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Trends of Induced Abortions in the State of Georgia – A Comparison of Four Race/Ethnic Groups: White, Black, Asian & Hispanic, 1994-2007

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An abstract of
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Abstract

Trends of Induced Abortions in the State of Georgia – A Comparison of Four Race/Ethnic Groups: White, Black, Asian & Hispanic, 1994-2007
By Linn Bergander

Background: In 2006, over half of all induced abortions in Georgia were obtained by black women; however, only one-third of the population in Georgia is represented by the black race. This study will examine the use of induced abortions by different race and ethnic groups.

Objective: This research aimed to investigate the trends of women who obtained induced abortions in the state of Georgia from 1994 to 2007,by race and ethnicity. Age, marital status, education, gravidity and place of residence were considered.

Methods: This study used induced abortion and live birth data from Georgia's Division of Public Health to conduct a descriptive analysis. Abortion ratios (abortions per 1,000 live births) were calculated to describe demographic and pregnancy-related variables, by race and ethnicity. Pregnancy outcomes included 423,123 induced abortions and 1,817,786 live births.

Results: Overall, the abortion ratio in the state of Georgia declined and black women consistently had a higher abortion ratio than any other race or ethnicity. All age groups for black women had high abortion ratios. The abortion ratio for unmarried white women declined rapidly, by nearly 70%, whereas, the abortion ratio for black women dropped 22%. Furthermore, ratios declined for both black and white women for each public health district; but they remained higher for black women than white women in all districts and the abortion ratios were higher for women in the Atlanta metro area than among residents of more distant health districts.

Discussion: Compared to other races/ethnicities, black women end a higher proportion of pregnancies in abortions than in live births. Unmarried white women are increasingly more likely to end a pregnancy in birth rather than abortion. Among black women, pregnancy is more likely to end in abortion if that pregnancy is not their first or if they live in metro Atlanta. Reasons for race/ethnic disparities are directly related to higher rates of unintended pregnancies. Georgia surveys show that black women are more likely than white women to have an unintended pregnancy. Other studies show that comprehensive sex education, improved access to contraceptive, insurance and healthcare will decrease unintended pregnancies and low abortion ratios.

Trends of Induced Abortions in the State of Georgia, U.S. – A Comparison of Four Race/Ethnic Groups: White, Black, Asian & Hispanic, 1994-2007

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My family, because my commitment has only succeeded through your support.

Finally, there is a great Dr. Seuss quote that has rejuvenated me through this thesis process. “Unless someone like you cares a whole awful lot, nothing is going to get better. It’s not.” To every woman and man whose moral center is rooted in reproductive choice, I thank you.

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INTRODUCTION

In 2006, black women obtained over half (57.4%) of all induced abortions in the state of Georgia, although they only represent one-third (30%) of the population. Combined, Hispanic and white women represent 65% of Georgia's population and report lower absolute numbers and percentages of abortions (37.9%) (Pazol et al., 2006)[1]. In conjunction, the fertility rate for black women has steadily remained high while the rate for white women has increased to match black women. In 2006, births per 1,000 women of reproductive age were 47.5 for black women and 48.0 for white women (OASIS, 2006). Anti-choice organizations, in Georgia, have misused these statistics to create the *Too Many Aborted.com* campaign. This campaign emphasizes the disproportionate number of abortions for black women. Campaign billboards attack abortions as "the tool they (pro-choice groups) use to stealthily target blacks for extermination." Anti-abortion organizations within Georgia could be creating access barriers to women's health by perpetuating racial discrimination accusations towards family planning services.

An explicit description of racial trends of abortion may make abortions more acceptable. Race and ethnicity are two influential attributes in describing continuity and change in abortion trends; however, it is important to recognize additional variables to obtain the fuller scope of the issue. Evaluating age,

[1] In the United States, Georgia is one of 37 states to report abortion data (2007), including race, to the U.S. Center for Disease Control (CDC).

marital status, education, gravidity and place of residence at time of abortion will provide a larger scope to understand the issues around abortion care. While previous research has examined national and state continuity and change of abortions over time, updated and state-specific data will contribute to following these trends in the southern state of Georgia.

PROBLEM STATEMENT

In the United States, one in three women will obtain an abortion before the end of their reproductive years.[2] More so, various women of every parity, marital status, religion, reproductive age and economic strata choose to terminate their pregnancies through induced abortion (Henshaw & Kost, 2008). Furthermore, every major race and ethnic group is represented in women obtaining abortions: 45% non-Hispanic White, 36% Black, 11% Hispanic White and 8% other (Guttmacher Institute, 2008).

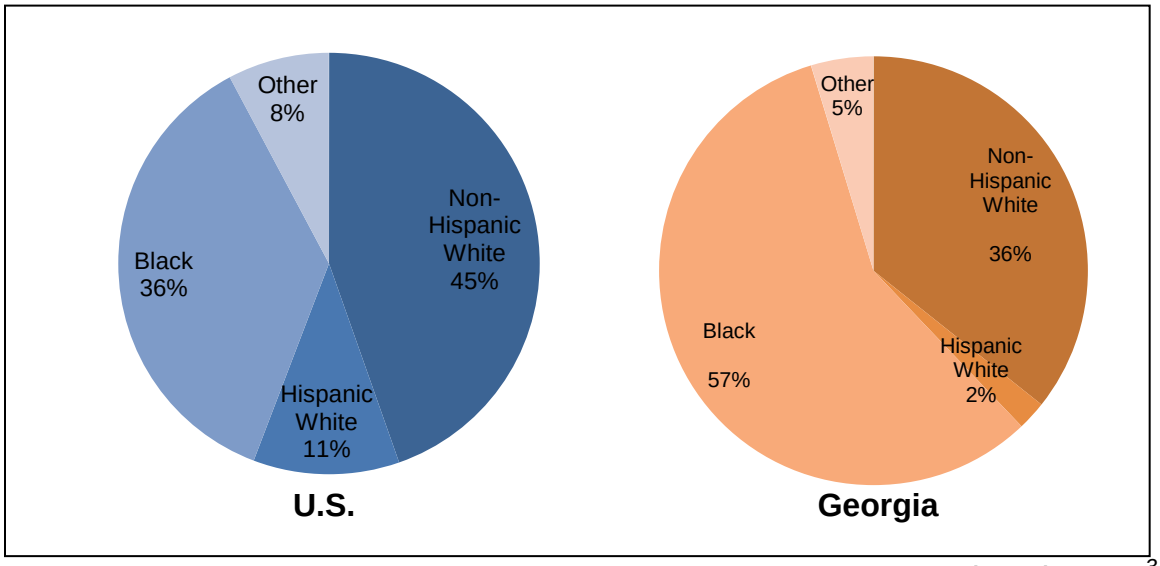
In Georgia, proportions of induced abortions, compared by race/ethnic groups, depict a different picture from the national trend. This is evidenced by Centers for Disease Control and Prevention (CDC) abortion statistics that report a decline in abortions for both white and black women in the U.S., however, in Georgia, the decline in abortions is reported for white women, while abortions for black women remain unchanged (Abortion Surveillance, 1994 & 2007). It is important to place this information in the context of racial proportions in Georgia. The 2000 Census

[2] In this paper, reproductive years for an American woman are between the ages of 15 and 44.

reported a majority of blacks in the U.S. to be in the southeast. In the U.S., the proportion of blacks was 12.4%, compared to 30% in Georgia. With just over half (50.1%) of the black population of Georgia residing in or around Atlanta, proportions of pregnancies and pregnancy outcomes, by race in Georgia, will be different from the national trend.

The growing racial disparity between Georgia and the U.S. (Figure 1.) has allowed two anti-choice organizations, Georgia Right to Life and The Radiance Foundation, to ignite a state-wide campaign, in 2009, that engages racial disparity in Georgia. These two Atlanta based organizations constructed the *Too Many Aborted.com* campaign, including 80 billboards and a website, with content

Figure 1. Proportion of women obtaining abortions, by race/ethnic group: U.S. & Georgia, 2006



Source: Pazol et al., 2006[3]

[3] US: 44.6% non-Hispanic White, 36.4% Black, 11.2% Hispanic White and 7.8% other
Georgia: 35.7% non-Hispanic White, 57.4% Black, 2.2% Hispanic White and 4.7% other

marketing that "Black children are an endangered species."[4] Anti-choice organizations initiated this campaign based off of CDC data, from 2006 that 57.4% of all induced abortions in the state of Georgia were obtained by black women, a group representing only 30% of the population. *Too Many Aborted.com* argues that family planning providers and abortion clinics are using targeted access of abortions to black women as coercion in a eugenics movement[5]. This campaign can distract from seeing the underlying causes leading to the racial disparity, such as education, contraceptive use, unintended pregnancies, unintended childbirth, income and access to healthcare/insurance.

While previous national research has examined abortions, compared by race/ethnicity, no published reports, after the 1970's, discuss abortion trends specific to Georgia. By describing race and ethnic characteristics of women obtaining abortions and trends by age, marital status, education, gravidity and place of residence at time of abortion, we can provide evidence, beyond racial disparities, to understand the scope of characteristics involved in a woman's decision to choose an induced abortion.

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[4] Online reference for an image of the billboards can be found at http://www.nytimes.com/2010/02/06/us/06abortion.html?adxnnl=1&adxnnlx=1303315534-imfAxL+EABoHyAgDOpuUFw

[5] Eugenics is a philosophy rooted in improving the human race by promoting procreation in certain people and reducing procreation in people that are viewed as inferior (Georgetown University, 2002). This philosophy was widely supported by U.S. federal and state governments during the early 20th century and remains supported by the 1927 Supreme Court decision *Buck v Bell* (Pitzer, 2009).

PURPOSE

This study seeks to investigate the trends associated with women who obtain induced abortions, as compared by race and ethnicity, and to examine the influence of specific characteristics and socio-demographic variables on induced abortions and live-births in the state of Georgia. While researchers have studied trends on a national level for the United States, they have not focused on individual states. This study has chosen to concentrate on the state of Georgia due to the anti-choice billboard campaign that ignited an attack on family planning services using racial disparities as their justification. This study will be a simple exploration of abortion trends for four race/ethnic groups: white, black, Asian and Hispanic, controlling for reported social, demographic and reproductive indicators.

RESEARCH QUESTION

This paper aims to answer the following research questions:

- What are the trends of women who obtained induced abortions in the state of Georgia, from 1994 to 2007, for four race/ethnic groups: white, black, Asian and Hispanic?
- What are the most important social, demographic and reproductive variables to be considered for abortion and live-birth pregnancy outcomes in Georgia?

- How do age, marital status, education, gravidity and place of residence affect abortion trends when compared by race and ethnicity?
- How do age, marital status, education, gravidity and place of residence affect live-birth trends when compared by race and ethnicity?

STUDY SIGNIFICANCE

The racial disparity for women obtaining abortions in Georgia has increased. Consequently, anti-choice organizations have used the racial disproportion to create an attack on family planning services, accusing clinics and providers of using abortions as a tool in coercing black women to terminate their pregnancies in a eugenics movement. Each of these characteristics may affect a woman's decision to seek an abortion.

Abortion is a polarized topic across the United States and this polarization may be accentuated in states such as Georgia, which have vocal conservative populations who annually propose restrictive abortion legislation. Adding racial controversy to the topic could interrupt the improvement in health care access for women in need. Partial knowledge of characteristics and behaviors that play into a woman's choice to seek an abortion could mislead the public, impede public health interventions, and create more unintended births.

BACKGROUND

The disproportionate number of abortions for black women in Georgia has stirred up social and political implications by anti-choice organizations. Before identifying trends in induced abortions, by race and ethnicity, we need to examine background information, including the history of U.S. and Georgia abortion laws, the scope of women affected by abortions in Georgia, past abortion trends and the anti-choice eugenics charges.

HISTORY OF U.S. & GEORGIA LAW

Earliest abortion laws, from the 1800's, in the United States were created to protect women from untrained providers or from unsafe environmental factors, and abortion was a felony in most states throughout the 19th century (Boston Women's Health Book Collective, 1998). Statutes were approved, challenged, repealed and re-enacted as the battle on abortion legalities grew. In the late 1800's, the *American Medical Association* (AMA) regulated which procedures would be allowed, under the stipulation that an abortion would save the life of a pregnant woman. The Comstock Act was enacted in 1873, which banned the public's right to access birth control and abortion information; this act was picked up by a total of twenty-four states. It was not till 90 years later (1963) when *The Society for Human Abortion* was established and stood up to the nation's Comstock laws by providing abortion and contraception information. The last Comstock law was finally repealed in 1972 in a Massachusetts (*Eisenstadt v. Baird)* Supreme Court case (Mohr, 1978).

The U.S. Supreme Court removed the ban on abortions in *Roe v. Wade* and *Doe v. Bolton*, legalizing abortions up to three months across the United States. Both cases were decided on January 22, 1973 and the *Doe v. Bolton* decision came directly from a case in the state of Georgia. This law was passed under the condition that a woman's right to an abortion was a decision between the woman and her physician, and decisions from the government on this choice were unwarranted. Nineteen years later, *Planned Parenthood of Southeastern Pennsylvania v. Casey* declared state-by-state regulation of abortions, under the condition that state regulation would not place "undue burden on the woman."[6] Therefore, since 1992, Georgia has created its own laws on abortion services and regulations.

In the past 50 years, Georgia has been affected both by federal movements in abortion regulations, as well as state decisions. The following are highlights from Georgia's history in abortion laws:

- 1961: President Kennedy establishes the *Presidential Advisory Council on the Status of Women.* The council calls for a repeal to the restrictive abortion laws (Martin, 2003)
- 1967: Abortion is considered a felony in the state of Georgia (Georgia General Assembly)
- 1968: Georgia law no longer considered abortion a felony (Rochat, et. al, 1971)

[6] The court's definition of an undue burden is anything that puts "significant obstacles in the path of a woman seeking an abortion".

- By 1972: Abortions are allowed in Georgia, only in cases of rape, fetal anomalies and to save a woman's life. Three physicians must approve the procedure. (American Civil Liberties Union)
- 1973: *Roe v. Wade* legalizes abortions across the U.S. (American Civil Liberties Union)
- 1973: *Doe v. Bolton* case, in the Supreme Court, repeals the Georgia law requiring women to obtain three M.D. approvals for an abortion, and to have abortions performed in hospitals (American Civil Liberties Union)
- 1998: *Midtown Hosp. v. Miller* failed to repeal partial-birth abortions. This would have banned abortions greater than eleven weeks. The court ruled that the partial-birth abortion ban would need to have a clause to protect women's health, otherwise it is deemed unconstitutional. (American Civil Liberties Union)

Presently, Georgia state law requires a mandatory waiting period where a woman can only receive an abortion no less than 24 hours after giving her informed consent. State-directed counseling from the clinic is mandated in Georgia, and physicians must complete a certificate of abortion following completion of the abortion[7]. This report is submitted to the Office of Vital Registrar within ten days of the procedure. The table on page 11 (Table 1.)

[7] Certificate of abortion includes information on age, race, education, county of residence, marital status, duration of pregnancy, previous pregnancy history (including previous abortion), method of abortion, and history of drug and/or alcohol use. Certificate maintains privacy of the woman.

describes all state and federal laws impacting abortions in the state of Georgia (Department of Human Services).

Table 1. Current Georgia laws linked to abortion, 2011[8]

Code	Year Enacted	Law	Description	
GA 16-12-141	1968	1st Trimester regulation	Must be performed by a Georgia state licensed M.D.	
		> 1st Trimester regulations	Must be performed in a licensed hospital or DHR licensed clinic with a Georgia state licensed M.D.	
		> 2nd Trimester regulations	3rd trimester prohibited except in cases of life/health endangerment	
			3 physicians must certify necessity of procedure (including M.D. performing abortion); must be performed in a licensed hospital	
	1973	Post-viability abortion restriction	Must medically assist if a fetus is viable post-abortion	
GA 290-5-32-01 (g)	1974	Targeted regulation of abortion providers (D & E regulations)	"Abortion facilities" are restricted to performing only D&E	
			In cases > 13 weeks, procedure must be at hospital (unless D&E)	
GA 290-5-33-08 (1)	1976	Targeted regulation of abortion providers (DHR)	DHR can observe and examine hospitals and "abortion facilities" during any operating hours	
			"Abortion facilities" must be licensed as ambulatory surgical center	
OCGA § 31-9A-2 (-8)	2005	Informed consent	Consent must be voluntary and informed (unless medical emergency)	Informed consent includes: 1. Medical risks of procedure 2. Probable gestation age 3. Medical risks of carrying the pregnancy to full term
		Mandatory delay	Woman can only receive an abortion no less than 24 hours after giving her informed consent (either phone or in person)	
		Counseling	State-directed counseling from the clinic is mandated	1. Federal and state medical assistance eligibility if the woman carries the pregnancy to full term 2. Legal obligation of the father (19-7-49) 3. Name of M.D. who will perform the abortion 4. Mental health impact 5. Free ultrasound information

[8] Sources: National Abortion Rights Action League (NARAL), 2011; Guttmacher Institute (2011); Georgia Department of Human Services (2011)

<table>
<tr><td></td><td></td><td></td><td colspan="4">Option to review the following DHR information[9]:
1. Fetal development during pregnancy
2. Option to review abortion alternatives
3. Fetal pain information</td></tr>
<tr><td></td><td></td><td></td><td colspan="4">Female gives written notification that all counseling information was offered to her for review (M.D. keeps written notification for at least 3 years with the patient's file)</td></tr>
<tr><td>OCGA § 31-9A-1</td><td>2005</td><td>Woman's Right to Know Act</td><td colspan="4">Woman has the option to view an ultrasound image and/or listen to the heartbeat</td></tr>
<tr><td rowspan="4">GA 15-11-110 (-118)</td><td rowspan="4">1987</td><td rowspan="3">Parental notification for a minor</td><td rowspan="3">< 18 years of age must notify one parent, guardian or the juvenile court</td><td colspan="3">Notification options:</td></tr>
<tr><td rowspan="2">Signed notification by parent or guardian</td><td>M.D. or clinic gives notice to parent or guardian at least 24 hours ahead.</td><td>M.D. or clinic sends written notice 48 hours ahead</td></tr>
<tr><td colspan="2">Must provide clinic name and address</td></tr>
<tr><td colspan="3">OR Court appointed counsel assigned to minor after she petitions the juvenile court</td></tr>
<tr><td>Parental consent for a minor</td><td colspan="4">No</td></tr>
<tr><td rowspan="2">Ch. 900 § 904.2</td><td rowspan="2">1976</td><td rowspan="2">Public funding of abortions (Medicaid)</td><td colspan="4">Only in cases of rape, incest or life endangerment</td></tr>
<tr><td colspan="4">No restrictions on private insurance coverage</td></tr>
<tr><td>GA 16-12-142</td><td>1968</td><td>Conscience Exceptions</td><td colspan="4">Medical providers and clinics have the right to refuse performance of procedure on the basis of personal religious or conscience conviction</td></tr>
<tr><td>530 U.S. 914</td><td>2003</td><td>"Partial-Birth" abortion ban</td><td colspan="4">Banned post-viability, except where physical, emotional or mental stress is put on the woman</td></tr>
<tr><td colspan="7">DHR= Department of Human Resources D&E= dilation & extraction</td></tr>
</table>

[9] Offered in multiple languages

RACE & ETHNICITY DEFINITIONS & MEASUREMENTS

Race and ethnicity are social constructs and both the U.S. Census has documented the variability and inconsistency of reporting these attributes (Kertzer & Arel, 2002). For this study, we will adopt the definitions and measurements from the Online Analytical Statistical Information System (OASIS) from Georgia's Division of Public Health.

Definitions:

- **Race** (Office of Management and Budget)
    - **White**: "A person having origins in any of the original peoples of Europe, the Middle East or North Africa."
    - **Black**: Includes African-Americans. "A person having origins in any of the black racial groups of Africa."
    - **Asian**: "A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent."
- **Ethnicity**
    - **Hispanic**: Includes Latino. "Persons of Mexican, Puerto Rican, Cuban, South or Central American, or other Spanish culture or origin, regardless of race."

Measurements:

- **Numerator**: "the numerator's race classification (by Georgia's Division of Public Health) may be more precise than the Census population estimate counterpart used in the denominator."

- **Denominator**: Census Population Estimates (2000).
- **Ethnicity**: "Non-Hispanic and Hispanic may not equal the total number of events due to persons of unknown ethnicity."

REPRODUCTIVE DEMOGRAPHICS IN GEORGIA

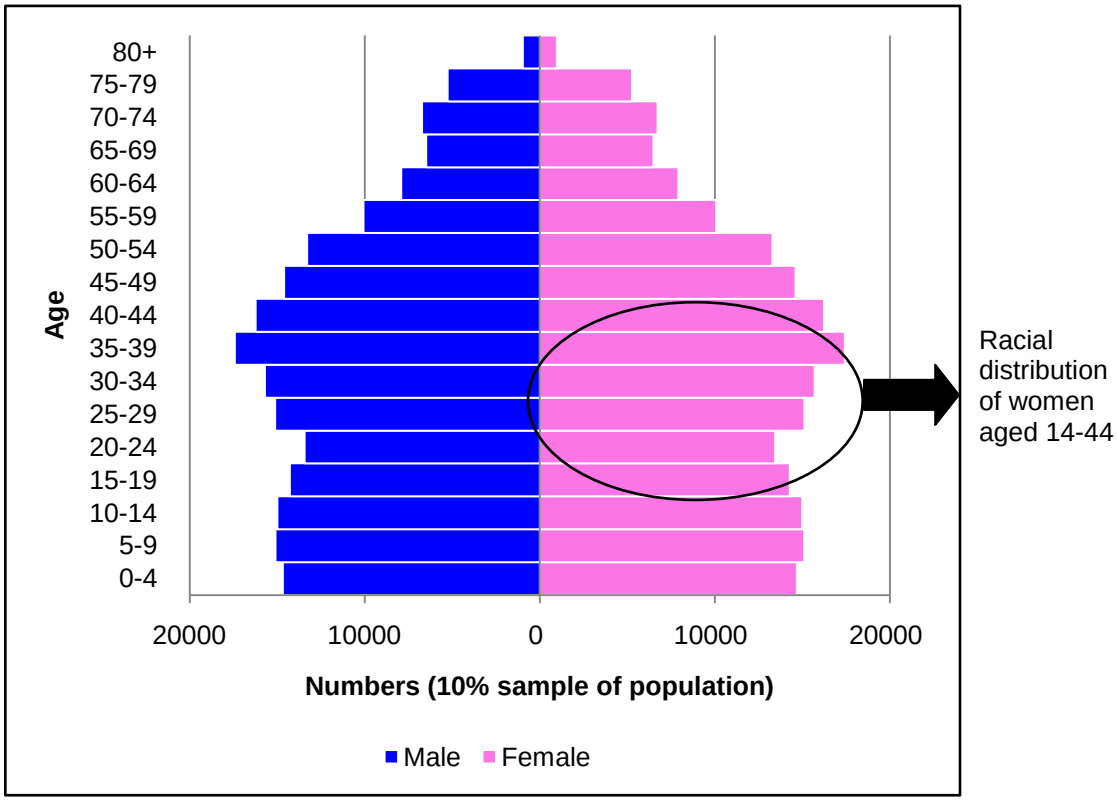
In order to study Georgia's population on women who seek out induced abortions, by race and ethnicity, this state's demographic subgroups need to be overviewed[10]. Females represent half (50.8%) of the state's population, 38% of are females over the age of eighteen. The two most common race groups in Georgia are white and black. The white population of men and women is just over two-thirds (65.1%) and the black population is 28.7%. The remaining races, representing at least 1% each, include Asian (2.1%), other (2.4%) and two or more races (1.4%). Hispanic ethnicity of any race is 5.3%, with 94.7% non-Hispanic. Half of Georgia's adult population (18+ years) is married (51.5%) with one or more children, under the age of eighteen, living in the household. Over three-fourths of Georgia's population has a high school education or higher.

Georgia's population of reproductive-aged women, 15-44 years, represents almost one-quarter (23%) of the state's entire population. A population pyramid from Georgia's 2000 Census is characterized in Figure 2., with women of reproductive age (15-44 years) circled on the figure. Between the ages of 14

[10] Background of Georgia's demographics is described using data from the 2000 Census and Georgia's Department of Economic Development; 2000 is the mid-point in the time period of interest for this study (1994-2007).

and 44, about two-thirds of women are white and one-third Black, with a very small proportion representing Asian and other racial ethnicities.

Figure 2. Georgia's distribution of men and women, by age: 10% population sample, 2000 Census



Source: Georgia Census data, 2000

In the United States, one in three women will experience an abortion before the end of their reproductive years. This means that over 30,000 women could have an abortion in a given year in Georgia[11]. The CDC's Abortion Surveillance system reported 31,678 abortions in their 2000 MMWR report, which is just a little higher than the national trend.

[11] This number was obtained using 2000 Census data for Georgia.

ABORTION AND RACE IN THE U.S. &GEORGIA

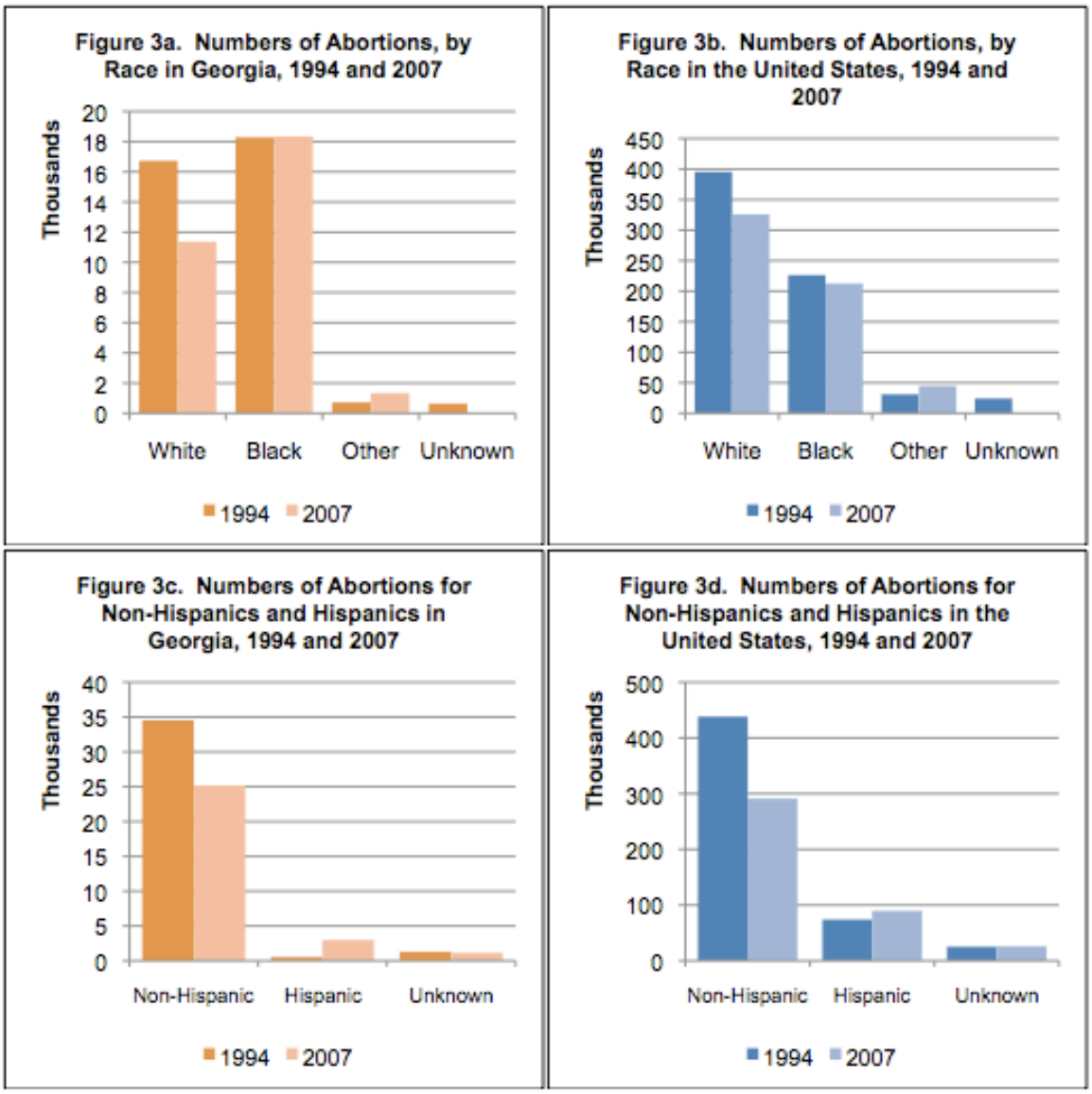
In this analysis, the CDC definition of 'abortion' will be used and will be restricted to only legal, induced abortions. The CDC's definition of abortion is defined "as a procedure performed by a licensed physician, or a licensed advanced practice clinician acting under the supervision of a licensed physician, to induce the termination of a pregnancy." Miscarriages and spontaneous abortions do not count as induced abortions.

Of 36,374 abortions recorded in 1994in Georgia, 46.0% were for white women, 50.3% for black women and 3.8% were either declared as "other" or "unknown" for race. This contrasts with the proportion of abortions, by race, nationally which is 58.4 % white women and33.4% black woman. Ethnically, Georgia's abortion trend also strayed from the national trend; Georgia's distribution of Hispanic abortions was only 1.5%, compared to the United States' trend of 13.8%. Non-Hispanic women represented almost all abortions in Georgia (95.0%) and 81.5% across the U.S.

Between 1994 and 2007,abortion rates continued to decline , however, the race and ethnic demographic pattern changed and Georgia continued to separate from the national trends in race and ethnicity. In 2007, 31,038 abortions were recorded in Georgia, with 36.6% obtained by white women, 59.1% by black women and 4.3% were declared as "other". Figure 3. represents the change in racial and ethnic distributions of abortions in Georgia and the United States, from

1994 to 2007. The figure illustrates the general decline in the procedure throughout thirteen years as well as the racial and ethnic changes.

Figure 3. Change in Abortion, by Race & Ethnicity, in Georgia and the U.S., 1994 & 2007



Source: Abortion Surveillance, 1994 & 2007

Trends in abortions are determined by a number of measurable factors other than race and ethnicity, including, but not limited to, the woman's age and gestational age of the fetus at the time of abortion, method used during the

procedure (medical or surgical), marital status, socioeconomic status, parity, gravidity, previous history of abortions, and location of residence. Other factors that are harder to measure, but are also influential in reflecting abortion trends, are the access and availability of contraception and abortion services and unintended pregnancies[12].Non-contraception users/compliers represent 95% of all unintended pregnancies in the U.S., leading to unplanned births, abortions and miscarriages (Kramer et al., 2007).Black and Hispanic women and women of lower socioeconomic status are more likely to have unintended pregnancies through contraceptive failure (Finer & Henshaw, 2006). Unintended pregnancies are nearly half of all pregnancies in the United States, and of the unintended pregnancies half end in abortions (Ventura et al., 2008).

TOO MANY ABORTED.COM CHARGES EUGENICS THROUGH FAMILY PLANNING

The growing disproportion between abortion rates for black women compared to other races, in Georgia, has reignited an argument accusing family planning services to be a form of eugenics. In 2009, two anti-abortion organizations based in Atlanta, Radiance Foundation and Georgia Right to Life, launched a billboard campaign, in the metro area, known as *Too Many Aborted.com*. This campaign posted 80 billboards throughout Atlanta, stating, “Black children are an endangered species.” Anti-abortion advocates driving the campaign claimed that African-American women are disproportionately targeted to terminate unplanned pregnancies through coercion.

[12] An unintended pregnancy is a pregnancy that is either unwanted or mistimed.

In the United States, family planning as a mechanism of eugenics towards the African-American community was first raised by a few outspoken people in the 1920s.Providers and clinics of family planning services were blamed for dispensing contraception provisions disproportionately and initiating non-consensual sterilization to African-Americans (Weisbord, 1973). Weisbord argues that eugenics through family planning is rooted in the realism that the white race sought to manage procreation of the black race during the slavery era. Marcus Garvey, an influential black journalist in the early 1900's, opposed birth control because he saw this family planning service as an impediment to African-American empowerment. The larger the number of African-Americans overall meant the larger the number of advocates for black rights. *Ebony*, a magazine founded in 1945, marketed towards African-Americans, quoted an interview by Dick Gregory: "Back in the days of slavery, black folks couldn't grow kids fast enough for white folks to harvest (*Ebony*, October 1971). Now that we've got a little taste of power, white folks want us to call a moratorium on having children." A few magazine articles and occasional influential activists have the belief that family planning is a detriment to the growth of the black population in the United States, and the development of family planning services is driven by eugenics (Weisbord, 1973).

Few may describe the racial disproportion in abortions as eugenics through family planning; however, these disparities may actually be due to unintended

pregnancies, higher incarceration rates, stigma, and poverty for blacks (Primm et al., 2010). Spaulding's study, from 2011,reports that Georgia's black population in prisons is 66% and the national poverty rate for blacks is up to 25% (Census, 2007). In turn, these differences could lead to lower rates of contraception use or compliance, and failure to do either of these is the primary cause of unintended pregnancies in the U.S. (Cohen, 2008).National and Georgia surveys show that half of unintended pregnancies end in termination of the pregnancy through abortion and black women have an unintended pregnancy rate three times higher than white women (Henshaw & Kost, 2008; Cohen, 2008).

This paper aims to characterize race as a factor for induced abortions, but also aims to explore other characteristics that contribute to an abortion, since there is no published evidence to support or refute the eugenics-through-family-planning claim.

LITERATURE REVIEW

While considering the complexity and under-reporting in abortion surveillance, academic and government institutions have been studying trends of abortions in the United States since before abortions became legal. One of the oldest and most consistent analyses comes from the annual *Abortion Surveillance* reports, assembled by the Division of Reproductive Health at the CDC. The CDC has attempted to collect numbers and characteristics of women attaining induced abortions since 1969, allowing assessments of trends.

An array of other studies have also focused on the national scope of abortions in the U.S., with a handful focusing on racial and ethnic comparisons for those obtaining induced abortions (Hamilton & Ventura, 2005; Jones, Darroch & Henshaw, 2002; Lynxwiler & Wilson, 1994; Russo, Horn & Tromp, 1993; Powell-Griner & Trent, 1987; Ryser, Laufe & Berg, 1975).

Very few recent studies have been published on abortions in Georgia, let alone the consideration of racial and ethnic characteristics of women obtaining abortions in Georgia (Siffel & Correa et al., 2004; Andrew & Boyle, 2003; Spitz, Oberle & Zaro, 1984; Shelton, 1977; Rochat et al., 1971).

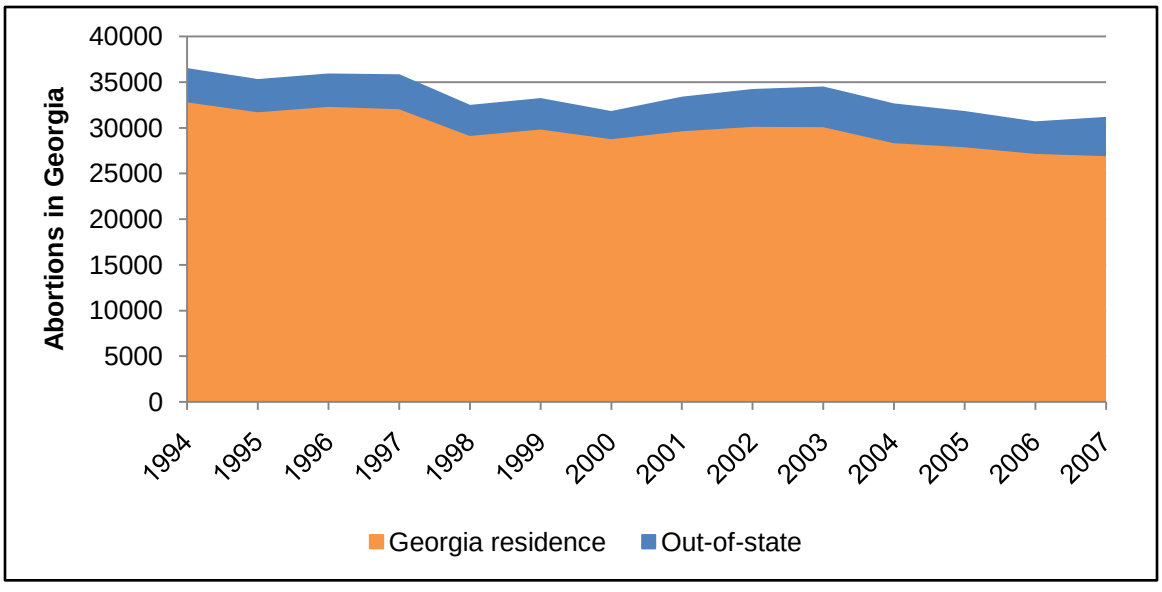
First, this literature review will present relevant national trends from the CDC's *Abortion Surveillance* reports. The timeline for this review is between the years of 1994 and 2007, for the reason that it allows a comparison with the current study's

results. Then other studies will be distinguished based on national focus or Georgia state-specific focus, emphasizing the methodology used, racial and ethnic component of the study and other characteristics considered in the analysis. With the exception of the Rochat et al., 1971 paper, this literature review will compare findings for studies completed in the United States, post *Roe v. Wade* and *Doe v. Bolton* (1973), to keep outcomes and discussions relevant to abortions after they were legalized in the U.S. Table 2, on page 35, summarizes all of the studies included in this review.

TRENDS OF INDUCED ABORTIONS IN THE U.S.

Abortion Surveillance first started at the CDC in 1969 and the state of Georgia has been reporting abortion records to the CDC for almost as long. The following charts show trends in abortions from 1994 to 2007.

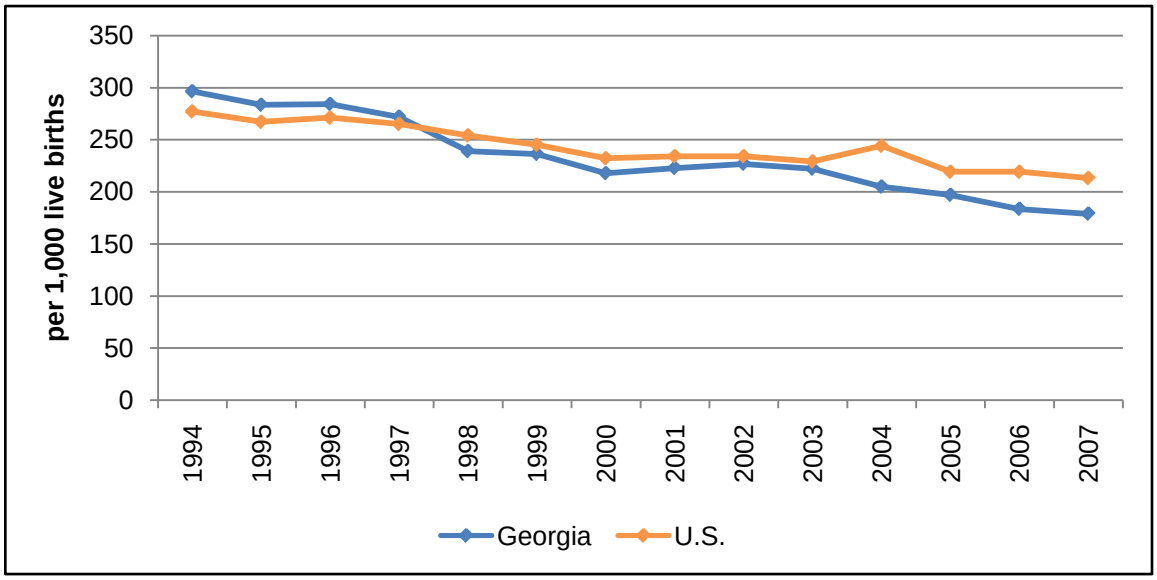
Figure 4. Proportion of abortions by Georgia resident status, 1994-2007



Most abortions that occur in Georgia are obtained by residents of the state and only 8.8 to 12.9% of abortions are from women out-of-state (Figure 4.). Georgia has fifteen abortion facilities, six in Atlanta, alone (National Abortion Federation).

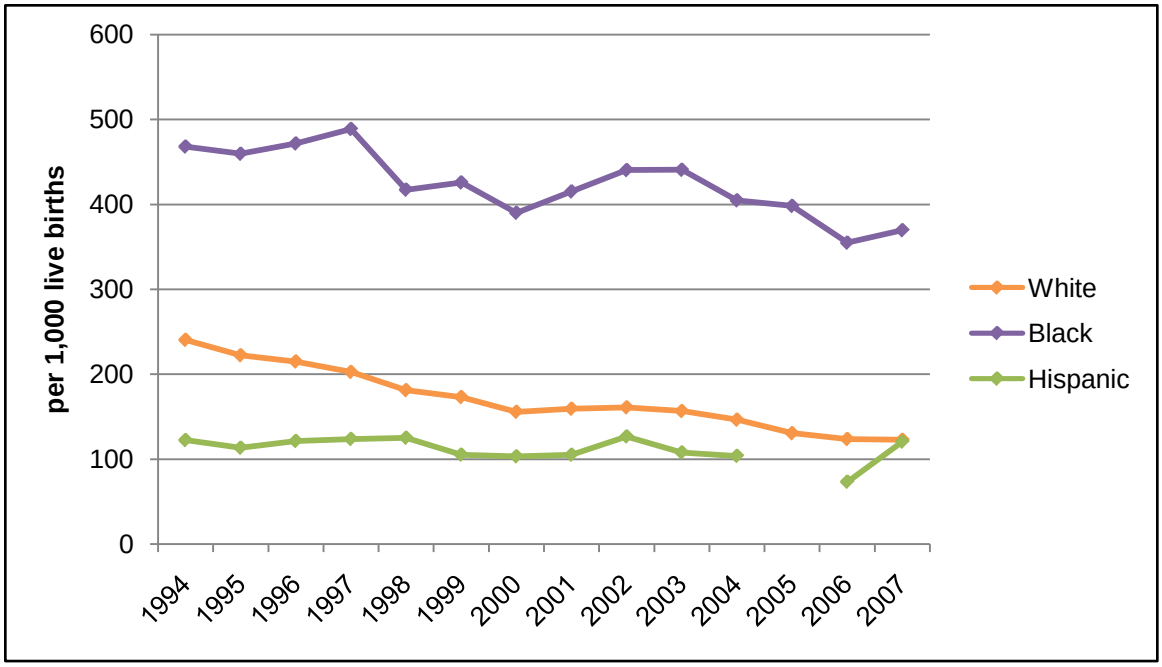
The CDC also collects vital records through the National Vital Statistics System and live births for Georgia can be accessed online. With both abortion data and live birth data, abortion ratios can be calculated per 1,000 live births. In 1994, Georgia had a higher abortion ratio than the U.S. with almost 300 abortions per every 1,000 live births. The U.S. ratio was 277 per 1,000 live births (Figure 5.).

Figure 5. Ratio of induced abortions per 1,000 live births, in Georgia and the U.S., 1994-2007



Between 1997 and 1998, Georgia's ratio of 239 dropped below the national ratio of 254 per 1,000 and has been below the U.S. ratio from 1998 to 2007. This trend also shows that overall, both the United States and Georgia have had steadily decreasing numbers of abortions per live births.

Figure 6. Ratio of induced abortions per 1,000 live births, for whites, blacks and Hispanics in Georgia, 1994-2007

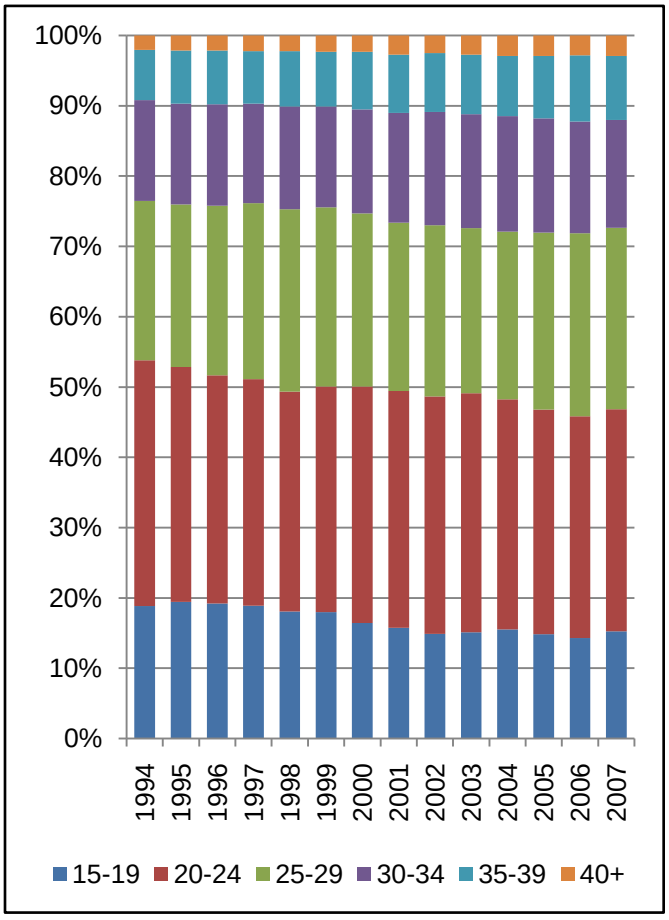


The CDC provides data on abortions by race and ethnicity in the Abortion Surveillance reports. Black women in Georgia had 488 abortions per 1,000 live births in 1997, representing almost one-third of pregnancy outcomes for black women that year (Figure 6.)[13] Over the past decade, the ratios have decreased, but black women continue to have the highest abortion ratio of all reported races and ethnicities (370/1,000 live births in 2007). White and Hispanic women in Georgia have much lower abortion ratios, each at 120 in 2007. This is not a major change in trends for Hispanic women, but it is a 50% decrease for white women since 1994 (240/1,000 live births).

[13] Hispanic abortion numbers were not reported for 2005 because ethnicity was reported as 'unknown' in more than 15% of reports.

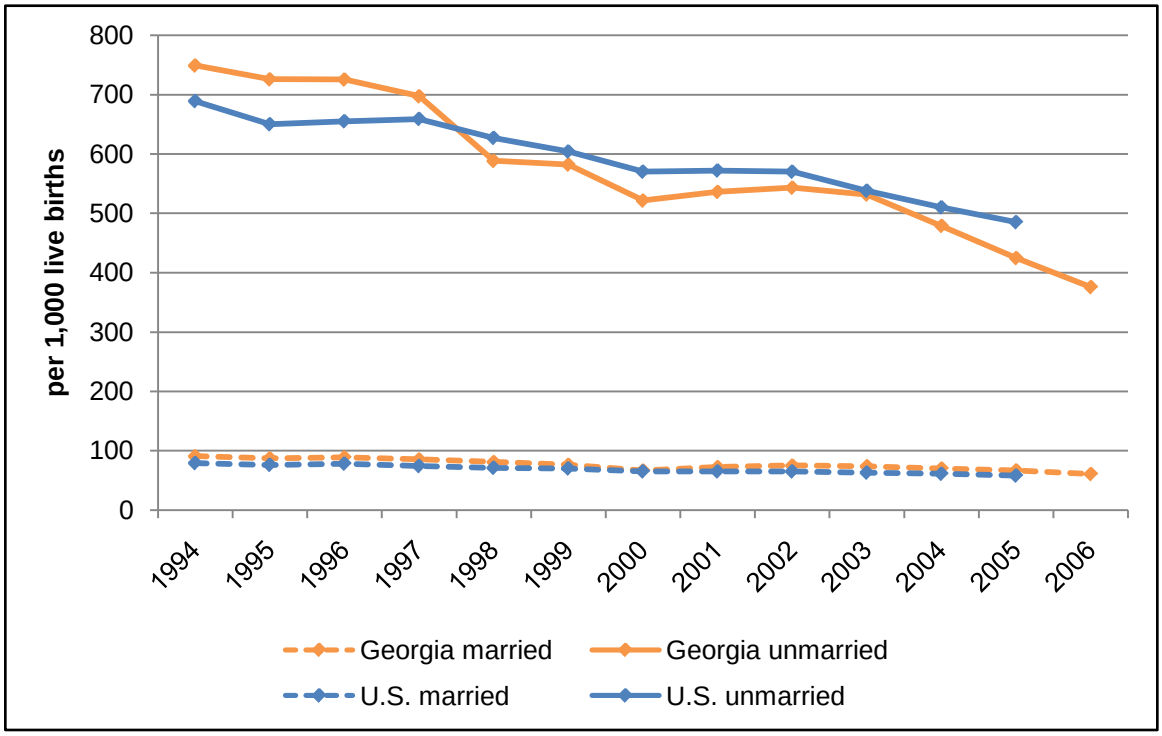
Following Georgia's abortion trends over the past thirteen years, age distribution for women who seek induced abortions has remained steady (Figure 7.).

Figure 7. Proportion of abortions, by age group in Georgia, 1994-2007



Women between the ages of 20 and 24 years have represented one-third of all abortions each year. Women between 15 and 19 years consistently represent 15-19%; the 25-29 age group has increased slightly, but still remains to represent about one-quarter of all abortions. Women, 30-34, signify anywhere between 14 and 16%, 7 to 9% for the 35-39 age group, and the smallest portion is represented by women who are 40 and older (2 to 3%).

Figure 8. Ratio of induced abortions per 1,000 births, by marital status in Georgia and the U.S., 1994-2007



The marital status of a woman, in both Georgia and the United States, also displays important characteristics for women who obtain induced abortions (Figure 8.). In an even more dramatic difference than race, unmarried woman had abortion ratios as high as 750 per 1,000 live births, back in 1994. Nearly half of all pregnancies were being terminated through induced abortions. Recently, that ratio has plummeted to half that number and about 375 abortions per 1,000 live births occurred in 2007 for unmarried women in Georgia. The national trend for unmarried women has a less dramatic peak and descent but has still ranged from 689 to 485 over the past thirteen years. Opposite of unmarried women, the

abortion ratio for married women in Georgia and in the national scope have a very steady trend of 60 to 80 abortions per 1,000 live births.

Marital status is a large indicator for women who chose to get an abortion. The CDC's Abortion Surveillance reports paint a picture of trends over time in Georgia, however more detail of contributing characteristics need to be examined.

RACIAL INFLUENCE ON INDUCED ABORTIONS IN THE U.S.

Numerous national abortion studies have looked at the social and demographic characteristics associated with women who seek induced abortions.

The findings reported in the two most recent national abortion surveys shared the same trends between abortion, race/ethnicity and age (Hamilton & Ventura, 2005; Jones, Darroch & Henshaw, 2002). Jones, Darroch & Henshaw used the Alan Guttmacher Institute's (AGI) survey reports on 10,000 abortions from 2000 to 2001. AGI's data came from their Abortion Provider Surveys and CDC's Abortion Surveillance reports. Data looked at several demographic characteristics for women, including age, marital status, parity, residence, poverty status, education and religion. Hamilton and Ventura also used CDC's Abortion Surveillance reports to calculate abortions rates by race/ethnicity and age and Vital Statistics from the National Center for Health Statistics were used to calculate fertility rates in the same categories. Although Hamilton and Ventura

reported rates from 1980 to 2000 and the first study reported rates from 1994 to 2000, each source has comparable results from their overlapping dates. Both studies saw an overall decrease in abortion rates for white, black and Hispanic racial/ethnic groups, and black women had the highest rate per 1,000 women of reproductive age (57.4 from Hamilton & Ventura; 49 from Jones, Darroch & Henshaw). White women had rates of 14.8 and 13 and Hispanic rates were 30.3 and 33. Equally, women in the age groups of 18-19, 20-24 and 25-29 years had the highest rates amongst all age groups (37.7, 46.3 and 31.6 from Henshaw & Ventura; 39, 47 and 32 from Jones, Darroch & Henshaw). The 2002 study from Jones, Darroch and Henshaw furthered their research by incorporating other demographics and they concluded that those women, who were either unmarried, black, Hispanic, or of lower economic status, resulted in the highest abortion rates. Higher education, no religious affiliation, and high economic status indicators resulted in lower abortion rates.

A study from 1994 examined various demographics and attitudes that create differences amongst black and white women who undergo abortions (Lynxwiler & Wilson; 1994). Among the 240 women who were interviewed for this study, it was indicated that black women had a harder time choosing to abort their pregnancy, resulting in later trimester abortions. White women made up two-thirds of first trimester abortions and black women represented the other quarter. However, for second trimester abortions, the breakdown by race was 60% white and 40% black. Authors concluded that specific characteristics and attitudes

contributed to a holdup in getting an abortion for black women. White women had higher income levels and completed school in less years than black women. Black women tended to live with larger families than whites, have stronger self-perception of their religion, have existing children, and have a “cultural distrust of abortion”.

A Pennsylvania study from 1975 also found that black women were more likely to have a later trimester abortion (Ryser, Laufe & Berg; 1975). Although this study is 35 years old, similar racial trends to the more current studies are still reported. The study was a retrospective analysis of 772 records from women who underwent abortions. Ryser, Laufe and Bergfound that second trimester abortions were more common for young, unmarried, black women and women with less than a twelfth grade education. Authors concluded that this was most likely due to more social and health access barriers for black women than white women. Powell-Griner and Trent’s study from 1987 published similar results that unmarried black women had the highest proportion of abortions. Other characteristics were not stratified by race, however women with higher parity and a metropolitan residence had higher rates of abortions. Different from the Ryser, Laufe and Berg study was the outcome of educational influence on abortions. The Pennsylvania study reported higher abortion percentages for women who had less than a twelfth grade education. However, the newer study from Powell-Griner and Trent reported a slightly higher proportion of abortions for women with twelve or more years of education.

To continue with the major trend in racial disparities, Russo, Horn and Tromp's U.S. study focused on child spacing for women seeking abortions, stratified by race and age (1993). This study was a secondary analysis of 596 women who had an abortion and were already mothers to at least one child. They discovered that overall, one quarter of all women seeking abortions already have a child less than two years of age, but for black women, this proportion is increased to one out of two. Furthermore, 100% of the black women between the ages of 15 and 19 years, who had an abortion, were also single heads of household (having less than $11,000 per year income).

Throughout the years, it appears that multiple U.S. studies have found abortions to be related to race, as well as other characteristics, including marital status, age, education and geographic location. Consistently, across all studies, abortion ratios and rates have declined. Also, black women have the highest rates and ratios, followed by Hispanic women then white women. Notably, rates are higher for women with more than one child, women in urban locations and unmarried women, especially unmarried black women. Level of education is an inconsistent demographic related to abortion rates. Higher abortions rates were reported for both lower education levels (less than high school graduation) and higher education levels (high school graduation and up).

RACIAL INFLUENCE ON INDUCED ABORTIONS IN GEORGIA

Only a handful of studies have focused specifically on Georgia to examine characteristics of women seeking induced abortions. Each study will be described independently.

First, Rochat et al. provided an epidemiologic analysis on maternal mortality due to abortions in Georgia (1971). This study reviewed 1,499 maternal deaths between 1950 and 1969. Of the 10% of maternal deaths attributed to abortions, maternal death ratios for black women were 2.6-1.4 deaths per 1,000 live births. The maternal death ratios for white women were lower with 0.7-0.1 deaths attributed to abortions per 1,000 live births. Maternal mortality from abortions was also different by marital status, age and place of residence depending on hospital abortion or non-hospital abortion. Notably, maternal deaths in non-hospital abortions were highest for unmarried black women.

In a retrospective cohort study, multiple surveillance sources were used to look at births, induced abortions and contraception for adolescents under the age of fifteen (Shelton; 1977). Results from Shelton's findings show the relationship of pregnancy outcomes and family planning to fertility rates in Georgia's teenagers. Over a period of two years, the rate of births declined faster and at a greater magnitude for white teenagers than for black teenagers. Abortion ratios were higher in metro Atlanta than in suburban and remaining parts of Georgia, for both black and white adolescents, and black teenagers had higher proportions of

second and third term abortions. This study concluded that white teenagers had a higher rate of abortion utilization, most likely due to “better access”, explaining the decrease in births for teenagers of this race. Also, metro Atlanta has the most abortion facilities, which explains the higher abortion utilization in the metro area for both races.

A comparison of two abortion surveillance sources, Georgia Department of Human Resources (DHR) and Alan Guttmacher Institute (AGI), was published to verify a trend in DHR’s data that induced abortions were decreasing (Spitz, Oberle, Zaro; 1984). Georgia’s DHR reported 33,288 induced abortions for that year, while AGI had 37,890 abortions recorded. Both sources reported a decrease in the number of abortions for the first time since 1968. Additionally, DHR’s abortion ratio for white women was 317 abortions per 1,000 live births and the ratio for black women was 342. This study concluded little difference between DHR and AGI’s data, when compared by race and a decrease in the trend was verified.

To gain understanding of unplanned teenage pregnancies and induced abortions for African Americans, a study interviewed adolescent women in one of Atlanta’s abortion clinics (Andrews & Boyle; 2003). This qualitative study conducted in-depth interviews with twelve African American adolescents, between the ages of fifteen to eighteen, who were seeking induced abortions due to an unplanned pregnancy. This study indicates that African American adolescents have

experiences that vary considerably from European American women and this variation could extend to how African American women experience pregnancy and abortion. Interviewers probed and asked follow-up questions to explore individual experiences and larger, overarching themes. This study addresses a couple 'myths' that have been identified to marginalize African American women. First myth is that women will continue an unplanned pregnancy with the help of family. This study recognized that adolescent African Americans felt strongly about pursuing a higher education and financial independence and chose not to become mothers to concentrate on this goal. Also, adoption was not seen as an option because it was "culturally unacceptable". Second is the myth that African American women will choose an outcome for their pregnancy based on their partner's decision. This myth stems from the ages of slavery when black women were not able to control their own fertility; however, a theme identified in this study was empowerment. The African American adolescents chose to abort their pregnancy unrelated to their decision to tell their partner of their choice.

The most recent abortion research in Georgia is a retrospective cohort study by Siffel, Correa, et al (2004). From Atlanta's population-based birth registry, 526 women were found to have Down syndrome diagnoses during their pregnancy. Siffel, Correa, et al. looked at births and induced abortions following the Down Syndrome diagnosis and evaluated demographics correlated with a woman's decision to continue or terminate the pregnancy. Overall, 139 pregnancies were electively terminated, and of the women who were 35 years of age or older, there

were 30/100 cases of black women who chose induced abortion and 56.5/100 cases of white women. It was found that white women over the age of 35 years were less likely than black women of the same age to abort a Down syndrome pregnancy. The researchers concluded that race did correlate with a woman's decision to abort or continue a Down syndrome diagnosis. This could be due to racial disparities in available and accurate health resources for detecting prenatal Down syndrome, patient education after the diagnosis, or personal preference of the patient.

Following the national trend, it appears that race relates to abortions in the state of Georgia. Overall rates of abortions are decreasing and specifically, black women are seen to have higher rates and ratios of abortions than white women.

Table 2. Summary of research studies on abortions with racial/ethnic components, in the U.S. and the state of Georgia, 1971-2005

Article Title	Year	Authors	N	Race/Ethnic Results	Other Variables
U.S. studies					
Abortion Surveillance---United States	1994-2007	Various authors	827,609 (2007)	Over 14 years, ratio of abortions per 100,000 live births dropped from 538 to 447 for black women, 217 to 159 for white women, and 278 to 193 for Hispanic women.	Residence, age, marital status, parity, method of AB, length of gestation
Fertility and abortion rates in the United States, 1960-2002	2005	Hamilton, BE & Ventura, SJ	4,021,726 (2002)	AB rates for non-Hispanic black women, non-Hispanic white women & Hispanic women were 57.4, 11.7 & 30.6/1,000 women. Overall, decrease in fertility and AB rates in whites, blacks & Hispanics from 1990-2000.	Age
Patterns in the Socioeconomic Characteristics of Women Obtaining Abortions in 2000-2001	2002	Jones, Darroch & Henshaw	10,000	AB rate for women 15-44 years is 21/1,000; 18-29 years had highest AB rates (ranging from 32-47/1,000); never-married and cohabiting women had highest rates (35 & 29/ 1,000). Black women had highest AB rate (49/1,000), then Hispanic (33/1,000) and White (13/1,000).	Age, marital status, parity, residence, poverty status, education, religion
A case study of race differences among late abortion patients.	1994	Lynxwiler, J & Wilson, M	240	White and black women made up 73.3% and 26.7% of 1st trimester ABs. Second trimester proportions were 59.1% and 40.8%. Factors associated with delay in AB choice for black women: living circumstances, religion, education, low income, existing children, and cultural views.	Religion, income, parity
Childspacing intervals and abortion among blacks and whites: a brief report.	1993	Russo, Horn & Tromp	596	25% women seeking abortions had at least one child < 2 years old; 50% for black women. All black women, 15-19 years, who had abortions, were considered single heads of household.	Age, income, parity

Sociodemographic determinants of abortion in the United States.	1987	E Powell-Griner & K Trent	192,798	Higher rate of AB is related to race (1.00 for black women; 0.99 for white women), unmarried status (1.80), existing children (1.04), 12 or more years of education (1.22), living in a metropolitan residence (1.25), 35-39 years of age (1.30)	Marital status, parity, education, residence, age
Racial differences in abortion-seeking	1975	Ryser, Laufe, & Berg	772	High ABs for white women between 20-25 years of age (37%), unmarried black women (60%), protestant black women (86%), black and white high school graduates (50% & 55%), black women with a poor income (41%), and white women with no previous children (56%).	Age; marital status; religion; education; occupation; income; family size; parity; length of gestation; method of abortion
Article Title	**Year**	**Authors**	**N**	**Race/Ethnic Results**	**Other Variables**
Georgia studies					
Abortion Surveillance---Georgia	1994-2007	Various authors	31,038 (2007)	Over 14 years, ratio of abortions per 100,000 live births dropped from 468 to 370 for black women, 240 to 122 for white women, and 122 to 120 for Hispanic women.	Residence, age, marital status, parity, method of AB, length of gestation
Prenatal diagnosis, pregnancy termination and prevalence of Down syndrome in Atlanta	2004	Siffel C & Correa A, et al.	526	139 pregnancies electively terminated. Among down syndrome pregnancies in mothers 35+ years, 30/100 cases of black women chose elective termination (95% CI 17.30–42.70); 56.5/100 cases for white women (95% CI 48.00–64.98).	Fetal anomaly, maternal age
African-American adolescents' experiences with unplanned pregnancy and elective abortion	2003	Andrews, JL & Boyle, JS	12	Dispels images that "serve to marginalize Black women by stripping away the right to define themselves." African American adolescents strive for higher education and financial stability. Empowerment also plays into a woman's choice to abort an unplanned pregnancy.	Minors (15-18 years), education, income
Legal abortion in Georgia, 1980	1984	Spitz, Oberle & Zaro	33,288 (DHR) 37,890 (AGI)	Little change between DHR & AGI data for race. Ratio for white women was 317 abortions/1000 live births; ratio for blacks was 342/1000.	Age, marital status, repeat abortions, gestation, method of AB

Very young adolescent women in Georgia: has abortion or contraception lowered their fertility?	1977	Shelton, JD	18,400	Greater decline over time and magnitude of births for white teenagers than blacks. White teenagers were more likely to obtain abortions than black teenagers; likely due to better healthcare access.	Adolescents, age, metro/ non-metro
An epidemiological analysis of abortion in Georgia	1971	Rochat, RW, Tyler, CW & Schoenbucher, AK.	1,499	Maternal mortality from abortions is different by ethnicity, marital status, age and place of residence depending on hospital abortion or non-hospital abortions. Maternal deaths in non-hospital abortions were highest for unmarried black women	Marital status, adolescents, age, maternal mortality, place of residence, gravidity
AB= abortion DHR= Department of Human Resources AGI=Alan Guttmacher Institute					

METHODOLOGY

GEORGIA'S DIVISION OF PUBLIC HEALTH

For this study, two data sources, from within Georgia's Division of Public Health, were used for descriptive epidemiologic analysis. Online Analytical Statistical Information System (OASIS) is the first database, which is a public source, managed by the Office of Health Indicators for Planning (OHIP). The second data source is the Induced Termination of Pregnancy (ITOP) dataset, a customized version of the OHIP's data, consisting of variables not made public to the OASIS database.

ONLINE ANALYTICAL STATISTICAL INFORMATION SYSTEM (OASIS)

The OASIS database is a public repository for Georgia's health data, collected by OHIP in Georgia's Division of Public Health within the Department of Community Health. Health statistics available on OASIS contain information on Georgia's mortality/morbidity, infant deaths, population, emergency room visits, and maternal/child health. Maternal/child health statistics house both ITOP and live birth data. Within ITOP, reliable data on induced abortions has been collected through access to Certificates of Abortion, filed with Georgia's Vital Records. OASIS data is available from 1994 through 2007, and a total of 423,123 induced abortions have been recorded in that time frame. The variables collected, along with record of an abortion, include the mother's age, education level, marital status, gravidity, place of residence and race and ethnicity.

INDUCED TERMINATION OF PREGNANCY (ITOP)

For this study, the Office of Health Indicators for Planning provided a customized dataset of abortion characteristics between 1994 and 2007 without identifiers of clinics or individuals. A *Protected Health Information - Data Use Memorandum (PHI-DUM)* form was signed to release individual data under the agreement that this study would complete a descriptive epidemiologic analysis of trends around personal characteristics of woman having abortions in Georgia. Live-birth data will be used from OASIS to analyze abortion ratios per 1,000 live births.

SAMPLING DESIGN & DATA COLLECTION

Both OASIS and the ITOP dataset provide information on women who had induced abortions in the state of Georgia. The data collection instrument for ITOP was the Certificate of Abortion, filed with Georgia's Vital Records. Each certificate was either filed electronically or by paper and represented each Georgia resident who had an induced abortion. The OASIS also provides data on characteristics of women who had live births in Georgia. Birth Certificates from Georgia's Vital Records provide the source information for the live birth data.

A total of 423,123 induced abortions were recorded between the years of 1994 and 2007, in the state of Georgia. In that same timeframe, 1,817,786 live births were recorded.

ASSUMPTIONS

For this study, we assume that health care providers have accurately completed demographic and pregnancy-related information for the Certificate of Abortion and for the Birth Certificate. Certificates include information on age, race, education, county of residence, marital status, duration of pregnancy, previous pregnancy history (including previous abortion). Method of abortion and history of drug and/or alcohol use were also included in the Certificate of Abortion. Studies that have examined the accuracy of data on birth certificates often show the demographic data is reasonably accurate while the medical information is less accurate. One MPH student research study in Georgia showed variability in the manner in which demographic information is collected for abortion reports (Chelko, 2001).

Furthermore, we accept the Georgia's Division of Public Health definitions and measurements of race and ethnicity as accurate and meaningful characteristics.

RESEARCH DESIGN

The two data sources used for analysis were examined between the years 1994 and 2007. The OASIS induced termination of pregnancy public data recorded 423,123 induced abortion files that included the woman's age, Georgia county of residence, race and ethnicity. The OASIS Births data recorded 1,817,786 live birth files, also including the mother's age, county of residence, race and ethnicity, in addition to education level (less than 12^{th} grade education or 12^{th}

grade education and higher), marital status, and gravidity. The private ITOP files contain more descriptive variables than the public repository for induced abortions. These files have additional variables regarding county of pregnancy termination, gestational age of the fetus at the time of abortion, method used to terminate pregnancy, and the mother's education, gravidity and marital status. OASIS files are public use files, available through the Georgia Division of Public Health website and the private ITOP files are restricted-use only.[14] Access to the private files was granted after a request was submitted to the Operations Analyst within the division. A *Protected Health Information - Data Use Memorandum (PHI-DUM)* form was signed to release data files and the files were password protected to assure data security. All original and subsequently related data sets will be destroyed after the study has been published. Enclosed on page 41 in Appendix A is the PHI-DUM form.[15] Private and public data files are all grounded in the same 423,123 induced abortions and 1,817,786 live births.

In order to complete a descriptive epidemiologic analysis of trends around abortions in Georgia, data was analyzed for every year between 1994 and 2007. The descriptive analysis sought to compare abortion trends and patterns by race and ethnicity; therefore abortion ratios (number of induced abortions for women overall / 1,000 live births for women overall) were calculated for each race/ethnicity for comparison. Pregnancy outcome was categorized as either an induced abortion or a live birth, and excluded miscarriage and spontaneous

[14] http://oasis.state.ga.us/
[15] Signatures are removed from the PHI-DUM for security reasons

abortion. Mother's age, marital status, education level, gravidity and place of residence were the chosen variables to describe characteristics of women having abortions and were sorted by race/ethnicity and compared over thirteen years. Select variables used in the analysis are listed in Table 3.

IRB (Institutional Review Board) approval was not required because this descriptive study did not conduct human subject research.

Table 3. Georgia ITOP variables accessed with permission from OHIP

ITOP 1994-2008	Categories	Purpose
Race (Mother)	White	Indicator of pregnancy intendedness
	Black or African-American	
	Asian	
Ethnicity (Mother)	Hispanic	Indicator of pregnancy intendedness
	Non-Hispanic	
	Unknown	
Age (Mother)	15-19	To compute age at termination
	20-24	
	25-29	
	30-34	
	35-39	
	40-44	
Mother's marital status	Married	Indicator of pregnancy intendedness
	Unmarried	
	Unknown	
Education (Mother)	Less than 12th grade	Indicator of pregnancy intendedness
	High school graduate or higher	
Gravidity	Repeat pregnancy	Indicator of pregnancy intendedness
	First Pregnancy	
Resident Pubic Health District (Geography)	Georgia is made up of 18 Public Health Districts	To determine geographical location in Georgia

STATISTICAL CONSIDERATIONS

The epidemiologic analysis for this study was completed using SAS 9.2 (SAS Institute. Cary, North Carolina) and Microsoft Excel, version 12.2.8. This is a descriptive analysis, using abortion ratios (number of abortions per 1,000 live births), rates and proportions to quantitatively describe main demographic and pregnancy-related variables.

RESULTS

This study sought to investigate the trends associated with women who obtain induced abortions, as compared by race and ethnicity, and to examine the influence of specific characteristics and socio-demographic variables on induced abortions and live births in the state of Georgia. All Certificates of Abortion, filed with Georgia's Vital Records within Georgia's Division of Public Health, from January 1994 to December 2007 were included in this study. Results of this study will present racial and ethnic trends over the thirteen-year period for both induced abortions and live births in Georgia, as well as specific demographics and characteristics of the women who obtained induced abortions, compared by race and ethnicity.

ABORTION & BIRTH REPORTING

A total of 423,123 induced abortions were recorded between the years of 1994 and 2007, in the state of Georgia. In that same timeframe, 1,817,786 live births were recorded. Tables 4 and 5, on page 45, describe Georgia women's race and ethnicity for women who obtained abortions and women who took their pregnancy to term.

Table 4. Selected race and ethnicity variables for women who obtained an induced abortion from 1994-2007, ITOP

	Race			Ethnicity		
Year	White	Black	Asian	Hispanic	Non-Hispanic	Unknown ethnicity
1994	17,508(**47.4%**)	18,873 (**51.1%**)	500 (**1.4%**)	536 (**1.5%**)	34,584 (**93.6%**)	1,837 (**5.0%**)
1995	16,592 (**46.5%**)	18,220 (**51.0%**)	805 (**2.3%**)	576 (**1.6%**)	33,568 (**94.0%**)	1,569 (**4.4%**)
1996	16,155 (**45.1%**)	18,652 (**52.1%**)	843 (**2.4%**)	760 (**2.1%**)	33,449 (**93.5%**)	1,581 (**4.4%**)
1997	15,265 (**42.8%**)	19,427 (**54.4%**)	859 (**2.4%**)	886 (**2.5%**)	33,258 (**93.2%**)	1,558 (**4.4%**)
1998	14,142 (**43.7%**)	17,178 (**53.1%**)	838 (**2.6%**)	1,031 (**3.2%**)	29,829 (**92.2%**)	1,489 (**4.6%**)
1999	14,006 (**42.3%**)	17,977 (**54.3%**)	997 (**3.0%**)	1,110 (**3.4%**)	30,867 (**93.3%**)	1,118 (**3.4%**)
2000	13,163 (**41.5%**)	17,226 (**54.4%**)	1,030 (**3.3%**)	1,378 (**4.4%**)	29,172 (**92.1%**)	1,128 (**3.6%**)
2001	13,814 (**41.2%**)	18,260 (**54.4%**)	1,029 (**3.1%**)	1,649 (**4.9%**)	31,217 (**93.1%**)	679 (**2.0%**)
2002	13,907 (**40.6%**)	18,925 (**55.2%**)	1,017 (**3.0%**)	2,131 (**6.2%**)	31,453 (**91.7%**)	714 (**2.1%**)
2003	13,881 (**40.2%**)	19,068 (**55.2%**)	1,247 (**3.6%**)	1,968 (**5.7%**)	30,131 (**87.2%**)	2,446(**7.1%**)
2004	13,237 (**40.5%**)	17,890 (**54.7%**)	1,145 (**3.5%**)	2,085 (**6.4%**)	26,768 (**81.8%**)	3,855 (**11.8%**)
2005	11,888 (**37.5%**)	18,349 (**57.8%**)	1,120 (**3.5%**)	1,762 (**5.6%**)	24,209 (**76.3%**)	5,768 (**18.2%**)
2006	11,973 (**38.1%**)	17,990 (**57.2%**)	1,135 (**3.6%**)	1,743 (**5.6%**)	25,510 (**81.2%**)	4,174 (**13.3%**)
2007	12,108 (**36.9%**)	19,304 (**58.8%**)	1,221 (**3.7%**)	2,938 (**9.0%**)	26,122 (**79.6%**)	3,775 (**11.5%**)

Table 5. Selected race and ethnicity variables for women who had a live birth from 1994-2007, OASIS

	Race			Ethnicity		
	White	Black	Asian	Hispanic	Non-Hispanic	Unknown ethnicity
1994	69,624 (**62.7%**)	39,041(**35.2%**)	2,128(**1.9%**)	4,328(**3.9%**)	104,600(**95.8%**)	1,794(**0.2%**)
1995	71,738(**63.9%**)	38,487(**33.6%**)	1,804(**2.3%**)	5,033(**4.5%**)	104,950(**95.0%**)	1,534(**0.5%**)
1996	73,141(**63.9%**)	38,541(**33.7%**)	2,084(**2.2%**)	6,225(**5.5%**)	104,938(**93.6%**)	1,548(**0.9%**)
1997	75,503(**64.2%**)	39,754(**33.2%**)	2,663(**2.4%**)	7,144(**6.1%**)	108,340(**93.1%**)	1,469(**0.9%**)
1998	78,117(**63.8%**)	41,274(**33.3%**)	2,646(**2.7%**)	8,204(**6.7%**)	111,490(**92.4%**)	1,444(**0.8%**)
1999	80,944(**64.1%**)	42,067(**32.7%**)	3,014(**2.9%**)	10,518(**8.3%**)	112,914(**90.5%**)	1,066(**1.2%**)
2000	83,629(**64.4%**)	44,447(**32.1%**)	3,522(**3.3%**)	13,310(**10.1%**)	115,691(**88.6%**)	1,072(**1.4%**)
2001	85,369(**64.8%**)	43,650(**31.7%**)	3,814(**3.3%**)	15,631(**11.8%**)	114,418(**87.1%**)	648(**1.2%**)
2002	85,577(**64.7%**)	42,707(**31.7%**)	4,276(**3.5%**)	16,749(**12.6%**)	112,955(**86.1%**)	679(**1.3%**)
2003	87,873(**64.0%**)	42,820(**32.4%**)	4,334(**3.5%**)	18,180(**13.4%**)	113,655(**84.9%**)	2,296(**1.7%**)
2004	89,274(**63.1%**)	43,721(**33.3%**)	4,678(**3.4%**)	20,012(**14.5%**)	114,634(**83.9%**)	3,470(**1.6%**)
2005	89,695(**61.4%**)	45,457(**34.4%**)	4,805(**3.9%**)	21,786(**15.4%**)	116,444(**83.2%**)	5,241(**1.4%**)
2006	93,210(**63.1%**)	49,048(**33.3%**)	5,022(**3.4%**)	23,635(**15.9%**)	121,485(**83.0%**)	3,833(**1.1%**)
2007	89,722(**61.4%**)	51,148(**34.4%**)	5,505(**3.9%**)	24,475(**16.4%**)	123,895(**82.0%**)	3,499(**1.6%**)

LIVE BIRTHS

The number of births in 2007 was 150,804; this is a 36% increase from Georgia's births in 1994 (110,986), a 2.8% annual rate of change over thirteen years. Births have been on a steady rise, with 2002 as the only year to report any decline (< 1% decline). The largest birth growth occurred in 2000, when the number of births rose by 4.4% to 132,286 births. To see the live birth data outputs, please see Appendix B on page 90.

Among the different racial ethnicities, the two largest racial proportions also have the highest number of births; 1,153,416 births over thirteen years for white women and 602,162 for black women. The live birth rate for white women has been on an increase since 1994 when the number of live births per 1,000 women of reproductive age was 41.6 and in 2007 rose to 46/1,000. This is a 10% increase during the time period of interest and a 0.75% annual rate of change. Black women had increased numbers of live births from 39,041 in 1994 to 51,148 in 2007. However, the live birth rate for black women has actually decreased 8.8% from 53.4 per 1,000 women of reproductive age in 1994 to 48.7 in 2007. The largest drop occurred between 2000 and 2001 with a 5% decrease (51.0 to 48.5/1,000 women of reproductive age). This decline may be due to the change in population estimates after the 2000 Census.

Asian and Hispanic populations represent 2.1% and 5.3% of Georgia's racial and ethnic makeup. From 1994 to 2007 Asian women have had 50,219 births

(between 1,804 and 5,505 live births each year), a steady incline leading to over 150% Asian live birth growth. The Hispanic population has had a larger and more dramatic increase in live birth numbers compared to Asians and other minority groups that represent about 2% to 5% of the population. Hispanic live births have increased almost five times from 4,328 births in 1994 to 24,475 births in 2007. This is a 36% annual rate of change. The Hispanic rate of live births per 1,000 women of reproductive age has also increased by more than half, with a 3.8% annual rate of change over thirteen years.

INDUCED ABORTIONS

The number of induced abortions in 2007 was 29,415; this is a 12% decrease from Georgia's induced abortions in 1994 (33,516), this is less than 1% annual rate of decline over thirteen years. Induced abortions in Georgia have followed the national trend of decline, however at a smaller rate. Between the years of 2001 to 2003, the abortion trend actually increased 2.5% each year before steadily dropping from 2004 to 2007. The largest induced abortion drop occurred in 1998, when the number of abortions fell by 9% to 29,238 abortions. To see the induced abortion data outputs, please see Appendix C on page 93.

Among the different racial ethnicities there is a large difference in abortion numbers by group. Although black women represent less than 30% of Georgia's population, this racial group has the highest number of reported abortions with steady numbers ranging between 15,845 and 17,945 each year between 1994

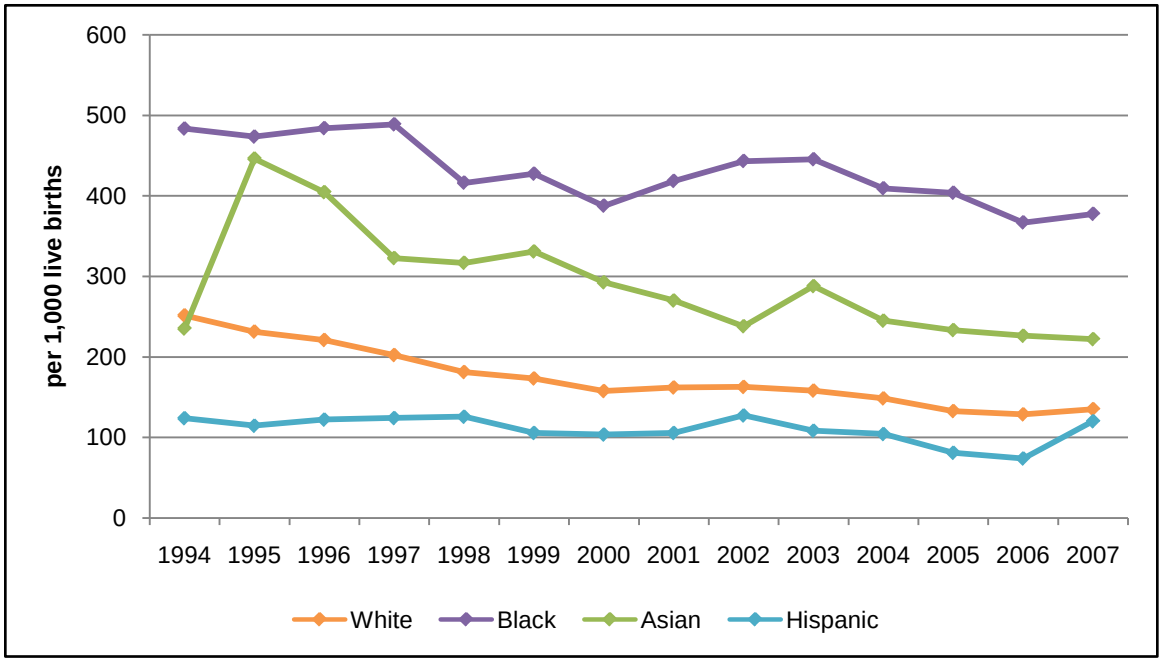
and 2007. The rate of abortions per 1,000 women of reproductive age has declined since 1994 (24/1,000) and fell 35% to a low rate of 15.6 in 2006, with a slight 6% increase in 2007. The largest decrease occurred in 1998, with an 11% drop from the past year. White women represent 65% of Georgia's population but this racial group has a lower number of annual induced abortions reported each year. White women had comparable abortions reported to black women in 1994 with 15,398, but continued to decline and separate from the trend of black women. Over thirteen years, numbers of induced abortions dropped over 30% (more than a 2% annual rate of decline). In 2007, only 10,686 abortions were recorded at a rate of 5.5 abortions per 1,000 women of reproductive age. The rate dropped 40% from 9.2 in 1994.

Asian and Hispanic women represent less than 10% of Georgia's population combined, therefore, they also have significantly lower numbers of reported induced abortions each year. From 1994 to 2007, a total of 13,000 abortions were reported for Asian women and 19,406 for women of Hispanic ethnicity. Asian women never had more than 2,000 abortions reported each year (ranging from 474 in 1994 to 1,181 in 2007). The trend for Hispanic women had a larger increase than Asians, with a rise of 35% each year, starting at 504 abortions in 1994 and rising to 2,788 induced abortions in 2007. Throughout the rise in Hispanic induced abortions, their rate per 1,000 women of reproductive age also increased from a low of 8.5 in 1995 to a high of 13.4 in 2007. Between 2006 and 2007, there was a drastic rise of 70% after the lowest rate of 7.9 in 2006.

ABORTION TRENDS BY RACE & ETHNIC GROUP

Reporting abortion ratios allows for a consistent comparison between races that share different proportions of Georgia's demographic makeup. For all four groups, the abortion ratio declined during this period (Figure 9).In 2007, the induced abortion ratio for black women in Georgia was 377 abortions per 1,000 live births. Between 1994 and 2007, the abortion ratio declined 22%, with an annual decline of 1.7%. The ratio was at its highest in 1997 with 488 induced abortions per 1,000 live births, but dropped to a low from 1998 to 2000 (by 13%-20%). From 2001 to 2003 the ratio increased 15% to 455 before fluctuating to some extent from 2004 to 2007. However, over this period a total 15% drop ending in 377 abortions per 1,000 live births in 2007. Overall black women consistently have the highest abortion ratio of all races and ethnicities in Georgia.

Figure 9. Ratio of induced abortions per 1,000 live births, for white, black, Asians and Hispanic women in Georgia, 1994-2007



The abortion ratios for white, Asian and Hispanic groups also declined. The ratios fell steadily each year for white women, from 251 abortions per 1,000 live births in 1994 to 135 in 2007, dropping almost by half in thirteen years. Induced abortion ratios for Asian women declined 50% and ranged from a high of 473 in 1995 to a low of 222 in 2007. For Hispanic women, the abortion ratio fell 3% from 1994 to 2007, but reached a peak of 127 in 2002 and a low of 74 in 2006, with an unexpected increase to 120 in 2007.

STRATIFIED DEMOGRAPHIC CHARACTERISTICS FOR ABORTIONS

Race and ethnicity present one stratum pertinent to describing continuity and change in abortion patterns. The next section will focus on stratifying additional variables, by race and ethnicity, to obtain the full scope. Characteristics and demographics of interest are; the age of the woman at the time of the induced abortion, her current marital status and education, as well as gravidity of the women (whether this induced abortion was her first pregnancy or if this was a repeat pregnancy for the women) and place of residence by Public Health District. To see the abortion ratios per 1,000 live births, by race, ethnicity, year and indicators of interest in Georgia, please see Table 6. on page 51.

Table 6. Ratio of induced abortions per 1,000 live births, by race, ethnicity, and indicators of interest in Georgia, 1994-2007

Race or Ethnicity of Mother and year	Age							Marital Status		Education		Repeat Pregnancy	
White	15-17	18-19	20-24	25-29	30-34	35-39	40-44	Married	Unmarried	< 12th grade	12th grade or higher	Yes	No
1994	456.2	357.2	338.1	184.8	155.9	218.5	443.0	67.6	1084.2	209.5	262.5	193.4	200.1
1995	406.5	348.6	309.8	170.8	139.8	212.0	355.1	62.9	973.2	195.7	240.7	183.6	185.7
1996	374.1	328.9	291.9	171.7	135.2	202.0	352.9	62.9	890.6	178.8	232.3	180.1	173.7
1997	371.6	315.2	271.9	158.5	120.4	164.8	298.0	54.5	809.1	166.0	211.9	167.4	163.2
1998	347.4	251.7	238.9	143.5	106.9	167.7	295.0	51.3	678.0	143.2	191.4	152.3	148.8
1999	333.8	248.9	221.8	140.4	108.2	142.3	300.4	48.1	619.7	145.6	180.8	147.6	141.1
2000	272.7	230.1	209.2	125.7	95.9	135.5	241.3	44.9	542.2	125.7	166.9	136.8	128.6
2001	260.7	237.8	214.4	128.8	101.2	135.9	291.5	47.9	524.0	112.7	178.1	139.7	132.4
2002	275.1	242.2	216.2	129.5	104.0	139.2	244.9	49.9	498.8	138.8	170.4	139.5	131.4
2003	293.4	240.3	209.3	125.9	97.7	138.3	244.7	48.5	469.1	120.7	170.3	135.5	130.7
2004	258.0	225.5	192.0	119.7	95.9	126.4	231.5	46.5	418.6	113.6	160.2	129.6	122.1
2005	221.1	201.9	168.5	108.4	86.8	115.5	211.8	42.6	354.8	93.2	146.3	116.4	113.4
2006	186.4	188.5	168.6	108.8	80.5	110.3	183.7	38.8	331.1	58.3	153.7	113.0	114.4
2007	223.1	199.0	175.6	113.9	81.4	115.1	206.3	39.2	348.4	119.1	144.1	120.3	121.5
Race or Ethnicity of Mother and year	**Age**							**Marital Status**		**Education**		**Repeat Pregnancy**	
Black	15-17	18-19	20-24	25-29	30-34	35-39	40-44	Married	Unmarried	< 12th grade	12th grade or higher	Yes	No
1994	352.4	409.3	550.9	507.1	422.9	488.3	691.5	203.7	615.9	242.5	580.1	344.5	259.9
1995	370.3	392.3	541.1	509.5	403.9	458.1	670.1	187.9	612.0	248.4	558.4	341.0	252.7
1996	367.7	438.5	548.2	534.2	399.5	425.1	576.0	188.1	633.0	249.5	569.2	350.7	251.5
1997	366.6	416.0	535.5	571.5	418.5	432.9	583.5	189.3	634.6	230.7	582.8	355.1	251.6
1998	337.6	366.0	442.4	477.4	372.7	350.1	430.2	172.0	536.1	210.7	484.2	313.1	233.3
1999	374.0	378.2	439.5	478.8	388.7	386.3	499.1	161.6	560.3	219.0	493.6	317.3	241.4
2000	330.8	332.2	395.6	429.4	372.9	359.0	433.0	145.4	511.4	198.7	445.8	300.6	213.5
2001	355.0	356.8	433.2	443.0	414.6	382.3	476.9	159.1	553.4	202.5	484.5	318.4	228.0
2002	373.9	367.8	458.7	489.5	427.3	392.4	492.6	167.2	586.5	251.1	501.3	331.2	235.8
2003	447.9	376.6	466.6	459.8	425.2	406.3	443.4	166.4	591.7	265.2	495.7	330.0	248.1
2004	434.5	368.5	412.0	414.9	398.4	547.6	452.8	156.7	538.1	232.6	457.8	308.1	242.9

2005	422.7	336.6	391.8	432.9	402.3	398.3	457.2	169.7	518.6	201.3	457.8	311.9	228.6
2006	350.0	304.6	362.8	388.6	368.2	376.4	408.4	148.9	479.4	152.0	421.8	291.9	213.6
2007	405.5	324.8	365.1	391.4	377.9	384.7	461.5	157.0	479.5	233.5	416.1	303.0	237.7
Race or Ethnicity of Mother and year	**Age**							**Marital Status**		**Education**		**Repeat Pregnancy**	
Asian	15-17	18-19	20-24	25-29	30-34	35-39	40-44	Married	Unmarried	< 12th grade	12th grade or higher	Yes	No
1994	428.6	578.9	344.6	158.8	178.8	248.1	456.5	139.3	876.8	157.1	249.3	204.0	164.1
1995	857.1	935.5	702.5	332.8	292.6	526.3	704.5	259.7	1755.6	235.1	483.1	325.8	266.1
1996	1652	1053.6	604.9	284.3	316.4	329.7	711.1	227.3	1658.9	358.6	412.4	317.1	243.3
1997	520.8	984.4	532.0	220.0	244.2	309.4	527.0	176.6	1438.3	265.8	331.6	277.0	194.9
1998	772.7	1067.8	519.3	242.6	228.4	266.7	424.2	175.5	1404.6	284.5	321.5	263.4	203.0
1999	864.9	865.7	532.8	273.8	205.7	340.0	552.6	171.8	1459.7	326.4	331.4	278.3	189.4
2000	555.6	1000.0	435.3	230.2	201.1	304.1	494.5	159.7	1280.6	311.8	289.7	257.2	169.4
2001	714.3	923.1	521.3	187.6	179.1	272.9	434.3	159.0	1112.9	233.3	275.1	242.3	157.0
2002	629.6	708.3	402.2	180.2	157.1	262.8	510.4	144.4	931.1	242.0	237.5	225.4	132.1
2003	1050	1013.2	561.3	210.8	187.5	301.0	483.3	168.2	1172.5	299.8	286.3	243.8	175.8
2004	558.8	833.3	433.4	182.6	172.7	263.1	459.9	143.1	1047.5	259.1	243.2	217.8	153.5
2005	869.6	670.9	469.4	191.9	139.7	243.2	395.8	138.4	998.1	341.8	222.3	217.7	133.3
2006	290.3	948.3	432.1	192.9	133.8	244.2	453.9	126.2	1057.6	152.3	232.5	210.7	132.7
2007	593.8	548.1	486.6	192.2	122.1	209.4	531.3	124.0	875.7	231.8	220.6	198.9	153.1
Race or Ethnicity of Mother and year	**Age**							**Marital Status**		**Education**		**Repeat Pregnancy**	
Hispanic	15-17	18-19	20-24	25-29	30-34	35-39	40-44	Married	Unmarried	< 12th grade	12th grade or higher	Yes	No
1994	184.2	110.1	118.1	116.8	107.0	173.4	276.6	49.9	375.0	78.2	173.2	243.8	82.9
1995	93.3	75.5	104.2	108.8	143.2	186.7	260.0	48.3	319.5	61.6	184.0	250.6	80.5
1996	76.5	121.2	118.1	118.9	129.9	151.1	260.9	51.5	322.4	67.5	197.1	317.1	78.3
1997	62.0	121.7	122.9	109.8	142.6	188.6	231.7	56.5	282.7	70.5	193.9	319.9	80.3
1998	61.5	114.8	127.6	135.1	106.1	184.9	186.8	58.7	266.0	71.8	192.1	354.1	84.4
1999	71.4	75.7	97.7	185.8	109.2	131.2	212.4	47.4	211.3	70.3	148.1	332.5	64.1
2000	64.7	85.6	104.4	100.6	108.8	140.9	200.0	49.2	192.0	71.0	146.7	387.5	60.6
2001	47.0	86.5	104.1	107.4	117.4	125.0	227.8	48.3	194.1	54.7	183.3	414.4	67.0
2002	98.5	110.0	133.0	118.5	130.9	152.1	226.5	64.1	210.8	79.8	202.8	500.9	78.4
2003	82.1	104.9	112.3	99.5	104.6	135.6	207.0	55.9	172.9	69.0	165.5	411.7	78.5
2004	69.4	99.2	110.3	93.7	106.9	122.2	169.1	49.6	170.1	76.2	146.8	430.9	69.8

2005	54.2	73.2	88.9	78.9	78.0	73.2	116.9	41.8	125.1	60.8	108.6	368.7	50.1
2006	47.4	83.0	75.3	70.4	72.5	79.3	114.8	36.8	112.7	21.2	146.4	333.9	55.8
2007	93.9	127.4	121.6	119.7	94.8	150.8	243.7	48.3	193.4	79.4	174.7	530.8	87.5
Race or Ethnicity of Mother and year	**Age**							**Marital Status**		**Education**		**Repeat Pregnancy**	
Non-Hispanic	15-17	18-19	20-24	25-29	30-34	35-39	40-44	Married	Unmarried	< 12th grade	12th grade or higher	Yes	No
1994	394.6	392.2	419.0	281.1	221.9	279.5	494.0	90.5	750.4	228.7	615.7	257.7	221.9
1995	396.4	386.6	406.6	276.7	207.9	276.1	438.7	87.4	733.4	232.7	319.6	253.8	213.7
1996	389.9	401.8	403.6	285.3	206.8	256.5	422.4	87.4	732.3	229.1	342.8	257.8	207.8
1997	384.1	380.5	388.4	282.8	198.9	237.4	386.3	80.0	709.7	210.6	332.3	253.5	199.8
1998	364.2	321.1	330.0	247.5	178.7	213.5	327.4	74.8	598.6	186.7	288.1	224.1	184.5
1999	383.2	330.5	336.2	252.2	183.0	211.4	362.6	73.0	613.4	198.5	291.8	228.9	185.8
2000	332.8	307.2	307.1	233.4	175.0	203.8	313.6	68.2	561.2	178.8	269.7	216.6	169.3
2001	349.1	330.7	336.6	247.7	191.4	222.7	373.9	78.1	597.8	181.6	294.8	229.8	179.3
2002	367.8	336.7	343.5	260.0	196.5	224.3	343.8	78.7	612.0	222.6	291.4	232.2	180.7
2003	413.5	327.0	331.6	237.8	181.7	216.4	309.6	73.5	583.0	204.4	278.6	223.5	176.4
2004	367.8	297.7	280.3	210.8	166.1	188.7	286.2	66.5	499.2	178.8	245.6	201.2	162.0
2005	321.3	247.2	243.6	196.8	150.8	169.6	263.2	62.3	427.1	145.9	221.3	186.1	141.4
2006	282.0	245.4	245.3	202.8	153.4	179.5	253.9	62.7	417.5	117.2	229.7	187.0	145.8
2007	321.4	250.0	253.7	196.5	151.8	167.4	258.6	59.5	421.1	179.7	217.1	189.9	157.7

AGE

Abortion ratios are steadily high across all ages for black women. At the end of 2007 (Figure 10.) the highest ratio was 462 abortions per 1,000 live births for black women aged 40-44 and the lowest ratio was still significantly high at 325 for 18-19 years of age. The ratio for black women aged 40-44 has remained the highest of all black age groups since 1994, when the highest ratio was almost 700 abortions per 1,000 live births. Ratios for black women aged 20-24 and 40-44 years decreased by 34% and 33% since 1994, whereas the ratio for black women 18-19, 25-29 and 35-39 years moderately declined by 21-23%. Black adolescents aged 15-17 and black women aged 30-34 have seen the smallest trend change with a drop of 11%-15%.

Notably, Asians only represent 2.1% of Georgia's population and trends for Asian women fluctuate every year. The latest year of analysis is illustrated (Figure 10.) to describe one year in the Asian abortion trend, by age. In 2007, Asian women between 15-17 years, had almost 600 abortions per 1,000 live births. In fact, Asian women had the highest abortion ratio in four of the seven age groups (15-17, 18-19, 20-24 and 40-44).

Figure 10. Ratio of induced abortions per 1,000 live births, for white, black, Asian and Hispanic women in Georgia, 2007

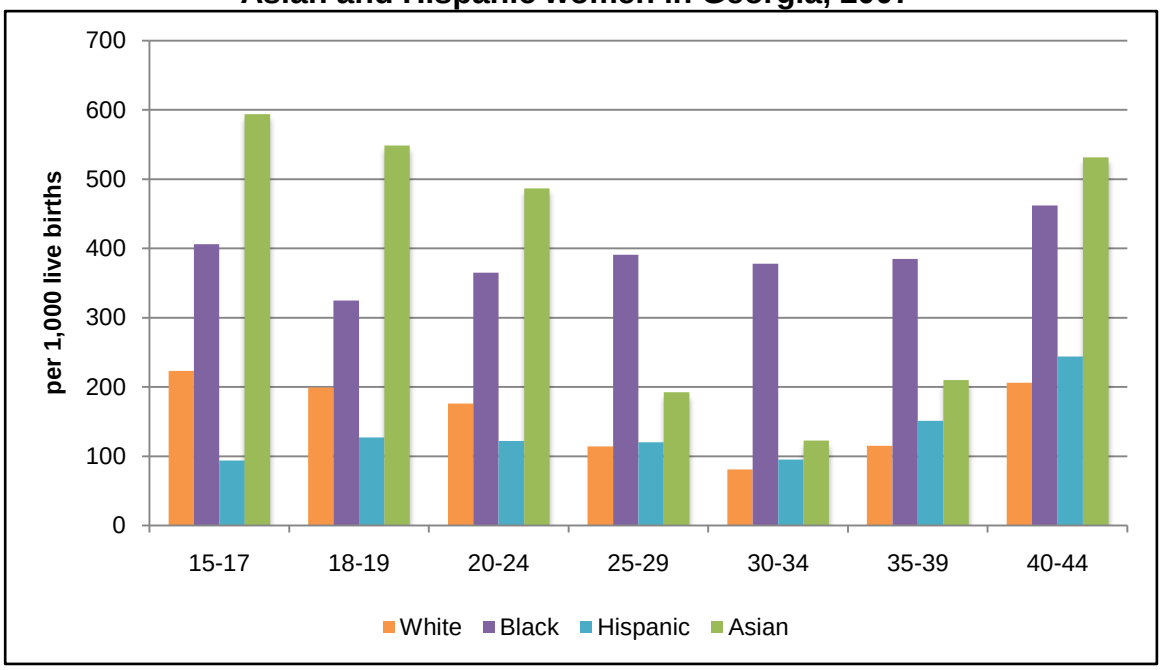
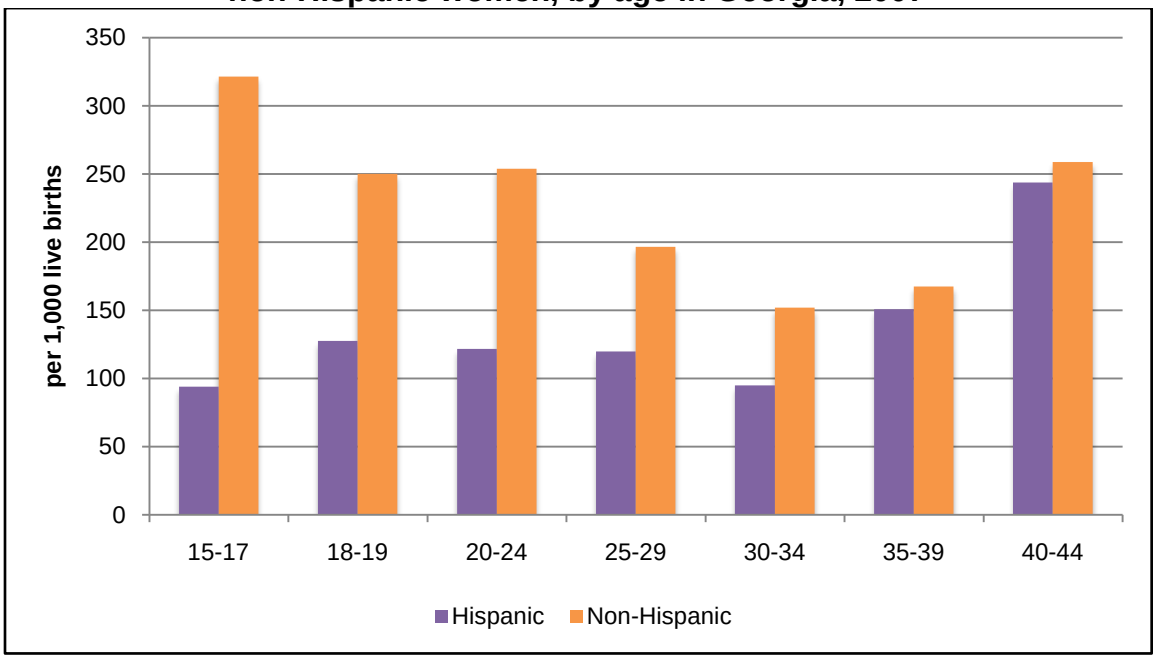


Figure 11. Ratio of induced abortions per 1,000 live births for Hispanic and non-Hispanic women, by age in Georgia, 2007



The abortion ratios for white and Hispanic women are significantly lower than for black and Asian women. However, the largest decease over time, amongst these four races and ethnicities, is among white women. Adolescents between 15-17 and white women 40-44 years have the largest drop since 1994, by more than 50%. All other ages for white women have also seen a drop, between 38% and 48%.

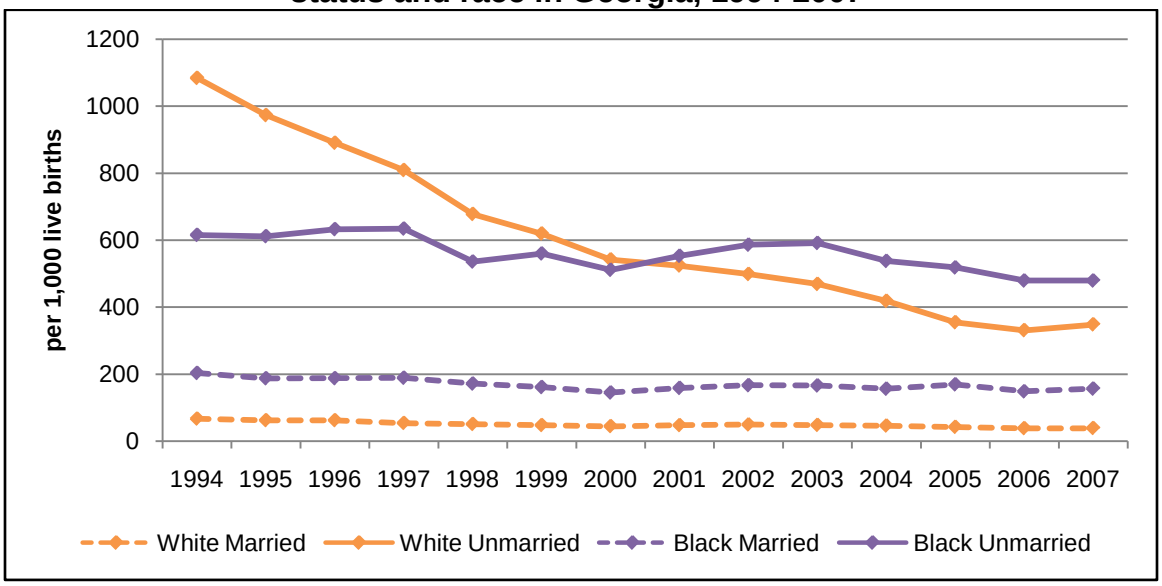
Non-Hispanic women have a higher abortion ratio, across all ages, than Hispanic women (Figure 11.). However the disparity between the two ethnicities is largest among 15-17, 18-19, 20-24, 25-29 and 30-34 years, ranging from a difference of 228 to 57 abortions per 1,000 live births in 2007. Ethnic disparity by age becomes minimal for ages 35-39 and 40-44, with a difference in abortion ratios by only 15 to 17.

MARITAL STATUS

Unmarried black and white women have higher abortion ratios than married black and white women (Figure 12.). Trends for both black and white married women have been very consistent from 1994 to 2007. Black married women have an abortion ratio more than double married white women, however, since 1995; both races have had ratios that are less than 200 abortions per 1,000 live births for married women. The highest abortion ratio for black women was in 1994, at 203.6 and has since dropped by 23% to 157.0. White married women had their

highest abortion ratio in 1994, at 67.5 abortions per 1,000 live births. This ratio has dropped to 39.2 in 2007; a 42% decline.

Figure 12. Ratio of induced abortions per 1,000 live births, by marital status and race in Georgia, 1994-2007

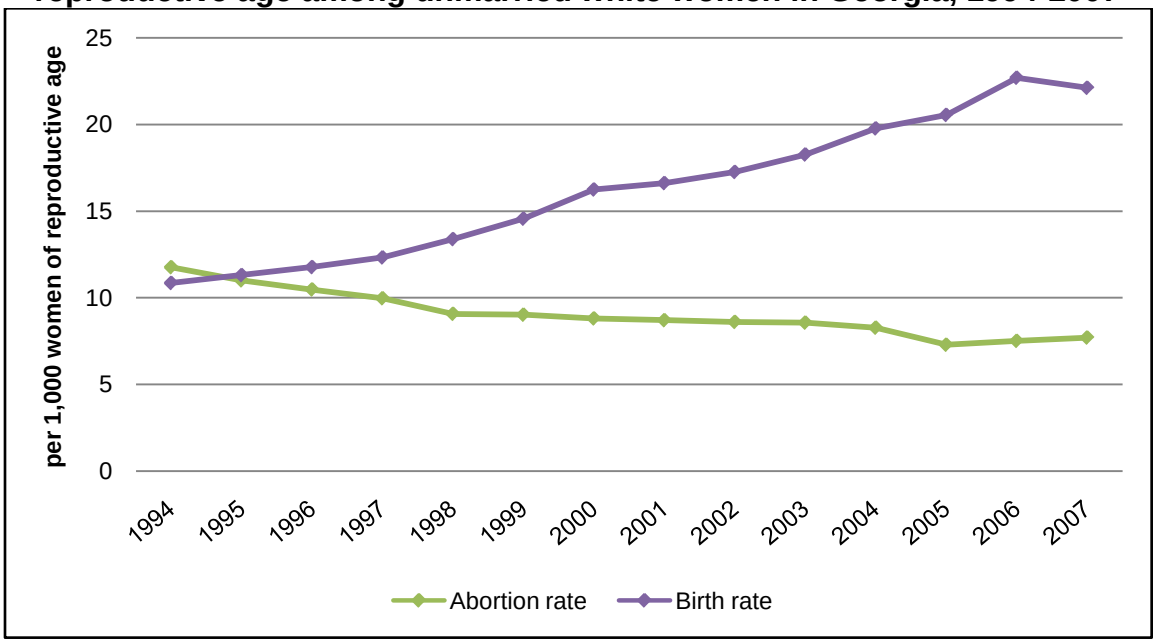


Interestingly, marital status has the most dramatic trends for unmarried women. Of white women who obtain induced abortions, 21% to 23% are married, and of black women, only 13% to 14% are married. Black unmarried women have steadily had a high abortion ratio, starting at 615.9 abortions per 1,000 live births in 1994. From 1994 to 1997, the ratio increased by 3%, before fluctuating between 1998 to 2000, and rising 16% over the next three years. Since 2003, the abortion ratio fell by one-fifth to the lowest ratio of 479.5 abortions per 1,000 live births. Although, the general trend decreased by 22% over thirteen years (a 1.7% annual decline), black unmarried women have had the highest abortion ratio since 2001. White unmarried women show a strikingly different trend over time. In 1994, white unmarried women had the highest abortion ratio, with

1,084.2 abortions per 1,000 live births. More than one out of every two pregnancies ended in an induced abortion. Every year since, the abortion ratio for white unmarried women has declined, with the exception of 2006 to 2007. Overall, the abortion ratio declined by almost 70%, with the rate dropping more than 5% each year.

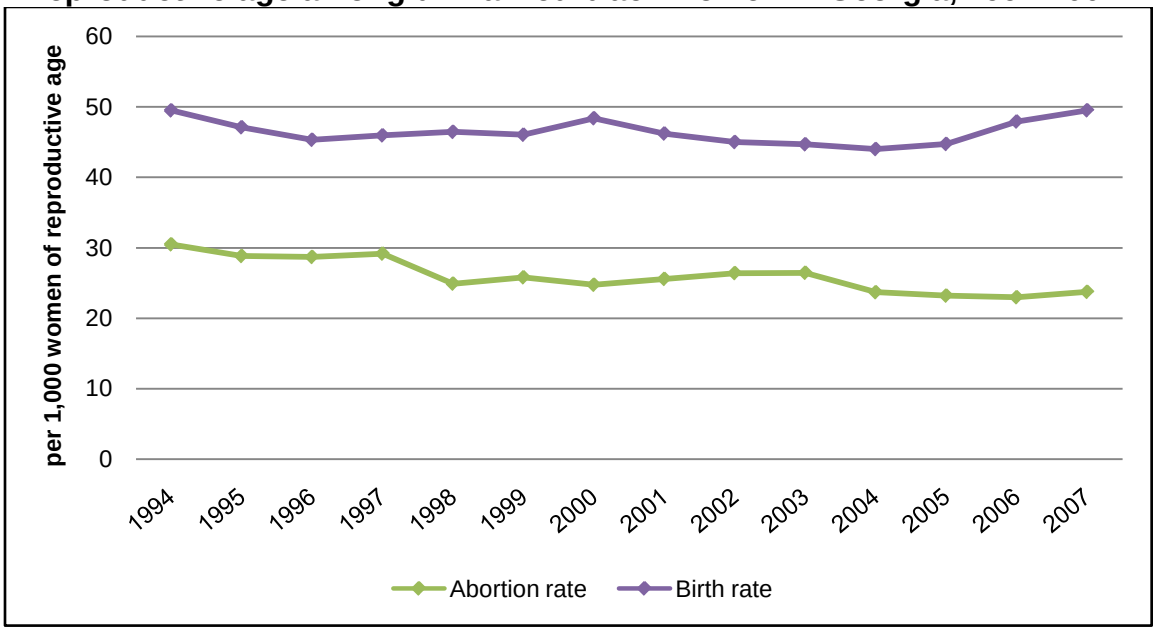
We compared the abortion rates and birth rates from1994 to 2007for unmarried white women, per 1,000 unmarried white women of reproductive age (15 to 44 years) (Figure 13). In 1995, the birth rate for unmarried white women was almost identical to their abortion rates, with 11.8 births per 1,000 women of reproductive age and 11.0 abortions per 1,000 women of reproductive age. Each year since, a larger gap has formed between birth rates and abortion rates. Birth rates doubled over thirteen years, with 22.1 births, an 8% annual increase. Abortion

Figure 13. Rate of induced abortions and live births per 1,000 women of reproductive age among unmarried white women in Georgia, 1994-2007



rates for unmarried white women declined from 11.8 abortions per 1,000 women of reproductive age in 1994 to 7.7, a total 35% decline. In twelve years, unmarried white women went from having comparable birth rates and abortion rates to a huge disparity. White unmarried women have seen a big decline in abortion ratios over the same time period that they have seen a huge increase in birth rates. Unmarried black women have higher birth rates and abortion rates than unmarried white women, however, the continuity in these trends have been stable over thirteen years (Figure 14.). The birth rate for unmarried black women has stayed within the range of 44.0 and 49.5, while the abortion rate has seen a

Figure 14. Rate of induced abortions and live births per 1,000 women of reproductive age among unmarried black women in Georgia, 1994-2007

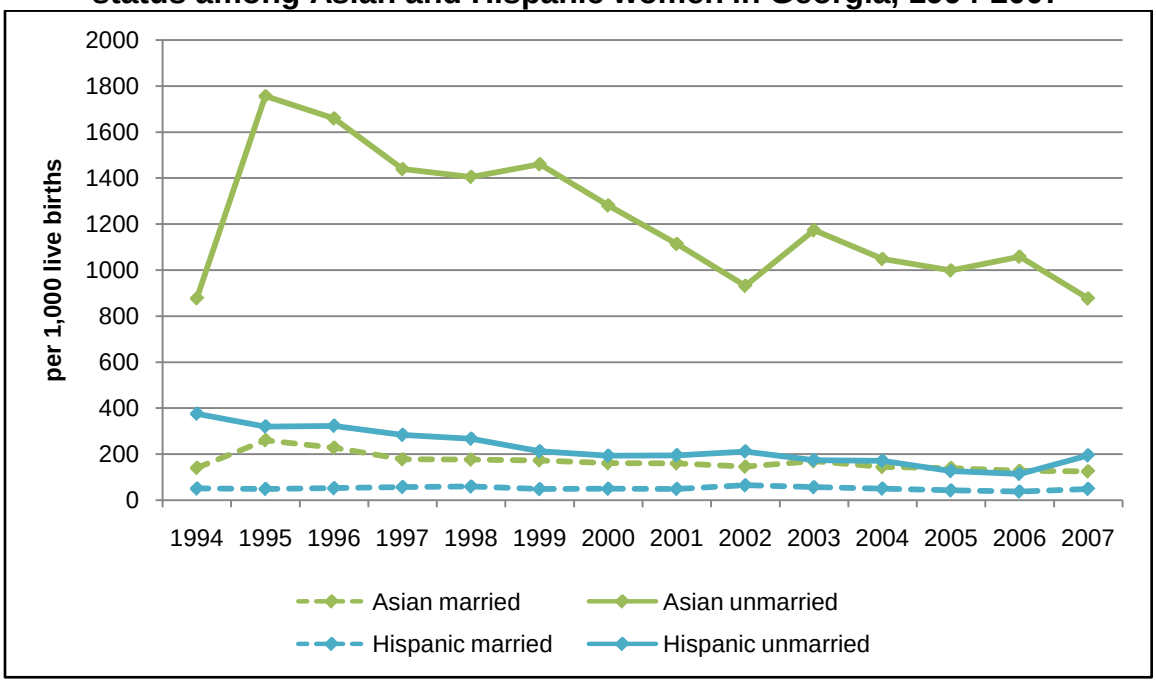


small drop from 30.5 in 1994 to 23.7 in 2007. The 22% decline in the abortion rate is the exact same as the abortion ratio decline. Although recent data shows that black women have a higher abortion ratio, the difference in abortion ratios by

race can be attributed to white women having more births per pregnancy than abortions.

For the two groups that represent a small proportion of Georgia's women of reproductive age, Asian and Hispanic abortion ratios by marital status have differing trends. Of Asian women who obtain induced abortions, 48% to 52% are married. The highest abortion ratio for Asian women was for unmarried women with 1,755.6 abortions per 1,000 live births in 1995. This is an astoundingly high ratio, considering it would mean that more unmarried Asian women were seeking induced abortions for their pregnancies than unmarried women who took their pregnancy to full term. This ratio has decreased by 50% over thirteen yeas to 875.7, with a 4% annual rate of decline. As before, with the small sample size for Asians, it is important to note that any fluctuations in numbers will be emphasized; as seen in this situation where unmarried Asians have an extremely high abortion ratio. Married Asian women and both married and unmarried Hispanic women have significantly lower abortion ratios than unmarried Asian women (Figure 15.). In 2006, all three groups had ratios below 130 (126, 37 and 113 abortions per 1,000 live births). Married Asian women had a total drop of 52% from 1995 to 2007, and married and unmarried Hispanic women dropped 26% and 70% from 1994 to 2006.

Figure 15. Ratio of induced abortions per 1,000 live births, by marital status among Asian and Hispanic women in Georgia, 1994-2007

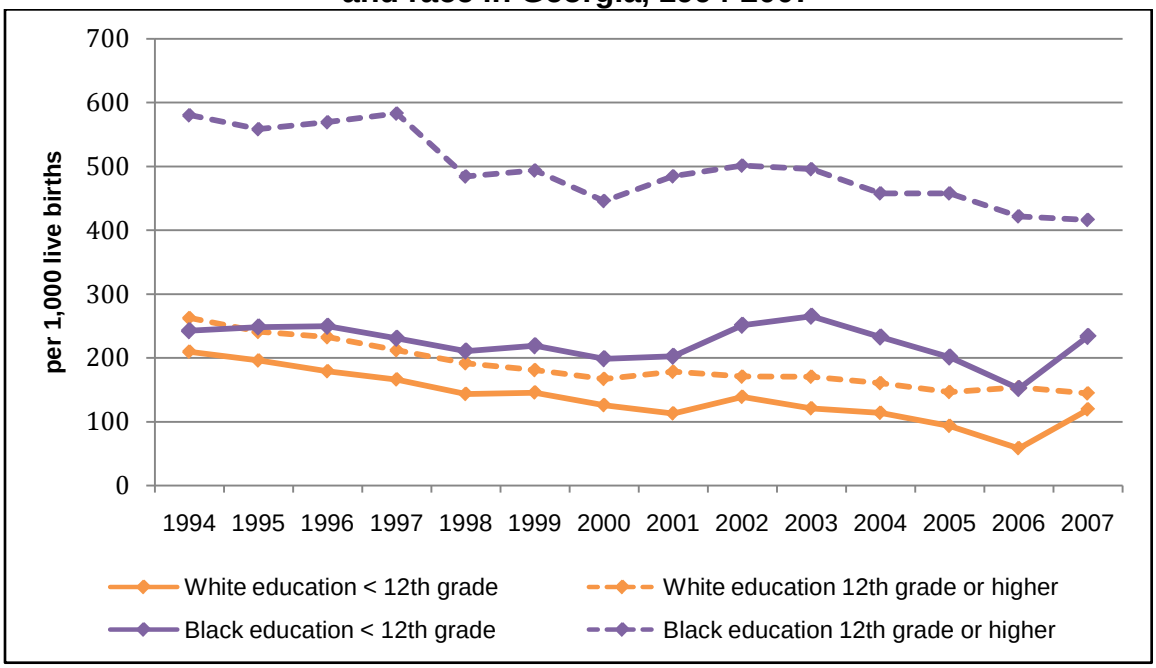


HIGHEST LEVEL OF EDUCATION

For the four racial ethnic groups, abortion ratios were calculated by race/ethnicity and educational status (education less than the twelfth grade and graduation from twelfth grade education or higher). Of white women who obtain induced abortions, 17% to 22% have an education less than the twelfth grade. For black and Asian women these percentages are 8% to 14% and 7% to 13%, respectively. When comparing black and white women by educational status, black women with a twelfth grade education or higher had the highest abortion ratio throughout the thirteen-year period (Figure 16.). In 1997, the abortion ratio was 582.8 abortions per 1,000 live births and this ratio fell to 416.1 (a 29% decrease). Black women with an education less than the twelfth grade have an abortion ratio of 233.5 in 2007, a 54% increase proceeding four years of decline.

White women on both ends of education had very similar ratios, with 144 for women with a twelfth grade education or higher and 119 for women with an education less than the twelfth grade.

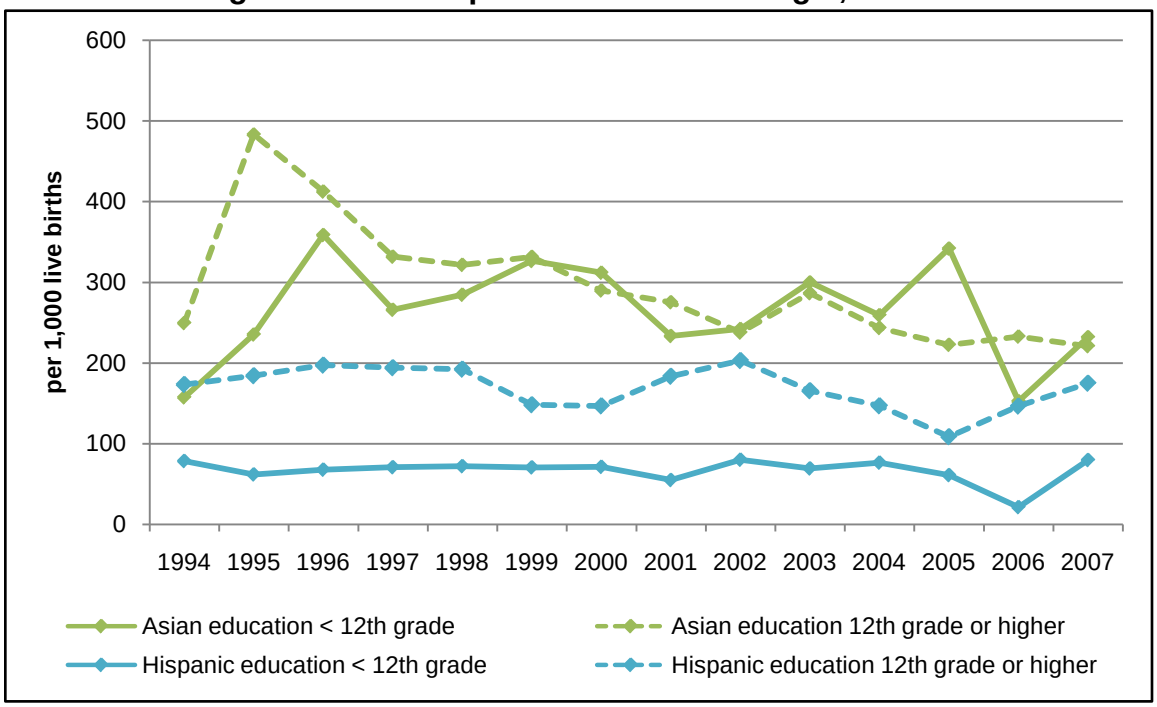
Figure 16. Ratio of induced abortions per 1,000 live births, by education and race in Georgia, 1994-2007



Among Asian women, abortion ratios fluctuated each year for both education variables (Figure 17). The inconsistency in the trend over time for Asian women could be due to the small numbers. Asian women with the higher education had the highest ratio of 483.1 abortions per 1,000 live births in 1995 and the lowest ratio of 220.6 in 2007. Asian women with the lower education had a high of 358.6 abortions per 1,000 live births in 1996 and a low of 152.3 in 2006. For Hispanic women, abortion ratios were higher for women with a twelfth grade education or higher and this was a consistent trend throughout the thirteen year period. Hispanic women with a higher education had the highest ratio of 202.8

abortions per 1,000 live births in 2002 and the lowest ratio of 108.6 in 2005. Hispanic women with the lower education had a high of 79.8 abortions per 1,000 live births in 2002 and a low of 21.2 in 2006.

Figure 17. Ratio of induced abortions per 1,000 live births, by education among Asian and Hispanic women in Georgia, 1994-2007

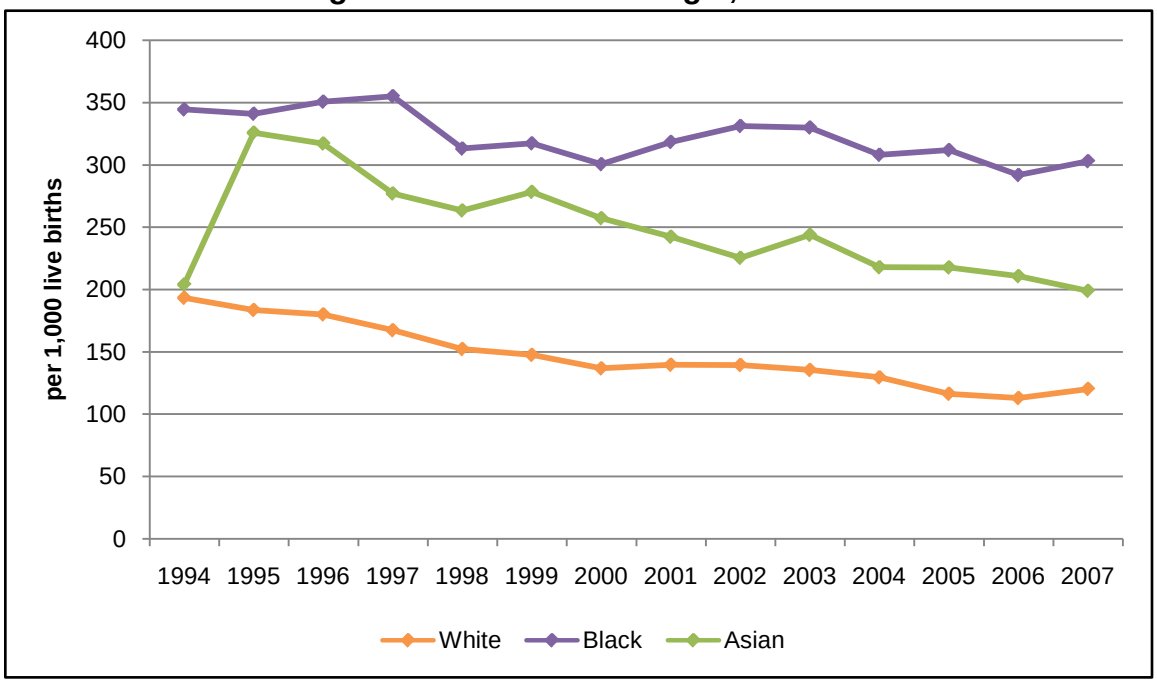


REPEAT OR FIRST PREGNANCY

When comparing gravidity (the number of times a women has been pregnant), black women have a higher ratio of abortions if it is a repeat pregnancy, rather than their first pregnancy, whereas, there is minimal difference for white women and gravidity (Figure 18.). In 2007, black women with gravidity greater than one had a ratio of 303.0 abortions per 1,000 live births, a 15% drop from the highest abortion ratio in 1997 (355.1 abortions per 1,000 live births). For black women experiencing their first pregnancy, the abortion ratio was 237.7 in 2007. The range for this group of women has stayed between 259.9 and 215.3 over thirteen

years. The ratio for white women who had more than one pregnancy consistently dropped from 204.0 abortions per 1,000 live births in 1994 to 120.4 in 2007, a 41% total drop. Very similar to multigravida white women, white

Figure 18. Ratio of induced abortions per 1,000 live births, by race among multigravida women in Georgia, 1994-2007



women experiencing their first pregnancy have seen a 40% decrease from 200.1 abortions per 1,000 live births in 1994 to 121.5 in 2007. Ratios for multigravida Asian women fluctuated from 1994 to 1999, before falling almost 30%, to a ratio of 198.9 abortions per 1,000 live births. Primigravida Asian women also had fluctuating ratios, starting at 164.1 in 1994, peaking at 266.1 in 1995, with the lowest ratio in 2002 at 132.1 and ending at 153.1 in 2007.

The highest induced abortion ratio for Hispanic women was among multigravida women, with a ratio of 530.8 abortions per 1,000 live births in 2007. The ratio

was as low as 257.7 in 1994 and almost doubled over eight years (500.9 abortions per 1,000 live births in 2002). Between 2002 and 2006, the ratio decreased by one-third, before jumping back up above a ratio of 500 in 2007. Hispanic women with more than one pregnancy had higher abortion ratios than non-Hispanic women of the same gravidity since 1996. Primigravida Hispanic women had abortion ratios that consistently stayed between 50.1 and 87.5 over thirteen years and remained lower than non-Hispanic abortion ratios during this period as well.

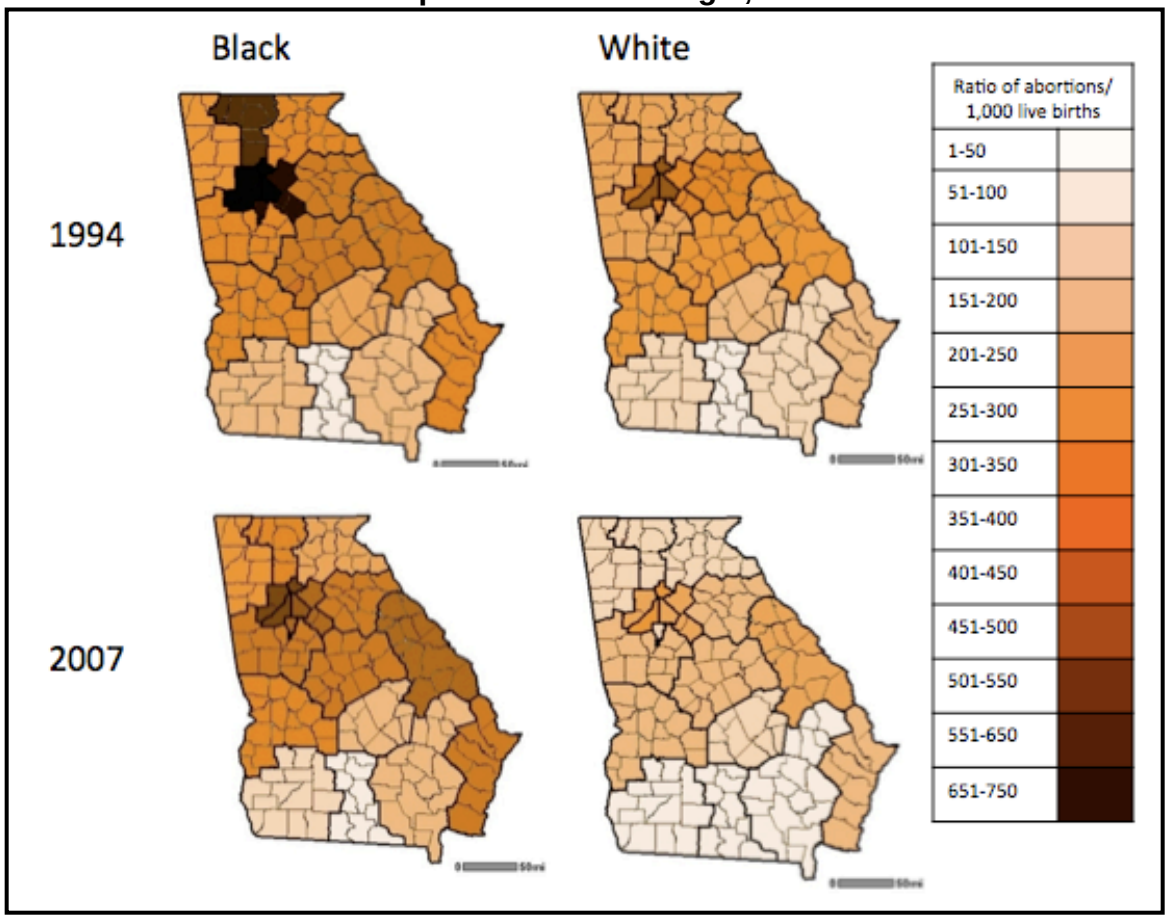
GEOGRAPHY

Georgia is made up of eighteen Public Health Districts and women seeking abortions in Georgia reside in every district. Abortion ratios declined from 1994 to 2007 for both white and black women. Although ratios have declined for both races over thirteen years, ratios remained higher for black women than white women and the higher abortion ratios were congregated around metro Atlanta(Figure 19). Metro Atlanta Public Health Districts include Cobb/Douglas, Fulton, Jonesboro, Dekalb and Lawrenceville. To see the ratios for all Public Health Districts in 1994 and 2007, please see Table 7.on page 67.

In 1994, the highest ratio for black women was 772.8 abortions per 1,000 live births in Cobb/Douglas district, a district that houses part of metro Atlanta, and the lowest was 47.9 in Valdosta district, located in southern Georgia on the border with Florida. These ratios declined over thirteen years, and in 2007 the

district with the highest abortion ratio was Fulton district with 454.1 abortions per 1,000 live births. Fulton is another district around Atlanta's urban area and Cobb/Douglas district had the second highest ratio with 451.6. Valdosta remained to have the lowest abortion ratio for black women, with 26.7. Cobb/Douglas district saw the largest drop of all the districts, by 42%, between 1994 and 2007.

Figure 19. Abortion ratios, by Public Health District of residence and race, for abortions performed in Georgia,1994 & 2007



In 1994, the highest ratio for white women was 448.8 abortions per 1,000 live births in Fulton district, and the lowest was 39.4 in Valdosta district. Over thirteen years, Fulton and Valdosta remained the highest and lowest for abortion

ratios, but they declined by 53% and 74%, respectively. For black women, Augusta, Waycross and Savannah were the only three districts to see an increase in abortion ratios over time (Table 7.).

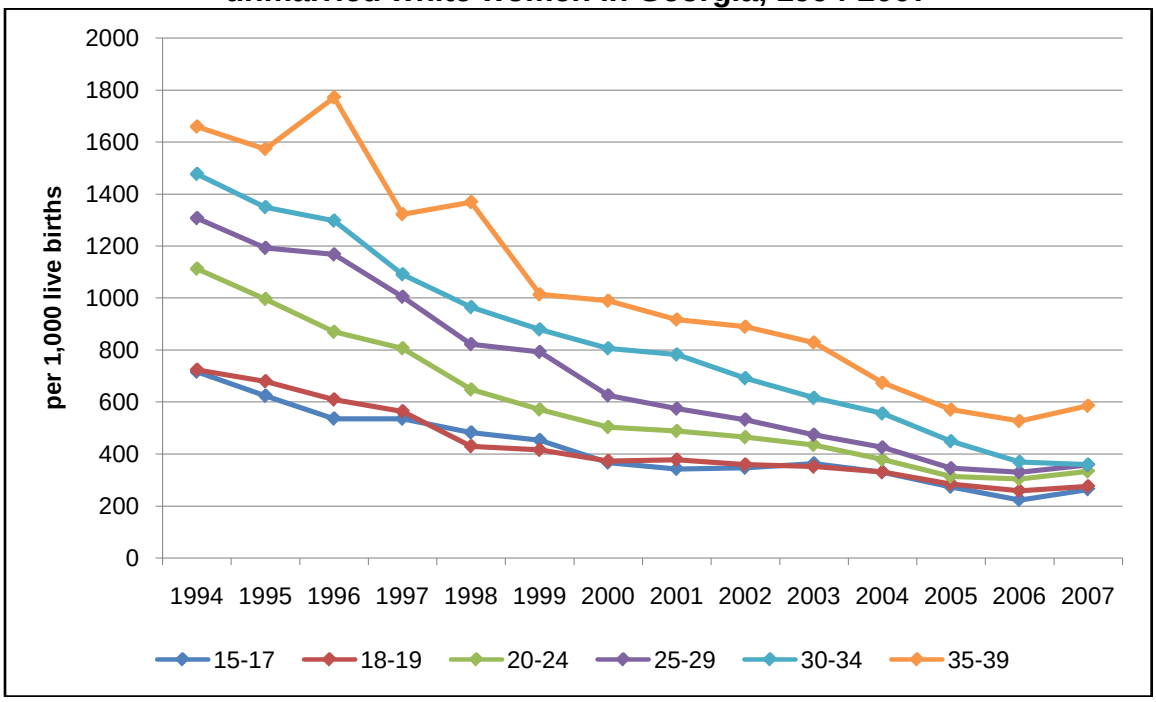
Table 7. Abortion ratios by Public Health District of residence and race for 1994 & 2007

Public Health District	White			Black		
	1994	2007	Percent Change	1994	2007	Percent Change
Rome	151.7	89.0	-41%	247.8	231.2	-7%
Dalton	153.8	79.2	-49%	530.1	261.6	-51%
Gainesville	154.1	80.0	-48%	267.7	200.4	-25%
Cobb/Douglas	300.7	151.3	-50%	772.8	451.7	-42%
Fulton	448.8	212.2	-53%	741.3	454.1	-39%
Jonesboro	297.9	99.9	-67%	642.0	383.3	-40%
Lawrenceville	254.0	166.3	-35%	572.7	390.7	-32%
DeKalb	410.2	168.6	-59%	740.9	443.3	-40%
LaGrange	198.3	119.6	-40%	294.5	332.9	13%
Dublin	121.5	66.0	-46%	153.0	144.5	-6%
Macon	215.2	133.2	-38%	331.7	309.5	-7%
Augusta	211.9	159.9	-25%	305.8	356.0	**16%**
Columbus	214.3	108.9	-49%	280.8	268.2	-5%
Valdosta	39.4	10.3	-74%	47.9	26.7	-44%
Albany	86.0	17.7	-79%	126.3	85.8	-32%
Waycross	87.8	49.0	-44%	126.9	129.2	**2%**
Savannah	142.1	132.0	-7%	253.9	311.5	**23%**
Athens	256.0	122.7	-52%	311.9	300.7	-4%

RACE, AGE & MARITAL STATUS

Between 1994 and 2007, unmarried white women have seen a decline and when stratified by age, the trend in declining abortion ratios is consistent across all age groups. Figure 20. shows the large decline in ratios for unmarried white women by age group. With the exception of unmarried women aged 40-44 years (due to their small sample sizes), all age groups decrease between 62% and 76%. In 2007, unmarried white women, between the years of 15 and 39, had abortion ratios between 263.7 (15-17 years) and 584.7 (35-39 years).

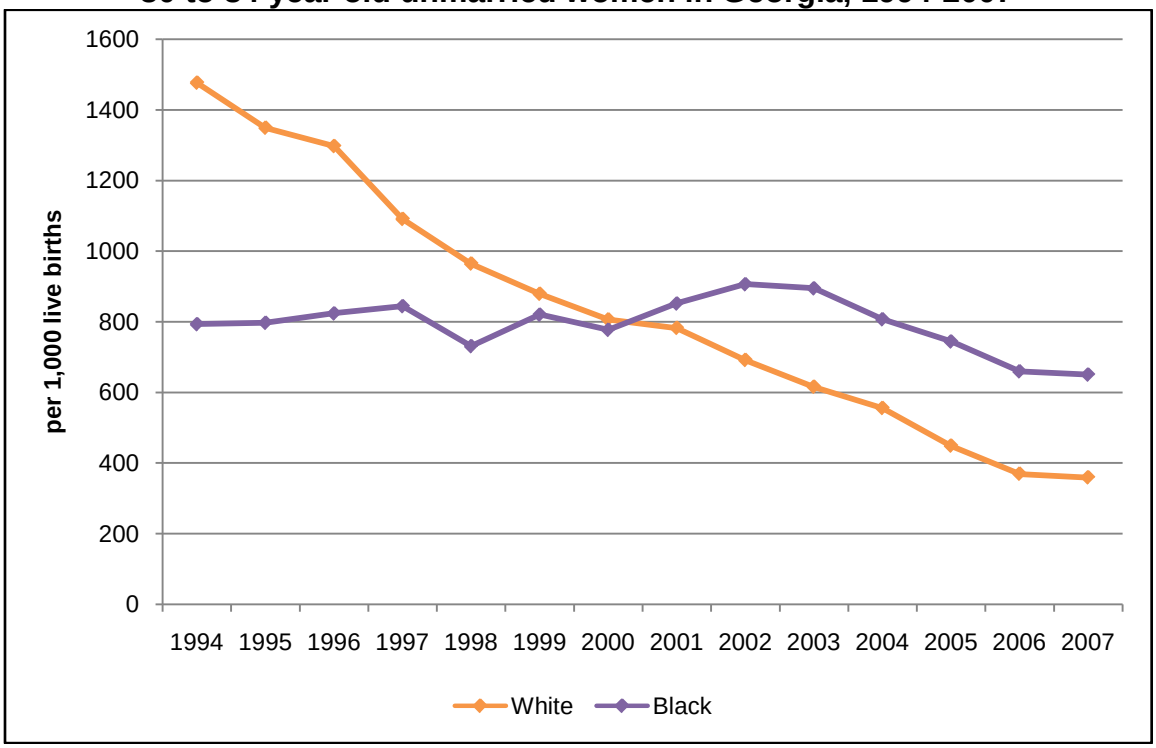
Figure 20. Ratio of induced abortions per 1,000 live births, by age among unmarried white women in Georgia, 1994-2007



Since 2002, abortion ratios have been higher for unmarried black women then unmarried white women in all age groups, except 35-39 and 40-44. Preceding 2002, abortion ratios were higher for unmarried white women. The age group with the largest difference between unmarried women, by race is 30-34 years of age (Figure 21.). Unmarried white women had a ratio of 1,476.5 abortions per 1,000 live births in 1994, meaning that this age group of women was more likely to abort their pregnancy than give birth. This stayed true for unmarried white women of this age group through 1997 (1,090.7 abortions per 1,000 live births). By 2007, the abortion ratio had dropped to 359.2, a 76% decline, with an annual 6% drop. For unmarried black women, the abortion ratio was 793.3 in 1994 and 650.7 in 2007, an 18% decline (less than a 1.5% annual decrease). It was between 2000 and 2001 when abortion ratios were no longer higher for

unmarried white women than unmarried black women, between the ages of 30 and 34.

Figure 21. Ratio of induced abortions per 1,000 live births, by race among 30 to 34 year old unmarried women in Georgia, 1994-2007



For unmarried black women, by age, their abortion ratios in each age group do not decline as rapid as unmarried white ratios did. For the age groups 15-17, 18-19, 30-34, 35-39 and 40-44 abortion ratios fell between 14% and 23% between the years of 1994 and 2007. For unmarried black women 20-24 and 25-29, there was a larger ratio reduction over the years (between 34% and 37%).

LIMITATIONS

Abortion is generally stigmatized because of the complex moral and ethical debate and other factors, including political restrictions and access, and personal

and circumstantial considerations. Therefore, reliable and valid estimates of abortion are under reported and hard to obtain where stigma is high.

Reporting abortions is problematic due to, but not limited to, the following factors (E. Lathrop, personal communication, January 31, 2011). Private insurance in Georgia covers many women who obtain abortions, however, physicians may code abortion procedures to protect their patients, keeping the procedure from being included in the abortion count. Reporting systems and forms change over time that lead to problems when examining trends, especially when medical abortions are separated from surgical abortions. Medical abortions may be more underreported than surgical abortions due to medical abortions using medication that could be easily acquired. Reporting can be biased towards over reporting for some indications, including fetal anomalies, rape and incest. There could be an over count with incomplete abortions; medical records might count an abortion during post-abortion care as well as when the woman originally check-in to obtain an abortion.

While the OASIS and ITOP datasets are useful for describing women having abortions or live births, characteristics may lead to hypotheses but cannot prove cause and effect relationships.

In order to count all induced abortions, adjustment of ‘unknown’ variables for race, marital status, education and gravidity was completed in this analysis. This

ensured that the weight of abortions remained the same when comparing to live births for each indicator. Adjustments were calculated by distributing the absolute number of unknowns to the variables of interest, using the proportions represented by these variables. An adjustment was not done for ethnicity because there was a substantial amount of women with unknown ethnicity, which might be considered as their own group in further analysis.

Since data was used from an online database and a private data set, both provided by the Division of Public Health, not all variables for both induced abortions and live births matched up. In order to have a dichotomous outcome, to calculate abortion ratios, many of the variables from the private ITOP dataset needed to be grouped to match the variables provided on OASIS for live births. Live births provided education indicators only for women who had completed less than the twelfth grade or twelfth grade and more. Therefore, induced abortion education variables had to be recoded to fit into these two categories. Women with an education less than the ninth grade and women with education between the ninth grade and eleventh grade were combined for the lower education indicator and women with a high school diploma or GED and women with some college or higher were combined for the higher education indicator. This regrouping limited the analysis from further identifying education groups with the highest abortion ratios. This strategy also had to be used for gravidity due to OASIS only providing primigravida or multigravida status. ITOP data was

regrouped into complementary indicators, but still limited the analysis from identifying abortion ratios for specific multigravidous groups of women.

Finally, abortion ratios could not be calculated for demographics unless both the live birth database and induced abortion dataset had the same variables. This meant abortion ratios could not be calculated for parity or socioeconomic status or pregnancy intendedness. Without parity information, we cannot further investigate the gravidity findings, therefore we could not assess if the higher abortion ratio among multigravida black women was related to multiple abortions or multiple live births. Lastly, without pregnancy intendedness data we cannot illustrate if the gap in abortions (more black women have unintended pregnancies than white women) is associated with contraceptive access issues. Previous literature shows that black women are more likely to have unintended pregnancies therefore disparities in abortion ratios by marital status may be confounded by pregnancy intendedness (Finer & Henshaw, 2006).

Since abortion data cannot provide accurate estimations, research findings should be considered as approximations and tools to observe trends in the absence of complete reporting. Although abortion reporting is extremely limited, it is important to continue to progress on abortion research in order to improve health services and outcomes for women in need of abortion services.

DISCUSSION

This study aimed to understand the racial and ethnic disparities in abortions, and evaluate a number of reproductive characteristics and demographics associated with a women's intention for pregnancy and choice to obtain an induced abortion. The relationship between race, ethnicity and induced abortion is obvious; black women have a disproportionately higher number of abortions than any other race or ethnicity. This study shows that black women have had a higher abortion ratio compared to white, Asian and Hispanic women in Georgia since 1994 and up to 2007. In 1994, black women were reported to have over 480 induced abortions for every 1,000 live births to black women. This number fell 20% over thirteen years (377 per 1,000 live births) but remained higher than white (135/1,000), Asian (222/1,000) and Hispanic (120/1,000) reports of induced abortions in 2007. Therefore, black women end more pregnancies in abortion than in a live birth, when compared to white, Asian and Hispanic women, across geographic and demographic characteristics.

Abortions are further affected by age, marital status, education, gravidity and place of residence. When assessed by age, black women consistently have higher abortion ratios than white and Hispanic women. Among black women the number of pregnancies ending in abortion is essentially unchanged across age groups (ranging from 325 abortions per 1,000 live births for 18-19 years of age to 462 for 40-44 years of age), however, among white women this ratio declines between 25 and 39 years of age. For young and older age groups, Asian women

have higher abortion ratios than white or black women. We observe much higher abortion ratios for Asian women in the following age groups; 15-17 (593.8 abortions per 1,000 live births), 18-19 (548.1), 20-24 (586.6) and 40-44 (531.3). Notably, the Asian population of women receiving abortions in Georgia is significantly small, however these ratios are still interesting finds that should be further explored.

The most dramatic changes over time are seen by marital status. Overall, unmarried women end more pregnancies in abortion than married women. When placed in the context of race, married black women have higher abortion ratios than married white women. Consistently since 1994, almost 70% of black births are to unmarried women. Among white women, slightly more than 30% of births are to unmarried women and this proportion has been increasing. Unmarried white women have experienced a rapid abortion ratio decline; concurrently, unmarried white women have experienced a steady rise in births and this trend is consistent across all age groups. In 1994, pregnancies to unmarried white women were more likely to end in an abortion than a live birth (1,084.2 abortions per 1,000 live births), however, less than 400 pregnancies to unmarried white women end in abortion per 1,000 live births in 2007. Therefore, unmarried white women are increasingly more likely to end a pregnancy in birth rather than abortion and this trend is not seen among black women. Although recent data shows that black women have more abortions per live births, the difference in abortion ratios by race can be attributed to white women having

more births per pregnancy instead of abortions. This relationship may be partially due to changes in cultural acceptance of unmarried child rearing, as well as restricted access to contraceptives among black women. Further research should be done to determine why there is a shift from abortions to live births for unmarried white women.

No large observation could be made about the role of education by race and ethnicity because education information was not available beyond high school graduation.

Among white women there is no change in abortion ratio by gravidity. However, among black women, a pregnancy is more likely to end in abortion if that pregnancy is not their first. This disparity could be attributed to socioeconomic stability, contraceptives, and insurance and healthcare limitations when women are at risk of pregnancy.

From 1994 to 2007, the number of pregnancies ending in abortions has decreased across the state for white and black women, with the exception of increased abortion ratios for black women in Augusta, Waycross and Savannah. Augusta's increase is most likely due to the addition of two abortion clinics in the Augusta Public Health District. Otherwise, when comparing race and place of residence, the highest abortion ratios are seen in or around Atlanta for both black and white women. Most likely, this is attributed to higher rates of pregnancies in

urban, metropolitan areas. The lowest ratios are seen in the rural districts of southern Georgia. Residents of southern Georgia may be seeking abortions in Florida clinics and facilities because they are closer than the majority of clinics in Georgia's metropolitan areas.

IMPLICATIONS & RECOMMENDATIONS

As mentioned in the background information for this study, anti-choice organizations in Georgia have misused the racial disparity in Georgia, emphasizing the disproportion of abortions for black women and accusing abortion clinics and providers of coercing black women into having abortions. This descriptive study has provided a simple analysis of Georgia's abortion profile and can be the baseline for discussing potential causes of disparities, but to respond to the genocide and eugenics accusations we must place abortion into the context of pregnancy intendedness.

From the Ventura et al. study we know that unintended pregnancies often lead to abortions (Ventura et al., 2008).This study was limited from determining the impact of pregnancy intendedness, but we can look at the CDC's Pregnancy Risk Assessment Monitoring System (PRAMS) and Georgia Women's Health Survey (GWHS) from 1995. PRAMS[16] and the GWHS were conducted to determine women's attitudes and behaviors through the stages of pregnancy. What we find

[16] PRAMS is a national survey that collects information on pregnancy intendedness, smoking and drinking habits, prenatal care, breastfeeding and physical abuse

important from PRAMS is the prevalence of unintended pregnancies. From a 1997 PRAMS report on Georgia, the prevalence of unintended pregnancy by race, for those who have given birth, were 63.4% for black women and 35.8% for white women (PRAMS Surveillance Report, 1997). The 1995 GWHS reports a 25% unintended pregnancy rate for black women and 13% unintended pregnancy rate for white women, based on the women's last pregnancy. Unintended rates are also high for women with three or more children (36%) and unmarried women (28%). Of women who chose to induce an abortion, 63% were unintended; a rate almost five times higher than women who gave birth (13%). As a result, the higher ratio of induced abortions for black women in Georgia may be directly related to their higher rates of unintended pregnancies, and not genocide or eugenics through family planning.

We recommend that focus should be placed on addressing unintended pregnancies, family planning and contraceptive services. In Georgia, black women tend to have less financial stability and education than white women; therefore they are more likely to struggle with access to contraceptive services and health care (Tucker, 2011). Concentration should be placed on reducing barriers and improving access to contraceptive services for all women, especially among unmarried women. Studies show that comprehensive sex education, improved access to contraceptive, insurance and healthcare will decrease unintended pregnancies and lower abortion ratios (Cohen, 2008). Finally, it is

important to consider racial and ethnic disparities through a cultural lens so as not to trigger historical sensitivities.

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APPENDICES

APPENDIX A:Protected Health Information - Data Use Memorandum

Georgia Department of Community Health – Division of Public Health (GDCH-DPH) Data Use Policy and Form

Part A: Protected Health Information

THE INFORMATION YOU ARE REQUESTING IS CONSIDERED PROTECTED HEALTH INFORMATION IN THAT IT CONTAINS PERSONALLY IDENTIFIABLE DATA. PERSONAL IDENTIFIERS INCLUDE BUT ARE NOT LIMITED TO: NAMES, RESIDENTIAL ADDRESSES AND RESIDENTIAL ZIPCODES. SOCIAL SECURITY NUMBERS ARE NOT INCLUDED ON BIRTH FILES. THE USER WILL ACKNOWLEDGE THAT OTHER DATA FIELDS MAY CONSTITUTE PROTECTED HEALTH INFORMATION, GIVEN THE DEFINITION BELOW:

"**Protected health information** means any information, whether oral, written, electronic, visual, pictorial, physical, or any other form, that relates to an individual's past, present, or future physical or mental health status, condition, treatment, service, products purchased, or provision of care, and which (a) reveals the identity of the individual whose health care is the subject of the information, or (b) where there is a reasonable basis to believe such information could be utilized (either alone or with other information that is, or should reasonably be known to be, available to predictable recipients of such information) to reveal the identity of that individual."

"For example, if a health record contains sufficient information to identify an individual to whom it relates because it provides information which specifically narrows the class of individuals in an aggregate setting (such as an HIV report that contains the race, sex, age, county of residence, date of infection, place of treatment, or other information about an individual in a rural community with limited cases of HIV infection), such record may also be considered identifiable in its existing form, and thus protected health information."

IF THIS PROTECTED HEALTH INFORMATION IS USED TO IDENTIFY INDIVIDUALS, THE USER SHALL BE AWARE OF THE FOLLOWING TERMS AND REQUIREMENTS FOR USE:

- **Use** means to employ or utilize all or any part of any protected health information for a legitimate public health purpose. Public health agencies are allowed to use protected health information for legitimate public health purposes with minimal restrictions. Uses of such information include transferring information within or among public health agencies that have the authority to acquire the information. Uses do not include disclosing such information to any person outside a public health agency.

- **Legitimate public health purpose** means a population-based activity or individual effort primarily aimed at the prevention of injury, disease, or premature mortality, or the promotion of health in the community, including (a) assessing the health needs and status of the community through public health surveillance and epidemiological research, (b) developing public health policy, and (c) responding to public health needs and emergencies.

- **Public health official** means any officer, employee, private contractor or agent, intern, or volunteer of a public health agency with authorization from the agency or pursuant to law to acquire, use, disclose, or store protected health information.

- **Commercial Uses**: Protected health information shall not be used by a public health agency or public health official for commercial purposes.

- **Deceased Individuals**: Generally, nothing shall prohibit the disclosure of protected health information in a certificate of death, autopsy report, or related documents prepared under applicable laws or regulations.

- **Social Security Numbers**. Not available except on death certificates in approved cases.

THE FOLLOWING REQUIREMENTS FOR USES CONSISTENT WITH ORIGINAL LEGITIMATE PUBLIC HEALTH PURPOSES APPLY:

[a] In General. Protected health information shall be used by a public health agency solely for legitimate public health purposes that are directly related to the purpose for which the information was acquired. Providing access to protected health information to any person other than a public health agency or public health official is not a use;

[b] Subsequent Uses. A public health agency may use protected health information for legitimate public health purposes that are not directly related to the original purpose for which the information was acquired only if: The agency's subsequent use relates directly to a legitimate public health purpose; the use is reasonably likely to achieve such purpose, and the purpose cannot otherwise be achieved as well or better with non-identifiable information.

[c] Research Use. A public health agency or official may use protected health information for public health, epidemiological, medical, or health services research provided that:

(1) it is not feasible to obtain the informed consent of the individual who is the subject of the information;

(2) identifiable information is necessary for the effectiveness of the research project;

(3) the minimum amount of information necessary to conduct the research is used;

(4) the research utilizing the protected health information will likely contribute to achieving a legitimate public health purpose; and

(5) the information is made non-identifiable at the earliest opportunity consistent with the purposes of the research project and expunged after the conclusion of the project.

IN ADDITION, YOU HAVE THE DUTY TO ADHERE TO THE FOLLOWING IN ORDER TO HOLD INFORMATION SECURE:

[a] Generally. Public health agencies have a duty to acquire, use, and store protected health information in a confidential manner which safeguards the security of the information.

[b] Security Measures. Public health agencies and other persons who are the recipients of protected health information disclosed by any agency, other than the individual (or the individual's lawful representative) who is the subject of the information, shall take appropriate measures to protect the security of such information, including:

(1) maintaining such information in a physically secure environment, including:
  [i] limiting the number of physical places in which such information is used or stored; and
  [ii] prohibiting the use or storage of such information in places where the security of the information may likely be breached or is otherwise significantly threatened;
(2) maintaining such information in a technologically secure environment;
(3) identifying and limiting the persons having access to such information to those who have a demonstrable need to access such information;
(4) reducing the length of time that such information is used or stored in a personally-identifiable form to that period of time which is necessary for the use of the information;
(5) eliminating unnecessary physical or electronic transfers of such information;
(6) expunging duplicate, unnecessary copies of such information;
(7) assigning personal responsibility to persons who acquire, use, disclose, or store such information for preserving its security;
(8) providing initial and periodic security training of all persons who acquire, use, disclose, or store such information;
(9) thoroughly investigating any potential or actual breaches of security concerning such information; and
(10) undertaking continuous review and assessment of security standards.

IF A RECIPIENT OF THESE DATA: BY YOUR SIGNATURE ON THE LAST PAGE, YOU ACKNOWLEDGE THAT YOU UNDERSTAND ALL PRECEDING ITEMS AND THE FOLLOWING STATEMENT, AND AGREE TO USE THE DATA ACCORDINGLY.

"*Protected health information contains health-related information about individuals which may be highly-sensitive. This information is entitled to significant privacy protections under federal and state law. The disclosure of this information outside public health agencies in an identifiable form is prohibited without the written consent of the person who is the subject of the information, unless specifically permitted by federal or state law*. Unauthorized disclosures of this information may result in significant criminal or civil penalties, including imprisonment and monetary damages.*"

Adapted from the Model State Public Health Privacy Act, August 12, 1999.
LAWRENCE O. GOSTIN, JD, LLD (HON), Georgetown University Law Center, Washington, DC.
** per Health Insurance Portability and Accountability Act of 1996*

Part B: Data Use Policy *(Created 2.22.02 (revised 1.5.11))*

The intent of this policy is to assure the availability of Georgia data to public health researchers for the benefit of Georgia citizens while safeguarding its confidentiality. The policy is to serve the needs of the citizens, the agency and the researcher. The policy will improve communication and coordination by outlining major steps related to release of data as well as to publication and dissemination of the data.

The elements for this policy are:

- All requests for data should be project-specific rather than a blanket request for data, e.g., "birth certificate data for all births between 1996 and 2000." A blanket request for data should be considered only if
    1) a series of beneficial analyses and/projects are proposed,
    2) it is mutually beneficial and in the best interest of both parties, and
    3) special procedures are developed to safeguard everyone's interest and concerns.

- All requests should be accompanied by a one-page proposal outlining the **objectives, design and analysis of the research, safeguards for assuring the confidentially of the data, and steps to return or destroy the original and subsequently created data sets**. Assurances of confidentially and ultimate elimination of the data are the responsibility of the requesting agency and assurances are to be provided by that agency. For those investigators who may have prior access to the data from another project, no work on any new project of any kind may be performed without prior approval. The Division of Public Health (hereafter, "The Division") will attempt to approve all projects within three weeks, but provision of new data sets may take a substantially longer time.

- Before release of the data, the researcher(s) and the Division should discuss and agree upon authorship and responsibilities of authorship. The primary author should sign this authorship agreement that includes authorship, role of authors, rules of communication and other essentials.

- All data released outside the Division should be de-identified or have received **IRB approval** from the Division. IRB approval/exemption through the requesting agency or other IRB agreed to by the Division will greatly expedite the approval process, and may waive the need for Georgia Department of Community Health IRB application. For policies, procedures and forms visit

  http://www.odis.dhr.state.ga.us/7000_reg/regulatory.htm

- Before submission for publication or other distribution, the Division shall receive a **copy for review and comment**. The Division must be given at least three weeks for comment. If a CDC author, this process should occur before submission for CDC clearance.

- After project completion, the researcher(s) agree to at least one presentation of the data to interested people at the Division before publication.

- Depending on the nature of the project proposed, the Division may request additional services of the investigator to assure program benefit to the Division. The Division will make such requests in advance before approval of the request to receive data.

Part C: Data Use Form: Protected Health Information for a Public Health Purpose by Non-DCH Employees.

YOUR DATA REQEUST: Please complete all of the following areas (additional pages may be attached).

Purpose of data request and objectives for use:
Descriptive epidemiologic analysis of trends and patterns of women obtaining abortion, Georgia – for MPH thesis

Design and analysis of the research:
Descriptive epidemiologic analysis – by demographic characteristics age, origin, race, education and gestational age and procedure.

LIST OF DATA ITEMS (fields, variables). Provide a detailed description of data requested (include geographic area (geographic unit of analysis), and whether by residence or occurrence; time period; age; race; and for any other criteria, please list the specific variables).

Geographic Unit of Analysis (Where and what units). *Example: By County, for Fulton & DeKalb.*			Analysis by: X Residence ☐ Occurrence ☐ Both	
Time Period *1994-2008*	Ages ~~e.g. 10-25 years~~ all ages in years	Check if data by Sex are requested ☐	Race group(s) All	Check if data by Ethnicity are (origin) requested ☒

List ALL additional Data Items	EVENT COUNTY
RESIDENCE COUNTY	AGE
MARITAL STATUS	EVENT YEAR
RESIDENCE STATE	RACE
ORIGIN Ethnicity	EDUCATION
GESTATIONAL AGE	PRIMARY PROCEDURE
ADDITIONAL PROCEDURES	

PROTECTED HEALTH INFORMATION (PHI): List each PHI data item and justify the use for each item, stating how each item is used to achieve the purpose of your study. Requests for PHI items will not be processed without specific justification for inclusion. Protected Health Information items include, but are not limited to: names, dates of birth, certificate numbers, addresses and potentially geographic units smaller than County.

PHI Data Items	Intended Use or Reason for this data item (be specific)
EVENT COUNTY	~~RESIDENCE COUNTY~~ Distance centroid to centroid of counties
~~MARITAL STATUS~~	~~RACE~~
~~PRIMARY PROCEDURE~~	~~ADDITONAL PROCEDURES~~
~~AGE~~	

Safeguards for assuring the confidentially of the data:
Password protected on computers of PI's below. Individual data will not be shared with other persons or in any report. Will Not report event counts.

Steps to return or destroy the original and subsequently created data sets:
No backups - will eliminate all data when study is published.

PLEASE ACKNOWLEDGE EACH BELOW by checking the appropriate box:	Yes	No
Is IRB Approval required? If yes, please send a copy.		✓
We agree to adhere to the policies and procedures set forth in Part A: Protected Health Information and in Part B: Data Use Policy.	✓	
We acknowledge that these data can not be used outside the scope presented within this document.	✓	
We agree to acknowledge the "Georgia Division of Public Health, Office of Health Indicators for Planning (OHIP)" in all literary works and presentations using the requested data	✓	
Any publications/presentations will be sent to the Division for review prior to publication:	✓	

This signed form is not perpetual and a new form must be signed for each request or use of data unless otherwise approved in writing.

[redacted] 3/10/2011
Signature (electronic acceptable) Date

LINN BERGANDER Roger Rochat MD. 3/10/2011
Print Name

Director, Graduate Studies, Dept. of Global Health
Title

Rollins School of Public Health, Emory University
Organization

below for internal use

Description of data released:

Email form to ohip@dhr.state.ga.us or fax to (404) 656-9880

APPENDIX B: Selected indicators for live birth data, 1994-2007

Race or Ethnicity of Mother and year	Age							Marital Status		Education		Repeat Pregnancy	
White	15-17	18-19	20-24	25-29	30-34	35-39	40-44	Married	Unmarried	< 12th grade	12th grade or higher	Yes	No
1994	3003	5322	18326	19711	16065	6165	903	57030	12594	14451	55173	56460	32346
1995	3348	5407	18029	20440	16794	6528	1028	58466	13272	15018	56720	56696	33299
1996	3277	5634	17921	20984	17044	7001	1091	59178	13963	15645	57496	57853	33041
1997	3146	5751	18279	21987	17519	7399	1245	60724	14779	16027	59476	58597	33410
1998	3120	6102	18993	22613	18001	7774	1332	61945	16172	16859	61258	60451	33171
1999	3080	6448	19915	23210	18428	8341	1338	63252	17692	17794	63150	62034	34354
2000	3000	6475	21041	23397	19139	8854	1558	64712	18917	19253	64376	63183	35140
2001	2919	6481	22063	23138	20182	8888	1506	64947	20422	21261	64108	65090	35657
2002	2803	6041	21969	23236	20577	9109	1658	64106	21471	21380	64197	66343	35385
2003	2672	6126	22609	23585	21751	9149	1798	65009	22864	21931	65942	68490	35206
2004	2787	6214	23029	24123	21291	9706	1905	64861	24413	22940	66334	69142	35040
2005	2691	6269	23213	24740	20915	9851	1813	63860	25835	23202	66493	68746	34249
2006	2907	6578	24303	26154	20579	10529	1943	64615	28595	24683	68527	70142	35400
2007	2801	6377	23177	25259	19860	10113	1905	61946	27776	22909	66813	66953	33361

Race or Ethnicity of Mother and year	Age							Marital Status		Education		Repeat Pregnancy	
Black	15-17	18-19	20-24	25-29	30-34	35-39	40-44	Married	Unmarried	< 12th grade	12th grade or higher	Yes	No
1994	4058	4828	12505	8504	5912	2353	376	12550	26491	11186	27855	41425	17714
1995	3967	4889	11968	8396	6002	2388	394	12578	25909	10551	27936	40146	17921
1996	3802	4819	11820	8426	6170	2642	467	12910	25631	10285	28256	40508	17685
1997	3879	4930	12320	8683	6129	2906	545	13030	26724	10629	29125	41974	17980
1998	3395	5090	13019	9530	6282	3073	537	13593	27681	10269	31005	42073	17170
1999	3080	5196	13587	9903	6360	3086	545	14031	28036	10152	31915	43486	17308
2000	2999	5219	14683	10403	6843	3337	642	15044	29403	10474	33973	44539	17971
2001	2775	4880	14456	10269	6799	3487	694	14957	28693	10239	33411	44576	17837
2002	2680	4491	14202	9957	7004	3440	678	14605	28102	9926	32781	44366	17934
2003	2474	4347	14165	10117	7195	3473	821	14742	28078	9362	33458	44314	17915
2004	2520	4393	14377	10730	7224	2467	795	14776	28945	9440	34281	44049	17779

2005	2489	4727	14770	11281	7443	3643	853	14978	30479	9592	35865	45727	17879
2006	2780	5115	15572	12482	7950	4004	901	15833	33215	9998	39050	47678	19066
2007	2782	5490	16057	13115	8296	4196	960	16191	34957	10846	40302	48210	19756
Race or Ethnicity of Mother and year	**Age**							**Marital Status**		**Education**		**Repeat Pregnancy**	
Asian	15-17	18-19	20-24	25-29	30-34	35-39	40-44	Married	Unmarried	< 12th grade	12th grade or higher	Yes	No
1994	28	57	444	724	565	258	46	1852	276	331	1797	1608	1048
1995	21	62	316	610	540	209	44	1579	225	268	1536	1636	1022
1996	23	56	367	721	591	276	45	1826	258	304	1780	1766	1163
1997	48	64	438	941	774	320	74	2355	308	365	2298	2054	1488
1998	44	59	414	911	797	345	66	2342	304	341	2305	2115	1384
1999	37	67	458	1052	914	400	76	2642	372	383	2631	2508	1579
2000	45	77	556	1212	1089	444	91	3105	417	433	3089	2702	1977
2001	21	91	516	1322	1256	502	99	3371	443	463	3351	2951	2000
2002	27	96	624	1426	1432	567	96	3768	508	529	3747	3226	2196
2003	20	76	563	1428	1536	588	120	3818	516	457	3877	3556	2162
2004	34	72	593	1484	1702	650	137	4152	526	467	4211	3732	2163
2005	23	79	588	1464	1761	736	144	4276	529	433	4372	3822	2161
2006	31	58	611	1441	1898	819	152	4484	538	407	4615	3977	2238
2007	32	104	598	1639	1999	960	160	4789	716	604	4901	4299	2391
Race or Ethnicity of Mother and year	**Age**							**Marital Status**		**Education**		**Repeat Pregnancy**	
Hispanic	15-17	18-19	20-24	25-29	30-34	35-39	40-44	Married	Unmarried	< 12th grade	12th grade or higher	Yes	No
1994	190	427	1507	1216	682	248	47	3344	984	2250	2078	1608	1736
1995	300	490	1756	1424	747	241	50	3806	1227	2859	2174	1636	2063
1996	340	627	2150	1699	947	364	69	4603	1622	3602	2623	1766	2540
1997	371	682	2507	1995	1080	387	82	5011	2133	4044	3100	2054	2853
1998	439	758	2876	2316	1253	438	91	5554	2650	4528	3676	2115	3340
1999	532	1043	3747	1884	1539	625	113	6789	3729	5758	4760	2508	4307
2000	695	1297	4702	3746	1865	809	145	8248	5062	7589	5721	2702	5459
2001	724	1492	5477	4414	2351	960	158	9500	6131	9462	6169	2951	6341
2002	782	1546	5670	4817	2628	1072	181	9538	7211	10291	6458	3226	6555
2003	780	1564	6038	5247	3089	1187	227	10050	8130	10783	7397	3556	6418
2004	893	1674	6294	5837	3537	1448	272	10947	9065	12078	7934	3732	6834

2005	922	1736	6713	6461	3934	1640	308	11568	10218	12639	9147	3822	7040
2006	1013	1879	7281	6944	4343	1740	357	12136	11499	13716	9919	3977	7441
2007	1065	1860	7295	7135	4738	1956	357	12375	12100	14047	10428	4299	7493
Race or Ethnicity of Mother and year	**Age**							**Marital Status**		**Education**		**Repeat Pregnancy**	
Non-Hispanic	15-17	18-19	20-24	25-29	30-34	35-39	40-44	Married	Unmarried	< 12th grade	12th grade or higher	Yes	No
1994	6842	9663	29252	27093	21466	8403	1257	66536	38064	23455	81145	92964	47882
1995	6957	9722	28015	27409	22117	8714	1395	67187	37763	22682	82268	91373	48545
1996	6666	9700	27267	27618	22319	9324	1489	67294	37644	22162	82776	91389	47582
1997	6605	9888	27869	28903	22828	10009	1742	69283	39057	22536	85804	93331	48059
1998	6051	10344	28945	30014	23304	10528	1802	70465	41025	22559	88931	94736	46595
1999	5593	10519	29741	30489	23431	10871	1809	71042	41872	22262	90652	96533	47196
2000	5310	10355	31100	30520	24470	11429	2066	72523	43168	22322	93369	97177	47959
2001	4921	9844	31007	29477	25118	11553	2070	71543	42875	22172	92246	98542	47831
2002	4665	8940	30637	28992	25536	11636	2161	70645	42310	21281	91674	98498	47521
2003	4339	8844	30740	28989	26462	11523	2400	70912	42743	20650	93005	98028	46618
2004	4426	8879	31194	29653	25743	11890	2474	70388	44246	20693	93941	96255	45679
2005	4280	9287	31650	30566	25577	12244	2443	69965	46479	20628	95816	95937	44938
2006	4663	9783	32762	32527	25503	13287	2572	71052	50433	21251	100234	99060	47924
2007	4599	10179	32934	33494	25978	13582	2711	72053	51842	20600	103295	98153	47469

APPENDIX C: Selected indicators for induced abortions, 1994-2007

Race or Ethnicity of Mother and year	Age							Marital Status (unknown marital status allocated: n= 2,850)		Education (unknown education status allocated: n= 7,782)		Repeat Pregnancy (unknown gravidity status allocated: n= 1,712)	
White	15-17	18-19	20-24	25-29	30-34	35-39	40-44	Married	Unmarried	< 12th grade	12th grade or higher	Yes	No
1994	1370	1901	6196	3642	2504	1347	400	3853	13655	3027	14481	1104	6471
1995	1361	1885	5586	3491	2347	1384	365	3676	12916	2939	13653	10410	6182
1996	1226	1853	5231	3602	2305	1414	385	3720	12435	2798	13357	10417	5738
1997	1169	1813	4970	3486	2109	1219	371	3307	11958	2661	12604	9812	5453
1998	1084	1536	4537	3244	1924	1304	393	3177	10965	2415	11727	9205	4937
1999	1028	1605	4418	3259	1994	1187	402	3042	10964	2591	11415	9157	4849
2000	818	1490	4401	2942	1836	1200	376	2906	10257	2421	10742	8644	4519
2001	761	1541	4730	2981	2042	1208	439	3112	10702	2397	11417	9094	4720
2002	771	1463	4750	3010	2140	1268	406	3198	10709	2967	10940	9257	4650
2003	784	1472	4731	2969	2126	1265	440	3156	10725	2648	11233	9281	4600
2004	719	1401	4421	2887	2041	1227	441	3018	10219	2607	10630	8958	4279
2005	595	1266	3912	2681	1816	1138	384	2722	9166	2162	9726	8005	3883
2006	542	1240	4098	2846	1656	1161	357	2505	9468	1438	10535	7925	4048
2007	625	1269	4071	2876	1617	1164	393	2430	9678	2728	9626	8055	4053

Race or Ethnicity of Mother and year	Age							Marital Status (unknown marital status allocated: n= 5,272)		Education (unknown education status allocated: n= 7,724)		Repeat Pregnancy (unknown gravidity status allocated: n= 2,019)	
Black	15-17	18-19	20-24	25-29	30-34	35-39	40-44	Married	Unmarried	< 12th grade	12th grade or higher	Yes	No
1994	1430	1976	6889	4312	2500	1149	260	2556	16317	2713	16160	14269	4604
1995	1469	1918	6476	4278	2424	1094	264	2363	15857	2621	15599	13691	4528
1996	1398	2113	6480	4501	2465	1123	269	2428	16224	2566	16083	14205	4447
1997	1422	2051	6597	4962	2565	1258	318	2467	16960	2452	16975	14904	4523
1998	1146	1863	5760	4550	2341	1076	231	2338	14840	2164	15014	13172	4006
1999	1152	1965	5971	4742	2472	1192	272	2268	15709	2223	15754	13799	4178
2000	992	1734	5808	4467	2552	1198	278	2187	15038	2081	15145	13390	3836
2001	985	1741	6262	4549	2819	1333	331	2380	15880	2073	16187	14194	4066
2002	1002	1652	6515	4874	2993	1350	334	2442	16483	2492	16433	14696	4229

2003	1108	1637	6610	4652	3059	1411	364	2453	16615	2483	16585	14624	4444
2004	1095	1619	5924	4452	2878	1351	360	2316	15574	2196	15694	13572	4318
2005	1052	1591	5787	4883	2994	1451	390	2542	15807	1931	16418	14261	4088
2006	973	1558	5649	4850	2927	1507	368	2358	15925	1520	16470	13918	4072
2007	1128	1783	5863	5133	3135	1614	443	2542	16762	2533	16771	14608	4696
Race or Ethnicity of Mother and year	**Age**							**Marital Status** *(unknown marital status allocated: n= 352)*		**Education** *(unknown education status allocated: n= 825)*		**Repeat Pregnancy** *(unknown gravidity status allocated: n= 166)*	
Asian	15-17	18-19	20-24	25-29	30-34	35-39	40-44	Married	Unmarried	< 12th grade	12th grade or higher	Yes	No
1994	12	33	153	115	101	64	21	258	242	52	448	328	172
1995	18	58	222	203	158	110	31	410	395	63	742	533	272
1996	38	59	222	205	187	91	32	415	428	109	734	560	283
1997	25	63	233	207	189	99	39	416	443	97	762	569	290
1998	34	63	215	221	182	92	28	411	427	97	741	557	281
1999	32	58	244	288	188	136	42	454	543	125	872	698	299
2000	25	77	242	279	219	135	45	496	534	135	895	695	335
2001	15	84	269	248	225	137	43	536	493	108	922	715	**314**
2002	17	68	251	257	225	149	49	544	473	128	890	727	290
2003	21	77	316	301	288	177	58	642	605	137	1110	867	380
2004	19	60	257	271	294	171	63	594	551	121	1024	813	332
2005	20	53	276	281	246	179	57	592	528	148	972	832	288
2006	9	55	264	278	254	200	69	566	569	62	1073	838	297
2007	19	57	291	315	244	201	85	594	627	140	1081	855	366
Race or Ethnicity of Mother and year	**Age**							**Marital Status** *(unknown marital status allocated: n= 532)*		**Education** *(unknown education status allocated: n= 1,948)*		**Repeat Pregnancy** *(unknown gravidity status allocated: n= 132)*	
Hispanic	15-17	18-19	20-24	25-29	30-34	35-39	40-44	Married	Unmarried	< 12th grade	12th grade or higher	Yes	No
1994	35	47	178	142	73	43	13	167	369	176	360	392	144
1995	28	37	183	155	107	45	13	184	392	176	400	410	166
1996	26	76	254	202	123	55	18	237	523	243	517	560	199
1997	23	83	308	219	154	73	19	283	603	285	601	657	229
1998	27	87	367	313	133	81	17	326	705	325	706	749	282
1999	38	79	366	350	168	82	24	322	788	405	705	834	276
2000	45	111	491	377	203	114	29	406	972	539	839	1047	331

2001	34	129	570	474	276	120	36	459	1190	518	1131	1223	425
2002	77	170	754	571	344	163	41	611	1520	821	1310	1616	514
2003	64	164	678	522	323	161	47	562	1406	744	1224	1464	504
2004	62	166	694	547	378	177	46	543	1542	920	1165	1608	477
2005	50	127	597	510	307	120	36	484	1278	769	993	1409	353
2006	48	156	548	489	315	138	41	447	1296	291	1452	1328	415
2007	100	237	887	854	449	295	87	598	2340	1116	1822	2282	656
Race or Ethnicity of Mother and year	**Age**							**Marital Status** *(unknown marital status allocated: n= 7,216)*		**Education** *(unknown education status allocated: n=10,230)*		**Repeat Pregnancy** *(unknown gravidity status allocated: n= 2,761)*	
Non-Hispanic	15-17	18-19	20-24	25-29	30-34	35-39	40-44	Married	Unmarried	< 12th grade	12th grade or higher	Yes	No
1994	2700	3790	12256	7616	4764	2349	621	6022	28562	5363	49961	23959	10625
1995	2758	3759	11392	7585	4599	2406	612	5873	27695	5277	26291	23195	10373
1996	2599	3897	11006	7879	4615	2392	629	5883	27566	5077	28372	23562	9887
1997	2537	3762	10825	8175	4540	2376	673	5540	27718	4747	28511	23657	9601
1998	2204	3321	9551	7427	4164	2248	590	5271	24558	4211	25618	21230	8599
1999	2143	3477	9999	7690	4287	2298	656	5184	25683	4419	26448	22097	8770
2000	1767	3181	9551	7123	4282	2329	648	4947	24225	3991	25181	21052	8120
2001	1718	3255	10436	7301	4807	2573	774	5585	25632	4026	27191	22643	8574
2002	1716	3010	10523	7537	5017	2610	743	5558	25895	4738	26715	22868	8585
2003	1794	2892	10193	6894	4807	2494	743	5213	24918	4221	25910	21909	8223
2004	1628	2643	8743	6251	4275	2244	708	4682	22086	3700	23068	19367	7401
2005	1375	2296	7709	6015	3858	2077	643	4359	19850	3009	21200	17853	6356
2006	1315	2401	8037	6596	3911	2385	653	4455	21055	2491	23019	18524	6986
2007	1478	2545	8355	6580	3943	2274	701	4290	21832	3701	22421	18638	7484