MARYLAND

TEACHER STAFFING REPORT

2010 - 2012

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EXECUTIVE SUMMARY

Maryland State Department of Education, in conjunction with local school systems and institutions of higher education, has conducted an annual study since 1986 to determine critical teacher shortage areas. Since 2008, though data is collected annually, the report is published biennially. The latest *Maryland Teacher Staffing Report, 2010-2012,* provides data on teacher candidates completing programs in institutions of higher education that have Maryland Approved Programs (MAP) and in the newer Maryland Approved Alternative Preparation Programs (MAAPP). The report also collects the hiring needs of the local school systems to determine critical shortage areas by analyzing the various data collected. The process includes additional data beyond the traditional formula used since the beginning of the report. It incorporates an Expert Panel, composed of representatives of various stakeholders, that is convened to review the data and come to consensus as to whether a content area has a critical shortage, is balanced, or has a surplus of teachers.

The scope of the report has expanded over the years, and now reports shortage areas for both teachers and non-classroom professionals, as well as information on higher education and alternative preparation program graduates, geographic shortage areas, teacher attrition, highly qualified teachers (as defined by the 2001 *No Child Left Behind Act)* and the number of retired/rehired teachers and principals. This report also outlines a number of important incentives and strategies for the recruitment and retention of quality teachers for Maryland public schools.

The Maryland State Board of Education, pursuant to HB 688, *Workforce Shortage Student Assistance Grants,* Education Article § 18-708, adopts the critical shortage teaching areas that are used by the Maryland Higher Education Commission to offer scholarships to qualified individuals. Students in Maryland preparing to become teachers in critical shortage areas may apply for student financial assistance if they meet specific requirements of the law. The list of critical shortage areas is also used for other purposes: for teachers who teach in critical shortage areas may qualify for deferment of loan repayment and/or loan forgiveness to meet the requirement of the several federal loan programs; for grants from the TEACH Act; and for the Retire/Rehire Program in Maryland, a way for locals to rehire teachers, mentors or principals in select schools in critical shortage areas. The list also is shared with the United States Department of Education, which annually publishes *Teacher Shortage Areas Nationwide.*

This report presents four recommendations to the State Board of Education identifying the critical shortage areas in: teaching content areas, state geographic areas, gender and diversity, and non-classroom professionals. Because the report is now biennial, the following recommendations pertain to both the 2010-2011 and 2011-2012 school years.

This report provides information for higher education institutions, alternative preparation programs, and local school systems as they educate and hire the future teachers for Maryland's schools.

The recommendations for the Maryland State Board of Education approval are:

Recommendation 1: The Maryland State Board of Education declares the following content areas as critical shortage areas:

- Career and technology areas (7-12):
    - Technology education, and
    - Family and Consumer Sciences;
- Computer science (7-12);
- English for speakers of other languages (ESOL) (PreK-12);
- Foreign language areas (7-12):
    - Chinese, and
    - Spanish;
- Mathematics (7-12);
- Science areas (7-12):
    - Chemistry;
    - Earth/space science,
    - Physical science, and
    - Physics;
- Special education areas:
    - Generic: Infant/primary (birth-grade 3);
    - Generic: Elementary/middle school (grades 1-8);
    - Generic: Secondary/adult (grades 6 – adult);
    - Hearing impaired;
    - Severely and profoundly disabled; and
    - Visually impaired.

Recommendation 2: The Maryland State Board of Education declares the following 19 Maryland jurisdictions as geographic areas of projected shortage of certified teachers:

1. Allegany County
2. Anne Arundel County
3. Baltimore City
4. Calvert County
5. Carroll County
6. Cecil County
7. Charles County
8. Dorchester County
9. Frederick County
10. Harford County
11. Howard County
12. Montgomery County
13. Prince George's County
14. Queen Anne's County
15. St. Mary's County
16. Talbot County
17. Washington County
18. Wicomico County
19. Worcester County

Recommendation 3: The Maryland State Board of Education declares a shortage of teachers who are males and teachers who are members of minority groups.

Recommendation 4: The Maryland State Board of Education declares a shortage of the non-classroom professional positions of library/media specialist, principal, and speech/language pathologists.

INTRODUCTION

The Maryland State Department of Education (MSDE), in conjunction with local school systems and institutions of higher education, has conducted an annual study since 1986 to determine critical teacher shortage areas. Since 2008, the state has collected data annually, but publishes it biennially. In addition to publishing the content areas that are considered to be shortage areas, *The Maryland Teacher Staffing Report* provides information on the number of teacher candidates in Maryland institutions of higher education offering Maryland Approved Programs (MAP) and the number of graduates from the Maryland Approved Alternative Preparation Programs (MAAPP). In addition, the actual and anticipated hiring needs of the 24 local school systems is collected. This information addresses both the supply of new Maryland teachers and the demand that local school systems expect in hiring.

Background

Legislation originally passed by the Maryland General Assembly in 1984 and revised in 2006 requires the state to declare teaching fields designated as critical shortage areas. These critical teacher shortages have been used to award state grants to individuals who are preparing to teach in the shortage areas. In 2006, the General Assembly unified several pieces of legislation that included scholarships in other workforce areas, into one, HB 688: *Workforce Shortage Student Assistance Grants.* This bill consolidated all state grants and scholarships across professions, including teaching (see Appendix A: Education Article §18-708). The procedures and guidelines for selecting grant recipients have changed in accordance with this new law. The

Maryland State Department of Education (MSDE) declares the critical teaching areas, and the grant given to future teachers has continued to be called the *Sharon Christa McAuliffe Teacher Education Award* in honor of the nation's first teacher in space.

The list of teacher shortage areas are used for several purposes beyond the state awards for individuals. SB 663*: Retirement and Pensions – Reemployment of Retirees,* passed by the Maryland General Assembly in 2005, uses the declared teacher shortage areas to exempt certain retired teachers from an earnings limitation if they are reemployed as classroom teachers in one of the critical shortage areas and in qualifying schools. This law also includes principals and mentors. Details are included in Section I of this report.

The United States Department of Education annually publishes the *Teacher Shortage Areas Nationwide,* and allows students who teach in critical shortage areas to qualify for deferment of loan repayment and/or loan forgiveness to meet the requirement of the following program regulations. The teacher shortage designations also are used for federal student loan repayment decisions. Programs that use the teacher shortage areas include the following:

- 34 CFR 682.210(q) enables a borrower who had no outstanding Federal Family Education Loan (FFEL) Program loan on July 1, 1987 but who had an outstanding FFEL Program loan on July 1, 1993 to qualify for deferment of loan repayment under the Federal Stafford Program anytime within the life of the borrower's loan(s);
- 34 CFR 674.53(c) enables Federal Perkins Loan borrowers who are full-time teachers of mathematics, science, foreign languages, bilingual education or any other field of expertise where the State educational agency determined there is a shortage of qualified teachers to qualify for cancellation of up to 100 percent of their loan;
- 34 CFR 696.12(d) enables grant recipients to fulfill their teaching obligation in teacher shortage areas under the Teacher Education Assistance For College and Higher Education (TEACH) Grant Program; and

- 34 CFR 653.50(a) (2) (ii) enables scholars to qualify for the reduction of teaching obligation under the Paul Douglas Teacher Scholarship Program.

In 2007, Congress passed the *Teacher Education Assistance for College and Higher Education (TEACH) Grant Program,* listed in the third bullet above. This law provides grants of up to $4,000 per year to students who intend to teach in a public or private elementary or secondary school in a state's critical teacher shortage areas. More information on this law is included in Section I of this report.

As purposes of the *Maryland Teacher Staffing Report* have continued to expand, so has the content of the report. In addition to identifying critical teacher shortage areas, the report responds to legislation and requests from the State Board of Education, MSDE personnel, and other stakeholders. Additional information now includes: geographic areas experiencing shortages; recruitment and retention incentives and strategies; minority and gender data; attrition data; information on highly qualified teachers by content area; and information on select non-classroom professionals (guidance counselors, library/media specialists, principals, reading specialists, school psychologists); and data on alternatively prepared teachers.

A major factor affecting teacher staffing, and therefore the expansion of this report, is the provision of the federal *No Child Left Behind Act* of 2001, requiring that core academic subjects be taught by highly qualified teachers. MSDE has developed and implemented extensive procedures for collecting highly qualified teacher data in each content area by school system, by school, and by classroom. The 2006-2008 staffing report stated that future reports would align analysis and reporting of Maryland staffing data with *No Child Left Behind* requirements to provide stakeholders with additional information, and to help stakeholders have a clearer understanding of teacher

assignments in core academic subjects and in high-poverty schools. The 2008-2010 report included these data as one of the criteria used to select the critical teacher shortage areas.

Another factor affecting teacher staffing patterns has been the change over time in teacher hiring. In the first two decades of this report, Maryland local school systems conducted most of their recruitment and hiring during spring and summer each year. In recent years, many school system human resource personnel reported that hiring has become more continuous. In response to these concerns, MSDE's Office of Academic Policy interviews all human resource directors in August to learn about their staffing needs at the start of each new school year. Importantly, this August data has become another criterion in selecting the critical teacher shortage areas.

With the increased demands on this biennial staffing report as a major teacher data report, an Advisory Committee composed of representative stakeholders was convened to study past procedures used to identify the critical teacher shortage areas. The decisions and recommendations of the Advisory Committee were first used in the 2008-2010 report. Since the suggested methodology worked very well, the same process was used for this 2008-2010 report. The details of the revised methodology are explained in Section II.

Biennial Report since 2008

The 2008 report reflected the transition from an annual to a biennial report. This reporting process aligns with the *Workforce Shortage Student Assistance Grants* schedule for awarding state tuition grants to address workforce shortages. Biennial

reporting on teacher shortages is consistent with practices in other states and appropriate in Maryland, where year-to-year variation is minimal.

Summary and Report Overview

In summary, the *Maryland Teacher Staffing Report,* 2008-2010, was the first biennial report, using the new methodology and reporting schedule. This 2010-2012 report uses the revised methodology for the second time. The procedures established were documented to ensure systematic replication in subsequent state reports of teacher staffing, as well as formative review for ongoing improvements to the report.

This report follows a specific sequence of sections, beginning with *Incentives and Strategies for the Recruitment and Retention of Quality Teachers and Principals.* Subsequent sections cover staffing patterns, geographic areas of projected shortage, Maryland-prepared teachers, (both Maryland Approved Programs and Maryland Approved Alternative Preparation Programs), minority and gender data, select non-classroom professionals, and recommendations to the State Board of Education. This report provides information for higher education institutions, alternative preparation programs, and local school systems as they educate and hire the future teachers for Maryland's schools.

SECTION I: INCENTIVES AND STRATEGIES FOR THE RECRUITMENT AND RETENTION OF QUALITY TEACHERS AND PRINCIPALS

For many years, Maryland has had a shortage of qualified teachers in certain content areas. Early-career attrition, flat teacher education graduation rates, and teacher retirements contribute to the shortages. To address the teacher shortage issue, Maryland has instituted state scholarships in the shortage areas, as well as many strategies to attract and retain teachers. The federal government also has several programs, such as the *TEACH Act,* loan deferment and loan forgiveness programs*,* and *Troops to Teachers* to attract retiring military into second careers. An overview of select existing incentives and strategies is provided below in the categories of national and federal initiatives and state initiatives.

NATIONAL AND FEDERAL INITIATIVES

Teacher Education Assistance for College and Higher Education Grant Program

Through the *College Cost Reduction and Access Act of 2007*, Congress created the *Teacher Education Assistance for College and Higher Education (TEACH) Grant Program* that provides grants of up to $4,000 per year to students who intend to teach in a public or private elementary or secondary school that serves students from low-income families. The first *TEACH* grants were awarded to eligible students for the 2008–2009 school year.

To receive a *TEACH* grant, the candidate must agree to serve as a full-time teacher in a high-need field in a public or private elementary or secondary school that serves low-income students. High-need fields are the specific areas identified below:

- Bilingual Education and English Language Acquisition;

- Foreign Language;

- Mathematics;

- Reading Specialist;

- Science; and

- Special Education.

The recipient of a *TEACH* grant must teach for at least four academic years within eight calendar years of completing the program. If the candidate fails to teach in an appropriate school, the grant will be converted to a Federal Direct Unsubsidized Stafford Loan to be repaid to the U.S. Department of Education, with interest charged from the date the grant was disbursed. To receive a *TEACH* grant candidates must meet the following criteria:

- Be a U.S. citizen or eligible non-citizen;
- Complete the Free Application for Federal Student Aid (FAFSA), even though students do not have to demonstrate financial need;
- Be enrolled as an undergraduate, post-baccalaureate, or graduate student in a post-secondary educational institution that has chosen to participate in the *TEACH Grant Program*;
- Be enrolled in coursework necessary to begin a career in teaching or plan to complete such coursework. Such coursework may include subject area courses (e.g., math courses for a student who intends to be a math teacher);
- Meet certain academic achievement requirements (generally, scoring above the 75th percentile on a college admissions test or maintaining a cumulative GPA of at least 3.25); and
- Sign a *TEACH Grant* "Agreement to Serve."

Additional information is available through financial aid offices at participating institutions and the U.S. Department of Education website at:

http://www.ed.gov/index.html.

Federal Student Aid and Loan Forgiveness Programs

The federal government has loan programs for students wanting to go to college. The amount of funds for these programs varies from year to year. Current information is located at the federal loan site: http://www.FederalStudentAid.ed.gov.

The federal government also has several discharge (cancellation) or loan forgiveness programs connected to federal loans for teachers. The Teacher Loan Forgiveness Program is intended to encourage individuals to enter and continue in the teaching profession. A full-time teacher of five consecutive academic years in a "low income" school could qualify for a federal loan forgiveness program. To qualify:

- Individuals must have taught **full-time** for **five consecutive complete academic years** in an elementary or secondary school that was designated a "low-income" school by the U.S. Department of Education; and
- At least one of the qualifying years of teaching was after the 1997–1998 academic year; and
- The loan was made before the end of the fifth year of qualifying teaching; and
- The school must be public or private nonprofit.

Participants may apply to have teacher loans cancelled after they have taught for five consecutive years. A completed application should be submitted to the chief administrative officer at the applicant's school, certifying that he/she taught full time for five consecutive years at that school. Applications are available on the web at: https://studentaid.ed.gov/PORTALSWebApp/students/english/cancelstaff.jsp?tab=repay.

Good Neighbor Next Door

The U.S. Department of Housing and Urban Development (HUD) wants to make American communities stronger, promote home ownership, build a safer nation, and have an active role in the revitalization of cities. The purpose of the Good Neighbor Next Door (GNND) sales program is to improve the quality of life in distressed urban

communities by encouraging Law Enforcement Officers, Teachers (PreK-12), Firefighters, and Emergency Responders to purchase and live in homes in these communities. For information, contact:

 http://www.hud.gov/offices/hsg/sfh/reo/goodn/gnndabot.cfm.

Troops to Teachers

In 1994, the U.S. Department of Defense established the *Troops to Teachers* (TTT) Program. TTT provides counseling and referral services to military personnel interested in beginning a second career in public education as a teacher. TTT helps to recruit quality teachers for schools that serve low-income families throughout the United States and to relieve teacher shortages, especially in mathematics, science, special education, and other high-need subject areas. The program assists military personnel in making successful transitions to new careers in teaching. Maryland supports this program through a grant received from the TTT office for a dedicated full-time staff member to recruit new candidates, advocate for the program in the state, communicate with stakeholders, and develop marketing strategies. Additional information is available by calling 410-767-8286; or toll free at 1-866-251-3123, or visiting the website at: www.tttmaryland.org. The national TTT website can be found at: proudtoserveagain.com.

STATE INITIATIVES

Workforce Shortage Student Assistance Grants

The 2006 General Assembly passed HB 688: *Higher Education – Workforce Shortage Student Assistance Grants* (Chapter 367, Acts of 2006) to consolidate seven workforce-related state financial assistance programs into one program (see Appendix A: §18-708: *Workforce Shortage Student Assistance Grants*). The Sharon Christa

McAuliffe Memorial Teacher Education Award, which had been in existence for over 20 years, is now part of this consolidated effort. The new rules and regulations, developed by an advisory council, apply to seven workforce areas. An individual receiving an award must agree to work one year in an eligible occupation in Maryland for each year the award is received. An awardee must:

- Be a full-time resident of Maryland, enrolled at a two-year or four-year Maryland college or university;
- Be a full-time (12+ credits per semester) or part-time (6-11 credits per semester) degree-seeking undergraduate student, or a full-time (9+ credits per semester) or part-time (6-8 credits per semester) degree-seeking graduate student; and
- Sign a promissory note that is due if the service obligation is not met in accordance with the guidelines.

The Office of Student Financial Assistance has announced that it will not be accepting new applications for the *Workforce Shortage Student Assistance Grant* program for the 2010-2011 academic year. The retention rate for renewal awards for students receiving the grants has remained high and, with reduced funds, program funding must first apply to those recipients that had multi-year renewable awards. More information on this program and when future funding might be available can be found at: http://www.mhec.state.md.us/financialAid/ProgramDescriptions/prog_WSSAG.asp.

The Distinguished Scholar Teacher Education Program

The Distinguished Scholar Teacher Education Program is designed to provide financial incentives to attract highly able students to Maryland's teacher preparation programs. This merit-based award program is available only to undergraduate students who already have been identified as Distinguished Scholar Award recipients. The program provides an additional $3,000 per year to Distinguished Scholar Award

recipients who already have qualified for $3,000 per year, for up to $12,000 across four years. For renewal annually until graduation, a student must maintain a minimum 3.0 GPA and remain enrolled full-time at a two- or four-year college or university in an approved teacher education program. This award is for undergraduate study and requires the individual to fulfill a service obligation requirement (one year as a full-time classroom teacher for each year of the award). Additional information can be obtained by calling the Maryland Higher Education Commission State Scholarship Administration at 410-260-4565, toll-free at 1-800-974-1024, or by visiting the website at: http://www.mhec.state.md.us.

Quality Teacher Incentive Act Grants

In 1999, the Maryland General Assembly passed legislation, HB9*: Quality Teacher Incentive Act*, enabling local school systems to offer a number of incentives to recruit and retain quality teachers. These provisions were codified in Education Article § 6-306 and Tax Article §10-717. To address the serious and unprecedented fiscal crisis impacting Maryland, the law was amended in 2009 through *The Budget Reconciliation and Financing Act.* The original law had several incentives for teachers: signing bonuses for new classroom teachers with a 3.5 grade point average, stipends for teachers earning National Board Certification, and stipends for teachers holding the Advanced Professional Certificate (APC) working in challenge or corrective schools. The following changes have been made to these incentive programs.

- Signing bonuses have been eliminated;
- National Board Certification stipends (dollar for dollar match by local school systems of $2,000 per year) will continue; however the amounts for which teachers will be eligible are now dependent upon the schools in which they teach. A description of the program with details on eligibility is available at:

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- Stipends for teachers with Advanced Professional Certification who are teaching in qualifying schools with satisfactory performance in the classroom will continue, however, both the school criteria for qualifications and the amount of the stipends have changed. School eligibility has been identified by the State Board as those having comprehensive needs (developing or priority). The amount of the stipend to be paid in fiscal 2010 for the 2008-2009 school year is $1,500.

The impact of these grants on the recruitment and retention of quality teachers in Maryland has been significant in the past, but due to tight fiscal constraints and the growth in the number of qualifying individuals, the state has been forced to reduce the number of grants. In 2006-07 the amount awarded was $6,244,946; in 2007-2008, the amount was $8,749,371, and in 2008-2009 the amount dropped to $3,890,155. The details concerning numbers and types of incentives for teachers by local school systems for the latest year available are found in Appendix C: *Quality Teacher Incentive Act Grants, 2008-2009.*

State Tax Credits

Maryland classroom teachers enrolled in college courses are eligible for an annual $1,500 tuition tax credit on their Maryland income tax returns, designed to offset graduate tuition expenses necessary to achieve or maintain an advanced teacher certification. To receive the credit, the teacher must successfully complete the courses with a grade of B or better, be employed by a local school system, have a satisfactory performance evaluation, and not have been reimbursed by the local school system for the tuition paid. The law can be found in the Annotated Code of Maryland Tax-General Article §10-717 at: http://mlis.state.md.us/cgi-win/web_statutes.exe.

Resident Teacher Certificate

The Resident Teacher Certificate (RTC) is designed to attract and recruit into teaching, liberal arts graduates and career changers who possess academic content backgrounds in the arts and sciences but did not complete teacher preparation programs. The first Resident Teacher Certificate regulation was adopted by the Maryland State Board of Education (COMAR 13A.12.01.07) on December 19, 1990 and became effective on April 1, 1991. It provided direction for local school systems to create an alternative route into the teaching profession. On December 1, 2005, the RTC regulation was amended by the State Board of Education in a continuing effort to endorse and support multiple alternative preparation pathways to teacher certification. The revision focused on improving Maryland's alternative route to certification and aligning certification for teacher residency with approved preparation programs. This was to ensure that the RTC be a viable option for providing highly qualified teachers to Maryland schools consistent with the provisions of *No Child Left Behind* and with the recommendations of the State Board's *Quality Teacher Work Group* of 2003. In addition to the amended regulation, both the State Board of Education and the Professional Standards and Teacher Education Board adopted in 2006 the *Guidelines for Implementing Maryland Approved Alternative Preparation Programs.*

All programs that use the RTC are now *Maryland Approved Alternative Preparation Programs* (MAAPP) and operate under the authority of the Program Approval and Assessment Branch in the Division of Certification and Accreditation at MSDE. Each MAAPP program is reviewed using a state program approval process,

similar to the program approval process model of the traditional pathways teacher preparation programs. For more information, consult the MSDE website at:

http://marylandpublicschools.org/MSDE/divisions/certification/progapproval/maapp_10_07.htm.

National Board for Professional Teaching Standards

The National Board for Professional Teaching Standards (NBPTS) is an independent, non-profit, non-partisan organization established in 1987 to improve student learning in America's schools by developing a system of advanced, voluntary certification for teachers. NBPTS has established rigorous standards and a performance-based certification system to recognize quality teaching. Certification is achieved through a performance-based assessment that typically takes more than a year to complete. It is designed to measure what accomplished teachers should know and be able to do. The process requires teachers to demonstrate how their activities, both inside and outside the classroom, strengthen student performance and contribute to student achievement.

In 1997, the General Assembly enacted legislation that established a program of state and local aid to public school teachers who pursue certification by the NBPTS. Since the beginning of the state and local aid program, more than 3,600 teachers have participated in this rigorous assessment. MSDE has established eligibility criteria that are consistent with the NBPTS, collaborating with representatives from the Maryland State Teachers Association, the Office of the Attorney General, and with state Senators Pinsky and Van Hollen, co-sponsors of the original legislation, to identify selection procedures and guidelines that would be used by participating schools.

NBPTS has now certified 1,772 Maryland teachers with the profession's top recognition. This year Maryland ranks 7th nationwide in the number of teachers

achieving National Board Certification – ranking 14th in the total number of National Board Certified Teachers (NBCT) over time. In 2009 Maryland welcomed 307 new NBCTs, joining 14 other states that had at least a 20 percent increase in the number of 2009 NBCTs over the number of teachers who achieved certification in 2008.

Maryland has long been supportive of this program, coordinating a Candidate Support Network since 1997 and establishing regional sites across the state to assist candidates. Through the network, candidates receive technical, intellectual, logistical, and emotional support as they progress through the assessment process. As part of the revisions in 2009 to the *Quality Teacher Incentive Act*, classroom teachers who earn National Board Certification will be eligible for stipends if they teach in a school identified by the State Board as having comprehensive needs. For the 2008-2009 school year, 1,412 teachers, representing all 24 school systems, received a total of $1,415,155 in stipends.

"National Board Certified Teachers represent the best that our schools have to offer," said State Superintendent of Schools Nancy S. Grasmick. "These teachers have gone through a rigorous program, proving their commitment to their students, their schools, and their profession." The certification process is open to anyone with a baccalaureate degree and three years of classroom experience. The certificate is valid for 10 years, after which a teacher may seek renewal. (See Appendix C: *Quality Teacher Incentive Act Grants, 2007-2008*). For more information go to: www.nbpts.org.

Teachers of Promise (TOP) Mentoring Programs and Institute

The Teachers of Promise Program and Institute began as an outgrowth of the Maryland Teacher of the Year Program and capitalized on the expertise of Teachers of

the Year and other award-winning teachers by matching them with the most promising pre-service graduating seniors from Maryland colleges and universities. This program is designed to provide these promising candidates with support as they transition from the role of student to the new role of teacher. Mentoring begins in the candidates' senior year and continues through summer and fall placement in Maryland schools, creating a transitional mentoring program for beginning teachers.

"This program is truly unique as Maryland is the only state that created a program utilizing the talents and brain power of Teachers of the Year in helping transition college seniors into their roles as first year teachers," said Dr. Nancy Grasmick, State Superintendent of Schools. "With a teacher retention crisis in education, Teachers of Promise creates a mentoring program that transitions young people from the stage of being students in college to teachers of students, lessening the overwhelming experiences of dealing with the many unknowns of beginning teachers." Estimates are that one third of the nation's teachers leave the profession sometime during the first three years of teaching with 50 percent leaving after five years. The Maryland attrition rate for teachers is significantly better than the national average. In 2009-2010 the attrition rate was 6% in the first five years decreasing from 8% in 2007-2008. Many state programs are given credit for this improving rate, including extensive internships in Professional Development Schools, a strong mentoring component in MAAPP, and a beginning teacher induction program. Research strongly suggests that teacher "buddies" or mentors assigned to work with new teachers can be crucial in encouraging them to remain in the field. The Teachers of Promise Program has developed powerful partnerships among MSDE, corporations, and higher education that

together enhance the chances of success and confidence for so many of our new teachers.

The Teachers of Promise Program has been applauded by new and veteran teachers and administrators and credited with giving beginning teachers "confidence and enthusiasm, amazing instructional ideas, and personal advice," that can sustain them. The Maryland State Department of Education's Teachers of Promise Mentoring Programs and Institute received one of the Daily Record's *2009 Innovator of the Year* awards. The award recognizes Marylander's who have the courage to make a change and the stamina to await the results. More information can be found on the website at: http://marylandpublicschools.org/MSDE/programs/recognition-partnerships/top.

Retire/Rehire Program

Beginning in 1999, the Maryland General Assembly enacted several bills which exempt certain retired teachers from an earnings limitation if they are re-employed as classroom teachers, substitute teachers, or teacher mentors. The current statute, enacted in 2005 as SB 663*: Retirement and Pensions - Reemployment of Retirees*, is aimed at rehiring teachers and principals to work in specific schools and teach in critical shortage content areas. The teacher retiree can be rehired without a reduction of pension benefits as a classroom teacher, substitute classroom teacher or a teacher mentor in a public school that:

- Is not making adequate yearly progress (AYP) or is in need of improvement as defined under *No Child Left Behind* and as implemented by the MSDE; *or*
- Is receiving funds under Title I of the federal *No Child Left Behind Act* and as implemented by the MSDE; *or*
- Provides an alternative education program for adjudicated youths or students who have been expelled, suspended, or identified for suspension or expulsion from a public school; *or*

- Has more than 50% of students attending who are eligible for free and reduced-priced meals (FARM) established under the U.S. Department of Agriculture.

In addition, the position must be in a field that has been identified by the MSDE as an area of critical shortage, a special education class, or a class with students with limited English proficiency.

A principal who retires with satisfactory performance can be rehired for two years without a reduction of benefits in a public school that:

- Is not making adequate yearly progress or is in need of improvement as defined under *No Child Left Behind* and as implemented by MSDE; *or*
- Is receiving funds under Title I of the *No Child Left Behind Act* and as implemented by the MSDE; *or*
- Provides an alternative education program for adjudicated youths or students who have been expelled, suspended, or identified for suspension or expulsion from a public school; *or*
- Has more than 50% of students attending who are eligible for free and reduced-priced meals (FARM) established under the U.S. Department of Agriculture.

The statue includes a limited number of exemptions for each school system to provide for a small number of individuals teaching in a critical shortage area in a type of school not identified above or teaching a non-critical subject in a school identified as eligible through the criteria listed above.

The number of teachers and principals taking advantage of this program in 2007-2008 was 177; 71 in 2008-2009, and 67 in 2009-2010. These hires represent experienced teachers or principals teaching in the lowest performing schools (Title I, AYP, FARMS, Alternative Education) and in one of the critical teacher content areas. The most recent report, 2009-2010, by local school systems is listed in Appendix D: *Retire/Rehire Program.*

Comprehensive Teacher Induction Program

In July 2009, the *Maryland Teacher Professional Development Advisory Council* presented a report to the State Superintendent with a recommendation to revise the state regulations, COMAR, to define a comprehensive teacher induction program. The report included information about the current status of induction programs in Maryland's 24 local school systems. In August 2009, the *Governor's STEM Task Force* recommended an induction program for all new STEM teachers and recommendations by the *College Success Task Force* include addressing the quality and availability of induction programs.

In response to the Maryland General Assembly, which passed a law requiring mentoring programs, COMAR 13A.07.01 *Comprehensive Teacher Induction Program*, was adopted by the State Board of Education on April 27, 2010. This COMAR regulation was supportive of the successful effort to secure federal *Race to the Top (RTTT)* funding and will provide greater consistency in the quality of support provided to new teachers throughout the state. The regulation established the framework of a comprehensive induction program for new teachers to include:

1) An orientation program;
2) Support from a mentor;
3) Observation and co-teaching opportunities;
4) Professional development;
5) Formative review of new teacher performance;
6) The need for induction program staff;
7) Participation in the program of all new teachers;
8) Reduction in workload for new teachers and mentors (to the extent practical given fiscal and staffing concerns); and
9) An evaluation model.

The law provides training for mentors that include 1) initial training of each mentor on the essential characteristics of mentoring adults and the duties and responsibilities of a

mentor, and 2) ongoing feedback and training to enable each mentor to address the specific and varied performance needs of mentees. The complete COMAR with more details is located at: http://www.dsd.state.md.us/comar/SearchTitle.aspx?scope=13A.

Maryland Teacher Shortage Task Force Report

Several reports addressing the teacher shortage have been promulgated over the years. The most recent report was prepared by the *Teacher Shortage Task Force* (2008), formed as a sub-committee of the Governor's P-20 Leadership Council. In June, 2008, the recommendations of the sub-committee were adopted by the Leadership Council. Recommendations include reviewing Praxis scores, flexibility in certification tests, providing dedicated funding for professional development schools, reviewing the *Redesign of Teacher Education in Maryland,* authorizing full tuition benefits for students entering critical shortage fields, and developing marketing efforts to increase the supply of Maryland teachers. The full report is available at:

 http://www.marylandpublicschools.org/MSDE/divisions/leadership/programs/tstf/.

Summary

Various incentives and strategies have been implemented in an effort to assist in recruiting and retaining quality teachers. The strategies that have been implemented have become effective elements of state educational policy as Maryland attempts to attract and retain the best and brightest teachers for its public school classrooms.

SECTION II: STAFFING PATTERNS

Staffing patterns are impacted by the number of available individuals seeking teaching positions as well as the shortages and surpluses in certain certification areas. This section presents information on the number of new hires by Maryland's local school systems, by certification area; the revised methodology for determining critical teacher shortage areas; certification areas by extent of staffing need; trend data; and teacher experience and attrition.

New Hires

Table 1*: Actual New Hires by Certification Area,* reports the number of 2009-2010 new hires in four categories: new hires with no experience from Maryland teacher preparation programs; new hires with no experience from out-of-state programs; new hires with experience who last taught in Maryland; and new hires with experience who last taught outside Maryland. The table also gives the number hired in each certification area. In 2008, the last published Teacher Staffing Report, it was reported that there were 7,249 new hires for 2007-2008. In 2008-2009, there were 5,241. For the 2009-2010 year, there were 4,143 new hires. For a listing of the number of new hires for the past 15 years, see Table 3: *Trend Data of New Hires,* page 34 of this report.

Certification Area	Total New Hires	Beginning New Hires*			Experienced New Hires		
		Total	Maryland IHE**	Non-Md IHE**	Total	Maryland	Outside Maryland
Total New Hires	**4,143**	**2,579**	**812**	**1,767**	**1,564**	**839**	**725**
The Arts	**269**	**191**	**63**	**128**	**78**	**49**	**29**
Art (PreK-12)	108	75	28	47	33	19	14
Dance (7-12)	17	11	3	8	6	4	2
Music (PreK-12)	136	100	32	68	36	23	13
Theater (7-12)	8	5	0	5	3	3	0
Career/Technology Education (7-12)	**160**	**86**	**12**	**74**	**74**	**49**	**25**
Agriculture	4	2	0	2	2	1	1
Business Education	27	7	2	5	20	10	10
Data Processing	0	0	0	0	0	0	0
Family & Consumer Sciences	35	16	4	12	19	15	4
Health Occupations	6	3	1	2	3	3	0
Marketing Education	1	0	0	0	1	1	0
Technology Education	54	37	4	33	17	9	8
Trades and Industry	33	21	1	20	12	10	2
Computer Science (7-12)	**8**	**6**	**1**	**5**	**2**	**1**	**1**
Early Childhood (PreK-3)	**384**	**265**	**130**	**135**	**119**	**67**	**52**
Elementary Education (1-6 & Middle School)	**1,396**	**947**	**354**	**593**	**449**	**246**	**203**
English (7-12)	**357**	**238**	**53**	**185**	**119**	**72**	**47**
Environmental Education (PreK-12)	**0**	**0**	**0**	**0**	**0**	**0**	**0**
ESOL (PreK-12)	**61**	**36**	**11**	**25**	**25**	**11**	**14**
Foreign Language (7-12)	**194**	**114**	**22**	**92**	**80**	**45**	**35**
Chinese	7	4	0	4	3	0	3
French	33	15	2	13	18	12	6
German	2	1	1	0	1	1	0
Italian	2	1	0	1	1	1	0
Japanese	2	2	0	2	0	0	0
Latin	4	4	1	3	0	0	0
Spanish	143	87	18	69	56	30	26
Other Foreign Language	1	0	0	0	1	1	0
Health (PreK-12)	**15**	**11**	**5**	**6**	**4**	**4**	**0**
Health/Physical Education (PreK-12)	**37**	**23**	**7**	**16**	**14**	**7**	**7**
Mathematics (7-12)	**240**	**140**	**30**	**110**	**100**	**52**	**48**
Middle School Education (4-9)	**33**	**19**	**1**	**18**	**14**	**2**	**12**
Middle School Ed: English/Language Arts	5	4	0	4	1	0	1
Middle School Ed: Mathematics	15	9	1	8	6	0	6
Middle School Ed: Science	10	4	0	4	6	2	4
Middle School Ed: Social Studies	3	2	0	2	1	0	1
Physical Education (PreK-12)	**95**	**56**	**21**	**35**	**39**	**23**	**16**
Science (7-12)	**251**	**155**	**29**	**126**	**96**	**44**	**52**
Biology	175	103	24	79	72	35	37
Chemistry	35	24	3	21	11	4	7
Earth/Space	17	8	2	6	9	4	5
Physical Science	4	4	0	4	0	0	0
Physics	13	11	0	11	2	1	1
General Science	7	5	0	5	2	0	2
Social Studies (7-12)	**212**	**133**	**34**	**99**	**79**	**50**	**29**
Special Education	**417**	**154**	**38**	**116**	**263**	**116**	**147**
Generic: Infant/primary (birth-grade 3)	15	7	1	6	8	4	4
Generic: Elementary/middle (grades 1-8)	121	49	7	42	72	35	37
Generic: Secondary/adult (grades 6-adult)	114	34	6	28	80	33	47
Hearing Impaired	5	3	1	2	2	1	1
Severely and Profoundly Disabled	2	0	0	0	2	1	1
Visually Impaired	3	0	0	0	3	2	1
Other (SpEd-K-12 and SpEd-Generic: Infant-A	157	61	23	38	96	40	56
Other Teaching Areas	**14**	**5**	**1**	**4**	**9**	**1**	**8**

* Includes teachers on conditional, resident teacher, and professional certificates.
** Institution of Higher Education

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The decline in available teaching positions is impacted across the state by the current economic slowdown. In addition, student enrollment is expected to decrease this year, as it has for the last six years. Enrollment in county schools peaked in 2004 with 137,000 students and has gradually declined, with 127,000 students reported by MSDE in 2010. Although the 2010-2011 teacher hires will not be available for several months, comments from local school systems indicate that the trend of hiring fewer teachers continues. Prince George's County Public School administrators report that while approximately 500 teachers left the school system this year, the annual attrition rate is normally about 1,000 teachers per year. In previous years, teachers were hired to make up for the annual attrition rate, but this year some teachers who retired or moved were not replaced because of budget constraints.

The new hire data provided in Table 1 includes teachers who hold many different types of Maryland certificates. They include professional certificates (the Standard Professional Certificate I, the Standard Professional Certificate II, and the Advanced Professional Certificate); the Resident Teacher Certificate (used for teachers in Maryland Approved Alternative Preparation Programs); and the Conditional Certificate (used when local school systems cannot meet their staffing needs with qualified teachers on the professional or resident certificates).

Maryland Approved Alternative Preparation Programs

Candidates hired locally in Maryland Approved Alternative Preparation Programs (MAAPP) teach on the Resident Teacher Certificate (RTC). They are career changers who are fully employed as salaried teachers. These teachers have met rigorous program entrance requirements and have progressed satisfactorily through the initial

stages of their training. The teachers on the RTC are classified as Highly Qualified Teachers (as defined by *No Child Left Behind [NCLB]*). When they complete their one- or-two year preparation program, they will have earned the Standard Professional Certificate I. In 2009-2010, there were 674 candidates in 16 MAAPP programs; in 2010- 2011 there were 560 candidates in 13 MAAPP programs. Since one of the goals of the MAAPP programs is to increase the number of teachers in critical shortage areas, it is noted that these candidates are hired to teach in areas where the local school system has a need, such as science, mathematics and special education. Section I of this report provides more information on this alternative pathway to professional certification.

New hires who are employed on the Conditional Certificate have not met all of the state requirements for certification. If they are teachers of core academic subjects, they are not classified as Highly Qualified Teachers (HQT). These new hires must be working toward full certification by completing all remaining professional education and content courses and by meeting any missing testing requirements. In school year 2008- 2009, 3.1% of the teacher workforce held Conditional Certificates (out of the total of 59,321 teachers in the state). In 2009-2010, the number dropped to 1.6% (out of 59,142 teachers). This number has been dropping annually because of the federal requirements for HQT in NCLB. Appendix E: *Teachers Issued a Conditional Certificate: Two-Year Comparison, 2008-2009 and 2009-2010* lists the total number of conditionally certified teachers by local school system (not only new hires), while Appendix F: *Newly Hired Maryland Teachers with Conditional Certificates* reports the total number of *newly hired teachers* in 2009-2010 with Conditional Certificates.

For several years, to fill classroom positions, some local school systems have made agreements with foreign countries to hire certified teachers in certain shortage areas. These teachers come to Maryland with teaching credentials from their home countries (e.g., Argentina, Columbia, Ecuador, India, Kenya, Korea, Philippines). In the 2008-2010 report, of the 7,249 new hires reported, 444 (approximately 6%) came from other countries. Of the 4,143 new hires reported in 2009-2010, 107 (approximately 2.7%) came from other countries. With the reduction in new hires, the need to go outside the country for hiring was not as great. Out-of-country new hires teach in many certification areas, but the highest numbers are in special education (48), elementary education (20), and the sciences (9).

This report includes data on teachers who move from school system to school system, known as "within-state" movement of teachers. These teachers, who change jobs within the state, are reported as "new" by their school systems, although they are not new to teaching in Maryland. Including this movement of teachers from system to system will skew the number of new hires, so they are extracted from Table 1.

Table I A: *Number of New Hires Who Transferred From Local School System to Local School System* displays the number of teachers from each sending and each receiving school system. The chart lists which school systems are hiring from other in-state systems and which systems are losing teachers to other in-state systems. Attention to the within-state new hire issue is important for understanding the teacher shortage issue in some depth. Observers note that the magnitude of what is viewed as the teacher shortage crisis is mitigated by within-state movement, which is analyzed only rarely as a component of new hire data. The number of teachers who moved within

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the state for 2009-2010 is 229, which is 5.5% of the new hires. In the 2008-2010 report, the first time this data was extracted from the new hires total, there were 720, or 9.9% "movers". Since the number of new hires has dropped dramatically in the past two years due to the economic slowdown, it would be expected that the number of "movers" also would drop. These "movers" are not included in Table 1, but because of the limitations of MSDE's database, if a teacher has been out of teaching in Maryland for more than one year, he or she is not included in Table 1A. These teachers would be classified as a new hire again. Clearly, these data on annual within-state teacher movement enrich understanding of new hires and the teacher shortage issue.

Number of New Hires Who Transferred From Local School System to Local School System
Maryland Public Schools
June 2009 Through June 2010

RESIGNED FROM: Local School System	Allegany	Anne Arundel	Baltimore City	Baltimore	Calvert	Caroline	Carroll	Cecil	Charles	Dorchester	Frederick	Garrett	Harford	Howard	Kent	Montgomery	Prince George's	Queen Anne's	St. Mary's	SEED School	Somerset	Talbot	Washington	Wicomico	Worcester	Total
Allegany	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Anne Arundel	0	0	0	3	0	0	0	0	1	0	0	0	1	3	1	0	0	0	3	0	1	0	0	0	0	13
Baltimore City	0	9	0	19	1	0	0	0	0	0	0	1	3	2	0	1	5	0	2	3	1	0	0	0	0	47
Baltimore	0	6	7	0	0	1	3	2	0	0	0	0	11	7	0	5	3	0	0	2	0	0	1	1	0	49
Calvert	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2
Caroline	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
Carroll	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cecil	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Charles	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	2	0	0	0	0	0	0	7
Dorchester	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
Frederick	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	5
Garrett	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Harford	0	1	2	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	9
Howard	0	5	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	1	0	0	0	1	0	10
Kent	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Montgomery	0	1	1	4	0	0	0	1	0	0	3	0	0	1	0	0	7	0	0	0	0	0	1	1	0	20
Prince George's	0	11	3	1	0	0	1	0	7	0	0	0	0	5	0	6	0	0	1	0	0	1	1	0	0	37
Queen Anne's	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	3
St. Mary's	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEED School	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Somerset	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Talbot	0	2	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	6
Washington	1	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	4
Wicomico	0	2	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	5
Worcester	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
TOTAL	1	41	15	37	2	3	4	4	8	0	4	2	16	20	3	15	22	2	8	6	3	1	6	4	2	229

Methodology for Determining Shortages

A new methodology for determining the critical teaching shortage areas was first used in the 2008-2010 staffing report. At that time, at the recommendation of an Advisory Committee, the methodology to determine which teaching areas to declare as having a critical shortage was studied and changed. To enhance currency and incorporate contextual factors, the historic projection formula, used since the first report in 1986, was augmented with additional data sources. An Expert Panel of representative stakeholders met with MSDE to produce the list of critical shortage areas, using a scoring rubric for each certification area. This portion of the report presents each data source and briefly explains the procedures for identifying certification areas according to their extent of staffing need.

Data Sources

The Staffing Report determines the critical teacher shortages based on three different data sources. They are described below.

Statewide Projection Formula. The Division of Accountability and Assessment (DAA) prepares new hire and projection tables and figures based upon information provided by local school systems. Using data from the past five years, a staffing rate is extrapolated to project anticipated staffing supply for the next year. These projections are compared with local school system reports submitted each October on staffing needs. Using these data, staff traditionally has projected a surplus or a shortage in each content area, using the following formula to determine staffing projection rates:

$$\text{RATE} = 1 + \left(\frac{((\text{\# of new hires in 2009-2010}) - (\text{\# of new hires in 2006-2007}))}{\text{\# of new hires in 2006-2007}} / 5 \right)$$

The formula calculates the rate of five years of change, with 1 as the rate base; it is subject to some variability if significant spikes occur within the five-year period on which it is based. To determine the "projected staffing pool" for 2010-2011, the rate is multiplied by the number of new hires in 2009-2010. The number of "projected new hires" is provided by the local school system.

> Criterion 1: If the difference between the "projected staffing pool" and "projected new hires" is 85% or less, the certification area is identified on the *Rubric for Determining Critical Shortage Certification Areas* as a *statewide teacher shortage.*

In a given certification area, the "projected new hires" statewide also must be greater than 10 to be considered as a critical teaching shortage area since the formula would not be appropriate for such small numbers.

August Statewide Survey of Vacancies. The Office of Academic Policy surveys the human resource directors in each of the local school systems in late August to provide a view of school staffing for the opening of school (see Appendix G: *Annual Survey of Local School System Vacancies, August, 2010*). The survey requests projected teacher needs, actual teachers hired, remaining vacancies, and recruitment difficulties. These data from each local school system provide the most recent available information at the time the critical teaching shortage areas are being identified by the Expert Committee.

> Criterion 2: If 5 or more local school systems report recruitment difficulties in a certification area, that area is identified on the *Rubric for Determining Critical Shortage Certification Areas* as a *statewide teacher shortage.*

Number of Classes Statewide Taught by Not Highly Qualified Teachers. The Division of Accountability and Assessment provides data on the number of classes in

Maryland public schools that are not being taught by highly qualified teachers (see Appendix H: *Classes Taught by Highly Qualified Teachers, 2007-2008*).

> Criterion 3: If 10% or more of the classrooms in a certification area are not being taught statewide by highly qualified teachers (HQT), that area is identified on the *Rubric for Determining Critical Shortage Certification Areas* as a *statewide teacher shortage*.

Since not all content areas are considered core academic subjects by *No Child Left Behind*, the rubric was adjusted so that non-core academic subject areas (e.g., all Career and Technology areas, physical education, health) are not penalized through the use of the rubric.

Procedures for Identifying Certification Areas by Extent of Staffing Need

Because the revised methodology involves the use of an external Expert Panel to review MSDE's three data sources and to draw upon the current experiences of their constituencies, it was necessary for staff to prepare materials and procedures for this panel. The Expert Panel's process, guided by MSDE, was designed to culminate in (1) the categorization of certification areas by staffing need; and (2) the identification of critical teacher shortage areas for recommendation to the State Superintendent and the State Board of Education. Their materials and procedures follow:

- Rubrics for Rating Certification Areas. (See Appendix B: *Rubric for Rating Certification Content Areas*). Staff compiled information from the three data sources and presented the results for each certification area.

- Independent Analysis by Expert Panel. The Expert Panelists reviewed the rubrics that were pre-populated with data; each rubric included numerical scores by data source and a total score for each rubric. Panelists were invited to enter additional data with point values based upon their expert knowledge and the experiences of

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their constituencies, and to affirm or revise the decision on the rubrics that had been computed preliminarily by staff. The panel was encouraged to draw upon information from such additional sources as content specialists at local school systems and at MSDE, reports of local hiring difficulties in specific school systems, and college and university faculty knowledge about graduates' job search experiences.

- Expert Panel Discussion. The group discussed each certification area to determine the degree to which areas categorized through use of the rubrics was consistent with the current contextual factors encountered in the hiring of new staff.

- Consensus Procedure. Finally, consensus was reached on each certification area, listing each as *critical shortage, balanced, or surplus.* In summary, the group was polled to insure that all agreed on the final decision for each certification area. The panel affirmed that the areas identified as *critical teacher shortage area* would be recommended to the State Superintendent and the State Board of Education for final approval.

Certification Areas by Extent of Staffing Need

The areas identified are valid for a two-year period, 2010-2011 and 2011-2012, since the report is now produced biennially. The results of the Expert Panel consensus discussion are displayed in Table 2: *Certification Areas by Extent of Staffing Need.* They have been categorized into Shortage, Balanced and Oversupply.

Table 2
Certification Areas by Extent of Staffing Need
September 2010

Certification Areas	Supply and Demand		
	Critical Shortage	Balanced	Surplus
The Arts			
Art (PreK-12)			X
Dance (PreK-12)		X	
Music (PreK-12)			X
Theatre (7-12)		X	
Career/Technology Education (7-12)			
Agriculture		X	
Business Education			X
Family & Consumer Sciences	X		
Technology Education *	X		
Trades and Industry			X
Health Occupations		X	
Computer Science (7-12) *	X		
Early Childhood (PreK-3)		X	
Elementary Education (1-6 & Middle School)		X	
English (7-12)		X	
ESOL (PreK-12) *	X		
Foreign Language (7-12)			
Chinese	X		
French		X	
German		X	
Italian		X	
Latin		X	
Japanese		X	
Russian		X	
Spanish *	X		
Health/Physical Education (PreK-12)			X
Mathematics (7-12) *	X		
Science (7-12)			
Biology		X	
Chemistry *	X		
Earth/Space Science *	X		
Physical Science *	X		
Physics *	X		
Social Studies (7-12)		X	
Special Education			
Generic: Infant/primary(birth-grade 3) *	X		
Generic: Elementary/middle (1-8) *	X		
Generic: Secondary/adult (6-adult) *	X		
Hearing Impaired *	X		
Severely & Profoundly Disabled *	X		
Visually Impaired *	X		

* On the critical shortage list 5 or more years.

Shaded areas are the critical shortage areas declared 2009-2010 and 2010-2011.

SOURCE: Consensus of the Expert Panel September 2010.   Revised 9/01/10

Trend Data

Table 3: *Trend Data of New Hires,* reports 15 years of new hires from 1995-1996 to 2009-2010. The number fluctuates from year to year but had been increasing, with 2005-2006 having the largest total (8,046), then slowly decreasing each year since then. Table 3 also displays the number of beginning news hires, from institutions that are Maryland and non-Maryland, then experienced new hires, from Maryland and from other states.

Figure 1: *Trend Data: New Hires by Maryland Public Schools* 1995-1996 to 2010-2011, is a graphic representation of the trend data from Table 3. It reports the actual number of hires over the past 15 years and projected hires for 2010-2011. The chart shows the number of new hires has been decreasing the last four years. The human resource directors of Maryland's local school systems provide the projection.

Table 4: *Newly Hired Teachers by Local School Systems, June 2009 through June 2010,* reports the number of teachers hired by each of the 24 local school systems. The number ranges from a low of 10 new hires in the SEED School to a high of 699 new hires in Prince George's County. The five largest school systems (Anne Arundel County, Baltimore City, Baltimore County, Montgomery County, and Prince George's County,) hired 68%, of the new hires.

Figure 2, *New Hires by Local School System,* is a graphic representation of the hiring data from 2008-2009 and 2009-2010. It shows the number of teachers hired by school system, comparing the two years. The largest five school systems hire more than half of the new teachers each year.

Table 3

Trend Data of New Hires
Maryland Public Schools
1995-1996 to 2009-2010

| Year | Total New Hires | Beginning New Hires* | | Experienced New Hires | |
		Maryland IHE**	Non-Md IHE**	Maryland	Outside Maryland
1995-1996	3,623	1,123	1,127	533	840
1996-1997	4,588	1,455	1,363	1,112	658
1997-1998	5,595	1,780	1,537	1,362	916
1998-1999	6,033	1,543	1,871	1,426	1,193
1999-2000	7,329	1,665	2,233	2,072	1,359
2000-2001	7,649	1,896	2,706	1,860	1,187
2001-2002	7,385	1,694	2,336	1,820	1,535
2002-2003	7,445	1,769	2,608	1,633	1,435
2003-2004	5,929	1,420	1,664	1,667	1,178
2004-2005	6,617	1,435	1,749	2,257	1,176
2005-2006	8,046	1,439	2,911	2,330	1,366
2006-2007	7,917	1,345	3,025	1,651	1,896
2007-2008	7,249	1,234	2,769	1,549	1,697
2008-2009	5,241	985	1,777	1,202	1,277
2009-2010	4,143	812	1,767	839	725

 * Includes teachers on conditional, resident teacher, and professional certificates.
** Institution of Higher Education

Trend Data: New Hires
1995-1996 to 2010-2011
Maryland Public Schools
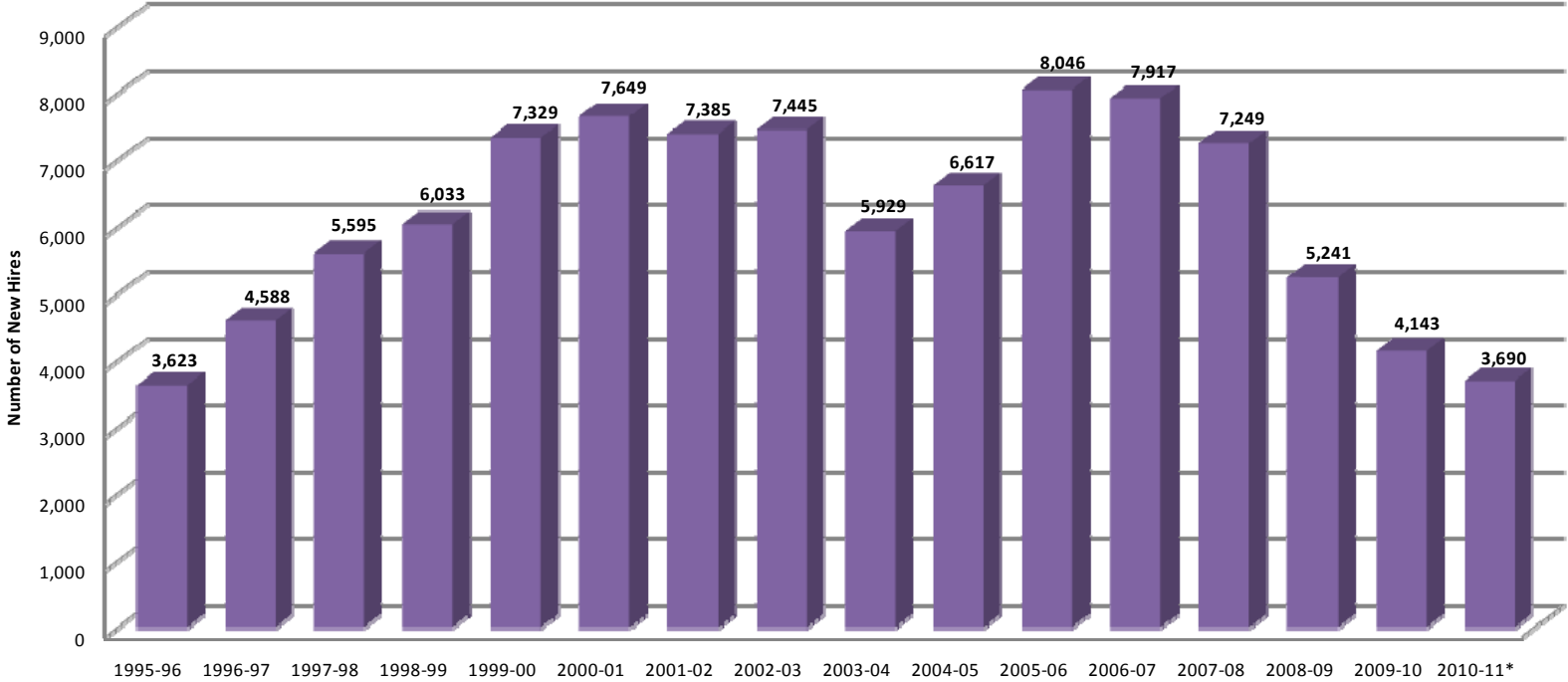
*Estimated new hires as projected by local school systems, May 2010.

Figure 1

Table 4

Newly Hired Teachers by Local School System
Maryland Public Schools
June 2009 Through June 2010

Local School System	Total New Hires	Beginning New Hires*			Experienced New Hires		
		Total	Maryland IHE**	Non-Md IHE**	Total	Maryland	Outside Maryland
Total New Hires	**4,143**	**2,579**	**812**	**1,767**	**1,564**	**839**	**725**
Allegany	22	7	1	6	15	12	3
Anne Arundel	439	187	75	112	252	171	81
Baltimore City	584	424	59	365	160	71	89
Baltimore	575	450	199	251	125	75	50
Calvert	32	12	3	9	20	13	7
Caroline	34	21	2	19	13	4	9
Carroll	68	42	22	20	26	15	11
Cecil	66	34	11	23	32	17	15
Charles	176	113	23	90	63	32	31
Dorchester	33	24	4	20	9	7	2
Frederick	108	51	27	24	57	44	13
Garrett	24	11	6	5	13	7	6
Harford	181	131	47	84	50	26	24
Howard	178	101	37	64	77	54	23
Kent	13	5	0	5	8	6	2
Montgomery	525	321	143	178	204	71	133
Prince George's	699	407	78	329	292	132	160
Queen Anne's	34	20	3	17	14	11	3
St. Mary's	95	45	16	29	50	26	24
SEED School	10	1	1	0	9	9	0
Somerset	11	5	0	5	6	3	3
Talbot	27	19	4	15	8	2	6
Washington	143	91	38	53	52	23	29
Wicomico	46	43	9	34	3	3	0
Worcester	20	14	4	10	6	5	1

 * Includes teachers on conditional, resident teacher, and professional certificates.
** Institution of Higher Education

New Hires by Local School System
Maryland Public Schools
2008-2009 and 2009-2010
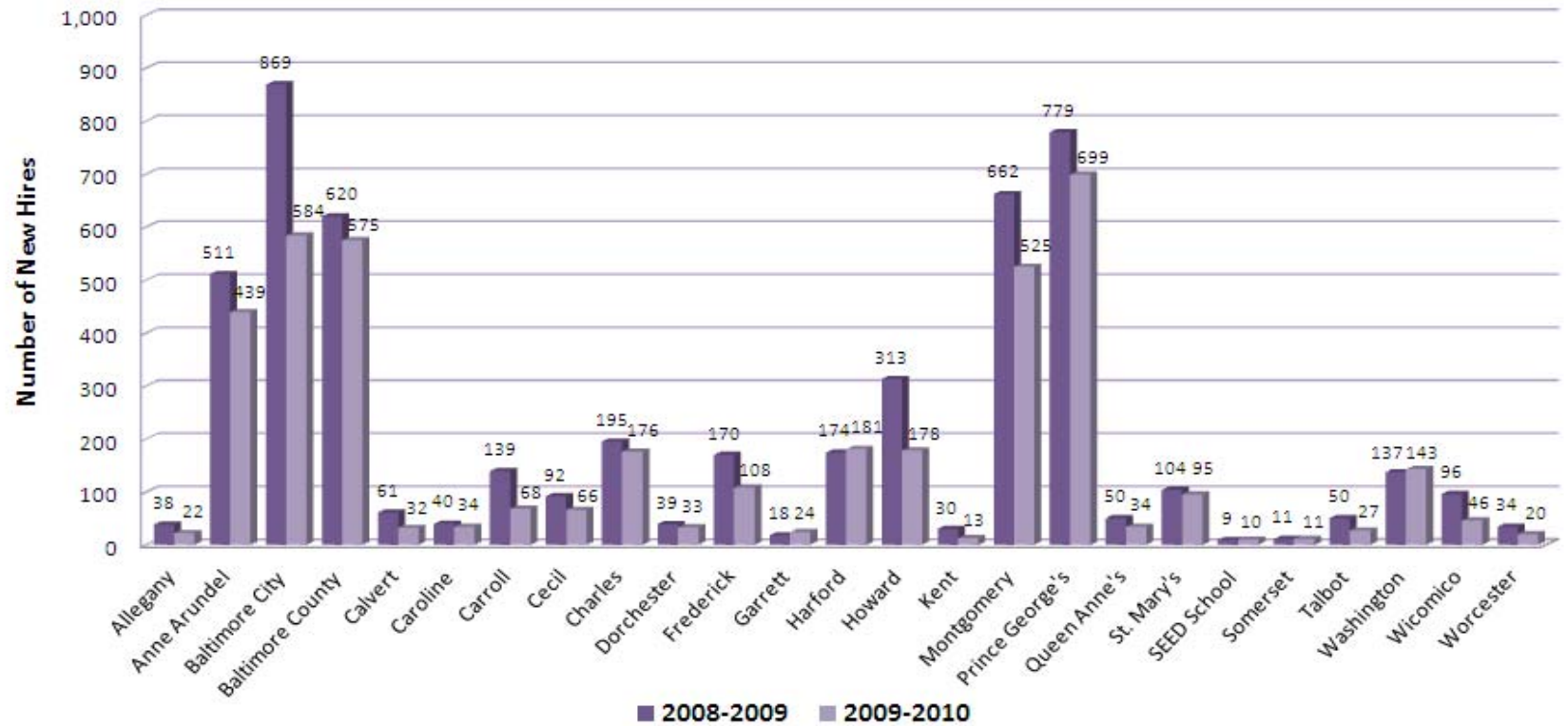
Figure 2

Figure 3, *New Hires: Out-of-State and In-State Comparison 2002-2003 to 2009-2010,* compares hiring for the last eight years. For many years Maryland hired more out-of-state teachers than those from in-state. However, in 2003-2004 and 2004–2005 the hiring was reversed. In 2005-2006 through 2009-2010, the number of out-of-state teachers once again was larger than the in-state hires.

Figure 4, *New Hires: Experienced and Beginning New Hires: 2002-2003 to 2009-2010,* compares the number of experienced teachers and beginning teachers hired for eight years. With the exception of 2004-2005, Maryland has hired more beginning than experienced teachers. This chart combines both the in-state and out-of-state beginning and experienced new hires. The breakout is discussed in the next paragraph.

Figure 5, *New Hires: Beginning and Experienced Teachers and In-State and Out-of-State: 2009-2010,* compares beginning new hires and experienced new hires with data about where they were prepared or last taught. For several years the four quarters of this pie chart were almost equal, but with the 2009-2010 data, the largest group of new hires is the 42.7% of out-of-state new hires.

New Hires: Out-of-State and In-State Comparison
2002-2003 to 2009-2010
Maryland Public Schools
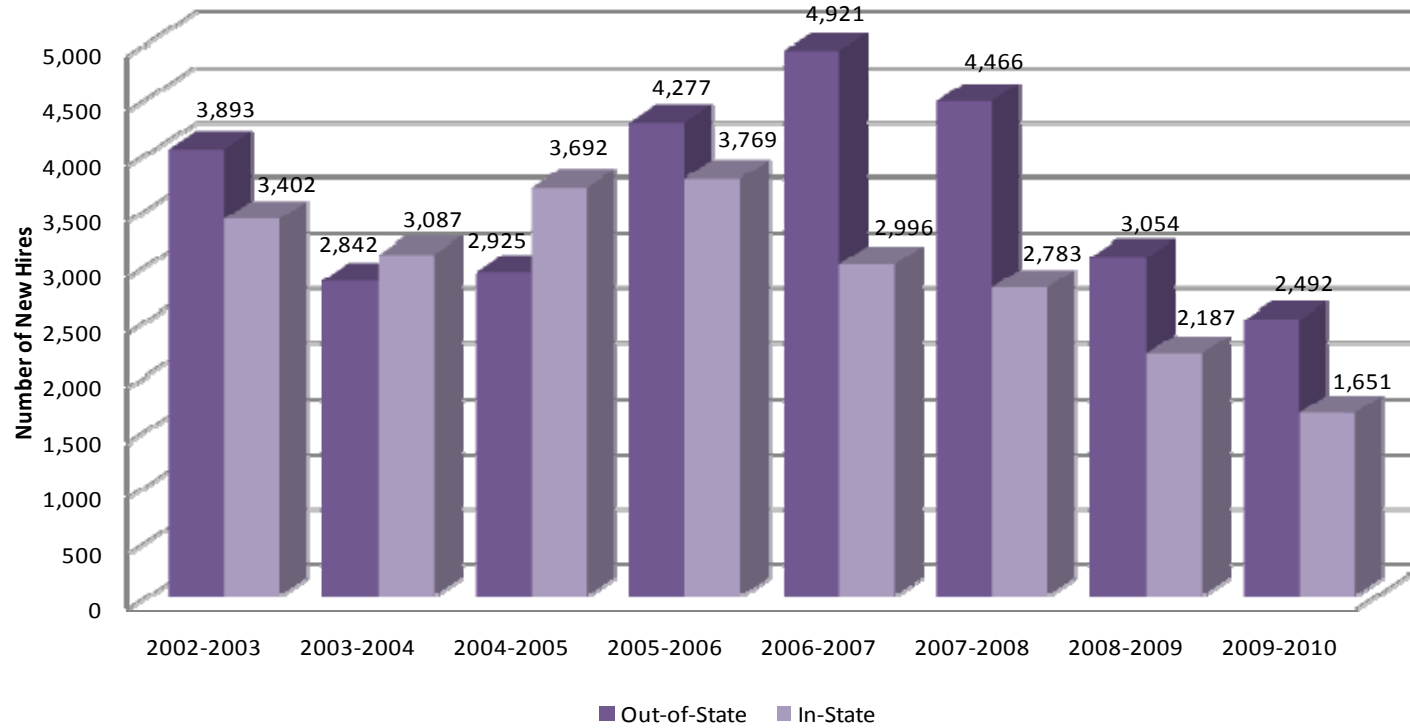
Figure 3

New Hires: Experienced and Beginning Teachers
2002-2003 to 2009-2010
Maryland Public Schools
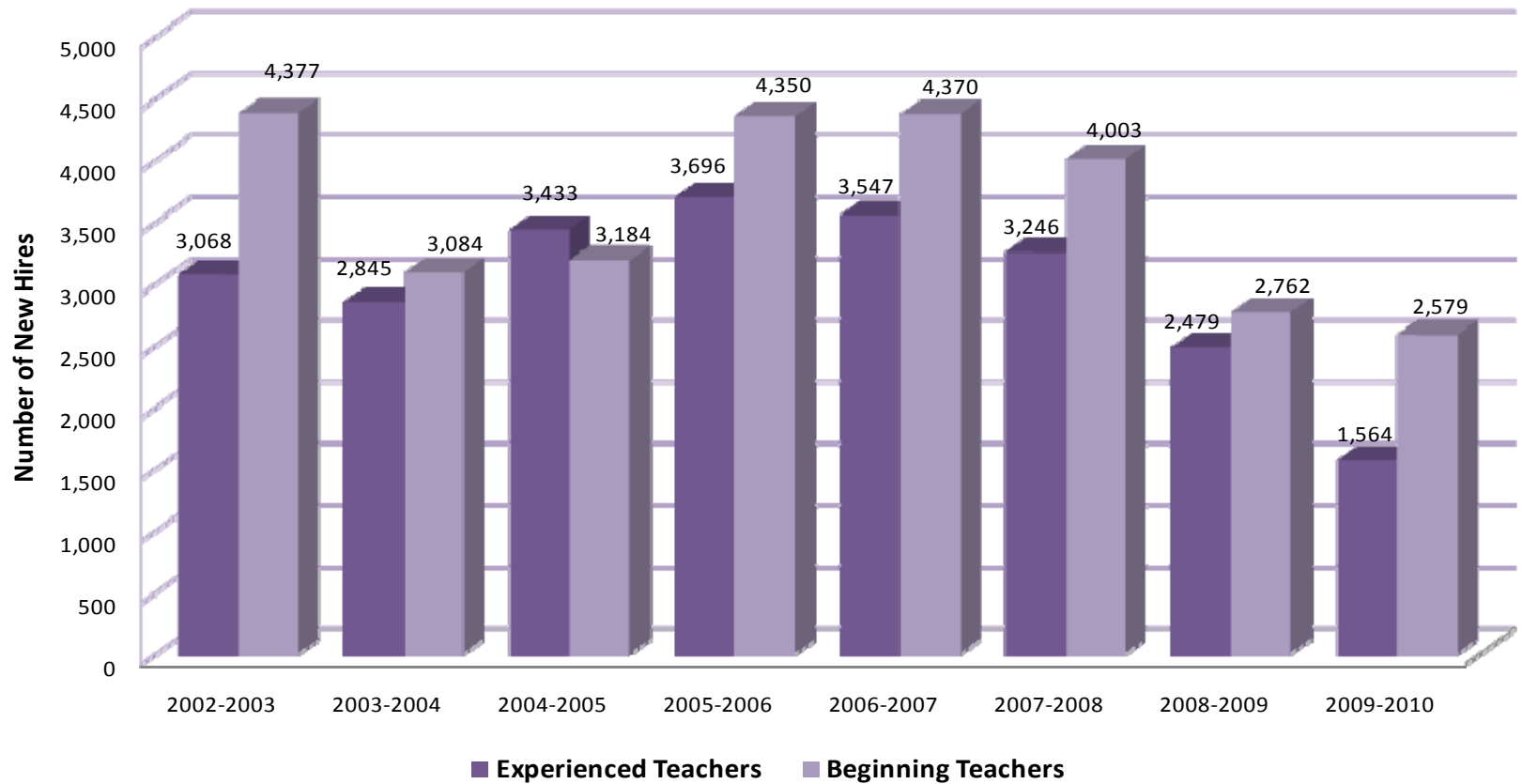
Figure 4

New Hires: Beginning and Experienced and Out-of-State and In-State Comparison Maryland Public Schools 2009-2010

Maryland prepared
19.6%

Out-of-state
prepared
42.7%

BeginningTeachers
62.2%

Last taught in
Maryland
20.3%

Experienced Teachers
37.8%

Last taught outside
Maryland
17.5%
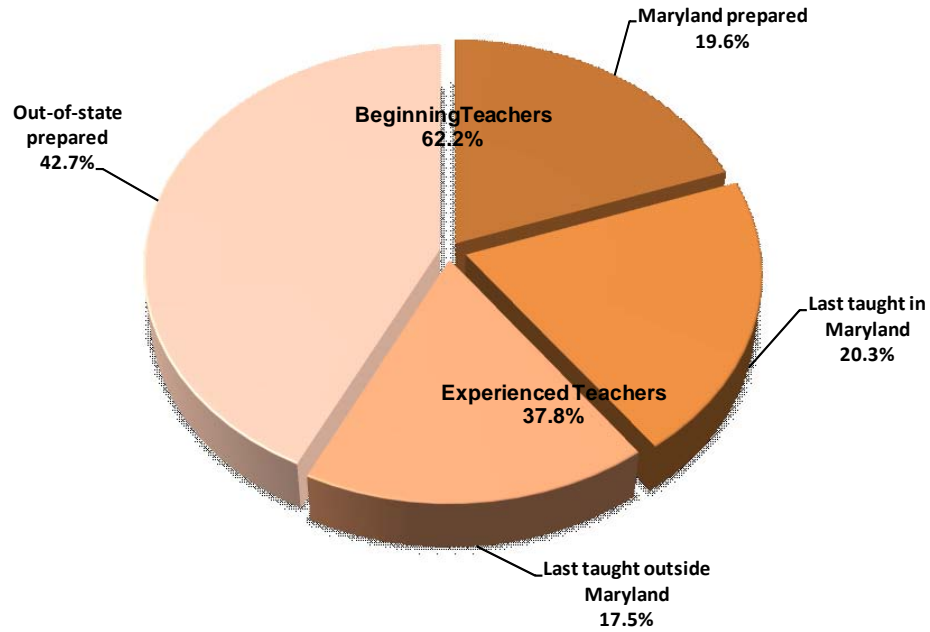
Figure 5

Teacher Attrition

Teacher staffing patterns are sometimes described as a function of workforce supply and demand. The demand component is influenced by numerous contextual factors, such as increasing or decreasing student enrollment, new school building construction, new academic programs in schools, and ebb and flow of the national and state economy.

Since hiring has, as one of its purposes, the replacement of teachers who leave, an important feature of Maryland's staffing patterns is the distribution of teachers according to their years of experience. Table 5: *Teachers by Years of Experience* show that the largest number of teachers, 19,947, has between one and five years of experience. Counting those with less than one year of experience (first column) increases the number to 20,205. Approximately one third (34.1%) of the teacher workforce, (59,142 in 2009-2010) have less than five years of experience. At the other end of the distribution are the 7,030 teachers (approximately 12%) with 26 or more years of experience. These two categories, the least experienced and the longest serving, make up almost half of the teacher population. These are the two groups where teachers are most likely to leave, requiring replacement by new hires.

Many reports note that retention is a major contributing factor to the teacher shortage problem nationally. Looking at the attrition rate of teachers is useful; however, attrition data are complex, and it is difficult to separate those who leave the profession from those who move from one employer to another. It also is difficult to differentiate those who leave permanently from those who leave (maternity leave, illness) and return. Additionally, the causes cited for separation present a challenge in interpretation. Many individuals are not willing to cite specific reasons for leaving a job; therefore, the

reasons collected through separation documents and exit conferences may be vague or inaccurate.

One way to examine attrition is to focus on the number of teachers who leave school systems annually, capturing comparable data with minimal complexity. As seen in Table 6: *Teacher Attrition: Maryland Public Schools by Years of Experience,* the number of teachers who left employment in 2009-2010 is listed in five year increments by each school system. Maryland lost 6% of the workforce when 3,797 teachers left employment. This number has dropped from previous years, probably due to the challenging economy. When the economy is in a downturn, teachers might want to leave, but are not able to find other employment. Also, many who are qualified to retire may wait until the economy improves. Teachers who moved from one Maryland school system to another within the same one-year reporting period, a total of 229 (as reported in the footnote of Table 1A), are not included in the totals in this attrition table. It is clear that the greatest number of teachers, 1,825 (Table 5A, 108 from column one plus 1,717 from column two), leave employment within the first five years. This rate represents almost half of the attrition reported each year. Although the reasons why beginning teachers leave vary, often it is due to lack of or poor induction programs and support for new teachers.

It is important to note that the Maryland attrition rate is lower than the national rate. Several studies show that 50% of new teachers leave within the first five years of teaching. Maryland school systems have established beginning teacher induction and mentoring programs in an effort to assist new teachers in becoming successful in the classroom and increase retention. Having teachers intern in Professional Development Schools (PDS), a component of Maryland Approved Programs, also offers promise in increasing teacher retention. Retention studies at Towson University show marked

differences between PDS-trained and non-PDS-trained new teachers. In one large urban school system, as many as 40% more PDS-trained teachers are continuing as teachers through an ongoing eight-year retention study. Similarly, MSDE tracks teachers who are career-changers and prepared in Maryland through Maryland Approved Alternative Preparation Programs. These teachers are remaining in teaching at levels comparable to Maryland's Professional Development School-prepared teachers. The extensive period of practice in schools with the support of strong mentorship has proven to be crucial in promoting retention.

Summary

This section presents the new hire data for the 2009-2010 school year. It includes an explanation of the revised methodology for identifying certification areas declared critical shortage areas; trend data of new hires and of number of teacher candidate graduates; teachers by years of experience; and attrition data. This information should be helpful to all constituents in attempting to understand teacher staffing patterns and the factors influencing them.

Table 5

Teachers by Years of Experience
Maryland Public School
As of June 2010

Local School System	Years of Experience								Total Teachers
	Less than One	One to Five	Six to Ten	Eleven to Fifteen	Sixteen to Twenty	Twenty One to Twenty Five	Twenty Six to Thirty	More than Thirty	
State	258	19,947	13,408	9,018	5,439	4,042	2,322	4,708	59,142
Allegany	0	115	133	124	99	68	44	103	686
Anne Arundel	31	1,710	1,083	728	443	314	206	387	4,902
Baltimore City	27	2,015	1,237	773	439	358	144	720	5,713
Baltimore	75	2,985	1,823	1,100	662	400	155	421	7,621
Calvert	3	167	278	254	173	106	51	75	1,107
Caroline	4	127	77	67	43	33	28	30	409
Carroll	3	435	453	342	225	166	120	197	1,941
Cecil	6	545	242	122	55	77	55	61	1,163
Charles	16	755	288	188	136	99	103	155	1,740
Dorchester	3	121	67	48	31	23	17	60	370
Frederick	10	594	596	442	330	285	174	271	2,702
Garrett	0	47	58	65	49	44	36	51	350
Harford	14	953	571	477	264	181	118	168	2,746
Howard	4	947	931	694	434	356	205	284	3,855
Kent	1	64	24	16	23	19	13	17	177
Montgomery	16	2,336	2,380	1,885	1,158	777	486	806	9,844
Prince George's	19	4,452	1,938	908	398	321	70	346	8,452
Queen Anne's	4	126	119	103	52	47	22	51	524
St. Mary's	2	301	266	157	94	85	68	98	1,071
SEED School	2	7	4	1	1	0	0	1	16
Somerset	0	66	57	34	11	15	17	25	225
Talbot	0	97	89	35	24	13	21	23	302
Washington	11	548	309	210	110	107	86	161	1,542
Wicomico	5	326	255	142	107	92	48	121	1,096
Worcester	2	108	130	103	78	56	35	76	588

NOTE: Only includes staff whose primary position is a teacher, including reading specialists.

Table 5A

Teacher Attrition: By Years of Experience
Maryland Public Schools
June 2009 Through June 2010

| | Years of Experience | | | | | | | | | | |
Local School System	Less than One	One to Five	Six to Ten	Eleven to Fifteen	Sixteen to Twenty	Twenty One to Twenty Five	Twenty Six to Thirty	More than Thirty	Total Attrition*	Total Teachers	Percent Attrition
State	108	1,717	739	298	180	142	129	484	3,797	59,142	6.0
Allegany	0	4	2	1	1	2	0	22	32	686	4.5
Anne Arundel	0	137	42	21	16	11	10	48	285	4,902	5.5
Baltimore City	0	299	117	55	35	21	7	88	622	5,713	9.8
Baltimore	81	236	95	29	27	23	14	62	567	7,621	6.9
Calvert	0	16	17	5	4	2	3	11	58	1,107	5.0
Caroline	0	8	3	0	1	2	1	8	23	409	5.3
Carroll	0	1	0	2	0	0	0	0	3	1,941	0.0
Cecil	0	28	7	7	0	3	7	5	57	1,163	4.7
Charles	3	30	11	8	2	0	2	7	63	1,740	3.5
Dorchester	1	21	4	2	0	0	0	5	33	370	8.2
Frederick	1	52	46	22	15	11	8	37	192	2,702	6.6
Garrett	0	4	0	2	0	7	0	5	18	350	4.9
Harford	0	55	16	6	5	9	14	26	131	2,746	4.6
Howard	6	82	80	28	17	10	17	28	268	3,855	6.5
Kent	0	6	1	1	0	0	1	3	12	177	6.3
Montgomery	2	108	79	35	27	15	19	46	331	9,844	3.3
Prince	12	546	182	51	18	19	8	33	869	8,452	9.3
Queen Anne's	0	5	4	4	1	1	2	5	22	524	4.0
St. Mary's	0	9	3	3	2	0	5	4	26	1,071	2.4
SEED School	0	2	2	1	0	0	0	0	5	16	23.8
Somerset	0	6	0	0	0	0	1	2	9	225	3.8
Talbot	1	12	5	4	0	0	0	4	26	302	7.9
Washington	0	32	11	7	4	0	5	17	76	1,542	4.7
Wicomico	0	13	8	3	3	4	1	14	46	1,096	4.0
Worcester	1	5	4	1	2	2	4	4	23	588	3.8

 * Does not include 229 teachers who transferred from one LEA to another.

SECTION III: GEOGRAPHIC AREAS OF PROJECTED SHORTAGE

Background

Maryland legislation enacted in 1986 (Annotated Code of Maryland, Education Article §18-703) required the State Board of Education to identify annually geographic areas of teacher shortages. The intent of the legislation was to assist local school systems affected by geographical conditions that make the recruitment and retention of qualified teachers difficult. However, when the scholarship incentive to teach in a declared area of geographic shortage was repealed, MSDE made the decision to continue to collect this information for some federal loan forgiveness programs that use geographic shortage areas.

Procedures

To determine the areas of geographic shortage, the following procedures were followed. The State Board of Education must have identified content areas as critical shortages for *at least three years.* Those areas identified as critical shortage areas for at least three years for this report are *computer science, technology education, ESOL, mathematics, chemistry, earth space science, physical science, physics, and all areas of special education.*

Each local school superintendent was surveyed to determine if he/she was able to satisfy the need for teachers in any of the above identified critical shortage areas and was asked to respond to two questions:

> 1. Did your local school system experience a critical shortage of teachers in any of the following state identified critical shortage areas: *computer science, technology education, ESOL, mathematics, chemistry, earth space science, physical science, physics, as well as all areas of special education?*

2. If yes, do you wish to have your local school system declared an area of geographic shortage?

Each local school system superintendent must agree to have his or her system designated as an area of geographic shortage, based on the above information.

Findings for Geographic Areas of Projected Shortage

For the first year in several years, some school systems have not experienced difficulty finding teachers in critical shortage areas. Four small school systems (Caroline, Garrett, Kent, and Somerset) and one large system (Baltimore County) asked *not* to be identified as a geographic teacher shortage area. Looking at the drop in new hires (Figure 1, page 35) shows that the school systems were hiring approximately 8,000 teachers just 4 years ago, but now the number has dropped by approximately one-half, with the estimated hires projecting even lower. Using the above procedures, 19 jurisdictions in Maryland asked to be identified as geographic areas of projected shortage. They are:

1. Allegany County	11. Howard County
2. Anne Arundel County	12. Montgomery County
3. Baltimore City	13. Prince George's County
4. Calvert County	14. Queen Anne's County
5. Carroll County	15. St. Mary's County
6. Cecil County	16. Talbot County
7. Charles County	17. Washington County
8. Dorchester County	18. Wicomico County
9. Frederick County	19. Worcester County
10. Harford County .	

SECTION IV: MARYLAND-PREPARED TEACHER CANDIDATES

The teacher education candidates reported in this section, both undergraduate and post-baccalaureate, are all of those who qualify for an initial teaching certificate, pending satisfactory performance on all state-required certification assessments. For the first time, the report includes those candidates who complete programs using the traditional pathway of institutions of higher education, called Maryland Approved Programs (MAP), and those who complete the alternative pathway programs, called Maryland Approved Alternative Preparation Programs (MAAPP). The latter candidates teach using the Resident Teacher Certificate (RTC) at the request of the superintendent of the local school system (as required by regulation). The RTC is used for the one to two years of the residency during which time the teachers are considered to be the teachers of record and are fully-compensated school faculty members.   When all elements of the MAAPP are completed, no later than at the completion of the second year of the residency, candidates are eligible for the Standard Professional Certificate I, again at the superintendent's request. This latter group has grown dramatically over the past three years; consequently, later in this section information and data on MAAPP is provided. Information and data that follows apply only to MAP.

Maryland Approved Programs (MAP)

All Maryland institutions of higher education with Maryland Approved Programs in teacher education report the number of graduates, by certification area, for the supply side of the *Maryland Teacher Staffing Report*. Those teacher candidates who completed approved programs for 2008-2009 were part of the pool of Maryland new hires for the local school systems for the 2009-2010 school year. The higher education institutions

are asked to report *all candidates eligible for initial teacher certification.* The number includes students in both undergraduate and post-baccalaureate programs, such as Master of Arts in Teaching (MAT) degree programs. In addition, the higher education institutions report the projected number of teacher education candidates who will be completing programs in the 2009-2010 and 2010-2011 (junior and senior years). These data are collected each year in April from the deans and directors of teacher education programs. Institutions reported 2,349 teacher education candidates in 2008-2009, but with 191 dual majors, there are 2,535 graduates from by certification area. This is a drop from the 2,489 reported in 2007-2008. The 2008-2009 candidates are displayed in Table 6: *Supply of Candidates from Maryland Approved Programs by Certification Area.*

Table 7*: Anticipated Candidates from Maryland Approved Programs by Certification Area,* reports the projected number of candidates by certification categories for the next two years. Deans and directors of teacher education programs reported a projection of 2,586 teacher education candidates becoming eligible for initial certification (undergraduate and post-baccalaureate) in 2009-2010, with that projection increasing to 2,985 in 2010-2011.

Table 8: *Newly Eligible Candidates from Maryland Approved Programs,* reports the total number of teacher education graduates eligible for state certification from the 23 institutions of higher education with approved teacher education programs. Seven of the 23 (see inserted chart) produce 77% of the teacher candidates. Although the total number of graduates has shown little growth, several institutions have increased their numbers, including Towson University and University of Maryland College Park, Maryland's two largest producers of teachers. University of Maryland University College has a new teacher preparation program and will not have graduates until next year.

Table 6

Supply of Candidates by Certification from Maryland Approved Programs (MAP)
Maryland Institutions of Higher Education
2008 - 2009

Certification Area	MAP Supply
Total	**2,535**
The Arts	**177**
Art (PreK-12)	97
Dance (7-12)	9
Music (PreK-12)	68
Theater (7-12)	3
Career/Technology Education (7-12)	**13**
Agriculture	0
Business Education	8
Data Processing	0
Family & Consumer Sciences	4
Health Occupations	0
Marketing Education	0
Technology Education	1
Trades and Industry	0
Computer Science (7-12)	**2**
Early Childhood (PreK-3)	**300**
Elementary Education (1-6)	**919**
English (7-12)	**157**
Environmental Education (PreK-12)	**0**
ESOL(PreK-12)	**45**
Foreign Language (7-12)	**39**
French	11
German	1
Spanish	27
Health (PreK-12)	**18**
Mathematics (7-12)	**81**
Middle School Education (4-9)	**0**
Middle School Ed: English/Language Arts	0
Middle School Ed: Mathematics	0
Middle School Ed: Science	0
Middle School Ed: Social Studies	0
Physical Education (PreK-12)	**94**
Science (7-12)	**91**
Biology	68
Chemistry	13
Earth/Space	5
Physical Science	0
Physics	5
Social Studies(7-12)	**170**
Geography	0
History	43
Political Science	0
Social Studies	127
Special Education	**429**
Generic: Infant/primary (birth-grade 3)	39
Generic: Elementary/middle (grades 1-8)	233
Generic: Secondary/adult (grades 6-adult)	111
Hearing Impaired	4
Severely and Profoundly Disabled	42
Visually Impaired	0

NOTE: Includes graduates from summer 2008, fall 2008, & spring 2009.
    191 of the 2008-2009 graduates have dual majors.

SOURCE: Deans and Directors of Teacher Education, Maryland Institutions of Higher Education, April 2010.

Table 7

Anticipated Candidates from Maryland Approved Programs
Maryland Institutions of Higher Education
2009-2010 and 2010-2011

Certification Area	2009-2010 Total*	2010-2011 Total**
Total	**2,586**	**2,985**
Art (PreK-12)	**159**	**233**
Art (PreK-12)	96	124
Dance (7-12)	6	15
Music (PreK-12)	55	92
Theater (7-12)	2	2
Career/Technology Education (7-12)	**13**	**11**
Agriculture	0	3
Business Education	10	5
Data Processing	0	0
Family & Consumer Sciences	1	2
Health Occupations	0	0
Marketing Education	0	0
Technology Education	2	1
Trades and Industry	0	0
Computer Science (7-12)	**1**	**0**
Early Childhood (PreK-3)	**336**	**338**
Elementary Education (1-6)	**904**	**1,015**
English (7-12)	**135**	**186**
Environmental Education (PreK-12)	**0**	**0**
ESOL (PreK-12)	**50**	**65**
Foreign Language (7-12)	**40**	**50**
Chinese	0	2
French	7	5
German	1	3
Italian	0	2
Japanese	0	0
Latin	0	0
Spanish	32	38
Other Foreign Languages	0	0
Health (PreK-12)	**6**	**15**
Mathematics (7-12)	**99**	**106**
Middle School Education (4-9)	**0**	**16**
Middle School Ed: English/Language Arts	0	4
Middle School Ed: Mathematics	0	4
Middle School Ed: Science	0	4
Middle School Ed: Social Studies	0	4
Physical Education (PreK-12)	**104**	**120**
Science (7-12)	**91**	**88**
Biology	63	61
Chemistry	17	11
Earth/Space	6	8
Physical Science	0	0
Physics	5	8
Social Studies (7-12)	**214**	**223**
Geography	0	0
History	57	71
Social Studies	157	152
Special Education	**434**	**519**
Generic: Infant/primary (birth-grade 3)	47	64
Generic: Elementary/middle (grades 1-8)	228	280
Generic: Secondary/adult (grades 6-adult)	104	117
Hearing Impaired	2	3
Severely and Profoundly Disabled	53	55
Visually Impaired	0	0

* 95 of the 2009-2010 projected graduates have dual majors; number of individuals is 2,491.
 ** 85 of the 2010-2011 projected graduates have dual majors; number of individuals is 2,900.
SOURCE: Deans and Directors, Maryland Institutions of Higher Education, April 2010.

Table 8

Newly Eligible Candidates from Maryland Approved Programs
Maryland Institutions of Higher Education
2008 - 2009

Institution	Maryland Approved Programs
Total	**2,349**
>Bowie State University	59
College of Notre Dame of Maryland	271
>Coppin State University	11
>Frostburg State University	162
Goucher College	41
Hood College	53
Johns Hopkins University	120
Loyola University Maryland	98
McDaniel College	54
Maryland Institute College of Art	26
Morgan State University	44
Mt. St. Mary's University	73
Peabody Institute, Johns Hopkins University	5
St. Mary's College of Maryland	26
>Salisbury University	200
Stevenson University	49
>Towson University	613
>University of Maryland Baltimore County	92
>University of Maryland College Park	311
>University of Maryland Eastern Shore	16
>University of Maryland University College	0
Washington College	21
Washington Adventist University (formerly Columbia Union)	4

> Institutions of higher education that are part of the University System of Maryland.

  UMUC has a new approved program and will not have graduates until next year.

SOURCE: Deans and Directors, Maryland Institutions of Higher Education, April 2010.

INSTITUTIONS WITH LARGEST NUMBER OF TEACHER CANDIDATES

Number of Teacher Education Graduates

Institutions of Higher Education	2006-2007	2007-08	2008-2009
Towson University	603	551	613
University of Maryland College Park	342	295	338
College of Notre Dame of Maryland	250	284	271
Salisbury University	235	197	200
Frostburg State University	194	199	162
Johns Hopkins University	268	287	120
University of Maryland Baltimore County	119	109	92

The eight institutions in the University System of Maryland (USM) account for 62.8% of the new teacher candidates in 2008-2009 (see Table 8 for the list). Towson University continued to prepare the largest number of teacher candidates in the state, with 613 (25.9%), followed by University of Maryland College Park with 338 (14.3%).

College of Notre Dame of Maryland with 271 graduates (11.4%) and Johns Hopkins University with 120 (5.1%) are the two *private institutions* of higher education with the highest production of teachers.

Although Maryland institutions produced 2,371 teacher candidates in 2008-2009 (Table 8), a much smaller number were hired as new teachers in Maryland. Many who graduate from Maryland institutions do not accept teaching positions in Maryland for various reasons. Those not native to Maryland might return to their home states; others may decide to move out-of-state, go to graduate school, pursue careers outside of teaching, or not enter teaching immediately.

Figure 6: *Trend Data: Teacher Candidates Prepared by Maryland Approved Programs,* shows the actual number of teacher education candidates from Maryland institutions eligible for initial certification from 1995-1996 through 2008-2009 and projections on the number of graduates for the next two years.

Trend Data: Teacher Candidates Prepared by Maryland Approved Programs
Maryland Institutions of Higher Education
1995-1996 to 2010-2011
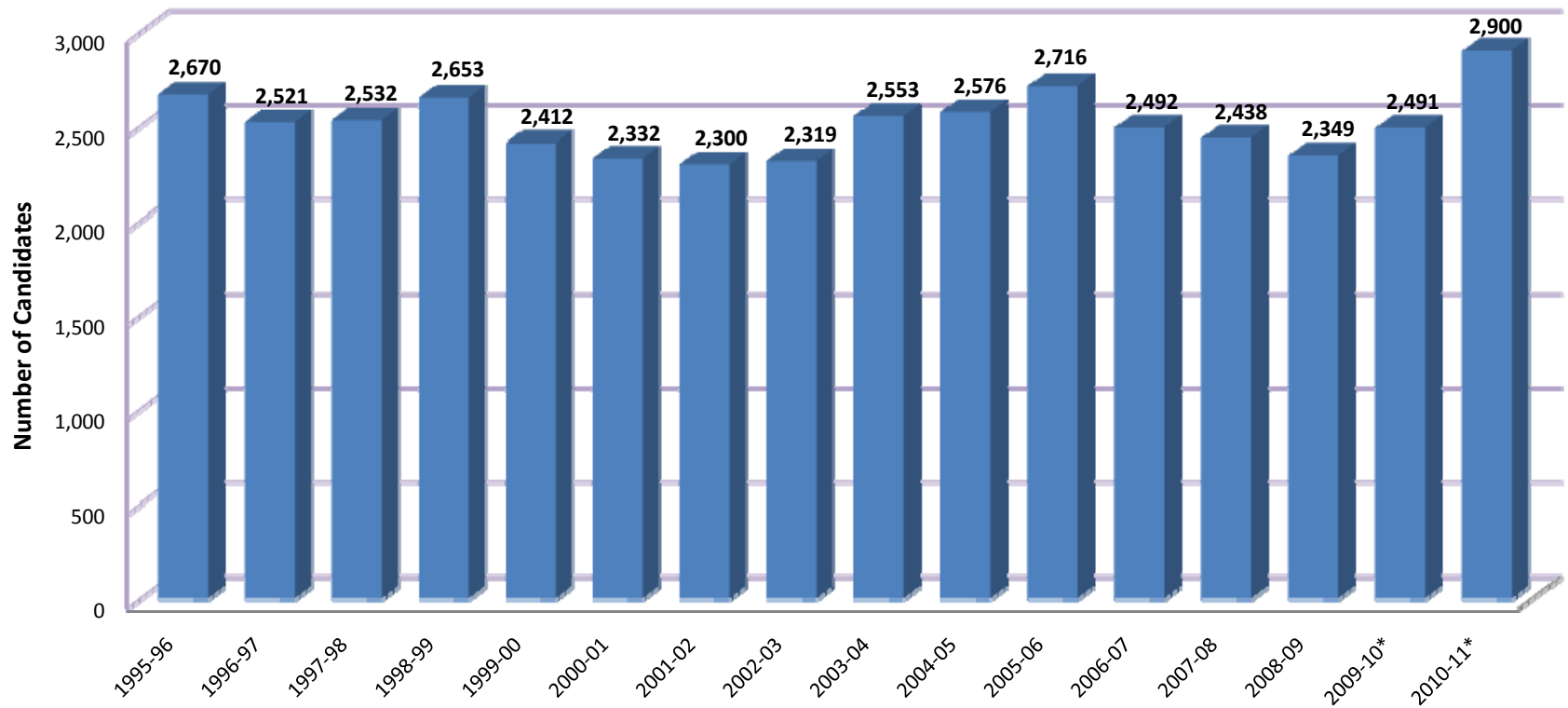
*Anitcipated teacher candidates are projected by Maryland higher education institutions.

FIGURE 6

Although the numbers fluctuate yearly, it is clear that in no year have Maryland institutions produced the number of new teachers needed to be hired by the local school systems.

Content Area Shortages

It is important to compare the critical teacher shortage areas identified in Table 2: *Certification Areas by Extent of Staffing Needs* with the numbers in Table 6: *Supply of Candidates by Certification from Maryland Approved Programs* to note the number of teacher education candidates by content area in Maryland's recurring critical teacher shortage areas. In the past several years, the number of teachers produced in the recurring shortage areas of computer science; the science areas of chemistry, earth/space, physics and physical science; ESOL; mathematics; Spanish; special education; and technology education have not increased to meet the demand of the local school systems. The MAAPP pathway has addressed some of this need.

Maryland Approved Alternative Preparation Programs

As referred to in the introduction to this section, Maryland has an alternative route to becoming a teacher that uses the Resident Teacher Certificate (RTC), the Maryland Approved Alternative Preparation Programs (MAAPP). The RTC is designed to attract and recruit into teaching liberal arts graduates and career changers who possess academic content backgrounds in the arts and sciences but did not complete teacher preparation programs. The regulation allowing alternative preparation programs was first passed in 1990 and was amended in 2005. Maryland's alternative preparation programs are tailored to meet the specific staffing needs of Maryland school districts, while providing the flexibility necessary to attract experienced, diverse individuals to the classroom. Several school systems sponsor alternative preparation programs, either in partnership with two-year or four-year colleges, or with private

providers such as The New Teacher Project or Teach for America, or by local school systems who develop and implement their own training.

Alternative preparation programs differ from traditional programs in that alternative preparation leads to teacher certification, but not necessarily to an advanced degree. Alternative preparation programs allow an individual to begin teaching and receiving a salary early in the program, and the cost for the candidate is usually less than for the traditional pathway four-year programs. Because of the modified timeframe, alternative preparation programs are intensive and very challenging. The qualifications to enter the program, as a result of a May 2010 State Board of Education decision, include:

- A GPA of 2.75;
- Qualifying scores on the required Praxis I and Praxis II content tests:
- A college degree with a major or core area in a certification content area or a transcript with 30-hour core of study area in which the individual wants to teach; or
- As of 2010, a test-in option for a candidate to prove content competency.

Candidates who are accepted into a MAAPP begin by completing courses or instructional modules of required pre-employment training. This training must include classroom instruction and management training designed to provide the skills necessary for the candidate to begin the school year as the teacher of record. Training also includes fundamental instruction in lesson planning, student assessment, and the first of the state-required reading courses. Finally, upon successful completion of pre-employment training, a candidate has an internship for a period of four to eight weeks under the daily supervision of a master or mentor teacher. The length of the internship is dependent on prior life experiences and demonstrated competency. The candidate then begins teaching as an employee of the partnering local school system using the Resident Teacher Certificate (RTC). At the end of a successful residency, the candidate

is eligible for the Standard Professional Certificate 1 (SPC), a professional licensure that is mobile across states. Those who successfully complete the MAAPP not only have teacher certification in an academic area, but a strong footing in the classroom and supportive relationships with the school staff, as well.

Local School Systems and their Partnerships

COMAR 13A.12.01.07, the alternative preparation program regulation, names the local school system as the entity that sponsors a MAAPP, with recruitment based on its specific needs which, in most instances, echo the state's identified critical teacher shortage areas. The regulation is flexible and allows many variations of program elements in the state-approved programs currently operating in the state. Table 8A: *Initial Hires from Maryland Approved Alternative Preparation Programs,* lists 19 programs, including 3 inactive ones, and 2 new ones for 2009-2010 and 2010-2011. The school system is listed first, followed by the partners/providers. The chart lists the number of candidates as they enter their residency, which can be one or two years in length. The interns are the teachers of record, hold the RTC and are considered highly qualified teachers, as defined by *No Child Left Behind.* During this time they have a mentor and are closely monitored. At the end of the residency, they receive the SPC1, Maryland's Standard Professional Certificate.

The advent of the MAAPP route to teaching has been very successful in Maryland. Since these programs are instituted by the local school systems, only candidates in those content areas that represent a local hiring need are accepted into the programs. MAAPP supplied 674 teachers in 2009-2010 and 560 in 2010-2011. This alternative path to teaching has assisted the local school systems to hire highly qualified teachers in content areas of critical need. The certification areas of the candidates for the two years reported in Table 8A include 273 teachers in the Science, Technology,

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Engineering, and Mathematics (STEM) areas. Also included are 71 new hires who received dual certification in special education and a secondary content area or elementary education, representing about 22% of all MAAPP new hires in the two years referenced. Further, some systems have used the MAAPP route to convert successful conditional teachers into fully certified teachers, representing at least 20% of their total number of RTCs.

Unfortunately, the projected numbers for this pathway for 2011-2012 are lower, due to the drop in hiring needs. Since there is a diminishing need for teachers in most school systems, MAAPP candidates will continue to be used to target difficult areas to staff since studies have shown the retention rate for these teachers is high (see Teacher Attrition, page 44 for details). With attention now turning to defining and evaluating the effective teacher, the quality of those hired through all pathways will become important. Several systems will continue to use MAAPP pathways along with more traditional hiring venues. This will allow them to capture the benefits of career changers with extended life experiences as well as recent college graduates who present excellent academic credentials, a talent for dealing with students, and a zeal for serving high-needs areas.

Table 8A
Initial Hires from Maryland Approved Alternative Preparation Programs
2008-2009 and 2009-2010

Local School System/Partner and Program Provider	Number of Initial Hires	
	2009-2010	**2010-2011**
Total	**674**	**560**
Anne Arundel Co Public Schools / Anne Arundel Community College (AACPS/AACC)	7	5
Anne Arundel Co Public Schools/College of Notre Dame (AACPS/CND)	27	8
*Baltimore City/Baltimore Co Public Schools/ Teach for America (BC/TFA)	154	170
Baltimore City/The New Teacher Project (BC/TNTP)	165	122
**Baltimore City/Urban Teacher Center	0	0
Baltimore County Public Schools/College of Notre Dame (BCPS/ CND)	10	6
Baltimore County Public Schools/ Goucher College (BCPS/GC)	28	10
Baltimore County Public Schools /Towson University (BCPS/TU)	14	10
***Frederick County Public Schools/Frostburg State University (see Washington Co)	0	0
***Howard County Public Schools/Howard Community College (HCPS/HCC)	0	0
Montgomery Co Public Schools/Montgomery Community College (MCPS/MCC)	8	6
Prince George's Co Public Schools/College of Notre Dame	24	14
**Prince George's Co Public Schools /MSmart (PGCPS/UMCP)	0	11
Prince George's Co Public Schools /Teach for America (PGCPS/TFA)	43	74
Prince George's Co Public Schools /Resident Teacher (PGCPS/RT)	104	26
Prince George's Co Public Schools/The New Teacher Project (PGCPS/TNTP)	83	48
Prince George's Co Public Schools /University of MD College Park (PGCPS/ UMCP)	7	0
***Tri County/College of Notre Dame (TC/CND)	4	0
***Washington County Public Schools/Frostburg State University (see Frederick Co)	0	0

* Baltimore County was added as a new partner to Baltimore City Schools / Teach for America in 2010/2011.
** Newly-approved programs for 2010-2011.
***Approved programs but not currently active.
Source: Directors of Maryland Approved Alternative Preparation Programs, 2010.

SECTION V: MINORITY AND GENDER DATA

Minority and gender data on teacher candidates from Maryland institutions of higher education and on new hires reported by the local school systems are collected by MSDE. This information is vital because of the state's commitment to a diverse teacher workforce. The federal government is changing the way minorities will be reported in the future but, for this report, the existing minority categories remain in use. The major change in future reporting will be that individuals may check more than one category when reporting their race/ethnicity.

Minority Data for Teacher Candidates and New Hires

Table 9: *Trend Data: Minority Teacher Candidates from Maryland Approved Programs,* displays minority trend data for newly eligible teachers prepared by Maryland institutions of higher education for the past five years. The minority designations include Hispanic/Latino, Black/African-American, American Indian/Alaska Native, Asian, and 2 or more races. The percentage of minorities was 18.8% in 2004-2005, rose to 21.3% in 2007-2008, but has dropped back to 16.9% for 2008-2009. There are 428 minority teacher candidate graduates for 2008-2009; the largest number majored in elementary education (164), followed by special education (92), and early childhood (38). All other certification areas have relatively small numbers of minorities.

Table 9

Trend Data: Minority* Teacher Candidates from Maryland Approved Programs
Maryland Institutions of Higher Education
2004-2005 to 2008-2009

Certification Area	2004-2005			2005-2006			2006-2007			2007-2008			2008-2009		
		Minority			Minority			Minority			Minority			Minority	
	Total	Number	%	Total	Number	%	Total	Number	%	Total	Number	%	Total	Number	%
Total **	**2,639**	**495**	**18.8%**	**2,716**	**512**	**18.9%**	**2,657**	**517**	**19.5%**	**2,599**	**554**	**21.3%**	**2,535**	**428**	**16.9%**
Art (PreK-12)	91	16	17.6%	80	7	8.8%	96	13	13.5%	96	15	15.6%	97	12	12.4%
Career/Technology Education (7-12)	12	1	8.3%	17	9	52.9%	16	6	37.5%	17	9	52.9%	13	4	30.8%
Computer Science (7-12)	1	1	100.0%	1	0	0.0%	0	0	0.0%	0	0	0.0%	2	0	0.0%
Early Childhood (PreK-3)	285	42	14.7%	295	45	15.3%	283	41	14.5%	266	57	21.4%	300	38	12.7%
Elementary Ed. (1-6 & Middle School)	1,060	194	18.3%	1,168	225	19.3%	995	210	21.1%	930	200	21.5%	919	164	17.8%
English (7-12)	147	24	16.3%	135	23	17.0%	146	25	17.1%	134	27	20.1%	157	21	13.4%
ESOL (PreK-12)	39	22	56.4%	44	15	34.1%	54	22	40.7%	54	20	37.0%	45	14	31.1%
Foreign Language (7-12)	45	11	24.4%	48	13	27.1%	48	11	22.9%	43	16	37.2%	39	9	23.1%
Health/Physical Education (PreK-12)	137	22	16.1%	133	12	9.0%	121	20	16.5%	128	12	9.4%	112	14	12.5%
Mathematics (7-12)	96	17	17.7%	98	16	16.3%	105	19	18.1%	95	28	29.5%	81	12	14.8%
Music (PreK-12)	51	13	25.5%	44	7	15.9%	62	12	19.4%	56	16	28.6%	68	9	13.2%
Science (7-12)	105	11	10.5%	88	16	18.2%	125	26	20.8%	113	17	15.0%	91	21	23.1%
Social Studies (7-12)	200	21	10.5%	201	33	16.4%	194	25	12.9%	203	36	17.7%	170	16	9.4%
Special Education	355	97	27.3%	352	90	25.6%	397	83	20.9%	454	100	22.0%	429	92	21.4%
Other Teaching Areas^	15	3	20.0%	12	1	8.3%	15	4	26.7%	10	1	10.0%	12	2	16.7%

* Minority includes Hispanic/Latino, Black/African American, American Indian, Asian, Native Hawaiian, and 2 or more races.
** 164 of the total graduates have dual majors; the actual number of individuals is 2,371.
^ theater and dance
Source: Deans and Directors of Teacher Education, Institutions of Higher Education, April 2010.

Table 10: *Minority New Hires by Certification Area,* includes the number and percent of minority new hires by certification area from June 2009 through June 2010. Of the 4,143 new hires, 24.3% were minorities. Of these minority new hires, 473 (18.3%) were beginning new hires, while 532 (34.0%) were experienced new hires. The largest percentages of minority new hires include 20.9% in elementary education, and 40.0% in special education.

Table 11: *Trend Data for Minority New Hires,* displays the number and percent of minority new hires for the past 5 years. The number and percent of minority new hires decreased from 2,454 (30.5%) in 2005-2006 to 1,005 (24.3%) in 2009-2010. For the past five years, the highest percentage was 33.0% in 2006-2007; the last listed, 2009-2010, was the lowest. Although there are many programs to attract minorities into teaching, and the number fluctuates slightly from year to year, the number has remained relatively unchanged for the past several years.

Minority Data for All Maryland Students and Teachers

The Division of Accountability and Assessment (DAA) collects staff data each June on all students and teachers in the state's public schools. With this data, a comparison can be made contrasting the newly hired teachers with all teachers in the state for both gender and ethnicity. Among the 60,207 Maryland teachers reported in 2009-2010, 75.1% were White, 20.0% were African-American and 4.9% were classified as other (American Indian, Asian, and Hispanic).

DAA collects minority data on all Maryland PreK-12 students. There were 45.5% White, 37.9% African-American, 10.0% Hispanic/Latino, 6.1% Asian/Pacific Islander,

and 0.4% American Indian/Alaskan Native. The minority population combined is a majority of the students at 54.4%.

Gender of New Hires and Teacher Candidates

The career of teaching has long been a predominately female occupation, and the gender data for both new hires and teacher candidates in this report show this is still true. Table 12: *New Hires in Certification Areas by Gender,* reports that of the 4,143 new hires in 2009-2010, 77.1% are females and 22.9% are males. The numbers fluctuate slightly from year to year, but the ratio of females to males has changed minimally over the past several years.

Table 13: *Graduates from Maryland Approved Programs by Gender,* indicates that of the 2,535 graduates from Maryland Institutions of Higher Education in 2008-2009, the number of male teacher candidates is 464, or 18.3%. The number of female teacher candidates is 2,071 or 81.7%. The number of males exceeds females only in physical education (54 to 40). It appears that despite attempts to increase the number of males in teaching, the various programs and incentives have not resulted in significant change.

Table 10

Minority* New Hires by Certification Area
Maryland Public Schools
June 2009 Through June 2010

Certification Area	Total New Hires			Beginning New Hires			Experienced New Hires		
		Minority			Minority			Minority	
	Total	Number	Percent	Total	Number	Percent	Total	Number	Percent
Total New Hires	**4,143**	**1,005**	**24.3%**	**2,579**	**473**	**18.3%**	**1,564**	**532**	**34.0%**
The Arts	**269**	**47**	**17.5%**	**191**	**26**	**13.6%**	**78**	**21**	**26.9%**
Art (PreK-12)	108	22	20.4%	75	13	17.3%	33	9	27.3%
Dance (7-12)	17	2	11.8%	11	0	0.0%	6	2	33.3%
Music (PreK-12)	136	21	15.4%	100	12	12.0%	36	9	25.0%
Theater (7-12)	8	2	25.0%	5	1	20.0%	3	1	33.3%
Career/Technology Education (7-12)	**160**	**46**	**28.8%**	**86**	**20**	**23.3%**	**74**	**26**	**35.1%**
Agriculture	4	0	0.0%	2	0	0.0%	2	0	0.0%
Business Education	27	11	40.7%	7	2	28.6%	20	9	45.0%
Data Processing	0	0	0.0%	0	0	0.0%	0	0	0.0%
Family & Consumer Sciences	35	15	42.9%	16	7	43.8%	19	8	42.1%
Health Occupations	6	1	16.7%	3	1	33.3%	3	0	0.0%
Marketing Education	1	0	0.0%	0	0	0.0%	1	0	0.0%
Technology Education	54	9	16.7%	37	3	8.1%	17	6	35.3%
Trades and Industry	33	10	30.3%	21	7	33.3%	12	3	25.0%
Computer Science (7-12)	**8**	**5**	**62.5%**	**6**	**3**	**50.0%**	**2**	**2**	**100.0%**
Early Childhood (PreK-3)	**384**	**79**	**20.6%**	**265**	**53**	**20.0%**	**119**	**26**	**21.8%**
Elementary Education (1-6)	**1,396**	**292**	**20.9%**	**947**	**173**	**18.3%**	**449**	**119**	**26.5%**
English (7-12)	**357**	**81**	**22.7%**	**238**	**45**	**18.9%**	**119**	**36**	**30.3%**
Environmental Education (PreK-12)	**0**	**0**	**0.0%**	**0**	**0**	**0.0%**	**0**	**0**	**0.0%**
ESOL (PreK-12)	**61**	**18**	**29.5%**	**36**	**6**	**16.7%**	**25**	**12**	**48.0%**
Foreign Language (7-12)	**194**	**59**	**30.4%**	**114**	**31**	**27.2%**	**80**	**28**	**35.0%**
Chinese	7	7	100.0%	4	4	100.0%	3	3	100.0%
French	33	7	21.2%	15	4	26.7%	18	3	16.7%
German	2	0	0.0%	1	0	0.0%	1	0	0.0%
Italian	2	0	0.0%	1	0	0.0%	1	0	0.0%
Japanese	2	1	50.0%	2	1	50.0%	0	0	0.0%
Latin	4	0	0.0%	4	0	0.0%	0	0	0.0%
Spanish	143	44	30.8%	87	22	25.3%	56	22	39.3%
Other Foreign Language	1	0	0.0%	0	0	0.0%	1	0	0.0%
Health (PreK-12)	**15**	**5**	**33.3%**	**11**	**4**	**36.4%**	**4**	**1**	**25.0%**
Health/Physical Education (PreK-12)	**37**	**3**	**8.1%**	**23**	**1**	**4.3%**	**14**	**2**	**14.3%**
Mathematics (7-12)	**240**	**62**	**25.8%**	**140**	**21**	**15.0%**	**100**	**41**	**41.0%**
Middle School Education (4-9)	**33**	**6**	**18.2%**	**19**	**2**	**10.5%**	**14**	**4**	**28.6%**
Middle School Ed: English/Language Arts	5	0	0.0%	4	0	0.0%	1	0	0.0%
Middle School Ed: Mathematics	15	3	20.0%	9	1	11.1%	6	2	33.3%
Middle School Ed: Science	10	3	30.0%	4	1	25.0%	6	2	33.3%
Middle School Ed: Social Studies	3	0	0.0%	2	0	0.0%	1	0	0.0%
Physical Education (PreK-12)	**95**	**19**	**20.0%**	**56**	**10**	**17.9%**	**39**	**9**	**23.1%**
Science (7-12)	**251**	**65**	**25.9%**	**155**	**23**	**14.8%**	**96**	**42**	**43.8%**
Biology	175	54	30.9%	103	18	17.5%	72	36	50.0%
Chemistry	35	7	20.0%	24	3	12.5%	11	4	36.4%
Earth/Space	17	1	5.9%	8	0	0.0%	9	1	11.1%
Physical Science	4	2	50.0%	4	2	50.0%	0	0	0.0%
Physics	13	0	0.0%	11	0	0.0%	2	0	0.0%
General Science	7	1	14.3%	5	0	0.0%	2	1	50.0%
Social Studies (7-12)	**212**	**42**	**19.8%**	**133**	**16**	**12.0%**	**79**	**26**	**32.9%**
Special Education	**417**	**167**	**40.0%**	**154**	**37**	**24.0%**	**263**	**130**	**49.4%**
Generic: Infant/primary (birth-grade 3)	15	2	13.3%	7	0	0.0%	8	2	25.0%
Generic: Elementary/middle (grades 1-8)	121	52	43.0%	49	13	26.5%	72	39	54.2%
Generic: Secondary/adult (grades 6-adult)	114	57	50.0%	34	12	35.3%	80	45	56.3%
Hearing Impaired	5	2	40.0%	3	1	33.3%	2	1	50.0%
Severely and Profoundly Disabled	2	0	0.0%	0	0	0.0%	2	0	0.0%
Visually Impaired	3	0	0.0%	0	0	0.0%	3	0	0.0%
Other (SpEd-K-12 and SpEd-Generic: Infant-/	157	54	34.4%	61	11	18.0%	96	43	44.8%
Other Teaching Areas	**14**	**9**	**64.3%**	**5**	**2**	**40.0%**	**9**	**7**	**77.8%**

* Minority includes African-American, Asian, Hispanic and Native American.
Source: Local School Systems, June 2010.

Table 11

Trend Data for Minority* New Hires
Maryland Public Schools
2005-2006 to 2009-2010

Certification Area	2005-2006			2006-2007			2007-2008			2008-2009			2009-2010		
		Minority			Minority			Minority			Minority			Minority	
	Total	Number	%	Total	Number	%	Total	Number	%	Total	Number	%	Total	Number	%
Total New Teachers	8,046	2,454	30.5%	7,917	2,613	33.0%	7,249	2,123	29.3%	5,241	1,592	30.4%	4,143	1,005	24.3%
Art (PreK-12)	237	41	17.3%	203	51	25.1%	190	18	9.5%	125	16	12.8%	108	22	20.4%
Career/Technology Education (7-12)	262	94	35.9%	208	86	41.3%	217	81	37.3%	145	47	32.4%	160	46	28.8%
Computer Science (7-12)	26	18	69.2%	32	19	59.4%	13	6	46.2%	14	7	50.0%	8	5	62.5%
Early Childhood (PreK-3)	644	151	23.4%	728	191	26.2%	636	158	24.8%	441	116	26.3%	384	79	20.6%
Elementary Ed. (1-6)	2,526	642	25.4%	2,497	683	27.4%	2,557	688	26.9%	1,753	445	25.4%	1,396	292	20.9%
English (7-12)	773	257	33.2%	759	256	33.7%	617	162	26.3%	447	102	22.8%	357	81	22.7%
ESOL (PreK-12)	98	27	27.6%	129	56	43.4%	96	38	39.6%	62	29	46.8%	61	18	29.5%
Foreign Language (7-12)	263	99	37.6%	224	81	36.2%	201	60	29.9%	178	69	38.8%	194	59	30.4%
Health/Physical Education (PreK-12)	324	86	26.5%	282	69	24.5%	249	51	20.5%	224	64	28.6%	147	27	18.4%
Mathematics (7-12)	605	251	41.5%	569	249	43.8%	477	197	41.3%	340	153	45.0%	240	62	25.8%
Middle School Education (4-9)	NA	NA	NA	NA	NA	NA	NA	NA	NA	23	3	13.0%	33	6	18.2%
Music (PreK-12)	266	58	21.8%	219	61	27.9%	227	32	14.1%	145	28	19.3%	136	21	15.4%
Science (7-12)	487	177	36.3%	537	216	40.2%	485	189	39.0%	372	152	40.9%	251	65	25.9%
Social Studies (7-12)	536	113	21.1%	536	131	24.4%	423	83	19.6%	300	58	19.3%	212	42	19.8%
Special Education	955	420	44.0%	934	434	46.5%	823	347	42.2%	634	289	45.6%	417	167	40.0%
	44	20	45.5%	60	30	50.0%	38	13	34.2%	38	14	36.8%	39	13	33.3%

* Minority includes African-American, Asian, Hispanic and Native American.

^ theater, dance, and other teaching areas

Source: Local School Systems, June 2010.

Table 12

New Hires in Certification Areas by Gender
Maryland Public Schools
June 2009 Through June 2010

Certification Area	Total	Male		Female	
		Number	Percent	Number	Percent
Total New Teachers	4,143	950	22.9%	3,193	77.1%
The Arts	269	83	30.9%	186	69.1%
Career/Technology Education (7-12)	160	77	48.1%	83	51.9%
Computer Science (7-12)	8	4	50.0%	4	50.0%
Early Childhood (PreK-3)	384	21	5.5%	363	94.5%
Elementary Education (1-6)	1,396	180	12.9%	1,216	87.1%
English (7-12)	357	93	26.1%	264	73.9%
ESOL (PreK-12)	61	12	19.7%	49	80.3%
Foreign Language (7-12)	194	30	15.5%	164	84.5%
Health (PreK-12)	15	2	13.3%	13	86.7%
Health/Physical Education (PreK-12)	37	18	48.6%	19	51.4%
Mathematics (7-12)	240	98	40.8%	142	59.2%
Middle School Education (4-9)	33	6	18.2%	27	81.8%
Physical Education (PreK-12)	95	63	66.3%	32	33.7%
Science (7-12)	251	78	31.1%	173	68.9%
Social Studies (7-12)	212	105	49.5%	107	50.5%
Special Education	417	78	18.7%	339	81.3%
Other Teaching Areas*	14	2	14.3%	12	85.7%

* theater, dance, and other teaching areas
Source: Local School Systems, June 2010.

Table 13

Graduates from Maryland Approved Programs by Gender
Maryland Institutions of Higher Education
2008 - 2009

Certification Area	Total	Male		Female	
		Number	Percent	Number	Percent
Total	**2,535**	**464**	**18.3%**	**2,071**	**81.7%**
The Arts	177	45	25.4%	132	74.6%
Career/Technology Education (7-12)	13	3	23.1%	10	76.9%
Computer Science (7-12)	2	1	0.0%	1	0.0%
Early Childhood (PreK-3)	300	12	4.0%	288	96.0%
Elementary Education (1-6)	919	92	10.0%	827	90.0%
English (7-12)	157	37	23.6%	120	76.4%
ESOL (PreK-12)	45	7	15.6%	38	84.4%
Foreign Language (7-12)	39	4	10.3%	35	89.7%
Health (PreK-12)	18	2	11.1%	16	88.9%
Mathematics (7-12)	81	31	38.3%	50	61.7%
Middle School Education (4-9)	0	0	0.0%	0	0.0%
Physical Education (PreK-12)	94	54	57.4%	40	42.6%
Science (7-12)	91	39	42.9%	52	57.1%
Social Studies (7-12)	170	79	46.5%	91	53.5%
Special Education	429	58	13.5%	371	86.5%

NOTE: 191 of the total graduates have dual majors.

Gender of All Maryland Students and Teachers

DAA reported that in 2009-2010 the gender of all Maryland teachers is 77.6% female and 22.4% male. These percentages barely have moved over the past several years. The student gender information shows that of the 848,412 Maryland students, 51.3% are males and 48.7% are females.

The ethnic and gender data (and other data such as salaries, degrees, and years of experience) are included in the *MSDE Fact Book*, available online at:

http://marylandpublicschools.org/MSDE/divisions/planningresultstest/prim_pubs.htm?WBCMODE=Presentat%252%25%3e%25%3e%25%3e.

Summary

There continues to be a higher percentage of minorities among Maryland PreK-12 students than among their teachers. In fact, the number of minority students is rising slowly, but the teacher numbers have not changed. There also continue to be more females than males in the teaching profession. The ratio (3 to 1) of female/male teachers has not changed over the past several years. The teaching profession in Maryland and in the nation, in spite of many programs to attempt to effect change, still remains predominately white and female.

SECTION VI: NON-CLASSROOM PROFESSIONALS

At the request of the State Board of Education, MSDE has collected information for the past six years from local school systems and institutions of higher education on the supply and demand for select non-classroom professional positions.   These positions are: guidance counselor, library/media specialist, principal, reading specialist, and school psychologist. Speech/language pathologists are now licensed by the Department of Health and Mental Hygiene.

Staffing Projections of Local School Systems for Non-Classroom Professionals

Table 14: *Staffing Projections of Local School Systems for Non-Classroom Professionals, 2010-2011,* presents projected needs identified by local school systems for the next school year for five non-classroom professional positions. As with the teacher data, all numbers are lower when compared with the past two years. Again, this is considered to be related to the downturn in the economy. Fewer professionals are retiring due to the economy; fewer are moving on to other types of positions as school systems are 'tightening their belts' on hiring both teachers and other professionals.

Although speech/language pathologists are licensed but no longer MSDE certified, there is still a critical shortage in this profession, and naming them on the MSDE list makes them eligible for the Retire/Rehire Program, the Expert Panel recommended that they be included in the list of non-classroom professionals that are classified as a shortage.

Table 14

Staffing Projections of Local School Systems for
Non-Classroom Professionals
Maryland Public Schools
2010-2011 and 2011-2012

Non-Classroom Professionals	2010-2011	2011-2012
Guidance Counselor	69	70
Library/Media Specialist	72	64
Principal	98	101
School Psychologist	30	44
Reading Specialist	42	46

Source: HR Directors, Local school systems, April 2010

Supply of Non-Classroom Professionals

Table 15: *Supply of Non-Classroom Professionals from Maryland Institutions of Higher Education,* presents five years of graduates, 2004-2005 through 2008-2009, and projected graduates for 2009-2010 and 2010-2011 by the five professional areas. As a cautionary note, MSDE only has access to graduates of Maryland institutions, but many in-state professionals go to nearby Washington DC, Virginia, and Delaware for their graduate degrees, given the proximity of many institutions of higher education in their areas. Therefore, the number of graduates reported here may be smaller than the personnel available to school systems.

Table 15

Supply of Non-Classroom Professionals From
Maryland Institutions of Higher Education
2005-2006 to 2010-2011

Non-Classroom Professionals	Candidates 2005-06	Candidates 2006-07	Candidates 2007-08	Candidates 2008-09	Projected 2009-10	Projected 2010-11
Guidance Counselor	153	140	159	133	120	122
Library/Media Specialist	99	67	90	56	33	82
Principal	372	385	446	529	446	429
Reading Specialist	237	259	263	253	236	191
School Psychologist	18	17	20	17	20	20

Source: Deans and Directors of Teacher Education, Institutions of Higher Education, April 2010

MSDE determined that the past procedure for identifying teacher shortages (use of the historical formula) was not entirely appropriate for determining shortages of non-classroom professionals. The projection formula takes into consideration only those individuals who are new hires, that is, new to the local school system. Where non-classroom professionals are concerned, many or most of the individuals are promoted or transferred from positions within the school system; therefore, they are not identified as new hires.

Non-Classroom Professionals by Extent of Staffing Need

Table 16: *Non-Classroom Professionals by Extent of Staffing Need,* was projected based on the new hires, the information from the Annual Survey of local school system vacancies each August and the expertise of the Expert Panel. As with teacher data, it was determined that it was best to use other sources beyond the traditional formula used in the past, including the Expert Panel.

Within the limitations of this study of projected shortages, and based on projected imbalances in supply and demand, MSDE used the same three categories used in the

teacher projections: Critical Shortage, Balanced, and Surplus. To summarize, this year the non-classroom professionals that are declared as critical shortage areas in Maryland are:

Table 16
Non-Classroom Professionals by Extent of Staffing Need
June 2010

Certification Area	Critical Shortage	Balanced	Surplus
Guidance Counselor		X	
Library/Media	X		
Reading Specialist		X	
School Psychologist		X	
Speech/Language Pathologist	X		
Principal	X		

Shaded bands are those that are considered critical shortage areas.
Source: Consensus of Expert Panel, September 2010.

This year a new table has been added, citing the number of graduates of non-classroom professional positions by the institution of higher education. Table 17: *Non-Classroom Professional Graduates by Program and Institution,* gives the 2008-2009 number of graduates by program and by institution of higher education. An "NA" indicates the institution did not have an approved program in the area.

Summary

This report identifies a select number of non-classroom professional positions, that are also critical shortage areas. Many of these positions come from the teacher ranks and are considered career pathways for teachers. All of these positions are essential to having successful schools for Maryland's K-12 population.

Table 17

Non-Classroom Professional Graduates by Program and Institution
Maryland Institutions of Higher Education
2008 - 2009

Institution	Total	Guidance Counselor	Library/ Media Specialist	Principal	Reading Specialist	School Psychologist
Total	**967**	**117**	**51**	**529**	**253**	**17**
>Bowie State University	55	NA	NA	29	26	NA
College of Notre Dame of Maryland	121	NA	11	103	7	NA
>Coppin State University	6	NA	NA	NA	6	NA
>Frostburg State University	48	8	NA	19	21	NA
Goucher College	41	NA	NA	28	13	NA
Hood College	101	NA	NA	88	13	NA
Johns Hopkins University	176	45	NA	106	25	NA
Loyola College	76	33	NA	19	24	NA
McDaniel College	68	31	NA	16	21	NA
Morgan State University	20	NA	NA	20	NA	NA
>Salisbury University	12	NA	NA	7	5	NA
>Towson University	213	NA	23	91	87	12
>University of Maryland College Park	30	NA	17	3	5	5
>University of Maryland Eastern Shore	NA	NA	NA	NA	NA	NA

NA - institutions that have no programs in this area.
> Institutions of higher education that are part of the University System of Maryland.
SOURCE: Deans and Directors, of Teacher Education, Maryland Institutions of Higher Education, April 2010.

SECTION VII: RECOMMENDATIONS TO THE MARYLAND STATE

BOARD OF EDUCATION

The MSDE is recommending to the State Board of Education teaching areas of critical shortage, consistent with Education Article §18-708, the *Sharon Christa McAuliffe Memorial Teacher Education Award*, found in the Annotated Code of Maryland. In addition, MSDE is recommending shortages in geographic areas of the state, gender and diversity, and select non-classroom professional positions. The recommendations are below.

Recommendation 1: The Maryland State Board of Education declares the following content areas as critical shortage areas:

- Career and technology areas (7-12):
    - Technology education, and
    - Family and consumer sciences;
- Computer science (7-12);
- English for speakers of other languages (ESOL) (PreK-12);
- Foreign language areas (7-12):
    - Chinese, and
    - Spanish;
- Mathematics (7-12);
- Science areas (7-12):
    - Chemistry,
    - Earth/Space science,
    - Physical science, and
    - Physics;

- Special education areas:
  - Generic: Infant/primary (birth-grade 3),
  - Generic: Elementary/middle school (grades 1-8),
  - Generic: Secondary/adult (grades 6 – adult),
  - Hearing impaired,
  - Severely and profoundly disabled, and
  - Visually impaired.

Recommendation 2: The Maryland State Board of Education declares 19 Maryland jurisdictions as geographic areas of projected shortage of certified teachers. They are:

1. Allegany County	11. Howard County
2. Anne Arundel County	12. Montgomery County
3. Baltimore City	13. Prince George's County
4. Calvert County	14. Queen Anne's County
5. Carroll County	15. St. Mary's County
6. Cecil County	16. Talbot County
7. Charles County	17. Washington County
8. Dorchester County	18. Wicomico County
9. Frederick County	19. Worcester County
10. Harford County	

.

Recommendation 3: The Maryland State Board of Education declares a shortage of teachers who are males and teachers who are members of minority groups.

Recommendation 4: The Maryland State Board of Education declares a shortage of the non-classroom professional positions of library/media specialist, principal and speech/language pathologists.

APPENDICES

EDUCATION

§ 18-708.   **Workforce Shortage Student Assistance grants**.

(a)   *Definitions.* – (1) In this section the following words have the meanings indicated.
(2) "Advisory Council" means the Advisory Council on Workforce Shortage.

(3) "Eligible institutions" means a public or private institution of higher education in this State that possesses a certificate of approval from the Commission.

(4) "Grant" means the Workforce Shortage Student Assistance grant.
(b)   *Program established*. - There is a program of Workforce Shortage Student Assistance grants under this section for students who pledge to work in fields of critical shortage in the State on completion of their studies.
(c)   *Purpose*. – The purpose of the program is to:
(i) Provide financial assistance to students enrolled at institutions of higher education in the State; and
(ii) Address the workforce shortage needs of the State.
(d)   *Requirements for recipients of grant.* – A recipient of a Workforce Shortage Student Assistance grant under this section shall:
(i) Be a resident of the State;
(ii) Be selected by the Office from qualified applicants;
(iii) Sign a letter of intent to enroll at an eligible institution in the State in an eligible program as specified for each field in which there is a critical shortage in this State as provided in this section;
(iv) Sign a letter of intent to perform the service obligation on completion of the recipient's required studies;
(v) Accept any other conditions attached to the grant;
(vi) Satisfy any additional criteria the Commission may establish; and
(vii)   After completion of studies in an eligible program, perform the service obligation as specified for each field in which there is a critical shortage, as provided in this section.
(e)   *Duties of Commission; Advisory Council; workforce shortage fields in general; removal of fields.*
– (1) Except as provided in paragraph (5) of this subsection, the Commission shall on a biennial basis:
(i)   Identify workforce shortage fields in the State;
(ii)   Designate eligible workforce shortage fields under the grant program; and
(iii)   Remove from the grant program any field that the Commission determines no longer qualifies as a workforce shortage.
(2) The Secretary shall appoint an Advisory Council on Workforce Shortage to:

(i) Identify workforce shortage fields in the State; and
(ii) Recommend to the Commission:
1. Priority workforce shortage fields to be included in the grant program; and
2. The removal of fields that in the Advisory Council's judgment no longer qualify as workforce shortage fields.
(3) In making recommendations to the Commission, the Advisory Council shall consider whether a workforce shortage field provides a public good or benefit to the citizens of Maryland.
(4) The Advisory Council shall include the following members:
(i) The Secretary of Higher Education or designee;
(ii) The Secretary of Labor, Licensing, and Regulation or designee;

(iii) One representative from the Governor's Workforce Investment Board, appointed by the Governor;

(iv) The Secretary of Business and Economic Development or designee;

(v) The Secretary of Health and Mental Hygiene or designee;

(vi) The State Superintendent of Schools or designee;

(vii) One representative of the Senate of Maryland, appointed by the President of the Senate;

(viii) One representative of the Maryland House of Delegates, appointed by the Speaker of the House;

(ix) Two representatives from the University System of Maryland, appointed by the Chancellor;

(x) The President of Morgan State University or designee;

(xi) The President of St. Mary's College or designee; and

(xii) Representatives nominated by the following organizations and appointed by the Secretary of Higher Education;

1. One representative from the Maryland Chamber of Commerce;
2. One representative from the Washington Board of Trade;
3. One representative from the Greater Baltimore Committee;
4. Two representatives from the Maryland Independent College and University Association;
5. Two representatives from the Maryland Association of Community Colleges;
6. One representative from the Maryland Association of Nonprofit Associations; and
7. One representative from the Financial Assistance Advisory Council representing a financial aid office at an institution of higher education.

(5) (i) Except as provided in subparagraph (ii) of this paragraph, the following workforce shortage fields shall be included in the grant program:

(i) School teachers (the grant to be known as the Sharon Christa McAuliffe Memorial Teacher Scholarship);

(ii) Nurses;

(iii) Child care providers;

(iv) Developmental disabilities, mental health, child welfare, and juvenile justice providers;

(v) Physical and occupational therapists and assistants; and

(vi) Public servants (the grant to be known as the William Donald Schaefer Scholarship).

(ii) The Commission may remove a shortage field specified in subparagraph (i) of this paragraph if in the Commission's judgment the field no longer qualifies as a workforce shortage field.

(6) A grant recipient in a workforce shortage field that is removed from the grant program may continue to receive renewal awards under the program.

(f) *Annual determination of number of grants.* – Each fiscal year, the Commission shall determine the number of grants to be awarded in eligible workforce shortage fields based on the:

(i) Priority of the workforce shortage field;

(ii) Severity of the workforce shortage in the field; and

(iii) Availability of funds.

(g) *Selection of recipients; renewal of grants.* – (1) The Office shall annually select eligible students and offer a grant to each student selected to be used at an eligible institution of the student's choice.

(2) Eligible students shall be selected based on academic accomplishment and financial need, as determined by standards established and approved by the Commission.

(3) Each grant shall be renewable for a maximum of 5 years subsequent to the original grant if the recipient:

(i) Continues to meet the qualifications specified in subsection (d) of this section; and

(ii) Meets satisfactory academic progress standards as determined by the eligible institution.

(h) *Requirements.* – (1) A grant recipient may be enrolled at an eligible institution on a part-time or full-time basis.

(2) Except as provided in paragraph (3) of this subsection, a grant recipient shall be an undergraduate student at an eligible institution.

(3) A grant recipient may be a graduate student if the Office determines that the shortage field requires employees with a graduate level education.

(i) *Determination of amount of grant.* – (1) In this subsection, "cost of attendance" means the equivalent annual tuition and mandatory fees of a resident undergraduate student at the 4-year public institution of higher education within the University System of Maryland, other than the University of Maryland University College and University of Maryland, Baltimore, with the highest annual expenses for a full-time resident undergraduate.

(2) Subject to paragraph (3) of this subsection, the Commission shall establish in guidelines the annual grant awards under this section.

(3) Annual grant awards shall be within the following ranges:

(i) For a part-time student attending a 2-year eligible institution –
$1,000 and 12.5% of cost of attendance;

(ii) For a full-time student attending a 2-year eligible institution -
$2,000 and 25% of cost of attendance;

(iii)   For a part-time student attending a 4-year eligible institution -
$2,000 and 25% of cost of attendance; and

(iv)   For a full-time student attending a 4-year eligible institution –
$4,000 and 50% of cost of attendance.

(j) *Use of grant award.* – The grant award may be used at any eligible institution for educational expenses as defined by the Commission, including tuition, mandatory fees, and room and board.

(k) *Service obligation requirements.* – (1) A grant recipient shall perform a service obligation in the recipient's field of critical shortage in:

(i) A full-time position at a rate of 1 year for each year that the recipient receives a grant awarded under this section; or

(ii) A part-time position at a rate of 2 years for each year that the recipient receives a grant awarded under this section.

(2) The Commission may establish alternative service obligation requirements for designated workforce shortage fields to address statewide and regional needs.

(1) *Repayment requirements.* – (1) A grant recipient shall repay the Commission the funds received as set forth in **§** 18-112 of this title if the recipient does not:

(i)   Complete the specified degree, attain the licensure or certification required, or fulfill other requirements as provided in this section; or

(ii) Perform the service obligation required under subsection (k) of this section.

(2) The Office shall waive the repayment of a grant award at a rate of:

(i)   1 year for each year that the recipient performs the service obligation on a full-time basis; or

(ii) 6 months for each year that the recipient performs the service obligation on a part-time basis.

(3) A recipient shall begin repayment at any time during the period that the recipient is no longer performing the service obligation.

(4) A recipient may delay repayment as long as the recipient remains a student enrolled at least part-time in a degree-granting program.

(5) Except as otherwise provided in this section, repayment shall be made to the State within 6 years after the repayment period begins and shall follow a repayment schedule established by the Office.

(6) The Office may waive or defer repayment in the event of disability or extended sickness which prevents the recipient from fulfilling the service obligation required under this section.

(7) The Office shall grant a deferment from the service obligation required under this section to:

(i)   An individual who has been assigned military duty outside the State;
or

(ii) The spouse of an individual who has been assigned military duty outside the State.

(m)   *William Donald Schaefer Scholarship requirements.* – (1) This subsection applies to recipients of the William Donald Schaefer Scholarship specified in subsection (e)(5) of this section.

(2) The Commission, in collaboration and consultation with the William Donald Schaefer Scholarship Advisory Council, shall annually select eligible students and offer grants to students who demonstrate outstanding potential for and who plan to pursue a career in public service.

(3) In making William Donald Schaefer Scholarship awards under this section, the Commission shall endeavor to select award recipients who are representative of the State's rich cultural, geographic, racial, ethnic, and gender diversity.

(4) Each individual awarded a William Donald Schaefer Scholarship under this section must have indicated and demonstrated to the Commission and to the William Donald Schaefer Scholarship Advisory Council a serious intent to enter public service on the completion of the student's educational program.

(n) *Workforce Shortage Student Assistance Grant Fund.* – (1) There is a Workforce Shortage Student Assistance Grant Fund in the Commission.

(2) The Commission:

(i) May accept any gift or grant from any person or corporation for the Workforce Shortage Student Assistance Grant Fund;

(ii) Shall use any gift or grant that it receives for a grant award from the Fund; and

(iii)   Shall deposit any gift or grant that it receives for the Fund with the State Treasurer in a nonbudgeted account.

(3) (i) At the end of the fiscal year, the Commission shall prepare an annual report on the Workforce Shortage Student Assistance Grant Fund that includes an accounting of all financial receipts and expenditures to and from the Fund.

(ii) The Commission shall submit a copy of the report to the General Assembly as provided under § 2-1246   of the State Government Article.

(o) *Limitation on amount of grant and scholarship awards per student.* – A recipient may hold a Workforce Shortage Student Assistance grant and any other State grant or scholarship awarded by the Office provided that the total of all grants and scholarships does not exceed:

(1) The student's total cost of attendance, as certified by the institution where the student is enrolled; and

(2) The cost of attendance, as defined in subsection (i) of this section.

(p) *Funding for program.* – Funds for the Workforce Shortage Student Assistance grant program shall be as provided in the annual budget of the Commission by the Governor.

(q) *Guidelines or regulations.* – The Commission shall adopt guidelines or regulations necessary to implement this section (2006, ch. 367, § 2.)

The Annotated Code of the Public General Laws of Maryland: Education, 2006, pp. 762-766.

Maryland Teacher Staffing Report
Rubric for Determining Critical Shortage Content Areas
2010-2012

Objective: To determine the State's critical shortage areas by using the rubric to score each content area by multiple criteria. For those content areas that are *core academic subjects* (CAS), use all three criteria; for those content areas that *are not* CAS, use only the first two criteria.

Content Area: _____   **Core Academic Subject (CAS) ___YES**
____NO

Criteria	Statewide Critical Shortage	Statewide Balance	Statewide Oversupply	Not Applicable (NA)	Rating
	3 points	2 points	1 point		
1. State projection formula	85% or less **Finding:**	86 –100% **Finding:**	100% or higher **Finding:**		**Rating:**
2.August LEA Recruitment Difficulties	5 or more **Finding:**	1-4 **Finding:**	0 (none) **Finding:**		**Rating:**
3 No. classes taught by NHQT Core Academic Areas only (CAS)	89% or less **Finding:**	90% – 95%. **Finding:**	95-100%. **Finding:**		**Rating:**
				TOTAL	

 For content areas that are *Core Academic Subjects* (rated on all three criteria) use the following scale:
_____ 7- 9 points, it is a statewide critical shortage area.
_____ 4-6 points, the content area is in statewide balance.
_____ 0-3 points, the content is an area of oversupply.
For content areas that *ARE NOT Core Academic Subjects* (rated on only two of the criteria) use the following scale:
_____ 5-6 points, it is a statewide critical shortage area.
 _____ 3-4 points, the content area is in state balance.
_____ 0-2 points, the content is an area of oversupply

DECISION:

Additional comments or rationale for the decision:

QUALITY TEACHER INCENTIVE ACT GRANTS
Number and Types of Teacher Incentive Grants Awarded
2008-2009

	No. of NBCT* Teachers	NBCT Teacher Stipends	No. of APC** Teachers	APC Teacher Awards	Total of Award Amounts
Allegany County	22	$22,000		$0	$22,000
Anne Arundel County	187	$188,000	34	$51,000	$239,000
Baltimore City	23	$28,000	676	$1,014,000	$1,042,000
Baltimore County	89	$92,000	175	$262,500	$354,500
Calvert County	13	$13,000		$0	$13,000
Caroline County	16	$16,000		$0	$16,000
Carroll County	102	$102,000		$0	$102,000
Cecil County	33	$33,000		$0	$33,000
Charles County	15	$15,000		$0	$15,000
Dorchester County	2	$4,000	13	$19,500	$23,500
Frederick County	34	$34,000		$0	$34,000
Garrett County	8	$8,000		$0	$8,000
Harford County	27	$27,000		$0	$27,000
Howard County	74	$74,000		$0	$74,000
Kent County	1	$1,000		$0	$1,000
Montgomery County	496	$465,155		$0	$465,155
PG County	152	$172,000	666	$994,500	$1,166,500
Queen Anne County	11	$11,000		$0	$11,000
Somerset County	2	$2,000	31	$46,500	$48,500
St. Mary's County	28	$30,000		$0	$30,000
Talbot County	4	$4,000		$0	$4,000
Washington County	21	$21,000	17	$25,500	$46,500
Wicomico County	27	$28,000	41	$61,500	$89,500
Worcester County	25	$25,000		$0	$25,000
TOTALS	**1,412**	**$1,415,155**	**1,653**	**$2,475,000**	**$3,890,155**

* NBCT - National Board Certified Teachers

** APC - Advanced Professional Certificate

Source: Maryland State Department of Education, July 2010.

Summary Report of Retire/Rehire Program
Maryland State Department of Education
Report for 2009 - 2010

	Anne Arundel	Baltimore City	Baltimore Co.	Cecil	Charles	Frederick	Howard	Kent	Montgomery	Prince George's	Somerset	Washington	TOTALS
Total # Rehires	**9**	**6**	**11**	**1**	**14**	**3**	**1**	**1**	**2**	**16**	**1**	**2**	**67**
Teachers	5	3	10	1	12	2	1	1	1	16		2	**54**
Speech Pathologist		3			2								**5**
Principals	4		1			1			1		1		**8**
Condition of Rehire													**67**
Title I		1			2		1	1	1	1			**7**
AYP	5	5	9	1	10	1				4			**35**
Alternative Education	2		2		1						1	1	**7**
Exempt*	2				1	2			1	4			**10**
FARM										7		1	**8**
Content Areas													**67**
Core Subjects*					1	1							**2**
Earth Science			1										**1**
Latin					1	1							**2**
Mathematics	2	1	2		3		1	1		1		1	**12**
Media*	1												**1**
Mentor Teacher			1										**1**
Psychology*		1											**1**
Physical Science			1		1					1			**3**
Reading*					3							1	**4**
Spanish			1							1			**2**
Special Education	1	1	4		3				1	13			**23**
Technology Ed	1			1									**2**
Teachers	**5**	**3**	**10**	**1**	**12**	**2**	**1**	**1**	**1**	**16**	**0**	**2**	**54**
Speech Pathologist	**0**	**3**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**		**5**
Principals	**4**		**1**		**1**				**1**		**1**		**8**
											Total		**67**

* The law allows a minimum of 5 exemptions per system, or 0.2% of the total full-time equivalent teachers,
  not to exceed 15 per school system. The exemptions may be *either* a regular school or a non critical content.
  Data provided to MSRA and MSDE by the local school systems, 2009-20010 school year.

Revised August 2010

Teachers Issued a Conditional Certificate: Two-Year Comparison*
2008-2009 and 2009-2010

Local School System	2008-2009**			2009-2010***		
	Number of Teachers	Number of Conditional Teachers	Percent of Conditional Teachers	Number of Teachers	Number of Conditional Teachers	Percent of Conditional Teachers
Allegany	696	2	0.3%	686	4	0.6%
Anne Arundel	5,073	97	1.9%	4,902	88	1.8%
Baltimore City	5,844	527	9.0%	5,713	245	4.3%
Baltimore County	7,504	171	2.3%	7,621	129	1.7%
Calvert	1,130	22	1.9%	1,107	13	1.2%
Caroline	402	16	4.0%	409	13	3.2%
Carroll	1,904	38	2.0%	1,941	28	1.4%
Cecil	1,173	20	1.7%	1,163	13	1.1%
Charles	1,737	98	5.6%	1,740	82	4.7%
Dorchester	346	6	1.7%	370	4	1.1%
Frederick	2,755	46	1.7%	2,702	24	0.9%
Garrett	346	3	0.9%	350	4	1.1%
Harford	2,732	58	2.1%	2,746	41	1.5%
Howard	3,886	81	2.1%	3,855	86	2.2%
Kent	175	5	2.9%	177	5	2.8%
Montgomery	9,728	64	0.7%	9,844	33	0.3%
Prince George's	8,612	468	5.4%	8,452	71	0.8%
Queen Anne's	529	34	6.4%	524	20	3.8%
St. Mary's	1,036	22	2.1%	1,071	18	1.7%
SEED School	9	0	0.0%	16	0	0.0%
Somerset	229	7	3.1%	225	3	1.3%
Talbot	307	4	1.3%	302	2	0.7%
Washington	1,496	28	1.9%	1,542	24	1.6%
Wicomico	1,089	14	1.3%	1,096	17	1.6%
Worcester	583	2	0.3%	588	3	0.5%
STATE TOTAL	59,321	1,833	3.1%	59,142	970	1.6%

 * A conditional certificate is issued at the request of the local school systems form one year to individuals who do not meet full
   requirements of a professional certificate. The local school system may request a renewal according to state regulations.
 ** Based on teachers employed by local school systems as of June 1, 2009.
*** Based on teachers employed by local school systems as of June 1, 2010.
SOURCE: Maryland State Department of Education, 2010

Newly Hired Maryland Teachers with Conditional Certification*
Maryland Public Schools
2009-2010

Local School System	Total Number of Newly Hired Teachers	Total Number of Newly Hired Conditional Teachers	Newly Hired Conditional Teachers With Experience	Newly Hired Conditional Teachers With No Experience	Percent of Newly Hired Conditional Teachers
Allegany	22	2	0	2	9.1%
Anne Arundel	439	63	21	42	14.4%
Baltimore City	584	37	22	15	6.3%
Baltimore	575	34	8	26	5.9%
Calvert	32	1	0	1	3.1%
Caroline	34	5	1	4	14.7%
Carroll	68	7	0	7	10.3%
Cecil	66	1	0	1	1.5%
Charles	176	21	8	13	11.9%
Dorchester	33	2	0	2	6.1%
Frederick	108	7	5	2	6.5%
Garrett	24	2	1	1	8.3%
Harford	181	5	0	5	2.8%
Howard	178	16	5	11	9.0%
Kent	13	2	2	0	15.4%
Montgomery	525	7	1	6	1.3%
Prince George's	699	18	4	14	2.6%
Queen Anne's	34	3	1	2	8.8%
St. Mary's	95	3	2	1	3.2%
SEED School	10	0	0	0	0.0%
Somerset	11	0	0	0	0.0%
Talbot	27	0	0	0	0.0%
Washington	143	7	3	4	4.9%
Wicomico	46	5	0	5	10.9%
Worcester	20	1	0	1	5.0%
STATE TOTAL	**4,143**	**249**	**84**	**165**	**6.0%**

* A conditional certificate is issued at the request of the local school systems form one year to individuals who do not meet full
   requirements of a professional certificate. The local school system may request a renewal according to state regulations.
SOURCE: Maryland State Department of Education, August 2010.

Annual Survey of Local School System Vacancies
Division of Academic Policy, Maryland State Department of Education
August 2010

School System	Contact Person	Explanation: Original projection of need, actual hires, remaining vacancies and recruitment difficulties
Anne Arundel School begins 8/23	Vanessa Bass (410) 222-5066	**projected teacher needs 2010-2011: 400** **actual teachers hired 2010-11: 314** **teacher vacancies as of 8/10: 64** **recruitment difficulties: Spanish, Technology Education, Physics** **any teacher layoffs due to budget cuts: No**
Baltimore City School begins 8/30	Angela Newman (410) 396-8880	**projected teacher needs 2010/11: 705** **actual teachers hired 2010-11: 477** **teacher vacancies as of 8/10: 37** **recruitment difficulties: Spanish** **any teacher layoffs due to budget cuts: No**
Baltimore Co School begins 8/30	Joelle Skorczewski (410) 887-2945	**projected teacher needs 2010-11: 500** **actual teachers hired 2010-11: 361.5** **teacher vacancies as of 8/10: 29.7** **recruitment difficulties: Chemistry, Physics, Chinese, Secondary Special Education in all content areas, Tech Ed, SLP** **any teacher layoffs due to budget cuts: No**
Calvert School begins 8/24	Kevin Michael (410) 535-7495	**projected teacher needs 2010-11: approximately 30** **actual teachers hired 2010-11: 29** **teacher vacancies as of 8/10: 7** **recruitment difficulties: Technology Education, Math, Spanish, Speech Language Pathologist** **any teacher layoffs due to budget cuts: No**
Caroline School begins 8/25	John Perry (410) 479-2894x132	**projected teacher needs 2010-11: 25** **actual teachers hired 2010-11: 21** **teacher vacancies as of 8/10: 0** **recruitment difficulties: None** **any teacher layoffs due to budget cuts: No**
Carroll School begins 8/31	Jimmie Saylor (410) 751-3078	**projected teacher needs 2010-11: 75** **actual teachers hired 2010-11: 99** **teacher vacancies as of 8/10: 4** **recruitment difficulties: Speech and Language** **any teacher layoffs due to budget cuts: No**
Cecil School begins 8/25	Robert Davis (410) 996-5441	**projected teacher needs 2010-11: 40-50** **actual teachers hired 2010-11: 48** **teacher vacancies as of 8/10: 5** **recruitment difficulties: Speech Pathology** **any teacher layoffs due to budget cuts: No. We did eliminate numerous positions but were able to assign those teachers affected into other vacant positions.**

Charles School begins 8/30	**Keith Hettel (301) 934-7230**	**projected teacher needs 2010-11: 75-100** **actual teachers hired 2010-11: 100** **teacher vacancies as of 8/10: 25** **recruitment difficulties: Special Ed - secondary, Spanish, math, tech ed** **any teacher layoffs due to budget cuts: We eliminated 25 teacher positions. Did not RIF anyone.**
Dorchester School begins 8/24	**Gary McCabe (410) 228-4747 ext 1014**	**projected teacher needs 2010-11: 30** **actual teachers hired 2010-11: 45** **teacher vacancies as of 8/10: 5** **recruitment difficulties: Tech. Ed, Ass't Principals** **any teacher layoffs due to budget cuts: No**
Frederick School begins 8/23	**Paula Lawton (301) 644-5097**	**projected teacher needs 2010-11: 50** **actual teachers hired 2010-11: 120** **teacher vacancies as of 8/10: 14** **recruitment difficulties: Math, Latin, Spec. Ed (autism, emotional disability), Tech. Ed. Fam.& Cons. Sci.** **any teacher layoffs due to budget cuts: Released several therapists and psychologists, but offered all but 1 school psychologist reemployment**
Garrett School begins 8/25	**Ervin Fink (301) 334-8902**	**projected teacher needs 2010-11: 10** **actual teachers hired 2010-11: 6** **teacher vacancies as of 8/10: 3** **recruitment difficulties: Spanish, French** **any teacher layoffs due to budget cuts: No**
Harford School begins 8/30	**Pamela Murphy (410) 588-5226**	**projected teacher needs 2010-11: 200** **actual teachers hired 2010-11: 173** **teacher vacancies as of 8/10: 14.1 (teachers/speech); 11.6 (techs, paras, nurses)** **recruitment difficulties: Media Specialists, Speech, Trades & Industry, Chemistry** **any teacher layoffs due to budget cuts: No**
Howard School begins 8/30	**Ernesto Diaz (410) 313-6779**	**projected teacher needs 2010-11: 300** **actual teachers hired 2010-11: 266** **teacher vacancies as of 8/10: 25** **recruitment difficulties: Math, Chemistry, Physics, Earth Sci., all World Languages, ESOL, Spec. Ed. (OT, PT, SOP), Media, Computer Sci., Tech. Ed., FACS, Seondary Reading Recovery Specialist** **any teacher layoffs due to budget cuts: No**
Kent School begins 8/23	**Jeff Grafton (410) 778-7135**	**projected teacher needs 2010-11: 20** **actual teachers hired 2010-11: 22** **teacher vacancies as of 8/10: 4** **recruitment difficulties: Physics, Secondary Mathematics, Speech Language Pathology, ESOL** **any teacher layoffs due to budget cuts: No**
Montgomery School begins 8/30	**Jeff Martinez (301) 279-3278**	**projected teacher needs 2010-11: January forecast 460** **actual teachers hired 2009-10: 234 full time; 101 part time** **teacher vacancies as of 8/10: 36 full time; 57 part time** **recruitment difficulties: Spanish, Tech ED, Science/Physics** **any teacher layoffs due to budget cuts: 4 that took severance package**

Prince George's School begins 8/23	**Robert Gaskin (301) 952-6037**	**projected teacher needs 2010-11: 275** **actual teachers hired 2010-11: 220** **teacher vacancies as of 8/10: 40-60** **recruitment difficulties: Special Ed – secondary** **any teacher layoffs due to budget cuts: No**
Queen Anne's School begins 8/30	**James Jennings (410) 758-2403**	**projected teacher needs 2010-11: 25 - at this point it looks like we're really only going to need 18 positions** **actual teachers hired 2010-11: 17** **teacher vacancies as of 8/10: 1** **recruitment difficulties: French** **any teacher layoffs due to budget cuts: We did not lay off; however, we did lose positions due to attrition. We also backfilled into some positions opened by attrition. The backfilling allowed us not to have to lay anybody off.**
St. Mary's School begins 8/25	**Dale Farrell (301) 475-5511 x170**	**projected teacher needs 2010-11: 75-100** **actual teachers hired 2010-11: 72** **teacher vacancies as of 8/10: 11** **recruitment difficulties: Middle School English, Secondary Mathematics, Pre-School Special Education, Hearing Impaired, Occupational Therapist, Special Education 1-8 & 6-12, Spanish, and Chemistry** **any teacher layoffs due to budget cuts: No**
Somerset School begins 8/23	**Beth Whitelock (410) 621-6231**	**projected teacher needs 2010-11: 10** **actual teachers hired 2010-11: 20** **teacher vacancies as of 8/10: 2** **recruitment difficulties: No difficulty in obtaining HQ candidates for any subject** **any teacher layoffs due to budget cuts: No**
Talbot School begins 8/24	**Dan Capozzi (410) 822-7557**	**projected teacher needs 2010-11: 30** **actual teachers hired 2010-11: 34** **teacher vacancies as of 8/10: 0** **recruitment difficulties: Physical Science** **any teacher layoffs due to budget cuts: No**
Washington School begins 8/18	**Nicole Paylor (301) 766-8784 ext. 6280**	**projected teacher needs 2010-11: 80-100** **actual teachers hired 2010-11: 80** **teacher vacancies as of 8/10: 4** **recruitment difficulties: Speech** **any teacher layoffs due to budget cuts: No**
Wicomico School begins 8/30	**Stephanie Moses (410) 677-4531**	**projected teacher needs 2010-11: 75-80** **actual teachers hired 2010-11: 83** **teacher vacancies as of 8/10: 19** **recruitment difficulties: French, Special Ed, Physics** **any teacher layoffs due to budget cuts: No, but cut several positions through attrition Note: We had 57 retirees in Early Notification program.**
Worcester School begins 8/30	**Willie Jackson (410) 632-2582 x 5077**	**projected teacher needs 2010-11: 10-15** **teacher vacancies as of 8/10: 0** **recruitment difficulties: Computer Science, Tech. Ed., Math, Library Media** **any teacher layoffs due to budget cuts: No**

Source: HR Directors, local school systems, 8/17/2010.

Number and Percentage of Classes Taught by Highly Qualified Teachers
Maryland Public Schools
Kindergarten Through Grade 12
2009-2010

Core Academic Subject	Number of Classes	Classes with HQ Teachers	Percent HQ
English	**22,143**	**19,999**	**90.3**
ESOL	**3,439**	**3,135**	**91.2**
Foreign Languages	**9,110**	**7,890**	**86.6**
French	1,809	1,659	91.7
German	294	276	93.9
Latin	313	248	79.2
Russian	41	37	90.2
Spanish	6,023	5,280	87.7
Mathematics	**23,202**	**20,579**	**88.7**
Science	**20,369**	**17,565**	**86.2**
Biology	4,965	4,339	87.4
Chemistry	2,340	1,922	82.1
Earth/Space	971	719	74.0
General Science	10,172	9,086	89.3
Physical Science	355	166	46.8
Physics	1,142	961	84.2
Environmental Science	424	372	87.7
Social Studies	**19,936**	**18,231**	**91.4**
Economics	334	293	87.7
Geography	522	494	94.6
History	7,369	6,772	91.9
Political Science	2,185	2,104	96.3
Social Studies	9,526	8,568	89.9
The Arts	**23,200**	**21,782**	**93.9**
Art	9,507	9,216	96.9
Dance	510	392	76.9
Drama/Theater	868	533	61.4
Music	12,315	11,641	94.5
Elementary Education	**56,580**	**54,340**	**96.0**
Early Childhood (Kindergarten)	**12,864**	**11,680**	**90.8**
Total Core Academic Subject Classes	**196,095**	**179,792**	**91.7**

Data provided by the Division of Accountability and Assessment, 2010.