

---

# A Review of the Literature

---

## Resiliency Skills and Dropout Prevention

Kelly Hupfeld

*Abstract.* The high school dropout rate is remarkably high in the United States, with estimates that a student drops out every nine seconds. Research on the causes of dropping out reveal reasons as individual as each student, and these forces often act in combination with each other. Resiliency-based programs, which help students develop the skills and relationships they need to succeed inside and outside the classroom, can be very effective in preventing high school dropouts.

Count to nine. In that 9-second timeframe, another student has dropped out of school in America.<sup>1</sup> The most recent national statistics peg our national high school graduation rate at just 69.9 percent.<sup>2</sup> As politicians have noted, these sobering statistics have astonishing implications for our economy and our ability to compete in the global economy. For educators, these statistics represent millions of individual students lost to uncertain futures.

How can educators begin to turn the tide? Research shows that decreasing our dropout rates will happen student by student. Students drop out for reasons as individual as the students themselves. As a review of the literature shows, the best drop-out prevention strategies lock on to students as individuals, engaging them in school and teaching them the skills they need to cope with difficult times in school and in their lives.

### Why and when do students drop out?

Unfortunately, there is no foolproof method to identify students who will drop out of school. According to the National Dropout Prevention Center, “[t]here is no single risk factor that can be used to accurately predict who is at risk of dropping out.”<sup>3</sup> Instead, dropping out seems to be a function of multiple factors across multiple domains, with the factors often interacting with each other. Indeed, students seem to drift toward dropping out as multiple situations compound each other, rather than making a single decision based on a single event. Based on this research, the National Dropout Prevention Center concludes that predictions as to who will drop out are more accurate when multiple risk factors and domains are considered.

At the broadest level, researchers have correlated certain types of student characteristics with students who drop out. For example:

- The same demographic factors correlated with academic risk in general are also correlated with the characteristics of students who drop out. These include being from a low-income family, being a minority, being male, being from a single-parent family, having limited English ability, having learning or emotional disabilities, moving frequently, and being overage for grade level.

---

*There is no single risk factor that can be used to accurately predict who is at risk of dropping out.*

---

- Students who take on adult roles, such as parenting or working a substantial number of hours, are more likely to drop out.
- Students who have struggled academically—receiving low or failing grades, scoring poorly on tests, repeating grades, falling behind on credits required for graduation—are more likely to drop out.
- Finally, students who exhibit signs of being disengaged from school are more likely to drop out. These students have poor attendance rates, are less likely to be involved in extracurricular activities, act out in the classroom, and have poor relationships with teachers and peers.<sup>4</sup>

However, more students with these characteristics stay in school than drop out.<sup>5</sup> Cohort studies have followed groups of students and reviewed school records to see what actually happened during the school careers of students who ultimately dropped out.

---

*Academic performance and school engagement matter equally, and they are often, but not always, intertwined.*

---

For example, Institute of Education Sciences (IES) researchers following the class of 2002 discovered that eventual high school dropouts earned fewer credits than on-time graduates each year, and that the differences in credits earned grew greater each year.<sup>6</sup> In Philadelphia, researchers found that they could identify half of the sixth graders who would ultimately drop out.<sup>7</sup> In Chicago, researchers can predict 85 percent of eventual dropouts based on ninth grade information.<sup>8</sup> From these types of cohort studies, researchers have learned to focus on early warning data such as failing grades in core classes and attendance rates, but also caution that the relevant early warning data may vary from district to district.

---

*Resilient people are able to create adaptive outcomes even in the face of adversity.*

---

Researchers have also asked dropouts their reasons for leaving school. A recent survey, conducted for Civic Enterprises in 2006,<sup>9</sup> found that students gave the following reasons:

- Lack of engagement:
  - 69% were not motivated to work hard
  - 7% said that classes were not interesting
  - 42% spent time with people who were not interested in school
- Personal reasons:
  - 32% said they had to get a job and make money
  - 26% had become a parent
  - 22% had to care for a family member

- Academic reasons:
  - 35% said they were failing in school
  - 43% said they missed too many days of school or could not catch up
  - 45% said they were not prepared for high school classes
  - 32% had been required to repeat a grade

But, 70% thought they could have graduated if they had tried, and 66% said they would have worked harder if more had been expected of them

In general, students drop out at the end of a long process of disengagement, rather than as the result of a single event.<sup>10</sup> Students often describe not being able to catch up, or gradually increasing absences from school until they discover themselves no longer attending. Transition experiences also appear to be critical in dropout decisions. More than one-third of all dropout events occur between the ninth and 10th grades.<sup>11</sup>

Based on all of this evidence, it can be concluded that “academic performance and school engagement matter equally, and that they are often, but not always, intertwined.”<sup>12</sup> Students who are not engaged in school tend not to show up or pay attention, and academic failure often ensues. Similarly, students who experience repeated academic failure are likely to start withdrawing and becoming disengaged from school.<sup>13</sup>

### **What factors are key to helping students graduate?**

The discussion above has focused on when and why students drop out of high school. Much research has also been done on the factors that help students otherwise at risk of dropping out stay in school. In fact, some researchers are advocating that rather than focusing on identifying potential dropouts through existing deficits, schools need to focus instead on building protective factors that can offer protection against adverse situations.<sup>14</sup> Many of these factors focus on internal resiliency skills that help students make meaning out of their school experience and survive setbacks, and on relationships between adults and students that provide the support at-risk students need to make it through.

### **Resiliency skills**

Why do some people experiencing challenging circumstances succeed in important aspects of their lives, while others with similar circumstances fail? This phenomenon has been observed in many studies across a variety of disciplines, and researchers use the

term “resiliency” to describe a set of self-protective characteristics possessed or experienced by those who are able to adapt to hardship and succeed.<sup>15</sup> As one recent review puts it, “[t]he term resiliency generally refers to those factors and processes that limit negative behaviors associated with stress and result in adaptive outcomes even in the presence of adversity.”<sup>16</sup>

In education, these adaptive characteristics can include certain personality traits and individual behaviors, features of the school and classroom environment, and the home and family environment.<sup>17</sup> Studies show that innate ability does not appear to be correlated with resiliency.<sup>18</sup> While educators have little or no control over such issues as innate ability, family characteristics, or community demographics, many resiliency skills can be taught to students and/or provided in the school and classroom environment that move students towards academic achievement.

Much of the resiliency research draws on the self-efficacy and self-determination theories of Ann Masten, Albert Bandura, Richard Ryan and Edward Deci.<sup>19</sup> Researchers have found that many personal resiliency traits can be linked to a sense of self-efficacy and self-determination – in other words, the student believes that he or she has the ability to shape what happens and is responsible for his or her success. This work has shown that a belief in one’s own effectiveness, when combined with motivation and skills that allow one to be effective, can be a self-fulfilling prophecy.

Research shows how the characteristics of resiliency affect personal and academic success. By comparing at-risk students doing extremely well in school with at-risk students who are failing, researchers have come up with lists of various resiliency traits that differentiate successful... students from their failing peers. Motivation, optimism, and self-directedness play prominent roles. For example, one study found that resilient children generally display four personal characteristics: social competence, problem-solving skills, autonomy, and a sense of purpose.<sup>20</sup> Another study describes resilient children as having developed six traits that allow them to overcome difficulties: a sense of self-efficacy; goal-oriented behavior; a sense of personal responsibility; a sense of optimism; internal expectations; and coping strategies for dealing with personal stress.<sup>21</sup> Yet other studies identify six resiliency skills linked to academic success: building confidence, making connections, setting goals, managing stress, increasing well-being, and understanding motivation.<sup>22</sup>

A study of middle school students attending diverse schools found that resilient students were much more likely than their non-resilient peers to report

more involvement in school and higher levels of goal-oriented behaviors, such as task orientation, pacing, and feedback. Resilient students also reported higher levels of motivation and academic and social self-confidence.<sup>23</sup> Another study looked at a sample of students living in high risk settings (exposed to violence, for example). Students in these settings who possessed resiliency characteristics such as high academic confidence and high motivation were more likely to be retained and have higher grades than their peers.<sup>24</sup>

---

*Six resiliency skills linked to academic success: building confidence, making connections, setting goals, managing stress, increasing well-being, and understanding motivation*

---

### **The role of relationships**

The presence of key adult-student relationships is important in the literature on resiliency. It is very hard for students to gain and sustain resiliency skills under difficult circumstances without supportive adults to provide guidance, support, and recognition.<sup>25</sup> Conversely, the presence of at least one supportive and caring adult can make a world of difference for a child. The relationships available in schools, between teachers and students, provide opportunities for students to plan for and accumulate academic successes. Schools foster safe and supportive environments in which these learning opportunities occur.

---

*The presence of at least one caring and supportive adult can make the world of difference for a child.*

---

Not surprisingly, researchers have found strong links between school connections and student resiliency. When researchers compared high-risk Mexican-American students with significantly high grades and those with significantly low grades, they found that the resilient students reported significantly higher levels of

family and peer support, positive ties to school, high levels of teacher feedback, and placed higher value on school. The most significant predictor of success was the student's sense of belonging to the school.<sup>26</sup> Another study of resilient Mexican-American students found that these students were more likely to report higher levels of educational support from teachers and friends, and greater encouragement to attend college, as well as a higher sense of enjoyment at coming to school.<sup>27</sup>

---

### *Supportive relationships with teachers can cut the dropout rate in half.*

---

The importance of teachers was highlighted by a 2001 study in which researchers reviewed data from the National Educational Longitudinal Study on a cohort of 11,000 high school students.<sup>28</sup> By asking students about the support they received from their teachers, and teachers about the level of guidance they provided to students, the researchers discovered that teacher-based forms of social capital operated to reduce dropout rates by half. This impact was even higher for students from socially disadvantaged backgrounds and those who had experienced academic struggles previously. Other studies have found similar results, linking teacher connections and support to academic success.<sup>29</sup>

---

### *What schools do matters as to whether students stay in school.*

---

In addition to providing academic and emotional support, teachers play an important role in modeling resilient behaviors. They can show students that adversity is temporary and can be overcome. By displaying excitement about learning and building on student interests, they show students that internal motivation leads to fulfilling knowledge and skills. By engaging in goal-oriented behaviors, such as identifying goals, making plans, and providing feedback, they provide models of these processes for their students. By having high expectations for themselves and their students, they begin the self-fulfilling prophecy of believing in self-efficacy.<sup>30</sup>

Finally, the power of the relationship between students and teachers is such that it can transcend prescriptive approaches to developing resiliency in children. "A key finding from the resiliency research is that successful development and transformative power exist not necessarily in programmatic

approaches but rather in deeper level relationships, beliefs, expectations, and a willingness to share power."<sup>31</sup>

## **What schools can do**

Researchers in dropout prevention agree that what schools do matter to whether students stay in school. Jerald (2007) argues that dropout prevention practices within schools have stronger "holding power" when they focus on "alterable" aspects of the learning environment.<sup>32</sup> In fact, many of these alterable school factors have a stronger impact on preventing students from dropping out than do unalterable factors such as income levels, race, and ethnicity. Schools with the strongest holding power provide challenging and engaging curricula and the support needed to help students successfully master the curriculum.

In reviews of successful dropout prevention programs, researchers have found that many programs have the same elements:

- Building confidence by providing opportunities for success
- Communicating the relevance of education to future endeavors
- Helping students build internal motivations for success
- Helping students build problem-solving skills
- Helping students with personal issues such as health and stress management
- Creating caring and supportive environments with meaningful relationships between teachers and students<sup>33</sup>

ScholarCentric's *Success Highways* program contains factors that allow students to develop and sustain the resiliency skills they need to succeed under difficult circumstances. For example, when South Division High School in the Milwaukee Public Schools utilized *Success Highways*, a resiliency-based curriculum, starting in 1998, approximately 2,500 students were exposed to the curriculum over the next seven years. Three studies tracked implementation and student performance during this period, and found marked improvements in the following areas:

- Better attendance
- Higher grades
- More credits earned
- Increased test scores
- Reduced dropouts.

The multivariate analysis found that attendance improved by 137 percent; grades improved by 52 percent; number of classes passed improved by 33 percent, and overall retention improved by 64 percent. Researchers found that the more students were exposed to the curriculum, the more their outcomes improved.<sup>34</sup>

The National Dropout Prevention Center offers four recommendations for educators looking to implement existing dropout prevention/intervention programs.<sup>35</sup> First, since students rarely drop out for only one reason, programs should address multiple risk factors across several domains. Similarly, programs should use multiple strategies in addressing the risk factors. Third, educators should take care to make sure the program is fully implemented as designed. Finally, educators should plan to evaluate the program to ensure its effectiveness.

## Conclusion

The dropout crisis is real, and it affects the futures of our students every day. However, research shows that schools need not wait until students have already dropped out or are in imminent danger of dropping out. Instead, schools and teachers can intentionally develop key resiliency traits and skills in students to provide protection against circumstances that would otherwise be associated with dropping out. Providing this knowledge in an environment rich with trusting and support adult-student relationships can mean the difference between dropping out and completing high school, which means making very real differences in the lives of students.

*Kelly Hupfeld is the owner of Public Sector Solutions, a consulting firm specializing in education policy issues. She is also a research associate at the Center for Education Policy Analysis at the School of Public Affairs, University of Colorado at Denver and Health Sciences Center.*

## Footnotes

1. Martin, N. and Halperin, S. (2006). "Whatever it takes: How twelve communities are reconnecting out-of-school youth." (Washington DC: American Youth Policy Forum).
2. Editorial Projects in Education Research Center (2007). "Diplomas Count." (Bethesda, MD: Editorial Projects in Education).
3. Hammond, C., Linton, D., Smink, J., and Drew, S. (2007). "Dropout risk factors and exemplary programs: A technical report." (Clemson, SC: National Dropout Prevention Center).
4. Jerald, C. (2006). "Identifying potential dropouts: Key lessons for building an early warning data system." (Washington, DC: Achieve, Inc.).
5. Ibid.
6. Hampden-Thompson, G., Kienzl, G., Daniel, B., and Kinukawa, A. (2007). "Course credit accrual and dropping out of high school." IES Issue Brief, NCEES 2007-018. (Washington DC: U.S. Department of Education).
7. Mezzacapa, D. (March 17, 2005). "Sixth-grade tendencies can indicate risk: Research suggests that high school dropouts often fall off the track in early middle school." Philadelphia Inquirer.
8. Allensworth, E. and Easton, J.Q. (2005). "The on-track indicator as a predictor of high school graduation." (Chicago: Consortium on Chicago School Research).
9. Bridgeland, J.M., Dilulio, J.J., and Morison, K.B. (2006). "The silent epidemic: Perspectives of high school dropouts." (Washington DC: Civic Enterprises).
10. Hammond et al. (2007).
11. Editorial Projects in Education Research Center 2007.
12. Jerald, C. (2007). "Keeping kids in school: What research says about preventing dropouts." (Alexandria, VA: Center for Public Education).
13. Ibid.
14. Waxman, H., Gray, J., and Padron, Y. (2003). "Review of research on educational resilience." Center for Research on Education, Diversity, & Excellence, Research Report rr\_11. (Berkeley, CA: Authors). Available online at [http://repositories.edlib.org/crede/rschrpts/rr\\_11](http://repositories.edlib.org/crede/rschrpts/rr_11). See also Berliner, B., and Benard, B. (1995). "More than a message of hope: A district-level policymaker's guide to understanding resiliency." (Portland, OR: Western Center for Drug-Free Schools and Families).
15. Masten, A., Best, K., and Garmezy, N. (1990). "Resilience and development: Contributions from the study of children who overcome adversity." *Development and Psychopathology*, 2. 425-444.
16. Waxman et al. 2003.
17. Masten et al. 1990.
18. Waxman et al. 2003.

### Footnotes continued

19. Masten, A. (1990); Bandura, A. (1997). "Self-Efficacy: The exercise of control." (New York: W.H. Freeman); Ryan, R., and Deci, E. (2000). "Intrinsic and extrinsic motivations: Classic definitions and new directions." *Contemporary Educational Psychology*, 25. 54-67.
20. Benard, B. (2004). *Resiliency: What We Have Learned*. (San Francisco: WestEd).
21. McMillan, J. H., Reed, D. R., and Bishop, A. (January 1993). "Defying the odds: A study of resilient at-risk students." (Richmond, VA: Metropolitan Education Research Consortium, Virginia Commonwealth University).
22. Solberg, S., Gusavac, N., Hamann, T., Felch, J., Johnson, J., Lamborn, S., and Torres, J. (1998). "The Adaptive Success Identity Plan (ASIP): A career intervention for college students." *Career Development Quarterly*, 47, 48-95; Solberg, S., O'Brien, K., Villareal, P., Kennel, R., and Davis, B. (1993). "Self-efficacy and Hispanic college students: Validation of the College Self-Efficacy Inventory." *Hispanic Journal of Behavioral Sciences*, 15. 80-95.
23. Waxman, H. and Huang, S.-Y. (1996). "Motivation and learning environment differences in inner-city middle school students". *The Journal of Educational Research*, 90. 93-102.
24. Solberg, S., Carlstrom, A., Howard, K. and Jones, J. (2007). "Classifying at-risk high school youth: The influence of community violence and protective factors on academic and health outcomes." *Career Development Quarterly*, 55. 313-327.
25. Pianta, R.C. and Walsh, D. J. (1996). *High Risk Children in Schools: Constructing and Sustaining Relationships*. New York: Routledge.
26. Gonzalez, R. and Padilla, A. (1997). "The academic resilience of Mexican-American high school students." *Hispanic Journal of Behavioral Sciences*, 19 (3). 301-317.
27. Alva, S. (1991). "The academic invulnerability of Mexican-American students: The importance of self-protective resources and appraisals." *Hispanic Journal of Behavioral Science*, 13 (1). 18-34.
28. Croninger, R.G. and Lee, V.E. (2001). "Social capital and dropping out of high school: Benefits to at-risk students of teachers' support and guidance." *Teachers College Record*, 103:548-581.
29. Nettles, S., Mucherah, W., and Jones, D. (2000). "Understanding resilience: The role of social resources." *Journal of Education for Students Placed at Risk*, 5 (1 and 2). 47-60; Solberg et al. (2007).
30. Bandura, A. (1997). *Self-Efficacy: The Exercise of Control*. (New York: W.H. Freeman); Seligman, M. (1995). *The Optimistic Child*. (Boston: Houghton-Mifflin).
31. Waxman (2003).
32. Jerald (2007).
33. Dynarski, M. (2001). "Making do with less: Interpreting the evidence from recent federal evaluations of dropout-prevention programs." Paper presented at "Dropouts: Implications and Findings" conference, Harvard University, Cambridge, MA.; Fashola, O. S. and Slavin, R. E. (1998). "Effective dropout prevention and college attendance programs for students placed at risk." *Journal of Education for Students Placed At Risk*, 3(2), 159-183. Thurlow, M. L., Christenson, S., Sinclair, M., Evelo, D. L., and Thornton, H. (1995). *Staying in school: Middle school students with learning and emotional disabilities*. (ABC Dropout Prevention and Intervention Series). Minneapolis, MN: University of Minnesota, Institute on Community Integration. McPartland, J.M. (1994). "Dropout prevention in theory and practice." In R.J. Rossi (ed.), *Schools and Students at Risk: Context and Framework for Positive Change (255-276)*. (New York: Teachers College).
34. Solberg, S. (n/d). "Empirical research and underlying research framework for *Success Highways*." (Denver, CO: ScholarCentric).
35. Hammond et al. (2007).

### Bibliography

- Allensworth, E. and Easton, J.Q. (2005). "The on-track indicator as a predictor of high school graduation." (Chicago: Consortium on Chicago School Research).
- Alva, S. (1991). "The academic invulnerability of Mexican-American students: The importance of self-protective resources and appraisals." *Hispanic Journal of Behavioral Science*, 13 (1). 18-34.
- Bandura, A. (1997). *Self-Efficacy: The Exercise of Control*. (New York: W.H. Freeman).
- Benard, B. (2004). *Resiliency: What We Have Learned*. (San Francisco: WestEd).
- Benard, B. (1991). "Fostering resilience in kids: Protective factors in the family, school, and community." (Portland, OR: Western Center for Drug-Free Schools and Families).
- Berliner, B., and Benard, B. (1995). "More than a message of hope: A district-level policymaker's guide to understanding resiliency." (Portland, OR: Western Center for Drug-Free Schools and Families).
- Bridgeland, J.M., Dilulio, J.J., and Morison, K.B. (2006). "The silent epidemic: Perspectives of high school dropouts." (Washington DC: Civic Enterprises).
- Croninger, R.G. and Lee, V.E. (2001). "Social capital and dropping out of high school: Benefits to at-risk students of teachers' support and guidance." *Teachers College Record*, 103:548-581.

**Bibliography continued**

Dynarski, M. (2001). "Making do with less: Interpreting the evidence from recent federal evaluations of dropout-prevention programs." Paper presented at "Dropouts: Implications and Findings" conference, Harvard University, Cambridge, MA.

Editorial Projects in Education Research Center (2007). "Diplomas Count." (Bethesda, MD: Editorial Projects in Education).

Fashola, O. S. and Slavin, R. E. (1998). "Effective dropout prevention and college attendance programs for students placed at risk." *Journal of Education for Students Placed At Risk*, 3 (2). 159-183.

Gleason, P. and Dynarski, M. (2002). "Do we know whom to serve? Issues in using risk factors to identify dropouts." *Journal of Education for Students Placed at Risk*, 7, 25-41.

Gonzalez, R. and Padilla, A. (1997). "The academic resilience of Mexican-American high school students." *Hispanic Journal of Behavioral Sciences*, 19 (3). 301-317.

Hammond, C., Linton, D., Smink, J., and Drew, S. (2007). "Dropout risk factors and exemplary programs: A technical report." (Clemson, SC: National Dropout Prevention Center).

Hampden-Thompson, G., Kienzl, G., Daniel, B., and Kinukawa, A. (2007). "Course credit accrual and dropping out of high school." IES Issue Brief, NCES 2007-018. (Washington DC: U.S. Department of Education).

Jerald, C. (2007). "Keeping kids in school: What research says about preventing dropouts." (Alexandria, VA: Center for Public Education).

Jerald, C. (2006). "Identifying potential dropouts: Key lessons for building an early warning data system." (Washington, DC: Achieve, Inc.).

Martin, N. and Halperin, S. (2006). "Whatever it takes: How twelve communities are reconnecting out-of-school youth." (Washington DC: American Youth Policy Forum).

Masten, A. (1994). "Resilience in individual development: Successful adaptation despite risk and adversity." In Wang, M. and Gordon, E. (eds.), *Educational Resilience in Inner-City America: Challenges and Prospects*. (Hillsdale, NJ: Lawrence Erlbaum Associates).

Masten, A., Best, K., and Garmezy, N. (1990). "Resilience and development: Contributions from the study of children who overcome adversity." *Development and Psychopathology*, 2, 425-444.

McMillan, J. H., Reed, D. R., and Bishop, A. (January 1993). "Defying the odds: A study of resilient at-risk students." (Richmond, VA: Metropolitan Education Research Consortium, Virginia Commonwealth University).

McPartland, J.M. (1994). "Dropout prevention in theory and practice." In R.J. Rossi (ed.), *Schools and Students at Risk: Context and Framework for Positive Change* (255-276). (New York: Teachers College).

Mezzacapa, D. (March 17, 2005). "Sixth-grade tendencies can indicate risk: Research suggests that high school dropouts often fall off the track in early middle school." *Philadelphia Inquirer*.

Nettles, S., Mucherah, W., and Jones, D. (2000). "Understanding resilience: The role of social resources." *Journal of Education for Students Placed at Risk*, 5 (1 and 2). 47-60.

Pianta, R.C. and Walsh, D.J. (1996). *High Risk Children in Schools: Constructing and Sustaining Relationships*. (New York: Routledge).

Rumberger, R.W. (2004). "Why students drop out of school." In Orfield, G. (ed), *Dropouts in America: Confronting the Graduation Rate Crisis* (131-156). (Cambridge, MA: Harvard Education Press).

## **Bibliography continued**

- Ryan, R., and Deci, E. (2000). "Intrinsic and extrinsic motivations: Classic definitions and new directions." *Contemporary Educational Psychology*, 25, 54-67.
- Seligman, M. (1995). *The Optimistic Child*. (Boston: Houghton-Mifflin).
- Solberg, S. O'Brien, K., Villareal, P., Kennel, R., and Davis, B. (1993). "Self-efficacy and Hispanic college students: Validation of the College Self-Efficacy Inventory." *Hispanic Journal of Behavioral Sciences*, 15, 80-95.
- Solberg, S., Gusavac, N., Hamann, T., Felch, J., Johnson, J., Lamborn, S., and Torres, J. (1998). The Adaptive Success Identity Plan (ASIP): A career intervention for college students. *Career Development Quarterly*, 47, 48-95.
- Solberg, S., and Villareal, P. (1997). "Examination of self-efficacy, social support, and stress as predictors of psychological and physical distress among *Hispanic college students*." *Hispanic Journal of Behavioral Sciences*, 19, 182-202.
- Solberg, S. (n/d). "Empirical research and underlying research framework for *Success Highways*." (Denver, CO: ScholarCentric).
- Solberg, S., Carlstrom, A., Howard, K., Jones, J. (2007). "Classifying at-risk high school youth: The influence of community violence and protective factors on academic and health outcomes." *Career Development Quarterly*, 55, 313-327.
- Thurlow, M. L., Christenson, S., Sinclair, M., Evelo, D. L., and Thornton, H. (1995). *Staying in school: Middle school students with learning and emotional disabilities*. (ABC Dropout Prevention and Intervention Series). Minneapolis, MN: University of Minnesota, Institute on Community Integration.
- Waxman, H., Gray, J., and Padron, Y. (2003). "Review of research on educational resilience." Center for Research on Education, Diversity, & Excellence, Research Report rr\_11. (Berkeley, CA: Authors). Available online at [http://repositories.edlib.org/crede/rschrpts/rr\\_11](http://repositories.edlib.org/crede/rschrpts/rr_11).
- Waxman, H. and Huang, S.-Y. (1996). "Motivation and learning environment differences in inner-city middle school students". *The Journal of Educational Research*, 90, 93-102.
- Waxman, H., Padron, Y., and Gray, J. (eds.) (2004). *Educational Resiliency: Student, Teacher, and School Perspectives*. (Greenwich, CT: Information Age Publishing).

## **Resources**

*Success Highways*, published by ScholarCentric,  
2406 W. 32nd Ave., Suite C, Denver, CO 80211  
800-995-8779, [www.scholarcentric.com](http://www.scholarcentric.com)

ScholarCentric  
2406 W. 32nd Ave., Suite C  
Denver, CO 80211

**800-995-8779 • [www.ScholarCentric.com](http://www.ScholarCentric.com)**