

REL PACIFIC ASK-A-REL RESPONSE

Selection of Indicators and Measures to Gauge Partnerships' Effectiveness and Review of Data Collection Systems February 2014

INQUIRY

- *How have school districts and/or education-community partnerships settled upon a set of relevant, measurable, and informative indicators (and associated measures) to effectively gauge the partnership's effectiveness?*
- *Which databases have shown promise in being able to manage all the data that education-community partnerships gather and track over time?*

As a first step in providing the requested information, REL Pacific conducted a web-based search for informational resources. Publications, reports, guides, and reviews relevant to each topic are provided. Selected resources are organized into the following sections:

- **Section One:** Children are kindergarten ready
- **Section Two:** Students are academically successful
- **Section Three:** Students are postsecondary and career ready
- **Section Four:** Students are citizenship ready
- **Section Five:** Data collection systems

SEARCH TERMS USED

Section One

Academic achievement gaps; academic achievement measurement; academic achievement United States; achievement; achievement gains; achievement level, family engagement; cognitive read; cognitive readiness; college students; colleges and universities; community colleges family engagement or community engagement; community engagement and achievement or success; community engagement data; community engagement instrument; community engagement survey; community engagement tool; community involvement or engagement; data collection; department of education; emotional readiness; family engagement; family engagement data; family engagement instrument; family engagement survey; family engagement tool; family involvement; Framework for Building Partnerships Among Schools Families; indicators; indicators of community engagement and students; indicators of family engagement; kindergarten; kindergarten readiness; kindergarten ready; language readiness; language ready; measures; parent child relationship measures; parent engagement measures; school readiness indicator; school readiness measur*; school ready; social emotional readiness; social readiness; success; Supporting Partnerships to Assure Ready Kids indicators; teacher student relationship

Section Two

Academic indicators; academic excellence indicators; academic readiness indicators; academic success indicators; academic success measures; indicators of academic achievement; indicators of academic success; “Ready by 21 framework”; student success indicators; "student success indicators" high school

Section Three

career readiness; career readiness indicators; career ready; career ready indicators; college readiness indicators; college readiness indicators IES; college readiness indicators Regional Education Laborator*; College readiness indicators rel: Google; college ready indicators; college ready indicators IES; college ready indicators Regional Education Laborator*; higher education readiness indicators; higher education ready indicators; measures of youth employment; measuring youth employment; post-secondary readiness indicators; post-secondary ready indicators; workplace readiness indicators; workplace readiness instrument*; workplace readiness measures; workplace readiness satisfaction; work readiness high school; work readiness high school graduates; work readiness indicators; work readiness measures; work readiness recent graduates; work readiness satisfaction; youth employment; youth employment career readiness; youth employment instrument; youth employment measures

Section Four

assessing student self direction; citizen readiness; citizen ready; citizenship readiness; citizenship ready; civic education; civic education indicators; civic engagement; civic outcomes; civic outcomes indicators; school mental health assessment; school spiritual health assessment; social emotional mental spiritual health; student community connection; yr(2008-2013)

Section Five

choosing a database for your organization; choosing a database for your school or district; choosing a database; database review; iResults database review; school data solutions; school databases and review; Social Solutions database

DATABASES SEARCHED

Google, ERIC, ProQuest Education Journals

Resources identified in the search are listed below. The hyperlink to each resource is provided. Descriptions of programs and articles have been reproduced verbatim from their respective websites or abstracts.

RESOURCE OVERVIEW

The provided resources were found via web-based searches. The first set of criteria used for finding resources included publications in peer-reviewed research journals within the last five years. Criteria were then expanded to include reports, papers, guides, and reviews in non-peer reviewed journals and sources within the last 12 years to expand the list of available resources. Resources included also had to be available online and in English.

Resources included in this document were last accessed in February 2014. URLs, descriptions, and content included in this document were current at that time.

RESULTING ARTICLES

Section One: Children are kindergarten ready

This section includes publications and reports that provide examples of indicators and measures of kindergarten readiness, including cognitive, social emotional, language, and other indicators of kindergarten readiness.

1. Brown, G., Scott-Little, C., Amwake, L., & Wynn, L. (2007). A review of methods and instruments used in state and local school readiness evaluations (Issues & Answers Report, REL 2007–No. 004). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Southeast. Retrieved from <http://ies.ed.gov/ncee/edlabs/projects/project.asp?ProjectID=64>

Source: ERIC, ProQuest Education Journals

Abstract: The report provides detailed information about the methods and instruments used to evaluate school readiness initiatives, discusses important considerations in selecting instruments, and provides resources and recommendations that may be helpful to those who are designing and implementing school readiness evaluations.

2. Reynolds, A., Englund, M., Hayakawa, C., Hendricks, M., Ou, S., Rosenberger, A., Smerillo, N., & Warner-Richter, M. (2011, January). Assessing the validity of Minnesota school readiness indicators: Summary report. Minnesota Department of Education, Early Learning Services. Retrieved from the Human Capital Research Collaborative website, http://www.humancapitalrc.org/mn_school_readiness_indicators.pdf.

Source: Google web search

Abstract: The State of Minnesota has established the goal that by the year 2020 all children entering kindergarten will be school-ready. In this report, we assessed the validity of the Minnesota Work Sampling System Kindergarten Entry Developmental Checklist (MWSS) in predicting third-grade school performance. Since 2002, the checklist of 32 items representing five domains of performance has been used by the Minnesota Department of Education to assess school readiness. Based on a 10% random sample of schools stratified by region, this performance-based assessment is completed annually by teachers in the fall of Kindergarten. We found that in the fall of 2009, 51% of the Kindergarten sample was proficient in language and literacy, 41% in language and literacy as well as mathematical thinking, and 31% were proficient in all five domains of performance. Using a new overall proficiency standard of attainment of 75% or more of the total points across all 32 items, 53% of Kindergartners demonstrated school-ready proficiency. This and other proficiency rates are unchanged since 2007.

Based on data from Kindergarten cohorts in 2003, 2004, and 2006 who had available achievement test scores in third grade or information on remedial education, we found that the MWSS checklist, including the 75% indicator, significantly and consistently predicted third-grade MCA reading and math tests scores and the need for school remedial services (special education or grade retention) above and beyond the influence of child and family background characteristics. The strength of prediction was consistent across a range of child and family characteristics (e.g., family income, gender, and race/ethnicity).

Eight recommendations were discussed: (1) establish an official definition of school-ready proficiency, (2) establish key indicators for measuring the rate of school-ready proficiency, primarily the 75% proficiency standard, (3) collect annually as part of the Kindergarten assessment information on prior early education and parenting, (4) collect MWSS data annually on all Minnesota Kindergartners, (5) consider use of the Kindergarten version of the WSS development checklist, (6) implement strategies as soon as possible to close the large gap between current rates of school readiness and the 2020 goal, (7) continue to track the currently analyzed cohorts to eighth grade and beyond, and (8) begin a longitudinal study in 2011 that tracks the Kindergarten assessment sample over time and through all available data systems.

3. Rhode Island Kids Count. (2005, February). Getting ready: Findings from the National School Readiness Indicators Initiative: A 17 state partnership. Retrieved from the Rhode Island Kids Count website, http://www.rikidscount.org/matriarch/MultiPiecePage.asp?Q_PageID_E_100_A_PageName_E_WhatWeDoSchoolReadiness

Source: Google web search

Introduction: This document evaluates the National School Readiness Indicators Initiative. Making Progress for Young Children was a multi-state initiative that developed sets of indicators at the state level to track results for children from birth to age 8. The goal was for states to use the school readiness indicators to inform public policy decisions and track progress in meeting key goals for young children.

Excerpt (p.18): The indicators selected by the 17 states point to a core set of common school readiness indicators. Highlighted on the following pages are core indicators in the areas of ready children, ready

families, ready communities, ready services (including health care and early education), and ready schools. Policymakers and community leaders can use the core set of indicators, as well as other indicators that emerge from their own work, to measure progress toward improved outcomes for young children and families. Annual monitoring of key school readiness indicators can signal if things are moving in the right direction—and if they are not. Measuring progress over time can lead to more informed decisions about programs, policies and investments.

Section Two: Students are academically successful

This section includes publications and reports that provide examples of indicators and measures of academic readiness and success from school districts and/or education community partnerships.

1. Allensworth, E., & Easton, J. (2005, June). The on-track indicator as a predictor of high school graduation. Chicago, IL: University of Chicago. Retrieved from the Consortium on Chicago School Research website, <https://ccsr.uchicago.edu/sites/default/files/publications/p78.pdf>

Source: ERIC, ProQuest Education Journals

Excerpt (p.1): The first year of high school is a critical transition period for students. Those who succeed in their first year are more likely to continue to do well in the following years and eventually graduate. Because a successful transition into high school is so important, in 1999 the Consortium developed an indicator to gauge whether students make sufficient progress in their first year of high school to be on-track to graduate within four years. On-track students have completed enough credits by the end of the school year to be promoted to tenth grade, and have failed no more than one semester of a core subject area. The on-track indicator has since become part of the accountability system for Chicago public high schools. Unlike the other indicators of high school performance—dropout rates and Prairie State Achievement Exam scores—the on-track indicator provides information about performance within students' first year of school, making it a timely indicator of student progress. This report defines the on-track indicator in detail and shows that it is a better predictor of high school graduation than eighth-grade test scores or students' background characteristics. We also compare on-track rates across schools and show system wide trends over time.

2. Foley, E., Mishook, J., Thompson, J., Kubiak, M., Supovitz, J., & Rhude-Faust, MK. (2010). Beyond test scores leading indicators for education. Providence, RI: Annenberg Institute for School Reform at Brown University. Retrieved from <http://annenberginstitute.org/pdf/leadingindicators.pdf>

Source: ERIC, ProQuest Education Journals

Excerpt (p.2–4): Currently, the most widely accepted and used indicators in education are standardized-test scores. However, the manner in which standardized tests typically are utilized – given at the end of the

school year and constructed as summative assessments – make them lagging indicators, like unemployment statistics. Scores on standardized tests, along with the other lagging indicators typically collected and used in public school districts, usually arrive too late to help individual children or schools that are struggling.... Leading indicators, on the other hand, prioritize key areas that are particularly helpful in assessing progress toward goals. While educators do need to monitor lagging indicators, they also need leading indicators to help them see the direction their efforts are going in and to take corrective action as soon as possible. . .To further explore how leading indicators might work in practice, we sought out four districts that were at the forefront of using data-informed decision making. We identified these districts by reviewing studies focusing on that topic and noting sites that were mentioned, speaking to colleagues who are knowledgeable about the topic, and drawing on our own experience.

3. Kuh, G.; Kinzie, J., Buckley, J., Bridges, B., & Hayek, J. (2006, July). What matters to student success: A review of the literature. Commissioned report for the National Symposium on Postsecondary Student Success: Spearheading a dialog on student success. Retrieved from the National Center for Education Statistics website, http://nces.ed.gov/npec/pdf/kuh_team_report.pdf

Source: ERIC, ProQuest Education Journals

Excerpt (p.3): This report attempts to address this set of critical issues by synthesizing the relevant literature and emerging findings related to student success, broadly defined. Our goal is to develop an informed perspective on policies, programs, and practices that can make a difference to satisfactory student performance in postsecondary education.

The presentation is divided into eight sections along with supporting materials including a bibliography and appendices. As does Swail (2003), we take a cumulative, longitudinal view of what matters to student success, recognizing that students do not come to postsecondary education *tabula rasa*. Rather, they are the products of many years of complex interactions with their family of origin and cultural, social, political, and educational environments. Thus, some students more than others are better prepared academically and have greater confidence in their ability to succeed. At the same time, what they do during college—the activities in which they engage and the company they keep—can become the margin of difference as to whether they persist and realize their educational goals.

4. Regional Education Laboratory Central. (n.d.) What are the key indicators of “success” for high school students? Washington, DC: U.S. Department of Education, Institute of Education Sciences. Retrieved from <http://www.relcentral.org/what-are-the-key-indicators-of-success-for-high-school-students/>.

Source: ERIC, ProQuest Education Journals

Description: The information in this Ask-a-REL response from REL Central represents rigorous research, reviews of existing research, meta-analyses, and/or policy/research briefs. The references and resources have been selected based on date of publication (with a preference for research from the last ten years), source and funding, and accessibility. Below each citation, we have included the abstract, or a portion of the

introduction, describing the content of the article. This text has been copied directly from the reports when possible to ensure accuracy.

- Wyatt, J., Wiley, A., Camara, W., & Proestler, N. (2011). The development of an index of academic rigor for college readiness (Research Report 2011-11). Retrieved from the College Board website: <https://research.collegeboard.org/publications/content/2012/05/development-index-academic-rigor-college-readiness>

Source: Google web search

Executive Summary: Academic intensity or academic rigor of students' high school curriculum is positively related to several college outcomes including the avoidance of remediation and graduation attainment (Adelman, 1999, 2006; Adelman, Daniel, & Berkovits, 2003). However, research on academic rigor has been limited possibly due to the difficulty in obtaining a quantitative measure applicable across schools and districts. This study is an attempt to create an index of academic rigor using self-reported course work data that would assist in providing information on the academic preparation of over one million graduating high school seniors each year.

The current study uses the SAT® Questionnaire (SAT-Q) that students complete when registering for the SAT exam to construct an academic rigor index (ARI). The SAT-Q asks students detailed questions on English, math, science, social science/history, and foreign/ classical language course work completed during high school. The relationship between course participation and first-year GPA (FYGPA) was investigated using approximately 68,000 SAT takers students who fully completed the SAT-Q and attended one of the 110 four-year colleges and universities participating in an SAT validity study. Based on this data, the ARI was constructed on a 0-25 scale equally weighted between each of the five subject areas. Once the ARI was constructed a series of analyses were conducted to assess the relationship between the index and other concurrent measures of high school performance (HSGPA and SAT scores) and between the index and measures of college performance (enrollment, grades, and retention). The results indicated that students who took more rigorous courses in high school attained better grades, achieved higher SAT scores, and were more likely to enroll in college. Moreover, these students were also more likely to matriculate to a four-year college, attain higher college grades, and be retained to their second year.

Section Three: Students are postsecondary and career ready

This section includes publications and reports that provide examples of indicators and measures of postsecondary readiness, including graduation rates, continuation to post-secondary education, career planning, and other indicators of post-secondary readiness. Specific instruments and resources cited in the publications below are noted where applicable.

1. Achieve, Inc. (2012, September). Transforming public reporting to ensure college and career readiness for all. Washington, D.C.: Author. Retrieved from <http://www.eric.ed.gov/contentdelivery/servlet/ERICServlet?accno=ED540450>

Source: ERIC, ProQuest Education Journals

Abstract: As states adopt and implement bold education reforms intended to dramatically increase a student's likelihood of graduating from high school prepared for college and career, there is a strong sense among many states that reporting the right data to the right people at the right time, and reporting it well, is an essential path toward meeting their college and career readiness (CCR) goals. By setting their sights on improving CCR outcomes among high school graduates, states will promote greater opportunities for individuals as well as economic growth at all levels. Timely, accessible, contextual, and coordinated data reporting in alignment with these goals--and strategies for getting there--is a critical foundation for states' CCR reform efforts. To go one step further, it can also serve as a strategic driver toward the goals. The intent of this policy brief is to clarify some concrete mechanisms by which states can gain traction, turning their aspirations for effective public reporting into reality. It first explores the current state of public reporting on CCR indicators across states, then discusses several policy mechanisms on which states could draw to advance their reporting, and finally addresses the opportunity for states to create partnerships to ignite the power of data reports. (Contains 4 resources and 2 footnotes.)

2. Borsato, G.N., Nagaoka, J. & Foley, E. (2013, Fall) College readiness indicator systems framework. *Voices in Urban Education*, 38, 28–35. Retrieved from the Annenberg Institute for School Reform website <http://vue.annenberginstitute.org/sites/default/files/issuePDF/VUE38.pdf>

Source: Google Search

Excerpt: The CRIS framework is meant to provide 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 be successful in college and career. 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 will share promising strategies emerging from the experiences of the CRIS sites in several CRIS tools and resources, now in development, which will be available in 2014.

3. Jonas, D., Dougherty, C., Herrera, A.W., LaTurner, J., Garland, M., & Ware, A. (2012, May). High school predictors of college readiness: Determinants of high school graduates' enrollment and success completion of first-year mathematics and English college courses in Virginia. Richmond, VA: Virginia Department of Education. Retrieved from <http://eric.ed.gov/?id=ED539122>

Source: ERIC, ProQuest Education Journals

Abstract: In 2007, the Virginia Board of Education directed the Virginia Department of Education (VDOE) to study academic indicators that are associated with high school students' successful preparation for college and careers. VDOE then embarked on a multi-year effort to identify available data sources and conduct research on high school indicators that are associated with enrollment and success in credit-bearing courses in college. VDOE's initial studies, using data from the National Student Clearinghouse, focused on high school academic preparation indicators that predict whether a student will enroll in a four-year college in Virginia or elsewhere in the U.S. The research conducted as part of this project assessed the association between high school academic indicators and student success upon enrollment in a two- or four-year institution of higher education (IHE) in Virginia. Success in higher education was defined by three indicators: (1) enrolling directly into credit-bearing English and mathematics courses in the student's first year of college; (2) earning a grade of C or better in the student's first credit-bearing course in English or mathematics; and (3) persistence into the second year of college at the same institution. An earlier report described the association between high school academic indicators--particularly Virginia's end-of-course reading and Algebra I state Standards of Learning (SOL) scores and type of diploma earned--and the probability that students would enroll in credit-bearing English or mathematics courses and would persist into the second year at the same institution. This report addresses the remaining higher education success indicator: whether students earned a C or better in their first credit-bearing course in English or mathematics. In this study, students who enrolled in developmental English or mathematics courses or who earned a grade lower than C in their first credit-bearing course were counted as not successful in their first year of college. Students who did not enroll in any course in mathematics or English were not included in the analysis. The high school academic indicators examined included SOL test scores in mathematics and English--with an emphasis on Algebra II and writing--and type of diploma earned (Standard or Advanced Studies). This report, the second in a two-part series, addresses the following two research questions: (1) To what extent were better prepared students more likely to enroll directly into credit-bearing English or mathematics courses and earn a grade of C or better?; and (2) To what extent did better high school academic preparation close gaps in students' likelihood of enrolling directly into credit-bearing courses and earning a grade of C or better?

4. Kless, L., Soland, J. & Santiago, M. (n.d.). Analyzing evidence of college readiness: A tri-level empirical & conceptual framework (working paper). Stanford University Graduate School of Education. Retrieved from the john w. gardner center for youth and their communities website <http://jgc.stanford.edu/resources/publications/collegereadinesslitreview.pdf>

Source: ERIC, ProQuest Education Journals

Abstract: Research draws a distinction between college eligibility and college readiness. For example, a student may graduate high school with sufficient credits to enroll in a postsecondary institution, but still lack the academic skills, study habits, and college knowledge to succeed. Previous reviews of research on college readiness systems highlight individual-level indicators of whether a student is on track to be ready for college. However, focusing on individual students omits a crucial research finding: the signals and supports that affect students' college readiness, such as course availability, college going culture, and academic resources, operate at setting and system levels. Indicators at these two levels, which include schools, districts, and states, provide the

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information educators need to inform responses to readiness indicators at the individual level. In this literature review, we synthesize findings on college readiness into a tri-level indicator system, which offers a proactive strategy to support students rather than just a reactive model to predict risk of dropout.

5. National Governors Association, Center for Best Practices. (2010). Setting statewide college- and career-ready goals. (Issue Brief). Washington, D.C.: Author. Retrieved from <http://www.eric.ed.gov/contentdelivery/servlet/ERICServlet?accno=ED511231>

Source: ERIC, ProQuest Education Journals

Abstract: The changing economy requires that states focus on postsecondary education and training as the goal for all students. Recognizing this, states have led the charge to increase expectations for all students. Unfortunately, the newfound support for college and career readiness has not yet led to significant improvements in student outcomes. To stimulate improvement in the preparation of students for postsecondary education and training, states can set statewide college- and career-ready goals. In setting state education goals, governors can define the vision and inspire the change necessary to prepare all students for success in college and careers. However, to date, very little guidance exists for states seeking to create education goals. This Issue Brief provides direction to state leaders on establishing college- and career-ready performance goals. Appendices include: (1) Power Indicators Cross-Reference Table; and (2) Arkansas Performance Goals and Measures.

6. Regional Educational Laboratory Southeast. (2009, May). Evidence based education request desk (EBE# 470). Browns Summit, NC: SERVE Center at University of North Carolina at Greensboro. Retrieved from <http://eric.ed.gov/?id=ED537097>

Source: ERIC, ProQuest Education Journals

Abstract: Research led by the Consortium on Chicago Public School Research (University of Chicago) and the Center for Social Organization of Schools (Johns Hopkins University), has identified specific indicators--students' academic characteristics--that provide early signals that students are on a path toward dropping out of high school. Measured at different points in time, typically 6-9th grades, these indicators are used for a variety of purposes from identifying students in need of intervention to school and district accountability ratings. This Evidence-based Education Request summarizes ways that data are being used in schools, districts, and states, and by researchers to identify students at risk for not graduating and/or not achieving career and college readiness. Searches of Wilson Web, EBSCOHost, and the Education Resources Information Center (ERIC) were performed to gather this information. To add to their findings, the researchers searched well-known papers on such indicators (e.g., Allensworth & Easton, 2007) as well as the websites of reform support and education research organizations known to do work in this area. Finally, they conducted a Google search in order to identify lesser-known sites using these indicators. Information in this paper is meant to be informative to schools, districts, and states interested in learning from others who are implementing indicators. The list of places implementing indicators is "non-exhaustive and does not represent all the ways indicators can be formulated or implemented."

7. Villavicencio, A., Bhattacharya, D., & Guidry, B. (2013, July). Moving the needle: Exploring key levers to boost college readiness among Black and Latino males in NYC. New York: New York University, Research Alliance for New York City Schools. Retrieved from <http://eric.ed.gov/?id=ED543855>

Source: ERIC, ProQuest Education Journals

Abstract: Increasingly, school districts are recognizing that high school graduation rates may not be the ultimate measure of success, as evidence accumulates that students who obtain a college degree do markedly better than students who only graduate from high school. In New York City, while graduation rates have increased dramatically over the last decade, college readiness rates remain troublingly low, especially for young men of color. Among students scheduled to graduate in 2010, for example, only 9 percent of Black males and 11 percent of Latino males graduated college ready. Our new report, *Moving the Needle: Exploring Key Levers to Boost College Readiness Among Black and Latino Males in New York City*, examines the trajectory of Black and Latino young men on their path to college, zeroing in on points along that path where schools might provide more effective support. The report describes college-related outcomes and other indicators that help predict college readiness for Black and Latino male students over time, and discusses key contextual factors that underlie these educational outcomes. This paper is the first in our ongoing evaluation of the Expanded Success Initiative (ESI), a new citywide effort providing resources to 40 schools with the aim of improving college and career readiness among Black and Latino young men. The final chapter of *Moving the Needle* uses our findings to reflect on potential directions for ESI schools as they work to support Black and Latino young men on the path to college and successful careers. (Contains 18 notes, 10 figures, and 7 tables.)

8. Roderick, M., Nagaoka, J., Coca, & V. (2009) College readiness for all: The challenge for urban high schools, *Future of Children*, 19 (1) p185-210. Retrieved from <http://www.eric.ed.gov/contentdelivery/servlet/ERICServlet?accno=EJ842068>

Source: ERIC, ProQuest Education Journals

Abstract: Melissa Roderick, Jenny Nagaoka, and Vanessa Coca focus on the importance of improving college access and readiness for low-income and minority students in urban high schools. They stress the aspirations-attainment gap: although the college aspirations of all U.S. high school students, regardless of race, ethnicity, and family income, have increased dramatically over the past several decades, significant disparities remain in college readiness and enrollment. The authors emphasize the need for researchers and policy makers to be explicit about precisely which sets of knowledge and skills shape college access and performance and about how best to measure those skills. They identify four essential sets of skills: content knowledge and basic skills; core academic skills; non-cognitive, or behavioral, skills; and "college knowledge," the ability to effectively search for and apply to college. High schools, they say, must stress all four. The authors also examine different ways of assessing college readiness. The three most commonly recognized indicators used by colleges, they say, are coursework required for college admission, achievement test scores, and grade point averages. Student performance on all of these indicators of readiness reveals significant racial and ethnic disparities. To turn

college aspirations into college attainment, high schools and teachers need clear indicators of college readiness and clear performance standards for those indicators. These standards, say the authors, must be set at the performance level necessary for high school students to have a high probability of gaining access to four-year colleges. The standards must allow schools and districts to assess where their students currently stand and to measure their progress. The standards must also give clear guidance about what students need to do to improve. College readiness indicators can be developed based on existing data and testing systems. But districts and states will require new data systems that provide information on the college outcomes of their graduates and link their performance during high school with their college outcomes.

Career Readiness Only

9. ACT, inc. (2009). *The Path to Career Success: High School Achievement, Certainty of Career Choice, and College Readiness Make a Difference*. (Issues in College Readiness Policy Brief). Iowa City, IA: Author. Retrieved from <http://www.eric.ed.gov/contentdelivery/servlet/ERICServlet?accno=ED506252>

Source: ERIC, ProQuest Education Journals

Introduction: It is essential for all students to be ready for college and career when they graduate from high school. Postsecondary educators expect high school graduates to be prepared academically for success in postsecondary education, which in turn influences success in the work world. Employers continue to call for workers to have the tools needed to perform well on the job and stay in the job. In the United States today, "all American workers [should] have the opportunity to equip themselves with the necessary tools to succeed in their careers" (U.S. Department of Labor, 2007). To determine how future workers can better prepare for career success, three indicators of early career success were examined: (1) College degrees obtained in career field of interest; (2) Job attainment in career field of interest; and (3) Satisfaction in these jobs. Data reported are from a recent study based on 12,019 full-time employees who earned degrees from 293 colleges or universities in 39 states; these employees had completed the ACT[R] test during high school and were later surveyed about their college experience, their current job, and their job satisfaction. Results demonstrate that academic achievement (as represented by ACT Composite score), certainty about one's occupational choice, and college readiness in all four subject areas (as represented by attainment of the ACT College Readiness Benchmarks) are positively associated with early career success. These factors, separately and in combination, improve students' chances of attaining college degrees and jobs consistent with their occupational choices, as well as increase the likelihood that as employees these students will be satisfied with important aspects of their jobs.

10. Rey-Alicea, N. & Scott, G. (2007). *A survey of selected work readiness certificates. Jobs for the Future for Skill Up Rhode Island*. Retrieved from <http://www.jff.org/sites/default/files/WorkReadiness.pdf>

Source: ERIC, ProQuest Education Journals

Introduction: The United Way of Rhode Island asked Jobs for the Future to prepare a scan of work readiness certificates that have emerged throughout the United States in recent years. Like many other states, Rhode

Island finds itself challenged by employers who are demanding “workready” job candidates and significant numbers of residents who have trouble getting a job due to lack of educational and professional credentials. While individual education and training programs have developed their own work readiness and outcome standards, there is no standard definition, accepted across the spectrum of programs funded by workforce development, vocational rehabilitation, and adult and higher education, to certify that an individual has the basic employability skills sought by Rhode Island employers

Section Four: Students are citizenship ready

This section includes publications and reports that provide examples of indicators and measures of citizenship readiness, such as physical, social, emotional, mental, and spiritual health; connections to families and communities; and that students are mindful, caring, compassionate and self-directed.

1. Barrett, S., Eber, L. & Weist, M. (Eds.). *Advancing education effectiveness: Interconnecting school mental health and school-wide positive behavior support*. Baltimore, MD: University of Maryland School of Medicine, Center for School Mental Health. Retrieved from http://csmh.umaryland.edu/Resources/Reports/Advancing_Education_Effectiveness_2013.pdf

Source: Google web search

Abstract: The monograph, *Advancing Education Effectiveness: Interconnecting School Mental Health and School-wide Positive Behavior Supports*, was collaboratively developed by three national centers/initiatives: the Technical Assistance Center on Positive Behavioral Interventions and Supports (PBIS), the IDEA Partnership, and the Center for School Mental Health. The monograph articulates the Interconnected Systems Framework (ISF), a proposed and developing interconnection of Positive Behavioral Interventions and Supports (PBIS) and School Mental Health (SMH) systems to improve educational outcomes for all children and youth, especially those with or at risk of developing mental health challenges. This monograph represents a collective effort to further develop the ISF concept and guide the interconnection of PBIS and SMH toward effective multi-tiered mental health promotion for all students, with guidance for this work at school building, district, and state levels. The development of the monograph and other related processes (e.g., training events, webinars, pilot efforts in some states/communities) has been supported by the Office of Special Education Programs (OSEP) of the United States (U.S.) Department of Education, and the Maternal and Child Health Bureau (MCHB) of the Health Resources and Services Administration of the U.S. Department of Health and Human Services, as well as the three national centers/initiatives. The monograph: 1) defines the Interconnected Systems Framework (ISF) as an implementation framework that creates and guides the linkage between education and mental health systems and staff; 2) describes current implementation efforts of the ISF across seven participating pilots including state, district and school-level sites; 3) discusses potential school and student benefits of utilizing the ISF framework; and 4) defines implementation, research, and policy agendas to further improve and scale up the framework.

- Chi, B., Jastrzab, J., & Melchior, A. (2006). Developing indicators and measures of civic outcomes for elementary school students. College Park, MD: The Center for Information and Research on Civic Learning and Engagement (CIRCLE) at University of Maryland, School of Public Policy. Retrieved from <http://eric.ed.gov/?id=ED494039>

Source: ERIC, ProQuest Education Journals

Abstract: Over the past decade, public attention on the importance of the civic development and education of youth has grown. To address these concerns, the East Bay Conservation Corps (EBCC) Charter School opened in 1996 with the explicit mission to prepare and engage students grades K through 12 as caring citizens who are capable and motivated to fully participate in our democracy. While content standards and assessments readily exist to articulate the academic and artistic development of students, youth civic development, especially at the elementary level, has been under-conceptualized. What is needed is a more robust, comprehensive developmental framework for citizenship education that begins with younger ages and addresses civic skills and dispositions to the same degree as civic knowledge. The product from this project is a set of tested, reliable measures of civic knowledge, civic thinking skills, civic participation skills and civic dispositions that are referenced to recent efforts to provide frameworks of competencies in civic education. Two sets of instruments were developed using a comprehensive conceptual framework for civic indicators at the elementary level. The measures include a student survey of student civic knowledge, skills and attitudes that relate to dispositions, which is the focus of this report; a set of corresponding grade level observation checklists of student skills and behaviors was also developed. Starting at a young age to foster developmental foundations for civic engagement includes a democratic orientation to others and identification with them as fellow members of a community and body politic. This focus is not only developmentally appropriate but also consistent with the goals of many elementary schools to foster prosocial skills and behaviors. In addition, there is a need for greater attention to age-appropriate, instrument identification and development for elementary aged students to document student civic development by focusing on what they can do, an important and often overlooked facet of K-12 civic education research and practice. Addressing this need will also assist other public elementary schools interested in recapturing their civic mission and in creating a K-12 developmental framework for civic development. Appended are: (1) Student Survey Used in National Pilot; (2) Student Observation Checklists for Grades K/1, 2/3 and 4/5; (3) Pearson Correlations between Scales; (4) Tests of Significance for Findings by Gender; (5) Tests of Significance for Findings by White and Non-White Subpopulations; and (6) Descriptive Statistics of Full National Sample.

- Education Commission of the States. (2013). Database of resources to assess student civic competencies and school climate. Retrieved from http://www.ecs.org/qna/splash_new.asp

Source: Google Scholar

Description: The database contains questions categorized by national civics standards that have been juried by civic learning experts for their clarity and meaningfulness in relation to the competencies of civic knowledge, skills and dispositions. Some items were simplified (often to make them useable at lower grade levels).

4. Fisher, J. (2004). Feeling good, living life: a spiritual health measure for young children. London: Routledge. doi:10.1080/1361767042000306121. Retrieved from <http://www.tandfonline.com/doi/abs/10.1080/1361767042000306121#.UvFqsfldV8E>

Source: Google web search

Abstract: Following previous work on the spiritual health of secondary students, the author wondered if it was possible to develop a spiritual health measure for younger children. Taking Fisher's model of spiritual health as the basis, items were developed to reflect relationships with self, with others, with the environment and with a god. The children's ideals for spiritual health (what makes them Feel Good) were compared with their lived experience (Living Life) to ascertain their levels of spiritual health. Factor analyses on responses from 1080 students in 14 schools (State, Catholic, Independent and Christian Community Schools) in Victoria and Western Australia are reported in this paper.

5. International Association for the Evaluation of Educational Achievement. (2001). IEA Civic Education Study (CIVED). Retrieved from the University of Maryland website, <http://www.terpconnect.umd.edu/~jtputra/>

Source: Google Scholar

Description: A collection of publications related to the IEA Civic Education Study, which examined the context and meaning of civic education, and then developed instruments for gathering information about student's civic knowledge and their civic attitudes and engagement. Assessments included the content domains of democracy and citizenship, national identity, and social cohesion and diversity.

6. Johnston, L., Bachman, J. & O'Malley, P. (2013). Monitoring the future: Questionnaire responses from the nation's high school seniors, 2011. Ann Arbor, Michigan: Institute for Social Research, University of Michigan. Retrieved from the Monitoring the Future website: <http://www.monitoringthefuture.org/datavolumes/2011/2011dv.pdf>

Source: ERIC, ProQuest Education Journals

Description: The descriptive statistical results from a national survey of high school seniors related to a number of social indicators. Detailed information about the questionnaire is included.

Section Six: Data Collection Systems

This section includes a list of data collection systems used by schools and/or community partnerships. These databases may be considered for use by Keiki to Career Kaua'i to support their efforts to collect and track data over time. The software described in this section are provided for information only and have not been endorsed by REL Pacific, the U.S. Department of Education of the Institute of Education Sciences.

Data collection systems

1. Clever

Website: <https://clever.com/>

Attributes:

- Provides a developer interface (API) for third party education technology software to access data from Student information Systems (SIS) used by schools.
- Provides control over what student data is shared with software developers.

2. DataCation

Website: <http://www.datacation.com/>

Attributes:

- Allows stand-alone data systems to be integrated and provide aggregate data reporting.
- Allows users to view, assess, and cross-reference various data sets.

3. Ed-Fi Alliance

Website: <http://www.ed-fi.org/#>

Attributes:

- Aggregates information from disparate data sources.
- Design accommodates changing innovations and requirements.
- Extends existing data systems' capabilities.
- Communicates data through web-based dashboards and reports.

4. eSIS

Website: <http://www.datacation.com/>

Attributes:

- Allows stand-alone data systems to be integrated and provide aggregate data reporting.
- Allows users to view, assess, and cross-reference various data sets.

5. iResults Impact Management Solution

Website: <http://myiresult.com/>

Attributes:

- Designed for education.

- Uses a set of impact indicators determined by client.
- Provides analytics to track data and reports.

6. School Data Solutions

Website: <http://schooldatasolutions.net/>

Attributes:

- Efforts to Outcomes software allows for measurement of program data.
- Data may be exported and compared to data from other software systems.

7. Social Solutions

Website: <http://www.socialsolutions.com/>

Attributes:

- Puts existing data into a web-based platform with analysis and reporting capabilities.
- Unifies school created database with external databases.

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