# SAVI Magazine what's trending in your community



#### INTRODUCTION

Statistics. Percentages. Numbers. Data, data, data. We are inundated in today's information age with an overwhelming amount of facts and figures. It can be a challenge figuring out what it means, wondering if it makes a difference, and looking to see if it reveals something new.

And, what does "putting a face on data," really mean? Simplistically, it means distilling the pertinent information from your research, asking questions about and reflecting on what it means, then telling the story that is brought to light so readers can understand how it relates to them. This is where and how SAVI makes a difference.

Dr. Brian Dixon, a Regenstrief Institute investigator and associate professor of epidemiology at the IUPUI Fairbanks School of Public Health, takes this to heart in his work with his students. He uses SAVI Advanced to teach students how to analyze data about populations to understand social determinants of health and how to use data stories to share their findings.

EmployIndy's mission is to help Marion County residents access services and training to improve opportunities in the workforce. The organization shifts its efforts periodically to better meet the needs of both individuals and companies. It uses SAVI to track the impact of its programs and adjusts as needed to be more successful. It sees the effectiveness of its programs as it helps prepare and present qualified candidates to employers demanding specific skill sets.

Teachers at Park Tudor School want their middle school students to understand how numbers can tell a

story. They introduced students to SAVI so they can learn about their neighborhood and create their own story. And, was it ever a success!

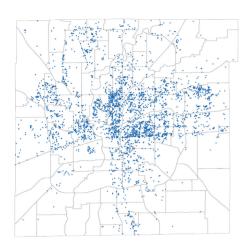
Our new report, Who Rides the Bus: Examining Transit Ridership in Marion County, sheds new light on IndyGo ridership and its possible implications for service providers and future transit. We combined data from the recent ridership survey with a variety of neighborhood socio-economic factors in SAVI to better understand how and why certain groups of riders used the service.

The report provides general audiences with an informed geographic approach to transit to see how place plays into the equation. Read more in our feature article.

SAVI continues to help organizations better serve human needs through its ability to show patterns and gaps visually and identify details that were not as evident before. We hope you enjoy the stories that follow that show the faces of those impacted by the information SAVI provides.

#### CONNECTION BETWEEN TRANSIT AND JOBS

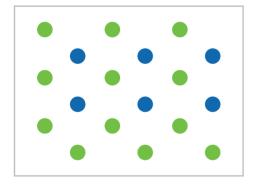
#### **Transit Riders' Home Locations**



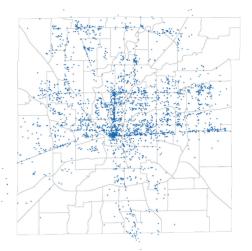
Riders' homes are more evenly dispersed than their destinations. They live in almost all parts of the county, but are concentrated in denser neighborhoods with more jobs and housing.

#### **Riders' Neighborhoods**

- 6 People per Acre
- 12 Jobs per Acre



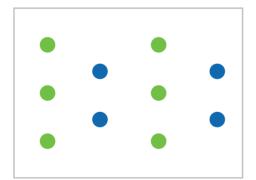
#### **Transit Riders' Destination Locations**



Riders' destinations are clustered along transportation corridors, where commercial activity is concentrated. This makes sense, since 50% of trips are either going to or coming from work.

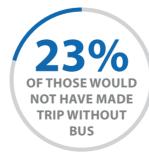
#### **County Average**

- 4 People per Acre
- 6 Jobs per Acre



Riders' neighborhoods are more dense than the county overall, both in terms of jobs and people.





2,950
WHO WOULD NOT HAVE MADE THEIR COMMUTE WITHOUT THE BUS

Sources: Lochmueller Group and ETC Institute, IndyGo On-Board Transit Survey Final Report (2017), 2015 American Community Survey 5-Year Estimates via SAVI.

#### CASE STUDY | EmployIndy

### WHAT DOES IT ALL ADD UP TO? SAVI HELPS SOLVE THE PUZZLE

As a workforce development nonprofit, EmployIndy sees success stories every day. It helps people in Indianapolis improve their skills, and it connects them with jobs. But it's hard to know what all those personal stories add up to. What difference does the work of EmployIndy make? How does one success story fit into the bigger picture? SAVI is helping answer those questions.

EmplyIndy partners with employers and community organizations on programs that teach local residents the skills and tools they need find—and keep—a job. Last year, it launched a strategic initiative that focuses on a handful of target areas that have particularly high levels of crime, unemployment, and poverty. It's using SAVI to establish baseline data for these neighborhoods.



Brianna Ingram participated in EmployIndy's Youth Services program, YouthBuild Indy, which led to a full-time position at WorkHere and training at Ivy Tech in their IvyWorks software development program.

"We can establish where we're at now, look for the change, and very quickly see if we're having an impact on the community."

JOE BACKE
 Communications Manager
 EmployIndy

"For the type of work that we do, it's tricky to measure things," says Joe Backe, EmployIndy's communications manager. "Our plan involves registering an impact in a specific area, and using SAVI data to look at that specific area. To have a starting point for a variety of data about neighborhoods demographics, employment statistics, education levels, things like that—and to be able to pull all of that in one place is pretty cool." The data EmployIndy draws from SAVI will help it track its results over time and tailor its programs to meet the needs of the target communities more effectively.

"We can establish where we're at now, look for the change, and very quickly see if we're having an impact on the community," Backe says. "Having tools like SAVI, we can hold ourselves accountable to the goals we're setting, and we can prove that we're doing what we say we're going to do. It gives us momentum. Being able to show we're having an impact is really important. And you've got to have the numbers to do that."

### WHO RIDES THE BUS? MAYBE NOT WHO YOU THINK

Kevin Sutton catches an IndyGo bus every workday at 6:15 a.m. from his home on the near-east side of Indianapolis to his workplace downtown. At 4:30 p.m., he takes the reverse route home.

Sutton enjoys the 35-minute ride because he likes people watching, and because it's a connection to his childhood, when he would visit his grandmother in Chicago and his family would take public transit downtown. "Riding the bus," he says, "you learn that we're all people. And you learn not to be scared of people."

A new report by The Polis Center suggests that Sutton is typical in many ways. Who Rides the Bus: Examining Transit Ridership in Marion County is based on data from a 2016 survey of riders commissioned by IndyGo and neighborhood-level socio-economic indicator data available in SAVI. It finds that about half of IndyGo trips are work related, about 75 percent of riders are employed, and 57 percent are, like Sutton, African-American.

But Sutton, an investigator with the Marion County Public Defender Agency, defies stereotypes about who rides the bus in at least one important way: He has plenty of other options for getting around. He walks and bikes, and he owns a car that he uses mainly for buying groceries and going to church.

The report notes that a substantial percentage of riders fall into this category. They choose to take the bus even though they have other options.

"The results challenge the myth that people who use transit are low-income people who rely on it because they don't have access to a vehicle," says Kelly Davila, a senior research analyst with The Polis Center and co-author of the report.

"Beyond just saying that wasn't true, we wanted to look at who uses public transit and why. One takeaway is that riders are a cross-section of people who live in nearly every neighborhood in Indianapolis. And, they're people who have access to other types of transportation and use public transit for different reasons. Just bringing that up, so that it can be discussed publicly, is an important step."

It's important because it suggests that there is a big pool of potential riders for IndyGo, if it's seen as a viable option.

#### Build it and they will ride

That was a key finding of a membership survey done last year by IndyHub, an organization that connects people in their 20s and 30s to opportunities for being involved in the life of the city. It asked its membership, mostly young professionals, a series of questions about what changes they would like to see in the city, and what improvements would make them more inclined to stay in Indianapolis long-term.



Young participants in Earth Charter Indiana's summer "Climate Camp" use IndyGo buses to get around town as they learn about Indianapolis' environmental initiatives.

"Public transportation came up as the number one priority," says Karissa Hulse, director of development and operations for IndyHub. "We represent a community that consists largely of choice riders. They have other options. They want to choose transit. And it's not only about themselves. It's about equality of opportunity for their neighbors, too."

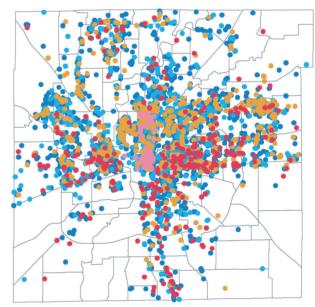
But as things stand, IndyGo isn't seen as a viable option for much of the membership.

"A lot of the bus stops don't have sidewalks, don't have shelters, don't have benches," Hulse says. "The bus stop is literally just a sign in a ditch. And you're not going to get people to go through the effort when that's the case. It's not that they're deciding not to. It's that it doesn't even factor into their options."

Last year, IndyHub organized a series of monthly dinner outings for its members to help them overcome some of the barriers to

#### Where Transit Riders Live

### Rider Groups Group A Group C Group E



The report explores five groups of transit riders, why they use transit, and how they compare to the demographics of their home neighborhood.

using public transit. They met near a certain stop and boarded the bus together, then took it to a stop near a restaurant. After dinner, Hulse and a representative from IndyGo



This bus stop features sheltered benches and a safe curbed waiting area, which some potential Indy riders consider an important aspect when deciding to use public transit.

talked about the Marion County
Transit Plan, which will be phased in
through 2021. It involves an increase
in the frequency of IndyGo's regular
routes, the creation of three rapidtransit lines, and other upgrades to
the system. The improvements are
funded by a tax increase that Marion
County voters passed in 2016 and
the City County Council approved
in February.

At the dinners, Hulse asked members how they perceived IndyGo and whether they used public transit in their out-of-town travels. The vast majority said they never use IndyGo—though nearly all of them use public transit when they visit other cities.

"There's this massive split in their behavior between when they're in Indianapolis and when they're in another city," Hulse says "Which means that if it's available, and it's a viable option, they're going to use it."

Polis found that, for the two largest groups of IndyGo riders, half

are millennials (people under 35). These are racially diverse riders who are employed full-time or part-time. They use the bus almost daily, and they use it primarily to get to work and for social reasons.

#### Opportunities aplenty

For some IndyGo riders, of course, the bus is in fact the only transportation option. James Taylor sees them every day in his work as the CEO of the John H. Boner Community Center, a nonprofit that offers community development and life-skills programs in a low-income neighborhood on the city's near east side.

Taylor says that IndyGo's improvements and expansion plans are poised to have a dramatic, positive effect on the people that his organization serves.

"Access to transit is really about economic opportunity and educational opportunity," he says.

"There are jobs out there without people, and there are people without jobs. And transit is really the connector between those two. I don't think folks who have other means really appreciate how valuable it is to those of limited means in finding work and making an income and gaining financial stability."

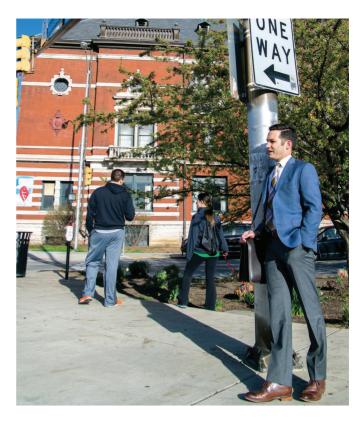
Polis' report showed that half of all riders fall into a group that is employed full time and uses the bus daily to get to work. One of six riders in this group said that their trips to and from work would not be possible if the bus were not available.

Public transit has benefits, too, that go beyond strictly economic factors, Taylor says. It plays a vital role in allowing people to get to medical appointments, or buy groceries, or "just to see each other and have a social life."

For Denise Smith, who lives on the near-west side and is a smallbusiness owner, IndyGo allows her to keep up a busy schedule of volunteer work at organizations across the city. She sold her car nearly two years ago, and now she walks or rides her bike when she doesn't take the bus. Or she combines those options.

"I'll walk a mile or two to catch the bus, and then take it where I'm going," she says. "It's less stressful not having a car—I don't have to worry about looking for a place to park, or what that funny sound is in my car. And I'm healthier and have lost a lot of weight."

In light of her own experience, Smith believes that public transit can be a big win-win. Increasing people's awareness promises benefits for both riders and local nonprofits,



especially given the improvements being phased in over the next few years.

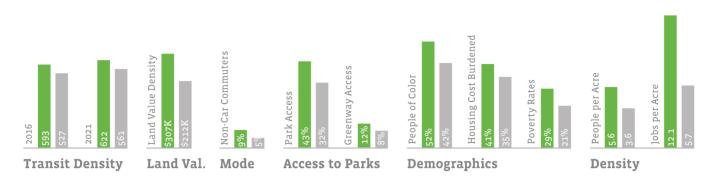
"People think taking the bus is for going to school and going to work," she says. "They don't think about it for going other places, like for volunteering. I think organizations



Public transit offers an affordable alternative for getting around town for not only work or school, but for medical appointments, volunteering, and social activities. IndyGo's improvements and expansion plans are expected to increase the attractiveness and viability of use, putting Indy more in line with other cities regarding options that reduce traffic congestion.

#### **Neighborhood Characteristics**





The transit riders tend to live in neighborhoods that have more non-car commuters, higher rates of cost-burdened households, greater access to parks, more people of color, and better access to parks than the county as a whole.

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— JAMES TAYLOR CEO, John H. Boner Community Center

would have more volunteers on a regular basis if they promoted the bus as a way to get there. And it doesn't have to be older people. It can be anybody. If people thought, 'Oh, it's on the bus line and the bus is pretty dependable'—that's a good way to promote volunteering."

Polis found that one in five IndyGo riders is retired or unemployed. They mostly use

the bus for social purposes (like visiting friends, going to church, or volunteering) and for health purposes (like visits to the doctor). These riders tend to be older, and they use the bus less often than commuters.

SAVI's neighborhood-level data, which made this research possible, allows planners and policymakers to understand the impact of their decisions on people like Denise Smith, Kevin Sutton, the millennials that IndyHub works with, and many others. It can inform transit policy decisions that impact all rider groups by shedding light on who uses public transit, how they use it, and the unique aspects of the communities in which riders live.

#### **HOW SAVI IS HELPING**

### FOSTER THE NEXT GENERATION OF DATA STORYTELLERS

### Personal stories can be powerful tools for building relationships and creating meaning. They broaden horizons and connect people to the wider world.

Data stories are different in one way: They take whole populations instead of individuals as their starting point. But, they have the same basic purpose of creating meaning. They put datasets in a big-picture context and tease out connections.

Spinning stories out of raw data is vital, in this era of information overload, since it's about "connecting the dots for the reader," says Dr. Brian Dixon, a Regenstrief Institute investigator and associate professor of epidemiology at the IU Fairbanks School of Public Health, where he teaches the "Foundations of Public Health Informatics" class.

As part of their training, his students create data stories using SAVI Advanced, which allows users to upload their own datasets and analyze them in relationship to SAVI's data on social determinants.

"So, I can give my students a dataset with information about chronic diseases at a census tract level," Dixon says. "Then they can upload that and connect it to social determinants data in SAVI. They can look at poverty rates, for example, and look at the relationship between poverty and diabetes, hypertension, or other chronic

diseases" in a specific place. They can also contextualize that data with information from regional and national sources, like the Centers for Disease Control.

Storytelling with data can show why certain problems and programs deserve a share of limited resources, and how investing in one area can have an impact on multiple issues. More fundamentally, it highlights the value of what public health professionals do.

"Public health tends to be invisible," Dixon says. "You see police officers. You see firemen. You don't see public health workers, unless you need to go in and get your birth certificate. That's partly why storytelling is important to public health. It has become increasingly important as society asks, 'What is the role of governmental public health? What does it do? Do we need it?'"

Dixon's work got a major vote of confidence in July, when he and a colleague won a five-year, \$2.5 million grant from the National Library of Medicine to fund the Indiana Training Program in Public and Population Health Informatics.



SAVI Advanced allows you to explore and identify patterns and trends to guide your research or decision-making in particular by allowing you to create Data Stories. Storytelling with data is an easy way to engage with stakeholders to justify the need for a grant, demonstrate program impact, or share research findings. You can build a narrative around your data, add interactive visualizations you create in SAVI-Advanced, and share YOUR STORY online.

The first cohort of eight students started the program in July.

The program builds on and expands the Institute's previous work in helping students learn to use technology to analyze data, and it will serve as a model for training public health professionals nationwide.

"The work we're doing now can be transferred to other states, other regions," Dixon says, "and go well beyond just what we're doing in Indiana."

The program is especially exciting, according to Dixon, because it brings together the work and research

of faculty across three partnering institutions—the Regenstrief Institute, the IU Fairbanks School of Public Health, and the Indiana University School of Medicine.

SAVI is vital to the synergies created by that partnership, not only because of the data it supplies but because of the storytelling that it makes possible. "It's one thing to produce a map or a chart," Dixon says. "But if we're going to be effective in changing health care policy, then we have to be able to tell that through narrative. There needs to be some story that connects it to broader issues."

## DEEP DIVING INTO DATA OPENS UP WHOLE NEW WORLDS FOR MIDDLE SCHOOLERS

"One thing educators talk about all the time is curiosity, and how kids struggle to ask good questions," Sidey says. "Data visualizations naturally lend themselves to asking questions. Students routinely asked things like, 'I wonder why the divorce rate is higher here than here? I wonder why this area is much poorer than this area? I wonder why this area has lots of parks and green space?' I mean, they were curious about everything from criminal records to levels of education."

The more answers they got, the more questions they had.

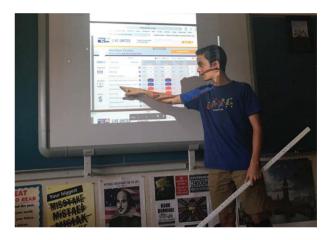
Last year, students in the "Messing About with Maps" class at Park Tudor School learned about their own neighborhoods—and Indianapolis in general—by using SAVI to create data visualizations.

Park Tudor is a private school on the city's north side. The class, which was conceived and jointly taught by faculty members Adrian Pumphrey and Jane Sidey, served two purposes.

Pumphrey, a math teacher, used it to sharpen students' understanding of statistics and percentages.

Numbers are "far more meaningful when they're related to their lives," he says. Sidey, an English teacher, used the data visualizations to teach students to think about maps as narratives that can both reveal and conceal certain stories.

Pumphrey and Sidey offered the class—which was part of a Park Tudor program that encourages faculty to create their own innovative



A student shares what he discovered in SAVI about his own neighborhood, showing the class what he found interesting, what surprised him, and noting what was not shown.

classes—both semesters in the 2016-17 school year. About 15 seventh and eighth graders took it each semester. At the end, each gave a presentation about their findings.

Students started with their own neighborhoods, but they soon broadened their focus to include nearby neighborhoods and other parts of the city. "SAVI is so great because it can take you down to the street level," Sidey says. "And then you can spiral out and start seeing other streets and neighborhoods."

As their focus widened, the students' questions multiplied, and things got interesting. "Data visualizations have become so rich and powerful in getting across information," Pumphrey says. "It gives you a lot to talk about."

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English Teacher
Park Tudor

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Pumphrey and Sidey say their own passion for the project was one key to the class's success. It "definitely rubbed off on the students," Pumphrey says.



"Messing About with Maps" class participants insisted on a group photo for the SAVI magazine!

"We were motivated and interested, and that helped them to be motivated and interested."

"We didn't really have to teach," Sidey says. "Just by projecting the data onto maps, and asking the students to look at it and come up with their own questions and observations about it—that was much more powerful than a lecture. Because they were really driven by their own interest in it."

One highlight of the first semester was a trip to The Polis Center at IUPUI, where students got to meet the people behind SAVI and flex their new critical-thinking muscles.

"One of the kids actually asked, 'What is the goal in doing this? What are you hoping to achieve?'" Sidey says. "And that's a pretty sophisticated question for a seventh or eighth grader to ask: What is your agenda here? I'm not sure a question like that would have been asked if it had been a lecture-based class."

#### **CHECK OUT**

WHO RIDES THE BUS:
Examining Transit Ridership in Marion County

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