NATIONAL DROPOUT PREVENTION CENTER/NETWORK

RURAL DROPOUT PREVENTION ISSUES & SOLUTIONS

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About the Rural Dropout Prevention Project

The Rural High School Dropout Prevention Project (Contract No. ED-ESE-13-C-0069), funded by the U.S. Department of Education, Office of Elementary and Secondary Education (OESE) Academic and Teacher Quality Program provided technical assistance to state education agencies (SEAs) and designated schools in rural areas. The intent of the project was to support the design and implementation of programs aimed at implementing effective school dropout prevention and reentry programs in rural communities. The project provided technical assistance to fourteen states: Alaska, Arkansas, Iowa, Maine, Mississippi, Montana, Nebraska, New Hampshire, North Carolina, North Dakota, Oklahoma, Vermont, West Virginia, and Wyoming. Products, webinars, and videos produced under the project, as well as other rural dropout prevention resources, are available online at https://www2.ed.gov/programs/dropout/ruralprevention.html and at http://dropoutprevention.org/rural-dropout-prevention-resources/

About the Authors

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USING THE GUIDE

Rural Dropout Prevention Issues & Solutions provides a wealth of information on designing and implementing a successful dropout prevention initiative in a rural school environment. In addition to the evidence-based research noted in the publication, it offers suggestions and ideas drawn from practitioner-based experiences found in rural schools across America.

The guide is organized into four parts, each of which builds upon the previous to create a framework for implementing a new dropout prevention initiative or revising an existing program. It is also organized to accommodate users interested in a thorough discussion of rural dropout prevention or those looking for a quick review of a particular topic.

Part 1 Understanding the Challenges examines the challenges, capacity limitations and potential benefits of addressing dropout prevention in rural areas. This section merges what is known about effective dropout prevention practice and how rural contexts influences the factors leading to dropping out and solutions to overcoming those factors.

Part 2 Recognizing the Risk Factors identifies why students dropout of school and the capacity limitations rural schools face in mitigating those causes. It includes a self-assessment tool for schools to assess the prevalence of risk factors in their school and community and their capacity to address those factors.

Part 3 Identifying Effective Strategies and Programs discusses approaches for identifying a dropout prevention solution and profiles some effective strategies and approaches. This section also identifies online databases where users can find up-to-date information and resources.

Part 4 Planning and Implementing the Interventions provides guidance to practitioners about how to plan a dropout prevention program. It also includes a tool schools can use to identify potential obstacles to successful implementation in order to develop strategies to overcome them.

Regardless of how the document is used, practitioners will find something of benefit whether they are new to dropout prevention or highly experienced in working with at-risk youth. Ultimately though, it will be rural students, families and communities that benefit as more young adults learn the knowledge and skills to be successful wherever they decided to live.

PART 1: UNDERSTANDING THE CHALLENGES

Rural Dropout Prevention Issues & Solutions is a product resulting from a project funded by the U. S. Department of Education to provide technical assistance to educational leaders in states and local schools with high rates of school dropouts. Now more than ever educators and community leaders understand the importance of a high school diploma as a foundational achievement for individual, family, and community success. Consequently, school leaders across the nation aggressively seek innovative solutions to reduce the high school dropout rate. The search for solutions are particularly challenging in rural schools and communities, where limited capacity of human and fiscal resources and numerous community factors present major barriers. Dropout prevention efforts require a strategic focus to identify, select, and implement successful interventions. Part 1 seeks to accomplish two objectives.

1. Highlight the challenges, capacity limitations, and potential benefits of addressing dropout prevention issues in rural areas.
2. Lay the foundation for understanding risk factors associated with dropping out in a rural context.

The Dropout Challenge

Education of students in rural settings is an important part of public education in America. More than half (57%) of all operating regular school districts and about one-third (32,000) of all public schools are in rural areas. About one-quarter (24%) of all public school students are enrolled in rural schools (Aud et al., 2013). Public schools in rural areas enroll approximately 12 million students. Unrecognized by most Americans and often overshadowed by the nation's attention to dropouts in urban settings, more than one-fifth of the public schools in rural America have higher than average dropout rates (Alliance for Excellent Education, 2010; Zehr, 2010). One in four rural students fail to graduate from high school in rural America, and the graduation rate for minority youth is even lower (Balfanz & Legters, 2004).

> Average Freshman Graduation Rate (AFGR) is the percentage of public school students who graduate on time with a regular diploma

Every state strives to achieve high graduation rates among schools that serve students in rural areas. In some rural communities the need to act is more critical. According to data at the National Dropout Prevention Center/Network, 37% of all counties in the U.S. have one or more rural school districts with a 2008-09 Average Freshman Graduation Rate (AFGR) that is less than the national average (Womac & Withington, 2015). AFGR is the percentage of public high school students who graduate on time with a regular diploma. AFGR is the number of graduates divided by the average freshman enrollment four years earlier. Average freshman enrollment is calculated as the sum of the number of eighth graders five years earlier, the number of ninth graders four years earlier, and the number of tenth graders three years earlier, divided by three for an average.

Capacity Challenges

Considerable differences can exist in the counties and/or rural regions where dropping out is particularly prevalent. Rural school districts may have numerous strengths for planning and implementing a dropout prevention strategy (Howley & Porpwski, 2013). Important strengths include

- less bureaucracy and organizational complexity,
- lower pupil-teacher ratios,
- greater fiscal effort in support of public education,
- greater parental involvement, and
- greater community support for school district.

But rural school districts can face numerous challenges associated with weaknesses in their institutional capacity to plan and implement school improvement initiatives (Stephens, 1999). These include

- fewer management support systems;
- greater per pupil cost;
- higher number of teachers teaching outside major specialty at secondary level;
- less breadth and depth in secondary program (especially in science, math, and languages);
- less availability of programs for disabled students;
- less availability of telecommunication technology (e.g., bandwidth for Internet);
- less fiscal capacity;

- less specialized space and equipment for science, math, and languages;
- less availability of planning support services;
- fewer evaluation support services; and
- less expertise to compete for grants.

School district capacity is affected by the prevailing economic conditions of the rural community, such as lower per capita income, higher poverty rate, and population loss. Data from 2010 to 2013 reveal that for the first time in history, rural America experienced a net population loss. During this period 1,269 (61 percent) nonmetro (i.e., rural) counties lost population, while 707 nonmetro counties gained population (Kusmin, 2014). Population composition (e.g., increasing elderly, increasing minority) also affects economic conditions in rural areas. Rural businesses and industries often specialize in resource-based activities such as agriculture, forestry, mining, or natural amenity-based recreation.

Manufacturing establishments comprise a key part of many rural economies. Some involve processing food, wood and mining products. But most are in manufacturing activities unrelated to local natural resources. Rural areas tend to have significantly fewer financial, professional, scientific and information services activities that concentrate in urban economies. The public sector has been a major source of earned income in rural areas. Trends in these activities shape the job opportunities available to the rural labor force (U.S. Department of Agriculture, Economic Research Service, 2015). Consequently, jobs influence the prevailing economic conditions of the rural community, per capita income, poverty rate, and population loss.

The Economic Research Service of the U.S. Department of Agriculture analyzed employment trends for the 2007-09 recession, the deepest and longest lasting economic down turn since the Great Depression (Hertz, Kusmin, Marré, & Parker, 2014). Analysis of job growth over a four-year period (2009-2013) since the recession shows employment growth in the average rural county (1.57%) lagged growth in the average urban county (3.82%). Half of this employment growth deficit can be explained by the near-zero rate of rural population growth. But lower levels of education and an older population are also acting to slow job growth in rural areas.

Differences also exist among the rural regions of the U.S. For example, unemployment rates rose fastest in the West, South, South Atlantic, and in parts of the Midwest. States most reliant on manufacturing were hit hardest. During the recession, many states with higher employment in farming and demand for biofuels or oil and natural gas extraction (e.g., Great Plains region) experienced lower unemployment rates.

Counties with the highest unemployment rates are concentrated in the West, South, South Atlantic, Appalachia (e.g. coal mining areas), and parts of the Rust Belt. The employment effects of the recession were more pronounced in nonmetro counties with large African-American populations. Nonmetro (i.e., rural) counties with large Hispanic populations added jobs during the recession. Hispanic counties had lower shares of employment in manufacturing than did counties without large minority populations, which insulated them from the large employment declines in the manufacturing sector during the Great Recession. For example, Hispanic employment was less affected negatively in counties more dependent on agriculture jobs than in rural counties heavily dependent on manufacturing jobs.

Personnel Challenges

Capacity weaknesses in key personnel in a rural community and or its school system can affect implementing federal and state curriculum standards, enhancing teacher quality, supporting technology initiatives, increasing data use capacity, and providing leadership for school improvement. For example, rather than hire a specialist (e.g., a specialist in dropout prevention), rural school districts commonly will

employ a "generalist" who must perform many tasks for the school system. As a result, low capacity may exist in the school system to develop targeted instructional classroom materials, train teachers, monitor implementation of new projects/programs, or evaluate results.

Principals and teachers in small rural schools may have inadequate time, resources and/or expertise to develop necessary materials for school improvement initiatives. Low fidelity when implementing a research-based improvement model may occur, especially if the model was developed in a non-rural school setting. Also, with a limited pool of qualified substitute teachers available it is difficult for regular teachers to be out of classroom to receive training (especially if only one such subject matter teacher exists in the school). If the better trained teacher is hired away by a neighboring, and often higher paying district, the process starts over with another teacher (if available) needing to be retrained. Rural school districts, particularly small districts, seldom have the technology infrastructure and central office staff necessary to implement technology initiatives (e.g., state testing, interactive web site, curriculum materials, or online course work). Consequently, a volunteer may perform data use tasks at the school level.

A principal can face unrealistic demands on time available to successfully lead all the school's improvement initiatives. Many schools do not employ assistant principals who share leadership responsibilities. Limited capacity to support school leaders (i.e., principal and lead teachers) may compound critical start-up challenges during early stages of implementing a new initiative. Moreover, undesirable housing and lack of amenities in the rural community may limit a school district's capacity to recruit and retain principals (and teachers) in high poverty rural school settings.

Local Government Capacity

Rural school districts and schools also are affected by capacity of the local governments, which traditionally have eight common barriers to capacity (Stephens, 1999):

1. Geographic isolation (e.g., negatively affects service delivery, response time for emergency services and professional networking);
2. Low population density (e.g., low incidence makes specialized service difficult to justify, per unit cost of providing service is higher);
3. Mobility (e.g., limited public transportation service; long commutes to job site);
4. Lack of fiscal resources (e.g., attributed to high poverty, low tax base, inadequate staff to write or compete for grants, urban bias in grant program);
5. Lack of expertise and human resources (e.g., leads to few training opportunities, low quality of certain public services, inattention to long-term planning, and understaffing of many functions);
6. Personal familiarity (e.g., advantage includes personal attention to individual needs but disadvantage includes reluctance by residents to seek certain services such as mental health, group addiction, or treatment for alcoholism);
7. Resistance to innovation (e.g., pervasive conservative attitudes inhibit provision of nontraditional services); and
8. Lack of ancillary services (e.g., dependent on services provided through family, friends, religious organizations, and volunteers).

Consequently, because of the challenges in the rural context, no one best dropout prevention strategy, policy, program or practice should be expected to work equally well in all rural schools and communities. Capacity limitations may force the rural school to make considerable adaptations in a proven model, rather than adopting the intervention model as originally designed.

Benefits of Addressing the Dropout Challenge

Though numerous challenges may exist, implementing an effective dropout prevention program and subsequent attainment of a high school diploma can have important benefits to numerous stakeholders, including parents and families. Table 1 shows some examples of benefits for a student, a school, the community, a state, and the nation as a whole. Arguably, the importance of a certain benefit may vary among states and local communities. But most leaders in rural communities today recognize completing high school is critical to the future success of the student and the local economy. Supported by key local, state and federal initiatives, successfully addressing the dropout challenge offers important benefits for leaders with the will to design and implement an effective dropout prevention plan.

Table 1
Benefits of Effective Dropout Prevention Programs

Benefactor	Benefits
Student	• Personal satisfaction (high school graduate) • Credential for employment (diploma) • Credential for postsecondary education (diploma) • Self-efficacy toward learning • Positive schooling experiences • Family and community recognition • On a pathway to personal future success • Potential lifetime economic returns higher • Better physical and mental health
School	• Engaged learners • Meeting needs of at-risk populations • Fewer behavior problems • Higher graduation rate • Improved school culture • Higher expectations for all students • State accreditation and recognition • Business and industry recognition (i.e., regional workforce development) • Partnerships with community organizations • Parent/family involvement • Teacher collaboration • Teacher self-efficacy • Greater community support
Communities, State, Nation	• Accredited schools • Lower unemployment • Enhanced economic competitiveness (e.g., adequate regional workforce) • Less dependent on public assistance • Higher tax revenues • Greater participation in democratic process (e.g., voting, volunteerism) • More appealing place to work, live or visit • Greater return on investment in public schools • Less crime • Healthier citizens

Conclusion

Understanding challenges and capacity limitations is a first step in crafting an effective dropout prevention strategy and plan. Although numerous challenges may exist in a particular rural school and community, many SEA and local school leaders are aggressively striving to address their dropout issues. Successful dropout prevention solutions offer important benefits for students, schools, and communities.

A critical next step is to recognize the risk factors that contribute to students dropping out. Part 2 describes the risk factors and includes a self-assessment tool that enables dropout prevention planners to address the most important capacity limitations for a particular risk factor. This serves as the foundation for identifying effective dropout prevention strategies and programs (see Part 3) and planning and implementing the interventions (see Part 4).

PART 2: RECOGNIZING THE RISK FACTORS

Part 2 seeks to accomplish three objectives.

1. Profile risk factors associated with dropout prevention issues in rural areas.
2. Highlight a tool that supports self-assessment of risk factors prevalent in the rural setting.
3. Lay the foundation for identifying effective dropout prevention strategies and programs in a rural context.

Risk Factors and Capacity Weaknesses for Consideration

> There is no single risk factor that accurately predicts who will drop out.

Knowledge of risk factors is important to finding a dropout solution consistent with the challenges prevalent in most rural school systems and their communities. A seminal research effort of the National Dropout Prevention Center (NDPC), in partnership with Communities In Schools, Inc., found there is no single risk factor that accurately predicts who will dropout. Dropping out of school is related to a variety of factors that can be classified into four areas or domains: individual, family, school, and community factors (Hammond, Linton, Smink, & Drew, 2007). Individual and family risk factors have a solid research base, whereas the school and community risk factors are not as strongly supported in the research literature. Consequently, school and community factors should be considered as "likely factors."

In presenting overall findings and trends from the literature, Hammond et al. (2007) also noted the following.

- Accuracy of dropout predictions increases when combinations of multiple risk factors are considered.
- Dropouts are not a homogeneous group. Many subgroups of students can be identified based on when risk factors emerge, the combinations of risk factors experienced, and how the factors influence them.
- Students who drop out often cite factors across multiple domains and there are complex interactions among risk factors.
- Dropping out of school is often the result of a long process of disengagement that may begin before a child enters school.

- Dropping out is often described as a process, not an event, with factors building and compounding over time.

Researchers at the National Dropout Prevention Center/Network relied heavily on the four categories or domains of risk factors (Hammond et al., 2007) when refining a list of 44 risk factors to 25. The factors were pared down to only those found to be significantly ($p < .10$) related to school dropout in multivariate analysis and significant in at least two data sources. Of those, 15 were classified in the individual domain and 10 were classified in the family domain.

The researchers (Smink & Reimer, 2009) further conducted an additional review with a focus on risk factors common and specific to rural areas to answer the question, "What do research reports on rural issues indicate would be particular risk factors commonly found in rural areas?" Fourteen risk factors were identified across the four domains.

Assessment of Risk Factors and Capacity Limitations

The 14 risk factors serve as the basis for the tool *Self-Assessment of Rural-Specific Dropout Risk Factors and Capacity Limitations*. The tool in Table 2 enables leaders of the school, school district, and community, or school-community dropout prevention team, to assess the extent to which a risk factor might be prevalent in the rural setting. Also important, the tool enables the user to note the extent of a particular capacity limitation for a specific risk factor within a school or community.

In the tool (column 3), a scale of 1 = Low to 10 = High is used to indicate the extent to which each risk factor is *prevalent* in the rural setting. In the last column, dropout prevention planners can list the one greatest capacity limitation of the school district and the community in addressing each risk factor. After listing the capacity limitation, the team decides if the capacity limitation will have a high, middle or low influence on addressing the risk factor. This helps the team focus on those risk factors with a high prevalence, thus important to address, and also consider the extent to which a weakness in capacity could influence selection or success of a strategy in addressing the risk factor.

For example, a team might give a prevalence rating of 10 to the ethnicity risk under the individual category. The team next would decide the greatest school and community capacity limitation in addressing the ethnicity risk factor. A further rating of low (L), medium (M) or high (H) impact of the capacity weakness would help guide the team in deciding the strategy or set of strategies to select and plan to implement.

In addition, the self-assessment tool allows the team to add risk factors that are not in the list for each category (i.e., individual, family, school, and community). Users of the self-assessment could choose to add one other risk factor, if the team decided sufficient data evidence supported its importance in addressing the dropout issue in the rural community.

Table 2
Self-Assessment of Rural-Specific Dropout Risk Factors and Capacity Limitations

Category	Risk Factor	Prevalence Rating[a]	Capacity Limitation and Rating (L, M, or H)[b]	
		1, 2, 3, 4, 5, 6, 7, 8, 9, or 10	School Limitation & Rating	Community Limitation & Rating
Individual	Drug use			
	Numerous siblings			
	Ethnicity			
	Other:			
Family	Low parental education			
	Low SES (poverty)			
	Large families			
	Low educational expectations			
	Other:			
School	Lack of funding			
	Low SES (depressed economy)			
	Low teacher salaries			
	Low expectations of students			
	Low math & reading student achievement			
	Other:			
Community	Low SES (impoverished population)			
	High property taxes (low wealth high tax effort)			
	Other:			

Note. This self-assessment is used with permission from Hobart Harmon, Jay Smink, and the National Dropout Prevention Center/Network. [a] Prevalence rating scale is 1 (Low) to 10 (High). [b] Capacity rating scale is Low (L), Medium (M), or High (H).

Users of the tool must strive to collect as much evidence as possible to define the dropout context. Of particular importance is why students are dropping out. The tool can be a helpful guide for developing a needs profile in the local school and community.

Reasons Rural Youth Drop Out

Youth in rural school settings may drop out of school for numerous reasons. These include

- conflicts about moving away from their home communities for work or college, or family and work (including farm) responsibilities while in high school (Howley & Porpwski, 2013);
- getting a job (McCaul, 1988; Tompkins & Deloney, 1995);
- not getting along with the teacher (McCaul, 1988; Tompkins & Deloney, 1995);
- an industry structure with occupations that require minimum formal education (McGranahan, 2004);
- an environment negatively influenced by shrinking economy, tax base and population (Senge, 1990; Senge, 1998; Smink & Reimer, 2009);
- non-relevant instruction and unsupportive school climate (Hardré, Sullivan, & Crowson, 2009);
- not being raised in a two-parent home (McGranahan, 2004; Wilcox, Angelis, Baker, & Lawson, 2014);
- economic pulls or personal reasons such as pregnancy, marriage, disability, and illness (McCaul, 1989); and
- a rural culture that values work over education (Carr, & Kefalas, 2009; Wuthnow, 2013).

In the quantitative analysis, a report of the National Center for School Engagement (NCSE) (Tombari, Andrews, Gallinati, & Seeley, 2009) revealed that only two variables were moderately correlated with dropout rates: the number of students eligible to drop out (determined only by age and grade) and the percent of students scoring proficient and advanced on the Colorado Student Assessment Program math test. In interviews with school district personnel of 10 rural school districts in Colorado, the NCSE researchers found the themes cited most frequently for students dropping out were

- involvement with drugs and alcohol,
- high poverty levels,
- family instability,
- uninvolved parents, and
- student behavioral issues.

Jordan, Kostandini and Mykerezi (2012) examined national Bureau of Labor Statistics data from the NLSY79[1] and the NLSY97 survey to determine how rural and urban dropout rates differ. They report the main determinants of graduation are

- gender,
- family assets,
- presence of biological parents, and
- maternal attributes.

The researchers found these factors influence graduation in a similar way across both urban and rural areas. Once family attributes were accounted for, differences in rural and urban areas were small and narrowing. Further, the researchers found some rural locations (i.e., remote rural) and peer attributes play different roles in urban and rural areas.

More recently, researchers (Dupere, Leventhal, Dion, Crosnoe, Archambault & Janosz, 2015) note it is important to understand how the determinants of dropout vary across socioeconomic conditions and geographical and historical contexts. Existing models of dropout are urban-centric and overlook the educational context of students in rural public schools. Dupere et al. point out that "landmark studies in both the stress process and life course traditions find that social isolation may be an important trigger for problematic behaviors in small towns and rural communities" (p. 610). For example, compared to large cities, social isolation precipitates events that play out differently in rural areas, such as dropouts caused by injuries from car crashes, pregnancies, and substance abuse. A function of the geographic context differences in rural and urban areas, Dupre et al. further note different forms of regional dynamics and divisions between jurisdictions in states and counties could be relevant to dropouts because of variations in educational policies.

Whether located in urban or rural settings, the current era of increasing accountability for student performance and more rigorous standards may place more students in high-need communities at risk of not completing high school (Palardy, 2013; Rumberger, 2011; Strange, Johnson, Showalter, & Klein, 2012). In a case study of six high schools in a Northeastern state, researchers (Wilcox, Angelis, Baker, & Lawson, 2014) found the most salient contrasts between rural schools with higher and those with average graduation rates related to

- qualities of academic goals, expectations, and learning opportunities;
- nature of individual and collective educator efficacy;
- strategies educators used to develop and maintain family relationships and engage community members; and
- mechanisms for adapting instruction and employing interventions for students at risk of dropping out.

These features of practices and processes appear to be intertwined and mutually supportive. The researchers also found "that the ways in which educators approached resource constraints and use, relationships with students and families, and bridging between designated roles in school and outside of

[1] The NLSY79 is a national longitudinal survey of a representative sample of 12,686 young men and women who were 14–22 years old when they were first surveyed in 1979. These individuals were interviewed annually through 1994 and are currently interviewed on a biennial basis. The NLSY97 surveys 9,000 youths between the ages of 12–16 when they were first surveyed in 1997. Participants are interviewed on an annual basis.

school to the benefit of children were uniquely affected by their rural context" (Wilcox et al., 2014, p. 13). Though plenty of challenges were present, teachers and administrators focused on the advantages offered in their small, tightly knit communities by valuing people, place, and possibilities. They were aware of the economic and social changes impacting their communities and worked to help families understand changing educational needs and opportunities for their children.

Conclusion

Many risk factors may be contributing to why students drop out of school. Use of the *Self-Assessment of Rural-Specific Dropout Risk Factors and Capacity Limitations* tool can help identify the most important risk factors. As important, the tool can help determine school and/or community capacity limitations that should be addressed to implement a dropout prevention strategy successfully.

The reader is encouraged to review the two remaining parts of this resource document. Part 3 reveals effective dropout prevention strategies and programs, which prepares the reader for planning and implementing the interventions described in Part 4.

Part 3: Identifying Effective Strategies and Programs

Part 3 seeks to accomplish three objectives.

1. Highlight approaches for seeking a dropout prevention solution.
2. Profile effective dropout prevention strategies and programs.
3. Lay the foundation for planning and implementing the interventions in a rural context.

Seeking Solutions

With numerous risk factors prevalent, the critical question is: What is the solution to the dropout challenge? Doing nothing has significant consequences. Dropping out of high school negatively impacts one's employment and life outcomes. Young adults with low education and skill levels are more likely to live in poverty and to receive government assistance; high school dropouts are more likely to become involved in crime; and dropout status has been linked with poor health, including poor mental health (Child Trends, 2015). Also, earning a General Educational Development (GED) credential, instead of a regular high school diploma, could mean an individual has lower employment and earnings potential and less preparation for subsequent educational attainment (Rouse & Kemple, 2009) or similar outcomes to not being a high school graduate (Heckman & LaFontaine, 2010).

Moreover, those who drop out of high school ultimately cost society in terms of greater spending on public assistance, higher crime rates, and lower tax revenues. According to a report of the Alliance for Excellent Education (2011), if the high school students who dropped out of the Class of 2011 had graduated, the nation's economy would likely have benefited from nearly $154 billion in additional income over the course of their lifetimes.

Identifying the "right" solution or mix of dropout prevention strategies and programs may appear to be a daunting task to program planners. Rarely does a very effective and successful intervention in one school have the exact result in other schools or communities. Finding the "silver bullet" solution is usually not possible and force-fitting a popular program from a nearby school district may lead to unanticipated program failures. However, dropout prevention strategies and successful programs are available and are evident in many rural schools and communities. In many situations, a successful program in one setting may be adapted to fit other settings, particularly if capacity limitations of the school, district, or

community can be addressed. Therefore, program planners using the tools and suggestions in this publication will be able to make better decisions and be more likely to select and implement successful programs.

Deciding on an Approach

The approach to finding a solution can be critical. The approach can range from top-down directives of national and state legislators or local school administrators to bottom-up initiatives and programs evolved and developed by classroom practitioners.

The top-down approach usually stems from a thorough study of an existing evidence-based intervention where each program component is studied, defined, and carefully refined until the program is eventually accepted. After several iterations of successful implementations and trials, the proven program is ready for dissemination and promotion to other schools and communities.

This approach can be characterized as a loosely defined logic pattern that frequently starts with legislation at the federal or state level. Legislation then leads to regulations, which may or may not be supported with adequate funding allocations. Subsequently, policies are developed to guide the parameters of the legislation, followed by offering specific program components and other related features. Ultimately, the actual practices are implemented at the district, school, or classroom levels. Figure 1 and the list of steps to the left of Figure 1 illustrate a basic top-down approach model for developing and implementing an effective dropout prevention solution. In this approach, evaluation is part of program implementations, modifications, and revisions. Eventually the program will expand to additional schools and communities, leading to final institutional acceptance of the program everywhere.

In this model, each component has a relationship to each other component but, more importantly, each component also has an independent role. It is this independent role and value that guides the remaining discussions about dropout prevention solutions. Many variations and specific details can exist for the approach illustrated in Figure 1. The components, however, usually follow a regular sequence of steps and reflect a proven research-based pattern.

Step 1. Legislation

Step 2. Regulations.

Step 3. Policies

Step 4. Programs

Step 5. Practices

Step 6. Evaluations

Step 7. Modifications

Step 8. Program Revisions

Step 9. Institutionalization

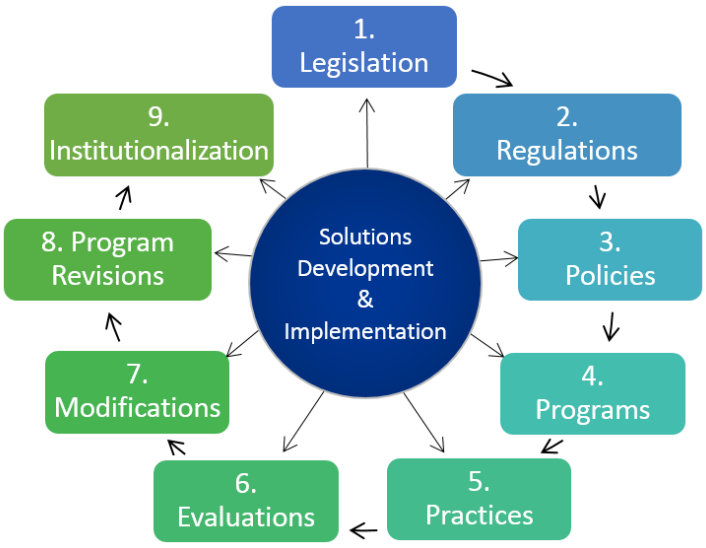

Figure 1. Top-down approach to dropout prevention solutions.

Common Types of Interventions

Although each component in the top-down approach is supported by a vast amount of research, only four components are described in this section: legislation, policies, programs, and practices. These components have particular value for identifying, selecting, and implementing dropout prevention solutions in rural settings. Examples of these four components are briefly noted as examples of interventions being implemented by state education agencies (SEAs) and local school districts (LEAs) in the Rural Dropout Prevention Project.

Legislation. Often federal or state legislation will provide the direction and funding incentives to the local school districts to encourage the acceptance and implementation of specified dropout prevention programs. For example, the U. S. Department of Education has used this mechanism to successfully promote programs for immigrants, students with disabilities, and English Language Learners (ELL). SEAs use the federal legislation and the accompanying funds to promote interventions and provide program implementation efforts in schools. In a similar way, the Nebraska Department of Education has used this approach and created an equity team of staff members representing LEAs that serve diverse subpopulations (e.g., ELL, special education, Title 3, and multicultural students).

State legislation may also promote statewide school improvement initiatives. Although such programs are intended to serve all students, SEA staff may creatively use the legislation to target students in high-risk situations. To illustrate, Vermont and New Hampshire have implemented excellent and innovative programs for all students, yet this approach has also addressed the needs of potential school dropouts.

Vermont's SEA leadership and state law also promote various other interventions as preventive solutions for all students, rather than a reactive model for only potential school dropouts. For example, in 2013 Vermont passed the Flexible Pathways Initiative (Act 77) and the Education Quality Standards (Rule 2000). Focused on grades 7-12, Act 77 offers several support systems to reduce school dropouts throughout the state. These support systems include

- multiple pathways to graduation through personalized learning approaches,
- personalized learning plans developed in consultation with parents,
- outside learning opportunities,
- performance (proficiency-based) assessments, and
- increased opportunities to access dual enrollment courses with higher education institutions.

School district personnel can always respond with different interventions if a student drops out of school or exhibits at-risk behaviors. But the state's policy is based on the theory that the number of high-risk students can be dramatically reduced by applying the most effective practices to every student starting in the early grades. The overall goal of the Flexible Pathways Initiative (Act 77) in Vermont is best summarized in the simple but direct syllogism "everyone counts, everyone cares, everyone engages, everyone succeeds."

New Hampshire has focused their legislative efforts for dropout prevention in several different ways. For example, Senate Bill 18, increased the compulsory school attendance age in 2009 from 16 to 18. To accommodate the needed services and interventions for students in this age bracket, state legislation provided professional support and dropout prevention grants for adult education through alternative education programs. Additional interventions included

- extended learning opportunities,
- flexible scheduling, and
- a statewide system of career and technical education centers.

Maine and Arkansas are two additional states in the *Rural Dropout Prevention Project* that have used legislation to address their school dropout issue. Maine's legislation, Title 20-A: Part 3: Elementary and Secondary Education, Chapter 211, requires each school district superintendent to annually establish a separate dropout prevention committee. The local committee must study the problems related to dropouts, make recommendations for solutions, and submit a plan of action to the state education agency.

Arkansas legislation (i.e., Acts 1285, 1306, and 1481) mandates every school district provide one or more alternative education learning environment. State legislation and funds also support an extensive student data system called the Arkansas Student GPS Dashboard. The system is designed as an early warning system to utilize pertinent education data. The dashboards aggregate data from existing sources to show a comprehensive view of each student, including items such as

- student demographic information,
- schedule,
- attendance,
- assessment data,
- grades, and
- discipline.

Profiles of data for classrooms, schools and districts are illustrated. The dashboards enable data-driven decision making and serve as a valuable instructional tool at the classroom, building, and district levels.

Oklahoma, another state in the *Rural Dropout Prevention Project*, uses legislation that requires alternative schooling opportunities that address 17 specific needs of high-risk students in every LEA. The SEA provides resources to develop different opportunities for alternative schooling and training for LEA staff to manage and support appropriate instructional practices.

Policies. Policies are probably the most overlooked component by state and local education leaders in addressing dropout prevention issues. During the past two decades the NDPC has provided technical assistance to more than 200 local school districts across the nation. NDPC experiences reveal that local district administrators and building principals often overlook the critical importance of state and/or local policies and their impact on the school dropout issue.

For example, definitions of a school dropout are found in state statutes along with reporting mechanisms used to count individuals who have left school. But these definitions and policies, and other related activities such as attendance reporting and test results, tend to be misunderstood and misinterpreted. Therefore, it is not unusual for polices requiring the collection of student data to be misunderstood and mistakenly reported in local or state reporting systems. For example, the National Dropout Prevention Center (NDPC) found a vast difference in reporting tardy data across many school districts in several states as well as misinterpretations across separate schools in the same district (Reimer & Smink, 2005). Thus, program planners must be diligent in collecting and reporting all data in order to portray an accurate profile of the programmatic needs in a school or district.

In addition to school districts having difficulty understanding policies, they also grapple with implementations of the policies. Several of these policies that seem to be the most troubling include

- attendance and tardiness enforcement,
- bullying,
- grading guidelines,

- grade retention guidelines,
- truancy guidelines,
- zero tolerance regulations, and
- in-school and out-of-school suspensions.

Multiple approaches are typically used to address these policy issues including redefining or rewriting the policies to provide more clarity to the policies in question. Therefore, a thorough analysis of all policies is critical and does provide guidance for the implementation of dropout prevention initiatives. Policies are important as both program enhancements to support positive actions and as sanctions to discourage inappropriate behaviors. School leaders need to embrace policies that are helpful and not harmful to individuals or to the educational process. However, the key word in implementation of any policy by all school leaders is *fairness*, along with consistent enforcement of the policy.

In reaction to negative public pressure, many state legislatures may delay passage of dropout prevention legislation or modify new policies only when the crisis stage is reached at the school level or in the community. For example, more than 50% of states have passed laws to revoke a driver's license from students who drop out of school. Unfortunately, state legislators may not provide the local school system with innovative solutions or adequate resources to comply with the reporting and follow up requirements of the legislation. Examples include policies on zero tolerance and bullying in schools.

West Virginia uses legislation that creates School Innovation Zones to support innovations for enhancing student learning. Though the innovations may be restrained by some policies or local codes, districts receiving the innovation grants are encouraged to develop new or modified programs that address dropout prevention and recovery issues. Arkansas has similar legislation.

Iowa provides funding to support dropout prevention efforts in local districts. Following strict state policies, each school district must develop individual plans to support alternative schooling and other interventions deemed necessary.

Programs. Most people interpret the expression "dropout prevention program" to mean a specific intervention designed to increase the high school graduation rate. This is an acceptable definition. However, a dropout prevention program can have many different program elements or dimensions and can be described in many different ways. For example, program descriptive items may include the program's specific goals and objectives, timelines, resources, partnerships, and strategies used to address targeted student populations. These descriptive dimensions, and many others, are common in most of the recognized databases available to program planners and school leaders.

Numerous organizations produce education-oriented databases, including federal agencies, state agencies, national professional organizations, university groups, community-based organizations, and specialized non-profit organizations. These databases contain a wide variety of information and resources that are extremely useful to the school and community leaders on local dropout prevention planning teams.

The structure and content designs of most databases contain extensive amounts of appropriate program information and contact information. Most database protocols are designed with great integrity and accurate information for use by policymakers, researchers, and practitioners.

Education program planners, however, need to be cautious when reviewing information. For example, planners need to review evidence that makes certain the new program will align with the needs of the district and its schools. Table 3 describes four examples of highly credible databases with dropout prevention programs, along with useful information about management ideas and instructional practices.

Table 3
Databases with Dropout Prevention Programs and Practices

Database	Description
What Works Clearinghouse	• Established in 2002 as an initiative of the Institute for Education Sciences at the U.S. Department of Education • Administered by the National Center for Education Evaluation within Institute for Education Sciences • Goal is to be a resource for informed education decision making • Identifies studies with credible and reliable evidence of the effectiveness of a given practice, program, or policy (i.e. "interventions") • Disseminates summary information and reports on What Works Clearinghouse website • More than 700 publications available with more than 10,000 reviewed studies in the online searchable database • Website address: http://ies.ed.gov/ncee/wwc/
Office of Juvenile Justice and Delinquency Prevention's Model Programs Guide	• Established in 2000 by U.S. Department of Justice • Contains information about evidence-based juvenile justice and youth prevention, intervention, and reentry programs • Resource for practitioners and communities about what works, what is promising, and what does not work in juvenile justice, delinquency prevention, and child protection and safety • Website address: http://www.ojjdp.gov/mpg/
Education Resource Information Center	• Established 1964 by Office of Education in U.S. Department of Health, Education, and Welfare • Provides access to educational literature and resources • Provides access to information from journals included in the *Current Index of Journals in Education* and *Resources in Education Index.* • Contains more than a million records and links to hundreds of thousands of full-text documents from *ERIC* back to 1966 • Website address: http://eric.ed.gov/
National Dropout Prevention Center	• Established in 1988 by the National Dropout Prevention Center (NDPC) at Clemson University • Contains database of "model programs" for dropout prevention • Uses rating scale to select programs as model programs (based on the evaluation literature of specific prevention, intervention, and recovery programs) • Manages database of research-based programs and information • Makes this information available on its website • Information is available for schools, organizations, and other programs to review for opportunities to implement a model program or enhance their existing program • Website address: www.dropoutprevention.org

If needing to quickly identify specific dropout prevention programs, the reader is encouraged to review the four databases in the order presented. However, the ERIC database does not exclusively focus on evidence-based dropout programs. It contains a large collection of research-based information on school management, curriculum formats, curriculum content, instructional practices, student behavioral patterns, educational studies, and many other school related topics.

To illustrate the depth of information contained in one of the databases, the NDPC database includes more than 500 entrees of successful dropout prevention programs and strategies. Continuously updated since 1988, the database contains model dropout prevention programs, including brief descriptions of program elements and contact information. Thorough periodic review of these programs by NDPC staff ensures the database includes the most effective strategies for dropout prevention programs. Different grades and school levels found in rural, suburban, and urban settings are represented in the database.

These periodic program reviews of the database also result in development of other special NDPC publications, such as *Helping Students Graduate: A Strategic Approach to Dropout Prevention* (Smink & Schargel, 2004). For example, this publication describes the 15 most effective dropout prevention strategies represented in programs found in the NDPC database as well as other databases. These 15 effective strategies are grouped into four broad categories and have been used by hundreds of LEAs to guide their planning efforts. Also, several SEAs have used the 15 strategies as a planning framework for LEAs to use as a basic rubric for measuring program success in local schools. These 15 strategies are defined in Table 4 and grouped according to their programmatic category.

Table 4
The Fifteen Effective Strategies for Dropout Prevention[a]

Category: School and Community Perspective	
Strategy	Definition
Systemic renewal	A continuing process of evaluating goals and objectives related to school policies, practices, and organizational structures as they impact a diverse group of learners.
School-Community Collaboration	When all groups in a community provide collective support to the school, a strong infrastructure sustains a caring, supportive environment where youth can thrive and achieve.
Safe Learning Environments	A comprehensive violence prevention plan, including conflict resolution, must deal with potential violence as well as crisis management. A safe learning environment provides daily experiences, at all grade levels, which enhance positive social attitudes and effective interpersonal skills in all students.
Category: Early Interventions	
Strategy	Definition
Family Engagement	Research consistently finds that family engagement has a direct, positive effect on children's achievement and is the most accurate predictor of a student's success in school.
Early Childhood Education	Birth-to-five interventions demonstrate that providing a child additional enrichment can enhance brain development. The most effective way to reduce the number of children who will ultimately drop out is to provide the best possible classroom instruction from the beginning of their school experience through the primary grades.
Early Literacy Development	Early interventions to help low-achieving students improve their reading and writing skills establish the necessary foundation for effective learning in all other subjects.

Table 4 (continued)
The Fifteen Effective Strategies for Dropout Prevention[a]

Category: Basic Core Strategies	
Strategy	Definition
Mentoring/Tutoring	Mentoring is a one-to-one caring, supportive relationship between a mentor and a mentee that is based on trust. Tutoring, also a one-to-one activity, focuses on academics and is an effective practice when addressing specific needs such as reading, writing, or math competencies.
Service Learning	Service-learning connects meaningful community service experiences with academic learning. This teaching/learning method promotes personal and social growth, career development, and civic responsibility and can be a powerful vehicle for effective school reform at all grade levels.
Alternative Schooling	Alternative schooling provides at-risk students a variety of options that can lead to graduation, with programs paying special attention to individuals' social needs as well as academic requirements for a high school diploma.
After-School Opportunities	Many schools provide after-school and summer enhancement programs that eliminate information loss and inspire interest in a variety of areas. Such experiences are especially important for students at risk because they fill "gap time" with constructive and engaging activities.
Category: Making the Most of Instruction	
Strategy	Definition
Professional Development	Teachers who work with youth at high risk of academic failure need to feel supported and have an avenue by which they can continue to develop skills, techniques, and learn about innovative strategies.
Active Learning	Active learning embraces teaching and learning strategies that engage and involve students in the learning process. Students find new and creative ways to solve problems, achieve success, and become lifelong learners when educators show them that there are different ways to learn.
Educational Technology	Technology offers some of the best opportunities for delivering instruction to engage students in authentic learning, addressing multiple intelligences, and adapting to students' learning styles.
Individualized Instruction	Each student has unique interests and past learning experiences. An individualized instructional program for each student allows for flexibility in teaching methods and motivational strategies to consider these individual differences.
Career and Technical Education	A quality career and technical education program and a related guidance program are essential for all students. School-to-work programs recognize that youth need specific skills to prepare them to measure up to the larger demands of today's workplace.

[a] Source: Adapted from Smink, J., & Schargel, F. P. (Eds.) (2004). *Helping students graduate: A strategic approach to dropout prevention*. Clemson, SC: National Dropout Prevention Center/Network.

Practices. In searching for successful interventions, program planners usually focus on educational practices typically identified as management and instructional activities. These educational practices are common pedagogy activities found in schools and classrooms. They also may be unique practices associated with specific interventions, such as the tutoring structure used in the highly successful Reading Recovery program (see http://readingrecovery.org/reading-recovery) designed for high-risk students in the first grade.

District or school level administrators commonly perform management practices or activities. Other school staff, including social workers or school resource officers, may also perform management tasks as part of their job responsibilities. These management practices include routine procedures and activities such as

- data collection and analysis,
- teacher evaluations,
- development of transition patterns,
- student discipline,
- relationships with alternative schools,
- public relations, and
- safe management of school facilities.

Instructional practices are usually performed by teachers, counselors, classroom teaching aids, and other designated staff. Among these instructional practices and classroom activities are

- data analysis,
- assessment activities,
- teaching techniques,
- experiential learning activities,
- counseling functions,
- online learning activities, and
- family engagement and involvement activities.

Illustrations of instructional practices are evident in North Carolina. SEA staff members in the Department of Curriculum and Instruction provide assistance for schools to support their ELL students by using the World-Class Instructional Design and Assessment system of assessments. Specifically, students are tested annually to measure the growth of English language proficiency in the areas of listening, speaking, reading and writing.

North Carolina also uses management practices related to dropout prevention strategies at the local school district level. Dropout Prevention Town Hall meetings are used to keep the community members informed of the school dropout issues and used as a tool to seek increased engagement of citizens as mentors or other dropout prevention leaders.

In North Carolina, several LEAs involved in the *Rural Dropout Prevention Project* report program success using educational practices such as graduation coaches. The coaches work with high-risk students who are likely to leave school early. A typical graduation coach is assigned to 20-25 students in the ninth grade and serves as a daily monitor for the at-risk student who needs supportive enhancements in areas such as attendance, behavior, and academic performance. In this example, educational practices of the dropout prevention program are incorporated within a larger set of school improvement goals and objectives.

Of the four components identified as legislation, programs, policies, and practices, more successful solutions are generally represented in the areas of programs and practices. Although some of the solutions may target certain students like the New Hampshire legislation, practices tend to be multifaceted and serve all potential dropouts.

Selecting Evidence-Based Strategies and Programs

So, what are the most desirable programs, strategies, or interventions for rural settings? The answer needs to fit within the local approach used to develop the dropout prevention plan. Consequently, it is important to assess each of the 15 dropout prevention strategies mentioned previously and determine the best fit and most suitable strategy related to the strengths and weaknesses of the school system and rural community.

Table 5 offers help to select the most appropriate dropout prevention strategies. The strategies are categorized in column three as to evidence of best practices based on an adaptation of the Association of Maternal and Child Health Program's (AMCHP's) Best Practices program (n.d.), whereby the term best practice is defined through a broad category of evidence-based practices that include best, emerging, and promising practices. [Editor's note: Since the publishing of this document, AMCHP has added a new category—cutting edge practice. Some strategies certainly have cutting edge elements, so users of this guide may want to consider cutting edge practices, as potentially appropriate for rural settings.]

Table 5
Evidence-Based Strategies and Suitability for Schools in Rural Settings

Category	Strategy	Evidence-Based Practice	Suitability for Rural Schools
School and Community Perspectives	Systemic renewal	Emerging	Excellent Potential
	School-Community Collaboration	Best	Highly Promising
	Safe Learning Environments	Emerging	Excellent Potential
Early Interventions	Family Engagement	Promising	Highly Promising
	Early Childhood Education	Best	Likely Successful
	Early Literacy Development	Best	Highly Promising
Basic Core Strategies	Mentoring/Tutoring	Best	Highly Promising
	Service Learning	Emerging	Likely Successful
	Alternative Schooling	Promising	Highly Promising
	After-School Opportunities	Promising	Excellent Potential
Making the Most of Instruction	Professional Development	Emerging	Likely Successful
	Active Learning	Emerging	Highly Promising
	Educational Technology	Promising	Highly Promising
	Individualized Instruction	Best	Highly Promising
	Career and Technical Education	Best	Highly Promising

Emerging includes practices that are not based on research or theory and on which original data have not been collected, but for which anecdotal evidence and professional wisdom exists. These include practices that practitioners have used and claimed to be effective.

Promising includes practices that were developed based on theory or research, but for which an insufficient amount of original data have been collected to determine the effectiveness of the practice, or the study uses a weak design in collecting evidence of effectiveness. It should be noted that few programs or practices are evaluated with evidence specific to the rural context.

Best practice is the designation for programs or practices in which original data have been collected to determine the effectiveness of the practice for students in a defined context. The research utilizes scientifically-based rigorous research designs (i.e., randomized controlled trials, regression discontinuity designs, quasi-experiments, single subject, and qualitative research). A best practice has been reviewed and substantiated by experts in the education field according to predetermined standards of empirical research, is replicable, and produces desirable results in a variety of settings (e.g., rural). Positive effects of the program or practice (i.e., strategy) link clearly to the program/practice being evaluated and not to other external factors.

Though a certain strategy may have achieved effective results in a certain context with high fidelity of implementation of the program, dropout prevention planners must determine if the model is feasible in the context of their own school and community.

Some programs may be highly effective, or highly ineffective, with small adaptations under certain conditions. Some programs may require extensive adaptation to the school and community circumstances and should not be used unless a reasonable chance exists the model can be implemented consistent with the way it was designed to be implemented.

Determining Suitability of Strategies for Rural Settings

As a technical assistance tool, Table 5 also offers guidelines (column four) that identify each strategy's potential suitability for rural settings. These "suitability" categories resulted from NDPC implementation experiences during the past two decades in schools and communities across the nation. They are ranked in three categories, ranging from the most suitable to the least suitable for rural schools.

Specifically, the suitability of the strategy or practice is defined as follows: the practice has excellent potential (EP) in the rural context; the practice is likely successful (LS) in the rural context; and the practice is highly promising (HP) as a best practice in the rural context. This framework is provided to help aid the dropout prevention team in deciding if the dropout prevention strategy "fits" the conditions under which it is to be implemented.

Although all strategies have proven to be successful, a thorough analysis of this guide suggests that five of the strategies have a combined higher degree of evidence (i.e., Best) along with a suitability rating of Highly Promising. For example, Table 5 shows that the strategy "school-community collaboration" is supported by research evidence as a "best practice" and is also based on NDPC implementation experiences considered "highly promising" regarding its suitability for use in a rural area. Five strategies in Table 5 fall in this ranking, and thus those five strategies: school-community collaboration, early literacy development, mentoring/tutoring, individualization, and CTE, should strongly be considered when searching for the solutions with the best fit to the needs of the school and rural community.

The usefulness of this analytic tool is illustrated by Montana. Montana's Graduation Matters initiative is an example of a school-community strategy. With support from a major foundation and select businesses in the state, the SEA has designed and implemented education program improvement efforts that establish

school support networks among parent groups, business and community organizations, and student advisory boards to increase high school graduation rates.

In Montana, all high school students take at least one career and technical education course. More than half of students complete three or more career and technical education courses. Again, this illustrates the importance of another dropout prevention strategy. This SEA initiative is also supported with professional development activities provided to LEAs, toolkits and other resources for school and community leaders, and additional financial grants to LEAs.

Conclusion

This section highlighted approaches for seeking a dropout prevention solution, and profiled effective dropout prevention strategies and programs. Several databases were described. A new tool was introduced to help users review evidence-based dropout prevention strategies and determine their suitability for schools in rural settings. In the final section, Part 4, additional tools and processes are provided for dropout prevention planners to systematically consider all information in the publication to effectively design and implement an intervention for dropout challenges in rural schools and communities.

Part 4: Planning and Implementing the Interventions

Part 4 seeks to accomplish three objectives.

1. Highlight data elements for planning dropout prevention interventions.
2. Profile example school improvement process and planning processes.
3. Introduce the *Intervention Readiness Checklist* tool for gauging obstacles to implementation of dropout prevention interventions.

Planning Effectively Leads to Successful Programs

The use of effective planning techniques and implementation procedures for dropout prevention interventions will likely have the greatest impact on the intended results—a solution to the dropout issue in the rural school context. One or all of the databases (e.g., What Works Clearinghouse) described in Part 3 of this publication usually include an appropriate set of solutions, interventions, or management and instructional practices.

First, however, a school improvement process must clearly define the dropout issue and present a guide for the development of an appropriate implementation plan. School and community leaders may conduct their own self-analysis of the dropout issue or engage an external professional organization to complete the analysis and create the plan. Either approach is acceptable in developing the dropout prevention and implementation plan. Information presented in Parts 1, 2 and 3—and the tools offered—lay an important foundation for success.

The dropout prevention plan should ultimately provide a guide for immediate actions in a school culture of continuous improvement—with an emphasis on improving student academic achievement and increasing the graduation rate. Regardless of the planning approach used, the process and specific steps are very similar. This section of the publication offers a framework and guidelines for data use, a school improvement process, and an intervention readiness checklist.

Using Data for Planning Interventions

Typically, the planning process involves the analysis of local data from multiple sources, including existing school-based or district level information systems, site interviews, and professional observations. The planning process should be guided by a local action team with representatives from the local school, district, and community. At a minimum, specific data collection and analyses should focus on

- student demographics,
- student academic performance,
- attendance and discipline,
- administrative policies,
- school resources,
- curriculum offerings, and
- school climate and facilities.

Beyond the typical information found in educational information systems, it is highly important to collect additional qualitative school and community data about youth in at-risk situations. At a minimum, on-site observations and professional interviews should reveal varied perspectives and practices related to multiple critical areas, including

- school priorities,
- classroom instructional practices,
- professional development,
- school leadership,
- community partnerships,
- parent involvement, and
- availability of educational options.

For example, North Dakota has demonstrated how this process works. The state developed a system of supports for its lowest performing LEAs. The approach focused on establishing local school leadership teams that use web-based data and research-based practices to guide improvement efforts. The data elements noted previously are among the data elements and indicators collected and analyzed by local teams.

Also, the North Dakota SEA initiated several efforts, including a task force, to address the unique issues facing Native American learners. Approximately nine percent of the students in the state are Native Americans. For many of these students, the typical culture in public schools is incompatible with the students' own cultures and languages. Consequently, many of the leadership teams have focused major attention on reviewing student data in order to develop programs and practices to address the critical issues facing Native American learners.

Using Data for Planning Implementation

Regardless of the state or local school district, the local school study team is the primary consumer of the data and information from the study analysis process. The team uses the information to develop action plans based on local goals, resources and conditions. However, some rural school districts and schools

may have important capacity limitations to consider and may need to utilize an external team from the SEA or other organization prepared to offer assistance.

The planning outcome of the school improvement process is to recommend research-based solutions and strategies. Necessary professional development assistance must serve the needs of the entire school district or each local school. The ultimate goal is to design a comprehensive dropout prevention plan that addresses each school dropout issue. Successful implementation is most likely in a school district and/or schools with a culture and capacity to conduct a self-directed and continuous improvement process—guided by evidence-based decision making. In essence, the capacity and culture in the school district and in each school must embrace good program planning skills.

Effective planning requires a multiple step planning and implementation model. Many successful planning models are available. A generic model is presented here as a guide, along with suggested action steps. The generic School Improvement Process in Table 6 shows the multiple steps and categories of actions required by effective program planners in a typical school improvement effort.

Table 6
School Improvement Process

Planning and Implementation Steps	Sample Categories of Actions
1. Study the situation	Review academic performance, behavior, and discipline issues
2. Recognize the main issue	Identify primary focus areas such as attendance or discipline
3. Develop a plan of action	Actions related to items 3a–3d
3a. Identify potential solutions	Create list of possible evidence-based solutions such as parent engagement, mentoring, or behavior modification programs
3b. Select feasible solutions	Focus on interventions most likely to succeed
3c. Identify what resources are needed for the intervention	Review regular school budget and reallocate resources to support the program if needed
3d. Secure additional funds for the programs	If needed, seek partners and funding for implementing the program effectively
4. Implement the solutions (interventions)	Initiate actions such as select staff, train mentors, secure resources, etc.
5. Monitor and evaluation progress	Collect and analyze data
6. Modify and continue implementing interventions	Continue interventions with changes
7. Assess results and proceed	Using data, make decision guided by three options
7a. Continue implementation of interventions	Continue as planned
7b. Modify as needed	Modify tasks and continue
7c. Terminate implementation components	Cease the intervention while saving all positive components

Planning SEA Solutions for Local Needs

Some program planners have characterized solutions by describing various programmatic categories for interventions or by identifying program components common in different interventions. Some planners have described listed goals of the interventions. Other planners have identified the target school level of the interventions. Collectively or independently, all of these different planning processes have merit.

Research has provided a framework for grouping dropout prevention solutions into five different categories (Lehr, Hansen, Sinclair, & Christenson, 2003). Table 7 shows these five broad categories and descriptions of the intervention types consistent within the programs. Also illustrated are programs and interventions from selected states and local districts participating in the Rural Dropout Prevention Project. This framework serves as a visual aid for the development of an implementation plan.

Table 7
Categories of Solutions to Consider in Early Planning Stages

Category	Intervention Type	Example Program or Intervention
1. Personal/effective	Individual counseling	With the use of The School Innovation Zone grants, the local schools in West Virginia are able to provide student support specialists to increase other valuable connections between staff and students.
2. Academic	Individualized methods of instruction	Local schools in Maine reported that new programs resulting from state laws have resulted in providing additional individualized systems of support and interventions for high risk students.
3. Family outreach	Feedback to parents of home visits	Local districts in North Carolina reported about their unique strategies for engaging students and families whose first language was not English. Other examples reported how the Juntos program focused on mentoring activities with students and families.
4. School structure	Reducing class size or use of alternative schools	Dropout prevention efforts are bolstered as Arkansas sets mandates and provides funds for Alternative Education Programs across the state. Every school district must provide one or more Alternative Learning Environments for high-risk students.
5. Work related	Use of career-technical education	Alaska has focused on providing strong career-technical education (CTE) programs along with culturally appropriate pedagogy, particularly for Alaska Native students.

Illustrated also in Table 7, the program planners were careful to align the solutions with intervention types that reflect the program objectives or policies intended by the SEAs. For example, the Academic Category (#2) illustrates that Individualization Methods of Instruction aligns with the Intervention Type and also shows how the Maine approach was in line with their needs to provide individualized systems of support and interventions for high-risk students.

Determining LEA Processes for Local Needs and Plan

As displayed in the previous framework, processes to analyze student and school data are endless. Many are extremely detailed, such as value-added models and early warning systems used in school improvement models. Table 8 illustrates a structured, yet simplified example of how to plan a targeted intervention for a student or a cluster of students with similar characteristics. Table 9 provides another approach to plan for a wider audience, such as a grade level, school, district, or community-wide effort.

Key considerations for targeted interventions at the student level are

1. follow a framework, such as the four components in the following order: identify the at-risk student, determine the specific need, determine the level of the need, and finally, recommend interventions (see Table 8);
2. use individual student data to identify risk factors and the intensity of the need for the individual student (or other identified groups or student clusters);
3. identify first the most critical risk factors for the individual student from a potential list of many risk factors (e.g., low academic achievement scores in math);
4. determine the student's risk level (e.g., low, medium or high); and
5. review individual student information with other qualitative information to determine strategies and program interventions for each student or cluster of students with similar patterns of risk.

Table 8
Example Framework for Targeted Intervention

Focus of Identification	Specific Need	Level of Need	Intervention Strategy
Individual Students	Academic/Math	Medium	Individual Growth Plan
			Teacher Support Teams
Student Clusters	English Language	High	Tutors
			After-School Program

Key considerations for broader interventions beyond the individual student are

1. follow a similar framework as the targeted intervention for individual students but focus on a broader unit of analysis such as a grade level or specific school (see Table 9);
2. consider, for example, if focus of identification should be at a grade level, particularly if high concentration of individual students at a specific grade level may be failing reading or have similar risk factors (e.g., high suspension rates) and have a high level of need;
3. consider, for example, if high percentage of students in the sixth grade could be identified as having low reading scores, thus needing targeted interventions at that particular grade level, or a large percentage of students could be identified with attendance and truancy issues in a middle school, for which schoolwide interventions to increase attendance would be necessary;
4. consider if risk factor(s) and student needs are prevalent across the school district, or isolated to certain schools and or grade levels; and
5. complete framework to guide grade level, school, and district actions for implementing appropriate intervention strategy (see Table 9 for illustrations).

Table 9
Framework for School-wide Intervention

Focus of Identification	Specific Need	Level of Need	Intervention Strategy
Grade Level	9th Grade Reading	High	Freshman Academies
	Transition	High	Adult/Peer Mentors
School Level	Discipline	Low	Conflict Resolution
	Attendance	Medium	Youth Court
	Bullying	High	Olweus Bullying Program
District Patterns	Suspensions	Medium	Alternative Schools
	Truancy	Medium	Family Court Partnerships
	Retentions	High	Review/Revise Policies

Planning for Implementation Obstacles

Even with the best planning, obstacles should be expected when developing an implementation plan. Moreover, some of the conditions or obstacles may not be related to the school dropout issue. In general, the potential negative obstacles tend to relate to

- broad areas of human experiences,
- cultural climates in schools,
- willingness of the administrators to lead the efforts, and/or
- capacity of the host organization to foster and promote innovations and school improvement activities.

Highlighted in Part 1 of this document, numerous capacity limitations for planning and implementing improvement initiatives exist in rural school districts and their communities. The *Self-Assessment of Rural-Specific Dropout Risk Factors and Capacity Limitations* tool in Part 2 offers help to identify risk factors and related school and community capacity weaknesses. Also discussed previously (see Part 3), is how the strategies in the National Dropout Prevention Center database might be designated as evidence-based practices for use in a rural context.

Another tool, the *Intervention Readiness Checklist*, presented in Table 10, is provided to aid understanding and identification of the common barriers, conditions, or obstacles that can be expected in implementing a dropout prevention strategy. These must be considered in the selection of the strategy in any school or rural community context. [Note: The *Intervention Readiness Checklist* is included as Appendix A for easy duplication and use.]

Table 10
Intervention Readiness Checklist

Readiness Obstacle 1: School or district capacity for change	
Guiding Questions	**Readiness Rating**
1. Is the culture of the school positive and ready to improve in such areas as instructional strategies, review of policies, behavioral sanctions, or other components typical associated with interventions?	□Low □Medium □High
2. Are the teachers and other school and district support staff ready to trust the leaders and engage in new initiatives?	□Low □Medium □High
3. Have other interventions with similar components been tried and failed which might inhibit the success of new intervention?	□Low □Medium □High
Readiness Obstacle 2: Community acceptance for change	
Guiding Questions	**Readiness Rating**
1. Are the parents and other community leaders informed about the need for changes and are they willing to engage in new endeavors?	□Low □Medium □High
2. Are the community leaders positioned to embrace the new initiatives and support the innovations?	□Low □Medium □High
3. Are there other organizations in the community that may not support the initiatives and actually cause interference to the success of the interventions?	□Low □Medium □High
4. Is the political atmosphere in the community supportive of the interventions?	□Low □Medium □High
Readiness Obstacle 3: Initial, maintenance, and sustainability cost of the interventions	
Guiding Questions	**Readiness Rating**
1. Have the related cost for new initiatives been studied and are sufficient funds set aside in the budget for implementation activities?	□Low □Medium □High
2. Have sufficient funds been planned to support the maintenance and modifications of the new endeavors for 3-5 years?	□Low □Medium □High
3. Are there sufficient funds planed for unexpected problems that may occur during implementation?	□Low □Medium □High
4. Are there sufficient funds planned for supporting and sustaining the program in subsequent years?	□Low □Medium □High

Table 10 (continued)
Intervention Readiness Checklist

Readiness Obstacle 4: Administrative capacity to lead the implementation of interventions	
Guiding Questions	**Readiness Rating**
1. Is the administrative leadership at all levels informed about the initiatives and are they fully supportive of the implementation demands?	□Low □Medium □High
2. Do the administrators have the necessary skills and attitudes to lead all the innovative procedures and training aspects of the initiatives?	□Low □Medium □High
3. Are backup project leaders available, otherwise changing leaders is disrupting, costly, and impacts timelines?	□Low □Medium □High
Readiness Obstacle 5: Timeliness of the implementation plans and activities	
Guiding Questions	**Readiness Rating**
1. Has the implementation timeframe been planned to align with the regular schedules of a school year and beyond?	□Low □Medium □High
2. Is the specific initiative to be implemented in alignment with other school or district initiatives implemented in previous years so no conflicts will arise?	□Low □Medium □High
3. Is the planned timeframe in alignment with district budget plans and with other initiatives planned by other supportive organizations?	□Low □Medium □High
Readiness Obstacle 6: Relationship of the new intervention to other initiatives currently underway	
Guiding Questions	**Readiness Rating**
1. Have the new initiatives been reviewed sufficiently to assure that no conflicts will arise with other existing programs or other innovations being planned in the school or district?	□Low □Medium □High
2. Have the new initiatives been reviewed to assure that no conflicts will occur with other initiatives in the community?	□Low □Medium □High
3. Does the new initiative comply with existing or new laws, policies, or regulations mandated by State or federal agencies?	□Low □Medium □High

Note. This checklist is used with permission from Jay Smink, Hobart Harmon, and the National Dropout Prevention Center/Network.

Using the Intervention Readiness Tool

Before any implementation plan is designed and started, local planners must consider potential obstacles. Based on major obstacles identified by the National Dropout Prevention Center over the last two decades in implementing dropout prevention programs, the *Intervention Readiness Checklist* tool includes major obstacles that are common in most schools and communities. For each of the six major obstacles, key

questions help guide an assessment of readiness. A rating of low, medium or high can be selected to gauge the extent answers to each question reveal readiness for intervention implementation.

After rating each question within a category, the user can then place a low, medium, or high rating for the category. This category rating may reveal that one or more specific categories present a particular readiness challenge. Thus, the *Intervention Readiness Checklist* tool provides a quick way to gain an initial assessment of obstacles, particularly useful in a team meeting of dropout prevention planners.

Conclusion

There is no one "silver bullet" dropout prevention plan that can meet needs consistent with the geographic and ethnic diversity of at-risk youth populations in rural America. As this final section of the four-part *Rural Dropout Prevention Issues & Solutions* resource tool makes clear, success comes from strong leadership and a commitment to a well-designed dropout prevention plan. Challenges and obstacles will be present, for which several technical assistance tools and databases are offered to assist SEAs and local districts in identifying potential solutions and strategies. Of particular importance in Part 4 is the *Intervention Readiness Checklist*. Moreover, numerous examples are provided in appropriate parts of this technical assistance tool that illustrate ways in which some of the 14 states in the *Rural Dropout Prevention Project* are taking important actions to solve their dropout issues.

Serving the 12 million students in public schools in rural areas requires numerous dropout prevention interventions and technical assistance resources. More than one fifth of the public schools in rural America have higher than average dropout rates. Achieving success requires effective school improvement planning, a multiple strategy approach, and strong leadership. Fortunately, numerous evidenced-based interventions and technical assistance services are evolving or available to assist those school and community leaders with the "will to act." This tool is intended to assist those states and districts with the will and momentum to address for the first time, or anew, dropout issues in rural communities.

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APPENDIX: Intervention Readiness Checklist

Readiness Obstacle 1: School or district capacity for change	
Guiding Questions	**Readiness Rating**
1. Is the culture of the school positive and ready to improve in such areas as instructional strategies, review of policies, behavioral sanctions, or other components typical associated with interventions?	□Low □Medium □High
2. Are the teachers and other school and district support staff ready to trust the leaders and engage in new initiatives?	□Low □Medium □High
3. Have other interventions with similar components been tried and failed which might inhibit the success of new intervention?	□Low □Medium □High
Readiness Obstacle 2: Community acceptance for change	
Guiding Questions	**Readiness Rating**
1. Are the parents and other community leaders informed about the need for changes and are they willing to engage in new endeavors?	□Low □Medium □High
2. Are the community leaders positioned to embrace the new initiatives and support the innovations?	□Low □Medium □High
3. Are there other organizations in the community that may not support the initiatives and actually cause interference to the success of the interventions?	□Low □Medium □High
4. Is the political atmosphere in the community supportive of the interventions?	□Low □Medium □High
Readiness Obstacle 3: Initial, maintenance, and sustainability cost of the interventions	
Guiding Questions	**Readiness Rating**
1. Have the related cost for new initiatives been studied and are sufficient funds set aside in the budget for implementation activities?	□Low □Medium □High
2. Have sufficient funds been planned to support the maintenance and modifications of the new endeavors for 3-5 years?	□Low □Medium □High
3. Are there sufficient funds planed for unexpected problems that may occur during implementation?	□Low □Medium □High
4. Are there sufficient funds planned for supporting and sustaining the program in subsequent years?	□Low □Medium □High

Intervention Readiness Checklist (continued)

Readiness Obstacle 4: Administrative capacity to lead the implementation of interventions	
Guiding Questions	**Readiness Rating**
1. Is the administrative leadership at all levels informed about the initiatives and are they fully supportive of the implementation demands?	□Low □Medium □High
2. Do the administrators have the necessary skills and attitudes to lead all the innovative procedures and training aspects of the initiatives?	□Low □Medium □High
3. Are backup project leaders available, otherwise changing leaders is disrupting, costly, and impacts timelines?	□Low □Medium □High
Readiness Obstacle 5: Timeliness of the implementation plans and activities	
Guiding Questions	**Readiness Rating**
1. Has the implementation timeframe been planned to align with the regular schedules of a school year and beyond?	□Low □Medium □High
2. Is the specific initiative to be implemented in alignment with other school or district initiatives implemented in previous years so no conflicts will arise?	□Low □Medium □High
3. Is the planned timeframe in alignment with district budget plans and with other initiatives planned by other supportive organizations?	□Low □Medium □High
Readiness Obstacle 6: Relationship of the new intervention to other initiatives currently underway	
Guiding Questions	**Readiness Rating**
1. Have the new initiatives been reviewed sufficiently to assure that no conflicts will arise with other existing programs or other innovations being planned in the school or district?	□Low □Medium □High
2. Have the new initiatives been reviewed to assure that no conflicts will occur with other initiatives in the community?	□Low □Medium □High
3. Does the new initiative comply with existing or new laws, policies, or regulations mandated by State or federal agencies?	□Low □Medium □High

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