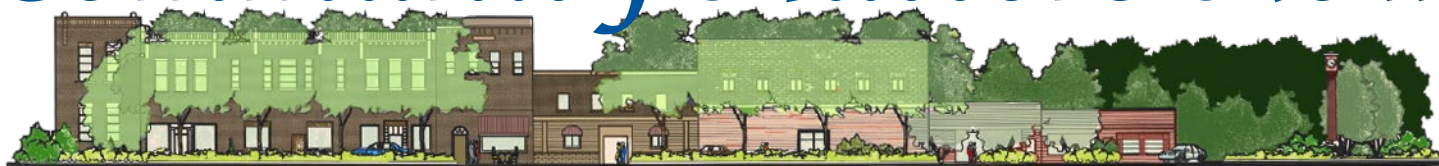


Community Matters Now



A bi-monthly publication for Iowa leaders from Extension and Outreach Community and Economic Development

COMMUNITY AND ECONOMIC DEVELOPMENT OFFERS UPDATED ARCGIS PRO WORKSHOPS

By Bailey Hanson | GIS Systems Analyst



The Community and Economic Development (CED) unit at Iowa State University Extension and Outreach has provided training and educational material on geospatial technology topics for more than 20 years.

During that time, the training and materials have transformed from one-off questions and training requests on specific topics to a robust and successful training program that has educated hundreds of people through in-person, instructor-led workshops.

Through that process, the Geospatial Technology Program was developed to meet the geographic information systems (GIS) training needs of Iowans. The GIS workshops utilize training manuals specifically developed by the CED Data and Technology team to introduce new and beginning-level GIS users to the essential GIS concepts, software, and tools.

GIS software, like many computer technologies, has changed significantly over the years. One of the most recent major changes in GIS desktop software is the migration from ArcMap to ArcGIS Pro. ArcGIS Pro utilizes the Windows Ribbon framework, a modern menu system for Windows applications. This change resulted in a new and completely redesigned user interface, making it a

challenge for experienced GIS users to navigate and adapt their established workflow. To assist with this transition, the CED Data and Technology team has rewritten all the GIS training materials to help experienced GIS users navigate the new interface and introduce new GIS users to the software and tools.

This process has taken a few years to complete, but the Data team is now up and running with ArcGIS Pro training materials and has been conducting workshops with the new materials since January 2022.

The Essentials of ArcGIS Pro is a two-day, in-person workshop that will take participants through all the essentials basics of map making, geospatial data editing, thematic map visualizations, and data querying and analysis. Experience using Windows-based applications is highly recommended. The cost is \$500 per person with discounts for ISU-affiliated staff, students, and faculty, as well as for groups of two or more from the same organization.

The next workshop will be conducted in Ames in January 2023. More information and the registration link are available on the [GIS training and courses webpage](https://www.extension.iastate.edu/communities/gis/courses) (<https://www.extension.iastate.edu/communities/gis/courses>).



Introduction to ArcGIS Pro workshop is a two-day, interactive workshop that combines lecture-style instruction with hands-on, in-class exercises.

ONLINE RESOURCES

[ISU EXTENSION AND
OUTREACH INDICATORS
PROGRAM](#)

[DATA SCIENCE FOR THE
PUBLIC GOOD YOUNG
SCHOLARS PROGRAM](#)

[DATA LITERACY EDUCATION
AND WORKSHOPS](#)

[GISTASK SHEET SERIES](#)

GREETINGS FROM THE DATA & TECHNOLOGY TEAM

This issue of *Community Matters Now* focuses on all things data, particularly on the work of Community and Economic Development's Data and Technology team. The Data and Technology team has expertise in demographic analysis, geographic information systems (GIS), data collection and analysis, and much more, some of which is highlighted in this issue, along with a number of data-related resources such as the American Community Survey and the Decennial Census. The data team plays an integral role in updating, refining, and maintaining the ISU Extension and Outreach Indicators Program, and team members provide support and mentorship for the Data Science for the Public Good Young Scholars Program. Kelsey Zimmerman, a graduate-

student intern with CED, starts this issue with an overview:

"Hello, I'm Kelsey Zimmerman, a third-year student in the MFA Program for Creative Writing and Environment at Iowa State, where I write poetry and love to knit and explore local parks in my spare time. I've been a part of the CED Geospatial Training Program since summer 2021, when I started as a graduate student. I've been a part of several projects, including helping to update the impressive collection of [Task Sheets](https://www.extension.iastate.edu/communities/gis/quicktasksheets) (<https://www.extension.iastate.edu/communities/gis/quicktasksheets>). Now I help write them too!

The [Indicators Program website](https://indicators.extension.iastate.edu/) (<https://indicators.extension.iastate.edu/>) is another great resource to read updates about cutting-

edge data analysis and visualization projects such as *Data for Decision Makers*—an entire suite of useful, freely available Iowa demographic data in an easy-to-understand dashboard format.

Working with the Data team has easily been one of the highlights of my graduate school experience, and I'm certain my experience here will help me transition into a career that bridges GIS data visualization and scientific communication. Keep reading this edition of *Community Matters Now* to find out what other Data team members are up to."



AMERICAN COMMUNITY SURVEY PROVIDES ONE- AND FIVE-YEAR ESTIMATES ON POPULATION AND HOUSING

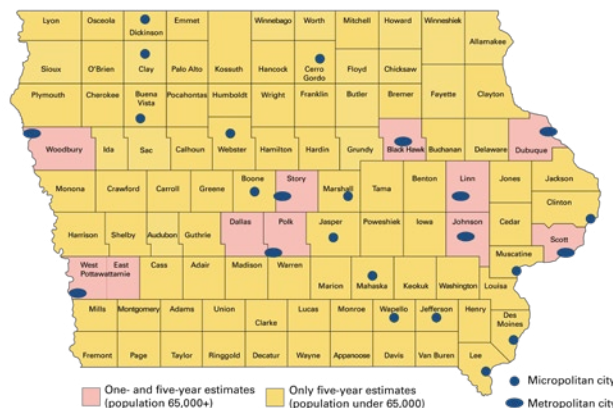
By Sandra Burke | Sociologist and Assistant Scientist

The American Community Survey (ACS) is a large, monthly, sample survey conducted by the U.S. Census Bureau that collects and produces information on social, economic, housing, and demographic characteristics of the U.S. population and housing. The ACS asks about topics that had previously been included in the Decennial Census (2000 and earlier) and is now the main source for social, economic, and detailed housing information. It includes questions on education, marital status, fertility, language use, nativity, ancestry, employment, occupation, disability, earnings, income, poverty status, and health insurance.

The ACS is a self-report survey that is conducted across all geographic areas. New data updates are released annually as pooled one-year (12 months) or five-year (60 months) estimates. An annual one-year estimate is done for areas of population of 65,000 or more. All other regions of smaller populations have five-year estimates for which a new year of data are added and pooled with the previous four years.

The most current five-year estimate set is for 2016–2020. Comparisons are best made for estimate sets that have no overlapping years; thus, it is appropriate to compare estimates for 2006–2010, 2011–2015 with those for 2016–2020. One-year estimates are usually updated in September and five-year estimate updates typically occur in December. The next five-year set will include the years of 2017–2021.

Because the data are from a sample survey rather than a complete-count process, there is some uncertainty in the estimates; hence, the released data also include estimates of margins of error (MOE). The MOE is reported as +/- a numerical value that should be added to or subtracted from the point estimate value and which gives the upper and lower bounds of a 90% confidence



American Community Survey estimates availability by county in Iowa, 2015 vintage estimates.

interval around the estimate. The interval represents the range within which the true value of the estimate is expected to be with a level of confidence of 90%.

More information is available [online](https://www.census.gov/programs-surveys/acs/about.html) (<https://www.census.gov/programs-surveys/acs/about.html> and <https://www.census.gov/programs-surveys/acs/guidance.html>).

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- Find us on Facebook (<http://www.facebook.com/ISUExtensionCED>) and follow us on Twitter (@ISUExtensionCED)

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Community Matters Now is published monthly for Iowa State University Extension and Outreach Community and Economic Development staff and their clients. Comments, questions, and suggestions regarding the content of this newsletter should be directed to:

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FROM A PANDEMIC TO ADVANCES IN TECHNOLOGY: HOW CURRENT CONDITIONS HAVE IMPACTED THE 2020 CENSUS

By Sandra Burke | Sociologist and Assistant Scientist

The Decennial Census has been conducted in the United States every 10 years since 1790 as required in the U.S. Constitution to apportion the U.S. House of Representatives among the states. It is a complete-count process in that every person and housing unit is counted, and the population counts from the Decennial Census are used as the official population of a geographic region.

The COVID-19 pandemic slowed the process of carrying out the 2020 Census, as well as delayed the reporting of the data. Population counts from the 2020 Census were released in April 2021, and additional data for race and Hispanic origin, group quarters, and housing-unit occupancy and vacancy became available in August 2021. The remaining topics and data are scheduled to be released in May 2023.

The questions asked in the 2020 Census included those about total population, race and Hispanic origin, age, sex, households, household relationships, families, and group quarters, along with housing-unit counts by occupancy, vacancy, and owner or renter occupancy. Questions about social, economic, and housing topics included in the Decennial Census prior to 2010 are now part of the American Community Survey ([see article on page 2](#)).

Disclosure Avoidance (DA) and Differential Privacy (DP)

There are U.S. laws that protect privacy and restrict the use of Census data. The Census Bureau cannot release identifiable information about an individual or household to anyone, including other government or law enforcement agencies. Since the 1970 Census, the Census Bureau has used several methods to protect privacy. These methods are known as "Disclosure Avoidance" (DA) techniques and are applied to the data to protect the confidentiality of respondents.

DA techniques have evolved over the decades. In 1970 and 1980, the agency used table suppression, which basically means not publishing tables with smaller counts. In 1990, the agency used a different method called a "Confidentiality Edit," which involved data swapping among individual records by adding "noise" (variations from the actual count) to the data. With some modifications, this practice was continued for Decennial Censuses in 2000 and 2010. In short, Disclosure Avoidance is not new.

There has been a growing threat to privacy from enhanced computing power and greater access to large outside databases that could potentially identify an individual respondent's data. Census Bureau research found that the previous disclosure avoidance methods are no longer able to protect against the risk of identification posed by today's technology.

For the 2020 Census, the Census Bureau applied a newer disclosure avoidance framework called "Differential Privacy" (DP). This method is mathematically and statistically based and is much more quantifiable and transparent than previous methods. Overall, DP works by adding noise to the collected data by adding or subtracting random numbers, mostly small, to actual values from a data set. Introducing this random noise helps to obscure the original data enough so that data science tools cannot match information to a specific respondent.

While adding more statistical noise increases privacy protection, it also makes the data less accurate. There is a trade-off between privacy and accuracy. Since the DP methods are mathematically and statistically based, the programming and decisions for differential privacy can be available to the public and the trade-off between privacy and accuracy can be quantified, tested, and transparent. The

Census Bureau has provided a series of test data sets using 2010 Census data to demonstrate how differential privacy works, which has allowed users to compare the results using DP to the original 2010 released data. Successive testing and user commentary, followed by DP modifications, have improved successive versions of the DP system so that the resulting accuracy has been substantially improved with little loss in privacy protection.

Because of DP, the Census Bureau has re-evaluated many of the tables provided in the Decennial Census. The DP methods will have some effect on most of the 2020 Census tables; however, for much of the data for larger population areas and groups, the impact will be small. The potential effects of DP will likely be higher for small population areas along with small racial, ethnic, and age groups. There will, however, be somewhat fewer tables with less detail and more limited types of geographic regions than were available for 2010 Census.

Additional information is available online on the [U.S. Census Bureau website](https://www.census.gov/library/publications/2021/decennial/2020-census-disclosure-avoidance-handbook.html) (<https://www.census.gov/library/publications/2021/decennial/2020-census-disclosure-avoidance-handbook.html>) and <https://www.census.gov/programs-surveys/decennial-census/decade/2020/planning-management/process/disclosure-avoidance/differential-privacy.html>.

INDICATORS PROGRAM OFFERS DATA LITERACY WORKSHOPS

By Sandra Burke | Sociologist and Assistant Scientist

The ability to understand and interpret data is essential for community leaders, elected officials, and residents to make educated and wise decisions on critical issues and policies. Data Literacy workshops are a service provided by Iowa State University Extension and Outreach's Indicators Program to provide Iowans with the knowledge and skills to understand, use, visualize, interpret, and practice with data relevant to communities, organizations, and counties.

The workshops are typically two to three hours in length and are interactive, with activities and group discussions to engage and enhance learning and understanding by the participants. The specific topics to be included are decided in conjunction with the client group and its interests and preferences. Participants can learn about

selected measures and indicators such as income and poverty, age, race and ethnicity, housing, health, employment, households, families, and the foreign born.

Examples of workshop topics include "walk throughs" of *Data for Decision Makers* reports, examining trends and comparing and contrasting among counties and communities, using and understanding the American Community Survey, making and interpreting graphs and other visuals, and mapping concepts using Indicators Program mapping capabilities.

Communities and organizations interested in learning more about Data Literacy workshops can contact Sandra Burke at scburke@iastate.edu.

YOUNG SCHOLARS PROGRAM USES THE POWER OF DATA ANALYSIS TO ASSIST IOWA COMMUNITIES

By Christopher Seeger | Professor and Extension Landscape Architect

Nine undergraduate and three graduate students participated in the 2022 Data Science for the Public Good (DSPG) Young Scholars program, a 10-week summer internship that engages with Cooperative Extension to give students the opportunity to help Iowa communities and organizations solve problems in real-world settings using the power of data science.

The DSPG Young Scholars program utilizes the Community Learning Data-Driven Discovery (CLD3) process, community-based research in which clients participate in posing questions that drive data collection and provide insight for developing solutions.

Working in teams of a graduate-student lead and three undergraduates, DSPG students conduct data analyses (which can include finding, retrieving, and collating data sets from various sources) to address problems or questions of interest to the stakeholders. Along the way, each team is guided and mentored by a faculty member or extension specialist with expertise in the relevant problem area. The program ends with a final public presentation by each project team.

Although most of the students who participate in the DSPG Young Scholars program are ISU students, the program is open to qualified undergraduate students from other universities. To date, in addition to ISU students, participants have included students attending Mount Holyoke College, Washington University in St. Louis, Drake University, Washington State University, and Clemson University.

DSPG students come from a variety of disciplines, ranging from computer science and statistics to planning and history. Team leaders change from year to year, depending on project topics. The 2022 team included Bailey Hanson, GIS systems analyst; Leisl Eathington, Department of Economics assistant scientist; Adisak Sukul, associate professor of computer science; and Rakesh Shah, Extension specialist in computer science. Professor Christopher Seeger directed the program.

Past DSPG projects have covered topics such as community capitals, economic mobility, substance use and recovery centers, systems of care, excessive alcohol prevention, ISU Extension and Outreach Community Helpline Services, the impact of publicly accessible research data, quality of life in small and shrinking Iowa

communities, economic and workforce development, educational attainment, Eat Greater Des Moines and Food Rescue, and Iowa's Integrated Data System (Early Childhood). Projects selected for the 2022 program included:

Wholesale Local Food Benchmarking

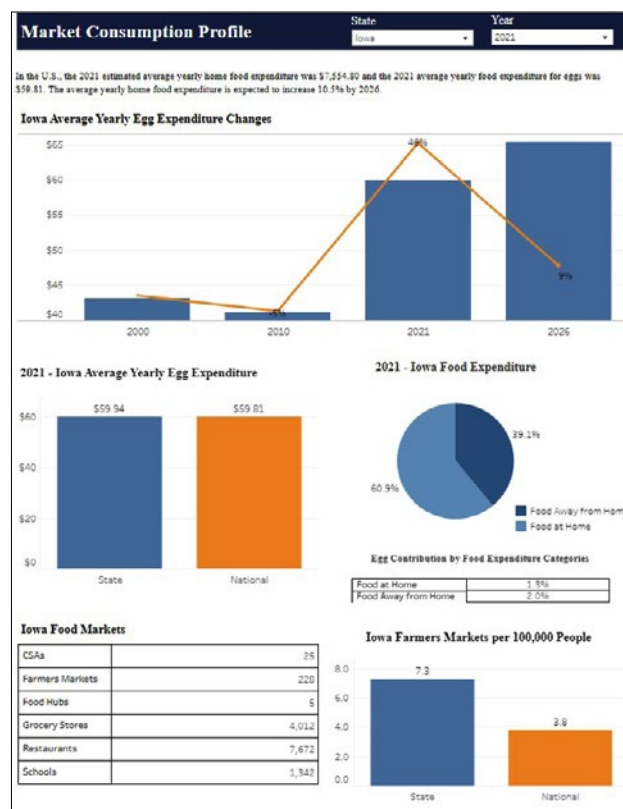
The ISU Extension and Outreach Farm, Food, and Enterprise Development (FFED) program is frequently asked for benchmarks on pricing of food products such as fruit and vegetable produce both in retail and wholesale spaces. There is a need for a data process/platform that could provide more localized and up-to-date information around price points for buying and selling these local products. This project explored the data available and confirmed that a data gap exists and began investigating the development of a platform that would allow producers or institutional consumers to share their prices for local commodities.

Successful Employment for Persons with Disabilities in Iowa

Data sets on disabilities for practical use by Iowa's policy makers, advocates, and grant seekers are often difficult to access or are displayed independently of one another. This project aimed to discover, profile, and present data pertaining to successful employment for Iowans with disabilities and to serve as a foundation for connecting various data sources on employment through the assessment of public services available to Iowans with disabilities.

Exploratory Measures for Analysis of Local Housing Needs

Developing effective housing policy requires awareness of the types and extent of local housing need as well as the barriers to private-sector investment. Key concerns of local decision-makers include availability, affordability, and accessibility of housing stock for diverse demographic groups. Accordingly, local decision-makers seek reliable and current sources of data to help set their housing policy priorities. In



Sample page from an online interactive AgMRC report on egg production developed by a DSPG team in 2022.

this project, the team explored the data available to describe local housing markets. They collected, organized, categorized, and analyzed data sets from a wide variety of sources. Finally, they provided a set of housing-related indicators summarized and visualized in a unified format to provide decision-makers with the opportunity to evaluate housing status and compare among different geographical levels of communities.

Beginning Farmer Asset Mapping

This project formed as a need to aid beginner farmers in making the right choices for their farming practices through an interactive application. Through research on specialty crops, soil information, and climate data, the project aimed to display through an interactive dashboard pertinent farming factors in relation to one another to provide feasible options for beginning farmers.

Interactive Commodity Reports for Agricultural Marketing (AgMRC)

The project team built upon the AgMRC commodity reports currently published by the CED Data and Technology team in PDF format by creating interactive dashboards for several commodities. The dashboards

continued on P05

Young Scholars continued from P04

included demographic data (population, race, ethnicity, family structure, income), food data (food deserts, food security, market types—schools, restaurants), interactive visualization, and improved geographic filters to offer national- and state-level data that can be downloaded in a PDF format.

Community Survey Analysis

The project team conducted data analysis of both quantitative and qualitative data from community surveys. Data analysis consisted of text analysis of responses to open-ended questions, as well as experimentation with a variety of data tools and methods.

The final presentations for the 2022 projects are available [online](https://dspg.iastate.edu/past-projects) (<https://dspg.iastate.edu/past-projects>).

Program Origins

The DSPG Young Scholar program was created as part of a tristate collaboration involving the University of Virginia, Oregon State University, Iowa State University, Virginia Tech, and Virginia State University.

An internally funded pilot project conducted in 2018 contributed to funding in 2020 by USDA's National Institute of Food and Agriculture (NIFA) and by the Bill and Melinda Gates Foundation. This pilot project focused on increasing bus ridership in the city of Marshalltown and resulted in the community receiving both the Federal and State Transit Authority Awards of Excellence for the highest percentage increase in ridership among rural providers (see article in [Community Matters, volume 11, issue 1](#)).

In 2021, the program began transitioning from grant funding to a fee-for-service model, and the 2022 program was funded completely by client fees. The project is now administered by ISU Extension and Outreach Community and Economic Development (CED) and managed by CED's Data and Technology team.

Planning for the 2023 program is underway. Projects proposals and student applications are available at the [DSPG Young Scholars program website](#) (<https://dspg.iastate.edu/>).



Word cloud derived by a DSPG team from responses to the question: "What community amenities are important to you in choosing a location to live?" part of the Rural Housing Readiness Assessment process.

DATA AND TECHNOLOGY TEAM PROJECTS PLANNED FOR 2023

Iowa State University Extension and Outreach Community and Economic Development's (CED) Data and Technology team has several projects planned for 2023. Here are just a few of them!

Retail Trade Reports

The Retail Trade reports that you enjoyed in the past are in the process of being updated and converted for online use! These new publications will be available in January 2023.

Iowa Community Indicators Program (ICIP) Website Merger

The team is in the process of merging the ICIP website into the Indicators Program website. Look for ICIP data to start appearing on the Indicators Program website in the first quarter of 2023.

County Dashboards

The data team has listened to the request at the Fall regional Extension meetings and will be implementing a county page that will include some of the popular county indicators and links to additional county resources, so users do not have to search the Indicators website for all the publications of interest for their county.

Website Improvements

Using Tableau, an online data analysis platform, the Data and Technology team will be releasing new state, county, and

city data throughout 2023. New features will allow the user to interact with the data, select overlays, and view trend data. The team will also be making updates to the publication pages and categorizing and tagging reports so they can be used in a search feature.

American Community Survey (ACS) Data Release

ACS data are to be released on December 8, 2022, by the U.S. Census Bureau. Keep an eye out for updates to the *Data for Decision Makers* (DDM) series that incorporate this new information.

New Geospatial and Data Science Task Sheets

Several new task sheets have been published to the Extension Store, covering topics such as ArcGIS Pro, R, and QGIS. Many more new topics and refreshed task sheets will be added in 2023. In addition, all new task sheets are published as accessible documents and many other previously published PDFs have been remediated to accommodate screen reader technology ([see article on page 7 of this issue](#)).

Information about all the Data and Technology team's activities can be found on the [CED website](#) (<https://www.extension.iastate.edu/communities/data-and-technology>).

CALL FOR PROPOSALS FOR 2023 DSPG YOUNG SCHOLARS PROGRAM

The Data Science for Public Good Young Scholars program invites Iowa State University faculty, state and county agencies, nonprofits, and communities to submit applications for the 2023 summer program.

Suitable projects will have the following characteristics:

- A project sponsor with staff or members who are willing and interested in engaging in the project (faculty members; community members; small business owners; or state, county, or local government or nonprofit staff, etc.).
- A clearly defined project problem statement identifying the scope of work and how data science (data acquisition, analysis, and/or visualization) might help the sponsor or public better understand the issue(s).

- Data necessary to address the issue that can be made available to the DSPG team.
- A project scope suitable for a 10-week project (~800 hours of student/staff/faculty effort)
- A project that addresses some element of the public good, health, or rural prosperity.
- A grant or other funding source to sponsor and support the project. Fees for 2023 are projected to be between \$26,000 and \$29,000 per project.

Communities or organizations interested in the 2023 program can apply online on the [DSPG Young Scholars website](#) (<https://dspg.iastate.edu/how-apply-projects>). Questions about the applications process can be emailed to dspg@iastate.edu.

COMMUNITY AND ECONOMIC DEVELOPMENT'S DATA TEAM CREATES 'LANGUAGES SPOKEN IN IOWA' WEBSITE

By Christopher Seeger | Professor and Extension Landscape Architect

How many different languages do people speak in Iowa and where are they spoken?

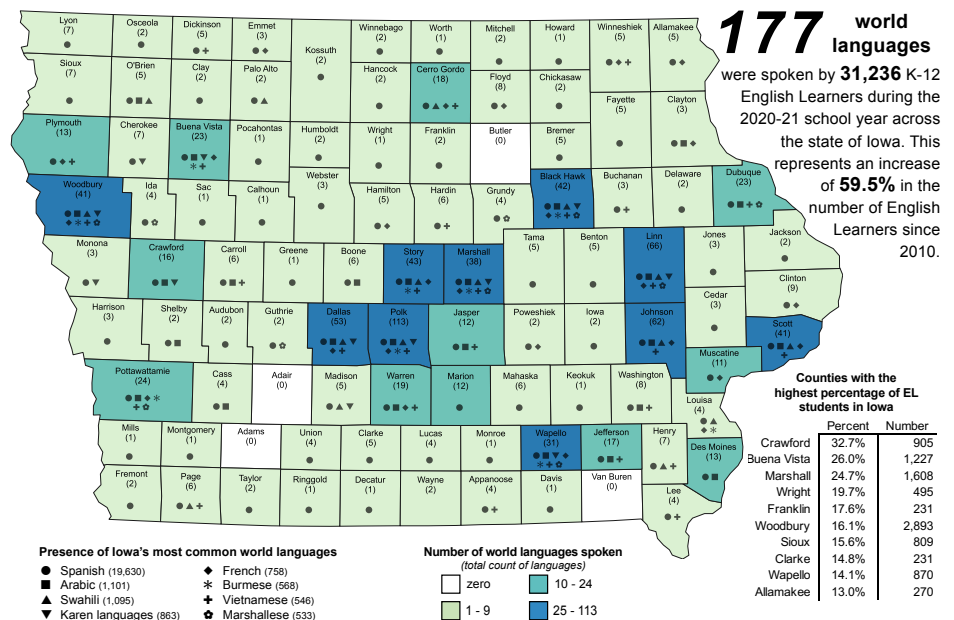
Attempts to answer this question have resulted in the creation of a new dashboard on the Iowa Department of Human Rights (DHR) webpage titled "[Languages Spoken in Iowa.](#)"

The idea emerged during the 2021 [Data Science for the Public Good \(DSPG\) Young Scholars Program](#), in which two DSPG teams led by Iowa State University Extension and Outreach Community and Economic Development's (CED) Data and Technology team were conducting projects for the Iowa DHR on the topics of [educational attainment](#) and [workforce development](#) for under-represented Iowans.

Over the course of these projects, it became evident that having a better understanding of the languages spoken in Iowa would be a valuable additional data set. DHR also realized that having county-level information on languages spoken would be of value for other initiatives within the state.

The DSPG teams first looked to the U.S. Census Bureau's American Community Survey (ACS) data set, which is derived from how respondents indicated whether they spoke a language other than English at home. The ACS uses 42 language groups to summarize the responses to this question. Unfortunately, these data aren't available at the county-level, but as statewide estimates only. To obtain county-level data, a collapsed version of that data table must be used; this version condenses the results into 12 language groups. Even with more simplified and aggregated language data, most of the county-level estimates have a margin of error (MOE) greater than half of the estimate. The MOE is a value that when added to or subtracted from the estimate, gives the range of a 90% confidence interval around the estimate. For the DSPG teams, and most researchers, this figure indicates that the county-level data derived from the ACS for languages spoken at home in Iowa have a level of uncertainty that should limit their use, or they should at least be used cautiously.

Not satisfied with the county-level ACS data on languages spoken at home as an informative indicator, the CED data team continued to work with DHR in fall 2021 to investigate alternative options. The Iowa Department of Education's data on



Source: Iowa Department of Education English Learners data 2010 - 2021

Just the Facts: World Languages Spoken In Iowa by K-12 English Learners 2020-21

© 2022 Iowa Department of Human Rights and Iowa State University Extension and Outreach
Last Updated: January 2022



This poster shows the distributions of languages other than English spoken by English Learners in grades K-12 during the 2020-21 school year in Iowa by county.

English learners (EL) by school district was identified as a more reliable alternative data source to better understand what languages were spoken across the state at a more localized level. After cleaning and organizing the data through a process called "data wrangling," the data team created a [website](#) containing a series of dashboards and posters (<https://indicators.extension.iastate.edu/DHR/languages.html>).

The first poster identifies the counties with the highest percentage of EL students in Iowa, the counties where the eight most common (in Iowa) languages were spoken, and the total number of unique languages spoken in each county. In all, 177 world languages were spoken by more than 31,236 K-12 English learners during the 2020-21 school year, a 59.6% increase since 2010. The second poster provides a description of 28 of the more widely spoken languages (in Iowa) and identifies the counties where they were spoken. A third poster expands upon the language data by mapping the number and location of individuals migrating to Iowa based upon their birth country.

Three interactive dashboards were also produced as part of the project. The first displays the county-level data on languages spoken at home as provided by the ACS.

In the interface, users can view the data at multiple geographic levels including county, Iowa House District, Iowa Senate District, or U.S. Congressional District. The second dashboard focuses on the number of English learners speaking the user-selected language of interest by school district. Finally, the third dashboard allows users to select a language of interest and a school year (going back to 2008-09 school year) and view the number of English learners by county. This dashboard also includes a line chart showing the state-level annual change in students speaking the selected language as well as a short description of the language and the likely origins of these language speakers.

The process to prepare the data and develop these maps required the data team to develop new GIS mapping techniques, as well as create a streamlined process for managing annual updates to the posters and dashboards. The products developed by the data team provide data on languages spoken in Iowa in an interactive format that allows users to explore, learn, and make data-informed decisions based on reliable data on the topic. The dashboards are currently used by state agencies and other organizations to target resources and to be prepared to respond to emerging needs.

UPDATED GIS TASK SHEETS WILL BE e-ACCESSIBLE AND OFFER NEW CONTENT

By Jay Maxwell | Data Analyst

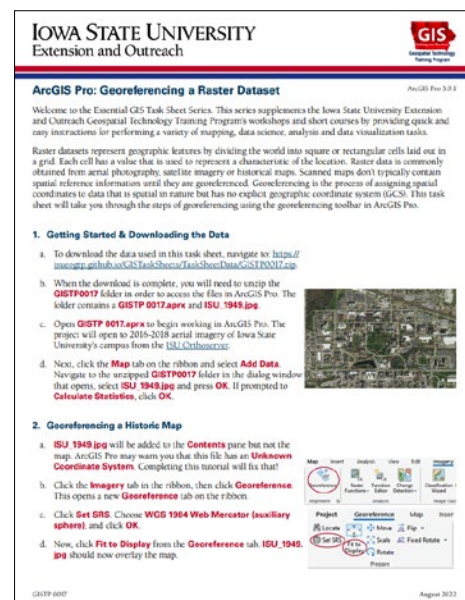
The Iowa State University Extension and Outreach Data and Technology team has resumed publication of its popular Geographic Information Systems (GIS) Task Sheets!

The GIS Task Sheet series aims to supplement the ISU Extension and Outreach GIS Training Program workshops and short courses by providing one-page tutorials on various geospatial and data science-related topics. Past task sheets have included lessons on GIS software such as ArcGIS and QGIS, making maps for the web with JavaScript and Leaflet, and working with spatial data.

With the addition of a full-time team member and the assistance of a graduate student, the team plans to revise previously published task sheets to reflect major updates to some key GIS applications and create new content highlighting popular spatial data-science programming practices and open-source GIS packages. The team will also update its GIS Workshop training material to reflect the latest software upgrades to ArcGIS Pro (see article on page 1).

One of the key features of the updated line of geospatial training task sheets is the increased focus on accessibility. The Data team strives to follow the university's policy guidelines on digital content creation to ensure that the audience, regardless of ability, age, or technology, can fully access educational material, and team members have been working closely with the Extension Store to ensure that the finished products meet these key requirements. Best practices for creating accessible documents include tagging all images with alternate text, linking each image to its accompanying body copy, and ensuring that blocks of text are ordered properly for screen-reading software.

Since resuming publication of the geospatial task sheets in summer 2022, 19 new task sheets have been added, bringing the total count of accessible geospatial training documents available on the Extension Store to 135. All GIS task sheets are available as free downloads from the [Extension Store](https://store.extension.iastate.edu/Topic/Community-Economic-Development/GIS-and-Geospatial-Technology) (<https://store.extension.iastate.edu/Topic/Community-Economic-Development/GIS-and-Geospatial-Technology>), and a [searchable index of the task sheets](#) is available on the



The GIS tutorial on Georeferencing a raster data set is one of 135 task sheets available for free download from the Iowa State University Extension Store.

Geospatial Technology Program's website (<https://www.extension.iastate.edu/communities/gis/quicktasksheets>).

DATA FOR DECISION MAKERS REPORTS PROVIDE CITY, COUNTY, AND REGIONAL PROFILES

By Sandra Burke | Sociologist and Assistant Scientist

Data for Decision Makers (DDMs) are brief reports presenting a profile of a county's, city's, or region's demographic, economic, social, health, or housing characteristics. They are available through the Iowa State University Extension and Outreach Indicators Program and are updated regularly by the Community and Economic Development (CED) program's Data and Technology Team.

DDMs show important indicators from the American Community Survey, the Decennial Censuses, and the Population Estimates program, all of which are conducted by the U.S. Census Bureau.

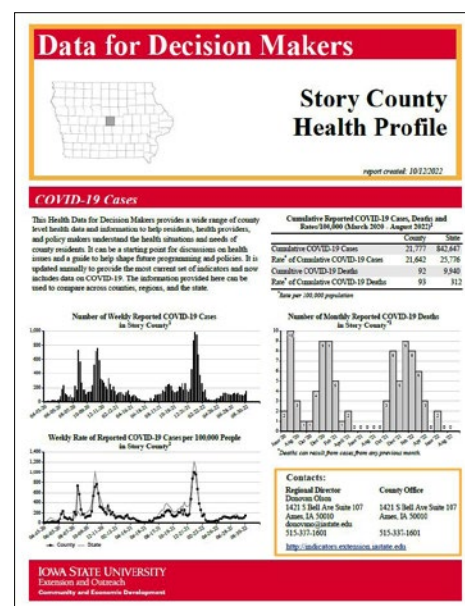
The reports are updated as new and revised data become available and include all the Decennial Census 2020 topics that have been released to date. Additional Census 2020 data will be included once they are released (see article on page 3). The American Community Survey data are updated annually, usually in December.

The newly revised and updated *Data for Decision Makers* Health Profiles include

data from more than 15 health-related sources. These reports have county-level data on COVID-19 cases, rates, deaths, and vaccinations. Also included are selected causes of death and statistics on cancer, heart attacks, chronic obstructive pulmonary disease, falls, and disability.

These profiles report on smoking, drinking, obesity, poor health, physical and mental distress, health-care facilities, health providers, and health insurance coverage. Other socioeconomic indicators show food and housing issues, along with measures of age, education, income, and poverty.

There are *Data for Decision Makers* reports that profile Iowa's Senate and House Legislative Districts as well as ISU Extension and Outreach regions. The Legislative District profiles do not yet reflect the newest district boundaries as the Census Bureau has not yet released data files for the new boundaries. When the data with the new boundaries are released, the DDMs will be updated.



Example of a Data for Decision Makers Health Profile for Story County.

The *Data for Decision Makers* can be accessed on the [Indicators Program website](https://indicators.extension.iastate.edu/#DDMs) (<https://indicators.extension.iastate.edu/#DDMs>).

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