



Sharing Information Across Boundaries

MetroGIS 2004 Performance Measurement Report

For the period October 1, 2003 through September 30, 2004

December 2004

This Report was prepared by MetroGIS Staff, accepted by the MetroGIS Coordinating Committee on December 15, 2004, and approved by the MetroGIS Policy Board on January 26, 2005.

Table of Contents

- I. Background
 - II. Summary of Results - Key Findings
 - III. Detailed Results by Measure
-

I. Background

In early 2002, MetroGIS developed a Performance Measurement Plan to more clearly state expected accomplishments, to demonstrate accountability for results, and to support continuous organizational improvement (www.metrogis.org/benefits/perf_measure/).

The first annual performance measurement report was sent to the Board for approval in January 2003. That report established baseline information for key quantifiable measures related to the MetroGIS mission and continued a dialogue about what outcomes MetroGIS should focus on and how this organization can demonstrate value to its stakeholders.

The foundation for the measurement of performance is MetroGIS's 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.

This report represents the third annual report on Performance Measurement Results, covering the period from October 1, 2003 through September 30, 2004. For purposes of comparison, the 2003 report referenced below covers the period from October 1, 2002 through September 30, 2003.

Measurement data is 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. In addition, on a quarterly basis, staff raises for discussion with the Coordinating Committee any anomalies in the data or trends that have been detected.

The 2002 report was largely descriptive and established a baseline against which future progress can be gauged. The 2003 and 2004 reports further identify trends and move MetroGIS forward in understanding the causal relationship between resources allocated to specific activities and the resulting outcomes. It is expected that MetroGIS will continue to revise and shape its activities and program emphasis based in part on what it learns through the performance measurement process.

II. Summary of Results - Key Findings

In this third annual report, the following key findings and conclusions are identified:

- **“Visits” to DataFinder (PM #1):** Measures that reflect the value of DataFinder, including the Café function, continued to be refined to more accurately reflect traffic to these sites. Site visit activity includes discovering data through searching metadata records, reviewing data characteristics provided in the metadata, and viewing the actual data online. Combined visits to DataFinder and DataFinder Café averaged 1,272 visits per month during this reporting period, a 10.3 percent increase from 2003 when the monthly average was 1,153 visits. The activity varied from month to month, and staff continue to work on determining whether predictable patterns exist in the traffic to these sites.

In addition to maintaining data discovery metrics for DataFinder, metrics are also maintained for discovery of data resources via the MetroGIS Socioeconomic Resources Page (www.datafinder.org/mg/socioeconomic_resources/index.asp). This resource was implemented in April 2004. In its first six months of use, there were 155 site visits, involving 20 separate socioeconomic data sources.

- **Data Downloading (PM #2):** The primary benefit of DataFinder is that it provides a centralized location from which to obtain geospatial datasets. DataFinder Café also supports subsetting and multiple data formats. Data users downloaded a total of 7,608 datasets from DataFinder in 2004, or an average of 634 per month. This is an 7.6 percent increase over 2003, when 7,071 downloads were recorded for a monthly average of 589. However, the percentage of downloads via DataFinder Café were 4.7 percent lower in 2004 than experienced in 2003 (14.8 versus 19.5 percent). This reduction is assumed to be largely due to two factors. First, the 32.1 percent reduction in parcel data downloads as a result of the unavailability of parcel data from March 2004 on due to the lack of a parcel data sharing agreement. A new agreement was not executed until December 2004. Second, a 20.2 percent reduction in downloading of street centerline data. A workgroup was created in November 2004 to investigate centerline data needs for the 911 community. Its initial investigation revealed several limitations of the current centerline data that might explain this decline.
- **Popular Datasets (PM #2):** The most frequently downloaded datasets in 2003 and 2004 were (arranged by 2004 totals; endorsed regional datasets are **bolded**):

Dataset	Number of downloads		Percent change
	2003	2004	
County & Municipal Boundaries	460	484	+5.2
Census Demographic Profiles	295	479	+62.4
Planned Land Use	253	288	+9.9
ZIP Code Boundaries	248	280	+13.0
Parcels (not available after March 2004)	380	258 ⁽¹⁾	-32.1
Street Centerlines	312	249	-20.2
Census Geography (e.g. tracts and blocks)	286	244	-14.7
<i>All other downloads</i>	<u>4,837</u>	<u>5,326</u>	<u>+10.1</u>
TOTAL	7,071	7,608	+7.6

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

Downloads of endorsed datasets as a percent of the total downloads is remaining steady. In 2004, 26.5 percent of the downloaded data was regionally endorsed; in 2003 it was 27.0 percent. This finding may actually indicate an increasing trend since parcel data were not

available for most of 2004. An increase in the percentage of downloads of regionally endorsed datasets would otherwise not be surprising, since:

- The number of endorsed datasets has grown.
 - By definition they are commonly needed for a variety of GIS applications, and
 - Downloading frequency is related to the frequency of updates to datasets (e.g. census data is updated only every ten years, whereas the top three downloaded datasets are updated quarterly).
- **Who is downloading data? (PM#3):** From October 1, 2003 to September 30, 2004, 69.0 percent of the download activity was by entities located in the greater Minneapolis-St. Paul Area – generally an area that includes the collar counties and a few counties beyond the collar counties. This finding is up substantially from 2003, where 49.4 percent of the users were found to serve the Twins Cities Area. As in 2003, the entities with the most downloading activity were: academic institutions of higher learning, state and regional government, and local planning and engineering firms that work extensively with local government. Dakota County and Hennepin County are also listed among the top 25 download recipients. Outreach activities are believed to account for at least a portion of the increase in use among entities that serve the Metro Area.

This information was obtained from a \$250 report generated for MetroGIS by Quova, a web-tracking firm. Although some questions remain with certain aspects of the methodology used, the Quova report represents the best information available. Thus, a report from Quova should again be pursued for the 2005 MetroGIS Performance Measurement Report.

- **Increasing DataFinder Publishers (PM #4, #8, and #9).** The number of organizations using DataFinder as a data distribution mechanism increased from 7 to 10 in 2004 reporting period. The number of metadata records also increased from 158 to 169. 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.
- **Benefits to Data Producers (PM #6 and #7):** None of the MetroGIS Performance Measurement Reports to date include 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 complicated due to the variety of business models used by various producers. The need to quantify this benefit was, however, identified as a topic for discussion at the Coordinating Committee's pending retreat prior to launching the 2003-2005 Business Plan Update process. The assumption going into the retreat is that MetroGIS should continue to seek ways to document efficiencies gained by data producers. 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, should be included in these evaluations.
- **Non-quantitative Measures (PM#10):** The addition of a seventh testimonial in 2004 to the benefits of MetroGIS's efforts continues to indicate a high level of satisfaction and perceived value associated with processes and tools developed through MetroGIS. MetroGIS should continue to document benefits of its efforts through testimonials.

III. Detailed Results by Measure

Measures are grouped into four (4) categories:

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: Sector/stakeholder groups

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)

Performance Measure 1: Use of DataFinder (Data Discovery and Access)

Month	2002			2003								
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Visits to the DataFinder Catalog	725	688	600	701	741	875	927	738	677	806	709	791
Visits to the DataFinder Café	505	379	295	358	399	510	457	410	337	452	357	404
Monthly total	1,230	1,067	895	1,059	1,140	1,385	1,384	1,148	1,014	1,258	1,066	1,195

Month	2003			2004								
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Visits to the DataFinder Catalog	896	762	703	903	1,129	1,156	1,115	880	756	749	638	735
Visits to the DataFinder Café	446	389	359	458	441	498	442	408	367	356	301	371
Monthly total	1,342	1,151	1,062	1,361	1,570	1,654	1,557	1,288	1,123	1,105	939	1,106

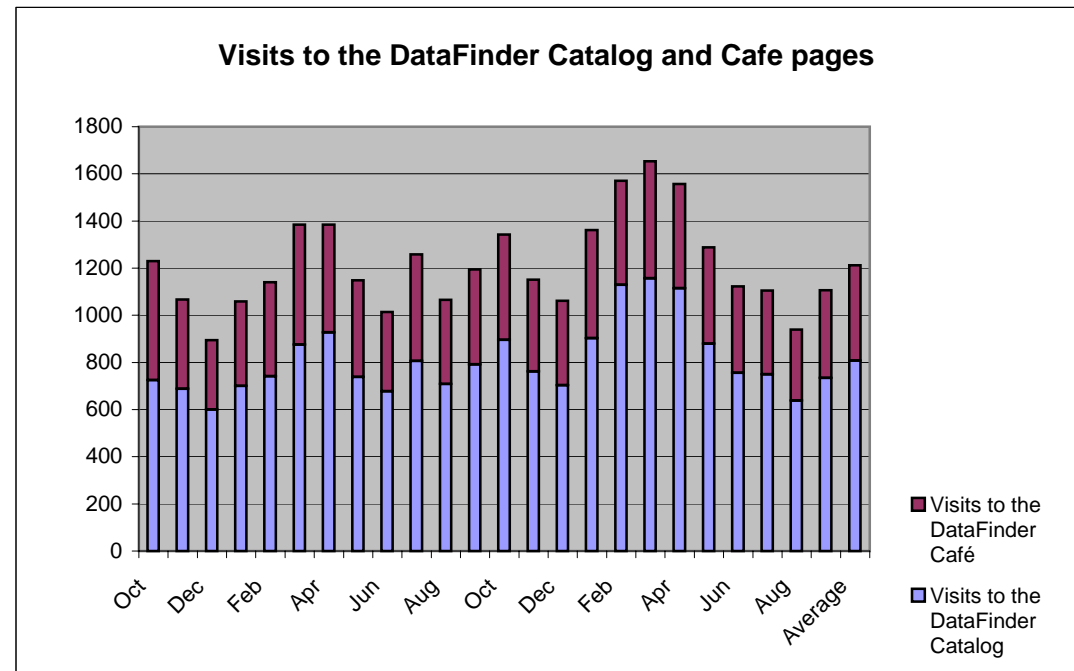
What do the data say?

This measure focuses on visits to the DataFinder Catalog and to the DataFinder Café. An assumption is that as datasets and metadata records are added and as users learn about availability of datasets and the one-stop shopping aspect of this site, the number of visits will increase. This trend held true in 2004 with a 10.2 percent increase in total visits. Though, another assumption is that as increases in new data availability slow, usage of the site may stabilize as data users acquire needed data in a more efficient manner and only when datasets are updated.

During the 2004 reporting period, a clear trend emerged showing that the majority of visits peaked in the spring months, reaching a low in late summer before rebounding again in the fall. The highest frequency of visits occurred from March to May, peaking at 1,654 visits with an average of usage of 1,272 visits. It is believed that the springtime surge in activity is due to users acquiring data in anticipation of summer field projects, and academic users gathering data to work on year-end projects. Another possibility for the summertime drop is that many users are either in the field or on vacation at this time.

Another trend is that approximately one-third of the DataFinder activity is consistently associated with the Café.

The MetroGIS Socioeconomic Resources Page (www.datafinder.org/mg/socioeconomic_resources/index.asp) is another Internet-based tool supported by MetroGIS to help data users in finding the data they need. It became operational in April 2004. After an initial spike in use, visits to the site leveled off to an average of 25.8 per month. Of the 155 total site visits over the last 6 months of the 2004 reporting period, 124 resulted in the user reviewing one or more individual socioeconomic data sources. A total of 20 individual socioeconomic data sources were reviewed 209 times. Refer to Appendix B for the monthly detail and a listing of the 20 individual socioeconomic data sources viewed.



Performance Measure 2: Datasets Downloaded (Data Discovery and Access)

All Dataset Downloads

	2003												2004											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Downloads from DataFinder FTP site	475	478	365	422	454	503	538	432	582	425	407	586	593	565	477	606	836	742	760	543	355	361	296	351
Downloads from DataFinder Café	(1)	166	63	122	97	97	210	99	197	119	91	113	135	54	83	47	101	96	357	62	34	22	72	60
Total	505	644	428	544	551	600	748	531	779	544	498	699	728	619	560	653	937	838	1117	605	389	383	368	411
	2003 total: 7,071												2004 total: 7,608											

Downloads of MetroGIS Endorsed Datasets Only

% change from previous year: **+7.6%**

	2003												2004											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
County & Municipal Boundaries	31	35	29	48	31	32	58	40	37	38	27	35	46	34	34	45	60	46	52	54	29	31	28	25
Census Geography 1990	7	8	5	4	9	14	7	3	6	6	5	3	2	2	4	5	4	7	8	3	3	2	4	0
Census Geography 2000	17	17	11	7	18	25	23	25	24	11	5	26	20	17	12	14	36	19	40	9	10	5	7	11
TLG Roads	*	*	*	*	*	56	22	31	38	15	8	48	15	35	44	29	7	20	17	7	7	10	14	44
Planned Land Use	19	17	22	28	46	22	23	17	25	14	13	14	18	14	19	29	31	34	59	39	7	12	11	15
MN Land Cover CS (2)	*	*	*	*	*	*	*	*	*	*	6	14	8	6	0	0	0	0	1	0	0	0	0	0
Census Demographic Profiles	15	11	7	16	34	42	35	32	43	18	10	32	36	41	28	41	42	120	74	24	17	17	12	27
Regional Parcel Dataset	*	*	*	*	*	27	69	36	19	32	42	30	56	37	32	45	39	15	34	0	0	0	0	0
<i>Anoka</i>	*	*	*	*	*	7	9	6	2	4	4	5	9	4	7	10	8	5	2	*	*	*	*	*
<i>Carver</i>	*	*	*	*	*	2	8	3	2	4	4	4	7	8	3	6	6	2	2	*	*	*	*	*
<i>Dakota</i>	*	*	*	*	*	3	8	6	2	5	12	7	7	6	6	7	1	0	0	*	*	*	*	*
<i>Hennepin</i>	*	*	*	*	*	0	16	10	0	2	5	0	12	3	4	6	7	2	6	*	*	*	*	*
<i>Ramsey</i>	*	*	*	*	*	8	13	5	5	4	8	5	8	4	8	5	10	2	3	*	*	*	*	*
<i>Scott</i>	*	*	*	*	*	2	7	2	2	6	3	4	7	8	1	5	4	1	0	*	*	*	*	*
<i>Washington</i>	*	*	*	*	*	5	8	4	6	7	6	5	6	4	3	6	3	3	0	*	*	*	*	*
<i>Historical Parcel Data - Combined</i>	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	21	*	*	*	*	*
Total of endorsed dataset downloads	89	88	74	103	138	218	237	184	192	134	116	202	201	186	173	208	219	261	285	136	73	77	76	122
	2003 total: 1,775												2004 total: 2,017											
Endorsed datasets as a percentage of all downloads:	19%	14%	17%	19%	25%	36%	32%	35%	25%	25%	23%	29%	28%	30%	31%	32%	23%	31%	26%	22%	19%	20%	21%	30%

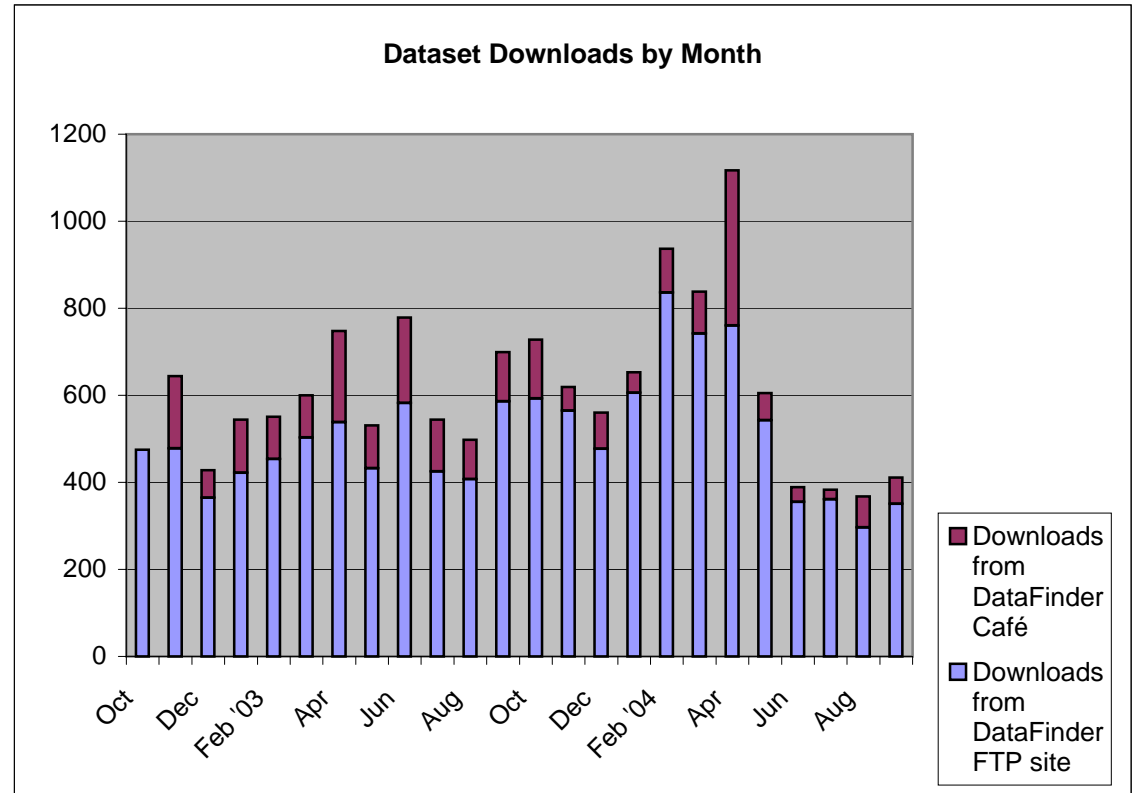
(1) Prior to March 2003, downloads of Regional Parcel Dataset and TLG Street Centerline data were not measured. Also, the Regional Parcel Dataset was not distributable for much of 2004 while the new parcel data agreement was being negotiated.

(2) Prior to 2004, this dataset was available only through MetroGIS DataFinder. Early in 2004, DNR and LMIC both began to support access. The Land Cover regional dataset is part of a larger state dataset distributed by the DNR that extends beyond the metro area. It is not possible to reliably track which downloads include data for the metro area and which are for areas outside of the seven county metro.

What do the data say?

The amount of data downloading activity increased 8.0 percent as compared to the 2003 reporting period (7,041 in 2003 and 7,608 in 2004), even though parcel data were not available for much of the year while the Regional Parcel Data Sharing Agreement was under negotiation. However, there was much more variability in the monthly download activity for both the FTP site and Café. The Spring spike that occurred in 2003 also occurred in 2004. A major decrease in downloading occurred from May through the end of the 2004 reporting period, as compared to the activity that had been realized in 2003. It is expected that the lack of parcel data explains some, but not all, of the drop off. The reasons for spikes in the number of downloads are also not known, but it is suspected to result in part from events where some promotion of the available datasets occurs. In addition, downloading occurs on a periodic basis depending on the frequency of updates for various datasets. For example, the TLG street centerline dataset is updated quarterly, whereas census datasets are updated only once per decade. Another limiting factor is the number of licensed users for a particular dataset. For example, there were only 10 licenses for the Hennepin County component of the regional parcel dataset, while there were nearly 50 licenses for the other six components.

The amount of downloading via Café also varied substantially on a monthly basis, with a large drop off that coincides with the loss of ability to access parcel data via DataFinder. The percent of downloads of endorsed datasets remained essentially the same as for 2003 in terms of percentage of the total downloads. In 2003, 27.0 percent of the downloaded data involved regionally endorsed data. In 2004, 26.5 percent of downloads were comprised of endorsed data. This percentage would likely have grown had parcel data been available for downloading for the entire year. Maintaining the same level of activity, despite the absence of parcel data, is in part explained by an increase in the number of available endorsed datasets. Of the 132 datasets available via DataFinder, six of the seven regionally-endorsed datasets are consistently among the top ten datasets downloaded. (Not sure about the seventh regional solution - Land Cover - because metrics are not available. See PM #5.) This trend continued, not withstanding the unavailability of parcel data for much of 2004.



Top 10 Downloaded Datasets by Month

Datasets in **bold** are MetroGIS-Endorsed Regional Datasets. When downloads are from both the FTP site and the Café, a breakdown is provided. Otherwise, downloads are FTP-based.

2004

September **TLG Street Centerlines - 44 [39 FTP, 5 Café]**

Census Demographic Profiles (formerly Socioec. Data) - 27

County & Municipal Boundaries - 25 [22 FTP, 3 Café]

Generalized Land Use 2000 - 20 [19 FTP, 1 Café]

Functional Class Roads - 16 [12 FTP, 4 Café]

Planned Land Use - 15

ZIP Code Boundaries - 14

Census 2000 - 11

Major Highways - 11 [10 FTP, 1 Café]

County & Municipal Boundaries - 2000 (static) - 8

August **County & Municipal Boundaries - 28 [24 FTP, 4 Café]**

ZIP Code Boundaries - 24 [22 FTP, 2 Café]

Generalized Land Use 2000 - 17 [15 FTP, 2 Café]

TLG Street Centerlines - 14 [10 FTP, 4 Café]

Census Demographic Profiles (formerly Socioec. Data) - 12

Major Highways - 12 [10 FTP, 2 Café]

Planned Land Use - 11

Regionally Significant Ecological Areas - 8

Functional Class Roads - 8

Water Features from 2000 Land Use Data - 8 [7 FTP, 1 Café]

July **County & Municipal Boundaries - 31 [28 FTP, 3 Café]**

ZIP Code Boundaries - 21

Census Demographic Profiles (formerly Socioec. Data) - 17

TLG Street Centerlines - 12 [10 FTP, 2 Café]

Planned Land Use - 12 (11 FTP, 1 Café)

Generalized Land Use 2000 - 12 [11 FTP, 1 Café]

County & Municipal Boundaries - 2000 (static) - 9

Functional Class Roads - 9 [7 FTP, 2 Café]

Park and Ride Locations - 8

Regional Trails - 8

June **County & Municipal Boundaries - 29 [28 FTP, 1 Café]**

ZIP Code Boundaries - 24

Census Demographic Profiles (formerly Socioec. Data) - 17

Ramsey County Soils - 17

Generalized Land Use 2000 - 14 [12 FTP, 2 Café]

Census 2000 - 10

Transportation Analysis Zones 2000 - 9

Washington County Soils - 9

TLG Street Centerlines - 7 [5 FTP, 2 Café]

Planned Land Use - 7

May **County & Municipal Boundaries - 54 [49 FTP, 5 Café]**

Planned Land Use - 39 [39 FTP, 1 Café]

Census Demographic Profiles (formerly Socioec. Data) - 24

ZIP Code Boundaries - 20

Generalized Land Use 2000 - 17 [16 FTP, 1 Café]

County & Municipal Boundaries - 2000 (static) - 15 [13 FTP, 2 Café]

Regional Parks - 14 [13 FTP, 1 Café]

Major Highways - 14 [10 FTP, 4 Café]

Washington County Soils - 11

Regional Trails - 12

April **Census Demographic Profiles** (formerly Socioec. Data) - 74

Planned Land Use - 59 [52 FTP, 7 Café]

County & Municipal Boundaries - 52 [44 FTP, 8 Café]

Census 2000 - 40 [26 FTP, 14 Café]

Generalized Land Use 2000 - 35 [24 FTP, 11 Café]

Regional Parks - 28 [20 FTP, 8 Café]

Major Highways - 26 [19 FTP, 7 Café]

Regional Trails - 22 [18 FTP, 4 Café]

County & Municipal Boundaries - 2000 (static) - 22 [16 FTP, 6 Café]

ZIP Code Boundaries - 21 [19 FTP, 2 Café]

March Census Demographic Profiles (formerly Socioec. Data) - 120
County & Municipal Boundaries - 46 [40 FTP, 6 Café]
Planned Land Use - 34
Major Highways - 30 [22 FTP, 8 Café]
ZIP Code Boundaries - 28
Generalized Land Use 2000 - 23
Functional Class Roads - 22 [14 FTP, 8 Café]
Census 2000 - 21 [19 FTP, 2 Café]
TLG Street Centerlines - 20 [18 FTP, 2 Café]
Comprehensive Plan Composite - 17

January County & Municipal Boundaries - 45 [42 FTP, 3 Café]
Parcels - 45 [35 FTP, 10 Café]
Socioeconomic Data - 41
Planned Land Use - 29
TLG Street Centerlines - 29 [24 FTP, 5 Café]
ZIP Code Boundaries - 26
Generalized Land Use 2000 - 17 [16 FTP, 1 Café]
Functional Class Roads - 16
Major Highways - 15
Census 2000 - 14 [12 FTP, 2 Café]

November Socioeconomic Data - 41
Parcels - 37 [29 FTP, 8 Café]
TLG Street Centerlines - 35 [26 FTP, 9 Café]
County & Municipal Boundaries - 34 [32 FTP, 2 Café]
ZIP Code Boundaries - 26
County & Municipal Boundaries - 2000 (static) - 24 [19 FTP, 5 Café]
Generalized Land Use 2000 - 20 [17 FTP, 3 Café]
Census 2000 - 17 [14 FTP, 3 Café]
Census 2000 Population Tables - 15
Planned Land Use - 14

February County & Municipal Boundaries - 60 [54 FTP, 6 Café]
Socioeconomic Data - 42
Major Highways - 38 [29 FTP, 9 Café]
ZIP Code Boundaries - 38
Census 2000 - 36 [34 FTP, 2 Café]
Generalized Land Use 2000 - 35 [27 FTP, 8 Café]
Parcels - 33 [28 FTP, 5 Café]
Planned Land Use - 31
Regional Parks - 24
Comprehensive Plan Composite - 22

2003

December TLG Street Centerlines - 44 [41 FTP, 3 Café]
County & Municipal Boundaries - 34 [29 FTP, 5 Café]
Parcels - 32 [28 FTP, 4 Café]
Socioeconomic Data - 28
Planned Land Use - 19
ZIP Code Boundaries - 16
Comprehensive Plan Composite - 13
Functional Class Roads - 13 [9 FTP, 4 Café]
Census 2000 - 12 [8 FTP, 4 Café]
Major Highways - 12 [9 FTP, 3 Café]

October Parcels - 56 [39 FTP, 17 Café]
County & Municipal Boundaries - 46 [40 FTP, 6 Café]
Socioeconomic Data - 36
Major Highways - 25 [17 FTP, 8 Café]
County & Municipal Boundaries - 2000 (static) - 24 [22 FTP, 2 Café]
ZIP Code Boundaries - 22
Functional Class Roads - 21 [14 FTP, 7 Café]
Census 2000 - 20
Planned Land Use - 18
Satellite Estimated Lake Water Clarity - 18

Performance Measure 3: Sectors / Stakeholders Groups (Data Discovery and Access)

A total of 7,608 download events were recorded during the 2004 reporting period. The requester could be identified for 6,738, or 88.6 percent, of these events. The remaining 870 events are not currently factored into this analysis because there is no known method to determine the geographic location of the requester. For the past two years, MetroGIS has worked with a web tracking vendor, Quova, to gather information about the geographic location and type of users making use of MetroGIS DataFinder. Quova's methodology has been applied only to the anonymous FTP downloads, which in 2004 comprised approximately 6,093 downloads. Of these events, 4,003, or 65.7 percent, were attributed to entities that serve the greater Twin Cities Metropolitan Area. In addition to the 4003 FTP events, another 645 download events that were password protected (including Café and password protected FTP) were also initiated by government and academic interests that directly serve the seven county Metropolitan Area, bringing the total of Metro Area download events to 4,648, or 69.0 percent of all downloads where the requester was identifiable.

The original 2003 analysis revealed 72 percent of the users were serving the greater Twin Cities area. Upon analysis of the reporting software, a flaw in the programming was discovered whereby events were being double counted. The actual percentage in 2003 was 49.4 for an increase of 19.6 percent in 2004. The 2004 percentage would likely have been higher had parcel data been available for downloading. The reason for this large increase is not evident, other than outreach efforts that resulted in an increase in use among local users.

The entities with the most anonymous FTP downloading activity during the current reporting period are generally characterized as:

- Academic institutions of higher learning: 1,108 downloads recorded, up 42 percent from 779 in 2003.
- State, regional, and local government: 426 distinguishable downloads, up 7.0 percent from 398 in 2003
- Local Engineering/Planning firms - doubled from 2 to 4 within top 25 users - accounted for 247 downloads, up from 236 or 5.5 percent. It is assumed that the majority of this activity was on behalf of the area's government units.

Dakota County and Hennepin County continue to be listed among the top 25 download recipients. They accounted for 205 dataset downloads during the 204 reporting period, up from 79 in the prior year - an increase of 159percent. From a national perspective, downloads by interests in the Unites States also increased 14 percent from 5,138 to 5,860. A map (Appendix A), prepared by MetroGIS staff from location data provided by Quova, is attached that shows the locations of DataFinder users throughout the world.

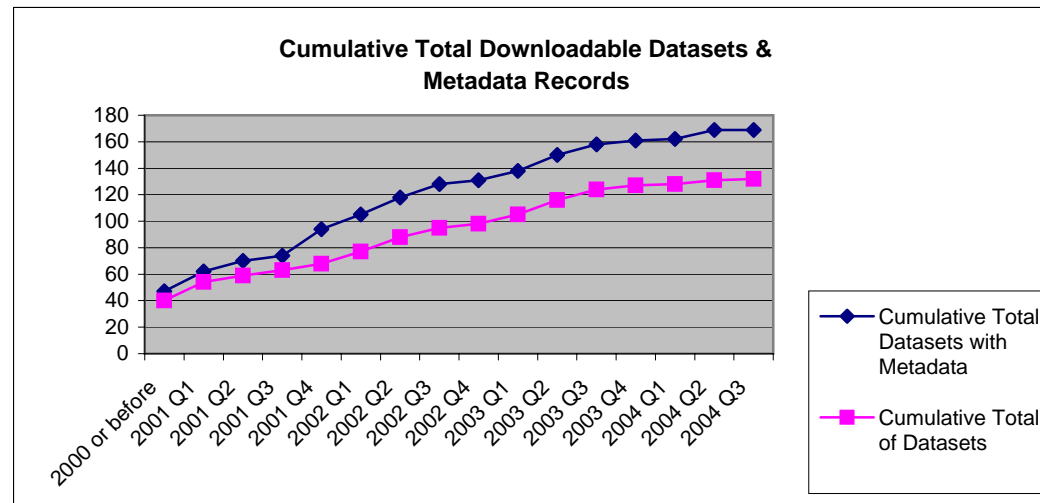
In addition to the user being able to download data from DataFinder, they can also use these datasets in desktop GIS software via a map service. Currently only ArcIMS map services are available, but it is desired to offer OGC-compliant web map services (WMS) in the future. Thus far, the use of map services is not being measured. Since the use of map services is in its infancy and is expected to grow markedly, MetroGIS should investigate ways to measure use of map services, in addition to physical data downloading, as a means to meet data needs.

MetroGIS Performance Measure 4: Metadata and Downloadable Datasets on DataFinder

Quarter	Datasets with Metadata Added	Cumulative Total Datasets with Metadata	Quarter	Directly Downloadable Datasets Added	Cumulative Total of Datasets
2000 or before	47	47	2000 or before	40	40
2001 Q1	15	62	2001 Q1	14	54
2001 Q2	8	70	2001 Q2	5	59
2001 Q3	4	74	2001 Q3	4	63
2001 Q4	20	94	2001 Q4	5	68
2002 Q1	11	105	2002 Q1	9	77
2002 Q2	13	118	2002 Q2	11	88
2002 Q3	10	128	2002 Q3	7	95
2002 Q4	3	131	2002 Q4	3	98
2003 Q1	7	138	2003 Q1	7	105
2003 Q2	12	150	2003 Q2	11	116
2003 Q3	8	158	2003 Q3	8	124
2003 Q4	3	161	2003 Q4	3	127
2004 Q1	1	162	2004 Q1	1	128
2004 Q2	7	169	2004 Q2	3	131
2004 Q3	0	169	2004 Q3	1	132
Total	169		Total	132	

What do the data say?

The number of datasets documented on DataFinder continues to increase. This documentation is termed "metadata". 169 metadata records are now viewable on DataFinder, more than a four-fold increase since 2000. Adding more metadata and datasets to DataFinder means that the "one-stop shop" concept will continue to become more valuable to data users.



Performance Measure 5: Satisfaction of Custodian Responsibilities (Data Currency)

Percent of regionally-endorsed solutions updated pursuant to negotiated custodian responsibilities

Regionally-Endorsed Dataset	Custodian Update Responsibilities	Updated pursuant to custodian responsibilities?	Comments
County and MCD Boundaries	"When significant changes are made" (at least annually)	YES	
Census (1990 and 2000)	Every 10 years	YES	
Census Demographic Profiles	No specific update responsibilities specified. Every 10 years unless the source data produced more frequently	YES	
Land Cover	No specific update responsibilities specified. Prior to 2004, this dataset was downloadable only via DataFinder. In 2004, it became downloadable from DNR and LMIC. MetroGIS no longer monitors download metrics because the dataset includes areas beyond the seven county Metro Area and there is currently no way to distinguish between metro and non-metro data users.	YES	The extent of coverage is now up to 67 percent of the seven county region. During 2004, major revisions to the system were implemented: changing how attributes are stored, re-working the manual, and improved the ArcView tool in response to feedback received from the users.
Parcels	Quarterly (except from March to Dec when the Metropolitan Council did not have access due to lack of a data sharing agreement)	YES	Implemented Version 2.1. Increased the number of attributes from 25 to 55. Also added a parcel points dataset.
Planned Land Use	Quarterly (goal - may not be practical)	YES	
Street Centerlines	Quarterly	YES	

As of 9/30/04: 7 of 7 = 100%

Performance Measure 6: Manually-processed vs. self-service requests for regionally-endorsed datasets (Producer Benefits)

Shortly following adoption of MetroGIS's initial Performance Measures Plan, MetroGIS staff began working with county data producers to identify methods for measuring staff time savings and efficiencies realized as a result of opportunities arising from MetroGIS activities and initiatives. While it is agreed that quantifying manually-processed vs. self-service requests for regionally-endorsed datasets would be a useful indicator of the value of data distribution and access tools developed through MetroGIS, the time commitment required to collect and analyze this data was found to be unjustified at this time.

Some counties have made efforts to quantify savings, and this information has been useful in advancing the discussion about how to move forward on this measure. This topic has also been identified as a primary discussion topic for a proposed retreat of the Coordinating Committee prior to launching a process to update the 2003-2005 Business Plan. The assumption going into the retreat is that MetroGIS will continue to work with county and other data producers to find cost-effective ways to quantify benefits to data producers in relation to this measure.

Performance Measure 7: Hours of staff time saved in data distribution (Producer Benefits)

As with Performance Measure #6, MetroGIS is working with county and other data producers to find efficient and reliable methods for quantifying producer benefits such as staff time savings for data distribution. Each county functions differently, with different departments working on producing, maintaining, and distributing data. Measuring staff time savings from county to county, in a reliable manner, can be quite complex.

Even with the challenges to quantifying efficiencies gained through the use of MetroGIS processes and tools, examples of these gains do exist. For example, in 2003, Washington County began using the DataFinder Web server to host an ArcIMS application. This saved significant hardware and software startup costs, as well as monthly Internet Service Provider (ISP) expenses.

Also, as noted in the discussion for Performance Measure #6, this cost-benefit topic has been identified as a primary discussion topic for a proposed retreat of the Coordinating Committee prior to launching a process to update the 2003-2005 Business Plan. The assumption going into the retreat is that MetroGIS will continue to work with county and other data producers to find cost-effective ways to quantify benefits to data producers in relation to staff time-savings for data distribution.

Performance Measure 8: Listing of Metadata on DataFinder (Producer Benefits)

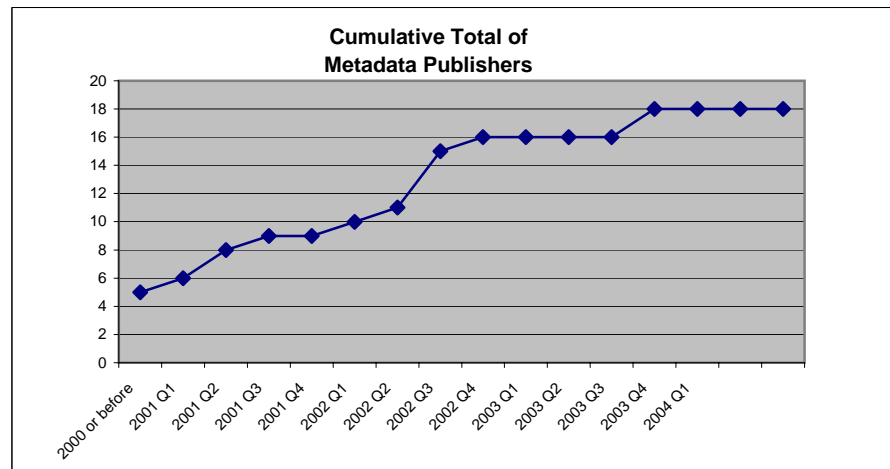
Entities using DataFinder to list metadata records.

	2000 or before	2001 Q1	2001 Q2	2001 Q3	2001 Q4	2002 Q1	2002 Q2	2002 Q3	2002 Q4	2003 Q1	2003 Q2	2003 Q3	2003 Q4	2004 Q1	2004 Q2	2004 Q3	Total Metadata Records
Anoka County							1										1
Carver County							1										1
Dakota County	1						1								4		6
Hennepin County							1										1
Ramsey County		1			15											-1	15
Scott County			3														3
Washington County	2						5										7
MetroGIS - for all Counties	3					1									2		6
Metropolitan 911 Board													2				2
Metropolitan Council	35	14	4	2	5	9	3	3	3	7	11	8		1		1	106
MN Department of Economic Security			1														1
MN Department of Natural Resources							1				1						2
MN Department of Transportation						1											1
MN Legislative Coordinating Commission	1																1
St. Paul, City of								3									3
The Lawrence Group	5																5
US Census Bureau				2				4									6
US Department of Agriculture													1		1		2
Total	47	15	8	4	20	11	13	10	3	7	12	8	3	1	7	0	169

	2000 or before	2001 Q1	2001 Q2	2001 Q3	2001 Q4	2002 Q1	2002 Q2	2002 Q3	2002 Q4	2003 Q1	2003 Q2	2003 Q3	2003 Q4	2004 Q1	2004 Q2	2004 Q3
Total Metadata Publishers	5	6	8	9	9	10	11	15	16	16	16	16	16	18	18	18

What do the data say?

The number of metadata records available for viewing through DataFinder grew by 8 in 2004 - 4 from Dakota County, 2 from MetroGIS (census data related), and 1 each from the Metropolitan Council and the Minnesota Department of Agriculture. Outreach efforts should continue to focus on adding new metadata publishers in 2005 to increase the "one-stop shopping" value of DataFinder.



Performance Measure 9: Use of DataFinder to Distribute Data (Producer Benefits)

Entities distributing data through DataFinder:

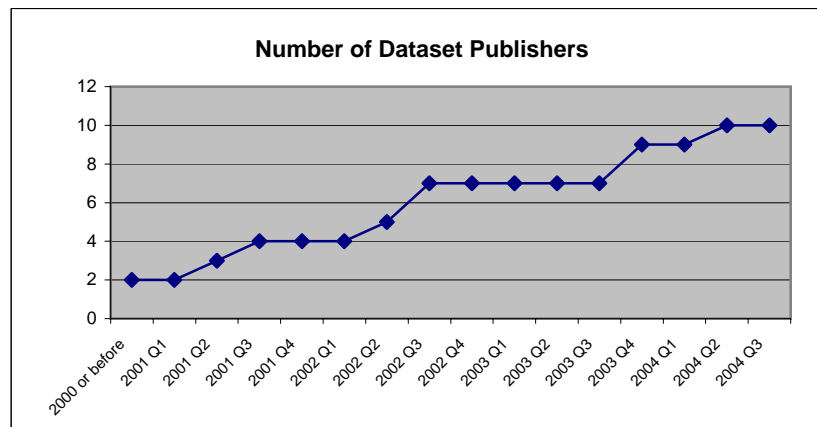
Publisher	2000 or before	2001 Q1	2001 Q2	2001 Q3	2001 Q4	2002 Q1	2002 Q2	2002 Q3	2002 Q4	2003 Q1	2003 Q2	2003 Q3	2003 Q4	2004 Q1	2004 Q2	2004 Q3	Total for Organization
Washington County							6										6
Dakota County															1		1
MetroGIS - for all counties	3						1	1							1		6
Metropolitan 911 Board													2				2
Metropolitan Council	32	14	4	2	5	9	3	2	3	7	11	8		1		1	102
MN Department of Economic Security			1														1
MN Department of Natural Resources							1										1
US Census Bureau				2				4									6
US Dept. of Agriculture													1		1		2
The Lawrence Group	5																5
Totals Datasets by Quarter	40	14	5	4	5	9	11	7	3	7	11	8	3	1	3		132

Number of Organizations using DataFinder as a Distribution Mechanism

Date	2000 or before	2001 Q1	2001 Q2	2001 Q3	2001 Q4	2002 Q1	2002 Q2	2002 Q3	2002 Q4	2003 Q1	2003 Q2	2003 Q3	2003 Q4	2004 Q1	2004 Q2	2004 Q3
Number of Publishers	2	2	3	4	4	4	5	7	7	7	7	7	9	9	10	10

What do the data say?

There are 10 entities currently distributing (publishing) data through DataFinder, and the Metropolitan Council is by far the largest user of DataFinder to distribute data. Three new entities started distributing (publishing) data via DataFinder during the 2004 reporting period. They were Dakota County, the Metropolitan 911 Board and the US Department of Agriculture.



Performance Measure 10: Testimonials on How MetroGIS Supports Decision-Making

Testimonials describing benefits associated with MetroGIS objectives add understanding beyond quantitative measure of how data users and producers gain from participation in MetroGIS. To date, testimonials have been received from regional agencies, schools, watershed districts, and most recently from an engineering consulting firm that provides services to local government.

For testimonials received to date, go to <http://www.metrogis.org/benefits/testimonials/index.shtml>. They include:

Metropolitan 911 Board

(Pending December 2004)

SRF Consulting Group, Inc.

October 2003

Metropolitan Airports Commission

December 17, 2002

Riley-Purgatory-Bluff Creek Watershed District

October 10, 2002

Metropolitan Council

April 2002

Metropolitan Mosquito Control District

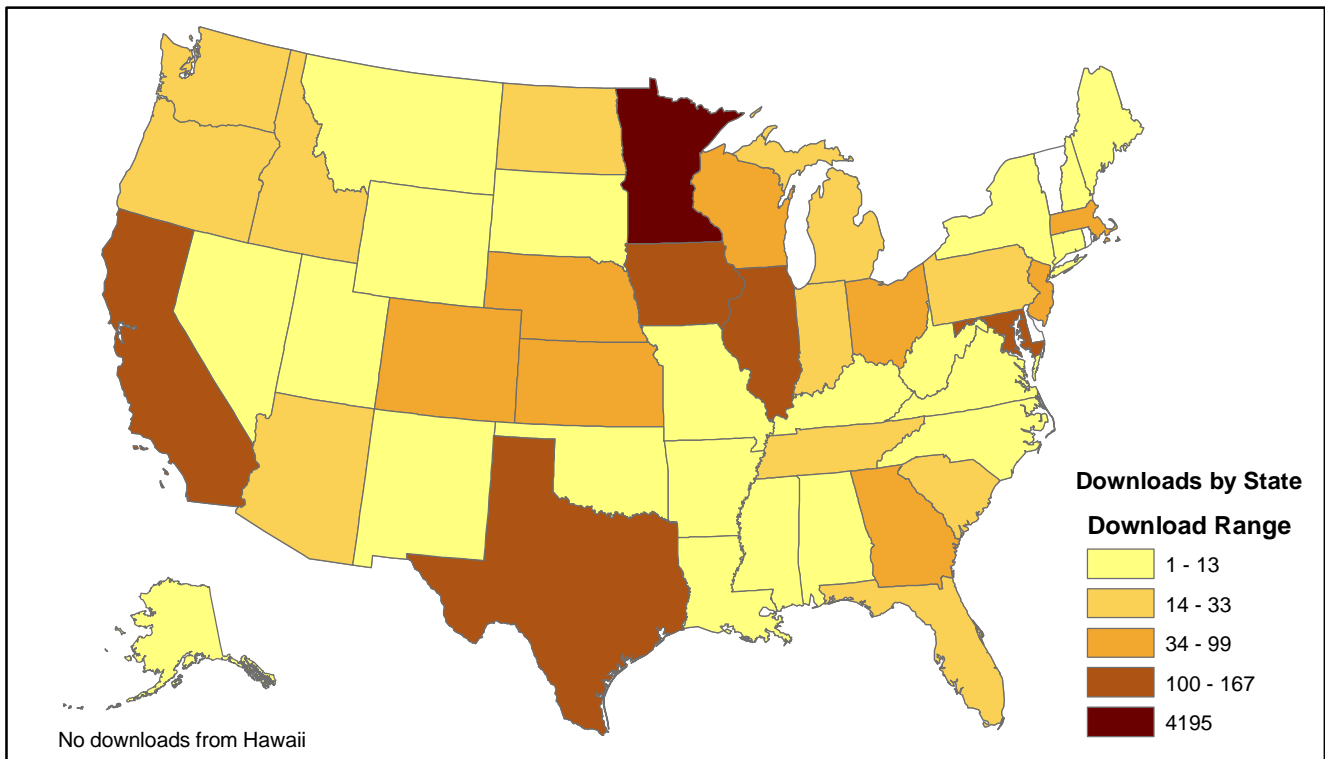
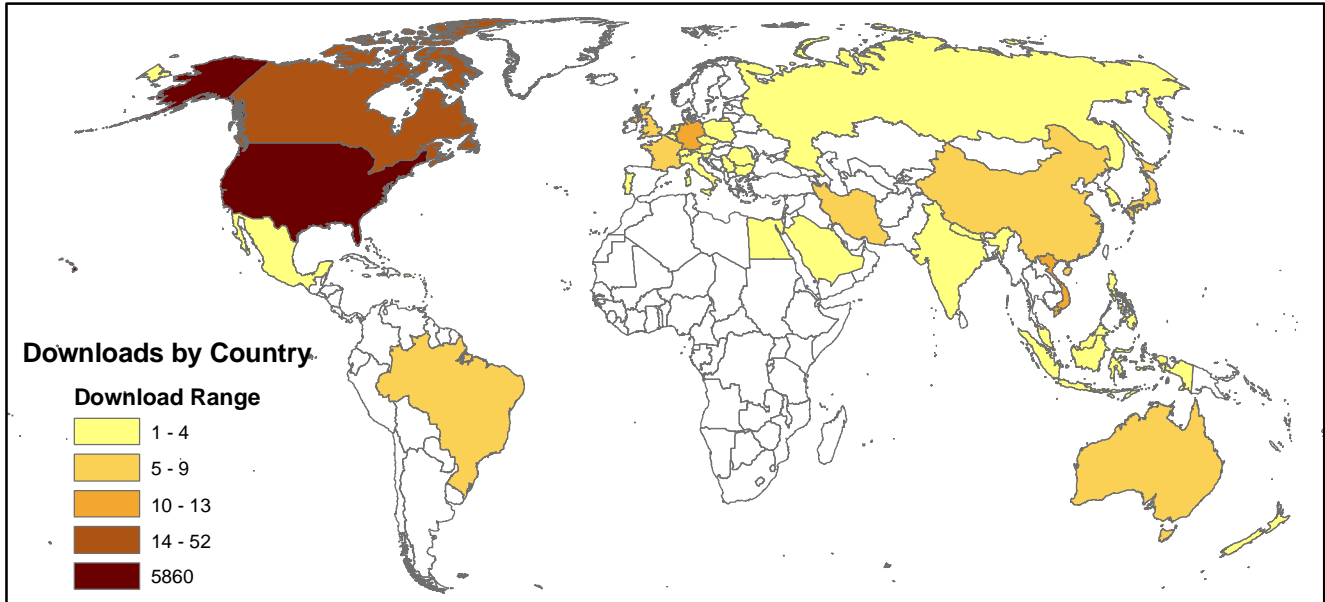
April 2002

TIES (Metro Area School District Consortium)

April 2002

Locations of DataFinder users downloading data via FTP

October 1st, 2003 - September 30, 2004



Top 10 Countries	
United States	5,860
Canada	52
Japan	27
Germany	14
Viet Nam	12
United Kingdom	11
Italy	11
Brazil	9
Australia	7
France	6

Top 10 States	
Minnesota	4,195
Illinois	167
Texas	153
Iowa	138
California	132
Wisconsin	112
Massachusetts	76
Missouri	63
Colorado	63
Nebraska	55

About these maps

FTP download locations were identified by IP address by Quova, Inc. 6079 IP addresses were provided to Quova each one representing one download (so many duplicate IPs were included). 98.9% of the IPs were identifiable by location. The latitude and longitude were also provided for each IP address by Quova. The locations are accurate within 50 miles. Points were made from the lat/lon and spatially joined to countries and states to create these maps.

Appendix B

Socioeconomic Resources Page > Usage Metrics*

*page became operational 4/01/04

Summary Statistics

	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Total	Ave. per month
Total Visits where table was viewed on main page	61	34	9	19	19	13	155	26
Visits where data source page(s) were viewed	52	26	8	14	14	10	124	21

Data Source Page Statistics

Detailed Data Source Page	Visits (through 9/30/04)
County Community Services Departments	4
Hunger Solutions Minnesota	2
Independent School Districts	9
MetroGIS	13
Metropolitan Council	12
MN Department of Education	20
MN Department of Employment and Economic Development	22
MN Department of Health	6
MN Department of Human Services	5
MN Department of Public Safety	21
MN Department of Revenue	4
MN Land Management Information Center	7
MN State Demographic Center	7
REALTOR Public Policy Partnership	12
Census Product: Census Transportation Planning Package	13
Census Product: County Business Patterns	4
Census Product: County to County (and MCD to MCD) Worker Flows	5
Census Product: Current Population Survey	3
Census Product: Economic Census	4
Census Product: US Census of Population and Housing	36
Total	209

SUPPLEMENTAL MATERIAL

Performance Measure 3: Sectors / Stakeholders Groups (Data Discovery and Access)

Data Download Activity by Interests Serving the Minneapolis-St. Paul Metropolitan Region

Bold= hard-coded number

		C	D	E	F	G	H	I	J	K	L	M	N
					[C - D]				[H - I]		[C+ E +I]	[D + E + I]	[C + E + H]
		Anonymous FTP Downloads	Anonymous FTP (METRO) (Count by Quova)	Password-Protected FTP site (ALL METRO)	Anonymous FTP (NON-METRO)		ALL Downloads Via Café	Café Downloads (METRO)	Unidentifiable Café Downloads		Total Downloads with Identifiable IP	Interests Serving the Greater Twin Cities Metropolitan Area (Total)	Total Downloads (Count by MetroGIS)
2003	Total	5,329	2,189	338	3,140		1,374	543	831		6,210	3,070	7,041
	% of total						19.5%				88.2%	49.4%	
2004	Total	6,093	4,003	392	2,090		1,123	253	870		6,738	4,648	7,608
	% of total		65.7%				14.8%				88.6%	69.0%	
	% change from 2003	14.3%	82.9%	16.0%	-33.4%		-18.3%	-53.4%	4.7%		8.5%	51.4%	8.1%

(of identifiable downloads)