

Achieve has compiled the following examples of targeted intervention and remediation best practices with – where appropriate – corresponding student performance evidence and program costs.

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### MIDDLE GRADES

#### Early Indicators

According to the Alliance for Excellent Education, over 6 million eighth graders nationally read significantly below grade level. These students are 20 times more likely to drop out of high school than are their highest achieving classmates. It is critical, therefore, to identify students who are struggling academically in order to get them “back on track,” so they are able to successfully complete a rigorous high school curriculum. Using early indicators to target intervention efforts can have a positive impact on student achievement, attendance, and overall school climate, while simultaneously decreasing the anticipated dropout rate.

#### Johns Hopkins Study

In a recent study for the Philadelphia Education Fund, Robert Balfanz of Johns Hopkins University and Liza Herzog tracked Philadelphia sixth graders from 1996-97 through 2004, a year beyond expected high school graduation. The purpose of the study was to discover whether the **early indicators** of student achievement, attendance, and behavior in the middle grades could predict a student’s chances of being enrolled in the 12<sup>th</sup> grade with his classmates.

The research team identified four powerful 6<sup>th</sup> grade predictors of “falling off track.” In each case, 75% of students did not reach the 12<sup>th</sup> grade if they had at least one of these indicators:

- Attending school 80% or less of the time
- Receiving a poor final behavior mark
- Failing math
- Failing English

The power of these earlier indicators is clear: sixth graders who...

- Missed between 36 and 54 school days had a 1 in 5 chance of making it to the 12<sup>th</sup> grade on time.
  - *By comparison, sixth graders with 90%+ attendance, excellent behavior, passed math and English and scored at or above basic on the 5<sup>th</sup> grade standardized assessment had more than a 3 in 4 chance of making it to the 12<sup>th</sup> grade on time.*
- Demonstrated poor behavior, as reflected on their report cards, had a 1 in 4 chance of making it to the 12<sup>th</sup> grade on time.
- Failed math had less than a 1 in 5 chance of making it to the 12<sup>th</sup> grade on time.
- Failed English had less than a 1 in 8 chance of making it to the 12<sup>th</sup> grade on time.

### Upcoming Achieve research

Achieve has received a grant from the Carnegie Corporation to work with another national organization, Jobs for the Future, to build on the Johns Hopkins study and generate policy recommendations for states and districts on how to put a system of early indicators and interventions in place. We will focus on key elements of a data system that must be in place to identify those who are at risk of failing and ultimately dropping out in high school, as well as best practices in intervening with those students to get them back on track. This work will begin during the winter of 2005/2006 and should provide valuable tools and lessons for Oklahoma to take advantage of as it begins implementation of its new high school requirements.

### **Virginia's Algebra Readiness Initiative (ARI)**

This intervention model for students in grades 5-8 provides small-scale tutorials for students (1:10 ratio) with the goal of preparing students to be successful in Algebra in the coming years. Students who participate in ARI also required to participate in Algebra Readiness Diagnostic Testing (ARDT) program, which consists of an online computer-adaptive pre-and-post test to measure the impact of ARI.

Funding is allocated as a block grant by the General Assembly and distributed using a composite index formula taking into account multiple factors such as student achievement, socio-economic characteristics. Achieve estimates that Virginia spends roughly \$7 million per year on the Algebra Readiness Initiative.

### **Individual Student-Learning Plans (carries through the end of high school)**

It is vital for students to begin thinking about educational and career goals at an early age. As students reach the middle grades, it is important for them to both determine and understand the level of effort and educational preparation needed to meet those goals. Students who work with guidance counselors and mentors within school can plan a program of study for high school and beyond in order to reach their goals.

### **Model State ISPs**

- **Tennessee** educators use student scores from the 7<sup>th</sup> and 8<sup>th</sup> grade Tennessee Comprehensive Assessment Program (TCAP) tests in order to identify students who will need targeted assistance before they will be prepared to succeed in high school. Local districts are responsible for funding and designing their intervention and remediation programs that in turn must be reported as elements in their school improvement plans. Examples of local targeted assistance include
  - a pre-high school summer program
  - after-school tutoring programs
  - additional focused coursework.

- In the state of **Washington**, 9<sup>th</sup> grade students who did not meet one or more standards on the 7<sup>th</sup> grade Washington Assessment of Student Learning (WASL) are required to develop a student learning plan (SLP). These plans must include a list of actions the school intends to take to improve the student’s skills in the content area in which he or she did not meet the standards and strategies to help parent improve their children’s skills.

These plans are now being incorporated into an on-line tool that will give students access to diagnostic testing, and allow students and their parents to track their progress. The implementation of these interventions began in high school with the first class facing the WASL graduation requirement. Over time these interventions will be phased in to reach student in increasing lower grades.

- **Kentucky’s** Individualized Graduation Plan became a requirement for high school graduation in 2002 and focuses on the connection between coursework and goals after high school. These plans capture information that includes academic and career assessment, career goals, a four-year high school plan, student interests and hobbies, school and community activities, and work experiences.

The IGP is also intended to serve as a tool for high school staff to gauge students’ progress toward meeting the learning standards embraced by the high school. As such, it is necessary for parents, counselors, and advisors to review and adjust the IGP annually as guided by the student’s academic performance, career goals, and personal interests.

- Beginning in 2007, **Oregon** students will be required to develop an education plan and build an education profile, supported through comprehensive guidance and counseling. The education plan serves as a “road map” that guides the student’s learning through high school and prepares him or her for a successful transition to next steps after high school. Students, with parental guidance, are responsible for developing and managing their education plan and profile. The school is responsible for providing the opportunity for each student to develop his or her education plan and profiles in grades 7-12.

**Also, see the Oklahoma State Regents for Higher Education recommendations concerning the use of the Educational Planning and Assessment System (EPAS).**

## NINTH GRADE

### Summer Academies

The summer between the end of 8<sup>th</sup> grade and the start of 9<sup>th</sup> grade provides an opportunity to reinforce students’ preparation for high school and assist unprepared students to catch up with their fellow rising freshmen. High-quality summer programs can increase student achievement and serve as an antidote to the “summer slide” that increases the likelihood that students from low-income communities will dropout. Summer programs also engage students in safe and productive learning experiences during this crucial transition period.

- **Chicago's Summer Bridge** is a mandatory program for students in the summer after the 3<sup>rd</sup>, 6<sup>th</sup> and 8<sup>th</sup> grades who do not meet the promotional cuts on the local assessment. Would-be rising 9<sup>th</sup> graders attend a summer program for four hours per day for seven weeks for a total of 140 hours of instruction. Teachers use a prescribed curriculum for classes of approximately 16 students.
  - This intensive summer program has produced roughly six months in reading gains and nearly five months in mathematics gains on the local assessment, regardless of demographics and previous achievement levels.
  - In 2005, 5,175 rising 9<sup>th</sup> graders participated in Summer Bridge, down from an all-time high of 7,382 rising 9<sup>th</sup> graders in 2003.
- **Chicago** also has developed the **Step-Up to High School** program, through which students who marginally passed the promotional cut are eligible to participate. This voluntary four-week program provides rising 9<sup>th</sup> graders with personalized instruction and attention five days a week, four hours a day in high-school level courses in reading and mathematics.

Beyond offering high school-level reading and mathematics classes, Step-Up also include orientation seminars and activities, information about high school activities and resources, and tips on how to study, manage your time and work with your classmates. Students receive ¼ credit for all courses in which they receive a "C" grade or higher and all classes held at the student's high school

## Talent Development

The **Talent Development Model**, developed at the Center for Research on the Education of Students Placed at Risk (CRESPAR) based at Johns Hopkins University is operating at 33 high schools nationwide. Talent Development is a comprehensive reform initiative designed to help transform the structure and curriculum of large high schools in urban districts, with goal of improving student achievement and raising student and teacher expectations.

The two keys elements of the Talent Development Model are:

- Offer a block schedule to 9<sup>th</sup> graders, with **double periods of mathematics & literacy**. According to researchers, Talent Development has produced substantial gains in attendance, academic course credits earned, and promotion rates during students' first year of high school. This success has been replicated with subsequent cohorts and in other high schools.
- A **Freshman Seminar** course offered during the first semester that focuses on study skills, careers, college, human relations, technology and research, completing a long – term project, and social skills. In-depth lessons that use a variety of both innovative and traditional teaching techniques, including long-term projects, cooperative learning activities, and reflective journal writing are used in Freshman Seminar to help students practice the study, note-taking, time management, social and human relations skills they

need to be successful every day in their major academic subjects and in their “real” lives outside of school.

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## HIGH SCHOOL

**Virginia** offers an array of prevention and remediation programs. **Project Graduation**, targeted towards 11<sup>th</sup> and 12<sup>th</sup> graders, offers three types of remediation academies, each supported by its own block of funding.

- Summer Academy – offered in the summer to students entering 12<sup>th</sup> grade who are on track to having passed courses but have not earned the verified credit in English reading, English writing, and Algebra I (i.e., have passed the course, but not the end-of-instruction test)
- Academic Year Academy – offered during the school year to students who are on track to graduate but have not earned verified credits (i.e., have passed the course, but not the end-of-instruction test)
- Continuation Academy – offered in the summer to students who completed 12<sup>th</sup> grade, but have not achieved verified credits/passed the Standards of Learning EOC tests in English reading, English writing, and Algebra I

There is programmatic flexibility at the regional level, allowing school districts to design these academies with wide latitude in to best fit their needs. Successful ideas are not isolated at the district or division level; regional Project Graduate team leaders collaborate and share best practices.

### Evidence of Success:

Overall, these academies have been very successful in boasting student pass rates on the SOL tests.

- Summer Academy for rising seniors in class of 2005
  - Reading: 262 students participated with 67% subsequently passing
  - Writing: 137 students participated with 46% subsequently passing
  - Algebra I: 141 students participated with 68% subsequently passing
- Academic Academy for seniors in 2004-2005
  - Reading: 1,412 students participated with 77% subsequently passing
  - Writing: 1,860 students participated with 68% subsequently passing
  - Algebra I: 771 students participated with 65% subsequently passing
- Continuation Academy for post-grad seniors in summer 2005
  - Reading: 126 students participated with 54% subsequently passing
  - Writing: 171 students participated with 60% subsequently passing
  - Algebra I: 39 students participated with 59% subsequently passing

### Costs:

The Virginia General Assembly allocates \$1.8 million per year for Project Graduation academies: \$75,000 for each academy for each of the eight regions. The overall annual spending on the full array of Project Graduation prevention and remediation programs that target 11<sup>th</sup> and 12<sup>th</sup> graders \$3.3 million.

Virginia allocates \$64 million in block grants per year for K-12 remediation during the school year and \$26 million per year for K-12 summer remediation.

The **Massachusetts Academic Support Services Program (ASSP)** provides competitive and allocation grants to fund the development and implementation of programs aimed at helping students pass the MCAS 10<sup>th</sup> grade graduation tests. ASSP provides funding to local districts, supporting a wide range of interventions that include...

- Funding district programs in grades 4-12
- Project Success that provides opportunities for additional help through in-school, extended day, and Saturday programs.
- Summer Programs for English Language Learners (SPELL).
- After School and Out-of-School Time (ASOST) programs that build a network of school year programs integrating learning with recreational and cultural experiences.

### Evidence of Success:

Statewide, over 75% of students who participated in remediation in English and 67% of those who participated in remediation in mathematics passed subsequent MCAS tests. Students participating in ASSP programs passed the MCAS re-test at rates of 25 to 30 percentage points higher than non-participants.

In the three largest urban districts – Boston, Springfield & Worcester – participation and success rates for the Class of 2003 were high:

- Percent of Class Year 2003 students who participated in FY2002 ELA ASSP programs and then passed subsequent MCAS retests:
  - Any ASSP funded program: 76%
  - After school ASSP funded programs: 75%
  - During school ASSP programs: 80%
- Percent of Class Year 2003 students who participated in FY2002 Math ASSP programs and then passed subsequent MCAS retests:
  - Any ASSP funded program: 67%
  - After school ASSP funded programs: 73%
  - During school ASSP programs: 66%

Costs:

Local districts and community organizations are eligible to apply for competitive grants, while allocation grants are formula-based taking into account MCAS failure rates and enrollment by grade level. The funding for ASSP has fluctuated over the past several years, and will be approximately \$15 million for the 2005-06 school year.

At its height, the ASSP spent over \$45 million (FY2002). According the state board of education reports, the ASSP funds that year were distributed in the following five ways:

**1. Non-competitive Grant to School Districts:**

|                      |              |
|----------------------|--------------|
| Year                 | 2001-2002    |
| Allocation           | \$36,421,260 |
| Districts Served     | 361          |
| Students Served      | 71,000       |
| Programs Implemented | 842          |

**2. Competitive Grant: Class of 2003:**

|                      |             |
|----------------------|-------------|
| Year                 | 2001-2002   |
| Allocation           | \$2,406,597 |
| Districts Served     | 38          |
| Students Served      | 5,437       |
| Programs Implemented | 66          |

**3. Tutoring:**

Princeton Review

|                     |           |
|---------------------|-----------|
| Allocation          | \$285,000 |
| Districts Served    | all       |
| Students Served     | 20,000    |
| Students Completing | 16,665    |
| Cost Per Pupil      | \$17      |

Smarthinking

|                     |           |
|---------------------|-----------|
| Allocation          | \$112,280 |
| Districts Served    | 6         |
| Students Served     | 675       |
| Students Completing | 4,894     |
| Cost Per Pupil      | \$168     |

**4. After School and Other Out-of-School Time Programs:**

|                      |             |
|----------------------|-------------|
| Year                 | 2002        |
| Allocation           | \$4,494,805 |
| Districts Served     | 68          |
| Students Served      | 15,365      |
| Programs Implemented | 308         |

### 5. Summer Program for English Language Learners (SPELL)

|                   |                     |
|-------------------|---------------------|
| Year              | 2001-2002           |
| Allocation        | \$1,144,772         |
| Districts Served  | 15                  |
| Students Served   | 1,300 approx.       |
| Programs          | 16                  |
| Hours per student | 56                  |
| Total Hours       | 72,866              |
| <b>Total cost</b> | <b>\$45,164,664</b> |

To support **Maryland's** new end-of-course High School Assessments required for graduation starting with the class of 2009, the state department of education has developed an integrated system of student support and curricular materials that include:

- Maryland releases one form of each EOC tests each school year.
- Maryland has developed on-line courses for students that is free to school districts and available as an instructional tool for teachers.
- Maryland is developing additional teacher resources to accompany the course – resources like flashcards, worksheets, and a bank of released assessment items will be placed in appropriate modules.
- Maryland is also developing pre-assessments to help teachers and administrations discern exactly where students need remediation.

Maryland requires school districts to provide remediation for students who do not pass a test, and students are required to participate in a remediation program prior to retaking the HSA test.

Funding for Maryland's remediation efforts is tied in to the state's new funding formula. Each school system must create and submit a Master Plan to the state that details how funds will be used to bring students up to the state's academic standards, including the Maryland High School Assessments. This allows school systems the flexibility to design their own remediation activities that fit the needs of their population.