



Louisa County

Comprehensive Plan 2040

2.0





Prepared by
Southeast Iowa Regional Planning Commission



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LOUISA COUNTY
IOWA

Adopted by:
Louisa County Supervisors
Date

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LOUISA COUNTY PLANNING AND ZONING COMMISSION

Michael Vance, Morning Sun
Shelley Lagerquist, Columbus Junction
Tim Coleman, Wapello
Kevin Hardin, Wapello
Rebecca L. Bartenhagen, Muscatine
Alex Mincer, Columbus Junction

LOUISA COUNTY SUPERVISORS

Brad Quigley, Supervisor
Chris Ball, Supervisor
Randy Griffin, Chairman

SPECIAL THANKS

*Kathy Vance, ISU Extension
and Outreach Louisa*
Adam Shutt, Louisa County Secondary Roads
Katie Hammond, Louisa County Conservation
Cole Smith, Louisa Development Group

SEIRPC STAFF

Zach James, Assistant Director
Jarred Lassiter, Senior Planner
Kansha Tiwari, Regional Plans Administrator
Jordan Frahm, Regional Planner

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PART ONE:

Our Second Century

INTRODUCTION

What is a Comprehensive Plan?

Louisa County 2040 is an update to Louisa County's Comprehensive Plan that was adopted over 20 years ago. The plan provides direction for the County and local officials to set policies, complete needed projects, and make land use decisions. Essentially, this plan will serve as a road map for future development in the community and provide a vision for county priorities and public investments for the next 15 to 20 years.

Legal Basis

The legal basis for a comprehensive plan is found in Section 414 of the Code of Iowa. This section allows cities to adopt land use regulations to promote the "health, safety, morals, or general welfare of the community". A comprehensive plan provides a framework and basis for existing and future land use regulations which help balance uses of private property with the welfare of the community.

Iowa Smart Planning

In April 2010, the Iowa State Legislature passed the Iowa Smart Planning Act which articulates ten Iowa Smart Planning Principles for application in the development of a local comprehensive plan. This plan has been created with these ten principles in mind as it applies to Louisa County. The ten principles are as follows:

Iowa Smart Planning Principles

- Collaboration
- Clean Renewable Energy
- Efficiency, Transparency and Consistency
- Occupational Diversity
- Community Character
- Natural Resources and Agricultural Protection
- Sustainable Design
- Transportation Diversity



INTRODUCTION

COMMUNITY VALUES AND VISION

“LOUISA COUNTY WILL BE A THRIVING COMMUNITY THAT VALUES AND ACTIVELY HONORS ITS RURAL LIFESTYLE ITS RESIDENTS HAVE KNOWN AND APPRECIATED FOR GENERATIONS. LOUISA COUNTY WILL CONTINUE TO INVEST IN INFRASTRUCTURE, ECONOMIC DEVELOPMENT AND TECHNOLOGY THAT ENABLE AN ENHANCED QUALITY OF RURAL LIFE FOR ITS RESIDENTS. THE COUNTY WILL OFFER AN INVITING, SAFE, FRIENDLY SMALL-TOWN PLACE FOR ANYONE RELOCATING TO OUR COUNTY AND THOSE EXPLORING OUR VAST RECREATION OPTIONS.”

Making of the Plan

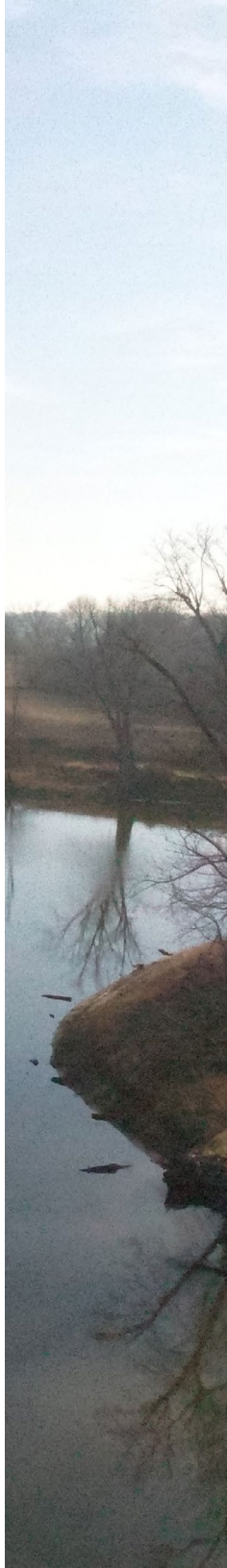
In 2020, Louisa County decided that it needed to update its Comprehensive Plan. The last Comprehensive Plan was completed almost 20 years ago. It was time for Louisa County to re-envision the County's goals and provides a road map for development and improvement. The County partnered with the Southeast Iowa Regional Planning Commission (SEIRPC) to create its 'first 21st Century Comprehensive Plan'. Under the leadership of County's elected officials, residents, leaders, and stakeholders, this plan developed ambitious, but realistic strategies for improvement.

The distinctive benefit of a comprehensive plan is that it provides a guide to tackle major issues identified through research, trends, and conversations with stakeholders and residents. In 2022, Louisa County will enter with an updated plan for growth, development, and prosperity.

Louisa County 2.0 is a comprehensive plan that aims to transform the county into a more prosperous and inclusive county by guiding growth and policy for next 20 years.

Desired Outcomes

1. A future growth strategy presented in a future land use map that predicts where investments like housing, infrastructure, and transportation should be made;
2. A future land use planning framework aligning development types with neighborhood context, investment potential, and county/ community desires;
3. A strategic framework to meet aspirational goals with actions to achieve those goals;
4. A guiding framework for investment in infrastructure, public transit, and civic space that supports efforts to attract and guide growth and investment;
5. A guide for County departments, City divisions, and public agencies, and nongovernmental partners to focus resources and effort in coordination to achieve the plan's vision.



INTRODUCTION

Guiding Values

Based on public input, a number of 'community values' were identified as being important to the community. These values are highlighted in the graphic below. Using these values, a community vision was created, which can be seen on the previous page. This community vision is to become a thriving County in Iowa that provides a safe and inviting setting for everyone. All the goals and objectives listed in the Plan have been designed to help Louisa County achieve its community vision to be a safe, well-connected, scenic county in Iowa.



What Louisa County values...

Small
Growing
Place to
Raise
Family
Farms
Increased
Retail
Diverse
Small
Town
Feel
Tourism
Young
People
Stronger
Community
Schools
Opportunities
Natural
Resources
Stronger
Connected
Thriving
Conservation
Growing
Population

“A diverse, blended community”

“More people teleworking and moving to the county.”

“Growing in population, especially youth and youth activities.”

“Louisa County will find a way to increase business, improve education, and build stronger communities.”

“A great place to raise a family.”

Plan Overview

How the Plan is Structured

The Louisa County 2.0 Comprehensive Plan is structured into four distinct parts that synthesize the major findings and recommendations. Throughout the one-year planning process, technical presentations were generated to provide baseline information related to demographics, economic development, housing, education, quality of life etc.

Part One: Our Second Century

This section summarizes a year long planning process by providing details on community engagement and outreach. This section discusses the historic development of the County and delivers background context relating to Louisa County's demographics and projections needed for recommendations of future growth.

Part Two: County Elements

In order to develop a viable plan for a community's future, it is essential to understand how it functions today. This chapter explores and outlines various topics, to give a detailed 'snapshot' of Louisa County in 2020. These are based on the recommended set of 'planning factors' outlined by the Iowa Smart Planning Act.

Part Three: County Priorities and Implementation

Through the feedback from the community through the development of the Comprehensive Plan, several key community themes were identified as important areas to focus on in moving towards the vision of Louisa County. This section explores these five themes and includes specific goals and objectives to focus on to make Louisa County what you want it to be in the future. If the plan is to be successfully implemented, it requires the support and contributions of many different people and entities – the individual parts that comprise the whole county.

Part Four: Future Land Use

Defining future land use is an important component of a Comprehensive Plan. The objective of this section of the Plan is to provide a working outline for future development in Louisa County. This section and its vision are intended to be used by County Supervisors, Planning & Zoning Commission, City Councils, County and City Staff when making decisions and recommendations regarding land use in the City. The vision and plans found in this section are not a mandate for what will happen but rather a guide to ensure that responsible and effective land use patterns help Louisa County be the best community it can be.

Part Five: Appendices

This section will include data from a county-wide survey.



WHO WILL USE THE PLAN?

The success of the Louisa county 2.0 Comprehensive plan comes from community-wide adoption, use, and support from county departments. Stakeholder groups that help create and inform the plan include elected officials, city and county departments and agencies, developers and investors, community-based organizations, and the public. Continued support and use of the plan by these stakeholder groups is essential to the plan's impact on the future of Louisa county.



Elected Officials

Louisa County Government leadership should continue to demonstrate commitment to the plan's principles and recommended actions. Legislative bodies of the County should adopt the plan and ensure consistency in applying the plan to land use decisions.



Department & Agencies

City and County Division and Agency directors should familiarize themselves with the plan recommendations. Policy and investment decisions should be guided by the plan, and implementation should be carried out through systems planning or participation in small area planning.



Developers & Investors

For-profit and non-profit developers should consult the plan regarding recommendations for land, connectivity, and opportunity. The plan provides guidance on desired forms, uses, and character of development in and around anchors, in addition to other areas of the County.



Community-Based Organizations

Community organizations can use the plan to adopt the recommendations in the plan framework, including the land use plan, the plan elements, and the district priorities. Community organizations will be key partners in implementing many of the recommendations in the district priorities.



Public

Our greatest asset, over 500 Louisa County residents contributed to the creation of the Louisa 2.0 Comprehensive Plan. The residents of Louisa County are the local experts and should continue to shape implementation through their advocacy, actions, and partnership with the County.

OUR HISTORY SHAPES OUR FUTURE

The timeline shows notable events over the County's two hundred years and capturing the major eras of economic development and population growth.

1820

1820's

European American settlement spreads through the historic homelands of Native American tribes in Illinois. In 1828, the Sauk Chief, Keokuk, crossed the Mississippi River and established a new Sauk village along the Iowa River in what is now southern Louisa County, between Wapello and Oakville.

1836

Louisa County was officially established on December 7, after at least two early towns – Fredonia and Toolesboro, had already been settled.

1837

The County's first functional courthouse was built in present day Wapello. Wapello was named after the Meskwaki chief.

1841

The town of Columbus City was founded, as a midpoint on the stagecoach road between Burlington and Iowa City.

200 and 400 A.D.

The site of present day Louisa County was home to the indigenous Havana Hopewell people who lived in the valleys along the Mississippi and Iowa Rivers.

1851

The town of Morning Sun was founded.

1854

Port Louisa served as a river shipping port.

1856

The county seat of Wapello becomes the first incorporated municipality in Louisa County.

1857

The first railroad in Louisa County opened for service and is operated by the Chicago, Rock Island and Pacific Railroad, and extending from Muscatine to the Iowa River at Fredonia.

1867

Morning Sun becomes the second incorporated municipality in Louisa County.

1870

The second railroad line in Louisa County opened to traffic and connected the existing towns of Morning Sun and Wapello. New town of Columbus Junction was established. Columbus City officially incorporated that same year.

1874

Columbus Junction was officially incorporated.

1877

The City of Letts was incorporated.

1878

The town of Cotter (first called Cotterville) was established.

1884

The Iowa Central Railway established a line through the far southern part of Louisa County. This was the first and only bridge ever established across the river between Burlington and Muscatine.

1886

The first pedestrian bridge, the 'Swinging Bridge' or 'Lovers Leap Bridge' was built across a large ravine on the west side of Columbus Junction.

1891

The town of Oakville platted to serve a station on the new Iowa Central railroad line, the closest to the river bridge.

1892

A new County Fairgrounds was established just east of Columbus Junction.

1900

1914

A 1.5-mile stretch of roadway, stretching from the Iowa River at Fredonia, was paved with concrete. It was commonly referred to as the 'Historical Convict Road'.

1922

The town of Fredonia was incorporated. The last/most recent town in the county to incorporate as a city.

1922

A new County Courthouse was constructed on the site of the previous courthouse. This is still the one operating today.

1933

The town of Gladwin suffered from one of the worst train crashes in Iowa history. The town of Gladwin never fully recovered.

1939

Lock and Dam No. 17 was opened on the Mississippi River.

1958

Acquisition of 2,600 acres of land along the Mississippi River to create the Port Louisa National Wildlife Refuge.

1959

Establishment of Louisa-Muscatine School District was created through the consolidation of the Grandview and Letts districts.

1961

The Rath Packing Company (later purchased by Tyson Foods) established a hog processing plant just north of Columbus Junction. This facility soon became the County's largest employer.

1967

Louisa County Conservation Board established. Louisa County Public Health was also first established.

1971

Louisa County formally adopted its first zoning ordinance.

1971

Rail service was discontinued on the Chicago and Northwestern line through southern Louisa County as a result of fire caused by trespassers. The track itself was removed within the county, although the old bridge over the Mississippi River was left standing.

1983

MidAmerican Energy opened a large new coal-fired power plant near the northeast corner of the county.

1993

The Great Flood of 1993 caused widespread damage to Louisa County.

2000

2003

State Highway 99 was officially decommissioned by the Iowa DOT, along with two much shorter highways, 252 (Grandview) and 305 (Letts).

2008

The Iowa Flood of 2008 caused shutdowns of several major employers in the County. Due to displacement, Oakville lost 3/5th of its population.

2009

Several hundred Baptist Chin refugees from Myanmar (Burma) settled in the Columbus area.

2017

The Iowa DOT completed the first phase of a larger project to widen US Highway 61 to a 4-lane divided highway between Muscatine and Burlington.

2020

Clenera LLC, a solar energy company, developed a 128-megawatt, 800-acre solar farm immediately south of Wapello. At the time of its activation, it was the largest solar farm in Iowa.

Early Years of Louisa County (1820-1860)

European American settlement was spreading through the historic homelands of Native American tribes in Illinois. After Black Hawk's warriors were defeated in the conflict, the Sauk and Meskwaki tribes ceded a large area of land in present-day Iowa to the United States through a treaty. The Black Hawk Purchase was a 40-mile wide strip of land immediately west of the Mississippi River, and it included much of present-day Louisa County.

Toolesboro (originally spelled Toolesborough) was the first European American settlement established in what would soon become Louisa County in the mid-1830s. Several towns including Grandview, Columbus Junction, Fredonia, Morning Sun were founded in these 40 years. The county seat of Wapello became the first incorporated municipality in Louisa County.

The County's first functional courthouse was at the northeast corner of 2nd and Washington Streets in present day Wapello, where a Lutheran Church now stands. This log-frame structure opened to the public on April 20, 1837, with court matters presided over by Judge David Irwin, representing the Second District of the Wisconsin Territory (which then included Iowa).

Louisa County also saw several infrastructure improvements during these years. In 1849, a six-mile canal was dug to divert water from the Iowa River to power a grist mill in Wapello. This was the first of only four canals ever created in Iowa. In 1857, work began on the first river levee in Louisa County, along the Iowa River in Eliot Township, near the future site of Oakville. Early farmers had learned firsthand how naturally flood-prone this area of the County was. The first railroad in Louisa County was also opened for service in 1857, operated by the Chicago, Rock Island and Pacific Railroad (or simply, the Rock Island), and extending from Muscatine to the Iowa River at Fredonia.



Image shows Louisa County's first functional courthouse, a short distance from where the current building stands that was opened to the public in 1837.

1861 -1900

In 1867, Morning Sun became the second incorporated municipality in Louisa County.

The second railroad line in Louisa County, and the first traveling north to south, was the Burlington, Cedar Rapids, and Minnesota Railway, which opened for service in 1870, providing service to the existing towns of Wapello and Morning Sun. Their depots and grain elevators were located at what was then the outer fringes of these towns, as the railroad had bypassed their existing neighborhoods and business districts. The Rock Island later purchased this line, so that it operated both of the rail lines that intersected at Columbus Junction.

As soon as the new railroad opened to traffic, the new town of Columbus Junction was established adjacent to where the two railroad lines intersected, nearly 2 miles northeast of Columbus City, and across the river from Fredonia. Columbus City officially incorporated that same year, while Columbus Junction was incorporated four years later in 1874. Very much a 'boomtown' in those early days, Columbus Junction attempted to become the new

county seat, and constructed a 2-story brick building intended to be the new courthouse at the south end of town. This attempt failed, and Wapello has remained the county seat ever since.

In 1878, the town of Cotterville was established west of Columbus Junction, named for landowner Margaret Cotter and later renamed Cotter when it was incorporated in 1902.

In 1884, the Iowa Central Railway established a line through the far southern part of Louisa County, passing by Morning Sun and crossing the Mississippi River into Mercer County, Illinois, by Keithsburg. Completed in 1886, this was the first and only bridge ever established across the river between Burlington and Muscatine.

In 1886, the first pedestrian bridge was built across a large ravine on the west side of Columbus Junction. Later rebuilt in 1904 and 1922, the 'Swinging Bridge' or 'Lovers Leap Bridge' has since become one of the most prominent tourist attractions in Louisa County.

In 1893, four Muscatine businessmen established the Muscatine North and South Railroad (MN&S), which within two decades had erected a line extending between Muscatine and Burlington. Two sections of this line closely paralleled existing rail lines – the Rock Island from north of Letts into Muscatine County, and the Minneapolis and St. Louis from Oakville to Elrick, where the new town of Elrick Junction replaced the older settlement at the point where the two lines diverged.

Early 1900s photograph of the original 'Swinging Bridge' in Columbus Junction



Population Expansion in the 1900's

At the United States Census of 1900, Louisa County had its highest recorded population to date, at 13,516, following a sizable increase over the preceding decade. The founding of Oakville, along with the draining of nearby marshes for farmland, caused the population of Eliot Township to more than double in size between 1890 and 1900 (from 377 to 873). This accounted for nearly 1/3 of the County's total population growth, while Wapello also grew substantially, likely a result of the new corn canning factory.

The population of Louisa County grew by nearly 1,800 (an increase of 17%), between 1960 and 1980. The arrival of Rath played a significant role in this trend, as did the economic growth of nearby Muscatine, which became a commuting draw for eastern Louisa County, with several large employers in far southern Muscatine County. With several residential subdivisions developed on Muscatine Island near the county's northeast corner, the population of Port Louisa Township nearly tripled over this 20-year period, going from 495 to 1,339.

1901 - 1940

In 1900, after over a decade of work, a 35-mile levee system along the Iowa and Mississippi Rivers was completed, extending from west of Oakville to just north of Burlington. Three years later, the Boards of Supervisors for Louisa and Des Moines Counties established several Drainage Districts in the area protected by the levee. A series of drainage channels were dug to divert the flow of runoff and allow naturally marshy bottomland areas to be drained for use in farming. The area's sandy, alluvial soil was especially fertile and conducive to widespread cultivation.

OUR HISTORY SHAPES OUR FUTURE

In 1903, the town of Gladwin was founded along the Chicago, Milwaukee and St. Paul railway line, midway between Muscatine and Washington, and just west of where it crossed the Iowa River. A 1.5-mile stretch of roadway, stretching eastward from the Iowa River at Fredonia, was paved with concrete in 1914. This was one of the earliest paved roads in Iowa, and used as a test for the quality of new paving materials. The construction project used convict labor from the state prison in Anamosa, and is thus commonly referred to as 'the Convict road'. The paving materials proved highly resilient, and have outlasted many more recently paved roads in the surrounding area. The road was initially part of State Highway 92, until the new river bridge was built in 1930s, and the highway passed Fredonia to the south.

In 1918, a new High School was built in the rural area between Columbus Junction and Columbus City. Eventually, this campus expanded to include all of the schools for the Columbus School District. This, in turn, spurred substantial residential development at the south end of Columbus Junction, resulting in the two cities becoming physically contiguous for the first time.

In 1922, the town of Fredonia was incorporated, inspired to do so by the high numbers of speeding motorists that traveled to the area to test out the Convict Road. The new government allowed them to have their own Police Department for enforcing speed restrictions. As such, at 99 years old, Fredonia is the youngest incorporated municipality in Louisa County.

A new County Courthouse was constructed on the site of the previous courthouse in 1928. This building continues to serve as the Courthouse to this day, having already done so for a longer period than either of its two predecessors.

On June 21, 1933, the town of Gladwin suffered from one of the worst train crashes in Iowa history, when four people were killed and numerous properties were destroyed after a fast moving train derailed and dozens of oil tankers crashed into the town's business district, causing several explosions and fires that lasted for days. As a result of this disaster in the midst of the Great Depression, the town of Gladwin never fully recovered, and had largely disappeared by the time the railroad line was abandoned decades later.

In 1938, the multi-state Great River Road was established as one of America's First National Scenic Byways. Since then, this byway has traveled through rural eastern Louisa County, although up until the early 21st century, the portion between Toolesboro and Muscatine Island was one of the few unpaved sections of the entire byway.

On May 14, 1939, after four years of construction, Lock and Dam No. 17 was opened on the Mississippi River, 3 miles north of its confluence with the Iowa River. This was part of a Depression-era project by the U.S. Public Works Administration (PWA) to install a coordinated series of locks and dams along the Upper Mississippi River, to aid in river transportation and commerce.



Construction of a 1.5 mile stretch of roadway in 1914 by convict labor from the state prison in Anamosa. The road was commonly referred to as the 'Convict Road'.

1941 - 1980

In 1946, an ice jam on the Iowa River resulted in a levee breach near Oakville. About 400 homes and 13,000 acres of farmland were impacted by flood waters, which then froze in place when temperatures dropped.

In 1958, nearly 2,600 acres of land along the Mississippi River was acquired to create the Port Louisa National Wildlife Refuge. During the same year, the Coralville Dam was completed on the Iowa River just north of Iowa City, and about 25 miles upstream from Louisa County. It was built by the Army Corps of Engineers as a flood control project for the Mississippi River. By creating a new reservoir that is able to store nearly 140 billion gallons of water during a 100-year flood event (Coralville Lake), this altered the volume and height of water flowing through downstream areas including Louisa County.

In 1959, the Louisa-Muscatine School District was established, following the consolidation of schools in Grandview and Letts. Land was purchased for a new campus at Highway 61 and 170th Street, which now houses all K-12 facilities serving Letts and Grandview, as well as Fruitland and the south end of Muscatine in Muscatine County.

In 1961, the Rath Packing Company established a hog processing plant just north of Columbus Junction near the confluence of the Iowa and Cedar Rivers. Purchased by IBP in 1985, and then Tyson Foods in 2001, this facility soon became the County's largest employer, and it resulted in substantial economic and population growth in the surrounding area over the following decades. Employment at the plant has also brought about significant racial and ethnic diversity for the Columbus area, starting with a wave of Mexican and other Hispanic migrants in the 1980s and 1990s, and later the resettlement of Chin refugees from Myanmar (Burma) in the late 2000s.

In 1967, county citizens voted to establish the Louisa County

Conservation Board (LCCB), as enabled by Iowa's County Conservation Law, passed twelve years earlier. Virginia Grove Recreation Area was the first large park acquired and established by LCCB, in 1975.

On May 24, 1971, Louisa County formally adopted its first zoning ordinance, to regulate land uses in the unincorporated areas of the county. This followed a significant increase in rural development over



Tyson Foods purchased IBP in 2001, a hog processing plant North of Columbus Junction.

In 1971, rail service was discontinued on the Chicago and Northwestern line through southern Louisa County, and while the track itself was removed within the county, the old bridge over the Mississippi River was left standing, with the vertical lift span locked in place to allow for the continuous movement of barge traffic. Ten years later, trespassers attempted to set off fireworks from the bridge, and this resulted in a fire that caused the vertical lift span to fall into the river, blocking barge traffic. The destruction of the bridge eliminated any sort of non-boat crossing between Louisa County and Illinois.

In 1979, the route of the Register's Annual Great Bicycle Ride Across Iowa (RAGBRAI) passed through Louisa County for the

OUR HISTORY SHAPES OUR FUTURE

1980 - 2000's

In March 1980, the Chicago, Rock Island, and Pacific Railroad filed for bankruptcy, and the railroad line between Burlington and Cedar Rapids was subsequently removed.

In October 1983, MidAmerican Energy opened a large new coal-fired power plant (the Louisa Generating Station) along the Mississippi River near the northeast corner of Louisa County. This followed the establishment of several other large industrial facilities further north in Muscatine County, and the plant was built upon an area of naturally higher elevation known as the 'Big Sand Mound'. A new 5-mile rail spur was established off of the Canadian Pacific mainline to serve this facility, which now produces over 700 megawatts net (MWN) of energy.

The Great Flood of 1993 caused widespread damage along the Mississippi River and its tributaries. It was caused by heavy, persistent rain and snow over the previous year, which oversaturated the soil, and caused all additional moisture to run off into streams and rivers throughout the Upper Midwest. Louisa County was especially impacted by this disaster, due to its position at the convergence of the Iowa,

Cedar, and Mississippi River. Several levee breaches occurred along the Mississippi and Iowa Rivers, resulting in mass evacuations. The 20-year old Bar-M Estates Subdivision on Muscatine Island was greatly impacted, and many of the home lots were sold through buyouts facilitated by the Federal Emergency Management Agency (FEMA). Also, in an area where levees had failed, 2,600 acres of land along the Iowa River was acquired to establish a new addition to the Port Louisa National Wildlife Refuge, the Horseshoe Bend Division.

In 1994, a bypass for State Highway 70 was constructed around the east side of Columbus Junction, and this highway that previously extended south to Columbus City was truncated to end at Highway 92. The 1935 viaduct for Highway 92 had resulted in a substandard means of access between the two highways, as Highway 70 passed underneath 92 in the downtown area, requiring side streets to connect between the two.



Louisa Generating Station, operated by Mid American Energy, was established in 1983 along the Mississippi River near the northeast corner of Louisa County.



Columbus Junction viaduct for Highway 92.

The Iowa Flood of 2008 was similar to the record flood event of 1993, although the flood levels along the Iowa and Cedar Rivers were even worse. Following serious flood damage upstream in Cedar Rapids and Iowa City, waters seeped through levees to flood the east side of Columbus Junction, closing off access from Highways 92 and 70. This forced a week long shutdown of the Tyson Foods plant, the area's largest employer. The city's levees have since been reinforced to handle a river crest of 31 feet.

Further downstream, a levee breach caused floodwaters to inundate Oakville. The small, low-lying city was devastated by the disaster, as residents were forced to evacuate with no time to prepare, and the town remained under several feet of water for days after the levee breach. Also, the area's main employer, Tri-Oak Foods, was closed for 3 weeks. Since few property owners had flood insurance at the time, the high cost of the damage forced many residents to permanently relocate, with hundreds of property buyouts facilitated by FEMA. As a result, the 2010 Census showed that Oakville had lost 3/5th of its population from the previous Census ten years earlier.

In 2003, State Highway 99 was officially decommissioned by the Iowa DOT, along with two much shorter highways, 252 (Grandview) and 305 (Letts). In 2017, the Iowa DOT completed the first phase of a larger project to widen US Highway 61 to a 4-lane divided highway between Muscatine and Burlington. This included 6 miles of roadway from the county line to 130th Street, just south of Grandview. It also included the first two grade-separate highway interchanges ever installed in the county, serving Grandview and the Louisa-Muscatine Schools complex.

In 2020, Clenera LLC, a solar energy company, developed a 128-megawatt, 800-acre solar farm immediately south of Wapello. At the time of its activation, it was the largest solar farm in Iowa.



The Community Speaks



A priority of the Louisa County 2.0 planning process was to reflect the needs and desires of its residents by seeking contributions from as much of the community as possible, transparently and authentically. The multi-phase participatory process included multiple avenues for the residents to share opinions and make recommendations on county and city-level strategic actions. Planners worked with local organization partners, county staff, elected officials, key employers, public/quasi public entities and nonprofits to identify and understand the assets and issues of Louisa County from the people who interact with the community members daily, shaping the plan's guiding principles and leading to the County's vision to retain and expand its population.



3

public events attended



378

survey responses

“

I envision Louisa County to be a vibrant dedicated community of people invested in the future of its citizens.

Newspaper Social Media

Coverage

“

A place where we are back to the 1960's in regards to retail options, a place where people want to live, work, and recreate.

50

stakeholder interviews



Phase I: County-wide survey

Public input is a vital component of a comprehensive plan and several methods were utilized to obtain public input. One of these methods was a public survey. From July 2021 through August 2021, the engagement efforts of Phase One were aimed at understanding what the public considered as strengths, weaknesses, opportunities, values, vision, and themes.

Questions covered topics such as: quality of life, community services, housing, transportation, economic development, natural environment, and recreation. The survey was made available in both hard copy and online versions. The link for the survey was posted on the county's website and relevant social media pages. The online link was also distributed to community group members and employees of different county departments, advertised on radio and local newspaper.

Around 1,000 surveys were mailed to door also. The planners used ArcGIS to create a county-wide mailing list to randomly selected addresses in the county. They balanced the mailings to city and county township addresses based on population. Hard copies of the survey were also made available at City Halls, Louisa County Courthouse, Wapello public Library. In total, 378 residents completed the survey.

Phase II: Stakeholder Engagement

Phase II was a two part effort to engage the public. The first piece was one-on-one stakeholder interviews of county staff/ elected officials, public/ quasi-public officials, non-profit or community groups, as well private sector representatives. The interview questions gauged the interview subject's experience living in the county and the improvements the major goals that the county should be striving towards. The questions for county departments were more specific and asked about their staff organization, working relationships with other departments, major plans for future capital projects etc.

Several online meetings were organized to gauge input from a wide range of stakeholders. The planners used online tools such as Poll EV and Mentimeter to conduct 90-minute visioning sessions with the Planning and Zoning Commission as well as the Louisa County Development Group.

01 County Staff/ Elected Officials

Chris Ball, County Supervisor
Randy Griffin, County Supervisor
Brad Quigley, County Supervisor
Adam Shutt, County Engineer
Cathy Smith, County Assessor
Sandi Surgell, County Auditor
Vicki Frank, County Treasurer
Tammy Hayes, County Recorder
Brian Thye, County P&Z
Katie Hammond, County Conservation
Cyndi Mears, County Community Services
Brian Hall, County Emergency Management
Brad Turner, County Sheriff
Adam Caudle, County Veteran's Affairs
Adam Parsons, County Attorney
Jim Ingham, Louisa County Ambulance

03 Public/ Quasi-Public

Tony Flores, Community Health
Centers of SE Iowa
Louisa County Development Group
Alycia N. Totemeier, SE IA
Regional Medical Center
Linda Avery, City of Oakville
Muscatine Community College
Mike Peterson, Wapello School District
and Morning Sun Elementary School
Jeff Maeder, Columbus
Community School District
Steve Hollan, Morning Sun
Community School District
Rod Glosser, Rathbun Rural Water
Ken Carlson, Louisa Communications
Collin Johnston, Port Louisa Transport

02 Non-Profit or Community Groups

Louisa County Trails Council
Kinda Pruett, National Resource
Conservation Service
Andy Robbins, Iowa Department
of Natural Resources
Jerry Anderson, Louisa County Farm Bureau
Marcy Kapsch, National Fish
and Wildlife Service
Araceli Vazquez-Ramirez, LULAC
Columbus Junction Chapter
Kathy Vance, Iowa State Extension
JR McCulley, Ducks Unlimited

04 Private Sector

Jesse Caston, Terrus Real Estate
Shawn Maine, City of Wapello and
Midwest Rod and Restoration
Brent McElroy, Tyson Foods
Brook McCullough, S & J Tube

Phase III: County Events

SEIRPC staff conducted several innovative public outreach events to hear from members of the public. To address the challenges of documenting a dispersed community whose residents often lacks the leisure time to attend community meetings, the SEIRPC team attended local community events such as Wapello Rodeo, Wapello Pancake Breakfast. Iowa State Extension assisted the team by distributing surveys at 2021 Louisa County Fair. This allowed them to meet community members where they are, ensuring that a broad cross-section of residents had an opportunity to be heard and involved in the planning process.



Phase IV: Public Comment Period

From start to finish, Louisa County 2.0's planning process valued the involvement of citizens. All the Louisa County Planning and Zoning Commission meetings were open to public to attend and learn about the plan. In addition to all the different ways of involving the public through surveys, attending community events, interviews and online meetings, Louisa County Planning Zoning made a draft of the plan available to the public for a 30-day period. Contacts of SEIRPC staff was listed clearly so the members of the public could reach out to them directly with any comments. The plan was also mailed directly to all the stakeholders, county staff, elected officials for comments so they can be addressed before going to Louisa County Supervisors for approval.





PART TWO:

County Elements



10,837

Population in 2020



77%

Home Ownership



77

Square Miles. of
Recreation Area



30%

Workforce in
Manufacturing Industry

“

Louisa County will have a way to increase business, improve education, and build stronger communities.



Over
1000
People Engaged
in 2.0 Process



42
Median Age

“

Louisa County will increase in solar energy companies, see slow increase in population and elderly housing options.

23%
Minority Population



301
Sq. Mi. of Agricultural Land



Louisa County Today

Historic Population

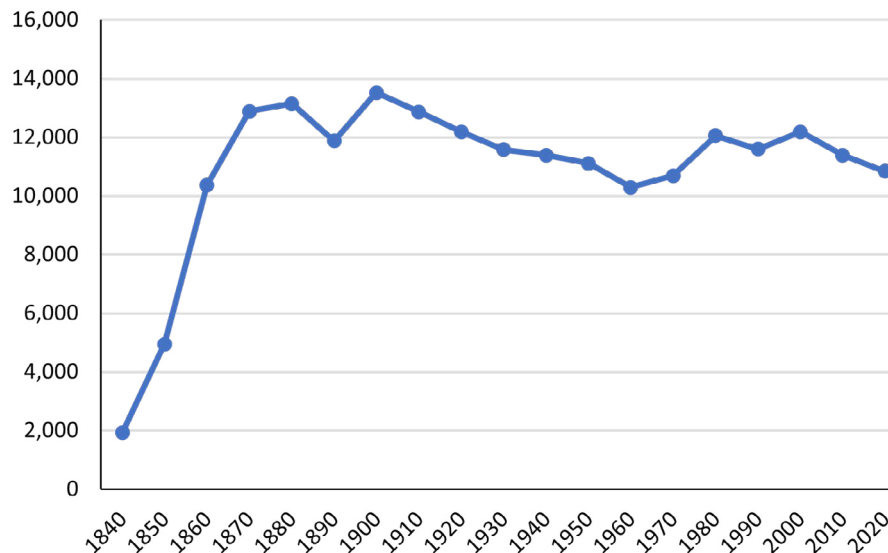
Louisa County's population has remained relatively stable through most of its history. After a population surge following initial European settlement, the county kept a stable population between 1870 and 1900, apart from a sharp drop (and subsequent rebound) in 1890. A steady period of decline followed during the first six decades of the 20th century.

Following a slight uptick in the 1960s, the 1970s saw a major population increase, which resulted in Louisa County having the 8th highest percentage increase of any county in Iowa over that decade. In addition, this was the only decade in which all 9 cities in the county gained population (although some grew at a much higher rate than others). Likely explanations for this include the

establishment of the Rath (now Tyson) meat packing plant by Columbus Junction, and a surge in new home construction in the rural northeastern part of the county, near Muscatine.

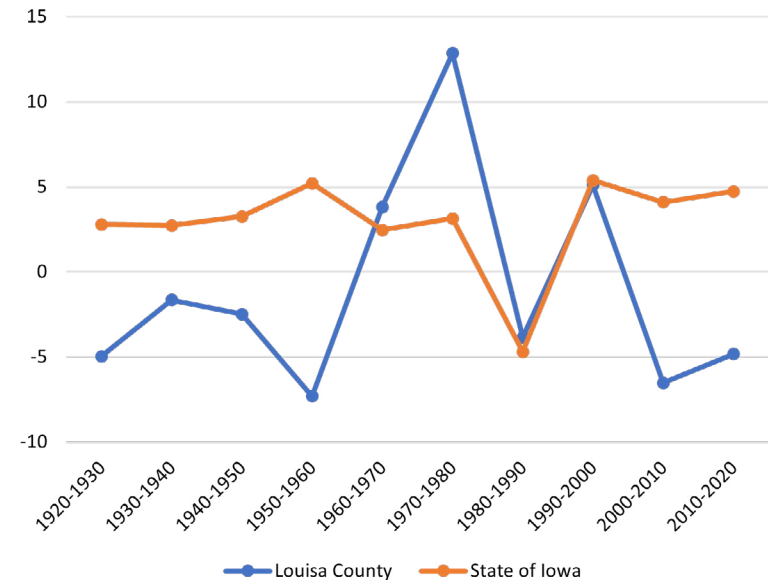
Louisa experienced sudden decrease in population between 1980s, although this was proportional to the rate of decrease statewide, caused by the Farm Crisis early in that decade. Louisa County rebounded along with the state in the 1990s, aided by an influx of Hispanic/Latino immigrants attracted by jobs at the Tyson Foods plant. Over the subsequent two decades, the population has begun to decrease again – at a similar rate to the early 20th century, and in contrast to the modest gains statewide.

Louisa County - Total Population, 1840-2020



Source: US Census Bureau

% Population Change by Decade, 1920 to 2020



Source: US Census Bureau

Historic Population

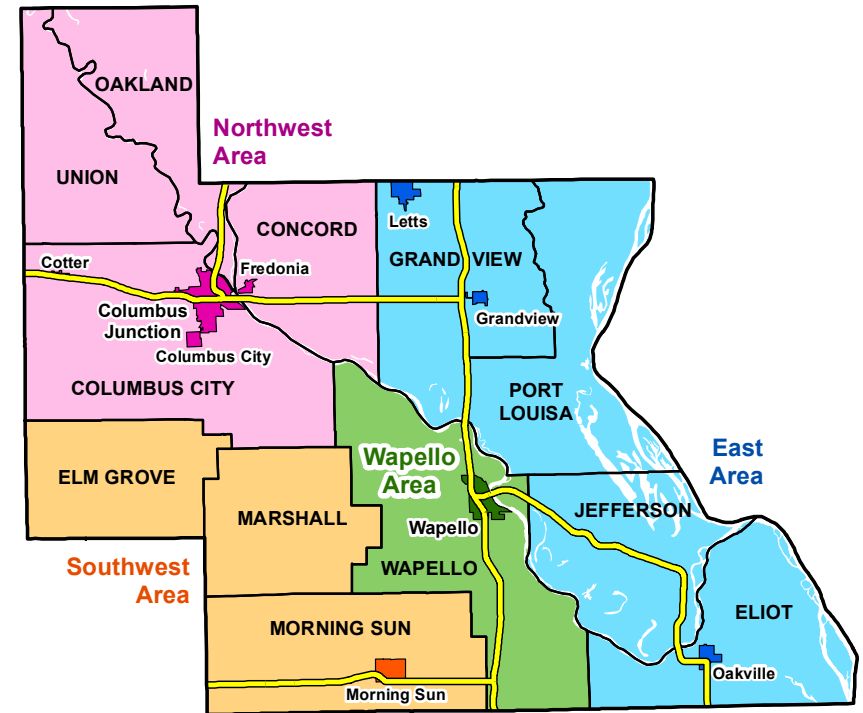
For purposes of analysis for this Plan, Louisa County was split up into 4 sections of roughly equivalent population, in order to compare the population trajectories of each over time. In the center of the county, the Wapello area has seen very little change over the past century. Being the county seat has appeared to have a stabilizing impact on Wapello's economy and population. The other three areas each saw a similar trend of gradual decrease between 1920 and 1960, but circumstances unique to each caused them to move in different directions in the subsequent decades.

First, the arrival of the Roth (later Tyson) meatpacking plant by Columbus Junction caused a period of continuous growth for the Northwest Area between 1960 and 2000, with the sharpest increase occurring during the 1990s, with the arrival of many Hispanic/Latino immigrant families. The population of this area has decreased slightly since 2000.

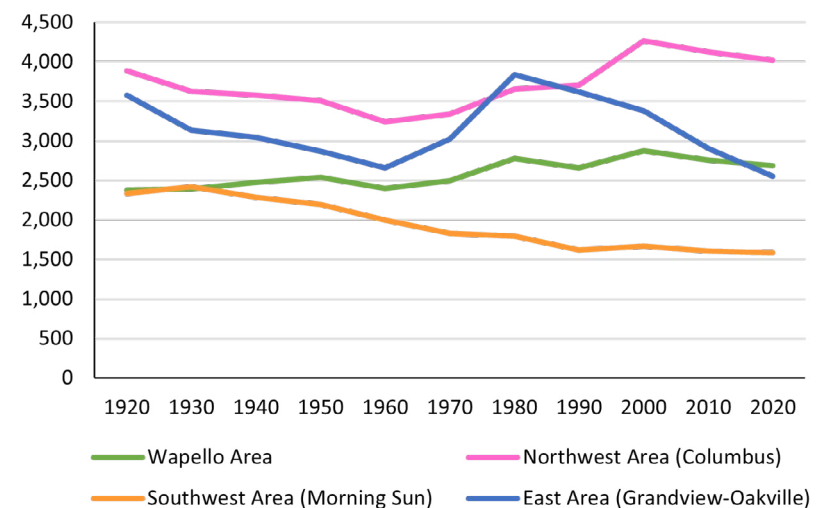
Next, the East Area saw a sharp increase of population between 1960 and 1980, as numerous homes and subdivisions were built in the northeast part of the county, in close proximity to jobs on the south side of Muscatine. There were also a number of recreational cabins built around Lake Odessa during this period. The devastating floods of 1993 and 2008 caused this same area of the county to see a steep drop in population between 1990 and 2020, to the point that all gains made since 1960 had been effectively cancelled out.

Finally, the Southwest Area saw a continued trend of steady population loss between 1960 and 1990, and its population has remained relatively stable ever since. This area has not been subject to the same dramatic shifts as other areas of the county, due to its lack of major employers or waterfront recreation areas, and its abundance of good farmland in areas of high elevation.

County Split into 4 Sections



Louisa County - Population by Section, 1920 - 2020



Source: US Census Bureau

Historic Population

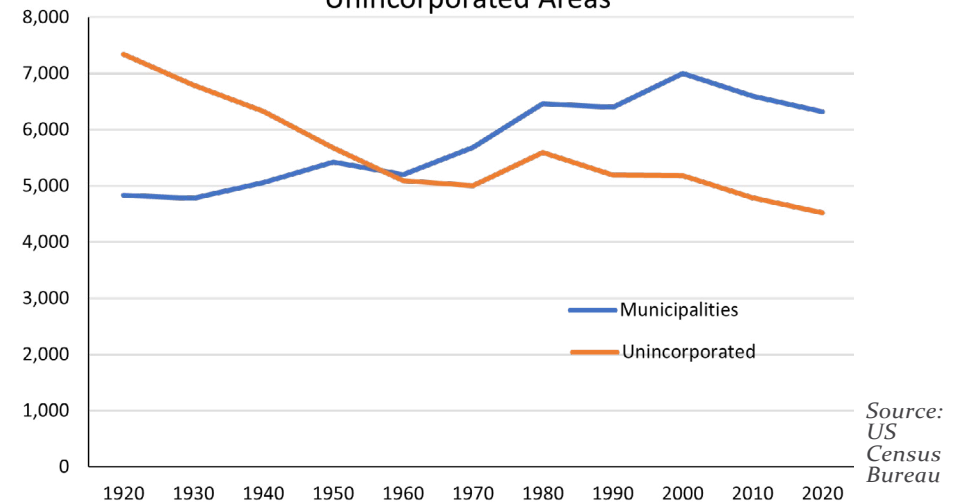
Of the county's total residents in 2020, 6,319 lived in one of the nine incorporated municipalities, while the remaining 4,518 lived in unincorporated areas of the county. This amounts to 42% of county residents living in unincorporated areas, compared to 20% for the State of Iowa as a whole. In this regard, it is one of only 21 counties statewide to exceed 40% living in unincorporated areas. Historically, this statistic is comparatively low, as just under 60% of the county's residents lived in unincorporated areas in 1930 – the first Census taken after the county's youngest municipality (Fredonia) had been incorporated. The share of residents living in municipalities has gradually increased every decade since then, although the degree of increase has leveled off substantially since 2000. An inversion occurred between 1950 and 1960, when residents living in cities became the majority for the first time.

Population Change

The map on the following page displays the percentage change in total population over the past 4 decades, for each of the 12 Townships comprising Louisa County. In each instance, the total for each Township includes the population of any Cities that are located within that Township. In addition, each Township includes a label that splits up the population change into the two 20-year periods comprising the full 40-year span.

In total, only 3 of the 12 Townships saw an increase over the 40-year period, and all of these are located in the northwest quadrant of the county, centered around Columbus Junction. Among those, only Oakland County gained during the 20-year period from 1980 to 2000 and the corresponding period from 2000 to 2020. Both Columbus City and Concord Township grew considerably from 1980 to 2000, but have since decreased slightly. This owes largely to the initial influx

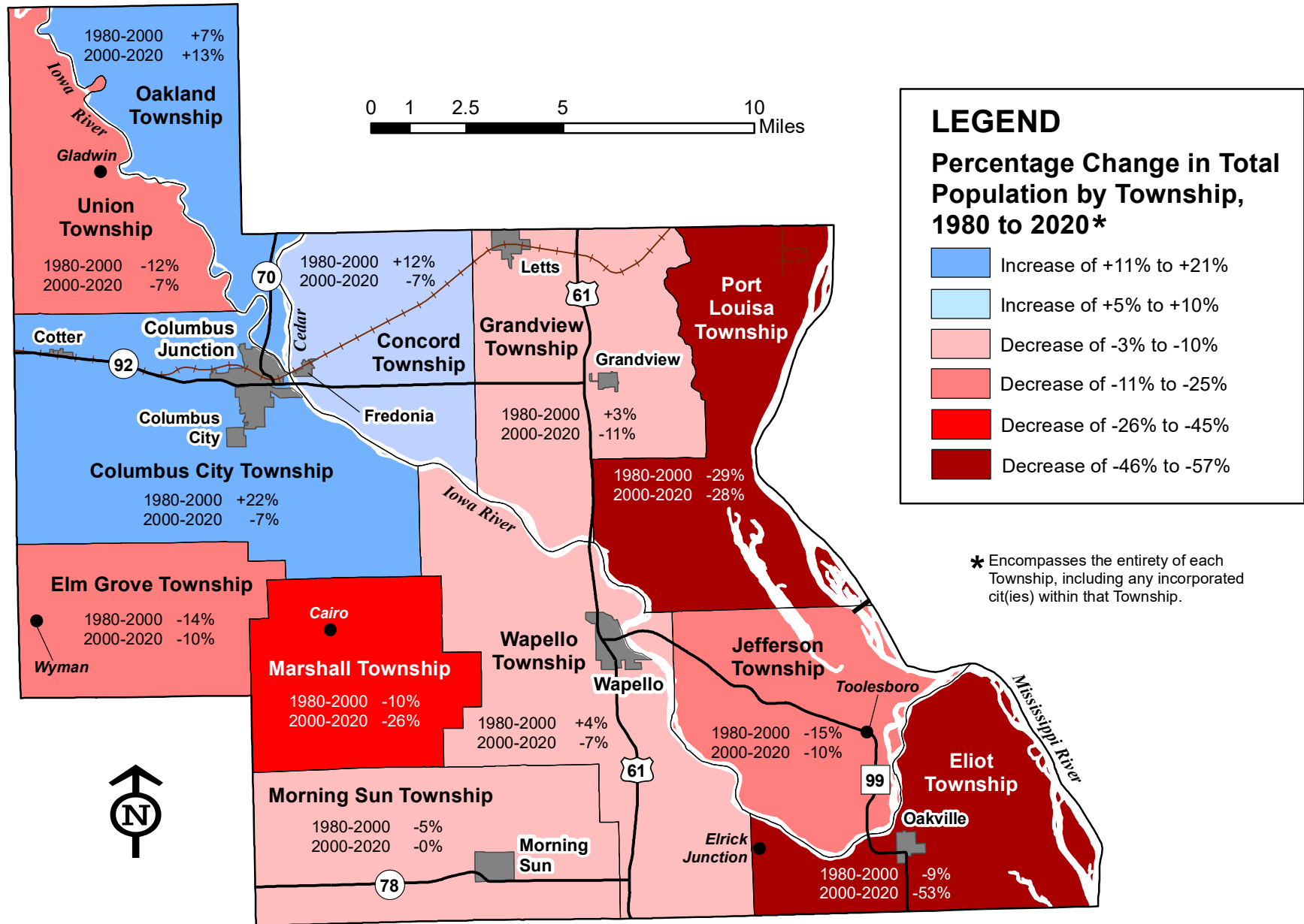
Louisa County - Population in Municipalities and Unincorporated Areas



of Hispanic immigrants in the 1980s and 1990s, which has tended to involve households of a larger than average size. In addition, Grandview and Wapello Townships grew slightly over the first 20-year period, but then decreased by a greater percentage in the early 2000s, resulting in a cumulative loss over the full 40-year period. Oakland Township was the only one to see an increase in population from 2000 to 2020, likely owing to the emergence of new rural housing subdivisions such as Golden Pond.

Five of the 12 Townships collectively decreased by more than 20% between 1980 and 2020. Of these, the largest loss was experienced by Eliot Township in the southeast corner of the County. This loss of 57% was largely due to the 2008 flood causing Oakville to lose half of its total population. In addition, Port Louisa Township decreased by 49%, although in this case the trend reflects sustained loss over the full 40-year period, due to the impacts of both the 1993 and 2008 floods. The loss of 23% in Jefferson Township reflects similar trends, while the losses in Marshall and Elm Grove Townships (33% and 23%, respectively) likely owe to their isolated location away from major highways, and the predominance of agricultural land uses in the southwest part of the County.

Louisa County - Population Change, 1980-2020



Population Comparison with Peer Counties

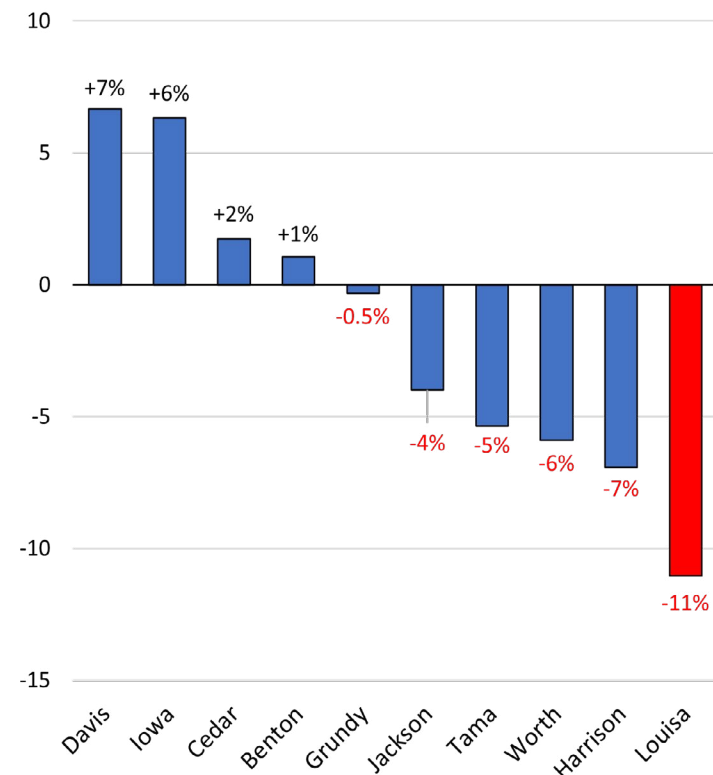
To gain a better understanding of the recent population trajectory in Louisa County, it was compared with 9 other ‘peer counties’, which were identified based on geographic and socioeconomic similarities with Louisa County. Each of those counties is predominantly rural, but is adjacent to one or more counties that contain a large, regionally prominent city. For instance, Cedar County is near Iowa City, Davenport and Muscatine, while Jackson County is situated between Davenport and Dubuque. Also, while it is also situated close to Muscatine, Tama County is similar to Louisa in that it contains a meatpacking plant and has attracted a sizable number of Hispanic immigrants in recent decades.

The results indicate that of the 10 total counties, Louisa had the largest decrease in population between 2000 and 2020, and by a sizable margin. It also decreased the most for each individual decade (2000-2010 and 2010-2020). Taken as a whole, all 10 counties decreased by 2% over that period. The results indicate a wide variety of outcomes among the individual counties. When compared with other rural counties that are situated much further from the nearest large city, these results are promising. Whereas the vast majority of the more remotely located counties consistently shrink over time, those that are closer to large cities stand a greater chance of retaining or expanding their population, if local officials adopt the proper strategies to encourage development and exploit their existing assets.

The results for Cedar and Davis Counties are particularly promising. Davis County is noteworthy due to its close relationship with Ottumwa in neighboring Wapello County. Despite the lack of a 4-lane highway connection and any cities over 3,000 in population, Davis has managed to modestly grow its population two decades in a row.

A key advantage for Cedar County is the presence of Interstate 80 providing quick access to nearby Davenport and Iowa City. With a continuous 4-lane highway through Louisa County following the completion of the Highway 61 upgrade, strong potential exists for Louisa to achieve similar outcomes in the future.

Comparison with Peer Counties –
Population Change, 2000 to 2020



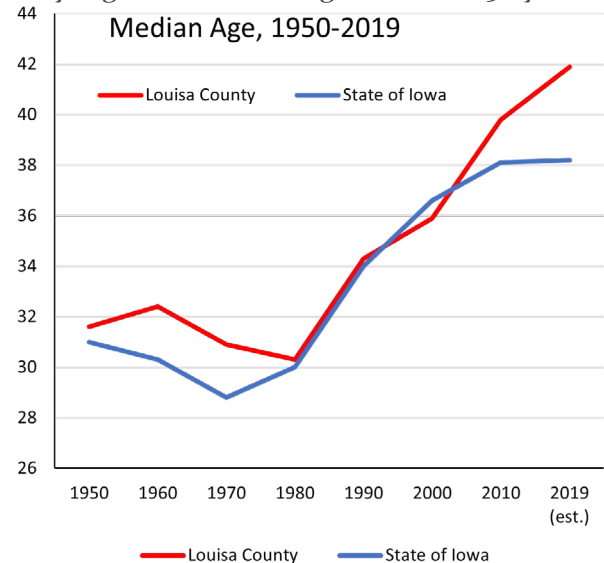


Median Age

According to 2019 estimates from the US Census Bureau, Louisa County has a median age of 41.9 years, and this compares to a median age of 38.2 years for the State of Iowa as a whole. The graph on the bottom shows that over the past 60 years, Louisa County has been largely consistent with the state overall, with some notable exceptions. Between World War II and 1970, Louisa’s median age rose to being 2 years ahead of the state. Then the gap between the two narrowed considerably in the following decades, and the two briefly inverted in 2000, after a sizable number of Hispanic immigrant families arrived in the Columbus area in the 1990s. Since then, the gap has widened out again, and now Louisa’s median age is nearly 4 years higher than that of the state.

Within Louisa County, the Median Age varies considerably from one part of the County to another. For Columbus Junction, the median age is 35.1 years, while for Wapello, it’s 40.6, and for Morning Sun, it’s 44. The Columbus area is especially influenced by the presence of large families and young workers among the Hispanic and Asian immigrant population. Elsewhere, the trend tends to be that cities are near the county wide average, while unincorporated townships tend to be considerably higher, sometimes greater than 50 years.

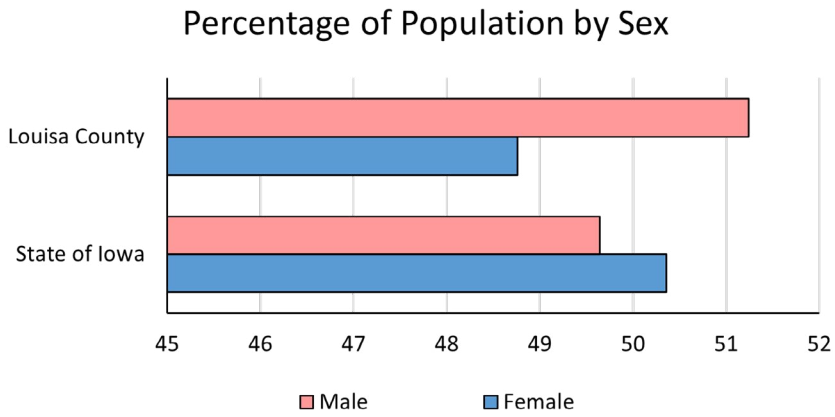
Source for both the graphs:
US Decennial Census;
American Community Survey 5-Year Estimates,



The latest Census estimates from 2019 show that Louisa County’s population is 51.2% male and 48.8% female. This is an inversion of the statewide dynamic, as Iowa as a whole is 50.5% female. Comparatively, Louisa County has the 7th highest ratio of males to females of any of the state’s 99 counties (105 males for every 100 females). In addition, 4 of the 6 counties above it are home to state correctional facilities for men, and still another is home to Iowa State University, whose student body is nearly 60% male. Therefore, among the general population of counties, Louisa County likely ranks as 2nd highest, after Van Buren County.

This trend is largely consistent through the county. However, it is more pronounced in unincorporated areas, where it is 52.3% male, compared to 50.5% in the incorporated cities. Also, the total populations of the Columbus and Wapello School Districts are both nearly 52% male, while those of the Louisa-Muscatine and Morning Sun School Districts are between 50 and 51% female. Also, over the past two decades, statistics show that Louisa County has flipped from being majority female to majority male. The male percentage increased from 49.7% in 2000, to 50.9% in 2010, to 51.2% in 2019.

For Louisa County, the median age for males is 39.9 years, while for females is 43.1. A similar dynamic exists at the state level, although the gap between the two sexes is nearly a year wider in Louisa County.



Population by Age Cohorts

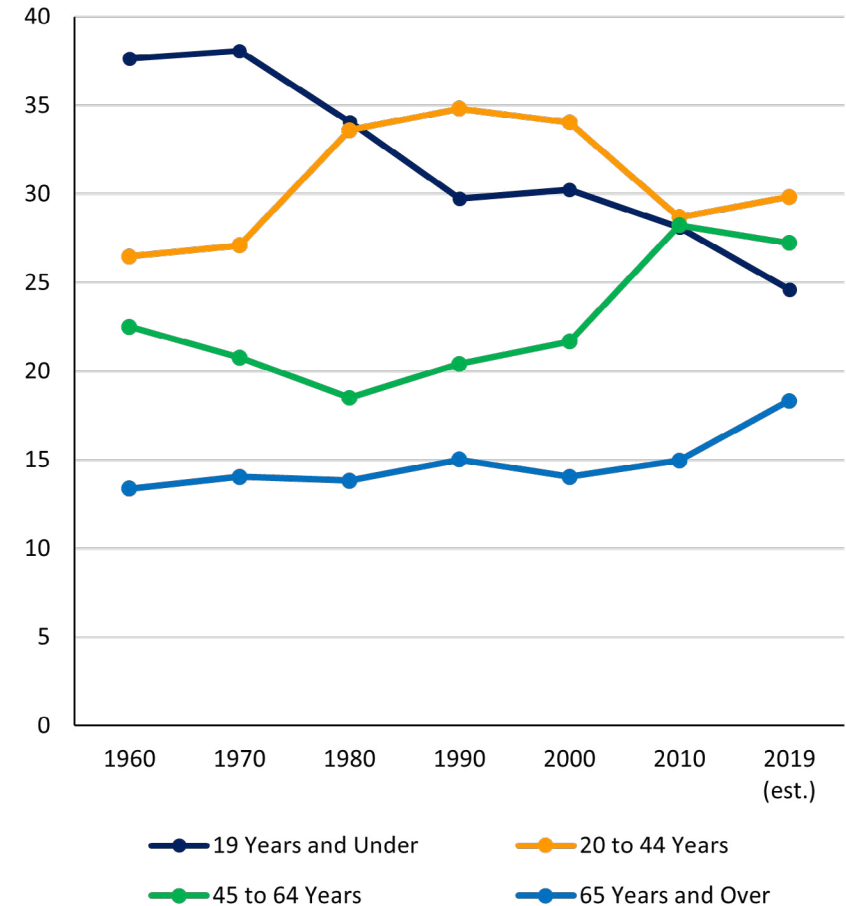
Over the past 60 years, the age composition of Louisa County residents has shifted considerably. The figure on the right shows the percentage of total residents in each of the 4 age cohorts (roughly corresponding to children/teens, young adults, middle-aged/older adults, and elderly/senior citizens).

Between 1970 and 1990, an inversion occurred as the percentage of young adults increased and the percentage of children/teens decreased. Since then, the percentage of children/teens and young adults have both declined, and the percentage of middle-aged older adults now exceeds the percentage of children/teens for the first time. While they continue to hold the smallest share of the four cohorts, the percentage elderly/senior citizens has shifted noticeably upward over the past two decades. Given the corresponding increase for middle-aged/older adults between 1990 and 2010, it can be inferred that the percentage of elderly/senior citizens will increase proportionally during the 2020s, as this same group of individuals passes age 65.

The trend for Louisa County has largely mirrored that of the State of Iowa as a whole. However, the rate of decrease for children and teens has been more pronounced in Louisa County, as this cohort still slightly exceeds middle-aged/older adults at the state level.



Louisa County - Percentage of Population by Age Cohorts



Source: US Decennial Census; American Community Survey 5-Year Estimates, 2015-2019

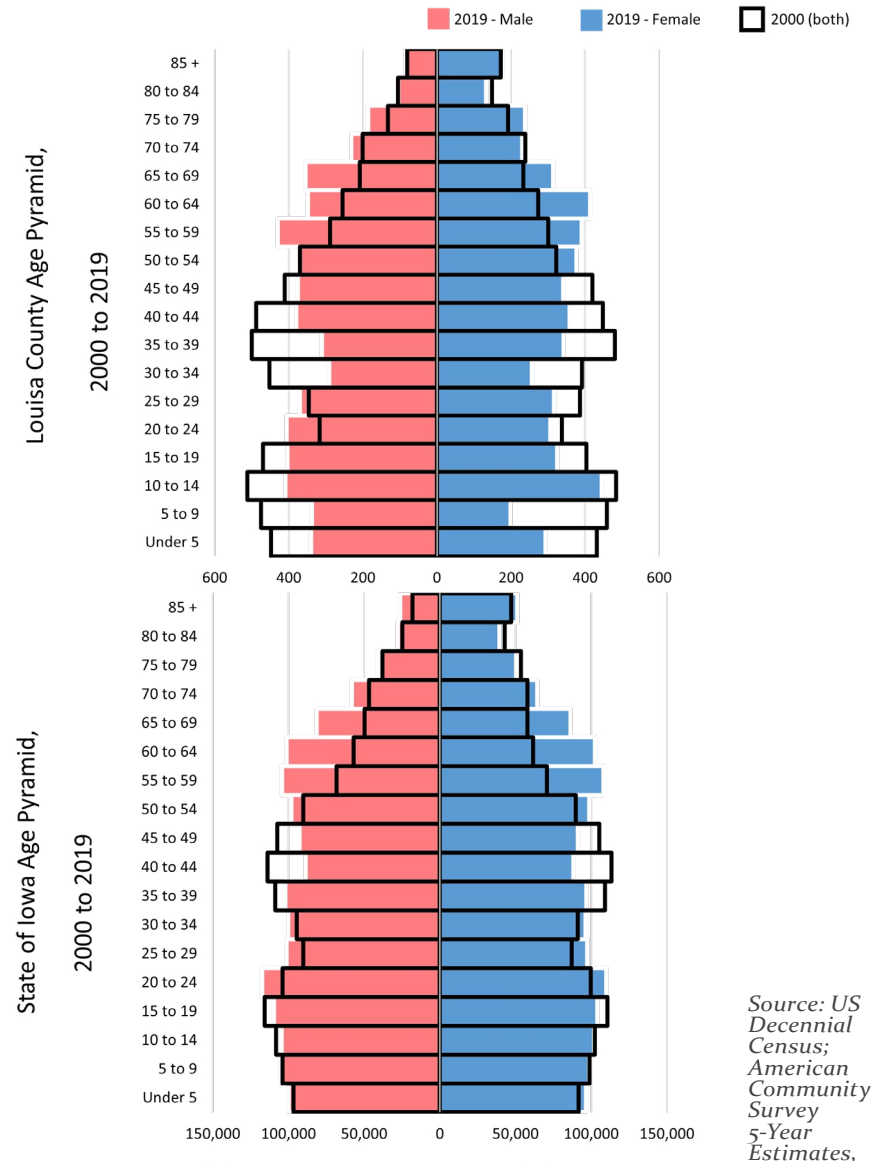
Population Pyramid

A population pyramid is a graph that breaks down the total population of a community into 5-year age ranges (with everything above age 84 in a single range), and displays the information vertically, with age ranges in descending order from oldest to youngest. It also divides the population by sex, with male on the left side, and female on the right side. The graphs below compare Louisa County with the State of Iowa as a whole, and are structured to show the change in total number of people in each age range (by sex) over the past 2 decades. At the time this Plan was completed, 2020 Census data was not yet available, so ACS 5-Year Estimates from 2019 were used. The data from 2000 is represented by the clear bars with a black outline, while the 2019 data is represented by the solid colored bars – red for male, and blue for female.

Both Louisa County and the state as a whole are experiencing a similar trend with the post-World War II ‘baby boom’ generation, as it ascends the pyramid and shifts from the 40-55 range to the 55-70 range. At the county level, this could present a number of concerns in the coming decades, as these older adults reach an age where many will require personal assistance or nursing care, and this could seriously strain the resources of the community’s existing facilities. It also presents implications for the housing stock, as these older households are likely to both ‘downsize’ and seek home locations closer to amenities such as banking, grocery, and medical facilities. While this could translate to people moving from rural areas of the counties to cities, it could also mean a substantial number leaving for neighboring counties with more such amenities available.

It is especially concerning how Louisa County has an abundance of clear outlined bars below age 40, while the state as a whole does not. While the state does appear to be stagnating, in terms of the number of young people failing to grow beyond the numbers present in 2000, the number in Louisa County is shrinking at an alarming degree. This is especially true for the number of young children and the number of adults between 30 and 40. This has serious implications for both economic development/job

recruitment strategies, as well as the local school system. Going forward, a key focus of County strategy should be on attracting adults in the 25-40 age range, as this is likely to correlate with a larger number of families with school-aged children.



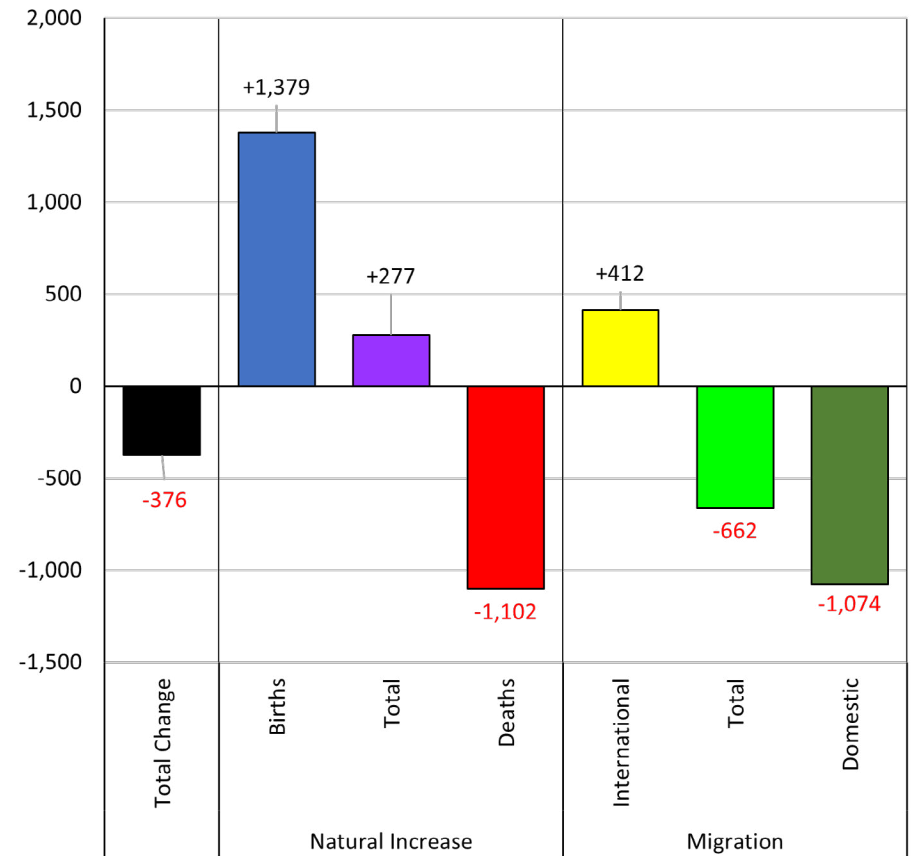
Population Change - Migration

While it is certainly helpful to know the change in total population from one decade to another, this figure alone does not tell the full story as to what causes contributed to the loss or gain, as well as the degree to which the county lost or gained. The Census Bureau provides annual estimates of population between each Census year, and these estimates are broken down by how much the yearly change is caused by certain factors. There are two primary factors to consider –natural increase and migration.

Natural increase constitutes the number of births minus the number of deaths, and in areas with a high standard of living, the birth rate should be slightly higher than the death rate. From 2010 to 2020, the amount of natural increase in Louisa County was +277 with 1.3 births for every death during that period. This is entirely consistent with the State of Iowa as a whole over that same period, and thus indicates a high standard of living. However, since Louisa County’s population decreased by 376 people, this means that some other factor besides natural increase is responsible for causing the population to decrease.

Migration involves the number people moving into or out of the community, including both ‘domestic migration’ (to or from elsewhere in the United States) and ‘international migration’ (to or from another country). From 2010 to 2020, the net migration for Louisa County was -662. Therefore, the high rate of out-migration offset the natural increase to produce an overall decrease in the County’s population. When broken down between international and domestic migration, Louisa County saw in-migration from outside the United States (+412), but also substantial out-migration to elsewhere in the United States (-1,074). In fact, the number of people moving to elsewhere in Iowa or to other states was roughly the same as the number of deaths in Louisa County over that same period. In contrast, the State of Iowa saw a positive net migration between 2000 to 2010, and although it lost over 37,000 people to other states, this figure had a much smaller proportional impact (as a share of the overall population), and it was offset by a gain of nearly 60,000 people from other countries.

Components of Population Change, 2010-2020



Source: Annual Resident Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for States and Counties: April 1, 2010 to July 1, 2020, US Census Bureau

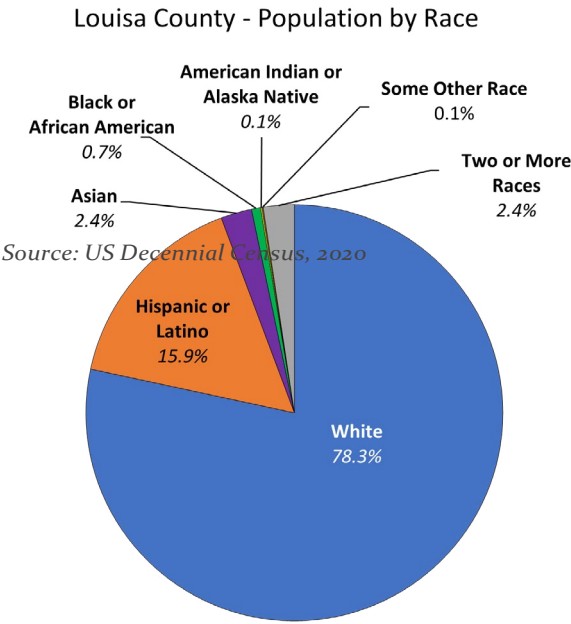
Population by Race

According to the 2020 Census, just over 3/4 of Louisa County’s population (78%) identifies as White. A sizable minority, at 16%, identifies as Hispanic or Latino, while no other individual racial category accounts for more than 5% of the population. Tied for third place are the categories of ‘Asian’ and ‘Two or More Races’, which are each at just over 2%. No other category (including Black/African American) exceeds 1% of the total. Compared to the State of Iowa as a whole, Louisa County has a slightly lower percentage of White residents, and more than double the percentage for Hispanic/Latino. The Asian percentage is consistent with that at the state level, while the Black/African American percentage is considerably lower.

While Asian Americans only account for 2.4% of the County’s total population, this puts Louisa County at #11 among all 99 counties for that statistic. In addition, Louisa had the second highest percent

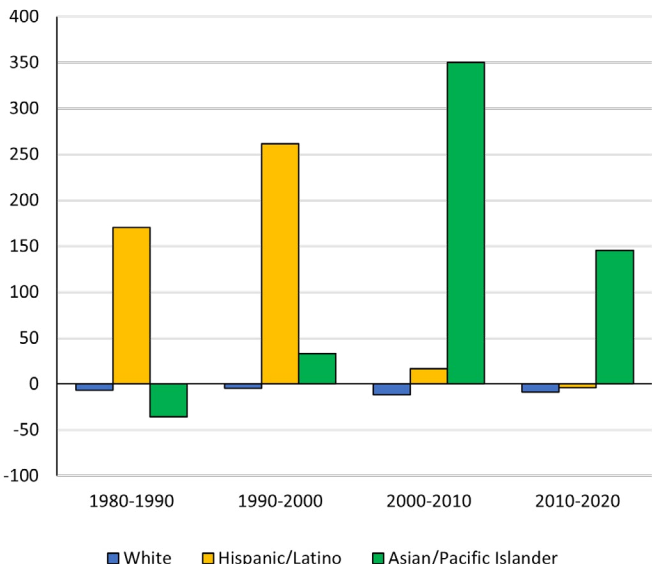
increase in the total number of Asian residents from 2000 to 2020, at an astonishing 1,000% (going from only 24 people to 265). In addition, the number one county was Dallas, which was Iowa’s fastest growing county overall (regardless of race) over that same period.

Conversely, despite Louisa having the 8th highest Hispanic/Latino percentage of any county in Iowa, the change in total number of Hispanic/Latino residents has lagged considerably over the past two decades. In fact, Louisa had the second lowest percent increase in the number of Hispanic/Latino residents between 2000 to 2020, at only 12% (going from 1,537 people to 1,728). Broken down further, while the number increased by 17% in the 2000s, it actually decreased by 4% in the 2010s, with Louisa being one of only 4 Iowa counties where this was the case. Of those 4 counties to see a decrease, only Louisa had more than 200 Hispanic residents in 2010.



	Louisa County	State of Iowa
White	78.3%	82.7%
Hispanic or Latino	15.9%	6.8%
Black or African American	0.7%	4.1%
Asian	2.4%	2.4%
American Indian and Alaska Native	0.1%	0.3%
Native Hawaiian and Other Pacific Islander	0%	0.2%
Some Other Race	0.1%	0.3%
Two or more races	2.4%	3.4%

Louisa County - Percent Change by Decade, Selected Race/Ethnic Groups



Population by Race

While the County as a whole has a slightly less White population than the state, the statistics vary widely from one area of the county to another. For the county's 3 largest cities, the White percentage is 92% for Morning Sun, 85% for Wapello, and 41% for Columbus Junction. Conversely, the Hispanic percentage is 5% for Morning Sun, 10% for Wapello, and 45% for Columbus Junction. Columbus City has the second largest Hispanic percentage of any city in Iowa, at 56% (behind only West Liberty in neighboring Muscatine County). Also of statewide significance, Fredonia and Columbus Junction have the second and third largest Asian percentage of any city in Iowa, at 14% and 10%, respectively (behind only Storm Lake).

When split between municipalities and unincorporated areas, the sum total of all 9 cities has a population that is 70% White, 23% Hispanic/Latino, and 4% Asian. Conversely, the unincorporated part of the County has a population that is 91% White, 6% Hispanic, and 1% Asian. This indicates that the Non-White population is largely concentrated within cities, while the rural agricultural and residential areas are predominantly White in comparison.

Non-White Population

The map on the following page displays the percentage of all residents that identified as 'Non-White' when filling out the 2020 Census. The data is displayed at the level of Census Block Groups, which are the next smallest unit of measurement below Census Tracts (with an average population of 1,500 to 2,000). These Block Groups contain portions of Cities as well as unincorporated areas. For purposes of this analysis, the term 'Non-White' encompasses all people besides those identifying as both 'Non-Hispanic' and 'White alone', in terms of race.

The Block Group comprising the portion of Columbus Junction north of Highway 92 has the highest Non-White percentage, at 68%, while the Block Group covering the south side of Columbus Junction is at 49%. In addition, the Block Groups comprising Columbus City and Fredonia each fall between 35 and 45%. All of these owes to the presence of many Hispanic and Southeast Asian residents in the greater Columbus Junction area.

Population by Race – Cities vs. Unincorporated Areas

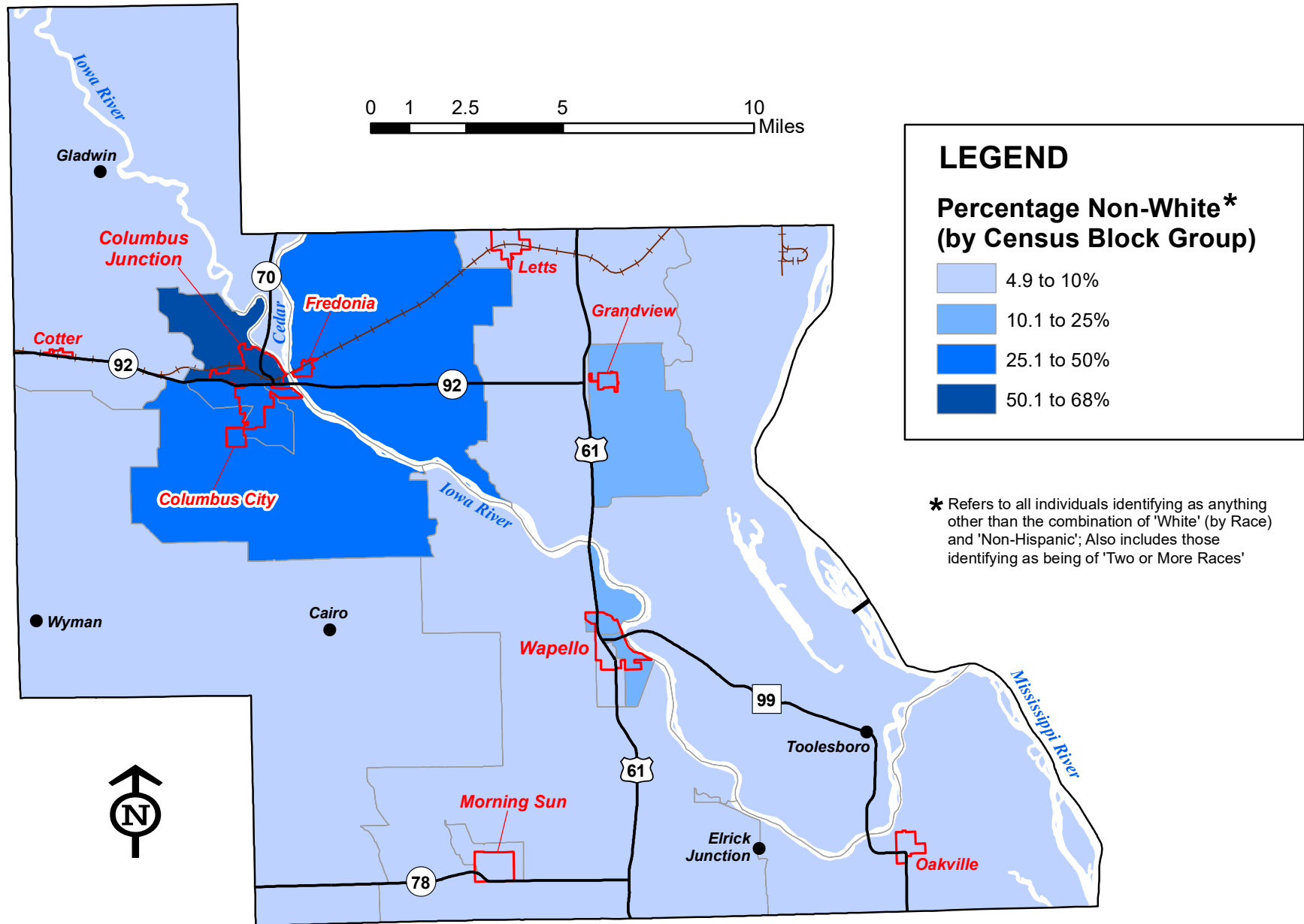
	Cities	Unincorporated Areas
White	69.6%	90.5%
Hispanic or Latino	23.1%	6.0%
Black or African American	0.9%	0.3%
Asian	3.7%	0.7%
American Indian and Alaska Native	0.1%	0.1%
Native Hawaiian and Other Pacific Islander	0.0%	0.0%
Some Other Race	0.2%	0.1%
Two or more races	2.5%	2.3%

Source: US Decennial Census, 2020



Elsewhere in the County, the 3 Block Groups comprising Grandview and the north and southeast sides of Wapello have a Non-White percentage between 10 and 20%. This likely also involves a significant number of employees at Tyson Foods near Columbus Junction, although the percentage is still much lower due to the significantly longer commute involved.

Louisa County - Non-White Population (2020)



Household Size

The US Census Bureau defines a household as ‘all persons who occupy a housing unit as their usual place of residence’. This includes ‘families’, defined as ‘a group of two people or more related by birth, marriage, or adoption and residing together’. It also includes ‘non-family households, where either one person lives alone, or two unrelated people reside together in the same unit.

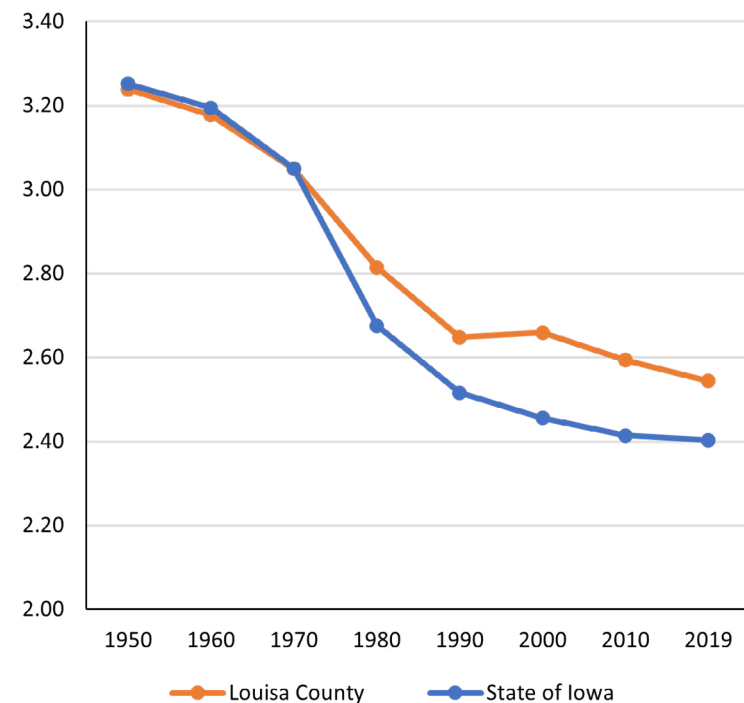
The average household size is determined by taking the total number of people residing in households (which excludes those living in ‘group quarters’ such as nursing home patients, prison inmates and college students in dormitories), and dividing that by the total number of households. In Iowa, the average household size has gradually decreased over the past 7 decades, with the most pronounced drop occurring between 1970 and 1990, and the trend line largely ‘leveling off’ since then.

While Louisa County’s average household size was essentially equal to that of the state as a whole from 1950 to 1970, the rate of decrease in the subsequent decades was less pronounced, and as a result, the county’s median household size is now 6% higher than the state’s. Only 5 other counties in Iowa have a higher average household size.

Two key factors likely explain this trend. First is the comparatively rural character of its population, and the large number of farm families present in its rural areas. In contrast, in larger urban areas of the state, more people are living alone, and parents are often having fewer children than in previous generations. Also, among the Hispanic and Asian residents in the Columbus area, there tends to be both a greater number of children per family, and a substantial number of multi-generational households (including both young children/teens and the elderly). Thus, the median household size in the Columbus School District is 2.64, compared to 2.55 for the County as a whole.



Average Household Size



Source: US Census Bureau

Household Dynamics

Compared to Iowa as a whole, Louisa County has a larger share of its total households classified as ‘family households’ (69%, compared to 63%). Within that category, it also has a slightly higher share of households comprised of ‘married couples’, and the same is true for the sub-category of married households that include children under age 18.

Within the category of ‘non-family households’, 26% of all Louisa County households are comprised of one person living alone. At the state level, the figure is slightly higher, at 29%. However, when this group is broken down further by age, the dynamic shifts, as 14% of Louisa County households are comprised of someone aged 65 or older who is living alone, compared to only 12% at the state level. Therefore, in Louisa County, senior citizens account for a significantly larger share of people living alone than they do statewide.

Taken as a whole, about 1/3 of all Louisa County households contain at least 1 person under the age of 18, and the statistic is the same for those which contain at least 1 person aged 65 or above. In both cases, this statistic exceeds the corresponding statewide figure. However, the discrepancy is slightly higher for the ‘65 or above’ category. For both the average household size and average family size, Louisa County exceeds the state, but the value of the former is 6% higher, while the latter is only 4% higher.

	Louisa County	State of Iowa
Family Households	68.6%	63.4%
<i>Married Couples</i>	54.6%	50.0%
<i>Married Couples with Own Children Under 18</i>	21.6%	19.2%
Non-Family Households	31.4%	36.6%
<i>One Person Living Alone</i>	26.1%	29.3%
<i>One Person Living Alone, 65 or Older</i>	13.9%	12.0%
Households with at least 1 Person Under 18	32.8%	29.7%
Households with at least 1 person 65 or Over	32.7%	28.6%
Average Household Size	2.55	2.40
Average Family Size	3.10	2.97

Source:
American
Community
Survey 5-Year
Estimates,
2015-2019



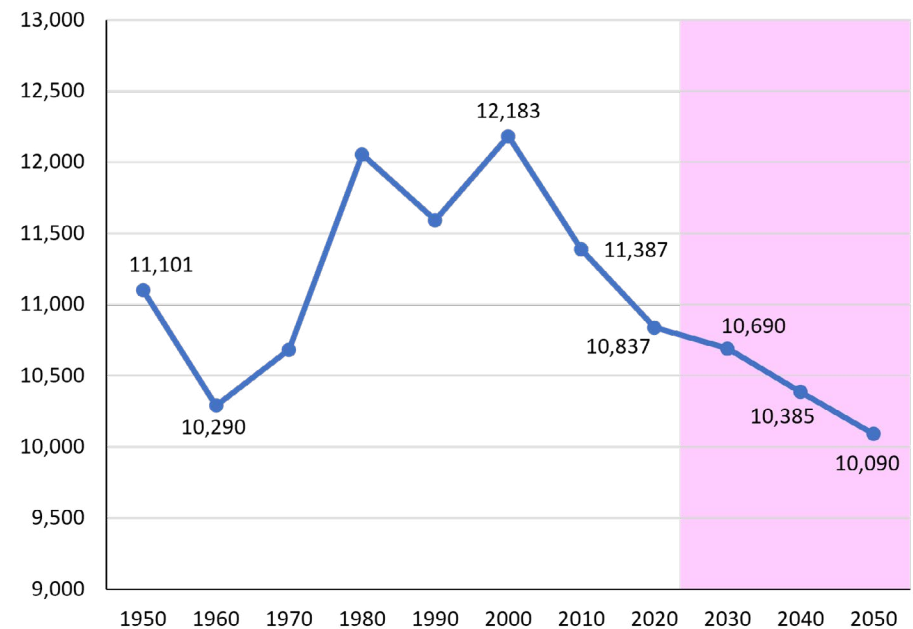
Where is Louisa County Headed?

According to projections generated by Woods & Poole Economics, Inc., Louisa County is anticipated to continue gradually losing population over the next 3 decades, with a 2040 estimate of just over 10,500 people. However, it should be noted that these projections were made prior to the release of the 2020 Census, with the most recently available data being the annual estimates up through 2018. As a result, the projected value for 2020 was slightly higher than the final Census count (11,003, compared to 10,837). As a result, the decrease from 2020 to 2030 appears less pronounced than that of the following decades. Thus, it is likely that any projection accounting for the final 2020 Census count will result in a 2050 figure that is slightly below 10,000. Either way, this means that the County would be below its previous low point in 1960, and at its lowest point overall since the 1850s.

It is important to note that these projections reflect an anticipated continuity of existing trends, since they are generated using data from preceding years and decades. Therefore, it is still possible for active local intervention efforts to slow the rate of decline, or even reverse it. And even without such active efforts, major changes such as the new 4-lane Highway 61 are likely to have an impact on their own.

The Woods & Poole data also includes projections for other demographic variables. For example, by 2040, the percentage of people aged 65 and over is expected to increase from 18 to 27%, after being as low as 14% in 2000. Conversely, the percentage of people aged 19 and under is expected to decrease from 25 to 20%, after being as high as 30% in 2000. The population is also projected to grow more racially diverse, with White residents decreasing from 78 to 70%, Hispanic residents increasing from 16 to 22%, and Asian residents increasing from 2% to 6%.

Louisa County, Population Projection 2020-2050



Source: US Census Bureau; Woods & Poole Economics, Inc.

Louisa County's Population is projected to decrease 9% by 2040.

Current Land Use

When planning for future growth and development, it is crucial to understand the way in which the land in the community is currently used, as this helps determine whether future development of a certain type would be compatible with the existing land uses in the surrounding area. As an example, it would not be appropriate to pursue a large industrial development directly adjacent to an existing residential neighborhood.

Knowing the current land use pattern also helps provide context to the overall feasibility of a certain type of development.



Agricultural

This category includes all land that is actively used for farming, including row crops, pasture land for livestock, animal feeding operations, grain storage, and single-family residences that are associated with a farming operation. This category accounts for the vast majority of the total land area, at 72% (at 279 acres).

The largest contiguous areas of agriculture are found in areas of flat to gently rolling topography, such as the bottomland areas near Oakville and on Muscatine Island, the land south and west of Wapello, and the high plateaus in the north central and southwestern parts of the county.



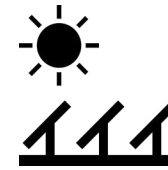
Conservation/Recreation

This broad category includes both public and private land, with the common theme that the land is used primarily for conservation or outdoor recreation. This includes private land that has purposely been set aside for conservation purposes (through the Wetland Reserve or Forest Reserve programs), as well as land that informally retains its natural function and aesthetics, in the form of forests, wetlands, or wooded stream corridors. Land in this category accounts for exactly 1/4 of the total land area (about 100 square miles). This likely represents one of the highest percentages of any county in this region of the state, owing to it being home to the convergence of 3 major rivers.

The Conservation category includes a wide strip of land following the Iowa and Mississippi Rivers, which contains multiple County, State and Federal conservation areas, as well as private land that is not farmed (likely due to the risk of frequent floods where levees are not present). There are also numerous strips of wooded terrain following small tributary streams in the interior of the county, with prominent examples being Long Creek in the western part of the county, Smith Creek near Elrick Junction, and Goose Creek near the northwest corner. There are also two prominent, continuous ridges of wooded terrain – one between Grandview and the Mississippi River, and the other to the west/northwest of Morning Sun. Many of these areas are simply not farmable due to the steepness of the terrain around the streams.

For instance, without either a substantial concentration of homes or a major highway nearby, a commercial business is not likely to flourish or attract additional businesses to that same area.

The map in this chapter displays the current land use for all properties in unincorporated Louisa County. Throughout this section, any reference to ‘total land area’ should be assumed to refer only to unincorporated land outside of any right-of-way for roads, railroads, and levees. A set of 7 categories was created to categorize each property by how the land is used described below.

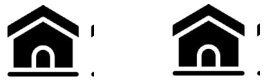


Civic/Utility

This category includes all public and quasi-public properties apart from conservation land. This includes buildings, athletic facilities and major utility infrastructure. This category now accounts for 0.6% of the total land area.

This category includes the grounds of the Louisa-Muscatine School District north of Grandview, as well as the county government complex on County Road G56, and both the Transfer Station and Secondary Roads headquarters by Wapello. It also includes two golf courses (Heritage Oaks and Cedarcrest) and the softball fields east of Columbus Junction. In addition, it includes the Muscatine Island Drainage District pump station, a landfill north of Cairo, and a multitude of small rural churches and cemeteries throughout the county.

Within the category of ‘utilities’, the most prominent example by far is the Wapello Solar Farm, which actually accounts for over half of the total land area in the ‘Civic/Utility’ category (at about 800 acres). There are also several electric substations and cell towers, along with three city wastewater treatment centers that are physically located outside city limits (Grandview, Morning Sun, and Oakville). Finally, there are a multitude of sites in the northwest part of the county that are associated with the temporary underground storage of natural gas.



Low Density Residential

One of two residential categories, this one refers to the typical layout of single-family homes in a rural setting, with comparatively large lots, and neighboring homes situated relatively far apart from one another (by at least 200 or 300 feet). This category excludes homes that are clearly associated with a farming operation. This category accounts for 1.3% of the total land area.

For the most part, Low Density Residential properties are evenly scattered throughout the county, although they are far more prevalent in areas of rugged, wooded terrain. This owes to both the pleasant scenery and the availability of unfarmable land for private development. Especially large concentrations of this type of development are found to the north of Morning Sun (near the Heritage Oaks Golf Club), to the west/southwest of Columbus Junction, and along Highway 61 between the Iowa River and the north county line (including the expansive Ray's Timber subdivision northwest of Grandview).



Industrial

'Industrial' includes any private business that operates active manufacturing, processing of raw materials, or material extraction (such as mining and quarrying). At present, this category accounts for 0.5% of the total land area.

At the northeast corner of the county, the Louisa Generating Station (operated by MidAmerican Energy) accounts for nearly 3/4 of the county's land area in the 'Industrial' category. Another prominent example is the Tyson Foods pork processing plant north of Columbus Junction. There is also a cluster of small manufacturing operations just southwest of Wapello. Then there are two large quarries operated by the River Products Company – one southwest of Columbus City on County Road G52, and another just north of Fredonia on G40. Several mining and quarrying operations are present in the county, including a large quarry on County Road G52 southwest of Columbus City. There is also a natural gas processing facility south of Columbus Junction, and a private landfill northeast of Grandview, operated by Muscatine-based Grain Processing Corporation.



High Density Residential

This second residential category is used for homes with a density that is typical of urban or suburban environments, with comparatively smaller lots and less than 200 feet between individual homes. In addition to single-family dwellings, this category also includes multi-family complexes (apartments and condominiums), as well as mobile home parks.

This category accounts for only 0.4% of the total land area in 2022, although that is to be expected for a predominantly rural county such as Louisa. It includes three mobile home parks (one northwest of Wapello and two in the Muscatine Island area). Several areas of single-family dwellings are also present on Muscatine Island, although one of these was largely abandoned after the 1993 flood. Next are the handful of historic unincorporated town sites, including Toolesboro, Elrick Junction, Cairo, Wyman, and Gladwin. Then there are several dense clusters of river cabins, along Lake Odessa and both the Iowa and Mississippi Rivers, as well as a dense row of single-family homes along the Cedar River north of Columbus Junction. Near the northwest corner of the county is the relatively recent and growing Golden Pond Subdivision, with homes surrounding a man-made lake. Finally, there are several areas of dense concentrations of homes located immediately outside of municipalities, most noticeable by Wapello and Fredonia.











Commercial

This category includes any property that is used for a commercial enterprise, including retail, wholesale, food service, lodging, and storage for contractor and trucking operations. This category accounts for the smallest share of the total land area, at only 0.1%. However, this is a logical outcome for an unincorporated area, as it is to be expected that the vast majority of the county's businesses will be located inside an incorporated city.

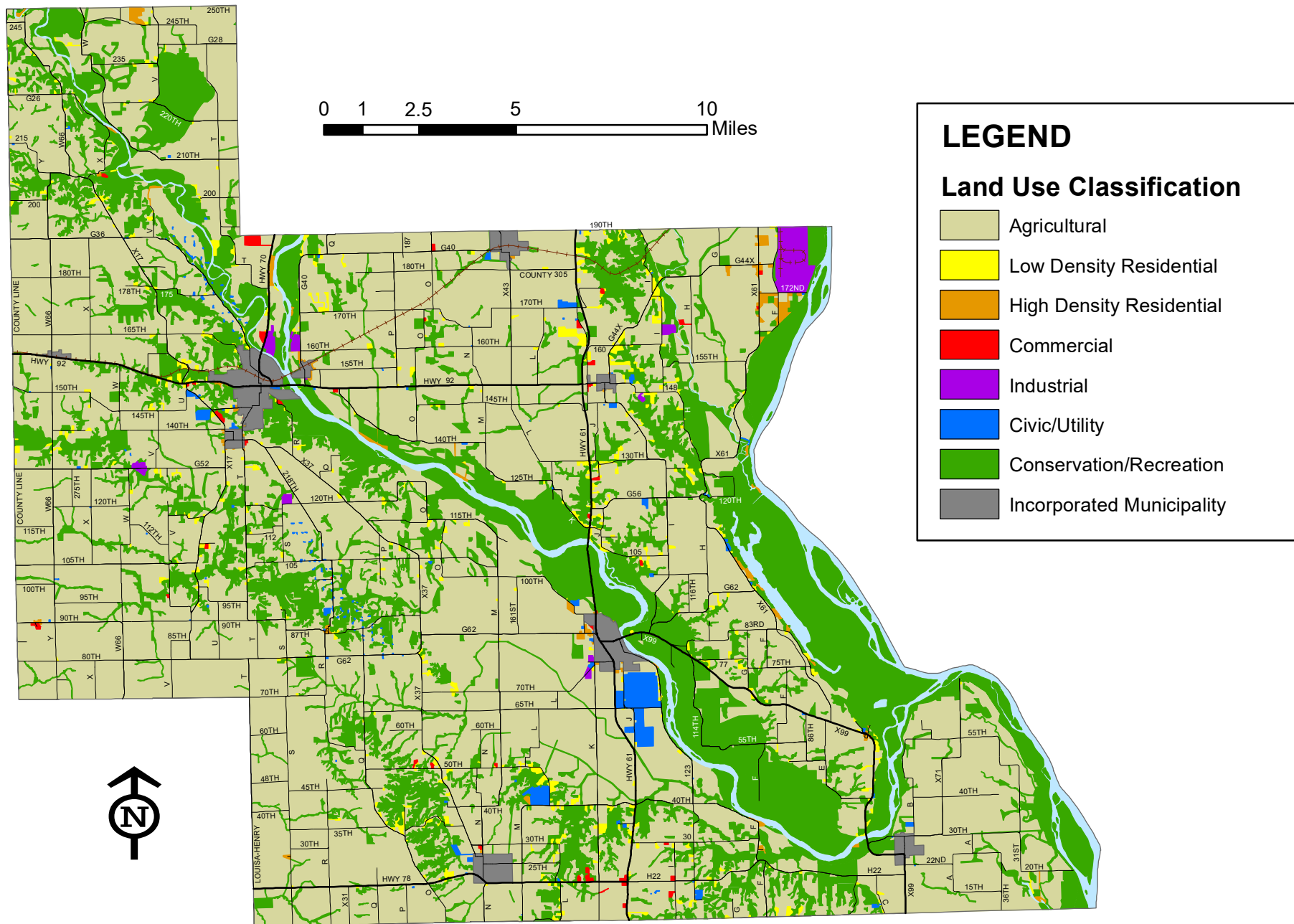
The physically largest commercial area in the county is the Conesville Dragway and Thirsty Camel Supper Club, by the county line north of Columbus Junction. There are also notable commercial clusters at the intersection of Highways 61 and 78 (Newport), and west of Columbus Junction (by the intersection of Highway 92 and County Road X17). These clusters include 2 of the 3 gas stations in the unincorporated county, with the third located by Grandview. They also include two car dealerships. Elsewhere in the county is a private campground north of Wapello, a farm implement business north of Morning Sun, and two agronomy businesses – one at Wyman and the other west of Letts. Finally, there are a handful of private trucking/contractor operations, and several junk yards and similar facilities scattered around the county.

Land Use Classification

	Agricultural
	Low Density Residential
	High Density Residential
	Commercial
	Industrial
	Civic/Utility
	Conservation/Recreation
	Incorporated Municipality

**Refer to Part Four:
Future Land Use Map**

Louisa County - Current Land Use Map (2022)





Morning Sun Care Center



Columbus Junction - New Housing



Port Louisa Wildlife Refuge

Housing

An understanding of a community's current housing supply is a crucial component of planning for future growth and improvements. Various characteristics of the housing supply should all factor into this analysis, including total quantity, owner/renter status, and physical characteristics such as overall condition, age, and type (single-family, apartments, etc.). Several sources have been utilized for this analysis, although the primary source is the American Community Survey estimates through the US census Bureau.

Location of Housing

As is typical of a rural agricultural county, most of Louisa County's housing units are either densely concentrated inside cities, or spread evenly throughout the rural areas, scattered among large farm fields and wooded areas. Consistent with the overall population, 58% of all occupied housing units in the county are located in one of the 9 incorporated cities, with the largest being Columbus Junction, Wapello, and Morning Sun, which when combined, account for 42% of the county's total occupied units – coincidentally the same percentage that is accounted for by the unincorporated areas.

While most housing in the rural parts of the county is of a very low density (as a condition of the overall agricultural landscape), a number of small, but dense clusters are present in certain areas. The map on the following page highlights these clusters in the unincorporated part of the county. In some instances, these clusters are situated immediately outside city limits, and represent a natural outgrowth of that particular city. A number of others appear to be completely random and isolated, likely representing instances of extended family members building homes in close proximity. There are several small unincorporated towns that were founded well over a century ago, but never incorporated. These include Toolesboro, Wyman, and Cairo.

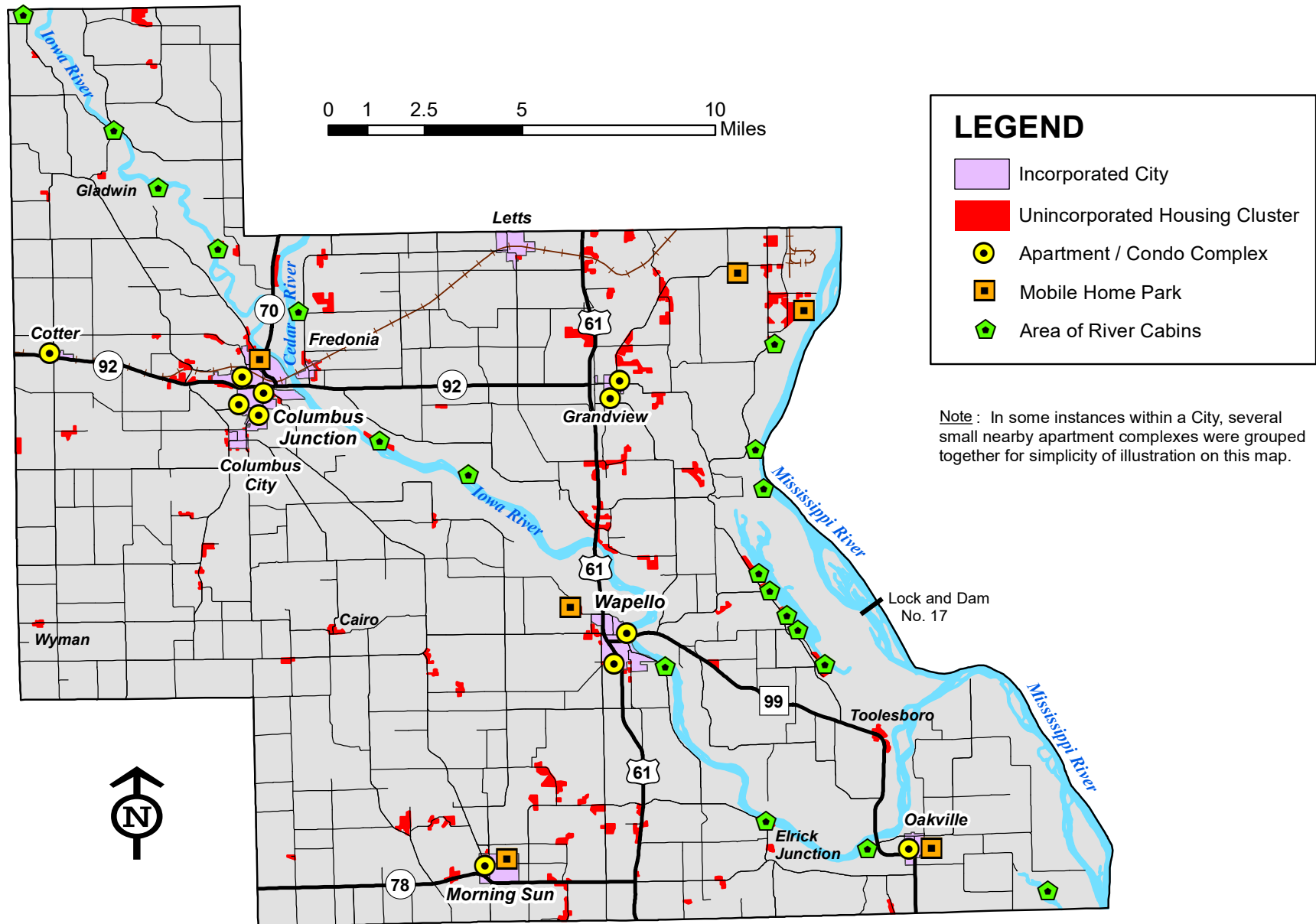
Several important spatial patterns are apparent, when considering the handful of rural housing clusters found in close proximity to one

another. Some of these are accounted for by large formal subdivisions, such as Golden Pond near the northwest corner of the county, and Ray's Timber north of Grandview. In other instances, several smaller subdivisions are concentrated near one another, such as the area northwest of Morning Sun by the Heritage Oaks Golf Course, and on Muscatine Island near the northeast corner of the county. Finally, the area along Highway 61 between Wapello and the north county line includes numerous residential clusters, as these areas are highly conducive to commuters traveling to Muscatine or Davenport.

In addition to highlighting general housing clusters in rural areas, the map on the following page shows the location of all apartment/condo complexes, mobile home parks, and areas of river cabins. For the most part, housing in the unincorporated part of the county is accounted for by large lot single-family homes, whereas the individual cities include a mixture of single-family homes, apartments, and mobile home parks. All of the apartment and condo complexes are located in incorporated cities, except for a former school building just outside of Grandview, which has been converted to apartments. Cotter also contains a former school that has been reoccupied the same way, and both Columbus Junction and Wapello contain some upper-story units within historic downtown commercial buildings. Many of the remaining apartments are comprised of 2 to 4-unit buildings built between 1960 and 2000, some of which are intended specifically for senior citizens. Letts and Fredonia do not contain any apartment buildings, and Morning Sun and Oakville each have only one small complex.

The latter two communities also contain a mobile home park, but many of the pads are currently unoccupied. Columbus Junction has a pair of moderate-sized mobile home parks on the north side of town. The remaining mobile home parks are all located in unincorporated areas – one just northwest of Wapello, while the other two are located in the Muscatine Island area, and one of these is presently unoccupied due to seepage flooding issues behind the levee.

HOUSING DISTRIBUTION



HOUSING CLUSTERS

The following housing clusters have seen a continual growth in the amount of housing units available. These include new subdivisions, developments on the river and golf courses, as well as mobile home parks. Many of the new residents of Louisa county are finding homes in these pockets of the county.

Cedar River Subdivision Homes

These include the RC Smith Subdivisions and are located on Highway 70 north of Columbus Junction. These manufactured and single family homes are set back abutting the Cedar River.

Ray's Timber Subdivision

This subdivision is located West of Highway 61 in between the cities of Letts and Grandview. Ray's Timber Subdivision sits on Buttercup Lane and has single family homes on large plots of land. It is just a mile away from Louisa-Muscatine School District as well as Highway 61, making commutes into Muscatine easy.



Clusters Near County Road X61

The following subdivision are located near County Road X61 in the Louisa-Muscatine School District: Bar-M Ranch Estates Subdivision, Odessa Courts Addition, Spitznogle's Addition, and McKillip Subdivision. A majority of the houses are manufactured homes set on individual lots. The area is highly prone to flooding and was devastated by the 1993 floods. There is a levee present but it is aging and in disrepair.

Cluster North of the Iowa River

There are several single-family homes that have gone into the area on either side of Highway 61 just north of the Iowa River. The area has low density and is wooded with natural scenery. The proximity to Highway 61 also allows for an easy commute Muscatine and the surrounding cities.

Golden Pond

Golden Pond is located at the far northwestern portion of the county in the city of Lone Tree. Plots of land for single family homes to be built on are also being sold for a base price of \$50,000. Current lots range in size between 0.92 acres and 1.43 acres. The Golden Pond Subdivision provides the only waterfront single family homes in Louisa county and could attract individuals wishing to live in a rural area on the water. It also has access to a paved road the goes into Johnson County towards Iowa City.





Heritage Oaks Golf Club

Three different subdivisions are currently present around the Heritage Oaks Golf club including: Dill Subdivision, Flossie's Subdivision, Malone Subdivision. The Concord Ridge Subdivision is currently under construction with lots for sale between 2 and 5.4 acres These subdivisions allow for residents to live on a golf course but still have their own backyards.

Highway 61 South of Wapello

Several subdivisions and housing clusters are located along Highway 61 south of Wapello. These include Harrison-Foster's Subdivision, K&V Subdivision, and eight houses on the east side of K Avenue.

Mobile Home Parks

Two mobile home parks are located within Louisa County. Louisa Courts, at 10325 County Road G44X, is located in the northeast portion of the county near Muscatine. Both manufactured homes and RV's make up this park. Woodland Mobile Home Park, at 14657 100th Street, is located near just northwest of Wapello.

Cluster Northwest of Morning Sun

Low density single-family housing is located just northwest of Morning Sun, particularly on 35th Street and O Avenue. This is a hilly, rural area with easy access to Morning Sun.



Outside of City Limits

Several medium to high density housing areas are located just outside of the city limits in Louisa County.

- Wapello - Lots to the west and south of Wapello have been sold by the Wapello Development Corporation to private developers.
- Fredonia - Housing clusters surround the boundaries of Fredonia.
- Columbus Junction - To the northwest of Columbus Junction, clusters of single-family housing exists. To the west along Highway 92, more development can be seen.

Old Town Sites

The remnants of old towns predating 1900 can still be seen in areas of Louisa county. The towns of Toolesboro, Wyman, Cairo, Elrick Junction, and Gladwin persist but are mostly just comprised of housing and are not incorporated into modern cities. family housing exists. To the west along Highway 92, more development can be seen.

River Cabins

Louisa County's proximity to the Iowa River, Cedar River, and the Mississippi River allows for many residents to have cabins on the river. Most are for seasonal recreational use although some are occupied year-round. Lake Odessa, east of County Road X61, is a popular spot for cabins. The stretch of the Iowa River between Wapello and Columbus Junction also have many river cabins situated on the waters edge. River-front properties all throughout the county have struggled with flooding and many cabins lay abandoned due to flood damages.

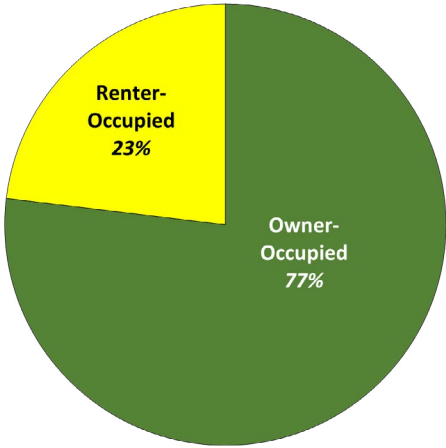
HOUSING

Tenure of Housing (Ownership/ Rentership)

Just over 3/4 of all housing units in Louisa County are owner-occupied, while the remaining 1/4 is renter-occupied. The percentage of renter-occupied units is slightly lower than the State of Iowa as a whole (23%, compared to 29%), although this is typical for predominantly rural counties.

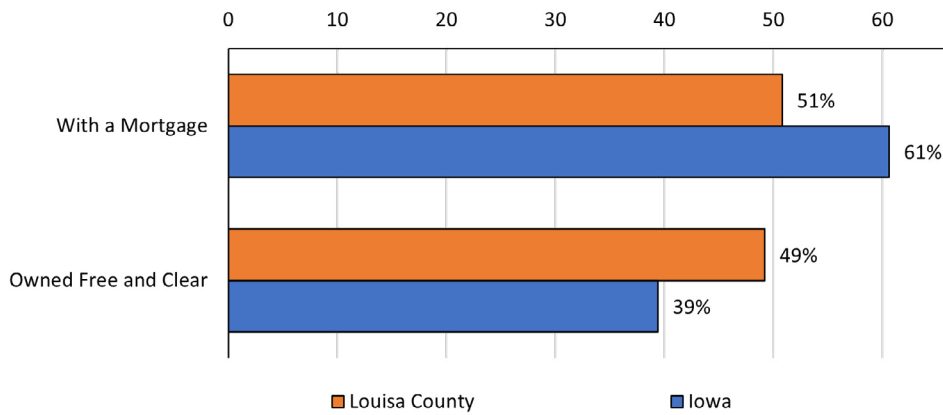
Approximately 1/2 of all owner-occupied units in Louisa County have a mortgage, while the other half are owned free and clear. An inverse dynamic exists between the county’s cities and unincorporated areas, as 55% of owner-occupied units in the cities have a mortgage, while 54% of units in the county are owned free and clear. Mortgages are most common in the Morning Sun area, and least common in the Columbus area. Compared to the State of Iowa as a whole, Louisa County has a significantly higher share of owner-occupied units that are owned free and clear. However, this is largely consistent with other predominantly rural counties in the state.

Percentage of Housing Units by Tenure - Louisa County

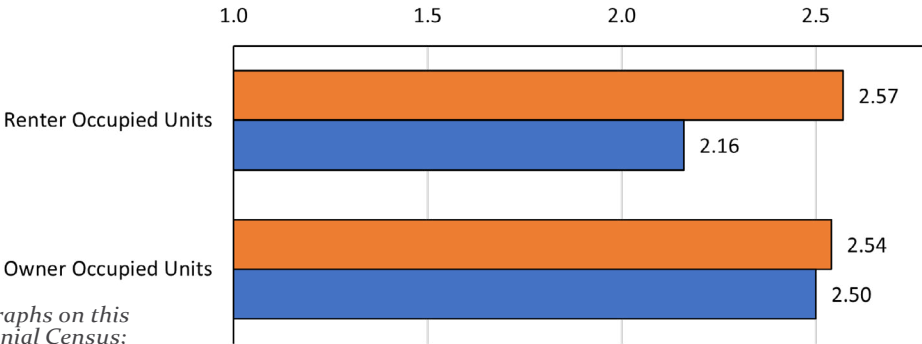


Renter-occupied units in Louisa County have a higher average household size than owner-occupied units. This is the opposite of the statewide trend, where renter-occupied units tend to have a much smaller average household size. In fact, Louisa County has the third highest average household size for rental units of any county in Iowa. A likely explanation for this is the high number of older single-family homes being used as rentals in the Columbus area.

Percentage of Owner-Occupied Units by Mortgage Status



Average Household Size by Tenure



Source for all graphs on this page: US Decennial Census; American Community Survey 5-Year Estimates, 2015-2019

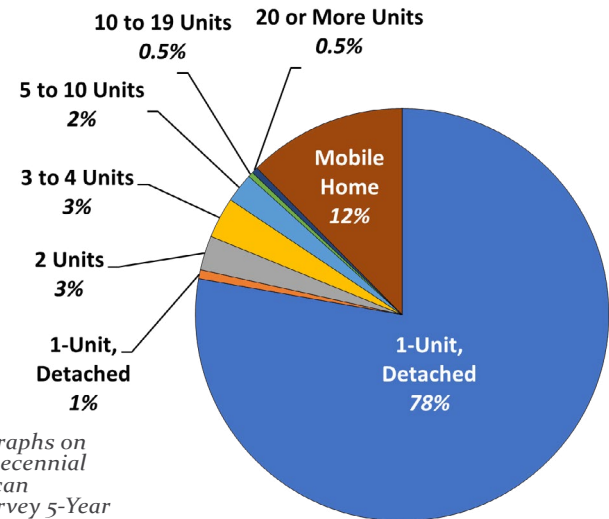
Number of Units per Structure

The Census Bureau divides all housing units into categories based on the number of units in a structure. It should be noted that this refers to the number of units in an individual building, rather than an entire multi-family complex (which may contain multiple buildings). Therefore, this statistic refers more to density than it does to the size of operations for a rental enterprise. In addition, '1-Unit, Detached' refers to duplexes, whereas '2 units' refers to apartment or condominium complexes that contain multiple 2-unit buildings.

Among all housing units in Louisa County, 78% are single-family detached homes. This compares to 73% for Iowa as a whole. Among most of the other categories, Louisa County's housing stock is significantly underrepresented. This further emphasizes how much of the county's rental housing is comprised of single-family units. Therefore, there is a clear need to diversify the housing stock when seeking to attract new residents and retain young people after they grow up.

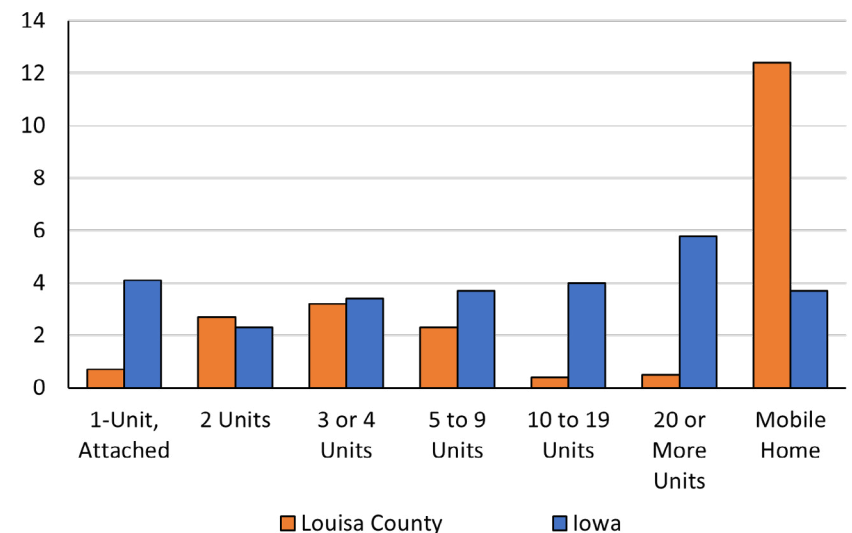
Notably, the Census Bureau counts mobile homes separately from other single-family homes, regardless of whether they are located in a mobile home park or situated on individual lots within a neighborhood. Regardless, out of all 99 counties in Iowa, Louisa County has the third highest percentage of all housing units that are mobile homes, at 12%. This compares to only 4% for the State of Iowa as a whole. Furthermore, mobile homes represent a larger share in the unincorporated areas than they do in cities, although some individual cities (such as Columbus Junction) have a higher share than the county as a whole.

Percentage of Housing Units by Number of Units in Structure



Source for all graphs on this page: US Decennial Census; American Community Survey 5-Year Estimates, 2015-2019

Percentage of Total Housing Units by Total Number of Units in Structure



* Note: This graph excludes 1-unit detached because the % is much higher than the other housing types.

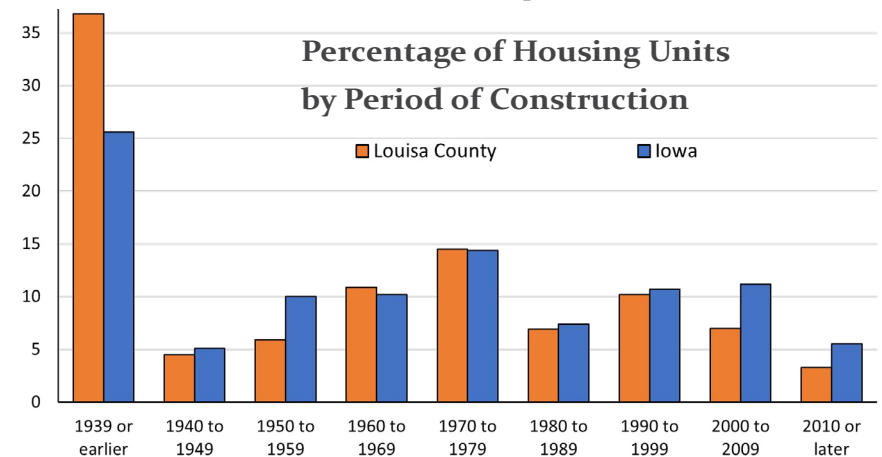
Age of Housing

The age of a community's housing stock is an especially important factor to consider, as a home's age tends to correlate closely with its value and structural condition. Older homes tend to require more expensive and time-consuming maintenance and repairs than the average homeowner is willing or able to commit to. Thus, communities with a larger share of older homes are likely to suffer from significant visual blight and safety hazards in their neighborhoods.

About 37% of homes in Louisa County were built prior to 1940, meaning that they are currently over 80 years old. This is considerably higher than the State as a whole, where only 26% of homes are that old. Pre-1940 homes are more predominant in cities (41%) than unincorporated areas (32%). They are the most predominant in the Morning Sun area, but the Columbus area also has a high percentage.

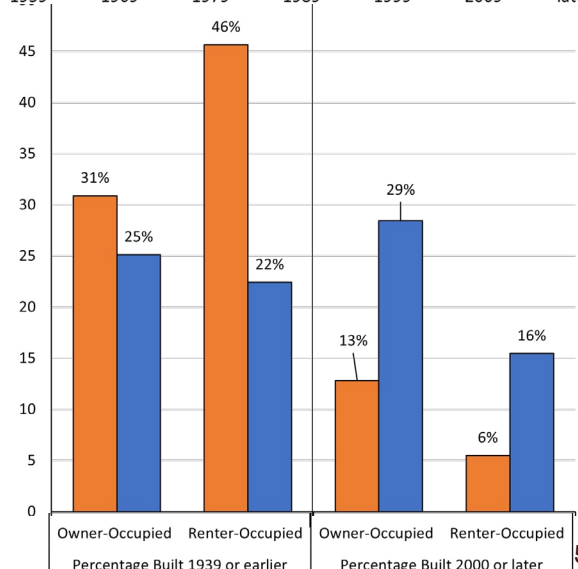
For the most part, for the period between 1940 and 1990, the percentage of homes built in each decade is largely consistent between Louisa County and Iowa as a whole. However, the discrepancy between the two is significantly higher for the two decades between 2000 and 2020, as Louisa County has a significantly lower percentage of homes built in those decades. Furthermore, most of the new housing growth that has occurred during the past 30 years has been in unincorporated areas, which account for 58% of the homes built in the county over that period. The statistics on housing age are particular concerning for Louisa County, when homes are split between owner and renter-occupied units. While only 31% of the county's owner-occupied units were built before 1940, nearly half of its renter-occupied units (46%) just as old. This stands in stark contrast to Iowa as a whole, where the two percentages are very similar, and the percentage for renter-occupied units is actually smaller. Louisa County ranks third out of all 99 counties in Iowa for this same statistic. The percentage is especially high in Columbus Junction, where both 51% of all rental units were built before 1940, and 50% of all pre-1940 homes are rentals.

Furthermore, while 13% of Louisa County's owner-occupied units were built after 1999, only 6% of its renter-occupied units were built during that same period. While construction of owner-occupied units has outpaced that of rental units at both the county and state level in recent decades, this disparity is especially dramatic when the overall rate of home construction is much smaller. And it is all the more concerning when this trend is inversely proportional to that for pre-World War II homes, since those older homes bear a significant amount of the burden from the unmet surplus demand for rentals.



Percentage of Housing Units by Period of Construction - Owner vs. Renter

Source for all graphs on this page: US Decennial Census; American Community Survey 5-Year Estimates, 2015-2019



Longevity of Occupancy

Another important metric to analyze the local housing stock is how long the current occupant(s) have resided in a given unit. This indicates both the relative stability of the housing market, as well as the potential for future change. For instance, a high percentage of people living in their homes for more than 20 years may be a positive sign, in that it suggests that people are satisfied with their community and its quality of life, this may also indicate that a dramatic shift is on the horizon, once large numbers of aging retirees sell their homes. While this may seem to be a major benefit for young families that are seeking a larger home, it also suggests that deferred maintenance of older homes could present challenges during the transition process.

The above scenario seems highly applicable to Louisa County, as its housing occupancy seems to be noticeably more stable than for Iowa as a whole. While nearly half of all Iowa households moved into their current unit in the past decade, that same figure is only 38% for Louisa County. The inverse relationship occurs for those who moved in during each of the two preceding decades, as well as those who moved in prior to 1990.

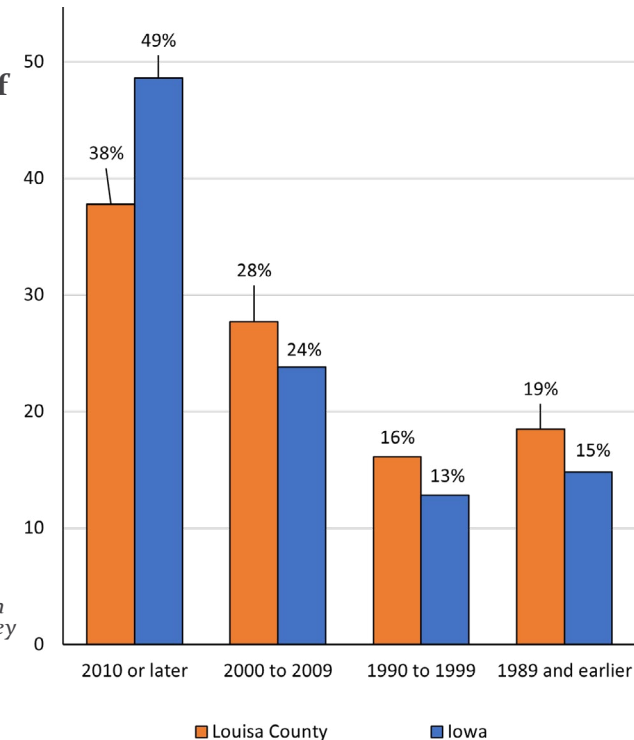
Compared to the rest of the county, Columbus Junction has had a higher turnover in recent years, as its percentage of households moving in after 2009 is roughly equivalent to the state as a whole. This could be due to both the arrival of Burmese Refugees around 2010, and the children of earlier Hispanic immigrants growing up and having families of their own. Oakville has an even higher percentage for this statistic, due to the impact of the 2008 flood and subsequent demolition/rebuilding of homes.

Vacancy Rate

According to the initial data available from the results of the 2020 Census, 89% of all housing units in Louisa County are presently occupied, while the remaining 11% are vacant. This compares to 91% and 9%, respectively, for Iowa as a whole. While Louisa ranks fairly high on the list in terms of the vacancy rate, it has dropped from #12 in 2000 to #28 in 2020. Furthermore, the total number of vacant units in the

Percentage of Households by Period in Which the Current Occupant Moved in

Source: US Decennial Census; American Community Survey 5-Year Estimates,



county decreased by 19% between 2010 and 2020 (from 656 to 532). Since the vacancy rate actually increased between 2000 and 2010, it can be inferred that the 2008 flood had an impact on both the initial increase and the long-term decrease. This is because numerous units were still temporarily vacant due to flood damage two years later (particularly in Oakville), and quite a few of these were soon after demolished.

Furthermore, most of the seasonal river cabins have been consistently counted as vacant, since the Census is always taken on April 1, and due to the major floods, many of these were demolished and not rebuilt. Still, in 2020, the two Townships with a vacancy rate above 15% were Port Louisa and Jefferson, which both ranged from 27 to 31%. Not surprisingly, these townships each contain a large number of river cabins, at Lake Odessa and Port Louisa. When just these two townships are removed from the county total, the vacancy rate decreases from 11 to 9%, which is equal to the statewide percentage. Each of the individual cities (apart from Cotter) had a lower vacancy rate than the county, with Oakville, Letts and Fredonia all exceeding 95%.

Home Value and Gross Rent

The median value of an owner-occupied home in Louisa County is \$108,800. This represents 74% of Iowa's statewide median home value. However, it should be noted that the statewide figure is heavily skewed by the handful of larger urban areas such as Des Moines and Iowa City.

Of the 9 cities within Louisa County, Wapello has the highest median home value, at \$113,500, while each of the other 8 cities falls below the countywide median. This indicates that home values tend to be considerably higher in rural unincorporated areas, and this is understandable due to the rate of home construction in rural areas outpacing that within cities.

Figure below shows the percentage of owner-occupied homes in each value range, comparing Louisa County with the state as a whole. Louisa is significantly overrepresented in the two ranges below \$100,000, and roughly equivalent with the state on the \$100-\$150 thousand range. For the higher value ranges, the relationship between the county and state are inversely proportional to the lower value ranges, with Louisa being especially deficient for homes in the \$200-\$300 thousand range.

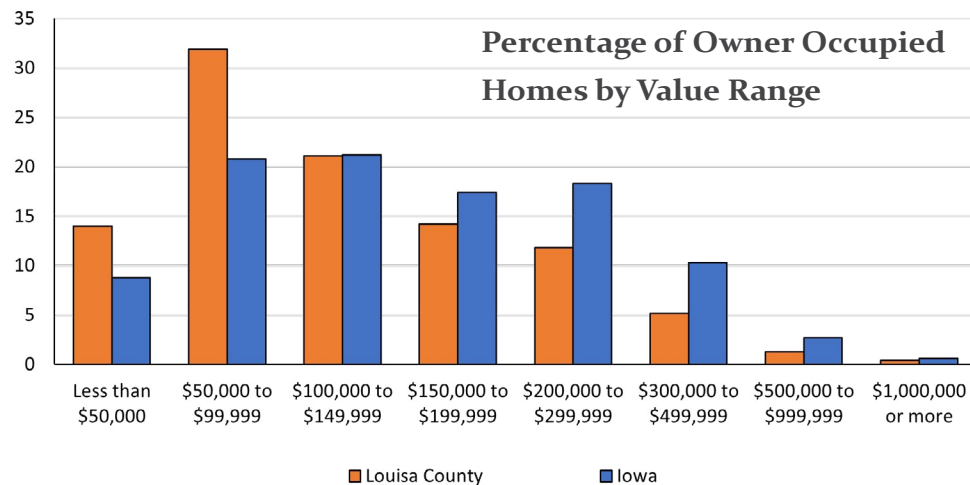
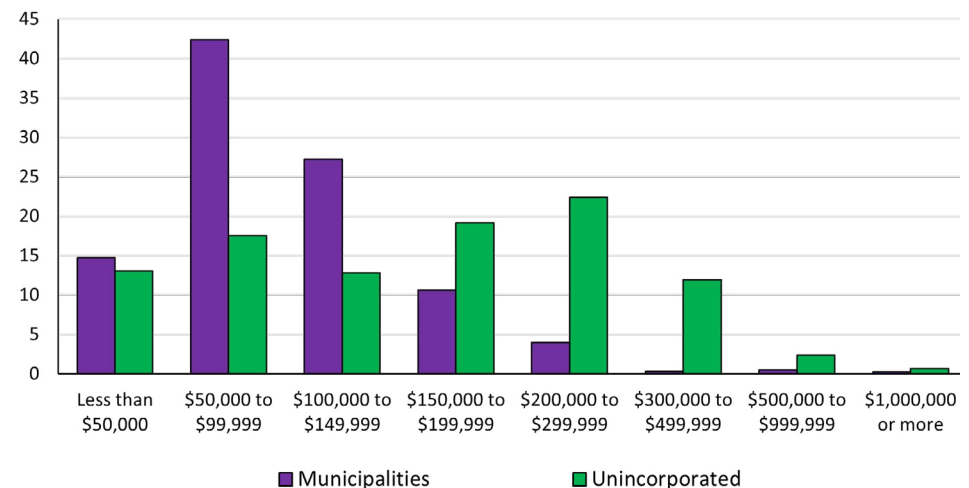


Figure below shows the same dataset, but this time comparing the 9 municipalities of Louisa County with the unincorporated areas. A substantial imbalance exists between the two, as the majority of homes in cities are valued below \$100,000, while the majority of homes in the unincorporated areas are valued above \$150,000.

While a number of older farmsteads still remain, the home value trend for rural areas is largely driven by houses built in the last several decades, which tend to be large, custom-built homes for higher-income households. A downside of this is that the cities are missing out on valuable tax revenue that could be used to enhance city services such as water and sewer, and maintenance of streets.

Percent of Owner-Occupied Homes by Value Range - Municipality vs. Unincorporated



Source for all graphs on this page: US Decennial Census; American Community Survey 5-Year Estimates, 2015-2019

Home Value and Gross Rent

The median gross rent for a rental unit in Louisa County is \$637 per month. This is 81% of the statewide median rent of \$789, although that figure is once again strongly skewed by the state's handful of large urban areas. Just under 3/4 of rental units in the county have a monthly rent between \$500 and \$1,000, and this is considerably higher than for Iowa as a whole (59%). Conversely, only 7% of the county's rental units have a monthly rent above \$1,000, compared to 26% for the state as a whole.

While a tendency for more affordable rents is a definite advantage in this and other rural counties in Iowa, the lack of higher value options can have the effect of lowering the standard of quality for the available units. This is due to the lack of incentive for rental firms to make improvements and keep up with long-term maintenance needs, especially since the vast majority of the county's rental units are more than 40 years old .

Current and Future Trends

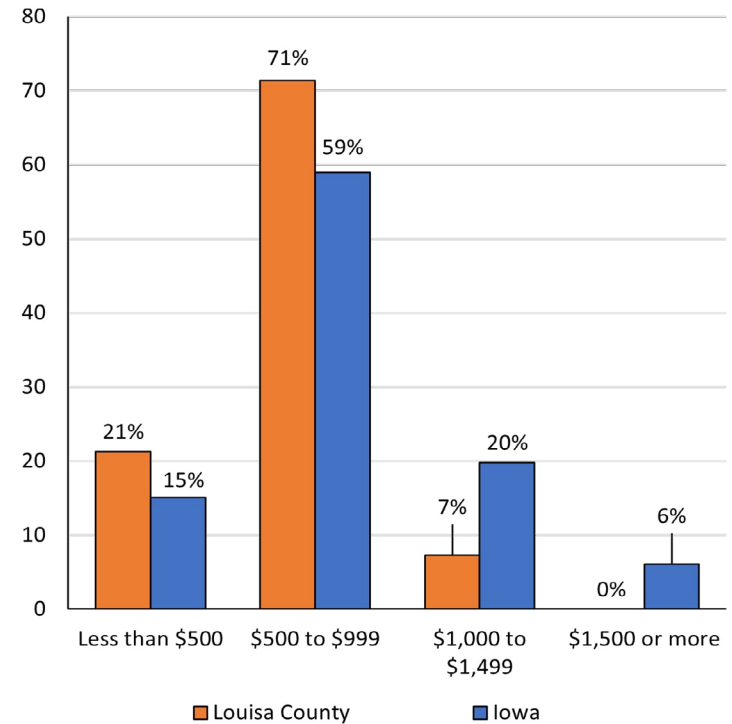
A report from Iowa State University illustrates the total number of housing units permitted in Louisa County from 1980 to 2020. This includes all units built in the county, in both cities and unincorporated areas. The lack of multi-family construction after 1987 is readily apparent. A few condo and duplex developments occurred after that time, but even in that case, none of those have been built after 2005. Several apartment complexes were constructed in 1987, primarily in Columbus Junction. In addition, even for single-family homes, the rate of new construction has significantly decreased since 2009.

The aforementioned study from Iowa State University included a housing needs forecast for 5-year increments between 2020 and 2050. These numbers are generated primarily using the population projection figures from Woods & Poole Economics (as shown in the 'Louisa County Today' section). Therefore, this is based on the assumption that the population will decrease by about 5% over the next 20 years. Overall, the results suggest that there will be a need for 3,755 housing units in 2040, which represents a 7% decrease from the current demand of

4,019 units. Of the total demand for 2040, 75% would be for owner-occupied units, while the remaining 25% would be for rental units (2,824 units, compared to 931 units). The projections are consistent across all income brackets, for both owner-occupied and rental units.

It should be noted that this projection is based on the assumed continuation of existing population trends. Any unforeseen increase in population (such as the arrival of a new large employer, or an influx of housing for commuters using the new 4-lane highway) could significantly alter the future demand forecast.

Percentage of Renter-Occupied Units
by Gross Monthly Rent



Economic Development

There are a number of ways to measure the current economic health of a community, in terms of both future conditions and future growth potential. While statistics on job creation, unemployment, and housing income are each valuable indicators of current economic conditions, they each describe only a portion of the big picture, and should not be valued solely on an individual basis. This is especially true of Louisa County, since the resulting statistics, when viewed separately from one another, can create varied perceptions of the community and its future prospects.

Louisa County Economic Development Group - Profile

The mission of the Louisa Development Group (LDG) is to advance and improve the economic, social, and recreational environments of Louisa County so that constructive balanced growth over a period of years may be realized. This group assists businesses with business planning, marketing, workforce needs, and access to capital. The presence of the LDG allows for businesses of all sizes in the area to grow and flourish.

Louisa Development Group members range from small business owners to cities and large corporations. There are currently 56 individual members, including city and county governments, manufacturing firms, utility providers, and banking/finance institutions, among others. The LDG employs a full-time Executive Director, through the Iowa State University Extension and Outreach. Its office is located in downtown Wapello.

A current objective of the LDG is to actively pursue new development on available land in the county, for the purpose of creating jobs and expanding commercial and industrial tax base. At the same time, it is recognized that other community needs, such as housing supply and utility services, must be addressed prior to (or concurrently with) the pursuit of such development.



Louisa County Economic Development Group

Alliant Energy
Ardon Creek Vineyard and Winery, LLC
Bank
Bieri Brokerage Co
Bieri Grain
Bieri Trucking Inc
Big River Resources, LLC
Buckman's Guesthouse
Casey's General Stores Inc
City of Columbus Junction
City of Cotter
City of Grandview
City of Letts
City of Oakville
City of Wapello
Clenora
Cloverdale Farm
Colonial Manors of Columbus Community
Columbus Community Club
Community Bank and Trust
Community Foundation of Louisa County
Conservation District
CP Enterprises Ron Cutkomp & Ken Purdy
Earnest Insurance Agency
Eastern Iowa Light & Power/New Ventures
Engineers, Inc

Englert Chiropractic
French Reneker Associates
Gary Brown Agency Inc.
HNI Charitable Foundation
Horak Insurance
Howell Farm Inc.
JD's Irish Ivy
Kent Corporation (GPC)
Key Apartments
Louisa Communications
Louisa County Board of Supervisors
Louisa County Soil and Water
Martin and Whitacre Surveyors and
Mediapolis Savings Bank
Mid American Energy
Morning Sun Development Corp.
Newell and Sents Law Firm
Our Shop
Paneless Window Cleaning
River Products Company
S & J Tube Inc
Schrock Lumber Co
Simply Soothing
Southeast Iowa Regional Planning Commission
Southeastern Community College
State Bank of Wapello
Town & Country Cosmetology
Tri Oak Foods
Tri Rivers Conservation Foundation
Washington State Bank



IOWA STATE UNIVERSITY
Extension and Outreach

**Community and Economic
Development**



ECONOMIC DEVELOPMENT

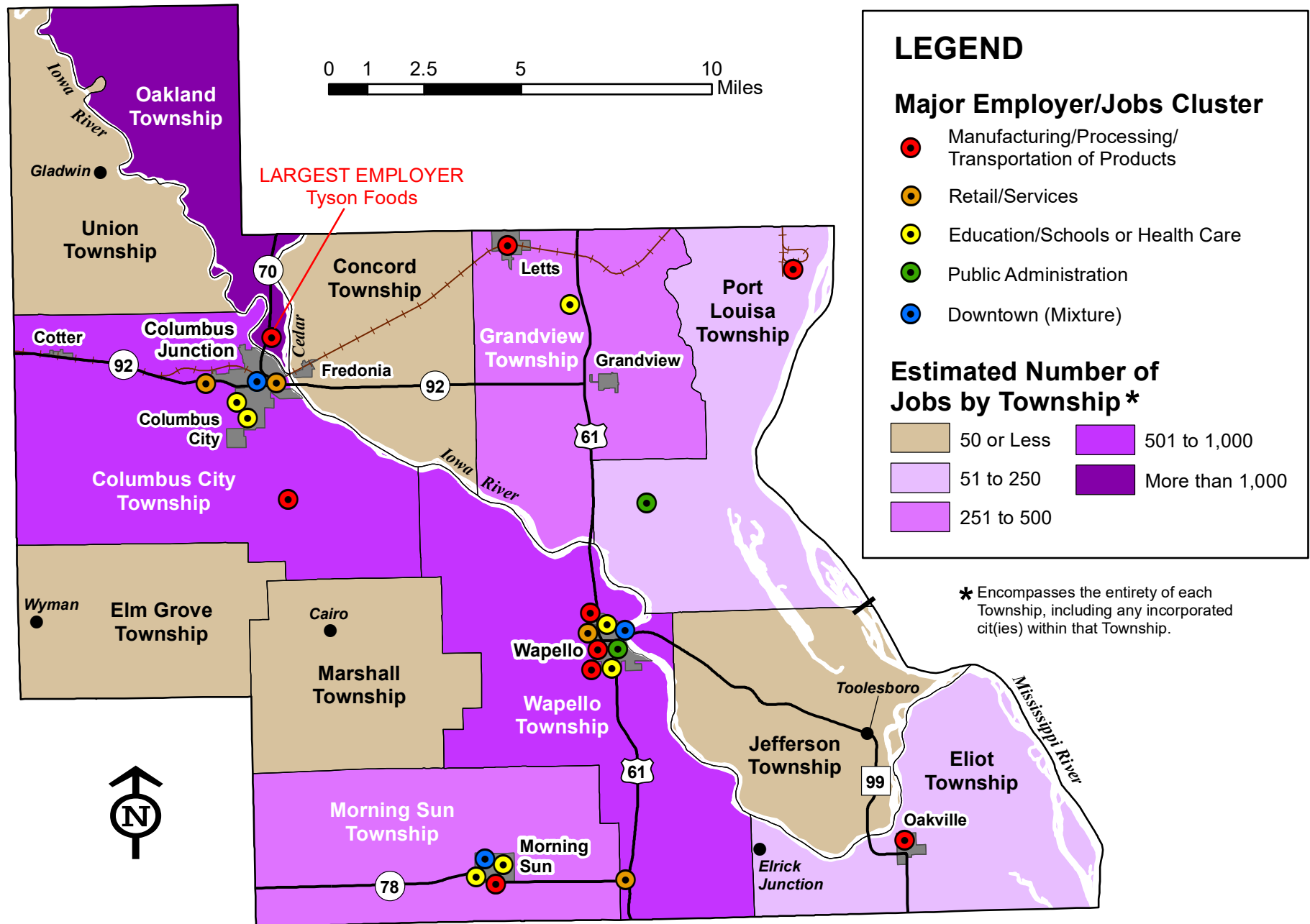
Employment and Job Location

The map on the following page shows the distribution of jobs throughout the county, displayed using the total number of jobs per township (which includes any cities located within that township). It also shows a series of points representing either 1 large employer or a cluster of multiple employers in close proximity (such as an industrial park or commercial district). Different colored points represent different industry sectors, as indicated in the legend. Oakland Township stands out due to the presence of Tyson Foods, while Wapello Township ranks at number two, owing to the abundance of jobs in multiple sectors within Wapello, plus the cluster of businesses at the intersection of Highways 61 and 78 (Newport). Columbus City Township ranks 3rd, while Morning Sun and Grandview Townships each have between 250 and 500 jobs. Louisa-Muscatine Schools represents a large share of the jobs in Grandview Township.

Louisa County is unique in the amount of employers (and total number of employees) that are based in the unincorporated part of the county. Of the county's top 12 employers, over 1/3 are based entirely or partly outside of an incorporated city. Notably, most of these are located in close proximity to a city, offering the future potential for annexation (including MidAmerican Energy's Louisa Generating Station, which is adjacent to the City of Fruitland in Muscatine County). This suggests that future efforts should be targeted at attracting large employers to the cities, as a means of boosting the tax base necessary to support public services (i.e. roads and utilities) in the places where most of the population lives.



Louisa County - Distribution of Jobs/Employers



ECONOMIC DEVELOPMENT

Major Employers

As of 2022, Louisa County contains 12 employers with more than 30 total employees. Of those, only 3 have more than 100 employees, and 6 have more than 75. Tyson Foods is by far the largest employer, and the only one with more than 200 employees. In fact, the second largest employer represents only 11% of the total employment at Tyson. Among the top 12 employers, 5 are companies involved with manufacturing, processing, or transportation of products and materials, while another 6 are involved with education or health care/social assistance. Louisa County itself ranks at #4, and is by far the largest employer in the field of 'public administration'. The abundance of public/quasi-public entities in this list emphasizes both the comparative lack of large private sector employers, and the strong presence of agriculture. In addition, the presence of one especially large manufacturing firm at the top of the list suggests that the County should focus on attracting additional private sector employers, to both diversify the overall jobs base and ensure competitive wages.

Employer	Classification	Location	Number of Employees
Tyson Foods	Manufacturing	Unincorporated (Oakland TWP)	1,400
Louisa-Muscatine Community Schools	Educational Services	Unincorporated (Grandview TWP)	153
Columbus Community Schools	Educational Services	Columbus Junction	112
Louisa County	Public Administration	Wapello, Unincorporated (Port Louisa & Wapello TWPs)	99
Wapello Community Schools	Educational Services	Wapello	96
MidAmerican Energy	Utilities	Unincorporated (Port Louisa TWP)	88
S & J Tube	Manufacturing	Wapello	75
Wapello Specialty Care	Health Care & Social Assistance	Wapello	63
Spencer Industries	Manufacturing	Unincorporated (Wapello TWP)	62
Tri-Oak Foods	Wholesale Trade	Oakville	58
Colonial Manors of Columbus Community	Health Care & Social Assistance	Columbus Junction	55
Morning Sun Care Center	Health Care & Social Assistance	Morning Sun	51

Major Employers



Tyson Foods Facility, Oakland Township (North of Columbus Junction)

Tyson Foods operates a large meatpacking plant just north of Columbus Junction on State Highway 70. Specifically, this facility involves the slaughtering and processing of hogs, many of which are raised in Louisa and several neighboring counties. With around 1,400 employees, it is the largest employer in Louisa County, and attracts many workers from neighboring counties as well.



Mid American Energy, Port Louisa Township (South of Muscatine/ Fruitland)

MidAmerican Energy operates the Louisa Generating Station, an 811.9-megawatt (MW) coal-fired power plant located near the extreme northeast corner of Louisa County. It is part of a string of large industrial facilities stretching along the Mississippi River south of downtown Muscatine, but the only one situated in Louisa County. This facility currently has 88 employees, making it the second largest private sector employer in the county (after Tyson Foods), and the 6th largest employer overall. Given its location, many employees reside in neighboring Muscatine County.



TriOak Foods, Oakville

TriOak Foods is an agribusiness firm involved in pork production, feed manufacturing and grain marketing. It is one of the top 15 pork producers in the United States. Oakville is home to both their corporate headquarters and elevators for grain storage. They also have a facility in Morning Sun that processes corn and soybeans into feed for their pork operations. Their primary employee base includes 58 people, making it the county's 10th largest employer overall, and the 5th largest private sector employer (outside of the health care sector). In addition, 300 local farmers are employed to provide crops for TriOak Foods.



S&J Tube, Wapello

S&J Tube specializes in steel fabrication and design, specifically for large office furniture manufacturers. Wapello is home to their corporate office, as well as an on-site manufacturing facility. This is located within an industrial park on the northwest side of the city. It is the county's 7th largest employer overall, and its third largest private sector employer.



Spencer Industries, Wapello Township (west of Wapello)

Spencer Industries specializes in thermoforming, in-house sheet extrusion, CNC trimming and value-added assembly processes. The Wapello location, which employs 62, is one of the company's four total locations, with its headquarters located in Dale, Indiana. The Wapello facility was originally operated by Grimm Brothers Plastics Corporation, before it was acquired by Spencer Industries in 2018. It is the county's 9th largest employer overall, and the 4th largest private sector employer (outside of the health care sector).

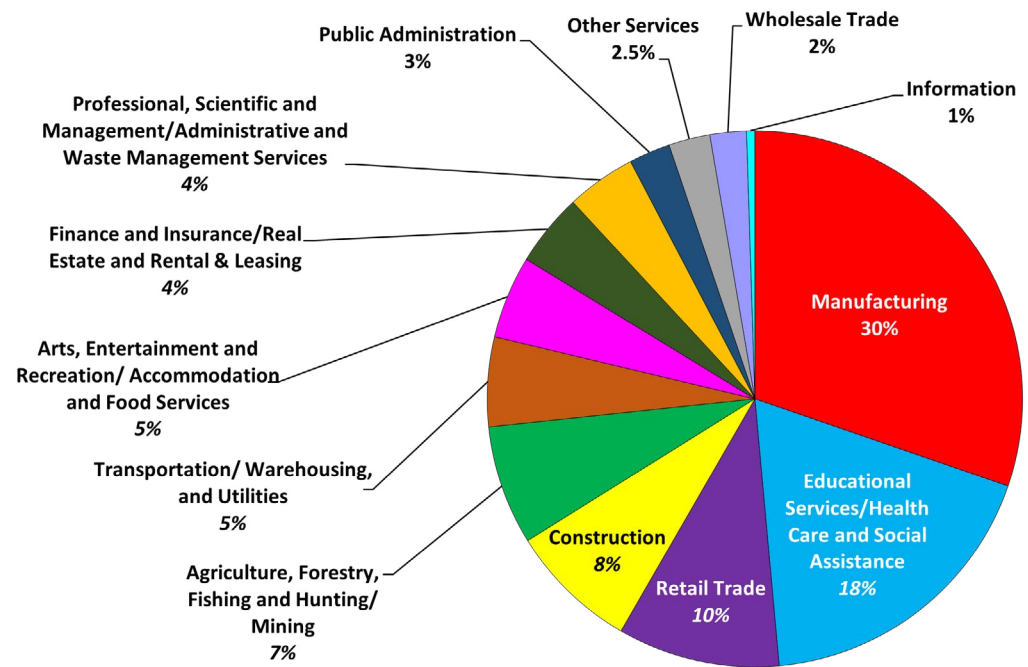
ECONOMIC DEVELOPMENT

Employment and Jobs by Industry Type

Estimates from the Census Bureau place all employed residents over age 16 into one of 13 categories of industry, which comprises a total of 20 classes from the North American Industry Classification System (NAICS). In Louisa County, the category of 'manufacturing' accounts for the largest share of employed residents, at 30%. This category includes all businesses engaged in the mechanical, physical, or chemical transformation of materials, substances, or components into new products. This includes the county's largest employer, Tyson Foods. The second largest category in Louisa County is 'Educational Services/Health Care and Social Assistance', at 18%. This includes two similar NAICS classes, one for schools and colleges, and the other for medical services and hospitals. Louisa County contains several school districts, but many residents are also employed at medical facilities in Muscatine, Burlington, and Iowa City. The third largest category in the county is 'Retail Trade', at 10%. All other categories fall below 10% of the total.

When compared with Iowa as a whole, the percentage of residents employed in a 'manufacturing' industry is twice as high in Louisa County (30%, compared to 15%) - refer to 'Percentage of Employed Residents 16 and Over by Industry Class' graph on the next page. Statewide, among all 99 counties, Louisa County ranks second highest in terms of the percentage of working residents employed in a 'manufacturing' industry (with neighboring Muscatine County ranked at #1, with 32%). Conversely, the percentage of Louisa residents employed in 'educational services/health care and social assistance' is considerably lower (18%, compared to 24%). Statewide, Louisa has the third lowest percentage of residents employed in those industries. This is ironic considering that neighboring Johnson County has the highest percentage. Therefore, if more residents of the Iowa City/Coralville area were to relocate to Louisa County, this would likely increase the percentage of residents that work in health care, based on the strong influence of the large hospitals in Iowa City.

Louisa County - Percentage of Employed Residents 16 and Over by Industry Class



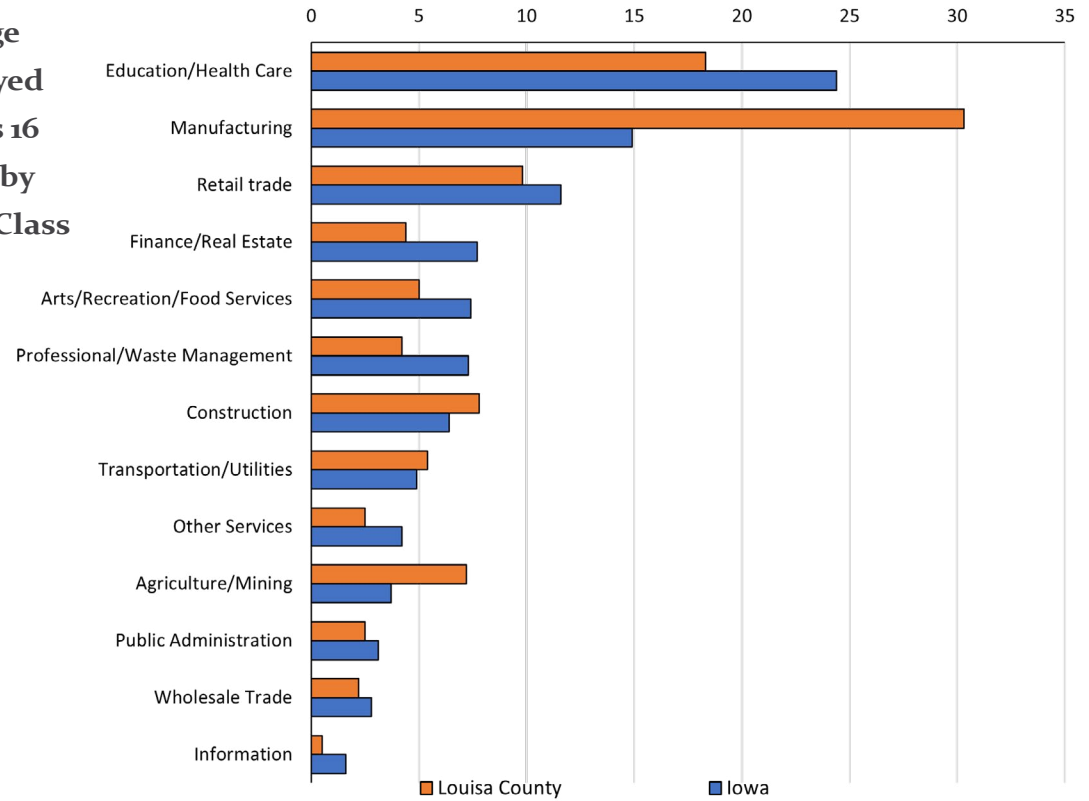
Source: American Community Survey 5-Year Estimates 2015-2019. US Census Bureau.

Employment and Jobs by Industry Type

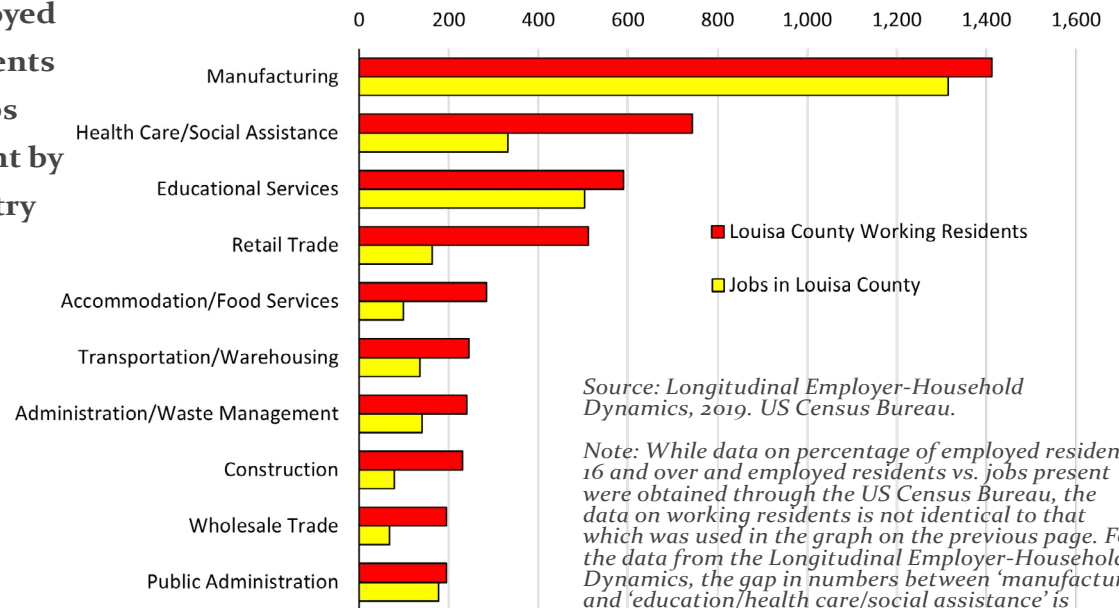
Notably, the preceding data refers only to the employment of Louisa County residents, regardless of whether a given person's job is located in a different county. A separate, similar dataset is available from the Census Bureau, which categorizes all jobs within a county, regardless of whether a given employee lives in that county or a different one. The graph at the bottom compares the number of residents employed in a given industry with the number of jobs present in the county for that same industry. This list includes only 10 of the 20 total NAICS industry classes – specifically the 10 with the highest number of Louisa County residents employed in that industry.

In each instance, the number of working residents exceeds the number of jobs present, which once again illustrates how dependent Louisa County is on other nearby counties for employment. However, the gap between the two is considerably higher for some industries than others. With a significant number of manufacturing and education jobs available in Louisa County, the gap is comparatively small. But for health care/social assistance, retail trade, and accommodation/food services, the gap is quite large. Therefore, residents employed in those industries are heavily dependent on other counties for employment. Going forward, efforts should be made to attract additional employers in those industry classes to Louisa County. Without such employers present, it will be difficult to retain many existing residents, as there will be a strong temptation for them to relocate closer to the available jobs (along with their spouses and families).

Percentage of Employed Residents 16 and Over by Industry Class



Employed Residents vs. Jobs Present by Industry Type



Source: Longitudinal Employer-Household Dynamics, 2019. US Census Bureau.

Note: While data on percentage of employed residents 16 and over and employed residents vs. jobs present were obtained through the US Census Bureau, the data on working residents is not identical to that which was used in the graph on the previous page. For the data from the Longitudinal Employer-Household Dynamics, the gap in numbers between 'manufacturing' and 'education/health care/social assistance' is smaller than that from the ACS 5-Year Estimates.

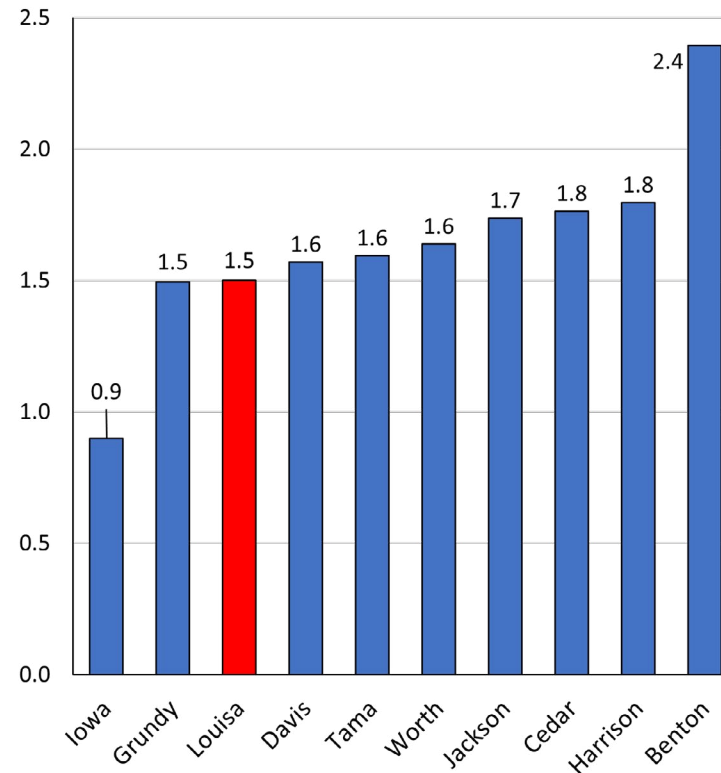
Employment and Jobs by Industry Type

Among all 99 counties, Louisa County ranks 23rd in terms of the ratio of total employed residents to total of jobs present (regardless of industry type). In this regard, it is one of 75 counties in Iowa where the ratio exceeds 1, meaning that the number of employed residents is greater than the number of jobs located within the county. Therefore, it is typical for rural counties to depend on larger counties for employment. However, Louisa is one of only 17 Iowa counties where the number of employed residents is more than 33% higher than the number of jobs.

For additional context on this matter, a comparison was made between Louisa County and the nine other 'peer counties' which were previously identified based on their similar geographic and socioeconomic conditions (see the 'Louisa County Today' section of this Plan). Notably, all but one of these peer counties are among the 17 counties where employed residents exceed jobs present by 33%.

An especially important similarity among Louisa and the other peer counties is the presence of a large city in at least one neighboring county. Louisa County has the third smallest 'residents to jobs' ratio among these counties. This means that it is comparatively less dependent on other places for employment than other Iowa counties with similar geographic and socioeconomic conditions.

Comparison with Peer Counties - Ratio of Working Residents to Jobs



Note: The exception for Iowa County is likely due to the presence of one large employer (Whirlpool) that attracts many workers from Cedar Rapids in neighboring Linn County.

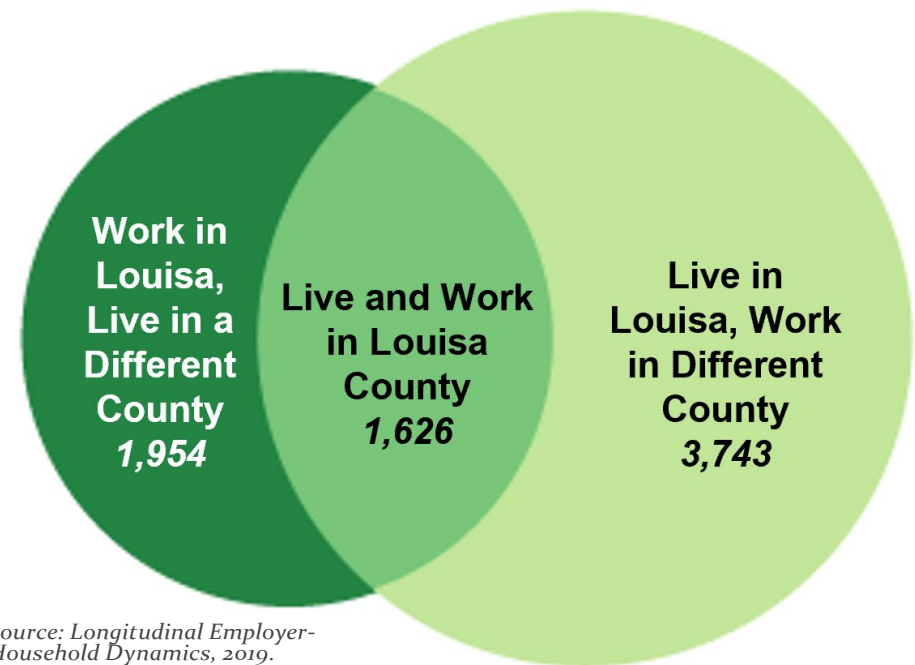
Commuting Patterns

Overall, according to 2019 estimates from the US Census Bureau, Louisa County has 5,369 employed residents, and 3,580 people are employed at a job located in Louisa County. There are 1,626 people that fall into both categories, meaning that they both live and work in the county. Because the number of people leaving for employment (outbound) exceeds the number entering from another county (inbound), Louisa County can be considered a ‘dependent county’.

This presents several key downsides. First, it necessitates longer commute times for local residents, who must travel to jobs located a lengthy distance from their home. Second, it makes county leaders reliant on economic conditions in a jurisdiction that is out of their control. For instance, if a major employer in Muscatine were facing closure, Louisa officials would largely have to sit back and rely on Muscatine officials to successfully mitigate the situation.

Overall, Louisa County ranks at #86 out of 99 counties in terms of the percentage of its working residents that are employed within the county.

According to Census estimates, the median commute time for the employed residents of Louisa County is 22.2 minutes. This is 3 minutes longer than the median commute time for all of Iowa (19.3 minutes). In this regard, Louisa ranks at #29 out of all 99 counties, and the vast majority of the top 40 counties are smaller-population rural counties, including many that border a much more populous county. While Louisa is typical of these rural counties, in terms of reliance on jobs that are physically located in other counties, it is unique in that it borders 3 different counties with an urban area of over 25,000 people. Since Muscatine is the closest of those urban areas, the average commute time in the northeast part of the county is noticeably shorter than in other areas of the county, where the distance to Muscatine, Burlington, and Iowa City is equally lengthy.



*Source: Longitudinal Employer-Household Dynamics, 2019.
US Census Bureau.*

ECONOMIC DEVELOPMENT

Commuting Patterns

The graph below shows the number of people commuting to and from Louisa County from seven other counties in the surrounding region. The most dramatic statistic is the especially high number of Louisa County residents commuting to Muscatine County (over 1,100 people every day). This is over twice the amount that travel to the next highest ranked counties – Johnson and Des Moines. However, it should also be noted that Muscatine County ranks highest for the number of its own residents traveling to Louisa County every day, at just over 400 people. This exceeds the number of Louisa residents commuting to Henry and Washington Counties combined. A significant factor in this is the large number of Tyson Foods employees that live in Conesville, West Liberty, and the City of Muscatine.

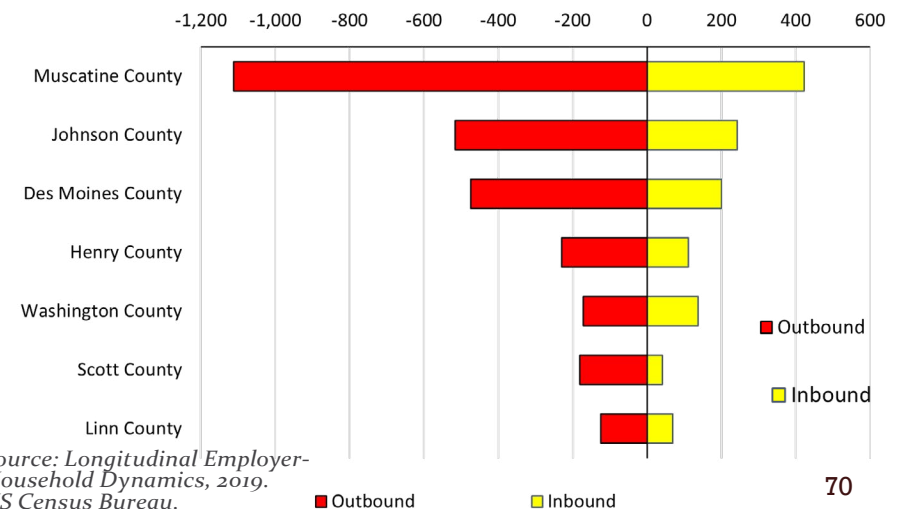
Within Louisa County as a whole, certain areas of the county are more dependent on neighboring counties for employment than others. The map on the following page shows the percentage of people in each township that commute to another county for their job. The greatest dependency occurs in the northeast part of the county, east of the Iowa and Cedar Rivers. More than 3/4 of the employed residents in these four townships work in a different county, and Muscatine County accounts for the largest individual share. For the most part, the remaining townships have between 60 and 70% of their residents commuting to another county. In the northwest part of the county, the primary destination is Johnson County, while Des Moines County is the primary destination for the 3 townships that border it.

While rural counties in Iowa tend to largely be dependent on neighboring counties for employment (particularly when there is a large urban area in at least one of those neighboring counties), Louisa is somewhat unique due to the presence of Tyson Foods and the headquarters of multiple school districts. The people who both live and work in Louisa County account for 30% of the county's employed residents, and 45% of the people whose job is located in the county.

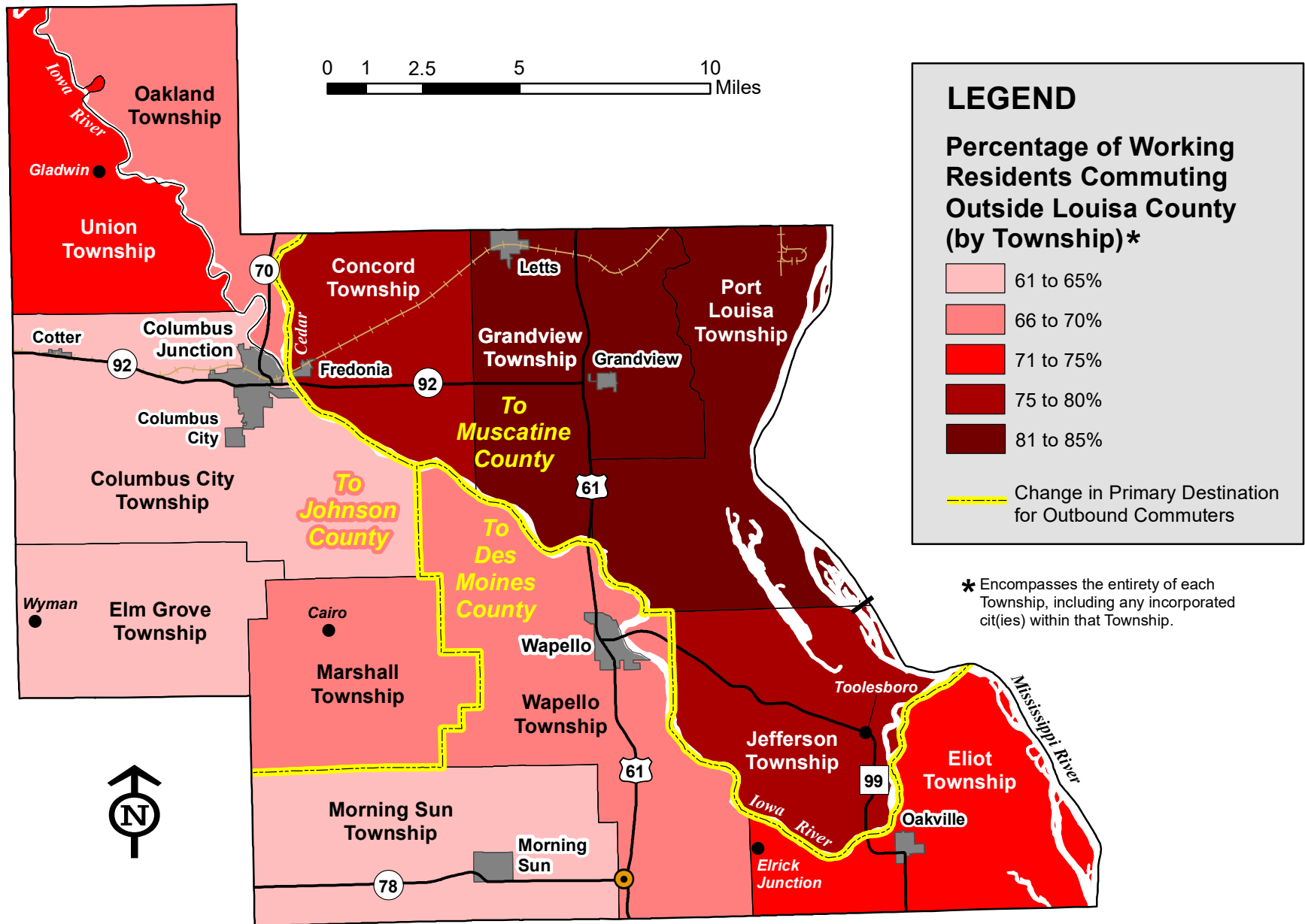
Louisa ranks within the bottom 20 counties in both instances, and is one of only 16 counties in the state where both the former falls below 33% and the latter falls below 50%. This means that Louisa County essentially experiences a 'daytime/nighttime inversion', where an entirely different set of people are present at different times during the same day. This accounts for the comparatively minimal amount of overlap in the Venn diagram on the previous page.

This phenomenon was encountered during the process of preparing this Plan, as several of the interview subjects (such as those representing private employers and schools) indicated that they personally reside in a different county. It also created a challenge for spreading awareness about the public survey, as a large share of the target audience has comparatively little interaction with other county residents, since they spend much of their time in a different county. Therefore, this experience serves as a microcosm for the primary challenge this creates for the community – finding opportunities for like-minded residents to work together and pursue common goals. This comparative lack of political participation and face-to-face interaction can serve to delay and stifle meaningful progress towards future growth and development. Fortunately, awareness of this unique problem can serve as a catalyst for local officials to pursue targeted mitigation strategies.

Outbound and Inbound Commuting - Nearby Counties



Louisa County - Commuting Pattern



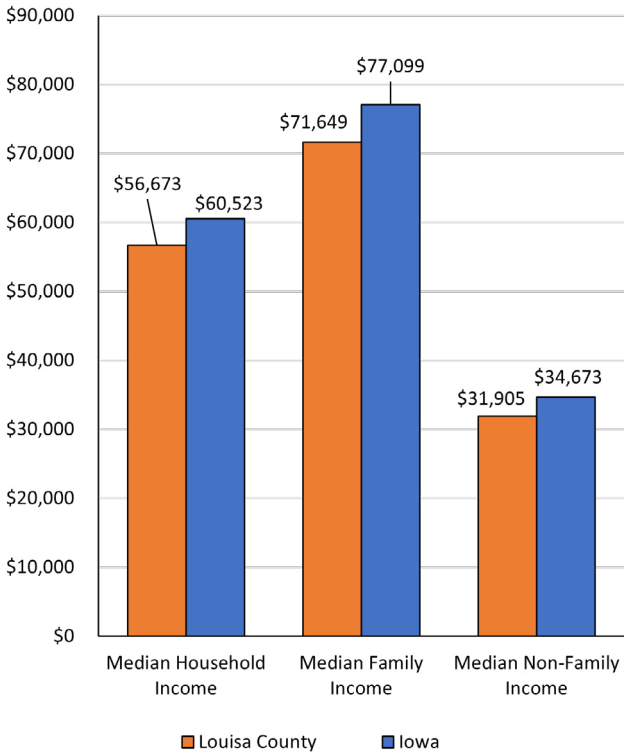
Household Income

The median household income in Louisa County is \$56,673 per year. This represents 94% of the statewide median income of \$60,523, and Louisa ranks at #48 out of 99 counties in the state.

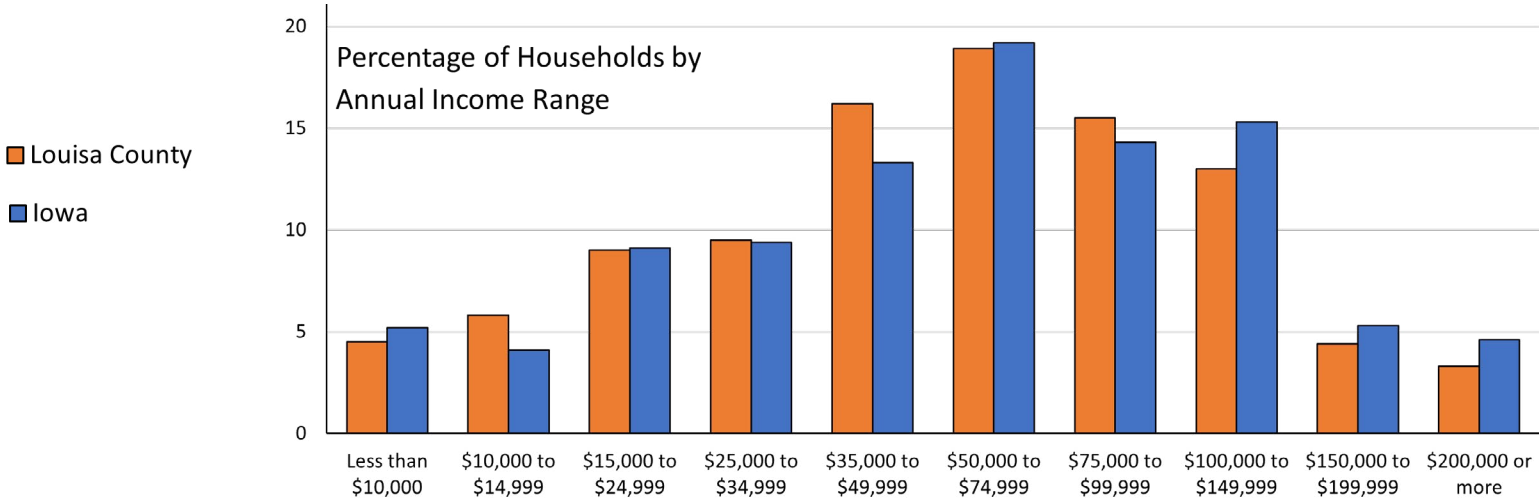
When broken down into the sub-categories of ‘family households’ and ‘non-family households’, the same dynamic occurs between the county and the state, although the overall values are considerably higher for ‘family households’. This is to be expected, as many such households include parents that support young children and other dependents.

The graph below shows the percentage of all households that fall into each of several annual income brackets, for both Louisa County and Iowa as a whole. The county is largely consistent with the state for those earning between \$15,000 and \$35,000 per year, and those earning between \$50,000 and \$75,000 per year. It exceeds the state by a sizable margin for those in the \$35,000 to \$50,000 range, and to a lesser extent for \$75,000 to \$100,000. What’s more concerning is that it exceeds the state for the \$10,000 to \$15,000 range, and falls behind for all brackets above \$100,000. Going forward, local leaders should pursue strategies to increase the share in the uppermost brackets, and shift the surplus in the \$35,000 to \$50,000 range to the brackets just above. The attraction of additional employers with family-supporting wages can help to accomplish both of these objectives.

Median Income by Household Type



Percentage of Households by Annual Income Range



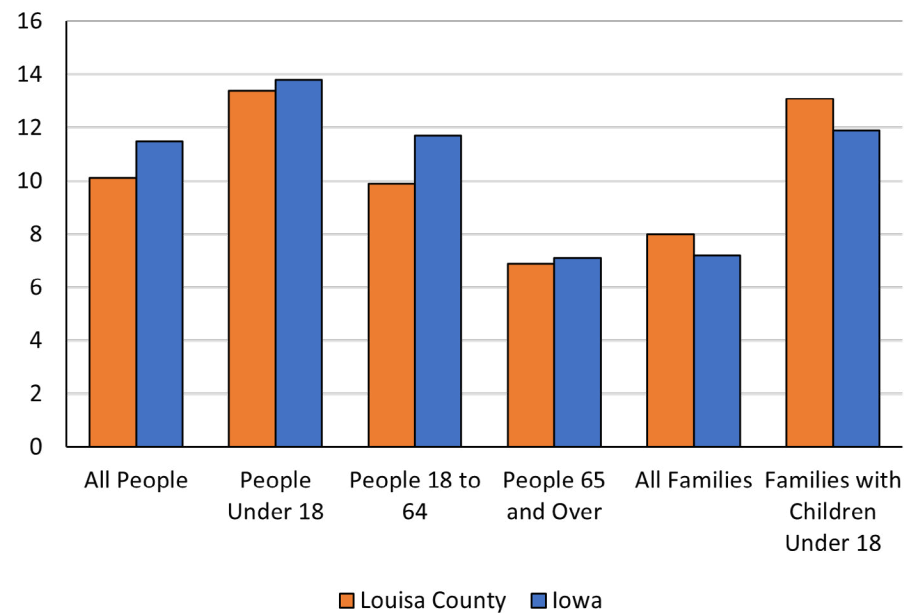
Source for all graphs on this page: American Community Survey 5-Year Estimates 2015-2019. US Census Bureau.

Household Income

Additional data is available from the Census Bureau regarding people and families living in poverty. This refers to the number of each that fall below the current federal poverty level. Fortunately, Louisa County has a smaller share of people living in poverty than Iowa as a whole (10%, compared to 12%). The same dynamic occurs for all age groups – children, young/middle-aged adults, and senior citizens, although the gap is significantly wider for young/middle-aged adults. Within the county, the areas around Columbus Junction, Oakville, and Muscatine Island have the highest poverty rates (all above the state average).

Overall, the opposite is true for families, as Louisa County exceeds the state in terms of the percentage of families living in poverty, and the same holds true when narrowed down to families with children. This indicates that while wages and salaries may be sufficient to support an individual, they sometimes fall short of what is necessary to support an entire family. Furthermore, it is likely that the wages provided would be sufficient in an urban environment where all amenities are available in close proximity. In contrast for rural areas, the challenges afforded by lengthy commutes, shopping trips, and trips for transporting children can significantly reduce the effectiveness of those wages to support a family. Therefore, measures should be taken to ensure that all families have access to the tools necessary to effectively plan for and manage their future finances. Concurrently, efforts to bring additional retail and other amenities into the county should be encouraged, in order to reduce the burden of travel on family income.

Percentage of People and Families with Income Below the Poverty Level



Source: American Community Survey 5-Year Estimates 2015-2019. US Census Bureau.

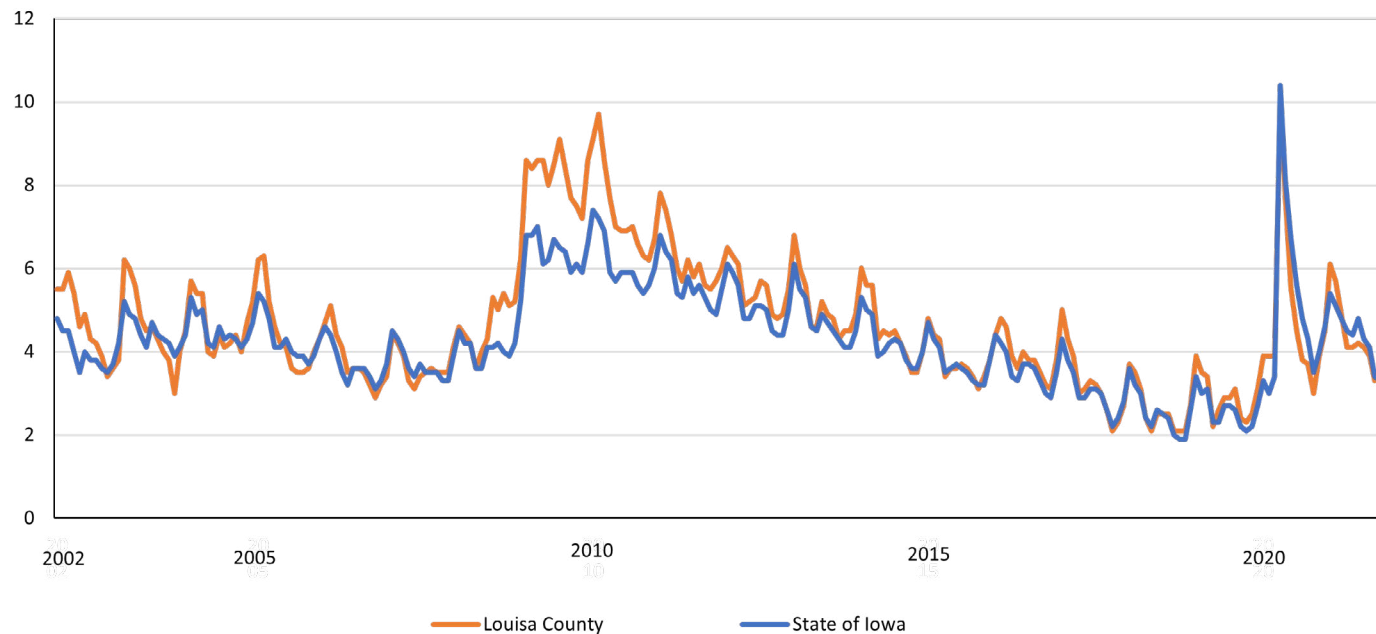
ECONOMIC DEVELOPMENT

Unemployment

Over the past two decades, the unemployment rate in Louisa County has largely remained stable and consistent with the statewide trend. As with the state and nation as a whole, there was a pronounced spike in unemployment following the 2008 Financial Crisis, which gradually receded over the following decade. However, the impact was initially more pronounced in Louisa County than Iowa as a whole, as unemployment was around two percentage points higher from 2008 to 2010. This suggests that while Louisa County does not have a problem of sustained higher unemployment, it is more susceptible to the impact of negative trends at the national level. Fortunately, the temporary spike caused by the COVID-19 pandemic in 2020 does not appear to have had the same pronounced impact on Louisa County as the 2008 crisis. Overall, on a yearly basis, Louisa seems to experience a slightly sharper uptick in unemployment during the winter months, following the annual peak during the Christmas shopping season.



Unemployment Rate (Percentage), 2002-2021

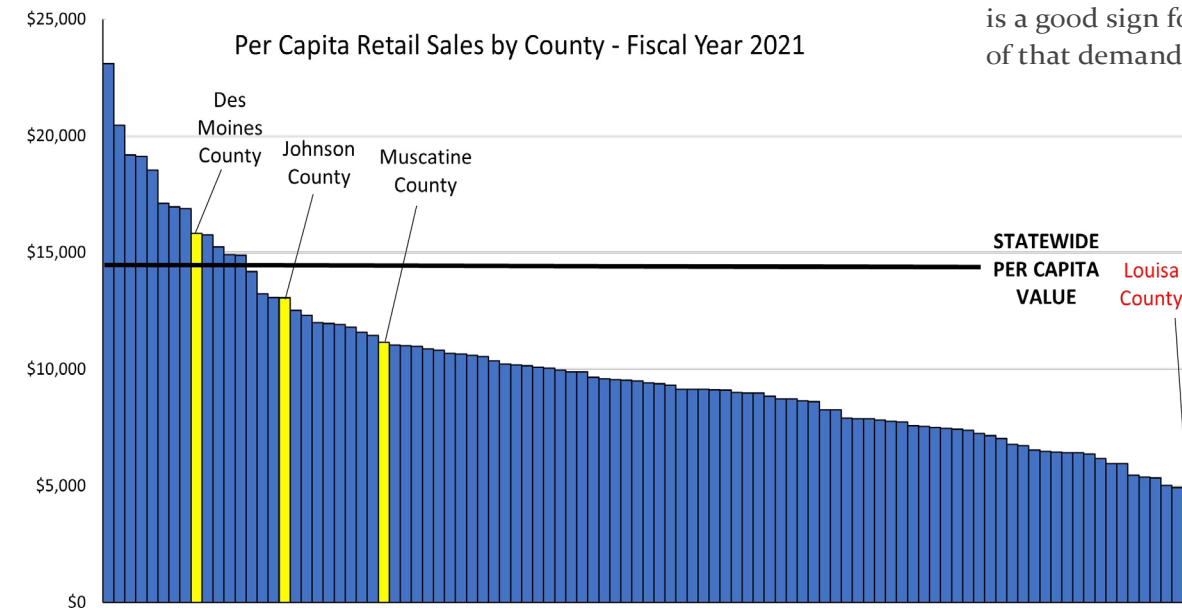


Source: Local Area Unemployment Statistics. Iowa Workforce Development.

Retail Sales

The Iowa Department of Revenue collects data on all taxable retail sales generated within the state, which is organized by jurisdiction (county and city), as well as by business classification. When the figures for each county are divided by that county's population, the result is the per capita retail sales for that county (in other words, a ratio of how much revenue is generated for every resident in the county). Unfortunately, the results show that Louisa County had the lowest per capita retail sales for any county in Iowa in 2021, at just under \$3,500 per resident. Furthermore, results from the past 10 years indicate that Louisa has consistently ranked at #99 for many years in a row. Even more alarming is the fact that there is a considerable drop-off in value between #98 and #99.

An important factor to consider, however, is that the three neighboring counties of Des Moines, Johnson, and Muscatine all rank in the top third of counties for per capita retail sales, with Des Moines County exceeding the statewide per capita sales figure of \$13,803. Those 3 counties all serve as regional retail and service hubs (based in Burlington, Muscatine, and Iowa City/Coralville). Therefore, a sizable amount of their total sales are coming from the residents of neighboring counties.



Source: Retail Sales and Use Tax Annual Report Fiscal Year 2021. Iowa Department of Revenue

Louisa County's geographic location, combined with its small rural population, puts it at a significant disadvantage, as the lack of local retail offerings necessitates frequent trips to neighboring counties to accomplish one's shopping needs. Furthermore, the abundance and variety of retail offerings in those 3 nearby cities allows Louisa County residents to accomplish multiple objectives in a single trip. Therefore, this creates a self-perpetuating cycle of dependence on those neighboring counties, which can only be mediated by facilitating the development of additional retail offerings within Louisa County.

One silver lining among the retail sales data is that Louisa County's sales have remained stable over time. Over the past decade, total sales in the county increased from \$30 million per year to \$38 million per year. This represents an increase of 28%, just below the total statewide increase of 33%. Plus, between 2019 and 2021 alone, sales increased by 7%, just below the statewide increase of 9%. This indicates that the COVID-19 pandemic did not have a uniquely detrimental impact on Louisa County's retail earnings. Furthermore, Louisa outranked Des Moines, Johnson and Muscatine counties in both instances. This suggests that supply appears to be keeping pace with demand in those urban areas, and this is a good sign for rural counties like Louisa, which could capture some of that demand if additional retail outlets opened within the county.

ECONOMIC DEVELOPMENT

Retail Sales

An important factor to consider, however, is that the three neighboring counties of Des Moines, Johnson, and Muscatine all rank in the top third of counties for per capita retail sales, with Des Moines County exceeding the statewide per capita sales figure of \$13,803. Those 3 counties all serve as regional retail and service hubs (based in Burlington, Muscatine, and Iowa City/Coralville). Therefore, a sizable amount of their total sales are coming from the residents of neighboring counties.

Louisa County's geographic location, combined with its small rural population, puts it at a significant disadvantage, as the lack of local retail offerings necessitates frequent trips to neighboring counties to accomplish one's shopping needs. Furthermore, the abundance and variety of retail offerings in those 3 nearby cities allows Louisa County residents to accomplish multiple objectives in a single trip. Therefore, this creates a self-perpetuating cycle of dependence on those neighboring counties, which can only be mediated by facilitating the development of additional retail offerings within Louisa County.

One silver lining among the retail sales data is that Louisa County's sales have remained stable over time. Over the past decade, total sales in the county increased from \$30 million per year to \$38 million per year. This represents an increase of 28%, just below the total statewide increase of 33%. Plus, between 2019 and 2021 alone, sales increased by 7%, just below the statewide increase of 9%. This indicates that the COVID-19 pandemic did not have a uniquely detrimental impact on Louisa County's retail earnings. Furthermore, Louisa outranked Des Moines, Johnson and Muscatine counties in both instances. This suggests that supply appears to be keeping pace with demand in those urban areas, and this is a good sign for rural counties like Louisa, which could capture some of that demand if additional retail outlets opened within the county.



Retail Sales

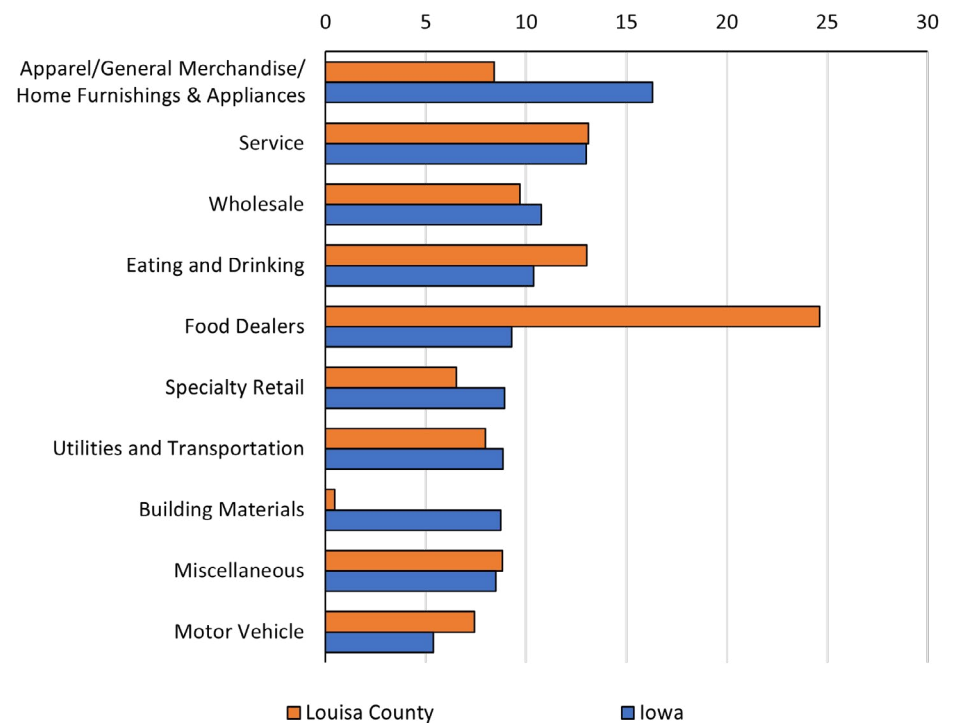
When broken down by business classification, 1/4 of all retail sales in Louisa County are generated by 'food dealers'. This category includes grocery stores and gas stations/convenience stores. Louisa vastly exceeds the state as a whole, as 'food dealers' only account for 9% of total retail sales statewide. Furthermore, no other category comes anywhere close to 25%, at either the state or local level. This shows that, in addition to having very low sales on a per capita basis, Louisa County is heavily dependent on food dealers for what little sales it does generate. This is all the more alarming since these statistics were gathered after Wapello's last full-service grocery had already closed, meaning that the only full-service grocery contributing to these sales was Econo Mart in Columbus Junction. The rest came from dollar stores and convenience stores.

The second and third ranked categories for retail sales in Louisa County were 'Service' and 'Eating and Drinking', both at 13%. The latter category includes restaurants, taverns and bars, while the former is a broad category that encompasses such businesses as auto repair, beauty/barber shops, furniture repair, arts/entertainment, photography studios, and hotels/lodging.

Compared to the state as a whole, Louisa County obtains a greater percentage of sales from 'Eating and Drinking' and 'Motor Vehicles', as attested by the multitude of restaurants in Columbus Junction and Wapello, as well as several car dealerships. In contrast, it falls well behind the state in the categories of 'Specialty Retail', 'Building Materials', 'Home Furnishings and Appliances', 'General Merchandise', and 'Apparel'. Taken as a whole, these categories include department stores, jewelers, sporting goods, florists, clothing/shoe stores, hardware stores, and building/gardening supplies.

As a testament to this, data for 3 of those individual categories was not provided for Louisa County, as the Department of Revenue has a policy of not releasing figures in instances where one specific firm accounts for the vast majority of sales. As a result, these 3 firms are all combined together in the graph to the right.

Percentage of all Taxable Retail Sales
by Business Classification - FY2021



ECONOMIC DEVELOPMENT

Tourism

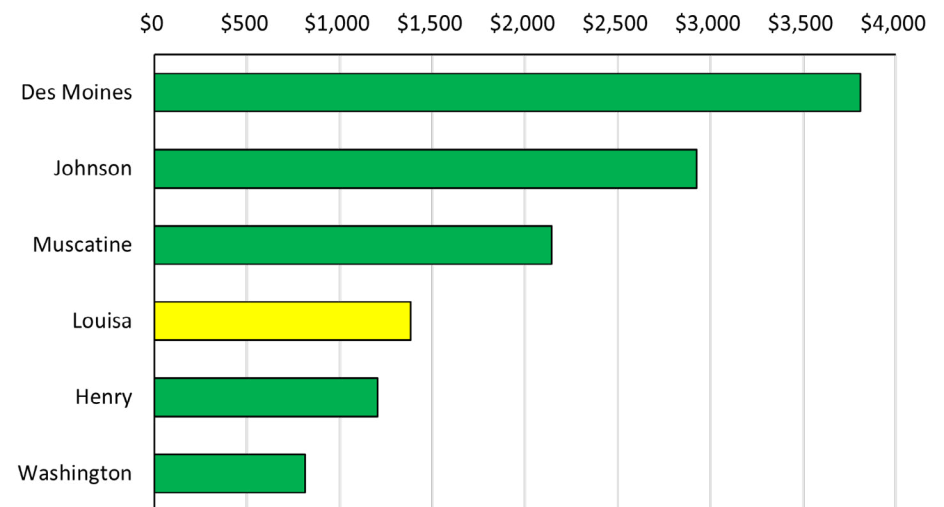
While Louisa County has had difficulty in generating sales from retail in general, it has fared comparatively well in terms of the sales generated through tourism in particular. On behalf of the Iowa Economic Development Authority (IEDA), the U.S. Travel Association prepares yearly reports on the economic impact of travel and tourism on individual counties in Iowa. Its most recent report shows that Louisa County generated \$15.3 million in tourism-related expenditures in 2019. On a per capita basis, Louisa ranks 53rd out of 99 counties (at \$1,382 per resident). It also outranks the neighboring counties of Henry and Washington.

While it still falls well below Des Moines, Johnson and Muscatine counties, the considerably higher ranking for tourism-related sales is a positive indicator for the future potential of Louisa County. It is likely that these figures are somewhat skewed by sales at gas stations and dining establishments, which generate plentiful sales from the traveling public in general, rather than people purposely visiting Louisa County in particular. However, the impact of sales from people ‘just passing through’ should not be taken for granted, as the mere visibility of local resources and destinations has the potential to single-handedly inspire return trips to explore more of what the county has to offer. As an example, a chance stop at a gas station might result in an out-of-state visitor’s first exposure to the Swinging Bridge or the Toolesboro Mounds.

In addition, it is promising to know that tourism spending is already a strength for Louisa County, since this provides a solid foundation for future growth and expansion, particularly considering the anticipated increase in thru-traffic once Highway 61 expansion project is completed. This improvement alone could bring about opportunities for additional gas stations, hotels, and restaurants along the highway corridor. Plus, similar amenities can prove viable for the Great River Road National Scenic Byway, particularly when motorists can utilize this as a ‘scenic detour’ from a portion of the main highway.

Finally, Louisa County has strong potential to secure additional tourism revenue from nature-related activities. There are already numerous options available camping, hunting, fishing, hiking, and wildlife viewing already available. With increased awareness of these existing activities, plus the development of additional outdoor recreational amenities (on both public and private land), Louisa County is poised to become a regional hub of outdoor recreational tourism.

Per Capita Tourism Expenditures by County, 2019





Toolesboro Mounds National Historic Landmark is a tourist attraction located East of Wapello.

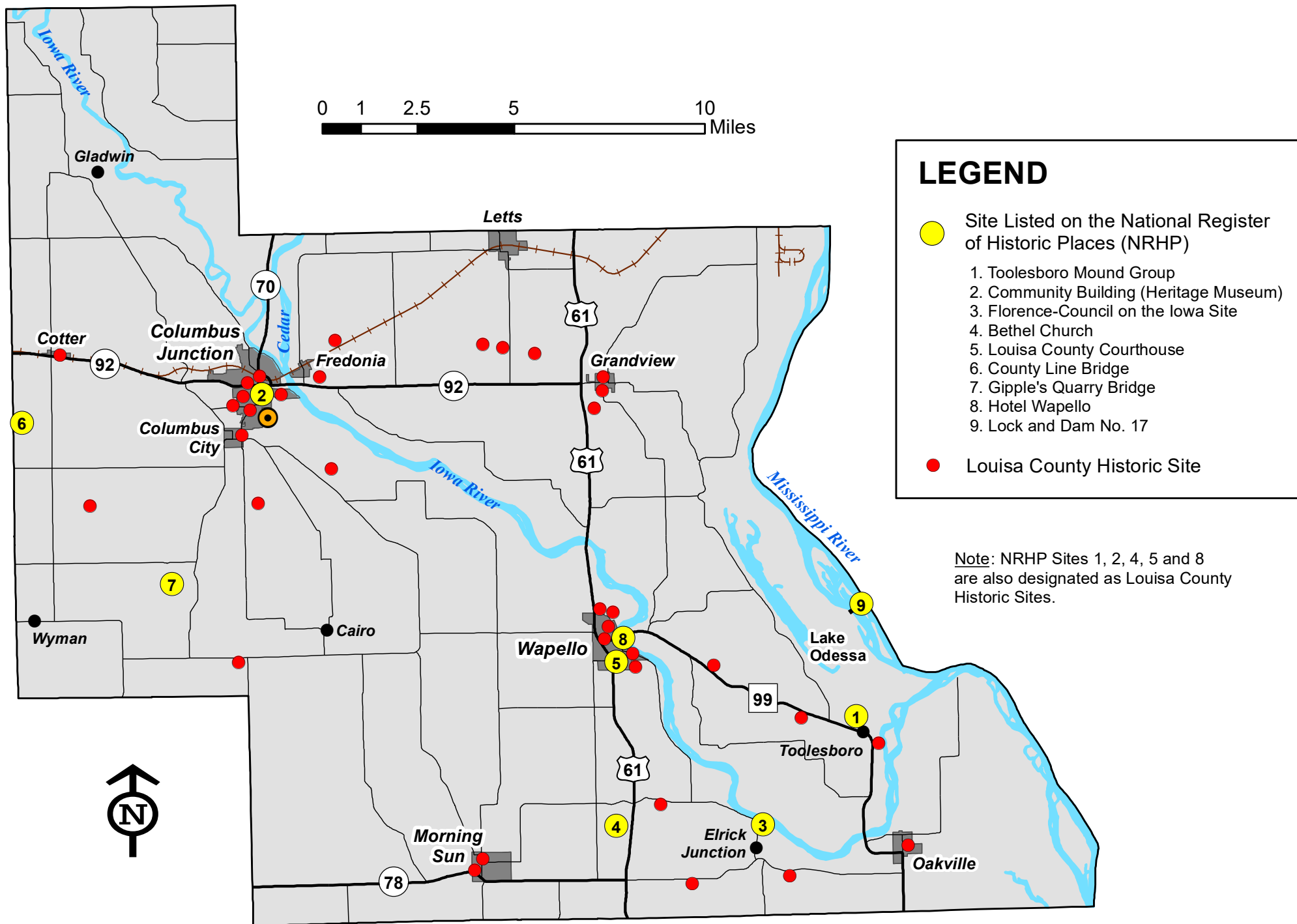
National Register of Historic Places/ Louisa County Historic Sites (Local)

Formally recognizing a community's history is a valuable way to encourage future economic development and community vitality, as it instills a strong sense of community pride, and helps attract additional interest from visitors to the community. Despite its small population, as one of the earliest settled counties in Iowa, Louisa County has an extensive portfolio of historic resources. Louisa County contains nine listings on the National Register of Historic Places (NRHP), three of which are located within municipalities (Wapello and Columbus Junction), while the remaining six are in the unincorporated portion of the county, and one of those (Lock and Dam No. 17) straddles the boundary with Mercer County, Illinois. Four of them are buildings, including the Courthouse, an old hotel in Wapello, a former school building in Columbus Junction, and a rural church south of Wapello. There are also two roadway bridges in the far western part of the county, and Lock and Dam No. 17 is considered to be a 'district', containing multiple contributing structures. Two of the historic properties are classified as sites', as they do not involve any remaining buildings or structures. The first of these is Toolesboro Mounds, a group of Havana Hopewell burial mounds erected between 200 B.C. and 100 A.D. This was the first place in the county to enter the NRHP, in 1966, as well as the only one to also attain the status of a National Historic Landmark, meaning that the US Government has officially recognized it for outstanding historical significance. It is one of only 26 such Landmarks in the entire state of Iowa. The other site is the recognized location of an early 1830s European settlement along the Iowa River called Florence, which was later abandoned. In addition, the Louisa County Historic Preservation Commission has officially designated a series of buildings and places as a Louisa County Historic Site. This includes a total of 40 sites, including 5 which are also listed on the National Register. This includes 7 commercial or civic buildings, 3 rural churches, 9 homes located inside a city,

and a total of 13 agricultural sites that include a historic farmstead home and/or barn. This list also recognizes the location of 2 original mill race streams established north of Wapello in the 1800s, along with 2 rural cemeteries and the Toolesboro Mounds and the County Fairgrounds. Finally, it includes the County Fairgrounds, the Convict Highway at Fredonia, and the Swinging Bridge in Columbus Junction. The most recent addition to the National Register in Louisa County occurred in 2004. With over 30 additional sites attaining local historic status, this indicates that there is significant potential for additional sites to be added to the NRHP. There are also a number of buildings that are likely eligible for the NRHP, but have not attained local historic status, including a number of downtown commercial buildings. Plus, with several instances of numerous historic buildings in close proximity, there is a potential for establishing Historic Districts on the NRHP. A good example is Downtown Columbus Junction, but other examples may exist in other downtown areas, or older residential neighborhoods. Such districts can have a significant influence in attracting tourism, and also present substantial opportunities for grant funding assistance, to facilitate the rehabilitation and reoccupation of historic buildings. Thus, they are a valuable tool for economic development, in addition to being a means to recognize and preserve community history.



Louisa County Designated Historic Resources



Education

Louisa County is home to portions of 8 different school districts. However, the vast majority of the population (including all incorporated municipalities) lie within 4 of those districts – Wapello, Columbus, Morning Sun and Louisa-Muscatine. These are the same four districts where the school facilities and administrative offices are all located within Louisa County. About 96% of the County's total population resides in one of those 4 districts.

Louisa County Community School Districts

Columbus Community School District



The Columbus Community School District has the largest enrollment of the four districts with facilities in Louisa County, at nearly 750 students. Its facilities are located in a cluster on the south side of Columbus Junction, and it also includes the cities of Columbus City, Fredonia, and Cotter. About 88% of the district's total residents live in Louisa County, while the remaining 12% live in Muscatine County (including the City of Conesville). It also has the 9th highest percentage of Asian students, at 8%. Its mascot is the Wildcats.

Morning Sun Community School District



The Morning Sun Community School District has just over 1,150 students, and it is unique among all districts serving Louisa County, in that its only facility is an Elementary School (located on the east side of Morning Sun). It shares a Superintendent with the Wapello School District, and its students attend either Wapello or Winfield-Mount Union schools for Junior High and High School. Its mascot is the Tigers.

Wapello Community School District



The Wapello Community School District has over 550 students, and all of its facilities are located in the City of Wapello, although the Elementary and Junior High/High Schools have physically separate campuses, several blocks apart. The district is almost entirely located within Louisa County. It includes the cities of Wapello and Oakville, plus the unincorporated towns of Toolesboro, Cairo, and Elrick Junction. Its mascot is the Chiefs.

Louisa-Muscatine Community School District



The Louisa-Muscatine Community School District has just over 700 students, and it has the only campus in the county that is located in an unincorporated area. It is situated just west of Highway 61, roughly midway between the cities of Grandview and Letts, which are both located in the district. It is also unique in that it is the only one of the 4 districts headquartered in the county to have less than 80% of its population in the county. Just over half of the district's population lives in Muscatine County, and this includes the City of Fruitland and a portion of the City of Muscatine at its far south end. Its mascot is the Falcons.

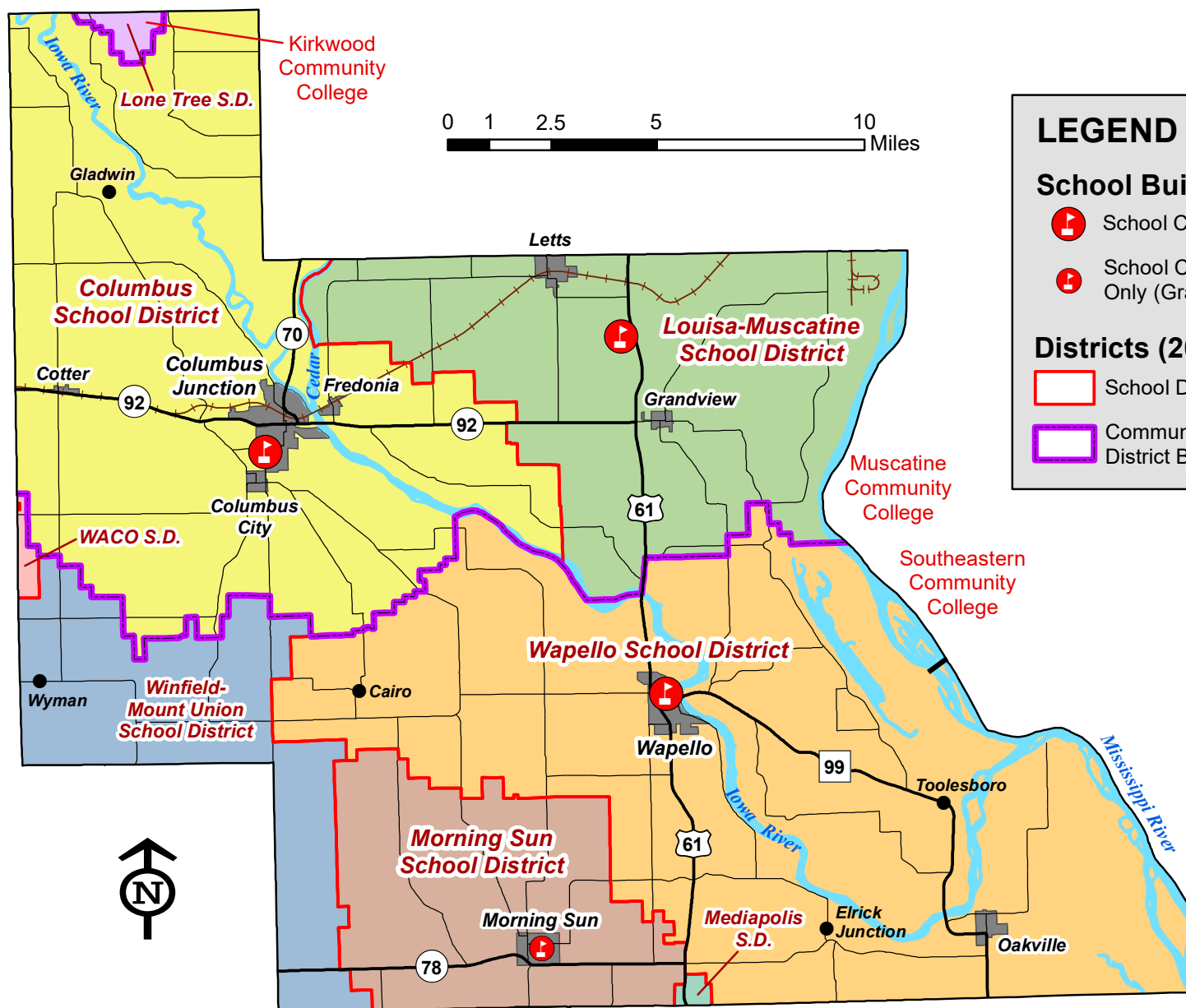
Of the 4 districts based outside of Louisa County that serve some of its residents, the largest share by far is accounted for by the Winfield-Mount Union Community School District, based in Winfield, and located just over 2 miles beyond county line. This includes a sizable area at the southwest corner of the county, although that area is primarily occupied by farmland. It also includes the unincorporated community of Wyman. Nearly 100 Louisa County residents live within the Lone Tree School District, though this is almost entirely accounted for by the Golden Pond Subdivision, which straddles the line with Johnson County. Only a few dozen Louisa County residents live within small portions of the WACO and Mediapolis School Districts.

In addition to being split by multiple school districts, Louisa County is also split between 3 different Community College Districts. The Wapello, Morning Sun, Winfield-Mount Union and WACO School Districts are all located in the Southeastern Community College (SCC) District, with the campus itself located in West Burlington to the south. The Columbus and Louisa-Muscatine School Districts are located in the Muscatine Community College District, with the campus located in Muscatine to the northeast. Finally, the Lone Tree School District is in the Kirkwood Community College District, with the campus located well to the north in Cedar Rapids.

District	Schools	Facilities in Louisa County?	Location	Number of Teachers	Certified Enrollment	Resident Population in Louisa County	Community College District
Columbus Community School District	Elementary, Junior High, High	Yes	Columbus Junction	60	745	3,740 (88%)	Muscatine
Wapello Community School District	Elementary, Junior High, High	Yes	Wapello	48	557	3,574 (100%)	Southeastern
Louisa-Muscatine School District	Elementary, Junior High, High	Yes	Grandview Township	72	707	1,973 (49%)	Muscatine
Morning Sun Community School District	Elementary	Yes	Morning Sun	12	190	1,154 (97%)	Southeastern
Winfield-Mount Union Community School District	Elementary, Junior High, High	No	Winfield (Henry County)	37	314	276 (15%)	Southeastern
Lone Tree Community School District	Elementary, Junior High, High	No	Lone Tree (Johnson County)	40	370	86 (4%)	Kirkwood
WACO Community School District	Elementary, Junior High, High	No	Wayland (Henry County)	51	459	19 (1%)	Southeastern
Mediapolis Community School District	Elementary, Junior High, High	No	Mediapolis (Des Moines County)	67	824	15 (0.5%)	Southeastern



Sources:
Iowa Department of Education.
2020 Decennial Census. US Census Bureau.

Louisa County Schools and School Districts





LEGEND

School Building Locations

-  School Complex, Grades K-12
-  School Complex, Elementary Only (Grades K-6)

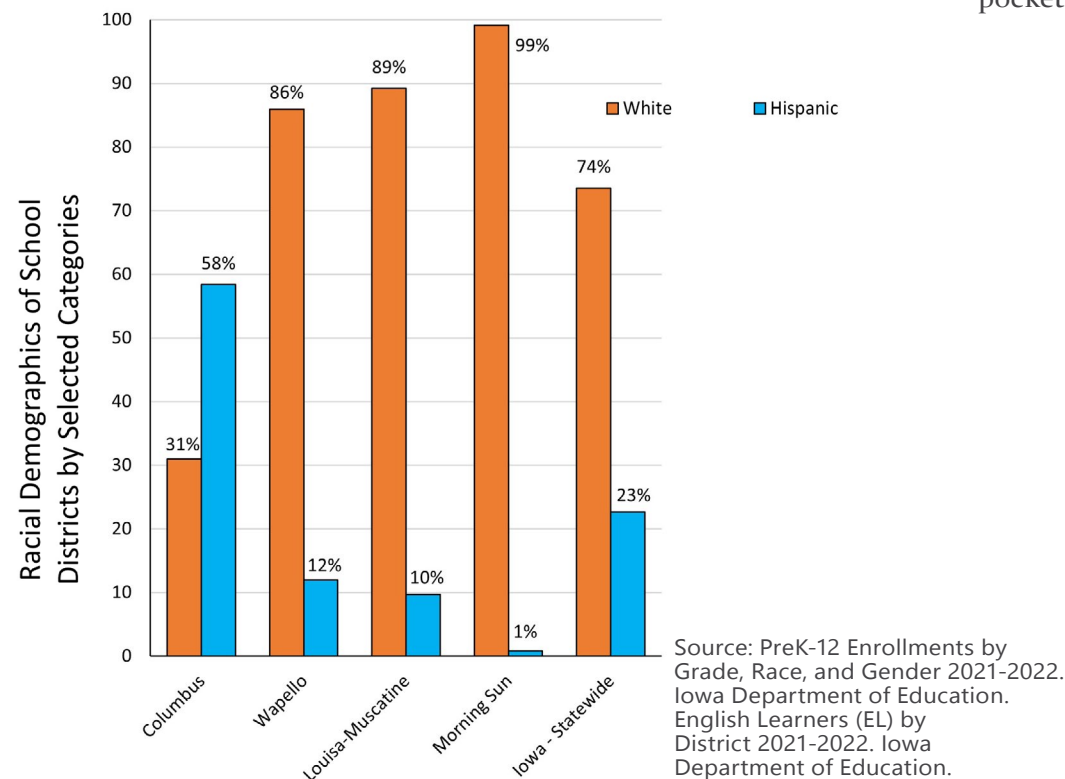
Districts (2021-2022)

-  School District Boundary
-  Community College District Boundary

Racial Demographics at School Districts

In the Columbus School District, as with its general population, a high percentage of its students are Hispanic or Asian. In fact, it has the 4th highest percentage of Hispanic students out of all 327 school districts in Iowa, at 58%. It also has the 9th highest percentage of Asian students, at 8%. Comparatively, all other districts in the county have a student population that is at least 85% White (well above the statewide figure of 74%).

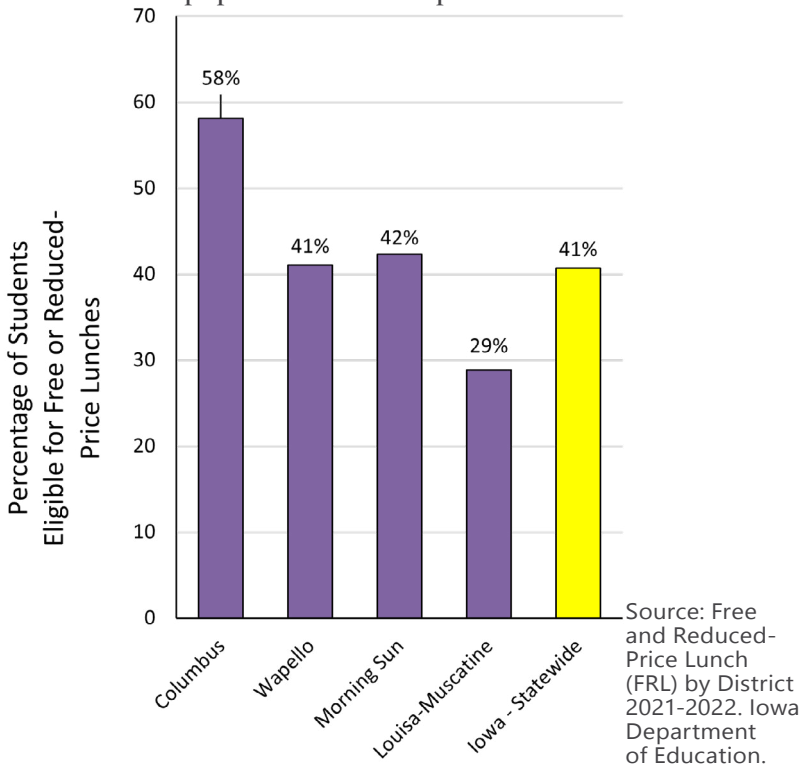
Strongly correlated with its large number of recent immigrants and refugees, the Columbus School District also has a high number of students classified as ‘English Language Learners’ (ELL). About 1 out of every 4 of its students fit this category (over 150 in total), and it ranks 6th out of all districts in the state for this statistic.



Socioeconomic Challenges at School Districts

An important indicator of socioeconomic challenges within a School District is the percentage of students that are eligible for free or reduced-price lunches while attending school. In the Columbus School District, nearly 3 out of every 5 students fall into this category, and as a result, this district ranks at number 26, out of all school districts in Iowa. It is also the lowest ranked district in the surrounding region, apart from Keokuk at #15 and West Liberty at #18. Based on the presence of both Columbus and West Liberty near the top of the list, it is concerning that there appears to be at least some correlation between this and the percentage of Hispanic students and English Language Learners.

The Wapello and Morning Sun School Districts are consistent with the statewide average, while Louisa-Muscatine fares significantly better. It should be noted that the figure for that district is likely skewed by the population in Fruitland and the south end of Muscatine, and that pockets of lower-income population are still present within the district.

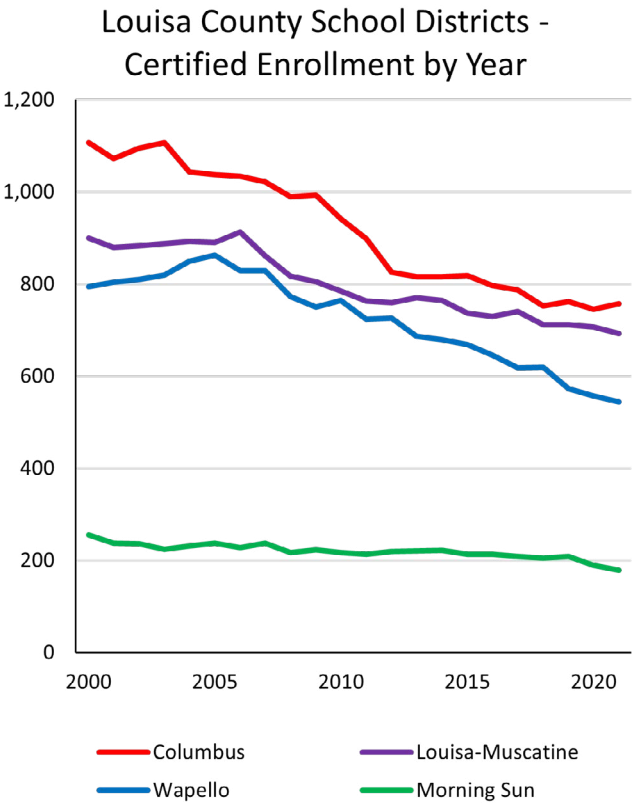


EDUCATION

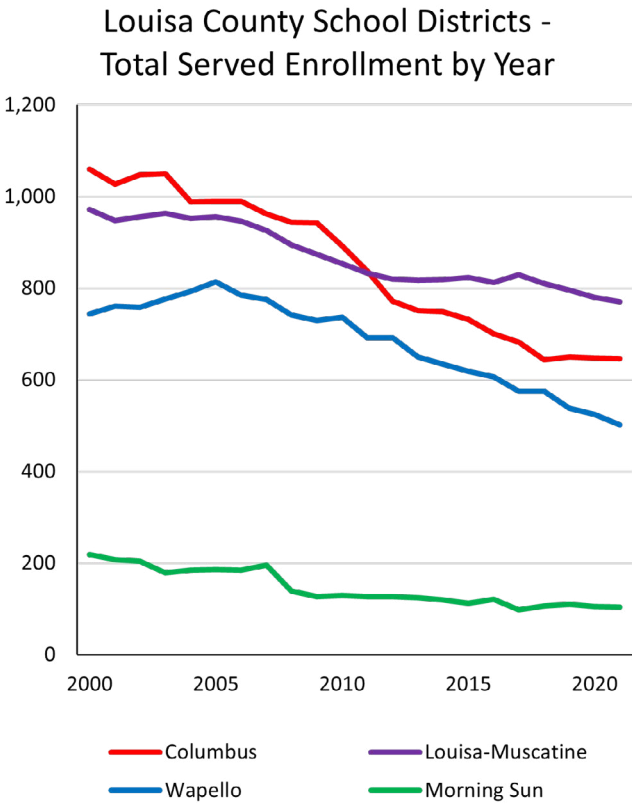
Enrollment Trends

Over the past two decades, enrollment at all 4 of the School Districts based in Louisa County has decreased. This is true for both Certified Enrollment and Total Served Enrollment. The former refers to all students residing in the District that are currently enrolled in public school (regardless of which District they attend), while the latter refers to all students attending school in the District (regardless of which District they reside in). For Certified Enrollment, the Wapello District experienced the largest 20-year decline from 2002 to 2022 (down 32%), while the Louisa-Muscatine District experienced the smallest decline (down 21%).

For Total Served Enrollment, Morning Sun experienced the largest 20-year decline (down 50%), although much of this stems from a large drop in 2008, likely due to a change in how data was collected in this district (which does not have its own Junior High or High Schools). Apart from that, the largest decline was experienced by the Columbus District (down 37%). Notably, an inversion occurred in the early 2010s, when Columbus dropped below Louisa-Muscatine, where it remains to this day. Once again, Louisa-Muscatine experienced the smallest decline of the four districts (down 19%).



Source for both graphs: Certified Enrollment By District. Iowa Department of Education.

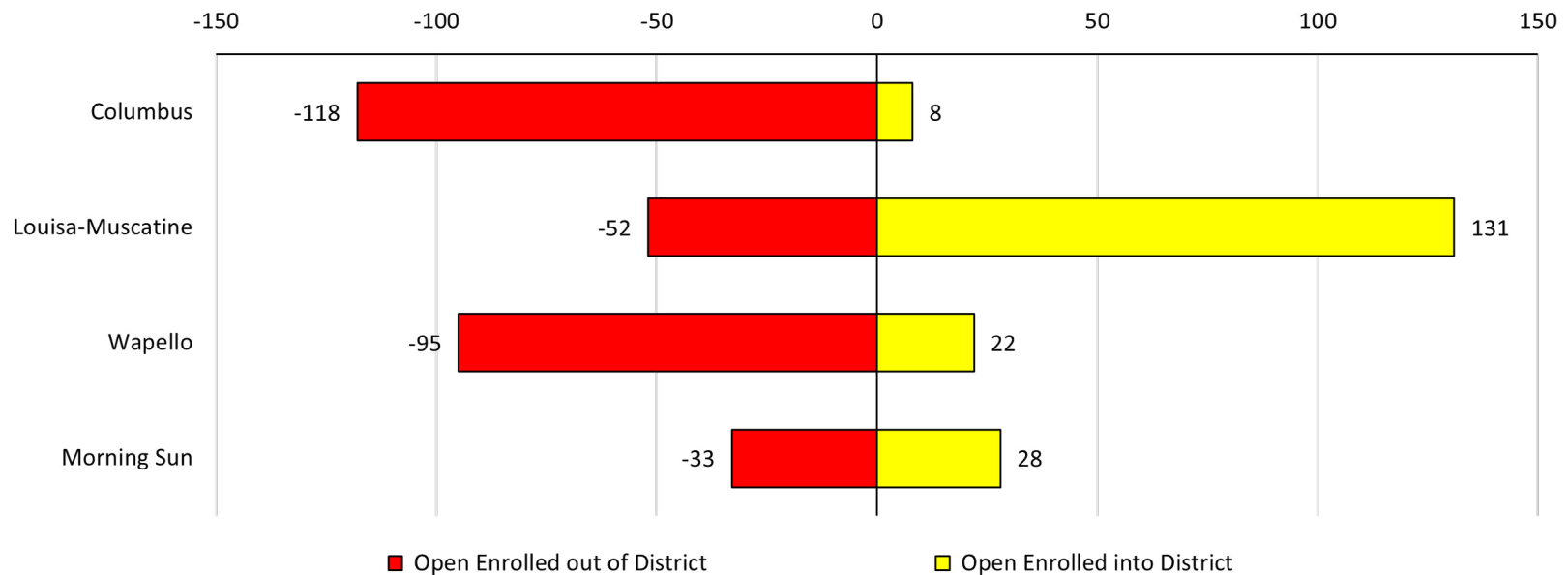


Enrollment Trends

The primary reason for a substantial discrepancy in the numbers for Certified and Total Served Enrollment is the option for parents to ‘open enroll’ their students in a different district than the one in which they reside. In most instances, total Served Enrollment exceeds Certified Enrollment whenever the number of students open enrolled in exceeds the number open enrolled out. Among the 4 Districts based in Louisa County, this is only true for the Louisa-Muscatine District. In that case, the number of students arriving from another district exceeds the number leaving by a ratio of 2.5 to 1.

For the other 3 Districts based in the county, Certified Enrollment exceeds Total Served Enrollment. For Morning Sun, part of the reason is the fact that students in Grades 6 through 12 must automatically go to a school in a different district. Apart from that, this is all because the number of students leaving for another district exceeds the number arriving from elsewhere. For the Wapello District, the ratio is 4 to 1, but for the Columbus District, the ratio is considerably higher, at 15 to 1. For the latter, a likely factor is the real or perceived issues surrounding the large number of ELL students, and overall lower measures of student performance. While this serves as a ‘push’ factor, there is likely also a ‘pull’ factor from the neighboring Louisa-Muscatine District, which likely also has an impact on open enrollment out of the Wapello District.

Open Enrollment of Students by School Districts, 2021-2022 School Year



Source: Certified Enrollment
By District 2021-2022. Iowa
Department of Education.

EDUCATION

Colleges and Universities

There are no colleges or universities in Louisa County. However, there are many post-secondary educational opportunities in the surrounding region of Southeast Iowa and Western Illinois. As noted previously, community colleges are present in nearby Muscatine and Burlington. In addition, there are 12 four-year colleges and universities within 50 miles of Louisa County. This includes two public universities, including the University of Iowa, which is less than 20 miles from the northwestern



corner of the county. The closest college overall is Iowa Wesleyan University, 12 miles away in Mount Pleasant. Seven private colleges are anywhere from 20 to 35 miles from Louisa County. Table below includes a list of all public and private colleges within 50 miles of Louisa County, plus two other prominent public universities in Iowa, which are both over 75 miles away. In addition to these schools, there are several vocational schools for job-specific training such as nursing and technology.

Selected Colleges/Universities and Proximity to Louisa County

Name	Location	Type	Enrollment Size	Distance from Louisa County
Iowa Wesleyan University	Mount Pleasant	Private	< 1,000	12 mi.
University of Iowa	Iowa City	Public	25,000 - 40,000	17 mi.
Monmouth College	Monmouth, IL	Private	< 1,000	20 mi.
Maharishi International University	Fairfield	Private	< 1,000	28 mi.
Palmer College of Chiropractic	Davenport	Private	1,000 - 5,000	29 mi.
St. Ambrose University	Davenport	Private	1,000 - 5,000	30 mi.
Augustana College	Rock Island, IL	Private	1,000 - 5,000	30 mi.
Knox College	Galesburg, IL	Private	1,000 - 5,000	32 mi.
Cornell College	Mount Vernon	Private	< 1,000	35 mi.
Coe College	Cedar Rapids	Private	1,000 - 5,000	40 mi.
Mount Mercy University	Cedar Rapids	Private	1,000 - 5,000	41 mi.
Western Illinois University	Macomb, IL	Public	5,000 - 10,000	45 mi.
University of Northern Iowa	Cedar Falls	Public	10,000 - 25,000	90 mi.
Iowa State University	Ames	Public	25,000 - 40,000	120 mi.

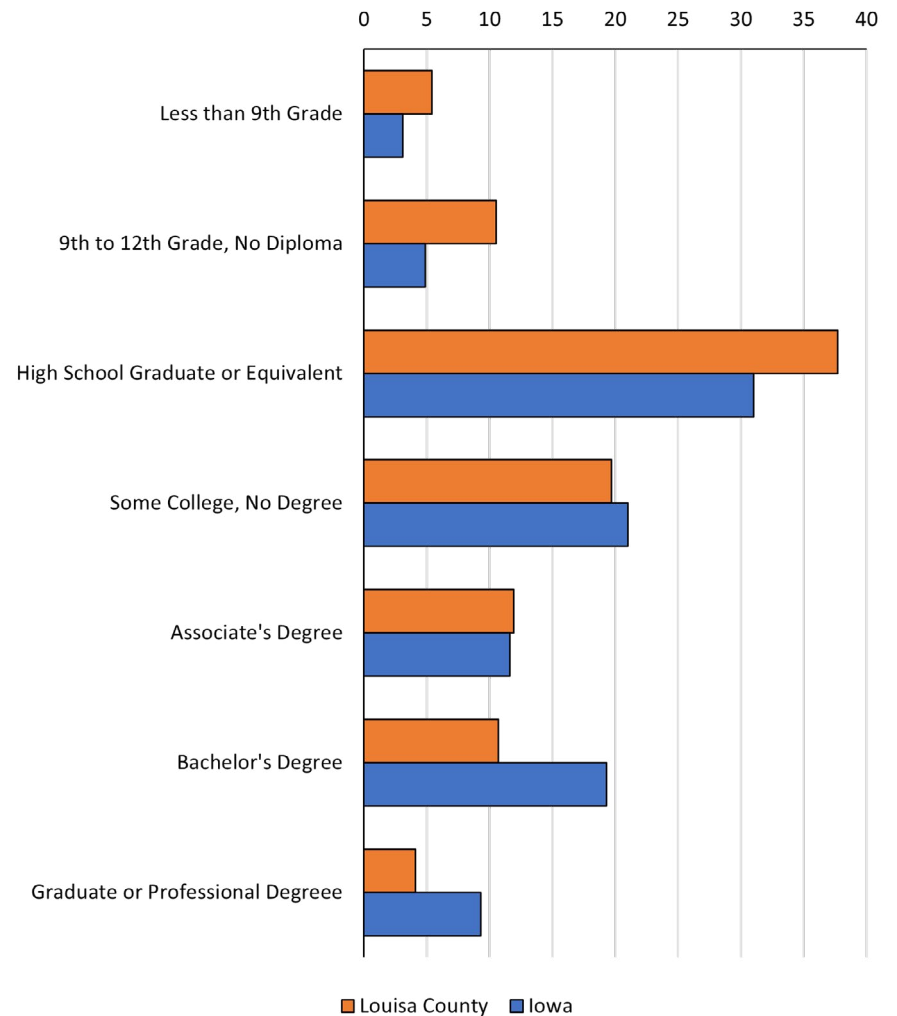
Educational Attainment

The highest level of education a person attains can have a significant impact on their career aspirations and quality of life as an adult. Therefore, if a comparatively slow percentage of a community's residents achieve sufficient education, then this could have serious ramifications for that community and its overall socioeconomic conditions and potential for future growth and development.

When the total population aged 25 and over is placed into categories based on their highest level of education completed, Louisa County has a higher percentage of residents with only a high school diploma, and in the two categories with less than a high school diploma. It is then roughly equivalent with the state for the percentage of people with either some college (but no degree) or an Associate's Degree as their degree obtained. Lastly, it falls well behind the state for the percentage of people with a bachelor's or graduate/professional degree.



Percentage of Population by Highest Level of Education Completed (People Aged 25 and Over)



EDUCATION

Educational Attainment

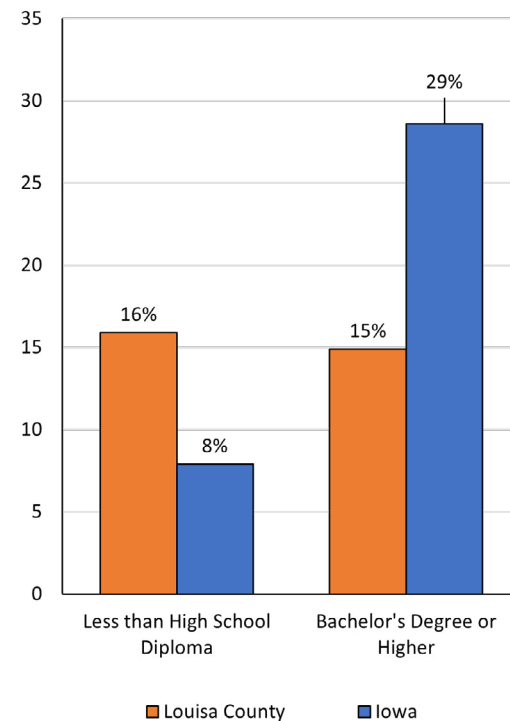
When looking at the percentage of people in the two categories at either end of the spectrum (least educated and most educated), Louisa considerably outranks the state for the percentage without a high school diploma, and the inverse is true for the percentage with a bachelor's degree or higher.

In Louisa County, 84% of all residents aged 25 or over have graduated high school (or otherwise obtained equivalent status). In this respect, it ranks as the 5th lowest county in the State of Iowa. Notably, a common characteristic of the lowest ranking counties is a large number of immigrants that were initially attracted by jobs in the meat packing industry. As a result, many of these residents arrived as adults, but had not attended or completed high school in their home country. Due to the strong concentration of this population in that part of the county, only 70% of Columbus Junction residents have a high school diploma.

For the percentage of residents with a bachelor's degree or higher, Louisa county once again ranks as the 5th lowest county in Iowa, at only 15% (compared to 29% for the state as a whole). In this case however, the other counties at the bottom of the list are all different from the ones at the on the list for percentage with a high school diploma. In this case, the lowest ranking counties are all rural, low population counties in various parts of the state.

Therefore, the failure to produce a sizable number of residents with postsecondary degrees is common across all racial/ethnic demographics, and not limited to the immigrant population in counties like Louisa. Instead, it is more a consequence of the rural nature of the population, and the phenomenon of the 'brain drain', where people that grow up in the community move away after going to college and obtaining an advanced degree. This is likely due to the inability of those rural communities to provide certain lifestyle amenities and jobs that college graduates have come to expect in the place where they live.

Percentage of Population by
Highest Level of Education
Completed



Louisa-Muscatine
High School



Transportation

Freight Rail

There is one Class I Railroad operating in Louisa County. This is a mainline commercial freight railroad operated by Canadian Pacific Railway, whose primary headquarters is in Canada, with an American office in Minneapolis, Minnesota. The line travels primarily east-to-west through the northern half of the county, passing through the cities of Cotter, Columbus Junction, Fredonia, and Letts. It is directly adjacent to State Highway 92 for about 3.3 miles in the far western part of the county, and crosses the Iowa River immediately south of its confluence with the Cedar River.

Extending for 19 miles within Louisa County, this rail line is part of the Ottumwa Subdivision, which extends from Ottumwa to Davenport, and also passes through the cities of Washington and Muscatine. According to the Iowa DOT, the Ottumwa Subdivision carries an average of 6 to 8 trains per day with just over 21 million gross tons per mile annually. The list of commodities transported on this line includes farm and food products, chemicals, ethanol, coal, and other miscellaneous freight items.

The Ottumwa Subdivision is primarily a single-track rail line, although there are periodic instances where siding is present, allowing for trains to pass one another. In Louisa County, there are two such areas with siding – one extends 1.3 miles eastward from Cotter (parallel to State Highway 92), while the other extends 2 miles eastward from Letts to Highway 61.

There is a 5.5-mile private spur rail line that is owned and operated by MidAmerican Energy, which connects their Louisa Generating Station to the Canadian Pacific at the northeast corner of Louisa County. The connection to the mainline, and approximately half of the spur's trackage, lies just north of the county boundary in Muscatine County.

There are a total of 19 public roadway crossings along the Canadian Pacific Railway line in Louisa County. This includes 17 at-grade crossings and 2 grade-separate bridge crossings. Of the 17 at-grade

crossings, 10 are signalized, and 8 of these are located in areas of high population density – 4 in Columbus Junction/Fredonia, 3 in Letts, and 1 at Cotter. The 7 unsignalized crossings serve rural gravel-surface roads with very low traffic volume. Two of the road crossings involve State roadways – a pair of bridges for the 4-lane US Highway 61, and an at-grade crossing for State Highway 70 at Columbus Junction.

The table below provides data on comparative traffic volume (Average Annual Daily Traffic, or AADT) for the 7 roadway crossings that are federally classified as a Collector or Arterial. Combined, the two at-grade crossings at Columbus Junction support an average of just under 3,600 vehicles per day. Much of this is accounted for by employees of Tyson Foods that live in Columbus Junction, and trucks supplying hogs to the plant. Just under 1 out of every 5 vehicles using the Highway 70 crossing (which bypasses downtown) are large trucks.

Railroad Crossings: Roads Classified as Collector or Arterial		
Type	Roadway	AADT (2018)
At-Grade	County Road W66	180
Grade Separate	County Road X17	420
At-Grade	2nd Street (Columbus Jct.)	2,490
At-Grade	State Highway 70	1,070
At-Grade	P Avenue	50
At-Grade	County Road G40 (Fredonia)	1,170
At-Grade	County Road X43	740
Grade Separate	US Highway 61	7,400

The mainline currently operated by Canadian Pacific was originally operated by the Chicago, Rock Island & Pacific Railroad (commonly known as the Rock Island Line), and was one of several railroad lines that crossed the county in the late 19th and early 20th centuries. At the time, it provided passenger service as well as freight, with passenger stops located at Columbus Junction and Letts. The Rock Island also operated a north-south line that bisected the east-west line at Columbus Junction, and also passed through Wapello and Morning Sun, prior to its abandonment in 1980.

A 2-mile section of the original north-south line remained in operation for two more decades, used as a spur to connect

Passenger Rail

There is currently no passenger rail service operating in Louisa County. However, Amtrak provides service in neighboring Des Moines and Henry Counties, with stations at Burlington and Mount Pleasant. This is part of Amtrak's California Zephyr line, which extends from Chicago, Illinois to San Francisco, California, and provides direct access to Omaha, Denver, and Salt Lake City.

Passenger service was once available from the private rail operators with lines extending through the county in the late 1800s and early 1900s. However, all such service has ceased operations, and all but one of the lines have been abandoned.

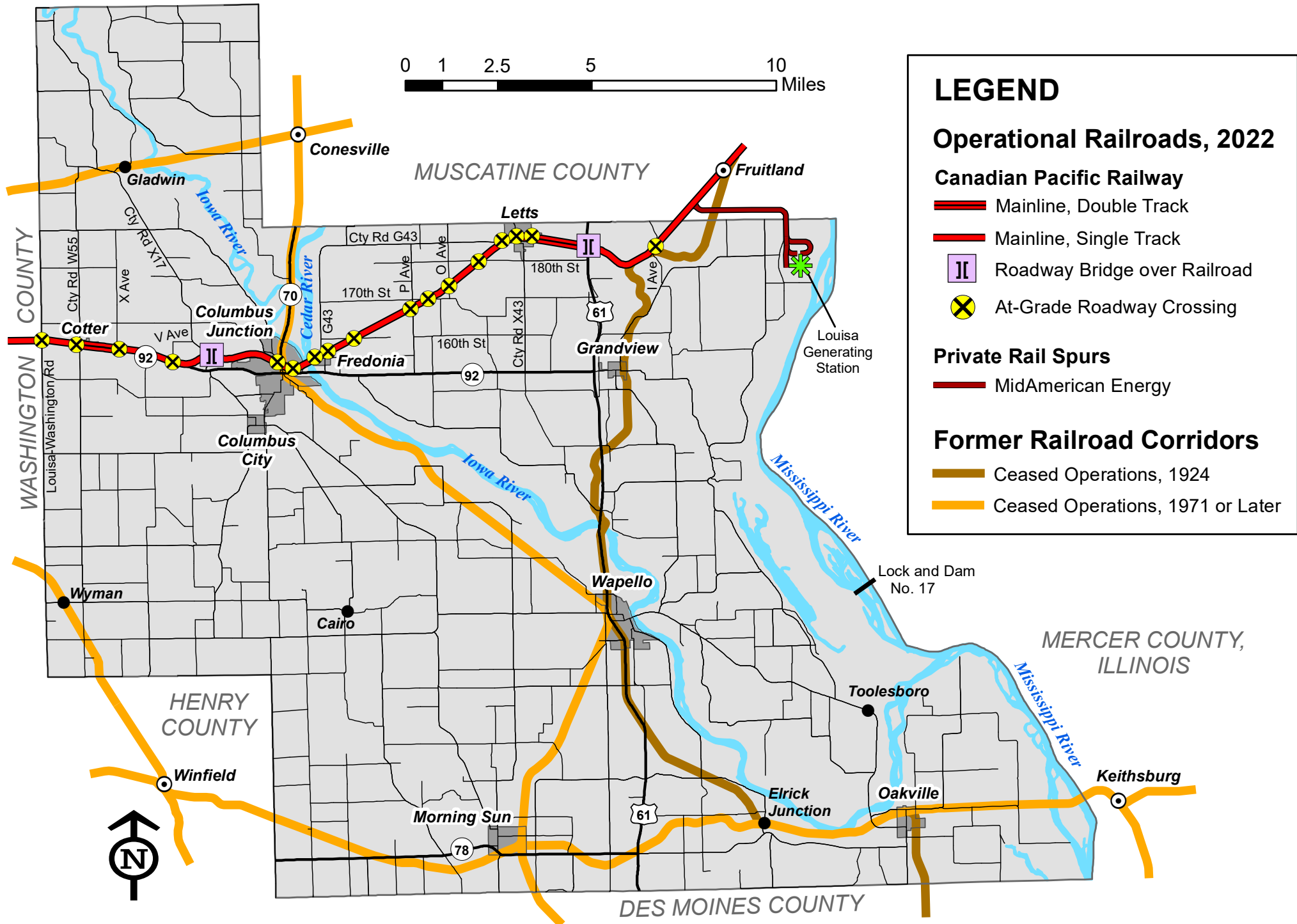
Railroads played an important role in the way Louisa County was developed, and by extension, how it looks today. Several railroad lines once criss-crossed the county, but have since been abandoned (see the map on the pg. 92). While no longer operational, they directly led to the growth and development of communities such as Wapello, Morning Sun, and Oakville. Plus the early abandonment of the Muscatine North and South Railroad paved the way for Highway 61 to be rerouted through its former right-of-way on the west side of Wapello.

the Tyson Foods (formerly Rath) meat packing plant with the Canadian Pacific mainline. It has now been abandoned, with the rail bridge over the Cedar River demolished, and a public boat ramp established in the former railroad right-of-way.

The Canadian Pacific rail network is primarily concentrated in the northern Midwest within the United States, in addition to extending across southern Canada. The Ottumwa Subdivision is part of its southernmost line, which extends diagonally to the southwest from Davenport, Iowa to Kansas City, Missouri, and links the railroad hub of Kansas City with those in Chicago and Minneapolis.



Railroads of Louisa County



CP-KCS Merger

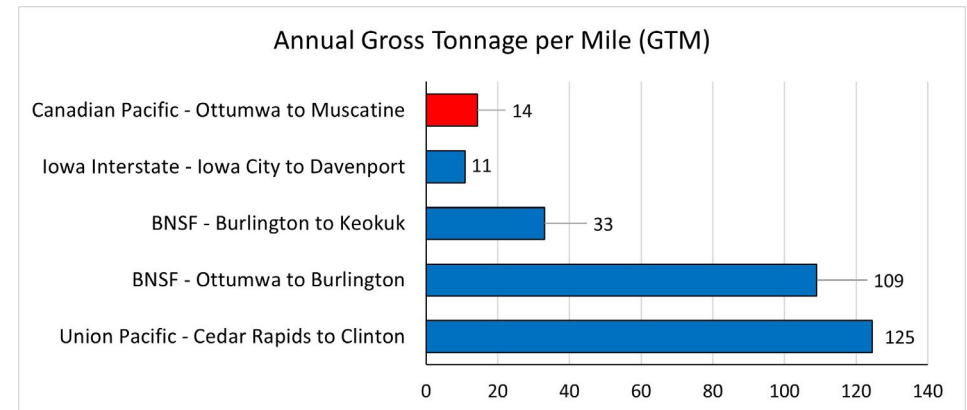
In December 2021, it was announced that a merger had been agreed to between Canadian Pacific and Kansas City Southern. While the full process remains to be finalized at the time of this plan's completion, it is anticipated that this action will result in a substantial increase in freight traffic passing through Louisa County. Combining the two networks together will result in the first direct rail link between Canada, the United States, and Mexico which is entirely operated by a single company .

It is anticipated that the regulatory process to complete the merger will be finalized near the end of 2022, with any increases in freight traffic to occur after that time. Company officials have noted that it is not simply a matter of trainloads ready to start moving at a certain date. Rather, the merger will provide the company with competitive advantages that are anticipated to result in new business transactions and arrangements once the merger is finalized.

The Canadian Pacific line between Kansas City and Davenport will serve as the sole means of connecting the remainder of the Canadian Pacific network in the northern US and Canada with the Kansas City Southern network in the southern US (primarily Texas and Louisiana) and Mexico. Thus, unless and until a separate north-south line is purchased or newly established by the company, Louisa County will be situated directly along the backbone of a crucial international freight rail network.

According to information supplied by the company, it is expected that freight volume along the Ottumwa Subdivision will increase from an average of 4.8 trains per day to 18.4 trains per day , an increase of 338%. While this would still be substantially lower than the average traffic on Iowa's busiest mainlines today (such as the BNSF line between Burlington and Ottumwa), a tripling in traffic volume would surely have a noticeable impact on the local community. This would include an increased frequency of vehicle crossings blocked by trains, an increase in noise pollution due to more frequent train horns, and environmental impacts such as an overall reduction in air quality.

According to the Iowa DOT, the annual gross tonnage per mile on the Ottumwa Subdivision is 14.3 tons . This metric differs from 'total number of trains', as the quantity of freight transported by an individual train often varies, and trains with a larger quantity of freight will block a crossing for longer periods. Figure below compares the Ottumwa Subdivision with several other mainlines in the surrounding region, in terms of annual gross tonnage per mile. It should be noted that the high volume BNSF and Union Pacific lines in Iowa have 2 parallel tracks, so the total volume accounts for both tracks. In addition, the speed limit for freight trains on those two busier lines is either 60 or 70 miles per hour, whereas it is 40 mph on the other 3 lines.



Source: Iowa Department of Transportation

TRANSPORTATION

Roadways

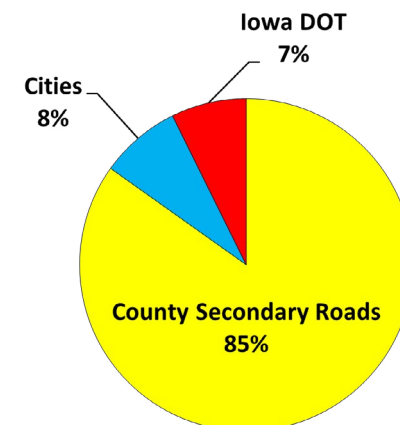
The roadway system of Louisa County is divided between State and US Highways (operated and maintained by the Iowa Department of Transportation, or DOT), County Roads (operated and maintained by the Louisa County Secondary Roads Department), and City Streets (operated and maintained by any of the 9 individual cities within the county). In total, there are about 726 miles of public roadway in the county. In addition, there are a number of private streets and roadways that are located within several rural residential subdivisions (such as Golden Pond, Ray's Timber, and Concord Ridge). Combined, these roadways serve the day-to-day transportation needs of local residents (employment, shopping, and entertainment/recreation), as well as tourists and visitors to the county, and through traffic using the major highways to travel between destinations on either side of the county.

In total, there are 53 centerline miles of roadway in Louisa County that are operated and maintained by the Iowa Department of Transportation. This accounts for about 7% of the entire public roadway system. Of these, 18 miles are on the US Highway system (with routes designations extending from one state to another), while 29 miles are on the State Highway system (with route designations unique to Iowa). The DOT is also responsible for maintaining several roads within the Port Louisa National Wildlife Refuge and several State Wildlife Management Areas in the county (about 6 miles in total).

Responsibility for the maintenance of DOT roadways is currently split between two maintenance garages in neighboring counties. Highway 92 west of Columbus Junction westward is handled by the maintenance garage in Washington, while all remaining DOT roadways in the county are handled by the maintenance garage on the south side of Muscatine. At present, the DOT is in the process of transferring the aforementioned section of Highway 92 to the Muscatine garage, so that the entire county is served by a single garage. There is also a site for snow removal equipment along Highway 61 north of Newport.

US Highway 61 accounts for all of the mileage on the US Highway system in the county. It extends north to south within the central part of the county, though generally situated in its eastern half. It currently extends through the City of Wapello, and provides direct access to Grandview, and indirect access to Letts and Oakville (via the County Road system). Extending from the Muscatine County line to midway between Grandview and the Iowa River (for 6 miles), Highway 61 is a 4-lane, limited access divided highway. Through the remainder of the county, it is an undivided 2-lane highway (12 miles). To the north/northeast, Highway 61 provides access to Muscatine, Davenport, and Dubuque, where it enters Wisconsin. It later crosses into Minnesota at La Crosse, Wisconsin, and follows the Mississippi River north to the Twin Cities of Minneapolis and St. Paul. To the south, it provides access to Burlington, Fort Madison, and Keokuk, before entering Missouri and following the Mississippi River southward through the entire state (including St. Louis). From there, it generally follows the river southward through several states, providing access to Memphis and New Orleans.

**Percent of Public Roadway
Mileage by Maintenance Provider**



Roadways

All State Highways in Louisa County are currently 2-lane undivided highways. State Highway 92 extends for 15 miles from the Washington County line to US Highway 61, passing through the City of Columbus Junction, and providing direct access to Cotter and Fredonia, and indirect access to Columbus City. The portion of Highway 61 between Grandview and the Muscatine County line is co-signed as Highway 92, as the state route splits off again to travel eastbound into the City of Muscatine. In the opposite direction, Highway 92 travels through the cities of Washington, Sigourney, Oskaloosa, Knoxville, and Indianola, before passing Interstate 35 and continuing across the western half of the state. This highway is locally important because it provides direct access from Columbus Junction to both Highway 61 and the 4-lane US Highway 218 (Avenue of the Saints), 8 miles to the west at Ainsworth. In turn, Highway 218 provides access to Mount Pleasant (to the south), and to Iowa City, Cedar Rapids, and Waterloo (to the north). It also provides the most direct access between Louisa County and the state capital at Des Moines, through its connections to Interstate 80 and US Highway 34/State Highway 163.

State Highway 78 extends for 10 miles from the Henry County line to US Highway 61 at Newport, and passes through the City of Morning Sun. To the west, it provides access to Winfield and Wayland in northern Henry County. From there it continues west past Lake Darling State Park, before terminating at State Highway 149 in southern Keokuk County. It also provides the most direct route to Highway 218 from the southern part of the county, as well as indirect access to Fairfield, through a County Road W21 in Jefferson County.

State Highway 70 extends for 4 miles from the Muscatine County line to Highway 92 at Columbus Junction. Overall, this is the shortest of the 3 State Highways that travel through Louisa County. To the north, it generally parallels the Cedar River, as it passes through the towns of Conesville and Nichols in western Muscatine County. After a brief jog where it is co-aligned with State Highway 22, it travels northward to terminate at US Highway 6 in the City of West Liberty. This route is particularly important to the meat industry,

as it provides access to 2 major meatpacking facilities – Tyson Foods and West Liberty Foods. The route is important for both their supply network and their employee base, as Columbus Junction, West Liberty, and Conesville each have large Hispanic immigrant communities, with employment split between the two plants.



History

The history of the State and US Highway network in Louisa County is surprisingly complex for such a rural community. However, much of this can be explained by the challenges of its natural environment, with several major rivers converging within the county. When the US Highway system was first established in 1926, Highway 61 originally traveled directly into the older part of Wapello, before crossing the Iowa River, and then following present-day I Avenue north to Grandview. In the early 1930s, a portion of the former right-of-way for the Muscatine North-South Railroad was purchased by the State Highway Commission (precursor to today's DOT), and the highway was soon rerouted onto it, effectively bypassing Wapello on the west side. After that, the alignment of Highway 61 remained largely the same for the next 8 decades, until the 4-lane divided section in the northern half of the county was opened in 2017. This project resulted in a small bypass of Grandview, and a shifted alignment by the Louisa-Muscatine Schools complex – both of these done for the purpose of establishing full diamond interchanges for accessing the highway. Fifteen years earlier, the highway had been expanded to 4 lanes throughout Muscatine County, but it was immediately reduced to 2 lanes at the Louisa County line.

State Highway 92 has largely retained the same alignment throughout its history, with the major exception being the section through Columbus Junction and Fredonia. Prior to the 1935 construction of the viaduct by downtown Columbus Junction, the highway original followed Walnut Street one block to the north, before crossing the Iowa River immediately south of the railroad bridge, and then following the route of the then-20-year-old 'Convict Highway' through Fredonia. Highway 78 has also changed very little over time, except for a straightened alignment around the south side of Morning Sun in the 1950s.

State Highway 70 was originally called State Highway 76, and it extended south/southeast past its present day terminus at Highway 92, passing through Columbus City before terminating at Highway 61 in Wapello. Once Highway 61 was rerouted to cross the river north of Wapello (thereby shortening the travel distance between Wapello and Columbus Junction), the south leg of Highway 76 was deemed redundant, and it was truncated to Columbus City. Its former route now follows portions of County Roads X37 and G62. For many years, the viaduct and surrounding hilly topography at Columbus Junction created a serious challenge for vehicles (particularly commercial trucks) navigating between Highways 70 and 92. In the 1990s, a bypass for Highway 70 was completed around the east side of the city, with the highway truncated even further to terminate at the intersection with Highway 92.

Prior to 2003, there were 4 additional State Highway routes in Louisa County, but these were all eliminated by the Iowa DOT in 2003, in a broader statewide effort to remove rural routes with comparatively low traffic volume, and transfer them to County ownership and maintenance. The most prominent of these was State Highway 99, which extended for 13 miles between Highway 61 in Wapello and the Des Moines County line south of Oakville. To the south, it connected Oakville with Burlington, on an alignment that largely followed the bluff line west of the Mississippi River. It also utilized the bridge crossing at Wapello that was previously signed as US Highway 61. There were also several 3-digit 'spur' routes, which served solely to connect a small city with the main highways. Highway 305 served Letts, Highway 407 served Oakville, and Highway 252 served Grandview, with this segment serving as part of Highway 61 prior to the 1930s realignment.

Groundbreaking of Highway 61 4-lane
widening project at Grandview, IA.



TRANSPORTATION

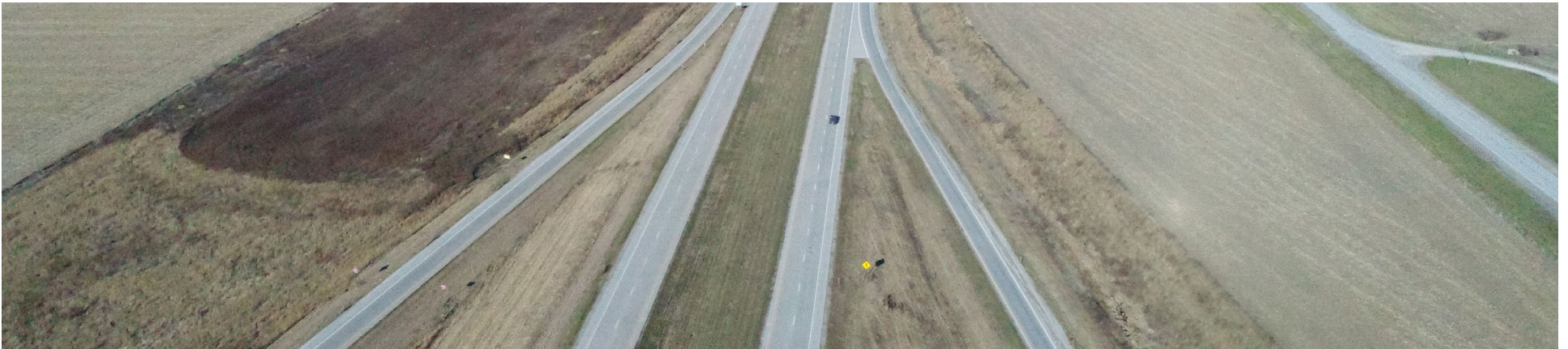
Highway Improvements

The aforementioned 2017 project that widened Highway 61 to 4 lanes in the northern part of the county is part of a broader, ongoing effort to establish a continuous 4-lane Highway 61 between Davenport and Keokuk. Following earlier bypasses of Burlington and Muscatine, this effort began with the segments at the north and south ends between from Burlington to Keokuk, and from Davenport to the Muscatine-Louisa County line. These were all completed between 1995 and 2005, with a bypass of Fort Madison following in 2011. Then, following the segment in northern Louisa County in 2017, work began on a 10-mile stretch between Burlington and Mediapolis in Des Moines County, with this segment currently in progress at the time of preparing this Plan.

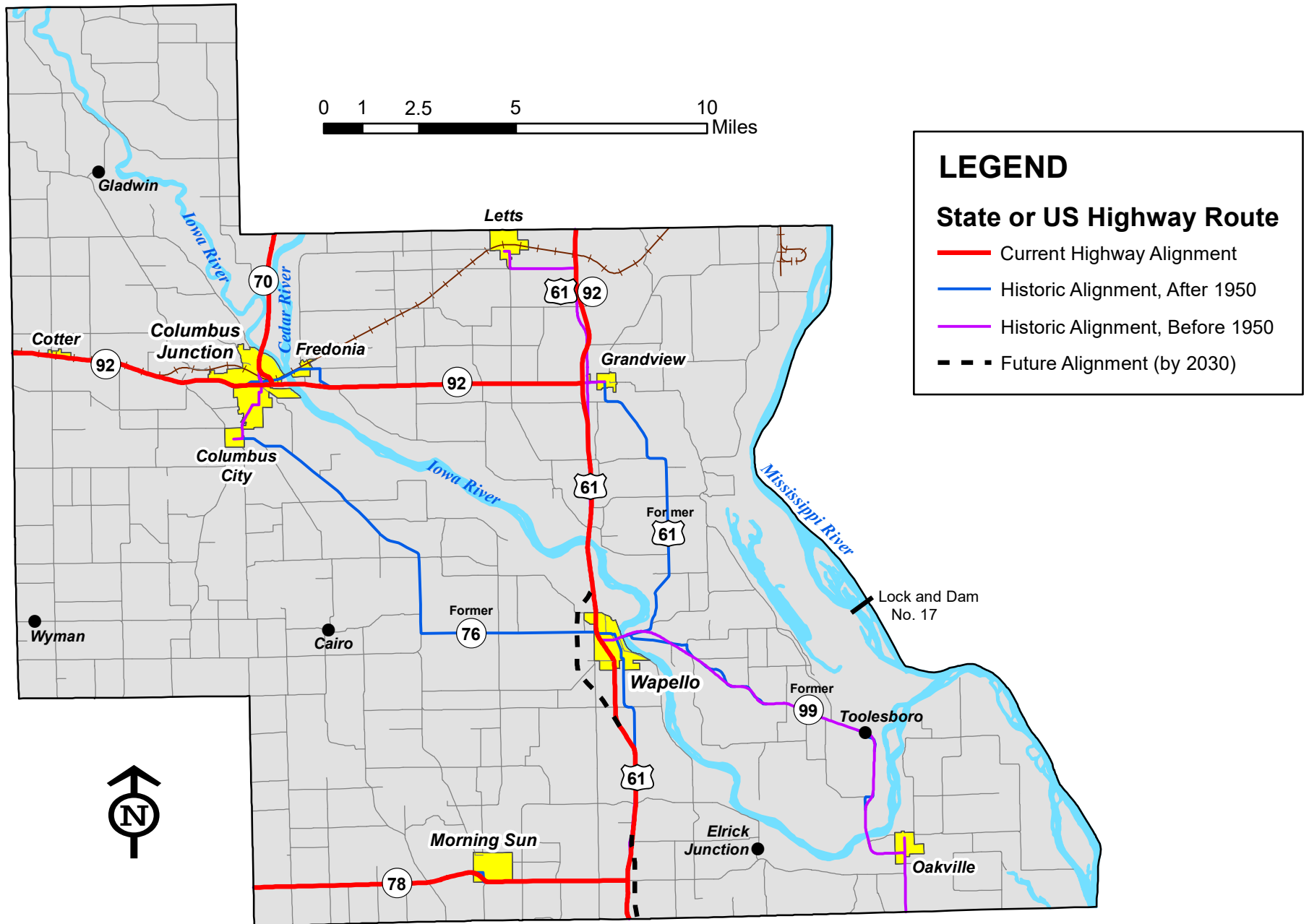
The final 3 segments of the widening project involve the 19-mile section of highway from Mediapolis to north of Wapello. In addition to a western bypass of Mediapolis, this will involve two significant alignment changes in Louisa County. First, the highway will be routed about 1,000 feet east of its present alignment by Newport, to allow for a new diamond interchange for accessing Morning Sun and Oakville (via Highway 78/County Road H22). Finally, a 4-mile bypass will be constructed around

the west side of Wapello, with a diamond interchange constructed at County Road G62 (formerly State Highway 76). Right-of-way acquisition for this project is currently programmed to begin in 2025, meaning that construction is likely to be completed by 2030.

There have also been concerns about the current 2-lane alignment of Highway 92, due to the high volume of truck traffic (due to both Tyson Foods, and the use of this highway as a 'shortcut' between Highways 61 and 218). In 2023, the DOT will resurface the portion of Highway 92 west of Columbus Junction. This will also involve various safety improvements, to correct for the deficiencies of this comparatively 'curvy' section of the roadway. In addition, there are local concerns that, due to its considerably lower traffic volume, the DOT is interested in transferring Highway 78 to County ownership in Louisa and a portion of Henry County. This would be similar to what previously occurred for Highway 99. However, there are several projects already programmed for 2022, in which various improvements will be made to the roadway, including resurfacing, widening of the lanes, addition of paved shoulders, and replacement of culverts.



Louisa County - State and US Highways



TRANSPORTATION

Local Roadways

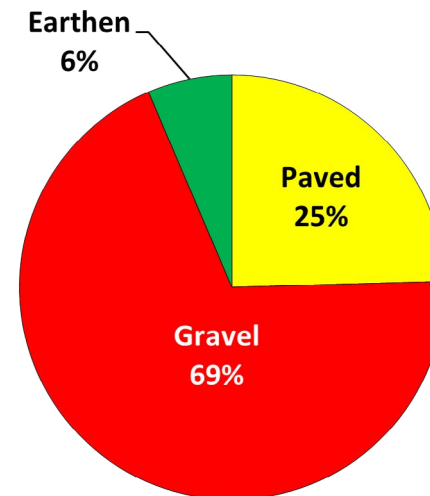
There are a total of 616 miles of roadway in the County Road system, which is operated and maintained by the Secondary Roads Department. This accounts for over 4/5 of the total roadway mileage in Louisa County. This includes several roads on the 'Farm-to-Market' system that are located in cities with a population under 500 (which includes all except Wapello, Columbus Junction, and Morning Sun). The office and primary maintenance facility for the Secondary Roads department is centrally located in Wapello, with 3 satellite maintenance shops located in Columbus Junction, Grandview and Oakville. There are an additional 57 miles of roadway that are maintained by one of the 9 municipalities as City Streets.

The map on the following page displays each roadway in the county by its surface type, with minor city streets excluded due to the countywide scale of the map. About 75% of the County Road mileage is either surfaced with gravel or has an unimproved earthen surface. The latter represents a comparatively small share, as this includes only a handful of roadways that primarily serve 5 or fewer landowners, and are mostly used agriculture operations.

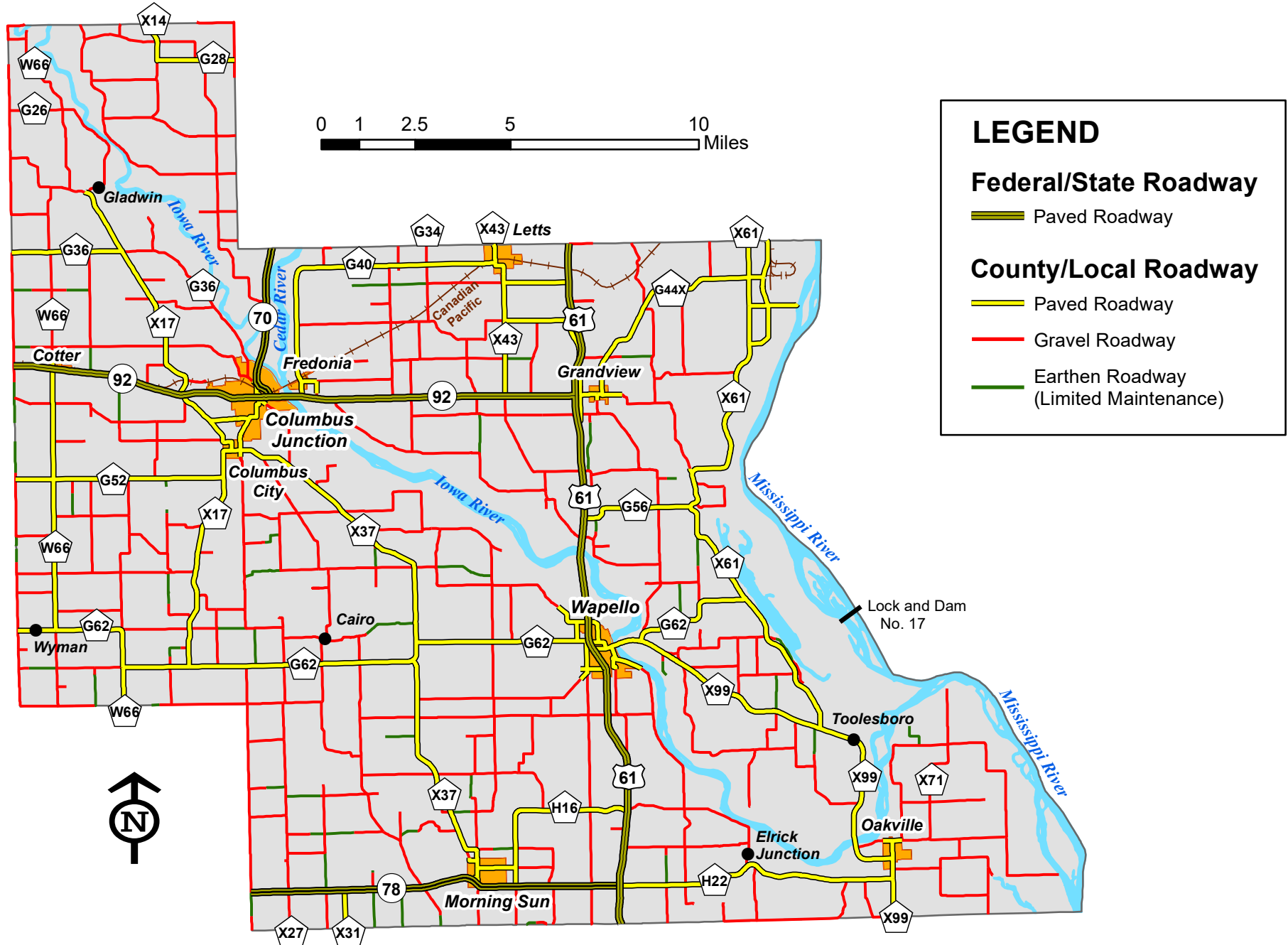
Paved roadways account for the remaining 25% of County Road mileage (about 150 miles). Most of these road are paved with Portland Cement Concrete (PCC), while several others (including X99 and X17) are paved with Hot Mix Asphalt (HMA), and a small number of short segments have a bituminous sealcoat surface. The selection of roads for paving is based on the overall traffic volume and hierarchy of importance in connecting nearby communities with one another. In most cases, a paved road terminates at another paved road. One notable exception to this is County Road X17 north of Columbus Junction, where the pavement terminates at the old town of Gladwin. This owes to the lack of bridges across the Iowa River between Columbus Junction and the north county line.

Less than 25 years ago, the paved section of County Road X61 terminated two miles south of County Road G44X in the south part of Muscatine Island. Starting in the early 2000s, the remainder of this road between Muscatine Island and County Road X99 was paved, and in some cases slightly realigned, in order to improve the experience of travelers on the Great River Road National Scenic Byway.

Percent of County Road Mileage by Surface Type



Louisa County Roadway Surfacing



TRANSPORTATION

Roadway Function and Classifications

The Federal Government classifies all public roads into a hierarchy of significance, based on their typical traffic volume and the types of traffic served (i.e. commercial trucks, business customers/employees, and neighborhood residents). This is called the Federal Functional Classification System (FFC).

Arterials are high capacity roads which primarily serve to deliver traffic from Collectors to the Interstate Highway System. Louisa County has 61 total miles of arterial roadways. Highways 61 and 92 are classified as 'Major Arterials', while Highways 70 and 78, and County Road X99 are classified as 'Minor Arterials'. Each municipality in Louisa County is within 2 miles of an Arterial.

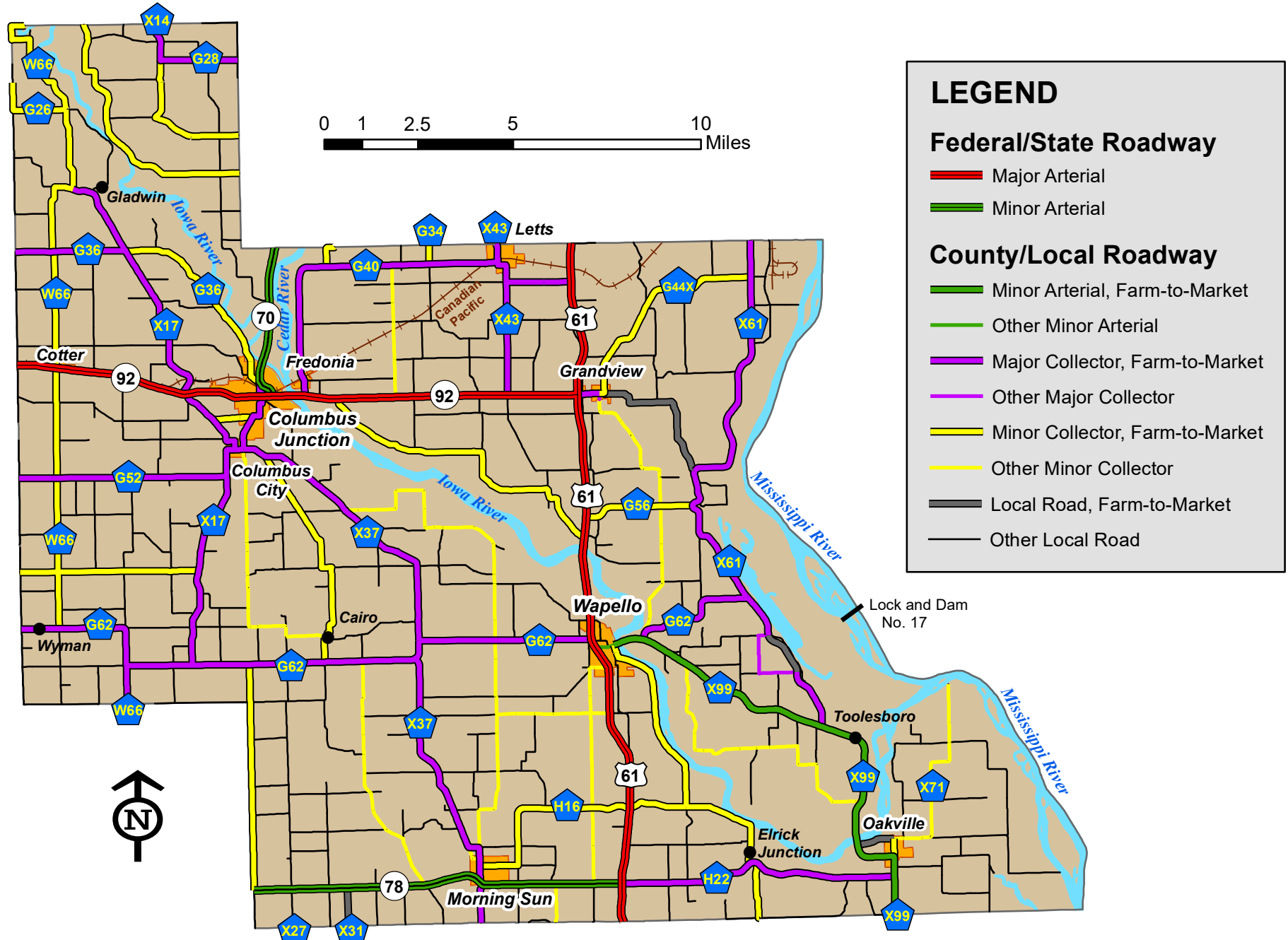
Collectors are low to moderate capacity roads which connect traffic from local roads to Arterials. Louisa County includes 258 miles of Collectors. About half of these are classified as 'Major Collectors', while the rest are classified as 'Minor Collectors'. All of the Major Collectors are paved County Roads or City Streets. Some of the Minor Collectors are paved, while others are surfaced with gravel. Louisa County has an especially high mileage of Minor Collectors, likely due to the limited number of bridge crossings over the Iowa River (which forces nearby farmers and residents onto numerous County Roads that all feed into the same Arterial or Major Collector).

Because of their importance in facilitating traffic flow to major highways, Arterials and Collectors are both eligible for federal funding when repairs are needed. Local roads have much lower traffic volumes, with comparatively little significance beyond the local level, and are not similarly eligible.

In addition to the Federal Functional Classification System, a number of County Roads are designated as part of the County's 'Farm-to-Market' network. The purpose of this system is to identify the most essential roads used for transporting agricultural products from the farm field to the marketplace (grocery stores, processing facilities, grain storage/shipping facilities etc.). These roads are also eligible for federal funding assistance. While the overall purpose of the two systems is different, they are not mutually exclusive, and for the vast majority of Farm-to-Market roads are classified as Arterials and Collectors (and vice versa).



Roadway System of Louisa County



Traffic Volume

Traffic volume on State owned roadways is monitored by annual and ongoing counts by the DOT, while counts for other roadways are taken every 4 years. The map on the following page shows the current Average Annual Daily Traffic (AADT) volume for each public roadway in the county. Not all roads are counted every 4 years, so some of the minor gravel roads in the county have not been counted in a decade or more. For each individual segment, the information displayed reflects the most recent count taken for it, however long it has been since that occurred.

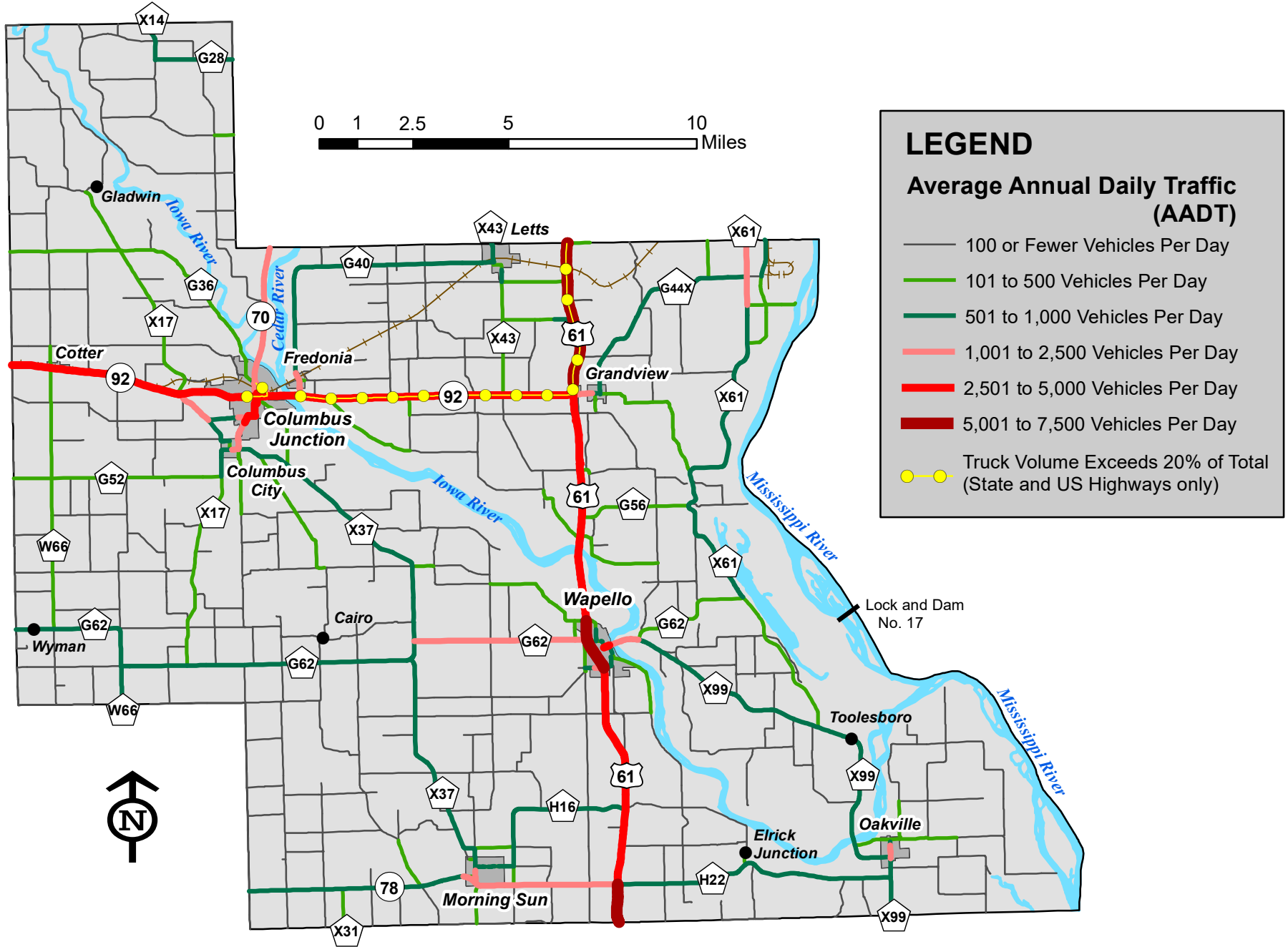
It should be no surprise that this map largely mirrors that of the Federal Functional Classification system, as that system was largely designed to mirror existing traffic volumes. The busiest road segments in the county are the portions of Highway 61 north of Grandview, within Wapello, and south of Highway 78 at Newport. These all have an AADT between 5,000 and 7,500 vehicles per day. A key factor here is the way that eastbound Highways 78 and 92 feed into 61, bringing additional motorists that travel from Columbus Junction to Muscatine, and from Morning Sun to Burlington. The next AADT range (2,500 to 5,000 vehicles) includes the remainder of Highway 61, as well as all of Highway 92, portions of several streets on the south side of Columbus Junction, and a small piece of Franklin Street (formerly Highway 99) in Wapello.

The third highest AADT range (1,000 to 2,500 vehicles) includes Highway 70 north of Columbus Junction, as well as several roadways that feed directly into Highways 61 and 92. This includes Highway 78 east of Morning Sun, County Road G62 west of Wapello, and County Road X99 traveling across the Iowa River bridge at Wapello. It also includes the northernmost section of County Road X61, since this area of the county includes a sizable number of homes where the residents work and shop in Muscatine.

The next lowest AADT ranges (from 100 to 1,000 vehicles per day) includes a significant number of Collector roads throughout the county, including most of the former State Highway 99, the portion of State Highway 78 west of Morning Sun, and the portion of X61 between Muscatine Island and Toolesboro. The remaining roadways all have counts under 100 vehicles per day. This is especially noticeable for the area to the north of Gladwin – once again owing to the absence of any bridges over the Iowa River between Columbus Junction and the north county line.

The data on traffic volume for State and US Highways is broken down by types of vehicles, including passenger cars and large trucks and buses. Certain highways are of comparatively high importance to commercial trucking operations. In Louisa County, there are several highway segments in the north part of the county where large trucks account for more than 20% of all vehicles (though never more than 30%). This includes Highway 61 north of Grandview, Highway 92 between Grandview and Columbus Junction, and on Highway 70 just north of Highway 92. This suggests a strong correlation with the operations of the Tyson Foods plant, just to the north. Furthermore, it presents safety concerns for motorists (as well as bicyclists) on that section of Highway 92, since it is only two lanes wide, and this presents numerous opportunities for conflicts between trucks and passenger vehicles.

Louisa County Roadway Traffic Volume



TRANSPORTATION

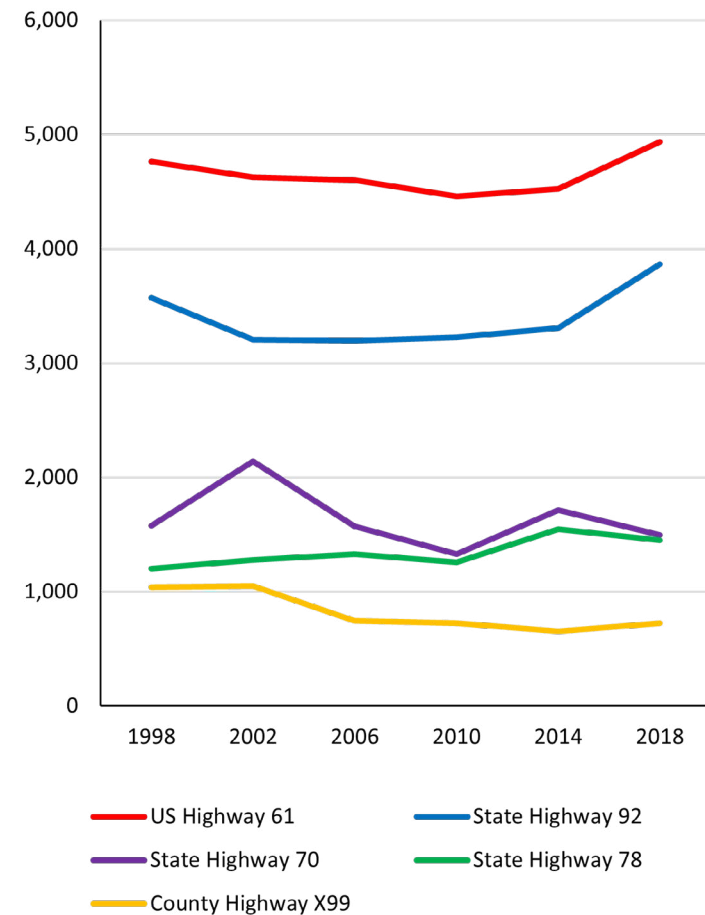
Traffic Volumes

Over the past 25 years, the average traffic volume on arterial roadways in Louisa County has not changed considerably. Taken as an average of all individual segments in the county, the volume on each individual highway has largely remained stable over time.

It is noteworthy, however, that Highways 61 and 92 both saw a noticeable increase between 2014 and 2018, which coincides with the opening of the 4-lane section by Grandview in 2017. Measured at several different points through the county, all of them saw an increase over that period, but the one north of Grandview experienced the steepest increase, and this segment already had the highest volume of any roadway in the county. This indicates that the highway expansion had an immediate positive impact on the usage of these roadways by through traffic. Accordingly, it can be expected that this upward trend will continue once the remaining 2-lane sections are upgraded to 4 lanes.

Conversely, there was a significant drop in traffic on County Highway X99 between 2002 and 2006, and this coincides with the downgrading of that road from a State Highway to a County Road. This suggests that a similar future downgrade of Highway 78 could produce the same result, and by extension also exacerbate existing volume concerns on Highway 92, which would become the default east-west route between Highways 61 and 218.

Average Annual Daily Traffic (AADT)
on Arterial Roads in Louisa County

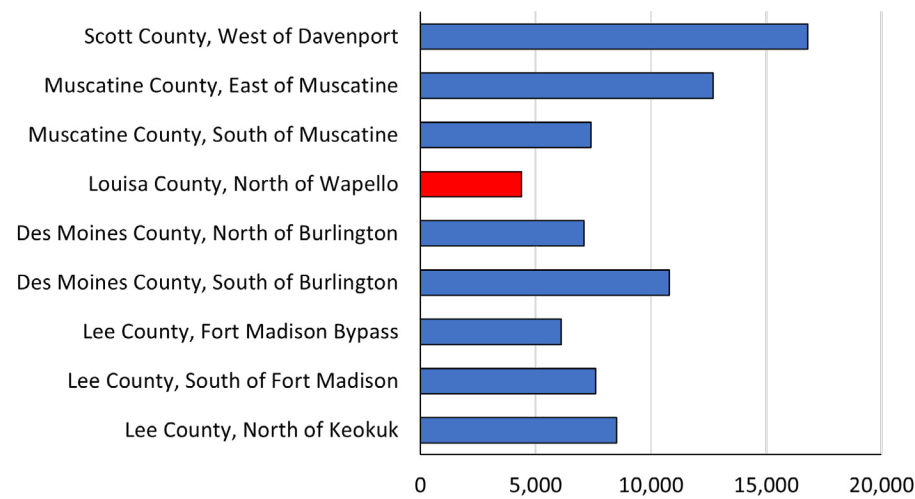


Source: Iowa Department
of Transportation

Traffic Volumes

The graph below shows a comparison in AADT between 9 sections of Highway 61 between Davenport and Keokuk – the section that has gradually been updated to a 4-lane divided highway over the past 30 years. At present, the section in Louisa County north of Wapello has the lowest volume by far. The higher volumes to the two corresponding segments on either side indicates that this highway is still primarily being used to bring motorists into Burlington from rural areas to the north, and into Muscatine from rural areas to the south. If the volume in Louisa County increases in the future (particularly once the 4-lane highway is complete), then this will mean that the highway has finally assumed its intended role as a through route along the Mississippi River between the Quad Cities and St. Louis. This could have a substantial positive impact on the economy of Louisa County, if highway-oriented commercial development is actively pursued by local officials and stakeholders.

2018 Average Annual Daily Traffic (AADT) on US Highway 61



Source: Iowa Department of Transportation



TRANSPORTATION

Bridges

Louisa County has a total of 152 bridges on its public roadway system. Of these, 25 are located on a State or US Highway maintained by the Iowa DOT, 4 are on City Streets and maintained by a city, and the remaining 123 are maintained by the County Secondary Roads Department (including 2 that are within or adjacent to a city). There are 85 bridges located on roadways designated as an Arterial, Collector, and/or Farm-to-Market road (about 55% of the total), while the remaining 67 bridges are on designated Local Roads.

There are a total of 5 bridges over the Iowa River in Louisa County, including one that is situated along the Johnson County line (County Road W66). The latter is the only such bridge that is part of a gravel-surfaced roadway, and it handles just under 100 vehicles per day. Both the Highway 61 bridge north of Wapello and the Highway 92 bridge at Columbus Junction carry between 4,000 and 4,500 vehicles per day, on average. The County Road X99 bridge at Wapello carries just over 1,500 vehicles per day, while its counterpart bridge at Oakville carries just under half of that volume, at 670 vehicles per day. There is also one bridge over the Cedar River (State Highway 70), which carries an average of over 2,500 vehicles per day. That bridge is especially important because of its role in bringing employees and raw materials to the Tyson Foods plant just north of Columbus Junction.

These bridges are extremely important to both local and regional transportation needs, due to the river being wide enough to make additional crossings cost-prohibitive. In addition, the transfer of the former State Highway 99 to the County Secondary Roads Department placed significant financial burden on the county, since both bridges were in poor condition, and ended up being replaced by necessity within 2 decades of the roadway coming under County control. The cost of these projects effectively forced the delay of several other bridge and roadway projects throughout the county, as they used up all of the County's available bridge funds for the improvements.

Still, the lack of a bridge crossing of the Iowa River between Columbus Junction and the north county line presents serious challenges for the future development of this part of the county. This area is especially desirable for new housing construction, due to its close proximity to Iowa City, and the abundance of hilly terrain that is poorly suited for farming. However, the lack of a bridge crossing tends to result in both a lengthier commute, and a longer trip to the nearest cluster of service businesses in Columbus Junction. In addition, any new development that does occur will put additional pressure on the existing roadway network, and the two existing bridges on Highway 70 and County Road W66. Because of the comparatively narrower span of the Iowa River upstream from the Cedar, a new bridge would be much more cost effective here than on the downstream portion. A particularly desirable location would be in the vicinity of Gladwin, near where a railroad line once spanned the river.



*County Road X99 bridge
over Iowa River at Wapello*

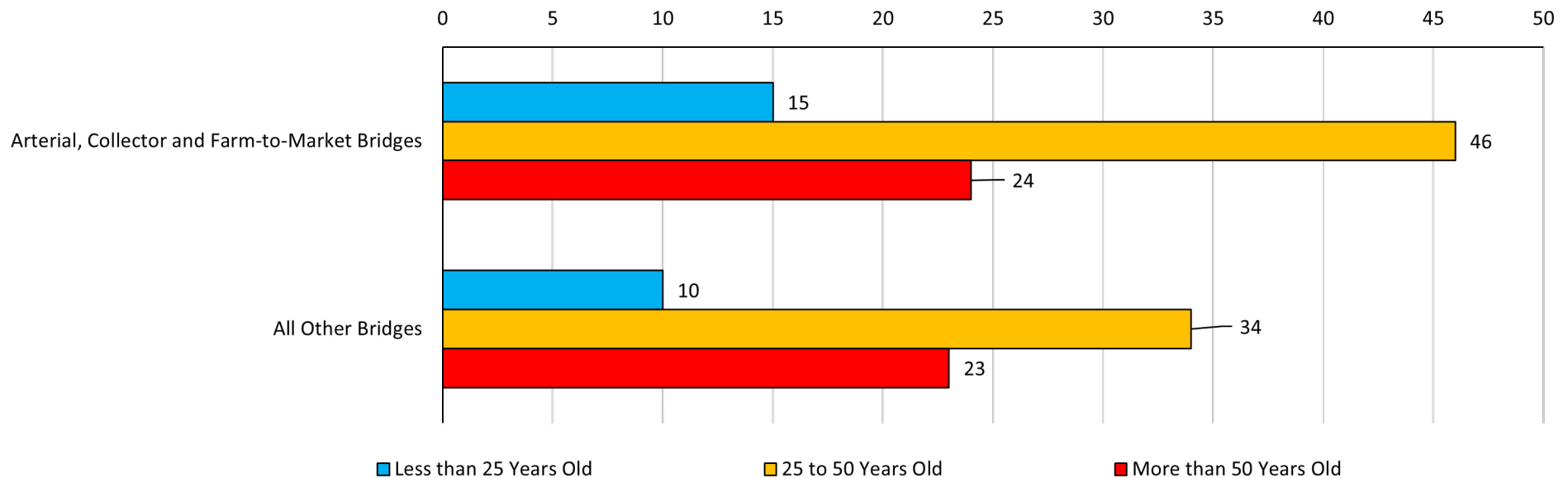
Bridge Condition

Public roadway bridges must regularly be inspected, to ensure that they remain in safe operating condition, and that the entities responsible for their maintenance can plan ahead for necessary improvements, including both repairs and full replacement. Using the results of the most recent inspection, bridges are evaluated based on a variety of criteria, including the physical condition and age of the structure, the average traffic volume of the roadway, and characteristics of the bridge design.

In terms of age, 16% of the bridges in Louisa County are less than 25 years old (built after 1997). Most of these involve existing bridges that were replaced with a new structure, including the two County Road X99 bridges over the Iowa River. About 53% of the bridges in the county range from 25 to 50 years old (built from 1972 to 1997), while the remaining 31% are over 50 years old (built prior to 1972). For

all bridges located on a roadway classified as an Arterial, Collector, or Farm-to-Market road, the average age is 40 years. In contrast, the average age for all other bridges is 49 years. This emphasizes how bridges on higher-traffic roadways tend to be prioritized for replacement, due to the greater overall impact to the general population. The average age for ALL bridges in the county is 44 years, and this is one year lower than the average age for all bridges throughout Iowa.

Number of Bridges by Age and Roadway Classification



Source: Iowa Department of Transportation

Bridge Condition

Based on the results of the latest inspection, the Federal Highway Administration (FHWA) gives each bridge an overall rating of ‘good’, ‘fair’, or ‘poor’. In Louisa County, 34% of bridges are rated as ‘good’, while 53% are rated as ‘fair’, and 14% are rated as ‘poor’. Compared to the State of Iowa as a whole, Louisa County has a modestly lower percentage of both ‘good’ and ‘poor’ bridges, and a significantly higher percentage of ‘fair’ bridges. This indicates that the county currently fares comparatively well, but this situation is likely to change in the coming decades, as bridges currently in the ‘fair’ category age and deteriorate further, resulting in many of them moving into the ‘poor’ category.

When divided between bridges on a roadway classified as Arterial, Collector or Farm-to-Market road, and all other bridges, the results are considerably better for those with those special classifications. For instance, 37% of those bridges were rated as ‘poor’, compared to only 30% for the others. Conversely, only 9% of those bridges are rated as ‘poor’, compared to 19% for the others.

Number of Bridges by FHWA Condition Rating and Roadway Classification



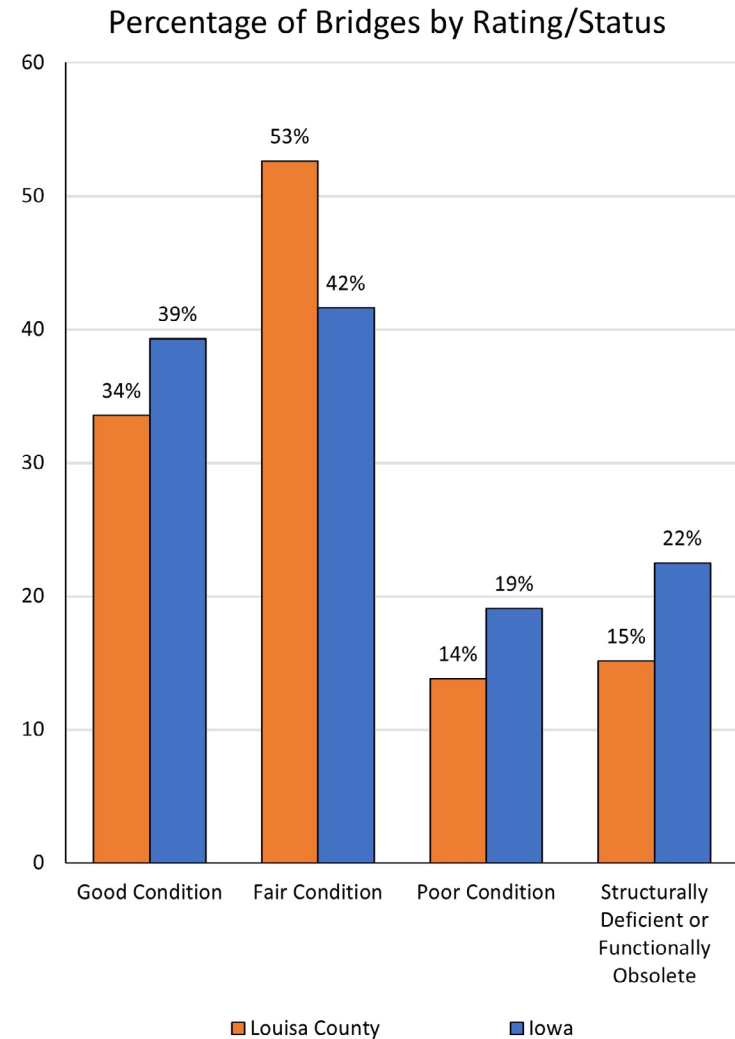
Source: Iowa Department of Transportation

Bridge Condition

In addition to the overall rating of ‘good/fair/poor’, there are two special categories for classifying bridges that deserve special attention in considering future repair or replacement. First, ‘structurally deficient’ means that there are elements of the bridge that need to either be monitored or repaired. This does not mean that the bridge is an immediate safety hazard (although that could potentially be the case for some bridges). Rather, it simply means that, at the very least, the bridge’s condition must be closely monitored over time, as it has a reasonable likelihood of becoming unsafe in the future.

In contrast, ‘functionally obsolete’ means that the bridge has one or more outdated design features that limited its overall ability to function as desired. Examples of this include narrow roadway width, low vertical clearance, and insufficient width of shoulders. Such bridges sometimes have weight limits or other restrictions which limit the roadway’s overall function as part of the area’s transportation network. For the most part, bridges with these classifications also have a rating of ‘poor’, but this is not always the case, especially for functionally obsolete bridges, whose overall condition may be fine, apart from the issues of outdated design.

In Louisa County, there are 23 bridges that are classified as either ‘structurally deficient’ or ‘functionally obsolete’. Once again, the county fares better than Iowa as a whole, as only 15% of bridges in the county fall into one of those categories, compared to 22% for the entire state.



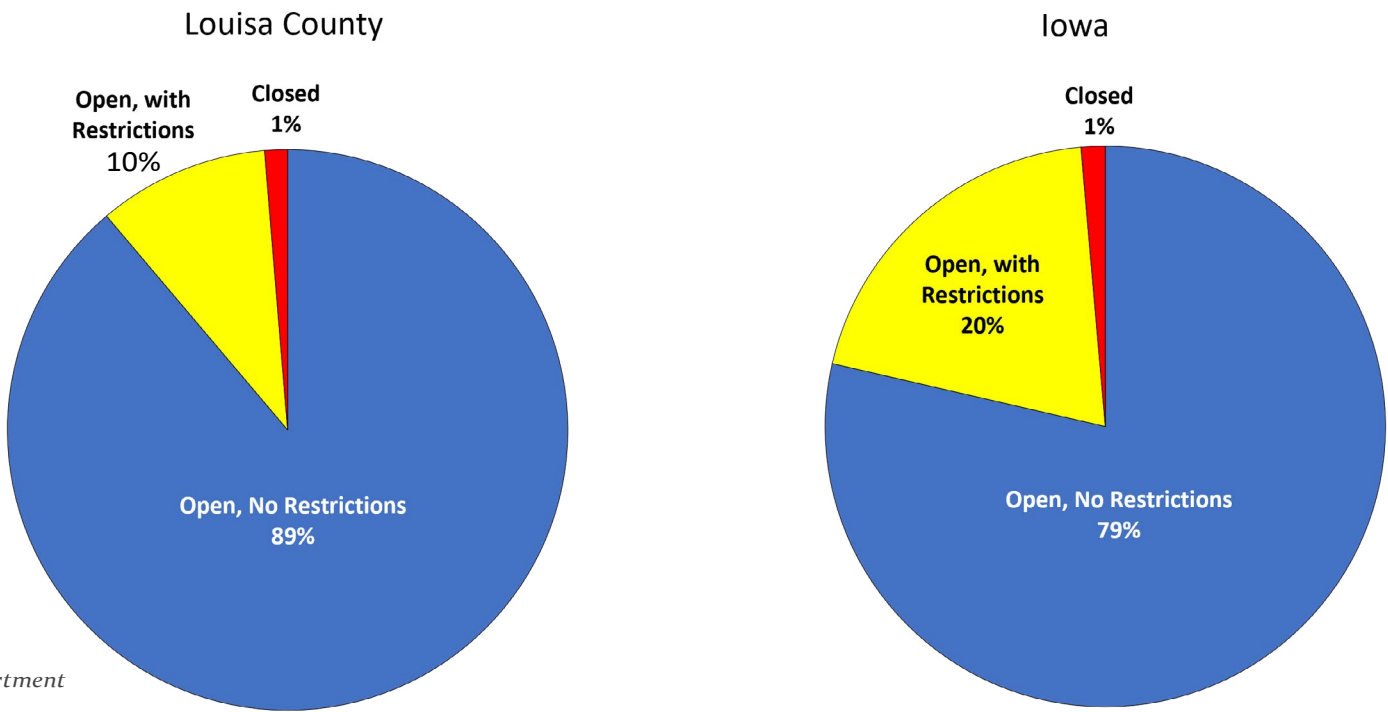
Source: Iowa Department of Transportation

Bridge Condition

Based on the preceding criteria, there are 15 bridges in Louisa County that currently have weight limitations or other restrictions in place. This represents 10% of the county’s bridges overall, and this is a significantly lower percentage than the State of Iowa as a whole (20%). Four of those bridges are on a Collector roadway, while the remaining 11 are on low-traffic Local Roads. In addition, there are 2 bridges in the county that are completely closed to traffic, as their overall condition is especially compromised. This represents 1% of the county’s bridges, with this statistic being the same for Iowa as a whole.

The first of the closed bridges is in the City of Morning Sun, carrying Manor Road over Roff Creek. This was the original route of Highway 78, before it was realigned to the south in the 1950s. The second is the 124-year old ‘Gipple’s Quarry Bridge’ in Elm Grove Township, which carries V Avenue over Buffington Creek. The sections of roadway between the bridge and the nearest private driveways (on either side) have been abandoned for several decades. However, the bridge structure remains in place, having been entered onto the National Register of Historic Places in 1998.

Percentage of Bridges by Level of Restrictions



Source: Iowa Department of Transportation

*County Road X99 bridge
over Iowa River at Oakville*



TRANSPORTATION

Trails

At present, there is a very minimal amount of bicycle and multi-use bike/pedestrian infrastructure in Louisa County. While this by no means unusual in counties of small population size, it is especially unfortunate for Louisa due to the advantage such trails would offer in connecting the numerous public recreation areas distributed across the county.

As depicted on the map on the following page, there are two sizable segments of off-road trail present in the county – one by Columbus Junction (2 miles) and the other by Morning Sun (3 miles). Each of these are segments of the previously planned Hoover Nature Trail. Following the abandonment of the Rock Island railroad line between Burlington and Cedar Rapids, a grass roots effort to establish took shape to establish a ‘rails-to-trails’ corridor for the portion of the line between Burlington and West Branch, which was the birthplace of President Herbert Hoover. However, this effort failed to sustain enough momentum to complete the project, and only a few scattered sections were ever completed, with much of the land along the corridor reverting to private ownership, usually that of neighboring farm landowners.

There are also small local trail loops present in a handful of County Conservation Areas and City Parks, including the Langwood Education Center and both North and South Parks in Wapello. Currently, these are each self-contained and do not connect with a larger trail corridor. There is also a paved shoulder that follows County Road X61 (part of the Great River Road National Scenic Byway) for 14 miles between Toolesboro and Muscatine Island. Finally, the recently constructed X99 bridges at Wapello and Oakville include a bike/pedestrian path separated from the roadway by a safety barrier.

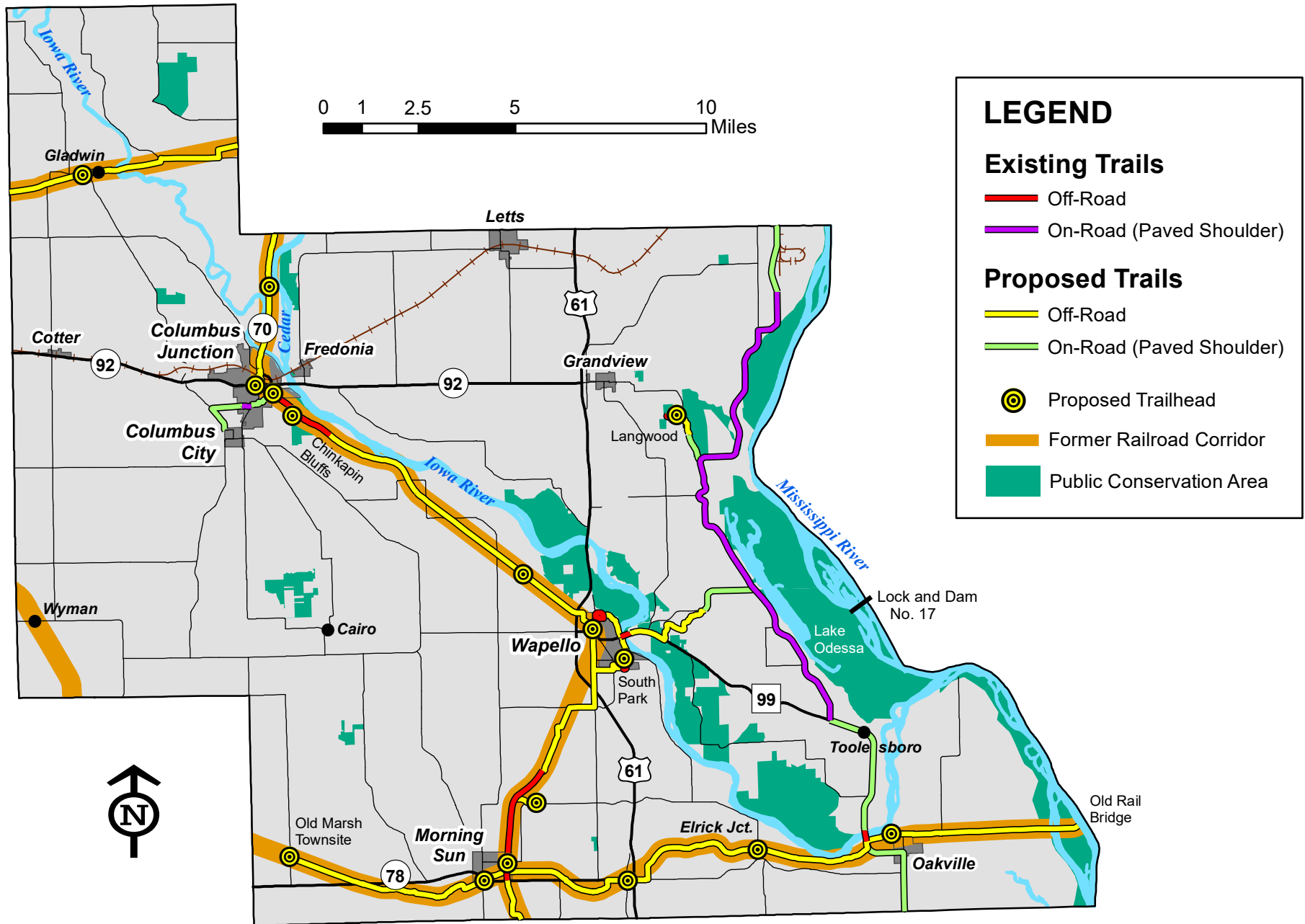
The map on the following page also displays a series of proposed trail segments – including both on and off-road, as well as desirable locations for formal trailhead facilities. Many of these segments were included in the Louisa County Trails Master Plan, developed in 2012.



Another common theme is the utilization of former railroad corridors, including the completion of the Hoover Nature Trail along the old Rock Island rail line. Louisa County Conservation already owns several small disconnected segments of this corridor that aren’t individually large enough (or easily accessible enough) to build a trail until land or easements can be acquired from adjacent private landowners. The map also includes extensions of the on-road paved shoulder along the Great River Road into neighboring Muscatine and Des Moines Counties, as well as a project planned for 2022 to construct a paved shoulder loop between Columbus Junction and Columbus City.

The proposed ‘rails to trails’ segments are sometimes diverted slightly from the original rail alignment in order to provide a more feasible path for crossing the soon-to-be built 4-lane Highway 61. There is also a proposed connection between Wapello and the Great River Road, and a loop around Wapello that connects the two parks and follows the Iowa River through town. Proposed trailhead locations are shown in each instance where a trail connects with an incorporated city, as well as where it would connect with a County Conservation Area or other recreation facility (such as the golf course north of Morning Sun).

Louisa County Existing and Proposed Trails



TRANSPORTATION

Air Transportation

Louisa County does not contain any public airports. However, the Muscatine Municipal Airport is located only 2 miles north of the county line, and its conical zone (the outermost of the Federal Aviation Administration’s ‘Part 77 Surfaces’ surrounding an airport) extends about 0.75 miles into the county near its northeast corner.

The table below includes all four General Aviation Airports within 20 miles of Louisa County, along with six selected Commercial Service Airports within 200 miles. A General Aviation Airport is present in four of the counties that physically border Louisa County,

with three of these being anywhere from 10 to 15 miles from the county line. Burlington is home to the nearest Commercial Service Airport, although it is classified as a ‘Non primary’ airport within this category, due to its comparatively smaller number of boardings in any given year, and the smaller size of jets that are utilized.

The nearest Primary Commercial Service Airport is located in Moline, Illinois, although another such facility is present in Cedar Rapids – only 5 miles further from Louisa County. The largest airport in Iowa (in Des Moines) is just over 100 miles away, while O’Hare International Airport (the largest in the Midwest) is nearly 175 miles away.

AIRPORT NAME	LOCATION	TYPE OF AIRPORT	DISTANCE FROM LOUISA COUNTY
Muscatine Municipal Airport (MUT)	Muscatine	General Aviation	2 mi.
Washington Municipal Airport (AWG)	Washington	General Aviation	10 mi.
Mount Pleasant Municipal Airport (MPZ)	Mount Pleasant	General Aviation	12 mi.
Iowa City Municipal Airport (IOW)	Iowa City	General Aviation	15 mi.
Southeast Iowa Regional Airport (BRL)	Burlington	Commercial Service - Nonprimary	20 mi.
Quad City International Airport (MLI)	Moline, IL	Commercial Service - Primary	30 mi.
The Eastern Iowa Airport (CID)	Cedar Rapids	Commercial Service - Primary	35 mi.
General Downing-Peoria International Airport (PIA)	Peoria, IL	Commercial Service - Primary	70 mi.
Des Moines International Airport (DSM)	Des Moines	Commercial Service - Primary	115 mi.
Chicago O'Hare International Airport (ORD)	Chicago, IL	Commercial Service - Primary	170 mi.



Transit

In Louisa County, public transit service is provided by Southeast Iowa Bus (SEIBUS), a regional transit provider that serves the 4-county region of Des Moines, Henry, Lee and Louisa Counties. SEIBUS is operated by the Southeast Iowa Regional Planning Commission (SEIRPC), headquartered in West Burlington. Typical of such regional providers, SEIBUS does not involve any fixed routes. Instead, rides are available to the general public on an on-demand basis, with different schedules for the cities in which the buses are stationed. One-way and round-trip fares are offered, along with a monthly pass within individual counties.

In addition to trips within the region, rides are also offered to medical appointments in Iowa City. This can be especially helpful for residents of Louisa County, as it is the closest of the 4 counties to Iowa City. In recent years, there have generally been about 140,000 rides provided by SEIBUS each year, although Louisa likely accounts for a comparatively small share of the total, due to its population being considerably smaller than the other 3 counties served. SEIBUS provides rides to passengers in several communities such as Grandview, Wapello and Morning Sun. More information on SEIBUS routes can be found on seibus.org.

There is no commercial bus service with direct access available to Louisa County. However, access to the Burlington Trailways bus line is available in 4 neighboring counties, with stops at Muscatine, Burlington, Mount Pleasant and Iowa City. Burlington Trailways is a private company that provides intercity passenger bus service to the general public. It is headquartered in West Burlington, which is also the location of the Burlington area bus stop and regional hub. Through this network, passengers from Louisa County have direct access to Des Moines, Chicago, St. Louis, Indianapolis, Omaha, and Denver. These cities also provide indirect access to other destinations, via transfers to other regional bus lines.

Port Louisa Transport is a private operation that provides non-emergency transportation for customers in Louisa and several other Iowa counties within a 50-mile radius of Wapello, where their headquarters is located. Rather than buses or conversion vans, drivers use standard passenger

cars and minivans, similar to a taxi or ride-share service. While customers can use the service for a variety of transportation needs, some of the more common purposes include medical appointments, and trips to the grocery or pharmacy. Port Louisa Transport was established in 2017 by a Louisa County couple that recognized a critical need for this type of service in the community, particularly for the area's special needs population. Demand for rides has grown steadily in recent years, with Medicaid waivers used for the majority of trips, while many customers in the immediate Wapello area use the service for general transportation needs. Within the region, one unique aspect of Port Louisa is that they have a license through the DOT that allows them to travel across state lines in serving their customers' needs.



TRANSPORTATION

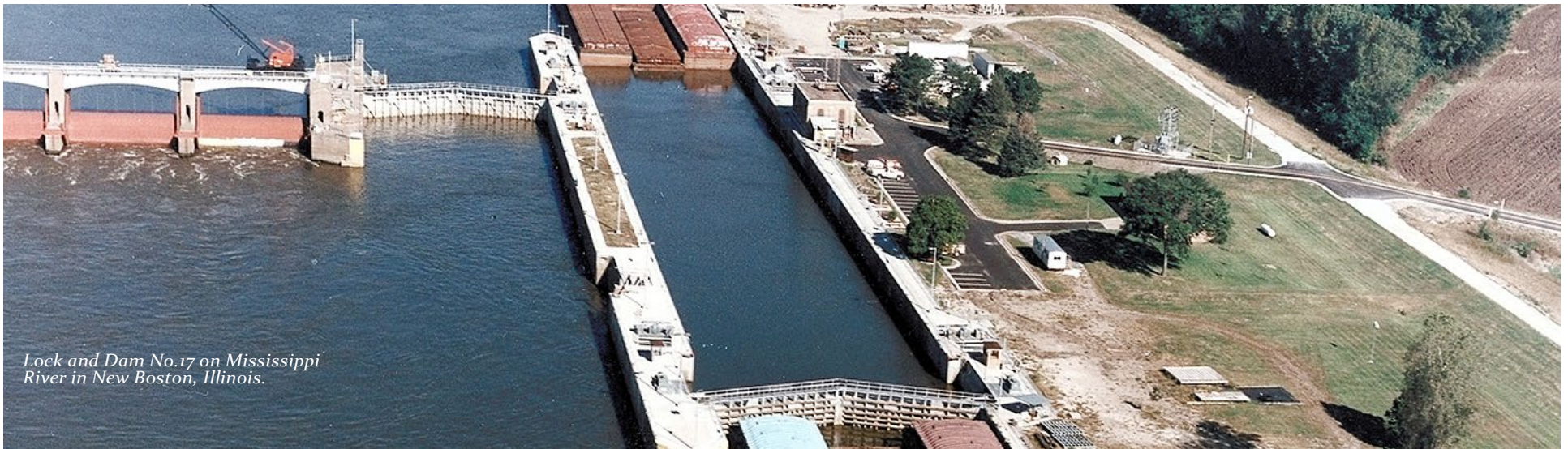
Water/ River Transportation

The Mississippi River forms the entirety of Louisa County's eastern boundary. Thus, the county has direct access to one of the most important river-based commercial freight shipping corridors in America. The lock and dam system is crucial to maintaining a steady flow of freight traffic, as roughly 20 million tons of cargo passes through Lock and Dam No. 17 each year. The system is maintained by the U.S. Army Corps of Engineers, through its Rock Island District headquartered in the Quad Cities. Lock 17 measures 110 feet wide by 600 feet long, and it takes approximately 7 minutes to fill or empty the chamber. As with many of the other locks in this system, its infrastructure is old and outdated, reflecting standard design practices in the 1930s. In addition to the regularly being in need of structural repairs, it is now over 20 years past its design life – meaning that it is technologically inefficient to handle the demands of modern 21st century freight shipping.

At present, there are no barge terminals or transloading facilities available for river traffic in Louisa County. However, there are 7 barge terminals in far southern Muscatine County (south of Downtown Muscatine). The closest of these is just under 2 miles north of the Louisa County line, operated by CHS, Inc. Many of these either

directly or indirectly support the handful of large industries operating in the north part of Muscatine Island, including Grain Processing Corporation, Monsanto, and Muscatine Power and Water. In the opposite direction, the nearest barge terminal is the Consolidate Grain and Barge Facility in northern Des Moines County, just over 6 miles south of the county line. There are also two terminals on the east side of the river in Mercer County, Illinois – at New Boston and Keithsburg.

The reason for the lack of terminals in Louisa County is readily apparent when considering the topography and natural environment of the county. In addition to not having any incorporated municipalities directly along the river, almost all of the land along the river is either part of a protected state or federal conservation area, or situated behind one of two lengthy levee systems. One notable exception is an area of roughly 40 acres near a pumping station for the Muscatine Island Drainage District. This is also near the historic location of the town of Port Louisa, meaning that this name is not merely symbolic. In recent decades, speculative interest has been made in a terminal facility at this location, although nothing has yet materialized.



Lock and Dam No.17 on Mississippi River in New Boston, Illinois.



Quality of life

Quality public parks and recreational facilities are an essential component of a healthy community. Their benefits are numerous –physical fitness, access to nature, a place for children to play, and much more. It is important that these resources are safely and comfortably accessible to the local population, or else they will go underutilized and underappreciated.

County Conservation Areas



Virginia Grove Park

Fishing, hiking, hunting, and camping.



Klum Lake

Forest and wetland area with paddling, hunting, and fishing opportunities.



Langwood Education Center

92 acres used for fishing, hiking, boating, and public programs.



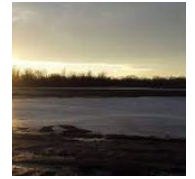
Chinkapin Bluffs Recreation Area

498 acre park with playground and shelters.



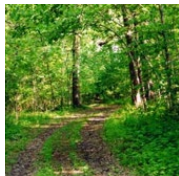
Baird Timber

18 Acre forest, Baird Timber is a great site for mushroom hunting, berry-picking, nature study, and hunting



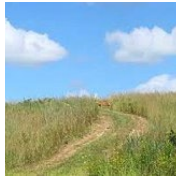
Indian Slough Wildlife Area

Has wetlands for canoeing, hunting, and hiking.



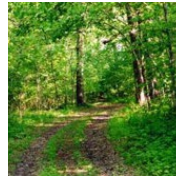
Cairo Woods Wildlife Area

Woods with trails for hiking, horseback riding, and cross country teams.



Eden Park

146 acres for picnicking and hiking



Cairo Woods Wildlife Area

Woods with trails for hiking, horseback riding, and cross country teams.



Hickory Hollow

34 acres of property with Indiana Bat Mitigation program.



Wilson Prairie

37 acre native prairie, believed to be a native remnant.

State Wildlife Management Areas



Wetland Interpretative Trail, Wapello

45 acres with prairie and information on the importance of wetlands.



Odessa Water Trail, Wapello

Water access point located on the same gravel road that leads to the Toolesboro Boat Landing on the Mississippi River.



Spur Island, Fredonia

Wildlife management area with hunting.



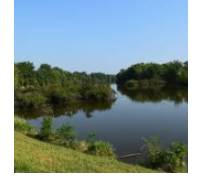
Cone Marsh, Columbus Junction

Wetland area for boating, bird watching, and hunting.



Miracle Flats, Wapello

Watchable wildlife with upland and wetland species, hunting.



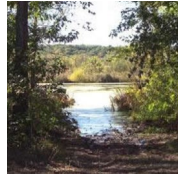
Wapello Bottoms, Wapello

2,800 acre area on the Iowa River with outdoor recreation and hunting opportunities.



Mississippi River Island, Multiple Counties

Over 4,000 acres of land with islands only accessible by boat.



Klum Lake, Wapello

Forest and wetland area with paddling, hunting, and fishing opportunities.



Snively Access and Campground, Wapello

Located on the Odessa Water Trail with campgrounds and views of migrating birds.

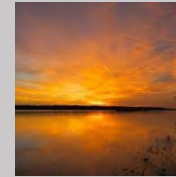
Among all 99 counties in Iowa, Louisa County has the 7th highest acreage of public conservation land, at 25,310 acres. This accounts for 10% of the County's total land area, although this includes the surface area of the Mississippi River. When measured in relation to its population, Louisa County has the 4th highest acreage of public land per capita of any county in Iowa, at 2.3 acres per person. For the State of Iowa as a whole, the figure is only 0.3 acres per person, and this conservation land only accounts for 3% of the State's total land area.

Port Louisa National Wildlife Refuge



Big Timber Division, Wapello

1400 acres of hunting, fishing and paddling.



Horseshoe Bend Division, Wapello

Paddling, hunting, and fishing area.



Louisa Division, Wapello

Various recreation and wildlife observation opportunities.

River Access Points



Cappy Russell
Access, Oakville

Parking and boat access on the Iowa River. Great place to start a trip at the mouth of the Mississippi River.



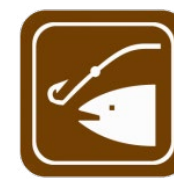
River Forks
Access, Fredonia

Parking and boat just below the confluence of the Iowa and Cedar Rivers.



Wykert's Landing,
Oakville

Gravel access and parking lot located at this Mississippi River boat landing.



Highway 61
Access, Wapello

Parking next to the Iowa River bridge for fishing. No boat access.

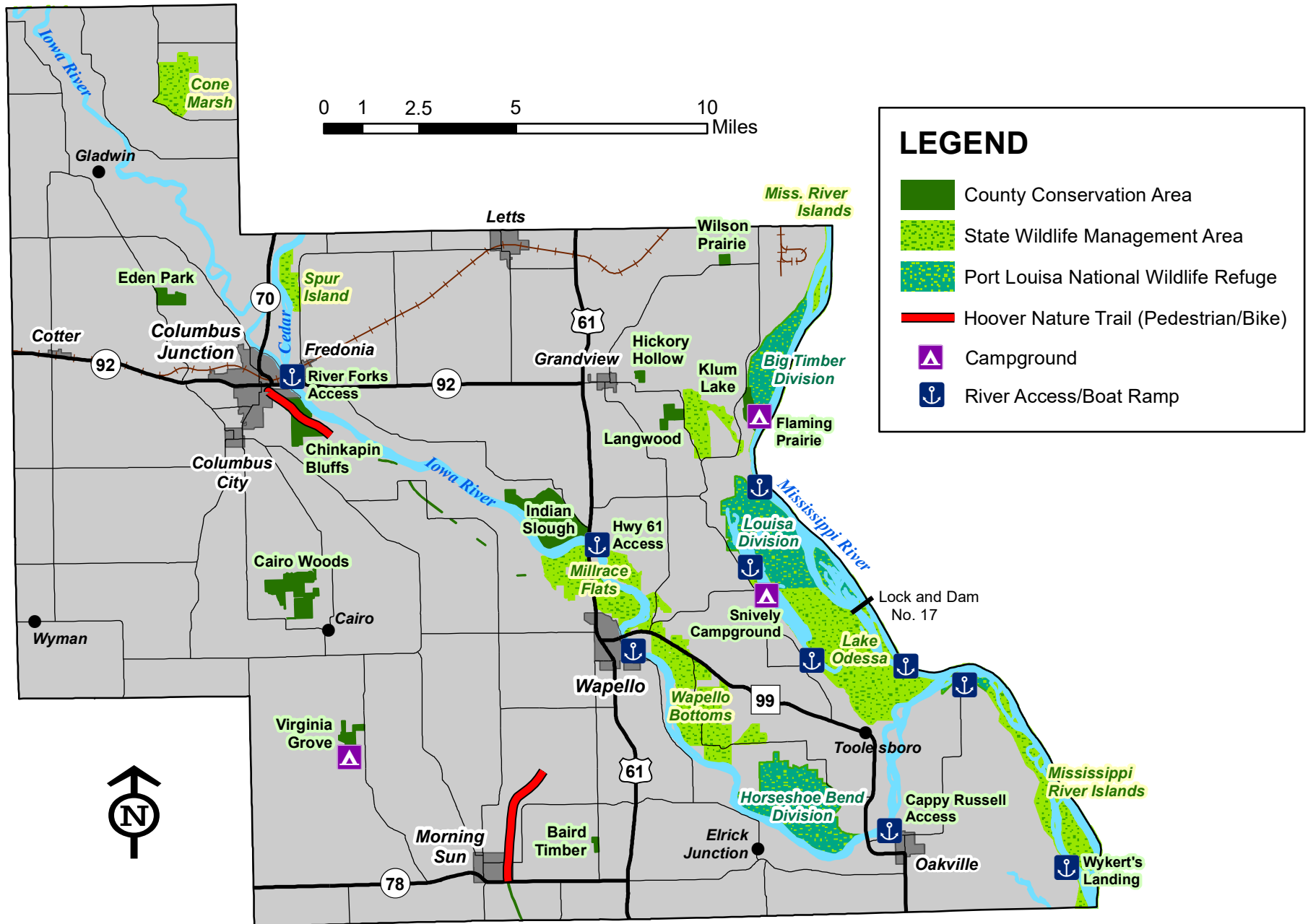
Trails

Trail Name	Hiking	Biking	Boating	Horseback
Baird Timber	Yes			
Cairo Woods Wildlife Area	Yes	Yes		Yes
Chinkapin Bluffs Recreation Area	Yes	Yes		
Eden Park	Yes			
Hoover Nature Trail	Yes	Yes		
Indian Slough Wildlife Area	Yes			Yes
Toolesboro Mounds National Historic Landmark	Yes			
Virginia Grove Recreation Area	Yes			
Wilson Prairie	Yes			
Iowa River Water Trail			Yes	
Odessa Water Trail			Yes	
Port Louisa National Wildlife Refuge	Yes	Yes		

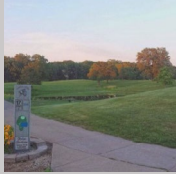
Camping Sites

Park	Address	Sites	Facilities
Flaming Prairie Park	14624 County Road X61, Muscatine, IA 52761	24	Electric hookup, restrooms, shelters and grills.
Langwood Education Center	14019 H Ave, Wapello, IA 52653	21	Lodge, A-frame dorm, electric, restrooms, shelters, grills, rope course, canoeing and fire pits.
Louisa County Fairgrounds	Highway 92, Columbus Junction, IA 52738	beds	Electric, water, and sewer.
Snively Access Campground	9246 County Road X61, Wapello, IA 52653	20	Restrooms, electric, and fire pits.
Virginia Grove Recreation Area	20406 55th Street, Morning Sun, IA 52640	30	Water, electric, restrooms, fire pit, picnic shelter, grills, playground, and fishing.
Wapello Fairgrounds Park	Marshall Street, Wapello, IA 52653	11	Playground, picnic shelters, grills, electric, water, and sand volleyball courts.
Cappy Russel Access	6444 County Road X-71, Oakville, IA 52646	10	Boat ramp and fishing.
River Forks Access	1001 Main Street, Fredonia, IA 52738	N/A	Boat ramp and fishing.

Louisa County Public Conservation Areas

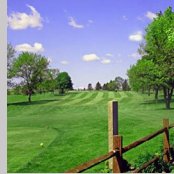


Golf Courses



Heritage Oaks
Golf and Country
Club, Wapello

Wooded golf course
with multiple elevations.



Cedarcrest Country
Club, Columbus
Junction

Fairways and rolling hills
for multiple skill levels.

Cultural Event Destinations



Farm Life Festival

The Farm Life Festival is hosted at the R7 Reclaimed by Grandview. The two story reclaimed barn is a piece of history that has been well preserved for the enjoyment of visitors to Grandview.

This event has live music, food and vintage shopping in the countryside that draws people to the nostalgia of Farm Life Festival.



Conesville Dragway

The Conesville Dragway is an events space for drag racing bikes, vintage cars, and other vehicles. Special events are also conducted such as concerts and sand races.



Louisa County
Fairgrounds

The Louisa County Fairgrounds hosts the Louisa County Fair every summer. This fair allows those from all over the county to come together to show different livestock animals. Programs such as 4H and FFA allow children from all ages to get involved in the fair. Food vendors and carnival rides are also apart of this county fair. Prior to the pandemic in 2017, over 5,000 people attended the Louisa County Fair.



Chief Wapello Days

Chief Wapello Days is a two day event taking place every summer in Wapello. This event features a parade, food vendors, rodeo, music, and other activities for the family. A car show and dances are popular events every year. This is a non-profit event with the proceeds going to community organizations every year. Last year, all proceeds went to the local high school's FFA program.



Louisa County 4H

Louisa County 4H provides kids with the opportunity to start learning about livestock, agriculture, and getting involved with their community. Being apart of 4H allows members to be apart of the county fair, clinics, trips, and workshops.



Community Service Organizations

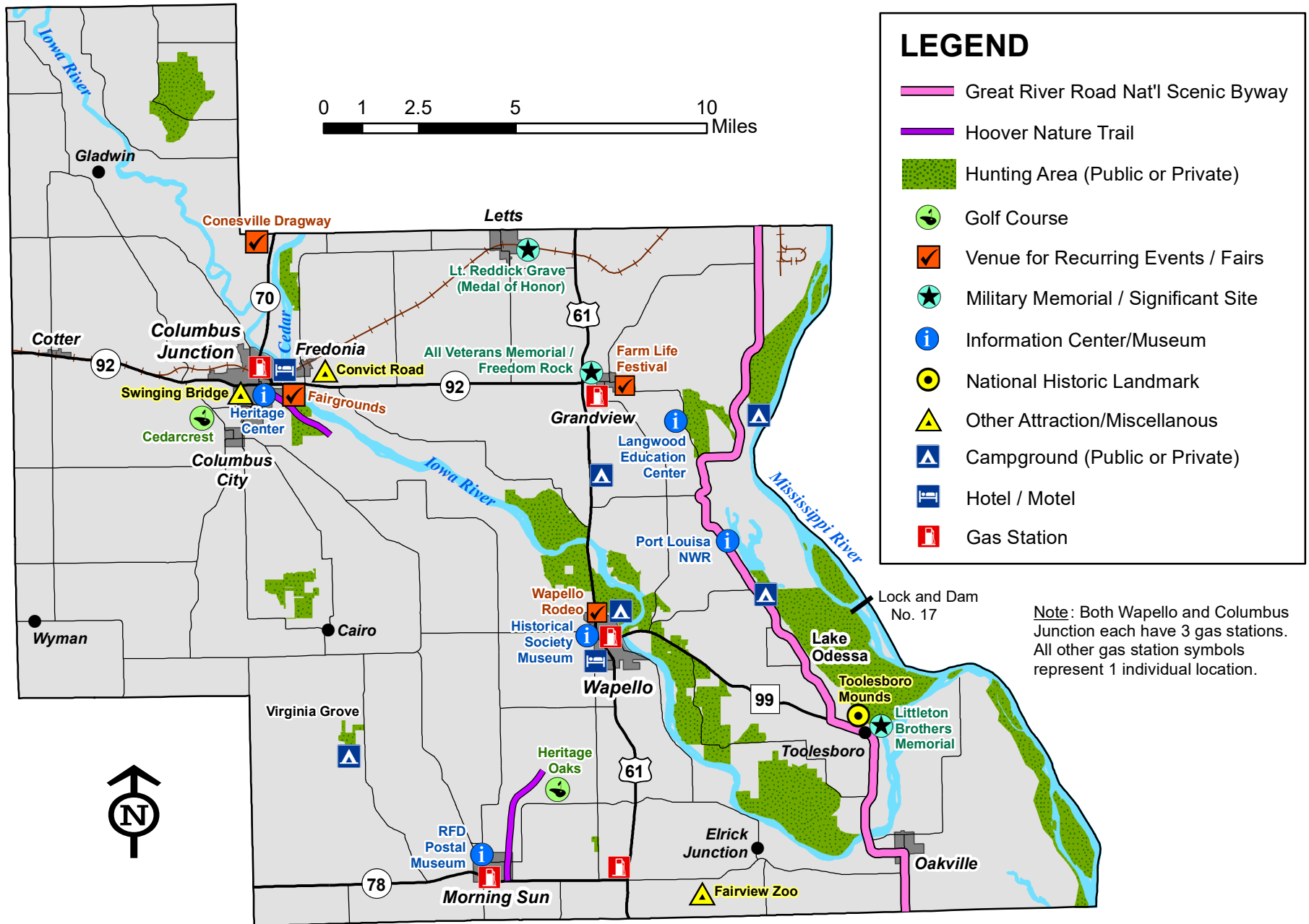
Organization Name	Address	Mission
Community Foundation of Louisa County	P.O. Box 34 Morning Sun, IA United States 52640	to build community endowments, be a resource for a broad range of community needs (arts and culture, education, environment, health and human services, historic preservation, etc.) and to assist donors in creating a variety of giving options.
United Way of Muscatine	208 W. 2nd Street, Suite 201 Muscatine, IA 52761	to make a positive impact on all aspects of life including education, housing, and overall stabilization of households.
FFA		supports young people in pursuing careers in the science, business and technology of agriculture. FFA has a large role in the events at the Louisa County Fair.

Church Events

Church Name	Address	Events
St. Paul Lutheran Church of Wapello	226 Washington Street Wapello	Music Recitals, caroling, and bible study events.
Solid Rock Baptist Church	14041 Locust St, Wapello, IA 52653	Concert and choir events.
Grandview Community Bible Church	206 W Monroe St, Grandview, IA 52752	Game nights, pot lucks, cook outs, movie nights, Fall Fest, concerts, trick or treating.



Louisa County Tourism and Visitor Attractions



Tourist Attractions



Columbus Community Heritage Center, Columbus Junction

This heritage center is located in the old library building in downtown Columbus Junction. This museum pays tribute to the area's local and county history.



Louisa County Heritage Center, Wapello

Objects, information, and photos relating to all different aspects of life in Louisa county are in this heritage center. The Prairie View School, a one room schoolhouse, and the Louisa Center Church can also be toured.



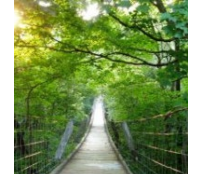
Rural Free Delivery Museum, Morning Sun

In 1896, the U.S Postal Service wanted to test the idea of Rural Free Delivery. Morning Sun was chosen as the test site. At this museum, artifacts relating to postage can be viewed including: postal windows and boxes, a postal buggy, corn cob stove, and a letter sorter.



Toolesboro Mounds and Museum, Wapello

This is the site of the Hopewellian mounds from 200 B.C. to 300 A.D. These mounds are some of the best preserved remnants of this culture. This site also has an educated center and prairie demonstration plot amongst its five-acres.



Swinging Bridge, Columbus Junction

This bridge was constructed in 1886 and was originally called the Lover's Leap Bridge due to a local legend of an indigenous woman. It has been reconstructed and renovated many times since then.

The Great River Road is part of a system of roadways designated by the Federal Highway Administration as a National Scenic Byway. Roads in this system are recognized as having strong archaeological, cultural, historic, natural, recreational and/or scenic qualities. The Byway system was established in 1991 to recognize these scenic, but comparatively lower traffic roadways, and promote tourism and economic development. The Great River Road actually predates this system by more than 5 decades, having been recognized as a special scenic roadway corridor since 1938.

This is when the Mississippi River Parkway Commission was first established, and the distinctive green and white signage (with a steamboat surrounded by a paddlewheel) was first installed along the route. It follows the Mississippi River on both sides stretching from Minnesota to Louisiana.

Within Louisa County, the Great River Road follows portions of County Road X99 and X61, for a total distance of 22 miles. The route provides direct access to numerous cultural resources and attractions, including the Port Louisa National Wildlife Refuge, Lake Odessa and the Snively Campground, Toolesboro Mounds, and the Littleton Brothers Memorial (also at Toolesboro). Apart from Oakville, it does not directly connect with any cities in the county, although it extends to Muscatine and Burlington to the north and south. It also shares its route with a designated bike route, the Mississippi River Trail (MRT).



Wellness - Health Analysis

The health of the state of Iowa and each of the counties are analyzed through several factors which are broken up into two categories: health outcomes and health factors. Out of the 99 counties in Iowa, Louisa ranks 88th in health outcomes and 93rd in health factors. Based on these numbers, Louisa is one of the least healthy counties in Iowa. There are several factors that contributed to this ranking. Health outcomes: 88th in Iowa

Compared to the average in the state of Iowa, Louisa has 2,300 more premature deaths and 4% more of the population in poor or fair health. In addition, Louisa county has .5 more poor physical health days and .3 more poor mental health days than the state average. Health factors: 93rd in Iowa

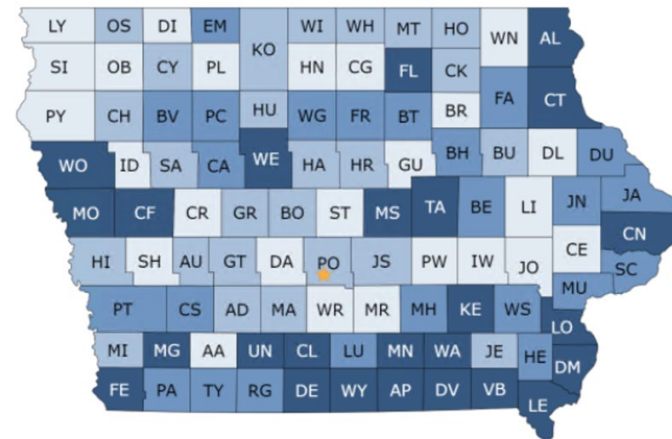
Louisa county has more of the following health factors than the average county in Iowa: smoking, adult obesity, physical inactivity, alcohol impaired driving deaths, and air pollution. There are factors that Louisa county does better in than the state average. Overall, Louisa county has less excessive drinking and sexually transmitted diseases. Social and economic health of the county shows that there is less childhood poverty, income inequality, violent crime, and severe housing problems than the state average.

Health Initiatives and Activities

Louisa County Conservation provides outdoor activities and events for people of all ages throughout the year. The Langwood Education Center hosts numerous events such as day nature camps, hunter education, adventure days, and campouts. Louisa County utilizes their lake access to boat and fish as well as for educational programming.

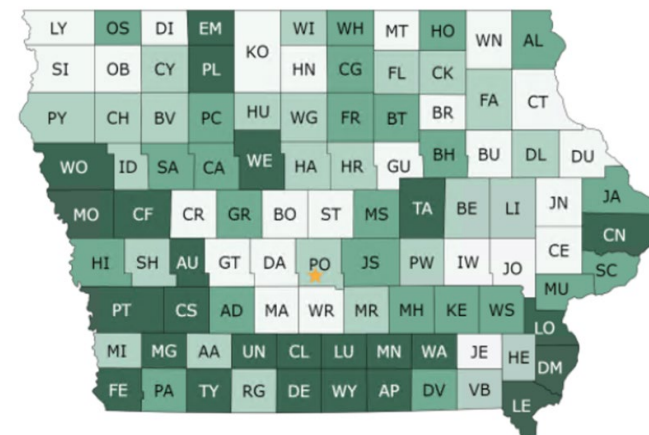


2021 Health Factors - Iowa



Health Factor Ranks 1 to 25 26 to 50 51 to 74 75 to 99

2021 Health Outcomes - Iowa



Health Outcome Ranks 1 to 25 26 to 50 51 to 74 75 to 99

Source: County Health Rankings

Wellness - Health Facilities

The table on below represents the medical facilities within and around Louisa county. The distance represents how far away these facilities are from the central point of the county.

Hillcrest Family Services

218 N 2nd St, Wapello, IA 52653

Hillcrest Family Services is dedicated to providing brain health services in Wapello. From addiction struggles to depression, Hillcrest covers it all and has been in business for 125 years.

Mercy Family Medicine of Columbus Junction

109 Walnut St, Columbus Junction, IA 52738

Mercy Family Medicine of Columbus Junction provides family medicine services and is connected to the greater Mercy network of hospitals in Iowa City. Having easy access to hospital services is important for well being of those who need a higher level of care.

Wapello Clinic (Great River Health)

220 Mulberry St Suite A, Wapello, IA 52653

The Wapello Clinic is a family medicine, internal medicine, and physical therapy clinic. This clinic provides residents of the area with all around care for every member of their family and physical therapy to aid in rehabilitation. Having regular check-ups is essential to person wellness and having it so close to home makes it easier to do so.

Community Health Centers of Southeastern Iowa

- Louisa County Medical and Dental Clinic

2409 Spring St, Columbus City, IA 52737

This medical and dental center provides a wide range of care including family medicine, dental services, and behavioral care. Mental well being is incredibly important to overall wellness. This clinic provides many different psychiatric services including general counseling.

Facility	Address	Distance	Services
UnityPoint Health - Trinity Muscatine	1518 Mulberry Ave, Muscatine, IA 52761	24 Miles	Family medicine, emergency
UI Health Care - Muscatine	3465 Mulberry Ave, Muscatine, IA 52761	23 Miles	Family medicine, pediatrics, gynecology, internal medicine
Muscatine Urgent Care	1903 Park Ave #1500, Muscatine, IA 52761	26 Miles	Urgent care
Mercy Family Medicine	2104 Cedarwood Dr # 200, Muscatine, IA 52761	23 Miles	Family medicine
UnityPoint Clinic North Port	3426 N Port Dr Ste 100, Muscatine, IA 52761	27 Miles	Family medicine
Southeast Iowa Regional Medical Center - West Burlington	1221 S Gear Ave, West Burlington, IA 52655	35 Miles	Hospital services
University of Iowa Hospitals & Clinics	200 Hawkins Dr, Iowa City, IA 52242	43 Miles	Hospital services, children's hospital
Mercy Medical Center	328 S Clinton St, Iowa City, IA 52240	42 Miles	Hospital services
Iowa City VA Health Care System	601 US-6 W, Iowa City, IA 52246	43 Miles	VA care

Wellness - Health Facilities

Wellness - Nursing Homes

Facility	Address	Services
Wapello Specialty Care	601 US-61, Wapello, IA 52653	Rehabilitation, nursing, long-term care, hospice
Morning Sun Care Center - ABCM Corporation	200 N Washington St, Morning Sun, IA 52640	Nursing, long-term care, therapy, independent living, assisted living
Colonial Manors of Columbus Community, Inc.	814 Springer Ave, Columbus Junction, IA 52738	Nursing home, assisted living, independent living

Wellness - Senior Services

Facility	Address	Services
Home Health Services Advanced	Wapello, IA 52738	At home care for seniors from house keeping to cooking and personal grooming.
Great River Home Health Care		Based out of West Burlington and provides in home care for seniors.
Louisa County Public Health	805 James L Hodges Ave. Wapello, IA 52653	Medicare Certified in-home nursing services throughout the county.
Senior Health Insurance Information Program (SHIIP)		Provides information regarding Medicare benefits, claims, Medicare choices, Medicare supplement insurance, longterm care insurance.
Milestones Southeast Iowa Area Agency on Aging	509 Jefferson St. Burlington, IA 52601	Provides information and assistance to seniors ages 60 and older, caregivers and adults living with a disability.
Alzheimer's Association	PO Box 548, West Burlington, IA 52655	
Community Senior Centers & Congregate/Home Delivered Meals	317 N. Water St. Wapello, IA 52653	
Columbus Junction Senior Center	125 Walnut St. Columbus Junction, IA 52738	Senior Center, Congregate & Meals-on-Wheels.



Fresh Food Availability



Bryant Orchards, Morning Sun

Local apple orchard
open seasonally
September through
November.



Red Fern Farm, Wapello

Tree crops and
forest farming.



Our Farm, Wapello

Farm fresh meat, eggs,
honey, and more for
pickup at this local farm.



Krueger's Market, Letts

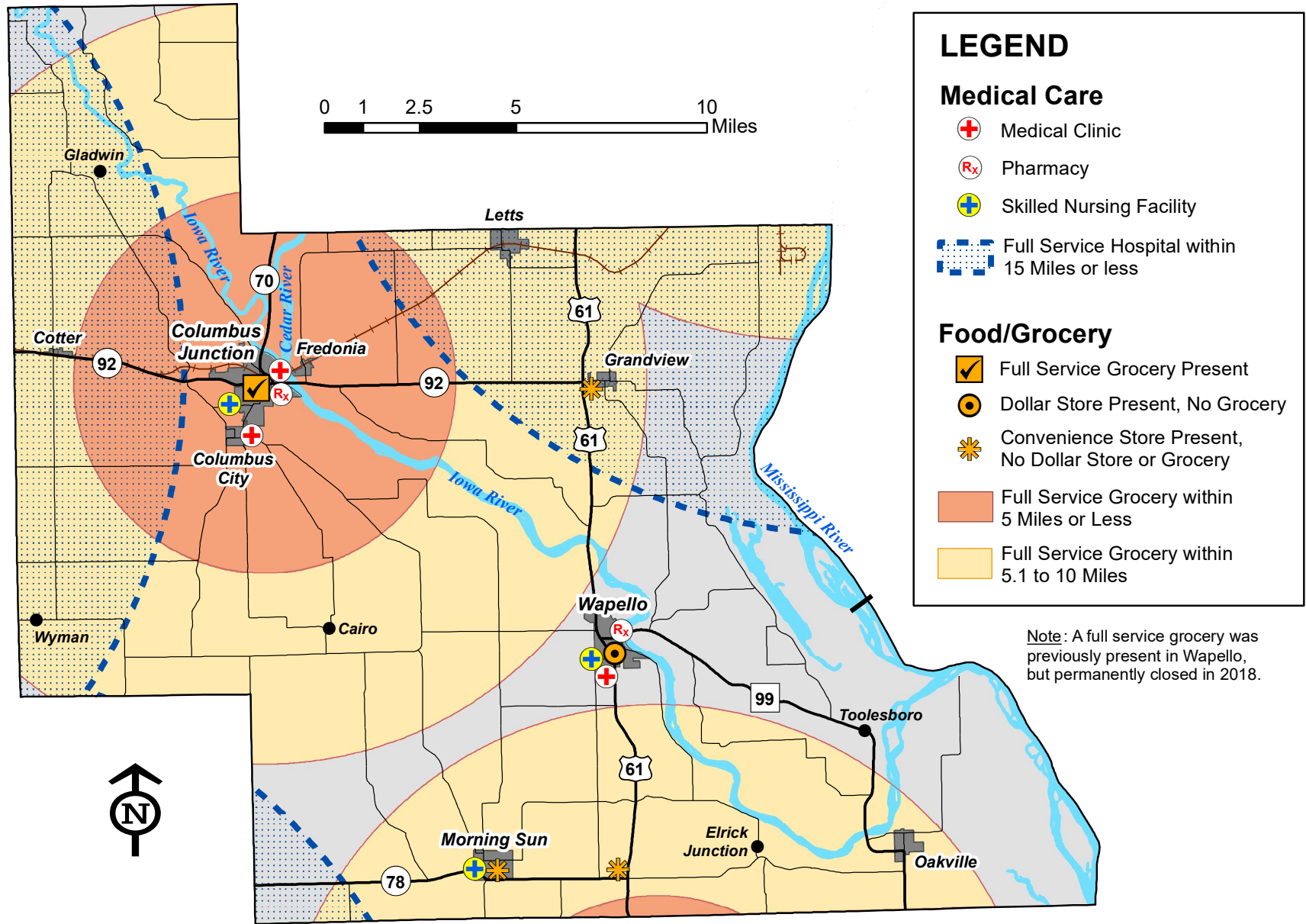
Fresh fruits and
vegetables.



Community Challenge: Access to Fresh Food in a Rural Area

The Jack and Jill grocery store in Wapello closed in November of 2018, which served as the only full line grocery store in the community. This left just over 2,000 residents without access to a grocery store. Although a number of stores have considered taking its place, these have all fallen through and the community is left without a grocery store. The closest large grocery store is the Hy-Vee located in Muscatine. There is a small Hy-Vee Clinic with a pharmacy in Wapello that has begun to stock a few grocery items. There is also a local meat/ deli place in Downtown, Wapello named Corner Market.

Louisa County Medical Care and Food/Groceries



County Facilities

Louisa County residents have a number of quality County facilities to serve various areas of public need. All these are provided directly by the County. Each of these facilities are highlighted in this chapter.



County Courthouse

- o Location: 117 South Main Street
- o Year Built: 1928
- o Building Size: 7,020 SF
- o Staff: Auditor, Assessor, Deputy Auditor, Engineer, Planning and Zoning/ Flood Plain, Recorder, Treasurer.



County Sheriff's/Conservation Board Office

- o Location: 12635 County Road G56 – Suite 101, Wapello
- o Year Built: 1859
- o Building Size: 32,080 SF
- o Conservation Staff: Full time staff of 6 – 2 maintenance, 2 naturalists, 1 office manager, director, 7-8 interns.
- o Sheriff Staff: 11 Sworn Officers including Sherriff, Full time dispatch center with 5 full time employees, Civil Office with 2 Employees, 2 Cooks at Jail, 10 Certified Jail Staff, Part time fill in positions as needed, K9 Unit, Defensive Tactics Instructor.



Public Health Department

- o Location: 12635 Co Rd G56, Suite 103, Wapello
- o Year Built: 1960
- o Building Size: 3,780 SF
- o Staff: Total 7; including 3 CNA's, 2 RN BSN's, 1 Office Manager/ Biller
- o Services offered: Nurses and home health aides, homemakers to provide assistance in the home, immunization clinics for children and adults, blood pressure clinics and environmental health services, educational programs to promote environmental safety, healthy life choices, safe food, and disease control.



County Community Services

- o Location: 503 Franklin St. #3, Wapello, IA. 52653
- o Year Built: 1960
- o Building Size: 3,780 SF
- o Home to: Board of Supervisors, Mental Health & Disability Services, General Assistance
- o Staff: 2 staff persons that work in the two branches
 - General assistance and Mental health and disabilities.
- o Services offered: General Assistance provides short term emergency assistance for qualified individuals in Louisa County. Assistance could include food, rent, shelter, emergency medical, transportation, utilities and burial. The Community Services office refers individuals to resources available to them. The Mental Health & Disability Services department included in the Louisa County Community Services office, operates under the Policy and Procedures outlined in the Southeast Iowa Link (SEIL) Mental Health & Disability Services Management Plan. Louisa County's Coordinator of Disability Services coordinates Southeast Iowa Link (SEIL) regional funding for eligible persons diagnosed with mental illness, intellectual disability,



County Emergency Management

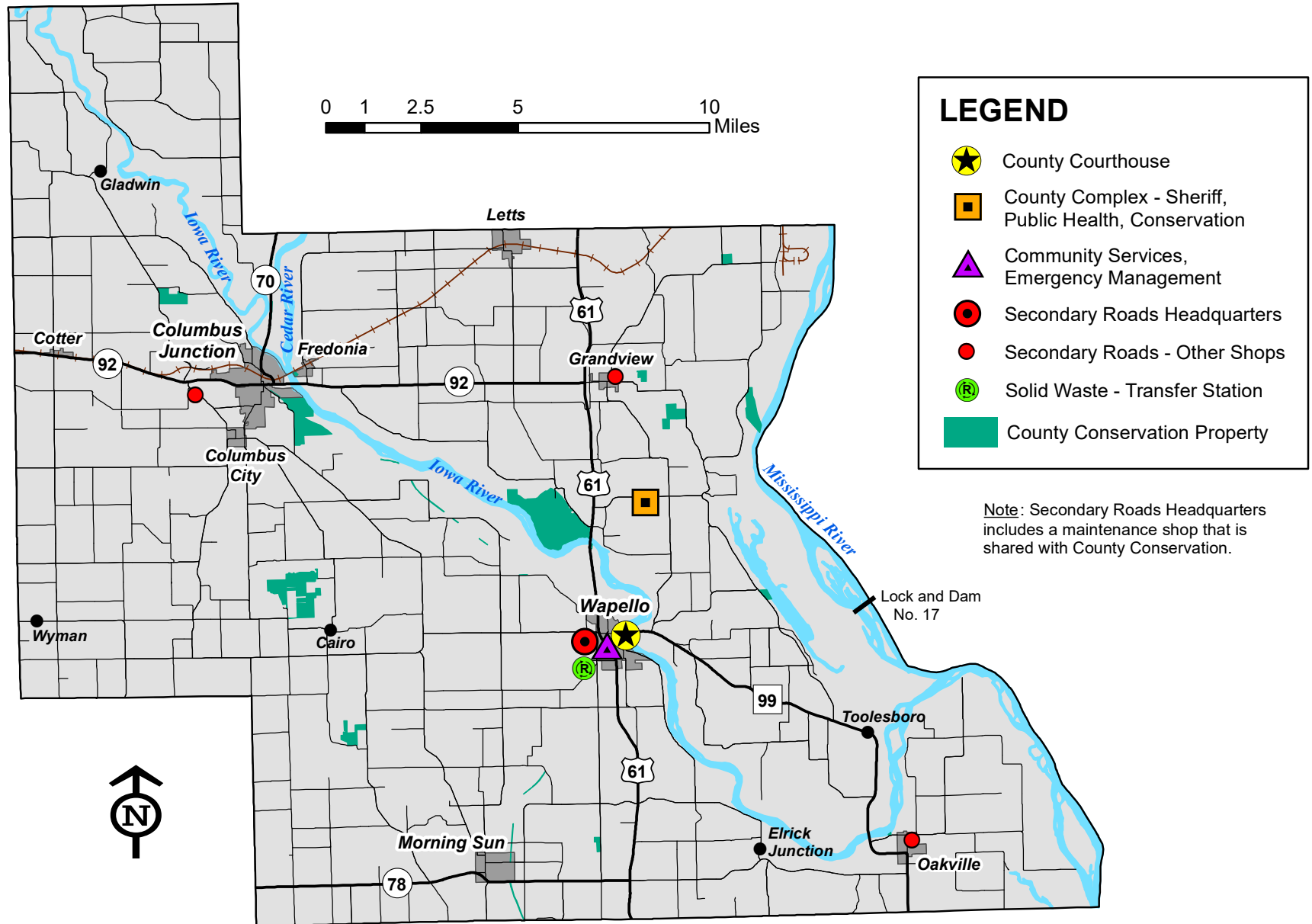
- o Location: 503 Franklin St. #3, Wapello, IA. 52653
- o Year Built: 1960
- o Building Size: 1,720 SF
- o Staff: 1
- o Services Offered: The Emergency Management Agency assists local cities with emergency planning and coordinates the county to state to federal response during a state of disaster. Emergency Management also works with schools, nursing homes and all emergency response groups in the county to provide training, planning and mitigation opportunities.



County Engineer (Secondary Roads)

- o Location: 8313 K Avenue just outside Wapello, and it includes a maintenance facility and the main shop for storing and working on vehicles. The shop houses 2 motor graders (for gravel work), and 5 snow plow trucks. The vehicles in this facility cover the eastern part of the county from Oakville to Muscatine County.
- o Another shop is located just west of Columbus Junction on X17. It houses 3 to 4 employees, and houses 2 motor graders and 3 plows. It covers the northwestern part of the county.
- o There is a grader shop on the east side of Grandview in on Jefferson (G44X). 2 people work there. There is also a small shop on the northeast side of Oakville (near a Tri-Oak Foods storage facility). One employee works there. They have two salt sheds – one at Wapello, and one at Columbus Junction.
- o Year Built: Office constructed in 1974 and expanded in 1992. The Main Shop was built in 1987 and expanded in 1999.
- o Building Size: 2,450 SF
- o Staff: 20 staff work out of this office – County Engineer, Maintenance Supervisor, 2 technicians, the Weed Commissioner, and 8 working in the shop (including the Sign Manager and a mechanic).

Louisa County - Location of County Facilities



Solid Waste and Recycling

The Louisa Regional Solid Waste Agency aims to conserve natural resources, save energy and reclaim raw materials. Ultimately the recycling process diverts these materials from filling our landfills more quickly, while saving local governments money and keeping costs of waste management low. Located at 14048 70th Street in southwest Wapello, the Louisa County Transfer Station offers recycling of many materials for free for Louisa County residents, as well as safe disposal of other products for a nominal fee. The property also features another outbuilding as office space and a scale for refuse collected for a per-pound fee. The Solid Waste Agency is overseen by the Solid Waste Board and consists of representatives from each municipality within the county and two representatives from rural Louisa County.

The Transfer Station can receive materials in the following categories for free: cardboard, office paper, metal cans, glass, newspaper, magazines, and plastic containers #1-7. The Transfer Station is also an affordable option to dispose of bulk and/or electronic waste in the following categories for a fee: appliances, auto batteries, electronic waste, motor oil, municipal waste (household waste, construction wood waste, commercial waste), and tires. Residents of Morning Sun are urged to contact the Des Moines County Transfer station to dispose of hazardous waste, while residents elsewhere in the county are encouraged to take hazardous waste to the Muscatine Recycling Center & Transfer Station. Columbus Junction, Fredonia, Grandview, Morning Sun, Oakville, and Wapello offer curbside recycling, while residents of all other municipalities or rural Louisa County are to use drop off bins at the transfer station.

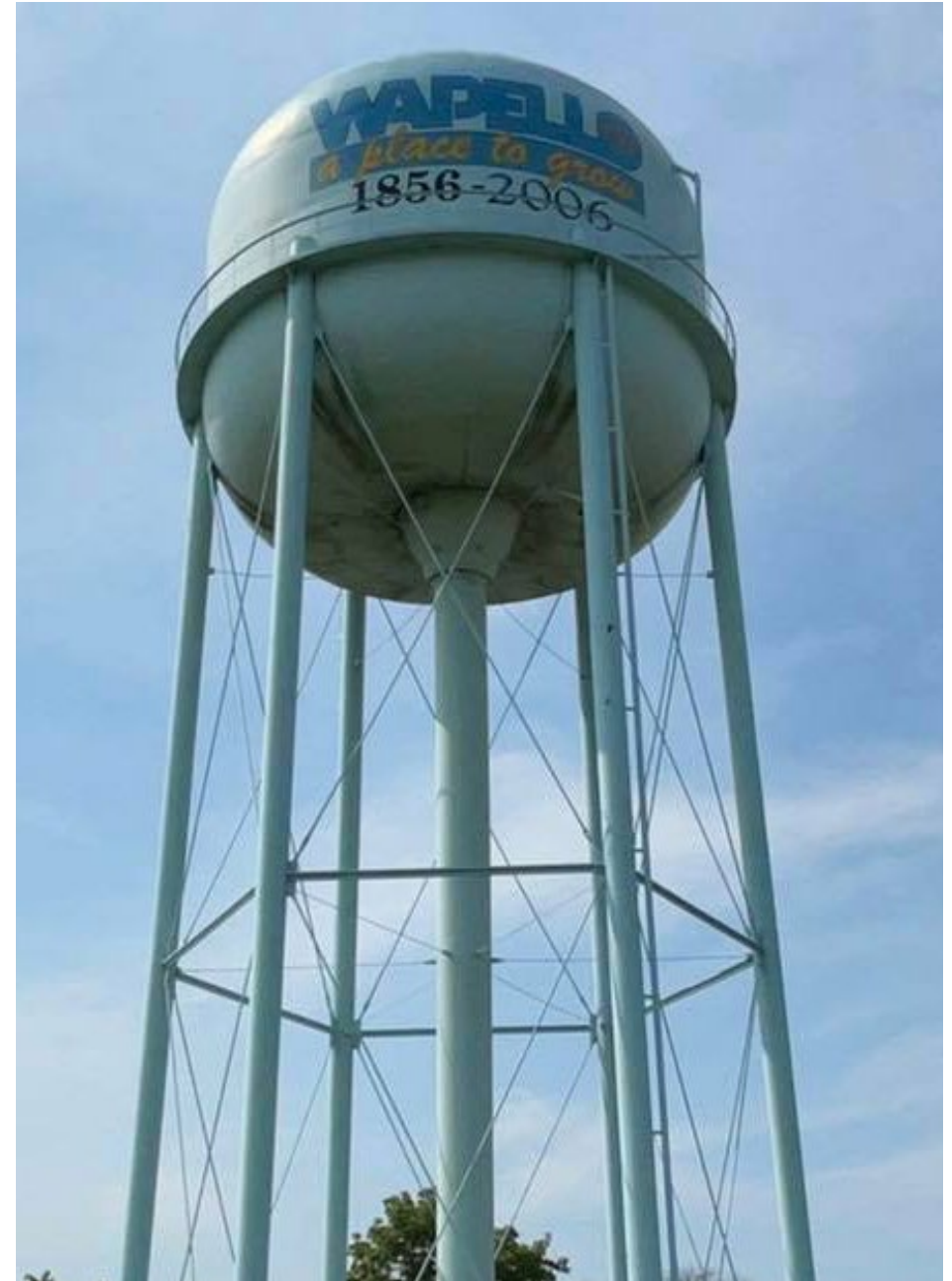


Utilities and Infrastructure

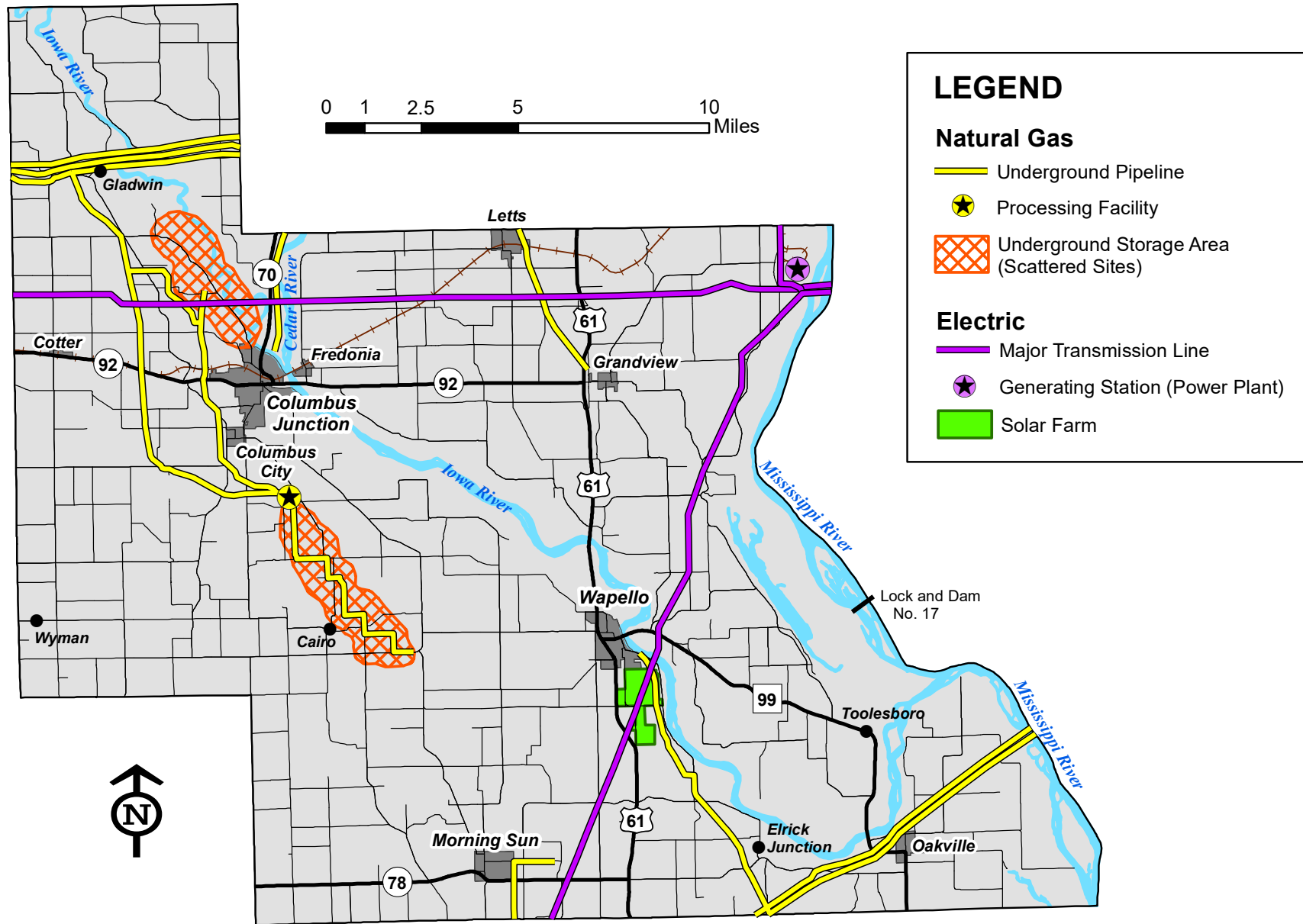
Utility Services

Utility infrastructure and the services they provide are crucial for our communities. Electric, gas, water and sewage, and increasingly internet and telecom need to be accessible, effective and functional in order to propel our communities forward. Louisa County needs to continue to address utilities and their infrastructure head-on, as it is evident that its communities are making great strides in this area. To better envision the future of utility services in Louisa County, it is necessary to understand the presence, extent, and capacity of the systems that already exist – in addition to the entities both public and private that supply these valuable resources. This section will explore proposed partnerships, recent developments and established agencies that make Louisa County run, and how our communities can get a running start on the future.

Utility Services and Providers in Louisa County	
Utility Service	Providers
Water	Wapello Water Works; Columbus Junction Waterworks; Muscatine Power and Light (proposed)
Sewer/Wastewater	
Electric	Alliant/Interstate Power and Light; Eastern Iowa Light and Power Co-op (Eastern Iowa REC)
Natural Gas	Alliant/Interstate Power and Light; Morning Sun Municipal
Telephone, Internet, and Cable	Mediacom Communications Corp.; Mutual Telephone Company of Morning Sun, Iowa; Windstream Holdings, Inc.; ViaSat, Inc.; Hughes Network Systems, LLC



Louisa County Utility Transportation



UTILITIES AND INFRASTRUCTURE

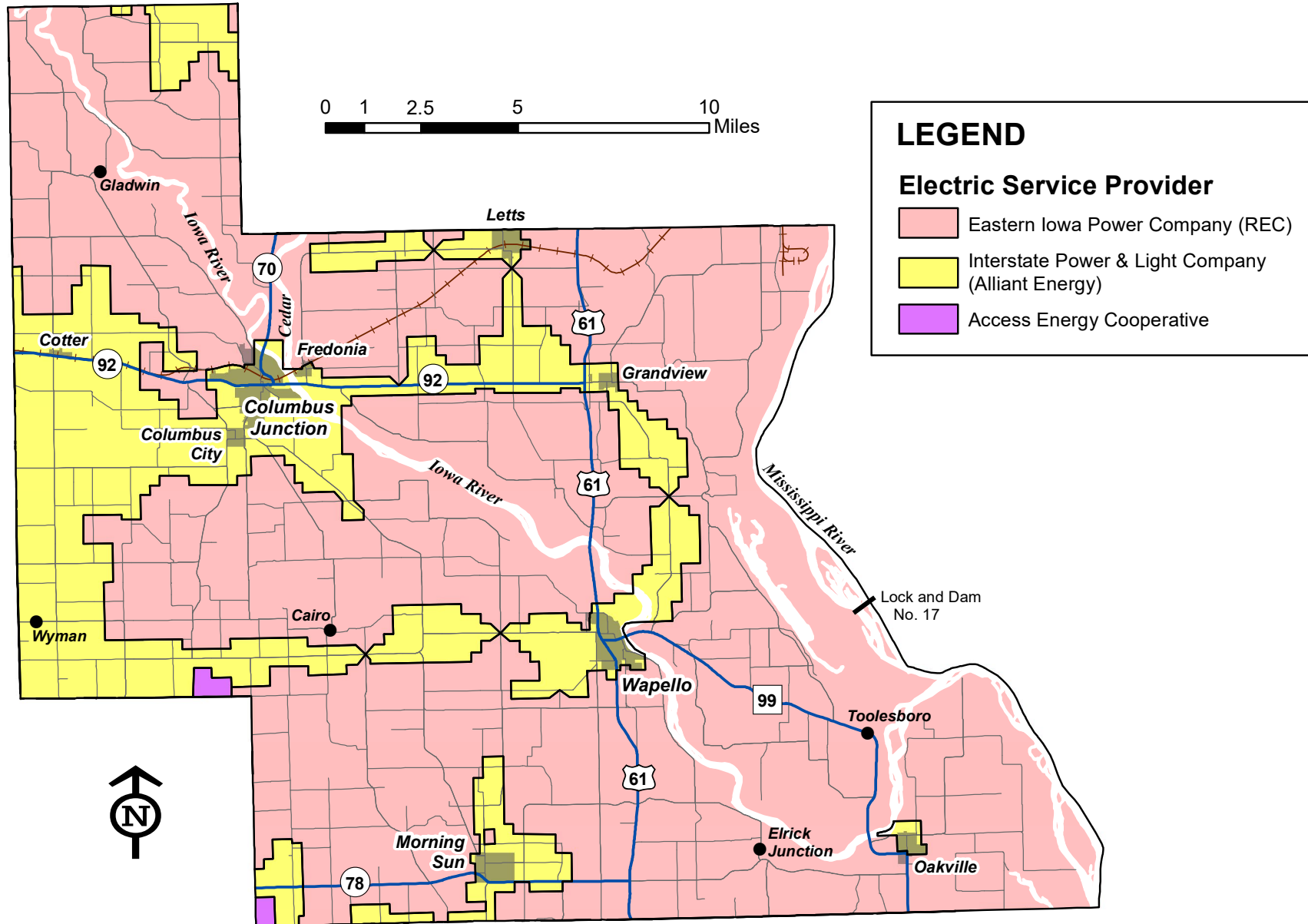
Electric

In Louisa County, electric service is provided by two major providers: Interstate Power and Light (IPL) and Eastern Iowa Light and Power Co-op. Headquartered in Cedar Rapids, IPL is a subsidiary of Wisconsin-based Alliant Energy and in the provider boundary map below is represented by the yellow areas. IPL supplies the electric service for most municipalities in Louisa County including Wapello, Columbus Junction, Morning Sun, and Letts. The nearest Alliant Energy office to the county is located at 215 Oak Street in Muscatine. Rural Louisa County is serviced by Eastern Iowa Power and Light (REC), a cooperative that emerged from President Franklin Roosevelt's Rural Electrification Administration in 1935 and is headquartered in Wilton, Iowa. All areas in pink on the service provider map receive electric service from Eastern Iowa Light and Power, and the company has an office locally at 101 Surrey Drive in Wapello. Access Energy, based in Mt. Pleasant in neighboring Henry County, has limited service within Louisa County in the southeast and is represented on the map in purple. Numerous substations (high voltage electrical equipment like transformers, switchgear, and circuit breakers) are positioned throughout Louisa County. IPL/Alliant Energy operates a substation in Wapello. Yet another substation facility lies south of Wapello in rural Louisa County. Eastern Iowa Light and Power operates one substation, Idaho-based solar energy company Clenera operates another, while Southern Iowa Power Cooperative maintains a switching station just to the East of US Highway 61. Louisa County is also home to the Clenera-operated Wapello Solar Project. 318,000 Risen Energy bifacial solar panels occupy nearly 800 acres of land and produce 127 megawatts of energy annually. It is currently the largest solar project in the State of Iowa, and although the energy is sold to the Central Iowa Power Cooperative (CIPCO) in a 25-year exclusive power purchase agreement, Louisa County anticipates \$5.2 million in tax revenue from the CIPCO-Clenera deal according to press from Clenera. MidAmerican Energy, a subsidiary of Berkshire Hathaway Energy,

owns and operates the over 800-megawatt coal-fired Louisa Generating Station just west of Kilpeck Island on the Mississippi River. Although MidAmerican produces 88-percent of the energy for its own distribution, the power plant has power purchase agreements with CIPCO, Alliant Energy, and the cities of Tipton, Eldridge, Geneseo, Waverly and Harland. MidAmerican also operates an onsite substation.



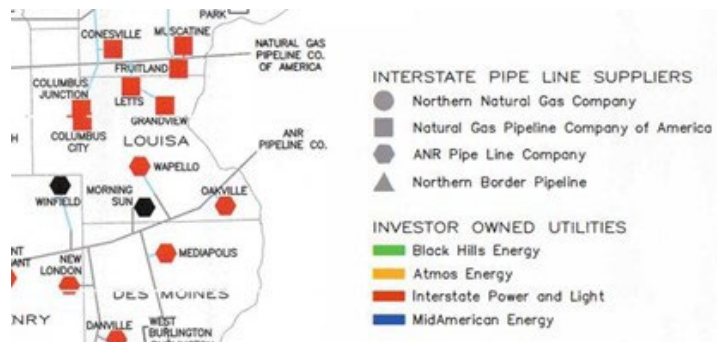
Louisa County - Electric Service Providers



UTILITIES AND INFRASTRUCTURE

Gas Service

Interstate Power and Light/Alliant Energy is the primary gas service provider for Louisa County. As illustrated in the Natural Gas Operators service area map below, the cities in the northern half of the county (Columbus City, Columbus Junction, Grandview, and Letts) are served by the Natural Gas Pipeline Company of America, whereas Wapello, Oakville and Morning Sun are served by the ANR Pipe Line Company. Morning Sun is the only municipality within Louisa County to operate a municipal gas company – the Morning Sun Municipal Gas Utility. The public utility houses its department office at Morning Sun City Hall.



Internet and Telecom

Telecommunications is a rapidly evolving utility in the 21st century, as the demand for rural broadband internet – specifically fiber-optic cable internet (or simply “fiber”) – which is capable of high download speeds. The public outcry for advanced internet infrastructure has been heard in Des Moines, as the Center for Rural Revitalization – an agency of the Iowa Economic Development Authority – is leading Empower Rural Iowa’s Connecting Rural Iowa taskforce. This taskforce was instrumental in the January 2022 announcement of \$210 million in broadband grants

awarded to 160 applicants across the State. Louisa County, however, did not receive grant funding in this most recent round. In this section, the current state of Louisa telephone and internet will be reviewed. Louisa County is serviced by three separate telecom companies. Most of the county is served by Windstream Iowa Communications, Inc. – a Windstream Holdings company based in Little Rock Arkansas – shown on the above map in red. Windstream is the telephone service for every municipality within Louisa County besides Morning Sun. The City of Morning Sun is served by Mutual Telephone Company of Morning Sun, a locally owned company that started as a publicly owned utility in 1916. MuTel serves Morning Sun and the surrounding area in southwest Louisa County, as well as a small section of northwest Des Moines County. Qwest Corporation serves a small section of rural northeast Louisa County which is indicated on the above map in green. Telephone customers in the Qwest operated part of the county would have area-code 563 phone numbers, whereas Windstream and MuTel customers would have 319 area-code numbers. This is notable due to mandatory 10-digit dialing that began in April 2021 for the 319 area-code.

During the public input effort for this plan, Louisa County residents were asked about their satisfaction with available utilities. Out of 239 answers, 117 (48.95%) respondents rated Louisa County utilities favorably while 72 (30.13%) respondents rated the county’s utilities negatively with a total of 65 (27.20%) respondents highlighting internet service as an area of need. Most comments revolved around inconsistent service or a lack of choice in rural areas, others specifically echoed state-wide calls for rural broadband access. There is not a shortage of providers within the county, with Mediacom Communications Corp., Mutual Telephone Company of Morning Sun, Windstream Holdings, ViaSat, Inc., and Hughes Network Systems, LLC all acting as internet service providers. Mediacom, MuTel, and Windstream offer broadband internet within the county, but only Mutel offers fiber optic cable internet service through their subsidiary Louisa Communications.

Water

The two largest water utility providers in Louisa County are Wapello Water Works and Columbus Junction Waterworks, while the County has been in ongoing conversations with Muscatine Power and Light to provide opportunity to improve rural water service, especially in the northeast part of the County. In addition to the municipal water services for the two population centers of the county, both Morning Sun and Grandview operate municipal water departments for residents.

The City of Wapello has four employees in public works involved in water service in some capacity with 772 residences served and 91 commercial businesses served. The City of Columbus Junction retains two public works employees to serve 809 meters – of which 738 are residential. Morning Sun Water Department has two full-time maintenance staff in public works alongside two administrative officials – the utilities clerk and city clerk. Morning Sun maintains a water system to 351 homes and commercial buildings. Grandview also has a municipal water department with one maintenance employee and one administrative clerk that service 211 homes and commercial businesses. Rural water expansion is currently being pursued at the County level, Muscatine Power and Light in neighboring Muscatine County. County leadership has been in oncoming conversations with several communities in Louisa County, as well as the Louisa-Muscatine School District about switching over to the new system. In addition to this new service provider, the County has also offered a water testing program for rural well water to ensure potability. If bacteria is detected, the County has been allotted state-funding to shock-chlorinate effected wells.



For County water infrastructure, all of Columbus Junction, Wapello, Grandview, Morning Sun and Oakville maintain water towers. Sewer and wastewater services are managed largely by the same municipal public works departments as water service. In the City of Columbus Junction, 736 residences are metered for sewer, whereas 75 commercial businesses are on the City sewer system. In Wapello, 90 commercial buildings are metered for sewer while 779 residential properties are metered for sewage. In addition to the County's two major municipal sewer and wastewater systems are multiple projects throughout the county that focus on improving water treatment and sewer facilities. In Columbus Junction, the purpose of the sewer project is to make improvements to the wastewater treatment facilities to maintain discharge compliance to operate the wastewater system safely and reliably for at least the next 20 years. The proposed project includes construction of a new ultraviolet (UV) disinfection unit, rerouting of the treated wastewater flow from an on-site wetland to the new UV structure, and approximately 350 feet of pipe to connect the UV structure to the existing discharge pipe. The area where the new UV structure will be located will have to be built up above the 100-year flood elevation.

In Grandview, the proposed water treatment project includes updates to the existing treatment facility to achieve compliance with the effluent limits per permit. The third settling lagoon size will be decreased and aerated. Four Submerged Attached Growth Reactors (SAGR), two primary and two secondary, will be built in the abandoned part of the third lagoon for ammonia removal and to meet E. Coli limits. An ultraviolet disinfection system will be included for additional E. Coli removal. A blower building will be constructed to aerate three lagoon cells and the SAGRs. Manholes throughout the existing sewer system will have covers replaced and chimney seals added to manholes that have large inflow during rain events.

Natural Environment and Agriculture

Watershed and Surface Drainage

Understanding the drainage patterns within a given geographic area is crucial when planning for the future of that area, as it has a substantial impact on land use, economic development, transportation, and hazard mitigation. The path with which storm water takes upon reaching the ground has important ramifications, particularly when considering the impact of climate change on future rainfall patterns, including the frequency and duration of each event.

Louisa County has an especially complex drainage pattern, due to its position at the confluence of several major rivers. The entire county is part of the Upper Mississippi River Basin, meaning that all storm water that falls in the county will eventually drain to the Mississippi River. However, in some cases, it may first drain to one of several major tributary rivers (such as the Iowa, Cedar, and Skunk), before that tributary empties into the Mississippi. Complicating matters further is the abundance of even smaller streams and drainage ways that feed into each of these rivers.

Roughly 76 square miles of land (about 18% of the county's total land area) drains directly to the Mississippi River or one of its smaller tributary streams. This includes two separate sub-basins on either side of its confluence with the Iowa River. Much of this area is comprised of natural floodplains, including the land within the Two Rivers and Muscatine Island Levee Districts, and the conservation land within the Port Louisa National Wildlife Refuge and Lake Odessa Wildlife Management Area. Most of the land in this area is unincorporated, with the exception of Oakville and a portion of Grandview.

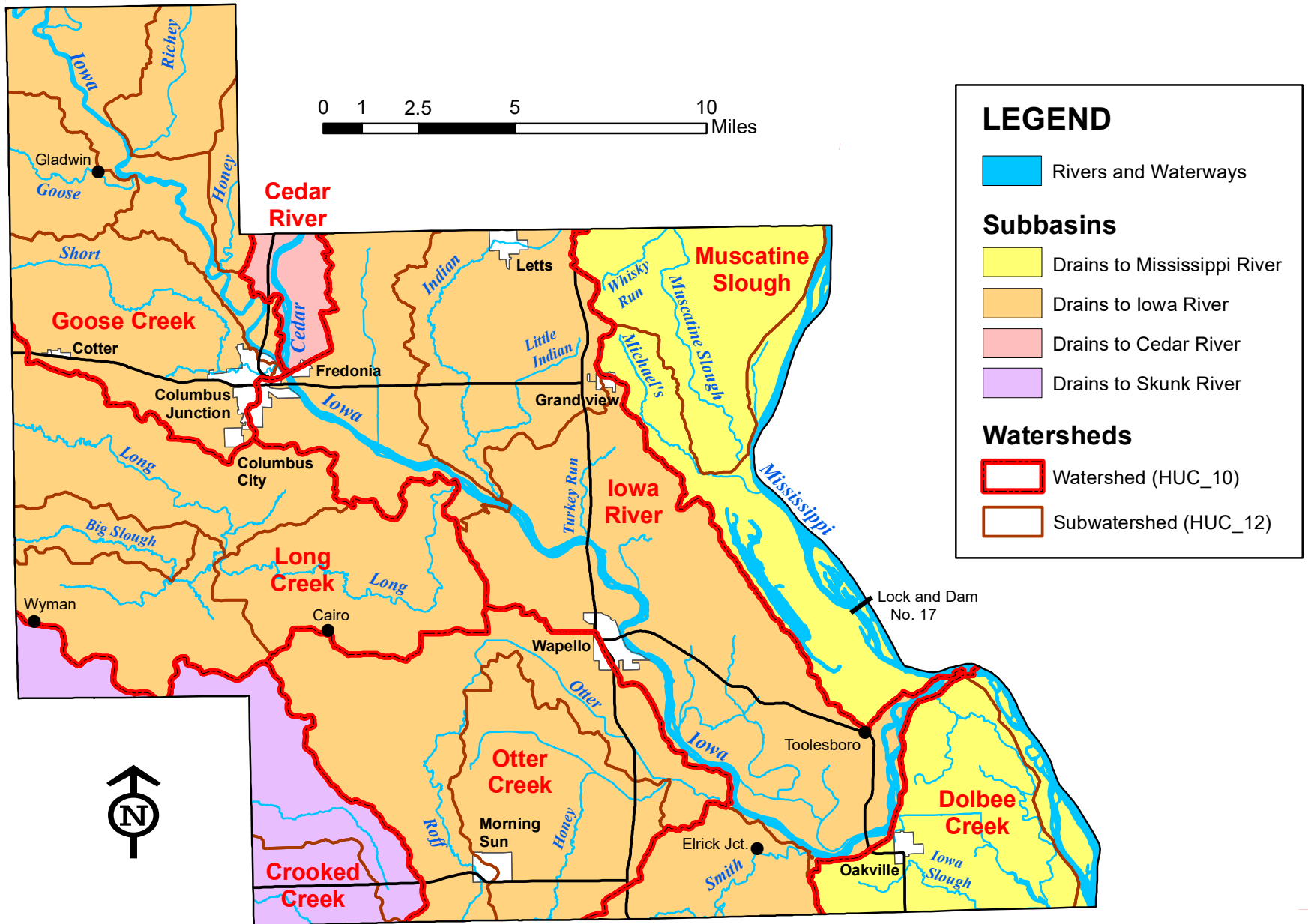
At 313 square miles, the vast majority of the county's land area – about 75% – drains directly to the Iowa River or one of its smaller tributary streams. This includes one primary watershed, along with three other watersheds that follow three important tributaries –

Goose Creek, Long Creek, and Otter Creek. This area includes all of the counties incorporated cities, except for Oakville and small portions of Fredonia and Grandview. The primary watershed is largely comprised of flat to gently sloped terrain, with large areas of natural wetlands along the river itself. A similar area exists in the far northwest part of the county, above the Iowa's confluence with the Cedar. Elsewhere in the Goose, Long and Otter Creek watersheds, the terrain is often very rugged, particularly along several major ridges that constitute as drainage divides. Another major ridge forms the eastern edge of the Iowa River Watershed, although this has a much straighter alignment, largely parallel to the Mississippi River.

An additional 6 square miles of land (about 1% of the county's land area) drains directly to the Cedar River, just north of its confluence with the Iowa. This encompasses a narrow arrow around the river, extending no further than 2 miles from it on either side. It contains a small portion of Fredonia, as well as the County's largest employer, Tyson Foods.

Lastly, roughly 23 square miles of land (about 6% of the county's land area) drains directly to the Skunk River or one of its small tributary streams. This area is situated at the southwest corner of the county, and this is the only instance in which the destination stream is not itself located within Louisa County. In fact, the Skunk River is actually 15 to 20 miles to the southwest, flowing diagonally through the center of Henry County. This area does not contain any cities, but does border the south edge of the unincorporated town of Wyman. With relatively flat terrain at a high elevation, it includes some of the highest quality farmland in the county.

Louisa County - Watersheds and Surface Drainage

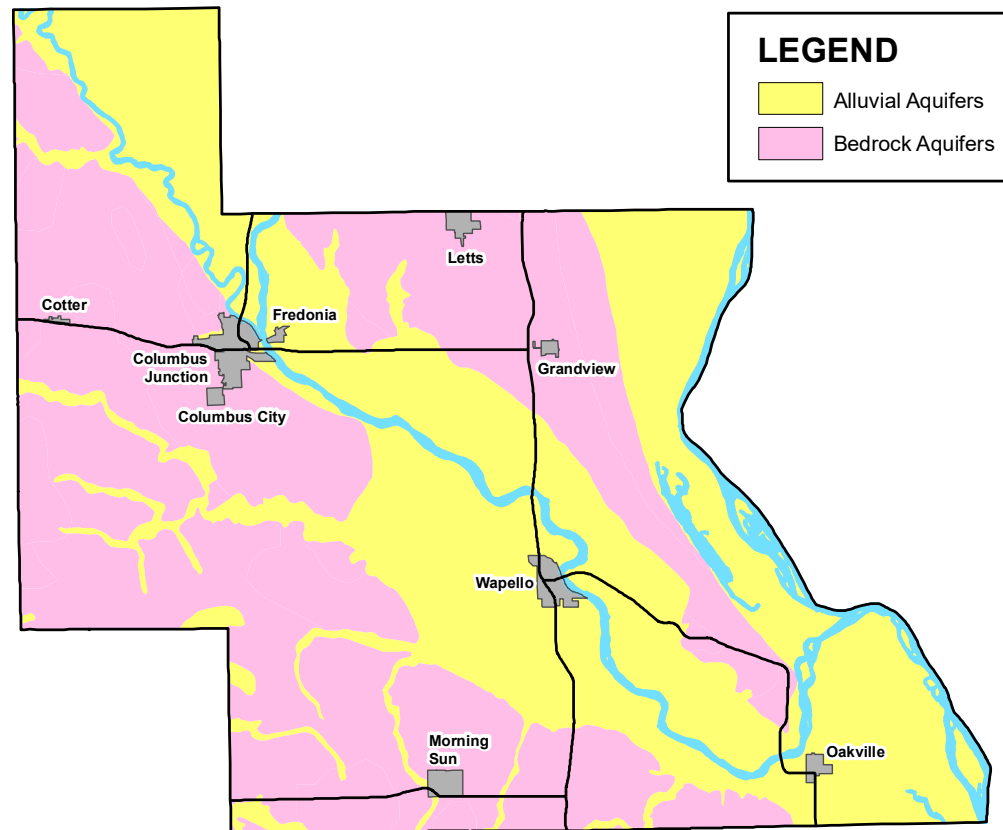


Groundwater

Access to groundwater, and its vulnerability to contamination, is an important consideration when planning for future residential development in areas where Rural water service is not yet present. This is especially important for Louisa County, as now Rural Water service is available anywhere in the county, and all rural areas (apart from those with access to city water) are currently dependent on private wells for drinking water. Approximately half of Louisa County's land area is comprised of alluvial aquifers, while the other half is counted for by bedrock aquifers.

The alluvial aquifers cover the broad areas of flat terrain that surround the three major rivers, along with narrow sections following major tributary streams. The depth-to-bedrock in these areas is typically over 200 feet, as there is a thick layer of alluvial deposit in place above the bedrock.

The bedrock aquifers cover the areas of higher ground in the southwestern third of the county, as well a strip following along the ridge between the Mississippi and Iowa Rivers. In these areas, the depth-to-bedrock is typically less than 100 feet, and sometimes as little as several feet below the surface.



Quality of Farming Soils

Soil contains a number of important characteristics which have an impact on whether or not it is conducive to growing crops on a regular, recurring basis. The Corn Suitability Rating (CSR) is a measure of the potential soil productivity of land, developed by Iowa State University in the 1970s. This measure takes into account several factors, including the soil profile, slope characteristics, and weather conditions. CSR values range from 5 to 100, with all surface water areas assigned a value of '0', and a value of '100' represents the most productive land possible. Within Louisa County, 30% of the land area has a CSR value above 80. The largest continuous area of CSR above 80 is located at the far southwest fringe of the county, in the largely flat, high elevation area at the edge of the Skunk River drainage basin. In addition, much of the land between the Iowa River and the Mississippi River bottomlands has a CSR above 80.

35% of the county's land area has a CSR between 61 and 80, which is still highly productive, but to a lesser degree than areas above 80. This includes narrow strips of moderate slope along drainageways in the central and western part of the county, as well as much of the bottomlands in the Two Rivers and Muscatine Island Drainage Districts. The remaining 35% of the county's land area has a CSR of 60 or less. This includes the areas of steepest terrain in the central and western part of the county. It also includes all flood-prone areas directly along major rivers and streams, and a sizable area in the eastern half of Muscatine Island, including the 'Big Sand Mound' on which the Louisa Generating Station was built. Much of the land with a CSR below 40 has been developed for residential uses. However, the nearby areas with CSR between 40 and 60 contain sandy loam soils that are well suited for growing specialty crops such as watermelons.

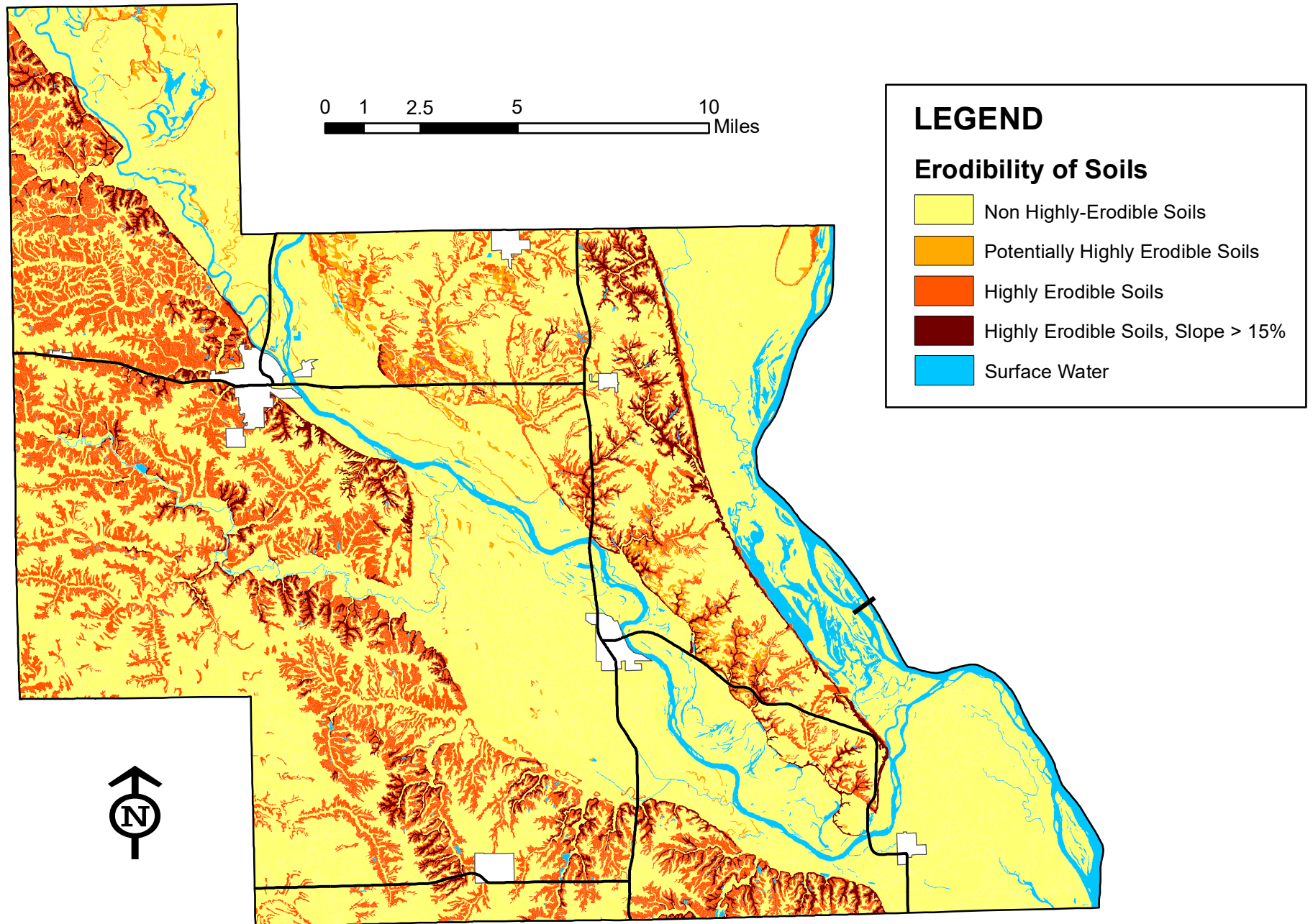
Another important factor to consider when assessing the suitability of land for agriculture is how easily the soil is eroded. While easily erodible soil may be suitable for growing crops in some situations, it presents the strong potential for long-term problems. This affects the individual farmer as well as other property owners downstream. It can also impact the public at-large, when substantial quantities of eroded soil enter streams and rivers. Cultivated soil from farm operations is likely to



contain chemicals from fertilizer and pesticide applications, which can negatively impact humans and wildlife/habitat in a variety of ways. About 25% of Louisa County's land area is comprised of soils that are considered to be 'highly erodible' - refer 'Soil Erodibility' map on the next page. Highly erodible soils are typically present in areas of steep terrain surrounding small streams and drainageways. The largest contiguous areas of erodible soils are found in the western and south-central portions of the county, where numerous streams drain to the Iowa River from an area of high ground stretching south and west into Washington and Henry Counties. They are also present in the area between the Iowa and Mississippi Rivers, although the drainageways are narrower and leave larger areas of less erodible soil in between. However, this area features a proportionally larger share of erodible soils with an especially steep slope (higher than 15%), and the transition from low slope to high slope areas is more rapid. The highest concentration is just to the north and east of Grandview.

Many areas of highly erodible soils in Louisa County have not routinely been used for agriculture, due to the steep terrain and poor yield potential. However, a sizable amount of land along the fringes of this erodible area is currently farmed. Accordingly, it is imperative for individual landowners, natural resource professionals, and local officials to work together to plan for responsible land management practices that reduce excess runoff, while still allowing for productive, profitable farm operations to be maintained.

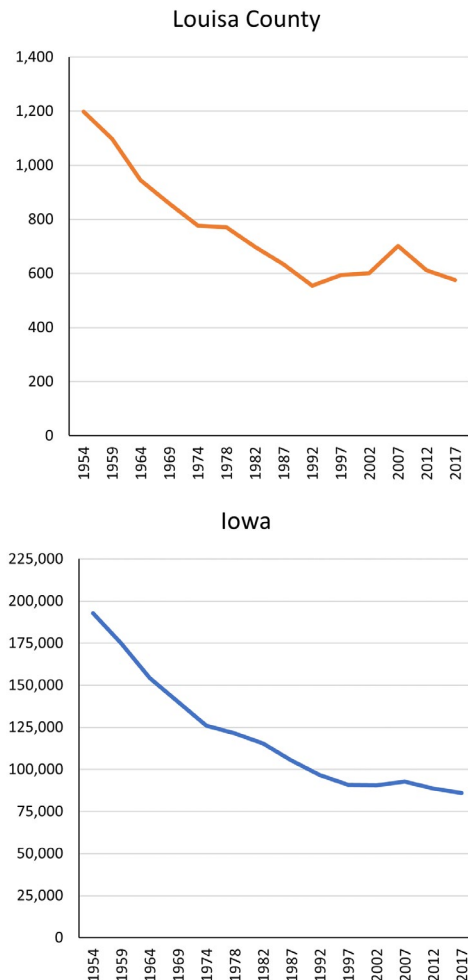
Louisa County - Soil Erodibility



Total Number of Farms

The Census of Agriculture is conducted by the U.S. Department of Agriculture every 5 years, and since 1982, this has always occurred in years ending in a '2' or '7'. Between 1954 and 1992, the total number of farms operating in Louisa County decreased by 53%. This is consistent with the statewide trend, as the total number of farms in Iowa decreased by 50% over that same period. Over the past 3 decades, the number of farms has remained relatively stable at both the state and local level.

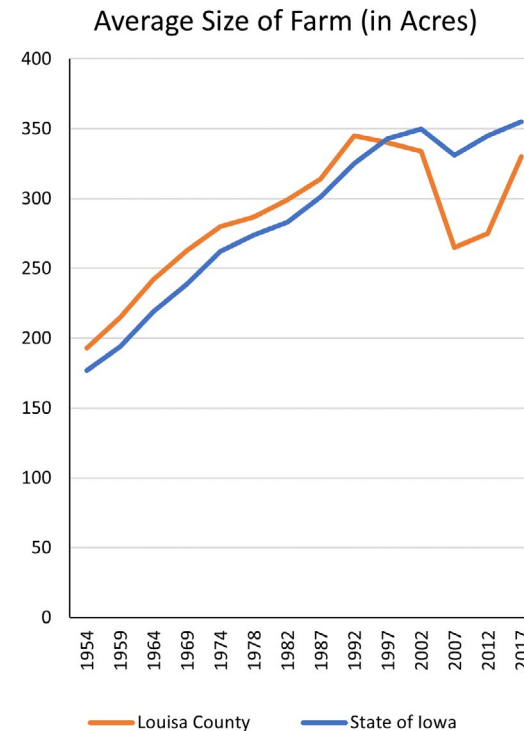
Total Number of Farms.



Source: US Department of Agriculture, Census of Agriculture

Size of Farming Operations

While the total number of farms has been decreasing over time, the average size of an individual farm has been steadily increasing. This is true for both Louisa County and the State of Iowa as a whole. However, between 2002 and 2017, the average size of a farm in Louisa County temporarily decreased by a substantial amount, before rising back up to where it was previously. As a result, for the first time, the average size of a farm is lower for Louisa County than Iowa as a whole. Over the full 63-year period, the average size of a Louisa County farm increased by 71% (from 193 acres to 330 acres), while the average Iowa farm doubled in size (101%). When compared with all 5 Iowa counties that border it, Louisa County has the largest average farm size, and this trend has remained consistent over the past 6 decades. A likely explanation for this is the presence of several major rivers and numerous tributary streams. This results in many farms containing sizable areas of non-farmed land, as a result of the terraces and buffer strips necessary to protect the farmland from storm water runoff issues.



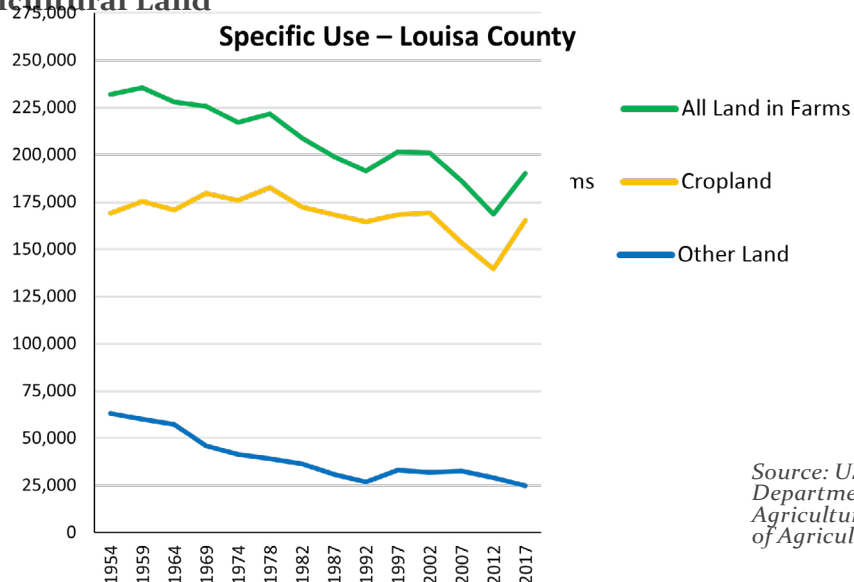
Source: US Department of Agriculture, Census of Agriculture

Acreage by Agricultural Use Type

The total acreage of land used for farming operations in Louisa County decreased by 18% between 1954 and 2017, going from 232,000 acres to 190,000 acres. This exceeds the trend for the State of Iowa, whose total farming acreage decreased by 10% over that same period. Notably, while there was a steep decline in acreage between 2002 and 2012, a significant rebound occurred between 2012 and 2017.

In terms of how the farmland is used, the amount of total cropland in Louisa County decreased by only 2% over that 63-year period, while the remaining acreage (used for livestock/pasture ground or other uses) decreased by 61% over that same period. While to a slightly higher degree, this trend is consistent with the statewide pattern, as more and more concentrated animal feeding operations take the place of traditional open pasture. Overall, in Louisa County, cropland increased from 73% of all farm acreage in 1954, to 87% in 2017.

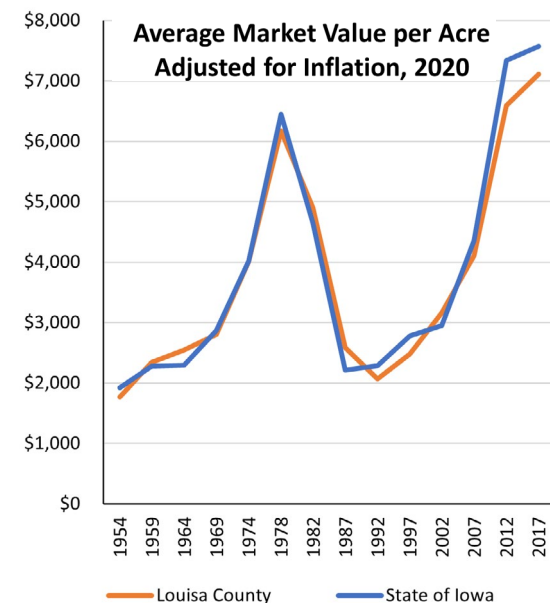
Value of Agricultural Land



Source: US Department of Agriculture, Census of Agriculture

In 2017, the average market value per acre of farmland in Louisa County was \$7,677 (adjusted for inflation). This represents 94% of the statewide average in Iowa (\$8,176). Compared to the 5 neighboring counties, Louisa's average value is lower than all but Henry County. However, all but one of those counties falls within a small range between \$7,200 and \$8,100. The exception is Johnson County, where urban growth pressures around Iowa City have resulted in a value above \$9,000.

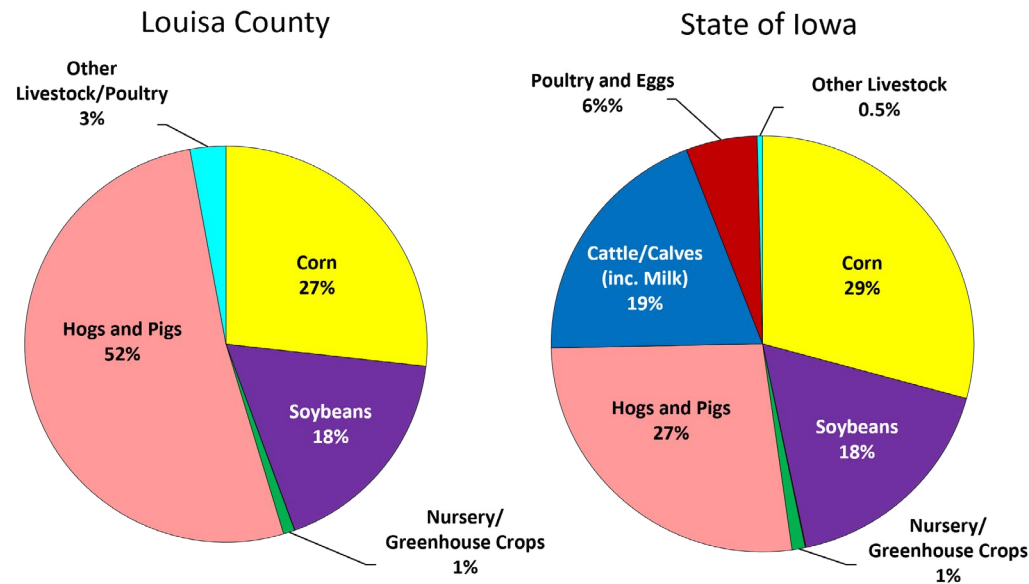
Over time, Louisa County's average value has largely kept consistent pace with the State as a whole, although the trendline shows that the two have switched places several times over the years. The graph below, which takes inflation into account, illustrates the dramatic impact of the Farm Crisis in the early 1980s, which produced a steep drop in value between 1978 and 1987. After briefly leveling off, an equally dramatic increase occurred between 2002 and 2012. The 2017 values suggest that the trend line is leveling off once again, at a level higher than it was at the peak just prior to the Farm Crisis.



Sales of Agricultural Commodities

The Census of Agriculture includes data on the market value of agricultural products that were sold during the Census year. In Louisa County, a total of \$205 million in agricultural products were sold in 2017. This is a higher value than all other neighboring counties except Johnson and Washington. When broken down by individual product type, it is clear that Louisa's comparatively high value is due in large part to its hog farming operations. 'Hogs and Pigs' accounted for just over half (52%) of the County's total ag sales in 2017. Statewide, hogs accounted for just over 25% of the total. However, Louisa County has a considerably lower share of its sales accounted for by Cattle/Dairy and Poultry/Eggs. This is largely a factor of geography, due to hog farming being prominent in southeastern Iowa, while cattle is more prominent in the western part of the state.

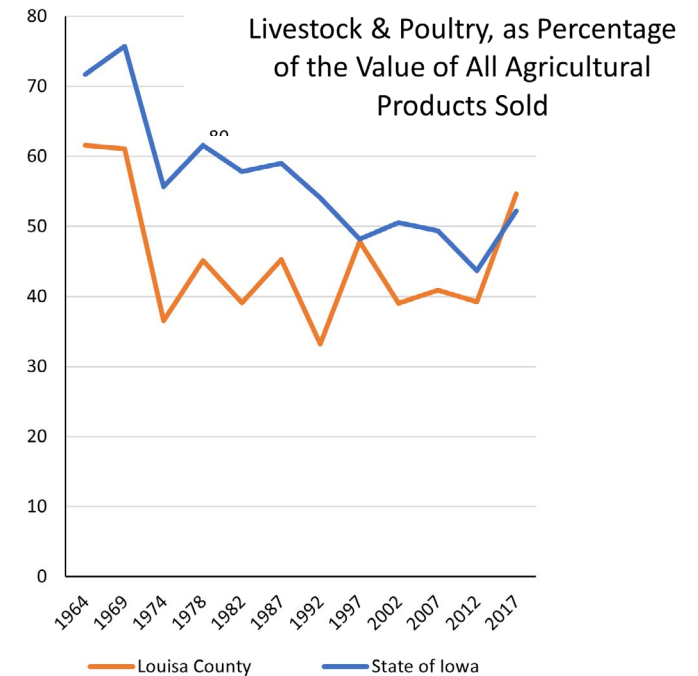
Percentage of Total Market Value by Specific Agricultural Products, 2017



Note: For Louisa County, 'Other Livestock' includes Cattle and Poultry, as those individual categories were not broken out for this county by the Census of Agriculture in 2017. Source for both graphs: US Department of Agriculture, Census of Agriculture

Despite the higher share accounted for by hog farming in Louisa County, the percentage of sales from corn and soybeans is largely the same as it is at the state level. This is due to the fact that the total for all livestock (hogs, cattle and poultry combined) is actually about the same for both. In terms of total dollar amount, however, Louisa County's crop sales are lower than all neighboring counties except Des Moines. This can be explained by how active cropland takes up a comparatively small share of the county's land area, due to the abundance of rivers, streams, wetlands, and steep, wooded terrain.

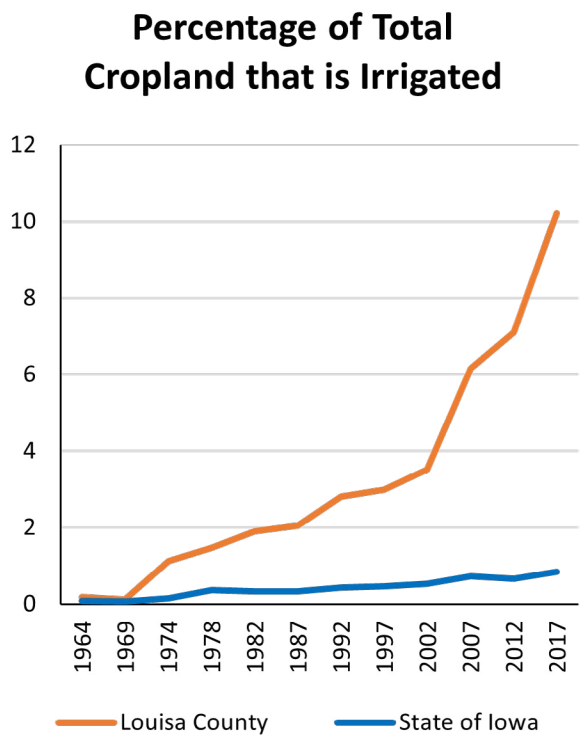
The influence of hog farming has increased over time. From 1974 to 2012, livestock tended to account for roughly 40% of the total value of agricultural products sold. At the same time, there was a downward trend at the state level. Then between 2012 and 2017, the percentage for both the state and Louisa County increased sharply. This reflects a regional trend as the number of concentrated feeding operations for hogs has grown rapidly over the past decade (to an especially high degree in neighboring Washington County). As a result, the percentage of Louisa County's sales accounted for by livestock and poultry exceeded the State's percentage for the first time in 2017.



Irrigation and Farmland

The use of irrigation for agricultural crops is relatively uncommon in Iowa, due to the abundant level of rainfall on a regular basis. However, in the bottomland areas along the Mississippi River, irrigation has become much more common in recent decades, particularly for the purpose of growing specialty crops that are not otherwise well suited to the area’s climate, such as melons. Combined with the area’s fertile alluvial soils, and the protection provided by levee systems, irrigation has enabled an especially strong output of crops in this part of the county.

The amount of irrigated land in Louisa County has steadily increased since the 1960s – at a far faster rate than in Iowa as a whole. Growth has been especially sharp in the past two decades, as the irrigated acreage increased by threefold over that period (from 6,000 acres to 17,000). During that same time, irrigated land increased from 4% of the county’s total cropland to 10%. While Iowa’s overall percentage has also increased over time, it was still much lower in 2017, at just under 1%. In neighboring Muscatine County (which includes the northern half of Muscatine Island), the figure was 5.5%, while in Des Moines County, it was 3%.



Selected Agriculture Statistics for Louisa and Neighboring Counties, 2017

	Total Number of Farms	Average Size of Farm (Acres)	Total Farmland (Acres)	Irrigated Land (Acres)	Market Value per Acre	Agricultural Product Sales (in millions)	
						Crops	Livestock
Louisa County	576	330	190,019	16,901	\$6,631	\$93.4	\$112.5
Des Moines County	593	295	174,662	4,543	\$6,910	\$87.5	\$20.8
Henry County	908	288	261,841	9	\$6,267	\$104.5	\$73.3
Johnson County	1,257	242	304,239	949	\$8,037	\$143.4	\$76.3
Muscatine County	714	307	219,283	10,396	\$6,720	\$103.4	\$82.0
Washington County	1,129	275	310,445	274	\$6,889	\$137.5	\$534.4

Source: US Department of Agriculture, Census of Agriculture



Hazard Mitigation

Hazard mitigation is defined as “any sustained action taken to reduce or eliminate the long-term risk to human life and property from natural hazards and their effects”. When a community plans for possible hazards and incorporates mitigation strategies into their policies, it is more resilient and better able to recover if prepared for when a major disaster occurs.

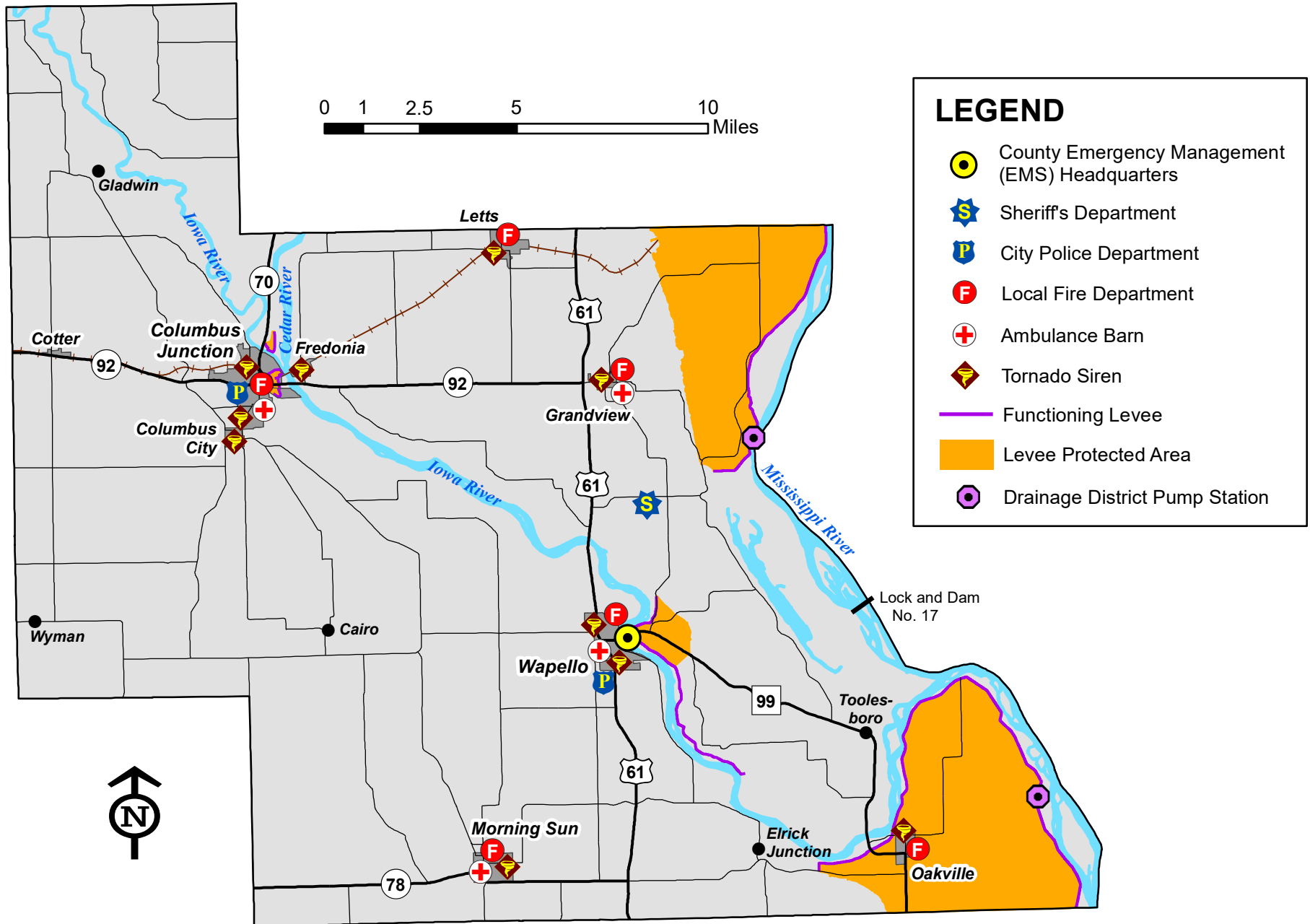
Hazard Mitigation Infrastructure

The map on the next page highlights the location of important building facilities and other infrastructure that is critical for protecting public safety during a natural or man-made disaster that affects the county. There are ten tornado sirens, geographically distributed throughout the communities so that the sound is readily heard throughout the county. All tornado sirens are within the City limits of Columbus City, Columbus Junction, Letts, Grandview, Wapello, Oakville, Fredonia, and Morning Sun. The population centers of the county such as Columbus Junction and Wapello have an ambulance barn, city police departments as well as local fire departments within their city limits. However, smaller communities like Letts and Oakville have only fire departments within their city limits and rely on county sheriff’s department and ambulance barns in the neighboring communities in case of a disaster. Morning Sun has an ambulance barn in addition to a local fire department.

Areas located along the Mississippi River in Louisa County as well as along the Iowa River, Cedar River, and streams are most vulnerable to flooding. These areas include the communities of Columbus Junction, Columbus City, Fredonia, Oakville, and Wapello. This is about 42% of the population of Louisa County (2010 US Census) in cities that reside near a levee system or could be affected by a levee failure. Additionally, there are rural residents that could also be affected. Levee Districts are established as a mitigation response for these communities and are highlighted on the map along with two drainage district pump stations.



Louisa County - Hazard Mitigation Resources



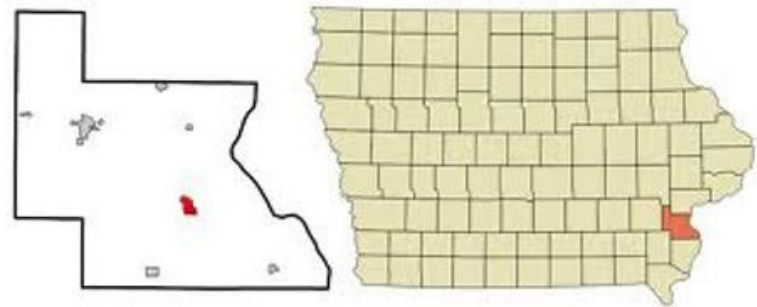
Louisa County Hazard Mitigation Plan

In 2019, Louisa County prepared a countywide Hazard Mitigation plan. The purpose of this plan is “to engage public officials, citizens, and local leaders in a planning process that will be helpful to formulate strategies to address the hazards faced by the community. Information collected during the process is used “to identify ways to reduce the effects that disasters have upon residents, property, and resources.” By preparing such a plan, the county is eligible for grant funding assistance from the Federal Emergency Management Agency (FEMA), through its Hazard Mitigation Grant Program (HMGP). It is further required by FEMA that the plan be reviewed, updated (as necessary), and submitted for re-approval every 5 years, in order to remain eligible for this funding.

The table on the next page represents the results of an analyses from the Louisa County Hazard Mitigation Plan, where the level of risk for 19 individual hazards was determined and compared with one another. The hazards are listed in rank order, based on its likelihood of affecting Louisa County in any given year. Several individual factors are taken into account, including probability of occurrence (based on historical incidence and natural vulnerability), its potential magnitude and severity, warning time in advance of its occurrence, and how long it lasts (duration). The final score represents a weighted average of each of these factors. Group 1 represents those hazards that are most likely to occur in Louisa County in any given year, and should thus receive the most attention in terms of active mitigation efforts within Louisa County.

The results of this analysis indicate that hazards common in Louisa County are weather-related natural disasters, while human and animal-caused incidents generally fall much lower on the list. Levee failure are the most likely hazard to impact the county, while windstorms, river flood, severe winter storm, and other severe storms have a strong to moderate likelihood of occurring.

LOUISA COUNTY MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN



Hazard Ranking

Rank	Hazard	Probability	Magnitude/ Severity	Warning Time	Duration	Total Score
1	Levee Failure	.9	2.4	.45	.4	4.15
2	Windstorm	1.8	1.2	.6	.1	3.7
3	River Flood	1.8	1.2	.15	.4	3.55
4	Severe Winter Storm	1.8	.6	.45	.4	3.25
5	Flash Flood	1.8	.6	.6	.1	3.1
6	Hailstorm	1.8	.6	.6	.1	3.1
7	Hazardous Materials	1.8	.6	.6	.1	3.1
8	Thunderstorm & Lightning	1.8	.6	.6	.1	3.1
9	Structure Fire	1.8	1.2	.6	.1	3.1
10	Transportation Incident	1.8	.3	.6	.3	3.0
11	Grass/Wildland Fire	1.8	.3	.6	.1	2.8
12	Tornado	.9	1.2	.6	.1	2.8
13	Animal/Plant/ Crop Disease	.45	1.2	.6	.4	2.65
14	Drought	1.8	.3	.15	.4	2.65
15	Terrorism	.45	1.2	.6	.4	2.65
16	Active Shooter/ School Violence	.45	1.2	.6	.1	2.35
17	Human Disease	.45	1.2	.3	.4	2.35
18	Infrastructure Failure	.45	1.2	.3	.4	2.05
19	Dam Failure	.45	.3	.45	.3	1.5

Source: Louisa County Multi-Jurisdictional Hazard Mitigation Plan, 2019.

Flood Risk and FEMA Floodplain

With river floods identified as a significant hazard for Louisa County, it is important to understand the degree of impact that flooding could be expected to have on Louisa County. FEMA produces Flood Insurance Rate Maps (FIRMS), to support the National Flood Insurance Program (NFIP). These maps indicate the likelihood of flooding in a given area.

The Federal Emergency Management Agency classifies all land within a county as being in one of several flood zones, which in Louisa County includes Zones A, AE, AH, and X. For all except Zone X, there is a 1% chance of flooding in any given year. These are more commonly known as ‘100-year floodplains’, and they also constitute the ‘Special Flood Hazard Areas’ where local jurisdictions are responsible for enforcing floodplain development regulations. Zones A and AE include the full width of individual rivers and streams, along with lands at low elevation on either side of the stream, which become submerged during flood events. Zone AH is found along minor tributaries and drainageways, within areas that are otherwise protected by an accredited levee from the main river’s floodwaters (commonly known as a ‘shallow flooding area’).

In total, Special Flood Hazard Areas account for 25% of the total land area of Louisa County (or about 102 square miles). When the main channels of the Mississippi, Iowa, and Cedar Rivers are excluded from the total, the remaining Special Flood Areas account for 22% of the land area (or about 87 square miles). This includes a wide area of low-lying terrain along the Iowa and Cedar Rivers, along with the Port Louisa and Lake Odessa areas along the Mississippi River, which are not protected by a levee. It also includes a sizable area of flat terrain near the northwest corner of the county, where Richey Creek empties into the Iowa River (including the Cone Marsh Wildlife Management Area). Overall, about 45% of the Special Flood Hazard Areas are comprised of public conservation land or the main channels of the 3 major rivers. Only the remaining 55% (about 57 square miles) is privately owned.

Finally, there are numerous, considerably narrower floodplains that follow the many creeks and minor streams within the interior of the county. In comparison to the other Special Flood Hazard Areas, most of these have never been subject to permanent development such as homes and businesses. This is typically due to either the steep terrain along many of these streams, or their presence within an area primarily devoted crops or livestock pasture.

Zone X includes three separate categories of land – the majority is accounted for by areas classified as being of ‘minimal flood hazard’. This does not mean that flooding will never be possible in this areas – rather, that any flooding that does occur will be comparatively minimal in terms of height and duration (i.e. ‘flash floods’). The Special Flood Hazard Areas, in contrast, are expected to have a sustained presence of water – whether flowing or stationary – during a major flood event. The area where it is expected to be actively flowing is called a ‘floodway’, while the area outside that where it is more likely to be stationary or slow-moving is called the ‘flood fringe’.

Another sub-category of Zone X is areas where there is a 0.5% chance of flooding in any given year, otherwise known as a ‘500-year floodplain’. These areas are at risk for the same type of flooding impact, but on a far less frequent basis, due to their comparatively high elevation. In Louisa County, there are relatively few of these, as the terrain tends to be very steep at the edges of the 100-year floodplains, transitioning directly from a ‘Special Flood Hazard Area’ into an ‘area of minimal flood hazard’. A notable concentration of 500-year floodplains is along the Iowa and Cedar Rivers by Columbus Junction and Fredonia.

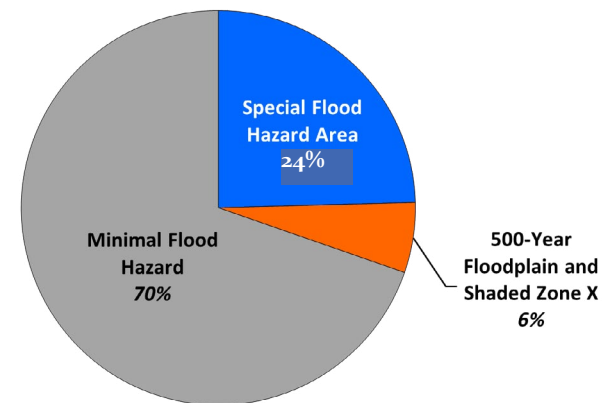
Flood Risk and FEMA Floodplain

The final subcategory of Zone X is commonly referred to as 'shaded zone X', based upon the way these are typically depicted with a shading pattern on FEMA's official maps. This refers to areas that, under natural conditions, would constitute a 100-year floodplain, but are sufficiently protected from flood risk by an accredited levee system. As previously mentioned, portions of the area behind the levee still have sufficient risk of 'shallow flooding' from tributary streams, and are thereby classified a Special Flood Hazard Area (Zone AH). Louisa County has about 24 square miles of land in Shaded Zone X, and another 15 square miles in Zone AH, which combined account for 9% of the county's total land area. This is accounted for by the flat bottomland areas in the Two Rivers and Muscatine Island Levee & Drainage Districts. This includes the entirety of the City of Oakville, while the remainder of these areas is unincorporated.

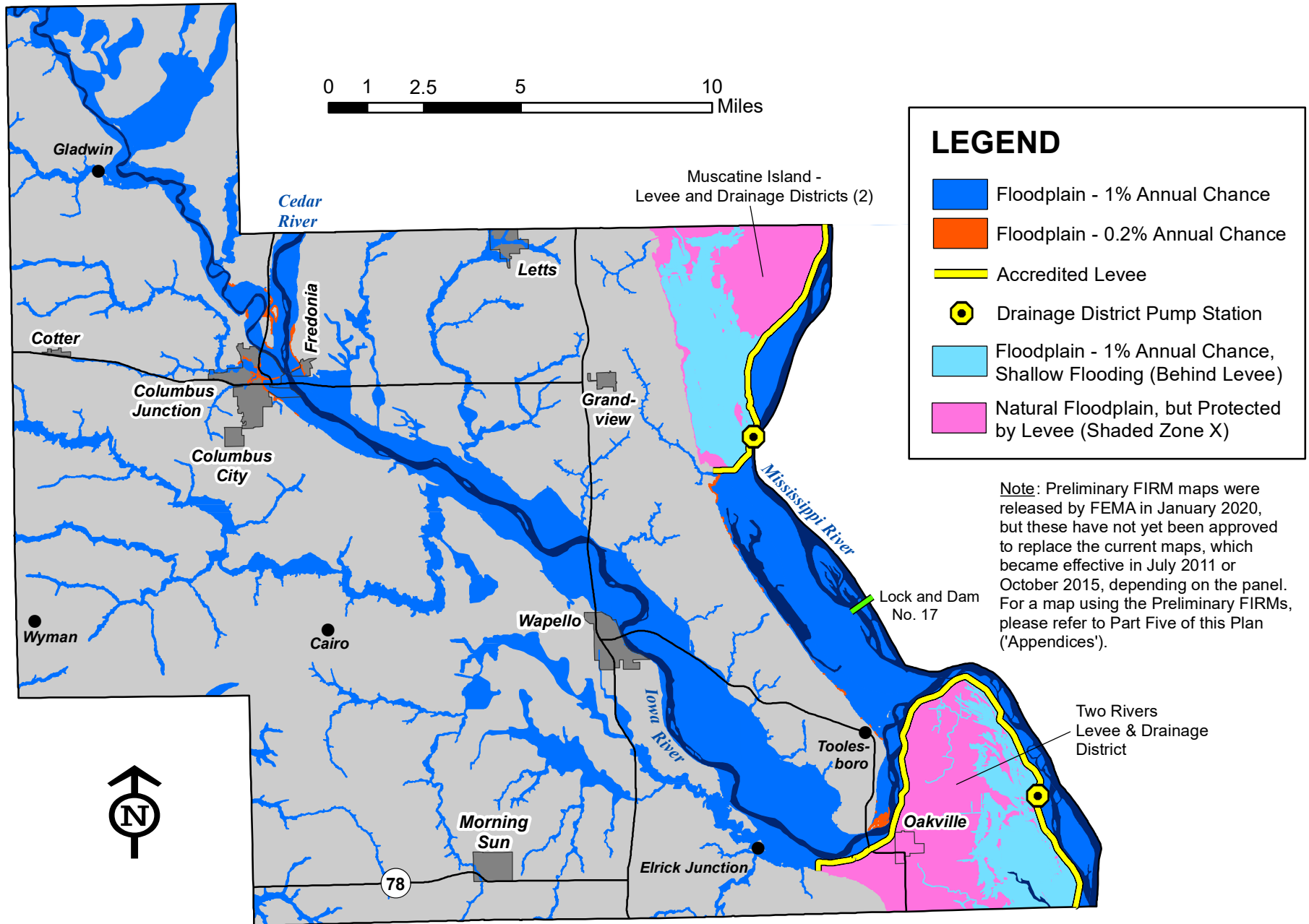
When the previous two subcategories of Zone X are combined with the Special Flood Areas, this comprises 30% of the total land area of Louisa County (or 28% if the main river channels area excluded). As a result, Louisa has the highest such percentage of any county in Iowa. This is a direct result of the county's unique geographical context, at the point where 3 major rivers (and numerous smaller tributaries) converge.

30% of Louisa County's total land area is classified as floodplain, regardless if they are protected from flood risk by an accredited levee system or not. As a result, Louisa County has one of the highest such percentages of all Iowa counties.

Louisa County - Percentage of Land in Floodplains



Louisa County Effective Floodplains (FEMA)



Levee Systems and Drainage Districts

Louisa County contains several areas that fall under the jurisdiction of Levee and Drainage Districts. Levee Districts are responsible for the maintenance of man-made levee systems, for the purpose of protecting life and property (land, buildings, etc.) in the low lying areas that the levees protect from river flooding. Drainage Districts are responsible for maintaining an efficient drainage system that collects and empties surface drainage and storm water within the area protected by the levees. This is accomplished by a series of formal drainage channels that circulate the water toward a pump station along the levee, where it is pumped out and discharged into the river. Several of the levee and drainage districts cover a comparatively small area, involving levees that are not accredited by FEMA, and which primarily serve to protect farmland in flat, low-lying areas along the Iowa River and its tributaries. Two large areas of the county are protected by accredited levee systems along the Mississippi River – Two Rivers and Muscatine Island.

The Two Rivers Levee and Drainage District comprises a total of 450 square miles of land, with about 1/3 of this area in Louisa County, and the remaining 2/3 in Des Moines County. Its territory stretches about 25 miles from north to south along the Mississippi River, between its confluence with the Iowa River and Burlington. The district office is located in the unincorporated town of Kingston in Des Moines County, and it is split into 3 main sections by its two largest internal drainage channels. The entirety of its land in Louisa County lies in the north section, to the north of the Hawkeye-Dolbee Channel in far northern Des Moines County. The district contains several pump stations, including one in Louisa County, to the northeast of Oakville. As with those in the Muscatine Island District, the ‘shallow flooding areas’ on FEMA’s floodplain maps are concentrated within the lowest-elevation areas of the district, branching out from the location of each pump station.

The District contains a total of 51 miles of levees, with 15 miles located in Louisa County. At the confluence of the Iowa and Mississippi Rivers, the levee turns west/southeast to follow the Iowa River for 7 miles, before terminating near County Road H22 about 2 miles west of Oakville. Oakville is the only incorporated city within the Two Rivers Levee and Drainage District, and the remainder of its territory in Louisa County is

comprised almost entirely of crop farmland, with the exceptions being some wetland areas, a few scattered homes, and a handful of river cabins along the Iowa Slough.

The Two Rivers area was once served by two separate districts (one for Levees and one for Drainage, but these were consolidated several years after the 1993 flood. In the Muscatine Island area, the two districts remain separate, and the geographic areas comprised by each are not entirely the same.

The Muscatine Island Levee District contains a total of 14 miles of levees, with 8 miles located in Louisa County. The levee system projects nearly 50 square miles of land, with about 40% of this area in Louisa County, and the remaining 60% in Muscatine County. Its territory stretches about 12 miles from north to south along the Mississippi River, from the south side of Muscatine to Port Louisa. It does not contain any municipalities in Louisa County, although the Muscatine County portion includes Fruitland and a portion of Muscatine. A number of unincorporated residential areas are located within the Louisa County portion. Almost all of the remaining land in Louisa County is farmland, with a few scattered homes in the agricultural areas. The Louisa Generating Station is technically outside the direct protection of the levee, as it is positioned at higher elevation on a natural feature called the ‘Big Sand Mound’. There is a pump station in Louisa County, near the south end of the District, just north of an area of river cabins on 135th Street.

Having the two districts remain separate creates several challenges in terms of governance. First, the jurisdiction of the Drainage District is considerably smaller than that of the Levee District. As a result, a number of property owners that benefit from the functions of the Drainage District do not fall under its taxing authority, and this often creates budgetary challenges when infrastructure improvements are needed (such as upgrades to aging equipment at the pump station). Over the years, several attempts at consolidation have been made, but these have always failed. Also, the existence of two separate Boards of Directors, which makes overall operations inefficient. Having the two consolidated would allow them to hire a full-time administrator (the same as Two Rivers has), rather than relying on part-time secretaries for the two separate districts.



Mitigation Strategies

Being well aware of the history and probability of future river flooding and levee failures, Louisa County has implemented several mitigation measures to reduce the risk of losing lives of its residents and property damage. One such example is the Oakville Breach Armoring project that was recently designed to reinforce and protect a large section of main stem levee along the Iowa River at Oakville from wave action and erosion particularly during future high water events. A significant portion of the original levee was lost during the record high flood of 2008 on the Iowa River. The new levee was setback away from the river and constructed by the Corps in 2010.

Funding for this armoring project came from the Community Development Block Grant funding left over from the unused flood buyout monies from the 2008 flood that were previously allocated to Louisa County, and more specifically, Oakville, Iowa. The owner was required to provide a financial match to meet the requirements of the CDBG grant. The design and permitting for the project were completed in 2013, and the construction was initiated and completed in 2014. This project was part of a larger levee improvement project along the Iowa River near Oakville as a result of the damage done during the 2008 flood.

Another such example of Louisa County's mitigation actions is Highway X99 Oakville Bridge that was built following the Iowa River flooding in 2008. For this project, Louisa County used Economic Development Administration funding to construct a new crossing over the Iowa River on County Road X99. The crossing is an important crossing for area residents and the farming community. The river is also paralleled by a levee system that protects adjacent farmland for flood frequencies up to the 100-year event.

The 100-year flood discharge is estimated to be 124,000 cubic feet per second. In addition to evaluating a proposed bridge length, the roadway and bridge profile were raised to conform to the levee profile and revisions were made to the approach roadway and a nearby roadway intersection. The bridge is a pretensioned, prestressed concrete beam bridge with a total length of 1,159 feet and having 8 spans.

Additionally, Louisa County has a floodplain ordinance in place (last amended in 2011). The ordinance is accessible to the public online on Louisa County's website. The purpose of the floodplain ordinance is to:

- reserve sufficient floodplain area for the conveyance of flood flows so that flood heights and velocities will not be increased substantially
- protect individuals from buying lands which are unsuited because of flood hazard
- protect public utilities against flood damage at the time of initial construction
- assure that property owners in the county remain eligible to purchase flood insurance through the National Flood Insurance Program.





PART THREE:

County Themes, Goals & Objectives



ECONOMIC PROSPERITY

Goal 1: Strong Education and Workforce Development

Goal 2: Development friendly conditions

Goal 3: Leverage local assets

Goal 4: Foundation of Sustainability

EMBRACING COMMUNITY

Goal 5: Shopping, service, and employment destination

Goal 6: Multi-jurisdictional cooperation

Goal 7: Downtown development

RESILIENT INFRASTRUCTURE & SERVICES

Goal 8: Efficient quality roadway network

Goal 9: Regional transportation connections

Goal 10: Modernized facilities and utility systems

QUALITY HOUSING

Goal 11: Infill and neighborhood enhancement

Goal 12: Housing options

Goal 13: Community and regional partnerships

QUALITY OF LIFE

Goal 14: Quality of life enhancements

Goal 15: Recreational trails options

Goal 16: Dynamic parks and recreation spaces

Using The Plan: Themes, Goals and Objectives

Themes, Goals and Objectives

The plan consists of 16 goals organized by 5 key themes - economic prosperity, embracing community, resilient infrastructure and services, quality housing, and quality of life.

Theme 2: Embracing Community

GOAL 5 Shopping, Service, & Employment Destination

- Work on targeted recruitment efforts for a grocery store and other types of retail businesses that are currently under-represented in the county.
- Promote entrepreneurship as a tool for filling gaps in the demand for local retail services.
- Provide marketing assistance and greater opportunities for professional collaboration between immigrant business owners, to strengthen the prosperity of these businesses and broaden their customer base outside the local population.

GOAL 6 Multi-Jurisdictional Cooperation

- Identify and pursue opportunities for partnerships and the sharing of services between multiple cities and rural areas within the county.
- Promote and facilitate programs that allow for the sharing of resources (programs, staff and equipment) between the individual school districts in the county.
- Ambulance service - Develop countywide coalitions, work towards tax for cost of services
- Seek to expand the provision of materials and services for limited-English speaking populations, through collaboration between the county and individual cities and school districts.

GOAL 7 Downtown Development

- Encourage the rehabilitation and reoccupation of downtown buildings for commercial activities that serve the needs of both local residents and visitors/tourists.
- Pursue the creation of National Historic Districts for downtown Columbus Junction and Wapello.
- Incentivize property owners for the active reoccupation of downtown buildings, including underutilized upper-story space for housing units.



Theme. The theme that is being referenced will always be in the upper left-hand corner of the page.

Goal. The goals describe the future condition of the county. These will be referenced in the color of their respective themes.

Objective. The full objective will be listed under goal to provide recommended action to achieve a measurable desired outcome.



Theme 1

ECONOMIC PROSPERITY

Economic health and stability is an essential component of community success, growth, and quality of life. It influences all other aspects of life in the community, and contributes greatly to how the county is perceived, by locals and visitors alike. Louisa County residents recognize the present, ongoing challenges that the county faces, and are anxious for a positive change. Certain, specific actions are necessary to make this a future reality, involving everything from brick-and-mortar projects to new education initiatives and more proactive investments in human capital.

GOAL

1 Foundation of Sustainability

- Actively market Louisa County as a hub of renewable energy activity, using the Wapello Solar Farm as a centerpiece.
- Adopt the use of solar and other renewable technology for County and other public buildings, vehicles and infrastructure.
- Incentivize farmers and other landowners to adopt conservation practices that reduce storm water runoff and flooding at downstream locations.
- Encourage the utilization of private land in flood-prone areas for passive recreation purposes such as hunting, fishing, hiking, or ATV riding.
- Facilitate commercial operations that involve the direct sale of local agricultural products.

GOAL

2 Development Friendly Conditions

- Coordinate with cities and facilitate the targeted annexation of land at high traffic locations for commercial and industrial development.
- Coordinate with Canadian Pacific Kansas City and local industries to promote and facilitate rail-compatible development along the existing rail corridor, including industrial/manufacturing operations as well as multi-modal freight transloading facilities.
- Pursue the active acquisition of land by the Louisa Development Group, to be set aside for a future business park.
- Identify readily accessible locations and work with landowners to facilitate the development of rural housing on priority tracts with timber and marginal farmland.
- Pursue the targeted promotion of Louisa County and its existing assets in population centers within commuting distance such as Iowa City/Cedar Rapids and the Quad Cities.

GOAL

3 Leverage Local Assets

- Pursue travel-oriented and local retail development at the new interchanges for the expanded four-lane Highway 61.
- Facilitate the extension of rural water service from nearby providers into Louisa County, and target development activity to properties adjacent to new water lines.
- Develop a county-wide marketing campaign that centers on the county's plentiful historical and natural resource assets.
- Encourage the nomination of additional buildings and districts to the National Register of Historic Places (NRHP), and pursue the rehabilitation of and improved signage/visibility for these and the county's existing HRHP properties.
- Promote and facilitate greater utilization of the Iowa, Cedar and Mississippi Rivers for recreation purposes, particularly for visitors to the community.

- Encourage adaptive reuse activities for old school, church and commercial buildings to be reoccupied as housing units, commercial space, or a mixture of both.

GOAL

4 Strong Education and Workforce Development

- Conduct direct outreach with representatives of the local workforce, to identify priority industry sectors for employer recruitment, expansion, and catalyst activity.
- Establish a program/initiative to promote and expand entrepreneurialism among the local population.
- Provide additional workforce training opportunities for high school and college-age residents in the community.
- Increase the level of interaction between major employers and local school districts, to introduce students to local opportunities at an early age.



Theme 2

EMBRACING COMMUNITY

Community represents more than a generic name to refer to place on the map, or the government institution that serves the local residents. It encompasses the entire atmosphere of living in that place, alongside others with commonly held values and priorities, despite personal differences in background, professional status, and hobbies/lifestyle preferences. It also represents the physical environment of buildings, trees, landscapes, and waterways that give a place its own unique identity. A county that acknowledges and embraces this unique identity – to locals and outsiders alike – is one which has the resilience necessary to respond to and persevere through unforeseen future challenges without altering its fundamental character.

GOAL

5

Shopping, Service, & Employment Destination

- Work on targeted recruitment efforts for a grocery store and other types of retail businesses that are currently under-represented in the county.
- Promote entrepreneurship as a tool for filling gaps in the demand for local retail services.
- Provide marketing assistance and greater opportunities for professional collaboration between immigrant business owners, to strengthen the prosperity of these businesses and broaden their customer base outside the local population.

GOAL

6

Multi-Jurisdictional Cooperation

- Identify and pursue opportunities for partnerships and the sharing of services between multiple cities and rural areas within the county.
- Promote and facilitate programs that allow for the sharing of resources (programs, staff and equipment) between the individual school districts in the county.
- Develop countywide coalitions to work towards a countywide tax for cost of ambulance services.
- Seek to expand the provision of materials and services for limited-English speaking populations, through collaboration between the county and individual cities and school districts.

GOAL

7

Downtown Development

- Encourage the rehabilitation and reoccupation of downtown buildings for commercial activities that serve the needs of both local residents and visitors/tourists.
- Pursue the creation of National Historic Districts for downtown Columbus Junction and Wapello.
- Incentivize property owners for the active reoccupation of downtown buildings, including underutilized upper-story space for housing units.





Theme 3

RESILIENT INFRASTRUCTURE AND SERVICES

Infrastructure forms the backbone of a community – a necessary support structure for all economic, social, and recreational activity. It is widely recognized that Louisa County and its communities face substantial challenges in expanding and maintaining its infrastructure, including streets, water, sewer, cellular, and broadband services. However, with a targeted, structured focus on the most critical elements needing services, the county can go a long way in showing its citizens that it values the safety and well-being of providing quality services to all of its citizens.

GOAL

8

Efficient, Quality Roadway Network

- Work with Canadian Pacific Kansas City and local municipalities to pursue opportunities for replacing at-grade railroad crossings with a bridge crossing or underpass , with an emphasis on prioritizing connectivity for business employees and suppliers (ie. Columbus Junction/Highway 92 near the Tyson Foods plant).
- Pursue enhanced roadway connectivity in the northwest portion of the county such as a bridge over the Iowa River and/or the extension of paved roadways to connect with Johnson and Washington Counties.
- Coordinate with the Iowa Department of Transportation on improving the efficiency of maintenance for state and county roadways.
- Pursue surfacing upgrades for the roadways accessing State and Federal recreation areas within the county.
- Pursue surfacing and related improvements that will preserve the performance and longevity of certain roads in the northwest part of the County that are routinely used for natural gas shipment, storage and processing activities.
- Work with local communities to monitor heavy truck traffic and identify opportunities for redirecting such traffic away from local streets when preferred alternatives are available.

GOAL

9

Regional Transportation Connections

- Identify local roadway segments that would be expected to carry increased traffic volume as a result of their connectivity with the new 4-lane Highway 61, and perform targeted upgrades to reduce the long-term maintenance burden.
- Conduct a feasibility study for a roadway connection across the Mississippi River to Mercer County, Illinois (bridge, ferry, etc.).
- Evaluate and pursue the development of a physical port on the Mississippi River, for direct transfer of freight between barge and truck.
- Work with the DOT to establish one or more park-and-ride facilities for commuters at Grandview, Wapello, or Newport.
- Pursue opportunities – both public and private – for alternative energy fueling stations along major highway corridors.
- Coordinate with neighboring counties to facilitate regional connectivity for recreational trail networks, including the Mississippi River Trail (MRT) and Hoover Nature Trail.

GOAL

10

Modernized Facilities and Utility Systems

- Work to extend rural water service into the county, to improve local quality of life and enhanced opportunities for growing the tax base.
- Pursue high speed broadband services to attract a young workforce that is able to work remotely.
- Invest in physical and technological improvements to help County facilities function more efficiently.
- Coordinate with Muscatine County and the Muscatine Island Levee and Drainage Districts to pursue critical flood control infrastructure upgrades and seek opportunities to improve the efficiency of the Districts' day-to-day operations.



Theme 4

QUALITY HOUSING

The issue of housing availability is an all-encompassing challenge that affects people of all backgrounds and household dynamics. To facilitate future economic prosperity and a vibrant social atmosphere, Louisa County must invest in multiple forms of new housing, as well as structural and aesthetic improvements to many existing homes.

GOAL

11

Infill and Neighborhood Enhancement

- Assist communities and private homeowners in pursuing funding assistance for rehabilitating older homes.
- Identify priority locations for new development or redevelopment within existing city neighborhoods, and create incentives for private owners to pursue such development.
- Work with Great River Housing, SE Iowa Housing Inc. to pursue infill development and the rehabilitation of older homes.
- Ensure incentives are available to assist in housing development (including Tax Incremental Financing or Tax Abatement) in areas identified for infill or new development.
- Utilize tools available (such as 657a of the Iowa Code) to acquire vacant and dilapidated properties to get them back into use.

GOAL

12

Housing Options

- Complete a housing needs assessment to determine housing demand, types, and price points most needed.
- Within the unincorporated areas of the county, rezone targeted tracts from Agricultural to Residential, to encourage outside investment in moderate-density housing at appropriate locations.
- Facilitate the construction of additional multi-family housing within cities, at locations with ready access to utilities.
- Pursue the development of additional housing for senior citizens, including assisted living units and apartments, at locations with ready access to businesses and community services.
- Promote the use of downtown upper-story space for housing units, to allow for better utilization of existing utility lines.

GOAL

13

Community & Regional Partnerships

- Work directly with regional partners, developers and real estate professionals to facilitate new housing development in the community.
- Work with local school districts and community college programs to establish home building as a hands-on training opportunity.





Theme 5

QUALITY OF LIFE

Local quality of life lies at the root of any successful development or revitalization strategy. In an increasingly mobile 21st century society, when residents aren't satisfied with the quality of life in their community, they can easily leave and choose somewhere else to live instead. Communities that actively pursue strategies to improve quality of life will grow and flourish, while those that don't will stagnate or decline. Efforts to enhance the economy of Louisa County must be accompanied by targeted improvements in recreational offerings, access to health care, and similar quality of life improvements..

GOAL

14

Quality of Life Enhancements

- Pursue 'Quiet Zone' status and associated roadway crossing safety improvements for communities along the Canadian Pacific Kansas City railroad corridor, to offset the anticipated increase in freight volume.
- Work with regional healthcare providers to enhance local access to medical care and services, particularly elderly and low-income residents.

GOAL

15

Recreational Trails Options

- Pursue the development of additional recreational trails on former railroad corridors, and prioritize connections between population centers and parks/recreation areas.
- Pursue an expansion of the existing Hoover Nature Trail, to connect Columbus Junction, Wapello and Morning Sun.
- Increase the visibility and attractiveness of existing trails through the establishment of formal trailheads and improved signage.
- Improve safety and accessibility for bicyclists along the Mississippi River Trail (MRT).
- Designate a series of public roadways as official ATV/UTV routes to create more awareness of specific identified routes for ATV/UTV use.
- Develop one or more off road ATV/UTV parks directly accessible from designated ATV/UTV designated roadways.

GOAL

16

Dynamic Parks and Recreation Spaces

- Enhance the quality and variety of amenities available within individual parks.
- Evaluate administrative changes that can boost the performance of the parks, while allowing for their continued efficient maintenance.
- Explore additional opportunities to utilize the Mississippi River as a recreation space, such as a public marina or docking options.





PART FOUR:

Future Land Use

FUTURE LAND USE

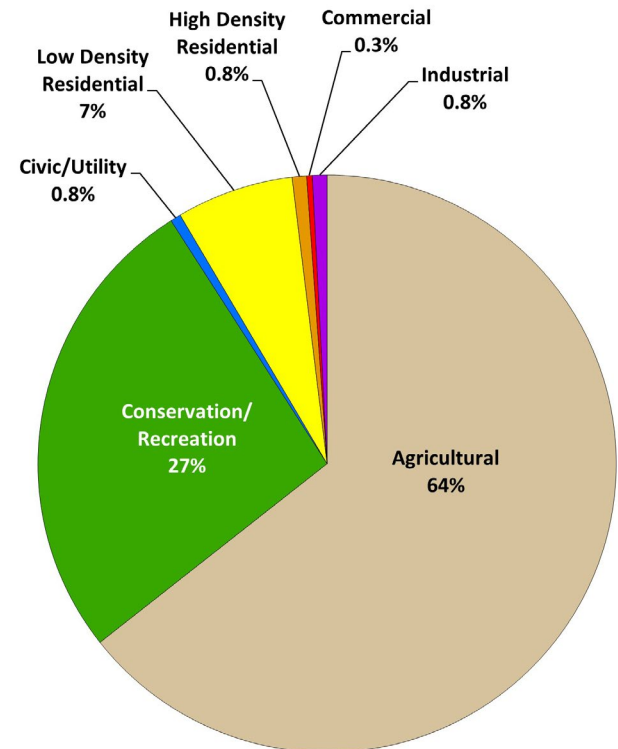
What follows is a map and written description outlining the desired future pattern of land use in Louisa County (targeted to 2040). However, the map should not solely be viewed as a cumulative objective (as in, every property should be developed as the map shows within 20 years). Rather, it shows the best use of each individual property, whether or not the collective sum of all such properties is a modest or practical objective. For instance, a sizable amount of presently undeveloped land is targeted for Low Density Residential use. The true likelihood of every such property being developed for homes in 20 years is very low. However, residential development of any individual property within these areas is desirable.

One practical application of this map is in consideration of the possible rezoning of certain properties. In some instances, a rezoning will be necessary in order to enable the type of development shown on the map. This is especially true of areas targeted for commercial or industrial development. In many other cases, however, new development would not require a rezoning. For example, low density residential development would often be compatible with the county's A-1 Agricultural zoning district, due to the large lot sizes and lengthy setbacks that are typical of such low density rural development. The same would not be true for the High Density Residential category.

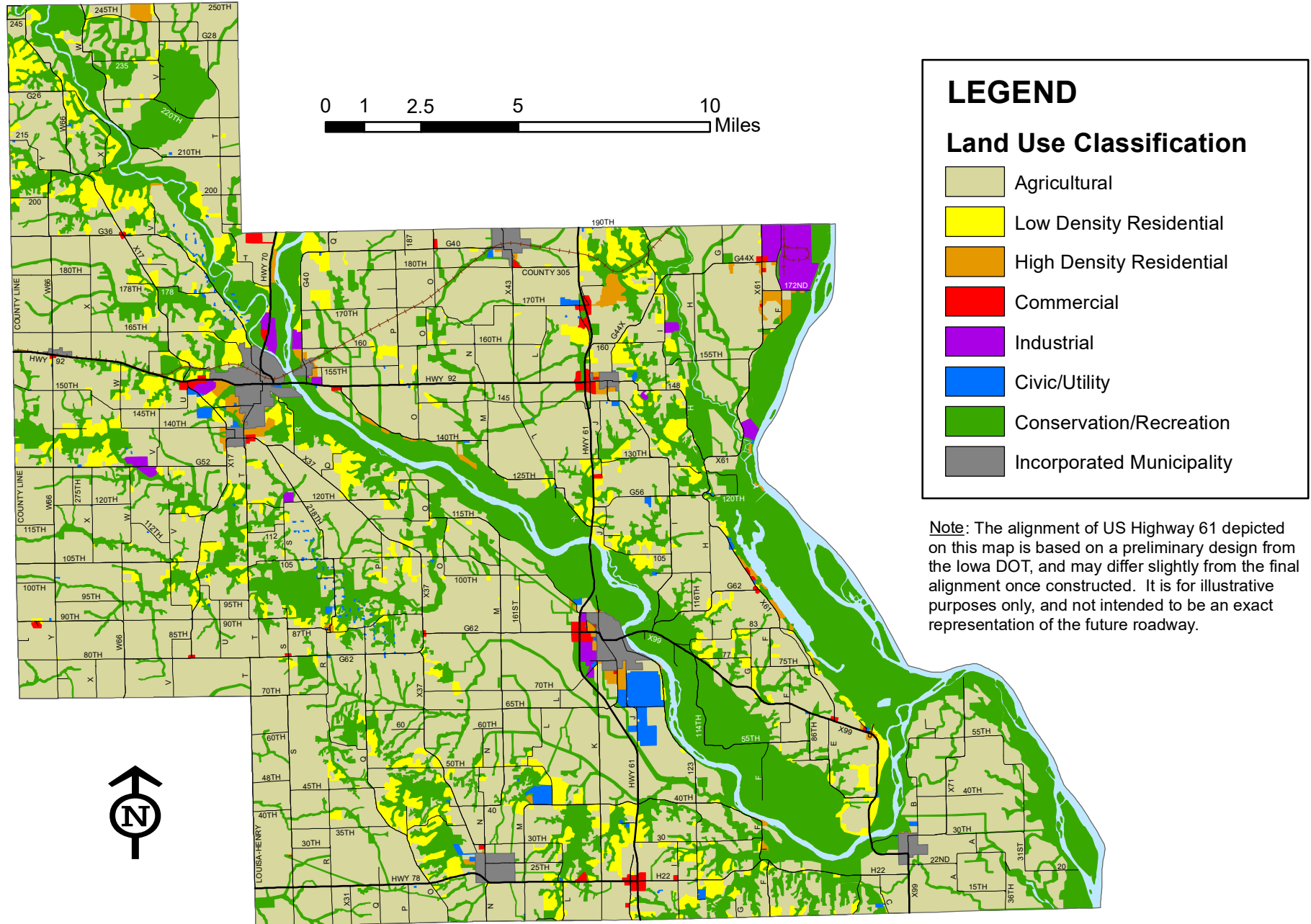
Another item to consider is the possible future annexation of unincorporated land by any of the 9 incorporated cities located in the county (or the immediately adjacent Fruitland in Muscatine County). The Future Land Use map includes all land in the county that is presently unincorporated. However, some of the classifications of land in the immediate vicinity of a city take into account the likely future annexation of that property.

A good example of this is the area of land between the current alignment of US Highway 61 and the planned future alignment west of Wapello. While presently unincorporated, this area, once physically separated from the farmland on the opposite side of the

highway, will become a logical and desirable location for commercial and industrial development. It may make sense for the City of Wapello to annex this area in order to provide utilities for that type of development. However, such development would have a strong positive impact for all of Louisa County, in terms of growing the tax base and creating jobs. Thus, this County Plan supports development of this character regardless of whether the property is annexed or remains in County jurisdiction at the time it occurs.



Louisa County - Future Land Use Map (2040)



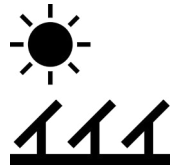
FUTURE LAND USE



Agricultural

On the Future Land Use Map, 64% of the total area is accounted for by Agricultural land. While this represents a decrease of 11 in physical size, the lands targeted for change to another use were carefully selected based on certain criteria, and do not represent a desire to see a tangible reduction in the role of agriculture in the county's economy or culture. Large contiguous areas of high quality farming soils should be retained for that purpose in the long term, as this represents the most logical and profitable use of that land.

Areas of present day farmland targeted for a different use were selected based on their ability to satisfy several criteria at once. Those criteria include Corn Suitability Rating (CSR), natural slope, flood risk, proximity to roads and incorporated cities, and the physical size of a contiguous piece of farmland. Accordingly, even if a given piece of land has a moderately high CSR, if it were only 10 acres in size, physically elongated and isolated from other nearby cropland, then it would make sense to target this land for either Conservation or Low Density Residential development.



Civic/Utility

The percentage of land in this category is the same on both the Current and Future Land Use Maps. Given the unique nature of the uses in this category (which all serve a distinctly public purpose), it is not appropriate to dictate which properties should and should not be used for this purpose in the future. It is likely that there will be demand to establish additional civic facilities or utility stations beyond those that are depicted on the map. However, it is impractical to try and prescribe where each such facility should locate.

For example, a sizable area of commercial or industrial development will likely necessitate the establishment of a new electric substation, in order to adequately serve the energy needs of the new development. Also, if a large new area of housing is developed (similar to the existing Golden Pond Subdivision), it can be expected that the residents may desire to set aside space for a park/athletic facilities, or possibly a church. Lastly, the Future Land Use Map should not be used to guide the location choice for developing additional solar energy farms, similar to the one located south of Wapello.



Conservation/Recreation

While the percentage of land devoted to Conservation/Recreation does increase, the amount of increase is comparatively quite minimal, going from 25 to 27%. This accounts for both existing Agricultural land targeted for this type of use, as well as existing private land in the category that is targeted for a different use (usually Low Density Residential). A number of areas within the regulatory floodway of the Iowa River are currently farmed, but the frequency of flooding makes it more practical for landowners to abandon the ag operations and enroll the land in the Conservation and Wetland Reserve programs.

Also, while quite a few farmers currently use conservation practices along minor streams and drainageways (such as buffer strips and CRP easements), there are still a number of instances where row crops are farmed in low lying areas directly along those streams. Accordingly, it is desired that these stream corridors be kept clear of active crop farming activities. This would benefit both the individual landowner (by removing marginal, flood-prone farmland), as well as other downstream landowners that would be negatively impacted by the storm water runoff generated by crops within a natural drainageway.



Commercial

Commercial uses account for 0.3% of the total land area on the Future Land Use Map. While this is still quite small, it represents three times as much land as is currently present. A key consideration of where to target land for new commercial development is transportation and access to highways and paved arterial roadways. Most important of these is the new 4-lane Highway 61, which is anticipated to become a more viable through route for traffic in far eastern Iowa and far western Illinois. This will likely include many commercial trucks, and Louisa County can obtain additional tax revenue through service businesses that support these trucks and other travelers, including gas stations/convenience stores, dining establishments, auto repair businesses, and hotels/lodging. However, in consideration for the safety of motorists (including local residents and farmers that must share this roadway with through traffic), commercial development along this highway should be reserved for areas around the 4 grade-separate interchanges. This includes the two existing interchanges at Grandview and the Louisa-Muscatine School complex (170th Street), as well as those proposed on the west side of Wapello (at G62) and at Highway 78 (Newport). These could also serve as viable locations for businesses catering primarily to local residents, such grocery and retail stores, due to the convenient access for trucks supplying products, and residents of smaller nearby communities.

In the Columbus area, the intersection of Highway 92 and County Road X17 is a logical location for additional commercial/retail development, owing to the presence of an existing auto dealership and gas station. Another viable location in this area is immediately to the east of Columbus City on X37, where a community health clinic and two private businesses are already located. New businesses at this location would be well positioned to serve residents in the expanding residential areas on the south side of Columbus Junction, as most of the area's existing commercial businesses are located on the north side of town.

Along the Great River Road National Scenic Byway, it is a major deficiency that there aren't any gas stations or convenience stores. Such businesses are naturally inclined to locate along the parallel-oriented Highway 61, due to its obvious advantages for attracting motorists. However, the presence of at least one such business along the Byway will have a significant impact on making it a more tourist-friendly option. In addition, several roadway intersections in more distant, rural parts of the county have been identified for desired commercial development. In each such instance, for the sake of providing flexibility, more than one intersection is identified as such. These are near Toolesboro, Lake Odessa, Muscatine Island, Cairo, and Gladwin. Given how distant these older residential areas are from commercial amenities in the incorporated cities, it would be desirable to have commercial development that caters to this population, with service businesses such as gas stations and banks. Those along X61 will have the added benefit of serving traffic on the Great River Road.

Lastly, several remotely located areas of Commercial on the Current Land Use Map are shown as a different use (usually Residential) on the Future Land Use Map. These often represent existing junk yards and trucking/contractor businesses that were established adjacent to the owner's own residence. While a few of these are located along paved arterial roads, many are situated on gravel roads in remote areas, and it is desirable that these be redeveloped for a different type of use. Even if such a business remains in operation long-term, redevelopment for a different type of commercial use should not be encouraged.



Industrial

On the Future Land Use map, Industrial uses account for 0.8% of the total land area – an increase from 0.5% on the Current Land Use Map. For the most part, these types of uses should be targeted to incorporated cities, since they typically use large quantities of utility service (especially water and sewer) that can only be provided in cities. For example, a sizable amount of Industrial land is shown in between the current Wapello city boundary and the planned 4-lane US Highway 61. While commercial is present directly surrounding the planned highway interchange, Industrial occupies land to the north and south, adjacent to some existing industrial businesses both inside and outside Wapello city limits. Ideally, much of this land would be annexed by the city prior to development, to ensure that large employers can be attracted here by the prospect of both 4-lane highway access and ready availability of utilities. It will also be important to consider the drainage needs of this flat, low-lying area, as retention ponds and other measures will likely be necessary to reduce flood risk, especially due to runoff from the new highway.

Industrial uses are also desired at several locations around the fringe of Columbus Junction and Fredonia. This includes land immediately north and west of the Tyson Foods facility, and at the east entrance to Fredonia along Highway 92. The area near Highway 92 and County Road X17 on the west side of Columbus Junction would be ideally suited for a business park with several small light industrial operations.

Rail access is another factor to consider when evaluating the placement of future individual uses. Given that freight volume on the Canadian Pacific Kansas City mainline is expected to increase exponentially following the recent merger, any new rail served development would likely have to be located either within a city (such as Letts), or along the existing spur line that serves the Louisa Generating Station. The land to the east of County Road X61 and north of G44X seems well suited to Industrial development, owing to its position just west of the spur line and Generating Station.

Lastly, a large site along the east side of County Road X61 east of Grandview is shown as Industrial on the Future Land Use Map. In this case, a very specific type of development is desired – that of an intermodal port facility or transloading center to serve barge-to-truck operations (or vice versa). This property had already been previously identified for such a prospect, although it has not yet materialized. Ultimately, the type of activity taking place on this site may not include active manufacturing or processing operations (thus making it more of a Commercial enterprise than an Industrial one), the use of Industrial zoning would make it more flexible how this site could be used in the future.

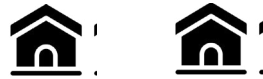
FUTURE LAND USE



High Density Residential

On the Future Land Use Map, the percentage of the total land area in this category is considerably lower than its Low Density counterpart, at 0.8%. However, this still represents about twice as much land as is currently present. A number of areas have been identified as desirable for new High Residential Development, but most of these are situated directly adjacent to incorporated municipalities, and reflect the logical outward growth of that city over the next two decades. In instances where such land is currently occupied by agricultural land with a high Corn Suitability Rating, this land should only be developed for High Density Residential after being annexed by the adjoining city, due to a lack of available land for such housing within the present city limits. Good examples of this are the area immediately south of Wapello, and those just south and west of Grandview. A couple of areas near Columbus Junction have more rugged topography, but would be easiest to access through the extension of nearby city streets and utilities.

In other areas of the county that are more distant from cities, most all residential development will, by necessity, need to be of a comparatively low density, due to limitations of terrain and availability of utilities. One exception to this is the area immediately east of the existing Golden Pond Subdivision at the northwest corner of the County. Since that original subdivision is of a higher than average density for the rural parts of the county, it makes sense that any future outgrowth of that subdivision would also be of a similar density. A second example is an area to the north of Grandview, and just east of Highway 61 and the Louisa-Muscatine Schools complex. Given the expected high demand for housing in the northeastern part of the county near Muscatine, it would be advantageous to pursue at least one instance of higher density development in close proximity to Highway 61 near the county line. Land to the east of the 170th Street interchange would be a logical choice for this. However, if a viable prospect for Low Density Residential in this area materializes, this should not be discouraged.



Low Density Residential

Among all the categories, Low Density Residential has the most substantial change in percentage of the total land area, going from 1.3% to 6.6% on the Future Land Use Map. This includes a substantial amount of land that is currently used for agriculture or conservation. As was noted in the introduction to the 'Future Land Use' section of this Plan, it is unlikely that the vast majority of this land will be developed for residential uses by 2040. However, it is all being targeted for such a use due to its high compatibility with that type of development, as well as its comparatively marginal value as farmland and undeveloped open space.

Low Density Residential development would be desirable in areas that presently serve as a transition between agriculture and conservation uses (with the latter typically taking the form of wooded terrain around streams and drainageways). There are numerous instances around the county where small pockets of farmland are situated in between the ravines that drain into nearby streams. Residential development is especially appropriate for such land that is within several miles of a municipality, where businesses and services are already available. It is also desirable along major highway corridors and paved arterial roads, allowing for short commutes to cities in both Louisa County and neighboring counties. Good examples of this include Highway 61 north of Wapello, and along Highway 78 and County Road H22 between Morning Sun and Oakville.



Conclusion

The vision of Louisa County 2.0 is a culmination of community feedback that not only includes aspirations, but functions as a roadmap with real ideas for program and policy intervention actions. Realizing the future of the plan will require actions with multiple partnerships across the County and Cities including the private market and nonprofit agencies.

Effective implementation of the plan will determine the next 20 years and more of the County. The key to success is maintaining broad community support for sustained action to adopt recommended actions, fund targeted investments, and establish partnerships necessary to initiate change for maximum Countywide impact. Ultimately, the success of this plan will be measured by the extent to which we realize the vision and establish complete communities across Louisa County through effective implementation.

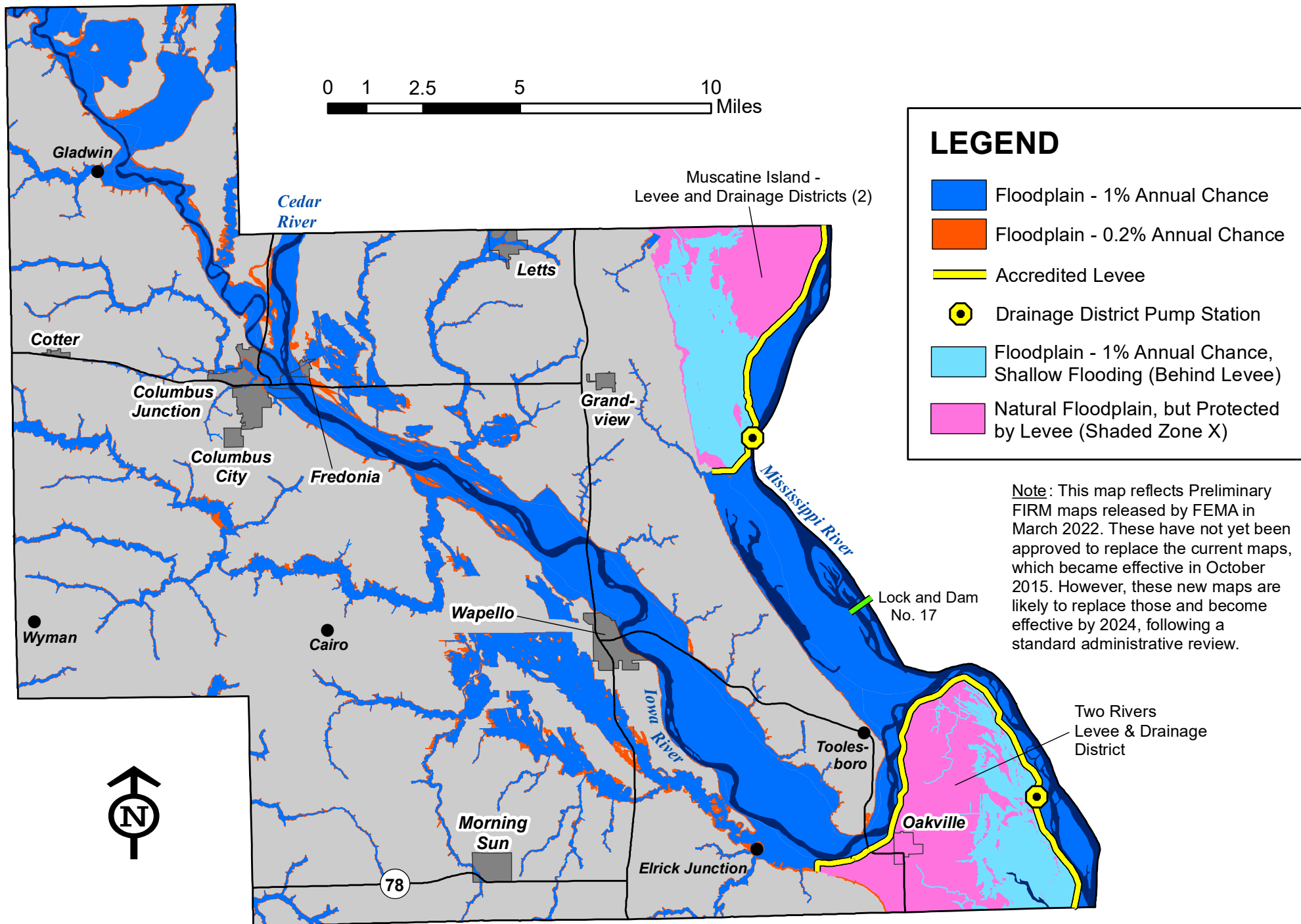




PART FIVE:

Appendices

Louisa County Preliminary Floodplains (FEMA)





**Take 2040 Louisa County Comprehensive
Plan Survey for a chance to win a \$25 Hy-
Vee Gift Card!**

County-Wide Survey Summary

(not included in the draft)

Q1 What do you envision Louisa County to be like in 2040?

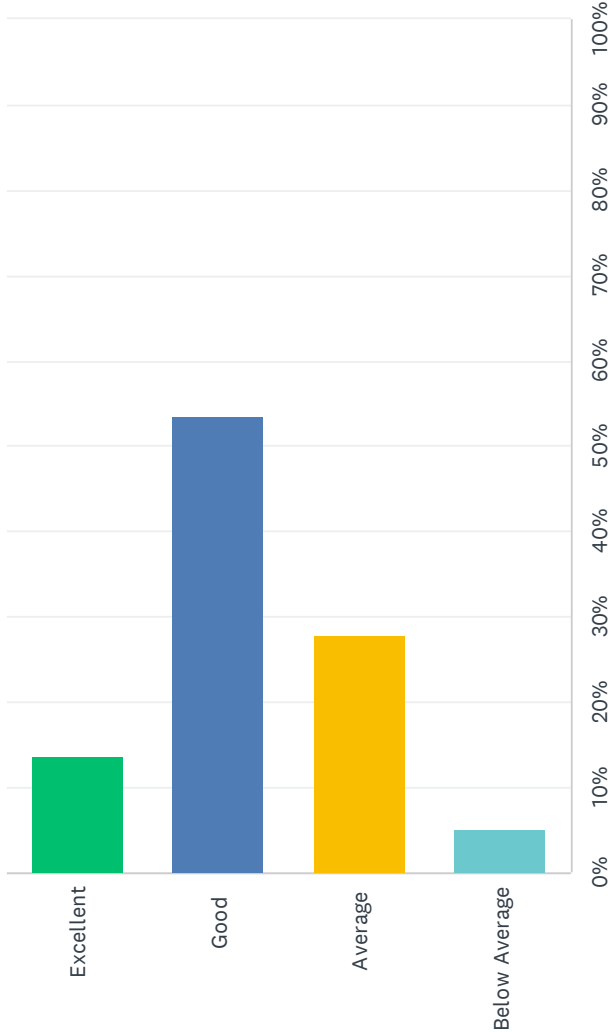
Answered: 227 Skipped: 151

Q2 What do you like about Louisa County?

Answered: 314 Skipped: 64

Q3 Overall, how would you rate the quality of life in Louisa County?

Answered: 376 Skipped: 2



ANSWER CHOICES	RESPONSES
Excellent	13.56%51
Good	53.46%201
Average	27.93%105
Below Average	5.05%19
TOTAL	376

Q4 Explain your rating of the quality of life in Louisa County -- What could improve the quality of life in Louisa County?

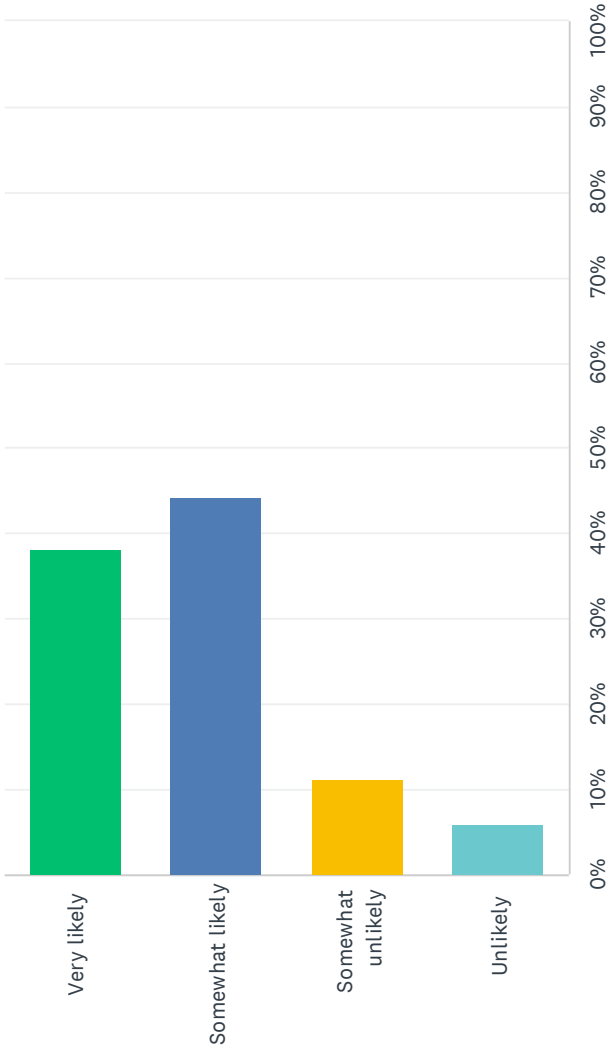
Answered: 301 Skipped: 77

Q5 If you could make one major change or improvement in Louisa County that would have a long term impact on the county and its residents, what would it be?

Answered: 295 Skipped: 83

Q6 Would you recommend living in Louisa County, Iowa to someone currently living elsewhere?

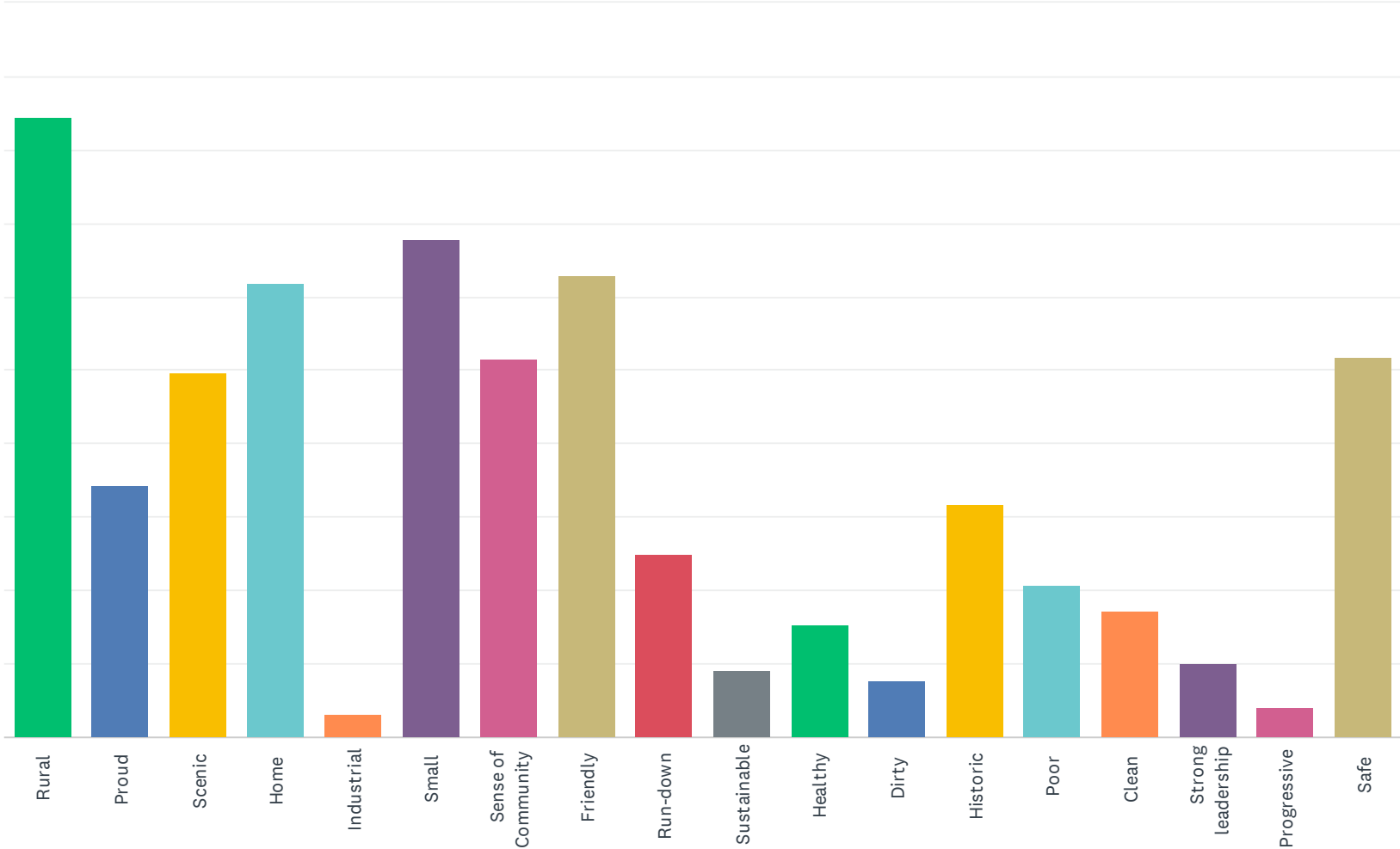
Answered: 369 Skipped: 9

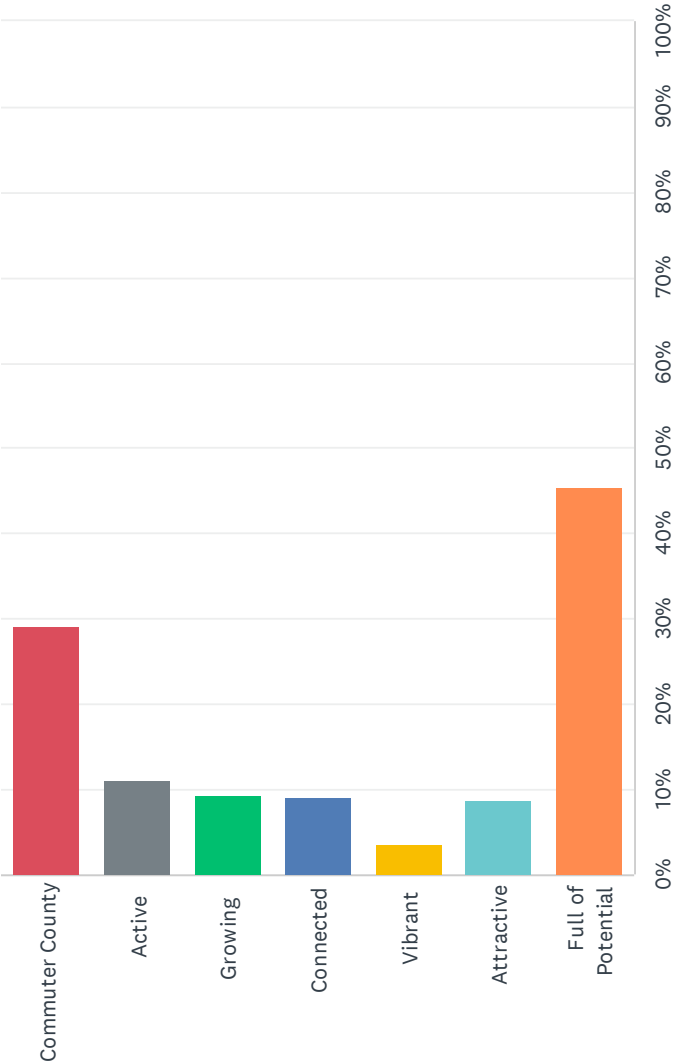


ANSWER CHOICES	RESPONSES
Very likely	141
Somewhat likely	164
Somewhat unlikely	42
Unlikely	22
TOTAL	369

Q7 Which of the following qualities do you associate with Louisa County? Feel free to add your own!

Answered: 353 Skipped: 25





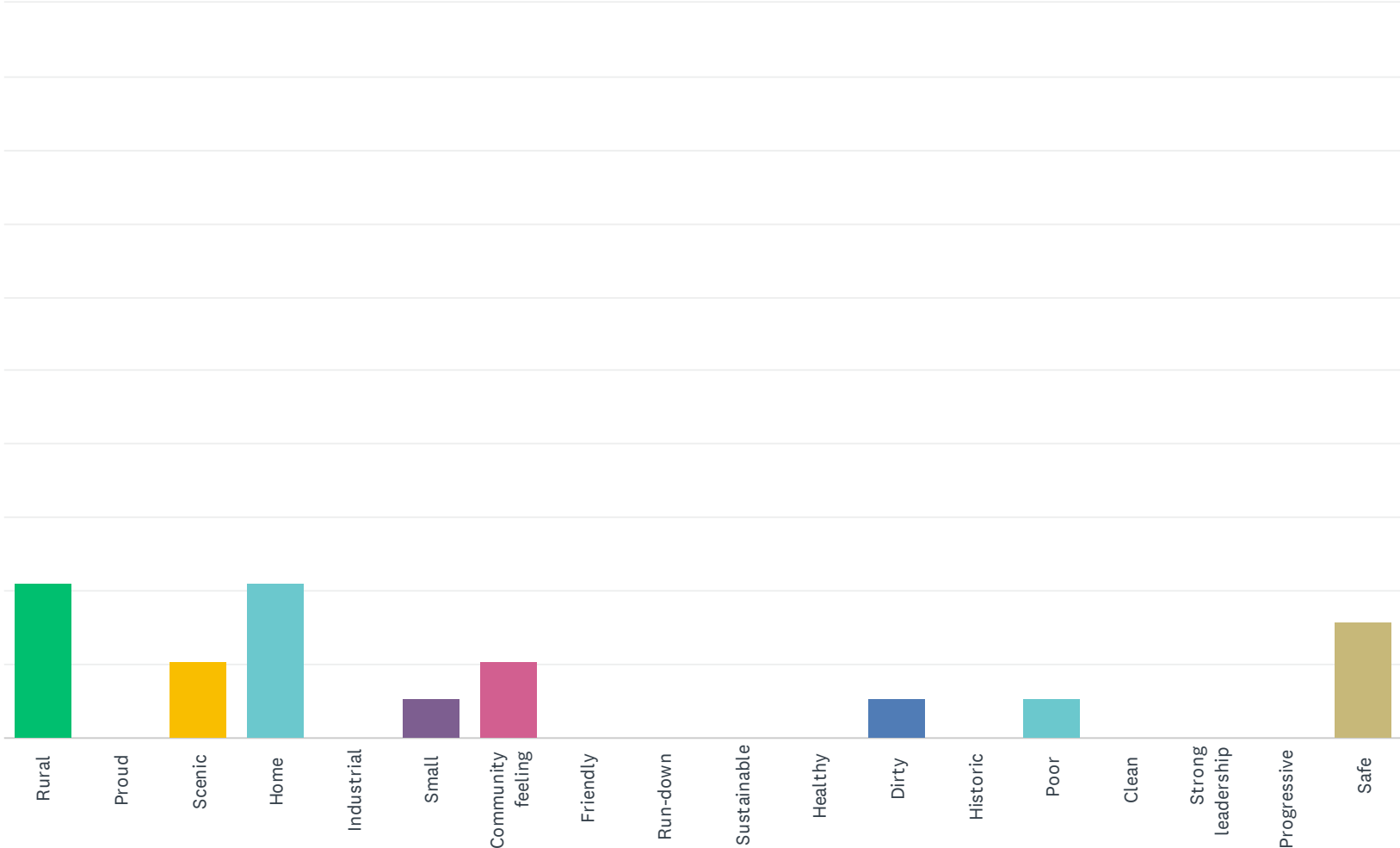
ANSWER CHOICES	RESPONSES
Rural	84.42%298
Proud	34.28%121
Scenic	49.58%175
Home	61.76%218
Industrial	3.12%11
Small	67.71%239
Sense of Community	51.56%182
Friendly	62.89%222
Run-down	24.93%88
Sustainable	9.07%32
Healthy	15.30%54
Dirty	7.65%27
Historic	31.73%112
Poor	20.68%73
Clean	17.28%61
Strong leadership	9.92%35
Progressive	3.97%14
Safe	51.84%183
Commuter County	29.18%103
Active	11.05%39
Growing	9.35%33
Connected	9.07%32
Vibrant	3.68%13
Attractive	8.78%31
Full of Potential	45.33%160
Total Respondents: 353	

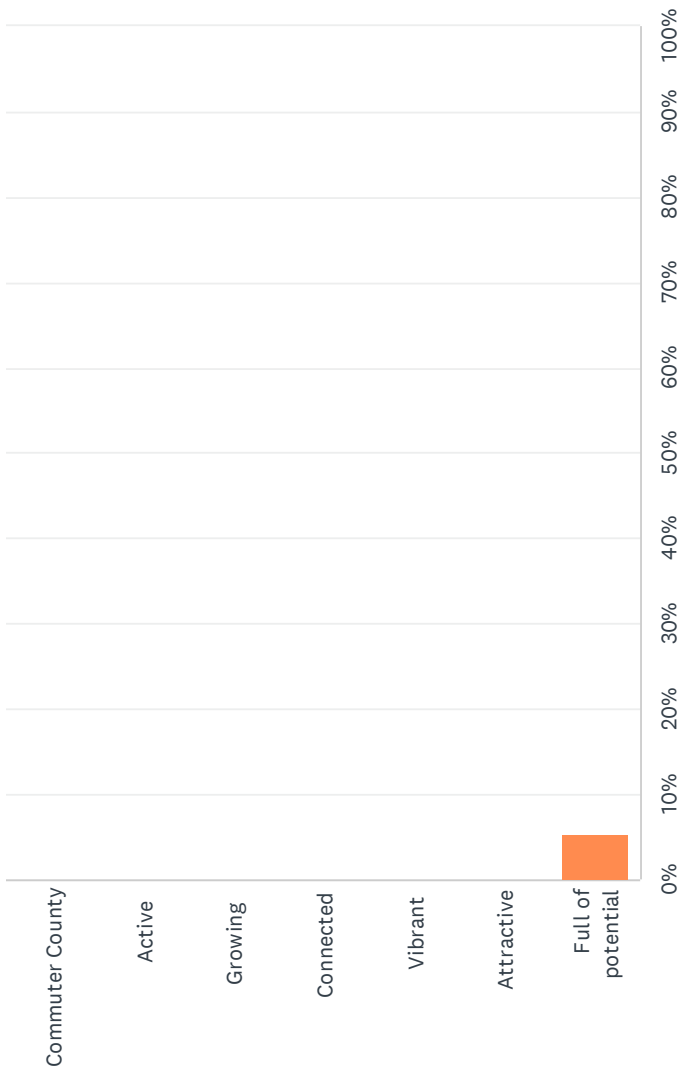
Q8 Please explain why you chose these qualities.

Answered: 209 Skipped: 169

Q9 Which of the following qualities do you associate with Louisa County? Feel free to add your own!

Answered: 19 Skipped: 359

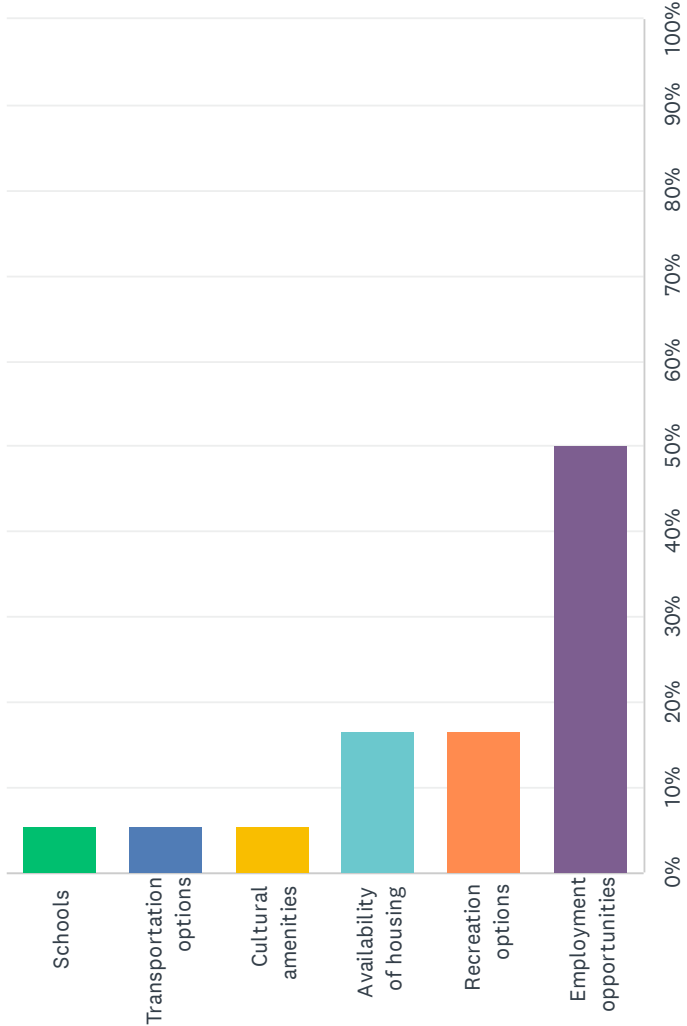




ANSWER CHOICES	RESPONSES
Rural	21.05%4
Proud	0.00%0
Scenic	10.53%2
Home	21.05%4
Industrial	0.00%0
Small	5.26%1
Community feeling	10.53%2
Friendly	0.00%0
Run-down	0.00%0
Sustainable	0.00%0
Healthy	0.00%0
Dirty	5.26%1
Historic	0.00%0
Poor	5.26%1
Clean	0.00%0
Strong leadership	0.00%0
Progressive	0.00%0
Safe	15.79%3
Commuter County	0.00%0
Active	0.00%0
Growing	0.00%0
Connected	0.00%0
Vibrant	0.00%0
Attractive	0.00%0
Full of potential	5.26%1
TOTAL	19

Q10 What are some of the barriers preventing a young workforce from moving to or succeeding in Louisa County?

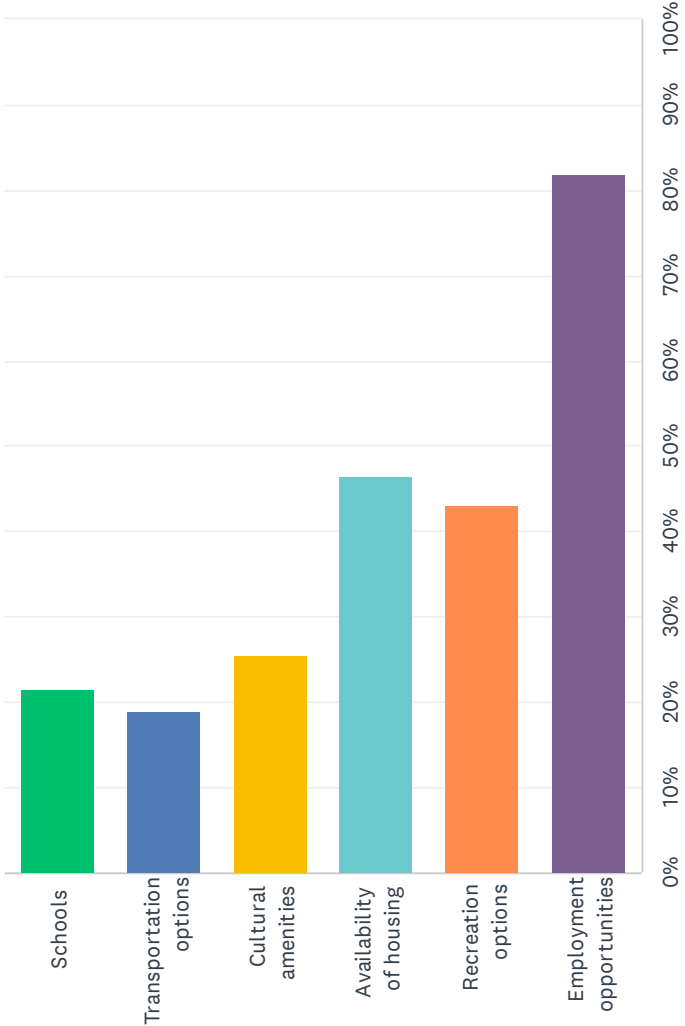
Answered: 18 Skipped: 360



ANSWER CHOICES	RESPONSES
Schools	1 5.56%
Transportation options	1 5.56%
Cultural amenities	1 5.56%
Availability of housing	3 16.67%
Recreation options	3 16.67%
Employment opportunities	9 50.00%
TOTAL	18

Q11 What are some of the barriers preventing a younger workforce from moving to or succeeding in Louisa County?

Answered: 325 Skipped: 53



ANSWER CHOICES	RESPONSES
Schools	70
Transportation options	62
Cultural amenities	83
Availability of housing	151
Recreation options	140
Employment opportunities	266
Total Respondents: 325	

Q12 What is one specific economic challenge you think the county faces?

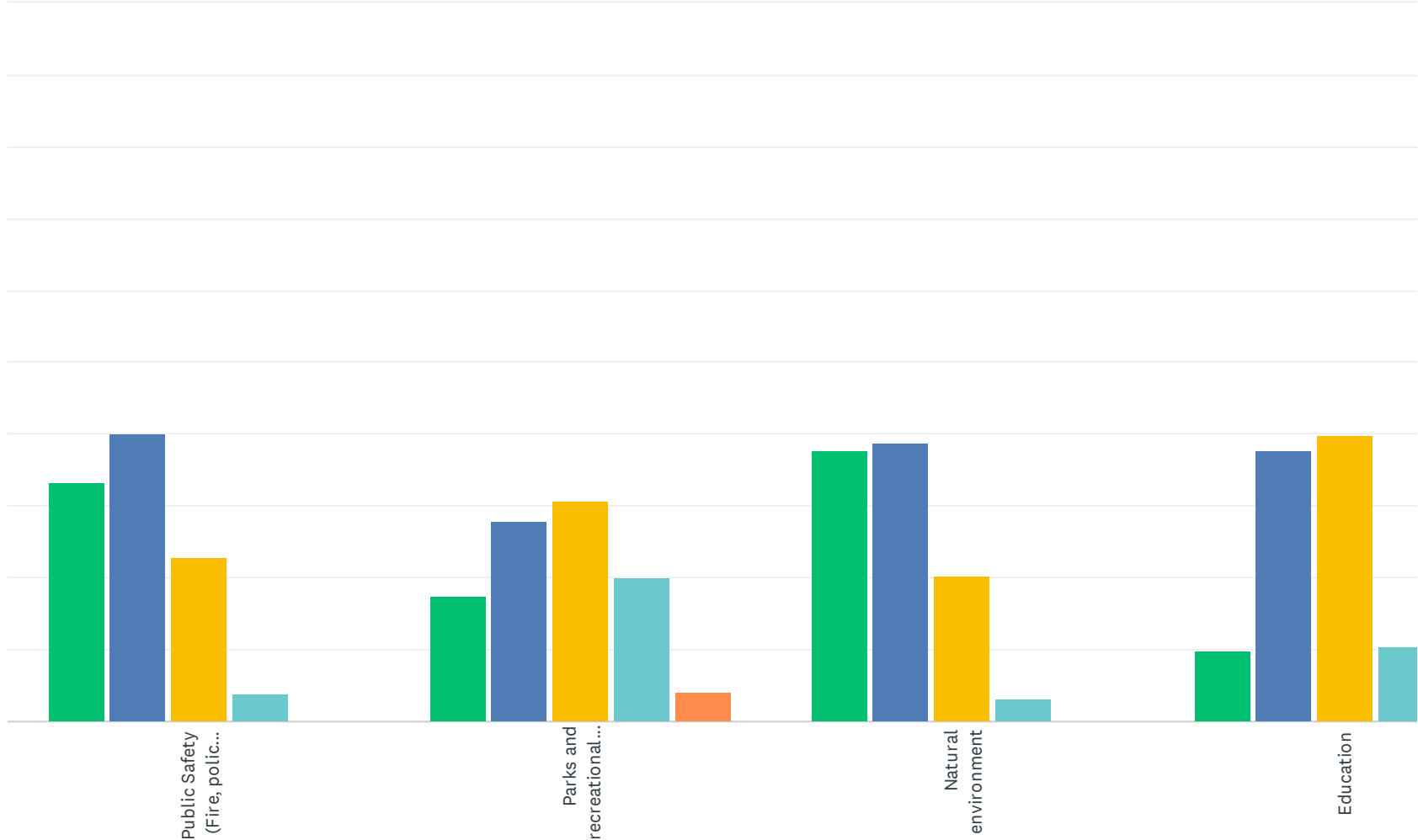
Answered: 272 Skipped: 106

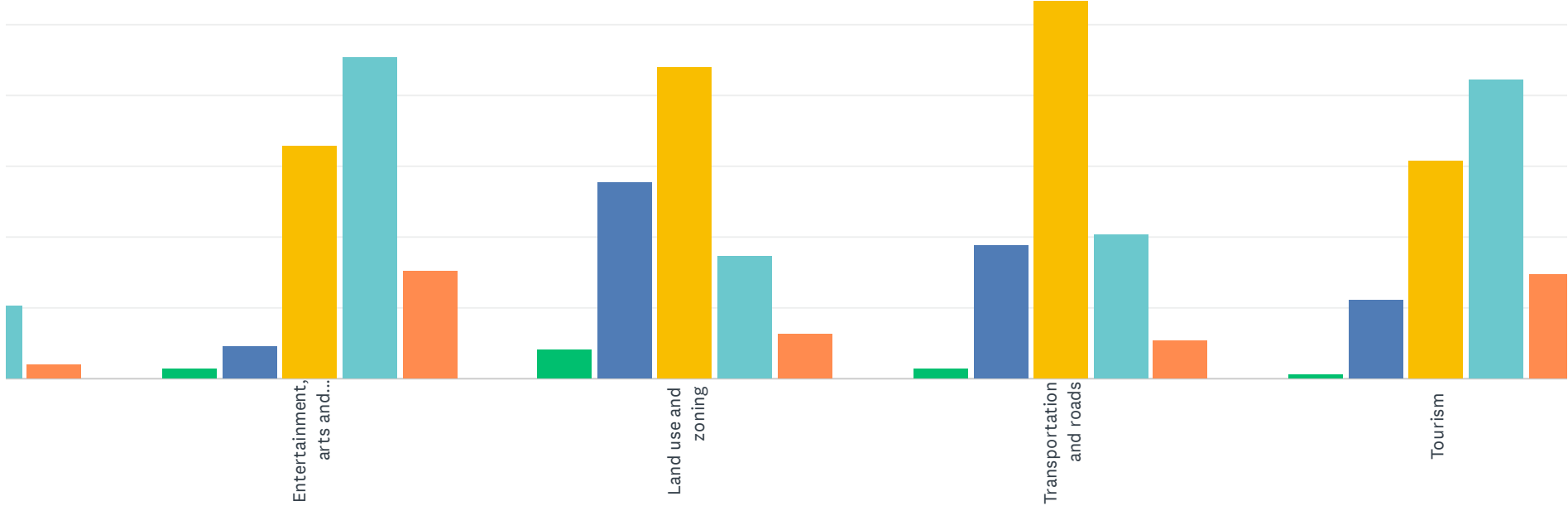
Q13 Please provide your recommendations or thoughts on how the County can overcome these challenges?

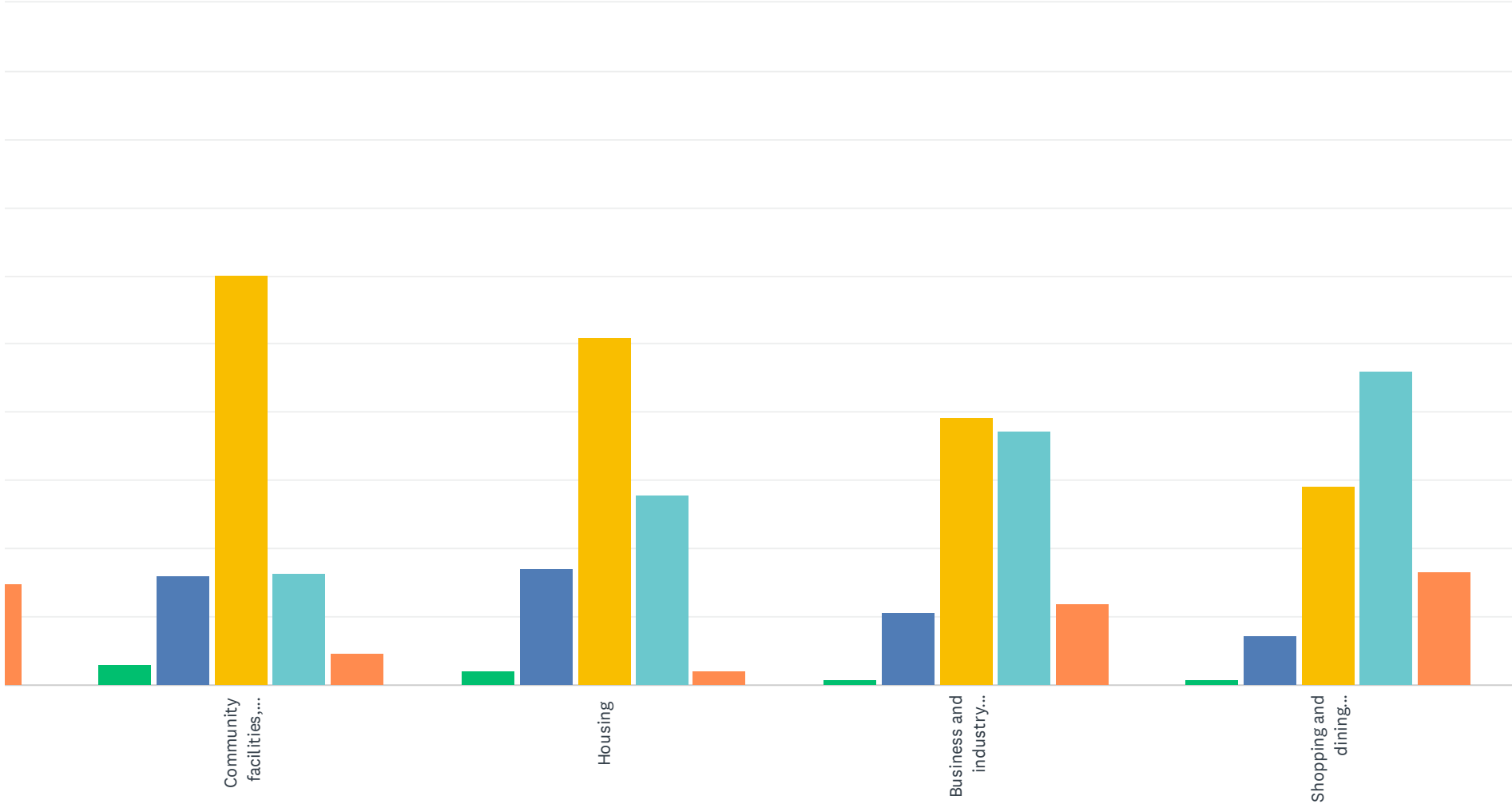
Answered: 208 Skipped: 170

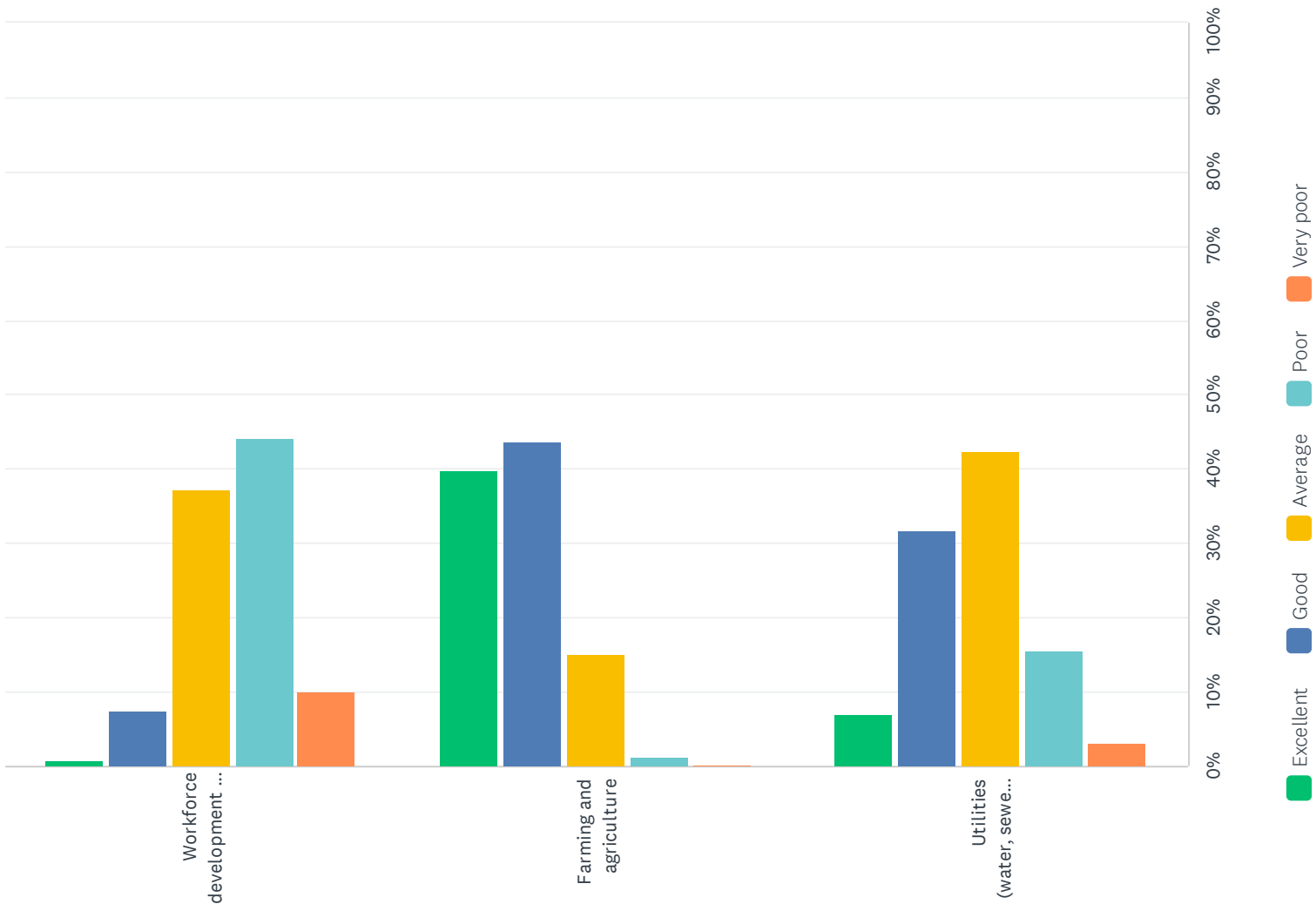
Q14 How would you rate the following aspects of Louisa County.

Answered: 348 Skipped: 30









	EXCELLENT	GOOD	AVERAGE	POOR	VERY POOR	TOTAL
Public Safety (Fire, police, ambulance)	33.24% 115	40.17% 139	22.83% 79	3.76% 13	0.00% 0	346
Parks and recreational opportunities	17.39% 60	27.83% 96	30.72% 106	20.00% 69	4.06% 14	345
Natural environment	37.83% 129	38.71% 132	20.23% 69	3.23% 11	0.00% 0	341
Education	9.88% 34	37.79% 130	39.83% 137	10.47% 36	2.03% 7	344
Entertainment, arts and culture	1.44% 5	4.61% 16	33.14% 115	45.53% 158	15.27% 53	347
Land use and zoning	4.28% 14	27.83% 91	44.04% 144	17.43% 57	6.42% 21	327
Transportation and roads	1.46% 5	19.01% 65	53.51% 183	20.47% 70	5.56% 19	342
Tourism	0.59% 2	11.28% 38	30.86% 104	42.43% 143	14.84% 50	337
Community facilities, infrastructure and services	2.92% 10	16.03% 55	60.06% 206	16.33% 56	4.66% 16	343
Housing	2.08% 7	16.96% 57	50.89% 171	27.98% 94	2.08% 7	336
Business and industry development	0.87% 3	10.72% 37	39.13% 135	37.39% 129	11.88% 41	345
Shopping and dining opportunities	0.86% 3	7.20% 25	29.11% 101	46.11% 160	16.71% 58	347
Workforce development and employment opportunities	0.89% 3	7.42% 25	37.39% 126	44.21% 149	10.09% 34	337
Farming and agriculture	39.82% 135	43.66% 148	15.04% 51	1.18% 4	0.29% 1	339
Utilities (water, sewer, telecommunications/internet, cell, garbage/recycling, etc.)	6.94% 24	31.79% 110	42.49% 147	15.61% 54	3.18% 11	346

Q15 Are you satisfied with the utilities services listed in the table above?
Explain why or why not.

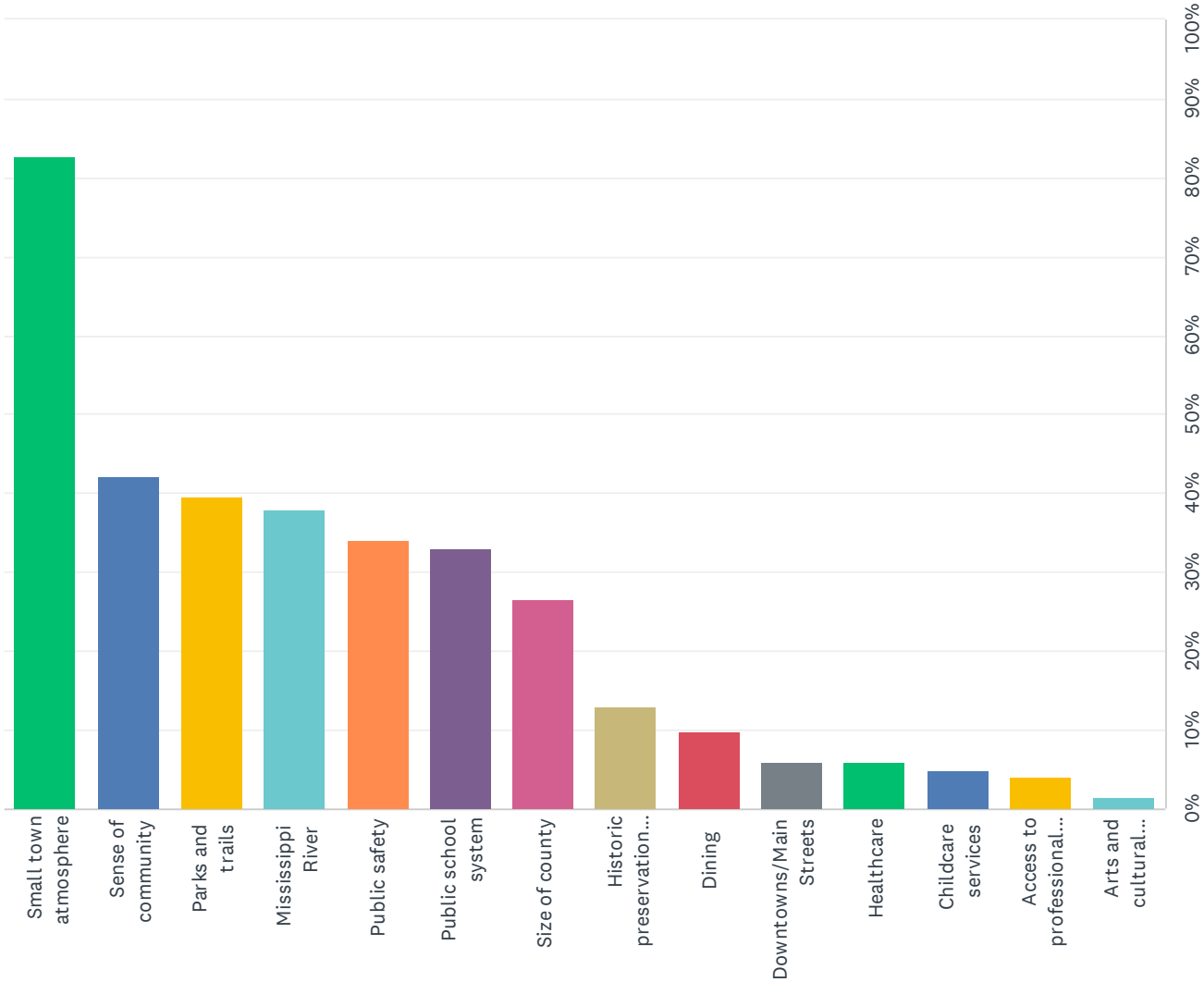
Answered: 239 Skipped: 139

Q16 What, if any, changes or improvements would you like to see to any of the county aspects listed in the table above?

Answered: 176 Skipped: 202

Q17 What do you value about Louisa County? Please mark the three qualities you value most about the community.

Answered: 346 Skipped: 32



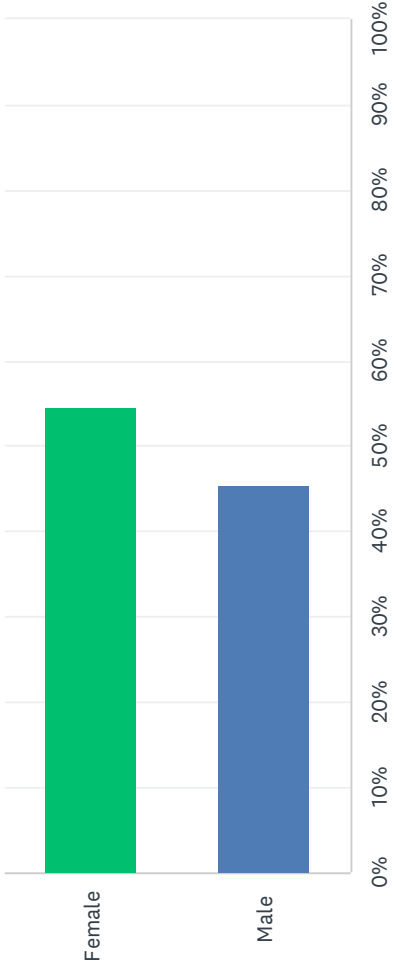
ANSWER CHOICES	RESPONSES
Small town atmosphere	82.66% 286
Sense of community	42.20% 146
Parks and trails	39.60% 137
Mississippi River	37.86% 131
Public safety	34.10% 118
Public school system	32.95% 114
Size of county	26.59% 92
Historic preservation/Architecture	13.01% 45
Dining	9.83% 34
Downtowns/Main Streets	6.07% 21
Healthcare	6.07% 21
Childcare services	4.91% 17
Access to professional/Career opportunities	4.05% 14
Arts and cultural opportunities	1.45% 5
Total Respondents: 346	

Q18 What opportunities or barriers do you think the new Highway 61 expansion project will bring to the future growth and development of Louisa County?

Answered: 259 Skipped: 119

Q19 What is your gender?

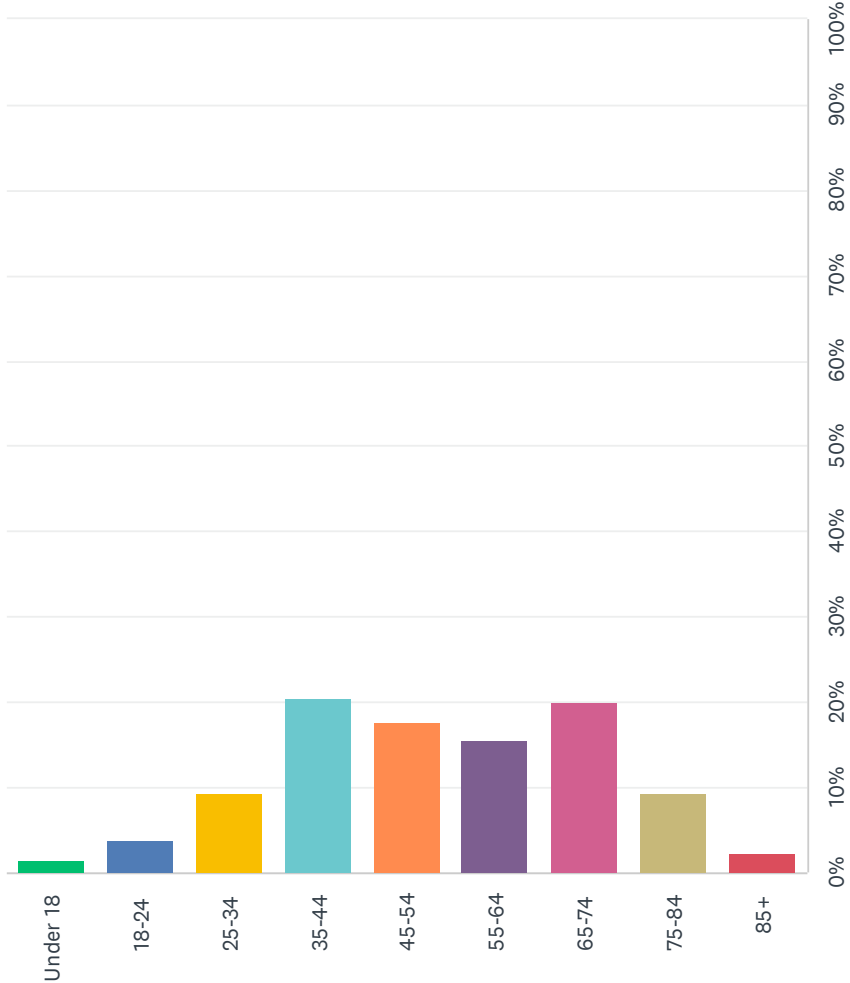
Answered: 344 Skipped: 34



ANSWER CHOICES	RESPONSES
Female	188
Male	156
TOTAL	344

Q20 What is your age?

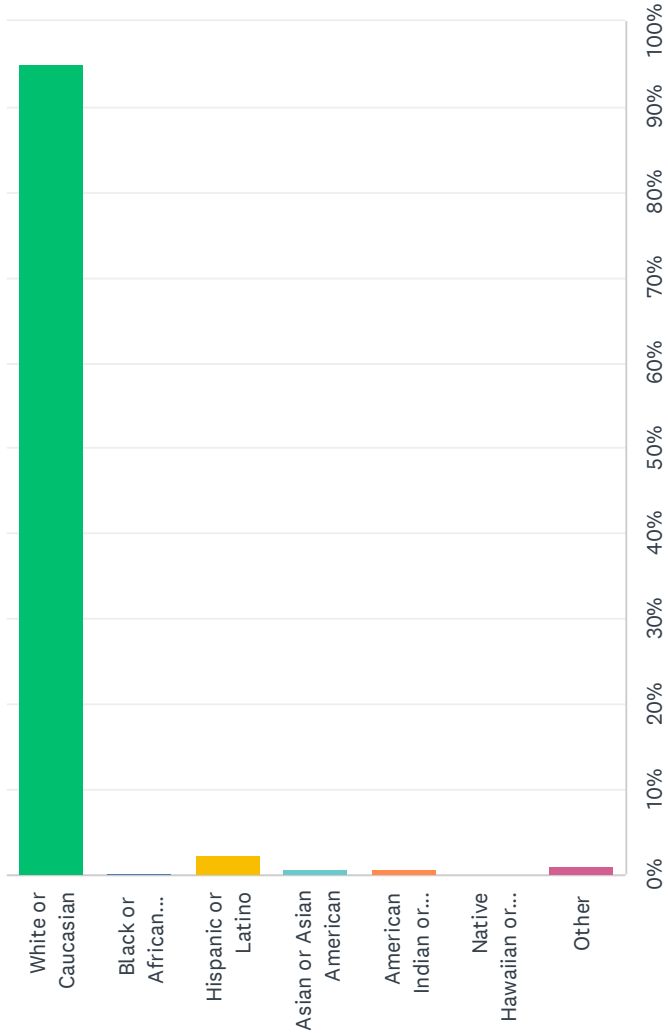
Answered: 355 Skipped: 23



ANSWER CHOICES	RESPONSES
Under 18	5
18-24	14
25-34	33
35-44	73
45-54	63
55-64	55
65-74	71
75-84	33
85+	8
TOTAL	355

Q21 What best describes your race or ethnicity?

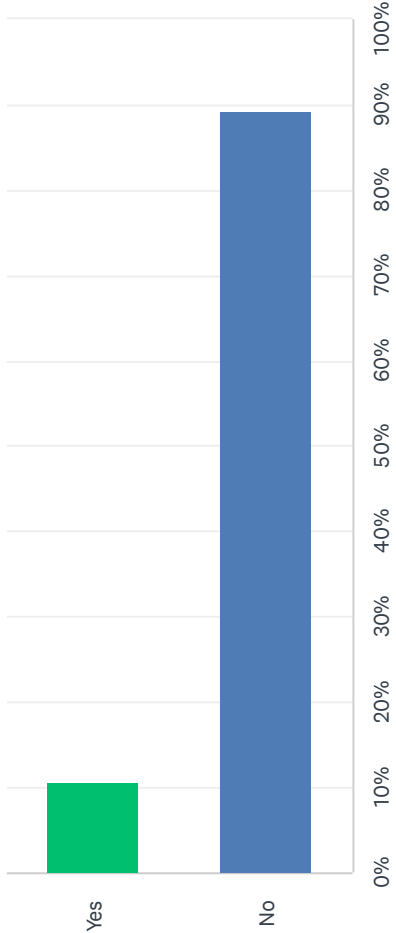
Answered: 349 Skipped: 29



ANSWER CHOICES	RESPONSES
White or Caucasian	332 95.13%
Black or African American	1 0.29%
Hispanic or Latino	8 2.29%
Asian or Asian American	2 0.57%
American Indian or Alaska Native	2 0.57%
Native Hawaiian or other Pacific Islander	0 0.00%
Other	4 1.15%
TOTAL	349

Q22 Are you a veteran of the United States Armed Forces?

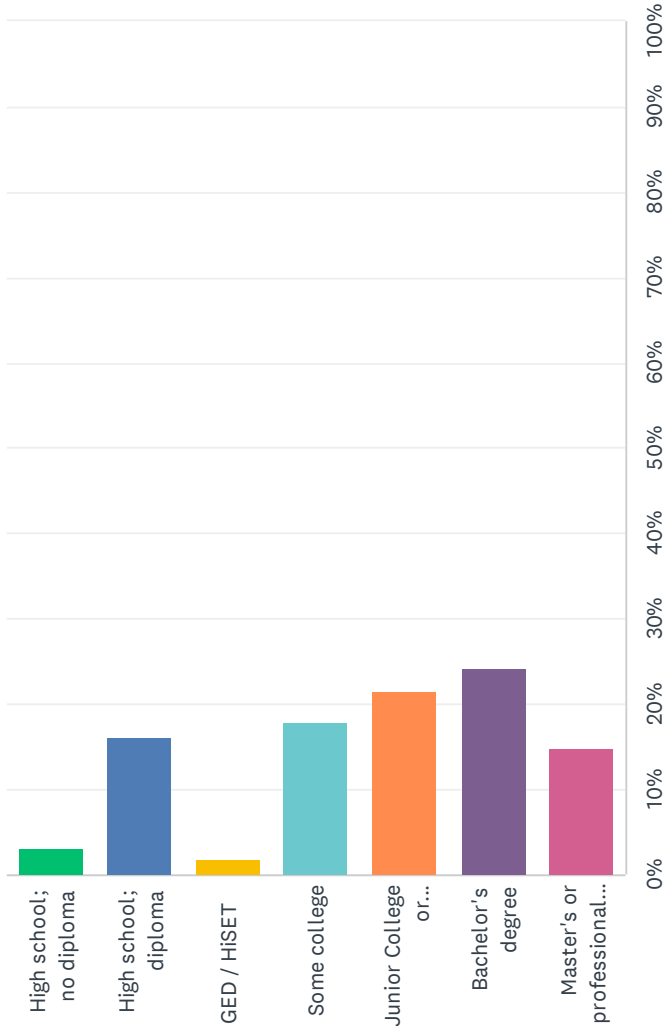
Answered: 346 Skipped: 32



ANSWER CHOICES	RESPONSES	
Yes	10.69%	37
No	89.31%	309
TOTAL		346

Q23 Which of the following best describes your highest level of education?

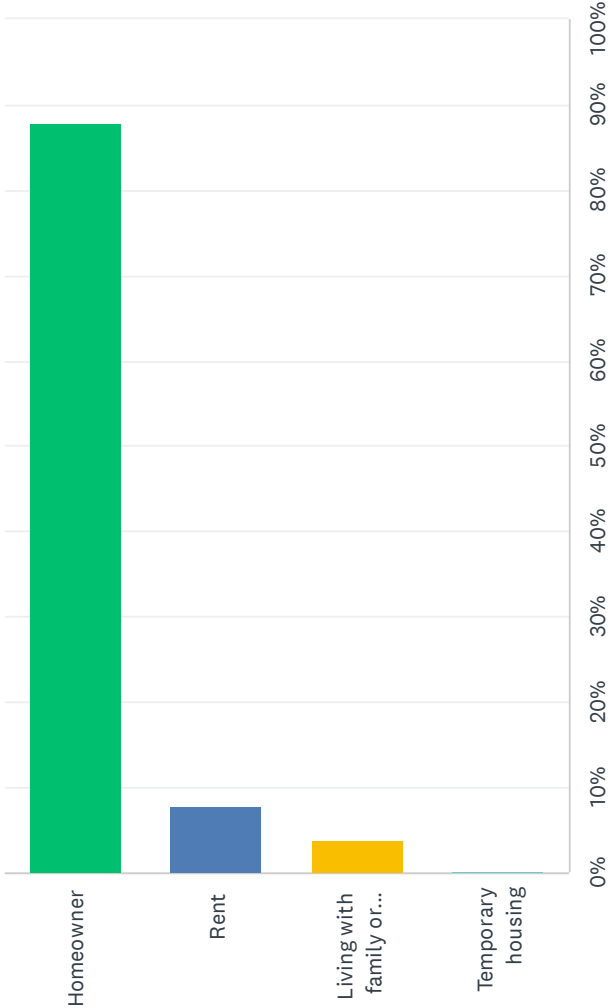
Answered: 353 Skipped: 25



ANSWER CHOICES	RESPONSES
High school; no diploma	113.12%
High school; diploma	5716.15%
GED / HiSET	71.98%
Some college	6317.85%
Junior College or Vocational/Technical School, Associate's degree	7621.53%
Bachelor's degree	8624.36%
Master's or professional degree	5315.01%
TOTAL	353

Q24 Which of the following best describes your housing situation?

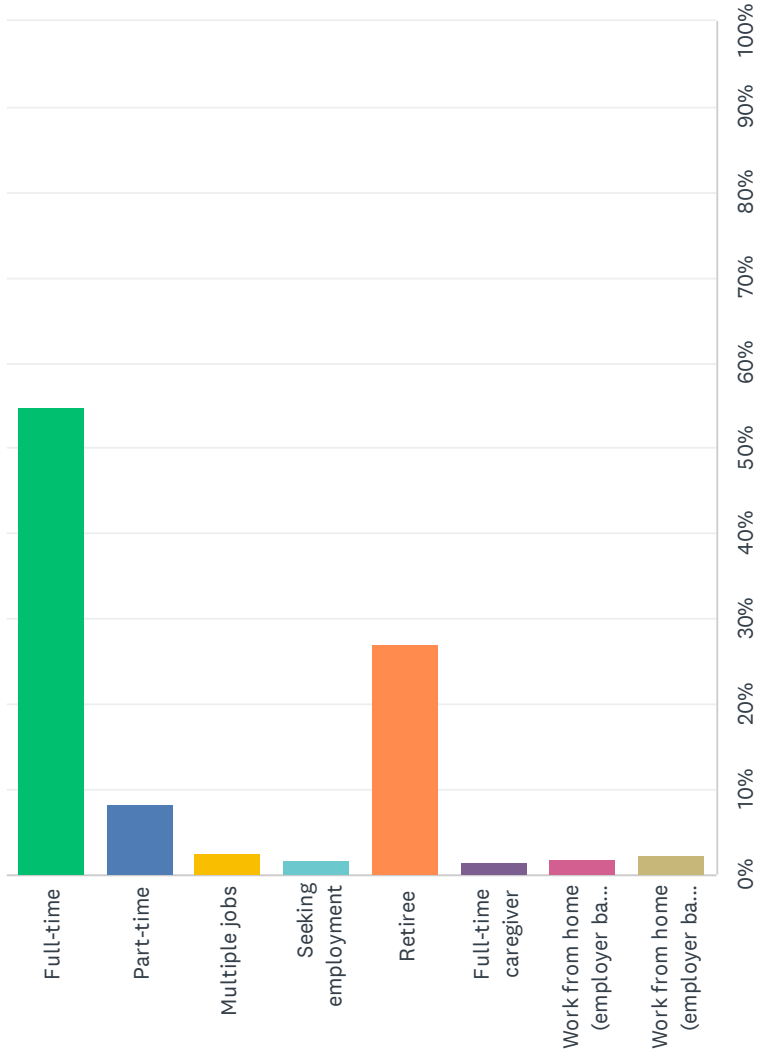
Answered: 355 Skipped: 23



ANSWER CHOICES	RESPONSES
Homeowner	312
Rent	28
Living with family or friends	14
Temporary housing	1
TOTAL	355

Q25 Which of the following best describes your employment situation?

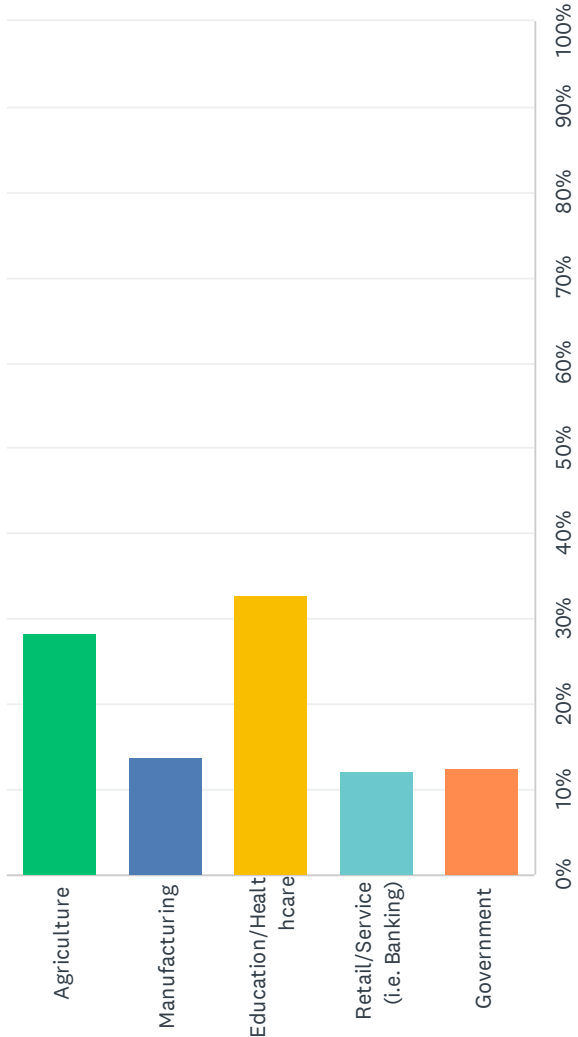
Answered: 352 Skipped: 26



ANSWER CHOICES	RESPONSES
Full-time	19354.83%
Part-time	298.24%
Multiple jobs	92.56%
Seeking employment	61.70%
Retiree	9526.99%
Full-time caregiver	51.42%
Work from home (employer based in Louisa County)	71.99%
Work from home (employer based outside Louisa County)	82.27%
TOTAL	352

Q26 How would you classify your current primary job?

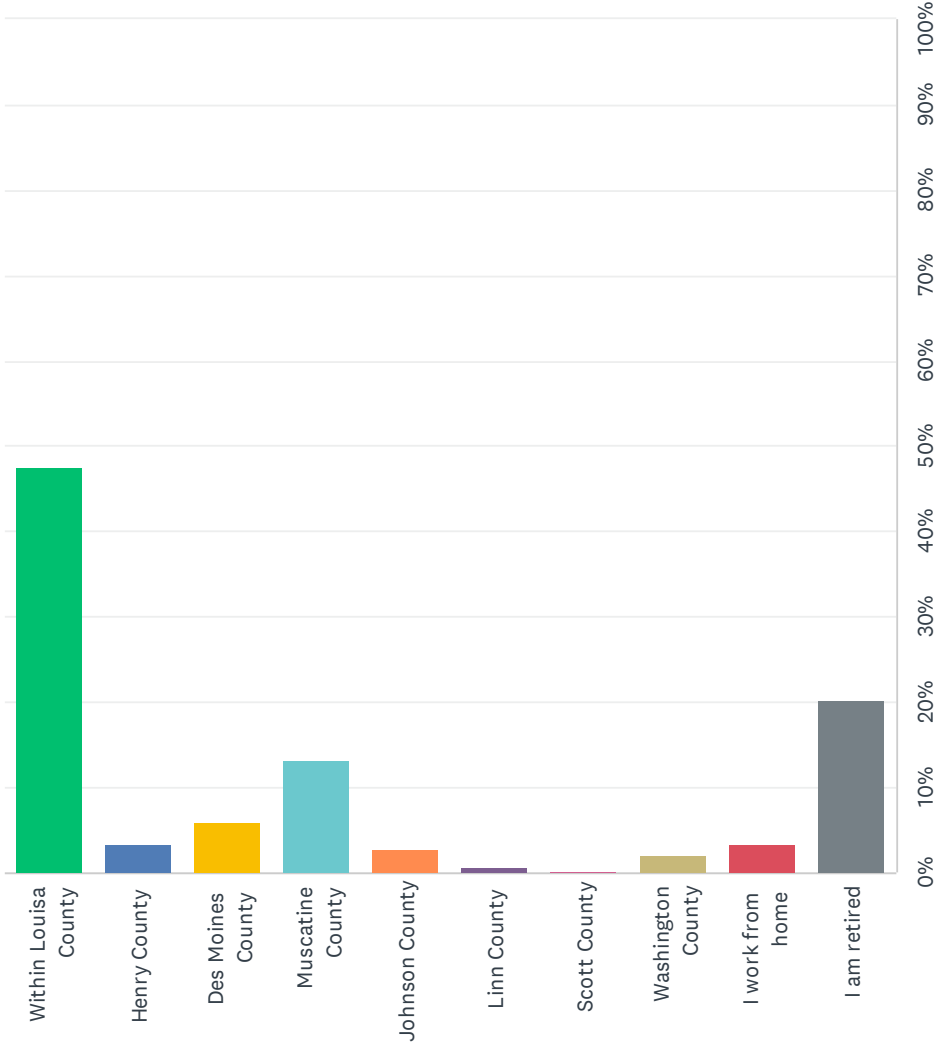
Answered: 222 Skipped: 156



ANSWER CHOICES	RESPONSES
Agriculture	63
Manufacturing	31
Education/Healthcare	73
Retail/Service (i.e. Banking)	27
Government	28
TOTAL	222

Q27 Where do you work?

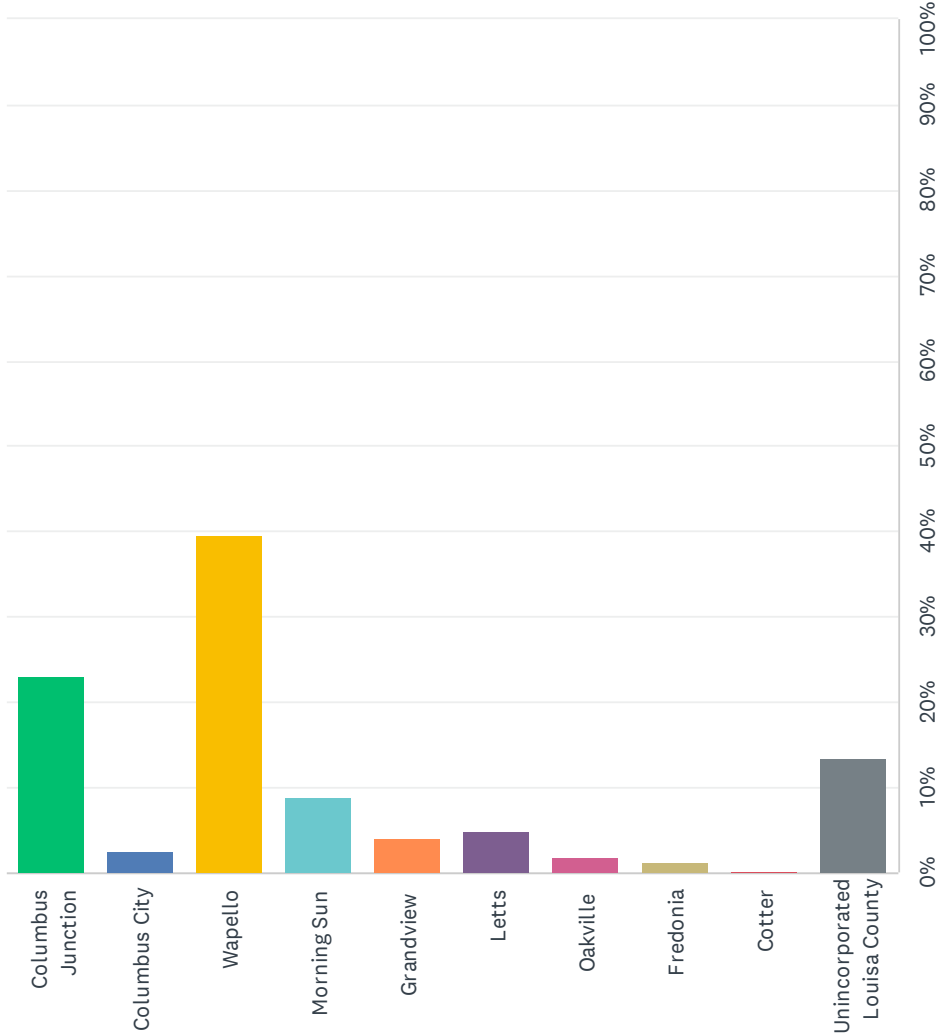
Answered: 317 Skipped: 61



ANSWER CHOICES	RESPONSES
Within Louisa County	151
Henry County	11
Des Moines County	19
Muscatine County	42
Johnson County	9
Linn County	2
Scott County	1
Washington County	7
I work from home	11
I am retired	64
TOTAL	317

Q28 Where do you live?

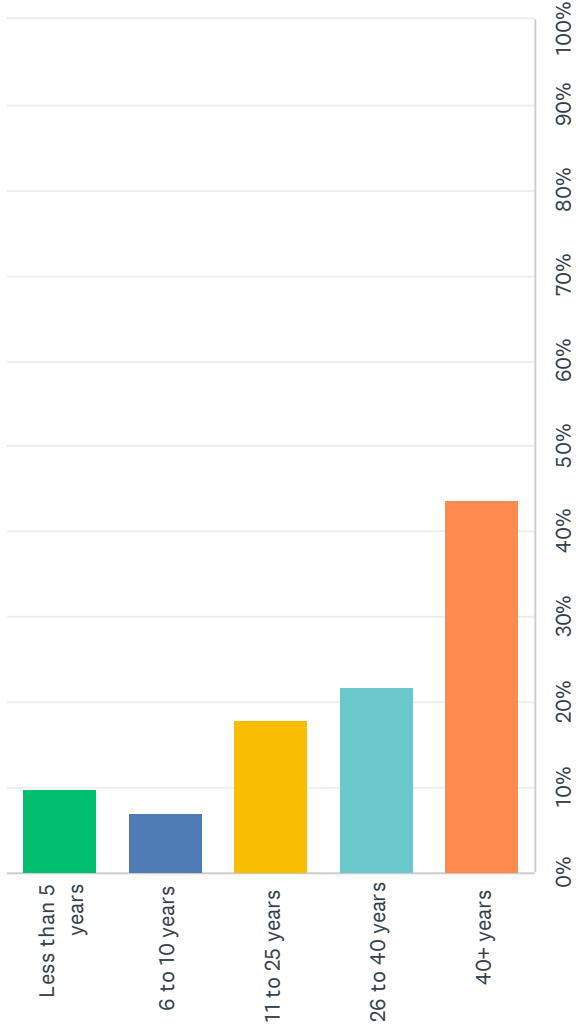
Answered: 322 Skipped: 56



ANSWER CHOICES	RESPONSES
Columbus Junction	74
Columbus City	8
Wapello	128
Morning Sun	29
Grandview	13
Letts	16
Oakville	6
Fredonia	4
Cotter	1
Unincorporated Louisa County	43
TOTAL	322

Q29 How long have you lived in the Louisa County area?

Answered: 346 Skipped: 32



ANSWER CHOICES	RESPONSES
Less than 5 years	34
6 to 10 years	24
11 to 25 years	62
26 to 40 years	75
40+ years	151
TOTAL	346

Q30 Thank you for taking the survey. If you would like to enter a drawing to win a chance at a \$25 Hy-Vee gift card, please provide your phone or email below:

Answered: 198 Skipped: 180

ANSWER CHOICES	RESPONSES
Name	0.00% 0
Company	0.00% 0
Address	0.00% 0
Address 2	0.00% 0
City/Town	0.00% 0
State/Province	0.00% 0
ZIP/Postal Code	0.00% 0
Country	0.00% 0
Email Address	73.74% 146
Phone Number	92.93% 184