorsed Regional Datasets

Year	MetroGIS- Endorsed Regional Dataset Download Events	Annual Change	Change since inception	Percent of Total Downloads	Target
2003	1,775	-	-	25.1 %	N/A
2004	2,017	13.6%	-	26.5 %	Not Set
2005	2,335	15.8%	-	31.3 %	Not Set
2006	3,377	44.6 %	90.2%	46.0 %	Not Set
2007	2,899	-28.9 %	63.3 %	28.1 %	Not Set

Facilitating effective long-term solutions to priority common information needs, known as endorsed regional datasets, constitutes one of three core MetroGIS functions. The data downloading statistics described herein, together with user testimonials (PM #10), are definitive evidence of the value of continuing efforts to address common information needs through regional solutions

Figure 4: Downloads of Regionally Endorsed Datasets Relative to Total Downloads

(Annually, 2003 - 2007)



A partial explanation for the increasing relative popularity of the MetroGIS's regionally endorsed datasets may be that the number of entities **licensed to access** the regional parcel and street centerline datasets both increased in 2007 for a combined **increase of 13.2 percent** over 2006 or a total of 308 total licenses in 2007 versus 272 in 2006. Increased trust in the data may also be a factor.

Table 4: Download Events for MetroGIS Endorsed Regional Datasets

Dataset (2007 rank)	Number of downloads					Percent change	
	2003	2004	2005	2006	2007	From 2003	From 2006
County & Municipal Boundaries (4)	441	484	479	832	398	-9.8%	-52.2%
Census Demographic Profiles (2)	295	479	516	793	661	124.1%	-16.6%
Parcels (1)	255	258 ⁽¹⁾	576	793	953	273.7%	20.2%
Street Centerlines (3)	218	249	322	419	556	155.0%	32.7%
Census Geography (11) (e.g. tracts and blocks)	286	244	228	311	164	-42.7%	-47.3%
Planned Land Use (15)	260	288	208	183	139	-29.6%	-24.0%
Subtotal	1,755	2,002	2,329	3,331	2871		
All other downloads	<u>5,318</u>	<u>5,606</u>	<u>5,134</u>	<u>4,016</u>	<u>8111</u>		
TOTAL	7,073	7,608	7,463	7,347	10,982		

⁽¹⁾Access to parcel data via MetroGIS ceased in February 2004 due to the lack of a Data Sharing Agreement. Access was reinstated January 2005.

PERFORMANCE MEASURE 2A: Number of visits to regional applications (informally added in 2003 was added by staff following adoption of the 2003-2005 Business Plan and following availability of two applications implemented as MetroGIS initiatives)

Table 5: Usage General MetroGIS Website

	1998-2002	2003	2004	2005	2006	2007
General Information Website	No data	56,653	75,718	89,138	83,251	122,255

Table 6: Usage of MetroGIS Endorsed Web-based Applications

	2004	2005	2006	2007
Mailing Labels	-	106	82	-
Socioeconomic Web Resources Page	124	446	1307	4,275
Total	124	552	1389	4,275

FINDINGS:

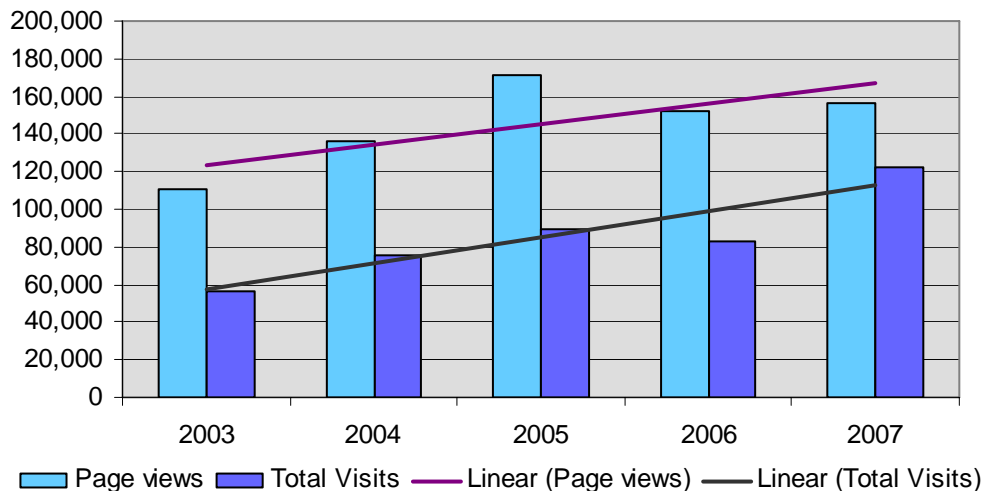
No new regional endorsed web-based applications were launched in 2006. Comments follow about each of the applications currently supporting a MetroGIS initiative.

- a) General Information Website (www.metrogis.org). This website was initially launched in 1997. It includes information about every aspect of MetroGIS, in effect serving as its institutional memory. It is one of several communication and outreach methods supported on an ongoing basis in conjunction with another of MetroGIS's core functions – support a

“forum” to foster coordination through knowledge sharing and use of best practices. Support of activities, which foster knowledge sharing, are acknowledged as critical to continued innovation to achieve the most effective and efficient services possible.

Use of MetroGIS’s general web site (www.metrogis.org) as a primary means to share information was greatly increased (46.9 percent) in 2007, with 122,256 total visits, as opposed to 83,251 total visits experienced in 2006. The increased traffic could be attributed to the MetroGIS 2008-2011 Business Planning Process.

**Figure 5: General Information Website Activity
(Annually, 2003 - 2007)**



b) Socioeconomic Web Resources Page

(www.datafinder.org/mg/socioeconomic_resources/index.asp)

This webpage was implemented in April 2004. Monthly average use tripled from 108.9 to 356.3 visits per month during the 2007 reporting period. In 2006, usage nearly tripled from 37.2 to 108.9 visits per month. The growth occurring during the 2007 reporting period can be attributed to increased awareness of the application plus expanded data availability.

c) Regional Mailing Label Application

This application became fully operational in November 2005. It was especially designed for users who want to make mailing labels for geographic areas that cross county boundaries, as it runs on the regional parcel dataset. Support for this application was discontinued in late 2006 due to lack of usage and the lack of resources to perform security upgrades.

d) Regional Emergency Preparedness Application

This application was launched in 2005. Since that time it has been used strictly as a training tool by the Emergency Preparedness Workgroup to educate emergency managers. The main focus of this outreach effort has been on demonstrating the value of GIS technology to addressing emergency management related data and analysis needs pertaining to disaster planning, response, and recovery. Access to the application is password-protected. If and when this application is moved to a production environment, metrics will be established to monitor its use.

PERFORMANCE MEASURE 3: Number and type of sector/stakeholder groups using Web Mapping Services

FINDINGS:

Comparison of map service usage to previous years is not feasible, however demand appears to be positive with a **peak of 9,603 hits** in March 2007 and a **total of 62,085 hits** for the 11-month monitoring period. Further monitoring and development of more refined measurements should be part of the 2008 Performance Measures revisions.

Figure 5: Map Service Usage

(November 2006 - September 2007)

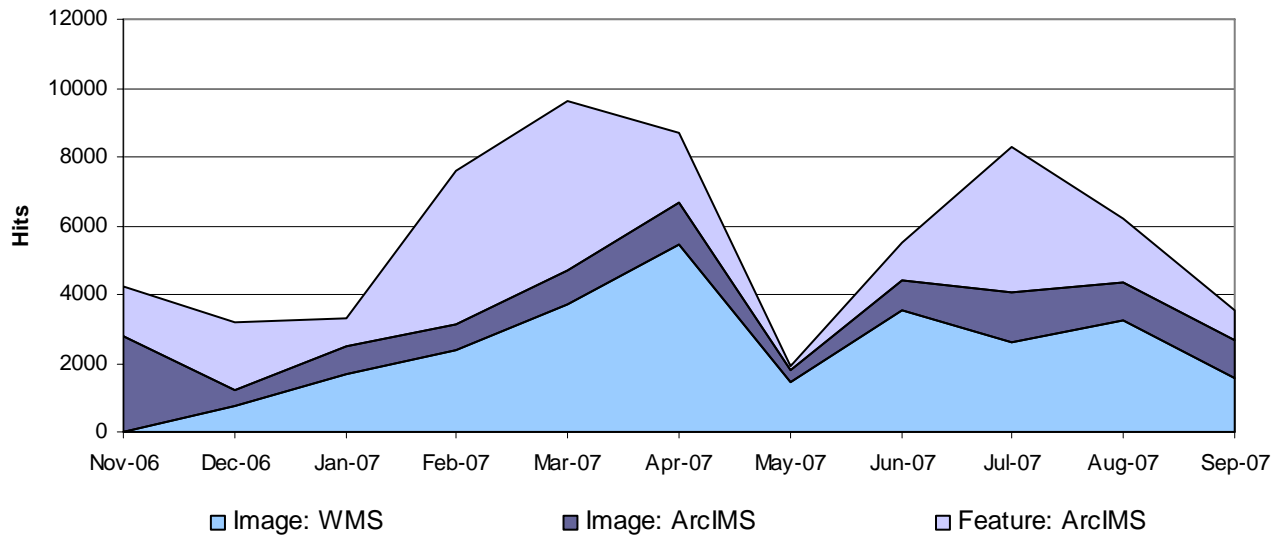


Figure 6: Map Service by Category

November 2006 - September 2007

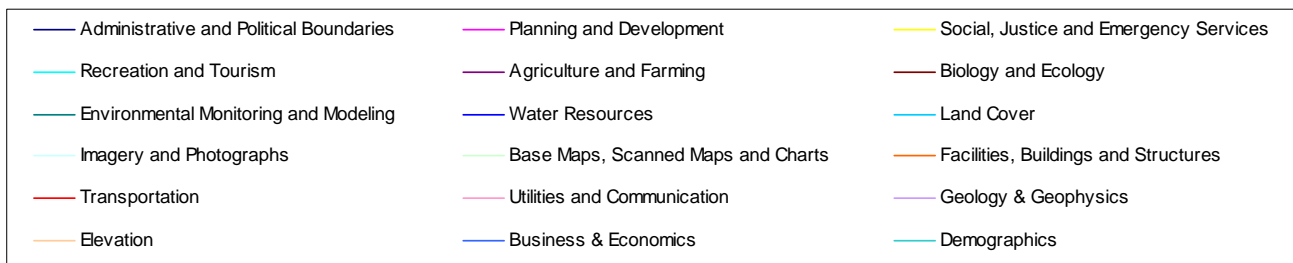
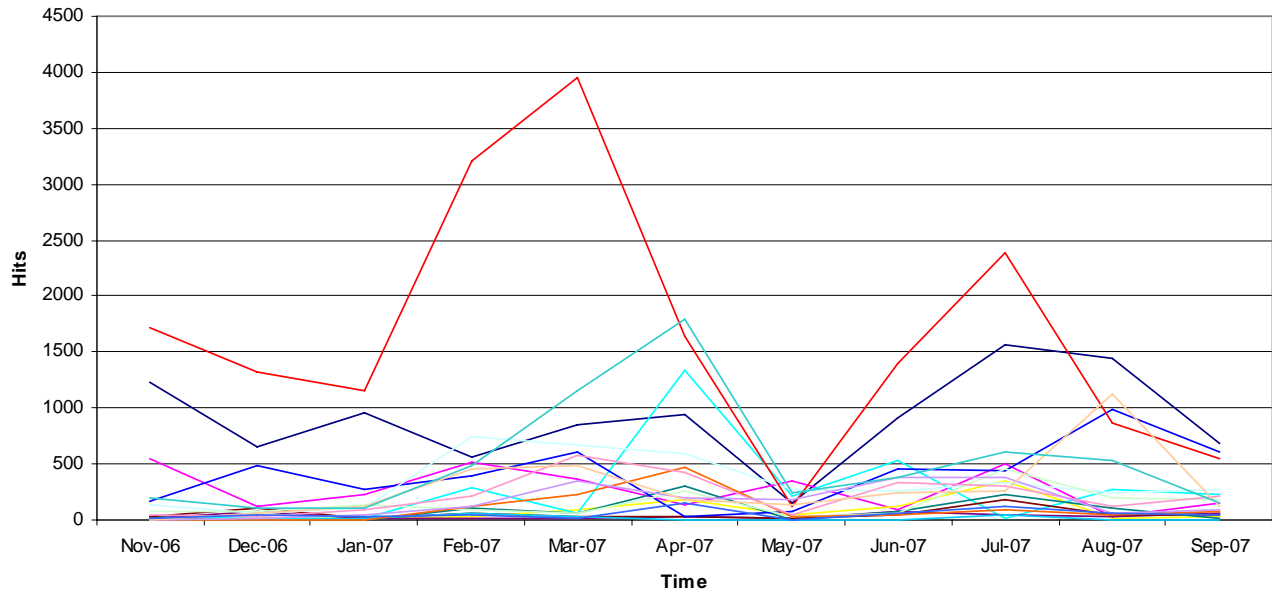


Table 7: Map Services

Service	Annual Hits
Transportation	18,326
Administrative and Political Boundaries	9,951
Demographics	5,789
Water Resources	4,534
Imagery and Photographs	3,696
Elevation	3,177
Recreation and Tourism	3,034
Planning and Development	3,028
Utilities and Communication	2,413
Geology & Geophysics	1,796
Base Maps, Scanned Maps and Charts	1,636
Facilities, Buildings and Structures	1,098
Social, Justice and Emergency Services	926
Environmental Monitoring and Modeling	926
Biology and Ecology	623
Business & Economics	596
Agriculture and Farming	379
Land Cover	157

The three most popular web services were the Transportation (18,326 hits), Administrative and Political Boundaries (9,951 hits), and Demographics (5,789 hits). Monitoring of the usage of individual services should be considered an important indicator of the demand for the service,

however monitoring of specific data layers within map service bundles is not possible unless software changes are implemented to facilitate identification of these layers.

BACKGROUND:

Map services were introduced in late October 2006, being tracked through the DataFinder Café. Currently, tracking of usage is based off the number of hits to each service. There are three map services currently available: WMS Image, ArcIMS Image, and ArcIMS Feature. The number of hits to a service cannot be considered a measure of how many sources are using services; instead, it is a measure of the general level of activity to a service from all sources. It is worth noting that the map services with the higher hit numbers (Transportation and Administrative and Political Boundaries) are included in The National Map online map (<http://nationalmap.gov/>).

PERFORMANCE MEASURE 3a: Number and type of sector/stakeholder groups accessing data from DataFinder (informally added).

This measure was added to the Annual Performance Measurement Report in 2005. Individual data downloads in log files can be assigned accurate geographic coordinates through a process developed by Quova, Inc.. A service agreement was secured with Quova for a fee of \$250. In 2006, Quova reorganized and was not able to provide the service at a reasonable cost. There was no pursuit of this measure for the 2007 reporting period.

PERFORMANCE MEASURE 4: Number of datasets and metadata records on DataFinder

In accordance with its policy to promote leveraging of investments within the community, MetroGIS should continue to encourage data producers to publish metadata, as well as their actual data holdings, via the DataFinder tool in an effort to continue to improve user and producer efficiencies related to discovery and distribution of geospatial data.

Table 8: Metadata Records Searchable on DataFinder

Year	Searchable Metadata	Annual Change	Change since inception	Target
2002	136	-	-	Not set
2003	166	22.0 %	-	Not set
2004	183	10.2 %	-	Not set
2005	188	2.7 %	-	Not set
2006	205	9.0 %	-	Not set
2007	221	6.7 %	62.5 %	Not set

Table 9: Datasets Directly Downloadable via DataFinder

Year	Directly Downloadable Datasets	Annual Change	Change since inception	Target
2002	107	-	-	Not set
2003	136	27.1 %	-	Not set
2004	145	6.6 %	-	Not set
2005	151	4.1 %	-	Not set
2006	158	4.6 %	-	Not set
2007	167	5.7 %	56.1 %	Not set

FINDINGS:

Even though the number of entities participating did not change, the number of **metadata records searchable** on DataFinder increased from 205 to 221 or **up 6.7 percent** and number of **datasets downloadable** via DataFinder increased from 158 to 167 or **up 5.7 percent**.

OUTCOME B. DATA CURRENCY, USEFULNESS

The 2002 MetroGIS Performance Measurement Plan established one measure of the “Data Currency” outcome. 2007 results and 2002-2007 trends for this measure it is as follows:

PERFORMANCE MEASURE 5: Percent of regionally endorsed datasets maintained to agreed-upon currency specifications.

Table 10: Compliance with Custodial Responsibilities

Year	Percent Compliance	Annual Change	Change since inception	Target
2002	100	-	-	Not set
2003	100	0 %	-	Not set
2004	100	0 %	-	Not set
2005	100	0 %	-	Not set
2006	100	0 %	-	Not set
2007	100	0 %	0 %	Not set

FINDINGS:

A total of twenty-three (**23**) **custodial roles and responsibilities** defined by MetroGIS have been assumed by ten (**10**) separate **willing organizations** with appropriate support resources. Twenty one (21) of these custodian roles and responsibilities are associated with maintaining regional data solutions endorsed by MetroGIS. All of these data maintenance-related **responsibilities** were also supported **in accordance with agreed upon specifications**, as has been the case in the past.

The other two responsibilities -- support a one-stop, Web-based data discovery and distribution mechanism (DataFinder) and support a forum to foster collaboration – were also supported in accordance with expectations. The Metropolitan Council supports these latter two responsibilities.

OUTCOME C. INTERNAL EFFICIENCIES, LEVEL OF COOPERATION

Four distinct performance measures are used to evaluate progress relative to this “Internal Efficiencies, Level of Cooperation” performance outcome. No means is available to monitor two of measures, although the trend is toward increased involvement by data producers. Findings for each of these measures follow.

PERFORMANCE MEASURE 6: Number of manual vs. self-service requests for data (by producer type)

PERFORMANCE MEASURE 7: Hours of staff time saved in data distribution tasks (by producer type) – focus on counties and the Metropolitan Council

FINDINGS (PM#s 6 and 7):

(No effective means yet defined to measure)

PERFORMANCE MEASURE 8: Number (and names) of entities listing metadata records (which includes entities listing datasets) on DataFinder.

In accordance with its policy to promote leveraging of investments within the community, MetroGIS’s strategy has been to encourage data producers to publish metadata, as well as their actual data holdings, via the DataFinder tool in an effort to continue to improve user and producer efficiencies related to discovery and distribution of geospatial data.

Table 11: Entities Publishing Metadata Records via DataFinder

Year	Searchable Metadata	Annual Change	Change since inception	Target
2002	15	-	-	Not set
2003	16	6.7 %	-	Not set
2004	18	12.5 %	-	Not set
2005	18	0 %	-	Not set
2006	18	0 %	-	Not set
2007	18	0 %	20.0 %	Not set

(The names of participating entities are maintained in a separate source data file)

FINDINGS:

There was no change during this reporting period in the number of organizations using DataFinder to advertise availability of geospatial data holdings. The number remains at 18. This lack of growth may be at least partly due to less time spent on networking and outreach activities over the past year or so. Staff resources have been limited since 2005 and higher priorities dominated staff resources, resulting in less opportunity for outreach activities. Notwithstanding, the number of metadata records increased from 205 to 221.

PERFORMANCE MEASURE 9: Number (and names) of entities using DataFinder as a data distribution method.

In accordance with its policy to promote leveraging of investments within the community, MetroGIS's strategy has to encourage data producers to publish metadata, as well as their actual data holdings, via the DataFinder tool in an effort to continue to improve user and producer efficiencies related to discovery and distribution of geospatial data

Table 12: Entities Publishing Geospatial Data via DataFinder

Year	Directly Downloadable Datasets	Annual Change	Change since inception	Target
2002	7	-	-	Not set
2003	7	0 %	-	Not set
2004	10	42.8 %	-	Not set
2005	10	0 %	-	Not set
2006	10	0 %	-	Not set
2007	10	0 %	42.8 %	Not set

(The names of participating entities are maintained in a separate source data file)

FINDINGS:

There was no change during the reporting period in the number of organizations using DataFinder as a data distribution mechanism. The number remains at 10. This lack of growth may be at least partly due to less time spent on networking and outreach activities over the past several years. Staff resources have been limited since 2005 and higher priorities dominated staff resources, resulting in less opportunity for outreach activities. Notwithstanding, the number of number of datasets downloadable via DataFinder increased from 158 to 167.

OUTCOME D. DECISION MAKING, SERVICE DELIVERY

PERFORMANCE MEASURE 10 (NON-QUANTITATIVE MEASURE): Testimonials/case studies on how data access and delivery, and the MetroGIS forum, were used to improve operations/systems/decision-making by sector/stakeholder group.

FINDINGS:

Nine testimonials have been produced and indicate a high level of satisfaction and perceived value associated with processes and tools developed through MetroGIS's efforts. No new testimonials were added during the 2007 reporting period.

BACKGROUND (Related to PM#s 6, 7 and 10):

None of the MetroGIS Performance Measurement efforts to date has included quantitative measurement of efficiencies gained by data producers through tools and processes developed and supported by MetroGIS. The primary reason is that quantifying this benefit is extremely complicated due to the variety of business models used by various producers. Staff brought this need to the 2005 Innovations in Governance Program at the Kennedy School of Government, as a component of a MetroGIS case study. The consensus was that an economic model does not exist that could be used for this purpose. Most agreed that an organization-by-organization evaluation of cost to benefit to participate in a collaborative solution versus pursuing a solution on their own is likely the only reasonable way to approach this need.

As a component of its Performance Measure Plan Update project proposed for 2008, MetroGIS will investigate changes to this measure or seek additional ways to document efficiencies gained by producers of data that are components of endorsed regional data solutions. Benefits related to leveraging existing resources, such as Washington County's use of the DataFinder web server to save significant hardware and software startup costs, as well as, monthly Internet Service Provider (ISP) expenses to host an ArcIMS application, are among examples of modifications that might be included in future evaluations.

Source Data for Metrics

Detailed data are captured monthly for each performance measure. These detailed source data are maintained in a complex spreadsheet along with related summary set of tables and graphics. These detailed data are the foundation from which staff identify anomalies, both positive and troublesome items, for discussion with the Coordinating Committee on a quarterly basis in an attempt to better understand the causes and identify any desirable mitigating actions that should be pursued.

The Source Data are maintained by Measure in the same manner as reported herein:

A. Outcomes for Data Users - Ease of discovery and access

PM #1: Visitor sessions to DataFinder web site

PM #2: Datasets downloaded through DataFinder

PM #3: Map Services

PM #4: Datasets and metadata records on Data Finder

B. Outcomes related to Users - Data Currency

PM #5: Percent of Datasets Updated

C. Outcomes related to Producers - Internal efficiencies; level of cooperation

PM #6: Manual vs. self-service requests for data (by producer type)

PM #7: Staff time saved in data distribution tasks (by producer type)

PM #8: Entities listing metadata records on DataFinder

PM #9: Entities using DataFinder and DataFinder Cafe as a data distribution method

D. Ultimate Outcomes – Improved decision-making and better service to the public

PM # 10: Testimonials (Non-quantitative)

Endnotes:

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- ¹ The adopted MetroGIS Performance Measurement Plan can be viewed at www.metrogis.org/benefits/perf_measure/index.shtml.
- ² Section 1.3.2 of MetroGIS's 2003-2005 Business Plan identifies three functions core to MetroGIS's efforts:
- Support a "forum" to foster coordination through knowledge sharing and use of best practices.
 - Facilitate effective long-term solutions to priority common information needs (regional datasets), and
 - Support an efficient mechanism for Internet-based data discovery and retrieval (MetroGIS DataFinder)
- ³ Features with a geographic component, such as the location of parcels of land and descriptive information about each parcel, location of city boundaries, location of lakes and descriptive information about each lake, etc.
- ⁴ Metadata provides information about geographic data important to evaluating its fitness for use, such who created the data, when created, source from which created, data projection, explanation of descriptive attributes, update cycle, etc.
- ⁵ Links through with to download data via the DataFinder Catalog utilize FTP (File Transfer Protocol) technology.