College and career readiness

A review and analysis conducted for Generation Next

A P R I L   2 0 1 3

Prepared by:
Dan Mueller and Edith Gozali-Lee

Wilder Research

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Contents

Figures

Acknowledgments

Summary

This report was prepared for use by the Generation Next College and Career Readiness Network in developing their plans to improve college and career readiness of Minneapolis and Saint Paul students. Generation Next is an initiative committed to closing the achievement gap among Twin Cities' low-income students and students of color. It is an unprecedented partnership of key education, community, government, and business organizations dedicated to accelerating educational achievement for all our children – from early childhood to early college and career. The Generation Next model includes a shared community vision, evidence-based decision making, collaborative action, and investment and sustainability.

This report includes the following:

■ Baseline data on indicators of college and career readiness for Minneapolis and Saint Paul students

■ A definition of college and career readiness, and strategies for improving student college and career readiness, drawn from the literature

■ A review and analysis of the local landscape of college and career readiness programming

■ Views by local leaders and experts on the strengths and gaps in local college and career readiness efforts, and suggestions for improving those efforts

Current status of college and career readiness of Minneapolis and Saint Paul students

Eighth grade math proficiency. In spring 2012**,** 39 percent of Minneapolis eighth graders and 41 percent of Saint Paul eighth graders scored proficient on the Minnesota Comprehensive Assessments (MCA-III) in math (includes both school district and charter school students). There were large differences in proficiency by race/ethnicity and income level, with white, Asian, and higher-income students more likely to score proficient (with the exception of Minneapolis charter schools where differences were relatively small). While not a direct measure of college readiness, students who are proficient in math at the eighth-grade level are prepared to take rigorous math courses in high school (e.g., Algebra 2) which will prepare them for college.

ACT college entrance exam results. A total of 66 percent of Minneapolis school district seniors took the ACT in 2012 and 60 percent of Saint Paul school district seniors did so.

At a minimum, a composite score of 21 or higher is considered to be an indicator of college and career readiness. Forty-six percent of Minneapolis test-takers and 36 percent of Saint Paul test-takers had a composite score of 21 or higher. There were very large gaps in scores by race/ethnicity, income, and English proficiency, with white and higher-income students scoring much higher than other students.

On-time (four-year) high school graduation rates. The on-time high school graduation rate in 2011 was 47 percent in the Minneapolis school district and 64 percent in the Saint Paul school district. Whites, Asians, and higher-income students had the highest graduation rates in both districts. Graduation rates for American Indian, Hispanic, black, low-income, and limited-English-proficiency students were below 40 percent in Minneapolis. While graduating from high school is usually a necessary step in gaining admission into a postsecondary institution, it does not by itself indicate that a student is academically prepared for college coursework. This is due in part to the lack of alignment between high school graduation requirements and postsecondary institutions' expectations for preparation.

Postsecondary enrollment. Two-thirds of high school graduates in the Minneapolis and Saint Paul districts enroll in postsecondary institutions within one year after graduation (similar to the rate statewide). Generally, white and Asian students were more likely to enroll in postsecondary institutions than other students, although differences among student groups tended to be smaller than for other indicators. Hispanic graduates were least likely to enroll in postsecondary institutions (about half enrolled).

Need for remedial coursework in college. Over half of Minneapolis and Saint Paul school district graduates attending Minnesota public colleges and universities took remedial courses (54% for Minneapolis graduates and 53% for Saint Paul graduates based on the most recent data available on graduates from traditional high schools in the two districts). The rates for those attending two-year colleges are likely to be closer to 70 percent. Students most often need to do remedial work in math.

Definition and strategies for addressing college and career readiness

Based on the literature, college and career readiness is defined as:

1. **Academic preparedness:** having the academic knowledge and skills to do postsecondary-level coursework without the need for remediation.

2. **Expected attitudes and behavior (soft skills):** having the beliefs, attitudes, and behaviors to succeed in postsecondary education and the workplace.

3. **College and career knowledge:** Having the knowledge and support to plan for and enroll in a postsecondary institution and pursue a career.

The focus of this report is on readiness *prior* to postsecondary entry. Strategies to improve and ensure the college and career readiness of K-12 students, based on the research literature, are listed below.

Academic preparedness

■ Align K-12 standards, curricula, and assessments to college-ready expectations.

■ Ensure that students understand what constitutes a college-ready curriculum and develop a course plan with the student that leads to fulfilling a college-ready curriculum by the end of high school.

■ Use assessment data to track progress of students toward college and career readiness, and intervene early with students who are off track.

Expected attitudes and behaviors (soft skills)

■ Expose students to activities or programs that build attitudes and behaviors needed for college and career success.

■ Surround students with adults and peers who build and support their college and career aspirations.

College and career knowledge

■ Create a college-going culture in the school and community.

■ Support students in college planning and in completing the critical steps for college entry.

■ Engage families in learning about and supporting college going including the financial aspects.

■ Provide opportunities for students to learn about and explore different careers and assist them in aligning postsecondary plans with career aspirations.

A number of evidence-based programs were identified nationally that use one or more of these strategies to improve students' college and career readiness. Eighteen such programs are highlighted in the report, including a brief program description, strategies used, and outcomes achieved.

Local program landscape

We identified 49 programs and initiatives that focus on increasing college and career readiness that serve Minneapolis and Saint Paul K-12 students. About half of these programs are operated by nonprofit organizations and most of the others are operated by government organizations, the school districts, or postsecondary institutions. Many of these programs target groups underrepresented in postsecondary education (students of color, low-income students, immigrants or refugees, and first-time college goers); 16 programs were open to all students. Surprisingly, given the need, there is very little programming specifically targeting African American males.

It is somewhat of a patchwork currently with regard to the availability of various college and career readiness programs to Minneapolis and Saint Paul K-12 students. Many programs target specific student groups and many programs are only in a limited number of schools. The programs available often depend on students' demographic characteristics, where they live, and what school they attend. It is difficult to determine how well all segments of the student population are reached by these programs.

We analyzed the program landscape according to the extent to which the strategies described above were used by local programs. Most of the programs used several of these strategies.

Academic preparedness strategies used

Although efforts have begun, much work remains to be done to align K-12 standards, curricula, and assessments to college ready expectations. This work, of course, is mainly occurring at the state level. At present, K-12 schools are primarily focused on students meeting the requirements for high school graduation which are not well aligned with postsecondary expectations for readiness. Nevertheless, Minneapolis and Saint Paul public schools offer rigorous course options that can prepare students very well for college. These include Advanced Placement (AP) and International Baccalaureate (IB) courses, and Post-Secondary Enrollment Options (PSEO) and other dual credit options. Currently, the students who take and succeed in these courses tend to be those well-represented in higher education rather than underrepresented groups. As the student data indicate, students in the academic middle or lower need to be reached more effectively if they are to become academically prepared for college.

Many programs (22 were identified) provide academic help or support to improve students' skills in reading, writing, math, or other subjects. This help takes a variety of forms such as tutoring, academic enrichment courses, and homework help. The degree to which this assistance was focused specifically on preparing students for college was often unclear. A couple of programs that specifically focused on academic college readiness were the

Center for College Readiness (statewide program) and Jump Start to College (Minneapolis Community and Technical College, MCTC, program offered to Minneapolis Public Schools students).

Strategies to address soft skills

Twenty-one programs were identified that help students develop the attitudes and behaviors needed to succeed in postsecondary education and the workplace. The attitudes and behaviors addressed varied widely across programs from helping to motivate students, to developing academic success skills such as study skills or note-taking, to character-building (e.g., self-discipline, perseverance, or resilience), to developing workplace success skills such as teamwork and communication skills. Fifteen programs provide mentoring to students to support their college and career aspirations.

College and career knowledge strategies used

Over half of the programs (29 of 49) listed college and career exploration or planning as a component of their program. AchieveMpls and the Minneapolis school district have an effort called "My Life Plan" in which counselors work with middle and high school students to help them explore, develop, and carry out college and career readiness plans. There are also programs that offer internships and other workplace experiences.

Nineteen programs assist students in the transition steps leading to college enrollment. The services provided include helping students to prepare for and take college entrance exams such as the ACT or SAT, helping students with completing college applications, and assisting with identifying and completing applications for scholarships and financial aid, including the completion of the FAFSA form. Some programs engaged families in learning about and supporting their children in the college planning and transition process, including the financial aspects.

Views of local leaders and experts

Twelve local leaders and experts were interviewed about their views on the strengths and gaps in college and career readiness efforts in Minneapolis and Saint Paul, and their thoughts on how to improve these efforts. Major themes from these interviews are summarized below.

Strengths of current efforts

Interviewees felt the sheer number of college and career readiness programs operating within schools and in the community was a strength, or at least a potential strength. Some cited partnerships between schools or school districts and community organizations as a

strength. Some also saw the rigorous courses available in schools as a strength (AP, IB, PSEO and other dual credit options), although they noted that these courses were only benefitting a segment of the student population. Interviewees cited a number of programs as especially effective and felt that some of these programs should be expanded to reach more students, especially students underrepresented in postsecondary education. Overall, interviewees felt existing K-12 college and career readiness programs were more effective at helping students get into college than in preparing them to succeed and graduate from college once they were there.

Gaps in current efforts

Interviewees saw many gaps in current college and career readiness efforts. These included the following gaps or weaknesses:

- Systems alignment and academic preparation for college. The P-12 and postsecondary education systems are not aligned. Much work needs to be done to align these systems into a coherent, coordinated P-16 or P-20 system. This includes aligning standards, curricula, and assessments. The alignment gap results in many high school graduates being unprepared academically for postsecondary education.

- Soft skills development. Helping students acquire the soft skills they will need for college and career success was seen as an underdeveloped, yet important area. More work needs to be done on determining the key skills to be targeted, how to help students develop them, and how to assess them. In addition, the role of schools and others in helping students develop these skills needs greater clarity.

- Reaching students in the middle or lower academically. Many students are not being reached adequately with college and career readiness efforts. Some stressed the need for students in the middle academically to have more opportunities to prepare for college. Several felt the current system was working well in preparing high-achieving students for four-year colleges, but not as well in preparing other students for these colleges or other postsecondary options.

- Motivating students. More motivators are needed for high school students in the middle and lower academically to stay in school and work hard. These might include more opportunities for students to learn about and explore careers in the community, and make the link between education and careers in which they are interested. More opportunities to earn college credits while in high school could be a motivator, such as with career and technical education programs at two-year colleges.

- Belief gap. Several interviewees felt there was a belief gap among some educators that all students could be successful in postsecondary education. They called for a

college-going culture of high expectations in schools. Several felt there was a racial equity issue here, that students of color needed to be reached more effectively in a school environment conducive to learning for all students.

- <u>Engaging families</u>. Some interviewees felt there wasn't enough focus on engaging parents or families in college and career readiness efforts.

Suggestions for improving college and career readiness efforts

Suggestions offered for improving college and career readiness were generally consistent with the gaps and weakness identified in current efforts. Interviewees suggested or called for the following:

- A more coordinated system that reaches all students effectively with college and career readiness opportunities. Programming should be flexible and creative to meet different students' needs, and begin early in the P-12 continuum.

- Focusing more on preparation for success in college. The current programming emphasizes getting students into college but they are often underprepared for college upon entry.

- Providing opportunities for students to gain exposure to careers so they can see for themselves that education can lead to something they want. One interviewee commented: "Students have to see how education can be applied or we lose them."

- Aligning assessments with college and career readiness and intervening early when students get off track.

- More engagement with families in college and career readiness efforts.

- Providing students with better access to technology, especially low-income students.

- Strengthening the connections between schools and the community (e.g., business community).

Comments

The data suggest that Minneapolis and Saint Paul public schools are generally doing well in preparing high-achieving students for college. These students take and succeed in rigorous course options such as AP and IB courses, and PSEO or other dual credit options. They tend to come from student groups well-represented in postsecondary education (white, higher income).

On the other hand, lower-achieving students (in the middle academically or lower) tend to come from groups underrepresented in postsecondary education (e.g., lower-income, black, Hispanic, American Indian, limited English proficiency) and are often not being well prepared to enter college. Nevertheless, college and career readiness programs have been quite successful in assisting many such students in gaining entry to college, and the overall rate of Minneapolis and Saint Paul high school graduates entering college is quite high (two-thirds enter college within one year of high school graduation).

These efforts to help underprepared students gain access to college may benefit many students but it may also not benefit, or even harm others, so a note of caution may be in order. Some of these students need to take remedial courses for much of their first two years in college and, consequently, earn very few credits towards a degree during this time while being at high risk for dropping out. Such students may end up with no degree or other college credential yet with significant debt from student loans.

Clearly, there is a great need to find more effective ways to motivate, engage, and prepare students in the academic middle or lower for college and career success. New approaches are likely needed along with the expansion of approaches that have been shown to work but currently reach small numbers of students. Generation Next may be able to help the schools with this very challenging issue by bringing more community involvement, resources, and creative thinking to bear on these issues.

In addition to more school-community partnerships, part of the solution could be building stronger partnerships between K-12 schools and local community and technical colleges so that high school and college instructors can work more closely together to better prepare students who are likely to go on to these colleges. For example, the most recent figures indicate that 27 percent of Minneapolis Public Schools graduates who go on to postsecondary institutions enroll in MCTC. The majority of these students need to take remedial courses after they enroll. A stronger partnership could result in improving this situation.

Given the low high school graduation rates, especially in Minneapolis Public Schools, a major focus of student performance improvement efforts must be on boosting high school graduation rates. This clearly must include effective efforts to intervene early with students to prevent them from falling significantly behind in their development of reading, writing, and math skills. At the same time, high school graduation requirements need to be brought into alignment with postsecondary expectations so that graduating from high school means the student is ready for postsecondary coursework or training. In this way, high school graduates can take the next step on their college and career path without delays caused by the need for significant remedial work.

Introduction

Generation Next is an initiative committed to closing the achievement gap among Twin Cities low-income students and students of color. It is an unprecedented partnership of key education, community, government, and business organizations dedicated to accelerating educational achievement for all our children – from early childhood to early college and career. The Generation Next model includes a shared community vision, evidence-based decision making, collaborative action, and investment and sustainability.

This report is for use by the Generation Next College and Career Readiness Network in shaping their plans to increase college and career readiness of Minneapolis and Saint Paul students.

This report includes the following:

- Baseline data on indicators of college and career readiness of Minneapolis and Saint Paul students, reported separately by race/ethnicity, eligibility for free or reduced price meals (income measure), and limited English proficiency.

- A literature review on the current status of college and career readiness, factors contributing to lack of readiness, strategies for increasing readiness, and programs with evidence of effectiveness in improving readiness.

- Information on college and career readiness programs and initiatives serving Minneapolis and Saint Paul students (local landscape).

- Views on the strengths and gaps in local efforts, and perspectives on what is needed for major improvements in college and career readiness to be realized, based on interviews with local leaders and experts conducted by Wilder Research.

Current indicators of students' college readiness, enrollment, and completion

This section summarizes available data on college readiness, high school graduation, postsecondary enrollment, and educational attainment for Minneapolis and Saint Paul. It includes the results for Minneapolis and Saint Paul students (district schools and charter schools when available) on the 8th grade Minnesota Comprehensive Assessments (MCA) in math; ACT; the Graduation-Required Assessments for Diploma (GRAD) in writing, reading, and math; on-time (four-year) high school graduation; and enrollment in postsecondary education institutions. In addition, data on educational attainment of adults (age 25 or older, age 25-34) residing in Minneapolis and Saint Paul is included. Much of the data presented here was gathered through publically available sources, such as the Minnesota Department of Education website and districts websites. Results for charter schools were available only for 8th grade MCA math and the GRAD indicators. Information on adult educational attainment was gathered from the American Community Survey.

Eighth grade math proficiency is based on students' performance on the Minnesota Comprehensive Assessments (MCA) administered to students each spring. Students whose scores in MCA math fall in the meeting or exceeding standards categories are considered to be proficient. While not a direct measure of college readiness, students who are proficient in math at the eighth-grade level are prepared to take rigorous math courses in high school (e.g., Algebra 2) which will prepare them for college.

ACT is a standardized college entrance test administered by ACT, Inc., to aid in the selection of incoming college students. It contains multiple-choice items that measure verbal and mathematical reasoning abilities and subject-area knowledge. An ACT composite score of 21 or higher is considered to be a minimum indicator of academic college readiness.

The Graduation-Required Assessments for Diploma (GRAD) is a set of tests that all students who entered grade 8 in 2005-2006 or later must take and pass in order to graduate from a public high school in Minnesota (with the exception of the math test currently). The GRAD writing test is administered in grade 9. It is scored on a scale of 1 to 6, with 3 being a passing score. The GRAD reading test is comprised of items embedded in the grade 10 MCA-II assessments for reading and the GRAD math test is comprised of items embedded in the grade 11 MCA-II assessments for math (referred to as the GRAD component of the MCA-II). Students must either score proficient on the MCA-II or achieve a passing score on the GRAD component of the MCA-II assessment. These tests are retaken until a passing score is achieved on each one (with the exception

of the math test); however, subsequent administrations of the GRAD reading or math tests do not include all MCA-II items, only the GRAD component. Results reported here are for the first time students took the GRAD. Passing the GRAD tests does not necessarily indicate a student is academically ready for college.

These assessments are not specifically aligned with expectations of postsecondary education institutions. The level of skills needed to pass the writing and reading tests appear to be at a lower level than those generally expected by postsecondary institutions. However, the level of skills necessary to pass the math test may well meet (and perhaps even exceed) postsecondary institutions' expectations. A bill has been introduced in the current Minnesota legislative session to drop the GRAD tests in favor of exams designed to measure college readiness.

On-time high school graduation results are based on students who graduate from high school within four years of entering ninth grade. Students who continue in high school in the fall following their expected graduation date or receive General Educational Development (GED) certificates are not considered as graduating on time. Students who transferred out of the school district are not included. While graduating from high school is usually a necessary step in gaining admission into a postsecondary institution, it does not by itself indicate that a student is academically prepared for college coursework. Currently, standards for high school graduation and expectations of postsecondary institutions for students' skills in reading, writing, and math are not well aligned.

Postsecondary enrollment refers to the rates of enrollment of students in colleges, universities, and other postsecondary institutions in the U.S. within one year after high school graduation. Meeting the requirements for admission to a college may not mean that the student is prepared to succeed in college-level courses. This issue will be discussed later in this report.

Adult education attainment refers to the highest level of education attained by Minneapolis and Saint Paul adult residents. Information is reported for adults age 25 or older and for adults in the 25-34 year-old age group. This indicator, of course, includes both adults living in Minneapolis and Saint Paul who attended schools in the Twin Cities and adults who attended schools outside of the Twin Cities.

Eighth-grade math proficiency (MCA)

Minneapolis

Figure 1 shows the percentages of eighth-grade students who are proficient in math for Minneapolis Public Schools, charter schools, and all schools in Minneapolis in spring 2012. The math results are based on the MCA-III, which was administered to eighth-grade students for the second year in 2012. Overall, 39 percent of the students were proficient in math with the overall percentages nearly the same for the Minneapolis school district and charter school students. There was a 50 percent difference in the percentages of higher-income and lower-income students (based on eligibility for free- or reduced-price meals) who were proficient in the Minneapolis school district (72% vs. 22%), while there was almost no difference between these two groups in charter schools. Differences among racial/ethnic groups tended to be smaller in charter schools than the school district, with a much higher percentage of whites and lower percentages of blacks and Hispanics scoring proficient in the district. A higher proportion of limited English proficient (LEP) students were proficient in math in charter schools than in the district.

1.   8th grade MCA mathematics achievement tests: 2012 Minneapolis

	Percent proficient [a]		
	Minneapolis Public Schools (N=1,916)	Charter schools in Minneapolis (N=576)	All schools in Minneapolis (N=2,492)
All students	39%	40%	39%
Race/ethnicity			
American Indian	17%	Too few to report [b]	17%
Asian	54%	58%	55%
Hispanic	23%	48%	27%
Black	18%	33%	22%
White	68%	36%	61%
Eligibility for free or reduced-price meals			
Eligible	22%	40%	27%
Not eligible	72%	39%	66%
Limited English proficiency	15%	47%	25%

Source: *Minnesota Department of Education.*

Note.   *Race/ethnicity, free or reduced-price meals, and LEP status were not reported for all students (many charter schools have missing data or could not report on the data due to small numbers of students in the category).*

[a] MCA-III scores are categorized as "does not meet the standards," "partially meets the standards," "meets the standards," and "exceeds the standards." Proficiency is defined as meeting or exceeding the standards.

[b] Fewer than 10 students in the group.

Saint Paul

Eighth-grade MCA-III math results for Saint Paul Public Schools, charter schools, and all schools in Saint Paul in spring 2012 are shown in Figure 2. Overall, 41 percent of the students were proficient in math, with a higher percentage of charter school students scoring proficient (54%) than Saint Paul school district students (37%). There were large differences in proficiency by race/ethnicity with white students being most likely to score proficient and American Indian and black students being least likely to do so. Higher-income students were more than twice as likely to score proficient compared to lower-income students.

2.   8th grade MCA mathematics achievement tests: 2012 Saint Paul

	Percent proficient [a]		
	Saint Paul Public Schools (N=2,219)	Charter schools in Saint Paul (N=633)	All schools in Saint Paul (N=2,852)
All students	37%	54%	41%
Race/ethnicity			
American Indian	16%	Too few to report [b]	16%
Asian	39%	49%	41%
Hispanic	27%	Too few to report [b]	29%
Black	19%	35%	21%
White	64%	76%	68%
Eligibility for free or reduced-price meals			
Eligible	27%	41%	30%
Not eligible	66%	74%	68%
Limited English proficiency	24%	27%	24%

Source: Minnesota Department of Education.

Note.   Race/ethnicity, free or reduced-price meals, and LEP status were not reported for all students (many charter schools have missing data or could not report on the data due to small numbers of students in the category).

[a] MCA-III scores are categorized as "does not meet the standards," "partially meets the standards," "meets the standards," and "exceeds the standards." Proficiency is defined as meeting or exceeding the standards.

[b] Fewer than 10 students in the group.

Six-year trend for eighth grade math

Figure 3 indicates the percentage of eighth-grade students proficient in math in Saint Paul and Minneapolis schools from 2006 to 2012. Students took MCA-II in 2006 through 2010 and MCA-III in 2011 and 2012. The two tests are aligned with different standards, and therefore, results from the two tests are not directly comparable.

3.   Trend in MCA mathematics for eighth-grade students in Minneapolis and Saint Paul
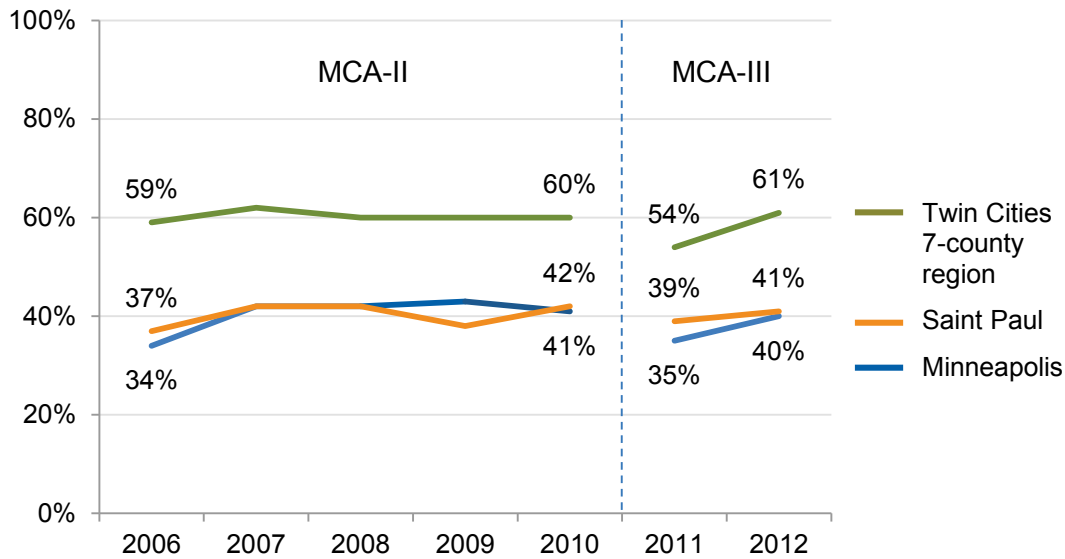
Source: *Minnesota Compass.*

Note: *Through 2010, 8th grade students took the mathematics MCA-II (an assessment aligned with the 2003 Minnesota Academic standards). Since 2011, 8th-grade students have taken the mathematics MCA-III (an assessment aligned with the 2007 Minnesota Academic standards). Because mathematics MCA-II and MCA-III test specifications are different, readers are strongly cautioned against comparing data or drawing conclusions about mathematics achievement between the two tests.*

ACT results

Minneapolis

Figure 4 shows ACT participation rates and scores for high-school seniors in Minneapolis Public Schools. Results show that about two-thirds of seniors took the ACT in the 2011-12 school year. Among the racial/ethnic groups, Asian (77%) and white (73%) students were most likely to take the ACT, followed by black (59%), Hispanic (52%), and American Indian (47%) students. Most white students (80%) scored 21 or higher on the ACT, which is indicative of at least minimum college readiness. For Asian students, however, only 29 percent scored 21 or higher on the ACT. Forty-one percent of American Indian students, 25 percent of Hispanic students, and 18 percent of black students scored 21 or higher on the ACT. Almost half of the limited English proficient (LEP) students (49%) took the ACT and none of the students scored 21 or higher. Higher proportions of students from higher-income families took the ACT and scored 21 or higher than the students from lower-income families.

More detailed results for all Minneapolis Public Schools students taking the ACT in 2012 indicate that the scores of 57 percent met the benchmark for college readiness on the English test, 49 percent met the benchmark on the reading test, 44 percent met the benchmark on the math test, and 31 percent met the benchmark on the science test. Overall, 27 percent of the students met the benchmarks for all four tests.

4.   ACT participation and results: 2012 Minneapolis Public Schools

Minneapolis Public Schools	Percent of all high-school senior students taking ACT [a]	Average ACT Composite Score	Percent of students with ACT Composite score of 21 or higher [b]
All students	66%	20.7	46%
Race/ethnicity			
American Indian	47%	19.8	41%
Asian	77%	18.7	29%
Hispanic	52%	18.0	25%
Black	59%	16.8	18%
White	73%	25.3	80%

4. ACT participation and results: 2012 Minneapolis Public Schools (continued)

Minneapolis Public Schools	Percent of all high-school senior students taking ACT [a]	Average ACT Composite Score	Percent of students with ACT Composite score of 21 or higher [b]
Eligibility for free/reduced price meals			
Eligible	59%	17.3	20%
Not eligible	76%	24.8	78%
Limited English proficiency	49%	13.8	0%

Source: Minneapolis Public Schools.

[a] *N=1,786. Data did not include Special and Contract Alternative Programs*

[b] *An ACT composite score of 21 or higher is indicative of college readiness.*

Saint Paul

Overall, 60 percent of the Saint Paul Pubic Schools high school seniors in 2012 took the ACT. White (68%) and Asian (65%) seniors were the most likely racial/ethnic groups to take the ACT. Hispanic students (42%) were the least likely group to take the ACT. Results for white students were much better than those for the other groups, with 77 percent of these students scoring 21 or higher on the ACT. Asian, Hispanic, and black students performed similarly, with between 20 and 24 percent of the students scoring 21 or higher. Only seven percent of American Indian students scored 21 or higher (Figure 5).

More detailed results for all Saint Paul Public Schools students taking the ACT in 2012 indicate that the scores of 47 percent met the benchmark for college readiness on the English test, 36 percent met the benchmark on the reading test, 36 percent met the benchmark on the math test, and 21 percent met the benchmark on the science test. Overall, 17 percent of the students met the benchmarks for all four tests.

5. ACT participation and results: 2012 Saint Paul Public Schools

Saint Paul Public Schools	Percent of all high-school senior students taking ACT	Average ACT Composite Score	Percent of students with ACT Composite score of 21 or higher [a]
All students	60%	19	36%
Race/ethnicity			
American Indian	52%	18	7%
Asian	65%	18	23%
Hispanic	42%	18	24%
Black	52%	17	20%
White	68%	25	77%
Eligibility for free/reduced price meals			
Eligible	-[b]	-[b]	-[b]
Not eligible	-[b]	-[b]	-[b]
Limited English proficiency	-[b]	-[b]	-[b]

Source: *Saint Paul Public Schools.*

[a] *An ACT composite score of 21 or higher is indicative of college readiness.*

[b] *Data unavailable.*

Graduation-Required Assessments for Diploma (GRAD)

Minneapolis

Figure 6 shows GRAD results for Minneapolis students, including Minneapolis Public Schools and charter schools. Figures showing the results separately for Minneapolis Public Schools and for Minneapolis charter schools are presented in the Appendix (Figures A1 and A2). The percentage of Minneapolis students passing each of the GRAD tests the first time they took them varied widely. Overall, 79 percent of ninth-grade students passed the writing test and 60 percent of tenth-grade students passed the reading test, while only 35 percent of the eleventh-grade students passed the math test. The percentages of students passing the writing test are generally quite high across the racial/ ethnic groups (68-92%) and income-levels (72-95%), but lower for the LEP students (55%). For both reading and math tests, higher percentages of white and Asian students passed the GRAD tests than the students from other racial/ethnic groups. Students from

higher-income families passed the GRAD reading and math tests at a much higher rate than students from lower-income families. The proportion of higher-income students who passed the exams was double in reading and almost triple in math, compared to the proportion of lower-income students. Low percentages of LEP students passed the reading and math tests.

6. Percent of students passing GRAD tests: 2012 Minneapolis

Minneapolis	9th grade writing (N=2,472)	10th grade reading (N=2,431)	11th grade math (N=2,404)
All students	79%	60%	35%
Race/ethnicity			
American Indian	78%	49%	22%
Asian	87%	60%	46%
Hispanic	77%	41%	27%
Black	68%	44%	14%
White	92%	85%	55%
Eligibility for free/reduced price meals			
Eligible	72%	44%	20%
Not eligible	95%	88%	59%
Limited English proficiency	55%	19%	9%

Source: Minnesota Department of Education

Note: Includes Minneapolis Public Schools and charter schools

Saint Paul

Figure 7 shows the results for Saint Paul students, including Saint Paul Public Schools and charter schools. Figures showing the results separately for Saint Paul Public Schools and for Saint Paul charter schools are presented in the Appendix (Figures A3 and A4). Similar to Minneapolis, most students (82%) passed the ninth-grade writing test, 63 percent passed the 10th grade reading test, and only 38 percent passed the eleventh-grade math test. Percentages passing the writing test were quite high for students across racial/ethnic groups (75-94%), income-levels (77-95%), and for LEP students (70%). A high percentage of white students passed the GRAD reading test (90%) and two-thirds of them (66%) passed the math test. In comparison, slightly over half of the other racial/ ethnic groups and lower-income students passed the reading test (with the exception of 72% of American Indian students passing the reading test). Relatively low percentages of students of color and lower-income students passed the math test (18%-36%). The gap

between higher-income and lower-income students passing the GRAD tests in reading and math was 33 percentage points for each test. Thirty-seven percent of LEP students passed the GRAD test in reading and 12 percent passed the GRAD test in math.

7. Percent of students passing GRAD tests: 2012 Saint Paul

Saint Paul	9th grade writing (N=2,992)	10th grade reading (N=2,988)	11th grade math (N=2,785)
All students	82%	63%	38%
Race/ethnicity			
American Indian	75%	72%	20%
Asian	78%	51%	36%
Hispanic	81%	56%	25%
Black	76%	55%	18%
White	94%	90%	66%
Eligibility for free/reduced price meals			
Eligible	77%	53%	28%
Not eligible	95%	86%	61%
Limited English proficiency	70%	37%	12%

Source: Minnesota Department of Education

Note: Includes Saint Paul Public Schools and charter schools

On-time (four year) high-school graduation

Minneapolis

Overall, the on-time graduation rate was 47 percent in Minneapolis Public Schools in 2011 (Figure 8). Among racial/ethnic groups, white (67%) and Asian (62%) students had higher graduation rates than black (36%), Hispanic (34%), and American Indian students (22%). Thirty-eight percent of LEP and lower-income students graduated on time.

8.   Four-year high school graduation rate: 2011 Minneapolis Public Schools

Minneapolis Public Schools	Graduate[a]	Dropout[b]	Continuing[c]	Unknown[d]	Total number
All students	47%	11%	33%	9%	2,716
Race/ethnicity					
American Indian	22%	24%	48%	6%	124
Asian	62%	6%	24%	8%	290
Hispanic	34%	22%	32%	12%	375
Black	36%	13%	40%	11%	1,151
White	67%	4%	23%	5%	776
Eligibility for free/reduced price meals					
Eligible	38%	14%	40%	8%	1,584
Not eligible	59%	7%	23%	11%	1,132
Limited English proficiency	38%	17%	33%	12%	622

Source: Minnesota Department of Education

[a] *The graduation rate is a four-year, on-time graduation rate based on a cohort of first time ninth grade students plus transfers into the cohort within the four-year period minus transfers out of the cohort within the four-year period.*

[b] *A student is classified as a dropout if she/he chooses to leave school without completing all the high school graduation requirements.*

[c] *A continuing student is a student who does not meet the Minnesota graduation requirements within four years of enrolling in grade 9 and elects to stay in school to complete the remaining high school graduation requirements.*

[d] *Unknown students are those who enrolled in grade 9 in the same academic year as their cohort, subsequently leave school without graduating, and no information is available regarding their enrollment in another school or completion of high school graduation requirements.*

Saint Paul

Overall, the on-time graduation rate was 64 percent in Saint Paul Public Schools in 2011. As in Minneapolis, white and Asian students were most likely to graduate on time, with rates of 73 percent and 70 percent, respectively. Lower proportions of Hispanic (57%), black (52%), and American Indian (47%) students graduated in four years. Sixty-six percent of LEP students and 59 percent of lower-income students graduated on time (Figure 9).

9.   Four-year high school graduation rate: 2011 Saint Paul Public Schools

Saint Paul Public Schools	Graduate[a]	Dropout[b]	Continuing[c]	Unknown[d]	Total number
All students	64%	6%	23%	7%	3,099
Race/ethnicity					
American Indian	47%	20%	22%	11%	45
Asian	70%	5%	20%	5%	1,149
Hispanic	57%	9%	23%	11%	350
Black	52%	7%	32%	8%	897
White	73%	4%	17%	6%	658
Eligibility for free/reduced price meals					
Eligible	59%	7%	27%	7%	2,297
Not eligible	77%	4%	12%	7%	802
Limited English proficiency	66%	6%	22%	7%	1,452

Source: Minnesota Department of Education

[a] *The graduation rate is a four-year, on-time graduation rate based on a cohort of first time ninth grade students plus transfers into the cohort within the four-year period minus transfers out of the cohort within the four-year period.*

[b] *A student is classified as a dropout if she/he chooses to leave school without completing all the high school graduation requirements.*

[c] *A continuing student is a student who does not meet the Minnesota graduation requirements within four years of enrolling in grade 9 and elects to stay in school to complete the remaining high school graduation requirements.*

[d] *Unknown students are those who enrolled in grade 9 in the same academic year as their cohort, subsequently leave school without graduating, and no information is available regarding their enrollment in another school or completion of high school graduation requirements.*

Five-year trend for on-time high school graduation

Figure 10 indicates the percentage of students graduating on time in the Minneapolis Public Schools and Saint Paul Public Schools from 2006 to 2011. Results show that fewer than half of the Minneapolis students graduated on time, with the rates ranging from 42 to 47 percent of the students graduating on-time during the period. For Saint Paul, the rates ranged from 56 to 64 percent, with the highest rate of students graduating on time in 2011.

10.   Trend in on-time high school graduation in Minneapolis and Saint Paul
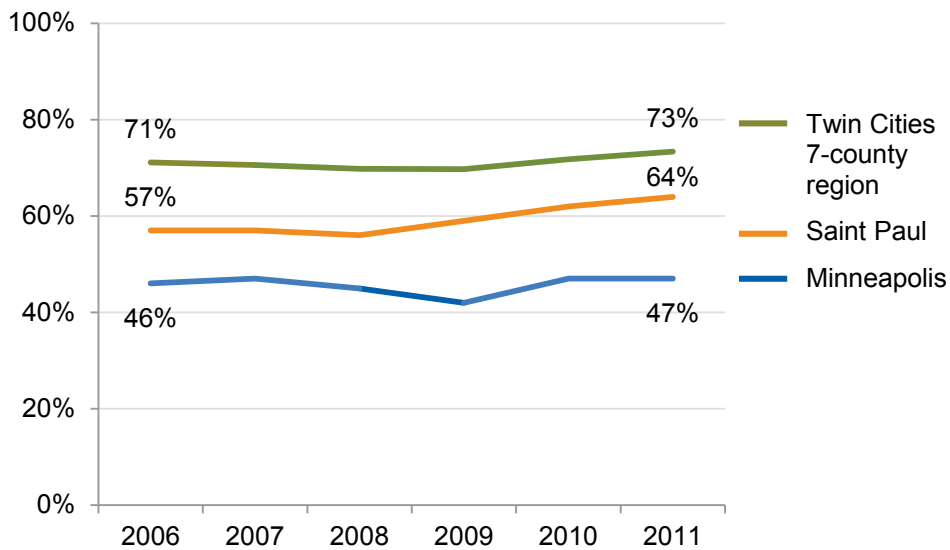
Source: Minnesota Compass.

Note: *Minneapolis and Saint Paul only includes the Minneapolis Public Schools and Saint Paul Public Schools, respectively.*

Postsecondary enrollment

Results for postsecondary enrollment within one year after high school graduation are available for Minneapolis and Saint Paul Public Schools students who graduated in 2011. These results are based on National Student Clearinghouse data which include almost all colleges and universities in the United States. Data are not available for charter schools.

Minneapolis

About two-thirds of Minneapolis Public Schools graduates (66%) were enrolled in postsecondary institutions within the first year after their high school graduation (Figure 11). White students were enrolled at the highest rate (78%), and over half of the graduates in the other racial/ethnic groups enrolled (57%-66%), except for Hispanic graduates (46%). Sixty-three percent of LEP graduates were enrolled in postsecondary institutions.

11. Postsecondary enrollment: 2011 Minneapolis Public Schools

Minneapolis Public Schools	Percent of students N=1,664
All students	66%
Race/ethnicity	
American Indian	57%
Asian	66%
Hispanic	46%
Black	61%
White	78%
Eligibility for free/reduced price meals	
Eligible	Not available
Not eligible	Not available
Limited English proficiency	63%

Source: Minneapolis Public Schools

Saint Paul

Similar to Minneapolis Public Schools, two-thirds of Saint Paul graduates (67%) were enrolled in postsecondary institutions within the first year after their high school graduation. Higher percentages of white (72%), Asian (69%), and black (67%) graduates were enrolled in postsecondary institutions than American Indian (54%) and Hispanic (51%) graduates. Slightly more than half of the LEP graduates were enrolled. Enrollment rates of graduates from higher-income families and lower-income families were quite similar, 72 percent and 65 percent, respectively (Figure 12).

12. Postsecondary enrollment: 2011 Saint Paul Public Schools

Saint Paul Public Schools	Percent of students N=2,176
All students	67%
Race/ethnicity	
American Indian	54%
Asian	69%
Hispanic	51%
Black	67%
White	72%
Eligibility for free/reduced price meals	
Eligible	65%
Not eligible	72%
Limited English proficiency	52%

Source: Saint Paul Public Schools

Adult education attainment

This section provides data on educational attainment for *adults*. Data are reported based on the most recent, five year American Community Survey data, which represent the characteristics of the population over the 2006-2010 data collection period. The education attainment levels are reported based on estimated percentages (with margins of error) for adults age 25 and older and for adults age 25 to 34. For adults age 25 and older, the levels of education are broken into the following categories: less than high school, high school graduate or equivalent, some college or associate degree, and bachelor's degree or higher. Due to a narrower age range and therefore a smaller sample size, the education attainment results for adults age 25-34 are presented for only the bachelor's degree or higher category.

Minneapolis

Age 25 and older

Results show that overall, 43 percent of adults ages 25 and older in Minneapolis have a bachelor's degree or higher and 26 percent have some college or an associate degree (Figure 13). Educational attainment differs greatly among racial/ethnic groups. For example, Asians (other than Southeast Asian) are most likely to have a bachelor's degree or higher (64%) while American Indians appear to be least likely to have this level of educational attainment (10%).

13. Education attainment for adults age 25 and older: Minneapolis

Minneapolis	Less than high school	High school graduate or equivalent	Some college or Associate degree	Bachelor's degree or higher
All	12.6% (+/-0.8%)	18.8% (+/-0.9%)	25.5% (+/-0.9%)	43.1% (+/-0.9%)
Race/ethnicity				
American Indian	23.7% (+/-6.4%)	26.4% (+/-8.4%)	40.1% (+/-9.0%)	9.7% (+/-6.1%)
Asian (Southeast)	42.5% (+/-7.8%)	20.1% (+/-7.1%)	12.7% (+/-4.7%)	24.6% (+/-8.1%)
Asian (other)	9.2% (+/-3.8%)	7.9% (+/-3.7%)	18.9% (+/-6.3%)	64.1% (+/-7.2%)
Black, foreign-born	40.5% (+/-5.9%)	21.7% (+/-4.9%)	22.9% (+/-4.3%)	14.9% (+/-4.0%)
Black, U.S. born	19.2% (+/-3.1%)	32.4% (+/-3.9%)	33.7% (+/-3.7%)	14.6% (+/-2.9%)
White, not Hispanic	4.8% (+/-0.6%)	16.8% (+/-1.0%)	25.7% (+/-1.1%)	52.6% (+/-1.1%)
Two or more races	17.5% (+/-6.3%)	21.0% (+/-6.0%)	33.3% (+/-7.5%)	28.2% (+/-6.8%)
Other races	46.8% (+/-8.1%)	20.4% (+/-6.0%)	13.8% (+/-5.1%)	19.0% (+/-6.6%)
Hispanic	47.4% (+/-5.3%)	19.8% (+/-3.6%)	15.4% (+/-3.5%)	17.4% (+/-3.7%)

Source: Integrated Public Use Microdata Series (IPUMS-USA) database - University of Minnesota, 2010. Data were collected from 2006-2010.

Ages 25 to 34

Overall, 51 percent of 25-34 year-olds in Minneapolis have a bachelor's degree or higher. Asian (other than Southeast Asian) and white 25-34 year-olds have higher levels of education compared to other racial/ethnic groups – 74 percent of Asians (other than Southeast Asian) and 65 percent of whites have a bachelor's degree or higher, although caution is needed given the large margins of error for the two Asians groups. In comparison, 14 percent of blacks born in the U.S, 18 percent of blacks born outside the U.S., and 17 percent of Hispanics have a bachelor's degree or higher. Forty-three percent of Southeast Asians, however, are estimated to have a bachelor's degree or higher (Figure 14).

14.   Education attainment for adults age 25-34: Minneapolis

Minneapolis	Percent with a bachelor's degree or higher
All	51.2% (+/-1.8%)
Race/ethnicity	
American Indian	Too few to report
Asian (Southeast)	43.0% (+/-18.4%)
Asian (other)	74.2% (+/-10.3%)
Black, foreign-born	18.4% (+/-7.1%)
Black, U.S. born	13.7% (+/-5.2%)
White, not Hispanic	65.2% (+/-2.2%)
Two or more races	26.8% (+/-9.5%)
Other races	25.7% (+/-10.1%)
Hispanic	16.9% (+/-4.6%)

Source: *Integrated Public Use Microdata Series (IPUMS-USA) database - University of Minnesota, 2010. Data were collected from 2006-2010.*

Saint Paul

Age 25 and older

In Saint Paul, 37 percent of adults age 25 and older have a bachelor's degree and 26 percent have some college or an associate degree (Figure 15). Over 40 percent of whites and Asians (other than Southeast Asian) have a bachelor's degree or higher while only 10 percent of U.S.-born blacks and Southeast Asians have this level of educational attainment.

15. Education attainment for adults age 25 and older: Saint Paul

Saint Paul	Less than high school	High school graduate or equivalent	Some college or Associate degree	Bachelor's degree or higher
All	13.6% (+/-1.0%)	23.6% (+/-1.1%)	25.5% (+/-1.1%)	37.3% (+/-1.2%)
Race/ethnicity				
American Indian		Too few to report		
Asian (Southeast)	50.1% (+/-6.9%)	23.7% (+/-4.9%)	15.8% (+/-4.5%)	10.3% (+/-3.0%)
Asian (other)	26.3% (+/-7.1%)	18.9% (+/-7.1%)	10.9% (+/-5.0%)	43.8% (+/-7.7%)
Black, foreign-born	26.9% (+/-6.4%)	25.7% (+/-7.2%)	26.1% (+/-5.8%)	21.3% (+/-5.4%)
Black, U.S. born	18.6% (+/-4.3%)	30.7% (+/-4.6%)	40.5% (+/-4.5%)	10.3% (+/-3.3%)
White, not Hispanic	5.3% (+/-0.6%)	21.6% (+/-1.3%)	25.9% (+/-1.3%)	47.2% (+/-1.5%)
Two or more races	13.2% (+/-6.0%)	33.9% (+/-10.5%)	23.1% (+/-8.1%)	29.7% (+/-9.8%)
Other races	33.1% (+/-7.1%)	33.9% (+/-7.6%)	15.6% (+/-7.3%)	17.4% (+/-7.1%)
Hispanic	36.4% (+/-5.8%)	30.2% (+/-5.0%)	16.8% (+/-3.8%)	16.6% (+/-3.5%)

Source: Integrated Public Use Microdata Series (IPUMS-USA) database - University of Minnesota, 2010. Data were collected from 2006-2010.

Ages 25 to 34

Overall, 42 percent of Saint Paul 25-34 year-olds have a bachelor's degree or higher. Fifty-eight percent of white and 53 percent of Asian (other than Southeast Asian) 25-34 year-olds in Saint Paul have a bachelor's degree or higher. Much smaller proportions of blacks born in the U.S (12%), blacks born outside the U.S (14%), Southeast Asians (14%), and Hispanics (18%) in this age group have a bachelor's degree or higher (Figure 16).

16. Education attainment for adults age 25-34: Saint Paul

Saint Paul	Percent with a bachelor's degree or higher
All	41.6% (+/-2.6%)
Race/ethnicity	
American Indian	Too few to report
Asian (Southeast)	13.9% (+/-6.2%)
Asian (other)	52.9% (+/-12.5%)
Black, foreign-born	13.9% (+/-8.3%)
Black, U.S. born	11.7% (+/-5.8%)
White, not Hispanic	57.8% (+/-3.3%)
Two or more races	28.2% (+/-12.4%)
Other races	20.4% (+/-11.8%)
Hispanic	18.0% (+/-5.8%)

Source: *Integrated Public Use Microdata Series (IPUMS-USA) database - University of Minnesota, 2010. Data were collected from 2006-2010.*

College and career readiness literature review

Background, definition, and current status

College and career readiness has become an ever more important issue as the types of jobs needed in the U.S. economy have shifted increasingly to those that require a post-secondary degree or credential. A credential from a two- or four-year college or university, or other postsecondary institution, seems almost essential now to be able to successfully obtain a career-track position (i.e., one that pays a living wage, provides benefits, and offers opportunities for advancement). By 2018, 63 percent of the jobs in the U.S. and 70 percent in Minnesota will require postsecondary education. For Minnesota's economy to thrive and compete successfully in the global economy, the state will need a highly skilled workforce. Yet the groups that are growing fastest in Minnesota's K-12 education system (student of color and low-income students) are the groups that tend to be less prepared for college and less likely to attain postsecondary degrees. Unless this changes and the achievement gap is closed, Minnesota will face very serious shortages of skilled workers in the future (Achieve, Inc., 2004; Carnevale, Smith, & Strohl, 2010; The Postsecondary and Work Force Readiness Working Group, 2009).

College and career readiness definition

For purposes of this report, college readiness is defined as follows:

1. **Academic preparedness**: having the academic knowledge and skills to do postsecondary-level coursework at two-year or four-year colleges, or other postsecondary institutions, without the need for remediation.

2. **Expected attitudes and behaviors or "soft skills":** having the beliefs, attitudes and values, and accompanying behaviors to succeed in postsecondary education and the workplace (e.g., motivation, perseverance or tenacity, resilience, teamwork, self-efficacy, goal-setting, work ethic, and self-regulation skills).

3. **College and career knowledge:** Having the knowledge and support to successfully plan for and enroll in postsecondary institutions (college entrance exams, college applications, financial aid applications, etc.) and pursue careers (career awareness, exploration, etc.).

The focus is on the time prior to postsecondary entry.

Is college readiness the same as career readiness?

There is debate nationally about whether college readiness and career readiness are the same, or whether there are differences in the skills and knowledge needed to prepare for each. Disagreement occurs over whether all students can handle a rigorous academic curriculum in middle and high school or whether some students don't need that because they are not so called "college material." Another point of disagreement is over whether students only need academic skills to succeed or whether other non-academic or soft skills are needed to succeed in the workforce and society (Hooker & Brand, 2009).

Research indicates that the academic skills needed to do college-level coursework and more job-specific education or technical training are about the same. According to an ACT study (2006), comparable levels of reading and math preparation are needed for college courses and workforce training programs. A study by the American Diploma Project found great similarity between the skills required to be ready for college and the skills required to be ready for careers in high-performance, high-growth fields (Hooker & Brand, 2009). Given these results, there seems little justification for dividing students into two distinct groups in high school, one bound for college and the other bound for work. As indicated, increasingly jobs paying a living wage and providing advancement opportunities require postsecondary education or technical training after high school. Consequently, all secondary school students need a "common core of foundational academic knowledge and skill" (Conley, 2012).

Some contend that being career-ready requires additional skills or abilities that employers want that are not taught in high schools. For example, a national study found that the top three applied skills that employers wanted for new workforce entrants were professionalism/ work ethic, teamwork/collaboration, and oral communication. However, employers found the average high school graduate deficient in these areas. Other skills employers want include adaptability, analytical abilities, interpersonal skills, problem-solving skills, integrity, responsibility, organizational skills, and a willingness to learn (Hooker & Brand, 2009). Many of these skills and characteristics would serve students well in postsecondary programs as well as the workplace. However, some may be more significant for success in the workplace (e.g., professionalism, collaboration or teamwork). In short, it will be important for students to acquire these skills and characteristics to be prepared for postsecondary education and careers.

Current status of college readiness

National and local data indicate that many students who are eligible and successfully enroll in college are not ready for college-level courses. Nationally, nearly 60 percent of first-year college students need to take remedial courses in English or math, which do not

earn credits toward a degree (National Center for Public Policy and Higher Education, 2010). Similarly, 60 percent of employers rate high school graduates as "fair" or "poor" in basic skills (Hooker & Brand, 2009). For two-year colleges (which typically require a high school diploma or equivalency for enrollment), 75 percent need remedial work in reading or math, or both. The proportion of first-year students needing to do remedial coursework in less selective four-year institutions (often state colleges or universities) was about half (National Center for Public Policy and Higher Education, 2010).

Minnesota percentages, while somewhat lower, still included a large proportion of students. The most recent data indicated that 40 percent of Minnesota high school graduates enrolled in Minnesota public colleges or universities needed to take one or more developmental (remedial) course. This includes 54 percent of Minnesota students who attended two-year public colleges or universities. Students most often need remediation in math. Of those students taking remedial courses, 81 percent took math, 41 percent writing, and 38 percent reading (Minnesota State Colleges and Universities & University of Minnesota, 2011).

Turning to Minneapolis and Saint Paul high school graduates, the most recent data published show that 54 percent of Minneapolis school district graduates attending Minnesota public colleges and universities took remedial courses. The comparable figure for the Saint Paul school district was 53 percent. These figures include only traditional high schools in the districts (Minnesota State Colleges and Universities & University of Minnesota, 2011).

While figures specific to two-year colleges were not available for Minneapolis and Saint Paul graduates, an evaluation report provides some data on this. The Power of YOU program enables Minneapolis and Saint Paul public high school graduates to attend Minneapolis Community and Technical College (MCTC) and Saint Paul College tuition-free. An evaluation study of two cohorts of students in this program found that the percentage of students needing to do developmental coursework was 67 percent in one cohort and 76 percent in the other (Schultz & Mueller, 2008). These results appear consistent with the state and national pattern of students at two-year colleges having higher needs for remediation than students at four-year colleges.

These figures on Minneapolis and Saint Paul high school graduates' need for remedial coursework once they reach college are not surprising given their ACT scores presented earlier, as well as the low proportions passing the GRAD math test, especially among students of color and low-income students.

Beyond readiness, access to college has become more financially challenging for Minnesota students and families. From 2000 to 2008, the average percentage of income families needed to pay for expenses at Minnesota public four-year colleges and universities (after

accounting for financial aid) rose from 17 percent to 30 percent. At Minnesota two-year community colleges, it rose from 16 percent to 25 percent. The investment in need-based financial aid is high in Minnesota compared to other states. However, the cost of college is also comparatively high. Consequently, even after taking into account financial aid, Minnesota families with lower incomes (lowest 40%) still needed to pay an average of 36 percent of their incomes for community college and 43 percent for public four-year colleges and universities. The average loan amount undergraduates borrow each year has correspondingly increased, from $2,727 in 2000 to $4,830 in 2008 (National Center for Public Policy and Higher Education, 2008).

The Minnesota Office of Higher Education (2013) updated some of this information recently. This more recent information continues to indicate that college costs are high in Minnesota compared to other states even after taking into account financial aid. Nevertheless, the percentage of Minnesota high school graduates enrolling in postsecondary education rose steadily since the mid-1990s with a slight drop in enrollment from 2009-2011. In 2011, 69 percent of Minnesota high school graduates enrolled in postsecondary education in the fall following high school graduation (Minnesota Office of Higher Education, 2013). As we saw earlier a similar proportion (66-67 percent) of Minneapolis and Saint Paul public school graduates enrolled in postsecondary education. It appears likely that many of these students are taking on student loan debt while taking remedial coursework that doesn't earn credits toward a degree.

Factors contributing to lack of college and career readiness

The causes and barriers to college readiness are discussed with reference to the three dimensions of the definition: academic preparedness, expected attitudes and behaviors, and college and career knowledge. Within these areas we identify both system-level and student/family-level factors.

Lack of academic preparedness

As the rates of students needing to take remedial courses suggest, both nationally and locally, we have been more successful at getting students enrolled in college than preparing them adequately for college level coursework. The literature on college readiness indicates that there is a **high school diploma-college readiness gap**. That is, generally speaking, meeting the requirements to receive a high school diploma doesn't require students to have the knowledge and skills to do college-level coursework. The courses and exams students need to pass to graduate from high school are usually not at a level high enough to be consistent with college expectations. This, in part, is driven by pressures to meet *No Child Left Behind* and to minimize the number of students who don't graduate from high school. Even those students who complete a college preparatory

curriculum are often not prepared for college (National Center for Public Policy and Higher Education, 2010).

The causes of the high school diploma – college readiness gap include the following:

- <u>P-12 and postsecondary expectations are disconnected</u>. The P-12 systems and higher education institutions generally have set college readiness expectations and standards independently. In addition, there is considerable variation in readiness standards across higher education institutions (National Center for Public Policy and Higher Education, 2010).

- <u>College preparation in high school has emphasized courses taken</u>. The shift from "seat time" to standards-based performance in P-12 schools in recent years has generally not been extended to higher levels of learning needed for college readiness. The emphasis has been more on taking the right courses and earning good grades than on ensuring the development of higher level learning skills in reading, writing, and math to meet colleges' expectations (National Center for Public Policy and Higher Education, 2010).

- <u>Limited rigor of high school coursework</u>. The disparity between secondary and postsecondary views of academic preparedness for college may result in high school college preparatory courses that are less rigorous than needed to meet expectations of higher education institutions. Moreover, this tends to be especially the case at high schools attended by low-income students and students of color where the rigor of courses and the quality of instruction is often lower (The Postsecondary and Work Force Readiness Working Group, 2009; Schultz & Mueller, 2006).

- <u>Traditional readiness assessments may not measure college readiness sufficiently</u>. Assessments such as ACT and SAT are valued for their ability to predict college success. However, they may be too general to measure attainment of specific readiness skills expected by higher education institutions. At this point most states do not have explicit college readiness standards developed yet, and even those states that do generally don't have assessments geared to measure attainment of them (National Center for Public Policy and Higher Education, 2010).

- <u>Lack of accountability for college readiness and success</u>. Since most states don't have college readiness standards yet, teachers don't have the guidance they need to focus their teaching in this way. High school accountability systems are usually about students meeting certain minimum standards rather than about increasing the number of graduates prepared to take college courses. Currently, most state accountability systems don't emphasize college completion rates. Greater focus on college completion accountability would likely encourage colleges to work more with public

schools to improve academic readiness for college (National Center for Public Policy and Higher Education, 2010).

Lack of expected attitudes and behaviors

■ <u>Non-supportive school culture or personal network</u>. Lack of a college-going culture in the school or in students' peer groups or friends can diminish academic motivation and perseverance, and ultimately academic attainment (Tierney, Bailey, Constantine, Finkelstein, & Hurd, 2009). Low academic and career expectations by influential adults in students' lives can also affect students' self-confidence and aspirations.

■ <u>Dropping out of school</u>. Dropping out of high school is, of course, a major barrier to college and career readiness. Students drop out for a variety of reasons including being far behind their classmates academically; lack of a support network for attending school among family and peer group; wanting or needing to work; teen pregnancy; behavioral problems or drug abuse; and other family or personal issues. Students of color are at higher risk to drop out (The Postsecondary and Work Force Readiness Working Group, 2009).

Lack of college and career knowledge

■ <u>Inadequate formal college planning guidance available from P-12 schools</u>. Minnesota has one of the lowest counselor to student ratios (average of one counselor for every 750 students) of any state in the nation. Hence, school staff assistance in course selection and college planning can be very limited. Low-income students and students of color may have less access to college preparatory courses because they are not offered at the schools they attend, they are not guided or encouraged to take these courses, or they are not prepared for them (The Postsecondary and Work Force Readiness Working Group, 2009).

■ <u>Students' and their families' unawareness of steps to accessing college</u>. First-generation college-going students and their families, and immigrant students and families, may be unaware of the steps to take in planning and applying for college, and how to complete these steps – e.g., gathering information about potential college or postsecondary programs to apply to, taking college entrance exams, submitting college applications, and selecting a college. They also may not understand the reasons for going to college (Tierney et al., 2009; The Postsecondary and Work Force Readiness Working Group, 2009).

■ <u>Students' and their families' unawareness of college costs and financial aid</u>. Similarly, first-generation college-going students and their families, and immigrant

students and families, may be unaware of the costs of various college options and the financial aid opportunities that may be available. In some cases, students and their families may be discouraged from even considering college due to the costs even though there are financial aid opportunities available to them that would make it financially possible (The Postsecondary and Work Force Readiness Working Group, 2009). Nevertheless, even with the financial aid that is available, college costs can be a major barrier for many lower-income students and their families.

- <u>Limited opportunities to explore and plan for careers</u>. The Governor's Workforce Development Council in Minnesota concluded that high school students would benefit from more emphasis on college and career planning. They recommended that the state consider requiring high school students to complete a college and career plan before graduating (The Postsecondary and Work Force Readiness Working Group, 2009).

Strategies for increasing college and career readiness

This section is again framed by the three dimensions of college readiness: academic preparedness, expected attitudes and behaviors, and college and career knowledge. Within these dimensions, we especially highlight the strategies proposed by McAlister & Mevs (2012) in their report, *College Readiness: A Guide to the Field*, and Tierney, Bailey, Constantine, Finkelstein & Hurd (2009) in their IES Practice Guide, *Helping students navigate the path to college: What high schools can do*. Specific programs or policies associated with the strategies are mentioned. Academic preparation is the most developed dimension of the three. College and career knowledge supports are becoming widely available. Expected attitudes and behavior, involving "soft skills," is less developed than the other two with regard to programs or initiatives. The three dimensions are interconnected and frequently programs or initiatives use multiple strategies from more than one dimension.

Academic preparedness

Align standards, curricula, and assessment to college-ready expectations

States are working at the policy level to better align standards, curricula, and assessments with college-level expectations for student preparation. The National Center for Public Policy & Higher Education and the Southern Regional Education Board (2010) recommend the following to achieve such alignment:

- A common set of college readiness standards formally adopted by both the P-12 and postsecondary systems within a state. These standards should focus on reading, writing, and math skills, and not be based solely on courses taken. These standards

should be validated by comparing student performance on the standards to their performance in introductory college classes.

- High school assessments should be used that measure progress on the statewide college readiness standards. These could be end-of-course exams that are tied directly to the standards and are useful in determining what the student needs to learn to meet the standards.

- Curriculum should be modified at least as early as the eighth grade so that each course has a focus on the reading, writing, and math skills needed to meet the standards.

- Provide teacher professional development addressing effective teaching of the college readiness standards in grades 8 through 12.

- Colleges and universities should uniformly base placement decisions on student performance on the college readiness standards.

- Finally, states must hold the P-12 and postsecondary education systems accountable for college readiness and college completion, respectively, and create incentives for their performance in this regard.

The state of Minnesota has been working to align high school standards and graduation requirements with college and career readiness expectations. Minnesota has adopted the Common Core State Standards for English language arts as a base, with other standards added to address state statutory requirements and best practices. The Common Core Standards adopted by Minnesota also include standards for literacy in history and social studies, science, and technical subjects. The state has revised math standards on its own to align them with college and career readiness expectations. Minnesota also participates in the American Diploma Project (ADP) network. The states participating in the ADP network have committed to aligning high school standards, curriculum, and assessments to the knowledge and skills required to meet college and career expectations. At present in Minnesota the following assessments are used to measure academic readiness for postsecondary education (The Postsecondary and Work Force Readiness Working Group, 2009):

- The Educational Planning and Assessment System (EPAS) from ACT. The EPAS is a set of assessments designed to provide a longitudinal, systematic approach to educational and career planning, assessment, instructional support, and evaluation. These assessments were developed to benchmark college readiness for students nationally. Students are given the EXPLORE assessment in eighth grade, the PLAN assessments in tenth grade, and the ACT in eleventh or twelfth grade.

- The Accuplacer postsecondary placement exams in math, English, and reading. These exams are particularly useful to obtain more specific information about knowledge and skills in need of remediation for students who do not meet benchmarks on PLAN or ACT.

- The Minnesota Comprehensive Assessments (MCA) are being redesigned to reflect Minnesota college and career readiness standards as these are adopted and are the only assessments of those listed that public school students are required to take. For example, MCA reading tests based on the Common Core standards adopted by Minnesota are being implemented in the spring of 2013.

Minnesota is also participating in the development of the Next Generation Science Standards nationally with other states.

Ensure that students understand what constitutes a college-ready curriculum and develop a course plan with the student that leads to fulfilling a college-ready curriculum by the end of high school.

This course-taking plan should be developed by early in ninth grade at the latest with the student's counselor or advisor. All students should have access to rigorous high-school curriculum (Tierney et al., 2009; Growth & Justice, 2008; The postsecondary and workforce readiness working group, 2009). Students should have opportunities to get a "jump start" on postsecondary study and workforce preparation through earning college credits in high school. Nationally, there are dual enrollment programs in a number of locations where high school students take courses at local community colleges and earn both high school and college credits. These programs are usually intended for students in career and technical education (CTE) programs. Early College High School is another model that offers students the opportunity to earn both a high school diploma and an associate's degree or 1-2 years of transferrable college credits (Hooker & Brand, 2009). In Minnesota, there are a number of ways for students to get a jump start on college: postsecondary enrollment options (PSEO), Advanced Placement, International Baccalaureate, college level examination placement (CLEP), and career and technical education (The Postsecondary and Work Force Readiness Working Group, 2009). It is especially important for students to take rigorous math courses in high school, including Algebra 2. The math courses taken in high school are an especially strong predictor of college and career success (Adelman, 1999).

Use assessment data to track progress of students toward college and career readiness, and intervene early with students who are off track.

Potentially useful tools in this regard in Minnesota were discussed earlier. These include the EPAS (EXPLORE, PLAN, and ACT), Accuplacer, and MCAs that are aligned with college and career ready standards. Data from these assessments can be used by districts and schools to measure student progress toward college and career readiness, set policy, and intervene with students when needed. Course completion records and course grades may also be useful. Students should be informed regularly about their performance and progress toward postsecondary readiness. It is important to identify and intervene early with students who are struggling or off track in their progress on their college and career readiness plans. Such students may need a catch up plan involving extra support and assistance such as tutoring, mentoring, or additional coursework, and may be at risk for dropping out. A number of local college and career readiness programs offer tutoring or academic enrichment classes such as Upward Bound, Advancement Via Individual Determination (AVID), and Breakthrough Saint Paul (Tierney et al., 2009; Hooker & Brand, 2009; McAlister & Mevs, 2012; ACT, 2012; Mueller, Maxfield, & Karcher-Ramos, 2011).

Expected attitudes and behaviors

Expose students to activities or programs that build attitudes and behaviors needed for college and career success.

Besides academic preparedness, students need to acquire "soft skills" to be ready for college and the workplace. Research supports the importance of non-cognitive behaviors (e.g., perseverance) in academic success. However, less is known about how to most effectively help students develop such behaviors (Farrington et al., 2012). Nevertheless, many college and career readiness programs work with students on academic success behaviors such as study skills, note-taking, and time management; are designed to help increase students' motivation for college and careers; and work to build such skills as self-awareness and self-regulation, perseverance, organization, and good study habits. Several programs work on building college and career soft skills quite broadly. For example, the Advancement Via Individual Determination (AVID) program works with students on self-awareness, self-control, study habits, organization, critical thinking, and inquiry, as well as motivation for college. AVID is in both the Minneapolis and Saint Paul school districts. Talent Development High Schools have a 9th grade seminar that works with students on self- and career-awareness, teamwork, conflict resolution, and effective communication, as well as study and time management skills (McAlister & Mevs, 2012; Hooker & Brand, 2009).

<u>Surround students with adults and peers who build and support their college and career aspirations.</u>

Relationships with caring, competent adults and supportive, constructive peer networks are important for student engagement in education and building the soft skills needed for college and career success. For example, providing mentoring to students by recent high school graduates enrolled in college, or other college-educated adults, can be helpful in this regard. High schools can use extra-curricular activities or programs to promote relationships among peers who plan to attend college. Students at risk for dropping out of high school or not enrolling in a postsecondary institution may need extra attention and support. This help is provided by a number of programs including the federal TRIO programs and community programs. It is important that students who drop out of school have opportunities to reconnect to education programs. Opportunities to explore careers through "hands on" experiences such as exposure to college, job-shadowing, or internships can help build the motivation and soft skills students need for college and career success (Tierney et al., 2009; Hooker & Brand, 2009; McAlister & Mevs, 2012).

College and career knowledge

<u>Create a college-going culture in the school and community.</u>

Students may feel intimidated or overwhelmed with the requirements and activities involved in the college application process which may result in them not applying. A strategy for overcoming this is to create a school culture in which all students expect to go to college, and then help them to develop the knowledge they need to go. There are examples of college-going cultures at the school level and at the community or district level where public and private resources are mobilized to make college going viewed more broadly as a realistic goal (McAlister & Mevs, 2012).

<u>Support students in college planning and in completing the critical steps for college entry.</u>

This strategy is about helping students successfully make the transition from high school to postsecondary education. It includes helping students prepare for and take college entrance exams, assisting in their college search and potentially coordinating college visits, and supporting them through the application process. Both high school staff and community-based organizations can play a role in supporting students through this process (Tierney et al., 2009; Schultz & Mueller, 2006; McAlister & Mevs, 2012). Examples of programs available locally that offer this service include Talent Search, Get Ready, and College Possible.

<u>Engage families in learning about and supporting college going including the financial aspects.</u>

Parents and families are often important partners in making decisions about college for their children. Engaging with parents/families is a common strategy for increasing students' college knowledge and college-going rates. Some parents and students may have misperceptions about college affordability, lack of knowledge about financial aid, and difficulty navigating the complexities of applying for financial aid. Programs and resources exist to help inform students and families about the college application process and assist them with applying for financial aid (Tierney et al., 2009; Hooker & Brand, 2009; Schultz & Mueller, 2006; McAlister & Mevs, 2012).

<u>Provide opportunities for students to learn about and explore different careers and assist them in aligning postsecondary plans with career aspirations.</u>

Results of career or interest inventories completed by students can be used to help them identify the types of work or careers that interest them. Opportunities for students to explore careers might include inviting speakers to the school to talk about their education and career paths, or job-shadowing and internships at local businesses or organizations. Students may need assistance in learning about the knowledge, skills, and postsecondary education needed for an occupation of interest and where they might go to obtain the education or training required. This information can be included in the students' education and career plan (Tierney et al., 2009). As mentioned above, Minnesota has one of the highest number of students per counselor rates of any state in the country, and, consequently, school counselors may not have the time to assist students in this way. However, schools have developed partnerships with community-based organizations to provide college and career information and assistance (The Postsecondary and Work Force Readiness Working Group, 2009). For example, AchieveMpls has career and college centers in Minneapolis high schools. AchieveMpls works with Minneapolis Public Schools students to develop college and career plans ("My Life Plan").

College and career readiness programs with evidence of effectiveness

In this section, we highlight 18 college and career readiness programs that have been implemented in various parts of the U.S., including some nationally, and have at least a moderate level of evidence for their effectiveness. While this isn't a complete list, it provides a good representation of the evidence-based programs available in the college and career readiness field. In general, these programs serve primarily student groups underrepresented in higher education (i.e., low-income students, students of color, and first-time college goers). The programs were drawn from several reports that conducted rigorous reviews of programs in this field (Tierney et al., 2009; Schultz & Mueller, 2006;

Growth & Justice, 2008) and a recent study (An, 2013), relying primarily on the Hooker & Brand (2009) report.

The evaluation studies for the 18 programs were conducted within the last 15 years, most within the last 10 years. These evaluation studies were conducted by external, third-party evaluators. The research designs used to determine program effectiveness were scientifically quite rigorous, using either a control or comparison group design. Some evaluations used an experimental design, randomly assigning students or schools to the treatment and control groups. Most evaluations used a quasi-experimental design with comparison groups. Some of the programs had longitudinal studies that followed program participants for several years while others had studies that measured shorter-term outcomes only.

In this section we indicate the types of strategies and services provided by these programs and the types of student outcomes achieved. These descriptions and classifications of programs are based on the somewhat limited information contained in the reports we used that reviewed multiple programs. Consequently, some pertinent information for our purposes may have been missed. Nevertheless, in the aggregate, we believe what we are able to present provides a useful profile of the types of strategies employed and the types of outcomes achieved by these programs. The names and brief descriptions of the programs are provided in Figure 17.

Types of strategies

Nearly all the programs used more than one of the nine strategies described in the previous section. Turning first to the area of academic preparedness, many programs (12 of 18) provided services that fell under the strategy of "use assessment data to track progress of students toward college and career readiness, and intervene early with students who are off track" (Figure 18). Some of these programs used assessment information to monitor student progress and all provided extra academic help through such approaches as academic enrichment classes in basic skills (math, reading, or writing) or individual tutoring. Seven of the 18 programs included efforts that would fall under the "ensure that students understand what constitutes a college-ready curriculum and develop a course plan with the student that leads to fulfilling a college-ready curriculum by the end of high school" strategy. This included comprehensive school reform initiatives or other programs that implemented a more rigorous college preparatory curriculum for students including AP and IB courses, for example, or dual enrollment, technical college course access, or other college course-taking opportunities in high school. Two programs worked on strengthening the alignment between high school and college requirements and curricula.

Next, with regard to the soft skills area, eight programs provided services that addressed the strategy: "expose students to activities or programs that build attitudes and behaviors needed for college and career success." Mostly this involved working with students on academic success behaviors such as study skills, note-taking, and time management. However, several programs worked on a broader range of college and career success behaviors such as self-awareness, self-regulation, conflict resolution, financial management, teamwork, and effective communication. Nine programs had mentoring or student advocates, or other ways of providing personalized adult support to students, thereby addressing the "surround students with adults and peers who build and support their college and career aspirations" strategy.

In the college and career knowledge area, the most frequently occurring strategy (part of 11 programs) was "support students in college planning and in completing the critical steps for college entry." This strategy included such services as college counseling, help with college exploration, preparation for college entrance exams, assistance with college applications, and assistance with financial aid applications. Six programs had a focus on the strategy: "Provide opportunities for students to learn about and explore different careers and assist them in aligning postsecondary plans with career aspirations." These programs provided such opportunities as guest speakers from careers of interest, work-based learning, internships or apprenticeships, and job placement. Four programs appeared to have an emphasis on "creating a college-going culture in the school(s)." Finally, three programs had a component explicitly addressing the strategy: "engage families in learning about and supporting college going including the financial aspects." These programs provided workshops or other information sessions to engage with parents about the college transition process, or offered individualized sessions for students and their parents.

Types of student outcomes achieved

Figure 19 summarizes the types of student outcomes or effects the programs had based on experimental and quasi-experimental evaluation studies. That is, it indicates when students who participated in the program performed significantly better on the outcome (in a statistical sense) than similar students in a control or comparison group. The student outcomes were grouped into several categories that appear as column headings in Figure 19. For example, for 10 programs results indicated that students participating in the program had significantly better academic performance in middle school or high school on one or more indicators than students in the control/comparison group. These indicators included performance on exams, passing courses, credits accumulated towards graduation, grades in courses, and promotion to the next grade. Similarly, in seven programs participating students in middle school or high school had better attendance or retention

rates (i.e., lower dropout rate) than control/comparison group students. Results for five programs indicated the students participating in the program made greater progress toward completing a college preparatory curriculum. High school graduation rates were better for participating students than control/comparison students in seven programs. Participating students in six programs had higher postsecondary education enrollment rates than control/comparison students. Finally, in two programs students who had participated in the program were more successful in college than control/comparison students with regard to credits earned, course grades, persistence or degree completion.

While there were some large differences, most often the statistically significant differences found in favor of program participants over control/comparison students on these outcomes were modest. Generally, differences were more likely to be larger and statistically significant for short-term outcome indicators (in middle school, high school or just after) rather than for longer-term outcomes (e.g., success in college).

17. Programs with evidence of effectiveness

After School Matters	Nonprofit organization that provides high school students with a variety of opportunities for work-based learning through paid apprenticeships. The program emphasizes workplace readiness. (Chicago**)**
Advancement Via Individual Determination (AVID)	AVID is a college-readiness program for 4th-12th graders that includes all students in the school in grades 4-6 and is an elective class in grades 7-12. The program targets underrepresented students in the academic middle. It takes a comprehensive approach that includes working with students on academic success behaviors, rigorous course-taking, academic enrichment and support, and providing students with the tools to manage the college entry process. (Nationwide)
Career Academies	These are small learning communities organized around a career theme, usually within a larger high school. The program integrates academic and vocational curricula using the context of the career theme, and usually provides work-based learning through employer partnerships. (Nationwide)
Citizen Schools	This structured extended-day program in middle schools (grades 6-8) provides educational enrichment and support, academic success skills, career exposure, and early preparation for high school and college. Students engage in experiential learning projects led by adult citizen volunteers and supported by a staff of professional educators. (Several states)
Diploma Plus	These are small alternative high schools that integrate dropout recovery and prevention programs with college and career readiness initiatives. Instead of traditional grade levels, students move through three phases of the curriculum that emphasize service learning through community action projects. The final phase serves as a link between high school and postsecondary education, including earning college credits. (Several states)
Dual Enrollment	Dual enrollment provides students with the opportunity to take college courses while still in high school and gain both college and high school credit for them. Dual enrollment has become an increasingly popular model of instruction for career and technical education (CTE) programs. (Nationwide)
Early College High School	Small schools that aim to directly connect all students with a college experience and allow them to simultaneously earn high school and college credit in a supportive environment. They offer students the chance to earn a high school diploma and an associate's degree or 1-2 years of transferrable college credits through partnerships with colleges and universities. (Nationwide)
Enhanced Math in Career and Technical Education (CTE)	The math-in-CTE model was designed to build more explicit, contextual math instruction into CTE curricula in high school and to evaluate its impact on student achievement. The program brings together math and CTE teachers to identify embedded math in career-related courses. After receiving training in the instructional strategy, math and CTE teachers work together in developing their lesson plans. (Several states)
First Things First	This is a K-12 comprehensive school reform model focused on organizational structures, interpersonal relationships, classroom instruction, and building capacity at the school and district levels. Key model components are small learning communities, student and family advocates, and instructional improvement. (Several states)
Gear Up	This federally-funded, matching grants program designed to improve college preparation for cohorts of low-income students from middle school to postsecondary transition. The service model involves partnerships between school districts, higher education institutions, and at least two other organizations. Program activities may include tutoring, mentoring, college counseling, and financial aid assistance. (Nationwide)
Hillside Work-Scholarship Connection	This is a comprehensive dropout prevention and college and career readiness program for 7th-12th grade students operated by a community-based social service organization. The program model includes school-based youth advocates, afterschool programming, and job placements. (Rochester and Syracuse, New York)

17. Programs with evidence of effectiveness (continued)

KIPP Schools	The Knowledge is Power Program (KIPP) is a national network of open-enrollment public schools, including elementary, middle, and high schools. KIPP schools emphasize a rigorous curriculum and a culture of high expectations and college-going. Key components of the KIPP model include a longer school day, summer and Saturday school, a behavior management system, and professional development for school principals. (Nationwide)
National Guard Youth ChalleNGe	This is a dropout recovery program for 16-18 year olds that aims to reconnect them with opportunities for high school completion, postsecondary education, and careers. The central feature of the 17-month program is an intensive 20-week residential experience in a quasi-military environment. (Nationwide)
Sponsor-a-Scholar	This program is operated by a nonprofit organization and serves low-income students of color with average grades who demonstrate motivation and are nominated for participation by school staff. Participants have a volunteer adult mentor from 9th grade through the first year after high school, and receive academic support and college transition assistance. They receive a college scholarship upon high school graduation. (Philadelphia)
Talent Development High School	This is a comprehensive school reform model that aims to restructure large high schools with low student achievement, disciplinary problems, and high dropout rates. High schools are reorganized into smaller learning communities including Ninth Grade Success Academies that offer targeted support and Career Academies for grades 10-12. All students take a college preparatory curriculum with opportunities to close gaps in basic skills. (Nationwide)
Talent Search	This is a TRIO program that serves middle and high school students and offers college counseling including guidance in course selection and assistance with the process of transitioning to college. The program is usually hosted by a college or university that works with targeted middle and high schools. (Nationwide)
Upward Bound Math-Science	An initiative within Upward Bound that provides grants, usually to two- and four-year colleges and universities to develop college preparatory programs focused on math and science careers. The program offers summer and afterschool academic enrichment opportunities to high school students and some assistance with the college transition process. (Nationwide)
Washington State Achievers	The program integrates high school reform, early college awareness, college advising, mentoring, college scholarships, and student support in college. The program awards five-year grants to selected high schools in Washington State with large low-income populations. (Washington State)

Note. These descriptions were primarily drawn from Hooker & Brand (2009). Other sources used were Tierney et al. (2009) and Schultz & Mueller (2006).

18. Strategies used by programs with evidence of effectiveness

Programs	Academic preparedness			Expected attitudes and behaviors		College and career knowledge			
	Alignment of standards, curriculum & assessment	College & career ready course plan	Tracking progress and intervening when needed	Career and academic success behaviors (soft skills)	Mentors and advocates for students	College-going culture	College planning & transition steps	Engaging families in college-going process	Career exploration & planning
After School Matters				✓	✓				✓
Advancement Via Individual Determination (AVID)		✓	✓	✓			✓		
Career Academies					✓				✓
Citizen Schools			✓	✓	✓				✓
Diploma Plus		✓	✓			✓	✓		✓
Dual Enrollment	✓	✓	✓			✓	✓		
Early College High School		✓	✓	✓		✓	✓		
Enhanced Math in Career and Technical Education	✓								
First Things First			✓		✓				
Gear Up			✓		✓		✓	✓	
Hillside Work-Scholarship Connection			✓	✓	✓		✓		✓
KIPP Schools			✓	✓		✓			
National Guard Youth ChalleNGe				✓	✓		✓		✓
Sponsor-a-Scholar					✓		✓		
Talent Development High School		✓	✓	✓					
Talent Search		✓					✓	✓	
Upward Bound Math-Science			✓				✓		
Washington State Achievers		✓	✓		✓		✓	✓	

Note. Information to classify these programs by strategies was primarily drawn from Hooker & Brand (2009). Other sources used were Tierney et al. (2009) and Schultz & Mueller (2006).

19. Outcomes achieved by programs with evidence of effectiveness

Programs	Better attendance/ retention in middle/high school	Better academic performance in middle/high school	More progress completing college prep curriculum	Higher high school graduation rates	Higher enrollment in postsecondary education	Better performance or progress in postsecondary education	Other**
After School Matters	✓			✓			
Advancement Via Individual Determination (AVID)*		✓	✓				
Career Academies	✓	✓					✓
Citizen Schools	✓	✓		✓			
Diploma Plus	✓	✓					
Dual Enrollment				✓	✓	✓	
Early College High School			✓				
Enhanced Math in Career and Technical Education		✓					
First Things First	✓	✓		✓			
Gear Up			✓				
Hillside Work-Scholarship Connection		✓		✓			
KIPP Schools	✓	✓					
National Guard Youth ChalleNGe				✓	✓		
Sponsor-a-Scholar					✓		
Talent Development High School	✓	✓					
Talent Search				✓	✓		✓
Upward Bound Math-Science		✓	✓		✓	✓	✓
Washington State Achievers			✓		✓		

*Data from Saint Paul Public Schools (2012) suggest higher enrollment rates in postsecondary education for AVID high school graduates than all graduates from the same schools, Minnesota high school graduates overall , and high school graduates nationally.

**"Other" includes: more likely to apply for federal financial aid, more likely to major in math or science in college, more likely to be employed after high school, higher earning after high school, higher self-efficacy, and less likely to be arrested.

Note. Information to classify these programs by outcomes achieved was primarily drawn from Hooker & Brand (2009). Other sources used were Tierney et al. (2009) and Schultz & Mueller (2006).

Local program landscape

In this section we describe local college and career readiness programming serving students in Minneapolis and Saint Paul. An earlier effort was made by the Twin Cities Strive Working Group (2011) to identify Twin Cities programs and initiatives designed to improve educational outcomes and close the achievement gap. This effort found over 500 such programs and initiatives across the P-16 educational continuum. Our work builds on this effort, focusing specifically on college and career readiness programming serving Minneapolis and Saint Paul K-12 students. Between those programs identified in the prior effort and additional ones we identified, we have a total of 49 programs that we analyzed for purposes of this report. A spreadsheet was created (not contained in this report) that provides a number of items of information on each of these programs. These items include: name of organization and program, type of organization, types of services provided, strategies used, populations served, and several other items with very limited information available (e.g., numbers served, evidence of effectiveness, collaborative partners).

Of the 49 programs or initiatives identified, about half of them (25) were operated by nonprofit organizations, 11 by government organizations, seven by the Minneapolis and Saint Paul school districts (sometimes with partners), five by higher education institutions, and five by other types of organizations. With regard to areas served, 17 served Minneapolis or the Minneapolis school district, 10 served Saint Paul or the Saint Paul school district, 5 served multiple districts or locations locally, and 18 were statewide or beyond in their geographic scope of services. Most programs served middle school or high school students, or both, although a few programs served elementary school students too. Many of the programs targeted student groups underrepresented in higher education such as low-income students, students of color, immigrants or refugees, and first-time college goers. Sixteen programs were open to all students. Others served specific student groups only. For example, nine programs specifically served low-income students, five programs served students of color, and four programs served American Indian students. Two programs each served the following groups of students specifically: African Americans, Asians, and immigrants or refugees. A few other programs served even more specific groups defined by age, gender, and or race/ethnicity.

Several of the evidence-based programs described above are present locally. One of these is the Advancement Via Individual Determination (AVID) program which is an elective class in both Saint Paul and Minneapolis school district middle schools and high schools. It is also in 4th- 6th grades in about half of the elementary schools in Saint Paul. The program targets students in the academic middle and students underrepresented in higher education. Another evidenced-based program mentioned above is the federally funded

Gear-Up program. A local version of this program operated by the Minnesota Office of Higher Education is Get Ready. It serves students in grades 5-12 in eight schools (elementary, middle, and high schools), five schools in the Minneapolis school district and three in the Saint Paul school district. Talent Search (or Education Talent Search), a federally-funded TRIO program with evidence of effectiveness as mentioned above, is provided by local colleges and universities (Constantine, Seftor, Martin, Silva, & Myers, 2006). Other evidenced-based programs found locally are KIPP schools (one in Minneapolis) and local versions of Dual Enrollment programs. Regarding dual enrollment, both the Minneapolis and Saint Paul districts participate in the Post-Secondary Enrollment Options (PSEO) program offered statewide. This program tends to serve students from groups already well-represented in higher education (Schultz & Mueller, 2006). An example of a dual enrollment option more geared to underrepresented students is an arrangement between Saint Paul College and the Saint Paul school district for high school students to take technical courses at the college. There are no Early College High Schools in Minneapolis and Saint Paul at present. However, there is one in the Mounds View school district (Irondale High School).

There are other programs provided locally that may meet the criteria for at least a moderate level of evidence for effectiveness (i.e., experimental or quasi-experimental studies providing statistically significant evidence of effectiveness). Examples include Check & Connect, a drop-out prevention program developed by the University of Minnesota (Sinclair, Christenson, Evelo, & Hurley, 1998), and Breakthrough Saint Paul, an academic enrichment and support program for motivated, low-income middle-school students in Saint Paul (Mueller et al., 2011).

Further information on local programs follows, organized by the three areas of our definition of college and career readiness (academic preparedness, expected attitudes and behaviors, and college and career knowledge), and strategies within these areas. Figure 20 indicates the number of the 49 programs identified that included each strategy or sub-strategy.

20. Strategies used by local college and career readiness programs

Academic preparedness	
Provide academic interventions and supports	22
Academic/course planning	5
Alignment of standards, curricula, assessments	4
Professional development for faculty/staff	3
Track academic progress	2
Expected attitudes/behaviors:	
Career/academic success behaviors or soft skills	21
Mentoring	15
Advocates	5
College/career knowledge	
College/career planning and exploration	29
College entry/transition support	19
Career/college mapping	9
Engaging families	9
Foster college-going environment	3
Total programs	**49**

Note: Programs typically have more than one strategy

Academic preparedness

Alignment of standards, curriculum, and assessment to college-ready expectations

Not unexpectedly, few programs were working on this strategy. Much of this work must occur at the state level in determining standards, curriculum, and assessments. Significant work is occurring at the state level but much remains to be done to complete the alignment and implement it. Understandably, school districts such as Minneapolis and Saint Paul are currently more focused on helping their students meet high school graduation standards and requirements (such as the GRAD tests), which are not aligned with college readiness expectations.

Nevertheless, both Minneapolis and Saint Paul public schools offer rigorous curriculum options that help students become college ready. These include AP and IB courses and PSEO and other dual credit options. Generally, lower proportions of students in groups underrepresented in higher education are benefitting from these rigorous course opportunities, although their participation appears to have increased somewhat recently. A new Minnesota Department of Education website (http://readysetgo.state.mn.us) for

students, families, and educators provides information on these college readiness course opportunities.

Overall, the percentage of students in Minneapolis and Saint Paul school districts completing AP and IB courses was 40 percent and 47 percent, respectively, based on the most recent figures available (2012 data from the Minneapolis district and 2011 from the Saint Paul district). Across the two school districts, the percentage of white students completing these courses was about double the percentage for black, American Indian, and Hispanic students. Low-income and Limited English Proficient students also had lower rates of completing these courses. The percentages passing AP and IB exams was 26-34 percent for white students across the two districts and 2-13 percent for black, American Indian, and Hispanic students (Figures A5 and A6).

Finally, there were some professional development opportunities for teachers in IB course instruction or other rigorous courses provided by the Minnesota Department of Education and the University of Minnesota.

College-ready academic course plan

It is likely that the course advising districts do currently for many students is focused on the courses students need to meet high school graduation requirements rather than to meet college-ready expectations. However, many other students no doubt are getting guidance regarding the rigorous course-taking needed in high school to be prepared for college. In the Minneapolis Public Schools, 6th-12th graders have the opportunity to develop "My Life Plan" through the career and college centers operated by the Minneapolis Public Schools and AchieveMpls. Saint Paul Public Schools have also assisted students in developing six-year plans. A few other programs offer assistance to students in planning the courses they need to be college ready.

Intervening with students who need academic assistance

We didn't see much mention of tracking students' progress on college-ready plans and intervening in a timely manner if they get off track. It is likely that use of data to monitor student progress is more focused on their performance on the Northwest Education Association's Measures of Academic Progress (MAP) tests that the districts administer several times a year, as well as the Minnesota Comprehensive Assessments (MCA) and GRAD tests. This monitoring is primarily focused on meeting high school graduation requirements for proficiency rather than college-ready expectations.

Many programs provide academic help or support to students to improve their skills in reading, writing, math, or other subjects. We counted 22 programs that provide some

form of academic intervention or support. This help may take the form of individual tutoring, academic enrichment classes after school or during the summer, or other academic assistance such as homework help. The intensity of these efforts likely varies as well. It is hard to determine how much of this is focused on preparing students for college and how much is simply helping students to improve their academic skills generally in doing K-12 coursework. Whether or to what degree these efforts are coordinated with classroom teachers likely varies greatly.

Examples of a couple of programs aimed at helping students prepare for college follow:

Center for College Readiness. This program connects college instructors with high school students to provide direct feedback on students' college readiness skills in writing, reading, and math, based on reviewing students' work. It's a web-based program that targets students underrepresented in postsecondary education. South High School in Minneapolis and some Saint Paul Public Schools participate in the program.

Jump Start to College. This is a tuition-free program offered to Minneapolis Public Schools students by Minneapolis Community and Technical College (MCTC). Students can take pre-college classes at MCTC for high school credit (English, math, ESL) in the evening or summer, with academic support provided. This is a way for students to bring their academic skills up to a college-readiness level and avoid having to take remedial (i.e., developmental) courses after college entry.

Expected attitudes and behaviors

Career and academic success behaviors (soft skills)

We counted 21 programs that offer programming addressing attitudes and/or behaviors needed for success in postsecondary education or careers. The attitudes and behaviors addressed vary widely across programs, from helping to motivate students to providing academic success skills such as study skills or note-taking, to character-building (e.g., self-discipline, perseverance, or resilience) to workplace success skills such as teamwork and communication skills. These skills might be addressed in a classroom setting, through experiential learning, or actual workplace experiences. Soft skills are addressed through such programs as AVID and Ramp-Up to Readiness. Another example is Project SUCCESS which motivates students to dream about their futures and take steps to realize their dreams through activities such as goal setting, theater experiences, and college tours. A further example is the Rites of Passage program operated by the We Win Institute. This program serves African American middle school students in Minneapolis. Some of the areas addressed by the program include self-discipline, self-esteem, and

leadership. The Boys and Girls Club's Career Launch program includes training in finding and maintaining a job.

Student mentors and advocates

Related to the strategy of "surrounding students with adults and peers who build and support their college and career aspirations," we identified a number of programs that had student mentoring (15) or student advocate (5) components related to college and career readiness. Examples of programs with student mentoring include the Big Brothers/Big Sisters' Education and Enrichment Program, the Maadaadizi program for American Indian high school students in Saint Paul offered by the University of Minnesota, and Breakthrough Saint Paul. Programs offering advocates for students include the Check & Connect program in Minneapolis, the Girls Get Ahead in Leadership Program for immigrant and refugee high school girls operated by the Women's Institute for Self-Empowerment, and the American Indian Education Project in Saint Paul.

College and career knowledge

College and career planning and exploration

We counted 29 programs that listed college and career exploration or planning as a component of their program. This exploration and planning occurred along the K-12 spectrum but was most common in middle and high school. Nine programs indicated they did career/college mapping – i.e., assisting students in determining the postsecondary education programs they will need to prepare for entering their planned careers. Several programs indicated they seek to foster a college-going environment or culture.

"My Life Plan" is an effort by Minneapolis Public Schools and AchieveMPLS to help students explore and develop plans for college and career readiness over a six-year period with guidance from counselors. In middle school, students explore careers and make plans based on possible career paths. In 9th and 10th grades, students take inventories and surveys to assist them in self-exploration. In 11th and 12th grades, students transition to forming and carrying out a plan, ranging from career and college searches to college and job applications.

Many programs provide opportunities for students to visit college campuses and also to learn about careers through guest speakers or experiences in the community. AchieveMpls operates the Step-Up program that provides summer internship opportunities for many Minneapolis students in local organizations and businesses. The Youth Job Corps operated by the City of Saint Paul provides Saint Paul 14-24 year-olds with job training, job placement, and career exploration opportunities.

Transition steps for college entry

A variety of programs (19) assist students in the transition steps leading to college enrollment. These services may include helping students to prepare for and take college entrance exams such as the ACT or SAT, helping students complete college applications, and assisting with identifying and completing applications for scholarships and financial aid, including the completion of the FAFSA form. For example, College Possible assists low-income students in Minneapolis and Saint Paul with this process. Other local community organizations such as Hmong American Partnership, Neighborhood House, Pillsbury United Communities, and the Saint Paul YWCA, as well as federally-funded programs such as Talent Search, provide assistance to low-income students and students of color in the transition to college process.

Engage families in the college-going process

We counted nine programs that mentioned engaging families in learning about and supporting their children in the college-going process, including the financial aspects. For example, the Get Ready program has three events for parents per year, and program staff are in regular phone contact with parents and attend teacher conferences with them. The Minneapolis Public Schools' Connecting Parents to Education Opportunities program includes a component on preparation for college.

Observations on the local program landscape

Alignment of K-12 standards, curricula, and assessments with college and career readiness is in the works but has a long way to go. Much of this work, of course, needs to occur at the state level before the school districts can begin to implement it. The primary focus currently is on students meeting requirements for high school graduation. However, these requirements and assessments are not aligned with college readiness expectations of higher education institutions. Consequently, many high school graduates are not academically prepared for college. Nevertheless, there are opportunities for Minneapolis and Saint Paul high school students to take rigorous courses that will prepare them for college. These include AP and IB courses as well as PSEO and other dual credit options. The students who succeed in these courses and pass AP and IB exams tend to be students who come from groups well represented in higher education rather than underrepresented groups (Schultz & Mueller, 2006). Much more work needs to be done to reach all students performing in the middle or lower academically to provide them with the opportunities they need to become college and career ready. It is clear that currently local efforts are much more successful in getting such students enrolled in college than in preparing them academically to succeed and graduate from college.

It's somewhat of a patchwork currently with regard to the availability of various college and career readiness programs for students in Minneapolis and Saint Paul. There are many college and career readiness programs reaching one segment of the K-12 student population or another. It is very difficult to determine how well all segments of the student population are being reached. Information on the numbers and types of students served was not available for many of the programs identified. Schools tend to vary in the college and career readiness programming available to students. With regard to career and college centers, the Minneapolis school district has well-resourced centers in every high school while the resources available in such centers in Saint Paul high schools apparently vary considerably. Project SUCCESS reaches approximately 12,000 students in 16 middle and high schools in Minneapolis and Saint Paul. College Possible serves many low-income high school students in Minneapolis and Saint Paul. Get Ready serves students in eight Minneapolis and Saint Paul district elementary, middle, and high schools.

AVID is in most, but not all Minneapolis and Saint Paul district middle and high schools. It is an elective course that targets underrepresented students in the academic middle, and, consequently, the number of students it reaches is quite limited (e.g., approximately 100-200 per grade cohort in Saint Paul in grades 7-12, with about 100 graduating per year). Ramp-Up to Readiness, a comprehensive approach to college and career readiness, includes academic, college admission, financial, career, and social readiness. The program is currently in two Minneapolis district high schools, one Saint Paul district middle school, an integration district high school in Minneapolis, and one charter school in Minneapolis and one in Saint Paul.

Other observations follow:

- Many programs, including programs operated by nonprofit, community-based organizations, help students with college and career exploration and the steps needed to transition successfully into college.

- Similarly, many programs, including programs operated by nonprofit, community-based organizations, seek to assist students in developing the soft skills they will need to succeed in college and careers. However, the attitudes and skills addressed by these programs vary widely and there appears to be little rigorous evaluation of the effectiveness of these efforts.

- Among the college and career readiness programs identified, there appeared to be none managed by, or primarily funded by, business sector organizations.

- While African American males are at especially high risk for not being college and career ready, they were not specially identified as a target group by any of the

programs identified. However, we did find a Concordia University-Saint Paul Central High School project connected to AVID that aimed to increase the high school graduation rate of African American males (Walters & Williams-Wyche, 2013).

Key informant interview results

We conducted 12 interviews with local leaders and experts in the college and career readiness field in late February and March. The purpose of these interviews was to obtain the insights of knowledgeable people on the strengths and gaps in local college and career readiness efforts, and their thoughts and suggestions on how to improve these efforts. The focus was on Minneapolis and Saint Paul students. We interviewed representatives from the Minneapolis and Saint Paul school districts, community colleges, Minnesota Department of Education, Minnesota Office of Higher Education, University of Minnesota, Minnesota State Colleges and Universities, and local nonprofit direct service and advocacy organizations (see Appendix for the list of persons interviewed and the interview protocol). Results are summarized by the questions asked.

Strengths of current efforts

The questions asked regarding the strengths of college and career readiness efforts in Minneapolis and Saint Paul were as follows:

What do you think are the strengths of current efforts to help K-12 students become college and career ready? That is, in what areas are we doing well? Is there a specific strategy or program that you think is especially effective?

Themes that emerged from these questions are described below.

Many programs. Several interviewees noted that the Twin Cities has many programs addressing college and career readiness, both within the school districts and charter schools as well as in the community. Some interviewees also highlighted program partnerships between schools and other organizations as a strength. Generally, programs were seen as especially effective in helping students gain access to college (successful in getting students admitted), including underrepresented student groups, and less effective at getting students prepared to succeed in college. College Possible was highlighted as a program that is successful in helping low-income students gain access to college. Some interviewees saw the need for greater coherence or coordination of existing programming. One interviewee commented that "we are doing best with targeted programs that reach small subsets of students."

Rigorous high school course options. The offering of AP and IB courses, and PSEO and other dual credit options, in Minneapolis and Saint Paul high schools was seen as a strength. The effective collaboration between high school and college instructors in offering AP, IB, and concurrent enrollment courses was noted. However, some commented that

students from groups already well-represented in postsecondary education were the primary ones benefitting from these programs currently. Hence, these courses were seen as effective in preparing a segment of higher achieving students for college (perhaps, 20-30% of all students). In addition, some interviewees commented that there was growing awareness among students of the need to take rigorous courses in high school to be prepared for college.

Successful programs. A number of programs mentioned in the "local landscape" section above were cited by two or more interviewees as especially effective or successful. These included: AVID, AchieveMpls Step-Up summer internship program, My Life Plan, College Possible, and Get Ready. Other programs or activities mentioned by one interviewee included Ramp-Up to Readiness, AchieveMpls' college and career centers; the "Ready, Set, Go" website; Project SUCCESS; College Knowledge Month; Power of YOU; and use of the EXPLORE assessment to help students plan their high school coursework. Some commented that a number of these programs should be expanded to provide opportunities to more students, especially those in groups underrepresented in postsecondary education. Again, interviewees felt that overall existing programming was more effective at helping students get into college than in preparing them to succeed and graduate from college once they were there.

Alignment of K-12 to college expectations

The following question was asked of interviewees:

On the academic side, how well are we doing in aligning high school standards, curricula, and assessment to postsecondary institutions' expectations, and preparing students to meet those expectations?

Work on this is in early stages. The leadership for this must occur at the state level. Generally, interviewees felt that work on this has started but there is a long way to go. Progress has been made on aligning standards to college and career readiness expectations, but corresponding curricula haven't been developed, and assessments haven't been aligned. A bill was introduced in the Minnesota Legislature during the current session that would drop the GRAD tests and use assessments aligned with postsecondary education standards such as the EXPLORE, PLAN, ACT System (EPAS) or the College Board's system (PSAT, SAT). For now, as one interviewee commented, "the primary focus is on high school graduation and students meeting graduation standards."

Cohesive P-16 or P-20 education system. Some called for a more cohesive, coordinated education system from preschool through college or graduate education. A couple of interviewees commented that currently there are differences in the readiness expectations

of higher education institutions and that these institutions are not effectively communicating their expectations to K-12 schools.

Community college and K-12 collaboration. Several interviewees called for greater collaboration between the local two-year community colleges and high schools to achieve greater alignment and opportunities for students. Some small initiatives have already been started between the Minneapolis Public Schools and MCTC, and Saint Paul Public Schools and Saint Paul College (mentioned above). Greater collaboration could help motivate and better prepare students, especially students who are less strong academically or students from underrepresented groups in higher education.

Non-academic knowledge and skills for readiness

Those interviewed were asked the following question about non-academic preparedness:

On the non-academic side, how well are we doing in helping students develop the soft skills and college and career knowledge they need to be ready for college and the workplace?

Interviewees' responses mainly focused on soft skills rather than college and career knowledge. Generally, interviewees acknowledged the importance of soft skills for success in college and the workplace. Several interviewees saw a need for greater development of students' soft skills to better prepare them for college success. One interviewee commented that more students were leaving college for social and soft skills reasons than academic reasons. Another said that conversations are occurring among high school and college instructors about soft skills in order to better align expectations regarding them across the two systems, since there appeared to be a large gap in expectations between the two groups of instructors.

Underdeveloped area. Interviewees had a lot of questions about soft skills. It seems there may be a need for more clarity about which skills and behaviors are most critical for college and career readiness. There were questions about how to teach or facilitate the development of these skills, what the standards are, how to assess these skills, and whose responsibility it is to help students develop these skills. There are very little data available on how well students are doing in developing soft skills, although college faculty and employers appear to believe high school graduates' soft skills should be at a higher level of development.

Assessment. ACT has an assessment tool called "Engage" that includes some soft skills. The Get Ready program is planning to use this tool next year. The student as well as parents and a teacher complete the tool with reference to the student. The Search Institute is developing a soft skills survey tool.

Whose responsibility. Developing students' soft skills for college and career readiness was seen by several interviewees as a shared responsibility among schools, parents, youth and community organizations, extracurricular programs, and workplace training programs (e.g., internships, apprenticeships). Minneapolis and Saint Paul school districts don't have formal course offerings in this area. There are no significant incentives for the school districts to restructure their curricula to address this area currently. However, the AVID program addresses some soft skills such as academic success behaviors. Also, internship opportunities, such as those offered through the career and college centers in Minneapolis, can be helpful to students in developing workplace soft skills.

Weaknesses or gaps in current efforts

Next, we asked interviewees the following question about weaknesses or gaps:

What are the weaknesses or gaps in current efforts to help students become college and career ready? Are there particular issues or problems that are not being addressed effectively?

Need for P-12 system change to focus on college and career readiness for all students. Some interviewees called for major changes in the P-12 education system that would better align and focus the whole system on the goal of college and career readiness. This might include aligning resources and activities so that all students have the same opportunities to be college and career ready. The new system could have a continuum of opportunities beginning very early, with benchmarks for the skills students should have at specific points along the continuum. Student performance could then be monitored with regular assessments along the continuum so that students who get off track can be quickly identified. Timely interventions could then occur to help students get back on track and avoid remediation later, such as after college entry. This system would require greater coordination among programs and sharing of information about students. Currently, programs are missing many students who could benefit from them.

As discussed earlier, interviewees saw the need to better align the P-12 system with the higher education system, and for P-12 and higher education staff to work together more closely to better prepare students for postsecondary coursework.

Belief gap. Several interviewees referred to a need to change a mindset or certain beliefs for college and career readiness to be improved. That is, all educators need to have the belief that all students can be successful in postsecondary education, which they didn't think was the case now. They called for a college-going culture of high expectations in the schools. Also, one interviewee felt the current focus now was too strongly on getting

more students into four-year colleges or universities: "We think of going to college primarily as four-year institutions, when there are other [postsecondary] options."

More motivators, especially for students in the middle or lower academically. Some interviewees felt we needed to get students out in the community and on college campuses earlier to explore college and career possibilities. One said we need to move more toward a proficiency model rather than a "seat time" model to motivate students. Others thought students needed more opportunities to earn college credits in high school, such as with technical programs at two-year colleges. In addition, students appear to need greater awareness of existing opportunities of this kind and how they fit with their career goals. Another interviewee saw a need for students to have greater financial knowledge about college since some students lose motivation because they wrongly believe they cannot afford college.

Family engagement. Some interviewees felt that current college and career readiness programming does not engage families enough.

Soft skills. Some interviewees saw a need for greater development of students' soft skills to meet postsecondary institutions' expectations, as mentioned above.

Students needing more attention

Interviewees were asked the following question:

Are there any specific student groups that are not being reached adequately by current efforts?

Specific target groups. Interviewees especially highlighted the need to reach African American males more effectively with college and career readiness efforts. More generally, they listed African Americans, American Indians, and Latino students as needing more attention, and especially males. Other groups mentioned multiple times were English Language Learners (ELL), immigrants and refugees, and students of color. Other student groups mentioned were "middle of the road students" (in the middle academically and in income), Hmong, the highly mobile, those in the juvenile justice system, and those with learning disabilities.

Reaching fuller continuum of learners. Several interviewees commented that college and career readiness efforts need to include a fuller continuum of learners. One commented that there needs to be a "move to the middle" strategy that includes students in the 30th -70th percentile academically. He contended that these students are not taking the courses they need in high school to be college and career ready. However, they could be college ready if they started preparing earlier. Another commented that PSEO and

other early college opportunities are directed at the "high flyers" currently, but they could be a great opportunity for students in the middle academically as well, such as technical education students.

Most pressing issues

Next, we asked the following question:

In your view, what is the most pressing issue that needs to be addressed if the college and career readiness of students is to be improved substantially?

Many felt that there wasn't just one issue, that a multi-faceted approach was required to make substantial improvements in student readiness. A wide variety of issues were cited. They included the following:

■ <u>College and career readiness for all students</u>. Interviewees called for a strategy that includes all students instead of the targeted approach to college readiness we have currently. Some said we need an alignment of opportunities for all students. All students should be expected to have college and career plans. Schools should create a college-going culture. We need to figure out how to support the lowest performing students in the long run.

■ <u>Fostering all students' potential effectively</u>. Interviewees saw a need for an environment conducive to learning for all students. There is a racial equity issue here; students of color need to be reached more effectively. As a part of this effort, more students must be helped to see that they have the capacity to be successful. For example, some students' belief that they cannot do math needs to be changed.

■ <u>Leadership development to eliminate the belief gap</u>. One interviewee said leadership development is needed in education systems at the school board and administrative level to eliminate the belief gap that some children cannot learn and go on to postsecondary education. Another felt that we need programs with the mission and vision that they are contributing to the life-long success of participants.

■ <u>Focusing more on college graduation than college admission</u>. Some interviewees said college readiness efforts need to focus more on preparing the student for success in college rather than simply getting the student into college. For example, we need to take a hard look at why some students aren't succeeding in college even though they had good grades in high school.

■ <u>Alignment of assessments with college and career readiness and intervening early when students are off track</u>. Some interviewees commented that MCAs are not

college ready assessments. We need the EPAS or the SAT package. We need to intervene if assessments show students are off track so that remediation occurs before college entry.

■ Better coordination among programs. One interviewee wanted less competition among programs and more sharing of information and working cooperatively, rather than each program "starting from square one with students."

■ A soft skills focus. Some interviewees emphasized the importance of soft skills development. Key factors in students' success are motivation, resilience, and a mindset that "smart is not what you are, smart is what you can work to become."

■ Access to technology. A couple of interviewees felt students need better access to technology, especially low-income students.

■ More family and community involvement. Some interviewees called for more family and community involvement in college and career readiness, such as in building the soft skills students need for postsecondary education and workplace success.

Suggestions to address pressing issues

The final questions asked in the interview were as follows:

What would you suggest or recommend to address this [pressing] issue?
Do you have any further thoughts on improving the college and career readiness of students, or what Generation Next might do in this regard?

Some of the themes described in the previous questions on weaknesses, gaps, and pressing issues were mentioned again in response to these questions, with some additional thoughts and suggestions for Generation Next.

■ Systems-based approach. Systems-based solutions are needed; it's not enough for Generation Next to fund programs alone. One interviewee said: "The system needs an overhaul to form a measureable, culturally competent, culturally appropriate system." This would require teacher training and teachers who champion these changes. At the strategic level, we need a public, private, and nonprofit partnership. The business community needs to be engaged.

■ More equitable, inclusive system. College and career readiness efforts need to be more equitable, inclusive of a wide range of learners with the same access to opportunities. Programming needs to be flexible and creative to meet different

learners' needs. Recognize the need for students to train for middle-level skills jobs that require postsecondary education but not a four-year college degree.

- Articulated P-12 continuum of college and career readiness. A clear definition of college and career readiness is needed with benchmarks, goals, and opportunities for all along key points in the continuum that stretches back to preschool or kindergarten.

- Exposure and hands-on experience with potential careers. We need to get students out in the community to explore and gain exposure to various careers. They need to see for themselves that education can lead to something they want. Students have to see how their education can be applied or we lose them. One interviewee commented: "Education for education's sake doesn't make sense for a lot of kids."

- Focus on college readiness, not just access. One interviewee called for collaboration between college readiness groups and postsecondary education institutions to exam why students are struggling after admission to college. The interviewee commented: "We don't need another college admissions program, we need programs to support kids in getting a college degree."

- Focus on something schools cannot do alone. One interviewee advised that Generation Next should pick something to focus on that schools cannot do by themselves. The interviewee suggested the area of developing soft skills such as academic success skills or financial literacy.

- Better student access to technology. Generation Next could help students be more sophisticated users of technology.

- Accountability. One interviewee advised to be sure schools and community programs set challenging but achievable goals, and hold them accountable for them.

- Parent/family engagement. One interviewee again stressed the importance of parent or family engagement in college and career readiness.

- Stronger school-community connection. One interviewee felt that Generation Next was well positioned to connect the community (e.g., business community) with K-12 schools.

- Alternative ways of accessing students. Another interviewee suggested that Generation Next consider other ways of accessing students besides through the schools, such as through community-based organizations.

- And finally, one interviewee stated, "Generation Next needs to have a simple, concise vision."

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Appendix

Key informant interviews: List of interviewees

Pam Costain
President and CEO, AchieveMpls

Rassoul Dastmozd
President, Saint Paul College

Phil Davis
President, Minneapolis Community and Technical College

Mary Lou Dresbach
Director of Get Ready, Minnesota Office of Higher Education

Darlene Fry
Director, Office of College and Career Readiness, Saint Paul Public Schools

Emily Goff
Coordinator, Undergraduate Education, College of Education and Human Development,
University of Minnesota, Twin Cities

Karen Hynick,
Director of College Transitions, Minnesota State Colleges and Universities

Kent Pekel
President and CEO, Search Institute

Daniel Sellers
Executive Director, MinnCAN

Ken Simon
Director of College and Career Readiness, Minneapolis Public Schools

Julie Sweizter
Executive Director, College Readiness Consortium, University of Minnesota, Twin Cities

Sally Wherry
Supervisor, High School Initiatives, Center for Postsecondary Success, Minnesota
Department of Education

Key informant interview protocol: College and career readiness

Introduction

Wilder Research is doing some background research to help inform the Generation Next initiative in the Twin Cities on several issues. We would like to do a brief telephone interview with you regarding your views on college and career readiness efforts in Minneapolis and St. Paul – current strengths and gaps in these efforts, suggestions for improvement. The interview will take about 20 minutes. We are interviewing 12-15 local experts and leaders about college and career readiness. Results of the interviews will be included in a report that will be used by a network of Generation Next stakeholders working on the college and career readiness issue. The comments you provide will not be associated with your name in the report unless you grant us permission to do so. Is this a good time for the interview, or would you like to schedule it at a later time. Also, if you are not the best person to talk to in your organization about this issue, could you tell us who we might contact?

A few words about Generation Next… This is an initiative committed to closing the achievement gap among Twin Cities' low-income students and students of color. It is an unprecedented partnership of key education, community, government, and business organizations dedicated to accelerating educational achievement for all our children – from early childhood to early career. The Generation Next model includes a shared community vision, evidence-based decision making, collaborative action, and investment and sustainability.

By college and career readiness, we mean:

1. **Academic preparedness**: having the academic knowledge and skills to do postsecondary-level course work at two-year or four-year colleges, or other postsecondary institutions, without the need for remediation.

2. **Expected attitudes and behaviors or "soft skills:"** having the beliefs, attitudes and values and accompanying behaviors to succeed in postsecondary education and the workplace (e.g., motivation, perseverance, resilience, teamwork, self-efficacy, goal-setting, work ethic, and self-regulation skills).

3. **College and career knowledge:** Having the knowledge and support to successfully plan for and enroll in post-secondary institutions (college entrance exams, college applications, financial aid applications, etc.) and pursue careers (career awareness, exploration, etc.)

The focus is on the time prior to postsecondary entry.

Can we begin?

1. Do you have a particular area of knowledge or expertise within the general field of college and career readiness?

The following questions refer to college and career readiness efforts in Minneapolis and Saint Paul, unless indicated otherwise. Please answer for Minneapolis or Saint Paul, or both, depending on your knowledge, but please indicate to which area your answers apply. Also, please consider both what the schools are doing and what community-based or other organizations are doing in your answers.

2. What do you think are the strengths of current efforts to help K-12 students become college and career ready? That is, in what areas are we doing well?

   Why do you feel this way?

3. Is there a specific strategy or program that you think is especially effective?

   If so, what is the name of the strategy/program (and organization)? Who is the strategy/program reaching? What impact is it having?

4. On the academic side, how well are we doing in aligning high school standards, curricula, and assessment to postsecondary institutions' expectations, and preparing students to meet those expectations? Please explain your answer.

5. On the non-academic side, how well are we doing in helping students develop the soft skills and college and career knowledge they need to be ready for college and the workplace? Please explain your answer.

6. What are the weaknesses or gaps in current efforts to help students become college and career ready (again, in Minneapolis, Saint Paul or both)? Are there particular issues or problems that are not being addressed effectively?

7. Are there any specific student groups that are not being reached adequately by current efforts?

8. In your view, what is the most pressing issue that needs to be addressed if the college and career readiness of students is to be improved substantially?

9. What would you suggest or recommend to address this issue?

10. Do you have any further thoughts on improving the college and career readiness of students, or what Generation Next might do in this regard?

11. Do you have any suggestions for who else we might talk to about the college and career readiness issue locally?

   If so, please provide the person's name, organization, phone number, and e-mail address

12. Any closing comments?

Thank you very much for your time today. I will e-mail you a copy of my notes from the interview to make sure I recorded things accurately, and to give you the opportunity to make any changes that you think should be made.

I am also asking interviewees whether I have permission to identify them in association with their feedback in the final report. Would you be comfortable with this?
Thank you very much again for your time and the insights you provided which will be very helpful to our study.

Additional student baseline data figures

A1. Percent of students passing GRAD tests: 2012 Minneapolis Public Schools

Minneapolis Public Schools	9th grade writing (N=2,077)	10th grade reading (N=1,960)	11th grade math (N=1,830)
All students	80.9%	61.8%	38.3%
Race/ethnicity			
American Indian	79.2%	49.3%	24.1%
Asian	86.8%	59.5%	46.3%
Hispanic	77.9%	40.4%	27.4%
Black	68.9%	47.5%	16.2%
White	94.2%	89.7%	67.7%
Eligibility for free/reduced price meals			
Eligible	73.5%	46.3%	21.5%
Not eligible	95.8%	91.4%	69.3%
Limited English proficiency	56.8%	20.8%	8.8%

Source: *Minnesota Department of Education*

A2. Percent of students passing GRAD tests: 2012 charter schools in Minneapolis

Charter schools in Minneapolis	9th grade writing (N=395)	10th grade reading (N=471)	11th grade math (N=574)
All students	70.6%	52.2%	22.6%
Race/ethnicity			
American Indian	66.7%	Too few [a]	15.8%
Asian	Too few [a]	Too few [a]	Too few [a]
Hispanic	64.5%	55%	25.0%
Black	60.7%	23.6%	4.4%
White	84.2%	73.1%	30.5%
Eligibility for free/reduced price meals			
Eligible	62.2%	32.3%	12.4%
Not eligible	89.1%	77.9%	32.5%
Limited English proficiency	39.5%	8.5%	13.3%

Source: Minnesota Department of Education

Note. Race/ethnicity, Free or reduced-price meals, and LEP status were not reported for all students (many charter schools have missing data or could not report the data due to small number of students in the category). The percentages are based only on those where these characteristics were reported.

[a] *Fewer than 10 students in the group.*

A3. Percent of students passing GRAD tests: 2012 Saint Paul Public Schools

Saint Paul Public Schools	9th grade writing (N=2,465)	10th grade reading (N=2,412)	11th grade math (N=2,331)
All students	80.7%	60.8%	36.6%
Race/ethnicity			
American Indian	75.0%	72.0%	20.0%
Asian	77.3%	50.9%	35.5%
Hispanic	80.6%	58.3%	24.7%
Black	76.4%	54.4%	16.6%
White	93.4%	89.4%	66.9%
Eligibility for free/reduced price meals			
Eligible	76.2%	52.9%	27.2%
Not eligible	94.9%	84.3%	61.9%
Limited English proficiency	70.4%	38.1%	11.5%

Source: Minnesota Department of Education

A4. Percent of students passing GRAD tests: 2012 charter schools in Saint Paul

Charter schools in Saint Paul	9th grade writing (N=527)	10th grade reading (N=576)	11th grade math (N=454)
All students	87.3%	73.3%	47.4%
Race/ethnicity			
American Indian	Too few [a]	Too few [a]	Too few [a]
Asian	79.8%	47.7%	40.9%
Hispanic	Too few [a]	Too few [a]	Too few [a]
Black	72.9%	56.7%	25.8%
White	94.9%	92.2%	62.0%
Eligibility for free/reduced price meals			
Eligible	78.9%	54.4%	38.8%
Not eligible	96.7%	89.8%	59.7%
Limited English proficiency	Too few	0.0%	40.0%

Source: Minnesota Department of Education
Note. Race/ethnicity, free or reduced-price meals, and LEP status were not reported for all students (many charter schools have missing data or could not report the data due to small number of students in the category). The percentages are based only on those where these characteristics were reported.

[a] Fewer than 10 students in the group.

A5. Advanced coursework: 2012 Minneapolis Public Schools

Minneapolis Public Schools	Percent of all students taking advanced coursework N=3,553[a]	Percent of students completing advanced coursework N=3,064	Percent passing advanced coursework exams N=1,793[b]
All students	46%	40%	50%
Race/ethnicity			
American Indian	39%	26%	19%
Asian	57%	51%	38%
Hispanic	43%	33%	39%
Black	32%	25%	23%
White	60%	56%	61%
Eligibility for free/reduced price meals			
Eligible	38%	30%	30%
Not eligible	61%	58%	59%
Limited English proficiency	34%	26%	10%

Source: Minneapolis Public Schools.

[a] *Includes all 9th-12th grade students who took at least one AP or IB course in 2012.*

[b] *Includes students who took the AP or IB exams. Passing the exams means earning at least one score of 3 on an AP exam or a 4 on an IB exam.*

A6. Advanced coursework participation and results: 2011 Saint Paul Public Schools

Saint Paul Public Schools	Percent of all students taking advanced coursework	Percent of students completing advanced coursework[a]	Percent passing advanced coursework exams[b]
All students	-[c]	47%	9%
Race/ethnicity			
American Indian	-[c]	31%	-[c]
Asian	-[c]	51%	5%
Hispanic	-[c]	37%	3%
Black	-[c]	32%	2%
White	-[c]	68%	26%
Eligibility for free/reduced price meals			
Eligible	-[c]	40%	-[c]
Not eligible	-[c]	-	-[c]
Limited English proficiency	-[c]	33%	-[c]

Source: Saint Paul Public Schools.

[a] *Includes grades 9-12*

[b] *Percent of seniors scoring 3 or higher on an AP exam during high school years (includes only those who took the exams).*

[c] *Data unavailable.*