

Spain's Prime Minister has tasked Ms. Barreira with drafting a national strategy to address demographic imbalance.



- * Spain's birth rate has fallen 18% since 2008.
- * Spain's birth rate has been eclipsed by its death rate.
- * Between 1977 and 2015, the number of childless couples has tripled from 1.5 Million to 4.4 Million.

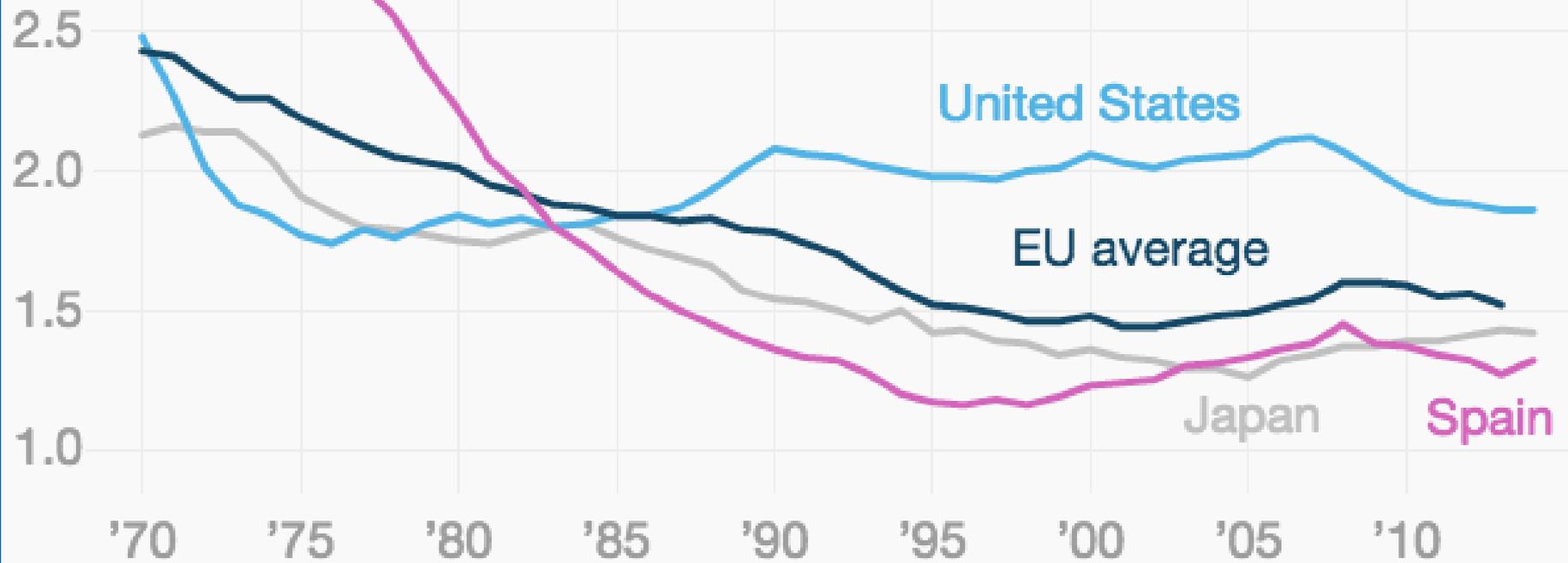


“We are in a demographic winter.”

Spain's Fertility Rate = 1.3

Average fertility rates

3.0 children per woman





Is Spain not your
ultimate destination?

What about
Italy!



Mayor Galliano of Bormida, Italy is offering \$2,000-euros to anyone willing to relocate to this quaint northwestern Italian village (population is 349).



Published:
May 8, 2017

Takers?

Gina McCarty

Former USEPA Administrator

- **Sustainability:**

- “We have to be **wicked smart** about how we innovate to improve the long term **sustainability** and health of water.”

U.S. Population Demographic Definitions

- **Shrinking City:** Any city that has lost population over one U.S. Census cycle.
- **Legacy City:** One of 18 “central cities” that had a minimum population of 50,000 people that has suffered 20% population loss from its peak, including:

Akron, Baltimore, Birmingham, Buffalo, Camden, Canton, Cincinnati, Cleveland, Dayton, Detroit, **Flint**, Milwaukee, Newark, Philadelphia, Pittsburg, **St. Louis**, Syracuse, & Youngstown.

More Population Demographic Definitions

Legacy City: One of 18 U.S. central cities that had a minimum population of 50,000 people that has suffered 20% population loss from its peak, including:

Akron, Baltimore, Birmingham, Buffalo, Camden, Canton, Cincinnati, Cleveland, Dayton, Detroit, **Flint**, Milwaukee, Newark, Philadelphia, Pittsburg, **St. Louis**, Syracuse, & Youngstown.

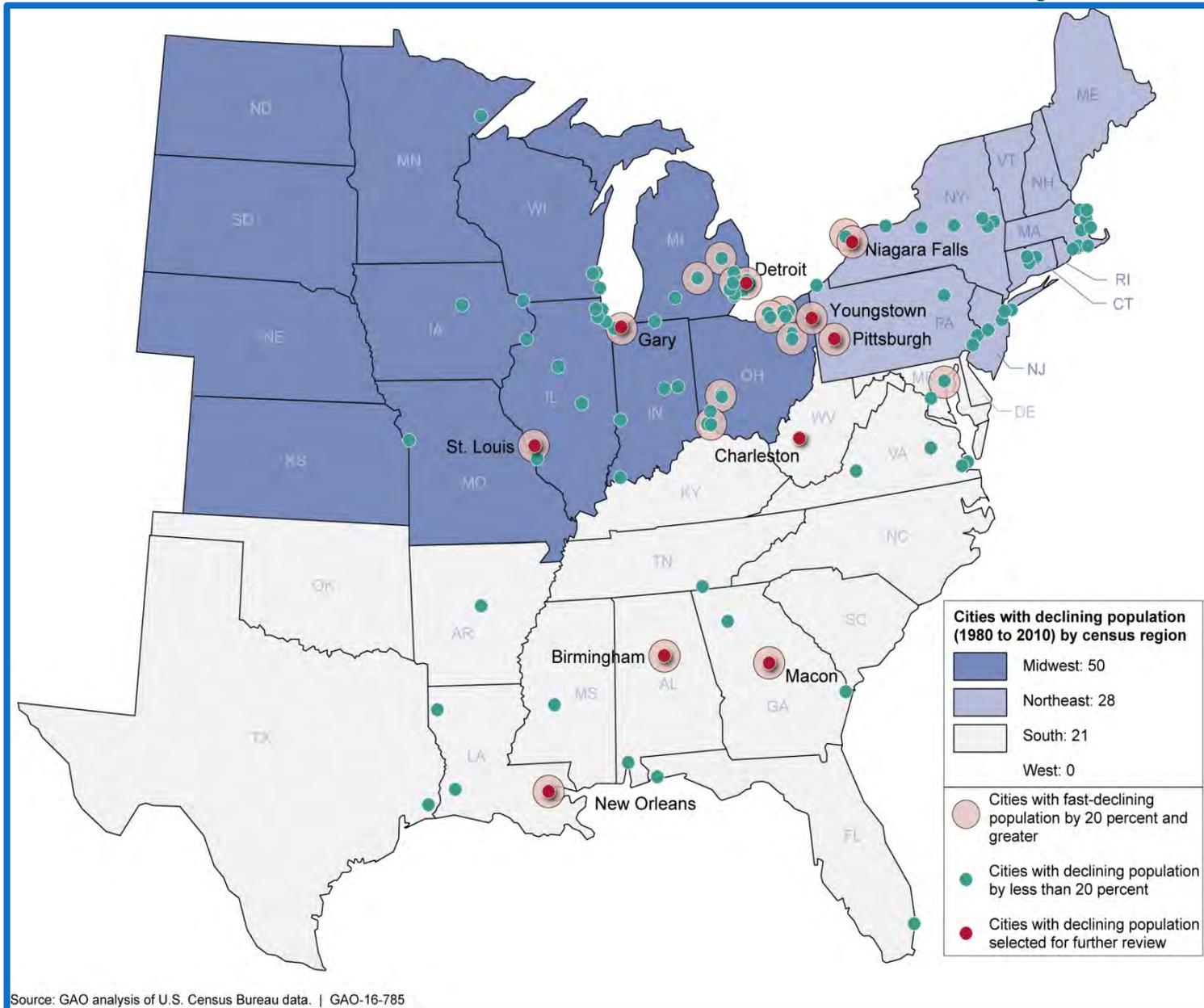
* Legacy City: One of 41 cities that had a minimum population of 100,000 people that has suffered a 20% population loss since 1950.

U.S. Government Accountability Office

Report: **Water Infrastructure** (9/16)

Locality	Population Decline
● Gary, Indiana	- 47.2 %
● Youngstown, Ohio	- 42.0 %
● Detroit, Michigan	- 40.7 %
● New Orleans, Louisiana	- 38.3 %
● Niagara Falls, New York	- 29.7 %
● St. Louis, Missouri	- 29.5 %
● Pittsburgh, Pennsylvania	- 27.9 %
● Birmingham, Alabama	- 25.4 %
● Macon, Georgia	- 21.9 %
● Charleston, West Virginia	- 19.6 %

US GAO: Water Infrastructure Report (Page 18)



USEPA's Version of the Vision

This is right off the: “Smart Growth in Small Towns and Rural Communities” resources website. A document entitled:

- **Framework for Creating a Smart Growth Economic Development Strategy.**
 - Step-by-step guide to building a place-based economic development strategy. It is intended for small and mid-sized cities, particularly those that have limited population growth, areas of disinvestment, and/or a struggling economy.

A Proposed Vision for USEPA

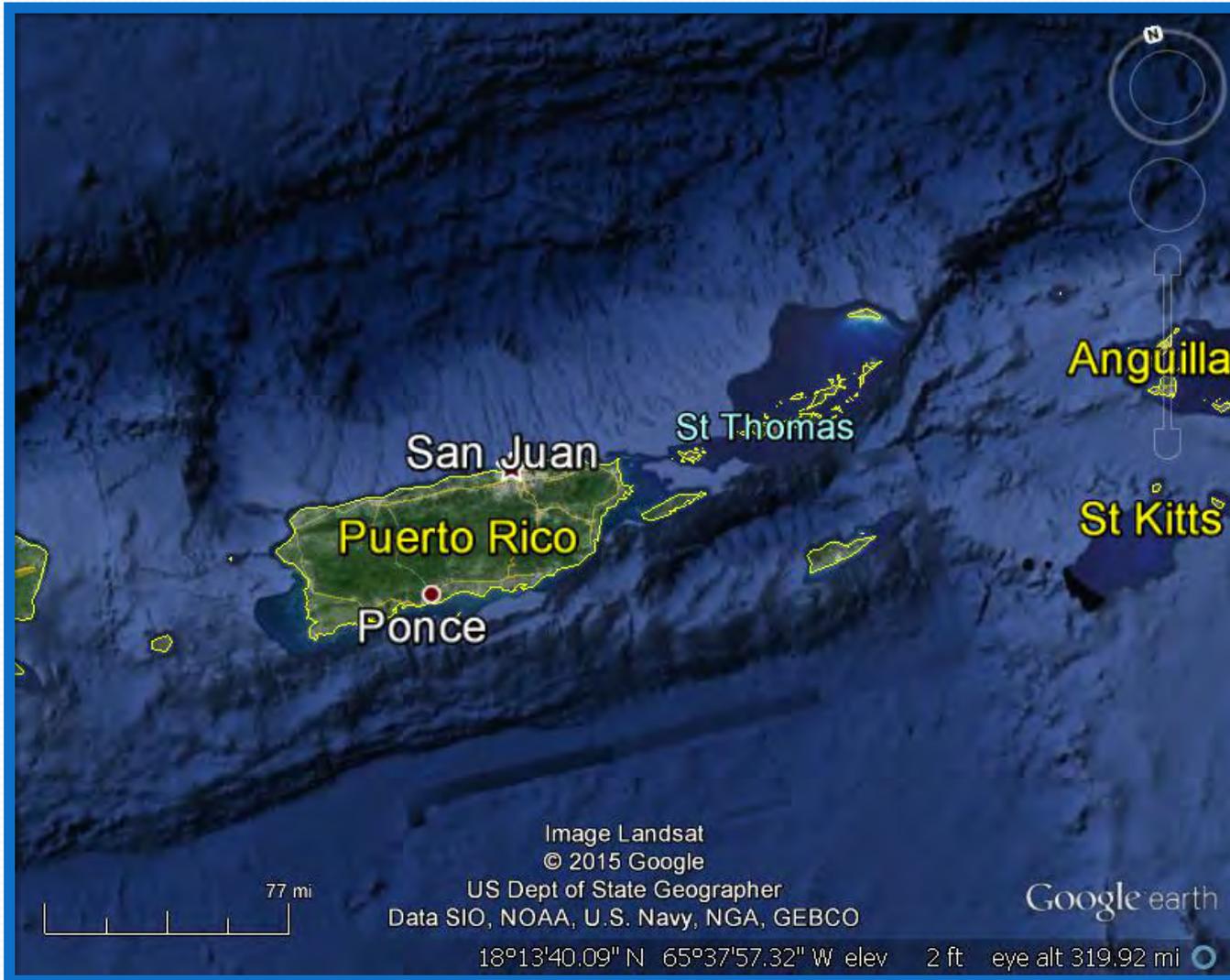
This is right off the: “Smart Growth in Small Towns and Rural Communities” resources website. A document entitled:

- Framework for Smart Growth Economic Development

Here's A New Approach

- Step-by-step guide to building a place-based economic development strategy. It is intended for small and mid-sized cities, particularly those that have a **declining population, under-funded infrastructures, limited population growth**, areas of disinvestment, and/or a struggling economy.

Why Should You Care About Demographics?



A Botched Projection

- Puerto Rico was projected to **grow** 87% from 2000 to 2030.



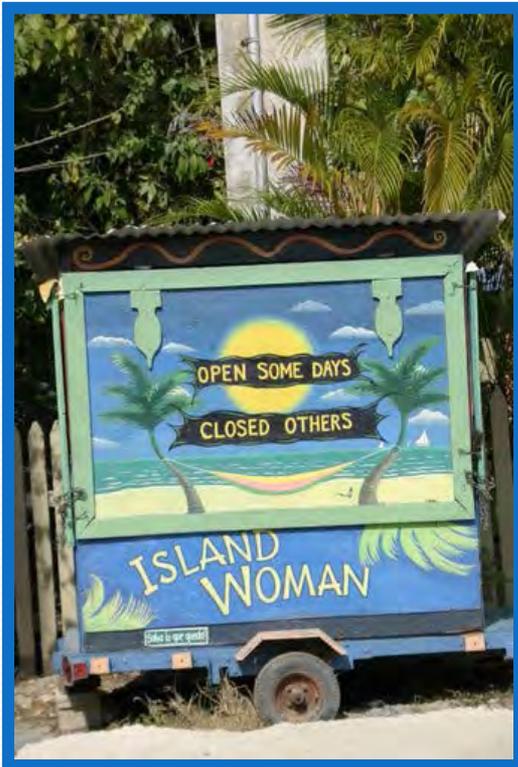
- The island's population **shrank** 6.8% in the first 14 years of the projection period. The newest "projection" has PR **losing** an additional 150,000 people in the next 16 years creating an overall **decline** of 11% over the 30-year period.
- The latest population "guestimate" shows PR at 3.0 Million people in 2050....**a loss of 21%.**

Imagine....



...running a municipal utility with a Mission Statement that reads:

- ↓ The power is on some days...off others.
- ↓ The water is on some days...off others.
- ↓ You can flush some days...not others.

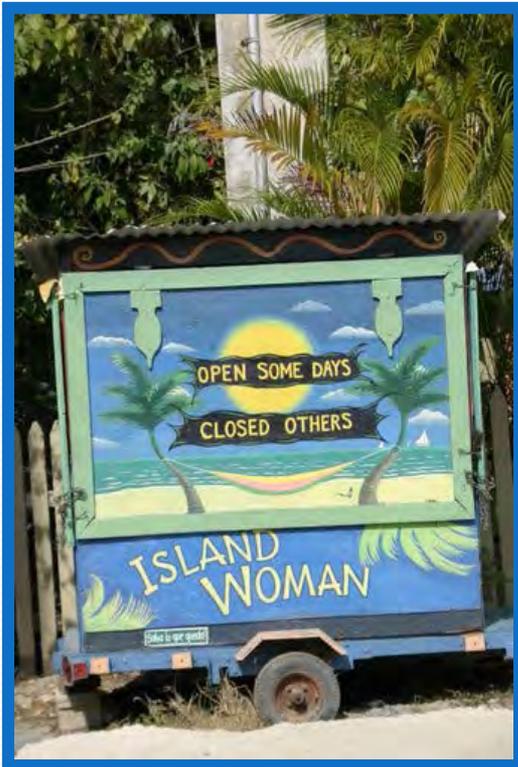


Imagine....



...running a municipal utility when the customers move away. How do you:

- ↓ Keep up with O&M.
- ↓ Retain qualified staff.
- ↓ Make system improvements.
- ↓ Comply with regulations.



USEPA's Small Community Challenges and Needs

- **Limited financial resources**
- **Geographically dispersed populations**
- Difficulty attracting, training, retaining system operators
- Limited managerial capacity
- Extreme topography and climate
- Geographic isolation



USEPA's Small Community Challenges and Needs

- Limited financial resources
- Geographically dispersed
- Difficulty attracting and retaining system operators
- Limited capacity
- Geographic isolation

What About Rural Shrinking and Legacy Cities?



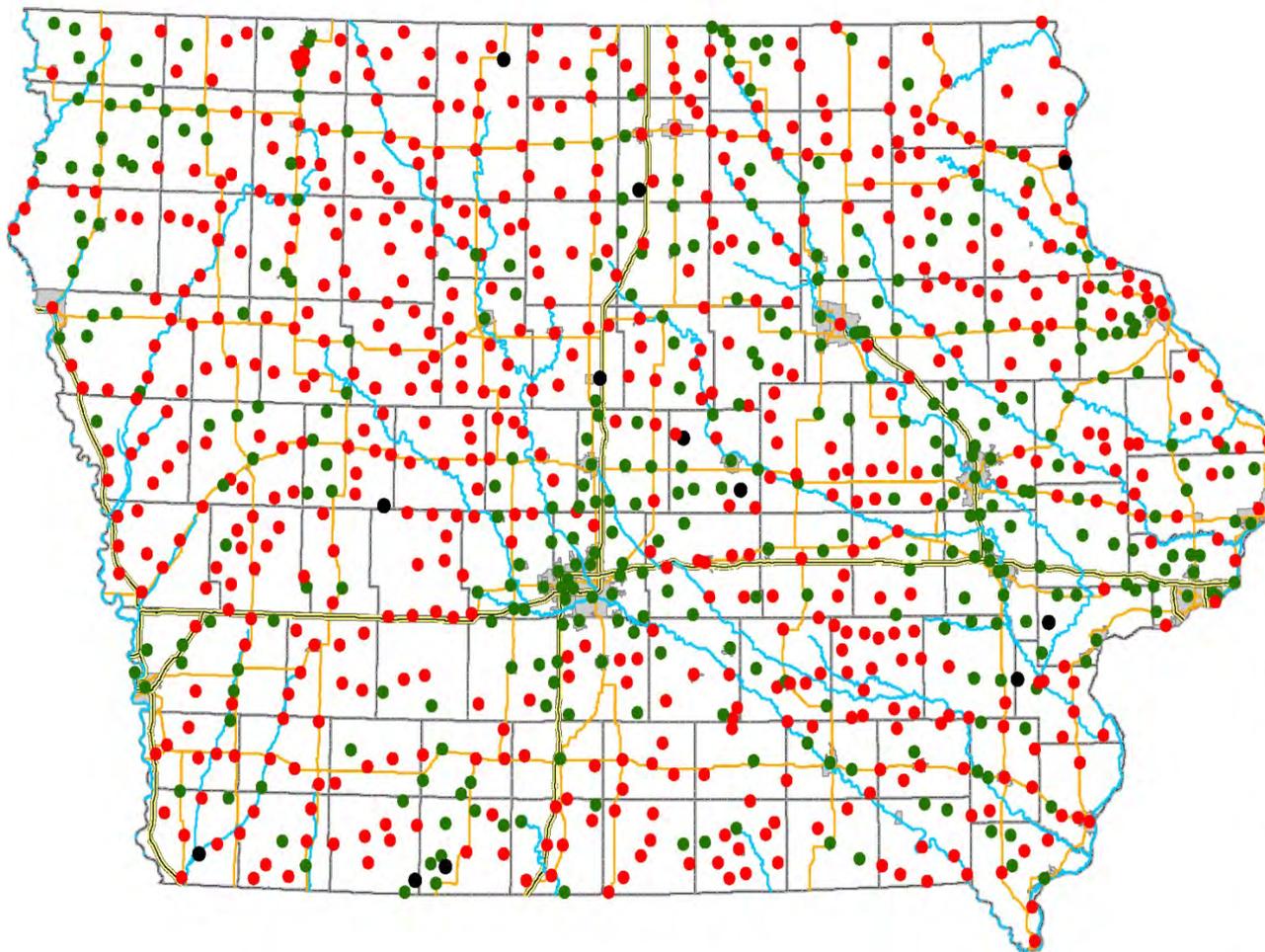
WICHITA STATE
UNIVERSITY

Missouri Rural Community Sustainability Assessment

Go Shockers

Environmental Finance Center
Hugo Wall School
Wichita State University

Iowa Population Change 2000 - 2010 Census



# of People Change	Communities (Count)
>100	82
10 - 99	412
1 - 9	103
0	12
1 - 9	68
10 - 99	151
>100	140

Incorporated Communities

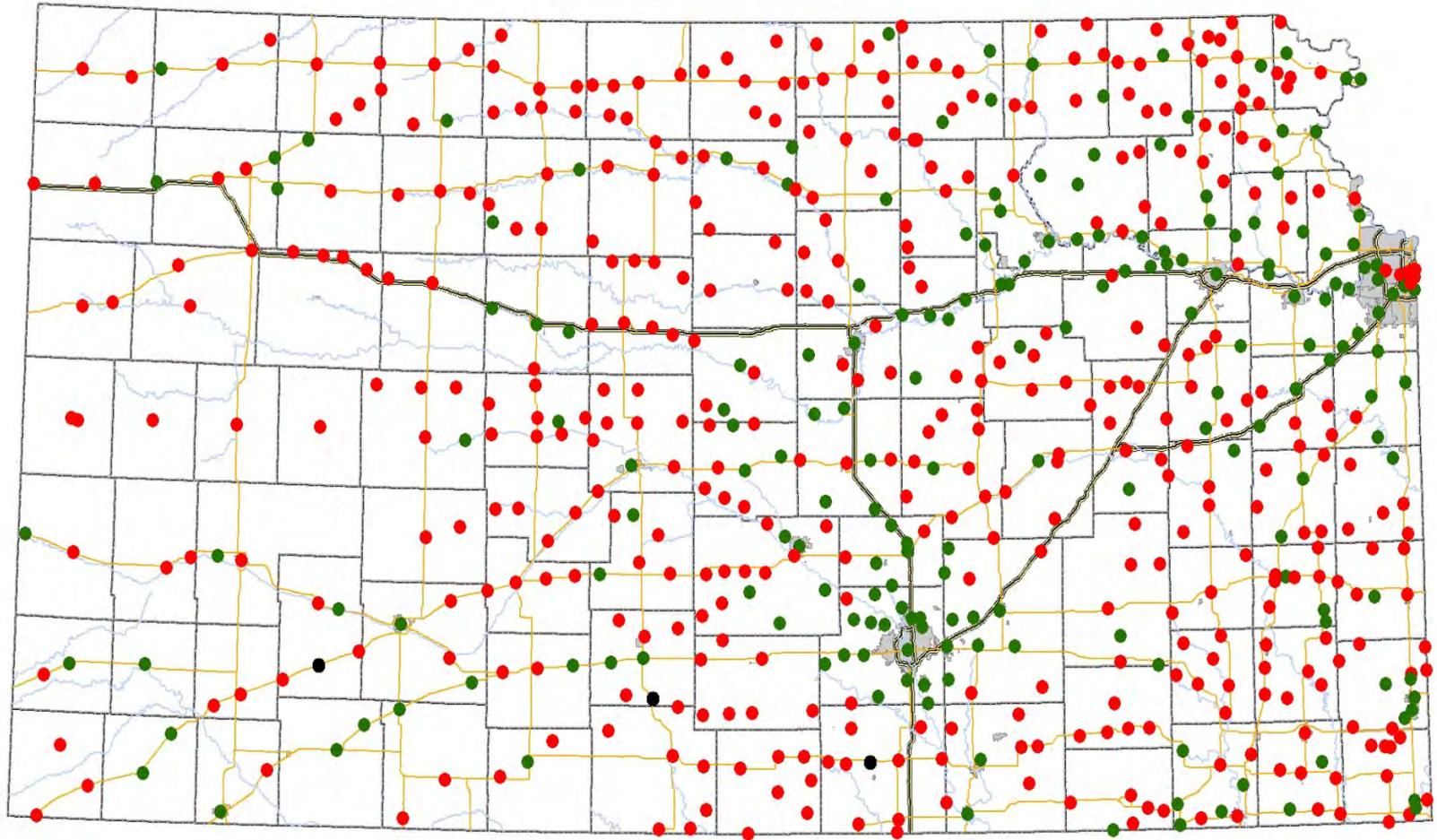
- Decreasing
- No Change
- Increasing

Iowa

2000 Population - 2,926,324
 2010 Population - 3,046,355
 2000 Median Population - 469
 2010 Median Population - 446
 Total Communities - 968



Kansas Population Change 2000 - 2010 Census



Incorporated Communities

- Decreasing
- No Change
- Increasing



Kansas

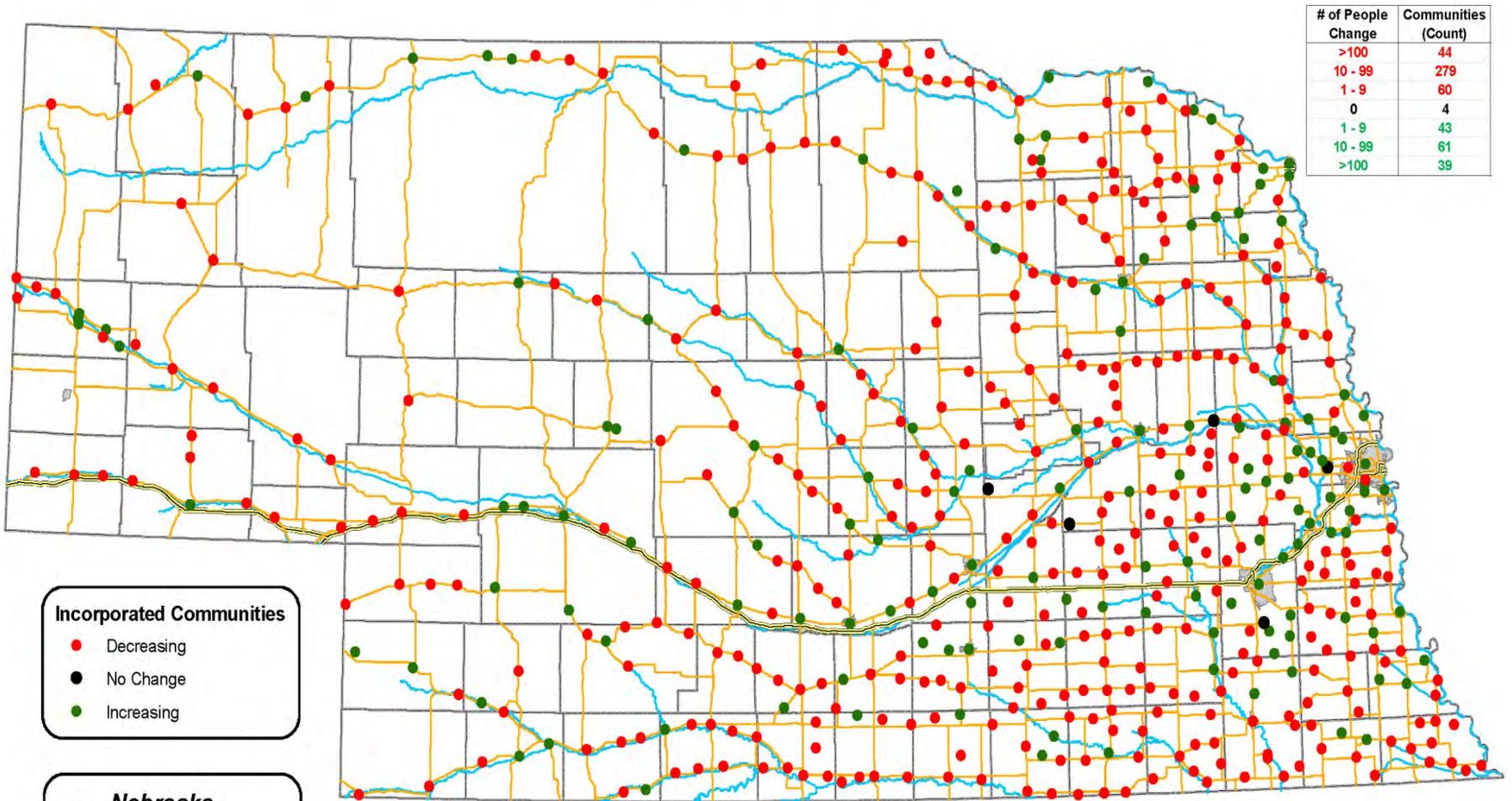
2000 Population - 2,688,418
 2010 Population - 2,853,118
 2000 Median Population - 439
 2010 Median Population - 409
 Total Communities - 626

# of People Change	Communities (Count)
>100	82
10 - 99	289
1 - 9	57
0	4
1 - 9	34
10 - 99	71
>100	89



Luke Zakrzewski - NDEQ
 luke.zakrzewski@nebraska.gov

Nebraska Population Change 2000 - 2010 Census



# of People Change	Communities (Count)
>100	44
10 - 99	279
1 - 9	60
0	4
1 - 9	43
10 - 99	61
>100	39

Incorporated Communities

- Decreasing
- No Change
- Increasing



Nebraska

2000 Population - 1,711,263
 2010 Population - 1,826,341
 2000 Median Population - 341
 2010 Median Population - 318
 Total Communities - 530

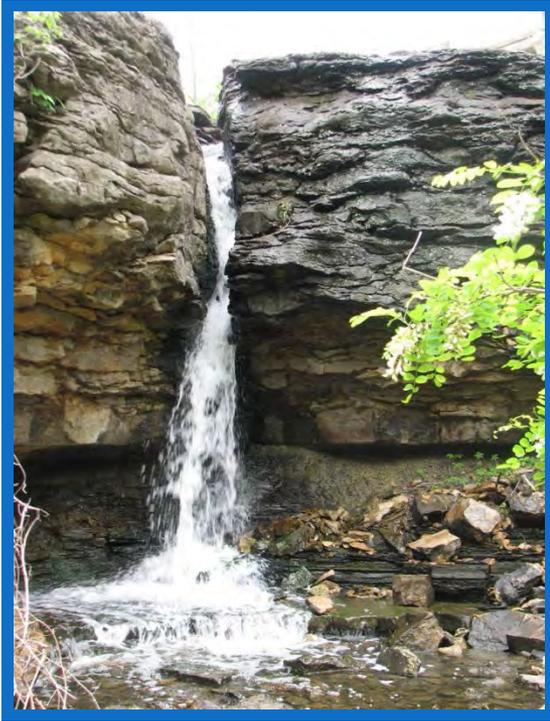


Luke Zakrzewski - NDEQ
 luke.zakrzewski@nebraska.gov

USEPA's Small Community Challenges and Needs

- Limited financial resources
- Geographically dispersed populations
- **Difficulty attracting, training, retaining system operators**
- Limited managerial capacity
- Extreme topography and climate
- Geographic isolation





Who should be on your
Utility Operations Team?

Evangelizing for the

“Hogs”

Old RFK Stadium



A Great Offensive Lineman



Russ Grimm

“The Grimm Reaper”

Left Tackle

Hall of Fame 2010

The Best Offensive Line

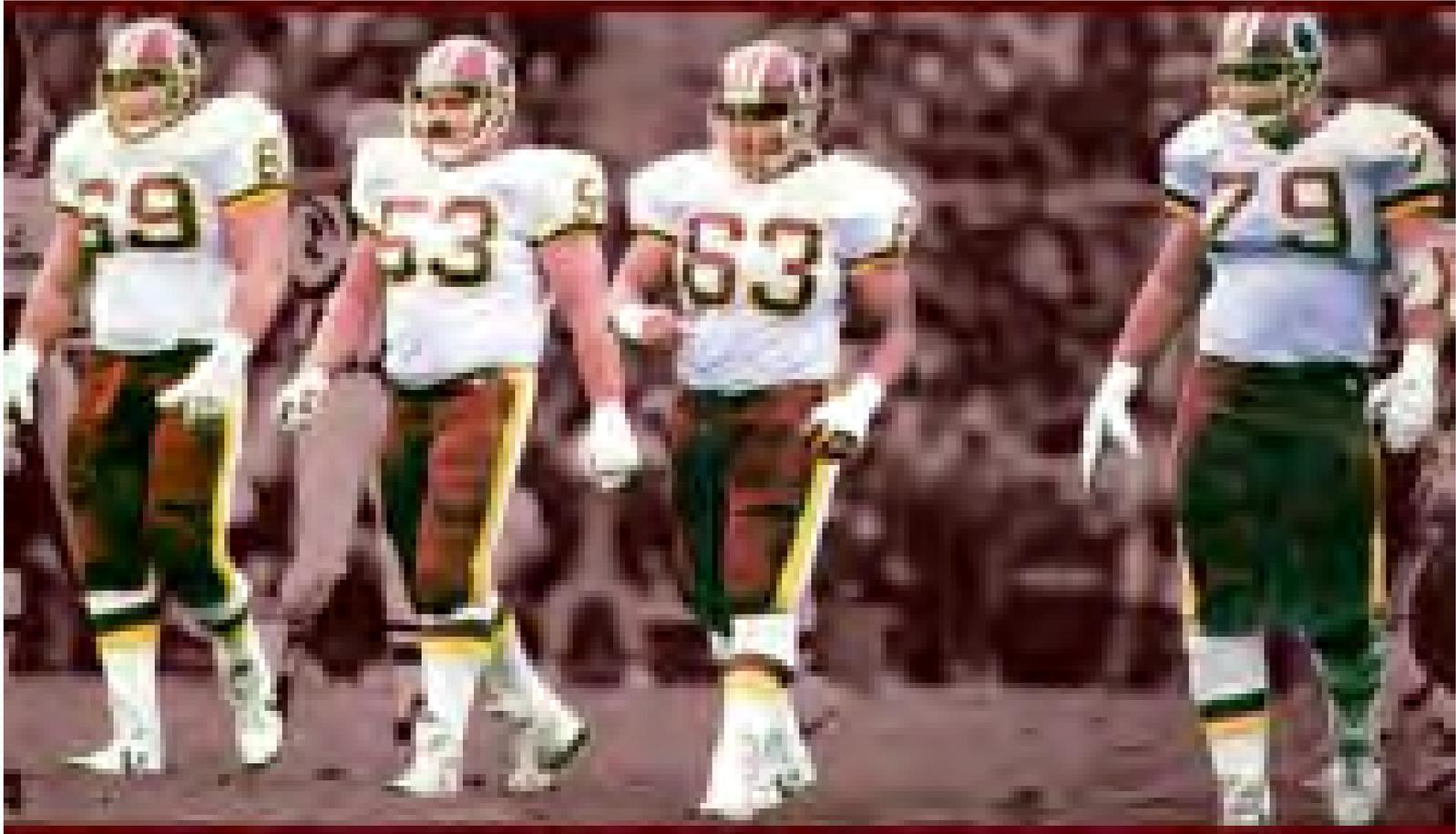


**Joe
Jacoby**

**The Best
Undrafted
NFL
Player**

Ever!

The “Hogs 2.0” Won Super Bowl XXVI



Mark Schlereth

Raleigh McKenzie

Jim Lachey

Jeff Bostic
Undrafted Free Agent

What's with the comparison between the "O" line and Utility Professionals



Utility Professionals are “O” Lineman

“There is no greater feeling than moving a man from Point A to Point B against his will”.
Superstar Offensive Lineman Russ Grimm

“The offensive is like a fancy car. The Offensive Line is the engine. Even though you might have cool rims and tinted windows, without an engine, it’s just a piece of crap”. Viking’s Head Coach Mike Tice

Utility Professionals are “O” Lineman

“The defensive line get the glory, but the Offensive Line is the source of every team’s swagger”. Former Head Coach John Madden

“The second you decide to place your hand in the dirt, you have made a choice. A choice to toil away in anonymity”. The Lineman’s Poem.

Utility Professionals are “O” Lineman

When things go **right**,
nobody knows your name.

When things go **wrong**,
you are the first people the
public blames.



The “O Line” in Mansfield, MO.... playing as a Team.

“Teamwork”



Is this Texan on your Utility Team?



“I don't know who this guy is, but he's all over my wall, all over Facebook, and all over the Internet. Hell of a thing to have your photo go viral, and still remain completely anonymous. At any rate, if you recognize him, tell him the first beer is on me”...Mike Rowe from *Dirty Jobs*.



Getting the best
“O” Line can be
expensive.

We must be
willing to invest in
our Operators.
Like the “O” Line
in football, they
are “guarding”
our most
expensive asset.

Should we be adverse to saying “smaller” is a new definition of “sustainable”?

What does “right-sized” infrastructure look like?

Who are we going to employ to manage the buried water, sewer and stormwater assets?

What are we going to do with all of the buried, hard, aged infrastructure (i.e., pipes in the ground) if small rural communities in the Midwest continue to shrink?



Thank You !

Philip Walsack
Missouri Public Utility Alliance



MPUA

Missouri Public Utility Alliance