Making the case for how SSHS programs support student achievement

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Plan for the talk

- Creating a process and a culture
  - Data-driven decision making does not ‘just happen’
- Types of impacts
  - Process/school functioning
  - Student-level outcomes
    - Intermediate outcomes
    - Academic outcomes

My background

- Evaluator for two SSHS grantees
- PI of study examining role of local evaluator in program development and sustainability for SSHS projects
- Developer of child health surveillance systems in Illinois
- 10 years of experience in working with schools and school boards
- Chair of the Local School Council for my kids' school

Creating a process and a culture

Creating a process and a culture

- Choose evidence-based programs at the start
- Create a culture/subculture of data-driven decision making
  - Talk data as a justification for all your decisions
  - Ask for data to justify changes to your program
  - Be consistent (e.g., when data contradict what you want)
  - Be a partner to the decision makers

Creating a process and a culture

- Non-data factors play a role in decision-making
  - External pressures on the school board
  - Competing priorities and limited resources
    - Constantly bombarded with requests, most of which are not thought through
  - Ambitions of school board members
  - The limits of statistical significance
    - What changes are ‘felt’ in the daily life of administrators?
  - It is easier to veto a new program than to create it

Be prepared

- Know your decision makers
  - Meet with school board members individually
    - Do not assume you or others know what they think
    - Respond to their requests for information
  - Attend school board meetings
    - Observe group dynamic among members
  - Understand what your superintendent needs when presenting to your school board
  - Understand what your school board needs to justify spending money

Be prepared

- Prime the decision makers
  - Constant flow of small and large findings
  - Constant flow of good stories
  - Be a model for data-driven decision-making
  - Set reasonable expectations

Types of impacts

- Process/school functioning
  - What school improvements support higher student achievement?
- Student-level outcomes
  - What school improvements actually affect achievement?

Guiding principles

- Multiple strategies aimed towards multiple stakeholders
- Whenever possible, convert data to dollars

Process/school functioning

Process/school functioning

- What to look for: What works better in the school?
  - If the school is supporting students better, academic outcomes will improve
    - Transition into special education – 1 year or 5 years?
    - Handling physical fight incidents – prompt, targeted intervention or allow problems to fester

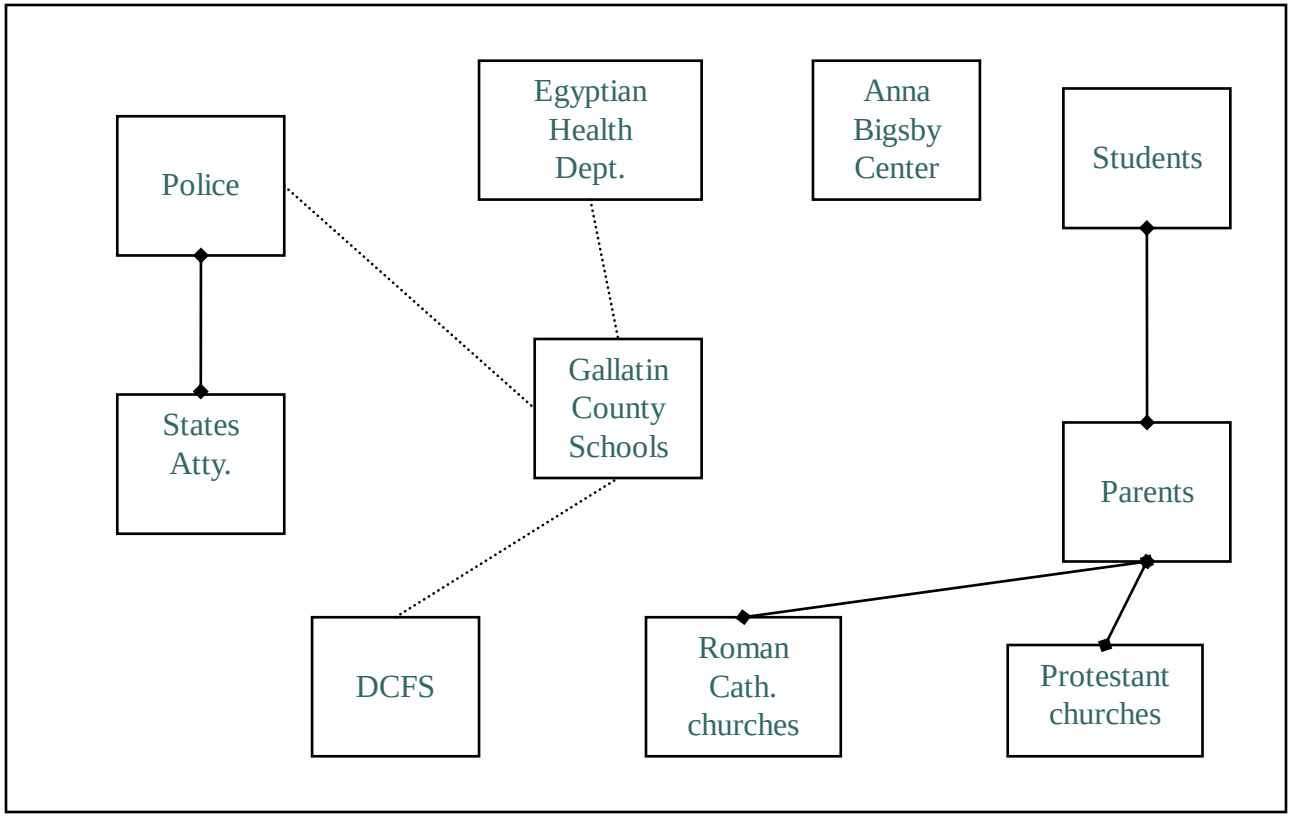
Process/school functioning

- How to look: Can any improvements in process be put into monetary terms?
  - Count how many hours the administrators save by spending less time on disciplinary issues
  - Additional funding into the school
  - Have school resources leveraged new resources coming into the school?
  - Other cost savings/cost shifting?

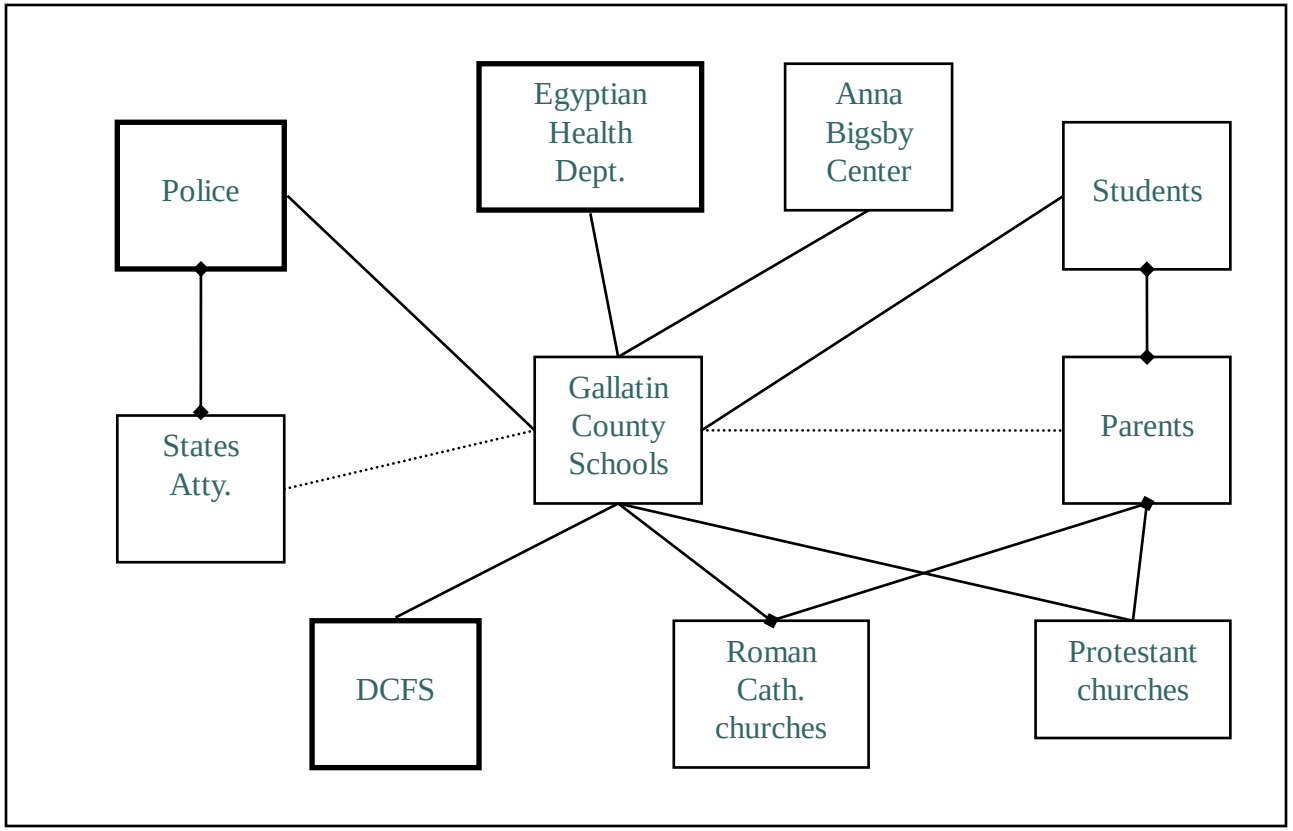
Example 1
Bringing resources into school

- Put the network in monetary terms
  - Service providers coming into the school
  - Other agencies contributing staff time
  - Consultant fees saved
  - Time saved for school staff

Example 1
Bringing resources into school



Example 1
Bringing resources into school



Process/school functioning

- Examples of quality improvements in system that are easy to quantify
  - Time lapse from suspicion of problem to screening
  - Time lapse from screening to treatment
  - High risk students' parent satisfaction
  - Reduction in classroom disruptions and teacher strain

Student-level outcomes

Student-level outcomes

- Intermediate outcomes
  - Things associated with doing well in school
    - Cutting behaviors, substance use, school attachment
- Academic outcomes
  - Grades, test scores, accomplishment, drop out

Intermediate outcomes

- What to look for: Cutting behavior, school attachment before, during and after services
- How to look: Compare to expected trajectory
  - Contemporary comparison groups
  - Historical comparison groups

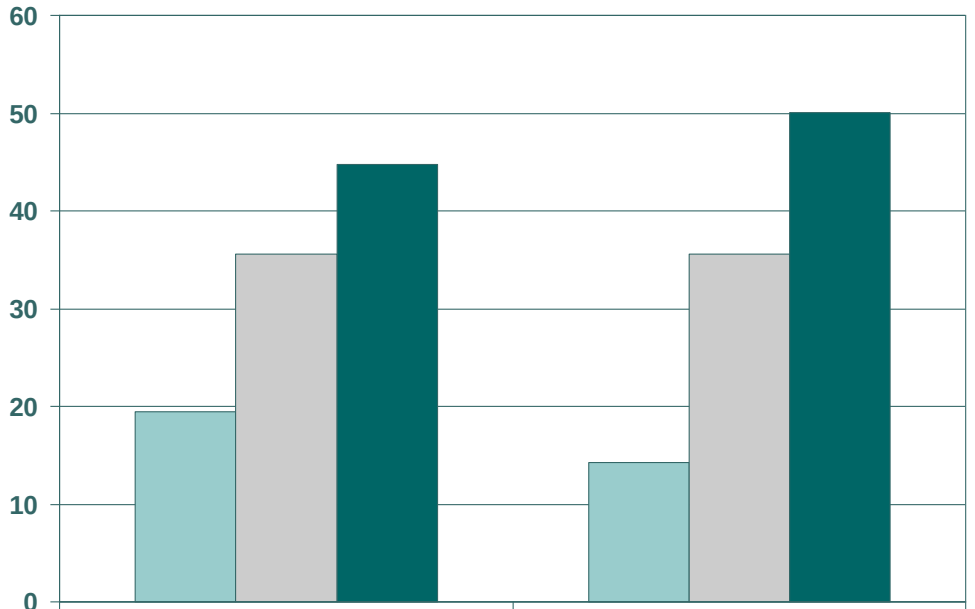
Example 2

Compare contemporary groups that were eligible for services

- Group students
  - Not eligible for services
  - Eligible, but did not get services
  - Eligible and got services
- Compare outcomes
- Isolate why some got services or not (e.g., the most needy kids got services v. the families that were easiest to work with got services)

Example 2

Percent middle school students cutting school in the last 30 days, final time point

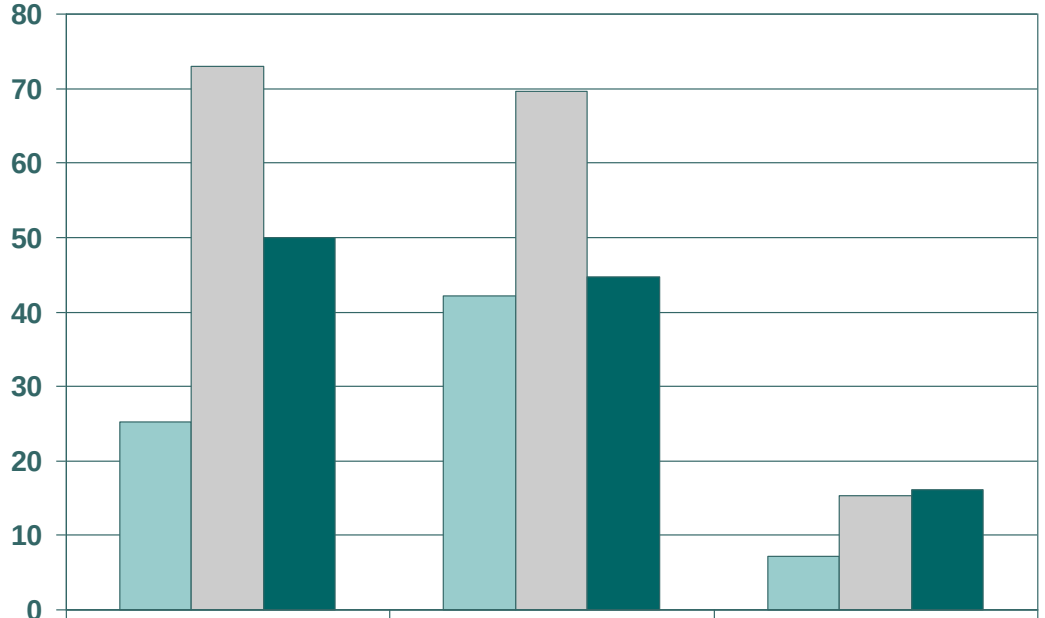


	Cut school day *	Cut class **
Not in study group	19.5	14.3
Study group, no services	35.6	35.6
Study group, received services	44.7	50

# p < .10; * p < .05; ** p < .01

Example 2

Percent of middle school students *ever* using substance, final time point



	Cigarettes **	Alcohol **	Illegal drugs *
Not in study group	25.3	42.2	7.2
Study group, no services	73	69.6	15.3
Study group, received services	50	44.7	16.2

# p < .10; * p < .05; ** p < .01

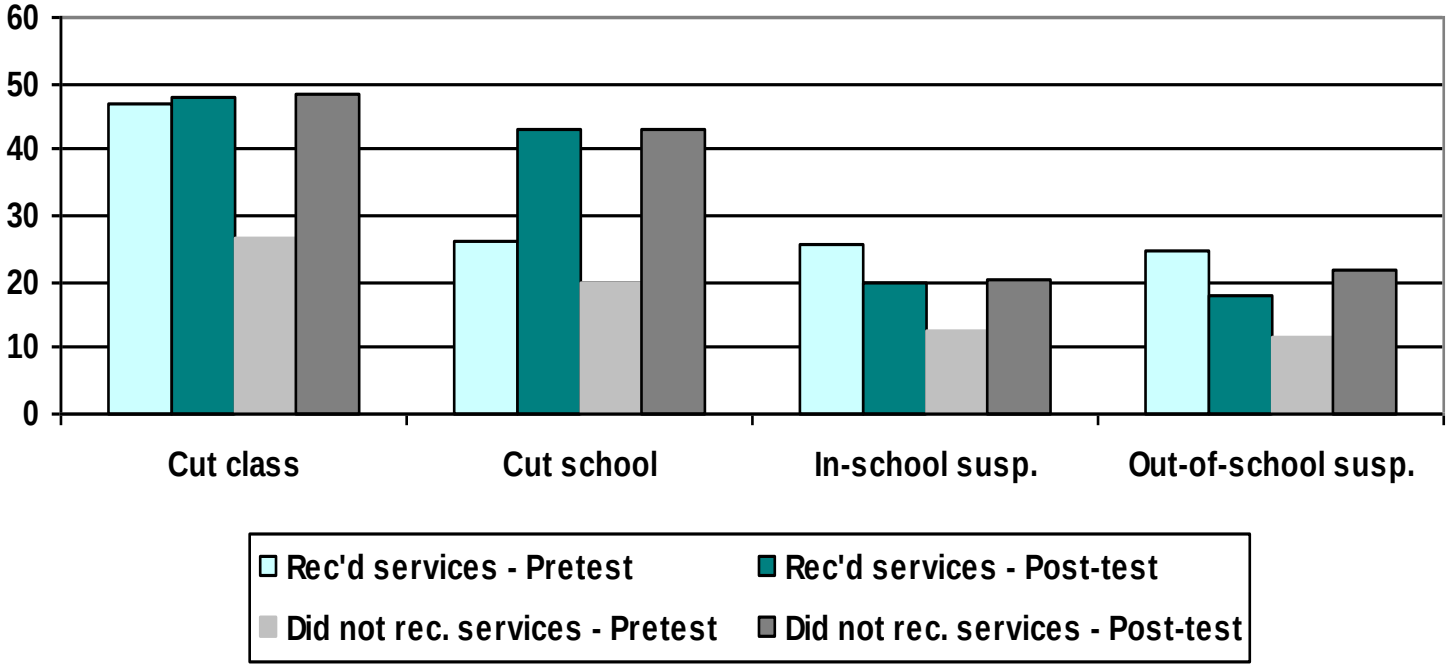
Example 3

Compare groups that received services with those that did not (not isolating the eligibles)

- Group students
  - Received services
  - Did not receive services
- Compare outcomes
- Note that good outcomes may be a ‘flattening’ of an expected increase

Example 3

Compare groups that received services with those that did not (not isolating the eligibles)

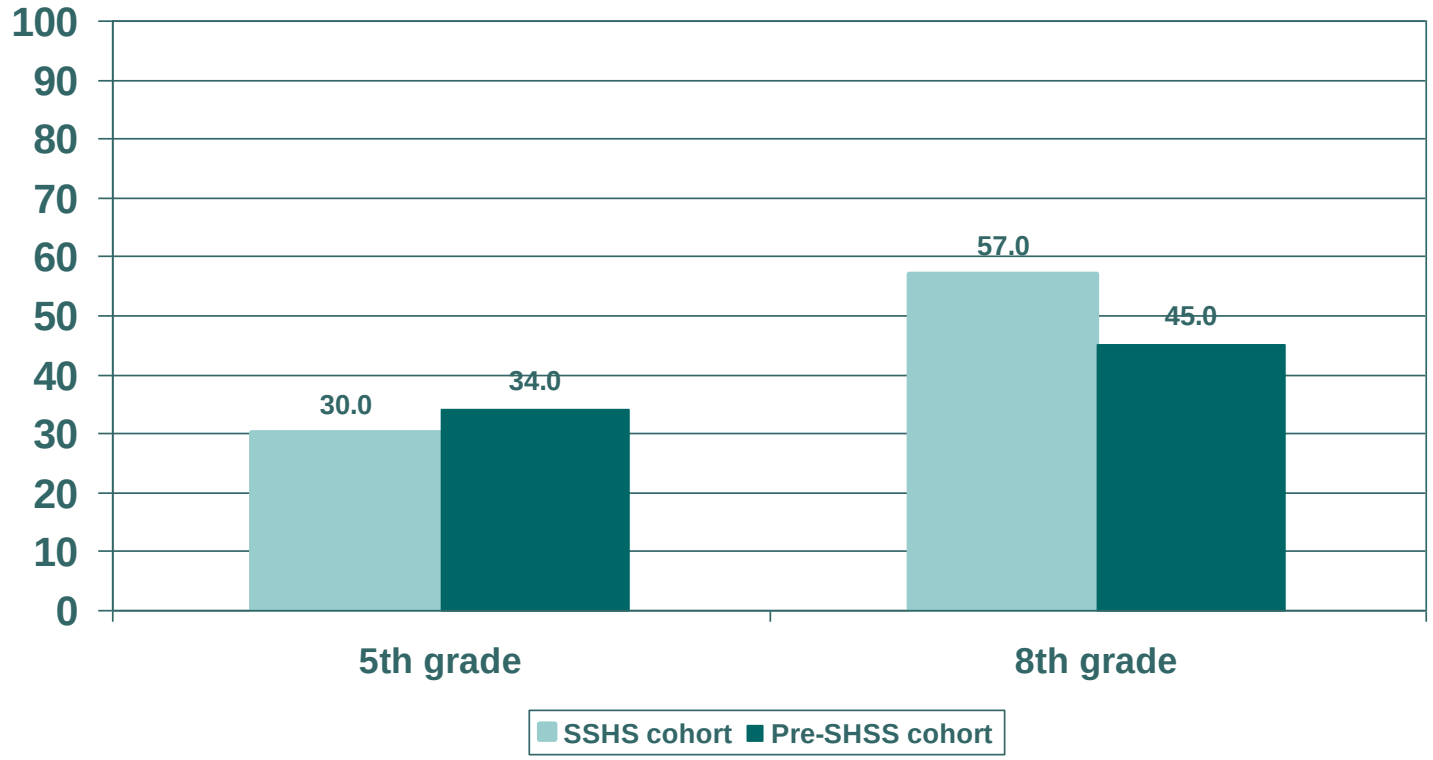


Academic outcomes

- What to look for: Test scores before, during and after services
- How to look: Compare to expected trajectory (use historical data from the district, pre- and post-program)
  - In this example, two cohorts of students are compared:
    - 2002 8th graders (before SSHS)
    - 2005 8th graders (after SSHS)

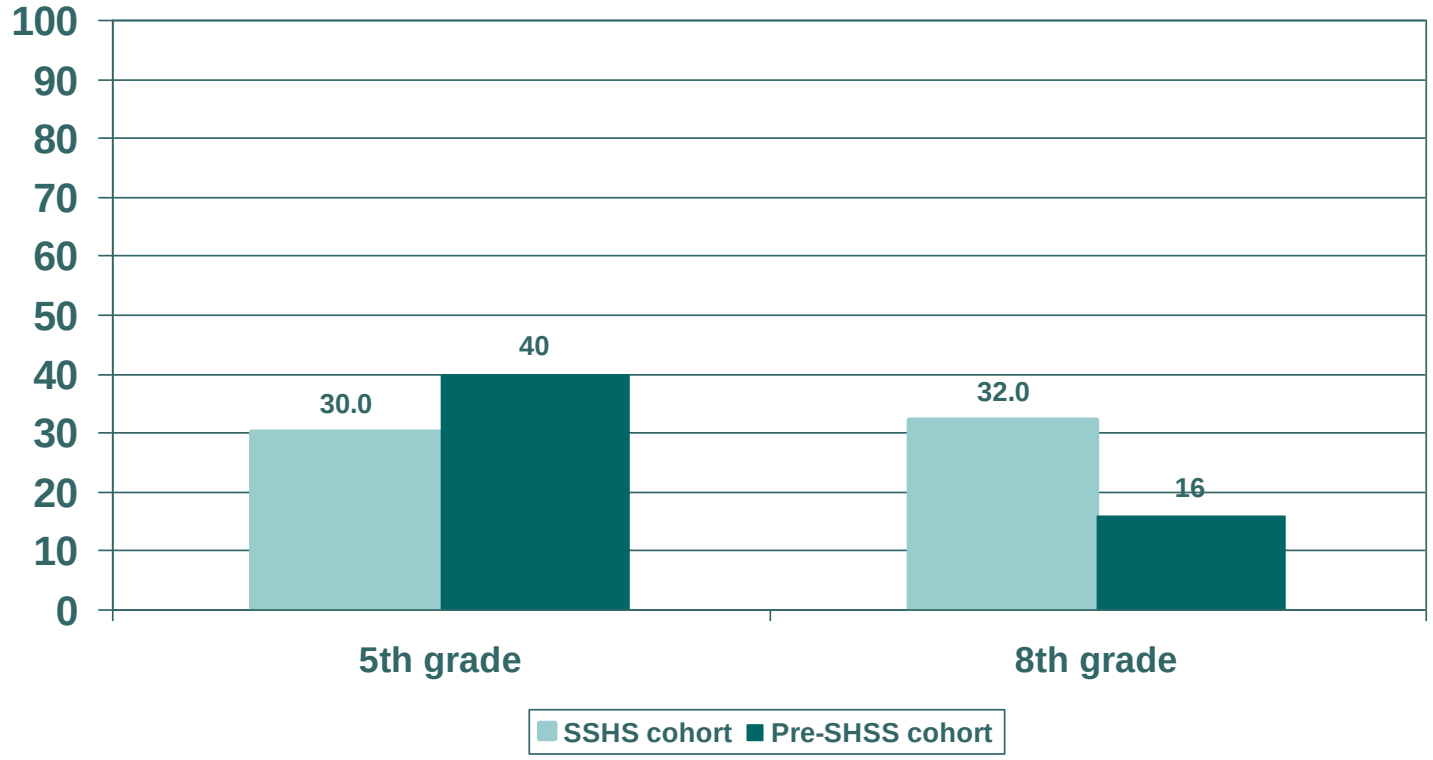
Example 4

Cohort data: Percent of students meeting *reading* standards (SSHS cohort v. pre-SSHS cohort)



Example 4

Cohort data: Percent of students meeting *math* standards (SSHS cohort v. pre-SSHS cohort)



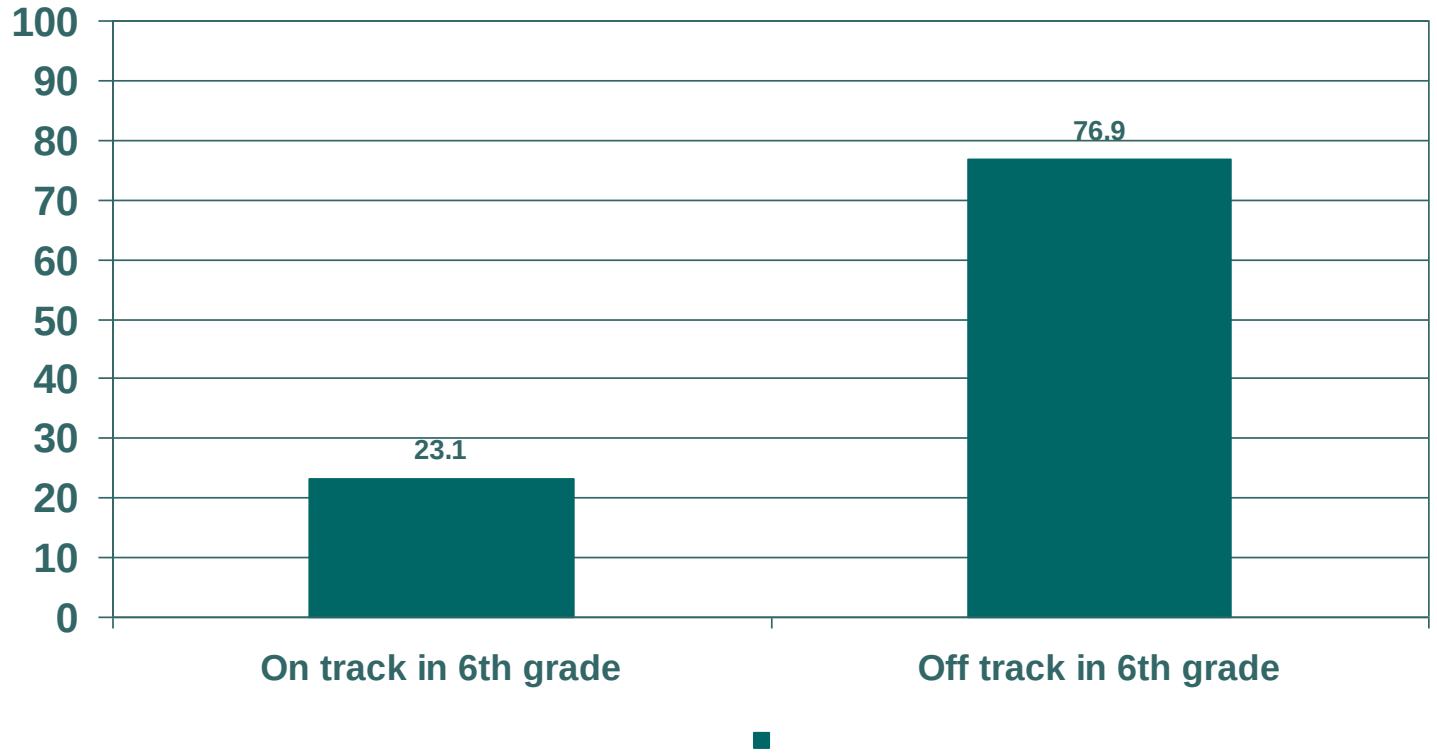
Example 5

Follow “off-track” students over time

- Identify students who are “off-track” during pretest periods; follow these students over time
- What portion of students who were off-track at the pretest are still off-track after the intervention?
  - How do 4th graders who score in the lower third of standardized tests perform in 6th grade (after the intervention)?
- Compare to changes in on-track students over time

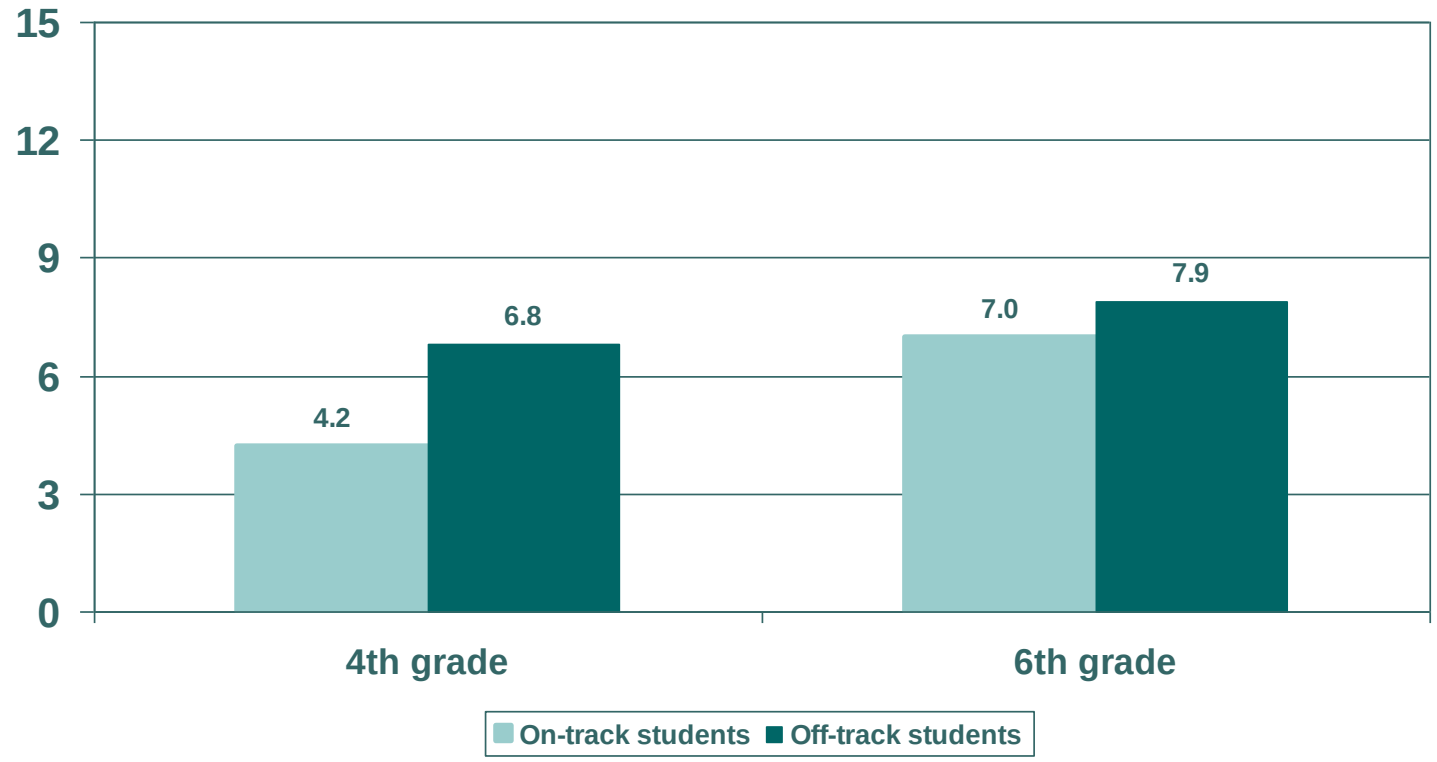
Example 5

Off-track students: 6th grade status of students who were 'off-track' in 4th grade



Example 5

Off-track students: Experiences of peer victimization in previous week



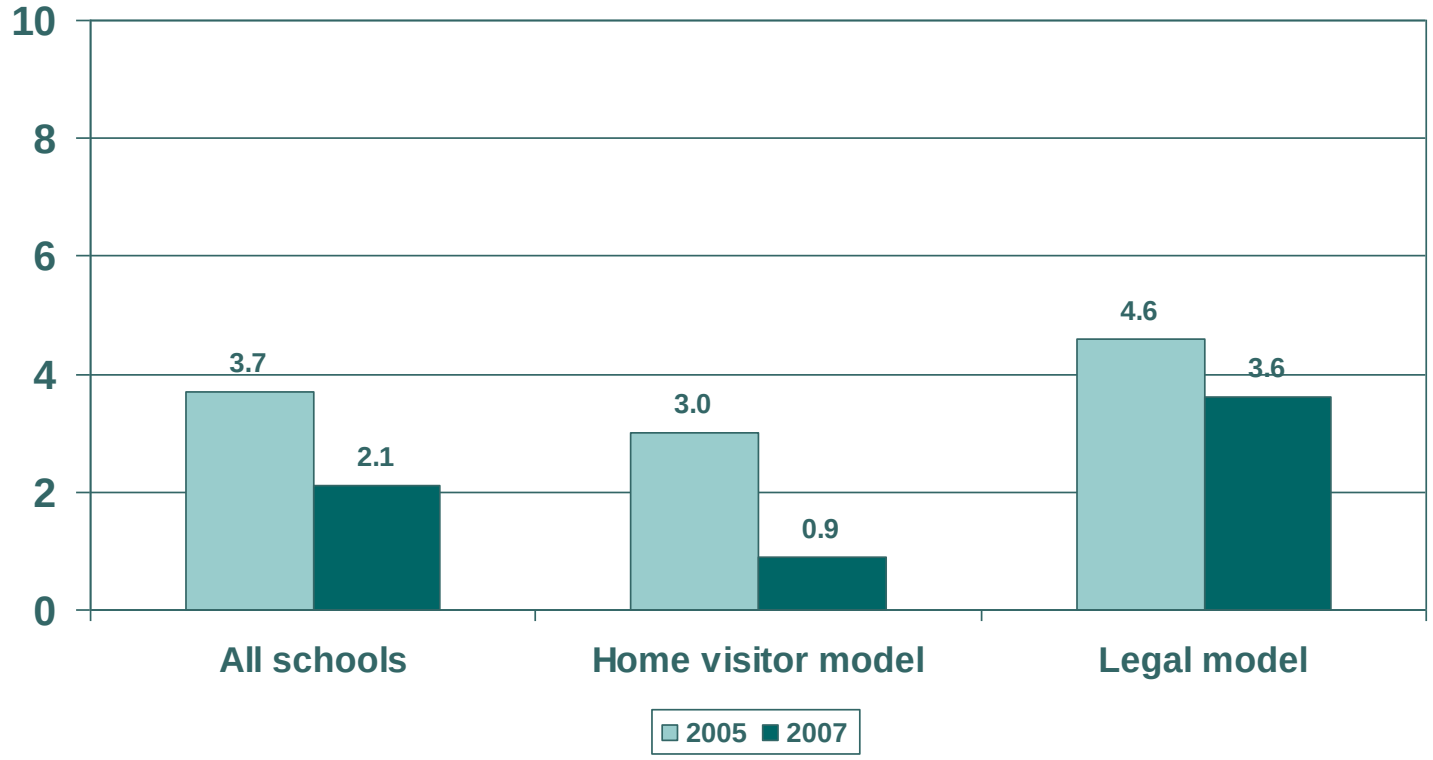
Example 6

Compare your school to other similar schools

- Find a good comparison school (or group of schools)
  - “natural” experiment
- Compare trends rates

Example 6

Between school comparison groups over time (truancy rates)



Using published data

- What to look for: Data that indicates whether your trends/program effects are within the expected range
- How to do it: Pull published data for schools similar to yours and compare pre and post points

Example 7
Use published data

- Identify longitudinal studies that examine developmental trends towards school failure
- Map the trajectory from the studies
- Pull data for students receiving services
- Is the trajectory the same?

Example 7
Using published data

- SAMHSA National Register of Evidence-Based Practices and Programs (NREPP)
- Find your program
- Match your student body to the replication
- Pull data for grades that match the replication
- Compare pre and post

NREPP – What you can find

- Program descriptions for evidence-based programs
- Details about outcomes that the program can offer, as well as implementation issues (costs, training)
- Details about how the program performs on each outcome/details about each study
- Details about each study's population

NREPP – Program description

Incredible Years

Date of Review: August 2007

Incredible Years is a set of comprehensive, multifaceted, and developmentally based curricula targeting 2- to 12-year-old children and their parents and teachers. The parent, child, and teacher training interventions that compose Incredible Years are guided by developmental theory on the role of multiple interacting risk and protective factors in the development of conduct problems. The three program components . . .

NREPP – Details about outcomes

Outcome 1: Positive and nurturing parenting

- **Description of Measures:** Positive and nurturing parenting was assessed using the following:
  - Independent observations in the home by trained . . .
  - Parent reports of positive parenting style (e.g., verbal encouragement, praise and reinforcement, use of incentives and privileges) and . . .
- **Key Findings:** Parents in treatment groups that received the parent training by itself or in combination with the child and/or teacher training showed a significant increase in positive and nurturing parenting relative to parents in comparison groups ($p < .001$ to $p < .05$). The comparison groups received the child training and/or teaching training only or were exposed to control conditions (wait list, regular Head Start, or regular school curriculum and services).
- **Studies Measuring Outcome:** Study 1, Study 2, Study 3, Study 4, Study 6
- **Study Designs:** Experimental
- **Quality of Research Rating:** 3.7 (0.0-4.0 scale)

NREPP – Study details

Study	Age	Gender	Race/ethnicity
Study 1	0-5 (Early childhood) 6-12 (Childhood) 26-55 (Adult)	54.5% Male 45.5% Female	Data not reported/available
Study 2	0-5 (Early childhood) 6-12 (Childhood) 26-55 (Adult)	54.4% Male 45.6% Female	91% White 9% Race/ethnicity unspecified
Study 3	0-5 (Early childhood) 6-12 (Childhood) 26-55 (Adult)	63.6% Female 36.4% Male	37% White 22% Asian 19% Black or African American 18% Hispanic or Latino 2% American Indian or Alaska Native 2% Race/ethnicity unspecified

NREPP – Study citations

Study 1

- Webster-Stratton, C. (1994). Advancing videotape parent training: A comparison study. Journal of Consulting and Clinical Psychology, 62(3), 583-593.

Study 2

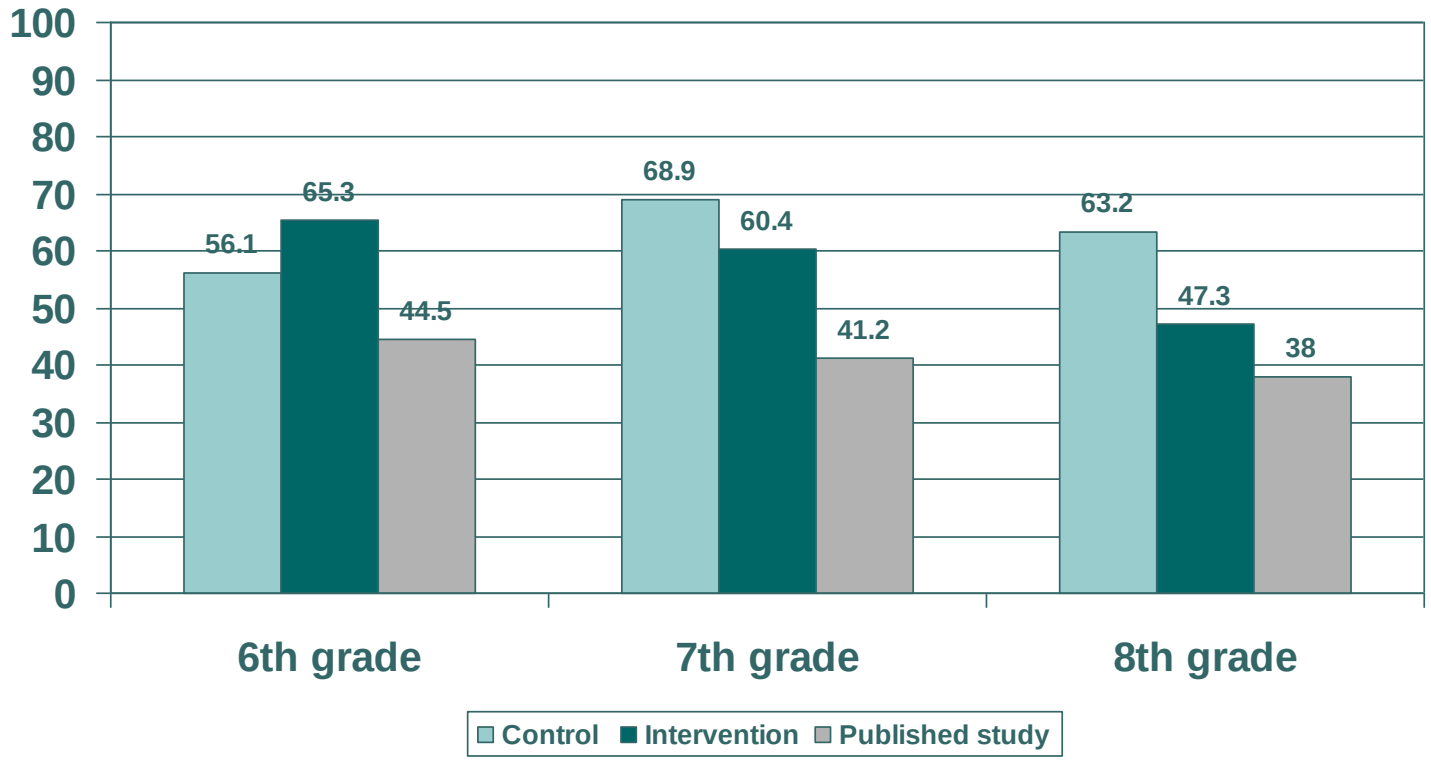
- Webster-Stratton, C., & Hammond, M. (1997). Treating children with early-onset conduct problems: A comparison of child and parenting training interventions. Journal of Consulting and Clinical Psychology, 65(1), 93-109.

Study 3

- Webster-Stratton, C., Reid, M. J., & Hammond, M. (2001). Preventing conduct problems, promoting social competence: A parent and teacher training partnership in Head Start. Journal of Clinical Child Psychology, 30(3), 283-302.

Example 7

Use published data



Academic outcomes Qualitative data

- Individual success stories
- Teacher statements (have them speak to administrators and school board members)
- Parent support/stories

Summary

- Prepare the decision-makers
- Be prepared
- Support those who are putting themselves on the line for the project
- Use multiple strategies
- Reach out to multiple audiences
- Combine data sources

Next steps

- What questions need to be answered? (School board members; administrators)
- What data do you have?
- What questions can you answer with current data?
- Which questions do you need more data for?
- Create a plan to get from here to there