

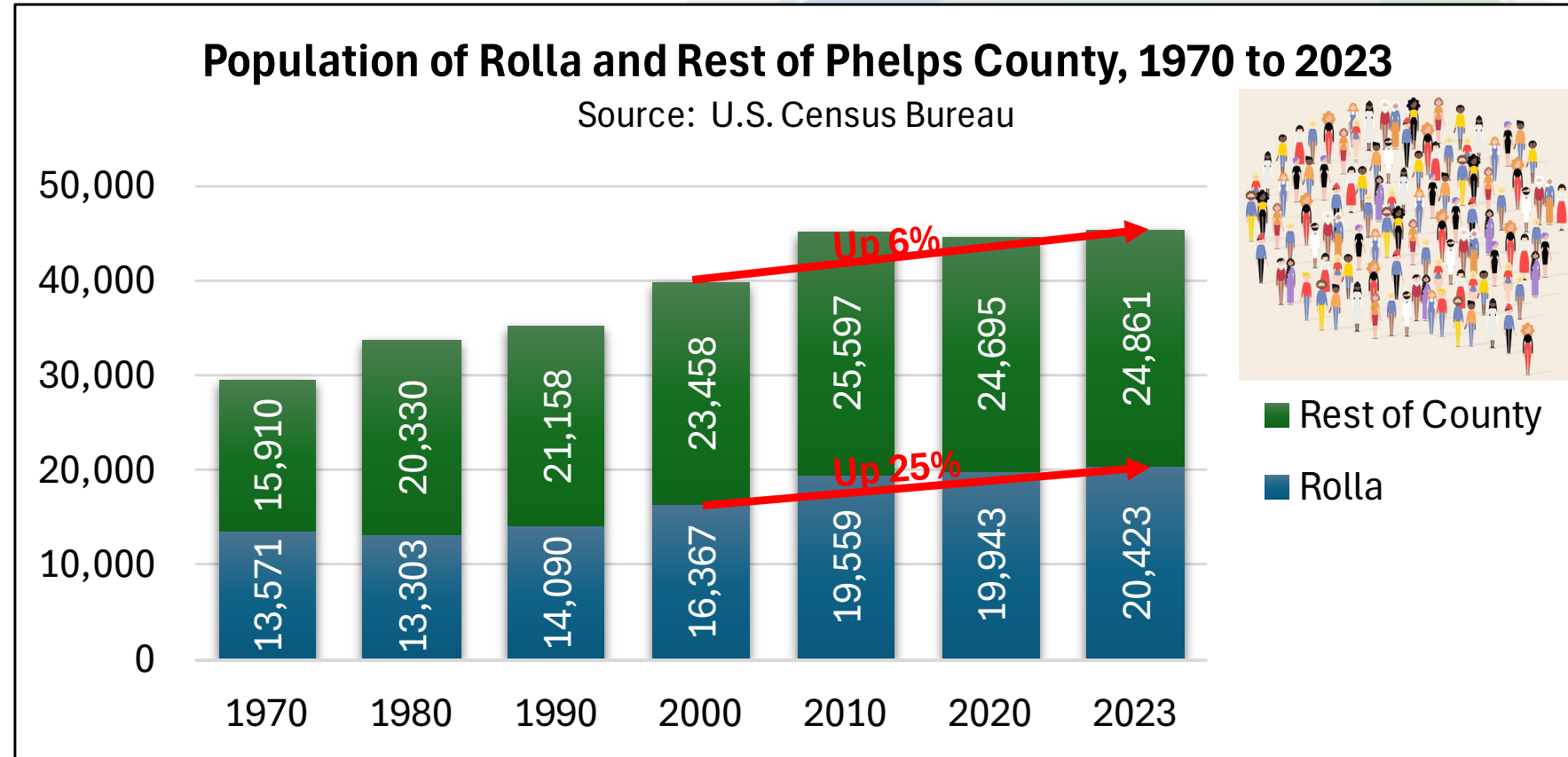
Initial Economic Indicators:
Business Roundtable Discussion
June 27, 2024

ROLLA

The Middle of Everywhere

Rolla Population Trends 1920 to 2023

- Rolla makes up about 45% of Phelps County's population with 24,860 residents.
- Up from 40% in 1980 and 1990.
- Rolla added about 4,500 residents after 2010, up 25%.
- The rest of the county grew just 6%.
- Peak population in 2010 at 25,600, with declines in 2020 but gains by 2023.



- Challenge: Housing for Population Growth

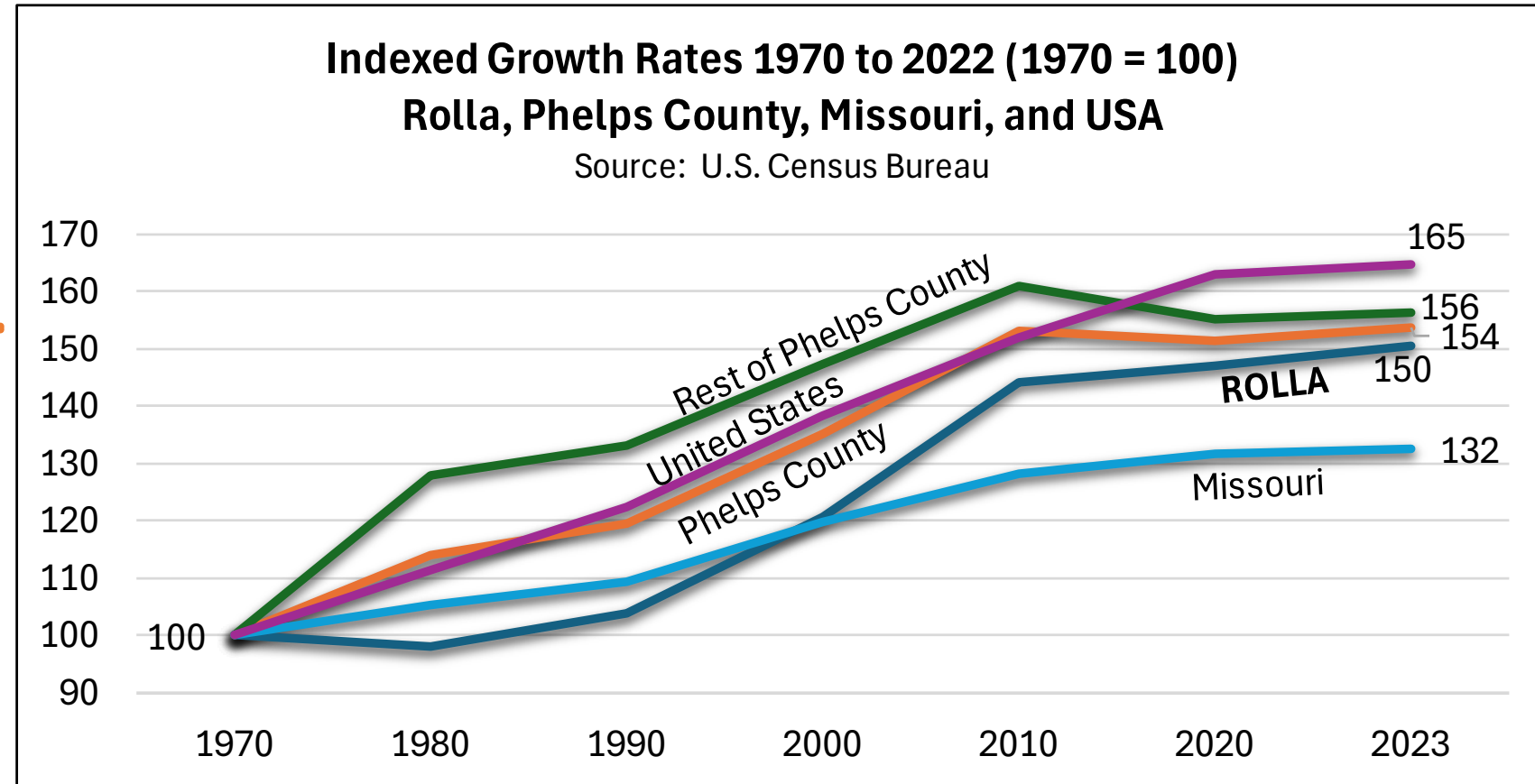
Persons per household:	Missouri	2.44
	Phelps Co.	2.35
	Rolla	2.09

Above average housing needed to support substantial population growth.

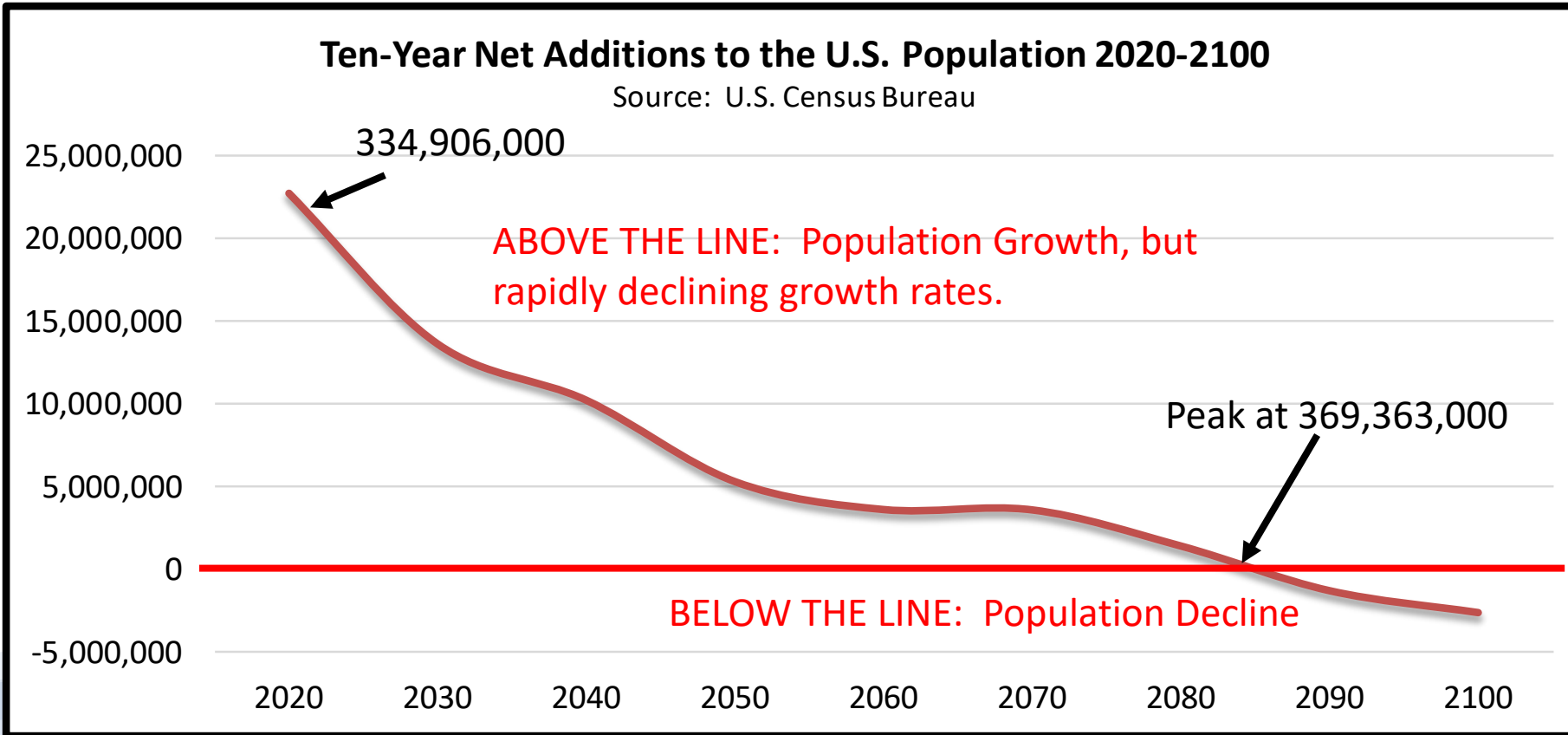
Population Growth Comparisons 1970 to 2023

- Setting growth index at 100 in 1970

- Rolla grew 50% by 2023
- Phelps County grew 54%.
- Missouri grew just 32%.
- But the USA added 65% more residents.
- National and state trends have been toward “cities” in the last half century (longer?).



Challenges for Continued Local Population Growth



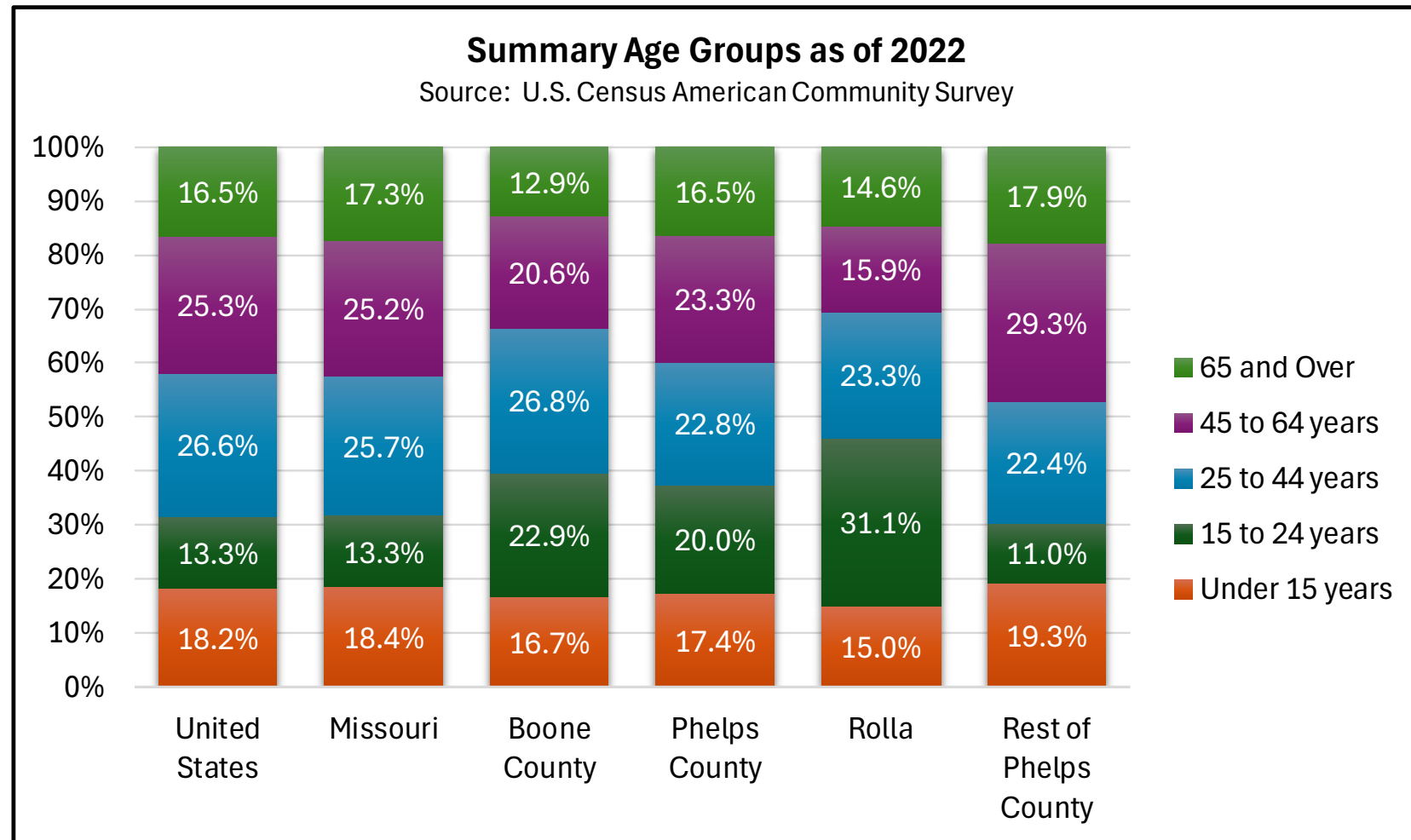
USA Population Growth:

- Declining rates of growth through the 21st Century
- Fewer “net new” people for attracting growth.

These are the “mid-level” projections which assume no changes in net in-migration each year. Net in-migration remains essentially the same. The projections, however, assume substantial increases in deaths over births due to again Baby Boomers (into the 2060s) though this is somewhat offset by the large Millennial population. The Millennials start dying off thereafter. Moreover, birth rates continue to decline (fewer babies per woman).

Population Age Groups

- Phelps County has a much lower population in the 15-to-24 year group than Boone County.
- But Rolla, itself, exceeds Boone County substantially in this “college age group.”
- The key “family” age group of 25-to-44 is consistent across geographies, but “older middle age” people are less common in the city of Rolla than elsewhere in Phelps County.



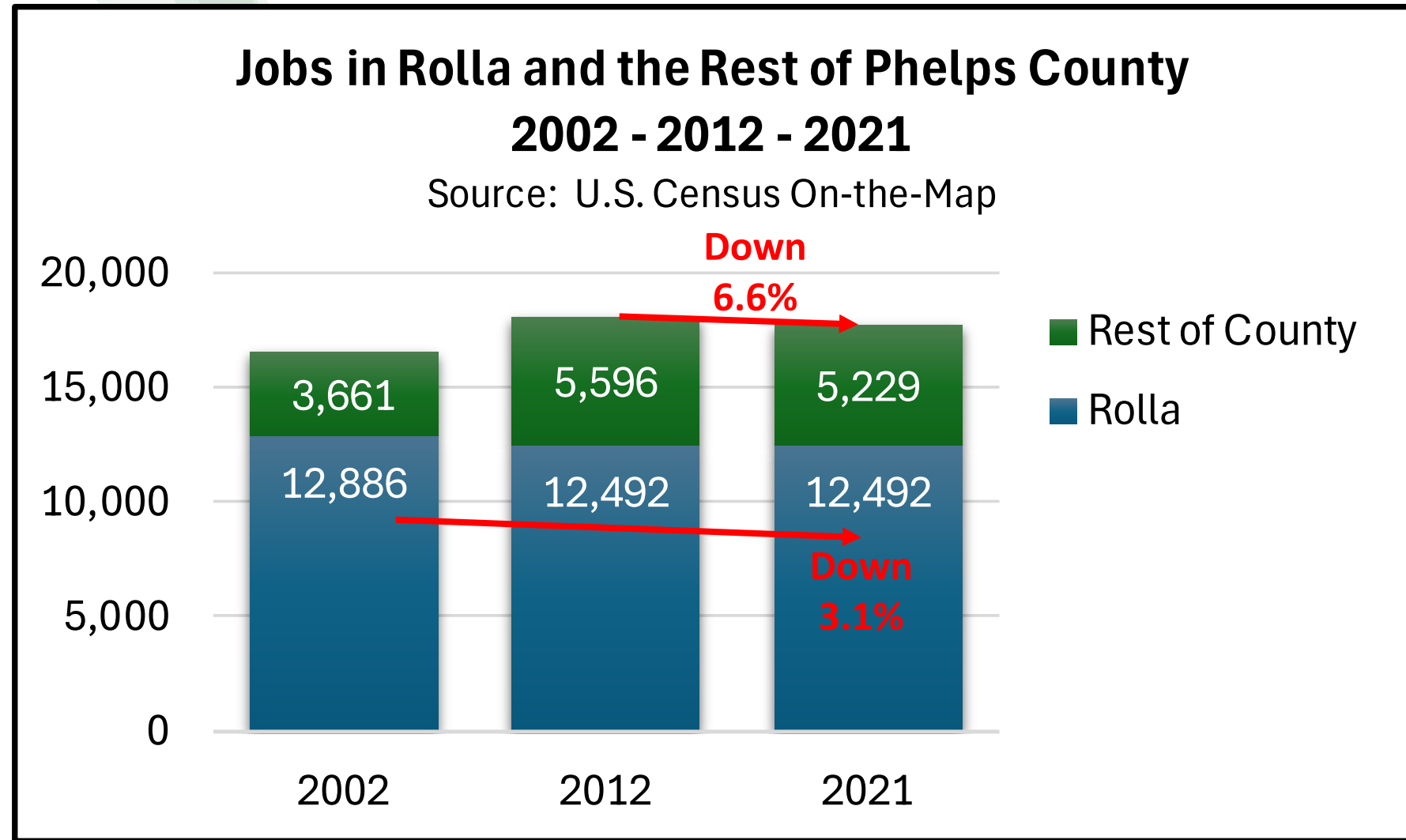
- Rolla is generally “younger” than the rest of Phelps County, suggesting that higher earning households (older middle age) tends to locate in the Rolla suburbs more than in the city itself.

Population Estimates Post-Census

- The official U.S. Census is counted as of April 1st in years ending in zero. These are the numbers that determine representation in the House of Representatives
- The Census Bureau, since 2000, has also made “statistical estimates” of cities and counties for each year between Census years. These estimates are as of July 1st, or mid-year. Theoretically, therefore, Rolla’s July 1 estimates would exclude MS&T students who are there in April but not so much in July.
- As it turns out, however, the Census estimates seem to account for (in this case) “seasonal” populations like college students. This is verified by comparing the April 1 and July 1 populations for the year 2020, for example.
- As of April 1, 2020 (official Census Day), Rolla was counted with 19,937 residents. The Census Bureau adjusted this for July 1, 2020, to a virtually similar 19,926. For 2023, that mid-year estimate was 20,423.
- But, as seen on the previous graph, the Census Bureau seems also to be accounting for the high share of college students in Rolla most of any given year, even at mid-year.
- In short, the July 1 estimates may be high because of the many few college students, but they do account for those students on an annualized basis.
- This same statistical non-adjustment is seen for Columbia and Boone County, where the college study populations are much higher than in Rolla and Phelps County.

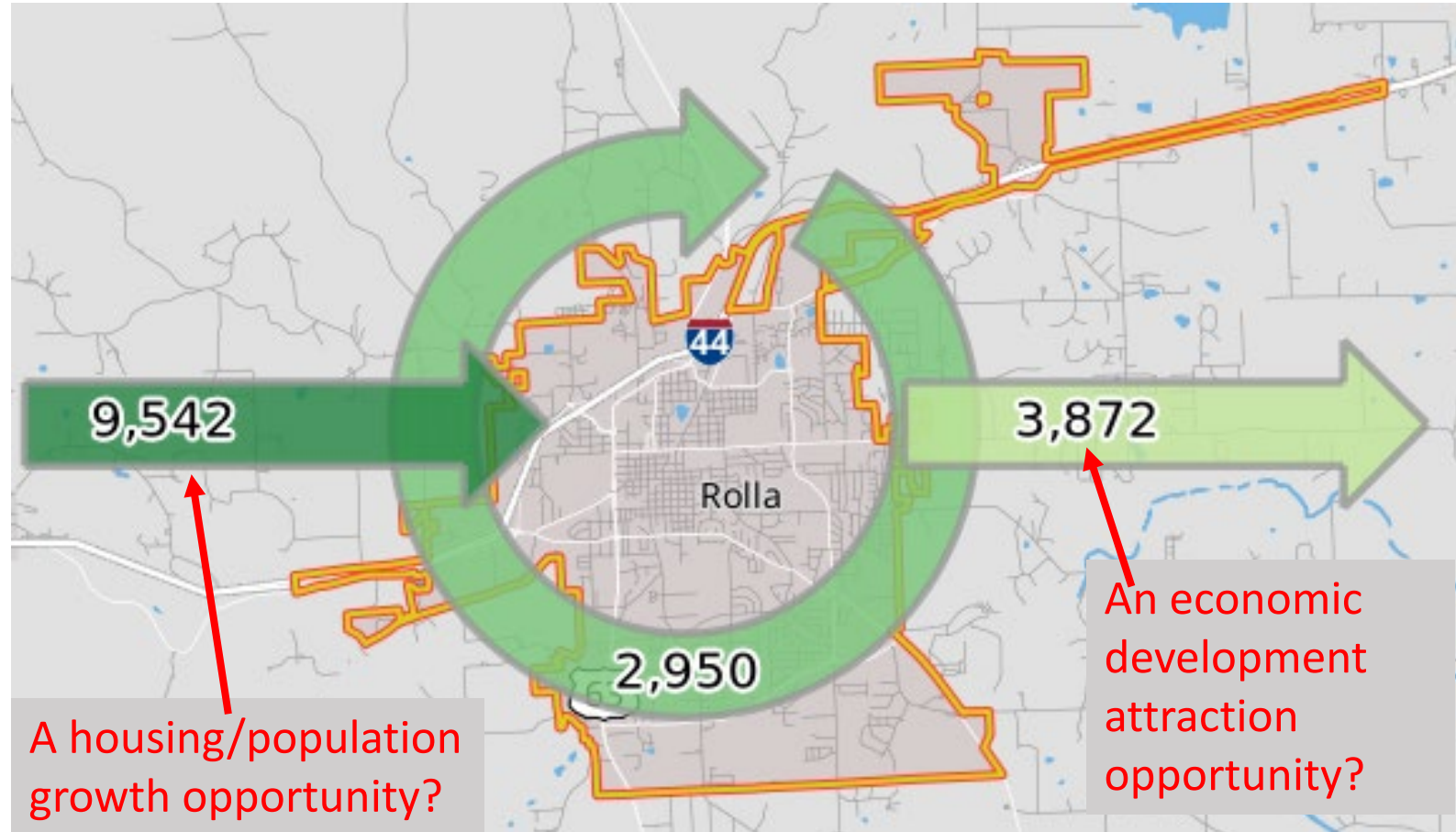
Economic Development: Jobs in Rolla, 2002-2021

- No net growth 2012 to 2021.
- But 400 fewer jobs than in 2002.
- Strong growth, then net decline in Phelps County.
- Missouri added 8.4% more jobs 2002 to 2021



Commuting Into and Out of Rolla, 2021

- Of the 12,492 jobs located in Rolla as of 2021, 9,542 (76%) were held by non-Rolla residents.
- Only one quarter of Rolla's jobs are held by residents.
- Of the 6,822 residents of Rolla holding jobs as of 2021, 3,872 (57%) commuted elsewhere for work.
- Rolla's population "during the day" is larger than at night.



Source: U.S. Census Bureau "On the Map"

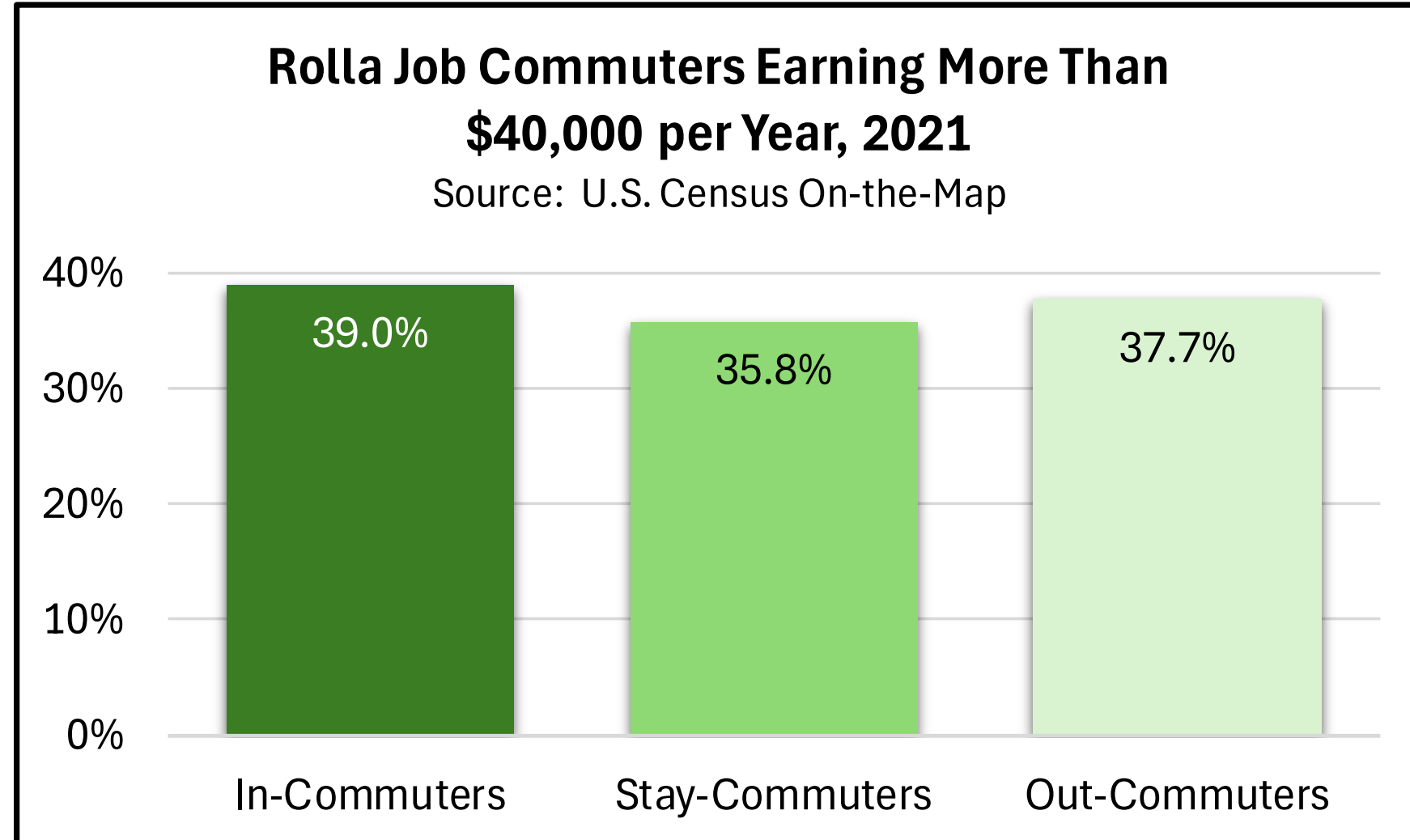
Earnings of Commuters, 2021

Well-balanced distribution of earnings by commuters:

- In-commuters are only slightly more likely to earn \$40,000 or more per year than the other types of commuters.

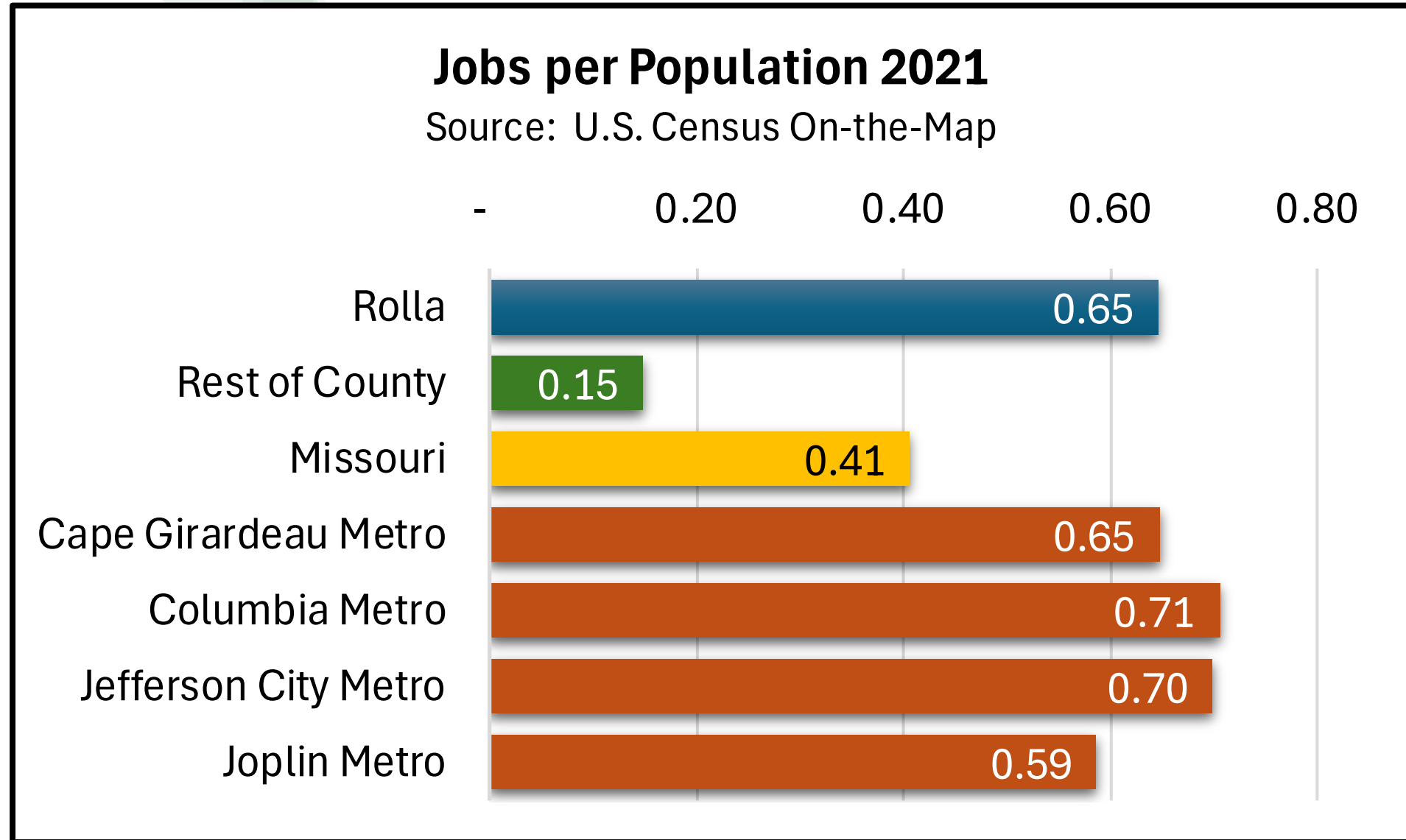
[\$40,000+ is the highest earnings category in this data source.]

- BUT. . .in-commuters seem to do relatively well compared to those who commute within Rolla (39.0% to 35.8%).



Economic Development: Jobs per Population 2021

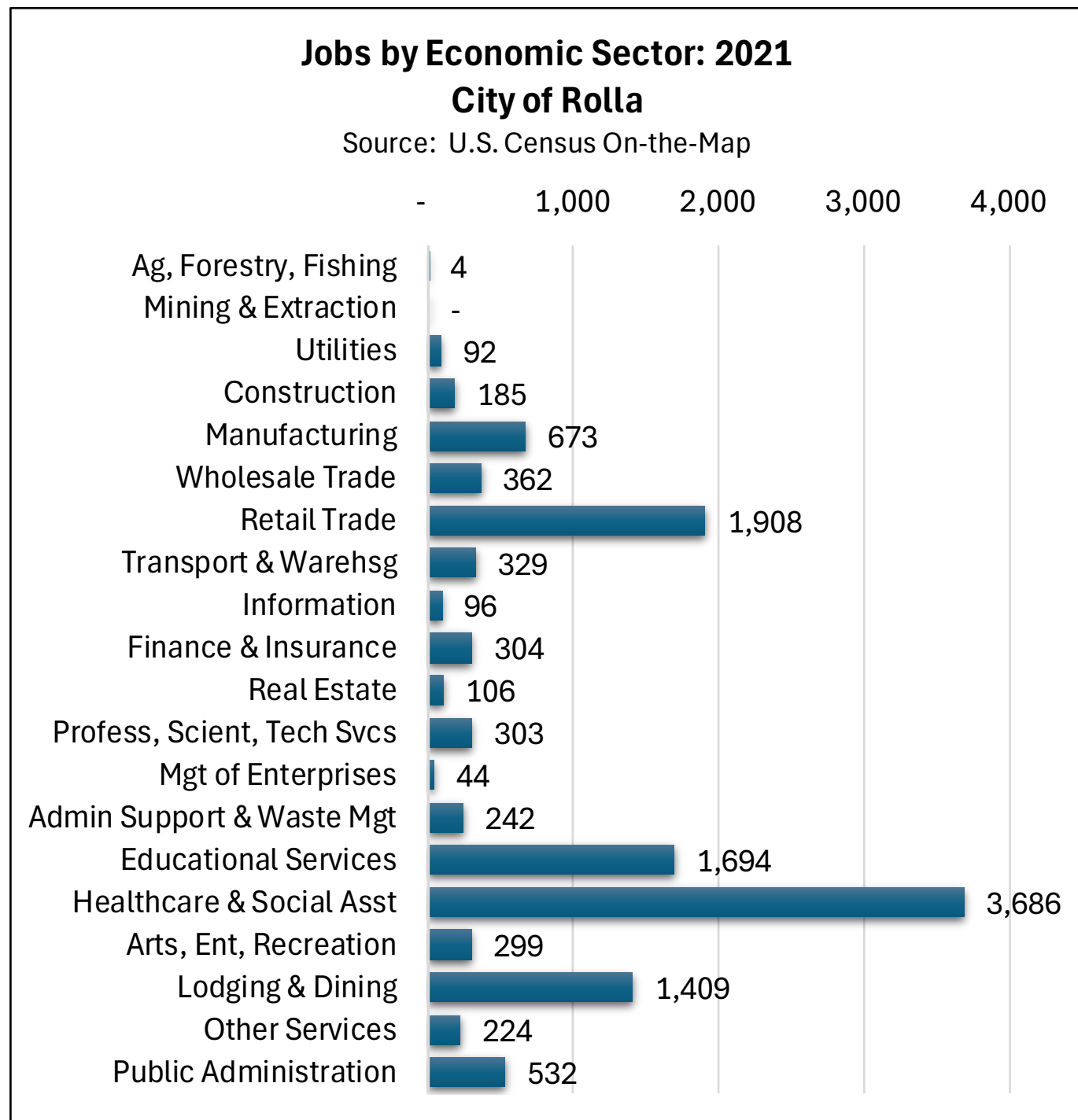
- City of Rolla ranks with the smaller metro areas of Missouri.
- Rolla is a “net importer” of workers.



Economic Development: Jobs by Sector, 2021

Largest Numbers of Jobs in Rolla:

- Health Care & Social Assistance (3,686)
- Educational Services (1,694)
- Retail Trade (1,908)
- Lodging and Dining (1,409)



Economic Development: Job Location Quotients, 2021

Job location quotients (LQs) compare the share of total jobs in Rolla to the share of jobs in the same sectors in Missouri.

Healthcare and Education Top the List

- At 1.72 and 1.64, such jobs are extremely important for Rolla's economy.

But so are

- Arts, Entertainment, & Recreation
- Lodging and Dining
- Retail Trade

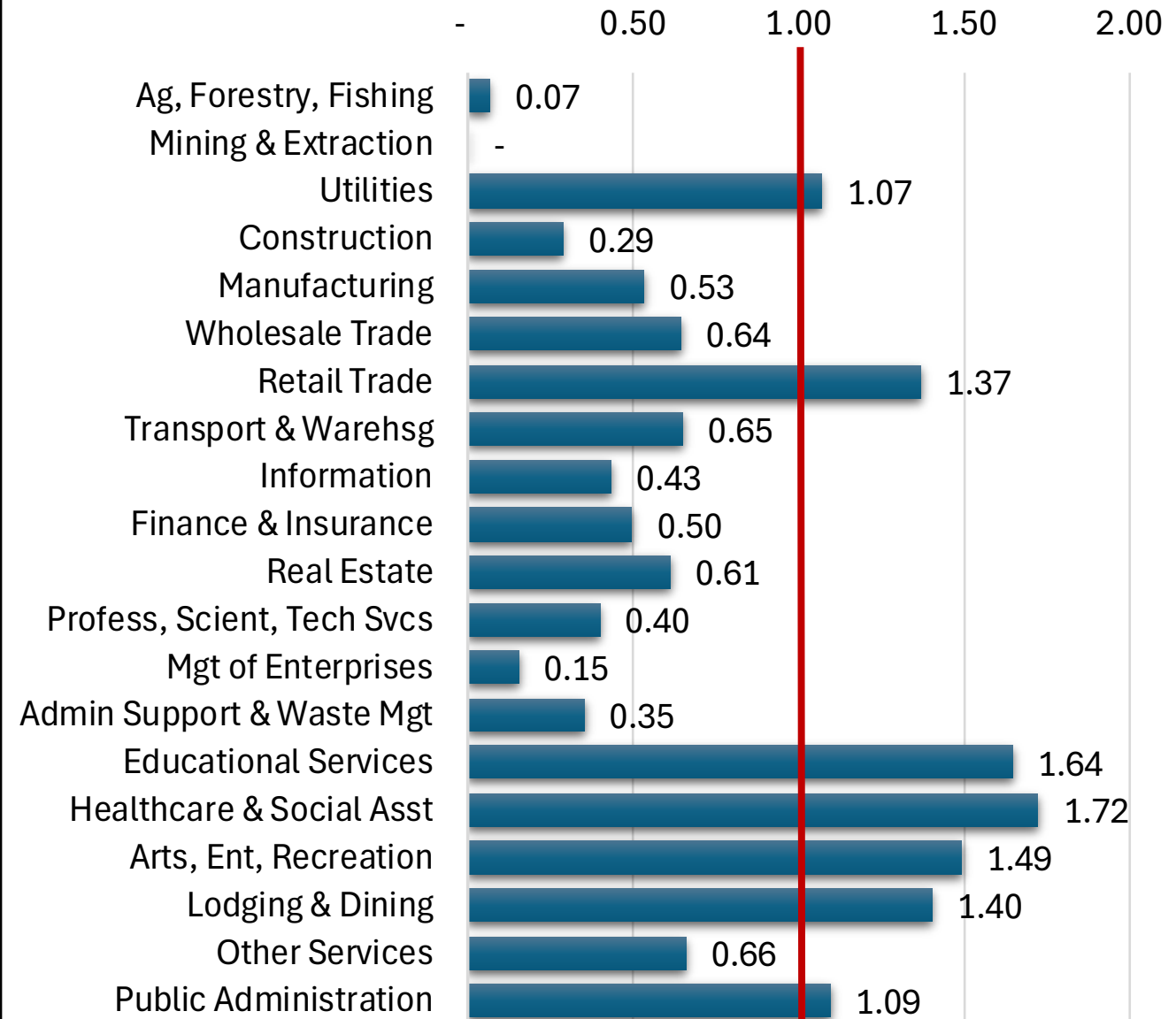
Weaknesses of note. . .

- Professional, Scientific, & Tech Services
- Logistics (Wholesale, Transportation)
- Construction

Employment Location Quotients: 2021

Rolla Compared to Missouri

Source: U.S. Census On-the-Map



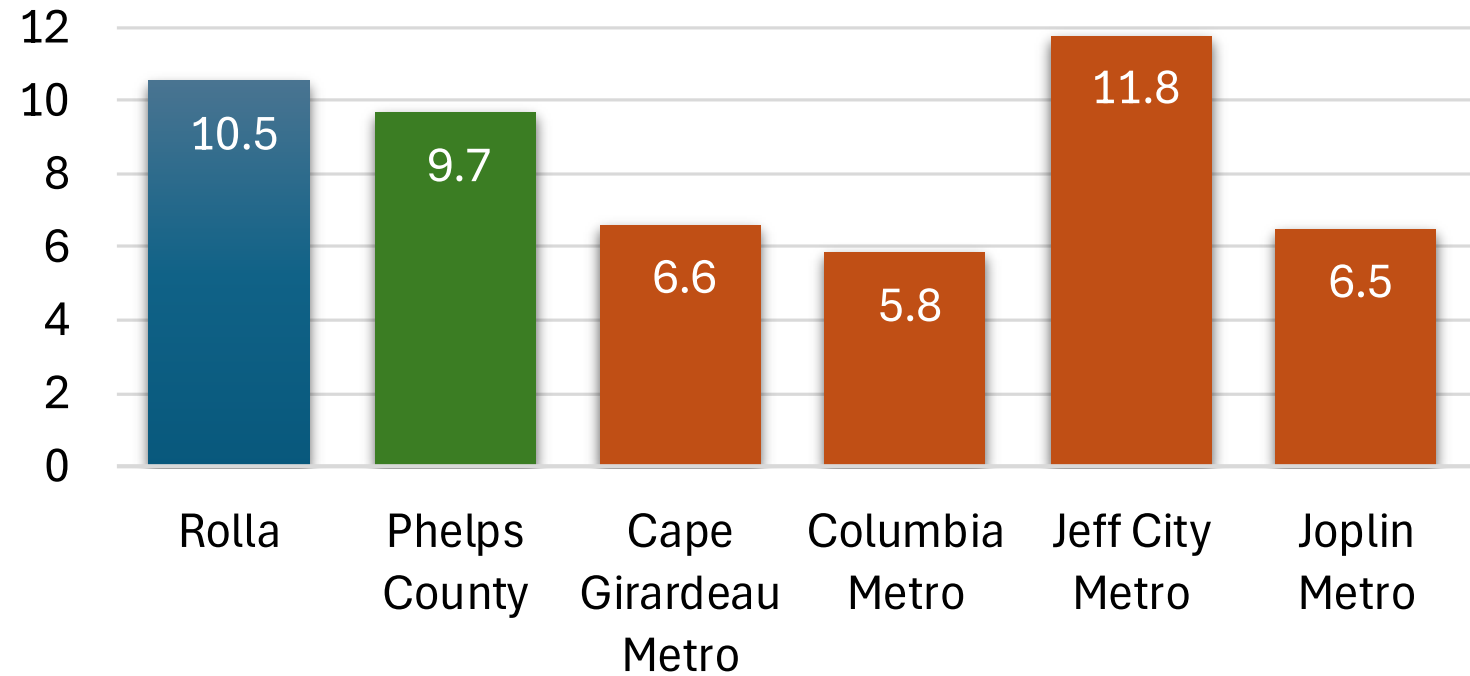
Absolute Values of Job Location Quotients, 2021

Summing “the distance from 1.0” for location quotients yields a measure of economic diversity. Lower numbers mean higher diversity.

- The city of Rolla has a diversity index of 10.5, slightly higher than Phelps County as a whole.
- Larger economies *tend* to have lower diversity indices.
- But Rolla is more diverse than the Jeff City metro area. . .reflecting Jeff City’s substantial reliance on state government.
- Other small metros in Missouri are more diverse than Rolla—to be expected.
- *The St. Louis metro index is 3.0—very balanced diversity.*

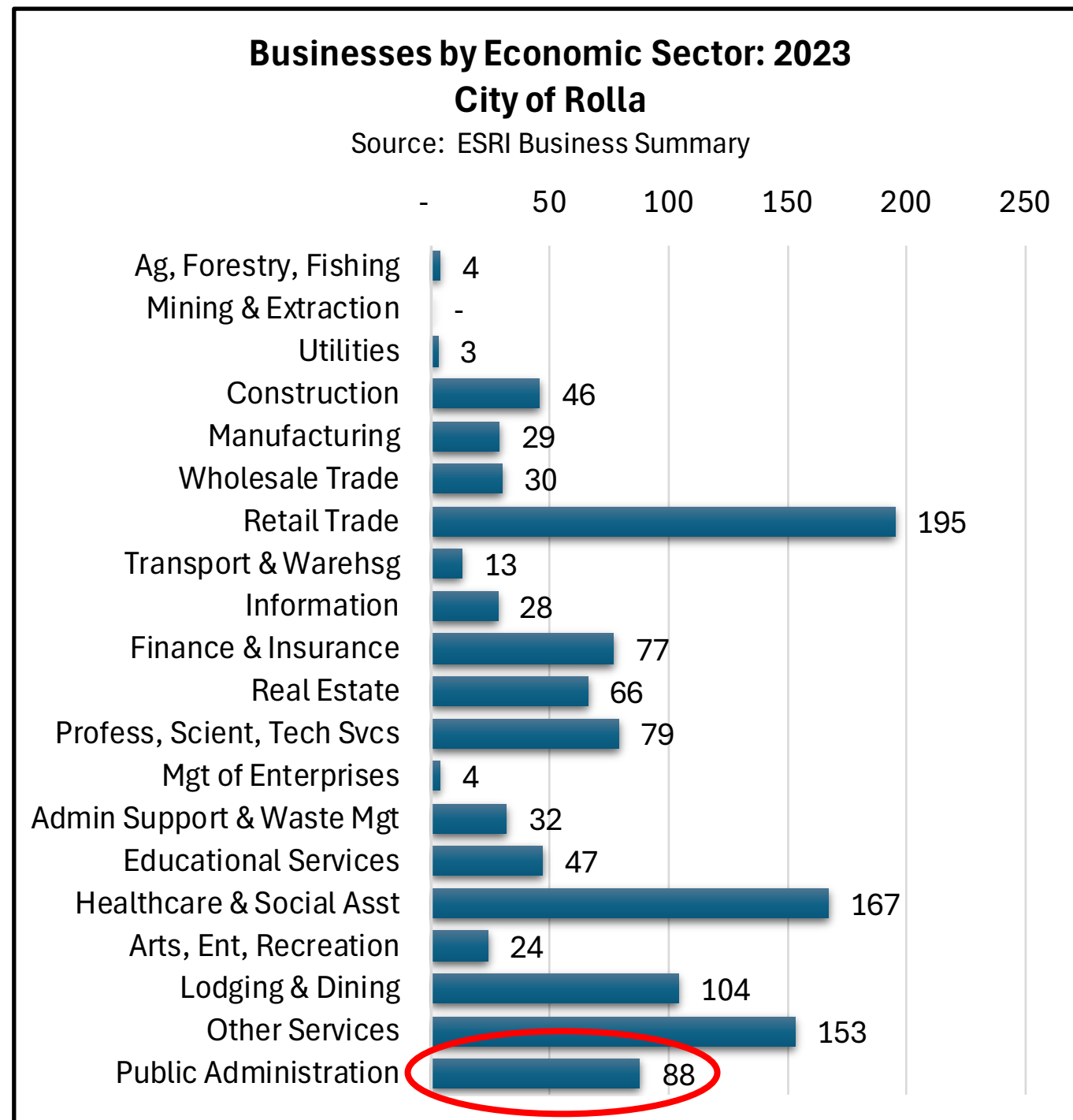
Sum of Absolute Values of Employment Location Quotients, 2021

Source: Saint Louis University Community Planning Lab



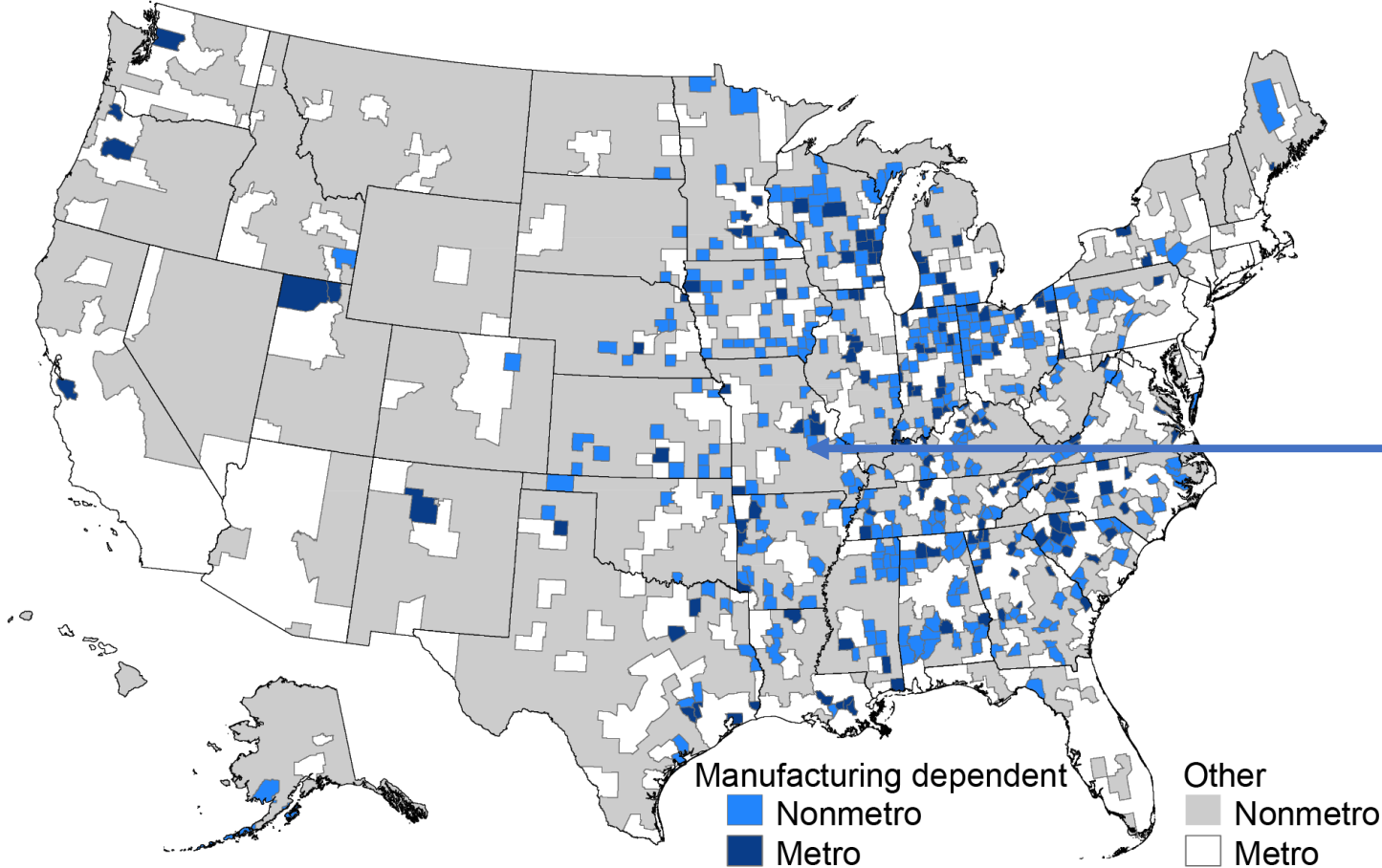
Business Establishments 2023

- 1,221 total establishments (including gov't) but 32 unclassified
-
- Retail trade leads with 195 establishments.
 - Healthcare is not just the Med Center!
 - Education is not just MS&T!
 - Just 24 in arts, entertainment, and recreation despite this sector's strong job location quotient.
 - What's with this public administration number? (Insights to follow. . .)



Manufacturing-Dependent Counties, 2015

Manufacturing-dependent counties, 2015 edition



Manufacturing-dependent counties are those where 23 percent or more of the county's average annual labor and proprietors' earnings were derived from manufacturing, or 16 percent or more of jobs were in manufacturing, as measured by 2010-12 Bureau of Economic Analysis, Local Area Personal Income and Employment data. Note that county boundaries are drawn for the manufacturing-dependent counties only. Map revised May 2017; see errata for details.

Source: USDA, Economic Research Service using data from Bureau of Economic Analysis.

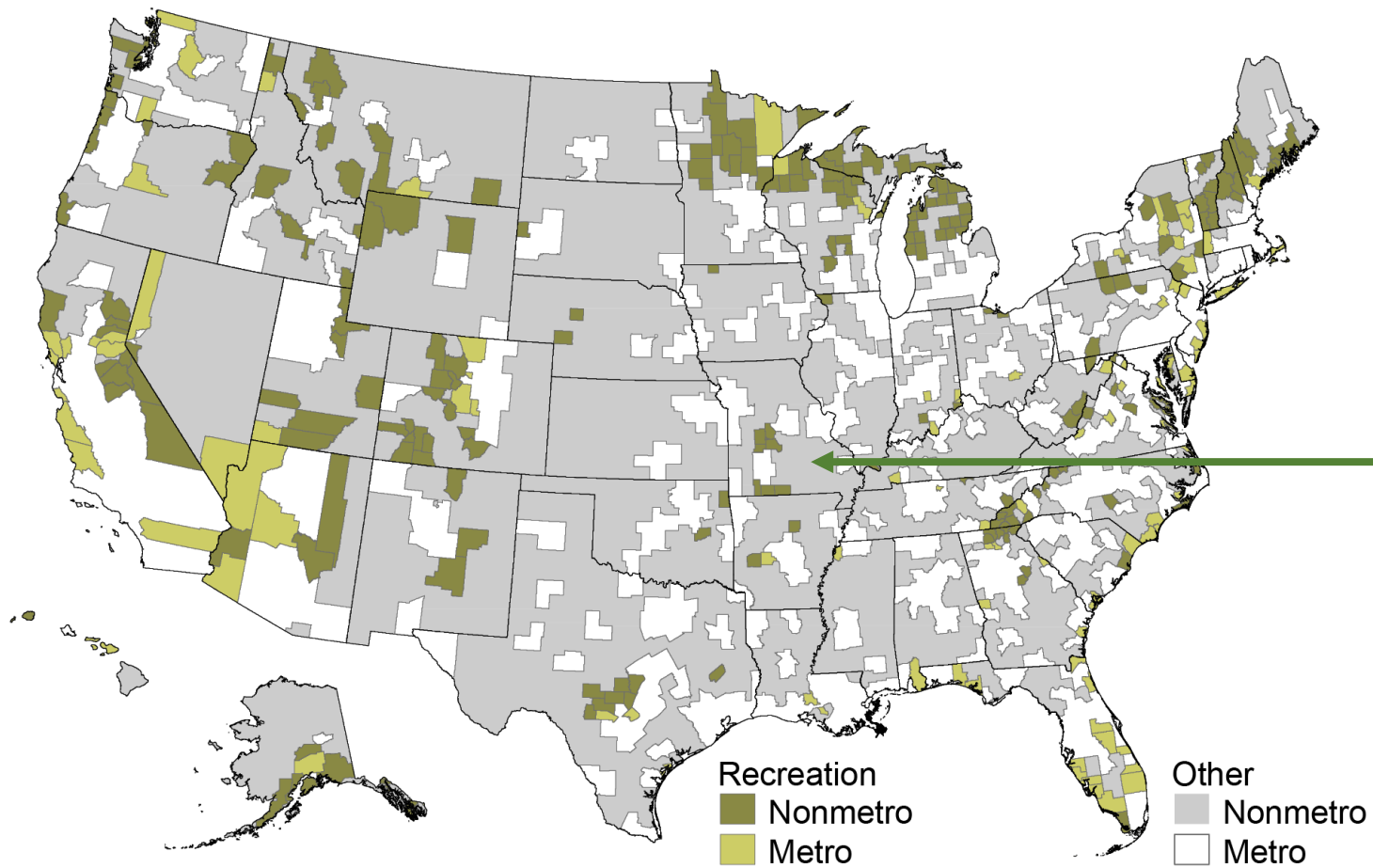
USDA Analysis of
Manufacturing Dependency
Recreation Dependency
Government Dependency

Phelps County:
Not on the List

Source: U.S. Department of Agriculture,
Economic Research Service, using data from
the U.S. Bureau of Economic Analysis

Recreation-Dependent Counties, 2015

Recreation counties, 2015 edition



USDA Analysis of
Manufacturing Dependency
Recreation Dependency
Government Dependency

Phelps County:
Not on the List

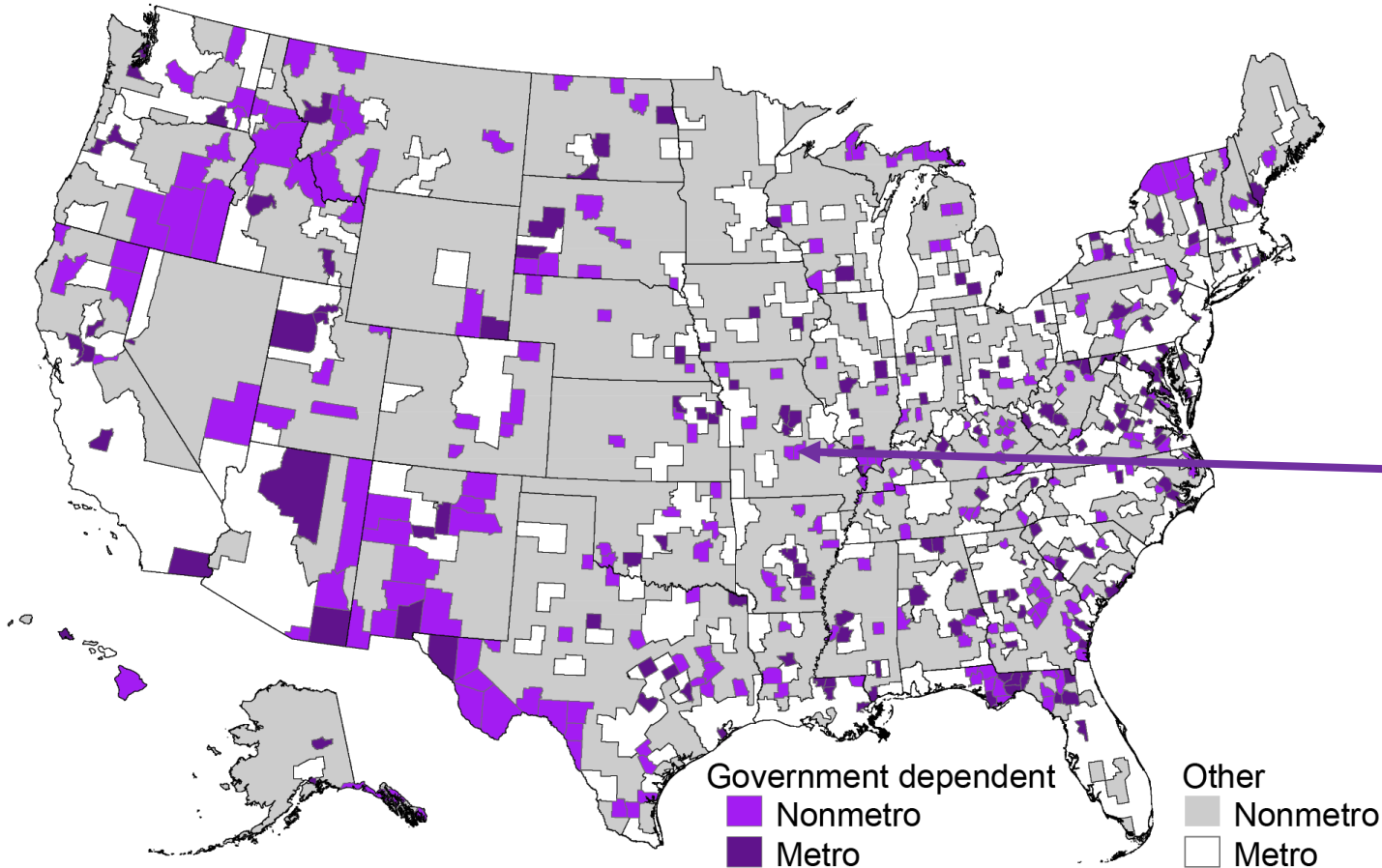
Recreation counties determined by a weighted index of three measures: 1) jobs; 2) earnings in the following: entertainment, recreation, accommodations, eating/drinking places, and real estate; and 3) the share of vacant housing units intended for seasonal/occasional use. Recreation counties are those with a score more than one deviation above the mean. Note that county boundaries are drawn for the recreation counties only. Map revised May 2017; see errata for details.

Source: USDA, Economic Research Service using data from Bureau of Economic Analysis and U.S. Census Bureau.

Source: U.S. Department of Agriculture, Economic Research Service, using data from the U.S. Bureau of Economic Analysis

Government-Dependent Counties, 2015

Federal/State government-dependent counties, 2015 edition



Government-dependent counties are those where 14 percent or more of the county's average annual labor and proprietors' earnings were derived from Federal/State government, or 9 percent or more jobs were in Federal/State government as measured by 2010-12 Bureau of Economic Analysis, Local Area Personal Income and Employment data. Note that county boundaries are drawn for the government-dependent counties only. Map revised May 2017; see errata for details.

Source: USDA, Economic Research Service using data from Bureau of Economic Analysis.

USDA Analysis of
Manufacturing Dependency
Recreation Dependency
Government Dependency

Phelps County:
“14% or more of the county's
average annual labor and
proprietors' earnings were
derived from Fed/State
government. . . .”

Might include MS&T

Source: U.S. Department of Agriculture,
Economic Research Service, using data from
the U.S. Bureau of Economic Analysis

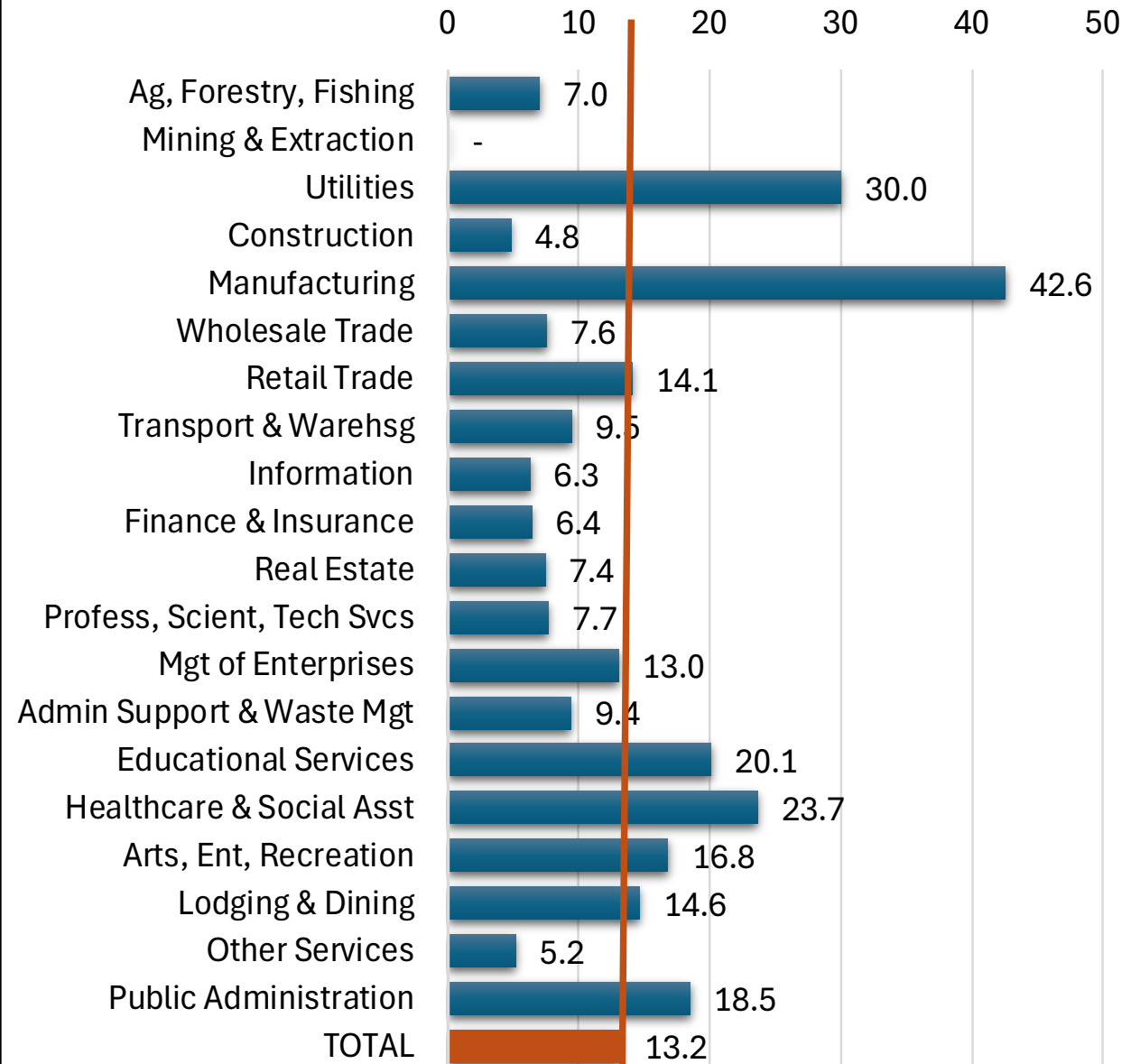
Average Number of Employees

- Overall Average: 13.2
- Manufacturing leads with 42.6 employees per 29 manufacturers.
Washington, MO, with 2/3 the population, has 50 manufacturers. No university, however, and much smaller medical sector.
- Education is probably dominated by MS&T, suggesting smaller averages for others.
- Healthcare is probably dominated by Phelps County Medical Center, suggesting much smaller averages for other providers.

Average Employees per Business: 2023

City of Rolla

Source: ESRI Business Summary



Job Projections, 2020-2030

Missouri Central Region



Strongest Growth Rates:

- Prof, Sci, Tech Services (18.1%)
- Admin/Waste Mgt (17.6%)
- **Arts, Ent, Rec (16.1%)**
- Transp/Warehsg (12.6%)

Rolla's Strengths:

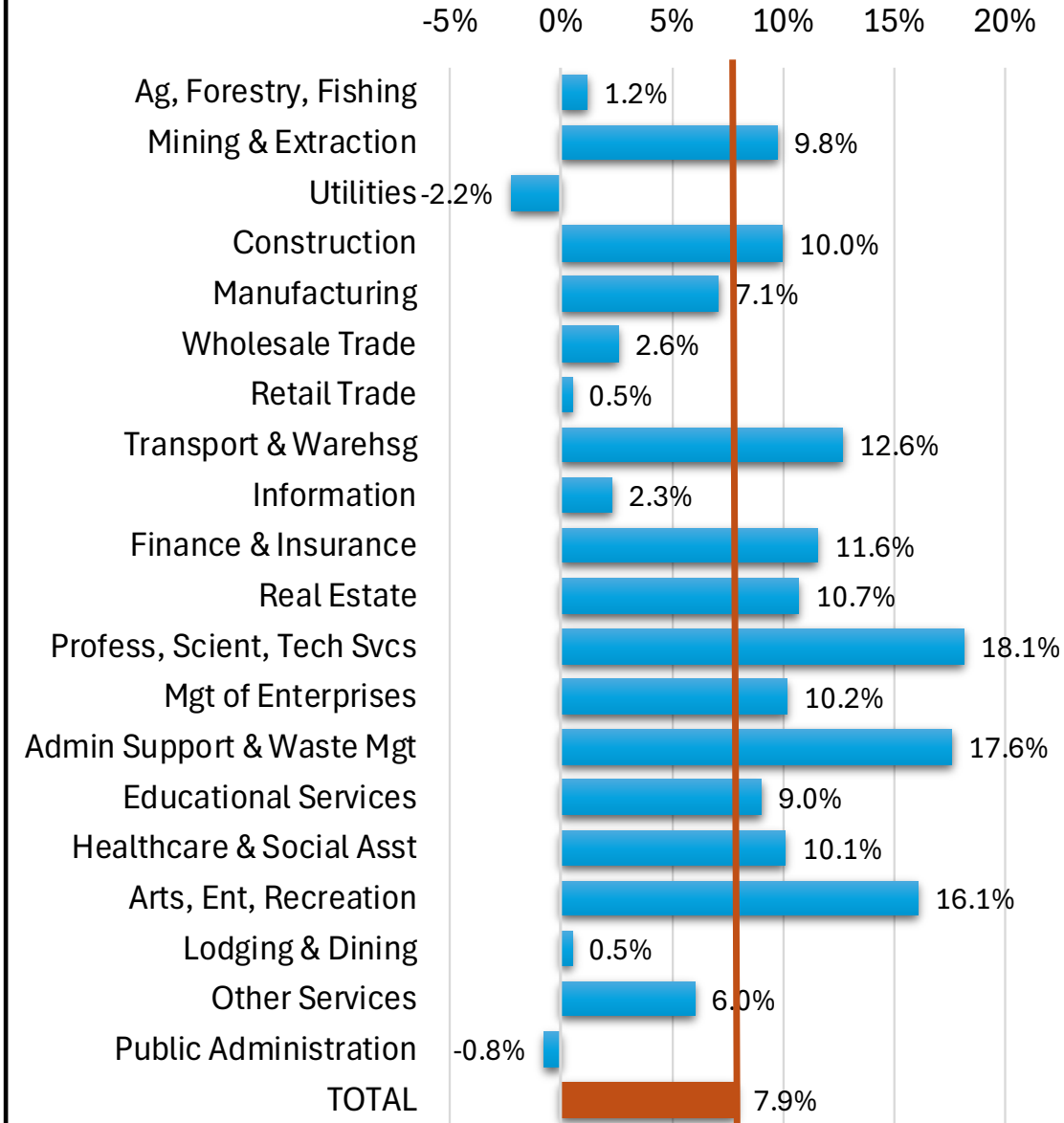
- Health Care/Soc Asst (10.1%)
- Educational Svcs (9.0%)
- Retail Trade (0.5%)
- **Arts, Ent, Rec (16.1%)**
- Lodging/Dining (0.5%)

**Central Region
Growth Rate:
7.9%**

**Missouri Growth
Rate: 7.3%**

Percent Growth in Employment, 2020 to 2030 Missouri Central Region (18 Counties)

Source: Missouri Economic Research and Information Center



Job Projections, 2020-2030

Missouri Central Region

Strongest Job Gains

- Health Care/Soc Asst (4,221 more jobs)
- Educational Services (2,722)
- Manufacturing (1,830)
- Admin Support/Waste Mgt (1,647)
- Profess, Scient, Tech Services (1,514)

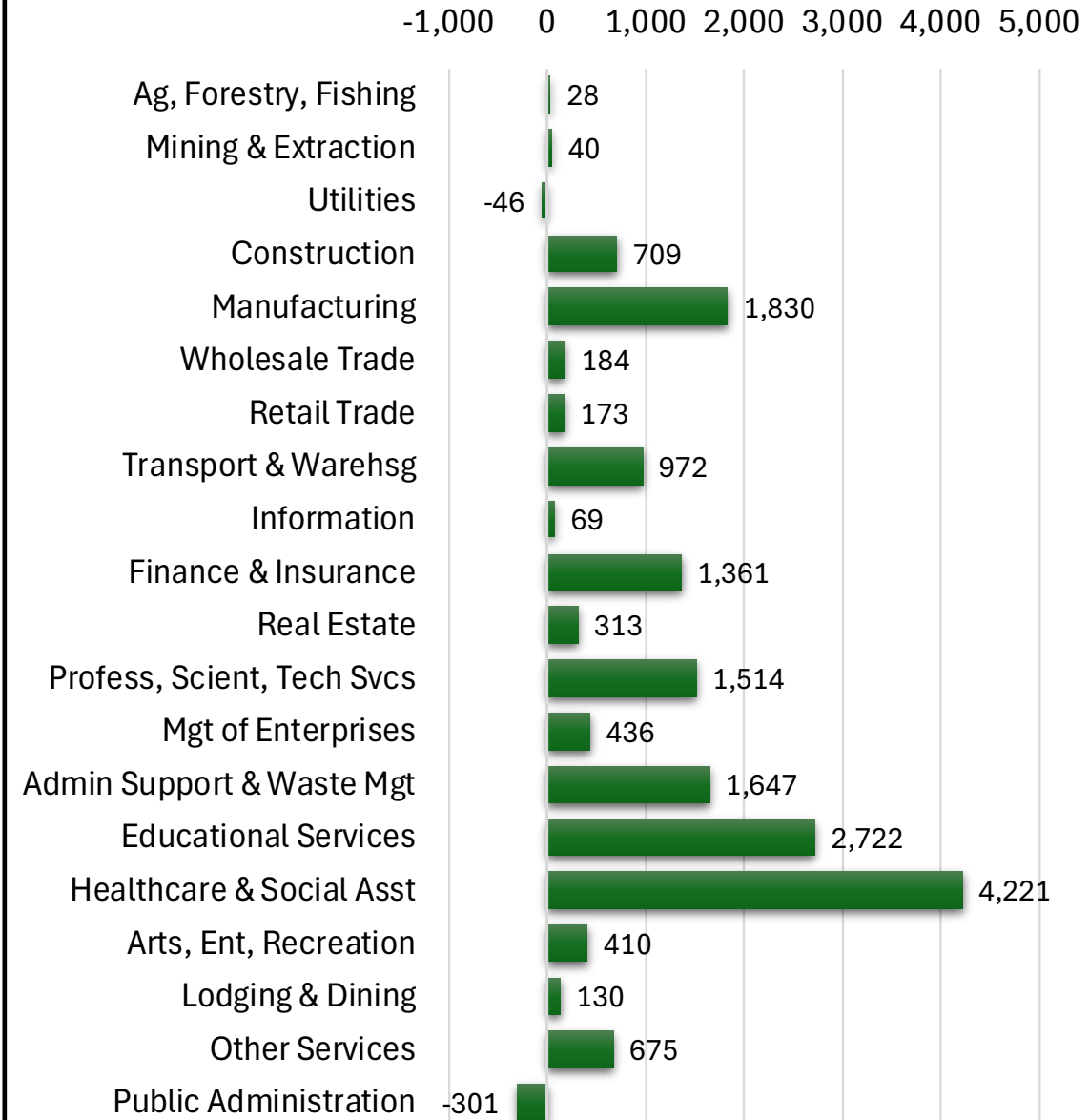
Rolla's Strengths:

- Health Care/Soc Asst (4,221 more jobs)
- Educational Services (2,722)
- Retail Trade (173)
- Arts, Ent, Rec (410)
- Lodging/Dining (130)

**Phelps County
makes up 6.7%
of all jobs in the
Central Region
(2022)**

Added Employment, 2020 to 2030 Missouri Central Region (18 Counties)

Source: Missouri Economic Research and Information Center



Economic Observations



Rolla may be in the middle of *everywhere*, but perhaps not *everything*. Yet.

Future population (employment?) growth constraints. Sluggish growth, retiring Baby Boomers.

Commuting data suggests opportunities to attract more employees and more housing.

Major presence in growth sectors – education and healthcare– not so much “tourism” (retail, dining, lodging)

Weakness in other economic diversity. Too much “government?” Or is this a growth opportunity?

Opportunities: manufacturing, prof/tech services.