



# EVALUATING DEPARTMENT OF EDUCATION-FUNDED GRANTS AT HISPANIC-SERVING INSTITUTIONS



By: Rebecca M. Eddy & Steven Margell

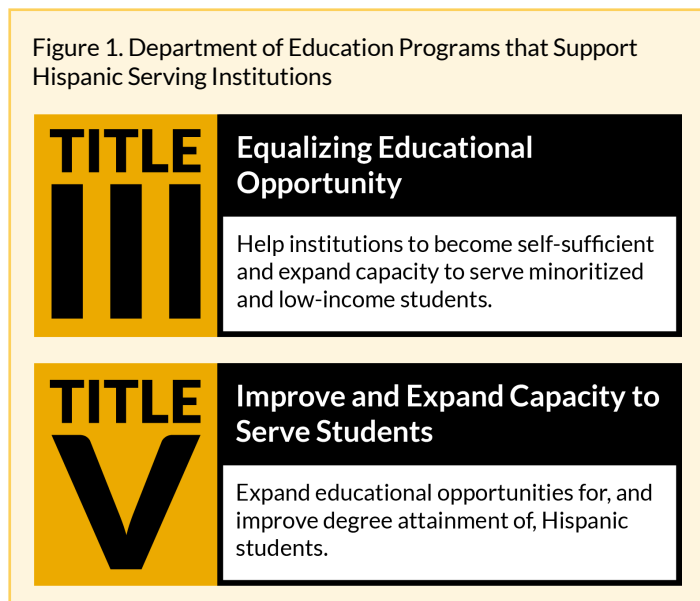
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The following brief summarizes key areas of consideration when designing and implementing an evaluation of the U.S. Department of Education (ED) Title III and Title V-funded projects. Integrating evaluation successfully provides an opportunity to test specific interventions in higher education settings and allows grantees to understand what works well and what does not work well for their students, faculty, staff, and institution. In addition, the knowledge gained from the evaluation of campus-specific projects can contribute to the larger research base. However, evaluating these types of publicly-funded projects requires a unique set of skills and expertise. The purpose of this brief is to provide an overview of Title III and Title V grants at a Hispanic-Serving Institution and outline the key components of the evaluation process for these grants.

## U.S. DEPARTMENT OF EDUCATION HISPANIC-SERVING INSTITUTIONS GRANTS

The Higher Education Act (HEA) of 1965 and subsequent amendments authorize funding to strengthen the capacity of both Historically Black Colleges and Universities and Hispanic-Serving Institutions (HSIs) to enhance academic offerings, program quality, and institutional stability.

HSIs are defined in Title III and Title V of the HEA where eligibility and authorized activities of Federal funds are outlined. A simplified interpretation of these two programs are that Title III grants are intended to equalize educational opportunities while Title V grants are intended to improve and expand the capacity of HSIs to serve students (Figure 1).



In order to maintain accountability, all Title III and Title V grant activities require an evaluation plan and annual reporting. Although both grants require a formal evaluation as part of the project, specific evaluation requirements vary depending on the Request for Proposals (RFP). For example, all Title III HSI-STEM grants funded in 2016 required an evaluation design that included testing an intervention designed to meet What Works Clearinghouse evidence standards.

## THE PURPOSE OF EVALUATION

The purpose of evaluation is to monitor the quality and measure the impact of a project to identify ways to improve the programming. Broadly speaking, evaluation is meant to periodically gather and analyze data to inform stakeholders of implementation progress and project effectiveness for decision-making purposes.

Program evaluation is the application of systematic methods to address questions about program operations and results. It may include ongoing monitoring of a program as well as one-shot studies of program processes or program impact (Newcomer, Hatry, & Wholey, 2015, p. 5-6).

Figure 2 outlines several reasons for conducting evaluation including helping stakeholders to stay informed to assist with setting timelines and program goals.

# EVALUATING DEPARTMENT OF EDUCATION-FUNDED GRANTS AT HISPANIC-SERVING INSTITUTIONS

Figure 2. Reasons for Conducting Evaluation



Well-designed evaluation can be used to manage project timelines and goals by clearly defining activity outputs coupled with measurable outcomes. Regular and timely outcome measurement is critical for planning, budgeting, implementation, and continuous improvement. The results help to inform sound decision-making about the implementation of a project and assessment of initial outcomes (formative evaluation), and ultimately the judgment of project merit, worth or significance (summative evaluation) (Scriven, 1991).

Evaluation serves several broad functions, such as demonstrating fiscal responsibility, establishing evidence that goals are being met, and addressing internal or external requirements. A project is more likely to be supported financially when evaluation is leveraged to demonstrate progress and results to stakeholders.

## DETERMINING PROJECT DESIGN

When thinking about designing a campus project and specific project activities, there are several considerations:

- Responding to the priorities outlined in the RFP (e.g., using funds to support tutoring in low pass rate courses in science, technology, engineering or mathematics [STEM])
- Designing a project that meets the needs of students, faculty and the institution (e.g., providing academic advising for all STEM majors)
- Using the empirical research literature to design a project that might work well with a specific population of students (e.g., providing first

generation students with additional information about STEM careers or pathways to graduate school)

- Balancing local needs and feasibility of program offerings with available funding (e.g., developing project-based learning courses in key disciplines)
- Institutionalization or sustainability, such as thinking about how aspects of the program can continue at the institution after the funding has ended (e.g., maintaining a program of faculty professional development through the institution after funds are expired)

## USING LOGIC MODELS

A logic model is a tool that illustrates the broad objectives of a project by defining the project activities, the outputs of those activities, the information that needs to be collected from identified activities, and what outcomes or impact will be associated with the project. Collaboration from both the evaluator and program designer during the development of a logic model ensures that program data can be used effectively to revisit and revise the project activities. Regular measurement and examination of short and mid-term outcomes allow for adjustments to project activities throughout the lifetime of the grant and are critical to demonstrating progress and reporting results to stakeholders.

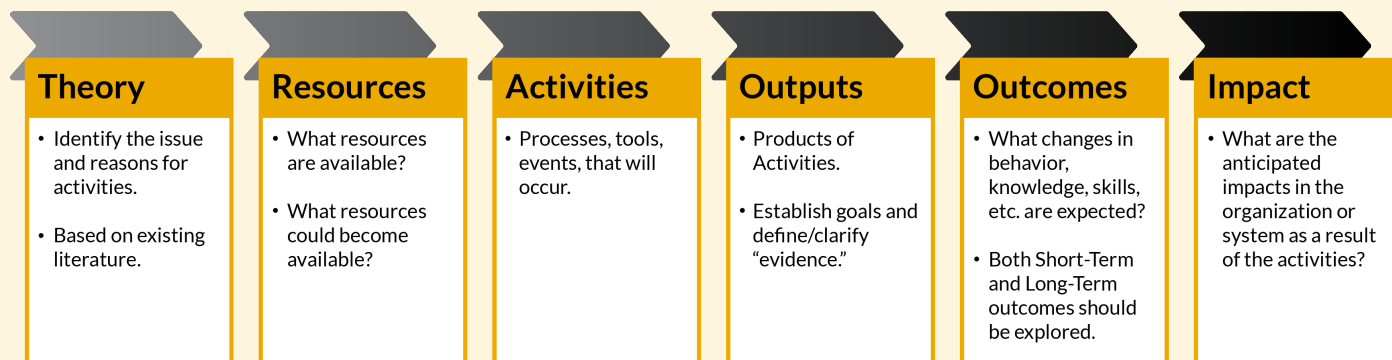
Additionally, an experienced evaluator can lend insight into current best practices as they relate to appropriate outcomes that can be tied to program activities and underlying needs being addressed by the project.

# EVALUATING DEPARTMENT OF EDUCATION-FUNDED GRANTS AT HISPANIC-SERVING INSTITUTIONS

Fundamental information related to the development of a logic model is readily available. For example, two

recommended resources include the W. K. Kellogg Foundation and the Department of Education.

Figure 3. Elements of Logic Models



## LOGIC MODEL EXAMPLE FOR A PROJECT AT A HISPANIC-SERVING INSTITUTION

To structure a logic model appropriately, it is necessary to operationally define all elements that will be included. As a first step, one should start with determining specific stakeholder needs that will be addressed for a given project.

*What do students need to succeed in college that prevents them from achieving a desired long-term outcome (e.g., graduation)? Are there particular resources or skills that students on a campus are currently lacking?*

**Identified Need:** Students come to college unprepared to pass college-level math courses.

**Theory:** Given that students are not prepared for college-level math courses, what strategies have been effective based on the research literature to properly prepare students? What do students lack (e.g., content knowledge or skills, math self-efficacy)? Do we have evidence of strategies that have worked with a similar population of students as those on our campus (e.g., summer bridge program)?

**Resources:** What current resources exist to help students improve preparation for college-level math courses? Are there campus resources already in place that support students (e.g., tutoring center,

supplemental instruction program, physical space to study, faculty expertise)? What additional resources could be secured with grant funds that are necessary to help fulfill this need (e.g., additional tutors, software, faculty professional development)?

**Activities:** The project design should be specific about identifying activities that will address the unmet needs supported by grant funds. In this case, required attendance at a 3-week summer bridge program for incoming students followed by 60 hours of supplemental instruction in math courses during the academic year will comprise activities designed to ameliorate lack of preparation in math courses.

**Outputs:** To ensure that activities are carried out with fidelity and high quality, specific measures should be established to monitor project implementation. For example, data collection systems to capture student attendance, quality of summer bridge instruction or staff professional development should be established. Data collection targeted at project implementation should be used to ensure all activities are sufficiently aligned, are of sufficient frequency and quality to meet student needs.

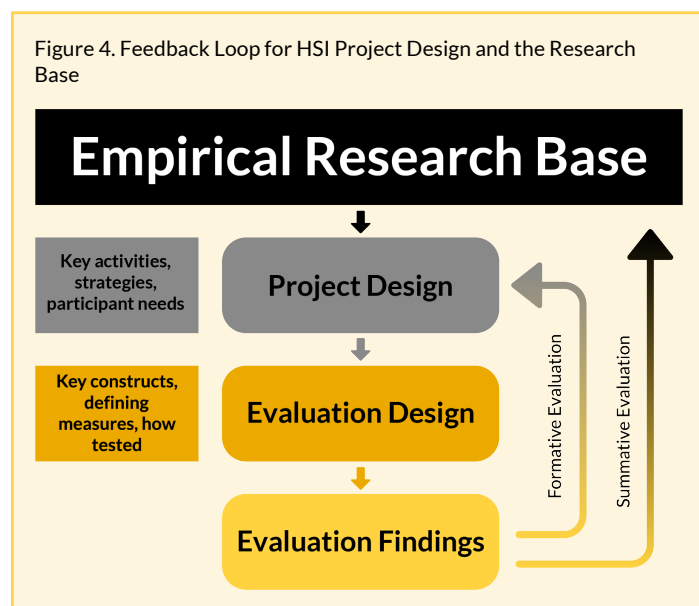
**Outcomes:** Often project outcomes are defined based on timeframe (short-term vs. long-term) and are aligned to project outputs. Specifically, what

# EVALUATING DEPARTMENT OF EDUCATION-FUNDED GRANTS AT HISPANIC-SERVING INSTITUTIONS

changes might you expect to see in participants? Students might acquire short-term skills, such as improved attitudes and skills, such as math self-efficacy and math skills. These short-term outcomes would then lead logically to long-term outcomes, such as passing math courses, student retention at a university, and ultimately graduating with a degree.

**Impact:** Projects are often designed with longer-term, broader goals for an institution or population of individuals. For example, impacts may include better preparing a workforce in California or broadening the participation of underrepresented minority students in STEM. Impacts are not likely to be observed within the duration of a 5-year grant and are often aspirational for a larger population or improvement in society.

## USING AN EMPIRICAL RESEARCH BASE FOR PROJECT DESIGN AND EVALUATION



Within the field of higher education, we have learned a lot over time about what works and what does not work well for improving student success. Success is often defined as improving student achievement (e.g., grades, pass rates), but success can also be indicated by longer-term achievements at an institutional level, such as improving student retention or graduation rates. Regardless of the outcome (often defined in terms of performance measures), it is important to use a formal, systematic process in evaluating projects. This starts with using strong, empirical research as the basis for our work.

While evaluation findings are often used to inform success for a specific project, it is also important to use

evaluation findings to inform other similar projects and their surrounding geographical communities. Specifically, one major goal of evaluating an ED-funded project is to serve as a catalyst for investigating how well an intervention works at both a local project level and how it informs the larger research enterprise.

As a starting point, the project designer (often in collaboration with the external evaluator) should define basic project elements when deciding on the inclusion of program activities and the complementary project evaluation.

1. Identify specific needs (e.g., low graduation rates in STEM) and possible explanations of cause (e.g., students are unsure of their identity as a scientist or sense of belonging in STEM majors; students take the wrong sequence of courses and delay time to graduation)
2. Review the research literature to determine the types of interventions that have been shown to improve specific attitudes (sense of belonging); behaviors (conducting in undergraduate research) or academic outcomes (e.g., retention in a STEM major). These activities might include interventions such as enhanced academic advising or participating in supplemental instruction.
3. Simultaneously examine current stakeholder needs to ensure that any proposed intervention is also aligned to unmet participant needs and feasible to implement at the institution (e.g., adding course sections of supplemental instruction in math).
4. Once possible project/intervention ideas are identified, it is important to ensure that any

# EVALUATING DEPARTMENT OF EDUCATION-FUNDED GRANTS AT HISPANIC-SERVING INSTITUTIONS

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proposed interventions are allowable project activities for the grant (e.g., student services, faculty development).

- Investigation of positive or negative side effects based on what has been observed in the research literature and the local context

After the intervention activities have been decided, the evaluator can design an appropriate, rigorous evaluation to determine if proposed activities have led to changes. The evaluation should include an assessment of quality and fidelity of project implementation and project outcomes. In other words, after establishing a rationale for the intervention and understanding the research evidence from which it can be drawn, the evaluation should be designed to include:

- Evaluation questions
- Operationally defined project activities, outputs, and outcomes
- Rigorous and appropriate evaluation design to answer the evaluation questions (e.g., a quasi-experimental study that compares performance of a treatment group receiving the intervention to a comparison group that does not)
- Decisions about how implementation will be tracked and identified processes and measures
- Short-term and long-term outcomes, including all performance measures that will be reported as part of the grant funding

The evaluation should be conducted as an ongoing effort, which will provide insight on how well the project is being implemented and an indication of initial outcomes (formative evaluation). Formative findings will provide information related to the effectiveness of specific project design elements and other unintended effects to provide guidance related to the feasibility and success of the project model. This stage helps to inform changes or modifications to the project design.

Eventually, it is critical to determine if the project had positive effects for stakeholders (e.g., students, faculty, institution, summative evaluation).

Ultimately, data from one local project can be used to inform the empirical research base. The extent to which findings can be replicated in multiple contexts provides additional confidence in determining promising interventions and ultimately helps to facilitate the development of effective programs more widely.

## SUMMARY

Evaluation of Title III and Title V-funded ED grants provides an opportunity to test specific interventions on a campus to determine what works best for students, faculty, staff, and other stakeholders in the community. Using tools, such as logic models, ensures activities are aligned with project objectives and outcomes as well as communicate key parts of the program to stakeholders. Testing an intervention or program in evaluation provides an opportunity to inform a local campus as well as contribute to the larger research base.

# EVALUATING DEPARTMENT OF EDUCATION-FUNDED GRANTS AT HISPANIC-SERVING INSTITUTIONS

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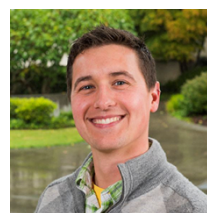
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With a background in Mathematical Modeling, Steven Margell approaches evaluation with statistical rigor incorporating techniques such as Structural Equation Modeling and Propensity Score Matching where appropriate.



The Center for Evaluation and Educational Effectiveness (CEEE) at California State University, Long Beach (CSULB) is a part of a partnership that involves 10 California State University campuses working together to learn collectively about best how to support the success of first-generation, low-income, and/or Hispanic students in STEM at Hispanic-Serving Institutions (HSIs). This brief is part of a broader project that has received funding from the U.S. Department of Education (Award Number: P031C160085-18A). For more information on this project please visit [www.csulb.edu/HSI-STEM-Lessons-Learned](http://www.csulb.edu/HSI-STEM-Lessons-Learned).



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