GEAR UP Iowa Works: Outcomes and Strategies for Building an Effective Evaluation Plan
Laura Ingleby, Ph.D. & Wade Leuwerke, Ph.D.
Overview

• Learning Objectives
• GUI 1.0 Research and Limitations
• Overview of Evaluation Plan
• Logic Models
• Research Questions
• GUI 2.0 Results
• Activity
Learning Objectives

1. Gain knowledge of processes to create a continuous and systematic evaluation plan
2. Develop an understanding of how outcomes can be presented from two different statewide grants
3. Walkaway with practicable strategies to implement in your evaluation efforts.
GEAR UP Iowa 1.0 Research - What we learned

• GEAR UP Iowa 1.0 began with 7th graders in 2008-09
  • Research limitations included...
    • Data availability
    • Comparison sample - 1.0 included data on students graduating the year prior to GEAR UP
    • Knowledge of services provided - most 1.0 staff left at the end of the grant, limited service descriptions available
    • Lack of evaluation plan
GEAR UP Iowa 1.0 Research - What we accomplished

• Partnership with University of Iowa (U of I) and local area education agency (AEA)
  • Received research funding through the Carver Trust at U of I
  • Supplemented Iowa College Aid’s data with that from one AEA in Iowa (covering ~ 1/3 of GEAR UP students)
  • Provided Iowa College Aid and AEA data to Nick Bowman who conducted the analysis and produced two publications
GEAR UP 1.0 Research - Results on Enrollment

- GEAR UP 1.0 and postsecondary enrollment
  - Quasi-experimental difference-in-differences analysis
  - GEAR UP students increased college enrollment by 3-4 percentage points
    - Decreased the gap between high and low income schools by half
  - No difference in persistence

GEAR UP 1.0 Research - Impact by Service

- GEAR UP 1.0 and impact by service
  - Propensity scores matched students who received each service to GEAR UP students who did not receive the service
  - Positive effects on enrollment and persistence were found for
    - College visits
    - Financial aid counseling
    - ACT/SAT prep

<table>
<thead>
<tr>
<th>GEAR UP General Service</th>
<th>College Outcome</th>
<th>Enrollment Within Two Years of High School Graduation</th>
<th>Enrollment Within One Year of High School Graduation</th>
<th>Persistence to the Second Year</th>
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<tbody>
<tr>
<td></td>
<td>Average Treatment Effect</td>
<td>Robust Standard Error</td>
<td>Average Treatment Effect</td>
<td>Robust Standard Error</td>
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<td>College visit</td>
<td>.085*</td>
<td>.037</td>
<td>.094*</td>
<td>.037</td>
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<td>Financial aid counseling</td>
<td>.171**</td>
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<td>Academic enhancement</td>
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<td>Academic and career counseling</td>
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</table>
GEAR UP 1.0 Research - Impact by Service

<table>
<thead>
<tr>
<th>General Service Category</th>
<th>Specific Service</th>
<th>College Outcome</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Enrolment within Two Years of High School Graduation</td>
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<td></td>
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<td>Average Treatment Effect</td>
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<tr>
<td>College visit</td>
<td>College campus activities (beyond general visit)</td>
<td>.067</td>
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<tr>
<td>Academic enhancement</td>
<td>Academic assistance (mostly one-on-one tutoring)</td>
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<td>Academic and career counseling</td>
<td>I Have a Plan Iowa (online career and academic planning)</td>
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<td>Academic and career counseling</td>
<td>Four-year graduation plan</td>
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<td>Other</td>
<td>Motivational speaker (student assembly)</td>
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<td>Other</td>
<td>ACT/SAT test preparation</td>
<td>.120**</td>
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<tr>
<td>Other</td>
<td>College application assistance</td>
<td>.040</td>
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</tbody>
</table>

Evaluation Plan Overview

- 9 Months to draft original plan
- Continual evolution of plan - minor tweaks as phases are implemented
- Internal evaluator, internal data-analysts, external evaluator, project director
- Grew out of grant proposal
- Starts with research questions and a logic model
Evaluation Plan Overview

Evaluation summary
Evaluator contact information
Independence (statement on evaluator roles)
Confidentiality protections
Summary of intervention (program summary)
Evaluation (that we are using quasi-experimental design)
Logic Model
Research questions
Sample and comparison groups (description of samples)
## Logic Model for the GURI 2.0 Program

### Program Objectives:
1. Increase GEAR UP student academic performance and preparation for postsecondary education.
2. Increase GEAR UP student rates of high school graduation and enrollment in postsecondary education.
3. Increase GEAR UP student and family knowledge of postsecondary education options, preparation, and financing.

### GEAR UP Iowa 2.0 Evaluation Plan Logic Model

<table>
<thead>
<tr>
<th>Input</th>
<th>Activities</th>
<th>Outputs</th>
<th>Outcomes</th>
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</thead>
<tbody>
<tr>
<td><strong>Student Characteristics</strong></td>
<td><strong>Student Activities</strong></td>
<td><strong>Student Outputs</strong></td>
<td><strong>School/Teachers Outputs</strong></td>
</tr>
<tr>
<td># Students</td>
<td>Academic support</td>
<td>Increased academic performance</td>
<td>Knowledge and application of noncognitive skills</td>
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<tr>
<td>Free or Reduced Price Lunch (FRPL)</td>
<td>Advising</td>
<td>Increased preparation for postsecondary options</td>
<td>Promotion of college-going culture</td>
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<tr>
<td># First generation</td>
<td>College and career exposure</td>
<td>Increased high school graduation</td>
<td>Increased use of data to implement student activities</td>
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<tr>
<td>Demographic data</td>
<td>College application and enrollment</td>
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<td>Course grades</td>
<td>Family knowledge and engagement</td>
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<td>Course enrollment and completion</td>
<td>The counterfactual is business-as-usual with no targeted interventions from the GURI 2.0 frameworks</td>
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<td>Rigorous academic curriculum</td>
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<td>School/Teachers Outputs</td>
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<td>Standardized test scores</td>
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<td>Knowledge and application of noncognitive skills</td>
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<td>Attendance</td>
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<td>Promotion of college-going culture</td>
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<td>Participation in services</td>
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<td>Increased use of data to implement student activities</td>
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<td>Comparison group data</td>
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<td>Student survey data</td>
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<td><strong>School Activities</strong></td>
<td><strong>School/Teachers Outputs</strong></td>
<td><strong>Outcomes</strong></td>
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<td>Professional development</td>
<td>Knowledge and application of noncognitive skills</td>
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<td>School planning meetings</td>
<td>Promotion of college-going culture</td>
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<td>CAFI Team meetings</td>
<td>Increased use of data to implement student activities</td>
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</table>

### Short-Term
- Increased course grades
- Increased standardized test scores
- Improved attendance

### Mid-Term
- Increased completion of rigorous courses
- Increased number on track to graduate

### Long-Term
- Increased high school graduation
- Increased intention to enroll in postsecondary education/training
- Increased FAFSA completion
- Increased postsecondary enrollment
**Research Questions**

A series of analyses will be undertaken at four different times to examine periodic impacts of the GUI 2.0 program on student outcomes. After students’ 8th, 10th, and 12th grade years and during postsecondary, the following research questions will be addressed. See Appendix C for a description of data elements.

**Series 1 – Following 8th Grade, Fall 2016**

1. Does the GUI 2.0 program increase students’ academic performance as measured by course grades?
   
   Course grades will be measured in math, science, language arts and social studies courses

2. Does the GUI 2.0 program increase students’ academic performance as measured by proficiency on standardized test scores?
   
   Standardized test score will be measured by proficiency cutoffs on the Iowa Assessment (math 236, reading 239)

3. Does the GUI 2.0 program increase students’ college and career readiness as measured by standardized test scores?
   
   Standardized test score will be measured by proficiency cutoffs on the Iowa Assessment (math 279, reading 279)

4. Does the GUI 2.0 program increase students’ school attendance?
   
   Attendance will be defined as the number of unexcused absences
Evaluation Plan Overview

Measures and data gathering plans
  • Student characteristics
  • Service data
  • Comparison cohort data
  • “Series 3, Question 9 and Series 4 Comparison Cohort Data”

Data flow
Data management
Data Analyses
  • Three short paragraphs long - adapt this as we go
Evaluation Plan Overview

Separate research study
• Student characteristics
• Noncognitive Guidance Curriculum
• Summary, evaluation, logic model, research questions, etc.

Appendix A
• Services (required and allowed services)

Appendix B
• GUI 2.0 Framework
• Planning document (type and organization of services)
• Academic supports, college and career exposure, family knowledge, etc.
Evaluation Plan Overview

Appendix C
  • Variable definitions

Appendix D
  • Data sharing agreement w/Iowa Department of Education

Appendix E
  • Procedures for transmitting data with schools

Appendix F
  • Data flow plan

Appendix G
  • Noncognitive curriculum study - research design
# GUI2 Academic Schedule 2015-16

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</table>

Legend:  
- **PS**: PS Beg  
- **EF**: EF CO  
- **SS**: SS Beg  
- **SS END**: SS END  
- **ET**: ET  
- **H**: Holiday  
- **NC**: No Class
Logic Model

Many resources for developing a logic model
  • Websites, YouTube, trainings, evaluators
Visual representation of program and what hope to accomplish
  • Common language, reference to many people in GEAR UP
Start with outcomes and work backward
Start with activities and work forward
Resources/Inputs
  • All of the resources or assets going into program
  • Financial, human, community, match
  • Data elements in our LM - student and school characteristics
Logic Model

Activities
• Interventions, services, actions, events, processes
• What is your program ‘doing’ to impact outcome?
• We listed services and school level activities
• Counterfactual as this is an evaluation LM

Outputs
• Who is impacted by activities?
• Demonstrates activities were performed

Outcomes
• What was the result of the activity performed on audience?
• Short-, intermediate-, and long-term
Logic Model

Impact
- Logic models often have impact section
- What can be expected in community, environment, or location of intervention if this works?
- How are things changed/different?

Variety of models and some differences in format
- We have not impact section
- Have counterfactual
- Different LM for entirety of GUI 2.0

Logic Model should serve program and focus of model (ie Evaluation)
W.K. Kellogg Foundation
# Logic Model for the GUE 2.0 Program

## Program Objectives:
1. Increase GEAR UP student academic performance and preparation for postsecondary education.
2. Increase GEAR UP student rates of high school graduation and enrollment in postsecondary education.
3. Increase GEAR UP student and family knowledge of postsecondary education options, preparation, and financing.

## GEAR UP Iowa 2.0 Evaluation Plan Logic Model

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<tr>
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<th>Outcomes</th>
</tr>
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<tbody>
<tr>
<td><strong>Student Characteristics</strong></td>
<td></td>
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<tr>
<td>• #Students</td>
<td><strong>Student Activities</strong></td>
<td><strong>Student Outputs</strong></td>
<td><strong>Short-Term</strong></td>
</tr>
<tr>
<td>• #Free or Reduced Price Lunch (FRPL)</td>
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<tr>
<td>• #First generation</td>
<td>• Academic support</td>
<td>• Increased academic performance</td>
<td>• Increased course grades</td>
</tr>
<tr>
<td>• Demographic data</td>
<td>• Advising</td>
<td>• Increased preparation for postsecondary options</td>
<td>• Increased standardized test scores</td>
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<td>• Course grades</td>
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<td>• Course enrollment and completion</td>
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<tr>
<td>• Rigorous academic curriculum</td>
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<td>• Standardized test scores</td>
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<tr>
<td>• Attendance</td>
<td>• College application and enrollment</td>
<td><strong>School/Teachers Outputs</strong></td>
<td><strong>Mid-Term</strong> plus:</td>
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<tr>
<td>• Participation in services</td>
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<td>• Comparison group data</td>
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<td>• Student survey data</td>
<td>• Family knowledge and engagement</td>
<td>• Knowledge and application of noncognitive skills</td>
<td>• Increased completion of rigorous courses</td>
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<tr>
<td><strong>School Characteristics</strong></td>
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<td>• % on track to graduate</td>
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<td>• High school graduation rate</td>
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<td>• FAFSA completion rate</td>
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<td>• Postsecondary enrollment rate</td>
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<tr>
<td>• Intention to enroll in postsecondary education/training</td>
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The counterfactual is business-as-usual with no targeted interventions from the GUE 2.0 frameworks.

**School Activities**
- Professional development
- School planning meetings
- CAR Team meetings

**Counselor Outputs**
- Advising into rigorous academic curriculum
- Leading in use of data to implement student activities

**Long-Term**
- Increased high school graduation
- Increased intention to enroll in postsecondary education/training
- Increased FAFSA completion
- Increased postsecondary enrollment
Research Questions

Series of analyses/questions

• Available data
• Activities/outcomes at that level
• Every 2 years + end of program
• Cumulative, questions build upon previous series

Series 1
• Dropped course grades analysis

Series 2
• Analyzed grades, added course completion and on track to graduate

Series 3
• HS graduation, intent to enroll in college, FAFSA
Series 2:
Across School and Within School Comparisons

Questions 2, 3, & 4
GUI and Non GUI Student Evaluation
  • Match GUI students with Iowa students not attending GUI school
  • How do GUI students perform compared to non GUI students?
  • Strongest possible research
  • Attendance, Standardized Test Scores

Questions 1, 5, & 6
GUI students within GUI schools
  • Compare students who participate highly vs those who don’t
  • Moderate rigor
  • Grades, on track to graduate
2. Does GUI increase academic performance as measured by proficiency?
   • GUI students more likely to score proficient in reading and math on Iowa Assessments (by 1.9 and 5.5 percentage points, respectively)

3. Does GUI increase CCR as measured by standardized test scores?
   • GUI students less likely to score college and career ready in math (4.4 percentage points)

4. Does GUI increase students’ attendance?
   • GUI students attend at higher rate (2.6 additional days)
Series 2:
Program Outcomes
Focus on students who qualify for Free/Reduced Price Lunch (FRPL)

2. Does GUI increase academic performance as measured by proficiency?
   • 4.5 percentage point increase in math proficiency, 8.5 percentage point increase in reading proficiency

3. Does GUI increase CCR as measured by standardized test scores?
   • Increase in college and career ready in reading (3.4 percentage points)

4. Does GUI increase students’ attendance?
   • Larger increases in attendance among FRPL qualifying students (3.5 more days in attendance)
Series 2: 
Program Outcomes

GUI students within GUI schools, students who qualify for FRPL

Compared students who participated in more GUI activities to those who engaged in fewer

1. Does GUI increase academic performance as measured by grades?
   - Higher grade point average

5. Does GUI increase preparation by rigorous course enrollment?
   - Enrolled in fewer AP and college credit classes

6. Does GUI increase on track to graduate?
   - More likely to be on track to graduate
Activity
Questions and Discussion
TAKE THE SESSION SURVEY!

FOLLOW THESE STEPS:

1. Find our session under the "schedule" icon and go to the session page.
2. Scroll until you see "Surveys."
3. Click on "Session Survey" to take the survey.