



HAWAI'I EDUCATIONAL POLICY CENTER

**Teacher Education Work Force Research Group
(TEWFRG)**

**INTERIM
REPORT TO THE LEGISLATURE ON**

**SENATE CONCURRENT RESOLUTION 56 S.D. 1
REQUESTING THE HAWAII EDUCATIONAL POLICY CENTER TO REPORT
ON THE RETENTION AND CHANGE IN ASSIGNMENT OF TEACHERS
WITHIN THE DEPARTMENT OF EDUCATION**

January 2008



HAWAI'I EDUCATIONAL POLICY CENTER

The Hawai'i Educational Policy Center (HEPC) is an independent policy research organization that provides timely, concise, relevant and objective policy briefs, reports, articles, studies, forums, and workshops that reflect the needs and requests of Hawai'i policymakers. HEPC strives to become a trusted partner with policymakers in efforts to understand, nurture, improve, and adopt the best and most appropriate policies for our life-long learners in Hawai'i.

The Hawai'i Educational Policy Center...

- Works with policymakers to identify what information they need.
- Reviews, collects and distributes information on existing research on issues relevant to Hawai'i.
- Provides concise, objective, independent analysis of research.
- Provides timely, targeted, interpreted data, briefings and testimony for policymakers.
- Maintains a website with links to cutting-edge research and policy.
- Commissions a range of policy briefs, articles, studies and reports that generate new knowledge and insights that inform policy decisions.
- Conducts, facilitates, and participates in educational forums and workshops.
- Initiates research on emerging and enduring issues that affect the quality of schools and the quality of learning.

Contact Us

THE HAWAI'I EDUCATIONAL POLICY CENTER

1776 University Ave, CM 133

Honolulu, HI 96822

Phone: (808) 956-7961

Fax: (808) 956-9486

Email: hepc@hawaii.edu

Website: www.hawaii.edu/hepc

EXECUTIVE SUMMARY
SCR 56 S.D. 1 RETENTION AND CHANGE IN ASSIGNMENT OF TEACHERS
WITHIN THE DEPARTMENT OF EDUCATION
INTERIM REPORT

The 2007 Hawai‘i State Legislature passed Senate Concurrent Resolution 56 S.D. 1 *REQUESTING THE HAWAII EDUCATIONAL POLICY CENTER TO REPORT ON THE RETENTION AND CHANGE IN ASSIGNMENT OF TEACHERS WITHIN THE DEPARTMENT OF EDUCATION*. The resolution requested a report on the effectiveness and current status of teacher preparation and induction-mentoring programs. SCR 56 S.D. 1 also called for a five-year strategic plan that targets future resources for capacity building within the University of Hawai‘i system and Department of Education induction-mentoring programs and other strategies to dramatically reduce the annual teacher shortage and recruit teachers that are more likely to continue employment within the Department of Education beyond five years.

No funding was provided for this effort. Nevertheless, the Hawai‘i Educational Policy Center (HEPC) formed an ad hoc research team (Teacher Education Work Force Research Group (TEWFRG)) to collect and analyze available data that could begin to answer some of the requests of SCR 56 S. D. 1.

Context

In the State of Hawai‘i in 2006 there were a little over 11,500 teachers in the Department of Education, including charter schools, of which 85% were fully licensed, and 51% were employed at the same school for five or more years. Also in 2006, the DOE hired 1,616 new teachers, of whom 704 (43.6%) held degrees from in-state colleges and 907 (56.1%) held degrees from out-of-state institutions. The largest single contributor to new hires is the UH Manoa College of Education, which graduated 405 program completers in 2006. In the same year 379 College of Education graduates were hired by the DOE, representing 23.5% of all new hires, and 53.8% of all in-state college graduate hires.

The need to hire new teachers each year has remained stable (1,363 in 2002; 1,657 in 2003; 1,698 in 2004; 1,589 in 2005; and 1,616 in 2006). Nearly 1,700 DOE teachers are not fully licensed. Added to the new hires this raises the annual “need” for fully licensed teachers to nearly 30% of the public school teacher workforce. Each year between 300 and 400 teachers retire. If the 700 program completers from Hawai‘i colleges continued their employment in the DOE, the annual need for new hires should be decreasing each year. This is not the case.

Quality induction-mentoring programs provide the best available option to retain teachers in DOE employment. Numerous studies have documented positive effects on teacher retention and perhaps more important, on student achievement. A 2007 study published by Educational Research Service documents in monetary terms the benefits of funding quality induction-mentoring programs. Among the reported benefits are lowered social costs of losing new teachers from the profession, return to the school system in

increased teaching skills and effectiveness of new teachers, higher student academic achievement in classrooms taught by beginning teachers equal to that of veteran teachers, lower student dropout rates, and better educated students. Economically, the researchers found that for each \$1 invested in quality teacher induction-mentoring programs there was a return of \$1.88 to the district, \$.98 to the state, \$1.66 to society, and \$3.61 to the new teacher. The researchers conclude, “. . .we were able to demonstrate that induction returns extend far beyond mere teacher retention questions. The influence on new teacher practice is by far the most important benefit and potentially extends farther if we consider the benefits to children assigned to effective teachers over the course of their K-12 careers.”

Interim Findings and Recommendations

After reviewing the available data, HEPC reports the following preliminary findings and recommendations:

1. A Teacher Work Force Strategic Plan as called for in SCR 56 S.D. 1 is premature in that there are not yet sufficient data collected annually and consistently from all stakeholders to create a well-articulated five-year plan. In addition, none of the various stakeholders or agencies involved in teacher recruitment, preparation, employment and support currently regard teacher workforce systems planning as one of their primary missions, nor is there consensus among the various stakeholders as to who should take the lead.
2. In order to bring focus to teacher workforce issues, the Legislature should require that a special Teacher Workforce Strategic Planning Committee be formed to create, adopt, adapt, track and evaluate the implementation of a Strategic Teacher Workforce Development Plan. The Planning Committee should seek annual and timely input from the Teacher Education Coordinating Committee (TECC), which includes representatives from the Department of Education, the Hawai‘i Teacher Standards Board, and all major teacher preparation programs in Hawai‘i.
3. Preliminary data indicate that by 2010-2011 school year, the number of new hires required in Hawai‘i’s public schools can be reduced from 1,600 annually to approximately 1,400; by the 2015–2016 school year the number can be reduced to approximately 800. Further reduction does not seem feasible because this is the approximate number of teachers who annually leave DOE employment due to retirements, health issues, and deaths.

In order to accomplish this reduction, initiatives in the next two years, including budget proposals by the various publicly funded state agencies, should focus on areas where data already suggest clear action and hold promise of success. These include the following recommendations.

- Meeting PRAXIS requirements
 - Institutions of Higher Education should require potential teachers to pass the PRAXIS prior to student teaching;

- The Department of Education in collaboration with the Institutions of Higher Education should create study supports/tutorials to help in-service teachers pass PRAXIS to become licensed.
- The Department of Education in collaboration with Institutions of Higher Education should provide assistance to in-service unlicensed teachers to meet licensure requirements, including delivering courses/programs on-site, on university campuses, and/or through distance learning technologies.
- The Department of Education in collaboration with Institutions of Higher Education should create and support high quality induction and mentoring programs for new teachers in order to keep those already highly trained.
- Institutions of Higher Education in collaboration with the Department of Education should create high quality professional development schools targeting hard-to-staff areas.

Cost projections are being developed and will be provided to the Legislature during the 2008 session.

4. The Legislature should require and fund the development of an affordable, easy-to-implement, multi-agency teacher data system to identify and track teacher candidates through the educational, employment and professional development pipeline. The system should collect timely and ongoing data to assist policy makers in making decisions and in identifying important trends or patterns that inform and improve targeted teacher recruitment, hiring, retention, professional support and development, and premature retirement or leaving rates. Public agency stakeholders should be required by the Legislature to transfer appropriate data, with protocols to protect individual privacy, to this system.
5. The Legislature should fund research to develop and implement detailed entrance and exit surveys from institutions of higher education that match student and employee dispositions and experiences with the size, type and culture of the school to which they were assigned. Research should also focus on why teachers decide to enter the workforce, reasons for transferring from school to school, and factors influencing teachers to leave teaching.
6. The Legislature should request the University of Hawai'i campuses and programs involved in teacher preparation to submit collective plans and budgets to form a seamless, coordinated, and non-duplicative system that optimizes the locations, resources, and expertise of all the institutional actors in teacher recruitment, preparation, employment, and retention.

**REGARDING SCR 56 S.D. 1
RETENTION AND CHANGE IN ASSIGNMENT OF TEACHERS
WITHIN THE DEPARTMENT OF EDUCATION
INTERIM REPORT**

I. INTRODUCTION

In 2007, the Hawai‘i State Legislature passed Senate Concurrent Resolution 56 S.D. 1 *REQUESTING THE HAWAII EDUCATIONAL POLICY CENTER TO REPORT ON THE RETENTION AND CHANGE IN ASSIGNMENT OF TEACHERS WITHIN THE DEPARTMENT OF EDUCATION*. The resolution requested a report on the effectiveness and current status of teacher preparation and induction-mentoring programs. SCR 56 S.D. 1 also called for a five-year strategic plan that targets future resources for capacity building within the University of Hawai‘i system and Department of Education induction-mentoring programs and other strategies to dramatically reduce the annual teacher shortage and recruit teachers that are more likely to continue employment within the Department of Education beyond five years. The report is to include information on the following: *[HEPC Notes on the status of each item are included in brackets.]*

- (1) Data on the overall retention of teachers by years of service within the Department of Education system; *[Not yet available.]*
- (2) Specific data on the numbers and percentages of teachers that are transferring in and out of each school and analysis of factors contributing to such transfers; *[Data are available on transfers out of each school. Analysis is not complete.]*
- (3) Specific data on the average length of service within the Department of Education of teachers who graduated from University of Hawai‘i programs, other accredited teacher preparation programs within the State of Hawai‘i, and those who transfer into the State from other states, and analysis of the factors contributing to differing persistence rates; *[Not yet available.]*
- (4) Data and analysis on the relationship between the existence of a teacher induction-mentoring programs and the stability of teaching faculty at a school, including changes in assignments within the school; *[Not yet available.]*
- (5) Data on what strategies, if any, have been developed and implemented in response to the 2000 Hawai‘i Educational Policy Center study, and the results of such strategies; *[Some preliminary data included. Study has not yet been replicated. Report is incomplete.]*
- (6) Data on demographics on teacher characteristics and school characteristics; *[Some data available.]*
- (7) Department of Education policies relating to teacher transfers, Department of Education reports to the United States Department of Education on addressing the No Child Left Behind law requirements, collective bargaining relating to teacher transfers and seniority, and descriptions of Institutions of Higher Education programs and related costs for preparing teachers, including accreditation reports and reviews; *[Some data available; policies and required reporting available; accreditation costs not available]*
- (8) A report on the current funding strategies for both capacity building in the University of Hawai‘i campus teacher preparation programs and University of

Hawai‘i and Department of Education induction-mentoring programs that address these issues; [*Partially completed.*]

- (9) A five-year strategic plan that addresses the targeting of future resources for capacity building within the University of Hawai‘i system and Department of Education induction-mentoring programs and other strategies that will dramatically reduce the annual teacher shortage, as well as reduce the need to recruit teachers that are less likely to continue employment within the Department of Education beyond five years. [*Not yet available*]

No funding was provided to HEPC for the study. The Hawai‘i Educational Policy Center (HEPC) formed an ad hoc response team with available resources and personnel to collect and analyze available data and begin to answer some of the requests of SCR 56 S. D. 1. A preliminary report was provided to legislators on October 29, 2007 in which the data and emerging promising strategies and conclusions were discussed by several of the major stakeholders. This interim report reflects an *initial* effort to respond to the requests in SCR 56 S.D. 1 based primarily on publicly available data sources. As a result, not all the requests in Senate Concurrent Resolution 56 S.D. 1 could be honored in this report. HEPC will continue to collect data on teacher workforce development as called for in SCR 56 S.D. 1 during 2008 and will report regularly to the Legislature on its findings and recommendations.

Initial Task

HEPC’s TEWFRG framed its initial task as follows:

- Gather objective data on the annual need to recruit a minimum of 1,600 teachers for Hawai‘i’s public education system;
- Identify and analyze the hard-to-fill positions and hard-to-staff schools;
- Identify current programs that interest young people in teaching;
- Identify and analyze the capacity (and attrition rates) of college-level programs that prepare future teachers;
- Identify and analyze current programs to support new and experienced teachers; and
- Assist policy makers in creating a strategy to steadily and significantly reduce the annual need to recruit 1,600 public school teachers.

Key Questions

Among the key questions that needed to be answered were the following:

1. ***What data systems are currently in place that can inform policy makers about these issues?*** What regular reports are available? What is the pathway for data from schools to various offices to annual reporting documents? What are the barriers to sharing or using these existing data sets, especially by institutional decision makers and policy makers? What new data need to be developed?
2. ***What programs currently exist to engage secondary students in Science, Technology, Engineering and Mathematics (STEM)?*** How many schools and students are involved? Of the number of students engaged in STEM or future

- teacher programs, what percentage have gone on to actually major in STEM or pursue teaching as a career?
3. ***What programs currently exist to attract college students and other adults into teacher preparation courses, particularly STEM?*** How many students initially enter these programs? What percentage has gone on to complete a degree or certificate? What percentage has gone on to be employed as a teacher? To receive a license?
 4. ***What programs currently exist to improve the support system for new teachers and the professional development efforts for the teaching pool, especially in shortage areas such as STEM and special education?*** What new-teacher support programs (group orientations, personal mentoring) or professional development strategies (Professional Development Schools) can be linked to higher student achievement? What percentages of new teachers leave within three years?
 5. ***What programs currently exist to enhance the attractiveness of continuing a teaching career, or reducing the reasons why teacher leave the profession?*** Is there a correlation between these programs and actual early leaving rates?

II. INITIAL OBSERVATIONS

- In 2006, DOE Hired 1,616 New Teachers, of which 44% received their degrees from Hawai'i institutions of higher education, and 56% received degrees from out-of-state institutions. In the State of Hawai'i in 2006 there were a little over 11,500 teachers in the Department of Education including charter schools, of whom 85% were fully licensed, and 51% had been employed at the same school for five or more years. Of the 1,616 new teachers hired in 2006, 704 (43.6%) held degrees from in-state colleges and 907 (56.1%) held degrees from out-of-state institutions. The largest contributor to new hires is the UH Manoa College of Education, which graduated 405 program completers in 2006, of whom 379 (94% of graduates) were hired by the DOE, representing 23.5% of all new hires.
- The Need to Hire New Teachers Each Year Has Not Declined. [1,363 in 2002; 1,657 in 2003; 1,698 in 2004; 1,589 in 2005; and 1,616 in 2006]. Each year between 300 and 400 teachers retire. If the 700 annual program completers from Hawai'i colleges were continuing their employment in the DOE, one would expect to see the annual need for new hires to be declining. This is not the case.
- In 2006, the DOE Hired 471 Emergency Hires, of which 234 (49.7%) were in their first year of employment, 141 (29.9%) in their second year, 65 (15%) in their third, and 31 (6%) in their fourth year.
- Cost of Teacher Preparation. The UHM College of Education expends approximately \$18 - \$20,000 to prepare a new teacher, including direct and administrative costs. Expenditures at other institutions are not known at this time.
- The Hawai'i Teacher Preparation Pipeline. All teacher preparation programs in Hawai'i combined are producing approximately 675-700 program completers a year. This roughly matches the number of DOE new hires each year with in-state degrees. This does not account for new teachers produced by Hawai'i institutions employed outside of the DOE, such as in private schools and charter schools. At

- UH Manoa's College of Education, waiting lists for acceptance to teacher preparation programs are found only at the graduate level. Among graduate students, a portion is already employed, and thus the actual contribution to the future teaching pool is less than the number enrolled. HEPC's TEWFRG has not yet matched individual college program completers with licenses granted by the Hawai'i Teachers Standard Board. Data also are not yet available to track each entering class or cohort through their teacher preparation to graduation to passing the final PRAXIS to receiving a license.
- Barriers to Student Teaching. According to some faculty, DOE schools in status or restructuring are decreasingly willing to accept student teachers due to their focus on preparing students Hawai'i State Assessments. College faculty indicate that many DOE schools in response to NCLB pressures have adopted so-called 'scripted' curricula that are inappropriate placement sites for new teachers who need to practice a wide range of methodologies and classroom strategies. At the secondary level, 41% of UH College of Education student teachers are assigned to "status" schools, and 27% to those in restructuring.
 - DOE New Hires. In 2006, 770 new hires were for elementary schools, and 816 were for secondary schools; 70% of new hires (1,141) had no previous teaching experience. Of the new hires, only 25% were in the 21-25 age range, suggesting that many teachers may not be taking teaching jobs immediately after graduation. Over half of all new hires are over thirty.
 - Unlicensed Teachers. In addition to the annual 1,600 new teachers hired, the Superintendent's report shows there is another significant number (approximately 15% or 1,695) who are not fully licensed but working in DOE classrooms. In addition, approximately 1,000 substitutes are working in DOE classrooms on any given day. The combined numbers raises the annual "need" for highly qualified teachers to nearly 30% of the teacher workforce.
 - Highly Qualified Teachers. There is a difference between turnover rates and vacancies within the DOE. In some cases the number of positions for which individual schools must recruit might be twice as high as the actual vacancies. This is due to current positions held by not highly qualified teachers—either licensed teachers assigned outside their credentialed area, or emergency hires who have not yet passed the PRAXIS. The "new teacher needs" of a particular school or district include not only the number of classrooms that are without a teacher, but also the number that have a teacher who is not qualified under NCLB to teach that particular grade level or subject. Thus, the 9,605 fully licensed teachers are not necessarily teaching subjects for which they are "qualified" under NCLB.
 - Transfer and Separation Data. There are fifty (50) DOE schools with combined faculty transfer and separation rates of ten percent or more, with one school registering a sixty percent combined rate. An additional somewhat hidden figure is the number of new recruits that must be in the applicant pool in order to permanently fill a position. In some cases new hires last only months or even weeks before voluntarily leaving the system.
 - Barriers to Recruitment Process. Professors in Hawai'i college teacher preparation programs report that some newly licensed teachers are not offered positions in the DOE when they apply; that the initial posting of positions in the

DOE is for tenured transfers and thus only after this period of time are such positions offered to new graduates, some of whom have already accepted positions in the private schools or outside education. Further, the emphasis on NCLB testing has “turned off” some prospective teachers who initially sought a career in the DOE, but instead seek employment in private schools or public charter schools.

- Maintenance of Effort. A total ‘maintenance of effort’ might include the following considerations: 1,600 new teachers added to the workforce, plus 1,600 employed teachers who require additional credentials (within 3 years of employment) to become fully qualified, plus 1,000 substitutes available when full time teachers take time away for professional development and/or personal leave. The need for newly hired teachers might be reduced by half if targeted programs of recruitment, mentoring, retention, etc. are effective. However, this will require additional capacity building and funding at the DOE and University levels. The total need includes an annual retirement of approximately 300-400 teachers each year, a number which probably cannot be reduced.
- Scattered Data. Data collection and reporting are scattered, and at times inconsistent or difficult to interpret. There are many purposes for collecting data, disaggregating it, etc. but data collection and analysis of the teacher preparation-recruitment-retention system has not been a priority. Data may exist pertinent to these issues, but decision makers are not yet able to easily access, compile, or analyze them. A state-level data warehouse system is necessary for these purposes. Complicating establishing such a system are data often “bundled” with confidential information and personal identifications that under current law need to be removed before they can be shared.
- Charter School Teacher Data. Teacher employment data reported by DOE on charter schools appears to be incomplete and inaccurate. DOE reports 274 charter teachers in 2006, yet in the current year, we know there are a minimum of 400, and the number of teachers did not grow that much. It appears the numbers of charter school teachers or new hires reflects the inconsistency of data reporting by the charter schools and that DOE may be reporting only those charter school teachers whose payroll is processed through DOE, excluding those who are processed through other agencies. Given the suspected low reporting, data suggest a turnover rate of nearly 33% (90 new hires out of a total of 274) for charter schools.
- The System Will Always Lose A Number of Teachers. Initial analysis of the “problem” of 1,600+ new teachers required annually indicates that more than half may be leaving the system for reasons NOT directly related to satisfaction with the job, salary, or other factors that might be influenced by targeted programs. Surveys of those leaving the DOE may underreport job-related reasons for leaving, yet approximately 750 departures represent circumstances that *might be* influenced by targeted programs, while at least 800 appear to leave for circumstances beyond the control of the DOE or college program supports such as retirements (300-400 a year), health issues, etc.
- College Capacity, Not Attrition. Initial data indicate that attrition rates among those enrolled in COE and other programs is low, and some data suggest that a

large percentage are doing well on the PRAXIS exams. If this is true, it suggests focusing more on increasing capacity at the undergraduate and graduate program levels in order to prepare more teachers, rather than on retention among existing student enrollments.

- After Graduation. The biggest “gap” in available data is between the number of graduates and the numbers actually hired by DOE, and the numbers who actually become licensed. We have not yet been able to link teacher preparation data to ultimate licensing and/or employment in DOE.
- Where Teachers Are Needed. Many administrators have said the greatest need is to train secondary teachers, especially in SPED, science and math, and place less emphasis on preparing greater numbers of elementary teachers. However, more recent analysis by DOE indicate a broader range of subject areas needing attention, namely, computers, English, foreign languages, Hawaiian language, mathematics, science, special education, and vocational/technical education. The district with the largest number of new hires in 2006-2007 was Leeward (384, or 23.8% of the total needed by DOE). DOE reports the Leeward District employs approximately 2,400 teachers, of which 16% were new hires in 2006. Yet when surveying secondary schools, we find fairly modest new hire/vacancy numbers. Reports by researchers indicate secondary school new hires in the Leeward District do not account for a majority of the 384 new hires reported by DOE for Leeward in 2006. On the “growth” side of the district, Kapolei High School only needed to recruit seven new teachers. One possible explanation that warrants further investigation is that the largest new hire needs or turnover rates are at the elementary level. As noted, 48% of new hires in 2006 were for elementary positions, which may indicate a reassessment of actual needs.
- Hard-to-Staff Schools. Anecdotally, some Leeward administrators believed that common patterns suggested that younger teachers, mostly female, would work two or three years in the Leeward area, then upon receiving tenure, transfer to Honolulu. The suggestion was that issues relating to travel from home and childcare or preferred school locations might be examined. The DOE has a list of approximately thirty “hard-to-staff” schools, yet there are many schools with higher rates of transfers and separations that are not on the DOE hard-to-staff list. For example, the highest rate of teacher turnover was reported by Waihole Elementary, with 60% of its 2006 faculty having transferred or separated from service, but Waihole is not on the DOE’s list of hard-to-staff schools.
- Mainland Recruits. Another commonly held belief was the short-term commitment and employment experience of teachers recruited from the mainland. We have no hard data yet to substantiate this belief. The Hawai‘i Association of Independent Schools (HAIS) suggested that many private schools prefer to recruit from the mainland, yet we do not have data to indicate if their experience with longevity is the same as DOE schools who hire mainland recruits.

III. SPECIFIC DATA FINDINGS

Hawai'i's Capacity to "Produce" New Teachers

For this interim report, HEPC was not able to collect and verify internal enrollment or specific program completers for teacher preparation institutions other than UH Manoa. COE does have a recent 2007 Institutional Report prepared for the National Council for Accreditation of Teacher Education (NCATE), which has a wealth of in-depth information. However, some of the NCATE data do not match other data reported in the College of Education's annual productivity reports. There are several possible explanations which may also apply to other institutions: (1) different sources of data; (2) data collected at different times; (3) confusion in labeling data by year or graduation class or cohort; (4) sub groups that may or may not be included in aggregate data (such as the Samoan group); (5) other sources of confusion.

Data discrepancies result in part because some of the questions now being asked were not contemplated when initial data collection and processing systems were designed. The policy analysis needed to drill deeper into the problem of annual teacher shortages is not always possible given the current practices and resources.

Table 1. Teacher Candidates Recommended for Initial Teacher Licensure 2006
(Includes 36 elementary education program completers in American Samoa.)

Degree	Program	Total by Area
Bachelor of Education	Elementary Education/SPED BEd	47
	Elementary Education BEd	128
	Secondary Education BEd	67
Bachelor of Science	Kinesiology and Leisure Science	22
Post Baccalaureate Certificate	Secondary Education	81
	Special Education	0
Master of Education	Master of Education in Teaching	29
	Master of Education Special Education	31
Total		405

A crucial issue that must be resolved is a recent set of data from the Hawai'i Teachers Standards Board indicating that as many as half of any year's program completers at the UH COE are not showing up in DOE employment records. This is in contrast to the 94% of 2006 COE graduates who reportedly were hired by DOE. This speaks directly to teacher preparation capacity and to attrition rates between program completion and actual employment, or incompatible data sets.

Table 2 shows the available data on the number of graduates from Hawai'i's institutions of higher education who were reportedly hired by 2006 by the Hawai'i DOE.

Table 2. 2006 New Hires by Hawai'i Teacher Preparation Institutions of Higher Education

Institution	New Teachers Prepared 2006	Hired by DOE in 2006
UH Manoa	405 total teacher preparation program completers Undergraduates: @ 300 enter per year @ 265 graduate after 2 yrs Post Baccalaureate Certificate @ 80 per year @ 80 graduate after 3 semesters Masters of Education in Teaching @ 3 groups of 25-30 @ 30-35 graduates a year Transition to Teaching (mathematics & science) @ Up to 25 a year (varies) @ 87% graduate; 13% drop out Recommended for teaching license in 2006: 405 Undergraduate elementary = 175 Undergraduate & Post Bac Secondary = 148	379
UH Hilo		84
UH West Oahu		10
Chaminade		99
Brigham Young University		43
University of Phoenix		66
Hawai'i Pacific University		17
		TOTAL 704

Indicators of Teacher Turnover in Individual Schools

Table 3 was compiled from DOE data sets. It combines the percentage of classes not taught by highly qualified teachers in 2005 and 2006, the percentage of teachers transferring out of schools, the percentage of teachers separating from the DOE, DOE designations of hard-to-fill schools, and the No Child Left Behind status of Title I schools.

There are fifty schools with double digit combined transfer and separation rates. Of the fifty schools listed, twenty-eight improved their percentage of courses not taught by highly qualified teachers between 2005 and 2006. All but eighteen of these double-digit schools are in restructuring.

From Table 3 we conclude that the criteria for identifying schools as hard-to-fill is unclear, as the primary markers from available data do not always match up with this designation. This discrepancy makes it more challenging to use the “hard-to-fill” designation in designing targeted programs.

Specifically, the top five highest combined turnover rates for schools (Waiahole Elementary – 60%, Laupahoehoe High and Elementary – 36.7%, Koloa Elementary – 31.6%, Waimanalo Elementary and Intermediate – 28.9%, and Hilo Intermediate – 25.5%) are not listed by DOE as hard-to-staff schools.

Table 3. Teacher Demographics in Hard-to-Staff Schools

School	2005 % Class Not Taught by HQT	2006 % Class Not Taught by HQT	2006 % Teacher Transfer	2006 % Teacher Leaving	Total % Turnover	DOE Hard- to-Staff School	DOE District	DOE Complex	DOE NCLB Status
Waiahole ES	0.0%	10.0%	33.3%	26.7%	60.0%		Windward	Castle	Restruct.
Laupahoehoe	40.2%	33.0%	30.0%	6.7%	36.7%		Hawai'i	Kau	Restruct.
Koloa	15.2%	21.7%	31.6%	0.0%	31.6%		Kauai	Kauai	Restruct.
Waimanalo ES	18.7%	14.6%	13.3%	15.6%	28.9%		Windward	Kailua	Restruct.
Hilo Intermediate	31.9%	32.4%	12.8%	12.8%	25.5%		Hawai'i	Hilo	Restruct.
Kealakehe	9.8%	0.0%	11.9%	13.4%	25.4%	x	Hawai'i	Kealakehe	Restruct.
Kalaniana'ole	9.0%	11.2%	24.2%	0.0%	24.2%		Hawai'i	Hilo	Restruct.
Waianae ES	10.0%	12.1%	14.0%	9.3%	23.3%	x	Leeward	Waianae	Restruct.
Aiea ES	3.9%	0.0%	16.1%	6.5%	22.6%		Central	Aiea	Restruct.
Nanakuli ES	19.4%	7.7%	5.4%	16.2%	21.6%	x	Leeward	Nanakuli	Restruct.
Parker	3.2%	9.5%	11.8%	8.8%	20.6%		Windward	Castle	Restruct.
Solomon	8.9%	7.7%	2.0%	18.4%	20.4%		Central	Leilehua	Restruct.
Kilohana	0.0%	0.0%	0.0%	20.0%	20.0%	x	Maui	Molokai	Restruct.
Nanakuli HS	58.3%	41.6%	7.7%	11.0%	18.7%	x	Leeward	Nanakuli	Restruct.
Waianae Intermediate	48.3%	45.9%	6.5%	11.7%	18.2%	x	Leeward	Waianae	Restruct.
Kaala	0.0%	0.0%	15.4%	2.6%	17.9%		Central	Leilehua	Restruct.
Waianae HS	57.7%	41.7%	5.4%	12.2%	17.7%	x	Leeward	Waianae	Restruct.
Keaau	11.5%	19.6%	11.6%	5.8%	17.3%	x	Hawai'i	Kau	Restruct.
Wahiawa MS	49.6%	19.6%	4.6%	12.1%	16.7%		Central	Leilehua	Restruct.
Maunaloa ES	0.0%	0.0%	16.7%	0.0%	16.7%	x	Maui	Molokai	Restruct.
Kapaa HS	39.3%	30.7%	5.0%	11.3%	16.3%		Kauai	Kapaa	Corrective Action
Molokai HS	71.3%	21.5%	5.3%	10.6%	15.8%	x	Maui	Molokai	Plan for Restruct
Wahiawa ES	3.7%	0.0%	9.4%	6.3%	15.6%		Central	Leilehua	Restruct.
Kapaa MS	42.9%	37.6%	1.9%	13.5%	15.4%		Kauai	Kapaa	Corrective Action
Konawaena MS	53.3%	22.2%	10.0%	5.0%	15.0%		Hawai'i	Konawaena	
Waipahu ES	1.6%	0.0%	7.2%	7.2%	14.5%		Leeward	Waipahu	Restruct.

Kohala MS	11.6%	25.5%	14.3%	0.0%	14.3%	x	Hawai'i	Kohala	Corrective Action
Central MS	11.9%	15.7%	14.3%	0.0%	14.3%		Honolulu	McKinley	Restruct.
Keaukaha ES	6.3%	6.5%	4.8%	9.5%	14.3%		Hawai'i	Hilo	Restruct.
Mililani HS	28.5%	20.0%	5.0%	9.3%	14.3%		Central	Mililani	Restruct.
Lahaina Intermediate	59.3%	41.7%	4.7%	9.3%	14.0%		Maui	Lahaina-luna	Corrective Action
Mountain View ES	6.9%	4.3%	6.9%	6.9%	13.8%	x	Hawai'i	Kau	
Konawaena ES	3.0%	4.9%	8.1%	5.4%	13.5%		Hawai'i	Konawaena	
Honokaa HS	40.8%	13.7%	8.3%	5.0%	13.3%		Hawai'i	Kohala	Corrective Action
Nanaikapono ES	3.1%	3.1%	5.3%	7.9%	13.2%	x	Leeward	Waianae	Restruct.
Konawaena HS	29.7%	26.4%	7.2%	5.8%	13.0%		Hawai'i	Konawaena	Corrective Action
Kalakaua MS	24.3%	21.4%	11.3%	1.6%	12.9%		Honolulu	Farrington	Plan for Restruct.
Waiakea HS	25.3%	19.1%	5.7%	6.9%	12.6%		Hawai'i	Waiakea	
Waimea Canyon ES	24.3%	11.6%	7.3%	4.9%	12.5%		Kauai	Waimea	Restruct.
Leihoku ES	2.2%	7.0%	6.3%	6.3%	12.5%	x	Leeward	Waianae	
Campbell HS	34.3%	31.1%	4.1%	8.3%	12.4%		Leeward	Campbell	Corrective Action
Maili ES	0.0%	4.3%	3.4%	8.6%	12.1%	x	Leeward	Waianae	Restruct.
Pahoa ES	12.5%	0.0%	7.7%	3.8%	11.5%	x	Hawai'i	Kau	
Makaha ES	2.6%	3.6%	4.5%	6.8%	11.4%	x	Leeward	Waianae	Restruct.
Niu Valley MS	16.1%	7.7%	11.1%	0.0%	11.1%		Honolulu	Kaiser	
Puohala ES	0.0%	11.8%	3.6%	7.1%	10.7%		Windward	Castle	Restruct.
Kalihi ES	11.8%	0.0%	5.3%	5.3%	10.5%		Honolulu	Farrington	Plan for Restruct.
Molokai MS			0.0%	10.5%	10.5%	x	Maui	Molokai	Restruct.
Washington MS	9.9%	21.7%	5.7%	4.3%	10.0%		Honolulu	Kaimuki	Corrective Action

Department of Education Recruitment Strategies.

A Department of Education memo dated October 29, 2007 reviewed the scope and results of its current incentive programs. These are summarized in Table 4. Assuming that there are no duplications in the categories, the incentive programs for SY 2006 resulted in 1,101 teachers and behavioral health professionals hired. For classroom teachers only, this total is 993, or 62% of the total number of new teachers hired. This initially indicates that these incentive programs are being utilized; however data do not indicate how many teachers, particularly Hawai'i teachers, would have chosen to seek employment without the incentives. That is, we do not have solid data on the effectiveness of the incentive programs.

Table 4. DOE Incentive Program Results for 2006

Program	2006
Troops to Teachers	42
Spouses to Teachers	26
\$1,000 Bonus for Non-Special Education from mainland	247
Private Recruitment Agencies	64
Mainland college recruitment partnerships	139
Waianae Coast hires due to WC Principals visits to mainland	32
Relocation Bonus Program local non-SPED teachers (\$500)	22
Relocation Bonus Program for mainland non-SPED teachers (\$1,000)	247
Relocation Bonus for mainland SPED (\$1,500 - \$4,500)	158
Enhanced Bonus (\$1,000)	3
Return to Special Education Program	6
School Psychologists \$5,000 bonus	27
School Behavioral Health Specialists RAM Incentive	77
Speech Pathologists Incentive program	4
Hard to Fill Bonus Regular Education (\$3,000)	237
50% FTE	5
SPED	47
Ed Officers and Athletic Directors	25
Split Year	8
TOTAL CLASSROOM TEACHERS ONLY	993
GRAND TOTAL	1,101

Special Education Teacher Needs

Special Education is often identified as a critical area of teacher shortages both on the U.S. mainland and in Hawai'i. Table 5 shows the percentage of new DOE regular and SPED hires over recent years.

The annual "turnover" (new hires) for all 11,000 DOE teachers is 1600 or about 15%. Thus, if the percent of new SPED hires reflects turnover, SPED is running about 10% higher.

Another source of data is the Superintendent's October 29 memo on incentive programs. This report summarizes both SPED and non-SPED relocation and other incentives used by the department. Data are not yet available to track each year's recruits to see how long these new employees stay in the DOE.

Table 5. New Elementary and Secondary SPED Hires as a Percent of All New Hires

	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
New Elementary	580	719	735	752	771
New Elementary SPED	161	174	175	246	216
% New Elementary SPED	28%	24%	24%	33%	28%
New Secondary	783	938	963	837	845
New Secondary SPED	162	245	254	212	224
% New Secondary SPED	21%	26%	26%	25%	26%
Total All New Hires	1363	1657	1698	1589	1616
Total All New SPED	323	419	429	458	440
Total % of all New Hires	24%	25%	25%	29%	27%

Source: DOE Teacher Employment Report 2006-2007 pp12-14

*SPED: Includes Emotional Handicap, Learning Disabled, Hearing Handicap, Multiple Handicap, Visually Handicap, Intensive Basic Skills, Preschool Special Education

Table 6 shows the number of DOE new hires taking advantage of the hard-to-fill bonuses.

Table 6. Number of Bonus Recipients by Type of Employment 2006

Positions	Number of Recipients
Regular Education	237
50% FTE	5
Special Education	47
Athletic Directors	25
Split year	8
TOTAL	322

HEPC estimates approximately 200 SPED teachers (out of 440 total new hires that year, or approximately 45%) took advantage of incentive programs.

An important additional source is *Hawai'i Department of Education Special Education Services Branch Part B Six-year State Performance Plan (2006-2010)*.

<http://doe.k12.hi.us/reports/specialeducation/StatePerformancePlanB0506.pdf>

The report notes:

“As the data show, Hawai'i has made little progress in recent years towards providing special education services in early childhood settings. Since 1980, Hawai'i has provided full-day early childhood special education (ECSE) services. This has fueled a public perception that all preschool services should be part of a Free Appropriate Public Education (FAPE) instead of just the portion that addresses the child's special education and related services needs. At this time Hawai'i does not provide preschool services to

non-disabled children of any age, so the only available early childhood programs are Head Start, private community preschools or group day care. Head Start now has a policy that their programs must begin the year with a full enrolment – further limiting the ability of our schools to include children with disabilities who become eligible mid-year.”

Induction and Mentoring Programs

Quality induction-mentoring programs provide the best available option to retain teachers in DOE employment. Numerous studies have documented positive effects on teacher retention and perhaps more important, on student achievement. A 2007 study published by Educational Research Service documents the in monetary terms the benefits of funding quality induction-mentoring programs. Among the reported benefits are lowered social costs of losing new teachers from the profession, return to the school system in increased teaching skills and effectiveness of new teachers, higher student academic achievement in classrooms taught by beginning teachers equal to that of veteran teachers, lower student dropout rates, and better educated students. Economically, the researchers found that for each \$1 invested in quality teacher induction-mentoring programs returned \$1.88 to the district, \$.98 to the state, \$1.66 to society, and \$3.61 to the new teacher. The researchers conclude, “. . .we were able to demonstrate that induction returns extend far beyond mere teacher retention questions. The influence on new teacher practice is by far the most important benefit and potentially extends farther if we consider the benefits to children assigned to effective teachers over the course of their K-12 careers.”

IV. CONCLUSION AND PRELIMINARY RECOMMENDATIONS

This Interim Report provides the Legislature with data and recommendations that are (1) currently available and (2) discoverable by HEPC in the last five months. While the data are inconclusive, several preliminary recommendations have emerged.

1. A Teacher Work Force Strategic Plan as called for in SCR 56 S.D. 1 is premature in that there are not yet sufficient data collected annually and consistently from all stakeholders to create a well-articulated five-year plan. In addition, none of the various stakeholders or agencies involved in teacher recruitment, preparation, employment and support currently regard teacher workforce systems planning as one of their primary missions, nor is there consensus among the various stakeholders as to who should take the lead.
2. In order to bring focus to teacher workforce issues, the Legislature should require that a special Teacher Workforce Strategic Planning Committee be formed to create, adopt, adapt, track and evaluate the implementation of a Strategic Teacher Workforce Development Plan. The Planning Committee should seek annual and timely input from the Teacher Education Coordinating Committee (TECC), which includes representatives from the Department of Education, the Hawai‘i Teacher Standards Board, and all major teacher preparation programs in Hawai‘i.

3. Preliminary data indicate that by 2010-2011 school year, the number of new hires required in Hawai'i's public schools can be reduced from 1,600 annually to approximately 1,400; by the 2015–2016 school year the number can be reduced to approximately 800. Further reduction does not seem feasible because this is the approximate number of teachers who annually leave DOE employment due to retirements, health issues, and deaths.

In order to accomplish this reduction, initiatives in the next two years, including budget proposals by the various publicly funded state agencies, should focus on areas where data already suggest clear action and hold promise of success. These include the following recommendations.

- Meeting PRAXIS requirements
 - Institutions of Higher Education should require potential teachers to pass the PRAXIS prior to student teaching;
 - The Department of Education in collaboration with the Institutions of Higher Education should create study supports/tutorials to help in-service teachers pass PRAXIS to become licensed.
- The Department of Education in collaboration with Institutions of Higher Education should provide assistance to in-service unlicensed teachers to meet licensure requirements, including delivering courses/programs on-site, on university campuses, and/or through distance learning technologies.
- The Department of Education in collaboration with Institutions of Higher Education should create and support high quality induction and mentoring programs for new teachers in order to keep those already highly trained.
- Institutions of Higher Education in collaboration with the Department of Education should create high quality professional development schools targeting hard-to-staff areas.

Cost projections are being developed and will be provided to the Legislature during the 2008 session.

4. The Legislature should require and fund the development of an affordable, easy-to-implement, multi-agency teacher data system to identify and track teacher candidates through the educational, employment and professional development pipeline. The system should collect timely and ongoing data to assist policy makers in making decisions and in identifying important trends or patterns that inform and improve targeted teacher recruitment, hiring, retention, professional support and development, and premature retirement or leaving rates. Public agency stakeholders should be required by the Legislature to transfer appropriate data, with protocols to protect individual privacy, to this system.
5. The Legislature should fund research to develop and implement detailed entrance and exit surveys from institutions of higher education that match student and employee dispositions and experiences with the size, type and culture of the school to which they were assigned. Research should also focus on why teachers

decide to enter the workforce, reasons for transferring from school to school, and factors influencing teachers to leave teaching.

6. The Legislature should request the University of Hawai'i campuses and programs involved in teacher preparation to submit collective plans and budgets to form a seamless, coordinated, and non-duplicative system that optimizes the locations, resources, and expertise of all the institutional actors in teacher recruitment, preparation, employment, and retention.

The Hawaii Educational Policy Center will continue to collect data on teacher workforce development as called for in SCR 56 S.D. 1 during 2008 and will report regularly to the Legislature on its findings and recommendations.

Sources

- Blue Ribbon Commission on Teacher Morale, (March 1, 1999) *Report on Teacher Morale*, Compiled by a Joint Commission of the State of Hawaii and the Hawaii State Teachers Association
- Brandon, Paul R., (February 2001) *Policy Report: K-12 General-Education Teachers' Voluntary Resignations from the Hawaii Department of Education: Demographics Reasons for Leaving, Dissatisfaction, and Suggestions for Improvement*, Hawaii Educational Policy Center
- Central Oahu District, *Brochure: Teacher Development Program*, Hawaii State Department of Education
- Comacho, Ray (October 26, 2007), *Email communication to Jim Shon, RE: Dues paying public school teachers, teachers on leave.*
- Education Commission of the States (2007) *Eight Questions on Teacher Recruitment and Retention: What Does the Research Say? A Summary of the Findings*, Education Commission of the States
- Department of Education, (2006) *Special Education Services Branch Part B Sex-year State Performance Plan 2006-2010*,
<http://doe.k12.hi.us/reports/specialeducation/StatePerformancePlanB0506.pdf>
State of Hawaii Department of Education
- Hamamoto, Patricia (2007) *2006 Superintendent's 17th Annual Report*, State of Hawaii Department of Education
- Hamamoto, Patricia, (August 28, 2007) *Facsimile Transmittal from Patricia Hamamoto to Senator Norman Sakamoto RE: "Data on reasons teacher leave the system over the past 3 years."* State of Hawaii Department of Education
- Hamamoto, Patricia, (September 11, 2007) *Letter and Attachment From Patricia Hamamoto to Senator Norman Sakamoto on "information regarding the Department's effort to close the '1600 Teacher Gap'*, State of Hawaii Department of Education
- Hamamoto, Patricia, (October 29, 2007) *Teacher Workforce Development Plan: Response to the University of Hawaii College of Education*, State of Hawaii Department of Education.
- Hara, Jean, (April 23, 2007) *Teacher Education Programs of Study within the University of Hawaii System*, University of Hawaii

- Hirai, Glenn, (October 30, 2007) *Email to Jim Shon RE: Data from 2004-2006 on Percentages of classes Not Taught by Highly Qualified Teachers by DOE School*, Hawaii State Department of Education
- Hitz, Randy (July 2002) *Policy Brief: Cost of Teacher Turnover in Hawaii*, Hawaii Educational Policy Center
- Machida, Wesley (October 30, 2007) *Email to Jim Shon RE numbers of teachers who retired from November 2006 through October 2007*
- Mahoe, Sharon (April 15, 2007) *DOE Employment Report to UH College of Education*, Hawaii Teachers Standard Board
- National School Climate Center and National Center for Learning and Citizenship, (October 21, 2007) *DRAFT The School Climate Challenge: Narrowing the Gap Between School Climate Research and School Climate Policy, Practice Guidelines and Teacher Education Policy*, Center for Social and Emotional Education and the Education Commission of the States
- Office of Human Resources/Certificated personnel Management Branch, (Fall 2007) *Unpublished data chart on Teacher numbers, transfers, % transfers, separations, % separation for each DOE school*, State of Hawaii Department of Education
- Offices of Human Resources (October 25, 2007) *Memorandum from Fay Ikei, Acting Assistant Superintendent to Sharon Mahoe, Executive Director, Hawaii Teacher Standards Board RE: "Department's annual report of the Hawaii Teacher Standards Board of teachers who were employed for the 2006-2007 school year,"* State of Hawaii Department of Education
- Office of Human Resources/Certificated personnel Management Branch, Department of Education (July 2007) *Teacher Employment Report 2006-2007*, State of Hawaii Department of Education
- Project REAL (2006) *Project REAL 2006 Annual Report*, Rockford Education Alliance, www.projectreal.niu.edu
- Shimamoto, Amy, (October 13, 2007) *Email to Jim Shon RE: Total Courses Taught by Highly Qualified Teachers By DOE School Complex*, Hawaii State Department of Education.
- Teacher Education Coordinating Committee (January 30, 2007) *Teacher Education Strategic Plan Worksheet DRAFT*, compiled from various Hawaii colleges and universities, TECC
- University of Hawaii at Manoa, College of Education (Fall 2006) *Annual Productivity Data Report Fall 2006*, University of Hawaii

University of Hawaii at Manoa, College of Education (Fall 2007) *Annual Productivity Data Report Fall 2007*, University of Hawaii

University of Hawaii at Manoa, College of Education (2007), *National Council for Accreditation of Teacher Education (NCATE) Institutional Report 2007*, University of Hawaii

University of Hawaii at Manoa, College of Education (2003-2005) *Teacher Education Program Student Evaluations, Comments and Qualitative Responses*, University of Hawaii

Villar, A. and Strong, M. (2007). Is Mentoring Worth the Money? A Benefit-Cost Analysis and Five-Year Rate of Return of a Comprehensive Mentoring Program for Beginning Teachers. *ERS Spectrum*. 25(3).