# MARYLAND TEACHER STAFFING REPORT 2003 - 2005

Maryland State Department of Education 200 West Baltimore Street Baltimore, MD 21201-2595 August 2003

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#### **Executive Summary**

The annual *Maryland Teacher Staffing Report, 2003-2005*, provides information about teacher candidates completing programs from Maryland Institutions of Higher Education and the hiring needs of local school systems. The report outlines also a number of critical incentives and strategies for the recruitment and retention of quality teachers for Maryland public schools.

The Maryland State Department of Education identifies teaching areas of critical shortage and jurisdictions as geographic areas of projected shortage of teachers. Students in Maryland preparing to become teachers in a critical shortage area are eligible to receive tuition assistance. Three recommendations are being presented to the State Board of Education pursuant to §18-703 of the Annotated Code of Maryland. It is recommended that:

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

- Career and technology areas:
  - o Family and consumer sciences; and
  - Technology education;
- Computer science;
- English for speakers of other languages (ESOL);
- Mathematics;
- Science areas:
  - Chemistry; and
  - Physics;

- Special education areas:
  - o Generic: infant/primary (birth-grade 3); and
  - o Generic: secondary/adult (grades 6 adult).

**Recommendation 2:** The Maryland State Board of Education declared the following 24 jurisdictions as geographic areas of projected shortage of certified teachers:

1.	Allegany County	13.	Harford County
2.	Anne Arundel County	14.	Howard County
3.	Baltimore City	15.	Kent County
4.	Baltimore County	16.	Montgomery County
5.	Calvert County	17.	Prince George's County
6.	Caroline County	18.	Queen Anne's County
7.	Carroll County	19.	St. Mary's County
8.	Cecil County	20.	Somerset County
9.	Charles County	21.	Talbot County
10.	Dorchester County	22.	Washington County
11.	Frederick County	23.	Wicomico County
12.	Garrett County	24.	Worcester County

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

#### INTRODUCTION

The Maryland Teacher Staffing Report, 2003-2005, is an annual study conducted by the Maryland State Department of Education (MSDE) in conjunction with local school systems and institutions of higher education that have teacher education programs. The study began as a response to the 1984 legislation establishing tuition assistance for Maryland college students who are preparing to teach in critical shortage content areas in Maryland schools. The legislation provides for an annual declaration of teaching fields that are considered to be critical content shortage areas; subsequent legislation (1986) added identification of geographic areas experiencing teacher shortage. (See Appendix A for §18-703 Sharon Christa McAuliffe Memorial Teacher Education Award.)

The legislation states that there will be a "certification for areas of critical and geographic shortage by the State Superintendent of Schools who shall project annually the number of vacancies for employment expected and the number of students expected to graduate from programs qualifying them to teach in these fields during this same period. The Superintendent shall certify annually to the State Scholarship Administration those programs that continue to be areas of critical or geographic shortage as evidenced by projected employment vacancies substantially exceeding projected qualified graduates" (*Annotated Code of Maryland* §18-703).

#### **Sharon Christa McAuliffe Memorial Teacher Education Award**

This tuition assistance program, named after the first teacher in space, gives awards to students who would like to teach in Maryland in designated critical shortage areas. This program, administered by the Maryland State Scholarship Administration, allocated in FY 2003 a total of \$620,570 (down from \$911,000 last year). The award can provide up to \$14,200 annually per student per academic year toward tuition, fees, room, and board. The Scholarship Administration reported that 103 applicants were eligible for the awards out of 136 who applied. Since the program is renewable for a second year to those students who have maintained a 3.0 grade point average, 93 students were renewed from last year, leaving funds for 30 additional students to be granted an award. Students who accept a scholarship promise to teach in a Maryland public school in a critical shortage area, one year for each year the award is received. An application can be obtained from MHEC at 1-800-974-1024, or at their website: http://www.mhec.state.md.us./

In addition to the tuition and board awards, the United States Department of Education certifies each state's critical shortage areas to qualify certain students for deferment of loan repayment under the federal Stafford and Supplemental Loans for Students Programs. This designation permits students who qualify as Douglas scholars, under the Paul Douglas Teacher Scholarship Program authorized under 34CFR 653.50(a)(2)(ii), to receive a reduction in their teaching obligation years. More information on federal programs and their specific requirements can be obtained through the Free Application for Federal Student Aid Hotline at 1-800-4FED-AID by visiting their website at http://www.fafsa.ed.gov/.

#### Overview of the Report

The Maryland Teacher Staffing Report, 2003-2005, is divided into six sections. A brief description of each section is provided below.

## Section I: Incentives and Strategies for the Recruitment and Retention of Quality Teachers and Principals

The first section of the report discusses scholarship programs and other incentives and strategies available currently to attract, recruit, and retain quality teachers and principals for Maryland's public schools. This section lists state scholarships, state initiatives, and federal and national programs for teachers.

#### **Section II: Staffing Patterns by Certification Categories**

This section describes the fall 2002 teacher staffing data (the most current data available) by content area, and the projection data for the following two school years (2003-2004 and 2004-2005). Local school system personnel supply this data. The report includes information on whether the new hires are beginning or experienced teachers, and whether they were prepared in colleges in-state or out-of-state.

#### Section III: Geographic Areas of Projected Shortage

This section cites the legislation that provides for the identification of geographic areas of projected shortage. Included are the procedures, which describe how the projected areas of geographic shortages are identified, and the survey results from the 24 local school system superintendents.

# Section IV: Maryland-Prepared Teacher Candidates by Certification Area And Institution

This section provides data on the number of 2001-2002 teacher candidates from the 23 Maryland colleges and universities with approved teacher preparation programs. These candidates, both undergraduate and post-baccalaureate, are program completers who are eligible for initial teacher certification in Maryland, pending satisfactory performance on all state required certification assessments. Many of these candidates were the new hires for the local school systems in the fall of 2002, and are included in this report. A projection of candidates by content area for the two school years (2002-2003 and 2003-2004) is also provided.

#### **Section V: Minority and Gender Data**

This section presents analyses of minority teacher candidates by content area and trend data on minority candidates for the last five years (1997-2002). It presents also the number of minority hires by content area and trend data on minority hires for the past five years. The section reports also on gender data for new hires (fall 2002) and teacher candidates for 2001-2002.

#### Section VI: Recommendations for the Maryland State Board of Education

This section provides recommendations for consideration by the Maryland State Board of Education. These recommendations include identification of teaching fields that are areas of critical shortage, local school system jurisdictions that qualify as areas of geographic shortage, and identification of shortages of minority teachers and males.

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

Maryland, like many other states, is faced with an aging teacher population; teacher retention problems, especially in the first three years of teaching; rising student enrollments; and a shortage of qualified applicants to fill vacancies in several content areas. Several vitally important teacher quality incentives and strategies are available to address these issues. An overview of existing incentives and strategies is provided below in the categories of state scholarships, state initiatives and federal and national programs.

#### **State Scholarships**

#### Sharon Christa McAuliffe Memorial Teacher Education Award

This state award is a tuition assistance program named for the first teacher in the United States space program, Sharon Christa McAuliffe. The award provides funding for full- or part-time students to pursue teacher certification in Maryland in a critical shortage area. Applicants must meet one of the following criteria:

- Be an undergraduate who will have 60 credit hours by the beginning of the first award year;
- Be a degree-holding applicant who possesses a bachelor's or higher degree and is not certified in a critical shortage area; or
- Be a classroom teacher who is not certified in a critical shortage subject area. In addition, an applicant must be:
  - A Maryland resident with a cumulative grade point average of 3.0; and

 Attending or planning to attend a Maryland higher education institution with an approved teacher education program in the critical shortage area of interest.

The amount of the award may not exceed the equivalent annual tuition and mandatory fees (and room and board, if applicable) of a resident undergraduate student at the University of Maryland Baltimore County. The maximum amount of the award for 2002-2003 was \$13,286. Beginning July 1, 2002, the award may be used with any other sponsored student financial aid as long as it does not exceed \$14,200. For more information, contact the Maryland Higher Education Commission (MHEC), State Scholarship Administration, at 410-260-4565, toll-free at 1-800-974-1024, or the website at www.mhec.state.md.us.

#### Maryland HOPE Teacher Scholarship

The Maryland HOPE Teacher Scholarship, a program initiated in 1999, provides awards to graduating high school seniors, undergraduate students, and graduate students who seek to become classroom teachers. In order to qualify for the Maryland HOPE Teacher Scholarship, applicants must:

- Attain a cumulative 3.0 grade point average (GPA);
- Have a combined family income of \$95,000 or less;
- Be a Maryland resident;
- Be a full-time student in an eligible teacher education program; and
- Work as a full-time certified teacher in Maryland, one year for each year of assistance received (or pay back the scholarship money with interest).

Students at two-year colleges are eligible for an annual award of \$2,000 and students at four-year colleges are eligible for an annual award of \$5,000. Additional information

and applications for the Maryland HOPE Teacher Scholarship can be obtained by calling the State Scholarship Administration, at 410-260-4565, toll-free at 1-800-974-1024, or the website at <a href="https://www.mhec.state.md.us">www.mhec.state.md.us</a>.

#### The Distinguished Scholar Teacher Education Program

This merit-based award program, available only to Distinguished Scholar Award recipients, is designed to provide additional financial incentives to attract highly able students to Maryland's teacher preparation programs. Each Distinguished Scholar Award recipient receives \$3,000, and the Distinguished Scholar Teacher Education Program increases the total award by an additional \$3,000 for those who want to become teachers. This award provides scholarship support for students meeting eligibility requirements. Additional information about the Distinguished Scholar Award can be obtained by calling the State Scholarship Administration at 410-260-4565, toll-free at 1-800-974-1024, or the website at <a href="https://www.mhec.state.md.us">www.mhec.state.md.us</a>.

#### State Initiatives

#### Quality Teacher Work Group of 2002-2003

In response to the *Maryland Teacher Staffing Report, 2002-2004*, the State Board president proposed that the Quality Teacher Work Group be formed to make recommendations to the Board concerning the following three issues: (1) ways to ensure high quality teachers in low performing schools; (2) ways to staff areas of critical teacher shortage; and (3) the need for aggressive recruitment and retention strategies. The Work Group, chaired by State Board member Dr. Edward Root, issued its final

report in February 2003 and the Implementation Plan in April 2003. A summary of relevant recommendations follows:

- By July 1, 2009, all newly hired teachers in Maryland will have completed approved teacher education programs. In addition to the traditional programs that exist already, the State will encourage the development of alternative programs using a common set of standards that lead to certification.
- Maryland colleges and universities must increase the number of prospective students in the education pipeline, as the state faces a teacher shortage for the foreseeable future. Elementary and secondary education leaders will work with college and university officials to increase the ability of the state's higher education institutions to meet those needs. Ideas include developing new or improved teacher preparation programs to meet specific needs of local school systems; and instituting policies that will smooth the path for community college students to move into four-year college teaching training programs.
- A menu of suggested incentives that would bring more prospective teachers into the field includes improved salaries, tuition waivers and loan forgiveness programs.
- There should be an increased effort to retain teachers who are already in the profession, such as a reduction in non-classroom duties, improved salary schedules for educators with experience, and a strengthened retirement program.
- The annual Maryland Teacher Staffing Report should survey local school systems for their projected needs of non-classroom professional positions and institutions of higher education for their current and projected supply of these individuals. MSDE would collect this information at the same time that it conducts the teacher staffing survey for the annual report to the State Board. The non-classroom professionals in the survey would include: guidance counselor, library/media specialist, reading specialist, school psychologist and principal. Appendix B: Supply and Demand of Non-Classroom Professionals reports the results of a survey from the institutions of

higher education on the current supply and the local school systems' projected needs in these five positions. PRIM needs a minimum of five years of data of actual hires to calculate and project needs in any of the five professional areas.

#### Resident Teacher Certificate

The Resident Teacher Certificate (RTC) was adopted by the Maryland State Board of Education (COMAR 13A.12.01.05G) on December 19, 1990 and became effective on April 1, 1991. The RTC creates an alternative route into the teaching profession for local school systems that want to implement a Resident Teacher Certificate program.

The Resident Teacher Certificate (RTC) is designed to attract and recruit liberal arts graduates and career changers who possess academic content backgrounds in the arts and sciences. Once a RTC program is established by a local school system and approved by the MSDE, an individual must meet the following entrance requirements:

#### Resident Teacher Certificate Program Entrance Requirements

- Possess an earned bachelor's degree or higher from a regionally accredited institution of higher education in area of assignment;
- Receive an average of "B" or better in courses related to area of assignment;
- Complete 135 clock hours of study prior to employment as a resident teacher;
   and
- Submit qualifying scores on teacher certification tests Praxis I (basic skills) and Praxis II content tests only.

Once the requirements listed above are satisfied, an individual is employed by the local school system as a resident teacher. During employment, a resident teacher must

satisfy additional certification requirements as stipulated below:

Resident Teacher Certificate Program Employment Requirements

- Complete an additional 45 clock hours of study (for secondary resident teachers) or an additional 135 clock hours of study (for elementary teachers) during employment as a resident teacher;
- Receive mentoring for each year employed as a resident teacher;
- Provide verification of satisfactory teaching performance for each year employed as a resident teacher; and
- Submit qualifying scores on remaining teacher certification tests Praxis II
  pedagogy tests as required by the subject area.

Three local school systems (Baltimore City, Howard County and Prince George's County) had Resident Teacher programs for this reporting period, 2002-2003. Baltimore City has two programs, one developed by Baltimore City Public Schools and one with the national program, *Teach for America*. In addition, during summer 2003, several new RTC programs are being developed by Chesapeake College, Frederick County Public Schools, and the University of Maryland University College. A full explanation of the regulation governing the RTC can be found under COMAR 13A.12.01.05G. For more information on specific RTC programs, please contact:

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#### Quality Teacher Incentive Act of 1999

In 1999, the Maryland General Assembly passed legislation, the *Quality Teacher Incentive Act* (House Bill 9), enabling local school systems to offer a number of possible incentives to recruit and retain quality teachers. Specifically, this law provides:

- A \$1,000 signing bonus for new classroom teachers graduating with a grade point average of 3.5 on a 4.0 scale or its equivalent (amended in the 2002 session of the Maryland General Assembly). Anyone receiving a signing bonus must remain employed in a public school system for a minimum of three consecutive years or reimburse the State for the bonus;
- A stipend of up to \$2,000 a year (dollar for dollar match by local school systems) for classroom teachers who earn National Board Certification;
- A \$2,000 annual stipend for teachers holding an Advanced Professional Certificate who work in "Challenge Schools," reconstituted schools, or reconstitution-eligible schools;
- An expansion of the State-supported teacher mentoring program;
- A \$1,500 tax credit to offset graduate tuition costs for courses needed to maintain certification;

- Extension of the new teacher probationary period from two to three years; and
- A requirement that the employer of the individual who receives a bonus or stipend pay the increase in fringe benefit costs associated with the bonus or stipend.

To date, the impact of House Bill 9 on the recruitment and retention of quality teachers in Maryland has been significant, and it will continue to be an effective element of state educational policy. Appendix C: *Quality Teacher Incentive Act, July 2003* displays the amount of money in teacher bonuses and stipends dispensed by the MSDE in FY 2003.

#### Tax Credits

All Maryland teachers enrolled in college courses are eligible for an annual \$1,500 tuition tax credit on their Maryland income tax return, to offset graduate tuition expenses necessary to maintain teacher certification. This tax credit can be found in \$10-717 of the Annotated Code of Maryland.

# <u>Support Program for Teachers Seeking Certification from the National Board for</u> Professional Teaching Standards

The National Board for Professional Teaching Standards (NBPTS) is an independent, nonprofit, nonpartisan organization established in 1987 to improve student learning in America's schools by developing a system of advanced, voluntary certification for teachers. The National Board established rigorous standards and a

performance-based certification system to recognize quality teaching.

In 1999, the Maryland General Assembly established a permanent program of state and local aid to pay the assessment fee for public school teachers seeking National Board Certification (Annotated Code of Maryland §6-306). Funding for 500 teachers is available. All 24 local school systems have participated in the recruitment process. In addition to paying the assessment fee, the Maryland State Department of Education, in collaboration with colleges and universities, businesses, and teachers' associations, sponsors the Maryland National Board Candidate Support Network. Candidates voluntarily attend monthly meetings on designated Saturdays at specified locations throughout the state. Maryland's National Board Certified Teachers facilitate the monthly meetings, which provide candidates structured opportunities to engage in professional conversations about standards and practices. Through the Maryland Candidate Support Network, candidates receive technical, intellectual, logistical, and emotional support as they progress through the assessment process.

Since funding began in FY 2001, MSDE has issued over \$300,000 in grants to local school systems for teachers who achieved national certification and remained classroom teachers. For more information, visit the national site at <a href="http://certification.msde.state.md.us/NBC/ncbNbpts.html">www.nbpts.org</a> or MSDE's website at <a href="http://certification.msde.state.md.us/NBC/ncbNbpts.html">http://certification.msde.state.md.us/NBC/ncbNbpts.html</a>.

#### Reemployment of Retired Teachers and Principals

In 1999, the Maryland General Assembly enacted legislation (Senate Bill 15) that exempts certain retired teachers from an earnings limitation if they are reemployed as

classroom teachers, substitute teachers, or teacher mentors. As stated in this statute, reemployment must occur in a school recommended for reconstitution, a reconstituted school, a local school system declared as a geographic shortage area, or in a subject that has been declared a critical shortage area. This statute became effective on July 1, 1999 and will sunset on June 30, 2004.

During the 2000 session of the Maryland General Assembly, legislation (House Bill 1404) was enacted permitting certain retired school principals to be exempt from an earnings limitation if they are reemployed as school principals in a reconstitution-eligible school, a local school system declared as a geographic shortage area, or in a subject which has been declared a critical shortage area. This bill became effective July 1, 2000 and sunsets June 30, 2004. Appendix D: *Retired Teachers and Principals Reemployed by Local School Systems* lists the number of teachers and principals that have been rehired by school systems under these two bills.

In the 2001 legislative session, Senate Bill 221: State Retirement and Pension System Reemployment of Retirees eliminated the earnings limitation for retirees of the Employees' and Teachers' Retirement and Pension Systems who return to work with a participating employer other than their employer at the time of their last separation from employment. All Maryland State agencies and the University System of Maryland are regarded as one employer for the purposes of this legislation. Retirees who return to work for the same participating employer are not eligible for this earnings limit exemption. Early service retirees must have retired 12 months before this earnings limit exemption applies. Senate Bill 221 has no sunset provision for educators.

During the 2001 legislation session, House Bill 442: *Teachers' Retirement and Pension Systems – Reemployment of Retired Personnel* was passed eliminating the earnings limit for service retirees, or early retirees who have been retired for at least one year from the Teachers' Retirement and Pension Systems and:

- Were employed as principals not more than ten years before retirement;
- Worked in a position supervising principals in the last assignment before retirement; and
- Have verification of better than satisfactory performance for each year prior to retirement in a position supervising principals.

House Bill 442 sunsets June 30, 2004.

#### Maryland's Initiative for New Teachers (MINT)

On August 14, 2001, State Superintendent Nancy S. Grasmick unveiled *Maryland's Initiative for New Teachers* (MINT), a program to support new teachers, both personally and professionally. "MINT, in concert with local school system mentoring programs," said Dr. Grasmick, "will help support new teachers and keep them in the profession." The program was developed by a group representing all 24 local school systems, including Milken Award-winning educators, retired Maryland teachers and National Board Certified Teachers, as well as prospective teachers.

The initiative includes several components to support new teachers and emphasize their importance in the local community and also to the state of Maryland. The features of MINT include:

A network of experienced teachers available to answer questions, offer

assistance and provide encouragement to new teachers;

- Regional new teacher social events that are a combination social and nontraditional professional development, to help beginning teachers connect with one another and with teaching experts for discussions;
- A series of short newsletters specifically designed for new teachers in order to connect them with recognized experts and experienced educators;
- A user-friendly section of the state website to assist the beginning teacher;
- A longitudinal study tracking the progress of new teachers; and
- Discounts and incentives with business partners to meet the needs of new teachers.

Information on the MINT program, incentives, resources, publications, and Mint "buddies," is available at <a href="http://www.marylandpublicschools.org">http://www.marylandpublicschools.org</a>.

#### **Federal and National Programs**

#### Loan Forgiveness Program

The federal government has several discharge (cancellation) or loan forgiveness programs connected to federal loans for teachers. For more information, check the website: <a href="http://www.ed.gov/prog">http://www.ed.gov/prog</a> info/SFA/StudentGuide/2000-1/staffordcancel.html.

#### <u>Home Incentives for Teachers (HIT) and Teacher Next Door</u>

Several programs have been developed by the housing industry in an effort to recruit and retain quality teachers. Neither of the following two programs is administered by the Maryland State Department of Education.

Housing Incentives for Teachers (HIT) was developed by Mid-Atlantic Relocation for O'Conor, Piper & Flynn ETA, exclusively for Maryland educators. The goal is to help educators save money each time they buy or sell a home. It includes stipends and cash bonuses. Discounts are offered also on mortgages, title insurance, homeowner's insurance, and movement of household goods. More information is available at: <a href="https://www.nrtma.com/HIT/parade.asp">www.nrtma.com/HIT/parade.asp</a>.

Teacher Next Door (TND), a program to strengthen communities (along with its Officer Next Door program), was developed by the Department of Housing and Urban Development (HUD). The program offers HUD-owned, single family homes to public and private school teachers at a 50% discount. The program requires a \$100 deposit and provides 50% off the price of the house. Teachers must qualify for a loan of 50% of the sale price and the other 50% becomes a silent second mortgage, which dies of natural causes on the third anniversary of the owner-occupancy. To be eligible for the program, teachers must be employed full-time and agree to make the homes their sole residence for three years following the purchase. In addition, teachers must live in the school district or jurisdiction in which they are employed and the HUD home must be located in a designated revitalization area. Teachers do not have to be first-time homebuyers to participate, however, they cannot own any other home at the time they close on the TND home. Sandra Feldman, President, American Federation of Teachers, states, "The Teacher Next Door program is a creative and practical way to entice teachers to the communities where they are needed most. Schools are cornerstones of the community, and this program will help deepen the bonds between

neighborhood schools and communities throughout the country, while strengthening the teacher recruitment efforts." Information is available at the HUD website at: <a href="http://www.hud.gov/offices/hsg/sfh/reo/tnd/tnd.cfm">http://www.hud.gov/offices/hsg/sfh/reo/tnd/tnd.cfm</a>.

#### Summary

These incentives and strategies are being implemented to assist Maryland in recruiting and retaining quality teachers. They have been effective elements of state educational policy initiatives as Maryland attempts to attract and retain the best and brightest teachers to Maryland's public school classrooms. To further alleviate the shortages, the incentives encourage and reward retired teachers and principals to return to the public schools.

#### SECTION II: STAFFING PATTERNS BY CERTIFICATION CATEGORIES

The number of available teachers seeking positions, as well as the shortages and surpluses in certain certification areas, influence staffing patterns. This section discusses the following: new hires, methodology for determining shortage areas, certification areas with shortages, certification areas with surpluses, and trend data.

#### **New Hires**

MSDE's Division of Planning, Results, and Information Management (PRIM) collects data once a year, in October, from the 24 local school systems. This information is used as the basis for this report to describe the newly hired teachers for the 2002–2003 school year (the most recent data available).

The term *new hires*, as defined for this report, includes teachers from the following four categories:

- New hires with no experience who are Maryland college/university teacher candidates;
- New hires with no experience who are out-of-state college/university teacher candidates;
- New hires with experience who last taught in Maryland; and
- New hires with experience who last taught outside of Maryland.

The new hires with experience who last taught in Maryland are those teachers who have left teaching and are then rehired at a later date, either in the same school system or in another Maryland school system. Not included in the definition of "new hires" are those teachers transfer to a new school but in the same school system.

Table 1, Actual New Hires by Certification Area reports the number of new hires for the 2002-2003 school year. The total number of new hires was 7,445, a slight increase of 0.8% from last year's total of 7,385. Table 1 lists the new hires in the above four categories. There were 4,377 beginning new hires this reporting year, an increase of 8.6% from last year's 4,030 new hires. The beginning new hires included 1,769 graduates of Maryland colleges and universities, a 4.4% increase from last year's 1,694; 2,608 graduates from out-of-state, a 11.6% increase from last year's 2,336. The total number of experienced new hires decreased this year, with 3,068 this year, an 8.6% decrease from last year's 3,356. The number of experienced new hires who taught previously in Maryland include 1,633, a 10.3% drop from last year's 1,820. The number of experienced new hires who taught previously out-of-state include 1,435, a 6.5% decrease from last year's 1,535. Table 1 includes also the number of new hires by Maryland certification areas.

The new hires in Table 1 include teachers on several teaching certificates: the professional certificate, issued to the new graduates upon completion of an approved teacher education program or to other qualified teachers with experience in-state or out-of-state; the Resident Teacher Certificate, given to those in Maryland's alternative certification program; or the provisional certificate, issued to individuals hired by a local school system, at the request of a local superintendent, who do not meet full certificate requirements for the professional certificate. (The provisional certificate is being renamed the conditional certificate for all those issued after July 1, 2003.)

Since many local school systems are having difficulty meeting their teacher staffing needs, the number of teachers on provisional certificates is increasing. These

Table 1

Actual New Hires by Certification Area
Maryland Public Schools: As of October 2002

	Total	Beg	ginning Ne	ew Hires*	Experie	enced New	Hires
	New		Maryland				Outside
Certification Area	Hires	Total	IHE**	IHE**	Total	Maryland	Maryland
Total New Hires	7,445	4,377	1,769	2,608	3,068	1,633	1,435
Art (PreK-12)	221	143	63	80	78	48	30
Career/Technology Education (7-12)	183	98	32	66	85	66	19
Agriculture	6	5	1	4	1	1	0
Business Education	70	37	13	24	33	27	6
Family & Consumer Sciences	43	24	13	11	19	16	3
Technology Education	40	20	5	15	20		7
Trades and Industry	16	4	0	4	12	9	3
Health Occupations	8	8	0	8	0	0	0
Computer Science (7-12)	18	16	12	4	2	2	0
Early Childhood (PreK-3)	555	311	188	123	244	140	104
Elementary Ed. (1-6 & Middle School)	2,692	1,667	747	920	1,025	537	488
English (7-12)	566	325	118	207	241	124	117
ESOL (K-12)	104	59	24	35	45	11	34
Foreign Language (7-12)	207	109	33	76	98	43	55
French	53	14	5	9	39	18	21
German	5	2	0	2	3	2	1
Spanish	149	93	28	65	56	23	33
Health/Physical Education (PreK-12)	329	188	82	106	141	87	54
Mathematics (7-12)	396	225	68	157	171	85	86
Music (PreK-12)	329	191	44	147	138	71	67
Science (7-12)	467	284	89	195	183	91	92
Biology	301	182	63	119	119		60
Chemistry	58	32	13	19	26		13
Earth/Space Science	45	27	5	22	18		9
General Science	23	9	1	8	14		6
Physical Science	7	7	1	6	0		0
Physics	33	27	6	21	6	2	4

Table 1 (continued)

Actual New Hires by Certification Area
Maryland Public Schools: As of October 2002

	Total	Beg	ginning Ne	w Hires*	Experi	enced New	Hires
	New		Maryland	Non-Md			Outside
Certification Area	Hires	Total	IHE**	IHE**	Total	Maryland	Maryland
Social Sciences (7-12)	469	313	98	215	156	80	76
History	93	51	21	30	42	27	15
Political Science	6	1	1	0	5	2	3
Social Studies	370	261	76	185	109	51	58
Special Education	855	419	157	262	436	233	203
K-12	36	3	1	2	33	29	4
Generic: Infant/primary (birth-grade 3)	53	27	14	13	26	13	13
Generic: Elementary/middle (grades 1-8)	412	203	69	134	209	105	104
Generic: Grades infant-adult	115	72	37	35	43	9	34
Generic: Secondary/adult (grades 6-adult)	220	113	35	78	107	70	37
Hearing Impaired	16	1	1	0	15	6	9
Severely and Profoundly Disabled	1	0	0	0	1	0	1
Visually Impaired	2	0	0	0	2	1	1
Other Teaching Areas^	54	29	14	15	25	15	10

<sup>\*</sup> Includes teachers on provisional, resident teacher, and professional certificates.

provisional certificates are issued at the request of the local school system for one year, but the local school system may request a renewal according to state regulations. There are several reasons for requesting the provisional certificate. The teacher may be missing one or more required courses, or may not have taken or have passed all of the required Praxis I and II certification assessments. Appendix E: *Maryland Teachers Issued a Provisional Certificate, Two-Year Comparison, 2001-2002 and 2002-2003,* lists the number of provisional teachers by local school system. Appendix F: *Newly Hired Maryland Teachers Issued a Provisional Certificate, 2002-2003,* lists the newly hired teachers, with and without experience, issued provisional certificates.

<sup>\*\*</sup> Institution of Higher Education.

<sup>^</sup> Dance, drama/theater, other foreign languages, psychology, sociology, geography, speech, and journalism.

Of the 6,258 provisional teachers in 2002-2003, there are 2,076 or 33% who are new hires. Appendix E shows also that of these newly hired teachers on a provisional certificate, 630 had prior teaching experience (possibly in another state or with an expired certificate), while 1,446 are new hires with no prior teaching experience.

To summarize, the total number of new hires in 2002-2003 is slightly larger than the previous year, an 0.8% increase. There is an increase in the number of beginning new hires, and a decrease in the number of experienced new hires.

#### **Methodology for Determining Shortages**

PRIM collects and analyzes the data provided by the local school systems for this report. PRIM uses data from the past five years to project staffing needs for the next two years. These projections are compared with local school system reports on staffing needs. Using this data, PRIM projects a surplus or a shortage in each subject area.

PRIM uses the following formula to determine staffing projection rates:

The formula calculates the rate of five years of change, with 1 as the rate base. Table 2, *Staffing Projections, 2003-2004,* provides information on the "projected staffing pool", the "projected new hires," and their difference, by certification area. To determine the "projected staffing pool" for 2003-2004, the rate is multiplied by the number of new hires in the latest year, 2002-2003. The number of "projected new hires" is provided by the

local school systems. If the difference of the "projected staffing pool" and "projected new hires" is less than 85% (pool as percent of hires), the subject area is considered for declaration as a critical shortage area.

#### **Certification Areas with Shortages**

Table 2, Staffing Projections: 2003-2004 provides the information needed to declare the shortages by certification area. If a school system is projected to fill fewer than 85% of the vacancies in a subject area from the "projected staffing pool," that subject is considered for declaration as a critical shortage area. However, if any subject area has a need of ten or fewer teachers (statewide), it is not considered for declaration as a critical shortage area, i.e., health occupations, German, and physical science. The vocational area, Trades and Industry, is not included since that certification area does not require a college degree and does not qualify for scholarship funds.

The critical shortage areas (shaded in Table 2) with the estimated percent available in the hiring pool for 2002-2003 include the following:

- English for speakers of other languages (ESOL) (78%);
- Mathematics (72%);
- Special education generic: secondary/adult -grades 6-adult(71%);
- Family and consumer sciences (66%);
- Chemistry (61%);
- Physics (60%);
- Technology education (55%);
- Special education generic: infant/primary-birth-grade 3 (53%); and
- Computer science (51%).

The national press has reported nationwide shortages in most of the same areas, as well as a shortage of teachers in general. Because of this, Maryland's local school systems are in competition with several neighboring states, many of which pay higher salaries.

#### **Certification Areas with Surpluses**

Table 2 reports also the content areas with a possible surplus of teachers in 2003-2004. Because the projected staffing pool exceeds the projected hiring needs in these areas, local school systems are expected to be able to fill these vacancies. Content areas that show a projected surplus of potential teachers with more than 100% include:

- History (295%);
- Art (227%);
- Political science (209%);
- Music (167%);
- Elementary education (152%);
- Biology (151%);
- Health/physical education (133%);

- Agriculture (126%);
- French (113%);
- Social studies (112%);
- English/language arts (107%);
- Business education (106%); and
- Early childhood (104%).

Having state surpluses does not assure local school systems that they will have an ample supply of new teachers in these areas. Linda Darling-Hammond, of the National Commission on Teaching and America's Future and Stanford University, and

Table 2
Staffing Projections: 2003-2004
Maryland Public Schools

			Difference		
	Projected	Projected	Pool	Pool as	
	Staffing	New	Minus	Percent	
Certification Area	Pool	Hires	Hires	of Hires	
Total Teachers	7,793	6,775	1,019	115%	
Art PreK-12)	231	102	129	227%	
Career/Technology Education (7-12)	192	272	-80	70%	
Agriculture	6	5	1	126%	
Business Education	73	69	4	106%	
Family & Consumer Sciences	45	68	-23	66%	
Technology Education	42	76	-34	55%	
Trades and Industry	17	39	-22	43%	
Health Occupations	8	15	-7	56%	
Computer Science (7-12)	19	37	-18	51%	
Early Childhood (PreK-3)	581	561	20	104%	
Elementary Education (1-6 & middle school)	2,818	1,858	960	152%	
English/Language Arts (7-12)	592	552	40	107%	
ESOL (PreK-12)	109	139	-30	78%	
Foreign Language (7-12)	217	233	-16	93%	
French	55	49	6	113%	
German	5	12	-7	44%	
Spanish	156	172	-16	91%	
Health/Physical Education (PreK-12)	344	259	85	133%	
Mathematics (7-12)	415	579	-164	72%	
Music (PreK-12)	344	206	138	167%	
Science (7-12)	465	509	-44	91%	
Biology	315	209	106	151%	
Chemistry	61	99	-38	61%	
Earth/Space Science	47	50	-3	94%	
Physical Science	7	93	-86	8%	
Physics	35	58	-23	60%	

Table 2 (continuted)

#### Staffing Projections: 2003-2004 Maryland Public Schools

			Difference	
Certification Area	Projected Staffing Pool	Projected New Hires	Pool Minus Hires	Pool as Percent of Hires
Social Sciences (7-12)	491	382	109	129%
History	97	33	64	295%
Political Science	6	3	3	209%
Social Studies	387	346	41	112%
Special Education	895	1,054	-159	85%
Generic: Infant - grade 3	69	130	-61	53%
Generic: Elementary/middle - grades 1-8	576	520	56	111%
Generic: Secondary/adult (grades 6-adult)	230	326	-96	71%
Hearing Impaired	17	18	-1	93%
Severely and Profoundly Disabled	1	45	-44	2%
Visually Impaired	2	15	-13	14%
Other Teaching Areas^	81	32	49	252%

<sup>^</sup> Other teaching areas include: theater/drama, dance, other foreign languages, psychology, sociology, geography, speech, journalism, and general science.

Segun Eubanks, of the National Education Assocation, both stated that the distribution of teachers is often the problem that states and regions face.

Table 3, *Staffing Projections: 2004-2005*, depicts the projected number of new hires needed for the 2004-2005 school year. Local school system human resource personnel provided the projected number of new hires. Some of the same content areas keep reappearing each year as shortages.

Shaded areas are those that have been identified as critical shortage areas. The projected need is at least 10 teachers statewide and the pool as a percent of hires is 85% or less.

Table 3

Staffing Projections: 2004-2005
Maryland Public Schools

			Differ	ence
	Projected	Projected	Pool	Pool as
	Staffing	New	Minus	Percent
Certification Area	Pool	Hires	Hires	of Hires
Total Teachers	8,141	7,405	736	110%
Art (PreK-12)	242	128	114	189%
Career/Technology Education (7-12)	183	268	-85	68%
Agriculture	7	4	3	164%
Business Education	77	81	-4	95%
Family & Consumer Sciences	47	77	-30	61%
Technology Education	44	92	-48	48%
Health Occupations	9	14	-5	63%
Computer Science (7-12)	20	50	-30	39%
Early Childhood (PreK-3)	608	662	-54	92%
Elementary Education (1-6 & middle school)	2,950	1,851	1,099	159%
English/Language Arts (7-12)	620	609	11	102%
ESOL (PreK-12)	114	156	-42	73%
Foreign Language (7-12)	227	269	-42	84%
French	58	57	1	102%
German	5	15	-10	37%
Spanish	163	197	-34	83%
Health/Physical Education (PreK-12)	361	284	77	127%
Mathematics (7-12)	434	597	-163	73%
Music (PreK-12)	361	230	131	157%
Science (7-12)	487	593	-106	82%
Biology	330	234	96	141%
Chemistry	64	113	-49	56%
Earth/Space Science	49	63	-14	78%
Physical Science	8	112	-104	7%
Physics	36	71	-35	51%

Table 3 (continuted)

#### Staffing Projections: 2004-2005 Maryland Public Schools

			Difference	
Certification Area	Projected Staffing Pool	Projected New Hires	Pool Minus Hires	Pool as Percent of Hires
Social Sciences (7-12)	514	434	80	118%
History	102	44	58	232%
Political Science	7	8	-1	82%
Social Studies	405	382	23	106%
Special Education	937	1,222	-285	77%
Generic: Infant/primary (birth-grade 3)	72	152	-80	48%
Generic: Elementary/middle (grades 1-8)	603	583	20	103%
Generic: Secondary/adult (grades-adult)	241	390	-149	62%
Hearing Impaired	18	23	-5	76%
Severely and Profoundly Disabled	1	56	-55	2%
Visually Impaired	2	18	-16	12%
Other Teaching Areas^	84	52	32	162%

<sup>^</sup> Other teaching areas include: theater/drama, dance, other foreign languages, psychology, sociology, geography, speech, journalism, and general science.

#### **Trend Data**

Table 4, *Trend Data of New Hires 1993-1994 to 2002-2003*, reports the ten-year trend of new hires. The number has increased over the past ten years, when 2,055 were hired in 1993-1994 while 7,445 were hired in 2003-2004, a 262% increase. During this time, only two years show a decrease.

Figure 1, *Trend Data: New Hires by Maryland Public Schools*, 1993-1994 to 2004-2005 is a graphic representation of this ten-year trend. Figure 1 includes also the

number of projected hires needed for 2003-2004 and 2004-2005. The local school systems provided the projected number of new hires.

Figure 2, New Hires: Through October 2002, shows the four categories of new hires: beginning teachers who are Maryland prepared teacher candidates (23.8%); beginning teachers who are out-of-state prepared candidates (35%); experienced teachers who last taught in Maryland (21.9%); and experienced teachers who last taught outside Maryland (19.3%). The percent of all beginning teachers hired this year (58.8%) is up from last year (54.8%), while the percent of all experienced teachers hired this year (41.2%) is down from last year (45.4%). Maryland continues to hire many out-of-state teachers (both beginners and experienced), 54.3% this year, higher than the 52.4% hired last year.

Figure 3, Newly Hired Teachers by Local School Systems Through October 2002, reports the number of new teachers hired by each local school system. The number ranges from a low of 11 new hires in Kent County to a high of 1,627 new hires in Prince George's County. The five largest school systems (Prince George's County, Montgomery County, Baltimore City, Baltimore County, and Anne Arundel County) hired 5,166 or 69.4% of the teachers. Table 5, Newly Hired Teachers by Local School Systems, reports on the number of new hires by each local school system. It includes also whether the new hires were beginners or experienced, and whether these new hires were from in-state or out-of-state.

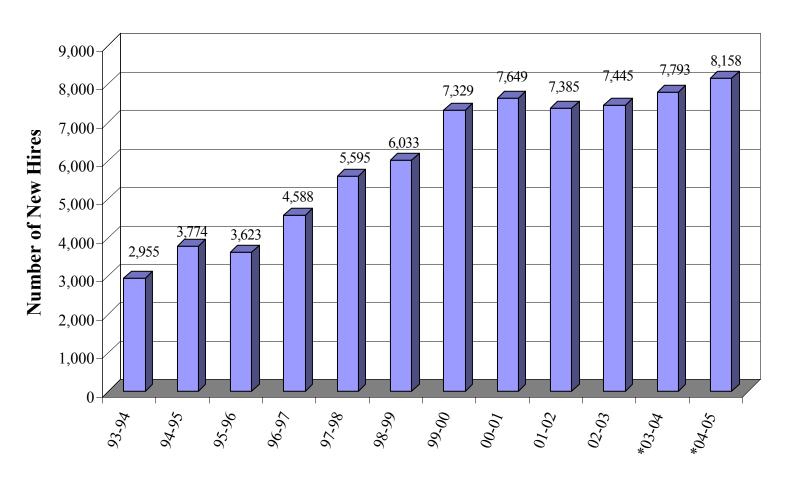
Table 4

Trend Data of New Hires

Maryland Public Schools: 1993-1994 to 2002-2003

		Beginni	ng	Experien	ced
			Non		Taught
		Maryland	Maryland	Taught in	Outside
Year	Total	Prepared	Prepared	Maryland	Maryland
1993-1994	2,955	1,014	829	525	587
1001 1005	0.774	4.407	4.004	750	004
1994-1995	3,774	1,187	1,234	752	601
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
1000 1000	0.000	4.540	4.074	4 400	4 400
1998-1999	6,033	1,543	1,871	1,426	1,193
1999-2000	7,329	1,665	2,233	2,072	1,359
0000 0004	7.040	4 000	0.700	4.000	4.407
2000-2001	7,649	1,896	2,706	1,860	1,187
2001-2002	7,385	1,694	2,336	1,820	1,535
		4 =0.5		4.005	
2002-2003	7,445	1,769	2,608	1,633	1,435

## Trend Data: New Hires by Maryland Public Schools 1993-1994 to 2004-2005



<sup>\*</sup>Estimated new hires as projected by local school systems, May 2003.

Figure 1

Figure 4, *Out-of-State versus In-State New Hires: 2000-2001, 2001-2002 and 2002-2003,* compares hiring for the last three years. The number of out-of-state hires continues to increase while the number of in-state hires decreases.

Figure 5, Experienced versus Beginning New Hires: 2000-2001, 2001-2002, and 2002-2003, compares the number of experienced teachers versus beginning teachers hired for the past three years. The number of experienced versus beginning teachers has fluctuated over the last three years, while the number of beginning teachers consistently remains greater than the number of experienced teachers the last three years.

#### Summary

To summarize, the following are the critical shortage areas identified for the academic year 2002-2003.

- Career and technology areas:
  - Family and consumer sciences; and
  - Technology education;
- Computer science;
- English for speakers of other languages (ESOL);
- Mathematics:
- Science areas:
  - Chemistry; and
  - Physics;
- Special education areas:
  - Generic: infant/primary (birth-grade 3); and
  - Generic: secondary/adult (grades 6 adult).

### **New Hires: Through October 2002**

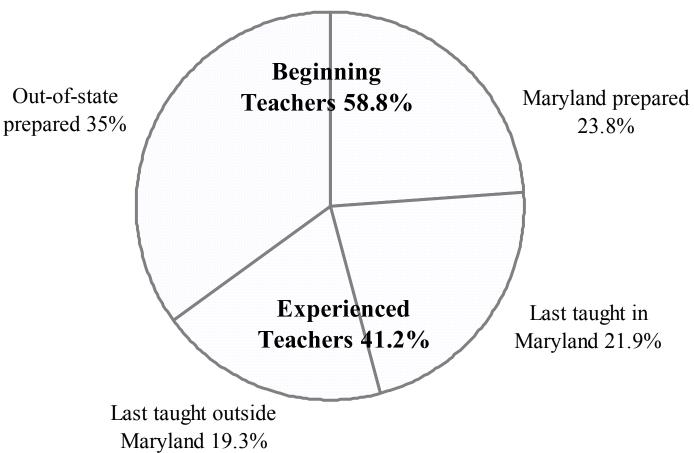


Figure 2

#### Newly Hired Teachers by Local School System Through October 2002

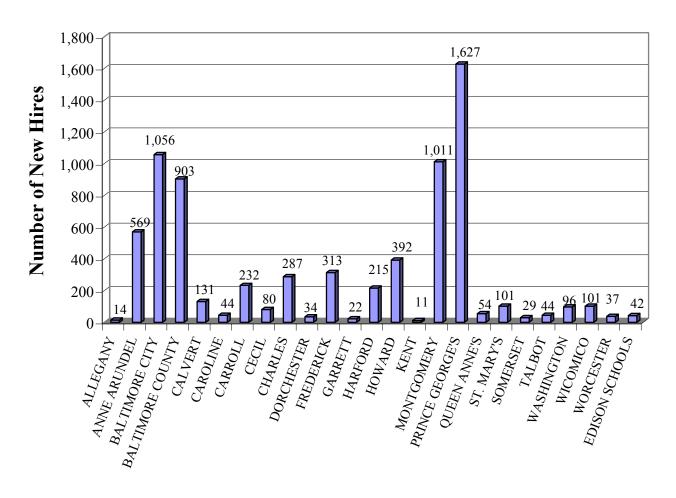


Figure 3

Table 5

Newly Hired Teachers by Local School Systems
As of October 2002

	Total New	Begi	nning New	v Hires*	Experienced New Hires			
	Hires	ı	Maryland I	Non-Md	Outside			
Public School System	Teachers	Total	IHE**	IHE**	Total	Maryland	Maryland	
Total New Hires	7,445	4,377	1,769	2,608	3,068	1,633	1,435	
Allegany	14	14	11	3	0	0	0	
Anne Arundel	569	253	126	127	316	176	_	
Baltimore City	1,056	799	328	471	257	161	96	
Baltimore County	903	576	292	284	327	149	178	
Calvert	131	57	28	29	74	46	28	
Caroline	44	23	12	11	21	13	8	
Carroll	232	116	72	44	116	91	25	
Cecil	80	54	6	48	26	3	23	
Charles	287	150	37	113	137	53	84	
Dorchester	34	23	11	12	11	4	7	
Frederick	313	142	61	81	171	107	64	
Garrett	22	8	3	5	14	6	8	
Harford	215	134	69	65	81	49	32	
Howard	392	194	119	75	198	114	84	
Kent	11	5	1	4	6	5	1	
Montgomery	1,011	574	224	350	437	189	248	
Prince George's	1,627	945	207	738	682	359	323	
Queen Anne's	54	30	11	19	24	12	12	
St. Mary's	101	55	22	33	46	18	28	
Somerset	29	20	13	7	9	7	2	
Talbot	44	26	17	9	18	9	9	
Washington	96	59	19	40	37	15		
Wicomico	101	93	59	34	8	5		
Worcester	37	24	20	4	13	8		
Edison Schools	42	3	1	2	39	34	5	

### Out-of-State versus In-State New Hires 2000-2001, 2001-2002, and 2002-2003

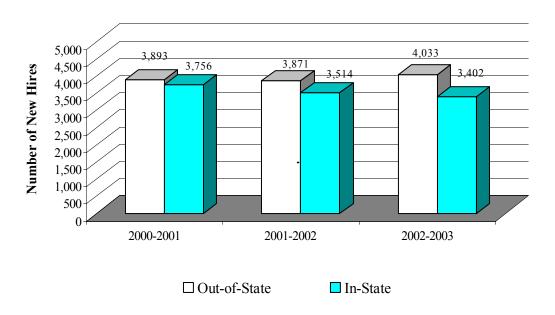


Figure 4

### Experienced versus Beginning New Hires 2000-2001, 2001-2002, and 2002-2003

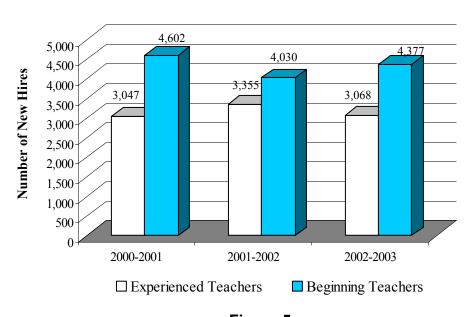


Figure 5

#### SECTION III: GEOGRAPHIC AREAS OF PROJECTED SHORTAGE

#### **Background**

Maryland legislation enacted in 1986 (Annotated Code of Maryland §18-703) requires the Maryland State Board of Education to identify areas of geographic shortage annually. The intent of the legislation is to assist local school systems that are characterized by geographical conditions that make the recruitment and retention of qualified teachers difficult.

Until the *Legislative Reform Act of 1991*, an incentive was provided for scholarship recipients who elected to teach in a declared area of geographic shortage. The *Reform Act of 1991* eliminated the geographic shortage area incentive for scholarship recipients, but Senate Bill 15, *Reemployment of Retired Teachers*, passed during the 1999 legislative session, provides an incentive to assist local school systems that are declared a geographic area of shortage. Specifically, a local school system that has been declared as a geographic area of shortage may reemploy retired teachers. If retired teachers return to work, they receive an exemption from an earnings limitation that is normally a requirement of their pension. The eligible teachers may be reemployed as classroom teachers, substitute teachers, or teacher mentors in a reconstitution-eligible school.

In the 2000 legislative session, the Maryland General Assembly enacted Senate Bill 220 to address the shortage of principals. The legislation permits certain retired school principals to be exempt from an earnings limitation if they are reemployed as principals in a reconstitution-eligible school; a local school system declared as a

geographic shortage area; or, in a subject that has been declared a critical shortage area.

#### **Procedures**

To determine the areas of geographic shortage for this report, these procedures were followed:

- The content areas identified as critical shortages for at least three years by the State Board of Education were computer science, mathematics, ESOL, science, and 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 content areas.
- Each local school superintendent 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*, *ESOL*, *mathematics*, *science or special education?*
  - 2) If yes, do you wish to have your local school system declared an area of geographical shortage?

Each local school system superintendent had to agree to his/her system being designated an area of geographic shortage. Only those whose school systems qualified, and whose local school superintendents agreed to be identified, have been named geographic areas of projected shortage.

#### Findings for Geographic Areas of Projected Shortage

Using the above procedures, the following 24 jurisdictions in Maryland are identified as geographic areas of projected shortage:

1.	Allegany County	13.	Harford County
2.	Anne Arundel County	14.	Howard County
3.	Baltimore City	15.	Kent County
4.	Baltimore County	16.	Montgomery County
5.	Calvert County	17.	Prince George's County
6.	Caroline County	18.	Queen Anne's County
7.	Carroll County	19.	St. Mary's County
8.	Cecil County	20.	Somerset County
9.	Charles County	21.	Talbot County
10.	Dorchester County	22.	Washington County
11.	Frederick County	23.	Wicomico County
12.	Garrett County	24.	Worcester County

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- Each local school superintendent was asked to respond to two questions:
  - 3) Did your local school system experience a critical shortage of teachers in any of the following state identified critical shortage areas: *computer science*, *ESOL*, *mathematics*, *science or special education?*
  - 4) If yes, do you wish to have your local school system declared an area of geographical shortage?

Each local school system superintendent had to agree to his/her system being designated an area of geographic shortage. Only those whose school systems qualified, and whose local school superintendents agreed to be identified, have been named geographic areas of projected shortage.

#### Findings for Geographic Areas of Projected Shortage

Using the above procedures, the following 24 jurisdictions in Maryland are identified as geographic areas of projected shortage:

1.	Allegany County	13.	Harford County
2.	Anne Arundel County	14.	Howard County
3.	Baltimore City	15.	Kent County
4.	Baltimore County	16.	Montgomery County
5.	Calvert County	17.	Prince George's County
6.	Caroline County	18.	Queen Anne's County
7.	Carroll County	19.	St. Mary's County
8.	Cecil County	20.	Somerset County
9.	Charles County	21.	Talbot County
10.	Dorchester County	22.	Washington County
11.	Frederick County	23.	Wicomico County
12.	Garrett County	24.	Worcester County

### SECTION IV: MARYLAND-PREPARED TEACHER CANDIDATES BY CERTIFICATION AREA AND INSTITUTION

The teacher education candidates reported in this section, both undergraduate and post-baccalaureate, are program completers who are eligible for initial teacher certification in Maryland, pending satisfactory performance on all state required certification assessments.

There are 23 institutions of higher education in Maryland with approved teacher education programs. The University of Maryland University College was approved in 2001 to become the 23rd institution offering a teacher education program, with their first candidates completing their programs in 2003-2004.

Each year MSDE requests that institutions of higher education send their number of program completers, by certification area, for the "supply" side of the *Maryland Teacher Staffing Report*. These program completers (including summer 2001, fall 2001, and spring 2002) were the pool of Maryland new hires for the local school systems for the fall 2002 school year, the reporting period for this report. In addition to the actual number of candidates, the report collects and includes the estimated number of teacher education candidates who will be completing their programs in 2003 and 2004.

Of the 2001-2002 teacher candidates, as displayed in Table 6, *Supply of Maryland Prepared Candidates by Certification Area: 2001-2002*, there were 2,300 Maryland teacher education candidates, a decrease of 32 from the previous year. The largest number of candidates continues to be in elementary education and early childhood education, two areas that are never on the critical shortage list.

#### **Content Area Shortages**

It is important to compare the critical shortage areas identified in Table 2 with the data in Table 6 to note the number of teacher education candidates by content area in Maryland's critical shortage areas. Below is the number of Maryland program completers in the areas on the critical shortage list.

#### Number of Graduates

	Critical Shortage Area	2000-2001	2001-2002
•	Computer science	1	1
•	ESOL	38	41
•	Mathematics	69	61
•	Chemistry	14	12
•	Family and consumer sciences	*	**
•	Physics	3	5
•	Special education generic infant/primary – grad	le 3 22	35
•	Special education generic grade 6-12	49	54
•	Technology education	*	3

<sup>\*</sup>These content areas were not on the critical shortage list last year.

<sup>\*\*</sup>Maryland institutions of higher education have no programs in Family and Consumer Sciences.

Table 6
Supply of Maryland-Prepared Candidates by Certification Area 2001 -- 2002

	Total New
Certification Area	Teacher Supply
Total	2,300
Art (PreK-12)	69
Career/Technology Education (7-12)	12
Agriculture Business Education	3
Family & Consumer Sciences	6 0
Technology Education	3
Health Occupations	0
Computer Science (7-12)	1
Early Childhood (PreK-3) Elementary Education (1-6 & middle school)	277 1,033
English/Language Arts (7-12)	126
English	119
Speech	7
ESOL(PreK-12)	41
Foreign Language (7-12)	40
French	9
German	1
Spanish	30
Health (7-12)	18
Mathematics (7-12)	61
Music (PreK-12)	46
Physical Education (PreK-12)	92
Science (7-12)	76
Biology	51
Chemistry	12
Earth/Space Science	8
Physical Science Physics	0 5
,,55	3

Table 6 (continued)

Supply of Maryland-Prepared Candidates by Certification Area 2001 -- 2002

Certification Area	Total New Teacher Supply
Social Sciences (7-12)	155
Geography	1
History	34
Social Studies	120
Special Education	249
Generic: Infant/primary (birth-grade 3)	35
Generic: Elementary/middle (grades 1-8)	141
Generic: Secondary/adult (grades 6-adult)	54
Hearing Impaired	6
Severely and Profoundly Disabled	13
Visually Impaired	0
Other Teaching Areas	4
Theater	4

SOURCE: Deans and Directors of Teacher Education, Maryland Institutions of Higher Education, May 2003.

NOTE: Includes graduates from summer 2001, fall 2001, & spring 2002.

Figure 6, *Trend Data: Teacher Education Candidates Prepared by Maryland Institutions*, 1992-1993 to 2003-2004, shows the number of teacher education candidates from Maryland institutions over a period of ten years and projections for next two years, This figure makes it clear that Maryland institutions of higher education have not met the increasing demand for teachers in the state.

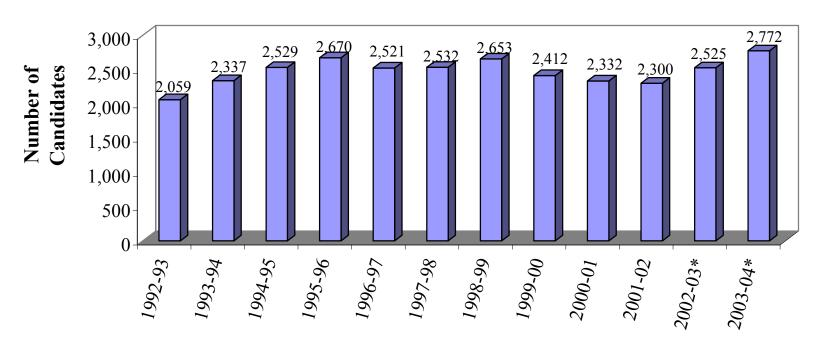
Table 7, Anticipated Teacher Candidates by Certification Area, 2002-3003 and 2003-2004, reports the number of projected candidates by certification categories for the next two years. The projection is for 2,525 program completers (undergraduate and post-baccalaureate) in 2002-2003 and a projection of 2,772 in 2003-2004.

#### **Institutional Data**

Table 8, Newly Eligible Maryland Teacher Candidates by Institution: 2001-2002, reports the total number of teacher education candidates from Maryland colleges and universities. Of the 23 Maryland institutions with approved teacher education programs, the following seven institutions produced 71.1% of the teacher candidates in 2001-2002. Some of these numbers have increased from last year's report; others have decreased.

INSTITUTIONS WITH LARGEST NUMBER	OF TEACHER	CANDIDATES
Institutions	Number of Tea	acher Candidates
	2000-2001	2001-2002
Towson University	446	453
University of Maryland College Park	384	415
Salisbury University	243	248
Johns Hopkins University	194	215
University of Maryland Baltimore County	161	163
Frostburg State University	152	141
College of Notre Dame of Maryland	222	139

## Trend Data: Teacher Education Candidates Prepared by Maryland Institutions 1992-1993 to 2003-2004



<sup>\*</sup>Anticipated teacher candidates are projected by Maryland higher education institutions.

Figure 6

The colleges and universities in the University System of Maryland (USM) account for 1,556 teacher candidates; 67.7% of the newly eligible teacher candidates prepared in Maryland during the 2001-2002 academic year. Towson University continues to prepare the largest number of teacher candidates (453), with 19.7%, followed closely by University of Maryland College Park (415) with 18%. The USM campuses include:

Bowie State University (33)

University of Maryland College Park (415)

Coppin State College (17)

University of Maryland Baltimore County (163)

Frostburg State University (141)

University of Maryland Eastern Shore (86)

Salisbury University (248)

University of Maryland University College (0)

Towson University (453)

Two of the top producers of teachers are private institutions. Johns Hopkins University (215) and the College of Notre Dame of Maryland (139) are listed among those schools that produce the most teachers for Maryland.

Although Maryland's institutions of higher education produced 2,300 teacher candidates in 2001-2002, only 1,769 were hired as new teachers in Maryland in the fall of 2002. There are probably several reasons why more are not hired. Some candidates are not native to Maryland and return to their home states to teach, while others may decide to move out-of-state, go to graduate school, pursue careers outside of teaching, or not enter the job market immediately.

Table 7

Anticipated Teacher Candidates by Certification Area
Maryland Institutions of Higher Education: 2002-2003 and 2003-2004

Certification Area	2002-2003 MD Teacher Candidate Supply	2003-2004 MD Teacher Candidate Supply
Total	2,525	2,772
Art (PreK-12)	71	81
Career/Technology Education (7-12)  Agriculture  Business Education  Family & Consumer Sciences  Technology Education  Health Occupations  Computer Science (7-12)  Early Childhood (PreK-3)  Elementary Education (1-6 & middle school)	8 2 3 1 2 0 <b>0</b> <b>295</b> <b>1,175</b>	12 4 7 0 1 0 0 311 1,194
English/Language Arts (7-12) English Speech	<b>140</b> 136 4	<b>166</b> 162 4
ESOL (PreK-12)	50	47
Foreign Language (7-12)  French  German  Latin  Spanish	35 6 1 0 28	<b>48</b> 12 1 1 34
Health (7-12) Mathematics (7-12) Music (PreK-12) Physical Education (PreK-12)	25 79 51 86	24 114 50 87
Science (7-12)  Biology Chemistry Earth/Space Science Physical Science Physics	74 54 10 4 1 5	117 69 17 18 3 10

Table 7 (continued)

Projected Teacher Candidates by Certification Area

Maryland Institutions of Higher Education: 2002-2003 and 2003-2004

Certification Area	2002-2003 MD Teacher Candidate Supply	2003-2004 MD Teacher Candidate Supply
Social Sciences (7-12)	192	214
Geography	3	3
History	54	60
Social Studies	135	151
Special Education	242	303
Generic: Infant/primary (birth-grade 3)	34	53
Generic: Elementary/middle (grades 1-8)	137	166
Generic: Secondary/adult (grades 6-adult)	61	69
Hearing Impaired	3	3
Severely and Profoundly Disabled	7	12
Visually Impaired	0	0
Other Teaching Area	2	4
Theater	2	4

SOURCE: Deans and Directors of Teacher Education, Maryland Institutions of Higher Education, May 2003.

Table 8

Newly Eligible Maryland Teacher Candidates by Institution: 2001 -- 2002

Institution	Approved Teacher Education Programs
Total	2,300
>Bowie State University College Of Notre Dame Columbia Union College	33 139 4
>Coppin State College >Frostburg State University Goucher College	17 141 49
Hood College Johns Hopkins University Loyola College	28 215 78
McDaniel College (formerly Western Maryland College) Maryland Institute College of Art Morgan State University	61 13 44
Mt. St. Mary's College of Maryland Peabody Institute, Johns Hopkins University St. Mary's College of Maryland	53 7 19
>Salisbury University >Towson University >University of Maryland Baltimore County	248 453 163
>University of Maryland College Park >University of Maryland Eastern Shore >University of Maryland University College* Villa Julie College Washington College	415 86 0 29 5

<sup>&</sup>gt; Institutions of higher education that are part of the University System of Maryland.

SOURCE: Deans and directors, Maryland Institutions of Higher Education, May 2003.

<sup>\*</sup> This is a new program and has no graduates this year.

#### SECTION V: MINORITY AND GENDER DATA

The Maryland State Department of Education collects minority and gender data on teacher candidates from Maryland institutions of higher education and on new hires reported by the local school systems. This information is vital because of the state's commitment to a diverse teacher workforce.

#### **Minority Data**

Table 9, *Minority Maryland Teacher Candidates:* 1997-1998 to 2001-2002, displays minority trend data of newly eligible teachers prepared by Maryland institutions of higher education for the past five years. The minority designation includes African-American, Asian, Hispanic, and Native American. For the last five years, the percent of minority teacher candidates has been increasing, from 15.5% in 1996-1997 to 20.3% in 2001-2002. The largest number of minority teacher candidates were certified in elementary education, early childhood, and special education.

Table 10, *Minority New Hires by Certification Area: Maryland Public Schools:*Through October 2002, includes the number and percent of minority new hires by certification area. Of the 7,445 new hires, 2,318 or 31.1% were minorities. Of these minority new hires, 992 were experienced teachers, while 1,326 were beginning teachers. The greatest numbers of minority new hires are found in the areas of elementary education (774), special education, generic elementary/middle (208) and early childhood (167).

Table 9

Minority\* Maryland Teacher Candidates: 1997-1998 to 2001-2002

	1997-98				1998-	99		1999	-00		2000-01		2001-02		
•		Mino			Minority			Minority			Mino		Minority		
Certification Area	Total	Number	%	Total	Number	%	Total	Number	%	Total	Number	%	Total	Number	%
Total	2,510	390	15.5	2,683	495	18.4	2,412	384	15.9	2,332	421	18.1	2,300	467	20.3
Art	83	5	6.0	62	5	8.1	64	5	7.8	81	14	17.3	69	10	14.5
Career/Technology Ed.	8	2	25.0	13	6	46.2	18	4	22.2	11	1	9.1	12	4	33.3
Computer Science	2	0	0.0	1	0	0.0	0	0	N/A	1	1	100.0	1	1	100.0
Early Childhood	343	34	9.9	358	40	11.2	319	37	11.6	294	54	18.4	277	47	17.0
Elementary Education	980	144	14.7	1,076	168	15.6	961	137	14.3	1,042	182	17.5	1,033	205	19.8
English/Language Arts	140	22	15.7	124	17	13.7	127	19	15.0	119	23	19.3	126	20	15.9
Foreign Languages**	61	8	13.1	74	18	24.3	72	14	19.4	77	22	28.6	81	27	33.3
Health/Physical Ed.	169	34	20.1	153	20	13.1	148	19	12.8	127	12	9.4	110	10	9.1
Mathematics	87	13	14.9	81	13	16.0	67	9	13.4	69	6	8.7	61	7	11.5
Music	59	14	23.7	42	7	16.7	50	13	26.0	40	8	20.0	46	11	23.9
Science	112	20	17.9	92	6	6.5	111	8	7.2	89	10	11.2	76	15	19.7
Social Sciences	170	25	14.7	189	23	12.2	186	22	11.8	174	25	14.4	155	22	14.2
Special Education	275	64	23.3	412	172	41.7	279	96	34.4	202	63	31.2	249	88	35.3
Other Teaching Areas <sup>^</sup>	21	5	23.8	6	0	0.0	10	1	10.0	6	0	0.0	4	0	0.0

<sup>\*</sup> Minority includes African American, Asian, Hispanic, and Native American.

<sup>\*\*</sup>Includes ESOL.

<sup>^</sup> Other reching areas include theater and dance.

Table 10

Minority\* New Hires by Certification Area

Maryland Public Schools: Through October 2002

	Т	otal New	Hires	Begin	ning New	Hires	Experie	enced Ne	w Hires
		Mino	rity		Minor	ity		Minor	ity
Certification Area	Total	Number	Percent	Total	Number	Percent	Total N	lumber l	Percent
Total New Teachers	7,445	2,318	31.1%	4,377	1,326	30.3%	3,068	992	32.3%
Art	221	48	21.7%	143	35	24.5%	78	13	16.7%
Career/Technology Education	183	83	45.4%	98	38	38.8%	85	45	52.9%
Agriculture	6	0	0.0%	5	0	0.0%	1	0	0.0%
Business Education	70	42	60.0%	37	18	48.6%	33	24	72.7%
Family & Consumer Sciences	43	19	44.2%	24	10	41.7%	19	9	47.4%
Technology Education	40	14	35.0%	20	8	40.0%	20	6	30.0%
Trades and Industry	16	6	37.5%	4	0	0.0%	12	6	50.0%
Health Occupations	8	2	25.0%	8	2	25.0%	0	0	0.0%
Computer Science	18	8	44.4%	16	8	50.0%	2	0	0.0%
Early Childhood	555	167	30.1%	311	86	27.7%	244	81	33.2%
Elementary Education	2,692	774	28.8%	1,667	446	26.8%	1,025	328	32.0%
English/Language Arts	566	165	29.2%	325	100	30.8%	241	65	27.0%
ESOL	104	37	35.6%	59	24	40.7%	45	13	28.9%
Foreign Language	207	85	41.1%	109	45	41.3%	98	40	40.8%
French	53	19	35.8%	14	6	42.9%	39	13	33.3%
German	5	0	0.0%	2	0	0.0%	3	0	0.0%
Spanish	149	66	44.3%	93	39	41.9%	56	27	48.2%
Health/Physical Education	329	91	27.7%	188	59	31.4%	141	32	22.7%
Mathematics	396	133	33.6%	225	71	31.6%	171	62	36.3%
Music	329	78	23.7%	191	47	24.6%	138	31	22.5%

Table 10 (continued)

Minority New Hires by Certification Area

Maryland Public Schools: Through October 2002

	Total	New Hire	s	Beginn	ing New	Hires	Experi	enced Ne	w Hires
		Mino	rity		Minor	ity		Minor	ity
Certification Area	Total	Number	Percent	Total	Number	Percent	Total I	Number F	Percent
Science	467	150	32.1%	284	97	34.2%	183	53	29.0%
Biology	301	113	37.5%	182	71	39.0%	119	42	35.3%
Chemistry	58	19	32.8%	32	10	31.3%	26	9	34.6%
Earth/Space Science	45	0	0.0%	27	0	0.0%	18	0	0.0%
General Science	23	1	4.3%	9	0	0.0%	14	1	7.1%
Physical Science	7	8	114.3%	7	8	0.0%	0	0	1
Physics	33	9	27.3%	27	8	29.6%	6	1	16.7%
Social Sciences	469	94	20.0%	313	51	16.3%	156	43	27.6%
History	93	28	30.1%	51	10	19.6%	42	18	42.9%
Political Science	6	0	0.0%	1	0	0.0%	5	0	0.0%
Social Studies	370	66	17.8%	261	41	15.7%	109	25	22.9%
Special Education	855	384	44.9%	419	207	49.4%	436	177	40.6%
K-12	41	17	41.5%	4	2	50.0%	37	15	40.5%
Generic: Infant/primary	61	16	26.2%	32	9	28.1%	29	7	24.1%
Generic;Elementary/middle	478	208	43.5%	245	116	47.3%	233	92	39.5%
Generic: Secondary/adult	256	143	55.9%	137	82	59.9%	119	61	51.3%
Hearing Imparied	16	1	6.3%	1	0	0.0%	15	1	6.7%
Severely and Profoundly Disabl	1	0	0.0%	0	0	1	1	0	0.0%
Visually Impaired	2	1	50.0%	0	0	1	2	1	50.0%
Other Teaching Areas^	54	11	20.4%	29	12	41.4%	25	9	36.0%

<sup>\*</sup> Minority includes African-American, Asian, Hispanic and Native American.

<sup>^</sup> Other teaching areas include drama/theater, dance, other foreign langrages and psychology.

Table 11, *Trend Data for Minority New Hires: 1998-1999 to 2002-2003*, displays the data on minority new hires for the past five years. The number and percent of minority new hires has been increasing from 1,699 (28.3%) in 1998-1999 to 2,318 (31.1%) in 2002-2003.

#### Minority Data of All Maryland Teachers and Students

The minority teacher hiring data can be contrasted with the minority data available on all Maryland K-12 students and all Maryland teachers. PRIM reports indicate that of the 866,743 K-12 students enrolled in September 2002, 51.5% were Caucasian, and 48.5% were minorities. The student minorities include African-American (37.5%), Hispanic (5.8%), Asian/Pacific Islander (4.7%), and American Indian/Alaskan Native (0.4%). Among the 61,986 Maryland teachers, 75.2% were Caucasian and 24.8% were minorities. The teacher minorities include African-American (21.9%), American Indian (0.3%), Asian (1.3%) and Hispanic (1.3%).

#### **Gender Data**

Teaching has long been a predominately female occupation and the gender data of both the new hires and the teacher candidates of this report show this is still true. Table 12, *New Hires in Certification Areas by Gender,* reports that 24.3% of the newly hired teachers were males and 75.7% were females.

Table 11

Trend Data for Minority\* New Hires
1998 - 1999 to 2002 - 2003

Maryland Public Schools: Through October 2002

	-	1998-199	9		1999-200	00		2000-	2001		2001-	2002	2	2002-200	)3
		Minority	1		Minorit	у		Mino	ority		Mino	rity		Min	ority
Certification Area	Total	Number	%	Total	Number	%	Total	Number	%	Total	Number	%	Total	Number	%
Total New Teachers	6,001	1,699	28.3%	7,329	2,048	27.9%	7,649	2,174	28.4%	7,385	2,277	30.8%	7,445	2,318	31.1%
Art	158	31	19.6%	154	26	16.9%	194	33	17.0%	157	40	25.5%	221	48	21.7%
Career/Technology Ed	188	74	39.4%	270	108	40.0%	269	109	40.5%	232	97	41.8%	183	83	45.4%
Computer Science	8	4	50.0%	6	4	66.7%	13	11	84.6%	11	6	54.5%	18	8	44.4%
Early Childhood	613	147	24.0%	691	146	21.1%	668	169	25.3%	633	198	31.3%	555	167	30.1%
Elementary Education	2,241	543	24.2%	2,841	720	25.3%	2,794	729	26.1%	2,727	779	28.6%	2,692	774	28.8%
English/Language Arts	442	130	29.4%	522	142	27.2%	579	166	28.7%	625	202	32.3%	566	165	29.2%
ESOL	31	6	19.4%	59	14	23.7%	86	33	38.4%	103	28	27.2%	104	37	35.6%
Foreign Language	156	50	32.1%	191	63	33.0%	228	78	34.2%	197	59	29.9%	207	85	41.1%
Health/Physical Ed	233	63	27.0%	299	70	23.4%	347	93	26.8%	333	94	28.2%	329	91	27.7%
Mathematics	313	96	30.7%	344	115	33.4%	383	117	30.5%	386	130	33.7%	396	133	33.6%
Music	199	44	22.1%	230	60	26.1%	298	62	20.8%	235	61	26.0%	329	78	23.7%
Science	338	134	39.6%	422	141	33.4%	427	113	26.5%	467	165	35.3%	467	150	32.1%
Social Sciences	380	94	24.7%	438	110	25.1%	491	120	24.4%	450	104	23.1%	469	94	20.0%
Special Education	676		40.2%	827		38.5%	841	330	39.2%	799		37.9%			44.9%
Other Teaching Areas^	25	11	44.0%	35	11	31.4%	31	11	35.5%	30	11	36.7%	54	11	20.4%

<sup>\*</sup> Minority includes African-American, Asian, Hispanic and Native American.

<sup>^</sup> Other teaching areas include: theater/drama, dance, speech/communication, and other foreign languages.

Table 12

New Hires in Certification Areas by Gender Maryland Public Schools: As of October 2002

		Male		Female		
Certification Area	Total	Number Percent		Number F	Percent	
Total New Teachers	7,445	1,811	24.3%	5,634	75.7%	
Art	221	53	24.0%	168	76.0%	
Career/Technology Education	183	80	43.7%	103	56.3%	
Computer Science	18	8	44.4%	10	55.6%	
Early Childhood	555	19	3.4%	536	96.6%	
Elementary Education	2,692	372	13.8%	2,320	86.2%	
English/Language Arts	566	131	23.1%	435	76.9%	
ESOL	104	11	10.6%	93	89.4%	
Foreign Language	227	41	18.1%	186	81.9%	
Health/Physical Education	329	177	53.8%	152	46.2%	
Mathematics	396	177	44.7%	219	55.3%	
Music	329	137	41.6%	192	58.4%	
Science	467	187	40.0%	280	60.0%	
Social Sciences	469	266	56.7%	203	43.3%	
Special Education	855	149	17.4%	706	82.6%	
Other Teaching Areas*	34	3	8.8%	31	91.2%	

<sup>\*</sup> Other teaching areas include dance, drama, theater, psychology, sociology, speech & journalism.

Female new hires dominate in ESOL, early childhood, and elementary education. There is a higher percentage of males in social sciences and health/physical education.

Table 13, Maryland Teacher Candidates in Certification Areas by Gender, 2001-2002, indicates that the percent of male teacher candidates from Maryland institutions of higher education is 18.6%, while the percent of female teacher candidates is 81.4%. The percentage of males is higher in social sciences and career/technology education, The percentage of female teacher candidates is higher in ESOL, early childhood, and elementary education, PRIM reports that the gender of all Maryland teachers (61,987) includes 23.1% males and 76.9% females. These percentages are identical to those reported last year.

#### **Summary for Minority and Gender Hiring**

The number of minority new hires for the past five years has been increasing, from 28.3% five years ago to a high of 31.1% in 2002-2003 (Table 11). The current percentage of minority new hires, 31.1%, is higher than the minority Maryland teacher population as a whole (24.8%). These data appear to show that the programs to attract minorities to teaching may be working. However, there continues to be a higher percentage of minorities among Maryland K-12 students (48.5%) than among their teachers.

The new hires include 24.3% males and 75.7% females, while the total number of Maryland teachers includes 23.1% males and 76.9% females. The teaching profession in Maryland and in the nation remains predominately white and female.

Table 13

Maryland Teacher Graduates in Certification Areas by Gender 2001 -- 2002

		Male		Fema	e
Certification Area	Total	Number	Number Percent		Percent
Total New Teachers	2,300	427	18.6%	1,873	81.4%
Art (PreK-12)	69	19	27.5%	50	72.5%
Career/Technology Education (7-12)	12	7	58.3%	5	41.7%
Computer Science (7-12)	1	1	100.0%	0	0.0%
Early Childhood (PreK-3)	277	18	6.5%	259	93.5%
Elementary Education (1-6 & middle school)	1,033	113	10.9%	920	89.1%
English/Language Arts (7-12)	126	33	26.2%	93	73.8%
ESOL (PreK-12)	41	2	4.9%	39	95.1%
Foreign Language (7-12)	40	5	12.5%	35	87.5%
Health/Physical Education (PreK-12)	110	54	2.0%	56	50.9%
Mathematics (7-12)	61	18	29.5%	43	70.5%
Music (PreK-12)	46	16	34.8%	30	65.2%
Science (7-12)	76	25	32.9%	51	67.1%
Social Sciences (7-12)	155	84	54.2%	71	45.8%
Special Education	249	31	12.4%	218	87.6%
Other Teaching Areas*	4	1	25.0%	3	75.0%

<sup>\*</sup>Other teaching areas include drama/theater and dance.

#### SECTION VI: RECOMMENDATIONS TO THE MARYLAND STATE

#### **BOARD OF EDUCATION**

The Maryland State Department of Education has identified teaching areas of critical shortages and geographic areas of shortage. Listed below are the three recommendations presented for approval to the Maryland State Board of Education consistent with §18-703 of the Annotated Code of Maryland regarding the Sharon Christa McAuliffe Memorial Teacher Education Award. It is recommended that:

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

- Career and technology areas:
  - Family and consumer sciences; and
  - Technology education;
- Computer science;
- English for speakers of other languages (ESOL);
- Mathematics;
- Science areas:
  - Chemistry; and
  - Physics;
- Special education areas:
  - Generic: infant/primary (birth-grade 3); and
  - Generic: secondary/adult (grades 6 adult);

**Recommendation 2:** The Maryland State Board of Education declared the following 24 Maryland jurisdictions as geographic areas of projected shortage of certified teachers:

1. Allegany County	13. Harford County
2. Anne Arundel County	14. Howard County
3. Baltimore City	15. Kent County
4. Baltimore County	16. Montgomery County
5. Calvert County	17. Prince George's County
6. Caroline County	18. Queen Anne's County
7. Carroll County	19. St. Mary's County
8. Cecil County	20. Somerset County
9. Charles County	21. Talbot County
10. Dorchester County	22. Washington County
11. Frederick County	23. Wicomico County
12. Garrett County	24.WorcesterCounty

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

## **APPENDICES**

#### **EDUCATION**

#### § 18-703. Sharon Christa McAuliffe Memorial Teacher Education Award

- (a) *Definitions*. In this section the following words have the meanings indicated.
- (1) "Public school" means a school in the public elementary and secondary education system in this State.
- (2) "Eligible institution" means an accredited college or university that has a program of undergraduate or graduate studies that would certify the recipient to teach in this State in an area of critical shortage and which is:
  - (i) Authorized by the Maryland Higher Education Commission; and
  - (ii) Approved by the State Board of Education.
- (3) "Area of critical shortage" means an academic field identified by the State Board of Education in accordance with the provisions of subsection (h) of this section as having projected employment vacancies which substantially exceed projected qualified graduates.
- (4) "Area of geographic shortage" means a geographic area of the State identified by the State Board of Education as less able than others in the State to satisfy the need for public school teachers in an academic field identified for at least 3 years as an area of critical shortage.
- (5) "Degreed recipient" means a recipient of a tuition assistance grant under this section who possesses an undergraduate or graduate degree.
- (6) "Nondegreed recipient" means a recipient of a tuition assistance grant awarded under this section who does not possess an undergraduate or graduate degree in an area of critical shortage.
- (7) "Teacher recipient" means a recipient of a tuition assistance grant warded under this section employed or certified as a teacher in a field which is not an area of critical shortage.
- (8) "Service obligation" means to teach in the State in an area of geographic or critical shortage in a public school.
- (9) "Tuition assistance" means any funds provided for the cost of basic instructional charges, fees, room, board, or other related educational expenses.
- (b) Award established. (1) Economic Development Student Assistance Grants to be known as the Sharon Christa McAuliffe Memorial Teacher Education Award may be awarded as teacher education tuition assistance grants.
- (2) The Administration shall award annually to eligible applicants tuition assistance grants for the education of persons to teach in areas of critical or geographic shortage.
- (3) The recipient of a teacher education tuition assistance grant shall use the award at an eligible institution.
- (4) The State Board of Education may adopt rules and regulations to determine academic criteria for selection of tuition assistance recipients from

eligible applicants.

- (c) Qualifications of recipients. A recipient of a tuition assistance grant shall:
  - (1) Qualify as follows:
- (i) Have earned 60 credits of undergraduate collegiate education and be enrolled in or sign a letter of intent to enroll in a program leading to certification to teach in an area of critical or geographic shortage and be selected by the Administration on a competitive basis among qualified applicants based on academic criteria, not limited to standardized tests, established by the State Board of Education; or
- (ii) Have an undergraduate or graduate degree and be enrolled in or sign a letter of intent to enroll in courses leading to certification to teach in an area of critical or geographic shortage and be selected among qualified applicants on a competitive basis based on academic criteria established by the State Board of Education; or
  - (iii) Persons who are already teachers shall:
- 1. Be nominated by the superintendent of schools of the system in which the person teaches or intends to teach; and
- 2. Enroll as a student in courses required for teacher certification in an academic area in which there is a critical or geographic shortage of teachers; and
- 3. Be selected by the Administration on a competitive basis among qualified applicants based on criteria established by the State Board of Education:
  - (2) Sign a letter of intent as follows:
- (i) A nondegreed recipient who is not already a teacher shall be enrolled in or sign a letter of intent to enroll in an eligible institution as a student in an undergraduate program necessary for teacher education; or
- (ii) A degreed recipient shall enroll in or sign a letter of intent to enroll in courses leading to certification to teach in an area of critical or geographic shortage; or
- (iii) A recipient who is already a teacher shall sign a letter of intent to enroll in an eligible institution as a student in a teacher certification program in an area in which there is a critical or geographic shortage of teachers;
  - (3) Perform the service obligation upon completion of required studies;
- (4) Maintain a grade point average of at least 3.0 on a 4.0 scale and advance in academic standing at least 1 year in each year in which an award is renewed; and
- (5) Satisfy whatever other criteria the Administration and the State Board of Education establish.
- (d) *Prohibited.* Grants to teacher recipients may not be used to supplant retraining efforts by local boards of education.
- (e) Amount of award. (1) For a full-time student, the annual amount of tuition assistance shall be equal to the cost of tuition, mandatory fees, and room and board, not to exceed the lesser of costs incurred for the program required for teacher certification in an area of critical or geographic shortage or the sum of these costs for a full-time undergraduate in-state resident student at the University of Maryland, College Park.
  - (2) For a part-time student, the amount of an award may not exceed the applicable

cost of tuition and mandatory fees for a comparable undergraduate in-state student at the University of Maryland, College Park.

- (f) Removal of award. (1) A nondegreed recipient may renew an award for 1 year if the recipient:
- (i) Remains an undergraduate student in an area of critical or geographic shortage; and
- (ii) Maintains a grade point average of at least 3.0 on a 4.0 scale and advances in academic standing at least 1 year for each year for which an award is renewed.
- (2) A degreed recipient and a teacher recipient may renew an award for 1 year if that recipient maintains a grade point average of at least 3.0 on a 4.0 scale.
- (g) Annual certification of areas of critical or geographic shortage. (1) The State Superintendent of Schools shall project annually the number of vacancies for employment expected in each of the subsequent 5 years in areas of critical or geographic shortage and the number of students expected to graduate from programs qualifying them to teach in these fields during the same period. The State Superintendent of Schools shall certify annually to the Administration those programs that continue to be areas of critical or geographic shortage as evidenced by projected employment vacancies substantially exceeding projected qualified graduates.
- (2) In any year in which an area is determined by the State Superintendent of Schools to no longer be an area of critical or geographic shortage, the Administration shall discontinue making new awards in that area.
- (3) Deletion of any academic field as an area of critical or geographic shortage does not:
- (i) Terminate the right of existing recipients to renew awards under § 18-704(d) of this subtitle; or
- (ii) If the recipient continues to teach in a public school in this State in that academic field, invoke the provisions of § 18-701
- (e) (1) of this subtitle or disqualify the recipient under the provisions of § 18-701 (e) (2) of this subtitle.
- (h) Funding. Funds for the Teacher Education Tuition Assistance Program shall be as provided in the annual budget of the Commission by the Governor. (1991, ch. 462, § 4; 1992, ch. 22, § 1; 1993, ch. 5, § 1.)

The Annotated Code of the Public General Laws of Maryland: Education, 1999 pp.633-635.

#### Appendix B

#### **Supply and Demand of Non-Classroom Professionals**

The Quality Teacher Work Group recommended in their final report in February 2003 that MSDE begin to collect data on non-classroom professionals to be able to predict in the future areas of critical shortage. PRIM requires five years of data of to be able to calculate shortages. This is the first year these data have been collected.

### Staffing Projections of Local School Systems for Non-Classroom Professionals

Non-Classroom	2003-04	2004-05
Professionals		
Guidance counselor	134	152
2. Library / media specialist	82	95
Reading specialist	92	109
4. School psychologist	72	80
5. Principal	108	125

The data were collected from the local school systems, May 2003.

#### Supply of Non-Classroom Professionals from Maryland Institutions of Higher Education

Non-Classroom	Candidates	Projected	Projected
Professionals	2001-2002	2002-2003	2003-2004
Guidance counselor	173	146	178
2. Library / media specialist	39	36	49
Reading specialist	194	214	214
4. School psychologist	24	24	25
5. Principal	243	298	304

The data were collected from the institutions of higher education, May 2003.

# Quality Teacher Incentive Act Number and Types of Teacher Incentive Grants Awarded 2002-2003

Local School System	Number of NBC** Teachers	NBC Teacher Stipends	Number of APC*** Teachers	APC Teacher Awards	No. Teacher Signing Bonuses	Signing Bonus Awards	Total of Award Amounts
Allegany *	10	\$14,319	27	\$54,000	E	\$5,000	\$73,319
Anne Arundel *	3	\$14,319 \$6,000	326	\$54,000 \$652,000		\$5,000 \$45,000	
Baltimore City *	4	\$8,000	1,059	\$2,118,000	37	\$37,000	
Baltimore County *	25	\$50,000	281	\$562,000		\$159,000	
Calvert	3	\$6,000		\$0	18	\$18,000	\$24,000
Caroline *			209	\$418,000	6	\$6,000	\$424,000
Carroll	1	\$1,000		\$0	13	\$13,000	\$14,000
Cecil	5	\$10,000		\$0	13	\$13,000	\$23,000
Charles *	9	\$18,000	28	\$56,000	25	\$25,000	\$99,000
Dorchester *	1	\$2,000	53	\$106,000	5	\$5,000	\$113,000
Frederick	6	\$10,000		\$0	42	\$42,000	\$52,000
Garrett	2	\$1,000		\$0	1	\$1,000	\$2,000
Harford	6	\$12,000		\$0		\$20,000	
Howard	19	\$19,000		\$0		\$36,000	
Kent				\$0		\$0	
Montgomery *	78	\$156,000	391	\$782,000	78	\$78,000	\$1,016,000
Prince George's *	14	\$38,000	385	\$770,000	39	\$39,000	
Queen Anne's	8	\$10,500		\$0		\$0	
Somerset				\$0	3	\$3,000	
St. Mary's	2	\$4,000		\$0	8	\$8,000	\$12,000
Talbot	1	\$1,000		\$0		\$0	
Washington *	4	\$8,000	58	\$116,000	5	\$5,000	
Wicomico				\$0	9	\$9,000	
Worcester	2	\$4,000		\$0		\$0	\$4,000
Baltimore Edison Schools	0	\$0	8	\$16,000	0	0	\$16,000
Total	203	\$378,819	2,825	\$5,650,000	567	\$567,000	\$6,595,819

<sup>\*</sup> Local school systems that are eligible for Advanced Professional Certificate stipends because one or more schools are reconstituded or are designated as reconstitution-eligible or challenge..

Source: Maryland State Department of Education, July 2003

<sup>\*\*</sup> NBC - National Board Certified Teachers

<sup>\*\*\*</sup> APC - Advanced Professional Certificate

#### **Appendix D**

## Retired Teachers and Principals Reemployed by Local School Systems

	2001	-2002	2002	-2003
Local School System		Principals	Teachers	Principals
	Reemployed	Reemployed	Reemployed	Reemployed
Allegany	0	0	0	0
Anne Arundel	34	0	27	0
Baltimore City	4 48	1	0 141	0 16
Baltimore County	46	1	141	16
Calvert	7	0	10	0
Caroline	0	0	0	0
Carroll	2	0	7	3
Cecil	2 3	0	3	0
Charles	5	0	25	0
Dorchester	0	0	1	0
Frederick	29	5	57	0
Garrett	0	0	0	0
Harford	0	0	0	0
Howard	11	0	11	0
Kent	0	1	0	0
Montgomery	3	0	0	0
Prince George's	583	12	610	18
Queen Anne's	1	0	0	0
St. Mary's	0	0	0	0
Somerset	1	0	0	0
Talbot	0	0	1	0
Washington	1	0	0	0
Wicomico	17	0	15	0
Worcester	3	0	5	0
Total number	752	20	913	37

NOTE: The numbers reflect the reemployed retired teachers and principals. The data from 2002-2003 are unaudited numbers and may change.

Source: Maryland State Retirement Agency, August 2002 and July 2003.

#### Appendix E

## Maryland Teachers Issued a Provisional Certificate\* Two-Year Comparison, 2001-2002 and 2002 and 2003

	2	001 - 200			2002 - 2003	***
		Number of	Percent of		Number of	Percent of
School System	Number of Teachers	Provisional Teachers	Provisional Teachers	Number of Teachers	Provisional Teachers	Provisional Teachers
Allegany	676	4	0.6%	688	6	0.9%
Anne Arundel	4,524	189	4.2%	4,596	249	5.4%
Baltimore City	6,388	1,658	26.0%	6,515	1,931	29.6%
Baltimore County	7,098	478	6.7%	•	608	8.3%
Calvert	974	59	6.1%	1,026	63	6.1%
Caroline	346	13	3.8%	356	17	4.8%
Carroll	1,624	50	3.1%	1,707	75	4.4%
Cecil	1,083	53	4.9%	1,085	53	4.9%
Charles	1,357	150	11.1%	1,409	136	9.7%
Dorchester	330	16	4.9%	319	20	6.3%
Frederick	2,396	88	3.7%	2,488	128	5.1%
Garrett	358	2	0.6%	360	4	1.1%
Harford	2,542	106	4.2%	2,566	91	3.6%
Howard	3,162	167	5.3%	3,254	163	5.0%
Kent	183	8	4.4%	179	17	9.5%
Montgomery	8,994	673	7.5%	9,375	839	9.0%
Prince George's	8,190	1,602	19.6%	8,511	1,594	18.7%
Queen Anne's	440	38	8.6%	455	42	9.2%
St. Mary's	974	63	6.5%	983	46	4.7%
Somerset	216	13	6.0%	210	9	4.3%
Talbot	312	25	8.0%	312	21	6.7%
Washington	1,356	27	2.0%	1,351	25	1.9%
Wicomico	1,004	50	5.0%	1,019	72	7.1%
Worcester	494	13	2.6%	507	20	3.9%
Edison Partnership				114	29	25.4%
STATE TOTAL	55,021	5,545	10.0%	56,705	6,258	11.0%

<sup>\*</sup> A provisional certificate is issued at the request of local school systems for 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. The provisional certificate has been renamed conditional certificate, effective July 1, 2003.

SOURCE: Maryland State Department of Education, July, 2003

<sup>\*\*</sup> Based on teachers employed by local school systems as of October 15, 2001

<sup>\*\*\*</sup> Based on teachers employed by local school systems as of October 15, 2002

#### Appendix F

# Newly Hired Maryland Teachers Issued a Provisional Certificate\* 2002 - 2003

Local Education Agency	Newly Hired	Newly Hired	Total No.	Per Cent
	Provisional	Provisional	Newly Hired	Provisional
	Teachers	Teachers*	Provisional	Teachers
	Experienced	No Experience	Teachers	Newly Hired
_				
Allegany	0	2	2	33.3%
Anne Arundel	41	89	130	52.2%
Baltimore City	89	388	477	24.7%
Baltimore County	83	164	247	40.6%
Calvert	8	21	29	46.0%
Caroline	1	7	8	47.1%
Carroll	9	32	41	54.7%
Cecil	3	18	21	39.6%
Charles	18	31	49	36.0%
Dorchester	3	8	11	55.0%
Frederick	33	45	78	60.9%
Garrett	2	2	4	100.0%
Harford	9	23	32	35.2%
Howard	20	43	63	38.7%
Kent	3	2	5	29.4%
Montgomery	108	217	325	38.7%
Prince George's	178	269	447	28.0%
Queen Anne's	4	12	16	38.1%
St. Mary's	5	17	22	47.8%
Somerset	0	3	3	33.3%
Talbot	3	8	11	52.4%
Washington	5	7	12	48.0%
Wicomico	0	27	27	37.5%
Worcester	1	10	11	55.0%
Edison	4	1	5	20.0%
TOTAL	630	1,446	2,076	33.1%

<sup>\*</sup>The provisional certificate is issued at the request of the local school system for one year to individuals hired who do not meet full requirements for a professional certificate. The local school system may request a renewal according to state regulations. The provisional certificate has been renamed the conditional certificate effective July 1, 2003.

SOURCE: Maryland State Department of Education, July, 2003.