

**NOTES ON DATA QUALITY AND DATA PATTERNS FOR SOCIAL INDICATORS RELATED TO SUBSTANCE ABUSE**

		<b>Key Data Quality Issues/Problems</b> <i>(Italics = Minor or no real issues)</i>	<b>Yrs</b>		<b>State</b>	<b>Honolulu</b>	<b>Hawaii</b>	<b>Kauai</b>	<b>Maui</b>
<b>Availability of Drug</b>									
01 a	<b>Alcohol Sales Outlets</b> (Resident Pop. Rate)	<u>Validity:</u> Rates based on resident pop. only ignore tourist demand for alcohol; hence, overstate true rates.	11	<i>Trend/ Best Fit</i>	<i>Near flat, but recent slight decline/ Linear</i>	<i>Near flat, but recent slight decline/ / Linear</i>	<i>Sl. declining/ Polynomial (2)</i>	<i>Erratic/ Polynomial (4)</i>	<i>Initially flat, then declining/ Polynomial (2)</i>
				$R^2$	0.82	0.84	0.79	0.72	0.93
				<b>Typical Rank</b>		<b>#4 Lowest</b>	<b>#3 Low</b>	<b>Recently, #1 Highest</b>	<b>Recently, #2 High</b>
01 b	<b>Alcohol Sales Outlets</b> (DeFacto Population Rate)	<i>No major issue</i>	11	<i>Trend/ Best Fit</i>	<i>Near flat, but recent slight decline/ Polynomial (2)</i>	<i>Near flat, but slight rises and dips/ Polynomial (4)</i>	<i>Sl. declining/ Linear</i>	<i>Rise, dip, recent slt. rise/ Polynomial (3)</i>	<i>Initially flat, then declining/ Polynomial (2)</i>
				$R^2$	0.81	0.84	0.89	0.79	0.90
				<b>Typical Rank</b>		<b>#4 Lowest</b>	<b>#3 Low</b>	<b>#1 Highest</b>	<b>#2 High</b>
02 a	<b>Tobacco Sales Outlets</b> (Resident Pop. Rate)	<u>Validity:</u> Data omit military and mobile outlets. Rates based on resident pop. only ignore tourist demand for alcohol; hence, overstate true rates. <u>Reliability:</u> Based on annual visits to stores ( <i>not</i> govt. records). <u>Availability:</u> County data only for 2001.	6	<i>Trend/ Best Fit</i>	<i>Flat, drop, slight rise/ Polynomial (3)</i>	<i>(County data available only for Year 2001)</i>			
				$R^2$	0.95	N/A	N/A	N/A	N/A
				<b>Rank, 2001</b>		<b>#4 Lowest</b>	<b>#3 Middling</b>	<b>#1/#2 Tie</b>	<b>#1/#2 Tie</b>

02 b	<b>Tobacco Sales Outlets</b> (DeFacto Pop. Rate)	Same issues as #2a above, except for solution of tourist population issue.	6	Trend/ Best Fit	Flat, drop, slight rise/ Polynomial (3)	(County data available only for Year 2001)			
				R <sup>2</sup>	0.96	N/A	N/A	N/A	N/A
				Rank, 2001		#4 Lowest	All 3 Neighbor Island counties essentially tied; clearly higher than Honolulu		
<b>Transitions and Mobility</b>									
03	<b>New Home Construction</b>	Validity: Permits do not distinguish between local residential and visitor-oriented uses (e.g., 2 <sup>nd</sup> homes), and Neighbor Island data clearly affected by this.	11	Trend/ Best Fit	Shallow U-curve, reflecting economy over 90s/ Polynomial (2)	Flat, drop, flat/ Polynomial (3)	Very steep, inverted J, reflecting the state's economic decline and later partial recovery at end of the decade/ Polynomial (2)	Steep fall, then rise, then <u>level</u> at end of decade (no rise like others); Polynomial (4)	Shallower, more erratic version of Hawaii County patterns/ Polynomial (2)
				R <sup>2</sup>	0.81	0.86	0.93	0.86	0.90
				Typical Rank		#4, Lowest	In good economic times, #1, Highest	#2 or #3, Middling	#2 or #3, Middling
04	<b>Households in Rental Properties</b>	Availability: Federal definition limited to decennial Census years of 1990 and 2000.	2	10-Yr. Trend	Decline by ca. 2.5 pct. points	Decline by ca. 2.5 pct. points	Decline by ca. 2.5 pct. points	Decline by ca. 2.5 pct. points	No change
				R <sup>2</sup>	N/A	N/A	N/A	N/A	N/A
				Typical Rank		#1, Highest	#4, Lowest	#3, Middling	#2, Middling
05	<b>Net Migration</b>	Validity: The procedure of summing different Census migration components has some overlap. Reliability: Census often revises last year in series, and 1999 figures so strange we deleted them.	8	Trend/ Best Fit	Declines from positive to negative/ Linear	Declines from positive to negative/ Linear	Declines from very positive to zero/ Linear	Flat, drop, rise/ Polynomial (3)	Declines from very positive to just slightly positive/ Linear
				R <sup>2</sup>	0.90	0.81	0.81	0.86	0.84
				Typical Rank		#4, Lowest (most out-migration)	#1 or #2, High	Varies but usually #3, Middling	#1 or #2, High

<b>Low Neighborhood Attachment and Community Disorganization</b>									
06	<b>Popula- tion Voting in Elections</b>	<u>Validity:</u> A better mea- sure is % of popula- tion voting, which has remained fairly flat through the 1990s, dropping only in 2000.	6	<i>Trend/ Best Fit</i>	<i>Declining/ Linear</i>	<i>Declining/ Linear</i>	<i>Declining/ Linear</i>	<i>Recently declining/ Polynomial (3)</i>	<i>Declining/ Linear</i>
				$R^2$	0.83	0.80	0.87	0.76	0.89
				<b>Typical Rank</b>		<b>Recently, #2 or #3, Middling</b>	<b>Recently, #2 or #3, Middling</b>	<b>Recently, #1 Highest</b>	<b>Recently, #4 Lowest</b>
07 a	<b>Prisoners in State, Local Facilities (Total Resident Pop. Rate)</b>	<u>Definition:</u> Cannot assign by prisoner's place of residence, but rather by place of offense. <u>Validity:</u> Rates based on total resident pop. understated for Hono- lulu because this in- cludes military, who are processed in a separate military justice system for which info not readily available. (Also should logically not include under 18 population, either.)	9	<i>Trend/ Best Fit</i>	<i>Dip, then rise/ Polynomial (2)</i>	<i>Extremely erratic, but rising lately/ Polynomial (6)</i>	<i>Roughly level, then rise/ Polynomial (2)</i>	<i>Dip, rise, slight dip/ Polynomial (3)</i>	<i>Sharply increasing (stairstep)/ Linear</i>
				$R^2$	0.92	0.93	0.86	0.94	0.80
				<b>Typical Rank</b>		<b>#4, Lowest</b>	<b>#2 or #3, Middling</b>	<b>#2 or #3, Middling</b>	<b>#1, Highest</b>

07 b	<b>Prisoners in State, Local Facilities (Est. Adult Civilian Rate)</b>	<i>Definition:</i> Cannot assign by prisoner's place of residence, but rather by place of offense. <i>Validity:</i> Rates based on adult civilians, which is theoretically much sounder. However, no solid intercensal data for this population. (Dept. of Public Safety uses forecast <i>projections</i> developed in 1990.)	9	Trend/ Best Fit	Dip, then rise/ Polynomial (2)	Extremely erratic, but rising lately/ Polynomial (6)	Roughly level, then rise/ Polynomial (2)	Dip, rise, dip/ Polynomial (3)	Sharply increasing (stairstep)/ Linear
				R <sup>2</sup>	0.90	0.93	0.84	0.94	0.81
				Typical Rank		#4, Lowest	#2 or #3, Middling	#2 or #3, Middling	#1, Highest
<b>Extreme Economic and Social Deprivation</b>									
08	<b>Unemployment Rate</b>	<i>Minor reliability issue:</i> Most recent data always subject to revision.	9	Trend/ Best Fit	Inverted J, reflecting the state's economic decline and later partial recovery at end of the decade/ Polynomial (2)	Flat at start, then inverted J/ Polynomial (3)	Inverted J/ Polynomial (2)	Inverted U, w/ clear peak in mid-90s/ Polynomial (2)	Inverted J, but with early spike/ Polynomial (4)
				R <sup>2</sup>	0.89	0.96	0.89	0.85	0.60
				Typical Rank		#4, Lowest (low unemp.)	#1 or #2, High	#1 or #2, High	#3, Middling
09	<b>Free and Reduced Lunch</b>	<i>Reliability/Availability:</i> Consistently kept, available data only from 1997-98. <i>Validity:</i> Federal definition excludes private schools.	3	Trend/ Best Fit	State and all counties have been increasing, but 3 years too short to try to fit a trend line.				
				R <sup>2</sup>	N/A (3 yr)	N/A (3 yr)	N/A (3 yr)	N/A (3 yr)	N/A (3 yr)
				Typical Rank		#1, Highest (by far)	#2 - #4 (other counties all fairly clustered)	#2 - #4 (other counties all fairly clustered)	#2 - #4 (other counties all fairly clustered)

10	<b>Aid to Families with Dependent Children</b>	<u>Definition/Reliability:</u> TANF replaced AFDC in 1997, so data are comparable only from fiscal 1997-98 on.	3	<i>Trend/ Best Fit</i>	<i>State and all counties seem to be declining in fairly linear fashion, but 3 years too short to try to fit a trend line.</i>				
				$R^2$	N/A (3 yr)	N/A (3 yr)	N/A (3 yr)	N/A (3 yr)	N/A (3 yr)
				<b>Typical Rank</b>		<b>#3, Middling</b>	<b>#1, Highest (by far)</b>	<b>#2, Middling</b>	<b>#4, Lowest</b>
11	<b>Food Stamp Recipients</b>	<u>Definition/Reliability:</u> Changes in the law result in data being comparable only from fiscal 1997-98 on.	3	<i>Trend/ Best Fit</i>	<i>State and all counties seem to be declining in fairly linear fashion, but 3 years too short to try to fit a trend line.</i>				
				$R^2$	N/A (3 yr)	N/A (3 yr)	N/A (3 yr)	N/A (3 yr)	N/A (3 yr)
				<b>Typical Rank</b>		<b>#3, Middling</b>	<b>#1, Highest (by far)</b>	<b>#2, Middling</b>	<b>#4, Lowest</b>
12	<b>Adults Without High School Diploma</b>	<u>Availability:</u> Federal definition limited to decennial Census years of 1990 and 2000. (2000 data not available for this study)	1	<i>Trend/ Best Fit</i>	N/A	N/A	N/A	N/A	N/A
				$R^2$	N/A	N/A	N/A	N/A	N/A
				<b>Typical Rank</b>		<b>#4, Lowest (1990)</b>	<b>#1, Highest (1990)</b>	<b>#3, Middling (1990)</b>	<b>#2, Middling (1990)</b>
13	<b>Single Parent Households</b>	<u>Availability:</u> Federal definition limited to decennial Census years of 1990 and 2000.	2	<i>Trend/ Best Fit</i>	<i>Increases statewide and for each county from 1990 to 2000</i>				
				$R^2$	N/A	N/A	N/A	N/A	N/A
				<b>Typical Rank</b>		<b>#1, Highest (both years)</b>	<b>#4, Lowest</b>	<b>#2 or #3, Middling</b>	<b>#2 or #3, Middling</b>
<b>Family History of Substance Abuse</b>									
14	<b>Adults in Alcohol Treatment</b>	<u>Validity:</u> Includes only participants funded by DOH ADAD, not other public/private pgms. State uncertain if large inter-island differences are real or reflect program resources/decisions. <u>Reliability:</u> Record-keeping consistent only from 1998 on.	3	<i>Trend/ Best Fit</i>	<i>Although 3 years is too short a time to fit a trend line, <u>Kauai</u> has been <u>increasing</u>; <u>State and all other county rates</u> have remained roughly <u>flat</u>.</i>				
				$R^2$	N/A (3 yr)	N/A (3 yr)	N/A (3 yr)	N/A (3 yr)	N/A (3 yr)
				<b>Typical Rank</b>		<b>#3 or #4, Low</b>	<b>#1, Highest (by far)</b>	<b>#3 or #4, Low</b>	<b>Recently #2, Middling-High</b>

<b>Substance Use</b>									
15	<b>Juvenile Alcohol-Related Arrests</b>	<p><u>Validity:</u> UCR Part II figures are generally suspect. Extreme Neighbor Island variation likely reflects enforcement policies. All Kauai juvenile data suspect and subject to future revision. <u>Reliability:</u> Consistent data only from 1993.</p>	8	Trend/ Best Fit	Shallow rise, dip, rise, dip/ Polynomial (4)	Even more shallow pattern like state/ Polynomial (6)	Sharper rise, dip, rise/ Polynomial (3)	Erratic (twin-peaked M shape)/ Polynomial (4)	Rise, dip, rise, dip (like state)/ Polynomial (4)
				R <sup>2</sup>	0.96	0.98	0.86	0.65	0.96
				Typical Rank		#4, Lowest	#2 or #3, Middling (but up to #1 in 2000)	#1 or #2, High (but can drop to Middling -- #3 in 2000)	#1 or #2, Middling-High
16	<b>Juvenile Drug-Related Arrests</b>	<p>Same validity and reliability issues as #15 above. Also, police drug efforts strongly affected by funding availability – rise in arrests could mean more money, not more problems.</p>	8	Trend/ Best Fit	Rise, then flat and slight decline/ Polynomial (3)	Erratic but shallow/ Polynomial (4)	Sharp rise, fall, shallow rise/ Polynomial (3)	<u>Extremely</u> erratic (but overall rising)/ Polynomial (6)	Rising most of 90s, but recent dip/ Polynomial (2)
				R <sup>2</sup>	0.93	0.95	0.80	0.91	0.95
				Typical Rank		#4, Lowest	#1, High, for much of period but lately more Middling	#2 or #3, Middling, for much of period but recently #1	#2 or #3, Middling
17	<b>Adult Alcohol-Related Arrests</b>	<p>Same validity and reliability issues as #15 above. (Note: DUI procedures changed as of 1992.)</p>	9	Trend/ Best Fit	Fairly flat, but dip, rise, dip/ Polynomial (3)	Steeper dip, rise, dip/ Polynomial (3)	Erratic but mostly rising/ Polynomial (4)	Data so erratic that even a 6 <sup>th</sup> -order Polynomial yields R <sup>2</sup> under 0.60.	M-shape (sharp peaks, valleys)/ Polynomial (6)
				R <sup>2</sup>	0.92	0.86	0.93	0.59	0.83
				Typical Rank		#4, Lowest	Middling much of decade, now #1, High	#2 or #3, Middling	#1 or #2, High (but drop to #3 in 2000)
18	<b>Adult Drug-Related Arrests</b>	<p>Same validity and reliability issues as #16 above.</p>	11	Trend/ Best Fit	<u>Extremely</u> Erratic (but shallow)/ Polynomial (6)	Declining/ Linear	<u>Extremely</u> Erratic/ Polynomial (6)	<u>Extremely</u> Erratic/ Polynomial (6)	<u>Extremely</u> Erratic/ Polynomial (6)
				R <sup>2</sup>	0.80	0.77	0.65	0.66	0.86
				Typical Rank		#3 or #4, Low	#1 or #2, High	#3 or #4, Low	#1 or #2, High

19	<b>Adult Drunken Driving Arrests</b>	Same validity and reliability issues as #15, #17 above. (Note that this Indicator #19 is sub-set of Indicator #17.)	9	Trend/ Best Fit	Fairly flat, but dip, rise, dip/ Polynomial (3)	Steeper dip, rise, dip/ Polynomial (3)	Slight dip, steep rise, dip/ Polynomial (4)	Very erratic/ Polynomial (5)	Very erratic/ Polynomial (5)
				R <sup>2</sup>	0.83	0.81	0.97	0.78	0.90
				Typical Rank		#4, Lowest	Recently, #1 or #2, High	Recently, #3, Middling	#1 or #2, High (but recent sharp drop to #3, Low)
20	<b>Alcohol Traffic Fatalities</b>	<p><u>Validity:</u> Police reports do not always include final blood tests, and changing no.s of non-alcohol fatalities can also affect percents.</p> <p><u>Reliability:</u> Natural variation associated with small numbers results in huge shifts, esp. on Neighbor Islands like Kauai.</p>	11	Trend/ Best Fit	Very erratic/ Polynomial (5)	<u>Extremely</u> erratic/ Polynomial (6)	Data so erratic that even a 6 <sup>th</sup> -order Polynomial yields R <sup>2</sup> under 0.35.	Data so erratic that even a 6 <sup>th</sup> -order Polynomial yields R <sup>2</sup> under 0.45.	<u>Extremely</u> erratic/ Polynomial (6)
				R <sup>2</sup>	0.78	0.92	0.30	0.40	0.77
				Typical Rank		Usually #3 or #4, Low	Neighbor Island rates vary so much that there is little stability among their relative ranks.		
21	<b>Drug Use During Pregnancy Per 1,000 Live Births</b>	<p><u>Validity:</u> Includes only participants funded by DOH ADAD, not other public/private pgms. ADAD unsure if dramatic changes reflect demand or policy decisions.</p> <p><u>Reliability:</u> Record-keeping consistent only from 1998 on.</p>	3	Trend/ Best Fit	Although 3 years is too short a time to fit a trend line, <u>Hawaii and Honolulu</u> have been <u>sharply decreasing</u> ; <u>Maui and Kauai</u> rates have <u>increased</u> (from zero to low). State is uncertain if this reflects actual demand or programmatic decisions.				
				R <sup>2</sup>	N/A (3 yr)	N/A (3 yr)	N/A (3 yr)	N/A (3 yr)	N/A (3 yr)
				Typical Rank		#1, High (but dramatic drop)	#2, High to Middling (but big drop)	#4, Low (but validity uncertain)	#, Low to Middling (but validity uncertain)

<b>Violence</b>									
22	<b>Juvenile Violent Crime</b>	<p><u>Validity:</u> "Assault" can be defined differently over time and place. Arrest data always are imperfect crime measure because of varying levels of police success. All Kauai juvenile data suspect and subject to future revision.</p> <p><u>Reliability:</u> Small absolute numbers, esp. on Neighbor Isles, produce huge year-to-year variation. Consistent data only from 1993.</p>	8	Trend/ Best Fit	Rise to sharp peak, sharp decline, uptick/ Polynomial (3)	Rise to sharp peak, sharp decline, uptick/ Polynomial (4)	Very erratic, though fairly flat/ Polynomial (5)	<u>Extremely erratic/</u> Polynomial (6)	Very erratic/ Polynomial (5)
				R <sup>2</sup>	0.75	0.94	0.85	0.80	0.94
				Typical Rank		#1, Highest (by far), most of this period, but dropped to #2 by 1999	Recently #3 or #4, Low	Recently #3 or #4, Low (but up to #1 in 2000)	Typically #2, Usually highest of Neighbor Isles (but still middling compared to Honolulu)
23	<b>Adult Arrests for Violent Crime</b>	<p>Same validity and reliability issues as #22 above, though the small-number issue is not as important as with juveniles (except perhaps on Kauai).</p>	11	Trend/ Best Fit	Erratic but fairly flat/ Polynomial (4)	Erratic but fairly flat/ Polynomial (4)	Erratic (recent large spike)/ Polynomial (5)	Declining,/ Linear	<u>Extremely erratic/</u> Polynomial (6)
				R <sup>2</sup>	0.77	0.76	0.80	0.94	0.64
				Typical Rank		Recently, #2 or #3, Middling	Recently, #2 or #3, Middling	Recently, #4, Lowest (until 2000 spike to #1)	Recently, usually #1, Highest
24 a	<b>Homicides (Resident)</b>	<p><u>Validity:</u> Rates based on resident pop. only ignore tourists; hence, overstate true rates.</p> <p><u>Reliability:</u> Small numbers, esp. on Neighbor Islands, produce huge year-to-year variation.</p>	11	Trend/ Best Fit	<u>Extremely erratic/</u> Polynomial (6)	Data so erratic that even a 6 <sup>th</sup> -order Polynomial yields R <sup>2</sup> under 0.60.	<u>Extremely erratic/</u> Polynomial (6)	Very erratic/ Polynomial (5)	Data so erratic that even a 6 <sup>th</sup> -order Polynomial yields R <sup>2</sup> under 0.50.
				R <sup>2</sup>	0.64	0.54	0.79	0.82	0.49
				Typical Rank		There is so much year-to-year variation that the only clear statement to be made is that <u>Hawaii</u> County for most of the decade had a <u>higher</u> rate than Honolulu or the Statewide average – though recently even this pattern has muddied.			

24 b	<b>Homicides (De Facto)</b>	Same small-number reliability issue as #24a above.	11	Trend/ Best Fit	<i>Extremely erratic/ Polynomial (6)</i>	<i>Data so erratic that even a 6<sup>th</sup>-order Polynomial yields R<sup>2</sup> under 0.60.</i>	<i>Extremely erratic/ Polynomial (6)</i>	<i>Very erratic/ Polynomial (5)</i>	<i>Data so erratic that even a 6<sup>th</sup>-order Polynomial yields R<sup>2</sup> under 0.50.</i>
				R <sup>2</sup>	0.66	0.55	0.80	0.79	0.48
				Typical Rank		<b>Same as above – only clear statement is that Hawaii County usually had higher rate than Honolulu or Statewide average.</b>			
<b>Non-Violent Crime</b>									
25	<b>Juvenile Arrests for Curfew, Vandalism, Disorderly Conduct</b>	<p><u>Validity:</u> UCR Part II figures are generally suspect. Extreme Kauai differences reflect enforcement policies and possible record-keeping issues.</p> <p><u>Reliability:</u> Consistent data only from 1993.</p>	8	Trend/ Best Fit	<i>Rise, large drop, flat/ Polynomial (3)</i>	<i>Rise, large drop, flat/ Polynomial (2)</i>	<i>Shallower rise, flat, drop/ Polynomial (4)</i>	<i>Rise, vast drop, rise, drop/ Polynomial (4)</i>	<i>Large drop, rise, drop/ Polynomial (2)</i>
				R <sup>2</sup>	0.86	0.82	0.79	0.93	0.92
				Typical Rank		<b>Recently usually #4, Lowest</b>	<b>#2 or #3, still Low compared to Kauai</b>	<b>#1, Highest, by vast amount</b>	<b>#2 or #3, down to #4 in 2000, all Low compared to Kauai</b>
26	<b>Juvenile Property Crime Arrests</b>	<p><u>Validity:</u> Arrest data lead to different conclusions about which counties have more property crime than do reported crime rates. All Kauai juvenile data suspect and subject to future revision.</p> <p><u>Reliability:</u> Consistent data only from 1993.</p> <p><u>Definition:</u> Hawaii now omits arson from standard list of serious property crime.</p>	8	Trend/ Best Fit	<i>Declining/ Linear</i>	<i>Declining/ Linear</i>	<i>Declining/ Linear</i>	<i>Dip, rise, steep dip, rise/ Polynomial (4)</i>	<i>Declining/ Linear</i>
				R <sup>2</sup>	0.90	0.89	0.86	0.94	0.79
				Typical Rank		<b>#3 or #4, Low</b>	<b>#2, High</b>	<b>#1, Highest for most of late 90s and 2000</b>	<b>#3 or #4, Low for most of 90s</b>

27	<b>Adult Property Crime Arrests</b>	Same issues as #26 above	11	Trend/ Best Fit	Fairly flat initial dip and rise, but recent sharp drop/ Polynomial (3)	Fairly flat initial dip and rise, but recent sharp drop/ Polynomial (4)	Fairly flat initial dip and rise, but recent sharp drop/ Polynomial (3)	Erratic, but trending down/ Polynomial (4)	Data so erratic that even a 6 <sup>th</sup> -order Polynomial yields R <sup>2</sup> under 0.60.
				R <sup>2</sup>	0.91	0.90	0.87	0.84	0.55
				Typical Rank		#2 or #3, Middling	Most of 90s: #1, Highest (but recent drop to Low)	Recently, #4, Lowest	#2 or #3, Middling (but recently #1)
<b>Suicide</b>									
28	<b>Adolescent Suicide</b>	Reliability: The small-number problem results in particularly huge year-to-year variation for youth suicides. (Also, the State changed death coding procedures in 1999, resulting in small inconsistencies)	11	Trend/ Best Fit	Data are so erratic that even a 6 <sup>th</sup> -order Polynomial yields R <sup>2</sup> under 0.60.	Annual variation too great to analyze	Annual variation too great to analyze	Annual variation too great to analyze	Data indicate zero suicides for the decade
				R <sup>2</sup>	0.58	N/A	N/A	N/A	N/A
				Typical Rank		Hawaii and Kauai both swing from 0 to very high rates (an artifact of small numbers), so Honolulu by comparison appears "Middling."			#4, Lowest
<b>Adolescent Sexual Behavior</b>									
29	<b>Adolescent Pregnancies</b>	Validity: Data depend on reporting, and many terminated pregnancies may go unreported. The inclusion of 10- to 14-yr. olds yields a lower rate than more standard focus on 15-17.	11	Trend/ Best Fit	Initially fairly flat, then decline/ Polynomial (2)	Despite many dips and rises, clear general decline/ Linear	Erratic, with extended spike at decade end/ Polynomial (4)	Erratic, with several spikes/ Polynomial (4)	Very erratic/ Polynomial (5)
				R <sup>2</sup>	0.85	0.79	0.89	0.62	0.89
				Typical Rank		Often #4, Low	Often #1, High	In truth, county ranks changed often, but these two generally Middling	

30	<b>Birthrate Among Juveniles</b>	<p><u>Validity:</u> Same age range concern as #29 above. (Note that this Indicator 30 is sub-set of Indicator 29.)  <u>Reliability:</u> Small numbers on Kauai result in particularly high year-to-year variation for that county.</p>	11	Trend/ Best Fit	Overall decline, but via up-and-down stairstep pattern/ Polynomial (4)	Despite many dips and rises, clear general decline/ Linear	Erratic/ Polynomial (4)	Data so erratic that even a 6 <sup>th</sup> -order Polynomial yields R <sup>2</sup> under 0.60.	Very erratic, though downward trend/ Polynomial (5)
				R <sup>2</sup>	0.76	0.67	0.77	0.51	0.90
				Typical Rank		#4, Low	Often #1, High	In truth, county ranks changed often, but these two generally Middling	
<b>Family Management Problems</b>									
31	<b>Children Living Away from Parents</b>	<p><u>Availability:</u> Federal definition limited to decennial Census years of 1990 and 2000.</p>	2	Trend/ Best Fit	Increases statewide and for each county ( <u>except</u> Kauai) from 1990 to 2000.				
				R <sup>2</sup>	N/A	N/A	N/A	N/A	N/A
				Typical Rank		#4 Lowest	#1 High (2000, was #3 1990)	#1 or #2, High	#4 Low (2000, was #2 1990)
32	<b>Children Living in Foster Care</b>	<p><u>Definition:</u> Hawaii Dept. of Human Services has data only for children receiving DHS-funded services.  <u>Reliability:</u> Consistent data only from fiscal 1997-98.</p>	3	Trend/ Best Fit	State and all counties seem to be slightly increasing in fairly linear fashion, but 3 years too short to try to fit a trend line.				
				R <sup>2</sup>	N/A (3 yr)	N/A (3 yr)	N/A (3 yr)	N/A (3 yr)	N/A (3 yr)
				Typical Rank		#2, Middling	#1, Highest	#3 or #4, Low	#3 or #4, Low
<b>Family Conflict</b>									
33	<b>Divorce</b>	<p><u>Validity:</u> As more unmarried couples form families whose break-ups are never recorded, divorce becomes a less meaningful statistic. Also, rates based on total pop. can be affected by changing %'s in child vs. adult brackets.</p>	11	Trend/ Best Fit	Declining very steadily, with 1-year spike/ Linear	Erratic stair-step pattern, but <u>downstairs</u> / Polynomial (4)	Erratic – initial dip, recently more flat/ Polynomial (4)	Very erratic, though trending down/ Polynomial (5)	Inverted-U, rising then falling/ Polynomial (2)
				R <sup>2</sup>	0.70	0.64	0.96	0.81	0.78
				Typical Rank		Recently, #2, High (though not truly great county differences)	Recently, #4, Lowest	Recently, #3, Low	Generally #1, Highest, but fell back to State average in 2000

34	<b>Domestic Violence Arrests</b>	<p><u>Definition:</u> Maui procedures differ; result in higher figures.  <u>Reliability:</u> Police say there was serious under-reporting in some counties in this timeframe.</p>	5	Trend/ Best Fit	Shallow rise, fall: <i>Slt. overall 5-yr decline/ Polynomial (4)</i>	Shallow Inverted V: <i>Rise, fall/ Polynomial (2)</i>	Shallow dip, rise: <i>Polynomial (3)</i>	Steeper dip, rise, dip/ <i>Polynomial (3)</i>	Shallow decline/ <i>Linear</i>
				$R^2$	0.99	0.78	0.86	0.89	0.79
				Typical Rank		#3 or #4, Low	#2, Middling	#3 or #4, Middling-Low	#1, High
<b>Low Commitment to School</b>									
35	<b>Event Dropouts</b>	<p><u>Validity:</u> Data exclude private sch. students.  <u>Availability:</u> Readily available only on Statewide basis.  <u>Reliability:</u> Consistent data only for 1994-95 school year on.</p>	6	Trend/ Best Fit	Flat, slight rise, dip/ <i>Polynomial (3)</i>	(County data not readily available from Dept. of Education)			
				$R^2$	0.79	N/A	N/A	N/A	N/A
				Typical Rank		N/A	N/A	N/A	N/A
36	<b>Status Dropouts</b>	<p><u>Availability:</u> Federal definition limited to decennial Census years of 1990 and 2000. Year 2000 data from 15% sample not available yet.</p>	1	Trend/ Best Fit	N/A	N/A	N/A	N/A	N/A
				$R^2$	N/A	N/A	N/A	N/A	N/A
				Typical Rank		#2, Middling-Low (1990)	#3, Low (1990)	#3, Low (1990)	#1, Highest (by far, 1990)
<b>Early Initiation of Problem Behavior</b>									
37	<b>Dropouts Prior to Ninth Grade</b>	<p>Same issues as for #35 above. Also, "missing" students who show up very late for school can be counted as dropouts at time official reports are compiled.</p>	6	Trend/ Best Fit	Decline, rise, <i>slt. dip/ Polynomial (4)</i>	(County data not readily available from Dept. of Education)			
				$R^2$	0.86	N/A	N/A	N/A	N/A
				Typical Rank		N/A	N/A	N/A	N/A

38	<b>Vandalism Arrests, Ages 10-14</b>	Note that this is a sub-set of data from Indicator #25, so all issues discussed there would also apply here.	8	Trend/ Best Fit	<i>Declining erratically: Sharp spike, dip, level, dip/ Polynomial (4)</i>	<i>Declining erratically: Sharp spike, dip, level, dip/ Polynomial (4)</i>	<i>Very erratic (though down from 1994 spike)/ Polynomial (5)</i>	<i>Very erratic, but mostly declining/ Polynomial (5)</i>	<i>Declined from low to zero, then uptick/ Polynomial (2)</i>
				R <sup>2</sup>	0.85	0.85	0.88	0.93	0.79
				Typical Rank		<b>#2 or #3, Middling</b>	<b>#2 or #3, Middling</b>	<b>#1, Highest (by far)</b>	<b>Recently #4, Lowest (by far)</b>
39	<b>Alcohol-Related Arrests, 10-14</b>	This is sub-set of data from Indicators #15, so all issues listed there (including large year-to-year Neighbor Isle variations) apply here.	8	Trend/ Best Fit	<i>Sharp initial spike, fall, level/ Polynomial (4)</i>	<i>Shallow rise, dip, rise/ Polynomial (4)</i>	<i>Data so erratic that even a 6<sup>th</sup>-order Polynomial yields R<sup>2</sup> under 0.60.</i>	<i>Data so erratic that even a 6<sup>th</sup>-order Polynomial yields R<sup>2</sup> under 0.60.</i>	<i>Extremely erratic/ Polynomial (6)</i>
				R <sup>2</sup>	0.99	0.76	0.58	0.56	0.91
				Typical Rank		<b>#4, Lowest</b>	<b>Neighbor Island rates vary so much that there is little stability among their relative ranks. However, <u>Kauai</u> tends to be <u>higher</u> than others.</b>		
40	<b>Violent + Property Crime, 10-14</b>	This is sub-set of combined Indicators #22 and #26, so all issues listed there (including large year-to-year Neighbor Isle variations) apply here.	8	Trend/ Best Fit	<i>Declining/ Linear</i>	<i>Declining/ Linear</i>	<i>Declining/ Linear</i>	<i>Fairly linear decline, but one enormous 1996 spike/ Polynomial (6)</i>	<i>Fairly linear decline, but big 1998 drop, then rise/ Polynomial (6)</i>
				R <sup>2</sup>	0.86	0.82	0.80	0.76	0.92
				Typical Rank		<b>#3 or #4, Low (but generally close to Hawaii and Maui)</b>	<b>#2, High-Middling (but close to Maui and Honolulu)</b>	<b>#1, Highest</b>	<b>Recently #4, Low (but close to Hawaii and Honolulu)</b>