



## Endnotes

1. This report is required by **§302A-1004**, Hawaii Revised Statutes. The development of an educational accountability system, already underway by the Department, was requested by Act 371, Session Laws Hawaii 1989. The present system of reports was institutionalized by Act 364, Session Laws Hawaii 1993, as amended by Act 272, Session Laws Hawaii 1994, and Act 074, Session Laws Hawaii 1999.
2. The three special program centers are: Jefferson Orthopedic Unit, located at Jefferson Elementary School; Pohukaina School, a special education unit adjacent to Kaimuki Middle School; and The Hawai'i Center for the Deaf and the Blind, located in Kapahulu.
3. Hawaii Department of Business, Economic Development and Tourism, *The State of Hawaii Data Book 1996*, Online, <http://www.hawaii.gov/dbedt/db97/index.html>, Table 2.01, Table 2.05, Accessed 7 July 1999.
4. These estimates are calculated from counts of students who were enrolled in the same school in both September and June.
5. These schools were: Barbers Point, Hale Kula, Helemano, Iroquois Point, Lehua, Pearl Harbor Kai, Shafter, Solomon, and Wheeler Elementary Schools.
6. Pupil/teacher ratios are *not* measures of class size. Class sizes can be considerably larger than the overall pupil/teacher ratio for two reasons. In Hawaii's secondary schools, teachers usually teach six periods of a seven period day (leaving one period for preparation). Also, for a given overall pupil/teacher ratio, mandated small classes in some areas, e.g., special education, necessitate larger classes in others.
7. U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1998*, NCES 1999-036, Washington, DC: 1999, Online, <http://nces.ed.gov/pubsearch>, Table 83, Accessed 9 July 1999.
8. Karen Peterson, "Isle schools spend less for top posts," *Honolulu Advertiser*, August 14, 1998, pp. A1, A12.
9. U. S. Bureau of the Census, *Statistical Abstract of the United States: 1998* (118<sup>th</sup> edition), Washington, D.C., 1998, Online, <http://www.census.gov/prod/3/98pubs/98statab/cc98stab.htm>, Table 727 (income), Table 515 (revenue), Table 517 (tax collections) Accessed 29 April 1999. Revenue differs from tax collections because some states have substantial non-tax revenues from publicly owned utilities, state liquor sales, or insurance trusts. Alaska's tax wealth comes from its "severance" tax on exported oil, which comprised over 65% of its tax revenues in 1997.

## Introduction

## Context

## Process



10. Dollars per ADM results in a slightly lower value for per pupil expenditures than does dollars per ADA because average daily membership (enrollment) is always larger than average daily attendance.
  11. Hawaii Department of Business, Economic Development and Tourism, *The State of Hawaii Data Book 1997*, Online, <http://www.hawaii.gov/dbedt/db97/index.html>, Table 13.02 (GSP), Table 9.01 (revenues), and Table 3.15 (school expenditures), Accessed 7 July 1999. *Digest of Education Statistics, 1998*, Table 167. National Center for Education Statistics, *Public Elementary and Secondary Education Statistics*, annual: NCES 1999-347 (1999), Online, <http://nces.ed.gov/pubsearch>, Tables 6&7, Accessed 17 March 1999.
  12. Education Week, *Quality Counts: A Report on the Condition of Education in the 50 States*, Washington, D.C., Editorial Projects in Education, 1997, pp. 94, 96.
  13. Education Week, *Quality Counts '98: The Urban Challenge*, Washington, D.C., Editorial Projects in Education, 1998, pp. 137-140.
  14. Since 1996-97, five more schools have been added to the State's public school system. Kapa`a Middle School and Kealakehe High School opened in 1997-98, and Kea`au Elementary School, Mililani Middle School and Waikele Elementary School will open in 1998-99.
  15. The current policy is target class sizes of 21 in grades K through 2 and 26 in higher grades. The target class size for special education is 12.
  16. United States General Accounting Office, *School Facilities: America's Schools Report Differing Conditions*, GAO/HEHS 96-103, Washington, D.C., 1996.
  17. W. J. Fowler and H. J. Walberg, "School Size, Characteristics, and Outcomes," *Educational Evaluation and Policy Analysis*, **13**, 2, (Summer, 1991): 189-202. F. Mosteller, "The Tennessee Study of Class Size in the Early School Grades," *The Future of Children*, **5**, 2, (Summer/Fall, 1995): 113-127.
  18. *Digest of Education Statistics, 1998*, Tables 99 and 100.
  19. Hawai'i Board of Education, *School Size Standards*, Policy No. 6701, approved March 20, 1997.
- Outcomes**
20. The norms of the SAT Eighth Edition under-represent large, urban school districts that have substantial numbers of minority students or students with non-English speaking background. This adversely represents the achievement of Hawai'i's public school students relative to a "national average."



21. The design of the NAEP is complicated; it is basically a very large standardized test administered to groups of students selected by involved sampling procedures to represent all of the public school students at their grade level in their state. No student takes more than a small portion of the entire test; it is too big. Instead, involved statistical procedures are used to infer a “mean” score and a standard deviation of scores for each state from the partial scores compiled from all of the participating students from that state.
22. U.S. Department of Education, National Center for Education Statistics, *NAEP 1998, 1994, and 1992 National and State summary Tables for Grade 4 Student Data*, Online, <http://nces.ed.gov/nationsreportcard/TABLES/SDTTOOL.HTM>, Accessed 17 February 1999. U.S. Department of Education, National Center for Education Statistics, *NAEP 1998, 1994, and 1992 National and State summary Tables for Grade 8 Student Data*, Online, <http://nces.ed.gov/nationsreportcard/TABLES/SDTTOOL.HTM>, Accessed 17 February 1999
23. *Digest of Education Statistics, 1998*, Tables 122 and 123.
24. The event rate is computed by counting the number of students who leave school for various reasons within each grade cohort each year as a percentage of the original cohort size. The other two defined rates are status dropout (aged 16 to 24, not in school and without a high school diploma or the equivalent as a percentage of the age group population) and cohort dropout (percentage of entering high school freshmen who have not completed high school four years later).
25. The compounding formula is as follows:  $r_c = [1 - (1-r_9)(1-r_{10})(1-r_{11})(1-r_{12})]$  where  $r_c$  is the estimated cohort rate and the other “r” values are the event rates for 9<sup>th</sup> through 12<sup>th</sup> grades. The compounding is necessary to account for the diminishing size of the original cohort.
26. The number of credits required for graduation was increased from 20 to 22, raising the credits required in mathematics and science from 2 to 3, beginning with the 1996-97 senior class.
27. Students first attempt the HSTEC in 10<sup>th</sup> grade. If they do not pass on their first attempt, they may retake the portion(s) not passed up to 4 more times, twice each in 11<sup>th</sup> and 12<sup>th</sup> grades. The 16<sup>th</sup> essential competency, knowledge of the diversity and interdependence of the world’s peoples and societies, became a requirement for the 1997 graduating class. As noted in the text, the HSTEC requirement has been rescinded for the 1999-2000 class, to be replaced by an assessment linked to the revised Hawai’i Content and Performance Standards.



Data Tables

**Table 3.** Enrollment in Hawai'i Public Schools, 1988-89 to 1997-98  
(Figure 2)

	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98
Elementary	96,382	98,567	100,071	102,142	103,356	104,227	105,598	107,254	107,979	108,197
Secondary	70,845	70,626	70,985	72,107	73,567	75,649	77,566	79,327	80,506	81,084
Total	167,227	169,193	171,056	174,249	176,923	179,876	183,164	186,581	188,485	189,281
Growth	1,317	1,966	1,863	3,193	2,674	2,953	3,288	3,417	1,904	796
Growth Rate	0.8%	1.2%	1.1%	1.9%	1.5%	1.7%	1.8%	1.9%	1.0%	0.4%

**Table 4.** Enrollment by District, 1987-88 to 1997-98  
(Figure 3)

Year	Honolulu	Central	Leeward	Windward	Hawai'i	Maui	Kaua'i
1987-88	35,093	34,673	29,510	19,099	22,180	16,116	9,009
1988-89	34,530	34,985	29,653	19,143	22,875	16,643	9,210
1989-90	34,052	35,239	30,019	19,244	23,745	17,312	9,427
1990-91	34,128	35,177	30,320	19,324	24,564	17,788	9,561
1991-92	33,978	35,593	31,066	19,494	25,472	18,379	10,109
1992-93	34,195	35,763	31,449	19,784	26,318	18,835	10,503
1993-94	34,597	35,985	32,126	19,785	29,946	19,527	10,826
1994-95	34,715	36,575	33,235	19,745	27,703	20,189	10,937
1995-96	35,098	36,436	34,721	19,994	28,083	20,992	11,176
1996-97	35,365	35,985	35,982	20,297	28,257	21,463	11,065
1997-98	35,354	35,538	37,071	19,980	28,508	21,712	11,039

**Table 5.** Students with Special Needs in Hawai'i Public Schools  
(Figures 4, 5, & 6)

Year	Special Education	Limited English	Lunch Subsidy
1988-89	9,214 5.5%	7,674 4.6%	51,997 31.1%
1989-90	9,572 5.7%	8,035 4.7%	48,522 28.7%
1990-91	9,778 5.7%	8,861 5.2%	46,849 27.4%
1991-92	10,800 6.2%	8,834 5.1%	47,719 27.4%
1992-93	11,515 6.5%	9,124 5.2%	55,295 31.3%
1993-94	11,692 6.5%	10,603 5.9%	60,339 33.5%
1994-95	12,182 6.7%	11,088 6.1%	64,748 35.3%
1995-96	13,108 7.0%	12,902 6.9%	70,033 37.5%
1996-97	13,931 7.4%	13,366 7.1%	74,793 39.7%
1997-98	15,561 8.2%	13,146 6.9%	77,367 40.9%



**Table 6.** Incidence of Low Birth Weight and Single Mothers, 1985-1997  
(Figure 7)

Year	Total Births	Births to Single Mothers	Babies with Low Birth Weight
1985	18,267	20.1%	6.6%
1986	18,253	20.4%	6.1%
1987	18,555	21.4%	7.2%
1988	18,937	22.3%	6.9%
1989	19,335	23.9%	7.1%
1990	20,438	24.9%	7.1%
1991	19,880	26.3%	6.8%
1992	19,837	26.5%	7.2%
1993	19,567	27.3%	6.9%
1994	19,438	28.4%	6.5%
1995	18,552	29.3%	6.6%
1996	18,378	30.3%	6.7%
1997	17,326	30.0%	7.1%

Source: See Note 3.

**Table 7.** Students Attending the Same School All Year  
(Figure 8)

Year	Type of School			
	Elementary	Intermediate	High	Multi-Grade
1991-92	90.2%	93.5%	92.4%	93.2%
1992-93	89.7%	92.3%	91.5%	91.3%
1993-94	95.2%	96.0%	94.2%	95.2%
1994-95	89.5%	88.8%	88.8%	89.7%
1995-96	92.1%	93.8%	93.1%	93.6%
1996-97	91.0%	93.4%	92.9%	92.9%
1997-98	91.0%	93.2%	94.3%	92.5%



**Table 8.** Pupil to Teacher Ratios in Hawai'i and Comparable States, 1987-88 to 1997-98 (Figure 9)

Year	Hawai'i	Nevada	New Hampshire	Rhode Island	U. S. Average	Hawai'i Rank
1987-88	21.6	20.2	16.0	15.1	17.6	48
1988-89	19.2	20.3	16.2	14.5	17.3	44
1989-90	19.1	20.4	16.2	14.5	17.2	43.5
1990-91	18.9	19.4	16.2	14.6	17.2	41
1991-92	18.5	18.6	15.5	14.6	17.3	40.5
1992-93	17.6	18.7	15.6	14.3	17.4	35.5
1993-94	17.8	18.7	15.5	14.8	17.4	38.5
1994-95	17.9	18.7	15.6	14.7	17.3	39
1995-96	17.8	19.1	15.7	14.3	17.3	40
1996-97	17.7	19.1	15.6	14.2	17.1	41
1997-98	17.8	18.5	15.6	14.5	16.8	41

Sources: *Digest of Education Statistics, 1998, Table 67.*

U.S. Department of Education, Office of Educational Research and Improvement, *Early Estimates: Public Elementary and Secondary Education Statistics: School Year 1997-98*, NCES 98-202, Table 6,7, pp.8, 9.

**Table 9.** Percentage of State and Local Revenue Allocated to Public K-12 Education, Hawai'i and Comparable States (Figure 11)

	Hawai'i	Nevada	New Hampshire	Rhode Island	U. S. Average
1982-83	17.1%	19.2%	24.7%	21.3%	24.3%
1983-84	16.5%	18.4%	24.9%	20.7%	24.0%
1984-85	16.3%	18.3%	25.9%	20.4%	23.9%
1985-86	16.3%	20.6%	25.6%	20.6%	24.0%
1987-88	17.3%	21.0%	27.6%	21.4%	24.2%
1988-89	16.3%	21.0%	28.0%	20.9%	24.4%
1989-90	15.5%	22.4%	28.4%	22.0%	24.3%
1990-91	15.0%	24.5%	28.9%	21.8%	24.1%
1991-92	13.5%	22.4%	24.2%	19.8%	23.5%
1992-93	13.1%	21.3%	23.9%	20.7%	23.4%
1994-95	14.3%	20.2%	25.1%	21.4%	23.1%

Note: No data have been reported by NCES for school years 1986-87 or 1993-94.

Sources: *Digest of Education Statistics, 1998, Table 36; Digest 1985-86, Table 15; Digest 1987, Table 25; Digest 1988, Table 27; Digest 1989, Table 32; Digest 1990, Table 32; Digest 1991, Table 34; Digest 1992, Table 36; Digest 1994, Table 36; Digest 1996, Table 35; Digest, 1997, Table 36.*



**Table 10.** Expenditures per Pupil (ADA) for Hawai'i and Comparable States, Long Term Trend

	1959-60	1969-70	1979-80	1989-90
Hawai'i	\$1,403	\$2,825	\$3,378	\$5,589
Nevada	\$1,860	\$2,586	\$2,913	\$5,173
New Hampshire	\$1,501	\$2,430	\$2,893	\$6,664
Rhode Island	\$1,786	\$2,996	\$3,933	\$7,852
U. S. Average	\$1,621	\$2,743	\$3,345	\$6,232

Sources: *Digest of Education Statistics, 1997*, Tables 168, 169. Expenditures are in 1996-97 dollars per average daily attendee (ADA).

**Table 11.** Expenditures per Pupil (ADM) for Hawai'i and Comparable States (Figure 12)

	Hawai'i	Nevada	New Hampshire	Rhode Island	U. S. Average	HI Difference from U.S. Average	
1987-88	\$3,661	\$3,298	\$4,080	\$4,951	\$3,927	(\$266)	-6.8%
1988-89	\$3,841	\$3,562	\$4,328	\$5,598	\$4,304	(\$463)	-10.8%
1989-90	\$4,130	\$3,816	\$4,786	\$5,798	\$4,628	(\$498)	-10.8%
1990-91	\$4,820	\$4,294	\$5,152	\$5,934	\$4,902	(\$82)	-1.7%
1991-92	\$5,062	\$4,546	\$5,237	\$6,092	\$5,023	\$39	0.8%
1992-93	\$5,332	\$4,645	\$5,368	\$6,501	\$5,170	\$162	3.1%
1993-94	\$5,533	\$4,661	\$5,433	\$6,797	\$5,344	\$188	3.5%
1994-95	\$5,597	\$4,730	\$5,567	\$6,899	\$5,536	\$62	1.1%
1995-96	\$5,560	\$4,892	\$5,740	\$7,304	\$5,697	(\$137)	-2.4%
1996-97	\$5,633	\$5,084	\$5,920	\$7,612	\$5,924	(\$291)	-4.9%
1997-98	\$5,415	\$5,219	\$6,493	\$7,642	\$6,168	(\$753)	-12.2%

Sources: *Digest, 1998*, Table 168. *Early Estimates, 1997-98*, Tables 6,7, pp.8, 9. Expenditures are in current (unadjusted) dollars per average daily member (ADM).

**Table 12.** Net Classroom Shortage or Excess by District (Figure 13)

	Honolulu	Central	Leeward	Windward	Hawai'i	Maui	Kaua'i
Elementary	108	15	-62	53	-25	-3	-2
Secondary or K-12	68	-24	-62	6	-36	-65	-54
Total	176	-9	-124	59	-61	-68	-56

**Table 13.** Percentages of Schools with Substandard Facilities (Figure 14)

	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98
Administration	40%	40%	40%	40%	41%	42%	37%	35%
Libraries	46%	47%	48%	46%	46%	49%	51%	50%
Cafeteria	14%	17%	17%	16%	14%	17%	13%	12%



**Table 14.** Percentages of Schools with Substandard Facilities by District, 1997-98  
(Figure 15)

	Honolulu	Central	Leeward	Windward	Hawai'i	Maui	Kaua'i	Statewide
Administrative	13%	18%	16%	35%	71%	80%	40%	35%
Library	38%	53%	37%	42%	76%	70%	33%	50%
Cafeteria	4%	10%	16%	6%	26%	10%	13%	12%
Number of Schools	56	40	38	31	38	30	15	248

**Table 15.** Mean Number of Days Absent by School Type and Year  
(Figure 17)

	Elementary	Intermediate	High	Multi-Grade
1991-92	9.8	10.7	13.4	12.7
1992-93	10.0	9.8	12.7	12.8
1993-94	9.8	11.2	14.1	14.5
1994-95	9.9	11.4	17.2	16.1
1995-96	9.5	11.0	17.2	15.5
1996-97	9.9	10.8	16.3	16.1
1997-98	9.7	10.6	17.4	16.9

**Table 16.** Number of School Reporting Specific Improvement Priorities , 1991-92 to 1997-98  
(Figure 18)

Priority	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98
Achievement	151	170	163	167	161	158	162
Curriculum	132	144	167	152	157	137	120
Staff Development	126	124	122	115	95	66	55
SCBM	73	85	78	57	48	26	14
Community	60	60	48	55	48	48	59
Attitudes or Behavior	98	83	88	81	80	60	66
Accreditation	n/a	n/a	2	1	5	20	26
Facilities	17	18	27	66	114	106	97
Other	23	28	12	12	20	111	139

**Table 17.** Stanford Achievement Test Means, 1992-93 to 1997-98  
(Figure 19 and 20)

	National Norm	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98
<b>Reading</b>							
10th Grade	<b>685</b>	679.9	679.3	679.5	679.9	677.6	677.1
8th Grade	<b>673</b>	661.7	663.5	661.5	662.4	662.2	662.2
6th Grade	<b>649</b>	645.6	641.0	645.8	640.4	646.4	646.1
3rd Grade	<b>608</b>	593.4	590.7	591.9	588.7	590.2	592.6
<b>Mathematics</b>							
10th Grade	<b>704</b>	707.1	708.7	706.5	708.3	703.8	702.8
8th Grade	<b>684</b>	682.2	685.8	681.9	685.1	681.1	681.4
6th Grade	<b>654</b>	659.3	658.0	659.5	656.5	659.3	659.1
3rd Grade	<b>594</b>	598.2	597.8	595.4	594.4	593.0	595.6



**Table 18.** High School Senior Completion and Non-Completion, 1986-87 to 1997-98  
(Figure 23)

Year	Seniors	Certificate of Completion							
		Graduated	Course Completion		IPP		Did Not Complete		
1986-87	10,161	9,595	94.4%	---	---	---	---	566	5.6%
1987-88	11,173	10,517	94.1%	---	---	---	---	656	5.9%
1988-89	11,190	10,534	94.1%	---	---	---	---	656	5.9%
1989-90	10,204	9,393	92.1%	---	---	139	1.4%	672	6.6%
1990-91	10,041	9,066	90.3%	225	2.2%	180	1.8%	570	5.7%
1991-92	10,062	9,235	91.8%	207	2.1%	168	1.7%	452	4.5%
1992-93	9,852	8,924	90.6%	211	2.1%	185	1.9%	532	5.4%
1993-94	10,367	9,411	90.8%	301	2.9%	158	1.5%	497	4.8%
1994-95	10,552	9,435	89.4%	344	3.3%	205	1.9%	568	5.4%
1995-96	10,395	9,405	90.5%	365	3.5%	223	2.1%	402	3.9%
1996-97	10,189	8,977	88.1%	535	5.3%	227	2.2%	450	4.4%
1997-98	10,836	9,677	89.3%	499	4.6%	202	1.9%	458	4.2%

**Table 19.** High School Seniors Plans, 1991-92 to 1997-98  
(Figure 24)

	Attend School	Work Full-Time	Join Military	Other	Undecided
1991-92	77.4%	10.9%	4.6%	2.1%	6.5%
1992-93	83.7%	16.6%	4.6%	1.3%	4.5%
1993-94	79.3%	9.6%	3.8%	2.6%	6.3%
1994-95	79.0%	10.1%	3.9%	2.7%	6.2%
1995-96	79.3%	14.0%	6.0%	3.5%	5.7%
1996-97	77.7%	13.9%	6.0%	3.5%	5.7%
1997-98	78.7%	12.4%	8.8%	2.0%	3.9%

**Table 20.** Student Suspensions by Chapter 19 Classification, 1991-92 to 1997-98  
(Figure 25)

		Type					Students Involved	
		Type A	Type B	Type C	Type D	All Types		
1991-92	Number	2,520	6,268	7,434	1,501	17,723	10,686	
	Rate	14.5	36.0	42.7	8.6	101.7	61.3	per 1,000
1992-93	Number	2,789	7,112	9,283	1,685	20,869	12,088	
	Rate	15.8	40.2	52.5	9.5	118.0	68.3	per 1,000
1993-94	Number	2,923	8,002	9,734	2,018	22,677	13,104	
	Rate	16.3	44.5	54.1	11.2	126.1	72.9	per 1,000
1994-95	Number	3,033	7,207	9,663	1,769	21,672	12,839	
	Rate	16.6	39.3	52.8	9.7	118.3	70.1	per 1,000
1995-96	Number	3,533	7,774	10,767	2,335	24,409	14,232	
	Rate	18.9	41.6	57.6	12.5	130.7	76.2	per 1,000
1996-97	Number	3,287	8,541	11,356	3,615	26,799	13,233	
	Rate	17.4	45.3	60.3	19.2	142.2	70.2	per 1,000
1997-98	Number	3,545	7,632	8,743	2,733	22,653	12,124	
	Rate	18.7	40.3	46.2	14.4	119.7	64.1	per 1,000



**Table 21.** Chapter 19 Charges Categorized by Type of Incident, 1991-92 to 1997-98  
(Figure 26)

	<u>Violence</u>	<u>Property</u>	<u>Illicit Substances</u>	<u>Attendance</u>	<u>Order</u>
1991-92	15.6	4.7	11.8	10.2	58.0
1992-93	18.3	5.2	16.3	15.0	63.1
1993-94	19.2	5.8	19.0	16.4	65.5
1994-95	18.5	5.4	21.6	17.7	82.5
1995-96	19.6	6.3	27.0	16.3	92.1
1996-97	18.4	5.7	23.1	5.4	89.6
1997-98	16.3	4.7	22.6	0.1	75.9

Figures are incidence rates, given as citations per 1000 students.