Student Readiness Inventory

Institutional Report

prepared for

Dalton State College

based on 2009 cohort

ACT®

Executive Summary

The Student Readiness Inventory (SRI) is a multiple domain measure of psychosocial and study skill factors, mainly *Motivation and Skills to Succeed*, *Social Engagement*, and *Self-Management*. The SRI is a low stakes tool to assist postsecondary institutions in identifying and intervening with students who are at risk for either persistence (i.e., drop out) or performance (i.e., low academic GPA) reasons.

The SRI is comprised of 10 scales (i.e., Commitment to College, Goal Striving, Academic Discipline, General Determination, Study Skills, Communication Skills, Social Activity, Social Connection, Academic Self-Confidence, Steadiness) whose 108 items are written to be face-valid, amenable to change through intervention, and associated with a variety of retention and/or performance outcomes. For example, research has found that the SRI scales substantially increase the prediction of retention and academic performance when used in combination with standardized achievement tests, such as the ACT Assessment or COMPASS. Research also has found the SRI to be useful in predicting academic performance at the individual course level, such as Freshman English Composition.

A total of 827 Dalton State College surveys were scored. Demographic characteristics and descriptive statistics of SRI scores using percentile rank scores are presented. Additionally, descriptive statistics of SRI scores for other institutions similar to yours are presented for comparison. Further, SRI scale scores, as well as the retention and academic success indices, are presented by percentile range (low, medium, high). For intervention purposes, Dalton State College may want to concentrate on low-scoring students, as these students are most at risk of academic and retention difficulties.

The utility of the SRI scales in outcome prediction has important implications for students and institutions. With the assistance of the SRI risk indices, postsecondary institutions can pro-actively identify students who are at-risk for academic difficulty and/or drop out early in students' course of study. Subsequently, an institution may provide developmental interventions to assist such students. Materials to assist students and institutions, including the SRI User Guide, may be obtained from **www.act.org/sri**.

Background

The development of the Student Readiness Inventory (SRI) is based on the results of a meta-analysis and reviews of the personality and industrial-organizational psychology literatures, containing theories and models of performance and retention. The broad domains of the SRI, *Motivation and Skills to Succeed*, *Social Engagement*, and *Self-Management*, resemble the higher-order constructs that predict academic performance and retention in the meta-analysis, namely *Motivation*, *Social Engagement*, and *Academic-Related Skills* (Robbins, Lauver, Le, Davis, Langley, & Carlstrom, 2004). Results of the meta-analysis including 109 studies from the educational psychology literature suggest that, after controlling for traditional predictors such as high school GPA, ACT/SAT assessment scores, and socioeconomic status, students who score high on psychosocial and skill measures are more likely to perform well in college and remain in school (Robbins et al., 2004).

Construction and Validation of the SRI

The findings from the Robbins et al. (2004) meta-analysis along with reviews of relevant personality and organizational literatures were used to construct an inventory of psychosocial and skill factors (see Le, Casillas, Robbins, & Langley, 2005, for details on the development procedure). To validate the SRI, ACT developed a study to predict three types of important college outcomes: overall academic performance as evidenced by GPA, retention, and success in specific courses (e.g., English composition, college algebra). We recruited 48 postsecondary institutions (23 two-year and 25 four-year) that ranged in geographic location, demographic composition of their student bodies, and selectivity. A total of 14,464 incoming first-year students from the aforementioned institutions completed the SRI. In addition, ACT had access to these students' ACT Assessment and/or COMPASS standardized test records. Further, institutions provided GPA and retention information for each student at the end of first and second semesters. Subsequently, ACT has continued to follow these students using institutional records and National Clearinghouse data.

For each outcome considered, SRI scores were significant predictors, even after controlling for institution, demographic effects, and prior academic achievement. As expected, generalized motivational factors as measured by Academic Discipline, Commitment to College and General Determination were consistently associated with multiple college outcomes. Further, social engagement factors, particularly Social Connection were also consistently associated with persistence outcomes. These findings were strong across institutional type and achievement

level. An important reason that psychosocial and skill factors are such important predictors of college success is their relative independence with standardized achievement test scores. Since the SRI scales measure personality and social factors that are not necessarily tapped by standardized achievement tests (i.e., ACT Assessment, COMPASS), using the SRI enhances an institution's ability to predict collegiate success when combined with standardized achievement scores (Robbins et al., 2006).

Implications for Students and Institutions

The strength of the SRI scales in outcome prediction has important implications for students and institutions. For example, higher levels of Academic Discipline are associated with higher first-year GPA, which in turn is a strong predictor of retention. Similarly, higher levels of Social Connection are associated with higher probability of retention. Because of these direct and indirect effects, psychosocial and skill factors are a key source of information for identifying at-risk students, especially when coupled with prior academic achievement (Allen, Robbins, Casillas, & Oh, 2008). Risk indices, based on multiple regression models using SRI and prior achievement measures, have been developed to flag those students whose probability of academic difficulty or drop-out reach unacceptable levels from an institution's perspective.

In practice, the results of the SRI research and development program imply that higher education institutions can proactively identify students who are at-risk for academic difficulty or dropping out. Knowledge of essential psychosocial and skill factors measured by the SRI is likely to aid institutions in prescribing effective intervention strategies. For example, Robbins and colleagues (in press) investigated the interrelation of risk, resource and service utilization, and first-year GPA and retention. They found that, for students who were identified to be at-risk, utilization of resources and services was positively associated with GPA gains and/or retention increases. In addition, students can use their SRI scores to identify personality and skill characteristics that may benefit from further development and thus enhance students' opportunities for success in college.

Understanding the SRI

The SRI is composed of ten scales. The following table features brief definitions of the scales, along with sample items.

Scale	Definition	Sample Item
Academic Discipline	The amount of effort a student puts in to his/her schoolwork and the degree to which the student sees him/herself as hardworking and conscientious.	I consistently do my school work well.
General Determination	Reflects the extent to which one strives to follow through on commitments and obligations.	It is important for me to finish what I start.
Goal Striving	The strength of one's efforts to achieve objectives and end goals.	I bounce back after facing disappointment or failure.
Commitment to College	A student's commitment to staying in college and getting a degree.	A college education will help me achieve my goals.
Study Skills	Measures the extent to which students believe they know how to assess an academic problem, organize a solution, and successfully complete academic assignments.	I summarize important information in diagrams, tables, or lists.
Communication Skills	Attentiveness to others' feelings and flexibility in resolving conflicts with others. It measures how well a student knows how to handle interpersonal problems effectively and can work cooperatively with others in team/group settings.	I'm willing to compromise when resolving a conflict.
Social Connection	A student's feelings of connection and involvement with the college/school community.	I feel part of this college.
Social Activity	Measures one's comfort in meeting and interacting with other people. Very low or very high levels of social activity are associated with lower GPAs and rates of retention.	I avoid activities that require meeting new people. (reverse-scored)
Academic Self-Confidence	Characterized by a belief in one's ability to perform well in school.	I achieve little for the amount of time I spend studying. (reverse-scored)
Steadiness	Measures one's responses to strong feelings. Students who score in the middle of the Steadiness scale report that they can effectively control their emotions and keep those emotions from negatively impacting other activities. However, both high and low scores are associated with poor academic performance.	I have a bad temper. (reverse-scored)

More detailed descriptions of the SRI scales, including information on interpreting results, training university personnel, and resources for students are available on the web by downloading the SRI User Guide. The guide is located at **www.act.org/sri**

Summary of Your Institution's Results

As of October 2009, we received a total of 827 usable questionnaires from Dalton State College. This number may be lower than the combined number of surveys scored this season because students who triggered a scoring flag (for inconsistent responding and/or missing scale scores) were not included in this aggregate report.

Table 1 includes a descriptive report of the demographic characteristics of Dalton State College students who completed the SRI. You may want to use this information to assess whether this sample seems representative of a typical cohort of students at your institution.

Table 2 contains average scores on how this sample of Dalton State College students scored on the 10 scales of the SRI using percentile rank scores. For comparison purposes, this table contains average percentile rank scores for students at 4-year institutions from the norming sample.

Table 1

Your Students' Demographic Characteristics

Characteristic	Descriptive Statistics/Frequencies	
Gender		
Female	54.0%	
Male	43.0%	
Ethnicity		
African American	3.0%	
American Indian/Alaskan Native	0.5%	
Asian American/Pacific Islander	1.0%	
Caucasian American/White	75.0%	
Mexican American/Chicano	9.0%	
Puerto Rican, Cuban, Other Hispanic	4.0%	
Multiracial	2.0%	
Other	1.0%	
Prefer not to respond	1.0%	
Self-reported HS GPA and test scores		
(A- to A) 3.5 and above	30.0%	
(B to B+) 3.0 - 3.4	31.0%	
(B- to B) 2.5 - 2.9	26.0%	
(C to B-) 2.0 -2.4	7.0%	
(C- to C) 1.5 - 1.9	3.0%	
(D to C-) 1.0 - 1.4	0.3%	
(D- to D) 0.9 or lower	0.0%	
Self-reported ACT Score [a]	M = 21.46	SD =3.19
Self-reported SAT Score [b]	M =1494.55	SD =300.24

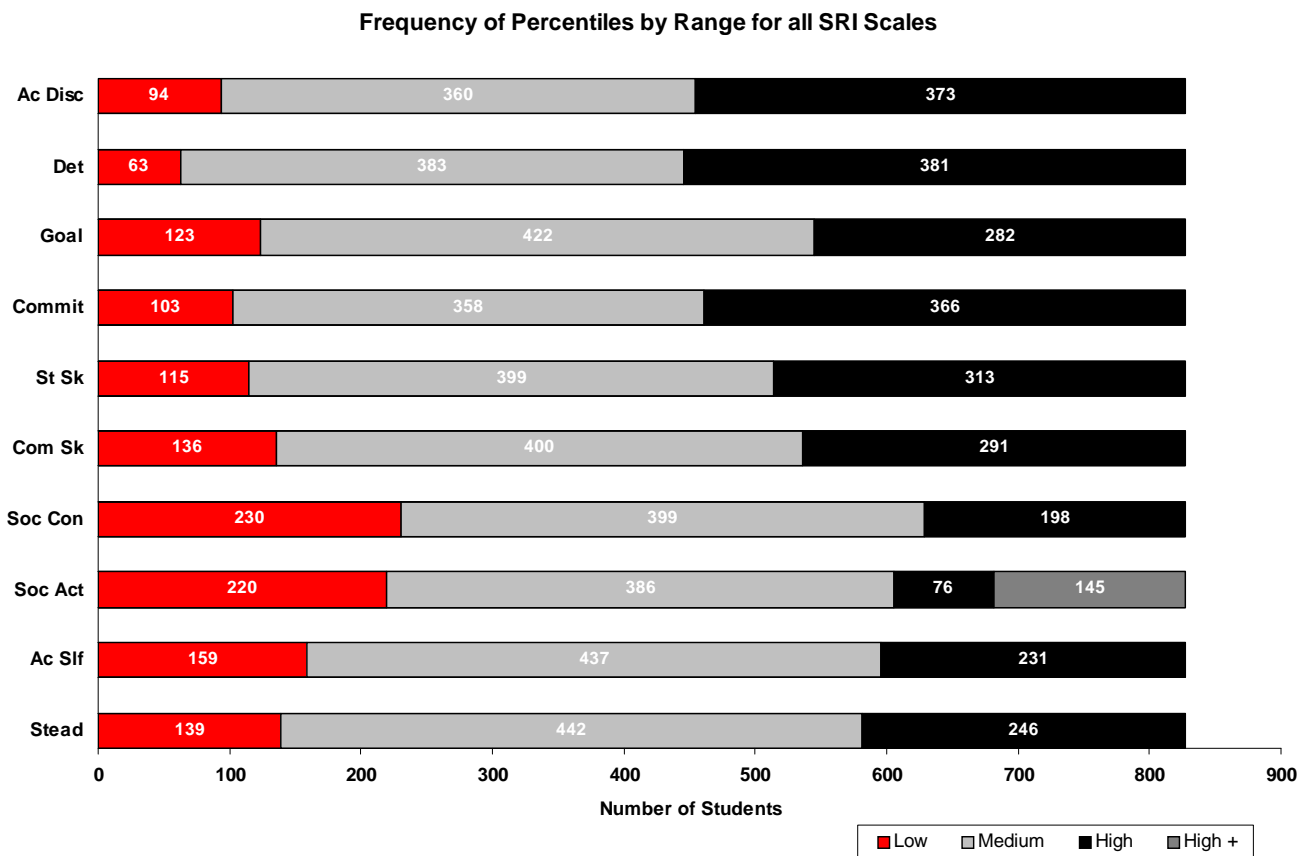Note. N = 827, N a = 133, N b = 89. M = Mean; SD = Standard Deviation.

Table 2

Your Students' Percentile Rank Scores Compared to Students from 4-yr Institutions

Scales	Your Students[a]		Students at 4-yr Institutions[b]	
	M	*SD*	*M*	*SD*
Commitment to College	66.4	28.71	53.6	31.2
Goal Striving	59.9	27.93	52.3	29.3
Academic Discipline	66.4	26.18	51.7	29.1
General Determination	66.4	25.84	52.2	29.4
Study Skills	60.5	27.65	51.6	28.9
Communication Skills	61.1	27.95	52.3	29.1
Social Activity	50.8	30.2	51.5	28.9
Social Connection	48.4	28.35	51.6	29.1
Academic Self-Confidence	53.3	28.07	51.5	28.8
Steadiness	61.4	29.48	51.3	28.9

Note. [a]*N* for Dalton State College = 827. [b]*N* for comparison = 8,508 (based on 4-yr institutions from norming study). *M* = Mean; *SD* = Standard Deviation. Lower scores reflect more risk. Refer to the SRI User Guide for technical information about the SRI scales.

Figure 1 features a graphical representation of Dalton State College students' scores on each scale broken down by the percentile range in which the student scored. These ranges were "low" (1st to 25th %ile), "medium" (26th to 75th %ile), and "high" (76th to 100th %ile), with the exception of Social Activity, which contained a "very high" (86th to 100th %ile) range, and Steadiness, in which the "high" range was from 86th to 100th percentile. For intervention purposes, Dalton State College may want to concentrate on low-scoring students, as these students are most at risk of academic and retention difficulties.
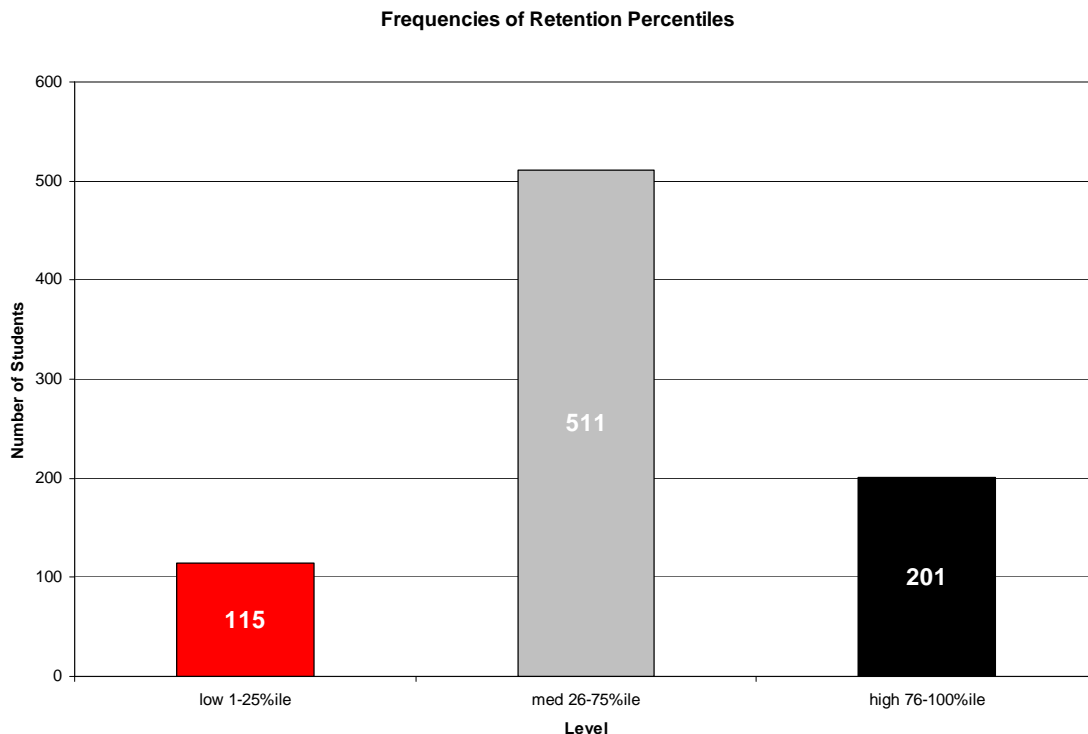
Figure 1

Frequency of Percentiles by Range for all SRI Scales

Figures 2 and **3** feature information about the retention and academic success indices included in counselor reports and institutional databases. These indices are on a scale from 0 to 100, with larger values representing less risk of dropping out or of poor academic performance (i.e., GPA < B), respectively. Since baseline retention and academic performance rates vary across institutions, these indices should not be interpreted as explicit predicted probabilities of retention or academic performance; rather, these indices are approximate measures of how each student's psychosocial factors lend themselves to persistence and academic performance after the first year of college (for more information on how to interpret the SRI success indices, consult the SRI User Guide).

For ease of interpretation, we have transformed both the retention and academic success probability indices into percentile rank scores (by comparing Dalton State College students to our national norms). For illustration purposes, the percentile ranges were broken down into "low" (1st to 25th %ile), "medium" (26th to 75th %ile), and "high" (76th to 100th %ile).
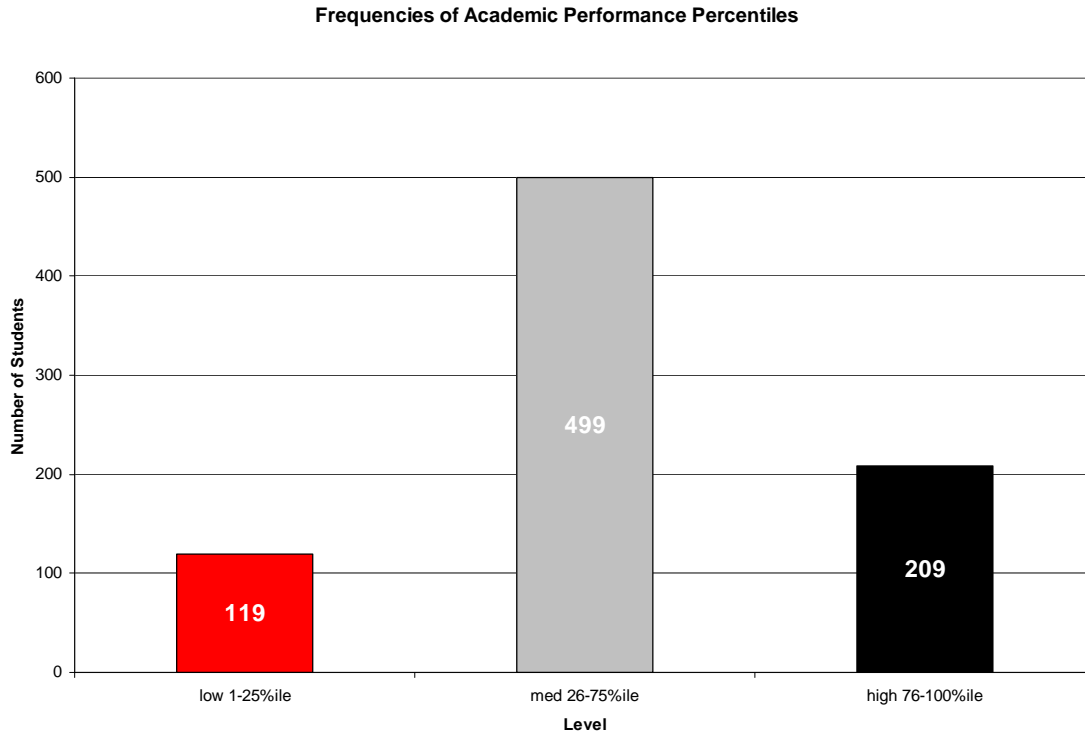
Figure 2 features students' retention index as percentile rank scores, in which students with low, medium, and high retention indices are plotted separately.

Figure2

Frequencies of Retention Percentiles

Similarly, **Figure 3** features students' academic success index as percentile rank scores, in which students with low, medium, and high academic indices are plotted separately.

Figure 3

Frequencies of Academic Performance Percentiles

As suggested earlier, Dalton State College may want to concentrate its intervention resources on students whose retention and academic success indices fall in the low range.

References

Allen, J., Robbins, S., Casillas, A., & Oh, I. (2008). Effects of Academic Performance, Motivation, and Social Connectedness on Third-Year College Retention and Transfer. *Research in Higher Education, 49,* 647-664.

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