

APPENDIX

RESOURCES AND TOOLS BY SUBJECT AREA

The following resources and tools are provided for the reader's reference . There are many examples that educators, parents, advocates, administrators, and other concerned parties may find helpful, and use at their discretion, with respect to implementing Title IV, Part A of the ESEA. The U.S. Department of Education does not control or guarantee the accuracy, relevance, timeliness, or completeness of this outside information. Further, the inclusion of links to items and examples does not reflect their importance, nor are they intended to represent or be an endorsement by the U.S. Department of Education of any views expressed, or materials provided.

Well-Rounded Educational Opportunities

Advanced Placement and Dual Enrollment

A Comparison of the College Outcomes of AP and Dual Enrollment Students

(<http://research.collegeboard.org/sites/default/files/publications/2015/10/a-comparison-of-the-college-outcomes-of-ap-and-dual-enrollment-students.pdf.pdf>) A report on the college outcomes of AP and dual enrollment students suggests that educators are increasingly focused on ensuring that students experience a rigorous curriculum in high school and graduate college and career ready. One way of introducing rigorous course work is to have students take college-level work, often in the form of either an AP course and exam or a dual enrollment course. The results indicated that AP students who obtained at least one score of 3 or higher on an AP Exam performed well on all examined outcomes of the study except for four-year college enrollment, which was highest for students who had taken a dual enrollment course affiliated with a four-year college.

Arts Education Research and Policy Clearinghouses

ArtsEdSearch (<http://www.aep-arts.org/research-policy/artsedsearch/>) an online clearinghouse of student and teacher outcomes associated with arts learning in and outside of school. Research studies are vetted for rigor and address a range of outcomes including academic, cognitive, personal, socio-emotional, and professional. The Arts Education Partnership (<http://www.aep-arts.org/>), the manager of ArtsEdSearch, is supported by the Department and the National Endowment for the Arts through a cooperative agreement with the Education Commission of the States.

ArtsScan (<http://www.aep-arts.org/research-policy/artscan/>), also managed by the Arts Education Partnership, is a searchable database of State policies supporting education in and through the arts from all 50 States and the District of Columbia.

Preparing Students for the Next America (<http://www.aep-arts.org/wp-content/uploads/2013/04/Preparing-Students-for-the-Next-America-FINAL.pdf>) is a short research bulletin outlining the research-based benefits of arts education on preparing students for success in school, work, and life.

Civic Education

The Role of Civic Education (http://civiced.org/papers/articles_role.html) provides a definition of “civic education,” suggests the essential components of a good civic education, and identifies where and when civic education occurs. The authors provide general recommendations for where and how civic education can be implemented in K-12 instruction.

College and Career Counseling

A National Look at the High School Counseling Office: What Is It Doing and What Role Can It Play in Facilitating Students' Paths to College

(http://www.nacacnet.org/research/research-data/nacac-research/Documents/NACAC_Counseling_PhaseII.pdf), a report produced by the National Association for College Admission Counseling, uses the nationally representative High School Longitudinal Study of 2009 (HSL:09) data from Spring 2012 to examine American high schools' counseling departments and the factors related to high school juniors' actions, plans, and beliefs surrounding their eventual college enrollment. More specifically, Part I of the report focuses on what high schools and their counseling offices are doing to help students make a transition to postsecondary education.

Environmental Education

Guidelines for Excellence: K-12 Learning (2010) (<http://www.gufsee.org/grades-K-8/excellence-in-environmental-education-guidelines-for-learning>), a guide published by the North American Association for Environmental Education, offers a vision of environmental education and promotes progress toward sustaining a healthy environment and quality of life. The guidelines provide learners, parents, educators, home schoolers, administrators, policy makers, and the public a set of common, voluntary guidelines for environmental education.

E-STEM Environmental K-12 Programs, in 2015, the UL company and the North American Association for Environmental Education (NAAEE) selected five STEM focused environmental, K-12 education projects to recognize with grants. The awards recognize efforts by the five non-profit entities to promote E-STEM learning through projects involving real environmental problems, with each demonstrating success and innovation in this field. Information on the award-winning E-STEM programs, both in school and after school, may be found at: <http://ulinnovationeducation.naaee.net/winners>.

US Department of Education Green Ribbon Schools inspires schools, districts, and IHEs to strive for 21st-century excellence, by highlighting promising practices and resources that all can employ. To that end, the award recognizes schools, districts, and IHEs that: reduce environmental impact and costs; improve the health and wellness of schools, students, and staff; and provide environmental education, which teaches many disciplines, and are especially good at effectively incorporating STEM, civic skills, and green career pathways. Information on the Department of Education's Green Ribbon

Schools program and past awardees may be found at: <http://www2.ed.gov/programs/green-ribbon-schools/awards.html>.

Federal Arts Education Research Reports

The Arts and Achievement in At-Risk Youth: Findings from Four Longitudinal Studies (2012) (<https://www.arts.gov/publications/arts-and-achievement-risk-youth-findings-four-longitudinal-studies>) examines arts-related variables from four large datasets – three maintained by the U.S. Department of Education and one by the U.S. Department of Labor – to understand the relationship between arts engagement and positive academic and social outcomes in children and young adults of low socioeconomic status (SES). The analyses show that achievement gaps between high- and low-SES groups appear to be mitigated for children and young adults who have arts-rich backgrounds.

Re-Investing in Arts Education: Winning America’s Future (2011) (http://pcah.gov/sites/default/files/PCAH_Reinvesting_4web.pdf) culminated 18 months of research, meetings with stakeholders, and site visits all over the country by the President's Committee on the Arts and the Humanities. The report represents an in-depth review of the current condition of arts education, including an update of the current research base about arts education outcomes, and an analysis of the challenges and opportunities in the field that have emerged over the past decade.

The Arts in Early Childhood: Social and Emotional Benefits of Arts Participation: A Literature Review and Gap-Analysis (2000-2015) (<https://www.arts.gov/sites/default/files/arts-in-early-childhood-dec2015-rev.pdf>) synthesized findings from 18 recent reports in psychology and education research journals. These studies focused on the social and emotional outcomes of young children who participated in art forms such as music, dance, theater, drawing, and painting. Available from the National Endowment for the Arts Interagency Task Force on the Arts and Human Development.

Arts Education in Public Elementary and Secondary Schools: 1999-2000 and 2009-2010 (<http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2012014rev>) presents selected findings from a congressionally mandated study on arts education in public K–12 schools. The data were collected through seven Fast Response Survey System (FRSS) surveys during the 2009-10 school year.

National Assessment of Educational Progress (NAEP) in the Arts (2008) (<http://nces.ed.gov/nationsreportcard/arts/>) measured students' knowledge and skills in the arts by asking them to observe, describe, analyze, and evaluate existing works of music and visual art and to create original works of visual art. The results of a 2016 NAEP Arts Assessment of eighth graders’ arts knowledge and skills will be released in April 2017 (<https://www.nagb.org/naep/release-schedule.html>).

Foreign Languages

What the Research Shows, produced by the American Council on the Teaching of Foreign Languages (ACTFL) (<http://www.actfl.org/advocacy/what-the-research-shows>), provides links to studies that show some of the benefits associated with learning foreign languages.

Need Indicators for Foreign Language. A tool from ACTFL to help districts assess their foreign language needs.

(<https://www.actfl.org/sites/default/files/publications/reports/ACTFL%20Metric%20Tool.pdf>)

Science, Technology, Engineering and Mathematics, Including Computer Science (STEM)

Successful K-12 STEM Education: Identifying Effective Approaches in Science, Technology, Engineering, and Mathematics. A report from the National Research Council Committee on Highly Successful Science Programs for K-12 Science Education, which offers a framework for understanding “success” in STEM education and discusses approaches for formal K-12 STEM education including recommendations regarding inclusive STEM skills.

STEM Learning Is Everywhere: Summary of a Convocation on Building Learning Systems. A 2014 publication of the Teacher Advisory Council of the National Research Council, which highlights the multiple settings in which students learn, and the importance of both in- and out-of-school time in fostering a more seamless learning of STEM subjects. The report also discusses the new expectations of the Next Generation Science Standards and the Common Core Standards for Mathematics and Language Arts.

President’s Council of Advisors on Science and Technology (PCAST) released a report in 2010 to highlight opportunities in K-12 STEM education and areas of focus. Prepare and Inspire: K-12 Education in Science, Technology, Engineering and Math for America’s Future. September 2010.

<https://www.whitehouse.gov/sites/default/files/microsites/ostp/pcast-stem-ed-final.pdf>

The Exploring Computer Science (ECS) program, supported by the National Science Foundation, has shown to increase computer science learning opportunities and to increase the participation of underrepresented students in computer science. On average, ECS students show an increase in self-rated computer science knowledge, increased persistence on computer science problem solving and higher likelihood to pursue additional computer science coursework. The program provides training and ongoing professional development for educators and curricular resources. ECS has grown from serving students in Los Angeles Unified School District to serving students across the country, including the seven largest school districts in the country.

Social and Emotional Learning

CASEL Guide to Effective Social and Emotional Learning Programs

(<http://www.casel.org/guide/>) provides a systematic framework for evaluating the quality of SEL programs. The guide applies the framework to identify and rate well-designed,

evidence-based SEL programs. The guide also shares best-practice guidelines for district and school teams on how to select and implement SEL programs.

Social-Emotional Learning Assessment Measures for Middle School Youth

(<http://www.search-institute.org/sites/default/files/a/DAP-Raikes-Foundation-Review.pdf>) from the Raikes Foundation identifies research-based tools that measure social and emotional well-being of middle school students.

Teaching Adolescents to Become Learners. The Role of Noncognitive Factors in Shaping School Performance: A Critical Literature Review

(<https://consortium.uchicago.edu/sites/default/files/publications/Noncognitive%20Report.pdf>), issued by the Consortium on Chicago School Research, outlines a new framework for understanding how non-cognitive factors influence the behaviors that drive academic performance in middle and high school students.

Social Studies

National History Education Clearinghouse. Visiting History: A Professional Development Guide *Teaching History* (2013) (<http://teachinghistory.org/visiting-history>)

Safe and Healthy Students

Asthma Management in Schools

Environmental Protection Agency (<https://www.epa.gov/asthma/managing-asthma-school-environment>). This guide offers valuable information for all school staff, especially school nurses, teachers and maintenance staff, on how to identify and control common environmental factors in schools that may trigger asthma episodes. Download the *Managing Asthma in the School Environment* document to learn how you can help control asthma at your school and boost student performance.

Bullying and Harassment Prevention

StopBullying.gov (www.stopbullying.gov) provides information from various government agencies on what bullying is, what cyberbullying is, who is at risk, and how to prevent and respond to bullying.

Drug and Violence Prevention

Youth.gov (www.youth.gov) is a Federal website related to creating, maintaining, and strengthening effective youth programs. Included are facts, funding information, and tools to assess community assets, generate maps of local and Federal resources, and search for evidence-based youth programs.

Healthy Students

CDC Healthy Schools is a Federal website (www.cdc.gov/healthyschools) with numerous resources to assist school districts and schools in creating healthy learning environments, including information related to nutrition, physical activity, obesity prevention, and the management of chronic conditions. There are also professional development and training materials for school personnel.

National Cancer Institute’s Research-tested Intervention Programs (RTIPs)

(<http://rtips.cancer.gov/rtips/index.do>) is a database that contains information on evidence-based cancer control interventions and program materials. Users may search for interventions that are implemented in school and focus on nutrition, obesity, or physical activity.

Human Trafficking

U.S. Department of Education Fact Sheet

(<http://www2.ed.gov/about/offices/list/oese/oshs/factsheet.html>) contains information and resources related to human trafficking.

Indoor-Air Quality (IAQ)

Environmental Protection Agency (EPA)

(<https://www.epa.gov/iaq-schools/indoor-air-quality-tools-schools-action-kit>) EPA’s *Indoor Air Quality Tools for Schools Action Kit* guidance was designed to assist schools and districts with reducing exposure to indoor environmental contaminants in schools through voluntary adoption of sound and effective IAQ management practices. The Action Kit provides best practices, industry guidelines, sample policies and IAQ management plans for improving indoor air problems at little or no cost using straightforward activities and in-house staff. Additionally one can stay connected and learn about upcoming training opportunities Join the connector network at (<https://www.epa.gov/iaq-schools/forms/how-you-can-stay-connected-school-iaq-network>)

Positive Behavioral Interventions and Supports

Technical Assistance Center on Positive Behavioral Interventions and Supports (PBIS)

(www.pbis.org) was established by the U.S. Department of Education to define, develop, implement, and evaluate a multi-tiered approach to technical assistance that improves the capacity of States, districts, and schools to establish, scale-up, and sustain the PBIS framework. Emphasis is given to the impact of implementing PBIS on the social, emotional and academic outcomes for students with disabilities.

Re-entry Programs and Transition Services

Virginia’s Department of Justice sponsors a program to provide regional Reentry Advocates to help create a seamless reentry process, connect youth to employment and vocational services and to link youth and families with services in the community. Reentry Advocates partner with local government agencies, local school districts and community stakeholders to connect youth and their families with benefits and resources, employability services and skills training and to connect them with positive adult role models. <http://www.djj.virginia.gov/pages/community/re-entry.htm>

Relationship-building Skills

U.S. Department of Education Fact Sheet

(www2.ed.gov/about/offices/list/oese/oshs/teendatingviolence-factsheet.html) contains information and resources related to relationship-building skills.

Safe Schools

Office of Juvenile Justice and Delinquency Prevention’s Model Programs Guide (<http://www.ojjdp.gov/mpg/>) includes information on evidence-based juvenile justice and youth prevention and intervention programs that cover topics such as bullying, discipline, school climate, school safety, school violence, and truancy.

School Climate

The National Center on Safe Supportive Learning Environments (safesupportivelearning.ed.gov) is funded by the U.S. Department of Education’s Office of Safe and Healthy Students to help address issues that affect conditions for learning, such as bullying, harassment, violence, and substance abuse.

US Department of Education Policy, Guidance, and Resources for School Climate and Discipline (<http://www2.ed.gov/policy/gen/guid/school-discipline/index.html>). Creating a supportive school climate—and decreasing suspensions and expulsions—requires close attention to the social, emotional, and behavioral needs of all students. Administrators, educators, students, parents, and community members can use this site to find tools, data, and resources to: (a) increase their awareness of the prevalence, impact, and legal implications of suspension and expulsion; (b) find basic information and resources on effective alternatives; and (c) join a national conversation on how to effectively create positive school climates.

School-Based Mental Health Services

Center for School Mental Health (<http://csmh.umaryland.edu/index.html>) strengthens policies and programs in school mental health to improve learning and promote success for America’s youth. CSMH advances evidence-based care in schools and collaborates at local, State, national, and international levels to advance research, training, policy, and practice in school mental health.

SAMHSA’s National Registry of Evidence-based Programs and Practices (NREPP) (http://www.nrepp.samhsa.gov/01_landing.aspx) is a registry of substance abuse and mental health interventions. Users may search for interventions that are implemented in a school or classroom.

Suicide Prevention

U.S. Department of Education Fact Sheet (www2.ed.gov/about/offices/list/oese/osh/suicideprev-factsheet.pdf) contains information and resources related to suicide prevention.

The National Action Alliance for Suicide Prevention (<http://actionallianceforsuicideprevention.org>) is a public-private partnership charged with advancing the National Strategy for Suicide Prevention.

Effective Use of Technology

Characteristics of Future Ready Leadership: A Research Synthesis

(<http://tech.ed.gov/files/2015/12/Characteristics-of-Future-Ready-Leadership.pdf>) may prove useful for strategic planning for superintendents, their leadership teams, and those supporting them in other contexts. It is aligned with the recommendations of the 2016 National Education Technology Plan, designed to ensure that as district leaders work to become Future Ready they will also be making progress toward implementing the broader technology vision for the nation. The research synthesis defines exemplary dimensions of policy and/or practice within four focus areas: collaborative leadership, robust infrastructure, personalized professional learning and personalized student learning.

Diagram Center Webinars (<http://diagramcenter.org/diagramwebinars.html>) hosts a collection of free training, information sharing and what's going on in the field based on the overarching theme of accessibility and making educational materials accessible.

Ed Tech Developer's Guide (<http://tech.ed.gov/developers-guide>) is a guide for developers, startups and entrepreneurs addresses key questions about the education ecosystem and highlights critical needs and opportunities to develop digital tools and apps for learning. This guide is designed to help entrepreneurs apply technology in smart ways to solve persistent problems in education.

Expanding Evidence (<http://tech.ed.gov/expanding-evidence>) outlines new types and sources of evidence of learning afforded by technology with an aim toward helping education decision-makers obtain the increased quality and quantity of evidence needed to fuel innovation and optimize the effectiveness of new learning resources.

Future Ready Interactive Planning Dashboard and Resource Hub

(<http://futureready.org/about-the-effort/dashboard/>) is a dashboard where district teams complete an in-depth self-assessment to determine their overall readiness to undergo a digital transformation, create a vision for student learning, and evaluate what aspects of the system they must address to make that vision a reality. After completing the self-assessment, each district team receives a customized report that analyzes the district's readiness in each of the seven gears of the Future Ready Framework, identifies gaps, and offers customized strategies and free resources.

Future Ready Schools Infrastructure Guide

(<http://tech.ed.gov/futureready/infrastructure>) provides practical, actionable information intended to help district leaders (superintendents, principals, and teacher leaders) navigate the many decisions required to deliver cutting-edge connectivity and devices to students, and outlines principles and policies that support capacity building for educational technology and digital citizenship. It presents a variety of options for district leaders to consider when making technology infrastructure decisions, recognizing that circumstances and context vary greatly from district to district.

#GoOpen District Launch Packet (<http://tech.ed.gov/open-education/go-open-districts/launch/>) is designed for districts that have decided to implement a systematic approach to incorporating openly licensed education resources into their curriculum.

Learning Analytics (<http://tech.ed.gov/learning-analytics>) is intended to help policymakers and administrators understand how learning analytics has been—and can be—applied for educational improvement while rigorously protecting student privacy.

The National Education Technology Plan 2016 (<http://tech.ed.gov/netp/>) is the flagship educational technology policy document for the United States. The 2016 Plan, *Future Ready Learning: Reimagining the Role of Technology in Education*, articulates a vision of equity, active use, and collaborative leadership to make everywhere, all-the-time learning possible. The principles and examples provided in the document align to the effective use of technology content area under *Title IV, Part A*.