
Tendencies and Trends in Designating AIAN Race at Birth

DRAFT – NOT FOR CITATION

**Prepared for
PAA Annual Meetings
in Philadelphia, PA, March - April, 2005
Session 41 The Demography of Indigenous Populations**

**By
Gretchen Greene, Ph.D. and Jeri Sawyer
Northwest Economic Associates
12009 N.E. 99th Street, Suite 1410
Vancouver, WA 98682-2497**

March 30, 2005

Table of Contents

Introduction	1
Background	1
Data and Methods.....	3
Results	5
Mothers and Fathers	5
Time Trends.....	11
Across Counties	12
Discussion and Conclusions.....	15
Reference:.....	16

Introduction

The objective of this paper is to examine recent trends in racial identification of American Indians and Alaska Natives (AIAN or Indian) at birth, based on data from Washington State's Center for Health Statistics between 1992 and 2002. Issues to be considered include the racial designation of children from Indian mixed race unions, and preferences for designating the mother's compared with the father's race for the Indian racial designation. Preferences for designating AIAN race over other races, as identified by Sink (1997), will also be considered at the county level. Baseline racial populations at the county level will be correlated with county level racial designation tendencies. For example, do counties with larger Indian populations have different tendencies to identify children of mixed race unions as Indian? Another objective is to analyze how such tendencies may be changing over the eleven year period of data, and whether trends differ significantly from county to county. Such information may provide a better understanding of future racial populations, and could also shed light on the transition to a multiracial identified society initiated with Census 2000.

Background

Eschbach et.al. (1998) state,

Most American Indians have multiracial ancestries because of the long history of intermarriage between American Indians and members of other groups (Eschbach 1995). Racial identity for many Indians involves a choice, and recently there has been considerable flux in the choices made.

In an effort to better understand the future of different Indian populations, a better understanding of the factors that influence the choice to identify as Indian is needed. Also, an understanding of the pace of change in these choices could lead to improved results for Indian population projections.

Three subjects pose demographic questions about future Indian populations. The first is that racial self-identification has been increasing for the Indian population since at least the 1970's as evidenced by persistent error of closure measures in census data (Passel and Berman 1986, Eshbach 1995; Snipp 1996). Snipp (1996) writes,

In the 1980's, the total growth of the American Indian population was about 38 percent, with natural increase accounting for about 22 percent. Natural increase was higher in the 1970's, about 28 percent, but shifting patterns of racial self-identification raised the total growth to nearly 80 percent.

The causes for this are sociological, political, cultural, and economic, and it is very difficult to know how and when this trend will abate. Presumably, at some point, all those who identify themselves as Indian will have done so, and the error of closure will cease to exist. Yet this hinges on the number of people who have descended from Native Americans, and this too is not easily known.¹

Another important question relates to rates of intermarriage between Indians and non-Indians, and how this could lead eventually to ever-decreasing degrees of Indian descent among populations who may or may not still identify as Indian. Indians in the U.S. as a whole have tended to marry members of other races more frequently than any other racial group (Sink 1997, Eschbach 1995, Liebler 2004). How the potentially decreasing degree of Indian descent balances with the increasing tendency to self-identify as Indian has been studied some at the state, regional, and national level (see Eschbach 1995), and has been related to different types of Indian populations. Eschbach et al. (1998) note that different regions of the country have different types of Indian populations, and that these populations tend to have heterogeneous trends in the ways they identify their children in census data. One of the most fundamental differences has to do with structural situations that affect racial identity and racial identification (Liebler 2003). For example, Indians living on Reservations are living within a very different structural situation with regard to their racial identity than those who live in cities.

Finally the argument that when there are benefits to self-identifying as Indian, more people who can self identify will is worthy of further study. Some Indian populations have distinctly attractive benefits, such as health care benefits and housing assistance. Meanwhile other tribes offer little in the way of benefits, and may have no land, nor even federal recognition. Yet in both cases, self identification is on the rise. Hence, are benefits to tribal membership really motivating the rise in self-identification?

One of the most important ways these issues can be studied is through the way that parents chose to pass racial identity to their newborn children. Hamilton (2004) recently identified a need for further research into how the race of the mother and father affect the reported race of the child for all races, and the importance is enhanced for the Indian populations because there have been so many changes in recent decades. A preliminary analysis of data for Whatcom County, Washington, showed several tendencies related to trends in designating the race of a child as Indian. For just seven years of data, 1995-2002, the percent of Indian mothers who had Indian children moved from a low of 68.2 percent in 1996, to a high of 87.1 percent in the year 2000. This apparent trend in the positive direction suggested that increasing percentages of Indian women designated their children as such between 1995 and

¹ For a good discussion of the difficulty in knowing the number of original Native Americans who lived in North America prior to contact with Europeans, see Shoemaker, Nancy, 1999. *Native American Population Recovery in the 20th Century*, University of New Mexico Press.

2000. For the same time period, the percent of AIAN mothers who parented with AIAN fathers appeared to remain constant. These two trends together pointed to an increasing trend in identifying children as Indian. The preliminary analysis suggested that while Indian women were not marrying non-Indians with any more regularity through the time period, they were tending to designate their children as AIAN with increasing regularity. This supported Sink's (1997) finding, and raised more questions. Would the same result be found if the time series were extended? Would the same hold for fathers? And was this unique to Whatcom County?

Other related questions fueled interest in this topic area. One issue is that all racial populations are difficult to compare for the decade of the 1990s because data from Census 2000 collected multiracial information for the first time in the U.S. decennial census history. As a result of this change, much effort has been put to developing ways to convert multiracial data to single-race data that can be matched to single race babies at the federal level (Weed, 2003; Johnson, 2004). For example, in 2004, the NCHS announced a bridging program that would facilitate the conversion of multiracial populations to single race populations, so that birth and fertility rates might be calculated. Such a national bridging program can be expected to overestimate some populations and underestimate others, while the resulting fertility and birth rates would suffer biases. Insight into how multiracial populations self-identify their race may be connected with how mixed race parents identify the race of their children (Johnson, 2004), and hence a study of this type may help direct and inform the application of national adjustments to local areas.

Data and Methods

Since 1989, the State of Washington has collected information on the race of a child at birth, as identified by the parent. These data are available for the period between 1992 and 2002. The race of the father is designated, as well as the race of the mother and child. Several counties in Washington State were analyzed: King, Pierce, Spokane, Yakima, and Snohomish. King County is home to the City of Seattle, and is highly urbanized. Pierce County includes the city of Tacoma, and is also fairly well urbanized, and situated along Interstate Five (I-5). Spokane and Yakima Counties are located in eastern Washington, and host smaller cities of Spokane and Yakima. Whatcom County and Snohomish counties are also located along I-5 in western Washington, but are north of Seattle. With the exception of Spokane County, each county has at least one Indian Reservation, and several have highly successful Indian Gaming facilities. Spokane County borders the state of Idaho and the Coeur de Lane Indian Reservation to the east, and borders the Spokane Indian Reservation to the west.

Birth data for the years 1992 through 2002 were collected from the State of Washington, Department of Health for each of the above listed counties, and include matrices comparing:

- Race of baby to race of mother,
- Race of baby to race of father, and
- Race of mother to race of father.

During the 11-year period the parents self-designated the race of all three parties involved, and each designation was summed for each category separately.

To avoid confusion related to fluctuating rates of self-identification on the part of parents, all data presented are normalized to the annual incidence of the Indian identification in the county being analyzed. For example, to evaluate trends in the parents of Indian children, the annual incidence of Indian race of the parent is shown as a percent of all Indian babies in the same year. This will also help avoid misdiagnosing trends that stem from differences in baseline parent cohorts.

To compare differences in types of communities, the concentration of Indian population was considered for each county. The percent of total county population represented by Indian race in 1990, and Indian alone or in combination with other races in 2000 is shown in Table 1 below. By rounding to the tenths of a percent, the 1990 Indian population shares coincidentally fall in alphabetical order, and the 2000 shares nearly do with one exception. In 2000, Pierce County has a higher share of Indian population than do Snohomish and Spokane. In both census evaluations, Whatcom County and Yakima have the highest concentrations of Indians. Yakima County is home to the Yakima Reservation, and has an Indian (alone or in combination) population of over 12,000. Whatcom County is home to the Lummi and Nooksak Reservations, and had over 6,000 Indians in 2000.

Table 1
Indian Population Shares
for Six Counties in Washington State, 1990 and 2000

County	A 1990 (% of County)	B 2000 (% of County)	C Reservation (% of Column B)
King	1.1	1.9	6.3
Pierce	1.4	2.8	23.3
Snohomish	1.4	2.4	36.5
Spokane	1.5	2.4	0
Whatcom	3.1	3.8	66.7
Yakima	4.5	5.6	95.0

Source: 1990 and 2000 U.S. decennial census data. Population in 2000 represents American Indian and Alaska Native alone or in combination with other races.

A final column in Table 1 shows the percent of the 2000 Indian population that lives on an Indian Reservation. This variable demonstrates that Whatcom County and Yakima not only have the highest concentrations of Indians, but have by far the highest concentrations of Indians living on Reservations. Especially for mixed race couples, the ties that the couple has to the racial group have been shown to have a strong influence on racial identification (Liebler, 2004). Hence it is anticipated that there may be higher rates of self-identification for Indians in these two counties than in the more assimilated populations of the other counties.

Results

The results provide insight into three areas of racial identification patterns among Native Americans. First, the results demonstrate the degree to which racial identification among AIAN may be changing in Washington State. Second, the results show the differences between the influence of the mother and the father on the designated race of a child. Finally, they show that geographies and different base populations influence the designation of AIAN race, as is seen among the different counties. This last feature is the most pronounced among the data considered, and suggests further research is needed to assess why counties demonstrate such heterogeneous, and yet persistent differences is needed.

Mothers and Fathers

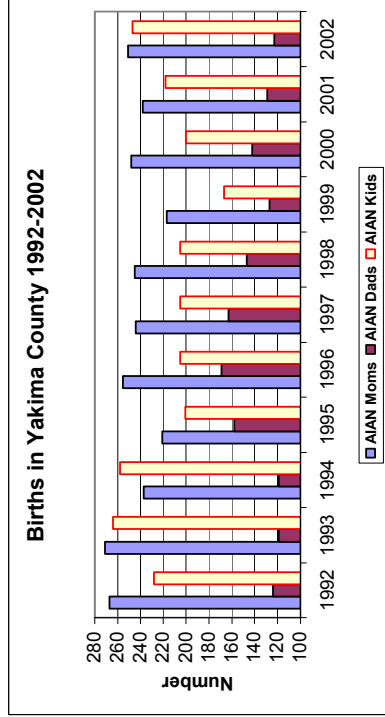
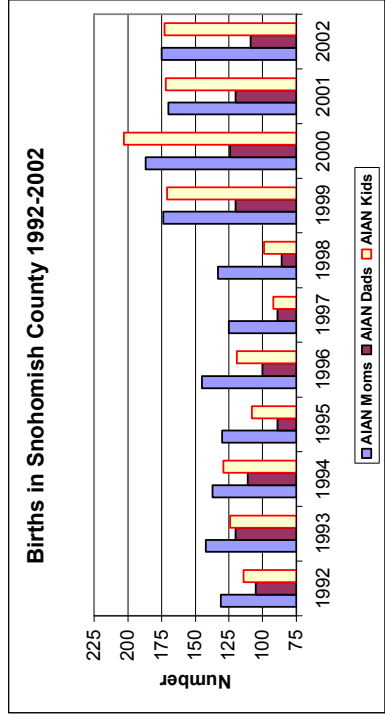
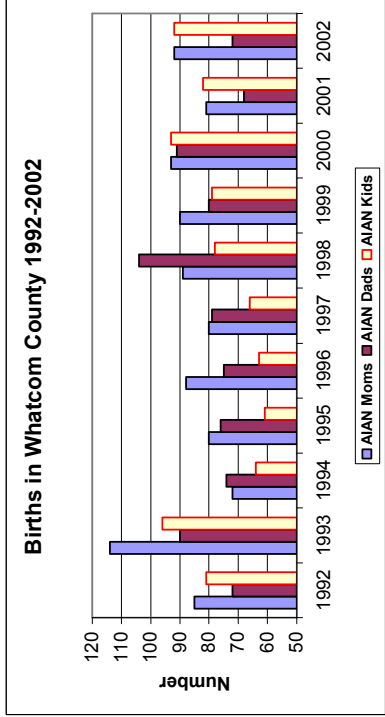
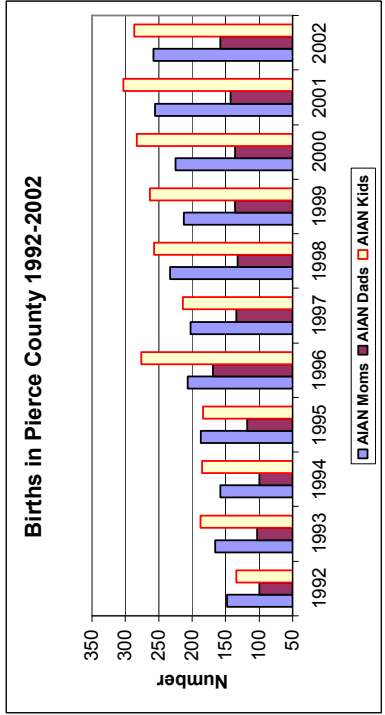
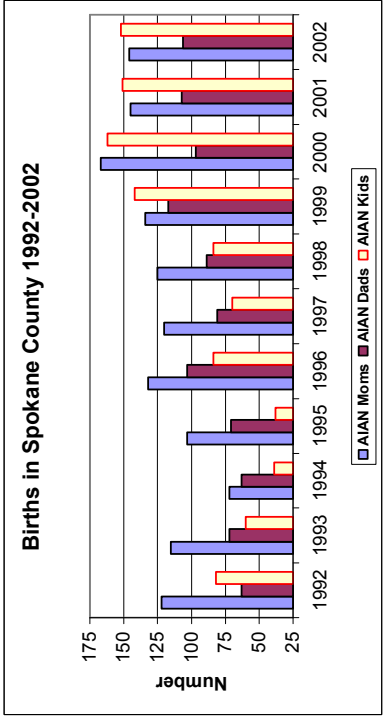
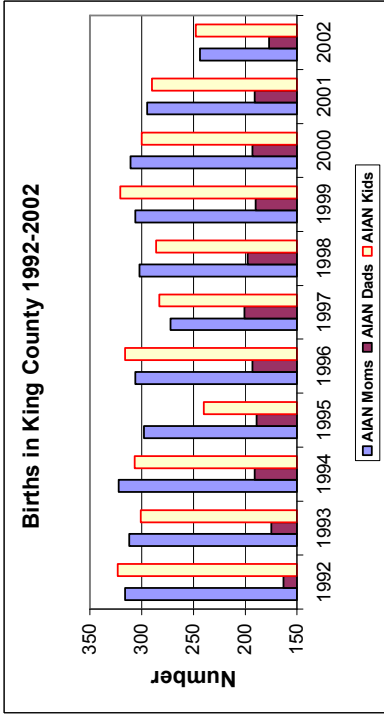
The numbers of Indian mothers per year, Indian fathers per year, and Indian children for each county between 1992, and 2002 are shown in Figures 1a – 1f. More noticeable than any common pattern across counties (and through time) is that several counties demonstrate patterns apparently unique to the county. For example, the number of Indian children and Indian mothers far outweigh the number of Indian fathers in King County, though the number of mothers and children are about the same. A similar pattern, though not so pronounced is seen in Yakima County, although especially in the later 1990s the numbers of mothers tends to be greater than the number of children. Pierce County also demonstrates a pronounced difference in the number of mothers over the number of fathers, but in Pierce County, the children tend to outweigh the number of mothers. In contrast, in Spokane and Whatcom Counties, the numbers of mothers and fathers are much more similar to each other. In Snohomish, the pattern is mixed.

Although there are clearly differences in the numbers of Indian mothers and Indian fathers, there is a noticeably parity in the tendency to parent an Indian child when this tendency is expressed as a percent of all Indian mothers, or of all Indian fathers (see Figures 2a-2f). Absolute differences in overall values between counties are compared later.

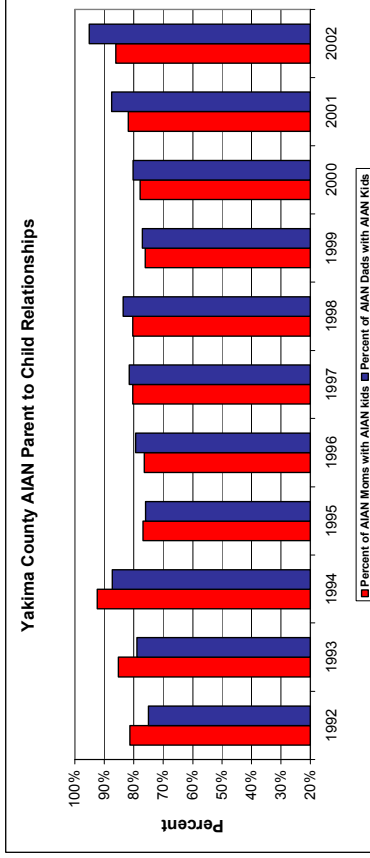
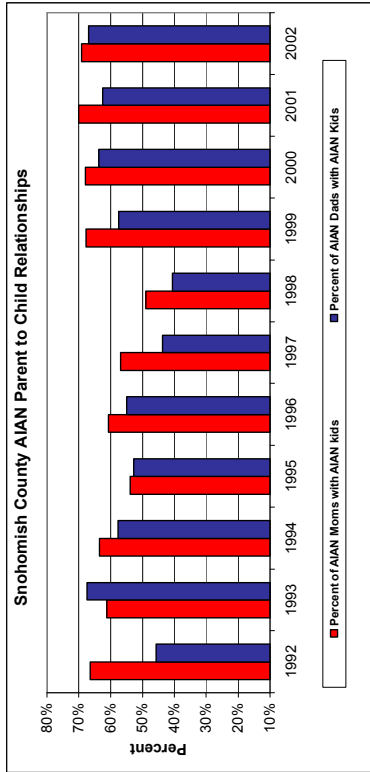
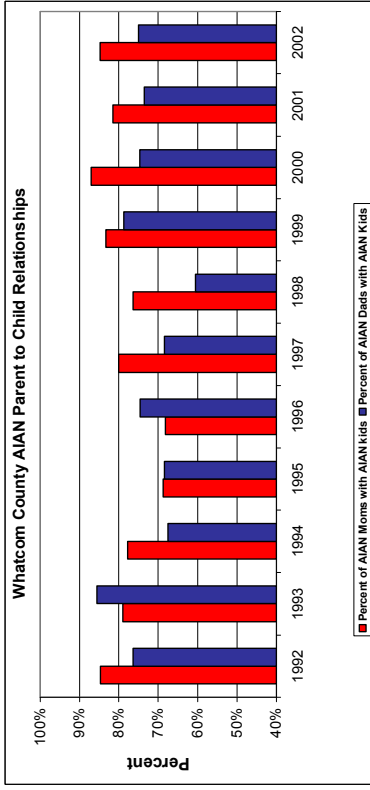
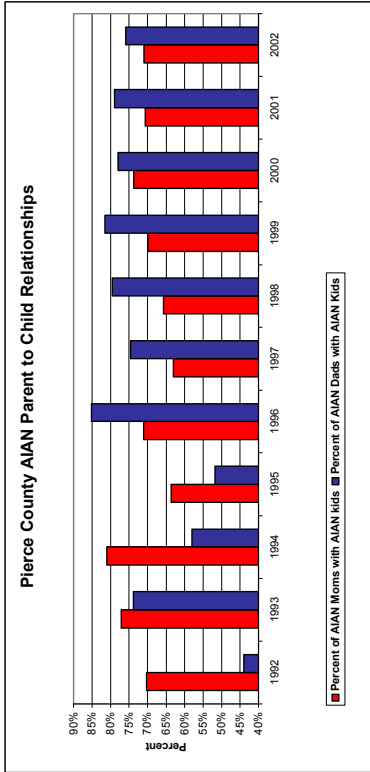
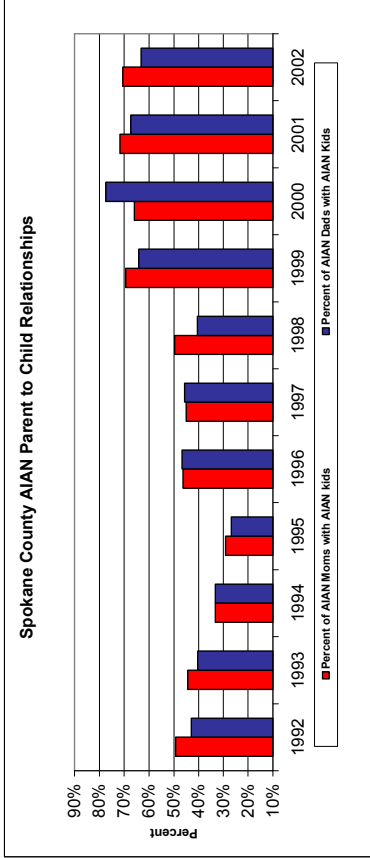
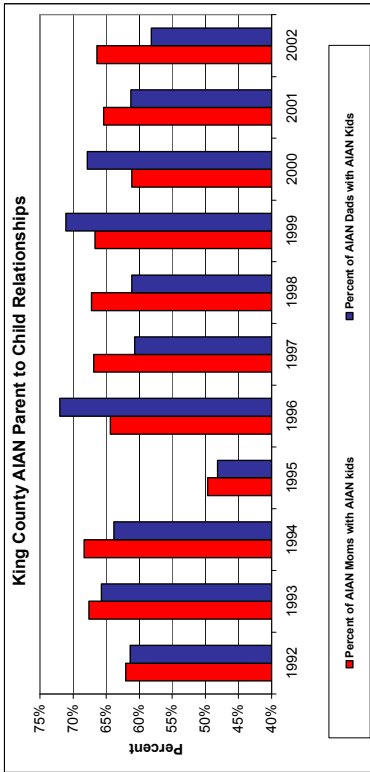
County by county differences are seen again when comparing the percent of Indian children who have Indian mothers, with the percent of Indian children with Indian fathers (Figures 3a-3f). The patterns are similar to those seen in the initial charts with numbers. Whatcom County stands out as the only county studied where the percent of Indian children with Indian fathers approaches the percent of those with Indian mothers. Spokane County follows Whatcom in this aspect, and Snohomish follows Spokane. King and Yakima Counties demonstrate the greatest differences between parents, in both cases with the percent of Indian children with Indian mothers much higher than that for fathers.

King and Yakima Counties share a final similarity when considering the percentages of Indian fathers who parent with Indian mothers, and vice versa (see Figures 4a-4f). In both of these counties, the percent of Indian fathers who parent with Indian mothers is repeatedly higher than the other way around. In all of the other counties, this percent doesn't follow such a distinct pattern

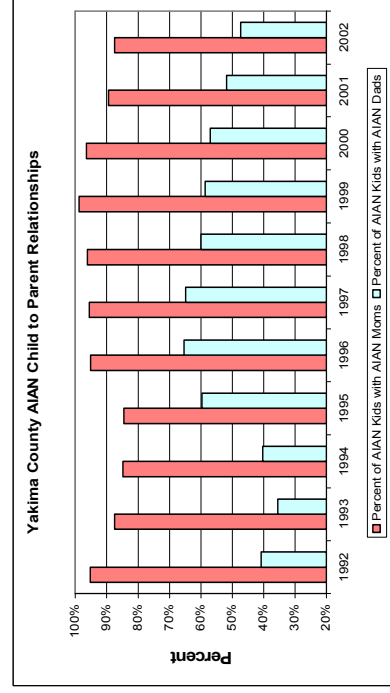
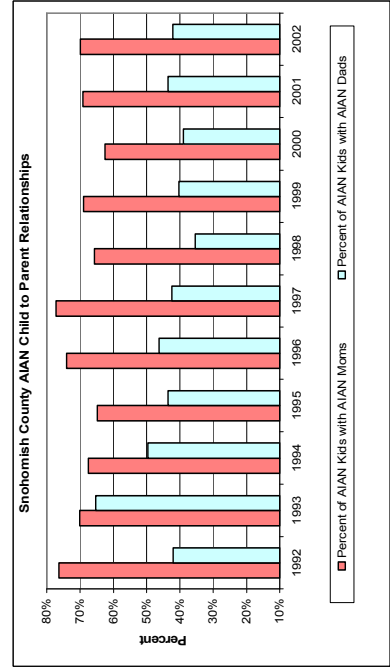
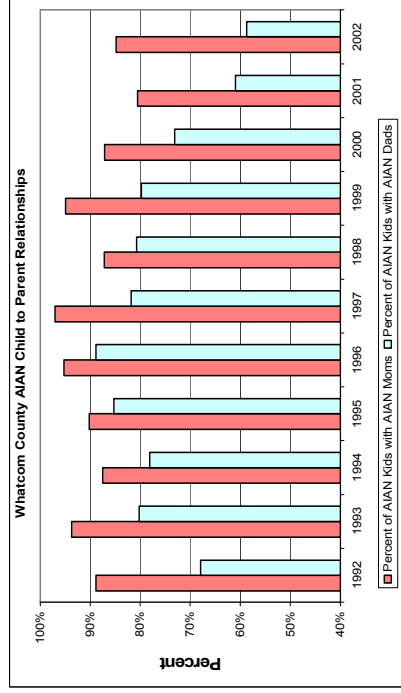
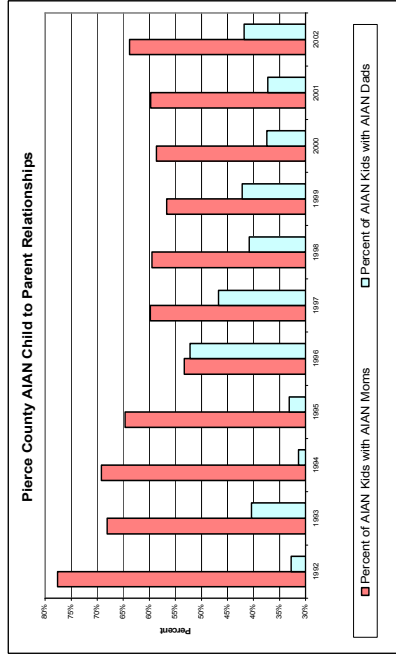
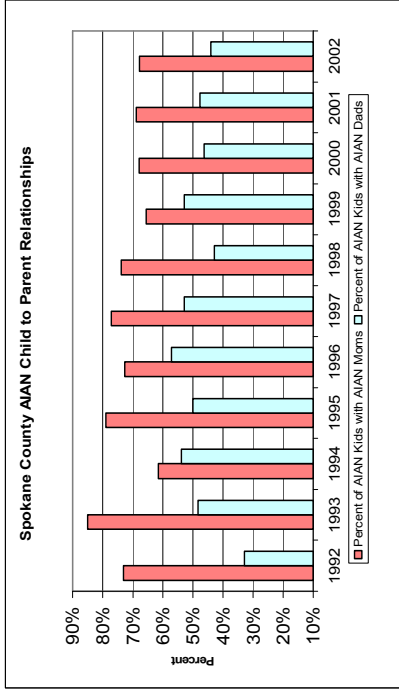
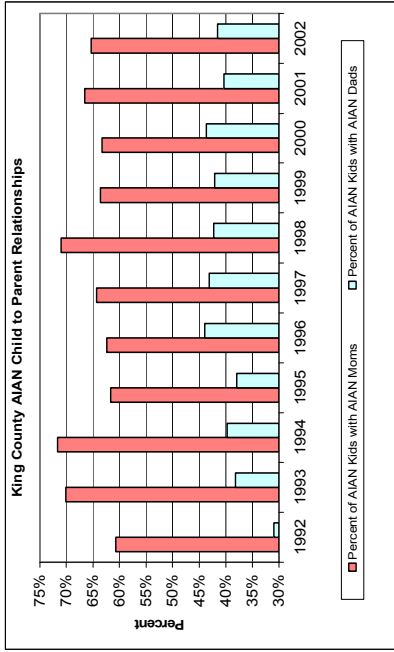
Figures 1a-1f



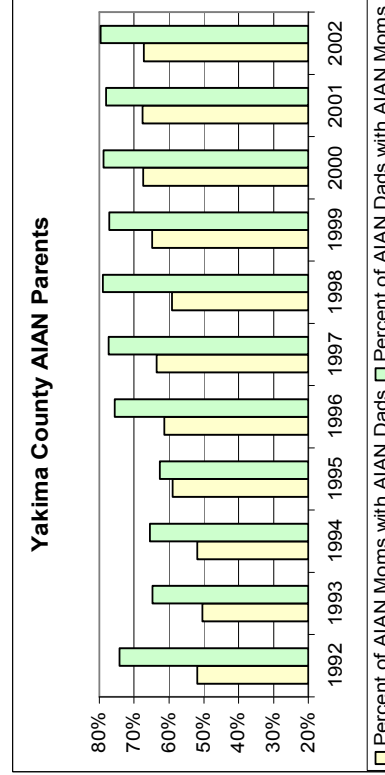
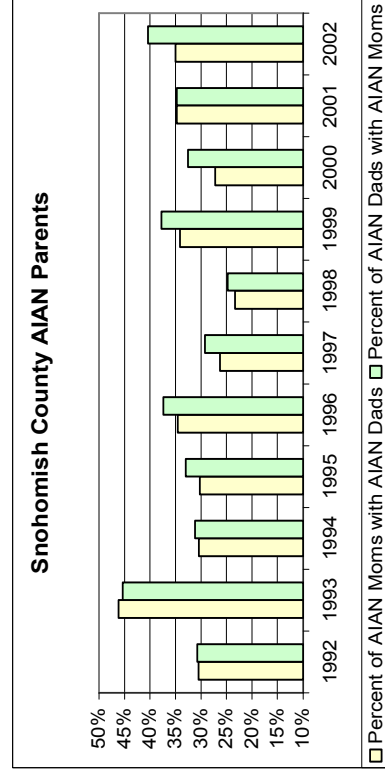
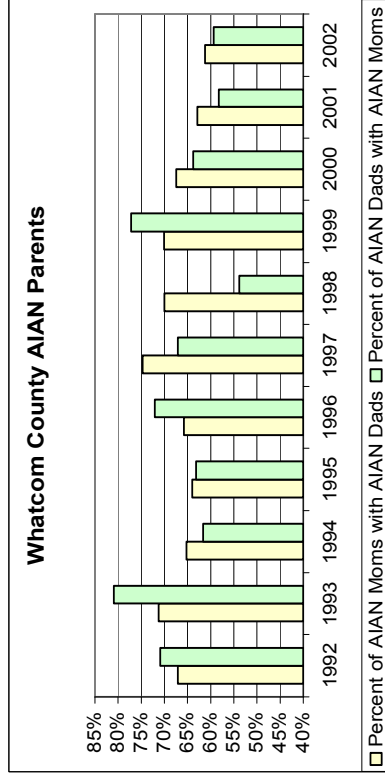
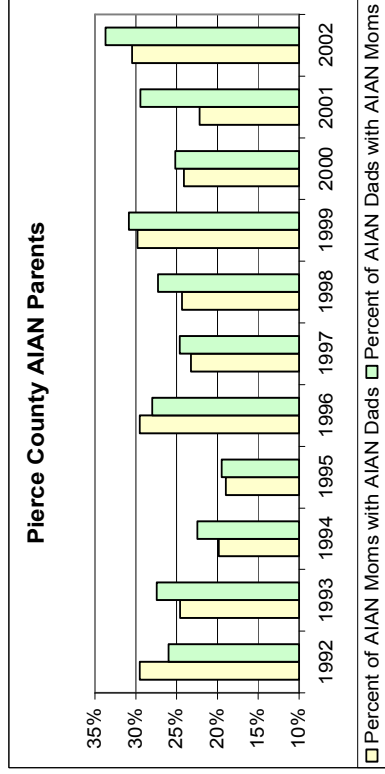
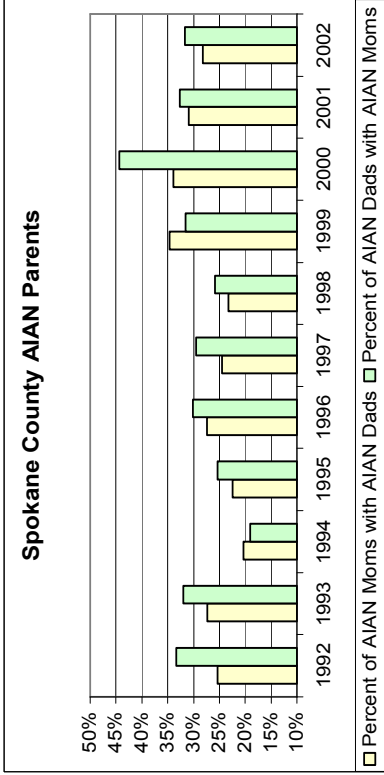
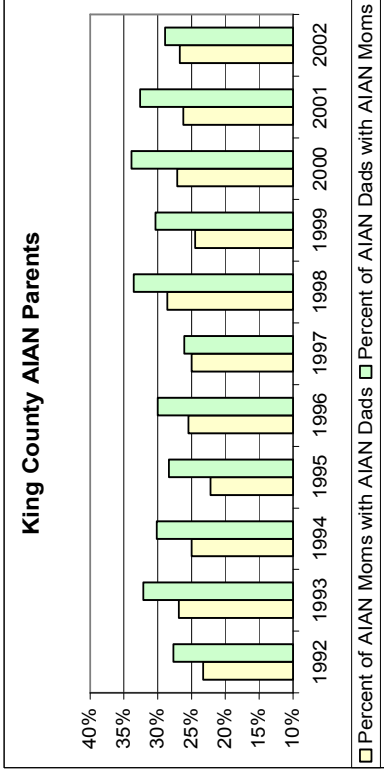
Figures 2a-2f



Figures 3a-3f



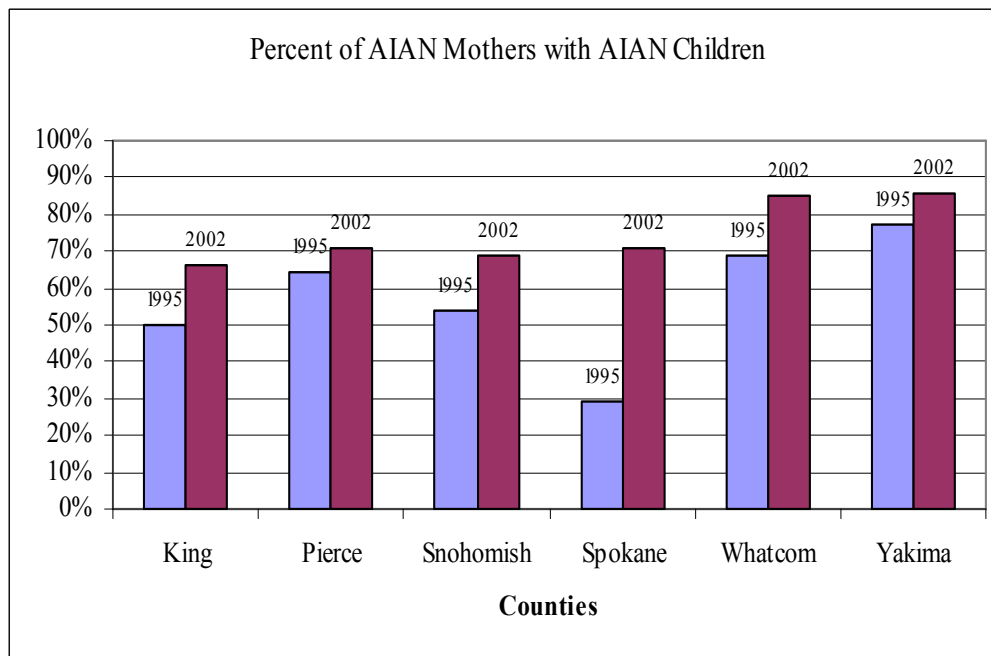
Figures 4a-4f



Time Trends

The racial identification among AIAN appears to have strengthened between 1995 and 2002, while fluctuating in the early years of the study (1992-1994). This pattern which is fairly consistent between the six counties highlighted in this study though it is still not well understood. For all counties, and for both sexes, the percentages of AIAN parents who designated their children as AIAN has increased, and considerably so in some counties. For example, AIAN mothers who designated their child AIAN increased in Spokane County from 29 percent in 1995 to 71 percent in 2002, and for fathers the increase was from 27 percent to 63 percent (see Figure 5a).

Figure 5a

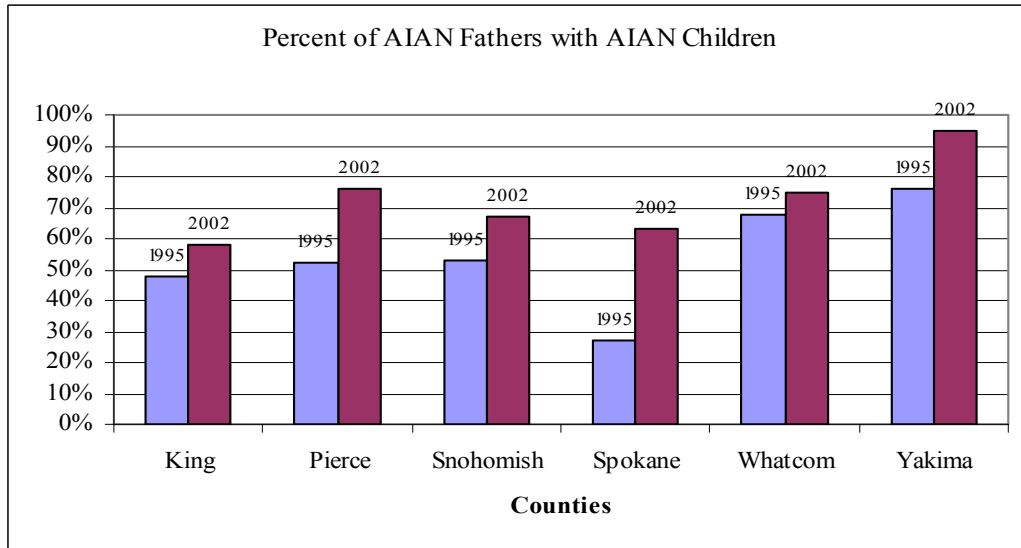


Similar to the results for mothers, the percent of Indian fathers who have Indian children has increased between 1995 and 2000 (see Figure 5b). Spokane County again shows the largest increase, but each county shows a change in the same direction. If increasing percentages of Indian mothers are designating their children as Indian, and increasing percentages of fathers are doing the same, one explanation could be that more Indian women and men are parenting together. If this were true, then it would follow that more Indian parents were designating their children Indian, because there would be fewer mixed race unions, and fewer options.

To more fully examine this possibility, the percent of Indian fathers parenting with Indian mothers, and mothers with fathers is considered in the six-county region (see Figures 4a-4f).

Although there are no clear patterns of change through the time period, each county demonstrates a slightly different pattern from the others. Echoing the earlier relationships,

Figure 5b



Across Counties

In the previous sections, results were compared in terms of temporal patterns. These patterns were compared in terms of parallels between relationships inside one county and the relationships inside another. In this section, relationships are compared across counties. This comparison brings out a final potential result. A series of charts show the time series history of one specific measure, and show all counties at once.

Figure 6a shows the percent of Indian Mothers who have Indian children. Although through the time period, the values are sometimes higher and sometimes lower with little clear trend, it is clear that Yakima and Whatcom County have the highest values. This suggests that there may be something similar within these two counties, because they have the highest concentrations of Indians.

This similarity shows up again when comparing the ratio of Indian fathers who parent with Indian mothers. Whatcom and Yakima are significantly higher in this than the other counties (see Figure 6b). And once again when Indian children with Indian fathers are considered, Yakima and Whatcom Counties stand together with much higher percentages than the other counties (Figure 6c).

A final consideration across counties compares the percentage of Indian children with one Indian parent and one non Indian parent (see Figure 6d). Here Whatcom and Yakima are

again distinct and together, but the values are much lower in Yakima and Whatcom than for other counties in the State.

Figure 6a

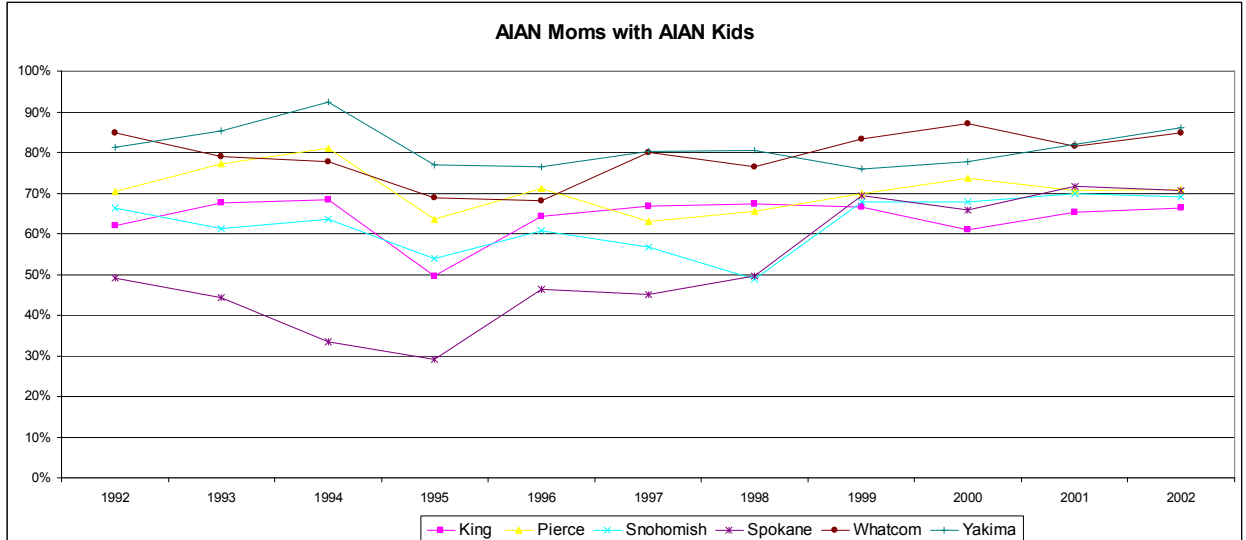


Figure 6b

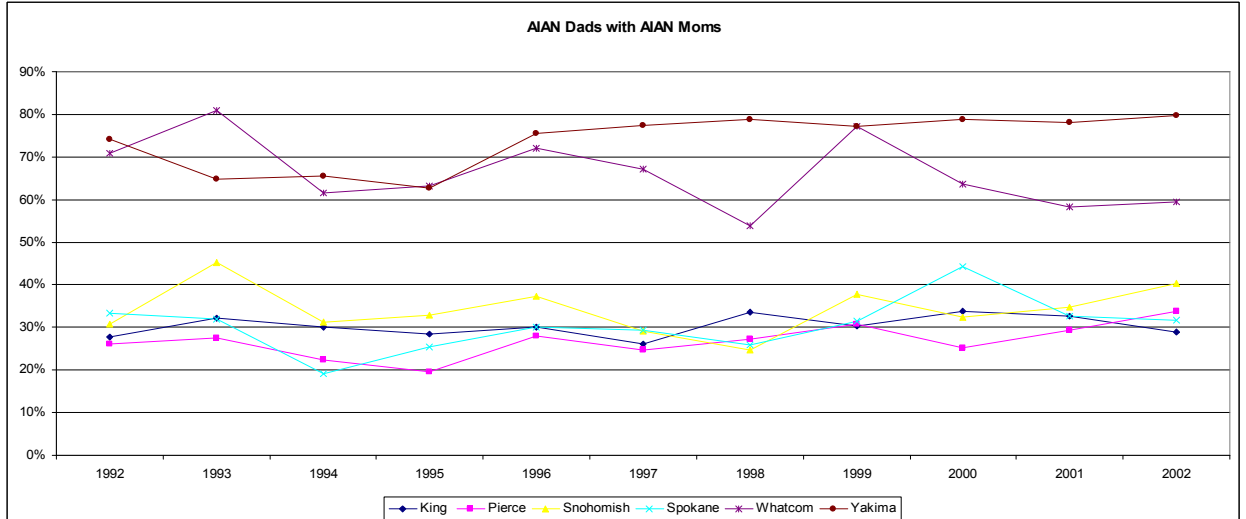


Figure 6c

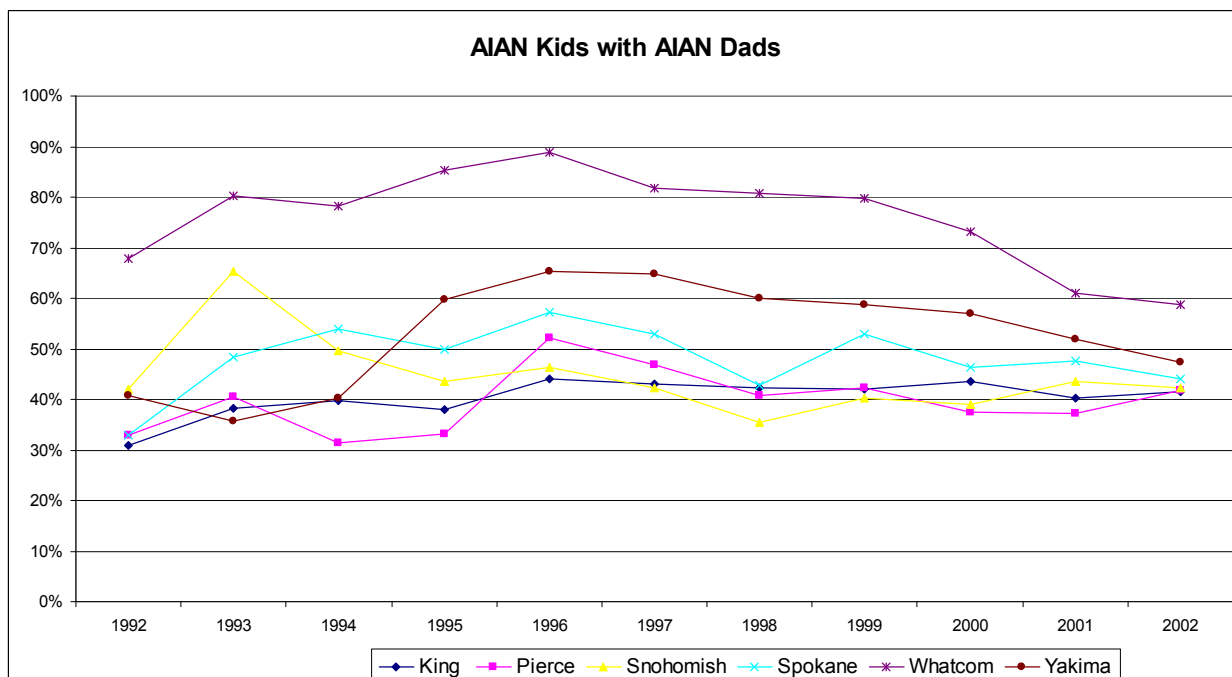
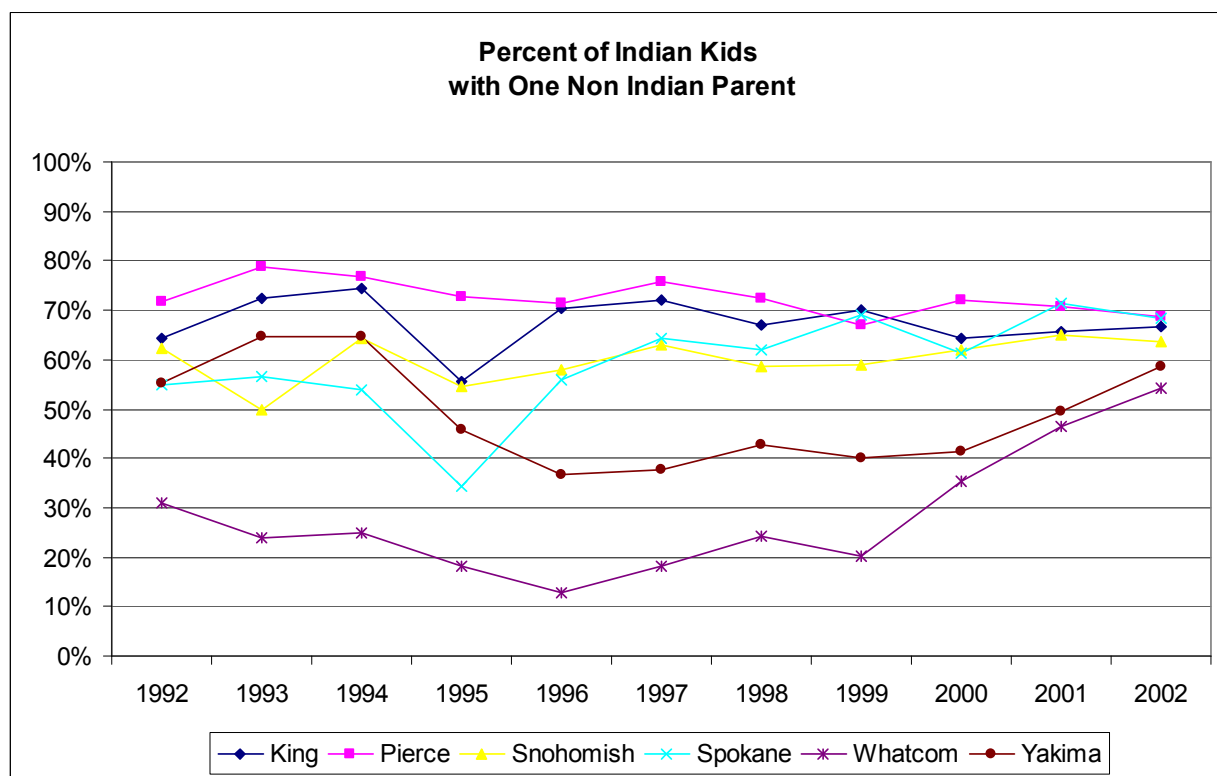


Figure 6d



Discussion and Conclusions

The most prominent result found in this study of six counties in Washington State is that patterns of racial identification for Indian newborns depend on the communities in which they occur. Trends and tendencies seem to exist within the “community” of a county level Indian population. For example, Indian newborns and Indian mothers in the highly urbanized King County far outnumber Indian fathers, and have done so consistently for the eleven year period. However an equally persistent pattern in Whatcom County shows nearly as many Indian fathers as Indian mothers during the same time period. The Yakima County results are more similar to King County than Whatcom despite the fact that Yakima has a high percentage of Indians living on Indian Reservations as does Whatcom. This type of result suggests that in demographic terms, heterogeneous Indian cultures exist in the collection of counties studied, but that the Indian culture within each county is somewhat consistent, and may or may not follow statewide, national, or other aggregate trends.

Fundamental to the differences from county to county are tendencies for Indian mothers as opposed to Indian fathers to a) identify their children as Indian and b) co-parent with Indians. The incidences of Indian fathers and mothers parenting together appears to be explained by the concentration of the Indian population that lives on Reservations. No obvious pattern appeared to be related to benefits to Indian self-identification, although this result may not show up in the identification of children, but may be occurring in the racial identification of parents which we did not analyze.

It is possible that recording practices at the county level account for some the differences from county to county. However Washington State has a standard and detailed form, and it seems unlikely that results could vary that much, or that consistently due to different recording practices.

Trends through time are inconclusive with respect to the group of counties considered. There are some trends suggested in certain counties, such as the increase in parents with Indian children in Spokane County since 1995. But many of the counties while demonstrating a trend between 1995 and 2002 appear to have a countervailing trend during the period between 1992 and 1995. Hence results are inconclusive for now, and further research should be done to better understand if a policy shift went into effect since 1995. One possibility is that the Native American Housing and Sustainable Development Act went into effect in 1996.

Reference:

- Eschbach, Karl, 1995. "The Enduring and Vanishing American Indian: American Indian Population Growth and Inter-marriage in 1990." *Ethnic and Racial Studies*, Volume 18, Number 1, January.
- Eschbach, Karl, Khalil Supple, and C. Matthew Snipp, 1998 "Changes in Racial Identification and the Educational Attainment of American Indians, 1970-1990." *Demography*, Volume 35, Number 1, February.
- Hamilton, Brady E., Ph.D., David P. Johnson, John K. Whitbeck, Ph.D., Patricia M. Starzyk, Ph.D., Karen R. Lathrop, 2004, "Child's Race and Ethnicity: Preliminary Findings from Washington Birth Data, 1999-2002," *PowerPoint Presentation at 2004 NAPHSIS Annual Meeting*.
- Johnson, David P., 2004, "Coding and Editing Multiple Race and Ethnicity", PowerPoint Presentation at "Strengthening Partnerships: Shaping the Future", Portland, OR, June 6 – June 10.
- Liebler, Carolyn A. 2004. "Ties on the Fringes of Identity." *Social Science Research*, Volume 33.
- Liebler, Carolyn A. 2003. "When the Options are Open: Racial Identification of Part-American Indian Children in Census 2000."
- Sink, Larry, U.S. Census Bureau, Administrative Records and Methodology Research Branch, Population Division, February 1997, "Race and Ethnicity Classification Consistency between the Census Bureau and the National Center for Health Statistics," Population Division Working Paper No. 17.
- Snipp, C. Matthew, 1996, "The Size and Distribution of the American Indian Population: Fertility, Mortality, Migration, and Residence," in *Changing Numbers, Changing Needs*, eds. Gary D. Sanderfur, Ronald R. Rindfuss, and Barney Cohen, National Academy Press, Washington, D.C..
- Weed, James A. Ph.D., February 20, 2003, "Current Issues in Multiple Race Reporting and Trend Analysis," Presented to the CDC Assessment Initiative-NAPHSIS Leadership Institute Conference, Atlanta, GA.