COLLEGE READINESS INDICATOR SYSTEMS

Beyond College Eligibility: A New Framework for Promoting College Readiness

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CRIS

RESOURCE SERIES

The College Readiness Indicator Systems (CRIS) initiative was developed in response to a troubling pattern: More students than ever are enrolling in college after high school, but many of them are not college ready, as evidenced by persistently low rates of college completion.[1] The sense of urgency to close the gap between college eligibility and college success is a growing concern among policymakers, educational leaders, and the business community, and it has been captured by the Common Core State Standards, which are explicitly designed to reflect "the knowledge and skills that our young people need for success in college and careers."[2]

As school systems face the higher expectations embedded in the new standards, they must look beyond the goal of high school graduation to ensure that their graduates are ready for college and careers. To that end, an important task is to link information about the performance of high school students to their postsecondary enrollment and degree attainment, and many districts have access to data that allow them to do just that. The wealth of information now available creates an unprecedented opportunity for district administrators, educators, and community partners to monitor and support students in attaining their educational aspirations.

However, the ready availability of data is just a starting point. Increasing college readiness and success rates among students, particularly historically underrepresented students, will require measures of college readiness that go beyond test scores and grades. It will require indicator systems that identify students who fall off track and that assess the effectiveness of the supports and interventions used in response. It also will require fostering a culture of data inquiry in schools and school systems and building the capacity of administrators, educators, and community partners to effectively use data in supporting students.

Furthermore, education stakeholders need a framework to link a vision for college readiness to specific and multidimensional constructs of readiness, measurable and valid indicators, data use, and supports and interventions. As partners in the CRIS initiative, the Annenberg Institute for School Reform at Brown University, the John W. Gardner Center for Youth and Their Communities at Stanford University, and the University of Chicago Consortium on Chicago School Research have worked with four urban districts (Dallas Independent School District, Pittsburgh Public Schools, San Jose Unified School District, and the School District of Philadelphia) and one school support network (New Visions for Public Schools in New York City) to develop and study the implementation of a system of indicators and supports designed to significantly increase students' readiness to enter and succeed in college. This collaborative work has helped deepen our understanding of the interconnected elements and strategies necessary for an effective college readiness indicator system, which we describe in this publication as the CRIS Framework.

The CRIS Framework provides guidance to district administrators, community partners, and educators in building and implementing an indicator system that monitors students and guides the allocation of supports and resources to ensure that more students finish high school ready to succeed in college and careers. The work of building this system in response to new national college readiness expectations is still in an early stage, and in that spirit, we share promising strategies emerging from the experiences of the CRIS sites in several other resources in the CRIS Resource Series.

The CRIS Framework: A Systematic Approach to Promoting College Readiness

Many school systems already have early warning systems to keep their students on track to high school graduation. The CRIS Framework builds upon and enhances existing early warning systems in several ways.[3]

First, CRIS looks beyond high school graduation and college eligibility to target college readiness. Moreover, most monitoring systems currently in use focus on academic preparation, as defined by a limited number of academic measures such as course credit and GPA. But educators are increasingly aware that academic content alone is not enough to ensure success. CRIS conceptualizes college readiness not just as academic preparation but also as the knowledge, beliefs, and attitudes students need to access college and be successful once in college.[4]

Second, the CRIS Framework recognizes that indicators are needed at three levels: individual (student), setting (school), and system (district and partners). Individual-level indicators help identify students who need support. Setting- and system-level indicators serve to monitor whether the conditions are in place to promote college readiness and inform decisionmaking (e.g., allocation of resources, design of new policies) when those conditions are not met.

Finally, CRIS recognizes that the responsibility for making college readiness supports available goes beyond the district. The CRIS indicators and their respective Cycle of Inquiry (explained later in this document) can serve to mobilize efforts by the district and its community partners to establish a citywide network of college readiness supports directly aligned with the needs identified in the student population. Indicators and cycles of inquiry also help monitor the effectiveness of those supports. In this way, CRIS affords flexibility and attention to local variation in needs, capacity, and opportunities and guides use of resources available in the community to provide the supports and interventions that are most effective for college readiness.
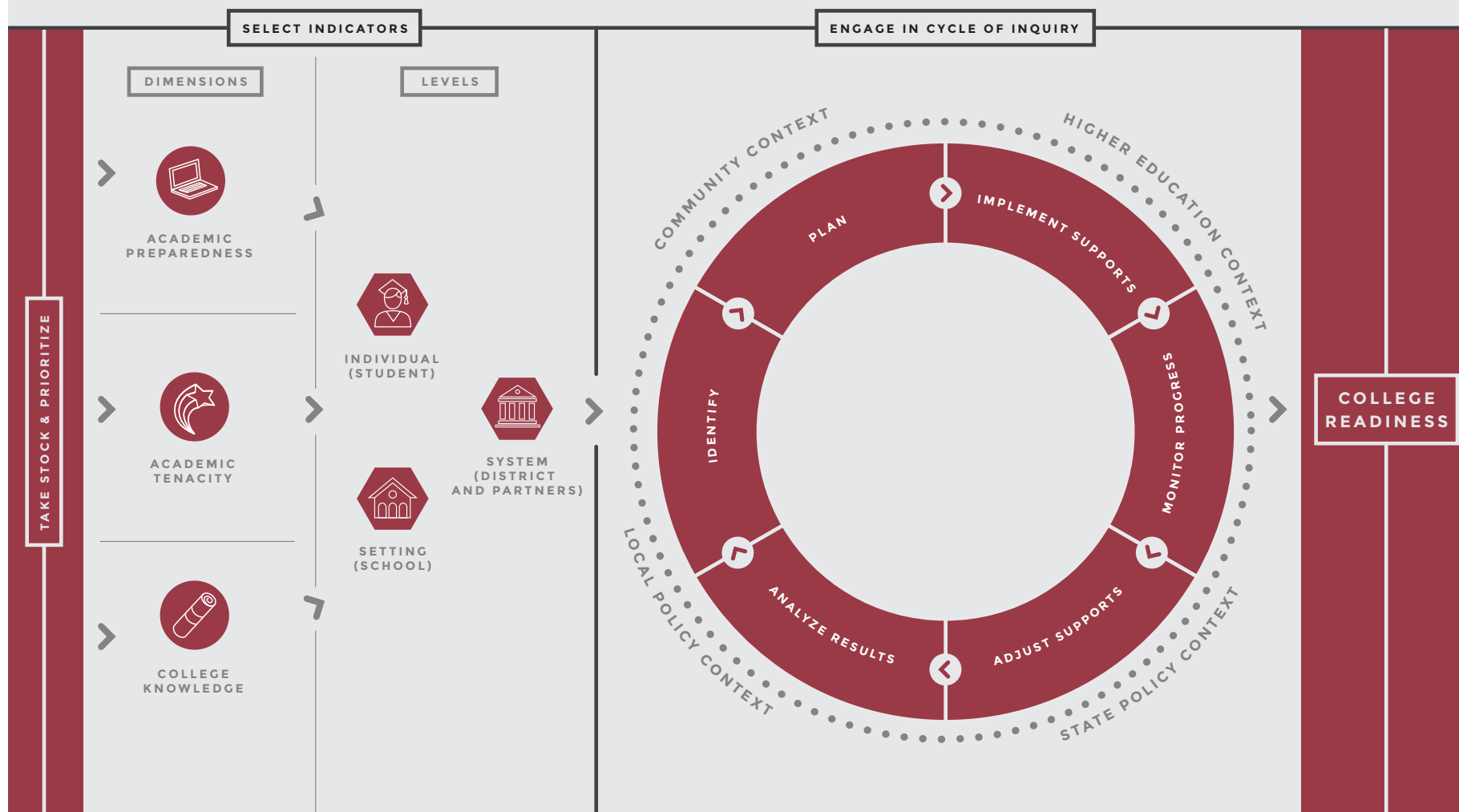
Framework Components

The CRIS Framework, depicted in Figure 1, provides a conceptual foundation for the development and implementation of college readiness indicator systems. Prior to the selection of indicators, the district takes stock of its unique college readiness strengths, available resources, challenges, and needs (i.e., patterns of student achievement across schools) and prioritizes actions to take. A parallel process occurs at the school level, where each school takes stock of patterns and related needs and prioritizes actions. With this information, the district or school can proceed with the selection of indicators in each college readiness dimension and at each level, described on the following pages.

FIGURE 1 The CRIS Framework

COLLEGE READINESS INDICATOR SYSTEMS

The CRIS Framework provides a conceptual foundation for the development and implementation of college readiness indicator systems. The CRIS Framework features indicators to target three distinct yet interdependent college readiness dimensions: academic preparedness, academic tenacity, and college knowledge. Further, the CRIS Framework utilizes a tri-level approach premised on the idea that an effective set of indicators generates data that reflect activities, processes, and outcomes at the individual, school setting, and system levels. The Cycle of Inquiry constitutes the mechanism that connects indicators for each dimension and at each level with the appropriate supports. The process sits within various contexts—community, local and state policy, and higher education—that affect students' ability to be college ready.

SELECT INDICATORS

ENGAGE IN CYCLE OF INQUIRY

DIMENSIONS

LEVELS

TAKE STOCK & PRIORITIZE

ACADEMIC PREPAREDNESS

ACADEMIC TENACITY

COLLEGE KNOWLEDGE

INDIVIDUAL (STUDENT)

SETTING (SCHOOL)

SYSTEM (DISTRICT AND PARTNERS)

COMMUNITY CONTEXT

HIGHER EDUCATION CONTEXT

LOCAL POLICY CONTEXT

STATE POLICY CONTEXT

PLAN

IMPLEMENT SUPPORTS

MONITOR PROGRESS

ADJUST SUPPORTS

ANALYZE RESULTS

IDENTIFY

COLLEGE READINESS

Dimensions of College Readiness: Beyond Academic Preparedness

Implicit in the CRIS Framework is an understanding of college readiness as multifaceted, encompassing not just academic preparation but also the knowledge, skills, attitudes, and behaviors necessary to access college and overcome obstacles on the road to postsecondary success. Accordingly, the CRIS Framework features indicators to target three distinct yet interdependent college readiness dimensions: academic preparedness, academic tenacity, and college knowledge.

- **Academic preparedness** refers to key academic content knowledge and cognitive strategies needed to succeed in doing college-level work. Examples of indicators of academic preparedness are student GPA and the availability of Advanced Placement courses at a school.

- **Academic tenacity** refers to the underlying beliefs and attitudes that drive student achievement. Attendance and disciplinary infractions are often used as proxies for academic tenacity; other indicators include student self-discipline and the extent to which teachers press students for effort and rigor.

- **College knowledge** is the knowledge base and contextual skills that enable students to successfully access and navigate college. Examples of college knowledge indicators are students' knowledge of the financial requirements for college and high schools' promotion of a college-going culture.

Students, Schools, and Systems: A Tri-Level Approach

Another unique feature of the CRIS Framework is its tri-level approach premised on the idea that solely considering indicators of student-level outcomes is not a sufficient way to fully understand how to promote college readiness. The tri-level perspective posits that the consideration of context is critical to monitor whether the conditions (i.e., resources, practices, policies) are in place to promote college readiness and to take action when they are not. A comprehensive system thus includes indicators at three levels:

- At the **individual** level, indicators measure students' personal progress toward college readiness. In addition to courses and credits, individual-level indicators include knowledge about college requirements and students' goals for learning.

- At the **setting** level, indicators track the resources and opportunities for students provided by their school. These include teachers' efforts to push students to high levels of academic performance, a high school's college-going culture, and the availability of Advanced Placement courses at a school.

- At the **system** level, the focus of the indicators is on district policy and funding infrastructure that affect the availability of college readiness supports, including guidance counselors, professional development for teachers, and resources to support effective data generation and use. System-level indicators signal the extent to which district-level resources are in place to carry out an effective college readiness agenda.

The three dimensions of college readiness, when combined with the three levels, give rise to a three-by-three matrix that we call the CRIS Menu (see Figure 2). The indicators in the CRIS Menu reflect an extensive review of the research literature on high school factors that predict college readiness. By selecting indicators from the CRIS Menu that are directly relevant to their own context, districts construct an indicator system that is evidence-based and attuned to their unique goals and priorities.[5]

FIGURE 2 Sample Menu of CRIS Indicators and Supports

	INDIVIDUAL-LEVEL INDICATORS	SETTING-LEVEL INDICATORS	SYSTEM-LEVEL INDICATORS
ACADEMIC PREPAREDNESS	▶ GPA and credits/courses ▶ Benchmark exams	▶ Advanced Placement course availability ▶ Academic supports ▶ Consistent grading standards	▶ Student/teacher assignment policies ▶ Number of schools with Advanced Placement courses ▶ Availability/evaluation of academic supports
ACADEMIC TENACITY	▶ No/low disciplinary infractions ▶ Attendance ▶ Self-discipline ▶ Mastery goal orientation	▶ Students' perceptions (instructional scaffolding, academic press, support for autonomy) ▶ Professional development on practices that promote academic tenacity	▶ Communicated expectations about academic tenacity ▶ Professional development on practices that promote academic tenacity
COLLEGE KNOWLEDGE	▶ Completion of college and financial aid applications ▶ Campus visits ▶ Meetings with college advisor	▶ College-going culture in school ▶ Access to counseling resources ▶ Resources for teachers' college knowledge	▶ Resources to support college-going culture/knowledge ▶ Communicated expectations about college knowledge supports

Tying the Indicators to Supports

In addition to indicators, organized into three dimensions and three levels, the CRIS Framework features college readiness supports. These refer to programs or activities that are enacted to effect some intended change in performance, behavior, or environment. In some cases, supports target students (e.g., tutoring program, workshop on how to complete the Free Application for Federal Student Aid), and in others they target adults (e.g., a data coach who can facilitate staff conversations about data, professional development for teachers around college readiness).

The Cycle of Inquiry process, depicted in Figure 1, is the mechanism that connects indicators with supports. The Cycle of Inquiry serves to:

■ Guide the process of identifying students (the individual level) who need help and connecting them with the appropriate supports (e.g., tutoring, counseling, etc.)

■ Enable stakeholders to examine whether resources are available (e.g., data infrastructure, professional development for teachers) and policies are in place (e.g., consistent attendance policy) at the setting (school) and system (district and partners) levels to promote college readiness

■ Help leadership establish effective processes and structures for using indicators

Ultimately, close monitoring of indicators and timely action as appropriate will increase the chances that more students finish high school with the combination of skills, knowledge, and attitudes needed to access college and to succeed once they are in college.

The process of using indicators to monitor progress toward college readiness and to activate supports and interventions when needed is embedded in the community, local and state policy, and higher education contexts—represented by the outer band of the Cycle of Inquiry. These outer conditions affect—positively or negatively—students' ability to be college ready. These conditions include the current state and local education policy around college readiness (e.g., high school graduation requirements; availability, accessibility, and affordability of higher education) and the extent of collaboration across multiple sectors of the community (including those that interact with the district) to build college readiness partnerships, share data, and establish mutual priorities to support college readiness.

Some of these contextual conditions are within the locus of control of district leaders; some are not. Either way, they influence how college readiness is defined, developed, and deployed in a school district. Combined with system-level indicators, the context shapes how effectively a college readiness indicator system can be implemented, who is involved in it, and what kinds of resources and supports are available to them.

Building a College Readiness Indicator System

The process of building a college readiness indicator system involves much more than a district selecting indicators from the CRIS Menu that are directly relevant to its strategic mission and current priorities. A successful district will carefully plan the timeline for data collection and analysis, assess and respond to data infrastructure needs, and assign staff roles and responsibilities associated with indicators. In other words, the district maps the conditions for each indicator that will allow for its systematic and effective use. This process may sound simple in theory, but it is challenging in practice. Its importance, however, cannot be overstated.

This close examination of a given indicator also allows for the identification of potential challenges and bottlenecks involved in using it—including internal politics and resistance to change—and taking proactive steps to handle those effectively. Concerns may also be uncovered about the quality of the currently available data (e.g., schools collect student attendance data in different ways) or about the capacity to collect and understand data (e.g., teachers need training on a new student information system). Similarly, there may be strengths at the system level that support the transition from data to action, such as a districtwide culture of data use that is already in place.

Ultimately, developing an effective college readiness indicator system involves more than the presence or absence of valid, reliable, relevant indicators. It requires attention to issues of data use—how to support action—which, if not addressed up front, are bound to jeopardize CRIS efforts. It also requires examination of the supports that adults in the system need in order to collect, use, and act on data. Administrators and teachers need time to reflect on the meaning of data and to know what questions their data can and cannot answer or how to interpret complex relationships in the data. CRIS users—administrators, board members, teachers, parents, and students—must be involved in indicator system development and implementation. This involvement will likely facilitate the emergence of a common language and common set of goals around college readiness, ensure buy-in, and also increase the chances that the end product meets users' needs and will be sustained and deepened.

Using a College Readiness Indicator System: The Cycle of Inquiry

Building an organizational culture around data use depends on having a data inquiry process that guides how data are used and the adoption of supports and policies around college readiness. The Cycle of Inquiry illustrates what data use looks like in action and helps guide what components are needed for an effective data system.

We have identified six stages in the Cycle of Inquiry for any given indicator selected by a district from the CRIS Menu:
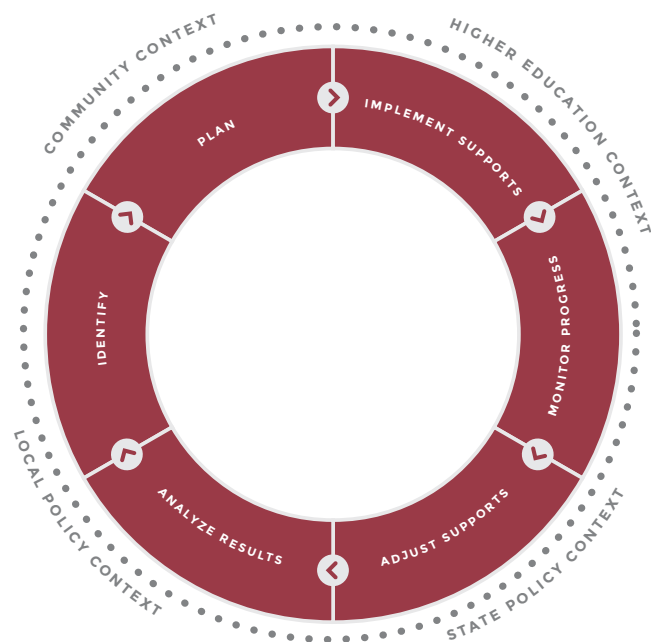
1. Identify	4. Monitor progress
2. Plan	5. Adjust supports
3. Implement supports	6. Analyze results

In the first step of the cycle, for a given indicator, the district takes stock of student population patterns relative to that indicator across schools and prioritizes actions to take. A parallel process should occur at the school level, where each school takes stock of what supports are available with regard to that indicator. The school also should identify and examine its own students relative to the target indicator to organize information for planning, because the population of students can change each year. Schools also can create lists of students who may require additional monitoring and support.

At the district level, the second step—plan—involves determining what resources are available to each school to serve students, particularly subgroups with specific needs (e.g., Advanced Placement courses for students with a GPA above 3.0), and what obstacles might hinder additional resources or guidance. The district can also set college readiness goals for each school based on their student characteristics identified in the previous step. At the school level, student data should be organized to set long-term and intermediary goals and benchmarks, and the supports, interventions, and policies needed to meet those goals should be planned.

Throughout the school year, as districts and schools carry out the third step—implement supports (e.g., strategies, interventions, and policies)—data should be collected so the district and schools can monitor progress (step four) and make adjustments as needed (step five). It is critical that the data systems are organized to provide timely and easily accessible data to schools so they can monitor progress toward goals and adjust policies, supports, and interventions. Educators should closely watch students' progress and identify and diagnose which students need additional supports.

Finally, in step six, at the end of the school year, the district and schools analyze results and assess schools' performance on indicators and their progress toward goals, paying close attention to subgroups' performance. This analysis also lays the groundwork for plans for the following year. Data inquiry is an ongoing process that allows districts and schools to use information to refine and improve their college readiness efforts across school years.

Summary

The CRIS Framework is intended as a tool to help districts and schools implement the conditions, processes, and supports needed to increase the number of students who finish high school ready to be successful in college. This means intervening early and matching identified students with the supports they need—but also addressing the skills, capacities, and attitudes of adults working in all parts of the school system.

Changing cultures and the policies and practices they reinforce often requires engaging with stakeholders about the imperative for setting new goals and for using data aligned with the district's current needs, rather than historical ones. It requires a system with the willingness and resources to develop ongoing cycles of inquiry that use data about college readiness to inform policy and practice. And it requires data about individual, school, and system levels, as well as across the dimensions of college readiness: academic preparation, academic tenacity, and college knowledge.

Increasing the college readiness and success rates for currently underrepresented populations such as low-income students, students of color, immigrants, and first-generation students also challenges decades of historical inequities and systemic disadvantages. A district must then use a college readiness indicator system in tandem with efforts to foster cultures, attitudes, and beliefs that reinforce the need to provide for all what was once reserved for some. It is important to recognize that shifting long-established cultures, processes, and behaviors takes time and an improvement in outcomes will not be immediate. The investment is worthwhile, however, given that college readiness indicator systems not only provide the means to measure college readiness, but also develop the long-term capacity to spur, evaluate, and adjust college readiness supports and help more students leave high school ready to succeed.

Endnotes

1   Turner, S. (2004). "Going to college and finishing college: Explaining different educational outcomes." In Hoxby, C. M., (Ed.), *College choices: The economics of where to go, when to go, and how to pay for it*. Chicago: University of Chicago Press.

2   See www.corestandards.org.

3   The CRIS Framework is also presented in Borsato, Nagaoka, and Foley (2013). College readiness indicator systems framework. *Voices in Urban Education, 38*(Fall), 28–35. For an earlier version of the CRIS Framework, see Gurantz, O., & Borsato, G. N. (2012). Building and implementing a college readiness indicator system: Lessons from the first two years of the CRIS initiative. *Voices in Urban Education, 35*(Fall), 5–15.

4   For a review of the research on noncognitive factors, see Nagaoka, J., Farrington, C. A., Roderick, M., Allensworth, E., Keyes, T. S., Johnson, D. W., & Beechum, N. O. (2013). Readiness for college: The role of noncognitive factors and context. *Voices in Urban Education, 38*(Fall), 45–52.

5   See "CRIS Abbreviated Menu: Individual-, Setting-, and System-Level Indicators" in *Menu of College Readiness Indicators and Supports*, another publication in the CRIS Resource Series. See also Gurantz and Borsato (2012) for an earlier version of the CRIS Menu and examples of how districts might use it.