Intro to Data Visualization & Infographics

Ashley Salmon, MPH
Bridgette Schram, MS

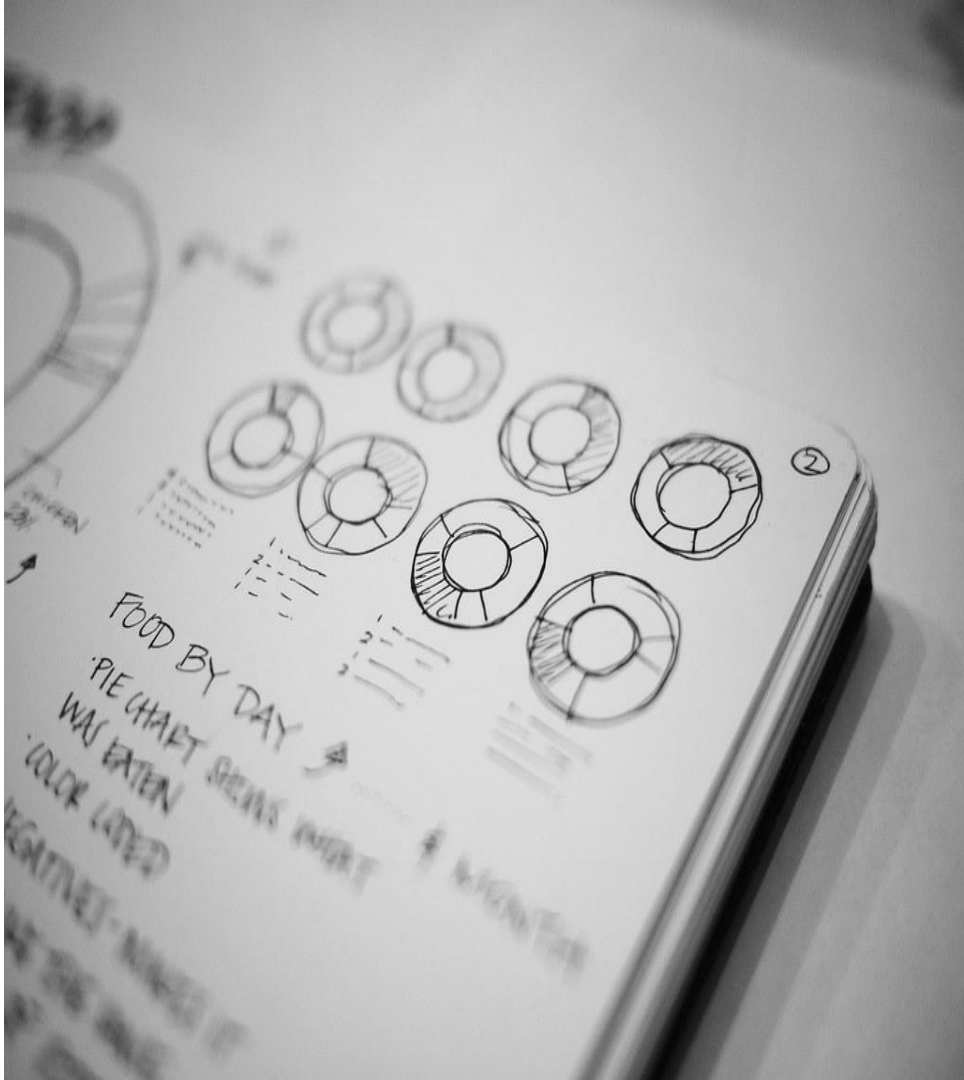
Center for Leadership in Disability
School of Public Health
Georgia State University

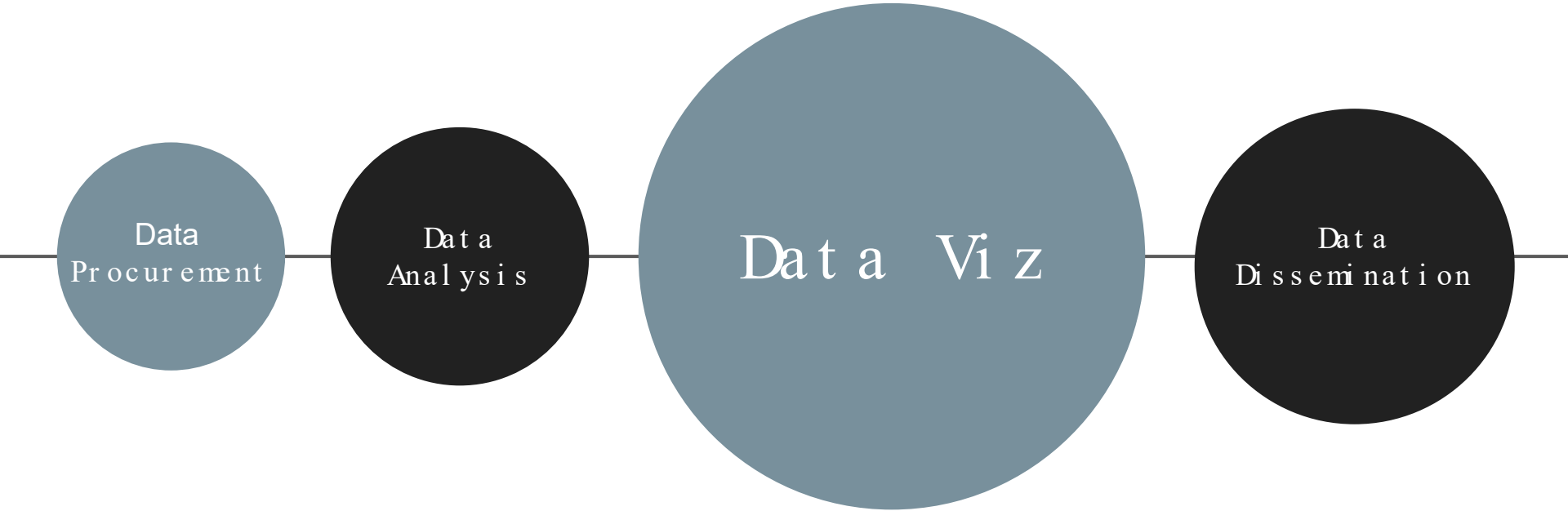
CENTER FOR
Leadership in Disability

Georgia State University | SCHOOL OF PUBLIC HEALTH

What is Data Viz ?

And what role does it play in data dissemination…




Data
Procurement
Data
Analysis
Data Viz
Data
Dissemination

Research to Practice

Questions to Consider

1. Where do data come from?
2. Where do data go?
3. How can data actually help the public?
4. How much data don’t make it to the communities they implicate?

Why are data lost?

Boring (to some)

Stagnation

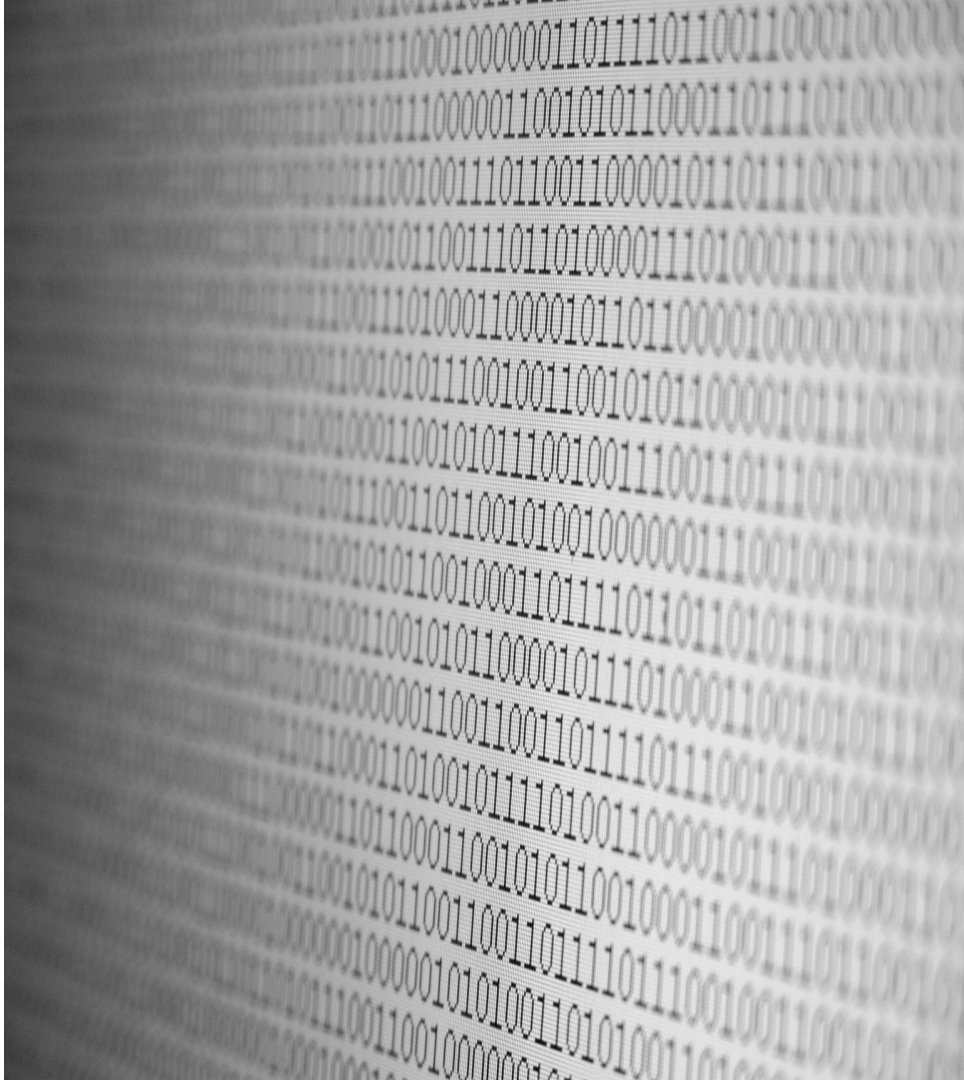
Hard to comprehend

Inaccessible

Not designed for the lay person

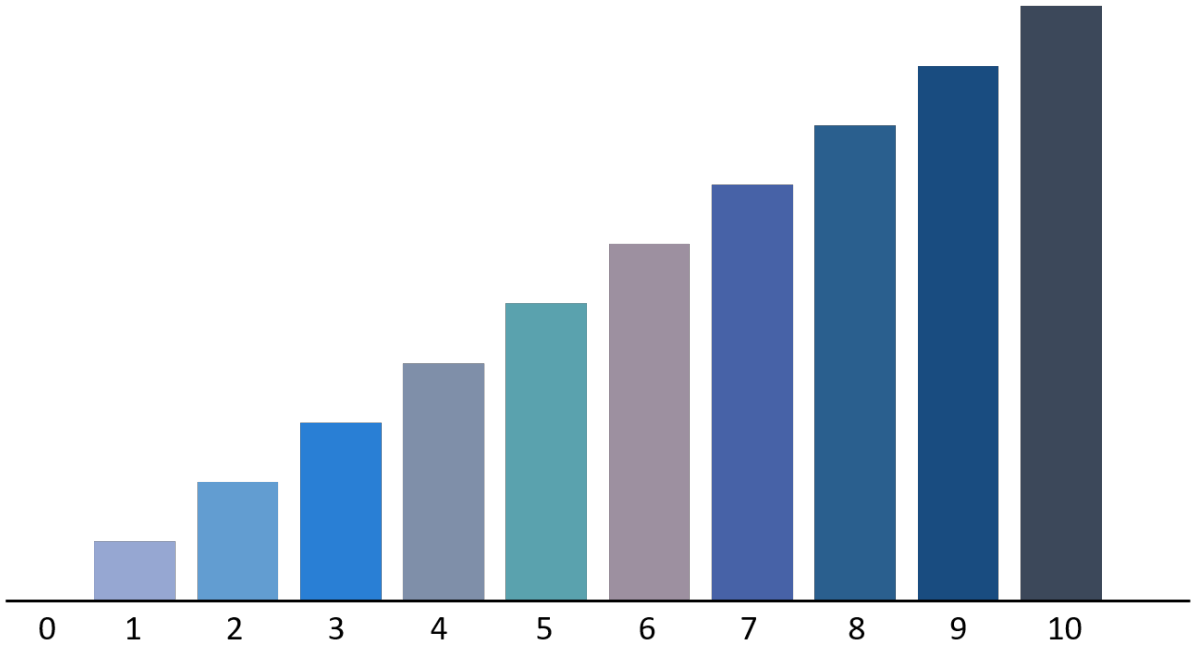
Data Literacy

Data can be more accessible through visuals

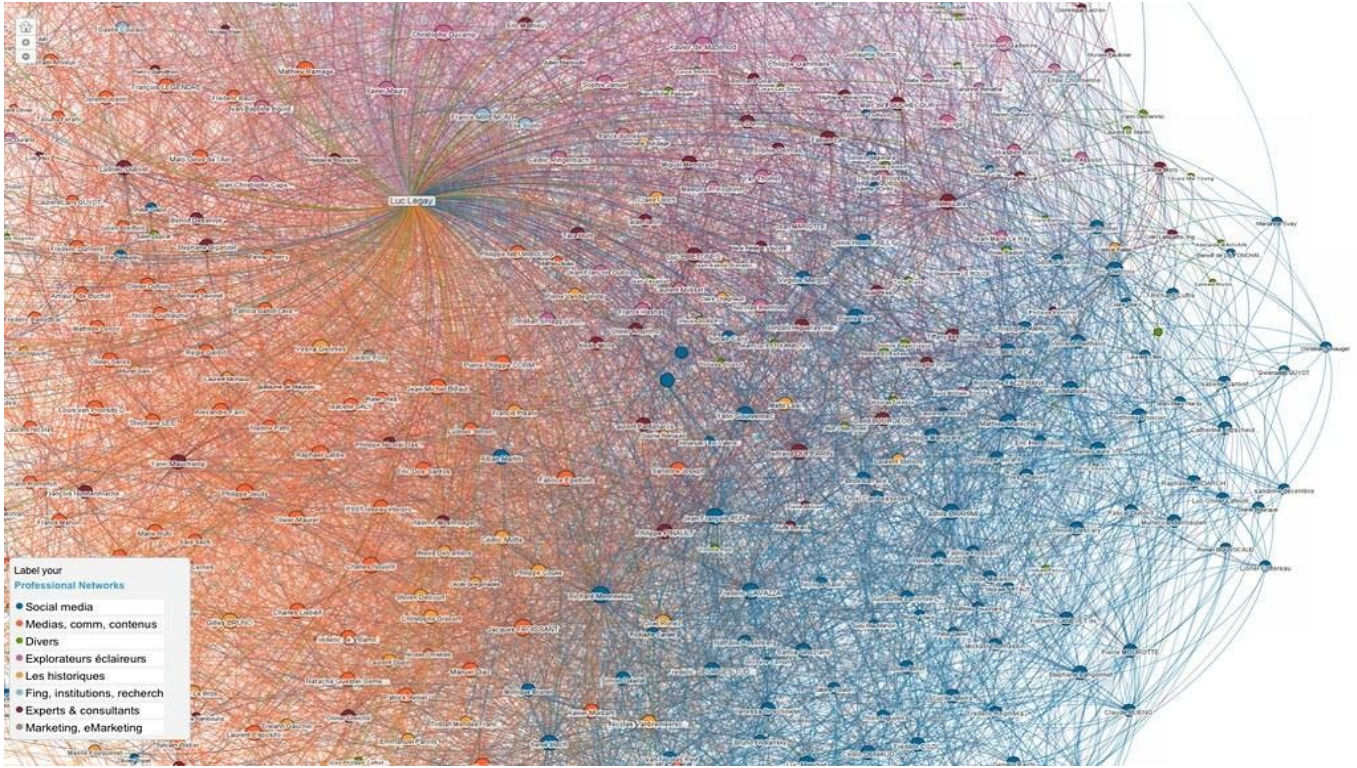


There are many ways to visualize data.

Bar Graphs



Pie Charts


Luc Legay
Label your
Professional Networks
Social media
Medias, comm, contenus
Divers
Explorateurs éclaireurs
Les historiques
Fing, institutions, recherch
Experts & consultants
Marketing, eMarketing

I use *Infographics*
to visualize data.

An infographic aims to highlight the major findings in an engaging and aesthetically pleasing way while being responsive to the goal of the project .

VENNGAGE

Data Visualization allows us to:

See what the numbers represent

Highlight important numbers

Compare & Relate

Breakdown components

Layer information based on importance

Rural School-Based Mental Health Program

Georgia Student Health Survey 2.0

2015-16 | 2016-17

The Georgia Student Health Survey (GSHS) 2.0 is an anonymous, statewide survey instrument developed by many divisions within the GaDOE that identifies safety and health issues that have a negative impact on student achievement and school climate.
- Georgia Department of Education, 2017

Reported **increases** and **decreases** in safety/health issues that are **favorable to the student**

Reported **increases** and **decreases** in safety/health issues that are **not favorable to the student**

Elementary School Students

Total Sample: 635 | 665

From 2015-16 to 2016-17, 50% of the indicators were *favorable* to students

- Feel Safe at School **(decreased)**
- Have an Adult at School Who Helps (increased)

Middle School Students

Total Sample: 556 | 598

From 2015-16 to 2016-17, 50% of the indicators were *favorable* to students

- Feel Safe at School (increased)
- Have an Adult at School Who Helps **(decreased)**
- Experienced Sadness/Withdrawal **(increased)**
- Experienced Intense Worry/Fear **(increased)**
- Considered Self-harm **(increased)**
- Considered Suicide (decreased)
- Engaged in Self-harm (decreased)
- Non-fatal Suicide Attempt (decreased)

High School Students

Total Sample: 765 | 745

From 2015-16 to 2016-17, 87.5% of the indicators were *favorable* to students

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CENTER for LEADERSHIP in DISABILITY

See what numbers represent

Compare & Relate

Rural School-Based Mental Health Program

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Total Sample: 3,083 | 3,310

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Middle School Students

Total Sample: 2,591 | 2,665

From 2015-16 to 2016-17, 50% of the indicators were *favorable* to students

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- Considered Self-harm (decreased)
- Considered Suicide **(increased)**
- Engaged in Self-harm **(increased)**
- Non-fatal Suicide Attempt (decreased)

High School Students

Total Sample: 3,073 | 3,173

From 2015-16 to 2016-17, 75% of the indicators were *favorable* to students

- Feel Safe at School (increased)
- Have an Adult at School Who Helps (increased)
- Experienced Sadness/Withdrawal **(increased)**
- Experienced Intense Worry/Fear **(increased)**
- Considered Self-harm (decreased)
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Rural School-Based Mental Health Program

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Elementary School Students

Total Sample: 472 | 398

From 2015-16 to 2016-17, 100% of the indicators were *favorable* to students

- Feel Safe at School (increased)
- Have an Adult at School Who Helps (increased)

Middle School Students

Total Sample: 371 | 362

From 2015-16 to 2016-17, 25% of the indicators were *favorable* to students

- Feel Safe at School **(decreased)**
- Have an Adult at School Who Helps **(decreased)**
- Experienced Sadness/Withdrawal (decreased)
- Experienced Intense Worry/Fear **(increased)**
- Considered Self-harm **(increased)**
- Considered Suicide **(increased)**
- Engaged in Self-harm (decreased)
- Non-fatal Suicide Attempt **(increased)**

High School Students

Total Sample: 454 | 521

From 2015-16 to 2016-17, 62.5% of the indicators were *favorable* to students

- Feel Safe at School (increased)
- Have an Adult at School Who Helps (increased)
- Experienced Sadness/Withdrawal (decreased)
- Experienced Intense Worry/Fear **(increased)**
- Considered Self-harm (decreased)
- Considered Suicide **(increased)**
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Rural School-Based Mental Health Program

Child and Adolescent Needs and Strengths

The Child and Adolescent Needs and Strengths (CANS) is a multi-purpose tool developed for children's services to support decision making, including level of care and service planning, to facilitate quality improvement initiatives, and to allow for the monitoring of outcomes of services.

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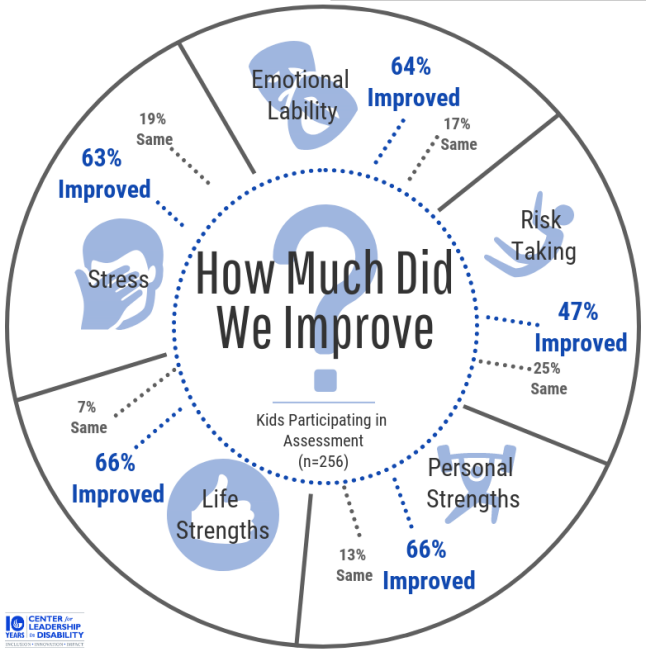
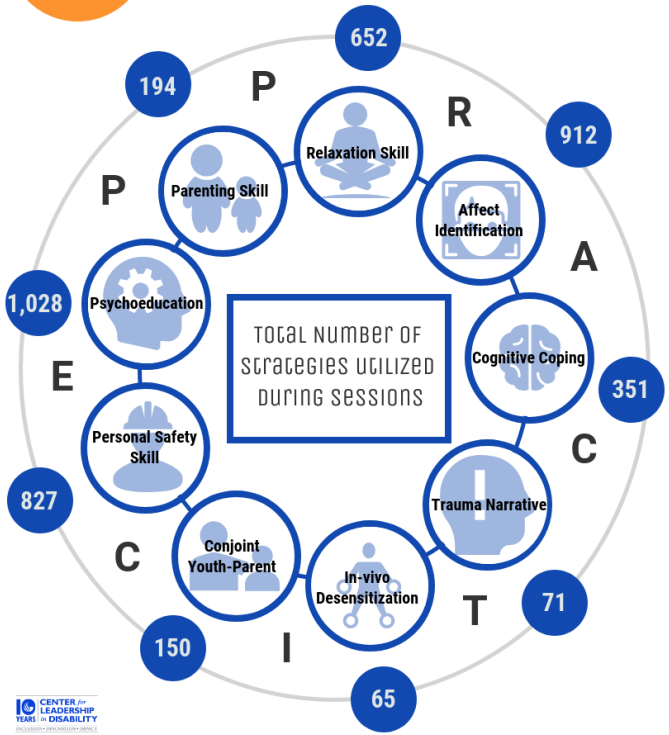


CENTER for LEADERSHIP 10 YEARS in DISABILITY

Rural School-Based Mental Health Program

Frequency & Type of School-Based Therapeutic Sessions

Total students receiving services: 269
AVG number of sessions per student: 10
Max number of sessions provided: 57
Total number of sessions: 2,728

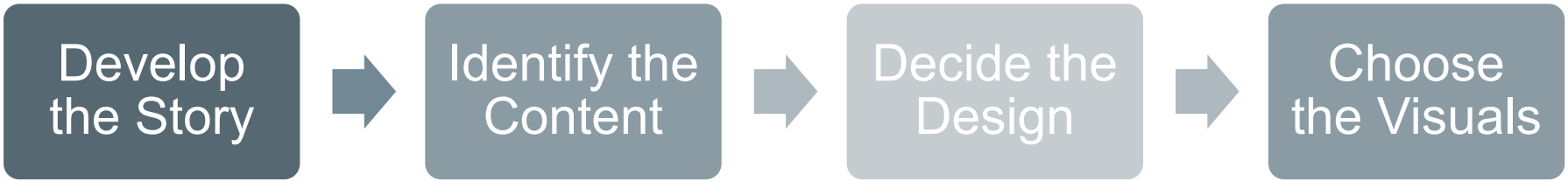


CENTER for LEADERSHIP 10 YEARS in DISABILITY

Highlight Important numbers

Breakdown Components

Four Components



Accessibility Considerations

Accessibility vs Accomodations

Story

Audience – The WHO
- Who are you creating the infographic for?

Purpose – The WHY
- Why do you want to share these data? (e.g. to inform, improve, guide)

Message – The WHAT
- What do you want people to learn or take away from your infographic?

Organizing the Narrative

Title: **Supported Decision-Making: a Path to Dignity & Autonomy**

Summary/Goal: *Guardianship can be harmful, supported decision-making offers a better way to support people with disabilities*

Main Objective 1: Guardianship infringes on the rights of people with disabilities and causes harm and is NOT proven to be a better alternative

Main Objective 2: Supported Decision-Making is an accommodation for legal capacity or standing on equal legal footing with others, having full civil and human rights. Supported Decision-Making allows for people with IDD to have full civil and human rights.

Conclusion: supported decision-making (the process of using trusted supporters to understand, make and communicate decisions to others) creates opportunities for people with disabilities to direct their own lives and experience full community membership.

Content

Title
- Relevant, engaging, succinct

Introduction
- Lays foundation for the main message
- Include Important background and contextual information

Main Points
- 2-3 main points, organized in clear order

Conclusion
- Convey next steps and/or where to go for more information
- Call to Action

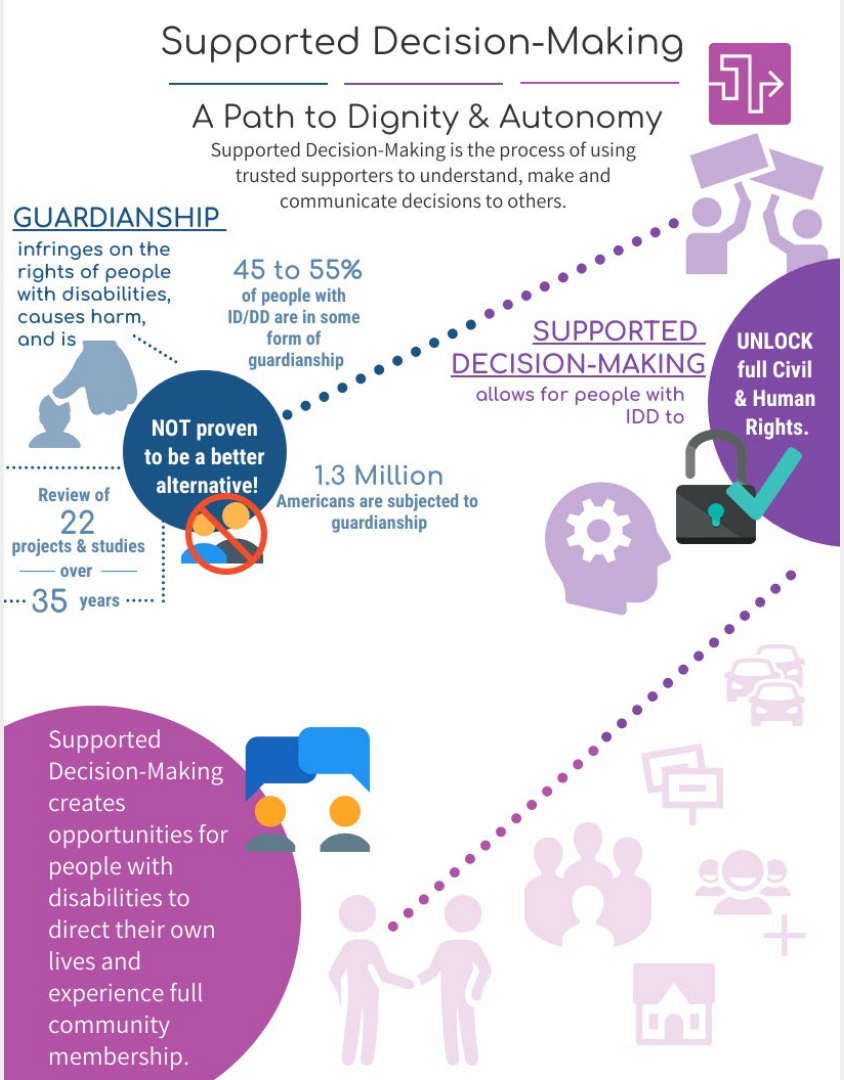
Credit
- Credible sources, cited appropriately

Organizing the Narrative

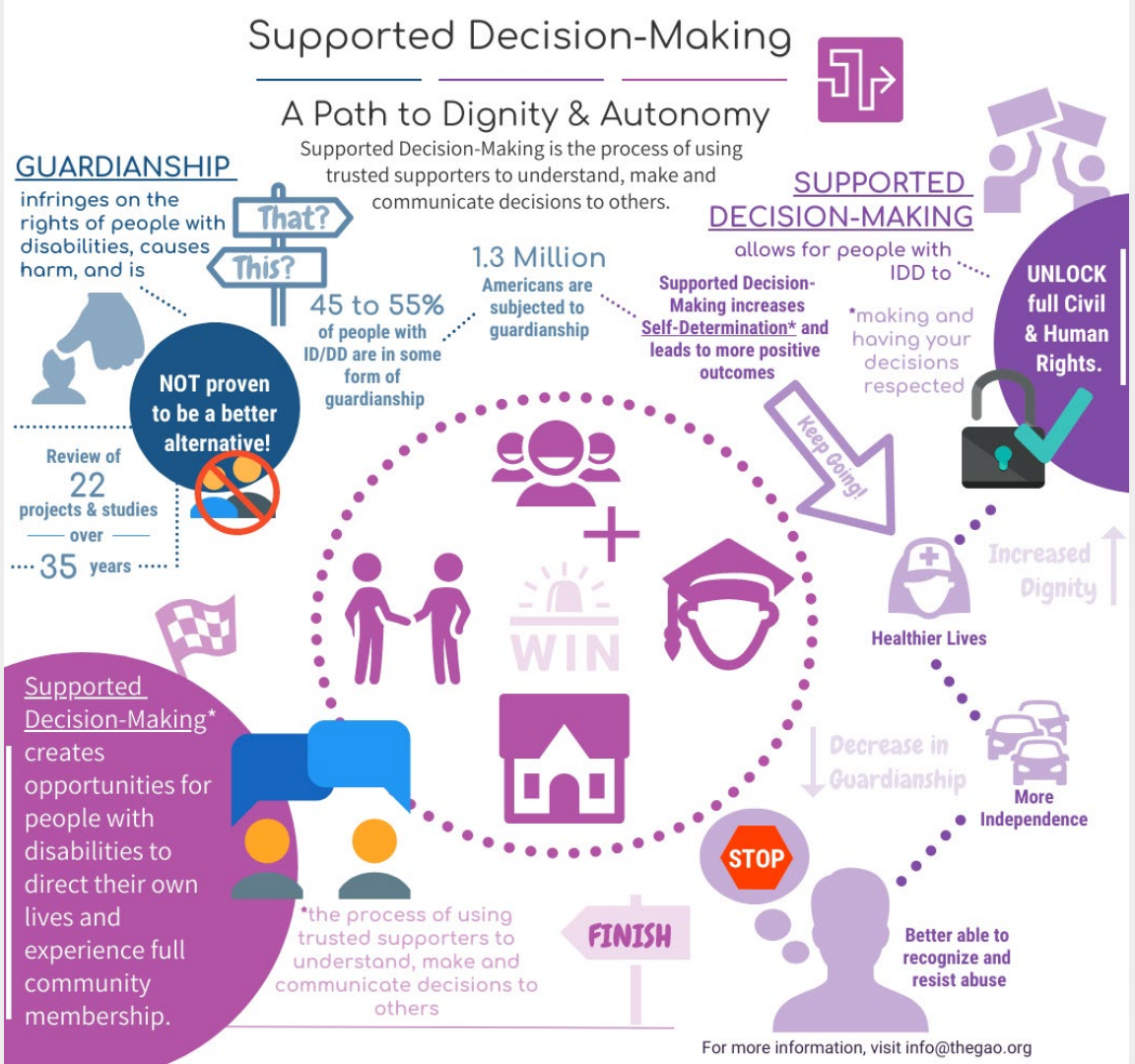
1. **Title**: Supported Decision-Making: a Path to Dignity & Autonomy
2. **Summary/Goal**: *Guardianship can be harmful, supported decision-making offers a better way to support people with disabilities [define supported decision-making]*
3. **Main Objective 1:** Guardianship infringes on the rights of people with disabilities and causes harm and is NOT proven to be a better alternative
4. **Main Objective 2**: Supported Decision-Making is an accommodation for legal capacity or standing on equal legal footing with others, having full civil and human rights. **Supported Decision-Making allows for people with IDD to have full civil and human rights.**
5. **Conclusion:** supported decision-making (the process of using trusted supporters to understand, make and communicate decisions to others) creates opportunities for people with disabilities to direct their own lives and experience full community membership.
6. **Where does one go for more information**? (website, email address, etc.) info@thegao.org
7. **Logo(s):** see attached
8. **Any suggested vector images to include?** pathway w/bridge, unlocked door

First Draft: first attempt at finding relevant vector images, minimal information, mono - color, incomplete layout

Second Draft: replaced some vector images, more information, three colors/shades, incomplete layout



Third Draft: a lot more information (busy), more vector images and lines, complete layout



Organizing the Narrative

1. Title: **Supported Decision-Making: a Path to Dignity & Autonomy**
2. Summary/Goal: *Guardianship can be harmful, supported decision-making offers a better way to support people with disabilities [define supported decision-making]*
3. Main Objective **1: Guardianship infringes on the rights of people with disabilities and causes harm and is NOT proven to be a better alternative**
    a. Review of **22 projects & studies, over 35 years** did not find any evidence guardianship leads to positive life outcomes for people who are subject to it.
    b. Estimated **1.3 million Americans subject to guardianship, 45 to 55 percent of people with ID/DD** are in some form of guardianship
    c. 'The typical [person subject to guardianship] has **fewer rights than the typical convicted felon**" Congressman Claude Pepper
    d. For young adults with ID/DD, **guardianship decreases the development of self-determination** skills necessary for life after high school, such as critical thinking, self-advocacy, and knowledge of one's own skills, interests, strengths, and weaknesses
4. Main Objective 2: Supported Decision-Making is an accommodation for legal capacity or standing on equal legal footing with others, having full civil and human rights. **Supported Decision-Making allows for people with IDD to have full civil and human rights.**
    a. Increased self-determination (making and having your decisions respected) leads to better/increased more positive outcomes (healthier, more independent, more likely to be employed, and better able to recognize and resist abuse).
    b. Adoption of SDM leads to a **decrease in guardianship**
    c. People with disabilities, their supporters and allies report an **increase in dignity** when using supported decision-making to make decisions
5. Conclusion: **supported decision-making (the process of using trusted supporters to understand, make and communicate decisions to others) creates opportunities for people with disabilities to direct their own lives and experience full community membership.**
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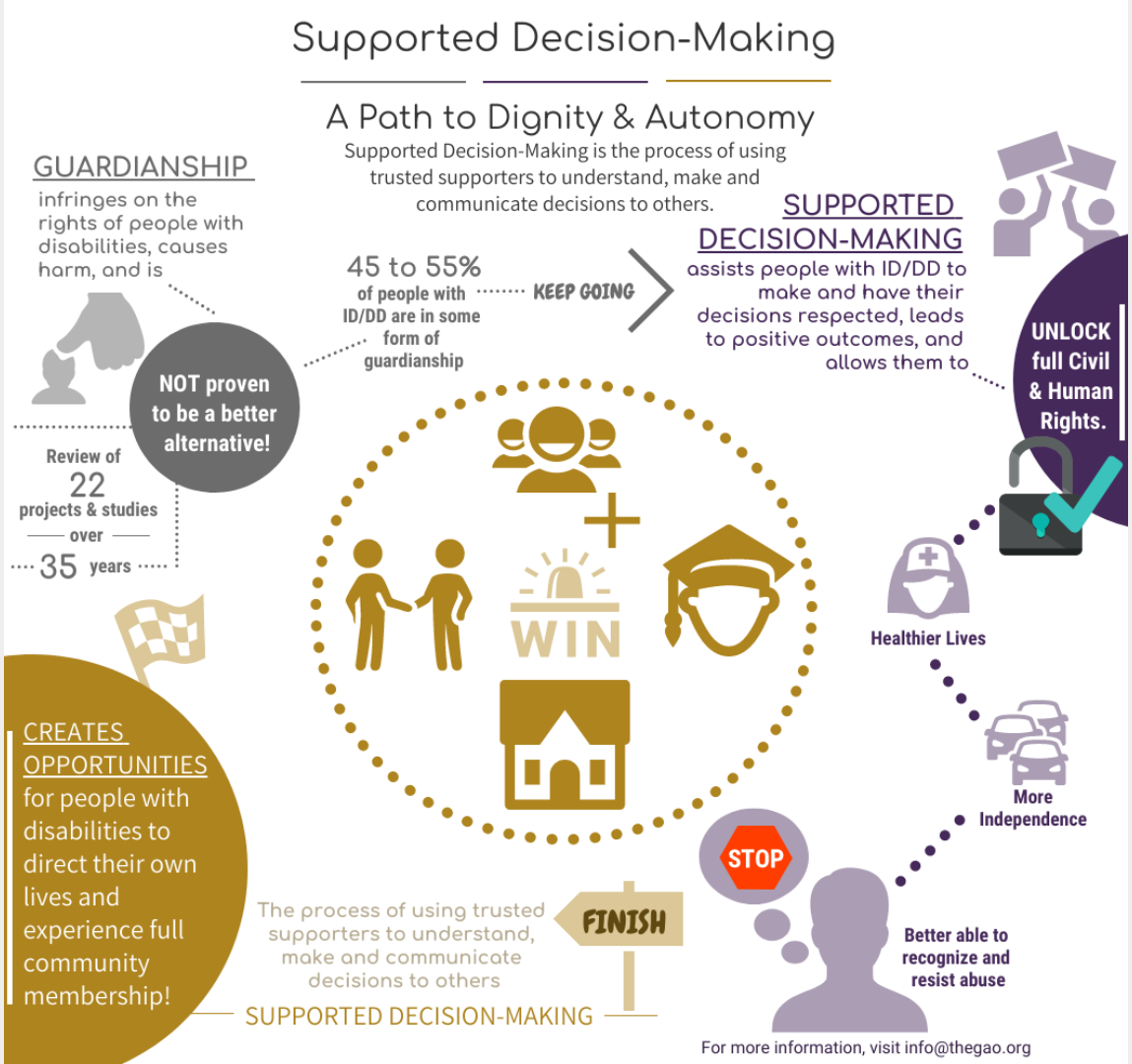
Final Draft: color adjustment, reduced amount of vector images and information to achieve balance & clarity



Visuals

Relevance
- Visuals connect to the text and are useful in conveying the main message
- They are purposeful.

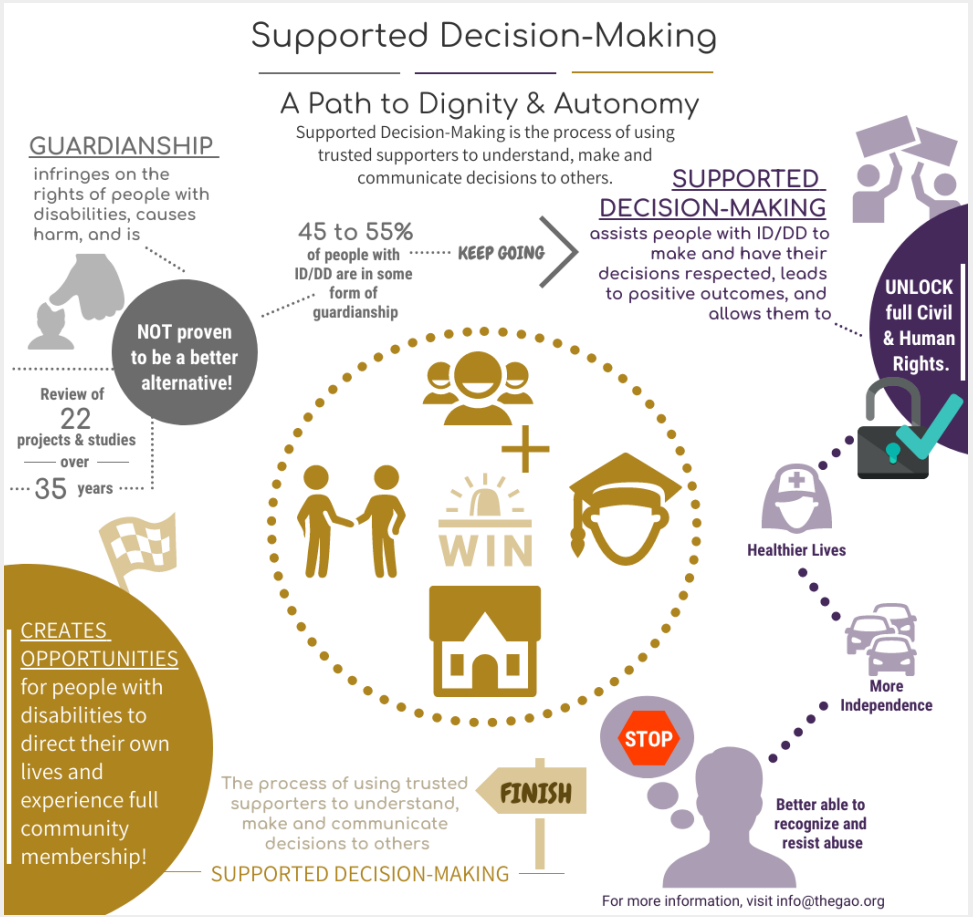
Interpretability
- Visuals are simple, clear and easy to understand and interpret.
- Supports interpretability of data

Representativeness
- The size of visual represents relative importance, emphasizing main message
- Presented truthfully without misrepresentation

Quality
- Images are high resolution, not blurry or pixelated

Voice
- Visuals and data “show” the story
- Culturally appropriate and accessible to the audience

Supported Decision-Making
A Path to Dignity & Autonomy
Supported Decision-Making is the process of using trusted supporters to understand, make and communicate decisions to others.
GUARDIANSHIP
infringes on the rights of people with disabilities and causes harm and is
NOT proven to be a better alternative!
Supported Decision-Making allows for people with IDD to have
FULL civil and human rights.
Supported Decision-Making creates opportunities for people with disabilities to direct their own lives and experience full community membership.


Supported Decision-Making
A Path to Dignity & Autonomy
Supported Decision-Making is the process of using trusted supporters to understand, make and communicate decisions to others.
GUARDIANSHIP
infringes on the rights of people with disabilities, causes harm, and is
NOT proven to be a better alternative!
Review of 22 projects & studies over 35 years
45 to 55% of people with ID/DD are in some form of guardianship
KEEP GOING
SUPPORTED DECISION-MAKING
assists people with ID/DD to make and have their decisions respected, leads to positive outcomes, and allows them to
UNLOCK full Civil & Human Rights.
WIN
Healthier Lives
More Independence
Better able to recognize and resist abuse
STOP
FINISH
CREATES OPPORTUNITIES for people with disabilities to direct their own lives and experience full community membership!
The process of using trusted supporters to understand, make and communicate decisions to others
SUPPORTED DECISION-MAKING
For more information, visit info@thegao.org

Design

Layout
- Appropriate for information (e.g. timeline, descriptive, categorical, comparison
- Method of dissemination

Color
- Simple and consistent
- Contrasting colors

Font
- Emphasizes hierarchy of info
- Easy to read (size & sans serif)

Balance
- Directs focus to main points
- Not skewed to one side or section of the page

Flow
- Words and visuals flow with a sense of unity
- Use of visual cues to support direction and main points

Size
- Size of infographic based on method of distribution

Rural School-Based Mental Health Program |

Working to increase access to mental health services for 14,328 youth living in Georgia through the use of school-based intervention teams, mental health awareness trainings, and school-based mental health clinicians.

204 out of 616 Student Referrals	968 Total Number of Therapeutic Sessions
108 out of 269 Students Receiving School-Based Services	29 Max Number of Sessions Provided
	9 Avg Number of Sessions per Student

Child and Adolescent Needs and Strengths *% Improved*

Decreased Stress	Increased Emotional Lability	Decreased Risk Taking	Increased Personal Strengths	Increased Life Strengths
78%	75%	51%	67%	65%

Trainings & Trainees

	Staff Trainings	YMHFA Trainings	Family Education
	127 out of 226	50 out of 87	100 out of 176
Trainees	2,024 out of 3,229	1,928 out of 2,481	1,644 out of 3,009

CENTER for LEADERSHIP in DISABILITY

Rural School-Based Mental Health Program |

Working to increase access to mental health services for 3,300 youth living in Georgia through the use of school-based intervention teams, mental health awareness trainings, and school-based mental health clinicians.

220 out of 616 Student Referrals	929 Total Number of Therapeutic Sessions
94 out of 269 Students Receiving School-Based Services	57 Max Number of Sessions Provided
	10 Avg Number of Sessions per Student

Child and Adolescent Needs and Strengths *% Improved*

Decreased Stress	Increased Emotional Lability	Decreased Risk Taking	Increased Personal Strengths	Increased Life Strengths	Decreased Trauma
69%	74%	46%	54%	58%	63%

Trainings & Trainees

	Staff Trainings	YMHFA Trainings	Family Education
	44 out of 226	16 out of 87	50 out of 176
Trainees	627 out of 3,229	328 out of 2,481	1,064 out of 3,009

CENTER for LEADERSHIP in DISABILITY

Rural School-Based Mental Health Program |

Working to increase access to mental health services for 1,927 youth living in Georgia through the use of school-based intervention teams, mental health awareness trainings, and school-based mental health clinicians.

192 out of 616 Student Referrals	831 Total Number of Therapeutic Sessions
67 out of 269 Students Receiving School-Based Services	41 Max Number of Sessions Provided
	12 Avg Number of Sessions per Student

Child and Adolescent Needs and Strengths *% Improved*

Decreased Stress	Increased Emotional Lability	Decreased Risk Taking	Increased Personal Strengths	Increased Life Strengths
43%	46%	42%	76%	74%

Trainings & Trainees

	Staff Trainings	YMHFA Trainings	Family Education
	55 out of 226	15 out of 87	26 out of 176
Trainees	688 out of 3,229	225 out of 2,481	301 out of 3,009

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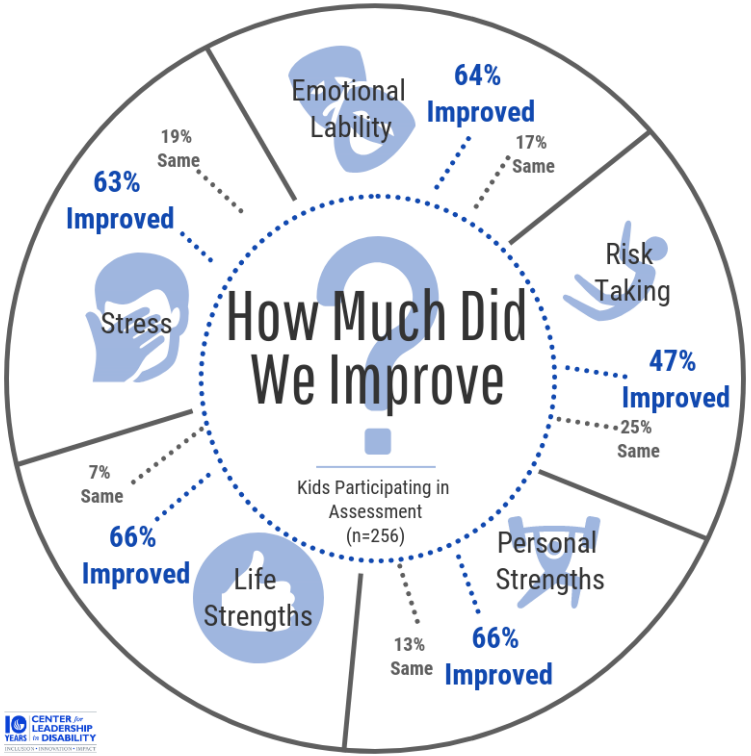

Rural School-Based Mental Health Program

Frequency & Type of School-Based Therapeutic Sessions

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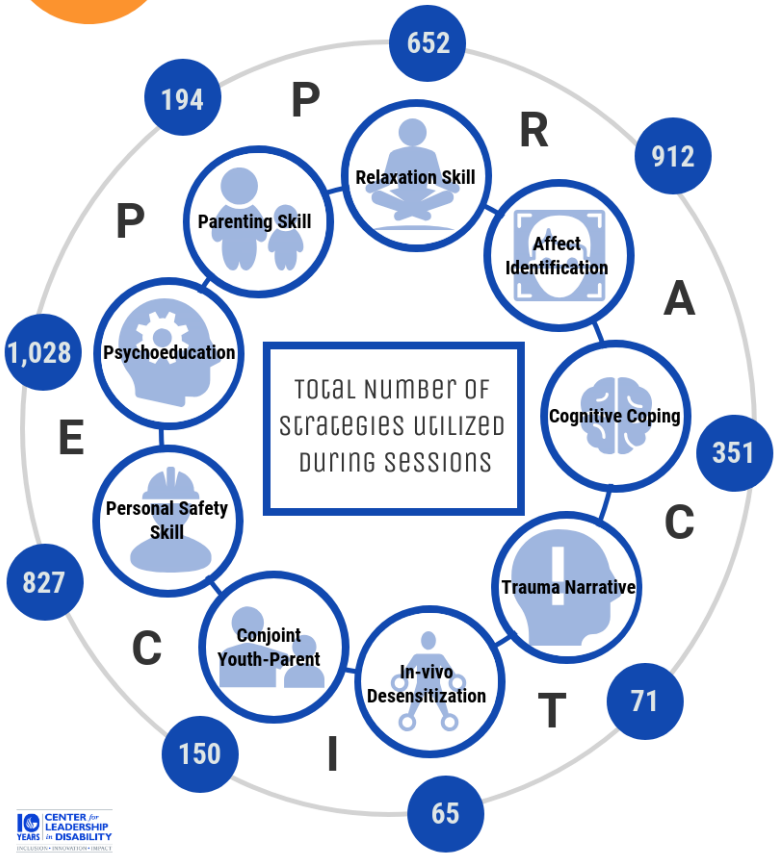
Max number of sessions provided: 57
Total number of sessions: 2,728



Rural School-Based Mental Health Program

College and Career Ready Performance Index

HEA

The College and Career Ready Performance Index (CCRPI) is a comprehensive school improvement, accountability, and communication platform for all educational stakeholders that will promote college and career readiness for all Georgia public school students.
-Georgia Department of Education, 2017

80% of the 10 participating schools **improved** or **maintained** their CCRPI scores.

30% of the 10 participating schools were recognized by the state as **Outstanding** schools.

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Rural School-Based Mental Health Program

School Climate Rating

ROLL

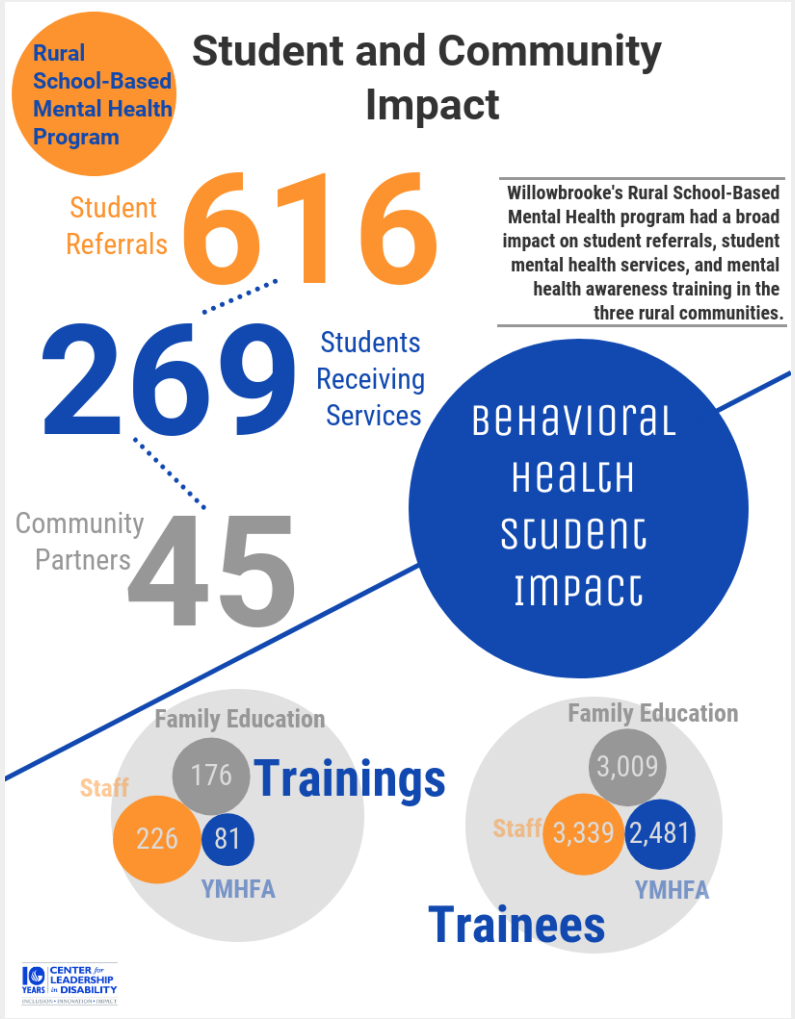
School Climate is assessed using Student and Staff Attendance Data, Student Discipline Data, Georgia Student Health Survey 2.0 Data, and Teacher/Parent Perception Data.

90% of the 10 participating schools either improved or maintained their School Climate Ratings.

Improve - Worsen - Variable - Maintain

80% of the 10 participating schools either maintained or attained ***Good (4)*** to ***Very Good(5)*** School Climate Ratings

CENTER for LEADERSHIP in DISABILITY


Rural School-Based Mental Health Program
Student and Community Impact
Student Referrals 616
Willowbrooke's Rural School-Based Mental Health program had a broad impact on student referrals, student mental health services, and mental health awareness training in the three rural communities.
269 Students Receiving Services
Community Partners 45
Behavioral Health Student Impact
Family Education
Staff
176
226
81
YMHFA
Trainings
Family Education
3,009
Staff
3,339
2,481
YMHFA
Trainees
CENTER for LEADERSHIP in DISABILITY

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- Experienced Sadness/Withdrawal (decreased)
- Experienced Intense Worry/Fear **(increased)**
- Considered Self-harm (decreased)
- Considered Suicide **(increased)**
- Engaged in Self-harm **(increased)**
- Non-fatal Suicide Attempt (decreased)

High School Students

Total Sample: 3,073 | 3,173

From 2015-16 to 2016-17, 75% of the indicators were *favorable* to students

- Feel Safe at School (increased)
- Have an Adult at School Who Helps (increased)
- Experienced Sadness/Withdrawal **(increased)**
- Experienced Intense Worry/Fear **(increased)**
- Considered Self-harm (decreased)
- Considered Suicide (decreased)
- Engaged in Self-harm (decreased)
- Non-fatal Suicide Attempt (decreased)

Rural School-Based Mental Health Program

Georgia Student Health Survey 2.0

2015-16 | 2016-17

The Georgia Student Health Survey (GSHS) 2.0 is an anonymous, statewide survey instrument developed by many divisions within the GaDOE that identifies safety and health issues that have a negative impact on student achievement and school climate.
- Georgia Department of Education, 2017

Reported increases and decreases in safety/health issues that are favorable to the student

Reported increases and decreases in safety/health issues that are not favorable to the student

Elementary School Students

Total Sample: 472 | 398

From 2015-16 to 2016-17, 100% of the indicators were *favorable* to students

- Feel Safe at School (increased)
- Have an Adult at School Who Helps (increased)

Middle School Students

Total Sample: 371 | 362

From 2015-16 to 2016-17, 25% of the indicators were *favorable* to students

- Feel Safe at School **(decreased)**
- Have an Adult at School Who Helps **(decreased)**
- Experienced Sadness/Withdrawal (decreased)
- Experienced Intense Worry/Fear **(increased)**
- Considered Self-harm **(increased)**
- Considered Suicide **(increased)**
- Engaged in Self-harm (decreased)
- Non-fatal Suicide Attempt **(increased)**

High School Students

Total Sample: 454 | 521

From 2015-16 to 2016-17, 62.5% of the indicators were *favorable* to students

- Feel Safe at School (increased)
- Have an Adult at School Who Helps (increased)
- Experienced Sadness/Withdrawal (decreased)
- Experienced Intense Worry/Fear **(increased)**
- Considered Self-harm (decreased)
- Considered Suicide **(increased)**
- Engaged in Self-harm (decreased)
- Non-fatal Suicide Attempt **(increased)**

What did you notice?

2 - 3 shades/colors

2 - 3 fonts/font sizes

Minimal words

Accessible language

Images

Numbers

Shapes

Lines

Resource Mapping for Social-Emotional Supports in Schools

2017-2018

The College and Career Ready Performance Index, School Climate Rating, Financial Efficiency Star Rating, and Student Growth Percentiles were retrieved from the Georgia Department of Education website. The Great Schools Score was retrieved from the Great! Schools website.

College and Career Ready Performance Index

Overall Score	Content Mastery	Progress	Closing Gaps	Readiness
74.6	72.8	75.5	60.7	85.9

School Climate Star Rating

★★★★☆

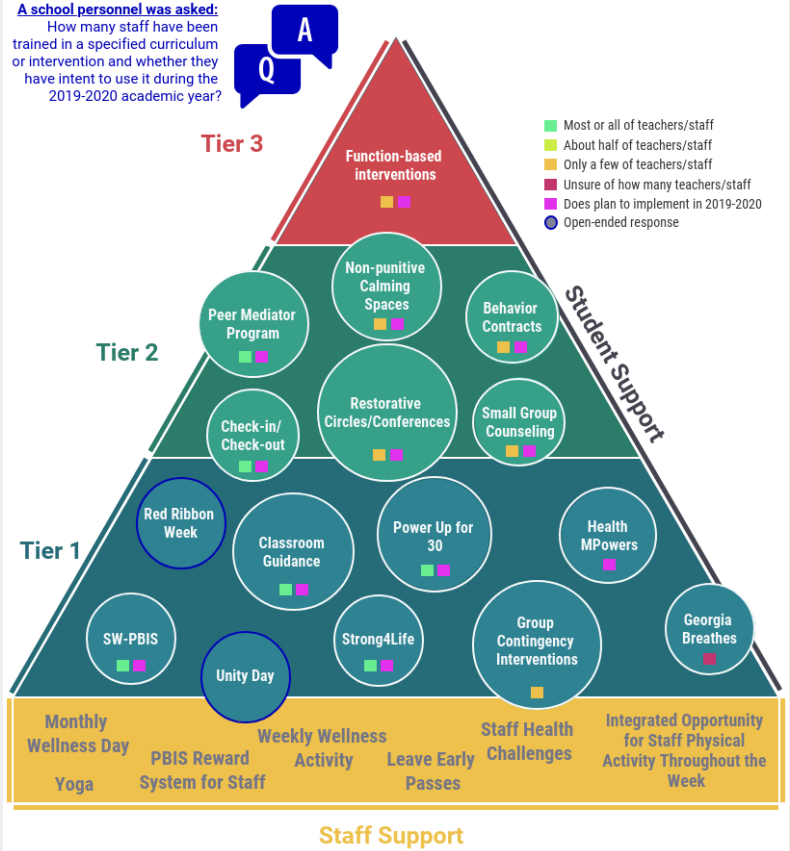
Financial Efficiency Star Rating

★★☆☆☆

Student Growth Percentiles

% Proficient Learner and Above	% Developing Learner and Above	% Typical or High Growth	% Proficient Learner and Above	% Developing Learner and Above	% Typical or High Growth
55%	82%	64%	52%	84%	56%
English Language Arts			Mathematics		

Great Schools Score

Overall Score	Test Scores	Student Progress	Equity Overview	Low-income Students
7	8	7	4	4

A school personnel was asked:
How many staff have been trained in a specified curriculum or intervention and whether they have intent to use it during the 2019-2020 academic year?