

Facilitating the sharing and coordinated use of spatially referenced data in Delaware

**Meeting Summary**  
**Quarterly DGDC/SMAC Meeting**  
**9:00 a.m.,**  
**August 31, 2005**  
**Kent County Administrative Complex**  
**555 Bay Rd.**  
**Dover, DE**

**Attendance List:**

Mike Mahaffie .....	State Planning Coord.
Sandy Schenck.....	DGS
Miriam Pomilio.....	DGS
Brad Strittmatter.....	DGS
Mike Ward.....	Kent County
Sabrina Fite .....	Kent County
Paul Sample .....	Legislative Council
Kevin Hickman.....	Dover/Kent MPO
Mark Nowak.....	City of Dover
Chris Sommers.....	DC Group
Deborah Sullivan .....	DNREC
Mike Krumrine.....	DNREC
Jennifer Volk.....	DNREC
Jay Gerner.....	DNREC
Jocelyn Lutte.....	Artesian Water
Skip Hurst.....	Artesian Water
Cheryl Alt.....	URS Diamond
Matt Layton.....	URS Diamond
Brian Smith.....	GeoDecisions
Don Burris.....	DeIDOT
Mollie Raley.....	DeIDOT
Darin Dell.....	DeIDOT
Peggy Bacon.....	DeIDOT
Mike del Tufo.....	DeIDOT
Brianne Press.....	URS
Lillian Wang.....	DGS
Barbara Gladders.....	Div. of Public Health
George Yocher.....	Div. of Public Health
Seth Van Aken.....	ESRI
David Beattie.....	City of Wilmington
Matt Laick.....	Sussex Co.
John Laznik.....	UD/CADSR
Dick Sacher.....	UD/RDMS
Howard Scholl.....	Dept. of Elections/NCC
Rick Sherwood.....	DEMA
Mary Harper.....	DHCA
Jim Hoff.....	SAIC/DAFB
Jeff Lee.....	TetraTech
Jeff Bergstrom.....	City of New Castle
David Vodili.....	Urban Engineers, Inc.
Tom Wuerzer.....	Town of Smyrna
Debbie Pfeil.....	Town of Georgetown
Bill Swiatek.....	WILMAPCO
Sandy Janowski.....	New Castle Co.
Roger Barlow.....	USGS
Dana Probert.....	Cadapult
Otto Weiberth.....	Autodesk
Curtis Egli.....	Autodesk
Greg Brivic.....	US Census Bureau

**Welcome and Introductions**

Mike Mahaffie began the meeting at approximately 9:10 a.m. with a round of introductions.

**Information Updates**

*DeIDOT Job Opening*

Don Burris gave a brief outline of a job opening for a CADD/GIS manager at DeIDOT. The posting closes on 9/2/05.

*2006 GIS Conference*

Mike Mahaffie and other members of the Conference Planning Committee gave a brief update on planning activities. The conference is expected to be held in June, at Clayton Hall on the University of Delaware campus in Newark. The conference may be 2 days again this year. Pre-Conference workshops will be held as well as post-conference activities. More from the committee will be available at the next DGDC meeting.

*Roads/Addressing*

A group led by DeIDOT and Homeland Security is working on a proposal to use TeleAtlas – a private sector company – as data coordinator to aggregate addressing, roads, and geocoding assts from local and state agencies into one statewide framework layer. The need for addressing and geocoding for 911 centers is a driving force. TeleAtlas has submitted a proposal that DeIDOT is now reviewing.

*Elevation Data*

Roger Barlow gave an update on the USGS project to process LIDAR data for portions of Delaware into high-

resolution elevation data. The long-term goal is a data set of contour lines showing 2-foot elevation breaks, statewide. He reported that data for eastern Sussex County has been processed and that five people are working on processing data for western Sussex County. Estimates have been acquired for the completion of the remainder of the state. This will cost about \$370,000. Anyone who has funds that can be put towards this project is asked to contact Sandy Schenck, at DGS, or Mike Mahaffie.

#### *GIS Coordination Legislation*

Mike Mahaffie gave a brief update on the legislation that would formalize the DGDC and create a GIS Coordination Council. The legislation has passed the state Senate and is awaiting action in the state House. The Legislature is to return to session in January.

#### **Update and Discussion: DataMIL**

Miriam Pomilio gave an update of recent upgrades to the DataMIL website and outlined plans for future work. (Attached)

She noted that aerial photography from 1954 is now being georeferenced and will be added to the DataMIL IMS offerings. This is part of an effort that will eventually see aerial photography from 1961, 1968, 1977, and 1989 added to those data sets already offered.

Miriam led a discussion on different ideas for how to rebuild the DataMIL Discussion Forums used to facilitate discussions about needed updates and edits to Framework data sets. There was general support for some form of discussion system to let users both point out errors and learn of error fixes.

Miriam proposed a new "Intelligent Contact Form" which would allow users to provide targeted information about errors. This form could be used to populate a database which, in turn, could be used to publish regular reports, an FAQ page, or similar communications. There was general support for this idea.

Mike Mahaffie said he was very pleased with the management of DataMIL at DGS. He added that the move to DTI with management at DGS was a rough process, but that things are improving steadily and continue to get better.

#### **Roundtable: Projects and Needs**

This portion of the meeting is a chance for all members to highlight recent or planned work, ask questions, or highlight any data needs that they may have.

Sandy Schenck reported that **DGS** is working with the Division of Historic and Cultural Affairs on transferring the Boundary Monuments data set to the Division. He also reminded everyone that the e-mail address [datamil-dgs@udel.edu](mailto:datamil-dgs@udel.edu) will reach the whole DGS DataMIL team -- Miriam, Brad Stritmatter and Sandy Schenck.

Cheryl Alt noted that when using DATAMIL IMS services to use the 2002 orthophotography, she finds that DataMIL reloads slowly. She asked if there is a way to

“map-cache” the orthos. The DataMIL team answered that they are looking into that issue.

Brianne Press reported that she is still very busy providing GIS services at **URS**. She noted that she is the only GIS person and that she is now getting into asset management and is working with DeIDOT on various asset inventory projects, including light poles and stormwater management ponds.

Seth Van Aken of **ESRI** said that the company was very pleased with the recent User Conference. He said that ArcMAP version 9.2 will be released in the spring of 2006 and that there will be a series of roll-out events. Seth noted that he hopes to hold one of those events in Dover. He said there will be a variety of improvements in version 9.2.

Don Burris, of **DeIDOT Information Technologies**, explained that the current budget crunch at DeIDOT has affected GIS work, but that he will continue to push forward on the TeleAtlas project. He added that he is working closely on that project and others with the County governments. He said he plans to add the data developed by URS to the DeIDOT INFORM system and that he will make a presentation on that system at the Delaware Technology Conference, in October.

Dick Sacher, of the UD **Research and Data Management Services** office, said that requests for access to the DataMIL source code have been coming in from the start of the project. He reported that he is now working on a way to release the code, using some form of open-use licensing. The first to receive this Open Source version of DataMIL will probably be the state of Oregon’s GIS coordination council.

Kevin Hickman, of the **Dover/Kent MPO**, reported that he has been working on new functional classifications for Kent County roads. He said he hopes to have something to publish in a few months. He is also working on a point data set of traffic-count locations.

Mark Nowak, of the **City of Dover**, has been working from scratch for the last five months since he came on board. He reported that there has been progress. In August, he started an annexation layer and a development activity layer. He has been working with Kent County staff to update the City parcels.

Roger Barlow, of **USGS**, has been busy with LIDAR elevation data project and hopes to find funding to complete the project for the whole state. He said he will be working on a new agreement with the state on Framework data as part of the Fifty States initiative. He will need to update the agreement and related stewardship agreements. He also urged the state to release the ¼-meter resolution 2002 orthophotography for public use. He also urged the state to work in partnership with Maryland and New Jersey in planning the 2007 orthophotography update.

Jocelyn Lutte, of **Artesian Water**, reported that she is still working on the company-wide conversion to GIS.

John Laznik, of UD's **Center for Applied Demography and Survey Research**, reported that he has been working on projects for the Delaware Department of Education to map school feeder patterns and daycare center locations.

Cheryl Duffy is now working for **URS Diamond**, a separate portion of URS from that that Brienne Press is with. She explained that URS Diamond works solely with DuPont and that she has started working on expanding GIS use and resources throughout the Company. She expects that to be a big job.

Mollie Raley, of **DeIDOT Planning**, reported that her Park and Ride study has lost its consultant due to the budget crunch at DeIDOT. She is still working, however, to find appropriate sites for Park and Ride lots.

Peggy Bacon, of the **DeIDOT Survey Group** is still working on integrating survey data into GIS.

Dave Beattie reported that the **City of Wilmington** has surveyed all of its streets for a long-term repaving plan. The city is also working with URS on a data set of storm inlets and a hydrologic model of the city's storm sewer system.

Jeff Bergstrom reported that the **City of New Castle** is still working on a permit management system. They use a combination of Autodesk CADD and ESRI GIS resources. Their goal is a paperless building department. They have also done a street tree survey and have mapped electric poles and water lines.

Paul Sample of **Legislative Council** explained that he continues to monitor GIS work to see where it can fit in with legislative work. He noted that projects such as Brownfields redevelopment and nutrient management could benefit from GIS resources.

Mary Harper, of the **Division of Historical and Cultural Affairs** explained that she is working on a business case with DTI to develop an IMS system to deploy the Division's GIS data. They are also working with GeoDecisions to look at all data and data management.

Sandy Janowski, of **New Castle County**, reported that a new rental code for the County has led them to focus on improving the county's address point file, with a focus on apartment buildings. They have also contracted with the University of Delaware to develop a building-footprint layer and are gearing up for work on the update of the County Comprehensive Plan.

Mike Krumrine reported that he is now at the **DNREC Division of Parks and Recreation** and has begun to update trail maps and real estate and survey data for parkland boundaries.

Jennifer Volk, of **DNREC's Watershed Assessment Section**, is working with a variety of consulting firms on water quality modeling. She asked about elevation data that can

be used for wetlands mapping. Roger Barlow noted that the elevation data project may help, as well as a NOAA coastline mapping project. Mike Mahaffie noted that the digital soils data project that the USDA is spearheading will also help.

Howard Scholl, of the **Department of Elections for New Castle County**, explained that his department will need census data to be better aligned with local data. He also has concerns about school district boundaries. Don Berry will help make sure that he has the most recent school district boundaries from the Department of Education.

Debbie Sullivan, of the **DNREC Information Technology** section, is working on a process to help DNREC field staff update the NHD layer.

Lillian Wang, of **DGS**, reported that staff there are working on a data set of the surficial geology of the state.

Rick Sherwood, of **DEMA**, is updating health-care and day-care facility data for use in emergency planning.

Bill Swiatek, who has recently joined **WILMAPCO**, is working on population projections by traffic planning zones. He is also working on data sets in support of environment justice efforts and to help with comprehensive planning.

Susan White-Hanson has recently joined the **University of Delaware's Research and Education Center**, in Georgetown. She says she is trying to learn more about GIS use in Delaware to see how her agency can make better use of GIS as well.

Jay Gerner, of **DNREC**, is using data on land use changes to help create pollution control strategies.

Jeff Lee, of **Tetrattech**, is working with EPA-related data and exploring ArcIMS development.

Mike Ward, of **Kent County**, has been working on a county-wide subdivision coverage and tying parcel data to assessment data and building permit data. They are using this data to look at undeveloped lots and growth patterns. The county is also working on address point data for 911 purposes and working with the Department of Education on school district boundaries.

Sabrina Fite, who recently joined the **Kent County** mapping office, is looking into making a switch from CAD to GIS for the county assessment staff.

Don Berry, of the **Department of Education**, gave more details on plans for the data being developed by the University of Delaware. He plans to use the feeder patterns and day-care center data for planning purposes. He also hopes to add a geocoder to the IMS site for school data that he has recently deployed.

Dana Probert, of **Cadapult**, is working on CAD/GIS integration with local agencies and is working with Tax Ditch managers at DNREC to map Tax Ditch areas.

Chris Sommers, of **DC Group**, is working on Municipal Zoning for some towns in Sussex and doing lots of surface modeling for development projects.

Tom Wuerzer, who recently joined the **Town of Smyrna**, has been very busy cleaning up and organizing GIS data for the town. He has been working on maps for a Comprehensive Plan update for the town.

Debbie Pfiel, of the **Town of Georgetown**, noted that the town has seen a great deal of growth and that she is developing a parcel map with zoning for the town. She also hopes to be able to provide a regular update of development activity in the town.

Mike Mahaffie suggested that, as many municipal governments are now becoming active in GIS use, it might be time to create a working group of municipal GIS staff to share information and support one another.

### **Current Census Bureau Activities in Delaware**

Greg Brivic, of the Census Bureau's Philadelphia Office, gave an overview of recent Census Bureau activities (attached).

The overview included the American Community Survey (ACS), which will eventually provide regular updates of estimated population characteristics now derived every ten years from the long form of the census. Data for 2004 has recently been released for state and larger counties. By the 2010 Census there should be regular updates for smaller geographies.

Dick Sacher asked if the ACS make for more frequent tract boundary changes. Greg noted that there has been some thought about re-doing tracts every five years instead of every ten years but that no decision has yet been made.

Mollie Raley asked if the ACS will have any effect on the Census Transportation Planning Package (CTPP). Greg noted that the ACS will affect the CTPP by providing data annually, instead of every ten years, as in the past. There will be some difference between Census-based and ACS-based CTPP data, but the two products will be comparable.

Greg also outlined some of the planning now under way for the 2010 Census, including on-going improvements to the TIGER data, the most recent version of which was released this summer. Delaware's portion of TIGER is considered partially enhanced in the current version but should be completely updated after 2007.

The Local Update of Census addresses (LUCA) will get under way in 2007 with notification to local governments and an offer of training in ways to review the address

database. There will also be an opportunity for local review of proposals under the Statistical Areas Program.

### **Integrating CAD and GIS**

Otto Weiberth and Curtis Egli, of Autodesk, gave a presentation on (attached) and demonstration of the latest version of Autodesk map. They focused on ways to integrate Cad data into a GIS working environment and demonstrated several aspects of interoperability.



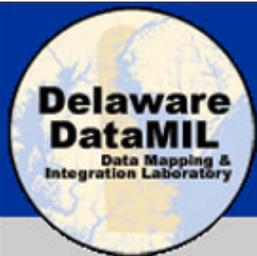
# Delaware DataMIL

Data Mapping & Integration Laboratory

Serving Delaware's Spatial Framework Data

## DataMIL Update

August 31st, 2005



## DataMIL Front End Has A New Look

New graphics



Improved and easier to use site navigation



Quick access to the Map Lab



Updated news section





## Current Work

### Web Interface Initiatives

- Reworking “Create a Map” to function with ArcIMS 9.1.
- Re-establishing the metadata inclusion during extracts of data.
- Re-symbolizing Watersheds at HUC 12 and HUC 8 levels depending upon scale of view.



## Current Work (continued)

### Data Initiatives

- 1954 statewide Aerials are being georectified to be served on DataMIL.
- Working to include School Districts and Election Districts.
- Asking the I-Team to declare the National Hydrography Dataset (NHD) as the DSFD hydro layer.
- Revamping GNIS layer using more current datasets (school names, subdivision names, etc.)



## Long Term Goals

- Rewrite DataMIL to utilize ArcGIS Server technology.
- Make DataMIL cross browser compatible.
- Enable a “My DataMIL” customization to allow users to create their own look and functionality.
- Transfer all data layers into one “Framework Geodatabase”.



## Discussion Point – Forums:

### Original Threaded Forums

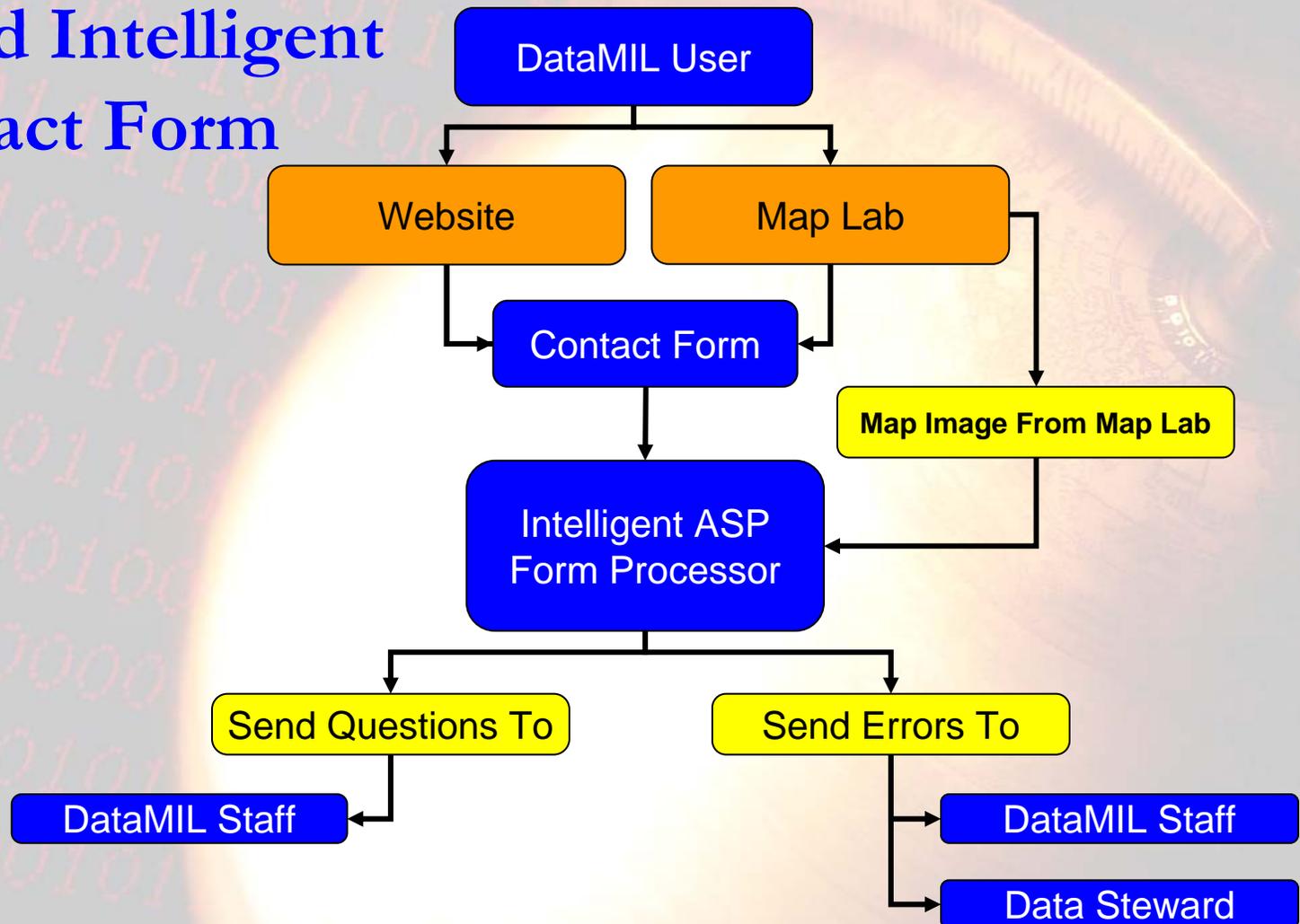
- Computer resource intensive.
- Issues when DataMIL moved to DTI – the forums couldn't run.

### Other Ways to handle Error Reporting & Questions

- Do the users want a threaded discussion to review?
- Post general questions to the FAQ.
- Set up Intelligent Contact Form.



# Proposed Intelligent Contact Form





## Proposed Intelligent Contact Form

**Intelligent Contact Form**

Name:

Email:

Reason for contact:  Question  Error

Send current view from map lab?  yes  no

Data in question:

Question:

**Simple and Easy to Use.**

**Questions answered directly.**

**Errors sent directly to Data Stewards for correction.**



# Delaware DataMIL

Data Mapping & Integration Laboratory

Serving Delaware's Spatial Framework Data

Comments?

Suggestions?

Questions?

# The American Community Survey: An Overview

U.S. Census Bureau  
Greg Brivic  
Philadelphia Regional Office

# What is the American Community Survey?

A large, continuous demographic survey

- Produces annual and multi-year estimates of the characteristics of the population and housing
- Produces *characteristics, not a population count*
- Produces information for small areas including tracts, block groups and population subgroups - updated every year
- Key component of reengineered 2010 census

# Effects of the American Community Survey on the 2010 Census

- Eliminate long-form
- Better knowledge of local areas
- Ongoing contacts with local governments
- Cost savings

# American Community Survey Program Schedule

- **ACS testing and development: 1996-2004**
- **ACS full implementation began in 2005**
- **First ACS data products, 2006; annually updated data products each year thereafter**

# Full Implementation

- Implement a national sample of about 3 million addresses in every county, American Indian and Alaska Native area, and Hawaiian Home Land in the United States, and in Puerto Rico
- Provide profiles every year for communities of 65,000 or more
- Provide 3- to 5-year cumulations for communities of less than 65,000 population

Type of Data	Population Size of Area	Data for the Previous Year Released in the Summer of:							
		2003	2004	2005	2006	2007	2008	2009	2010+
Annual estimates	≥250,000	→							
Annual estimates	≥65,000				→				
3-year averages	≥20,000						→		
5-year averages	Census Tract and Block Group*								→

 Data reflect American Community Survey testing through 2004

\* Census tracts are small, relatively permanent statistical subdivisions of a county averaging about 4,000 inhabitants. Census block groups generally contain between 600 and 3,000 people. The smallest geographic level for which data will be produced is the block group; the Census Bureau will not publish estimates for small numbers of people or areas if there is a probability that an individual can be identified.

# **American Community Survey Funding Update**

- **The President's budget request included \$165 million for full implementation of the ACS in FY '05.**
- **The Omnibus Appropriations Bill included \$146 million for ACS in FY '05.**
- **The President's budget request for FY '06 included \$169.9 million for ACS.**



FactFinder

[Main](#) [Search](#) [Feedback](#) [FAQs](#) [Glossary](#) [Site Map](#) [Help](#)

Your source for population, housing, economic, and geographic data

POPULATION  
FINDER

FACT SHEET

PEOPLE

HOUSING

BUSINESS AND  
GOVERNMENT

ABOUT THE DATA

DATA SETS

MAPS AND  
GEOGRAPHY

REFERENCE SHELF

TOOLS

Address Search...

Enter a [street address](#) to find Census 2000 data

- [Browser Notes](#)
- [Confidentiality](#)
- [Citing FactFinder](#)

### Fast Access to Information



Get a **Fact Sheet** for your community...

city/town,  
county, or zip

state

[or select a state using a map >](#)

For age, education, income, and race, click [People](#).

For home values, ownership, and mortgage, click [Housing](#).

For foreign trade, governments, and housing starts, click [Business and Government](#).

### Getting Detailed Data

To learn about Data Sets, check out [About the Data](#).

Expert user? Go directly to [Data Sets](#).

### What's New

2004 population estimates for sex, race, and Hispanic origin now available. [more >](#)

New York County, N.Y., had the highest payroll per employee among the nation's largest counties, according to 2003 County Business Patterns. [more >](#)

The latest state and county housing unit estimates lists counties with the fastest housing gains. [more >](#)

The Census Bureau releases a report on the characteristics of families with members who have a disability. [more >](#)

[past items >](#)

### Data in American FactFinder

### U.S. Population Clock

13:39 GMT (EST+5) Aug 29, 2005



297,019,783

more [population clocks >](#)

### In the Spotlight



**2002 Economic Census data available in American FactFinder - 2002**

Economic Census data are being released on a flow basis, as [Quick Reports](#)

and [Detailed Statistics Data Sets](#).

Establishments, sales, employment, and payroll data are being released for counties, economic places, and more. See [Geography Quick Reports](#).

[past items >](#)

### Special Interest

[Kids' Corner](#) - Learn fun facts about your state and take a quiz.

[Censo 2000 Puerto Rico](#) en español.

[American Indian and Alaska Native](#) data and links





Fact Sheet

POPULATION  
FINDER

**FACT SHEET**

PEOPLE

HOUSING

BUSINESS AND  
GOVERNMENT

ABOUT THE DATA

DATA SETS

MAPS AND  
GEOGRAPHY

REFERENCE SHELF

TOOLS

[Main](#) ▶ [Fact Sheet](#)

### FACT SHEET



[United States](#) | [Delaware](#) | [New Castle County](#)

## New Castle County, Delaware



2000

**2004**

city/town, county, or zip

new castle county

state

Delaware

GO

[search by address »](#)

### 2004 American Community Survey

[Narrative Profile](#) | [Reference Map](#)

#### Data Profile Highlights:

**Note:** The 2004 American Community Survey universe is limited to the household population and excludes the population living in institutions, college dormitories, and other group quarters.

[show upper and lower bounds »](#)

#### General Characteristics - [show more >>](#)

	Estimate	Percent	U.S.
Total population	501,659		
Male	244,500	48.7	48.9%
Female	257,159	51.3	51.1%
<a href="#">Median age</a> (years)	36.8	(X)	36.2
Under 5 years	34,278	6.8	7.0%
18 years and over	379,212	75.6	74.5%
65 years and over	55,849	11.1	12.0%
One <a href="#">race</a>	495,789	98.8	98.1%
White	361,622	72.1	75.6%
Black or African American	109,385	21.8	12.2%
American Indian and Alaska Native	765	0.2	0.8%
Asian	17,834	3.6	4.2%
Native Hawaiian and Other Pacific Islander	0	0.0	0.1%
Some other race	6,183	1.2	5.2%
Two or more races	5,870	1.2	1.9%





People

- POPULATION FINDER
- FACT SHEET
- PEOPLE**
- HOUSING
- BUSINESS AND GOVERNMENT
- ABOUT THE DATA
- DATA SETS
- MAPS AND GEOGRAPHY
- REFERENCE SHELF
- TOOLS

Main > People

PEOPLE



[United States](#) | [Delaware](#) | New Castle County

New Castle County, Delaware

city/town, county, or zip

New Castle county

state

Delaware

GO

[search by address >](#)

2000

2003

2003 American Community Survey data:

**Note:** Data are limited to the household population and excludes the population living in institutions, college dormitories, and other group quarters. For more information on confidentiality protection, sampling error, nonsampling error, and definitions, see [Survey Methodology](#).

<b>Basic Counts / Population</b>	<p><b>Total Population:</b>  <a href="#">2003</a></p> <p><b>Sex and Age:</b>  <a href="#">2003</a></p>
<b>Aging</b>	<p><b>Age Groups:</b>  <a href="#">2003</a></p> <p><b>Households with People Age 65 and Over:</b>  <a href="#">2003</a></p> <p><b>Grandparents as Caregivers:</b>  <a href="#">2003</a></p>
<b>Disability</b>	<p><b>Disability Status:</b>  <a href="#">2003</a></p>

Legend

- data profiles (view a single geography)
- ranking tables (compare many geographies)
- detailed tables

**Legend**

-  data profiles  
(view a single geography)
-  ranking tables  
(compare many geographies)
-  detailed tables

<b>Aging</b>	<b>Age Groups:</b>  <a href="#">2003</a> <b>Households with People Age 65 and Over:</b>  <a href="#">2003</a> <b>Grandparents as Caregivers:</b>  <a href="#">2003</a>
<b>Disability</b>	<b>Disability Status:</b>  <a href="#">2003</a>
<b>Education</b>	<b>Educational Attainment:</b>  <a href="#">2003</a>  <b>School Enrollment:</b>  <a href="#">2003</a> <b>Ranking of Percent of People with a Bachelor's Degree or Higher:</b>  <a href="#">States</a>    <a href="#">Counties</a>    <a href="#">Places</a> <b>Ranking of Percent of People who are High School Graduates or Higher:</b>  <a href="#">States</a>    <a href="#">Counties</a>    <a href="#">Places</a>
<b>Income and Employment</b>	<b>Employment Status:</b>  <a href="#">2003</a> <b>Income and Benefits:</b>  <a href="#">2003</a> <b>Occupation and Industry</b>  <a href="#">2003</a> <b>Ranking of Median Household Income:</b>  <a href="#">States</a>    <a href="#">Counties</a>    <a href="#">Places</a> <b>Ranking of Median Family Income:</b>  <a href="#">States</a>    <a href="#">Counties</a>    <a href="#">Places</a>
<b>Origins and Language</b>	<b>Ancestry:</b>  <a href="#">2003</a> <b>Language Spoken at Home:</b>  <a href="#">2003</a> <b>Place of Birth and Citizenship</b>  <a href="#">2003</a> <b>Region of Birth of Foreign Born:</b>

<b>Selected Social Characteristics: 2003</b>	<b>Estimate</b>	<b>Lower Bound</b>	<b>Upper Bound</b>
<b>EDUCATIONAL ATTAINMENT</b>			
<b>Population 25 years and over</b>	<b>327,104</b>	<b>326,384</b>	<b>327,824</b>
Less than 9th grade	9,687	7,944	11,430
9th to 12th grade, no diploma	24,637	22,184	27,090
High school graduate (including equivalency)	100,479	95,987	104,971
Some college, no degree	63,638	59,627	67,649
Associate degree	21,790	19,406	24,174
Bachelor's degree	66,871	62,823	70,919
Graduate or professional degree	40,002	36,935	43,069
Percent high school graduate or higher	89.5	88.6	90.4
Percent bachelor's degree or higher	32.7	31.2	34.1
<b>MARITAL STATUS</b>			
<b>Males 15 years and over</b>	<b>187,363</b>	<b>186,834</b>	<b>187,892</b>
Never married	63,551	60,910	66,192
Now married, except separated	102,764	99,994	105,534
Separated	3,073	2,344	3,802
Widowed	4,579	3,586	5,572
Divorced	13,396	11,793	14,999
<b>Females 15 years and over</b>	<b>204,524</b>	<b>204,054</b>	<b>204,994</b>
Never married	57,723	55,232	60,214
Now married, except separated	100,903	97,542	104,264
Separated	3,793	2,684	4,902
Widowed	18,689	17,260	20,118
Divorced	23,416	21,013	25,819
<b>FERTILITY</b>			
<b>Number of women 15 to 50 years old who had a birth in the past 12 months</b>	<b>6,733</b>	<b>5,333</b>	<b>8,133</b>
Unmarried women (widowed, divorced, and never married)	1,838	964	2,712
Per 1,000 unmarried women	28	15	40
As a percent of all women with a birth	27.3	17.2	37.4
Per 1,000 women 15 to 50 years old	51	40	62
Per 1,000 women 15 to 19 years old	31	7	56
Per 1,000 women 20 to 34 years old	83	62	105

REFERENCE SHELF

TOOLS

Legend

-  data profiles  
(view a single geography)
-  ranking tables  
(compare many geographies)
-  detailed tables

<p><b>BASIC COUNTS / Population</b></p>	<p><b>Total Population:</b>   <a href="#">2003</a></p> <p><b>Sex and Age:</b>   <a href="#">2003</a></p>
<p><b>Aging</b></p>	<p><b>Age Groups:</b>   <a href="#">2003</a></p> <p><b>Households with People Age 65 and Over:</b>   <a href="#">2003</a></p> <p><b>Grandparents as Caregivers:</b>   <a href="#">2003</a></p>
<p><b>Disability</b></p>	<p><b>Disability Status:</b>   <a href="#">2003</a></p>
<p><b>Education</b></p>	<p><b>Educational Attainment:</b>   <a href="#">2003</a></p> <p><b>School Enrollment:</b>   <a href="#">2003</a> </p> <p><b>Ranking of Percent of People with a Bachelor's Degree or Higher:</b>   <a href="#">States</a>    <a href="#">Counties</a>    <a href="#">Places</a></p> <p><b>Ranking of Percent of People who are High School Graduates or Higher:</b>   <a href="#">States</a>    <a href="#">Counties</a>    <a href="#">Places</a></p>
<p><b>Income and Employment</b></p>	<p><b>Employment Status:</b>   <a href="#">2003</a></p> <p><b>Income and Benefits:</b>   <a href="#">2003</a></p> <p><b>Occupation and Industry</b>   <a href="#">2003</a></p> <p><b>Ranking of Median Household Income:</b>   <a href="#">States</a>    <a href="#">Counties</a>    <a href="#">Places</a></p> <p><b>Ranking of Median Family Income:</b>   <a href="#">States</a>    <a href="#">Counties</a>    <a href="#">Places</a></p>
<p><b>Origins and Language</b></p>	<p><b>Ancestry:</b>   <a href="#">2003</a></p>

**View this table...**[for states](#)**▶ for counties**[for places](#)**▶ from 2003**[from 2002](#)[with statistical significance](#)**View...**as a [chart](#) **Other tables...**[Select another ranking table](#)[• Subject Definitions](#)[• Quality Measures](#)

Rank	County	Percent	Lower Bound	Upper Bound
62	Charleston County, SC	35.6	32.5	38.7
64	Prince William County, VA	35.4	31.6	39.2
65	Ingham County, MI	35.3	31.7	38.9
66	Ada County, ID	35.0	31.5	38.5
67	Franklin County, OH	34.6	33.7	35.6
68	Monroe County, NY	33.9	31.7	36.1
68	Multnomah County, OR	33.9	32.9	34.9
70	Rockingham County, NH	33.6	31.1	36.2
71	Bucks County, PA	33.5	31.1	35.9
71	Delaware County, PA	33.5	30.9	36.1
71	Orange County, CA	33.5	32.4	34.5
74	Douglas County, NE	33.4	31.9	34.8
75	Chesterfield County, VA	33.3	30.6	36.0
75	East Baton Rouge Parish, LA	33.3	29.9	36.8
75	Utah County, UT	33.3	29.3	37.4
78	Williamson County, TX	32.9	29.4	36.4
79	Mercer County, NJ	32.8	29.7	35.8
80	New Castle County, DE	32.7	31.2	34.1
81	New Haven County, CT	32.2	30.4	33.9
82	San Diego County, CA	32.1	30.8	33.3
83	Allegheny County, PA	31.9	30.5	33.4
83	Burlington County, NJ	31.9	29.2	34.7
83	Davidson County, TN	31.9	29.4	34.5
86	Anchorage Municipality, AK	31.8	30.2	33.3
86	Guilford County, NC	31.8	29.1	34.6
88	Hamilton County, OH	31.7	29.9	33.4
89	Knox County, TN	31.6	28.3	34.8
90	Onondaga County, NY	31.5	28.4	34.6
91	Richland County, SC	31.4	28.4	34.5
92	Hillsborough County, NH	31.3	29.3	33.3
92	Sarasota County, FL	31.3	28.2	34.3
94	Essex County, MA	31.1	29.2	32.9
95	Santa Barbara County, CA	31.0	28.3	33.7
96	San Luis Obispo County, CA	30.9	26.8	35.0
97	Hartford County, CT	30.8	28.8	32.9
97	Polk County, IA	30.8	28.2	33.4
99	Essex County, NJ	30.7	28.5	33.0
--	---	---	---	---



### American Community Survey - Ranking Tables

You are here: [Main](#) ▶ [All Data Sets](#) ▶ [Ranking Tables](#) ▶ **Results**

[Print](#) | [Related Items](#)

#### View this table...

for [states](#)

▶ for **counties**

for [places](#)

▶ from **2003**

from [2002](#)

[with statistical significance](#)

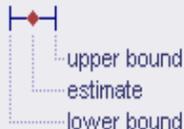
#### View...

▶ **as a chart**

#### Other tables...

[Select another ranking table](#)

#### Legend



### Counties within United States

#### Percent of People 25 Years and Over Who Have Completed a Bachelor's Degree: 2003

Universe: Population 25 years and over  
2003 American Community Survey Summary Tables

NOTE: Data are limited to the household population and exclude the population living in institutions, college dormitories, and other group quarters. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see [Survey Methodology](#).

County	10	20	30	40	50	60	70	80	90
Charleston County, SC				◆					
Prince William County, VA				◆					
Ingham County, MI				◆					
Ada County, ID				◆					
Franklin County, OH				◆					
Monroe County, NY				◆					
Multnomah County, OR				◆					
Rockingham County, NH				◆					
Bucks County, PA				◆					
Delaware County, PA				◆					
Orange County, CA				◆					
Douglas County, NE				◆					
Chesterfield County, VA				◆					
East Baton Rouge Parish, LA				◆					
Utah County, UT				◆					
Williamson County, TX				◆					
Mercer County, NJ				◆					
New Castle County, DE				◆					
New Haven County, CT				◆					
San Diego County, CA				◆					
Allegheny County, PA				◆					
Burlington County, NJ				◆					
Davidson County, TN				◆					

FINDER

FACT SHEET

PEOPLE

HOUSING

BUSINESS AND GOVERNMENT

ABOUT THE DATA

DATA SETS

MAPS AND GEOGRAPHY

REFERENCE SHELF

TOOLS

Legend

-  data profiles (view a single geography)
-  ranking tables (compare many geographies)
-  detailed tables

PEOPLE



[United States](#) | Delaware

Delaware ←

city/town, county, or zip

state

GO

[search by address »](#)

2000

2003

2003 American Community Survey data:

**Note:** Data are limited to the household population and excludes the population living in institutions, college dormitories, and other group quarters. For more information on confidentiality protection, sampling error, nonsampling error, and definitions, see [Survey Methodology](#).

Basic Counts / Population

Total Population:

 [2003](#) |  [2003 and prior years](#)

Sex and Age:

 [2003](#) |  [2003 and prior years](#)

Aging

Age Groups:

 [2003](#) |  [2003 and prior years](#)

Households with People Age 65 and Over:

 [2003](#) |  [2003 and prior years](#)

Grandparents as Caregivers:

 [2003](#) |  [2003 and prior years](#)

Disability

Disability Status:

 [2003](#)

Education

Educational Attainment:

 [2003](#) |  [2003 and prior years](#)

School Enrollment:

 [2003](#) |  [2003 and prior years](#)

Ranking of Percent of People with a Bachelor's Degree or Higher:

 [States](#) |  [Counties](#) |  [Places](#)

Ranking of Percent of People who are High School Graduates or Higher:

 [States](#) |  [Counties](#) |  [Places](#)

<b>Selected Social Characteristics</b>	<b>2003 Percent Distribution</b>	<b>2002 Percent Distribution</b>	<b>2001 Percent Distribution</b>	<b>2000 Percent Distribution</b>
<b>EDUCATIONAL ATTAINMENT</b>				
<b>Population 25 years and over</b>	<b>525,447</b>	<b>520,500 *</b>	<b>508,010 *</b>	<b>499,884 *</b>
Less than 9th grade	4.04%	4.36%	4.68%	4.42%
9th to 12th grade, no diploma	9.98%	10.78%	10.32%	10.67%
High school graduate (including equivalency)	33.26%	33.83%	33.66%	34.37%
Some college, no degree	18.42%	19.05%	19.40%	19.08%
Associate degree	6.65%	6.89%	7.01%	6.11%
Bachelor's degree	17.22%	15.89% *	15.88% *	16.26%
Graduate or professional degree	10.41%	9.20% *	9.05% *	9.09% *
Percent high school graduate or higher	86.0	84.9	85.0	84.9
Percent bachelor's degree or higher	27.6	25.1 *	24.9 *	25.3 *
<b>MARITAL STATUS</b>				
<b>Males 15 years and over</b>	<b>299,353</b>	<b>297,895 *</b>	<b>288,590 *</b>	<b>283,696 *</b>
Never married	31.19%	29.20% *	28.84% *	28.60% *
Now married, except separated	56.23%	57.66%	57.64%	57.08%
Separated	1.64%	2.09%	1.57%	2.14%
Widowed	2.69%	2.45%	2.45%	2.69%
Divorced	8.26%	8.60%	9.50% *	9.49%
<b>Females 15 years and over</b>	<b>328,008</b>	<b>326,676</b>	<b>317,959 *</b>	<b>312,581 *</b>
Never married	25.89%	25.05%	24.90%	25.09%
Now married, except separated	50.86%	51.42%	51.80%	50.42%
Separated	2.49%	2.77%	2.34%	2.46%
Widowed	9.30%	8.86%	9.81%	10.26% *
Divorced	11.46%	11.89%	11.15%	11.77%
<b>FERTILITY</b>				
<b>Number of women 15 to 50 years old who had a birth in the past 12 months</b>	<b>11,341</b>	<b>12,391</b>	<b>12,056</b>	<b>12,964</b>
Unmarried women (widowed, divorced, and never married)	25.70%	36.57%	29.08%	33.79%
Per 1,000 unmarried women	29	45	36	45
As a percent of all women with a birth	25.7	36.6	29.1	33.8
Per 1,000 women 15 to 50 years old	55	59	59	65



### Data Sets

- [Main](#)
- [Search](#)
- [Feedback](#)
- [FAQs](#)
- [Glossary](#)
- [Site Map](#)
- [Help](#)

POPULATION  
FINDER

FACT SHEET

PEOPLE

HOUSING

BUSINESS AND  
GOVERNMENT

ABOUT THE DATA

**DATA SETS**

MAPS AND  
GEOGRAPHY

REFERENCE SHELF

TOOLS

[Main](#) ▶ [All Data Sets](#)

### DATA SETS

[Load Query](#) | [Clear all selections](#)

1990 & 2000  
Decennial  
Census

2000-2003  
American Community  
Survey

Annual  
Population  
Estimates

1997 & 2002  
Economic  
Censuses

Annual  
Economic  
Surveys

The American Community Survey is a way to provide the data communities need every year instead of once in ten years. It is an on-going survey that the Census Bureau plans will replace the long form in the 2010 Census. [more...](#)

### Other Resources

- [American Community Survey Main Page](#)
- [Quality Measures](#)
- [Public Use Microdata Sample \(PUMS\)](#) - download data and view documentation
- [Download 1996-1999 data via FTP](#)

[i Explain Table and Map Formats](#)

2003

#### 2003 American Community Survey

The 2003 Summary Tables include estimates of demographic and economic characteristics of people, households and housing units for every state in the Nation, most areas with a population of 250,000 or more, and selected areas of 65,000 or more. The tables include housing units, both occupied and vacant.

Select from the following:

- [Data Profiles](#)
- [Multi-Year Profiles](#)
- [Ranking Tables](#)
- [Detailed Tables](#)
- [Reference Maps](#)

2002

#### 2002 American Community Survey

The 2002 Summary Tables include estimates of demographic and economic characteristics of people, households and housing units for every state in the Nation, most areas with a population of 250,000 or more, and selected areas of 65,000 or more. The tables include housing units, both occupied and vacant.

- [Custom Table](#)
- [Enter a table number](#)
- [List all tables](#)
- [Download PUMS data](#)
- [About this data set](#)

[User Notice of Dropped Tables](#)

## Using the Data: **Quality Measures**

### Available in this Section

[Using the Data Main](#)

[Understanding Change Profiles](#)

[Subject Definitions](#)

[Accuracy of the Data](#)

**Quality Measures**

Sample Size:

[Data](#)

[Definitions](#)

Coverage Rates:

[Data](#)

[Definitions](#)

Response Rates:

[Data](#)

[Definitions](#)

Item Allocation Rates:

[Data](#)

[Definitions](#)

[Errata](#)

[Geography Explanation](#)

[Past Notices ACS](#)

[Past Notices Suppl. Surveys](#)

The quality measures provided in this section illustrate the steps the Census Bureau takes to ensure that ACS survey data are accurate and reliable.

1. **How large was the sample used to produce the ACS estimates?**

Sample Size:

[Sample Size Definitions](#)

2. **How well does the ACS cover the population?**

Coverage Rates:

[Coverage Rates Definitions](#)

3. **What was the response to the survey?**

Response Rates:

[Response Rates Definitions](#)

4. **How complete were the data used to produce a specific estimate?**

Item Allocation Rates:

[Item Allocation Rates Definitions](#)

The ACS produces survey data each year to measure key social, economic, and housing characteristics about the U.S. population. The four questions above identify four important aspects of survey quality. These quality measures are produced annually to accompany each ACS data release and describe the quality of those data. The quality measures are available at national and state levels. Clicking on "definitions" will provide additional information on each of these measures, including why the measure is important and how it was calculated.

# For More Information

**American Community Survey Web site**  
*([www.census.gov/acs/www](http://www.census.gov/acs/www))*

**Call us at: 1-888-346-9682**

**E-mail us at:**  
*[cmo.acs@census.gov](mailto:cmo.acs@census.gov)*

**Subscribe to the *ACS Alert***

**<http://factfinder.census.gov>**

# 2010 Redistricting Data Programs

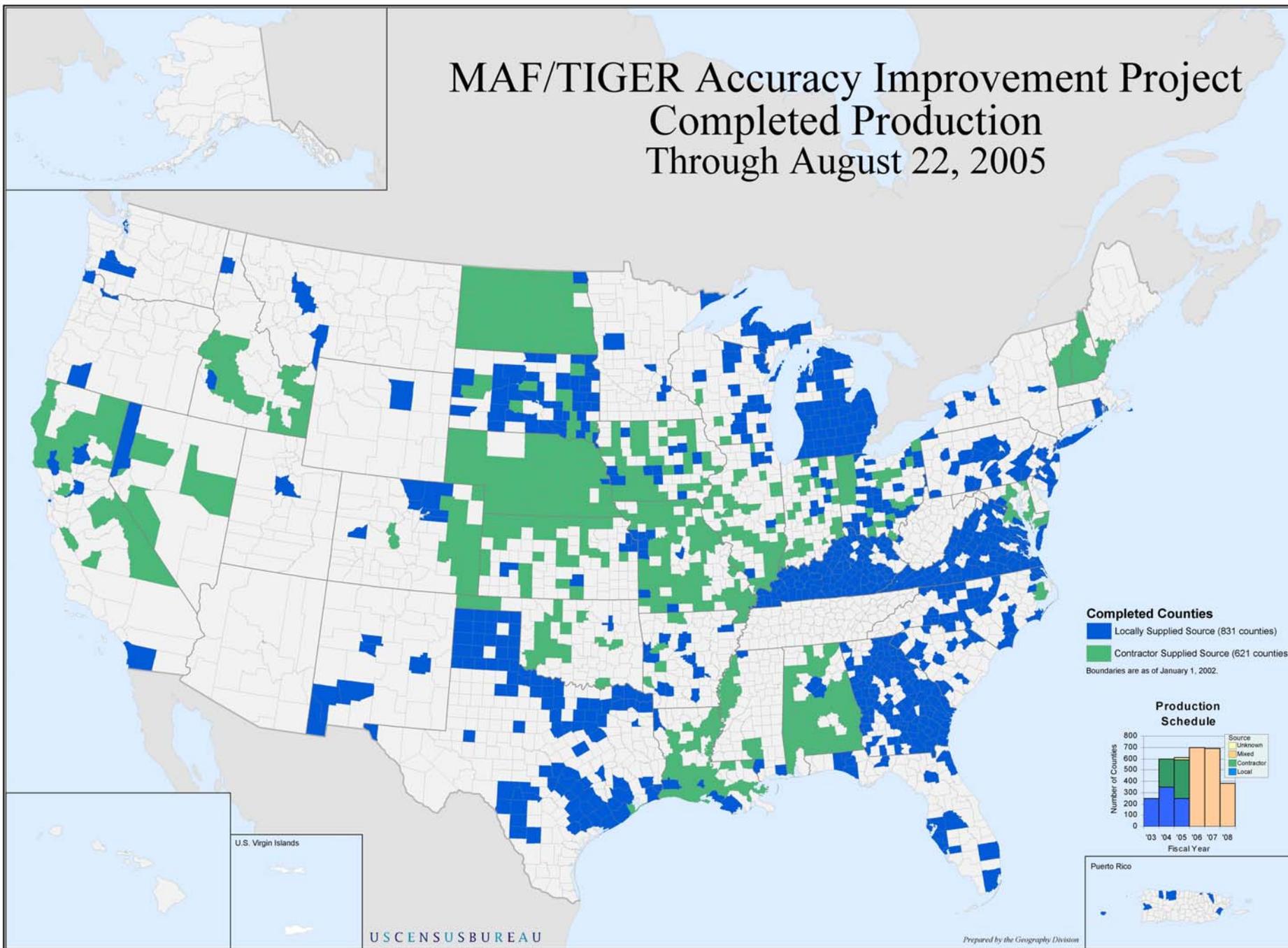
- Phase 1 – State Legislative District Project (SLDP) (2005-2006) (Deadline for state plans is December 31, 2005)
- Phase 2 – Voting District/Block Boundary Suggestion Project (VTD/BBSP) (2007-2009)
- Phase 3 – Data Delivery for the 2010 Census Redistricting Data Program (2010-2011)
- Phase 4 – Collection of Post-2010 Census Redistricting Plans (2012-2013)

# MTAIP

## (MAF/TIGER Accuracy Improvement Program)

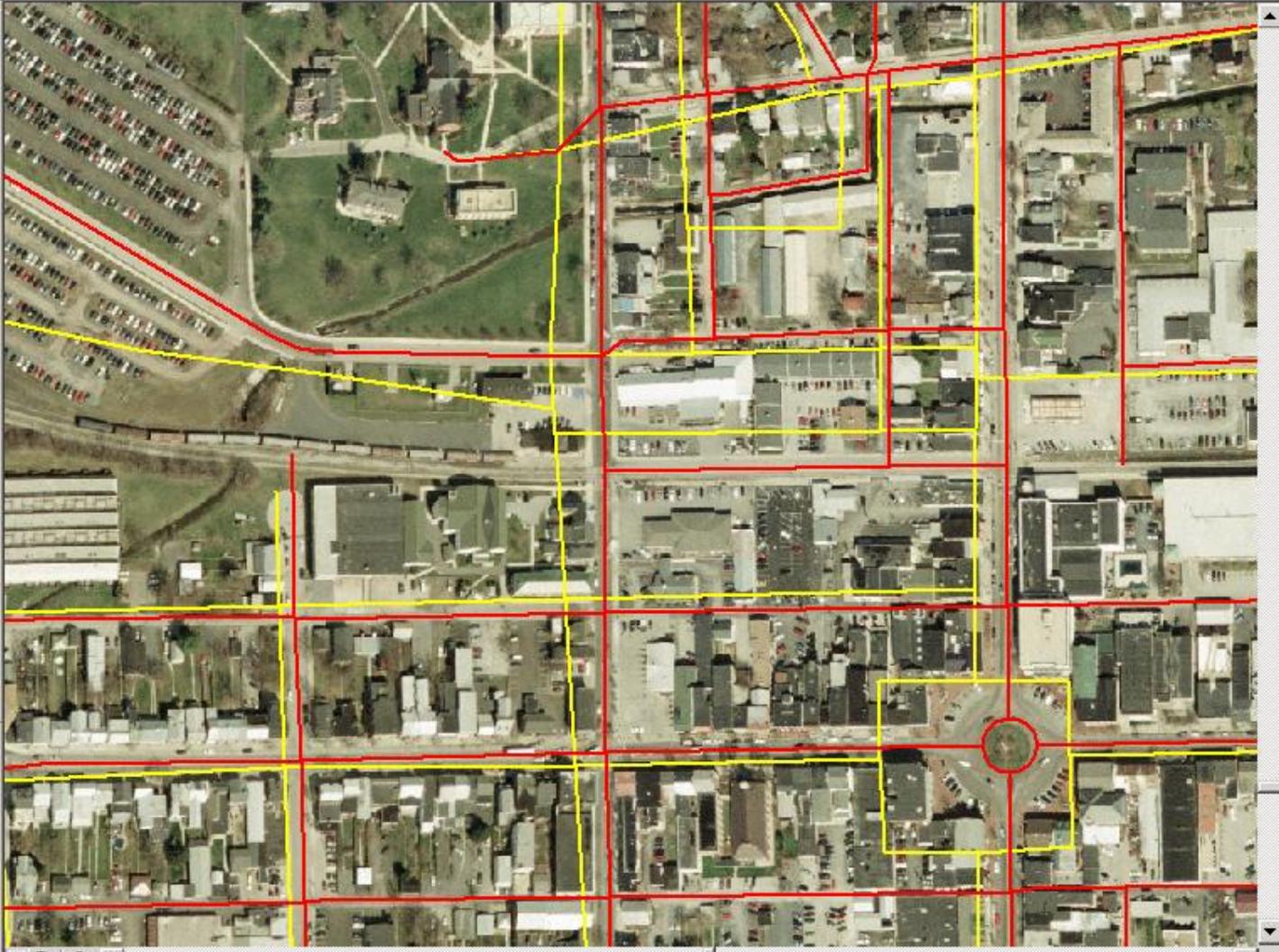
- Official deadline for submission of local data is March 31, 2006
- Realigned TIGER counties available by State: D.C., MD (13 of 24), NJ (4 of 21), PA (22 of 67)
- T/L 2<sup>nd</sup> Edition released on August 18, 2005
- Delaware is considered partially enhanced and will be finished enhancement after the 2007 production year.

# MAF/TIGER Accuracy Improvement Project Completed Production Through August 22, 2005



**Layers**

- TIGER\_2004
- TIGER\_2000
- tgr42001ccd00\_Project\_200
- TGR42001cousubcu\_Project
- Flown\_2003\_2
- 20002100PAS.sid  
RGB
  - Red: Band\_1
  - Green: Band\_2
  - Blue: Band\_3
- 19002120PAS.sid  
RGB
  - Red: Band\_1
  - Green: Band\_2
  - Blue: Band\_3
- 19002110PAS.sid  
RGB
  - Red: Band\_1
  - Green: Band\_2
  - Blue: Band\_3
- 19002100PAS.sid  
RGB
  - Red: Band\_1
  - Green: Band\_2
  - Blue: Band\_3
- 18002120PAS.sid



Display Source Selection

Drawing Arial 10 B I U

Editor Task: Create New Feature Target:

# LUCA (Local Update Of Census Addresses)

- Notification to locals in early 2007 with training occurring in summer 2007
- Willing to coordinate with SDCs and Counties to ensure coverage in State
- Similar manual and electronic review options for participants
- Planning to have web-based review available as well, though probably only high-speed option

# LUCA (Local Update Of Census Addresses)

(continued)

- Improvements from 2000 version:
  - Longer review period (120 days)
  - Consolidated review for all entities with validation occurring during Address Canvassing
  - Different participation options for local governments (Non-Title 13 option)
  - State-level group quarters review program
  - participant's survey currently being completed by local governments

# Statistical Areas Program

(Identify participants in Fall 2006 with training in Spring 2007)

- Planned web and PC based participation
- Participant materials released on flow basis to counties who have been enhanced
- No formal C-SACs (Statistical Areas Committee)
- Verification expected to run into early 2010

# Statistical Areas Program

(continued)

## Conceptual/Criteria Issues:

- CT's – no current changes in criteria
- BG's – planned delineation although ACS could change this (data quality/confidentiality)
- CCD's – are these still relevant?
- CDP's – should places within places be recognized for this program (i.e. neighborhoods?)
- AIA – Statistical subdivisions with AIA's?
  - still large enough for quality data?

## Additional Questions or Comments:

Please contact me, Greg Brivic, at 215-717-1830

Or email:

[Gregory.Brivic@census.gov](mailto:Gregory.Brivic@census.gov)

# Integrating CAD and GIS



## Historically, CAD and GIS were disparate:

- CAD: precision editing
- GIS: spatial information management

## Autodesk brings them together:

- Precision of CAD with geospatial editing and analysis tools
- Enables data sharing
- Synergy with engineering processes

**Integrating CAD and GIS makes organizations more effective**

# Issue- Working with Multiple Geospatial Data Types

## Information Bridge Between Disciplines

- You require access to multiple data types for:
  - Import
  - Export
  - Edit
  - Share

## Autodesk Map 3D Solution:

- Integrate data from a variety of formats
- Cost-effectively leverage existing information in your current projects.
- Automatically correct and clean up typical errors, minimizing data re-creation.

<b>Databases</b>		
<ul style="list-style-type: none"><li>▪ Oracle</li><li>▪ Oracle Spatial</li><li>▪ ArcSDE</li></ul>	<ul style="list-style-type: none"><li>▪ Microsoft Access</li><li>▪ Microsoft SQL Server</li></ul>	<ul style="list-style-type: none"><li>▪ dBase</li><li>▪ ODBC Compliant databases</li></ul>
<b>Vector data formats</b>		
<ul style="list-style-type: none"><li>▪ DWG/DWF/DXF</li><li>▪ Microstation DGN</li><li>▪ ArcGIS Coverage</li><li>▪ ArcGIS Shape</li><li>▪ ArcGIS E00</li></ul>	<ul style="list-style-type: none"><li>▪ MapInfo MIF/MID</li><li>▪ MapInfo TAB</li><li>▪ SDTS</li><li>▪ VPF</li><li>▪ GML 2</li></ul>	<ul style="list-style-type: none"><li>▪ VML</li><li>▪ LandXML</li><li>▪ Autodesk MapGuide</li><li>▪ Ordnance Survey MasterMap</li></ul>
<b>Raster data formats</b>		
<ul style="list-style-type: none"><li>▪ BMP</li><li>▪ CALS-1</li><li>▪ FLIC</li><li>▪ G3</li><li>▪ G4</li><li>▪ GeoSpot</li><li>▪ GeoTiff</li></ul>	<ul style="list-style-type: none"><li>▪ GIF</li><li>▪ IG4</li><li>▪ IGS</li><li>▪ JFIF</li><li>▪ JPEG</li><li>▪ PCS</li><li>▪ Photo CD</li></ul>	<ul style="list-style-type: none"><li>▪ PICT</li><li>▪ PNG</li><li>▪ PSD</li><li>▪ RLC 1 &amp; RLC 2</li><li>▪ TARGA</li><li>▪ TIFF/LZW</li><li>▪ Earth Resource Mapping ECW</li><li>▪ LizardTech's MrSID</li></ul>

# Issue- Building Intelligent Drawings

## CAD-only documents lack “intelligence”

- Does not make use of readily available information
- Compromises planning decisions
- How can I connect my database with my graphics?

## Autodesk Map 3D Solution:

- **Link to external databases and attribute data**
- Map 3D offers automation tools to build and maintain links to databases
- Publish to MapGuide and DWF format for sharing of graphics & data

