HAWAI'I EDUCATIONAL POLICY CENTER

AND THE

REPORT TO THE LEGISLATURE ON

SENATE CONCURRENT RESOLUTION 118 SD1 HD1

IMPROVING THE COMMUNITY'S UNDERSTANDING OF THE DEPARTMENT OF EDUCATION'S PROGRAMS AND SCHOOL EXPENSES INCLUDING A COMPARISON WITH OTHER STATES ON ADEQUACY OF FUNDS

December 31, 2008

HAWAI'I EDUCATIONAL POLICY CENTER

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- Works with policymakers to identify what information they need.
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- 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 Avenue, UES 103 • Honolulu, HI 96822-2463
Phone: (808) 956-9563 • Fax: (808) 956-5665
Email: hepc@hawaii.edu • Website: www.hawaii.edu/hepc

I. EXECUTIVE SUMMARY

The 2007 Hawai‘i State Legislature passed Senate Concurrent Resolution 118 S.D.1 HD 1 IMPROVING THE COMMUNITY'S UNDERSTANDING OF THE DEPARTMENT OF EDUCATION'S PROGRAMS AND SCHOOL EXPENSES INCLUDING A COMPARISON WITH OTHER STATES ON ADEQUACY OF FUNDS.

Among the requests contained in the resolution were the following:

"BE IT FURTHER RESOLVED the Hawai‘i Educational Policy Center undertake a study of existing data that compares Hawai‘i with Massachusetts, Minnesota, New Hampshire, Connecticut, Kansas, and Washington (or five other "peer" states) suggested by the department in areas such as:

(1) Average class size;

(2) Student-teacher ratio;

(3) Average number of students per counselor;

(4) Length of school day and school year;

(5) Per pupil funding;

(6) Percentage of students with special needs and school budget dedicated to those students;

(7) Percentage of school budget spent on administration; and

(8) And/or other data that might indicate the reasons for high achievement rates, and propose measures (funding and resources) needed in Hawai‘i to provide comparable educational services; …"

The Hawai‘i Educational Policy Center (HEPC) reviewed existing data from the Education Commission of the States ECS), the National Center on Education Statistics, and other sources. States were selected for this study by the State Legislature in SCR 118 SD1 HD1 (Connecticut, Kansas, Massachusetts, Minnesota, New Hampshire and Washington), the Hawai‘i Department of Education in the Superintendent’s Reports selecting “comparable” systems (Nebraska, Rhode Island, Wyoming), and the Hawai‘i Educational Policy Center—looking at state populations, student enrollments, and number of teachers that are closest to Hawai‘i’s data (Montana, New Mexico, South Dakota, Vermont, West Virginia).

HEPC found useful data for comparisons in the following areas:

- State population
- Number of schools

- Total state student enrollments
- Average state individual school enrollments (size of schools)
- Total number of teachers in states
- Student:teacher ratios for individual states
- Average state student:teacher ratios
- Student/counselor ratios for individual states
- Percent of all education staff as teachers, administrators, etc.
- Average state teacher salaries
- Percent of state resources budgeted for schools
- Per pupil funding for various years
- Percent of education budgets allocated for instruction
- Percent of funding from federal sources
- Percent of students qualifying for free and reduced lunch program
- Comparative student achievement on high stake tests
- Comparisons of Hawai‘i with the 100 largest districts

Because much of public education in the United States is delivered through relatively independent school districts, it was not possible to easily access data that could answer all the requests in SCR 118. For example, the length of the school day, or the average number of students per school counselor represented requests beyond the scope of HEPC resources to answer. In Hawai‘i, for example, since the implementation of the weighted student formula, individual schools are able to reallocate their resources for counselors, and statewide data are no longer available other than a school-by-school survey.

Nevertheless, HEPC believes some of the data collected can contribute to the overall understanding of public education sought by SCR 118.

Preliminary Findings

- Nationally, of the 6.2 million FTE staff in the 2006–2007 school year, 51.6 percent were teachers; 15.1 percent were instructional aides, instruction coordinators and supervisory, guidance counselors, or librarians; 22.8 percent were student and other support staff; and 10.5 percent were school administrators, school district administrators, and administrative support staff.
- Nationally, the average student:teacher ratio for the 2006–2007 school year was 15.5:1; the average elementary student teacher ratio was 20.2:1, and for secondary schools it was 12:1.
- In general, the states selected reflect differences that invite further examination to explain those differences.
- In general, Hawai‘i students are on the lower end of achievement compared with the selected states.
- Hawai‘i college-bound seniors rank near the bottom of the selected states for SAT scores in mathematics, critical thinking, and writing.
- Hawai‘i fourth and eighth graders rank near the bottom of selected states on standardized tests for math and reading.
- Hawai‘i’s schools are among the largest.

- Hawai‘i’s student:teacher ratio is among the highest.
- Hawai‘i as a single district ranks 11th among over 17,000 nationally.
- Hawai‘i’s administrative districts are also among the largest.
- Many of the larger districts appear to have drawn a significantly larger percentage of total funding from federal sources.
- Hawai‘i is at the top end of the larger districts for the percentage of total funds allocated for instruction. None of the data for larger districts found instructional allocations above 60%.
- While nationally 60.3% of schools are Title I eligible, 70.1% of Hawai‘i’s schools qualify for this program.
- Hawai‘i has a relatively larger percentage of students qualifying for free and reduced lunches in 2001–2002 than other states.
- Hawai‘i spends a lower percentage of its state budget for education than do states used by Hawai‘i for comparison, or the National average.
- Hawai‘i compares favorably in student/guidance counselor ratios and percent of total staff that are teachers.

Preliminary Conclusions

- The most consistent relationships among all selected states and the collected data sets are:
  (1) Comparatively lower student test scores in Hawai‘i;
  (2) Comparatively larger sizes of Hawai‘i’s state system and administrative district;
  (3) Comparatively larger average school size;
  (4) Comparatively larger student:teacher ratios; and
  (5) Lower percentage of state funding spent on education.

Part I. Selective State Profiles and Comparisons

The primary question HEPC sought to answer was:

Are the states selected by the Legislature, the DOE and HEPC for comparison similar in enough characteristics as to justify inclusion in this or subsequent studies of Hawai'i's educational system?

The tentative conclusion is yes.

Table 1 compares rough data collected by the Federal Government on16 States, listed in alphabetical order with the US average at the bottom. States were selected for this study by the State Legislature in SCR 118 SD1 HD1 (Connecticut, Kansas, Massachusetts, Minnesota, New Hampshire, and Washington), the Hawai'i Department of Education in the Superintendent's Reports selecting "comparable" systems (Nebraska, Rhode Island, Wyoming), and the Hawai'i Educational Policy Center (looking at state populations, student enrollments, and number of teachers that are closest to Hawai'i's data—Montana, New Mexico, South Dakota, Vermont, West Virginia).

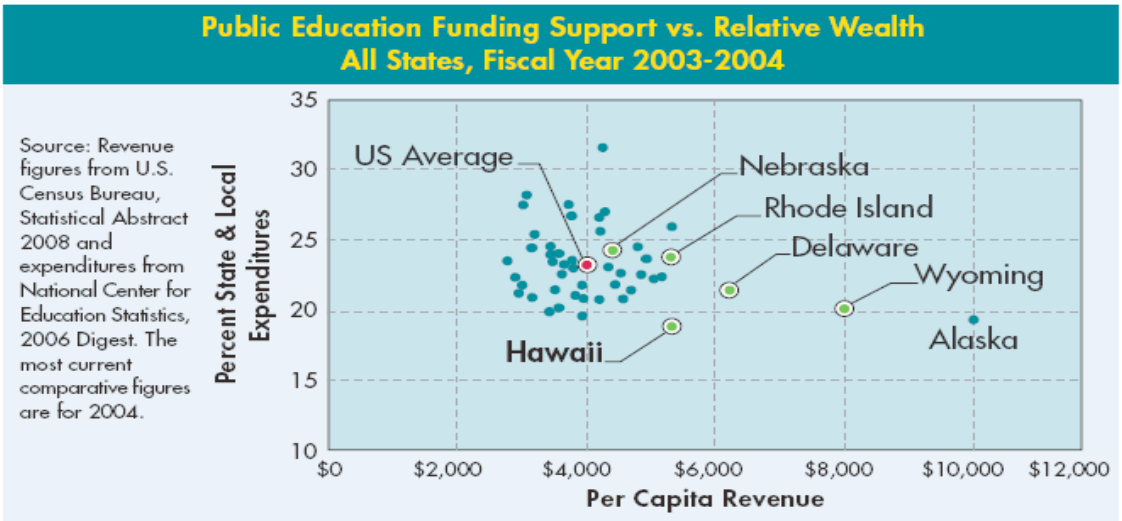
Table 1. Selected states comparisons on education demographics

States	Population	Number of Schools	Number of Students	Number of Teachers	2004 Average Teacher Salary	Student: Teacher Ratio
Connecticut	3,405,565	1,111	575,059	39,687	57,737	14.5
Delaware	783,600	229	120,937	7,998	50,595	15.1
Hawai'i	1,211,540	285	182,818	11,226	46,149	16.3
Kansas	2,688,415	1,407	467,285	33,608	39,345	13.9
Massachusetts	6,349,095	1,879	971,909	73,596	54,679	13.2
Minnesota	4,919,480	2,759	839,243	51,107	46,906	16.4
Montana	902,195	840	145,416	10,369	38,485	14.0
Nebraska	1,711,261	1,225	286,646	21,359	39,456	13.4
New Hampshire	1,235,785	481	205,767	15,536	43,941	13.2
New Mexico	1,819,045	875	326,758	22,021	39,391	14.8
Rhode Island	1,048,320	338	153,422	14,299	53,473	10.7
South Dakota	754,845	725	122,012	9,129	34,040	13.4
Vermont	608,830	391	96,638	8,851	44,535	10.9
Washington	5,894,120	2,275	1,031,985	53,508	45,718	19.3
West Virginia	1,808,345	797	280,866	19,940	38,360	14.1
Wyoming	493,785	379	84,409	6,706	40,497	12.6
Average Among Selected States	2,227,139	999	368,198	24,934	44,581	14.0
U.S. Average					47,674	15.7
Data Sources	IES 2005-2006	IES 2005-2006	IES 2005-2006	IES 2005-2006	NEA 2004-2005	IES 2005-2006

Data Sources: IES = Institute of Educational Sciences (U.S. DOE); NEA = National Education Association

The Hawai‘i State Superintendent’s 2007 Report indicates that Hawai‘i expends a lower percentage of budgets for education than do the other states used by Hawai‘i for comparison.

Figure 1. Comparison of public support for education



The following tables sort the states according to total population, number of schools, and school size.

Table 2. Selected states by population

States	Population
Wyoming	493,785
Vermont	608,830
South Dakota	754,845
Delaware	783,600
Montana	902,195
Rhode Island	1,048,320
Hawai‘i	1,211,540
New Hampshire	1,235,785
Nebraska	1,711,261
West Virginia	1,808,345
New Mexico	1,819,045
Kansas	2,688,415
Connecticut	3,405,565
Minnesota	4,919,480
Washington	5,894,120
Massachusetts	6,349,095
Average Among Selected States	2,227,139

Table 3. Selected states sorted by number of schools, smallest to largest

States	State Population	Student Population	Number of Schools
Delaware	783,600	120,937	229
Hawai'i	1,211,540	182,818	285
Rhode Island	1,048,320	153,422	338
Wyoming	493,785	84,409	379
Vermont	608,830	96,638	391
New Hampshire	1,235,785	205,767	481
South Dakota	754,845	122,012	725
West Virginia	1,808,345	280,866	797
Montana	902,195	145,416	840
New Mexico	1,819,045	326,758	875
Connecticut	3,405,565	575,059	1,111
Nebraska	1,711,261	286,646	1,225
Kansas	2,688,415	467,285	1,407
Massachusetts	6,349,095	971,909	1,879
Washington	5,894,120	1,031,985	2,275
Minnesota	4,919,480	839,243	2,759
Average Among Selected States	2,227,139	368.198	999

Table 4. Selected states sorted by average school size, smallest to largest

States	State Population	Student Population	Number of Schools	Average School Size	Average School Size Elementary	Average School Size Regular Secondary
South Dakota	754,845	122,012	725	168	183	153
Montana	902,195	145,416	840	173	171	178
Wyoming	493,785	84,409	379	223	198	341
Nebraska	1,711,261	286,646	1,225	234	211	357
Vermont	608,830	96,638	391	247	225	609
Minnesota	4,919,480	839,243	2,759	304	437	640
Kansas	2,688,415	467,285	1,407	332	299	418
West Virginia	1,808,345	280,866	797	352	325	699
New Mexico	1,819,045	326,758	875	373	353	592
New Hampshire	1,235,785	205,767	481	428	352	722
Rhode Island	1,048,320	153,422	338	454	376	940
Washington	5,894,120	1,031,985	2,275	454	446	855
Massachusetts	6,349,095	971,909	1,879	517	430	898
Connecticut	3,405,565	575,059	1,111	518	454	786

Table 4. Selected states sorted by average school size, smallest to largest (continued)

States	State Population	Student Population	Number of Schools	Average School Size	Average School Size Elementary	Average School Size Regular Secondary
Delaware	783,600	120,937	229	528	552	1,070
Hawai'i	1,211,540	182,818	285	641	548	1,234
Average Among Selected States	2,227,149	368,198	999	372	348	656

Note: School sizes are not directly comparable across states due to differing configurations (K–5, K–6, K–8, K–12, 5–8, 6–8, 7–8, 7–9, 9–12); average elementary and secondary school size from NCES 2007; elementary data found at http://nces.ed.gov/programs/digest/d07/tables/dt07_095.asp; secondary data found at http://nces.ed.gov/programs/digest/d07/tables/dt07_096.asp

Table 5. Selected states sorted by student:teacher ratio

States	Number of Schools	Number of Students	Number of Teachers	2004 Average Teacher Salary	Student: Teacher Ratio
Rhode Island	338	153,422	14,299	$53,473	10.7
Vermont	391	96,638	8,851	$44,535	10.9
Wyoming	379	84,409	6,706	$40,497	12.6
Massachusetts	1,879	971,909	73,596	$54,679	13.2
New Hampshire	481	205,767	15,536	$43,941	13.2
Nebraska	1,225	286,646	21,359	$39,456	13.4
South Dakota	725	122,012	9,129	$34,040	13.4
Kansas	1,407	467,285	33,608	$39,345	13.9
Montana	840	145,416	10,369	$38,485	14
West Va.	797	280,866	19,940	$38,360	14.1
Connecticut	1,111	575,059	39,687	$57,737	14.5
New Mexico	875	326,758	22021	$39,391	14.8
Delaware	229	120,937	7,998	50,595	15.1
Hawai'i	285	182,818	11,226	$46,149	16.3
Minnesota	2,759	839,243	51,107	$46,906	16.4
Washington	2,275	1,031,985	53,508	$45,718	19.3
Average Among Selected States	999	368,198	24,934	$44,581	14
U.S. Average				$47,674	15.7

Table 6. Selected states sorted by number of K–12 students

States	Population	Number of Schools	Number of Students
Wyoming	493,785	379	84,409
Vermont	608,830	391	96,638
Delaware	783,600	229	120,937
South Dakota	754,845	725	122,012
Montana	902,195	840	145,416
Rhode Island	1,048,320	338	153,422
Hawai‘i	1,211,540	285	182,818
New Hampshire	1,235,785	481	205,767
West Virginia	1,808,345	797	280,866
Nebraska	1,711,261	1,225	286,646
New Mexico	1,819,045	875	326,758
Kansas	2,688,415	1,407	467,285
Connecticut	3,405,565	1,111	575,059
Minnesota	4,919,480	2,759	839,243
Massachusetts	6,349,095	1,879	971,909
Washington	5,894,120	2,275	1,031,985
Average Among Selected States	2,227,139	999	368,198

Table 7. Selected states sorted by number of teachers

States	Population	Number of Schools	Number of Students	Number of Teachers
Wyoming	493,785	379	84,409	6,706
Delaware	783,600	229	120,937	7,998
Vermont	608,830	391	96,638	8,851
South Dakota	754,845	725	122,012	9,129
Montana	902,195	840	145,416	10,369
Hawai‘i	1,211,540	285	182,818	11,226
Rhode Island	1,048,320	338	153,422	14,299
New Hampshire	1,235,785	481	205,767	15,536
West Va.	1,808,345	797	280,866	19,940
Nebraska	1,711,261	1,225	286,646	21,359
New Mexico	1,819,045	875	326,758	22021
Kansas	2,688,415	1,407	467,285	33,608
Connecticut	3,405,565	1,111	575,059	39,687
Minnesota	4,919,480	2,759	839,243	51,107
Washington	5,894,120	2,275	1,031,985	53,508
Massachusetts	6,349,095	1,879	971,909	73,596
Average Among Selected States	2,227,139	999	368,198	24,934

The following state comparison data chart from the Education Commission of the States indicates that the available data are often seven to eight years old, and/or not from the same years, making comparisons difficult to interpret. However, assuming no dramatic changes in state public education systems, these data do provide a crude basis for *relative* comparisons.

In Table 8, states included in this HEPC comparative study are highlighted.

Table 8. Education Commission of the States data on demographic variables

States	Number of Districts 2002-03	Average Number of Students/ District 2001-02	Per-Student Spending 2003-04	Number of U.S. 100 Largest Districts in Each State 2001-02	Free or Reduced Lunch Students as a % of Total Enrollment 2001-02	Percent of K-12 Revenue from State Sources 2002-03	State & Local School Revenue 2000-01/ $1,000 Personal Income in 2001	Average Teacher Salaries 2003-04
Alabama	128	5,760	7,163	1	48.7%	58%	40	35,168
Alaska	53	2,535	9,808	1	25.2%	63.5%	55	51,736
Arizona	323	2,855	5,347	2	--	50%	39	41,843
Arkansas	312	1,441	6,005	0	47.2%	61.5%	41	39,314
California	986	6,337	7,692	13	47.3%	56.2%	42	58,287
Colorado	178	4,169	8,023	2	27.5%	41.1%	34	43,319
Connecticut	166	3,435	11,773	0	--	40.5%	43	57,337
Delaware	19	6,081	10,470	0	34.6%	67.7%	41	49,366
District of Columbia	1	75,392	13,317	1	55.3%	--	32	57,009
Florida	67	37,320	6,516	13	44.6%	43.7%	34	40,604
Georgia	180	8,170	8,703	6	44.2%	47.4%	48	45,938
Hawai‘i	1	184,546	8,220	1	41.9%	89.2%	43	45,479
Idaho	114	2,162	6,372	0	35.6%	60.6%	45	41,080
Illinois	893	2,319	9,839	1	35.2%	32.1%	38	52,950
Indiana	294	3,388	8,414	0	31.1%	53%	50	45,791
Iowa	371	1,309	7,098	0	26.7%	49.6%	46	39,432
Kansas	304	1,546	7,622	1	34.1%	58.4%	43	38,883
Kentucky	176	3,717	7,474	1	49.1%	60.1%	41	40,240
Louisiana	66	11,080	7,179	4	59.1%	49%	40	38,300
Maine	282	729	10,145	0	29.6%	44.4%	49	39,864
Maryland	24	35,860	9,186	6	29.7%	36%	40	50,261
Massachusetts	350	2,780	10,772	1	25.3%	38%	39	53,076
Michigan	554	3,123	8,671	1	31.2%	68.4%	48	54,806
Minnesota	417	2,041	8,821	1	26.4%	74.6%	44	45,375
Mississippi	152	3,246	6,137	0	65.3%	54.6%	41	35,684
Missouri	524	1,736	6,947	0	35.1%	35.5%	41	38,006
Montana	452	336	7,688	0	31.5%	47.6%	46	36,689
Nebraska	555	513	7,352	1	31.2%	40.4%	36	39,635
Nevada	17	20,989	6,230	2	29.7%	26.8%	34	42,254
New Hampshire	178	1,162	8,915	0	14.8%	50.8%	39	42,689
New Jersey	603	2,224	11,390	0	27.8%	39.1%	44	55,592
New Mexico	89	3,598	7,370	1	54.7%	72.3%	49	37,877
New York	703	4,085	12,059	1	43.2%	47.9%	47	54,054
No. Carolina	121	10,870	6,727	5	38.4%	72%	37	43,211
North Dakota	222	477	6,835	0	28%	36.8%	41	35,441
Ohio	662	2,765	9,136	2	27.4%	44.9%	48	46,572
Oklahoma	543	1,145	6,429	0	48.7%	55.6%	42	35,061
Oregon	198	2,785	7,587	1	36.1%	52.2%	42	49,169
Pennsylvania	501	3,635	8,609	1	28.4%	39.9%	42	52,200

States	Number of Districts 2002-03	Average Number of Students/ District 2001-02	Per-Student Spending 2003-04	Number of U.S. 100 Largest Districts in Each State 2001-02	Free or Reduced Lunch Students as a % of Total Enrollment 2001-02	Percent of K-12 Revenue from State Sources 2002-03	State & Local School Revenue 2000-01/ $1,000 Personal Income in 2001	Average Teacher Salaries 2003-04
Rhode Island	36	4,390	10,258	0	33.6%	37.5%	40	52,261
So. Carolina	89	7,764	7,559	1	48.7%	50%	50	41,162
South Dakota	176	724	7,300	0	30.1%	35.9%	39	33,236
Tennessee	138	6,703	6,279	3	--	47.9%	31	40,318
Texas	1,040	4,003	7,335	15	45.4%	40.5%	46	40,494
Utah	40	12,116	5,091	4	29.2%	58.4%	46	38,976
Vermont	292	346	10,630	0	23.8%	71.3%	54	42,007
Virginia	137	8,489	6,441	4	29.3%	45.3%	40	43,417
Washington	296	3,409	7,446	1	31.4%	63.1%	38	45,439
West Virginia	55	5,143	9,169	0	50.4%	60%	52	38,461
Wisconsin	433	2,030	9,483	1	26%	53.7%	50	43,382
Wyoming	48	1,836	9,756	0	--	51.1%	50	39,532

The data show that among the states used for this comparison, Hawai‘i had a relatively larger percentage of students qualifying for free and reduced lunches in 2001–2002. (New Mexico = 54.7%; West Virginia = 50.4%; Hawai‘i = 41.9%)

Table 9. Selected states sorted by student:counselor ratio

States	Total Staff	Number of Teachers	Number of Students	Student: Teacher Ratio	Number of Guidance Counselors	Students: Counselor Ratio
West Virginia	39,217	19,414	281,939	14.53	1,706	165
Wyoming	15,233	6,757	85,193	12.61	453	188
Vermont	19,232	8,859	94,444	10.66	437	216
New Hampshire	32,174	15,515	203,158	13.10	812	250
Hawai‘i	21,061	11,271	180,728	16.04	669	270
Montana	19,023	10,398	144,418	13.89	449	322
Nebraska	42,938	21,459	287,580	13.41	790	364
Rhode Island	17,902	11,381	151,612	13.33	407	372
Kansas	53,762	35,297	465,045	13.18	1,139	408
Connecticut	86,709	39,115	575,100	14.71	1,380	417
South Dakota	17,297	9,070	121,158	13.36	286	424
Massachusetts	136,563	73,157	950,196	12.99	2,181	436
Delaware	15,403	8,038	122,254	15.21	279	438
New Mexico	46,551	22,016	328,220	14.91	720	456
Washington	102,948	53,743	1,006,878	18.74	2,031	496
Minnesota	106,701	51,880	840,565	16.21	1,052	799
Ave. Among Selected States	48,295	24,836	364,905	14	924	395
U.S. Average	6,163,962	3,180,396	48,504,876	15.7	103,823	467

Source: Jennifer Sable, Noel Amber, Lee Hoffman, *Public Elementary and Secondary School Student Enrollment and Staff from the Common Core of Data: School Year 2006,2007*, Educational Statistics Services Institution, November 2008

These data show that while Hawai‘i has a comparatively large student:teacher ratio of 16:1 (average among selected 16 states was 14:1), Hawai‘i also has one of the best ratios for guidance counselors, with one for every 270 students, compared to the U.S. average of 467 students per counselor and the selected state average of 395 students per counselor. Given the lower SAT scores for Hawai‘i, it would appear that the ratio of guidance counselors to students has little direct correlation with student achievement on high-stakes tests.

Hawai‘i is about the average for percent of teachers for total staff (54%), compared to the U.S. average of 52% and the selected state average of 51%. Interestingly, Minnesota, which leads the list of selected states in SAT mathematics scores, has a relatively lower percentage of teachers to non-teaching staff (49%). Wyoming, which leads the list of selected states in SAT reading scores, has a comparatively lower percentage of teachers to non-teaching staff at 45%, or nine percent lower than Hawai‘i. Further examination of these data is required before conclusions can be made regarding possible links of larger support staff to student achievement.

Part II. Comparative Student Achievement

The Hawai‘i Department of Education regularly publishes data comparing Hawai‘i to national averages. Both Hawai‘i and national average NAEP scores rose in recent years. While Hawai‘i is making progress, Hawai‘i test takers continue to lag behind national averages by double-digit percentages.

Table 10. Hawai‘i performance on NAEP compared with national averages

EDUCATIONAL ASSESSMENT

NATIONAL ASSESSMENT of EDUCATIONAL PROGRESS (NAEP)	2003		2005		2007	
	(Percent Proficient & Advanced)					
	Hawaii	Nation	Hawaii	Nation	Hawaii	Nation
Reading						
Grade 4	21%	30%	23%	30%	31%	39%
Grade 8	22%	30%	18%	29%	21%	31%
Mathematics						
Grade 4	23%	31%	27%	35%	37%	45%
Grade 8	17%	27%	18%	29%	24%	38%

Source: Hawaii State Department of Education, Student Assessment Section.

The U.S. Department of Education’s Institute of Educational Sciences has a data base on selective topics that is somewhat more current. The following data were taken from IES tables that illustrate the SAT scores of college bound seniors in Hawai‘i and the selected states.

Table 11. Selected states average performance on SAT 2006–2007 listed alphabetically

States	2006-07		
	Critical Reading	Mathematics	Writing
Connecticut	510	512	511
Delaware	497	496	486
Hawai‘i	484	506	473
Kansas	583	590	569
Massachusetts	513	522	511
Minnesota	596	603	577
Montana	538	543	522
Nebraska	579	585	562
New Hampshire	521	521	512
New Mexico	555	546	540
Rhode Island	496	498	492
South Dakota	589	602	567
Vermont	516	518	508
Washington	526	531	510
West Virginia	516	507	505
Wyoming	565	571	544
U.S. Average	502	515	494

Following are the rankings by the three reported SAT scores by state scores for college-bound seniors

Table 12. Selected states SAT critical reading scores by average performance of college-bound seniors

States	2006-2007 SAT Critical Reading
Wyoming	596
West Virginia	589
Washington	583
Vermont	579
South Dakota	565
Rhode Island	555
New Mexico	538
New Hampshire	526
Nebraska	521
Minnesota	516
Montana	516
Massachusetts	513
Kansas	510
Hawai‘i	497
Delaware	496
Connecticut	484
Average Among Selected States	537
U.S. Average	502

Table 13. Selected states SAT mathematics scores by average performance of college-bound seniors

States	2006-2007 SAT Mathematics
Minnesota	603
South Dakota	602
Kansas	590
Nebraska	585
New Mexico	546
Montana	543
Washington	531
Massachusetts	522
New Hampshire	521
Vermont	518
Connecticut	512
West Virginia	507
Hawai‘i	506
Rhode Island	498

Table 13. Selected states SAT mathematics scores by average performance of college-bound seniors (continued)

States	2006-2007 SAT Mathematics
Delaware	496
Average Among Selected States	539
U.S. Average	515

Table 14. Selected states SAT writing scores by average performance of college-bound seniors

States	2006-2007 SAT Writing
Minnesota	577
Kansas	569
South Dakota	567
Nebraska	562
Wyoming	544
New Mexico	540
Montana	522
New Hampshire	512
Connecticut	511
Massachusetts	511
Washington	510
Vermont	508
West Virginia	505
Rhode Island	492
Delaware	486
Hawai‘i	473
Average Among Selected States	524
U.S. Average	494

Based on these data, Hawai‘i college-bound seniors rank near the bottom of the selected states for SAT scores in critical reading, mathematics, and writing.

Available data from IES and NEA indicate that among the selected states, Hawai‘i’s younger students in grades four and eight had comparatively lower math scores in 2005-2006.

Table 15. Selected states average NAEP mathematics scores grade 4

States	2005–2006 NAEP Grade 4 Average Mathematics Scores
Massachusetts	247
Kansas	246
Minnesota	246
New Hampshire	246
Vermont	244
Wyoming	243
Connecticut	242
South Dakota	242

Table 15. Selected states average NAEP mathematics scores grade 4 (continued)

States	2005–2006 NAEP Grade 4 Average Mathematics Scores
Washington	242
Montana	241
Delaware	240
Nebraska	238
Rhode Island	233
West Virginia	231
Hawai‘i	230
New Mexico	224
Average Among Selected States	240
U.S. Average	237

Table 16. Selected states average NAEP mathematics scores grade 8

States	2005–2006 NAEP Grade 8 Average Mathematics Scores
Massachusetts	292
Minnesota	290
South Dakota	287
Vermont	287
Montana	286
New Hampshire	285
Washington	285
Kansas	284
Nebraska	284
Wyoming	282
Connecticut	281
Delaware	281
Rhode Island	272
West Virginia	269
Hawai‘i	266
New Mexico	263
Average Among Selected States	281
U.S. Average	278

Table 17. Selected states average NAEP reading scores grade 4

States	2005–2006 NAEP Grade 4 Average Reading Scores
Massachusetts	231
New Hampshire	227
Vermont	227
Connecticut	226
Delaware	226
Minnesota	225
Montana	225
Washington	223
Wyoming	223
South Dakota	222
Nebraska	221

Table 17. Selected states average NAEP reading scores grade 4 (continued)

States	2005–2006 NAEP Grade 4 Average Reading Scores
Kansas	220
Rhode Island	216
West Virginia	215
Hawai‘i	210
New Mexico	207
Average Among Selected States	222
U.S. Average	217

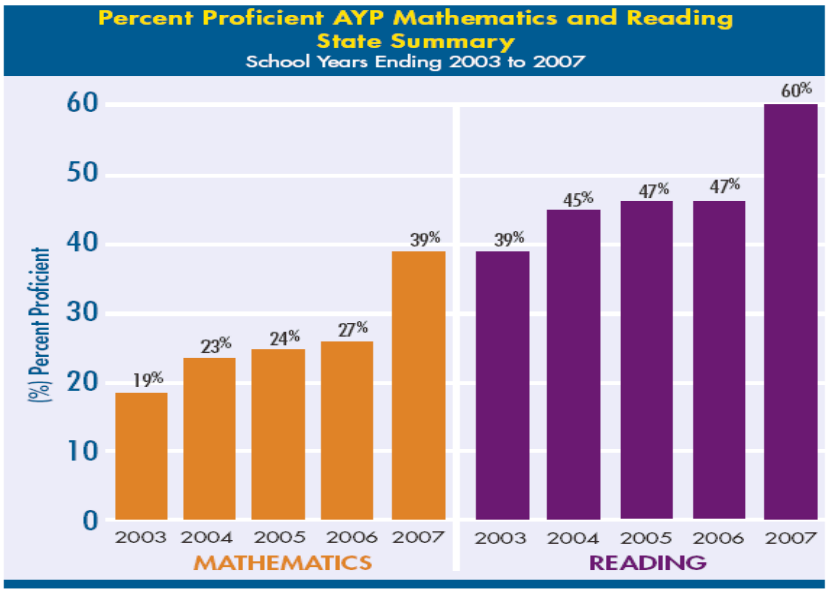
Table 18. Selected states average NAEP reading scores grade 8

States	2005–2006 NAEP Grade 8 Average Reading Scores
Massachusetts	274
New Hampshire	270
Montana	269
South Dakota	269
Vermont	269
Minnesota	268
Wyoming	268
Kansas	267
Nebraska	267
Delaware	266
Washington	265
Connecticut	264
Rhode Island	261
West Virginia	255
New Mexico	251
Hawai‘i	249
Average Among Selected States	265
U.S. Average	260

Snapshots Are Not Growth

The previous data are snapshots of student test scores. They do not indicate whether an individual state's students are generally improving or falling behind. Hawai‘i's data do indicate steady improvement in overall test score averages.

Figure 2. Hawai‘i student performance on state assessments 2003–2007



Part III. Hawai‘i Compared to Larger Districts

Not only does Hawai‘i have comparatively larger schools and larger student to teacher ratios, Hawai‘i, with its single district, is among the largest in the nation.

A June 2008 report from the Institute of Educational Sciences of the National Center for Educational Statistics, titled *Characteristics of the Largest 100 Public Elementary and Secondary School Districts in the United States 2005–2006,* lists Hawai‘i as the eleventh largest school district in the nation.

Among its findings were the following. The 100 largest school districts

- accounted for 23 percent of all public school students and 22 percent of all FTE teachers;
- had larger average school enrollments and larger student to teacher ratios;
- had significantly larger non-white populations.

Data comparing the 100 largest districts indicate the average percentage of teachers among total staff for these selected districts was 54.6% (the highest being New York City Public Schools with 84.1% of all staff being teachers). Hawai‘i’s percentage was 53.3%.

Table 20 compares Hawai‘i with the New York City district (the largest district in the nation) and other large districts in terms of percentage of full time equivalent staff.

Table 20. Percentage of selected categories of FTE staff serving as teachers, support, library/media, or administrators in large school districts

Districts	Percent Teachers	Percent Instructional Support Staff	Percent Guidance Counselors	Percent Library/ Media Staff	Percent LEA-Level Administrators	Percent School-Level Administrators
NYC Schools	84.1	1.2	2.8	0.8	0.6	4.2
100 Largest District Averages	54.6	9.6	1.9	1.1	0.8	3.0
Hawai‘i	53.3	13.0	3.2	1.7	1.0	2.3

In general, the data for the largest 100 districts indicate a wide range of approaches. Hawai‘i does not stand out in any particular category, although deeper analysis of more successful districts may be useful.

In examining the percentage of total district funding received from the Federal government among the 100 largest districts, the percentage of funding dedicated to instruction and the percentage of guidance counselors among total staff, the report shows:

Federal Funding:

- The average percentage of funds received from the Federal government among the largest districts was 11.3%. On the high end (not counting Puerto Rico) were Chicago (17.7%), El Paso, TX (16.8%), and Long Beach, CA (16.7%). On the low end were Fairfax, VA (3.8%), Jefferson County, CO (4.1%), and Prince William County, (4.3%).
- Hawai‘i’s percentage of funding from Federal sources was 10.4%

Instructional Funding

- The average percentage of funds allocated for instruction among the largest districts was 53.0%. On the high end were Los Angeles County, CA (68%), Memphis City, TN (59.9%), and Arlington Independent School District, TX (57.5%). On the low end were Greenville County, SC (31.7%), Philadelphia, PA (36.4%), and Dallas Independent School District, TX (40.3%).
- Hawai‘i’s percentage of funding allocated for instruction was 57.0%.

Guidance Counselors

- Among the largest 100 districts the average percentage of total guidance counselor FTEs was 2.0.
- Hawai‘i had the highest percentage of guidance counselors among total staff with 3.2% (along with Washoe County, NV). Lowest percentages were in Hillsborough County, FL (0.1%) and Milwaukee, WI and Fresno, CA (both at 0.8%).

Hawai‘i is about average in the percent of teachers for total staff (54%) compared to the U.S. average of 52% and the selected state average of 51%. Minnesota, which leads the selected states in SAT mathematics scores, has a relatively low percentage of teachers to non-teaching staff (49%). Wyoming, which leads the selected states in SAT reading scores, also has a comparatively low percentage of teachers at 45%, or nine percent lower than Hawai‘i. Further examination of these data is required before conclusions can be made regarding possible links of larger support staff to student achievement.

Hawai‘i’s Administrative and Complex Area Sizes

Because Hawai‘i has one unified state system, it is unique and some would argue cannot be compared to the size of other sub-state districts. This may be true for student enrollment, but the overall governance and administrative unity is relevant.

Hawai‘i’s system is subdivided into seven major administrative districts, with the following enrollments from smallest to largest (from the 2007 Superintendent’s Report):

Kauai:	9,458
Windward:	16,225
Maui:	20,167
Hawai‘i:	24,063
Honolulu:	31,610
Central:	32,222
Leeward:	39,734

Table 21 shows the ranking of Hawai‘i’s administrative districts (if they were independent districts) among the 500 largest public school districts in the nation. There are 17,765 school districts in the U.S.

Table 21. Rank of Hawai‘i’s administrative districts by student population size

Hawai‘i Administrative District	Student Enrollment	Rank Among 500 Largest U.S. Public School Districts
Kauai	9,458	Not in top 500
Windward	16,225	488
Maui	20,167	371
Hawai‘i	24,063	290
Honolulu	31,610	197
Central	32,222	177
Leeward	39,734	130

These data show that if Hawai‘i’s administrative districts were independent, they would still be among the largest in the nation.

SCR 118 SD1 HD1

COLLEGE OF SOCIAL SCIENCES
public policy center
UNIVERSITY OF HAWAI'I AT MĀNOA

Senate Concurrent Resolution 118, SD1, HD. Improving the community's understanding of the Department of Education's programs and school expenses including a comparison with other states on adequacy of funds.

This resolution asked the College of Social Sciences Public Policy Center (PPC), "in concert with the Department of Education to convene a working group "to propose areas for improved spending and expenditures and an implementation plan to carry this out." Dr. Susan Chandler, Director of the PPC and Katia Balissiano, a graduate student in the Department of Urban and Regional Planning met on September 16, 2008 with a small group from the DOE to discuss how to move ahead. The attendees from the DOE were:

> James Brese, Assistant Superintendent, Office of Fiscal Services, Adele Chong, Director, Budget Branch, Brian Hallett, Budget Specialist, Edwin Koyama, Accounting Director, Administrative Services and Kate Stanley, Legislative consultant.

The DOE staff believes that the Department produces a tremendous amount of information each year and tries very hard to communicate extremely complex material in an easily digestible manner to students, parents, interested community members, legislators, the federal government representatives and other policy makers. In fact, the DOE budget staff spends a significant amount of its time analyzing data and producing responses for the legislature and the Executive Branch. When new questions are asked, or requests for projections are made, or implications of a particular scenario regarding the DOE budget and expenditures, the Budget staff must analyze the request, obtain and analyze the data and present the findings.

The group briefly discussed how difficult it is to know what type of presentations; illustrations or graphs are most effective. We discussed what data seem to be most effective and which data help tell the "story" in the best way. The DOE staff are very concerned about providing accurate data to the public and while they acknowledge the complexity, see the need to make it clear and simple for a variety of audiences. An added challenge is that some requests for information are from people quite familiar with the DOE, state government and public budgeting, while others need much more background information to fully understand the documents and the communication. Finding this balance is often difficult to accomplish.

The members of this group recognize that the complexity of the department's funding streams; federal and state reporting requirements complicate the numbers and definitions being presented. For example, how SPED is defined? How do you best explain and display that the individual schools control some SPED funds, but other expenditures are controlled by the DOE administration. When should a presentation display the expenditures of fringe benefits amounts for teachers or administrators, or is lumping them together as "personnel costs" transparent enough?

The definitions, categories and classifications impact how expenditures are portrayed and understood by those both inside and outside of the DOE.

This group pointed to three recent presentations that they thought presented information in a transparent manner and responded to their critical issues. One new graphic was a one page coin shaped "pie chart" that divided up the expenditures in a particular category (eg. percent of students with special needs) by taking parts of the coin away in sections. The whole coin equaled 100%. Another PowerPoint presentation called "What is the current DOE budget?" shows a dollar bill with the same intention of dividing up the total dollar into sections, each describing the percentage (in this case the number of cents of each dollar spent on a particular category. For example, $0.65 of each dollar is spent on salary and fringe benefits. Another dollar picture shows that for SY2006-07 (excluding debt service), 73% was spent by principals; 23% by state level, central services; 2% on instructional support and 2% on state/complex area administration. Yet another picture, divided up the dollar with categories, such as $0.47 of the money expended by principals was from the weighted formula, and $0.11 of the central administration funds go for SPED and "related services." Bar graphs are also used to display critical data, i.e., special education services to comply with the Felix Consent Decree or the money that was transferred from DAGS to the DOE (increasing their budget), for facility repair and maintenance. It is immediately clear from looking at these presentations, that the DOE has an array of different funding sources; different mandates (federal and state); multiple initiatives, some school-based; some by complex; some state wide. Clearly presenting how the DOE spends its money is a big problem and probably most schools would say they need more to meet their educational goals. Others, maybe people without school-age children look at these same data and say, "there is plenty" but it is not being spent well.

Communication Comparisons with Other States

The DOE has reviewed how other states present data. They found that the other states are not necessarily less complicated and display their data and reports the same way as Hawaii. One issue that makes Hawai‘i different from other states, and thus makes inter-state comparisons difficult (and may even taint the public's perceptions) is that in Hawai‘i, the local educational agency (LEA) is the same as the state educational agency (SEA). This means that the organization that operates the system is the same one who regulates it.

On-line Questionnaire

Dr. Chandler developed several questions for an on-line survey that was sent out to 8 key community leaders. She followed up with telephone calls to several respondents. (See survey questions below)

December 4, 2008

Questionnaire in Response to SCR 118

The Hawai'i Legislature believes that the DOE needs to improve its communication and transparency when describing its budget and programs to the public and to policymakers. The DOE produces a tremendous amount of information each year at budget testimonies, public hearings, on its website and it responds to multiple requests all through the Legislative session. Some requests come from people who are very familiar with the DOE's budgeting processes and some come from people who are not familiar with a public school system. Attempting to provide easily understood, clear, yet precise information is challenging.

Please think about the following questions and place a check next to the answer that best describes your opinion.

1. I think the definitions that the DOE uses to explain its classification of students is clear. (eg. special education, multiple special needs, English second language learners)

_____ Agree ____ Don't Know ____ Don't Agree

2. I can clearly explain and differentiate among the terms "economically disadvantaged", "special education", "multiple special needs", "section 504" "English Second Language Learners."

_____ Agree ____ Don't Know ____ Don't Agree

3. I could correctly estimate how many children are in each category.

_____ Agree ____ Don't Know ____ Don't Agree

4. I believe that the weighted school formula is designed to allocate funds based on students' educational needs.

_____ Agree ____ Don't Know ____ Don't Agree

5. I think that the DOE clearly explains its terms and definitions so that the schools, the public, families and policy makers can understand how money is being spent on programs.

_____ Agree ____ Don't Know ____ Don't Agree

Interview Findings

All of the people interviewed agreed that the DOE budget is extremely complicated and perhaps impossible to easily describe to an external audience. In fact, some said it was so big, and made up of "so many moving parts" that many people working *inside* the system were not clear about how the budgeting works and how the money was spent. A statewide school system that is paid for by taxpayers, however, needs to let its "customers" know what is going on. A system that has a budget that is "too complicated to understand" is a system in trouble.

Most agreed that the real issue is NOT transparency or communication issues, or even the unclear definitions of terms (like the difference between "special education" and "special needs") but rather, to improve the support for public education, the DOE needs to *focus* on fewer outcomes and increase their success in achieving them. Like the Honolulu Magazine, list which schools are *successful* defined by an agreeable metric and then establish a causal link between the *outcomes* and the *resources* needed.

Without clear data-driven outcome measures that document the accomplishments of each school, it is extremely hard to know whether money is being spent wisely or not. An organizational culture that believes that all schools are equal, or that it is not "fair" to highlight one school's successes or publicize another's poor scores, prevents students, parents and the community from seeing exactly where progress is being made and conversely, where schools are not making progress. The annual test scores that are published are one measure, but in some respondents' view, the test scores do not really portray the whole story and do not measure how successfully the school is preparing Hawai'i's youth for the workforce or the next generation of democracy.

One person noted the lack of mentoring and succession planning all throughout the DOE, not just the higher administrative offices. This he contrasted with successful business, that provide mentoring, coaching and planning for when a person leaves a job. Vacancies get quickly filled with competent, and "ready" employees.

Several mentioned that the schools are not producing students that are ready for the work world and that there needs to be more attention to 21st century workforce development. Most agreed that there is a crucial need to re-structure, re-organize, streamline and re-design the school system with a laser focus on outcomes. Some thought that this state budget crisis might be the opportunity to streamline and increase accountability measures. One respondent said, "1) set up the standards, 2) measure the outcomes, 3) monitor. These three steps are how a business model for any business would function, and perhaps the DOE could benefit from more of the business approaches. If the DOE could select a FEW goals and then track their progress toward the goal, it is likely that community support would follow. Several mentioned concerns that the principals now being hired are not trained for the 21st century schools and have not been trained for modern and complex management and administrative tasks necessary to provide educational leadership in public schools. Another concern expressed was that teachers are continuously being asked to do more, on top of the existing requirements and tasks, rather than being able to replace "X" with "Y". Stacking up more and more jobs, paperwork and requirements on teachers makes their major task of increasing student achievement, impossible. One suggestion was that for every new rule or policy, one should be deleted.

Conclusion

Understanding the DOE budget is believed to be an important factor in order to obtain and maintain legislators and community support for its programs. A quick review of the issues by a few respondents indicate that communication would be clearer if the DOE:

- Would use more precision and clarity in the terms it uses to define expenditure categories and budget requests;
- Would focus their achievement objectives and select fewer goals to strive for so that measurable progress (or lack there of) is clear in each school;
- Would move away from process-orientation to outcome-driven, data driven objectives that are clearly defined, measurable and have clear time frames;
- Would *reduce* the nonessential rules and regulations that are piled on teachers and only add a new requirement if one is lifted. All should directly focus on student achievement;
- Would give up reporting requirements that are not used for direct analysis by someone hired to improve student achievement;
- Design mentoring systems for teachers and administrators so that vacancies are filled quickly and with competent staff

APPENDIX: TEXT OF SCR 118

THE SENATE
TWENTY-FOURTH LEGISLATURE, 2008
STATE OF HAWAII

S.C.R. NO. 118 S.D. 1 H.D. 1

SENATE CONCURRENT RESOLUTION

IMPROVING THE COMMUNITY'S UNDERSTANDING OF THE DEPARTMENT OF EDUCATION'S PROGRAMS AND SCHOOL EXPENSES INCLUDING A COMPARISON WITH OTHER STATES ON ADEQUACY OF FUNDS

WHEREAS, the Department of Education is a large and complex organization that can be operated and organized like a business entity in some ways, but as a public institution, may not in all ways; and

WHEREAS, to many outside the department, the department operates in ways which may leave the department open to unwarranted criticism; and

WHEREAS, the public needs to better understand the DOE's administration functions, human resources system, fiscal services, information technology services, and business services; and

WHEREAS, many audits have been conducted on various DOE services, offices, programs, and functions but many of the recommendations have not been funded so implementation is impossible and thus the audits have had questionable effect; and

WHEREAS, the key to Hawaii's future success is a strong public schools system that equips our students with the knowledge, skills, and experiences necessary to succeed; and

WHEREAS, the public education system in Hawaii is in dire need of increased support and funding to improve, expand, and grow new programs and facilities; and

WHEREAS, the public education system has to address the pending backlog of infrastructure and facilities repair and maintenance projects estimated to currently be $400,000,000 in elementary, middle, and high schools throughout the State; and

WHEREAS, providing air conditioning in all schools will cost $1 billion, excluding the costs required for increasing the electrical capacity and the costs of increased electrical usage; and

WHEREAS, providing textbooks for every student, and providing each with access to high-end computers, learning tools, equipment, and resources; and

WHEREAS, Hawaii's public schools are increasingly taking on the responsibility of educating students, especially new immigrants who have language and cultural challenges, and those with economic and knowledge deficiencies, and physical and learning problems, all students in need of special attention and differentiated learning environments; and

WHEREAS, noncompetitive salaries for educational assistants, school psychologists, business managers, therapists, accountants, computer programmers, system analysts, procurement/contract specialists, and pre-school teachers make filling positions with highly qualified individuals a constant challenge; and

WHEREAS, the *Adequacy Funding Study* indicated that increased funding of seventeen per cent or $278,000,000 was necessary for schools to achieve adequate standards; and

WHEREAS, the general public seeks assurance that our public education dollars are being spent wisely; and

WHEREAS, data from a comparison of Hawaii's system with other states could provide policymakers more focused and reasoned initiatives for education spending; and

WHEREAS, if current funds appropriated to the department are shown to be appropriately utilized and inadequate to providing a high quality education for each child especially in areas that have shown relationship to successful outcomes in other states, 77% of the public would consider supporting additional taxes for public education as suggested by polls in 2003 and 2007; and

BE IT RESOLVED by the Senate of the Twenty-fourth Legislature of the State of Hawaii, Regular Session of 2008, the House of Representatives concurring, that the Department of Education needs to improve its communication and transparency to the public and policymakers regarding the amounts budgeted and spent by the department and needs to have better data collection systems to assist them in planning for more focused, future funding initiatives; and

BE IT FURTHER RESOLVED that the College of Social Sciences' Public Policy Center, in concert with the department shall convene a working group to propose areas for improved communication to the public and increased transparency about its spending and expenditures and an implementation plan to carry this out; and

BE IT FURTHER RESOLVED that the working group shall develop recommendations for a more effective and transparent public understanding of the funding for DOE programs and services; and

BE IT FURTHER RESOLVED the Hawaii Educational Policy Center undertake a study of existing data that compares Hawaii with Massachusetts, Minnesota, New Hampshire, Connecticut, Kansas, and Washington (or five other "peer" states) suggested by the department in areas such as:

(1) Average class size;

(2) Student-teacher ratio;

(3) Average number of students per counselor;

(4) Length of school day and school year;

(5) Per pupil funding;

(6) Percentage of students with special needs and school budget dedicated to those students;

(7) Percentage of school budget spent on administration; and

(8) And/Or other data that might indicate the reasons for high achievement rates, and propose measures (funding and resources) needed in Hawaii to provide comparable educational services; and

BE IT FURTHER RESOLVED that the working group and the Hawaii Educational Policy Center should prepare a progress report to the Legislature no later than twenty days prior to the convening of the Regular Session of 2009 and a final report of its findings and recommendations, including any proposed legislation to the legislature no later than twenty days prior to the regular session of 2010.