

# Getting Prepared



# 2016

Recent high school graduates and developmental courses

MINNESOTA   
**SLEDS**  
Statewide Longitudinal   
Education Data Systems 



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**About Minnesota SLEDS**

Minnesota has developed the Minnesota Statewide Longitudinal Education Data System (SLEDS) matching student data from pre-kindergarten through completion of postsecondary education and into the workforce. SLEDS facilitates analysis to address a range of educational programmatic and delivery methods to gauge their effectiveness, and ease the design of targeted improvement strategies that help students.

SLEDS brings together data from education and workforce to:

- Identify the most viable pathways for individuals in achieving successful outcomes in education and work;
- Inform decisions to support and improve education and workforce policy and practice, and
- Assist in creating a more seamless education and workforce system for all Minnesotans.

The Minnesota P-20 Education Partnership governs the SLEDS system. The project is managed jointly by the Minnesota Office of Higher Education (OHE), Minnesota Departments of Education (MDE), and Employment and Economic Development (DEED).

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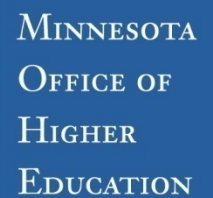
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# Executive Summary

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Minnesota is a state highly regarded for the academic achievement of both our K-12 and college students. Nationally, Minnesota ranks high in high school graduation rates and college attainment, but there are significant disparities among students of color and low income students. For the state's fast-growing populations – people from communities of color and families of modest financial means – the pathway to jobs requiring college education or training continues to have obstacles.

For Minnesota to remain globally competitive, our education and workforce systems need to ensure every high school student is on track to pursue the education necessary for careers of the future. There is a need to focus on the transition between high school and college in order to improve student outcomes.

The transition from high school to college can be more difficult for some students than others. States continue to report high numbers of students requiring remediation; Minnesota is not exempt from this trend. Examining Minnesota public high school graduates from the classes of 2007-2013 who enrolled in postsecondary education and those enrolled in developmental education, this report provides insight into the academic readiness of Minnesota public high school graduates.

## Getting Prepared Data

*Getting Prepared* fulfills the legislative mandate regarding developmental education data (*Minnesota Statute 13.32*, subdivisions 3 and 6). It provides summary information about Minnesota public high school graduates who enrolled in developmental courses within two years of their high school graduation at Minnesota postsecondary institutions. It does not include data about private high school graduates.

Reports prior to *Getting Prepared* 2014 were limited to information about public high school graduates enrolled in developmental courses only at public institutions - Minnesota State Colleges and Universities (Minnesota State) or the University of Minnesota. *Getting Prepared* 2016, includes data on enrollments at Minnesota private colleges and out-of-state college enrollments and additional student demographic and high school academic performance data. Linking individual student level data on Minnesota public high school graduates from 2007 to 2014 with fall term Minnesota Office of Higher Education college enrollment data and full year enrollment data from the National Student Clearinghouse enabled additional data.

Data for the 2016 report was provided by the Minnesota Statewide Longitudinal Education Data System (SLEDS), managed jointly by the Office of Higher Education (OHE), Minnesota Departments of Education (MDE) and Employment and Economic Development (DEED). SLEDS links student data from pre-kindergarten through completion of postsecondary and into the workforce to enable educators and policymakers to gauge the effectiveness of programs and design targeted improvement strategies.

***Getting Prepared 2016* tracks graduates enrolled in both Minnesota public and private postsecondary institutions; this means the overall percent of Minnesota public high school graduates requiring developmental education in college is most accurately reported as 26 percent for the class of 2013 and 22 percent for the class of 2014 (using preliminary data).<sup>1</sup>**

## **Defining Developmental Education**

In this report, “developmental education” is a term used to refer to programs offered by postsecondary institutions to prepare students for success in college-level work. “Remedial instruction,” the term used in *Minnesota Statutes* 13.32, can imply courses which repeat material taught earlier that the student did not learn adequately the first time. For many educators, “developmental education” is a broader term that encompasses pre-college-level education and other academic support services that the student may benefit from for any reason.

It should be noted that while postsecondary institutions typically assess the academic readiness of high school graduates for college level academic coursework, students can enroll in a variety of technical programs requiring less than college-level skills in reading, writing and/or math. Many students are able to graduate with postsecondary occupational certificates or diplomas and obtain a living wage job without being assessed college ready.

One clear consensus is that developmental education is costly both in terms of programmatic expenditures and opportunity costs for students who must spend additional time finishing developmental education requirements before starting degree-specific courses. Minnesota secondary and postsecondary education is currently working to address alignment issues to better prepare our future workforce.

## **Innovations in Developmental Education**

Many of Minnesota’s postsecondary institutions are currently implementing innovations in developmental education to increase student retention and completion rates. These innovations vary from institution to institution as programs are customized to meet the needs of students within their local context. These innovations include:

- **Acceleration models** are designed to increase students’ progress through developmental education over a shorter period of time.
- **Contextualized instruction models** enhances student learning of developmental education content through integrating basic skill instruction within a particular subject or linked with a college-level course.

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<sup>1</sup> *Getting Prepared 2010* estimated that 40 percent of 2008 Minnesota public high school graduates enrolled in developmental education when graduates enrolled only in Minnesota public postsecondary institutions were analyzed. Using SLEDS data, *Getting Prepared 2015* found 36 percent of 2008 Minnesota public high school graduates enrolled in developmental education courses in public postsecondary institutions. This figure declined to 34 percent for 2011 Minnesota public high school graduates in public postsecondary institutions. SLEDS currently is limited to fall term developmental education data, so it would be expected that SLEDS generated developmental education rates could be one to two percentage points higher when spring and summer data are included in future reports.

- **Math pathways** allow for students with various degree plans to take the required developmental education math courses that are needed for particular pathways.

Other curricular models and programs have been implemented by many Minnesota postsecondary institutions to increase student success in developmental education, such as student support services (tutoring, advising, and early alert systems), curricular redesign (flipped classrooms, required labs, and on-line modules) and targeted programming (summer bootcamps, bridge programs, partnerships with secondary schools, and partnerships with Adult Basic Education).

Many Minnesota postsecondary institutions are improving the course placement process to increase the accuracy and effectiveness of student placement into college-level or developmental education courses. The Minnesota State Colleges and Universities system implemented built-in non-cognitive questions in the Accuplacer course placement assessment that can enhance students' raw scores on the Accuplacer. A number of postsecondary institutions are implementing pilots incorporating multiple measures into the course placement process, using more than one measurement or assessment such as high school GPA, high school courses and grades, or non-cognitive assessments to determine a student's readiness for college-level coursework.

## **Findings: What the Data Tells Us**

Unless otherwise indicated the term "college" is used to reference any type of postsecondary institution, including both academic and vocational training.

Overall, Minnesota does well in moving students from public high school to college. However, gaps in enrollment exist for key groups of students, including students of color and lower income students.

*Getting Prepared 2016* provides policymakers a more accurate measure of college readiness. The data clearly indicate that almost all graduates enrolling in developmental education are served by Minnesota State Colleges and Universities (Minnesota State). In fact, among enrollees at public two-year community and technical colleges, the percent of recent graduates needing developmental education increased; though, overall developmental education rates for the state are stable. This is, in part, due to a decrease in the percent of recent graduates at four-year colleges enrolling in developmental education. Disparities in enrollment in developmental education exist for key groups of students, students of color, non-native speakers and lower income students.

## College Enrollment

**77 percent of 2013 public high school graduates enrolled in college within two years of graduation.**

**2013 graduates of color enrolled in college within the first two years at lower rates than their White and Asian peers.**

- 79 percent for White graduates
- 79 percent for Asian graduates
- 72 percent for Black or African American graduates
- 61 percent for American Indian graduates
- 61 percent for Hispanic or Latino graduates

**2013 graduates who spoke Somali at home had the highest rates of college enrollment within two years of graduating than other primary language groups.**

- 82 percent of graduates speaking Somali at home enrolled in college
- 78 percent of graduates speaking English at home enrolled in college
- 75 percent of graduates speaking Hmong at home enrolled in college
- 59 percent of graduates speaking Spanish at home enrolled in college

**2013 graduates enrolled in free or reduced price lunch enrolled in college within two years of graduating at lower rates than graduates who had not enrolled in free or reduced price lunch.**

- 82 percent of graduates not enrolled in free or reduced price lunch in high school
- 72 percent of graduates enrolled in free or reduced price lunch in high school

**2013 graduates from non-traditional schools enrolled in college within two years of graduating at lower rates than graduates of traditional public high schools.**

- 83 percent of graduates from traditional public high schools
- 63 percent of graduates from charter schools
- 57 percent of graduates from distance learning programs
- 33 percent of graduates from alternative schools

**Graduates receiving special education services enrolled in college within two years of graduating at rates lower than other students.**

- 82 percent of graduates not receiving special education services
- 41 percent of graduates receiving special education services

## Developmental Education

**26 percent of 2013 public high school graduates enrolled in one or more developmental courses within two years of graduating high school.**

Across all Minnesota colleges and universities, the percent of recent high school graduates who enrolled in developmental education within two years of graduating has decreased from 29 to 26 percent between 2007 and 2013.

**State rates mask differences in developmental education course-taking within college sectors.**

Among graduates enrolled in developmental education:

- 85 percent enrolled at Minnesota public two-year colleges
- 12 percent enrolled at Minnesota State Universities
- 2 percent enrolled at private for-profit colleges in Minnesota
- 1 percent enrolled at the University of Minnesota
- 1 percent enrolled at private not-for-profit colleges in Minnesota

**Public two-year colleges show the percent of high school graduates participating in developmental education courses within two years of graduating ranging from a low of 49 percent in 2013 to a high of 55 percent in 2010.**

Minnesota public two-year colleges have open admission policies and admit all students with a high school diploma in order to serve a larger population. This open admissions policy results in two-year colleges attracting students with a broad range of preparedness.

**Public four-year colleges show a steady decrease in the percent of recent graduates participating in developmental education courses within two years of graduating.**

- State universities show a decrease in the percent of students enrolled in developmental education between 2007 (26%) and 2013 (17%).
- University of Minnesota enrollment in developmental education courses ranged from 3 percent of students in 2007 to 2 percent in 2013.

**2013 graduates of color enrolled in developmental education within two years of graduating at higher rates than White students.**

- 53 percent for Black or African American graduates
- 42 percent for Hispanic or Latino graduates
- 35 percent for American Indian/Alaskan Native graduates
- 37 percent for Asian graduates
- 21 percent for White graduates

**Graduates whose primary home language was not English or who were identified as having limited English proficiency enrolled in developmental education at rates higher than English speakers.**

- 71 percent of graduates identified as English Language Learners
- 63 percent of graduates speaking Somali at home
- 47 percent of graduates speaking Spanish at home



- 47 percent of graduates speaking Hmong at home
- 24 percent of graduates speaking English at home

**2013 graduates enrolled in free or reduced price lunch had higher rates (40%) of developmental education within two years of graduating than other graduates (19%).**

- 40 percent for graduates enrolled in free or reduced price lunch in high school
- 19 percent for graduates not enrolled in free or reduced price lunch in high school

**Graduates receiving special education services enrolled in developmental education within two years of graduating at rates higher than other students.**

- 50 percent for graduates receiving special education services
- 24 percent for graduates not receiving special education services

## Testing

**Public high school graduates meeting the standards on statewide accountability tests have higher college enrollment rates and lower developmental education rates as compared to students not meeting the standards.**

### Math

- Grade 11 students meeting math standards: 90 percent enrolled in college and 7 percent enrolled in developmental education within two years of graduating
- Grade 11 students not meeting math standards: 68 percent enrolled in college and 43 percent enrolled in developmental education within two years of graduating

### Reading

- Grade 10 students meeting reading standards: 84 percent enrolled in college and 19 percent enrolled in developmental education within two years of graduating
- Grade 10 students not meeting reading standards: 57 percent enrolled in college and 57 percent enrolled in developmental education within two years of graduating

**The average ACT scores of students enrolled in developmental education are lower than the scores of graduates not enrolling in developmental education.**

- 2013 graduates enrolling in developmental education had ACT composite scores ranging from 17.4 at public two-year colleges to 20.0 at the University of Minnesota.
- ACT composite scores for 2013 graduates not enrolling in developmental education ranging from 19.5 at private for-profit colleges to 26.0 at the University of Minnesota.

## Student Outcomes

**Students in developmental education persisted at rates comparable to other students but graduated at lower rates.**

- For the class of 2013, developmental education enrollees persisted in college from first year to second year at rates similar to their peers by sector.

**Students in developmental courses graduated at rates six to 29 percentage points lower than peers.**

- The class of 2008 developmental education enrollees had sixth-year completion rates ranging from 46 percent at public two-year and for-profit institutions to 68 percent at the University of Minnesota.

**Data by individual public high school can be found in Appendix A (college enrollment) and Appendix B (developmental course-taking).**

# Introduction

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Minnesota is a state highly regarded for the academic achievement of both our K-12 and college students. Nationally, Minnesota ranks high in high school graduation rates and college attainment, but there are significant disparities among students of color and low income students. Participation in developmental education is one measure of the academic readiness of high school graduates for college level coursework. Minnesota policymakers have expressed concerns about the prevalence of developmental education, what form it should take, high school versus college responsibilities and who should pay for the classes.

*Getting Prepared* fulfills the legislative mandate regarding developmental education data (*Minnesota Statute 13.32*, subdivisions 3 and 6). It provides summary information about Minnesota public high school graduates who enrolled in developmental courses within two years of their high school graduation at Minnesota postsecondary institutions.

## Getting Prepared Data

Data for this report was provided by the Minnesota Statewide Longitudinal Education Data System (SLEDS), managed jointly by the Minnesota Office of Higher Education (OHE), Minnesota Departments of Education (MDE) and Employment and Economic Development (DEED). SLEDS links data from pre-kindergarten through completion of college and into the workforce to enable educators and policymakers to gauge the effectiveness of programs and design targeted improvement strategies.

Previous reports were limited to information about public high school graduates enrolled in developmental courses only at public institutions - Minnesota State Colleges and Universities (Minnesota State) or the University of Minnesota. *Getting Prepared 2016*, includes new data on enrollments at Minnesota private colleges and out-of-state college enrollments and additional student demographic and high school academic performance data. Linking individual student level data on Minnesota public high school graduates from 2007 to 2014 with fall term Minnesota Office of Higher Education college enrollment data and full year enrollment data from the National Student Clearinghouse enabled the ability to provide additional data.

**High school enrollment and graduate data** included 473,000 public high school graduates records from 2007 to 2014. Graduates are defined as a student with a status end code of “8” or “9” in the specified year. **The data used for *Getting Prepared* analyzed college enrollment data for high school students based on the student’s “Status End” code at a given point in time and is not comparable to graduation rate cohort data commonly used by the Minnesota Department of Education (MDE).** For example, students graduating from high school in 2014 may be members of different MDE graduation rate cohorts (2012, 2013 or 2014) depending on whether they took 4, 5 or 6 years to graduate.

**College enrollment data** included 1 million fall term records from the Minnesota Office of Higher Education and 2.1 million enrollment records from the National Student Clearinghouse for all available years. College students are classified based on their first college of enrollment. Analysis was focused on the first two years after high school graduation. Unless otherwise indicated college enrollment data refers to enrollment in both public and private colleges.

Due to a change in source data for the report, analysis did not include data on developmental education credits taken by students during spring or summer terms or the subject of developmental

education courses taken such as in math or reading. We plan to include these elements in future reports.

## **Changes from Prior Reports**

*Getting Prepared* 2014-2016 uses a different definition for students enrolling in fall term. Enrollment data used in this analysis comes from the Office of Higher Education and the National Student Clearinghouse. While data from the Office of Higher Education includes information about enrollment by course type (regular or developmental education), data from the National Student Clearinghouse does not. In order to best calculate the percent of fall term enrollees enrolling in developmental education, the count of students enrolling in fall term within two years of graduating high school is now restricted to those students whose data was provided to the Office of Higher Education. This change allows the Office of Higher Education to more accurately calculate the percent of graduates enrolled in fall term who also enroll in developmental education.

# Background on Developmental Education

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The transition from high school to a college can be more difficult for some students than others. While some students begin college-level coursework immediately upon enrollment at a college, others need additional preparatory or developmental coursework and/or support services prior to beginning college level courses. Enrollment in preparatory or developmental coursework can delay accruing credits for a degree program. Student preparation, their previous education and the criteria of the college granting admission affect whether a student begins immediately earning credits toward their degree program or whether preparatory coursework must be completed first.

States continue to report high numbers of students requiring developmental education (Complete College America, 2014); Minnesota is not exempt from this trend. Through an examination of recent Minnesota public high school graduates enrolled in developmental and/or remedial education, this report provides insight into the academic readiness of Minnesota public high school graduates.

## Defining Developmental Education

In this report, “developmental education” is a term used to refer to programs offered by postsecondary institutions to prepare students for success in college-level work. “Remedial instruction,” the term used in *Minnesota Statutes* 13.32, can imply courses that repeat material taught earlier that the student did not learn adequately the first time. For many educators, “developmental education” is a broader term that encompasses pre-college-level education and other academic support services the student may benefit from for any reason.

Developmental coursework helps students develop the skills and knowledge that will be required in college level courses in mathematics, reading, writing, and English as a Second Language. College level math generally requires skills in intermediate algebra. College level English requires the ability to make clear arguments. College level reading involves the ability to read and interpret text, identify main points, tone, purpose and inferences to discuss the author’s argument (Conley, 2007).

In addition to course work, other academic support services may be provided to help students and can include summer bridge programs, peer tutoring programs, cohort-based learning communities, or more personalized advising. Colleges typically assess the academic readiness of high school graduates for college level coursework. However, postsecondary technical programs may not require college level skills in reading, writing and/or math.

Developmental education provision allows a college to accept promising students who may lack necessary preparatory coursework. Besides helping students improve their skills in specific areas, developmental education serves the broader function of helping to expand college access.

Students enroll in developmental courses for a variety of reasons:

- High school coursework did not include classes required for the college major or program of study.
- Students completed the required coursework in high school but were not able to demonstrate the necessary skills on placement exams required by the college or university.
- Students may have delayed their college enrollment and now need to refresh or update their skills.
- Students for whom their first language is not English, may need to bolster their reading and writing skills.

## College Mission and Developmental Education Programs

All public colleges and universities in Minnesota enroll students who need developmental instruction. However, a college's mission is closely intertwined with the delivery and options available for developmental education. The type and availability of offerings of developmental education often reflect a college's student demographics and selectivity.

Nationally, 80 percent of public colleges and 98 percent of community colleges offer developmental courses (Bettinger & Long, 2006).

The types of developmental course offerings vary across college types.

- Minnesota public two-year colleges have open admission policies and admit all students with a high school diploma in order to serve a larger population. Open admission attracts students with a broad range of preparedness, including students in need of developmental reading, writing and mathematics courses. Minnesota public two-year colleges offer an extensive array of developmental courses and academic support services to meet the needs of a broader base of students.
- Four-year colleges, both public and private not-for-profit, generally have higher admission standards and expect prospective applicants to be prepared for college-level work. This expectation results in fewer developmental course offerings than Minnesota public two-year colleges.
- While many four-year colleges offer only one level of developmental education, Minnesota public two-year colleges may offer up to three levels for math, reading and English. Thus, students may test into the lowest level in math and English, resulting in six additional courses needed prior to arriving at a degree program (Bailey, Jeong, & Cho, 2010).
- All Minnesota public colleges offer at least one developmental mathematics, reading or writing course. Minnesota State Colleges and Universities offer developmental courses in all subjects: math, reading, writing, English as a Second Language and study skills. The colleges may offer up to three levels of developmental math courses ranging from pre-algebra to intermediate algebra.
- University of Minnesota campuses offer only one level of developmental education in a math course. One campus offers a course on study skills.

Changes in how developmental education is structured do make it harder to track enrollment in developmental education over time. Bridge programs easing the transition from high school to college are typically not credit bearing courses and would not be counted in Minnesota's current measures of developmental education.

## Identifying Students Who Need Developmental Education

How to identify students needing developmental education has been a topic of review. Some researchers have found that relying too heavily on a placement test score alone can be problematic and support a shift to a holistic review of student tests and high school transcripts. Research from Belfield and Crosta (2012) highlighted severe error rates for placement tests, resulting in almost a third of students incorrectly assigned to developmental education. The report confirms a weak correlation between placement test scores and college grade point average (GPA), but a high correlation between high school GPA and college GPA (Belfield & Crosta, 2012).

Another study among a subset of Minnesota State two-year colleges found that “sole reliance on ACCUPLACER [a set of computerized tests from The College Board] scores for developmental course placements may result in placing too many students below their ability level” (Asmussen, 2013). Minnesota State has developed a new practice of using multiple measures for placing students into developmental education including analyzing high school transcript information, ACT subject area scores and ACCUPLACER results described below.

### Methods Used by Minnesota Colleges

Minnesota colleges review placement test scores, college readiness exams and high school transcripts to determine whether a student needs developmental education.

- **University of Minnesota** campuses require students to take placement exams in mathematics, regardless of ACT, Advanced Placement or International Baccalaureate test scores. Additionally, colleges within the University of Minnesota may require placement exams in chemistry or second language proficiency before initial registration. The placement score, transcript and other measures are used to advise students on their initial mathematics course placement. Students are not required to take developmental courses.
- **Minnesota public two-year colleges** assess students for course placement with ACCUPLACER. Since fall semester 2008, cut scores in math, English and reading on the ACCUPLACER have been used to determine which students are ready for college level courses and which need developmental education. Cut scores for levels of developmental education vary among colleges. Students who have taken the ACT or SAT may submit those subject scores to determine placement. Prior to 2006, some colleges used a paper-and-pencil version of the College Board tests, known as the Descriptive Tests of Language Skills (DTLS) and Descriptive Tests of Mathematics Skills (DTMS). Others used ACT Compass to determine placement.
- **Minnesota State Universities** use ACT test scores and ACCUPLACER scores for course placement.
- Among **Minnesota private colleges**, developmental education policies vary by college. For example, some colleges use standardized test scores, such as ACT, ACT Compass or SAT, and an assessment of students’ prior course work to determine whether developmental mathematics and writing courses are needed. Other colleges determine the need for placement exams based solely on the ACT math score and the math course the student intends to take in preparation for a specified major or program.

# Innovations in Developmental Education

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Many of Minnesota's postsecondary institutions are currently implementing innovations in developmental education to increase student retention and completion rates. These innovations vary from institution to institution as programs are customized to meet the needs of students within their local context. Some examples of innovations in developmental education across Minnesota postsecondary institutions include the following:

- Minnesota State Colleges are implementing various **accelerated learning programs**, such as the Accelerated Learning Program model **or supplemental academic instruction**. Acceleration models are designed to increase students' progress through developmental education over a shorter period of time. There are a number of different acceleration models being implemented. In these types of programs, developmental learners enroll in college-level courses immediately and utilize supplemental supports to support their success. Supplemental support can come in the form of mandatory companion classes, lab sessions, integrated tutorial support, and/or additional class sessions.

Colleges include:

Anoka-Ramsey Community College  
Century College  
Inver Hills Community College  
Minneapolis Community and Technical College  
Minnesota State Community and Technical College  
Normandale Community College  
North Hennepin Community College  
Rainy River Community College  
Rochester Community and Technical College  
St. Cloud Technical and Community College

- Colleges are also offering an **integrated reading and writing course(s)**. By merging together the reading and writing curriculum, students can address their learning needs for both content areas through one developmental education course appropriate for their skill level.

Colleges include:

Central Lakes College  
Hibbing Community College  
Inver Hills Community College  
Lake Superior College  
Minnesota State College Southeast  
Minnesota State Community and Technical College  
Normandale Community College  
Northland Community and Technical College  
Northwest Technical College  
Rainy River Community College  
Ridgewater College



- Colleges are implementing **compressed offerings or fast-track courses** in which students can complete two developmental education sequence courses in one semester. Courses are scheduled, for example, for longer class periods in eight-week sessions.

Colleges include:

Anoka Technical College  
 Fond du Lac Tribal and Community College  
 Hennepin Technical College  
 Lake Superior College  
 Mesabi Range College  
 Minnesota State Community and Technical College  
 Minnesota West Community and Technical College  
 Riverland Community College  
 Saint Paul College  
 St. Cloud Technical and Community College  
 Vermilion Community College

- Colleges are offering a **single sequence developmental course** that enables students to complete their developmental education requirement in particular subject areas within one semester. To ensure that the institution can meet the broad range of learning needs of the students, some campuses offer one-semester courses with varying credit options based on students' academic readiness.

Colleges include:

Alexandria Technical and Community College  
 Century College  
 Dakota County Technical College  
 Fond du Lac Tribal and Community College  
 Lake Superior College  
 Normandale Community College  
 Minnesota State University, Mankato  
 Minnesota State University Moorhead  
 Southwest Minnesota State University  
 Winona State University

- Colleges are using a model that breaks down a semester-long course into **smaller, competency-based units** that allow students to spend time addressing specific skill deficits. These institutions are implementing the Assessment and Learning in Knowledge Space (ALEKS) program, a web-based, artificial intelligent assessment and learning system that diagnoses learning gaps for students and provides tailored instructional materials that addresses the individual learning needs of students to master curriculum topics. Some institutions are also using other types of technology-enhanced curricula in mathematics.

Colleges include:

Anoka Technical College  
Dakota County Technical College  
Lake Superior College  
Minneapolis Community and Technical College  
Normandale Community College  
Vermilion Community College  
Winona State University

**Contextualized instruction models** enhances student learning of developmental education content through integrating basic skill instruction within a particular subject or linked with a college-level course. Some campuses with technical programs also offer contextualized math courses within a specific program's curriculum that prepares students with the applied math skills needed in that particular field or industry.

- Colleges are implementing various forms of **paired courses and/or learning communities**, which involves coupling courses with similar requirements (e.g. literature course and a writing course; developmental reading course and general education course). This type of pairing allows students to learn within a community of learners, be a part of integrated learning environments, and apply knowledge and learning across disciplines.

Colleges include:

Anoka-Ramsey Community College  
Century College  
Dakota County Technical College  
Fond du Lac Tribal and Community College  
Hibbing Community College  
Itasca Community College  
Mesabi Range College  
Minnesota State University, Mankato  
Normandale Community College  
North Hennepin Community College  
Rainy River Community College  
Ridgewater College  
Rochester Community and Technical College  
Saint Paul College  
St. Cloud Technical and Community College

**Math pathways** allow for students with various degree plans to take the required developmental education math courses that are needed for particular pathways. Additionally, many campuses with technical programs may have program math requirements that do not require college level mathematics for that particular industry and associated credential.

- Many colleges have **two or more math pathways** available for students. Pathways may lead to college-level courses in college algebra, statistics, and/or quantitative reasoning.

Colleges include:

Alexandria Technical and Community College  
Anoka-Ramsey Community College  
Bemidji State University  
Central Lakes College  
Century College  
Dakota County Technical College  
Hennepin Technical College  
Inver Hills Community College  
Lake Superior College  
Mesabi Range College  
Minnesota State College Southeast  
Normandale Community College  
North Hennepin Community College  
Pine Technical and Community College  
Saint Paul College  
South Central College  
Southwest Minnesota State University  
St. Cloud Technical and Community College  
Winona State University

- Colleges are using a contextualized instruction model in which students learn developmental math concepts in the context of college-level curriculum. These institutions are implementing the **Statway or Quantway programs**, programs advanced by the Carnegie Foundation for the Advancement of Teaching that promote growth mindset and holistic learning environments. Statway is focused on statistics, data analysis, and causal reasoning and Quantway is focused on quantitative reasoning.

Colleges include:

Minneapolis Community and Technical College  
Minnesota State College Southeast  
Normandale Community College  
North Hennepin Community College  
Ridgewater College  
Rochester Community and Technical College

Other curricular models and programs have been implemented by many Minnesota postsecondary institutions to increase student success in developmental education, such as student support services (tutoring, advising, and early alert systems), curricular redesign (flipped classrooms, required labs, and on-line modules) and targeted programming (summer bootcamps, bridge programs, partnerships with secondary schools, and partnerships with Adult Basic Education).

Many Minnesota postsecondary institutions are improving the course placement process to increase the accuracy and effectiveness of student placement into college-level or developmental education courses. The Minnesota State Colleges and Universities system implemented built-in non-cognitive questions in the Accuplacer course placement assessment that can enhance students' raw scores on the Accuplacer. A number of postsecondary institutions are implementing pilots incorporating multiple measures into the course placement process, using more than one measurement or assessment such as high school GPA, high school courses and grades, or non-cognitive assessments to determine a student's readiness for college-level coursework.

# Legislative Changes Affecting Developmental Education

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In 2015, the Minnesota Legislature passed several provisions focused around developmental education. Concerns about developmental education included costs to students, confusion regarding placement into developmental courses, decreased likelihood of completion and delay in completion.

The legislative provisions about developmental education were focused on Minnesota State institutions and specifically addressed concerns regarding placement and completion. The legislative intent of the changes focused on reducing the prevalence of developmental education, ensuring that students are appropriately placed into developmental education and facilitating student success. There were four provisions enacted by the 2015 Legislature.

1. Reduction in students taking developmental courses was included in Minnesota State's performance funding goals establishing a financial incentive to reduce developmental education enrollments.

*Minn. Laws 2015 Chapter 69 Article 1 Sect. 4 Subd. 3*

*Goal (4) decrease by at least ten percent the fiscal year 2015 headcount of students enrolled in developmental courses compared to fiscal year 2013 headcount of students enrolled in developmental courses;*

2. A student may not be placed in remedial courses if the student has received a college ready ACT score (by subject area). *Minn. Laws 2015 Chapter 69 Article 3 Sect. 15 Subd. 1*
3. Minnesota State must supply students with ACCUPLACER test preparation materials, time to review the materials, and the opportunity to retest. *Minn. Laws 2015 Chapter 69 Article 3 Sect. 15 Subd. 2*
4. Minnesota State must report on remedial coursetaking, including the percent of students placed in remedial education and the percent of students who complete remediation within one academic year. The report must disaggregate data for each college and university by race, ethnicity, Pell Grant eligibility, and age. *Minn. Laws 2015 Chapter 69 Article 3 Sect. 16.*

## Impact

The Legislature proposed a range of language regulating developmental education policies at Minnesota State. The final four provisions do serve to highlight policies and procedures regarding placement and its impact on completion and are discussed in the *Getting Prepared 2014* report. The provisions do not serve to eliminate developmental education, nor to replace it with specific instruction, curriculum or program. Furthermore the developmental education course costs are still paid by the student. A related provision requiring Minnesota State to create a College Completion Plan suggests that Minnesota State replace developmental courses, when appropriate, with corequisite courses including supplemental academic instruction (*Minn. Laws 2015 Chapter 69 Article 3 Sect. 22*). However the final provisions are at Minnesota State's discretion to determine.

No funds were appropriated for these provisions.

Confusion remains about who needs developmental education, how developmental education should be offered, how successful developmental education is, and whether developmental education assists

or hinders student's educational success. It is expected that debate over the role and effectiveness of developmental education in Minnesota and nationally will continue for the next several years if not longer.

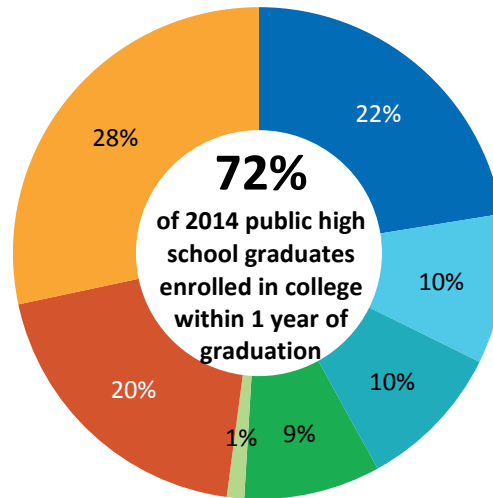
# State-Level Findings

Data by individual public high school can be found in Appendix A (college enrollment) and Appendix B (developmental course-taking).

## College Enrollment of Public High School Graduates

Of 2014\* public high school graduates, 52 percent enrolled within **one year** at a Minnesota college and 20 percent enrolled outside of Minnesota – a combined enrollment rate of 72 percent.

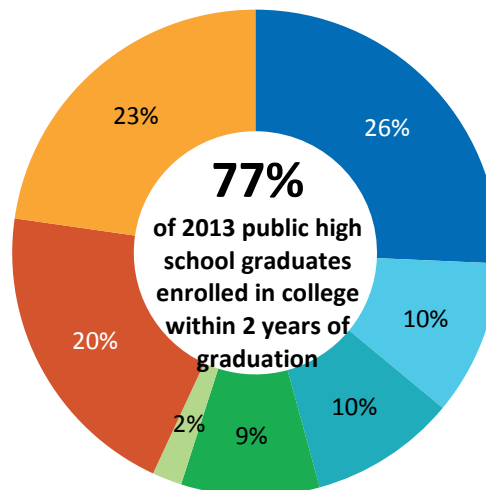
- Minnesota public two-year colleges 22%
- Four-year public colleges 20% (10% State Universities; 10% University of Minnesota)
- Private colleges 10% (9% private not-for-profit colleges; 1% private for-profit colleges)
- Colleges outside Minnesota 20%



- Enrolled at Minnesota Public Two-Year Colleges
- Enrolled at Minnesota State Universities
- Enrolled at the University of Minnesota
- Enrolled at Minnesota Private Not-for-profit Institutions
- Enrolled at Minnesota Private For-profit Institutions
- Enrolled Out-of-State
- Did Not Enroll

Of 2013 Minnesota public high school graduates 77 percent enrolled in college within **two years** of graduating as follows:

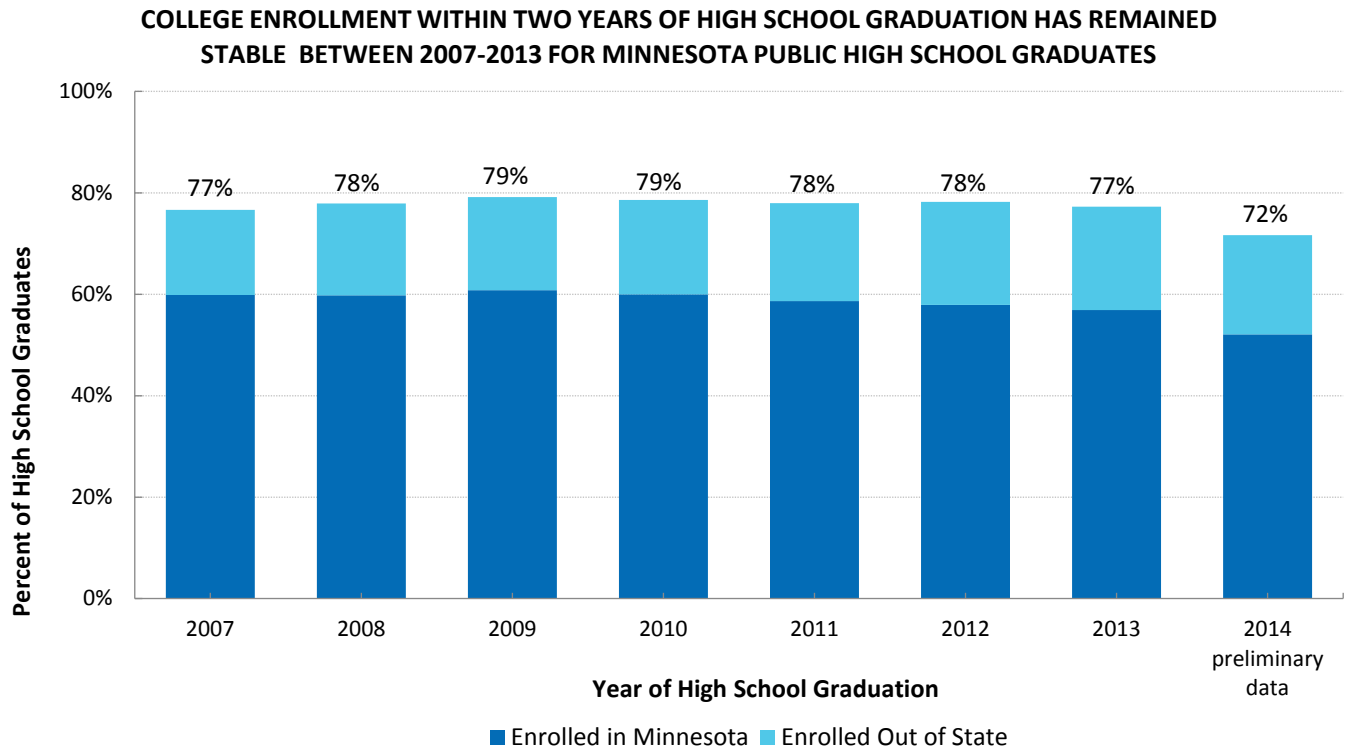
- Minnesota public two-year colleges 26%
- Four-year public colleges 20% (10% State Universities; 10% University of Minnesota)
- Private colleges 11% (9% private not-for-profit colleges; 2% private for-profit colleges)
- Colleges outside Minnesota 20%



- Enrolled at Minnesota Public Two-Year Colleges
- Enrolled at Minnesota State Universities
- Enrolled at the University of Minnesota
- Enrolled at Minnesota Private Not-for-profit Institutions
- Enrolled at Minnesota Private For-profit Institutions
- Enrolled Out-of-State
- Did Not Enroll

\*Enrollment within two years of graduation for 2007-2013 graduates and within one year of graduation for 2014 graduates; data for 2014 graduates is considered preliminary and should not be used in trend analysis.

The two-year enrollment rate has remained relatively stable over the most recent eight years ranging from 77 percent to 79 percent.



Additional college enrollment data can be found in Table 2.

\*Enrollment within two years of graduation for 2007-2013 graduates and within one year of graduation for 2014 graduates; data for 2014 graduates is considered preliminary and should not be used in trend analysis.



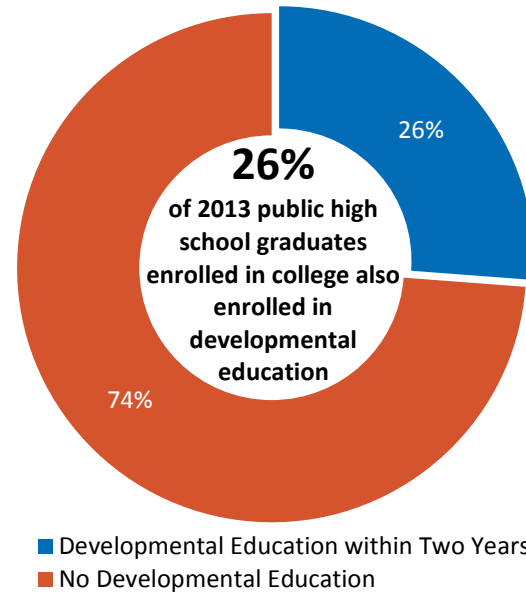
## Developmental Education Course-Taking of Public High School Graduates

Twenty-six percent of 2013 public high school graduates enrolled in one or more developmental education courses. The percent would likely be lower if developmental education course data for recent public high school graduates enrolling out-of-state were included.

### Enrollment in developmental education varies by college type.

Among graduates enrolled in developmental education:

- 85 percent enrolled at a Minnesota public two-year college
- 12 percent enrolled at Minnesota State Universities
- 2 percent enrolled at private for-profit colleges in Minnesota
- 1 percent enrolled at the University of Minnesota
- 1 percent enrolled at private not-for-profit colleges in Minnesota



As shown in Table 1 below, the Minnesota State system, reflecting its mission of providing open access, served the vast majority of graduates requiring developmental education (97% total; 85% at MN public two-year colleges and 12% at state universities). This includes providing developmental education courses for graduates primarily enrolled at other colleges.

**Table 1: Number of Students Enrolling in Developmental Education by College**

	Graduates Enrolled in Developmental Courses within Two Years of Public High School Graduation By Sector Offering Developmental Education Credits (includes students first enrolling outside MN then transferring to a MN college)						
	Total Minnesota	Minnesota Public Two-Year Colleges		Minnesota State Universities		Other Minnesota Colleges and Universities (University of Minnesota and Private)	
Year of High School Graduation	Number of Students	Number of Students	Percent of Total	Number of Students	Percent of Total	Number of Students	Percent of Total
2007	10,161	8,041	79%	1,584	16%	653	6%
2008	10,526	8,519	81%	1,416	13%	693	7%
2009	9,884	8,130	82%	1,281	13%	559	6%
2010	10,051	8,480	84%	1,179	12%	478	5%
2011	9,431	8,062	85%	1,059	11%	389	4%
2012	9,066	7,694	85%	1,089	12%	352	4%
2013	8,452	7,153	85%	997	12%	358	4%
2014 (preliminary data)	6,222	5,193	83%	877	14%	153	2%

\*Enrollment within two years of graduation for 2007-2013 graduates and within one year of graduation for 2014 graduates; data for 2014 graduates is considered preliminary and should not be used in trend analysis.

**Overall, 28 percent of 2013 public high school graduates enrolled in 1 to 3 credits of developmental education. Seventeen percent enrolled in 10 or more credits.**

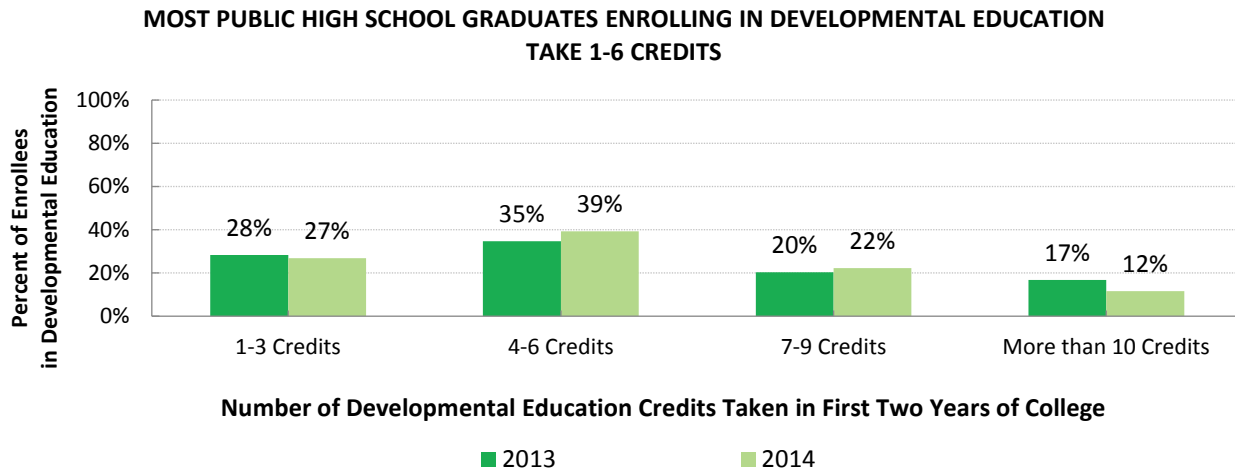


Table 3 provides additional information on developmental course-taking among all graduates.

Table 4 and Table 5 provide additional information on developmental education enrollments by college type and sector

**Overall, 43 percent of developmental credits taken by 2013 public high school graduates were developmental math credits.**

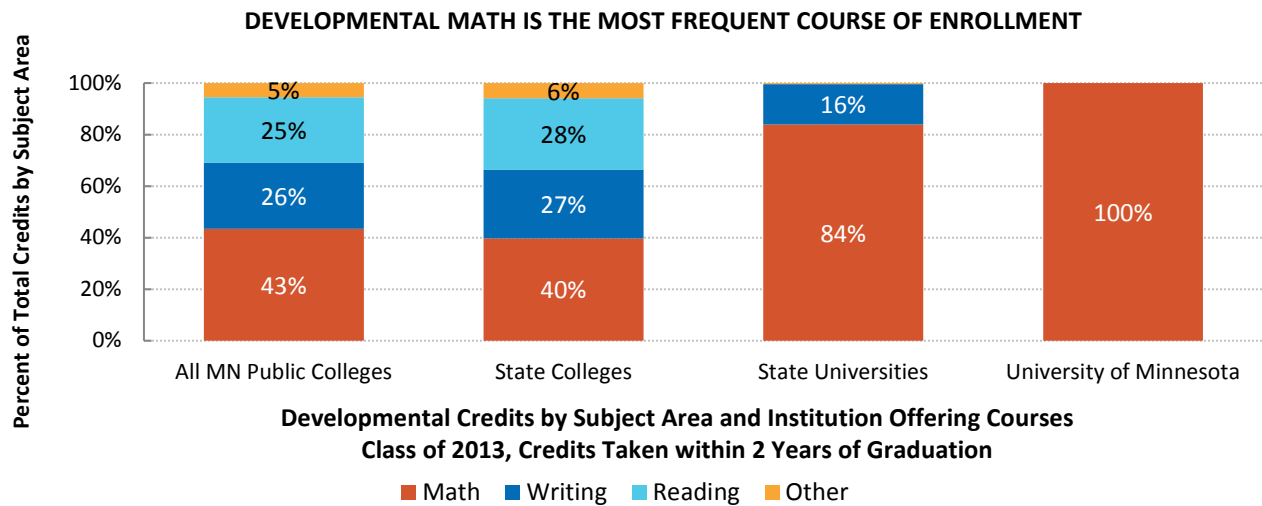


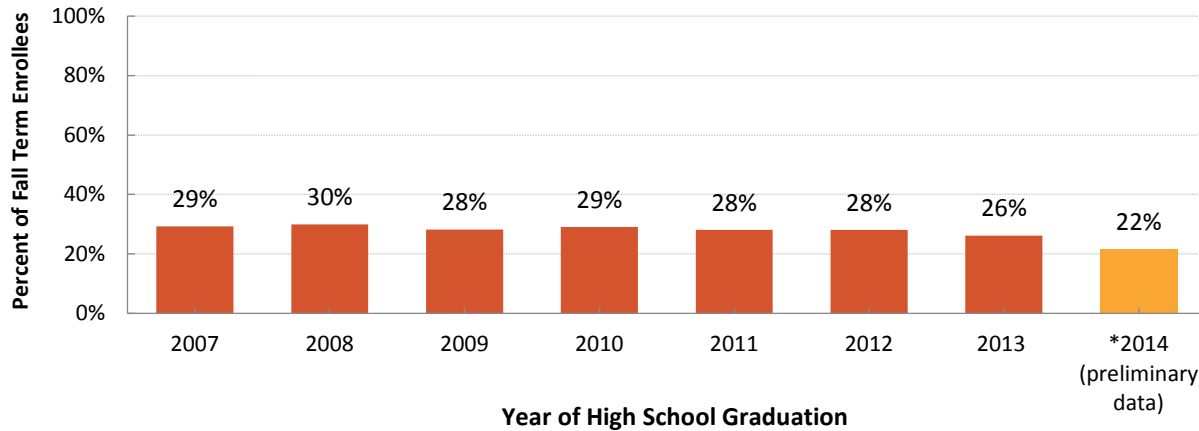
Table 6 provides additional information on developmental course-taking by subject among all graduates.

\*Enrollment within two years of graduation for 2007-2013 graduates and within one year of graduation for 2014 graduates; data for 2014 graduates is considered preliminary and should not be used in trend analysis.

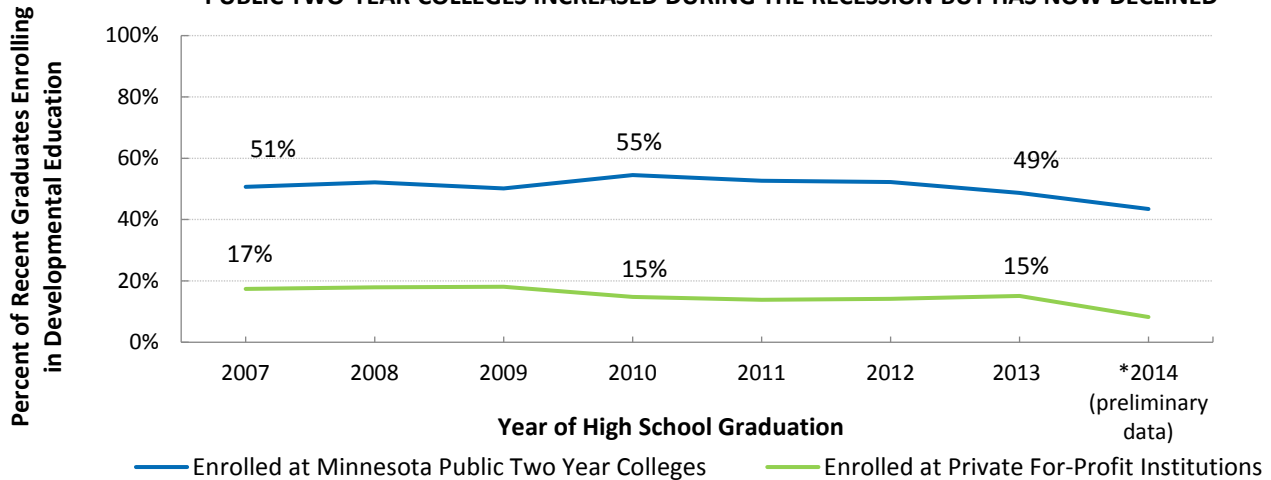
## Trends in Developmental Education over Time

**In Minnesota, the percent of public high school graduates enrolled in one or more developmental credits during fall term has declined from 29 to 26 percent between 2007 and 2013.**

**PERCENT OF PUBLIC HIGH SCHOOL GRADUATES ENROLLED IN DEVELOPMENTAL COURSES HAS DECLINED FROM 29% TO 26% BETWEEN 2007 TO 2013**



**PERCENT OF RECENT GRADUATES ENROLLED IN DEVELOPMENTAL EDUCATION AT MINNESOTA PUBLIC TWO-YEAR COLLEGES INCREASED DURING THE RECESSION BUT HAS NOW DECLINED**



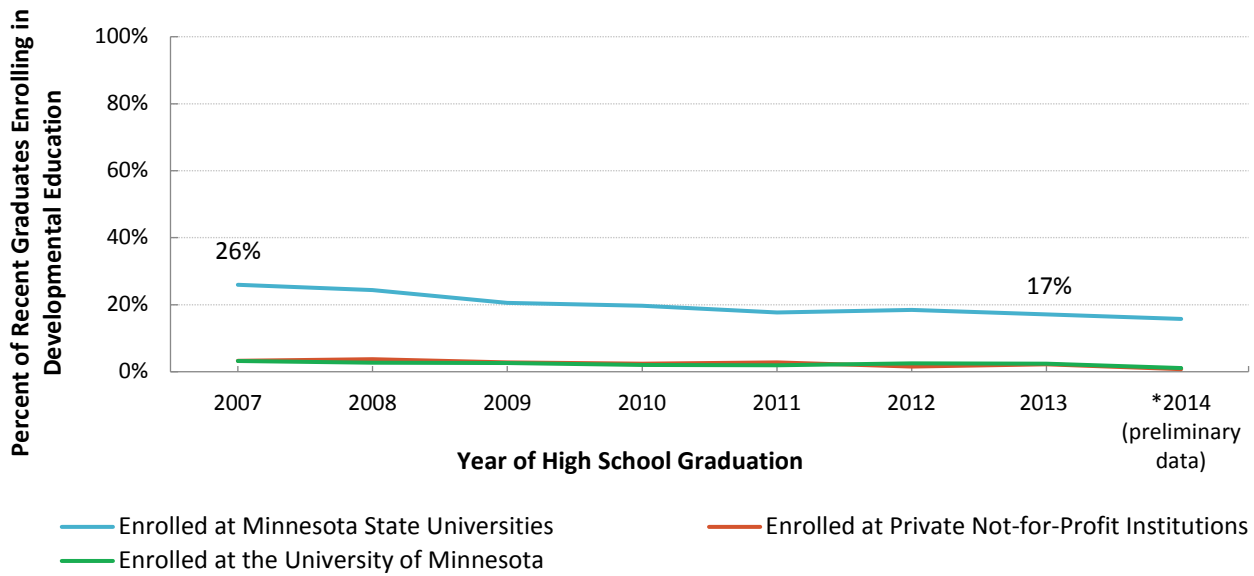
### State rates mask differences in developmental education course-taking within college sectors

Approximately half of all high school graduates enrolled in public two-year colleges participated in developmental education courses within two years of graduation from high school. The rate increased during the recession as participation in college increased but has now declined.

Private for-profit college enrollment in developmental education ranged between 14 and 18 percent.

\*Enrollment within two years of graduation for 2007-2013 graduates and within one year of graduation for 2014 graduates; data for 2014 graduates is considered preliminary and should not be used in trend analysis.

**PERCENT OF RECENT GRADUATES ENROLLED IN DEVELOPMENTAL EDUCATION  
DECREASING AT FOUR-YEAR COLLEGES**



State universities show a decrease in the number of students enrolled in developmental education between 2007 (26%) and 2013 (17%).

The percentage of public high school graduates at private not-for-profit institutions and at the University of Minnesota enrolling in developmental education is very low across all years (2% to 4%).

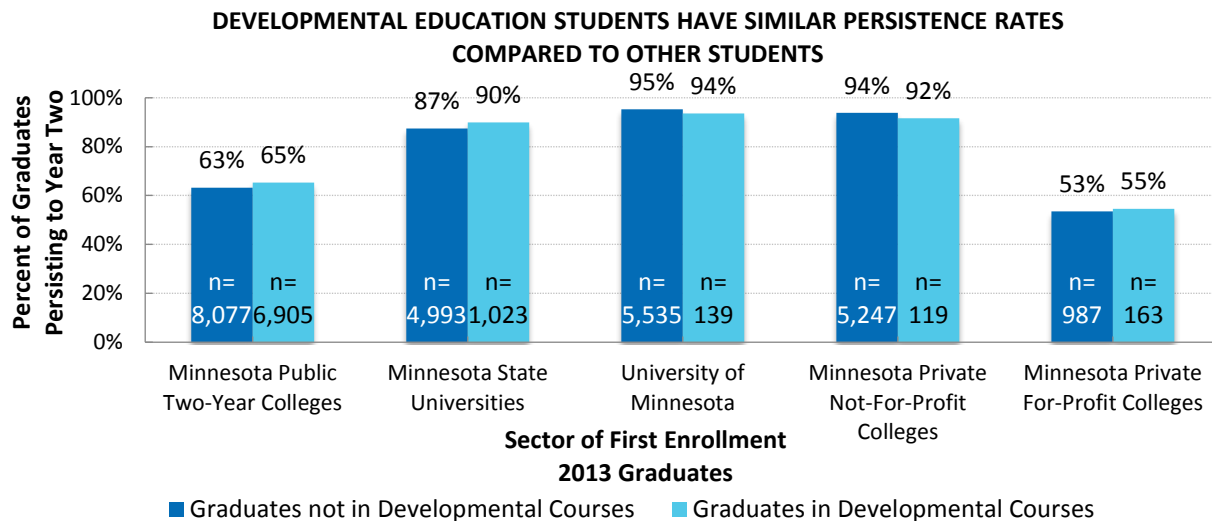
\*Enrollment within two years of graduation for 2007-2013 graduates and within one year of graduation for 2014 graduates; data for 2014 graduates is considered preliminary and should not be used in trend analysis.

## College Outcomes

Across all classes of graduates, students in developmental education persisted from first to second year at rates comparable to other students but had lower completion rates.

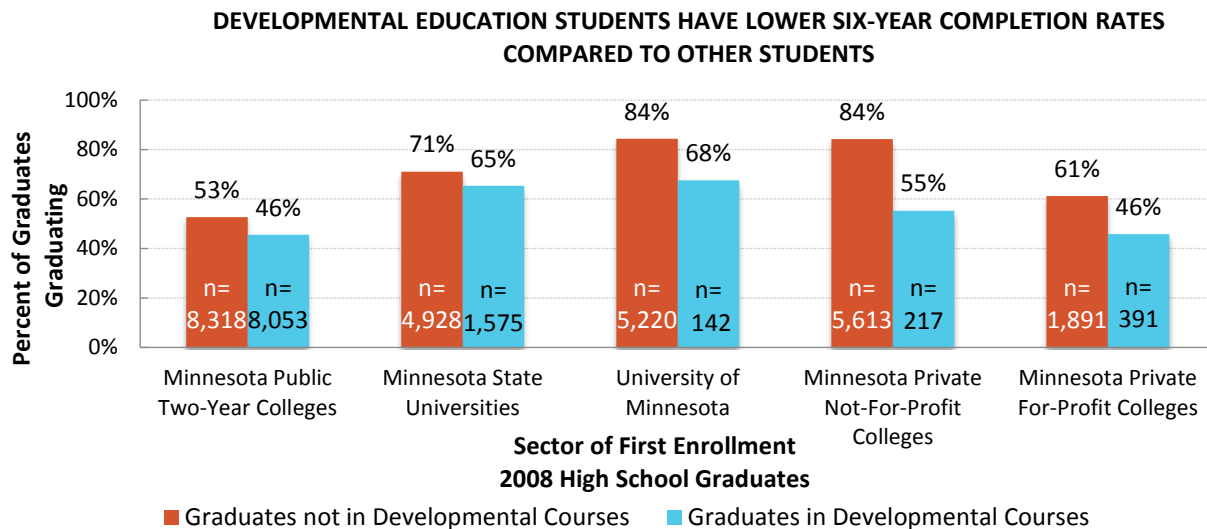
Enrollment in developmental education does not mean that a student cannot be successful in college. This report examined persistence in college and graduation as measures of student success.

For the class of 2013, developmental education enrollees persisted from first to second year at rates comparable to peers.



Analysis of graduation data for the six years following high school graduation shows that the class of 2008 developmental education enrollees at state universities had the highest completion rates. The class of 2008 developmental education enrollees had sixth-year completion rates ranging from 46 percent at for-profit institutions to 68 percent at the University of Minnesota.

Table 25 provides additional information on developmental education persistence and completion.



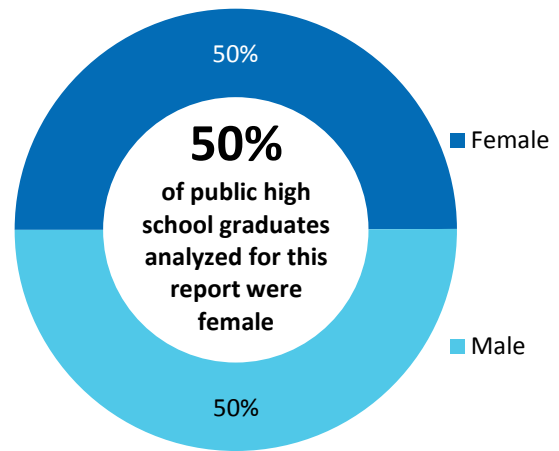
\*Enrollment within two years of graduation for 2007-2013 graduates and within one year of graduation for 2014 graduates; data for 2014 graduates is considered preliminary and should not be used in trend analysis.

## Gender

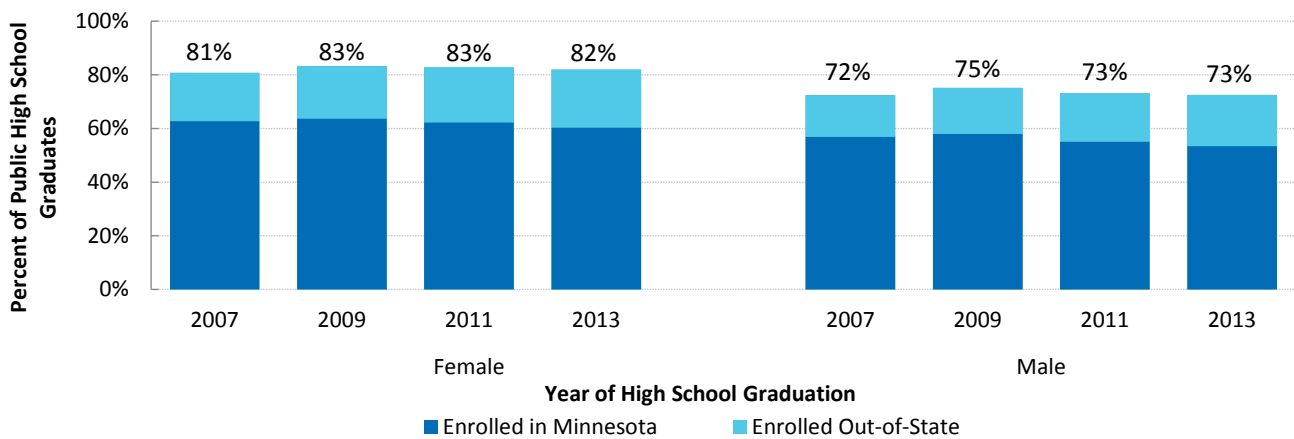
### Female public high school graduates enrolled in college at rates approximately nine percentage points higher than males.

While equal numbers of males and females graduate from public high school each year, female graduates enrolled in college at rates higher than male graduates – approximately nine percentage points higher.

Additional college enrollment data by gender can be found in Table 7.

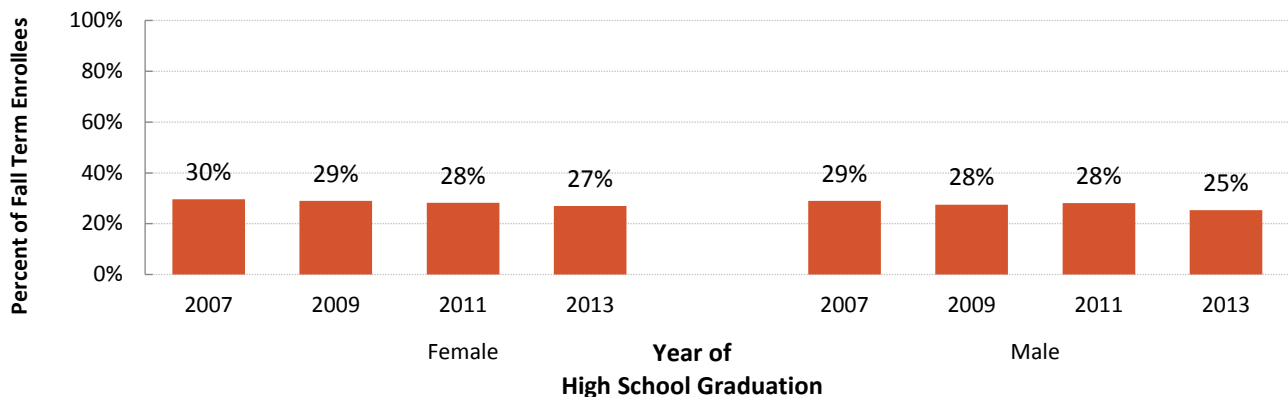


#### FEMALES ENROLL IN COLLEGE WITHIN TWO YEARS AT HIGHER RATES THAN MALES



### Across all colleges, female public high school graduates enrolled in developmental education at rates comparable to males.

#### AMONG ALL GRADUATES ENROLLING IN COLLEGE, FEMALES AND MALES ENROLL IN DEVELOPMENTAL EDUCATION AT SIMILAR RATES



Among both male and female graduates, developmental education course-taking has declined between 2007 and 2013. Additional data on developmental education by gender can be found in Table 8.

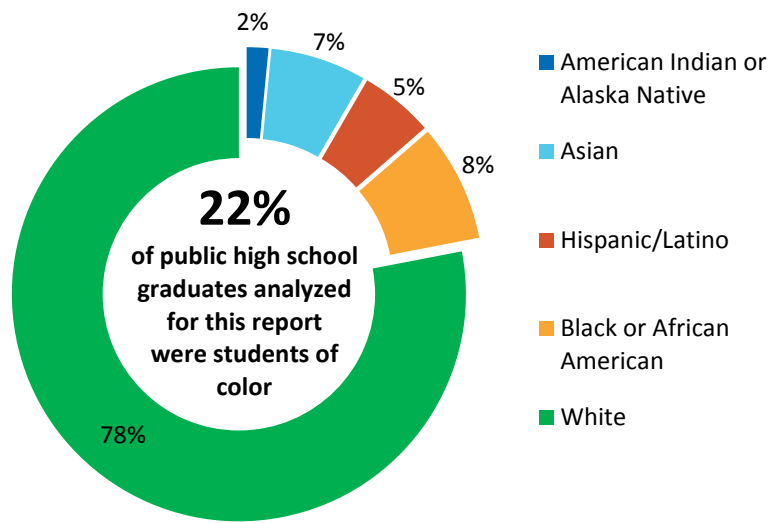
\*Enrollment within two years of graduation for 2007-2013 graduates and within one year of graduation for 2014 graduates; data for 2014 graduates is considered preliminary and should not be used in trend analysis.

## Race/Ethnicity

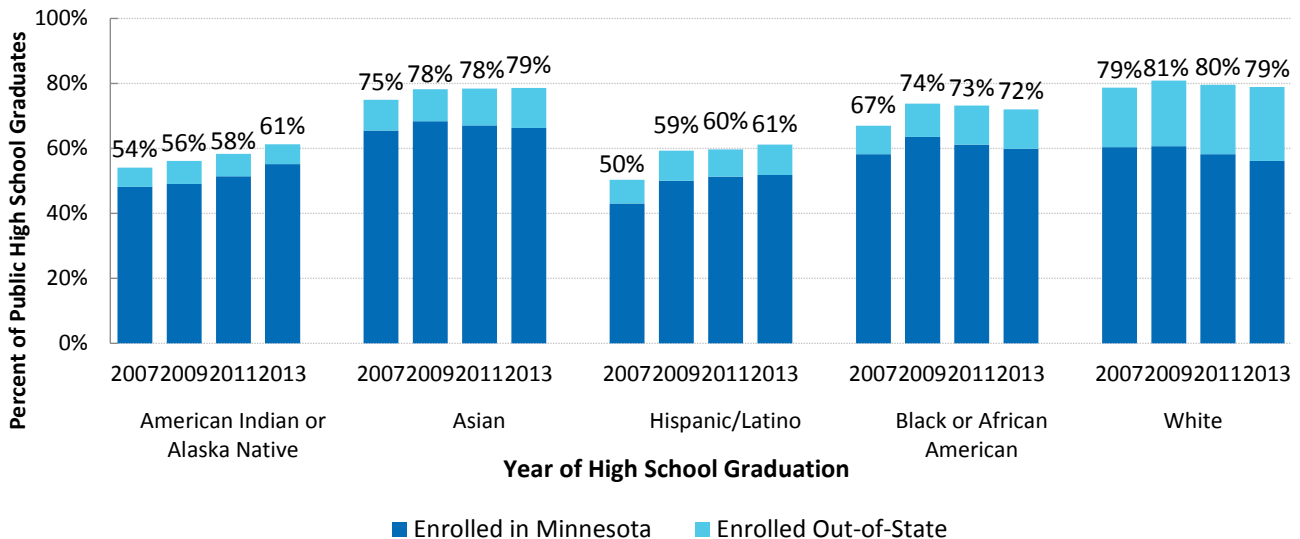
### Students of color enrolled in college at lower rates than their White peers.

Approximately 22 percent of Minnesota public high school graduates are students of color. White and Asian public high school graduates across all years enrolled in college at rates higher than other racial/ethnic groups.

A significant gap in college enrollment persists across racial/ethnic groups for Minnesota public high school graduates, especially for Hispanic or Latino and American Indian or Alaska Native graduates. The difference in enrollment in college within the first two years between Asian and White graduates (79%) as compared to Hispanic or Latino graduates (61%) is 18 percentage points for the class of 2013. Seventy-two percent of Black or African American graduates from the class of 2013 enrolled in college within two years.



### COLLEGE ENROLLMENT HAS INCREASED OVER TIME BUT ENROLLMENT GAPS EXIST

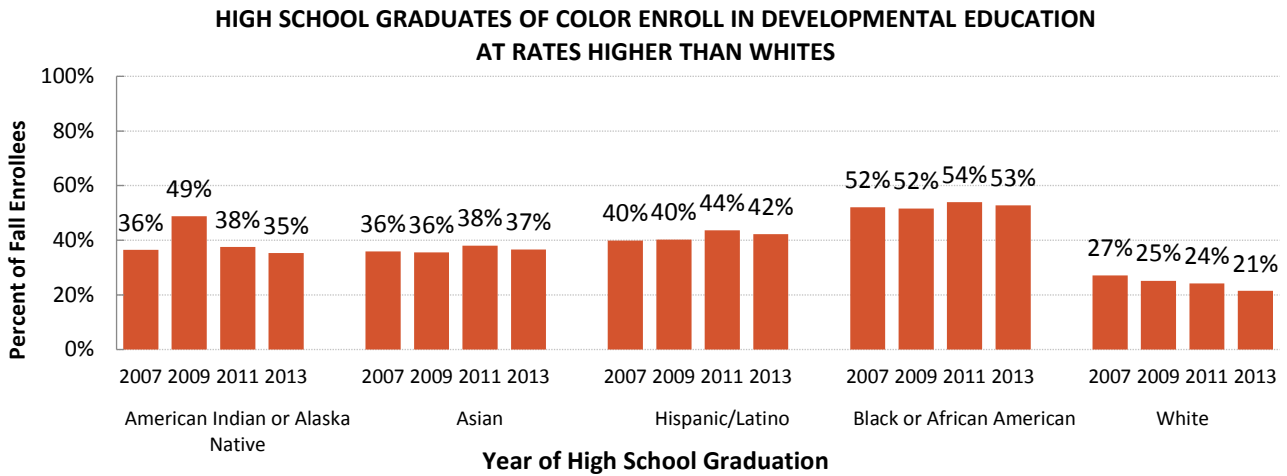


Additional college enrollment data by race/ethnicity can be found in Table 9.

\*Enrollment within two years of graduation for 2007-2013 graduates and within one year of graduation for 2014 graduates; data for 2014 graduates is considered preliminary and should not be used in trend analysis.

**Students of color enrolled at higher rates in developmental education than White students.**

Black or African American 2013 graduates continue to have the highest percentage (53%) of fall enrollees taking developmental education. Asian, American Indian or Alaskan Native and Hispanic or Latino 2013 graduates enrolled in developmental courses at rates between 35 and 42 percent as compared to 21 percent of White fall enrollees.



Additional data on developmental education by race/ethnicity can be found in Table 10.

\*Enrollment within two years of graduation for 2007-2013 graduates and within one year of graduation for 2014 graduates; data for 2014 graduates is considered preliminary and should not be used in trend analysis.



## Language Spoken at Home

Across all graduating classes public high school students who spoke Somali at home had much higher rates of college enrollment than other primary language groups.

Approximately 11 percent of Minnesota public high school graduates spoke a language other than English at home. The languages most commonly spoken were Hmong, Spanish and Somali.

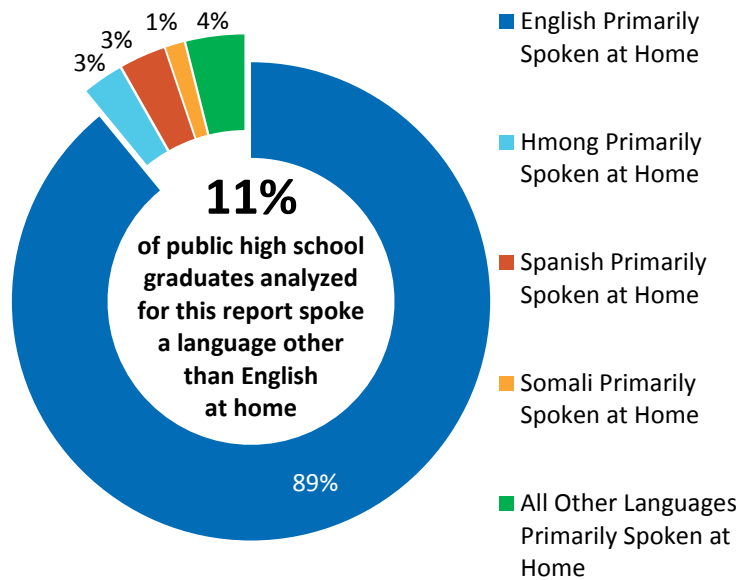
### Primary Language Spoken at Home

Minnesota public high school graduates who spoke Somali at home enrolled (82%) in college within two years at higher rates than any other primary language group including English speakers.

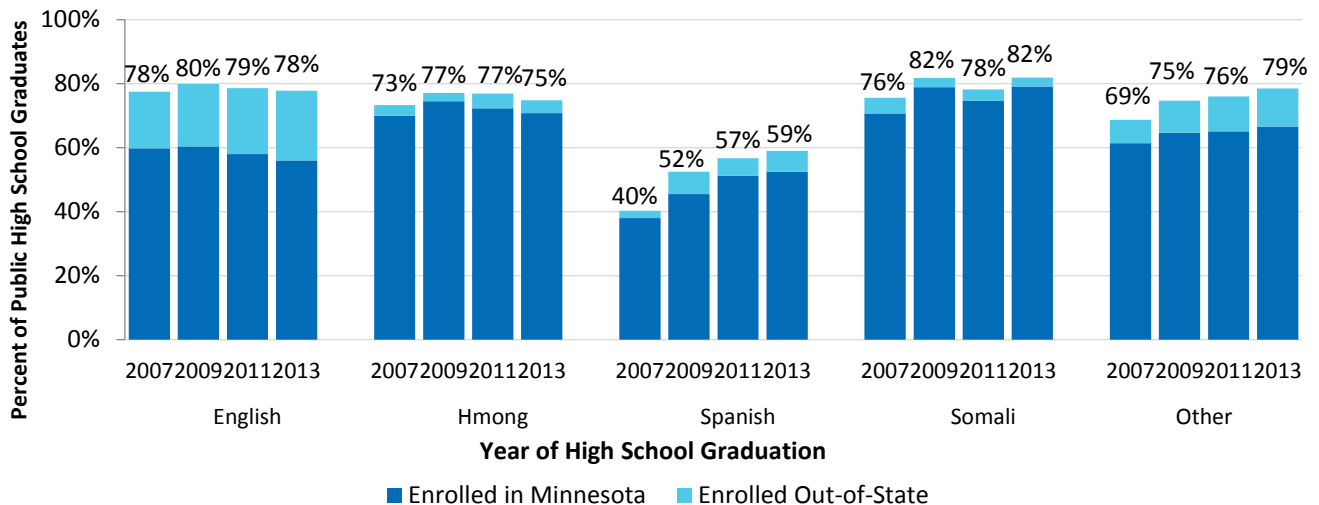
Minnesota public high school graduates who spoke Spanish at home enrolled (59%) in college within two years at rates lower than other primary language groups.

Spanish speaking graduates may encounter barriers to college enrollment based on residency issues. Passage of the Minnesota Dream Act may result in an increase in college enrollment for these graduates. Analysis of college enrollment rates over time shows Spanish speaking public high school graduates enrolled in college within two years increased sharply from 2007 to 2013.

Additional data on college enrollments by home primary language can be found in Table 11.



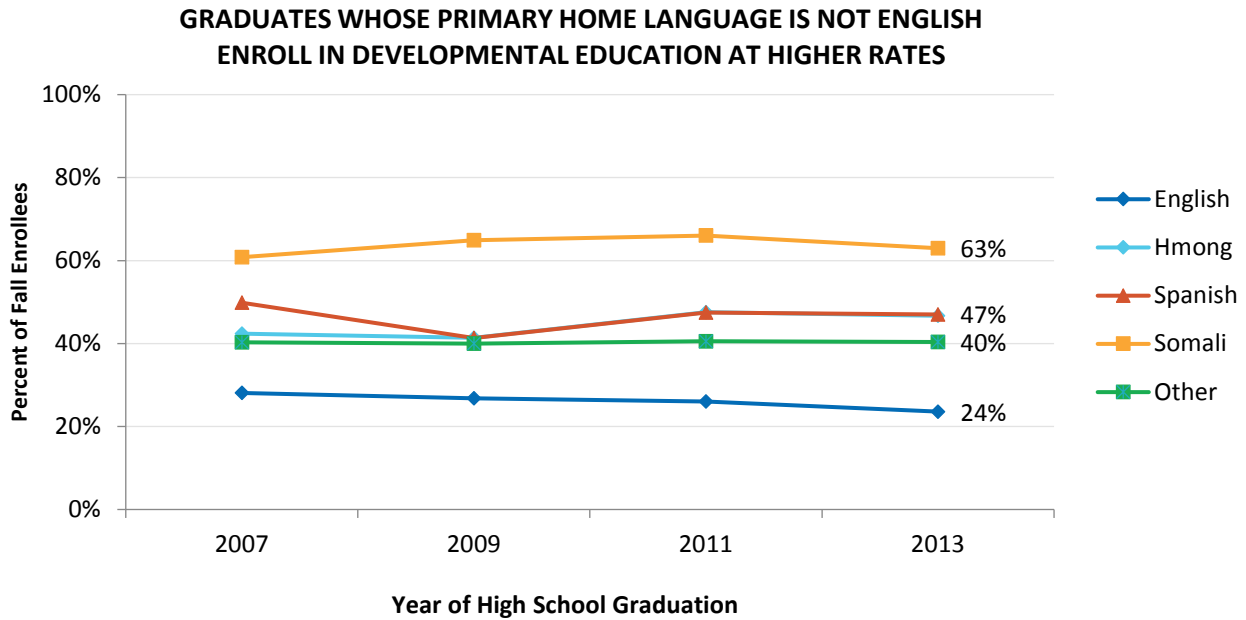
### COLLEGE ENROLLMENT WITHIN TWO YEARS HAS INCREASED AMONG SPANISH SPEAKING GRADUATES BUT GAPS REMAIN



\*Enrollment within two years of graduation for 2007-2013 graduates and within one year of graduation for 2014 graduates; data for 2014 graduates is considered preliminary and should not be used in trend analysis.

**Graduates whose primary home language was not English enrolled in developmental education at rates higher than English speakers.**

Reading and writing courses are primary components of developmental education and continue to be utilized by students to improve their language skills; especially by students whose first language is not English. It is not surprising to see a higher utilization of developmental education among students who may have immigrated to this country.



Graduates who spoke Somali at home enrolled in college within two years of graduating at higher rates than other non-native English speakers; however, students who spoke Somali at home also enrolled (63% for class of 2013) in developmental education at percentages 16 percentage points higher than any other group.

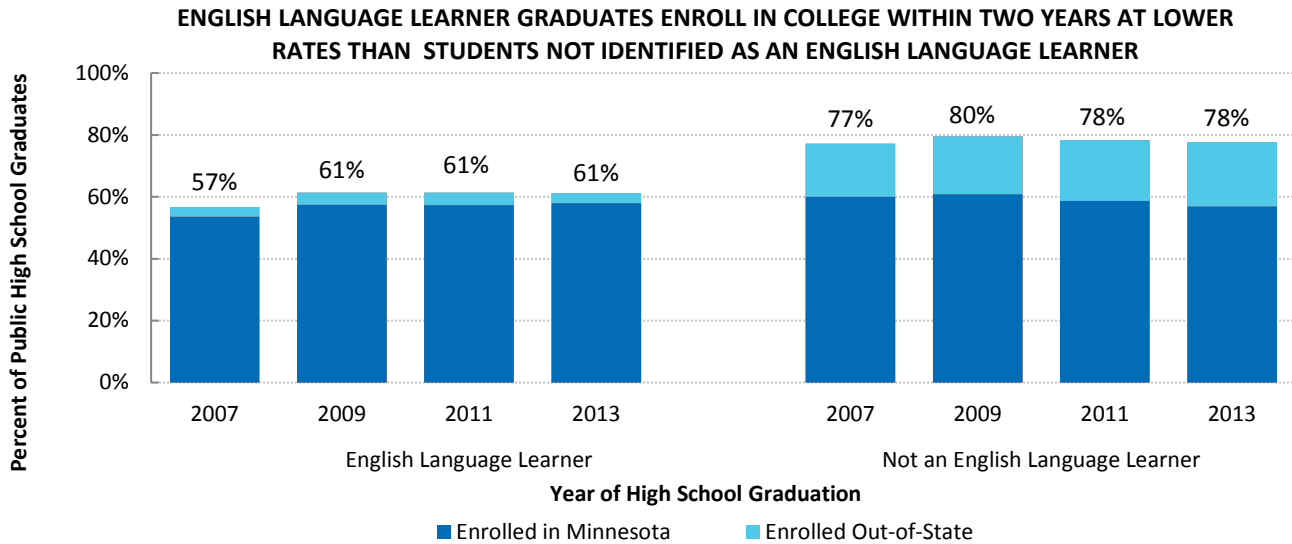
Additional data on developmental education by home primary language can be found in Table 12.

\*Enrollment within two years of graduation for 2007-2013 graduates and within one year of graduation for 2014 graduates; data for 2014 graduates is considered preliminary and should not be used in trend analysis.

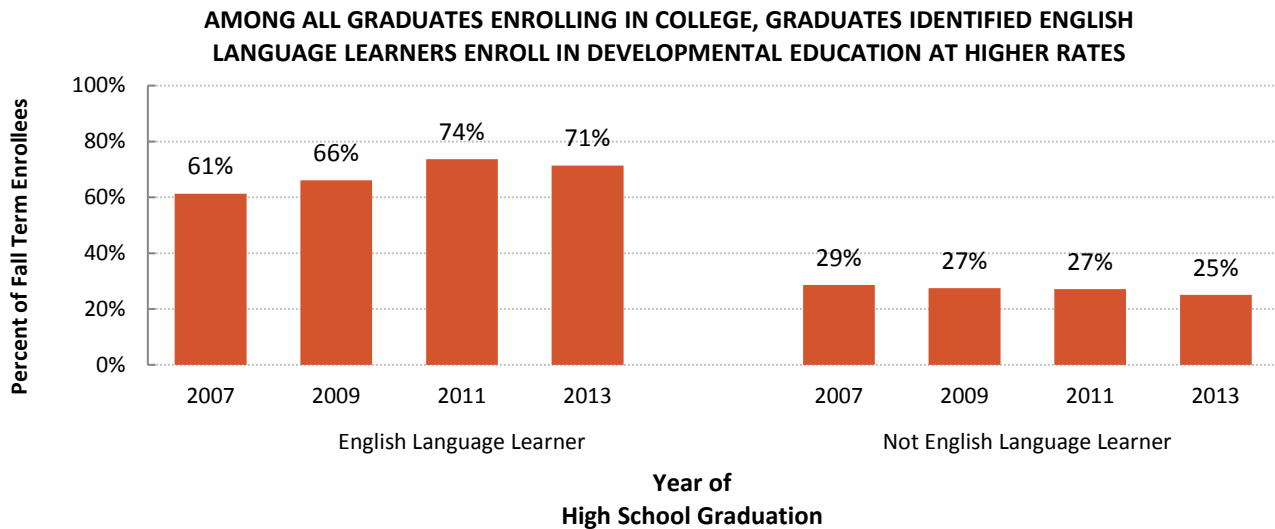
## English Language Learners

**The majority (71%) of 2013 graduates identified as English Language Learners enrolling in college also enrolled in developmental education.**

In addition to language spoken at home, another measure of language skills is English Language Learners within K-12 education. Approximately two percent of Minnesota public high school graduates were identified as an English Language Learner. Students considered English Language Learner lagged behind their peers in college enrollment. Students considered an English Language Learner enrolled almost exclusively in Minnesota colleges, few enrolled at out-of-state colleges.



Graduates considered English Language Learners enrolled in developmental education within two years of graduating at rates (71%) almost triple that of graduates not identified as an English Language Learner (25%).



Additional data on college enrollment by English Language Learner status can be found in Table 13. Additional data on developmental education by English Language Learner status can be found in Table 14.

## Economic Status

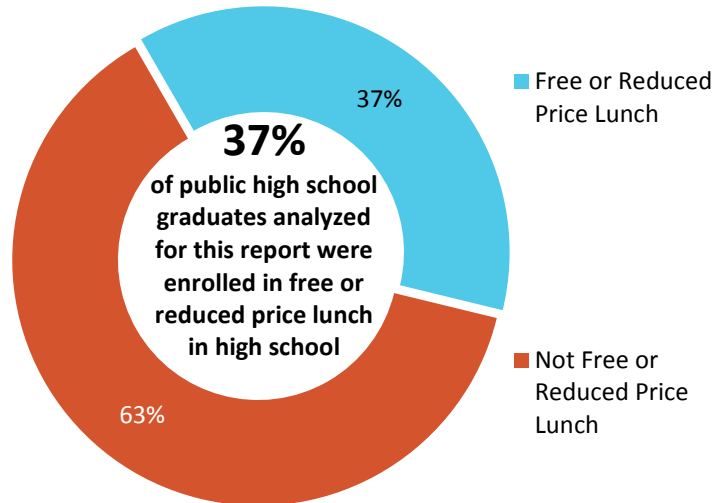
### Public high school graduates who were enrolled in free or reduced price lunch during high school attended college in lower percentages than those who were not enrolled.

Public high school students enrolled in free or reduced price lunch can serve as an indicator of economic status. Approximately 37 percent of Minnesota 2014 public high school graduates were enrolled in free or reduced price lunch in high school (grades 9-12).

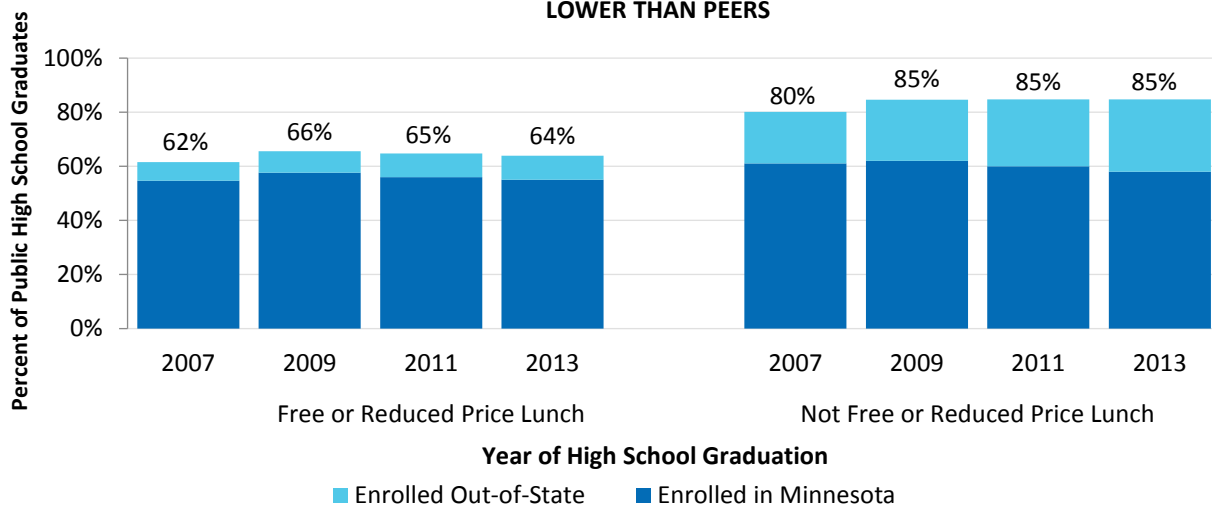
Graduates from 2007 to 2015 enrolled in free or reduced price lunch has college enrollment rates 20 percentage points lower than non-free and reduced price lunch graduates.

Note: Eligibility for free lunch is up to 130 percent of poverty thresholds. Reduced price lunch is 131 to 185 of poverty thresholds. Both economic groups showed growth in college enrollments over time. Students who were not enrolled in free and reduced price lunch enrolled in college outside of Minnesota at higher percentages than both free and reduced price lunch students.

Additional information about college enrollment by economic status can be found in Tables 15.



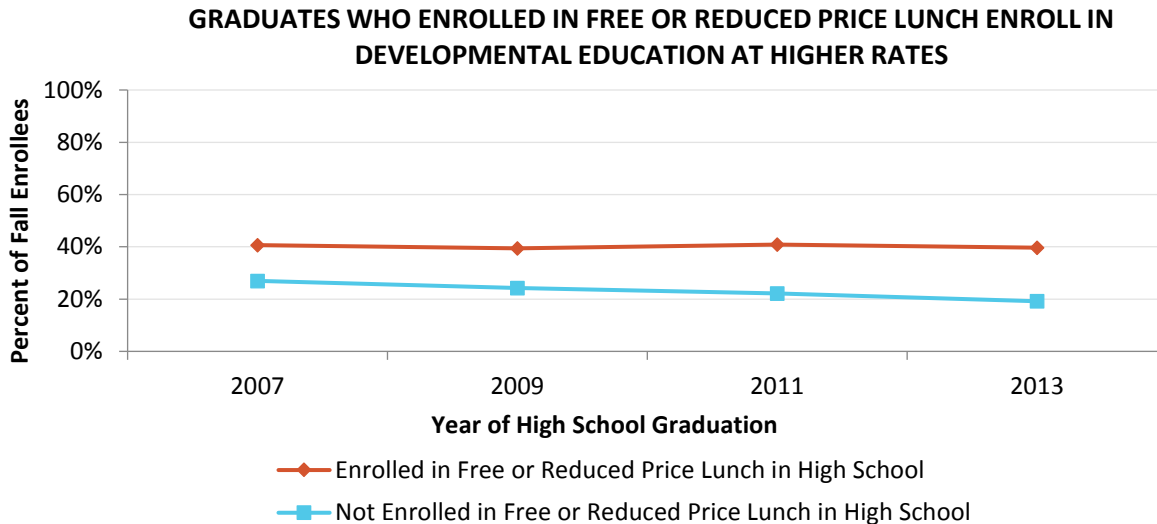
**COLLEGE ENROLLMENT RATES OF FREE AND REDUCED PRICE LUNCH STUDENTS LOWER THAN PEERS**



\*Enrollment within two years of graduation for 2007-2013 graduates and within one year of graduation for 2014 graduates; data for 2014 graduates is considered preliminary and should not be used in trend analysis.

## Developmental Education Course-Taking by Economic Status

**Public high school class of 2013 enrolled in free or reduced price lunch in high school had higher rates of developmental education enrollment (40%).**



The gap in developmental education enrollment between free and reduced price lunch students and other students is 21 percentage points and appears to be increasing. Forty percent of 2013 free or reduced price lunch graduates enrolled in fall term took developmental education courses as compared to 19 percent of other graduates.

More research is needed to understand the link between income and college readiness in Minnesota. One partial explanation for these trends is that students from higher socioeconomic backgrounds might take more college preparatory classes and supplementary services that help them be more prepared for college.

Additional information about developmental education enrollments by economic status can be found in Tables 16.

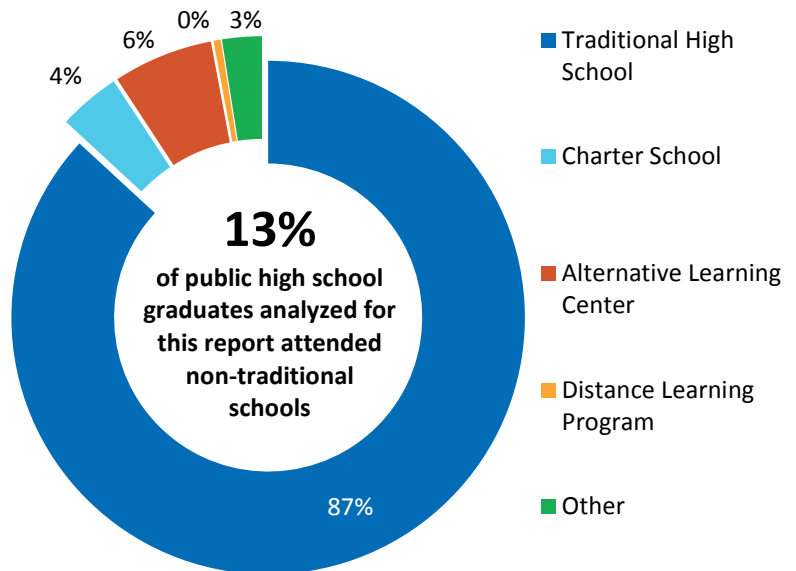
\*Enrollment within two years of graduation for 2007-2013 graduates and within one year of graduation for 2014 graduates; data for 2014 graduates is considered preliminary and should not be used in trend analysis.

## High School Type Attended

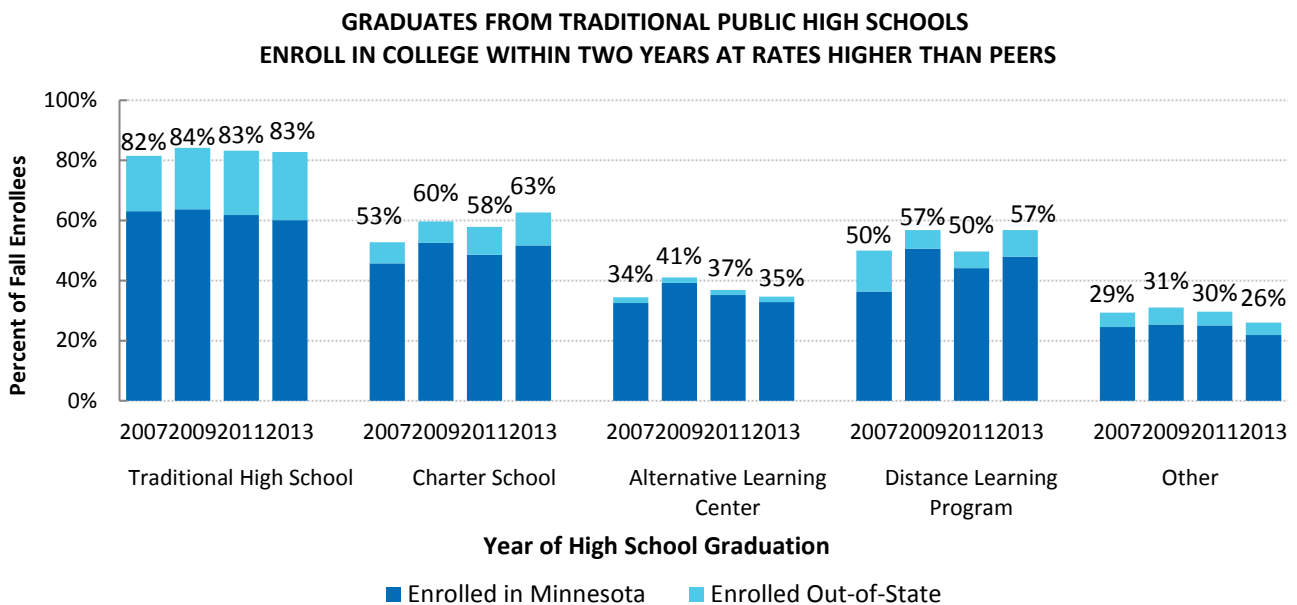
### Non-traditional public high school graduates enrolled in college at lower rates.

Class of 2013 graduates from traditional public high schools showed higher college enrollment rates (83%) compared to charter school (63%), alternative public high schools (35%) and distance learning programs (57%).

One critical caveat to this finding is that schools grouped together under the headings of “traditional” or “charter” serve a variety of educational missions, offer different programs and vary in size and geographic location. One would expect there to be wide variation in enrollment and developmental education course-taking among individual high schools within these groups.



Additional data on college enrollment by public high school type can be found in Table 17.



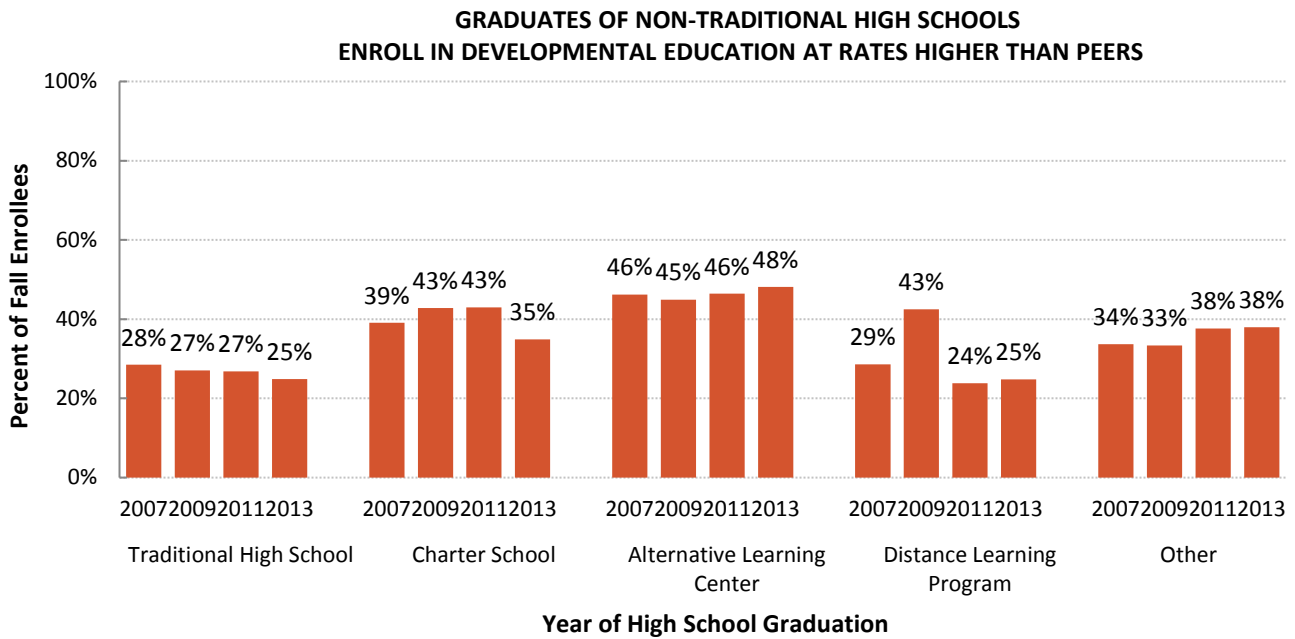
\*Enrollment within two years of graduation for 2007-2013 graduates and within one year of graduation for 2014 graduates; data for 2014 graduates is considered preliminary and should not be used in trend analysis.

## Developmental Education by High School Type Attended

**Graduates of non-traditional public high schools enrolled in developmental education at slightly higher rates than traditional public high school graduates.**

Class of 2013 graduates of traditional schools showed lower developmental enrollment rates (25%) as compared to charter schools (35%), alternative high schools (48%). Graduates from distance learning programs display low rates of developmental education in 2013 (25%) but not in prior years.

Additional data on developmental education by public high school type can be found in Table 18.



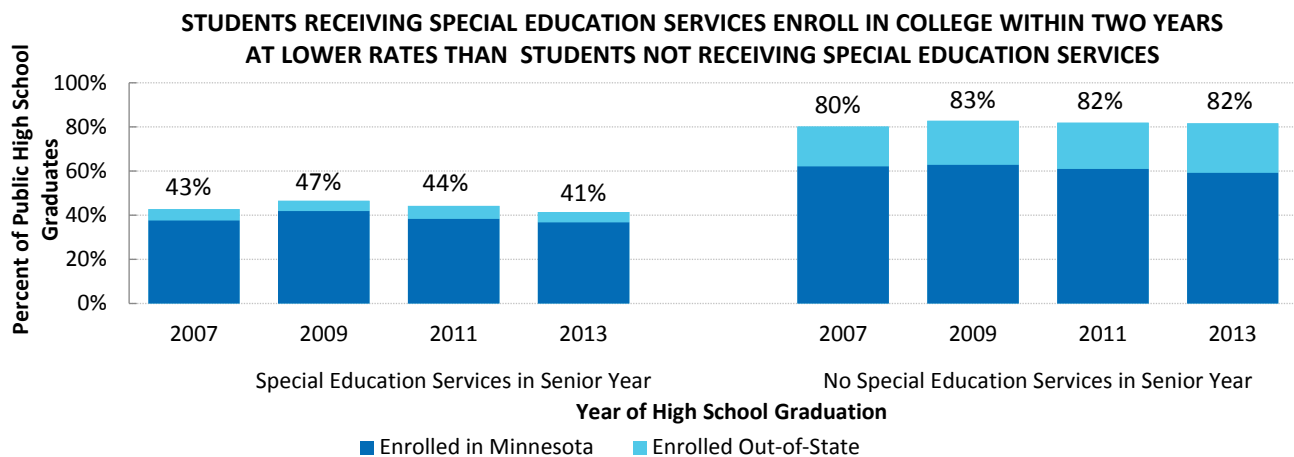
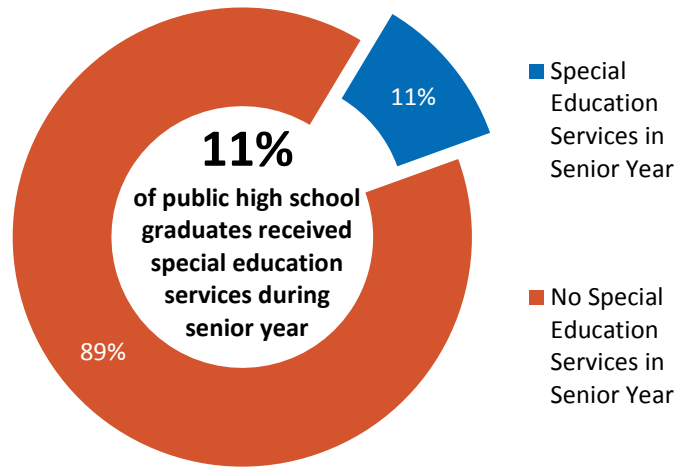
\*Enrollment within two years of graduation for 2007-2013 graduates and within one year of graduation for 2014 graduates; data for 2014 graduates is considered preliminary and should not be used in trend analysis.

## Special Education Services

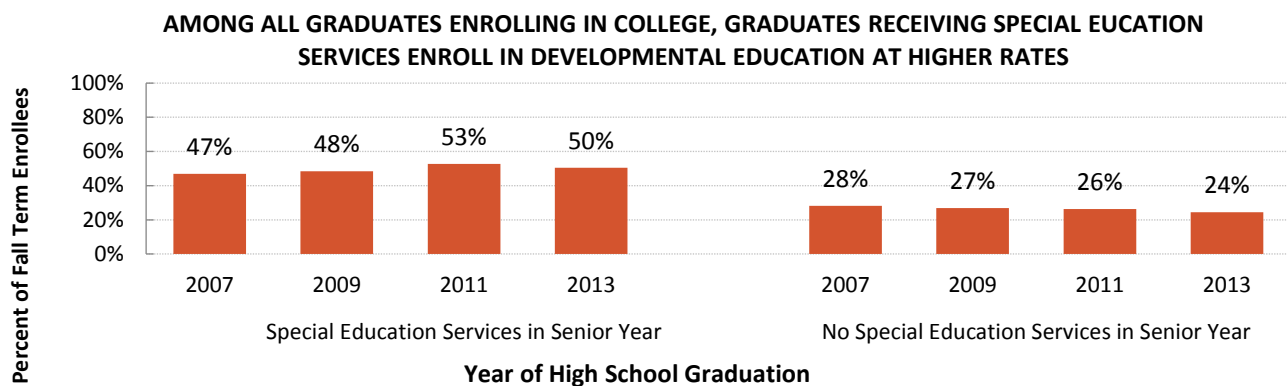
**Half (50%) of 2013 graduates identified as receiving special education services enrolling in college also enrolled in developmental education.**

Approximately 11 percent of Minnesota public high school graduates in 2014 received special education services in senior year (the year prior to high school graduation).

Forty-one percent of 2013 graduates receiving special education services in their senior year enrolled in college within two years as compared to 82 percent of other graduates.



Half of special education graduates enrolled in developmental education while in college.



Additional data on college enrollment and developmental education by special education services can be found in Tables 19 and 20.



## Testing

By definition, college readiness means being able to succeed in credit-bearing college courses without developmental education. Pre-high school graduation data can be used to identify students with a higher likelihood of enrolling in college developmental education. Using available K-12 data, educators can provide students with the extra supports needed to prepare them for college-level academic studies.

Historically public school students take a range of required and recommended assessments ranging from but not limited to: MCA, NWEA, EXPLORE, PLAN, ACT and SAT. State testing is limited to only the MCA. Meanwhile, Minnesota's public colleges have typically relied on ACCUPLACER, ACT or SAT tests to gauge a student's readiness for college level curriculum. As a result, the framework to align assessment is rooted in the belief that students meeting proficiency guidelines for high school graduation are ready for college (Minnesota State, 2014).

Better alignment of assessments measuring college and career readiness will enable earlier identification of a student who is not on track for college level courses. If identified earlier, a student who is not on track will receive instructional interventions and targeted support aligned to meet the specific competencies of college developmental education while they are in a public high school, saving time and money. Data for Minnesota public high school graduates from 2007 to 2014 allowed an initial review of the current alignment of K-12 MCA math and reading tests, ACT tests and developmental education course-taking as highlighted below.

### High School Accountability Tests – Math & Reading

**2013 public high school graduates who met the reading and math standards on statewide accountability tests had higher college enrollment rates and lower developmental education rates compared to students who did not meet standards.**

Accountability tests given to Minnesota public high school students included the MCA-II, MCA-III, MOD-II, MTAS and MTELL across math and reading. There is a sizeable gap in both college enrollment and developmental education needs among groups by reported proficiency.

Among 2013 graduates taking the state accountability test:

#### Math

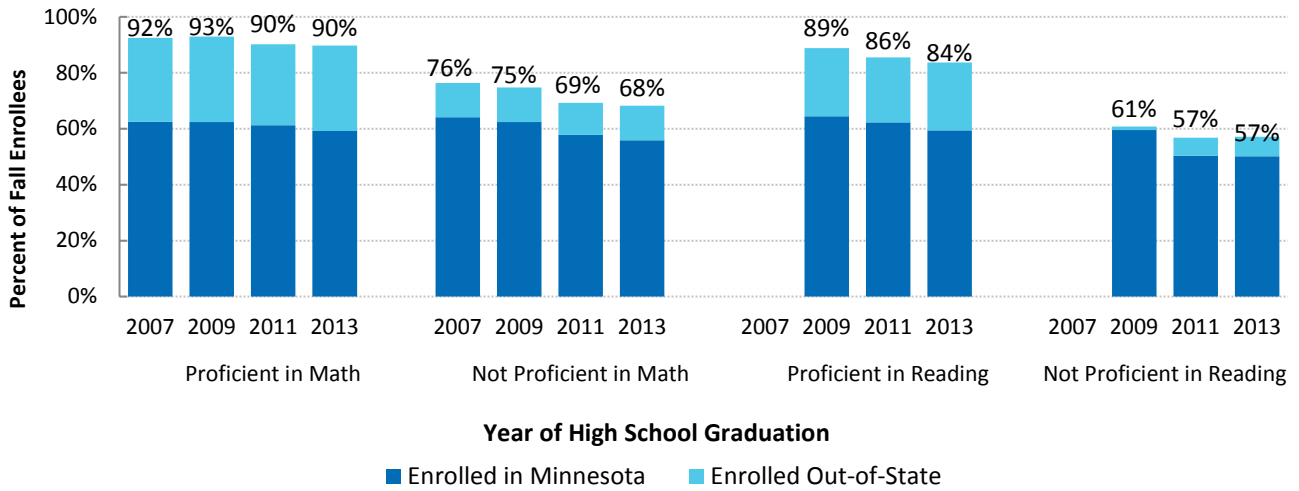
- 90 percent of grade 11 students meeting math standards enrolled in college and only 7 percent enrolled in developmental education within two years of graduating
- 68 percent of grade 11 students not meeting math standards enrolled in college and 43 percent enrolled in developmental education within two years of graduating

#### Reading

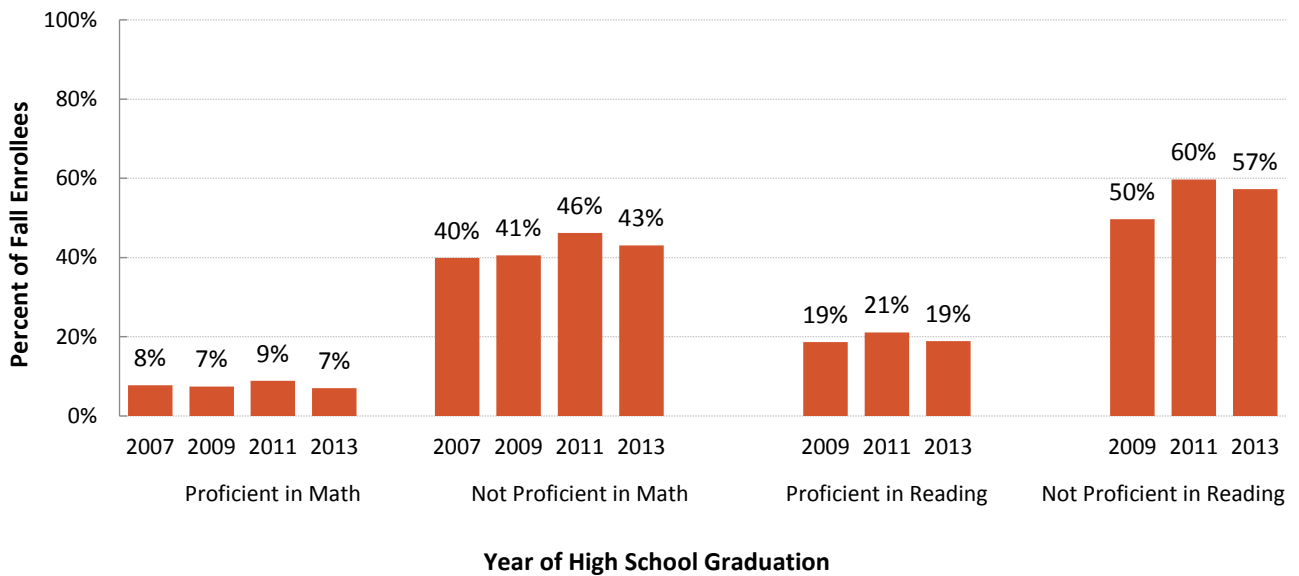
- 78 percent of grade 10 students meeting reading standards enrolled in college and 19 percent enrolled in developmental education within two years of graduating
- 49 percent of grade 10 students not meeting reading standards enrolled in college and 57 percent enrolled in developmental education within two years of graduating

\*Enrollment within two years of graduation for 2007-2013 graduates and within one year of graduation for 2014 graduates; data for 2014 graduates is considered preliminary and should not be used in trend analysis.

**GRADUATES MEETING PROFICIENCY STANDARDS  
ENROLL IN COLLEGE WITHIN TWO YEARS AT RATES HIGHER THAN PEERS**



**GRADUATES PROFICIENT IN MATH AND READING  
ENROLL IN DEVELOPMENTAL EDUCATION AT LOWER RATES**



Additional data on college enrollments and developmental education enrollments by achievement level can be found in Table 21 and Table 22.

\*Enrollment within two years of graduation for 2007-2013 graduates and within one year of graduation for 2014 graduates; data for 2014 graduates is considered preliminary and should not be used in trend analysis.

## College Entrance Exams – ACT

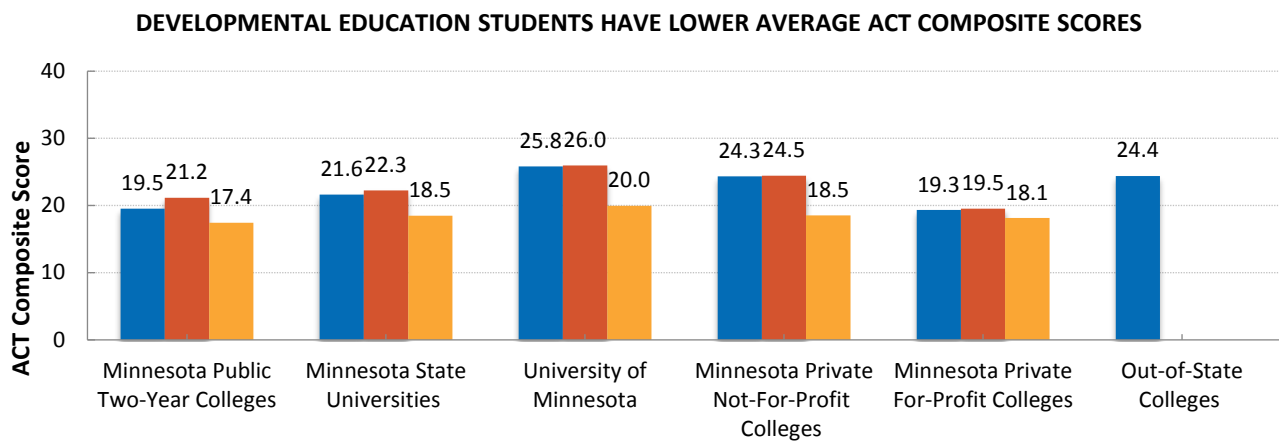
**For the class of 2013, the average ACT scores of students enrolled in developmental education were lower than the scores of students not enrolled in developmental education.**

ACT composite scores of students enrolled in developmental education ranged from 17.4 at Minnesota public two-year colleges to 20.0 at the University of Minnesota. This compared to ACT scores for students not enrolled in developmental courses ranging from 19.5 at private for-profit colleges to 26.0 at the University of Minnesota.

Low ACT scores are one reason students can be placed into developmental education courses at the University of Minnesota and Minnesota State Universities.

Developmental education data is not available for students enrolling in out-of-state colleges.

Additional data on ACT Composite scores can be found in Table 23.



**Class of 2013 Enrolling in the First Year After Graduation**

■ All Graduates Enrolled as Students ■ Graduates Not in Developmental Courses ■ Graduates in Developmental Courses

\*Enrollment within two years of graduation for 2007-2013 graduates and within one year of graduation for 2014 graduates; data for 2014 graduates is considered preliminary and should not be used in trend analysis.

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