Special Thanks to Our Sponsors, Hosts & Planning Committee!

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Nazrul Hoque, The University of Texas at San Antonio
William O’Hare, U.S. Census Bureau Fellow
Lloyd Potter, Institute for Demographic and Socioeconomic Research
David A. Swanson, University of California - Riverside

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Lisa Espinoza, Institute for Demographic and Socioeconomic Research
Clarissa Ozuna, University of Texas at San Antonio
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**Technical Support:**
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Eric Quiroz, Institute for Demographic and Socioeconomic Research
Alfredo Zavala, Institute for Demographic and Socioeconomic Research
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### Conference at a Glance

#### Sunday, January 8, 2012

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<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>4:00 pm - 7:30 pm</td>
<td>Conference Registration, San Antonio &amp; Executive Foyers</td>
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<tr>
<td>6:30 pm - 8:00 pm</td>
<td>Welcoming Reception, San Antonio Ballroom</td>
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#### Monday, January 9, 2012

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<td>7:00 am - 3:00 pm</td>
<td>Conference Registration, San Antonio &amp; Executive Foyers</td>
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<td>7:00 am - 8:00 am</td>
<td>Continental Breakfast, San Antonio Foyer</td>
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<td>8:00 am - 9:10 am</td>
<td>Opening Plenary Session, San Antonio Ballroom</td>
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<td>9:20 am - 10:20 am</td>
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<td>Concurrent Sessions</td>
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<td>Luncheon, San Antonio Ballroom</td>
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<td>3:20 pm - 4:50 pm</td>
<td>Concurrent Sessions</td>
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<td>4:50 pm - 5:15 pm</td>
<td>Break</td>
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<td>5:15 pm - 6:30 pm</td>
<td>Poster Session, San Antonio Ballroom</td>
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<td>12:00 pm - 1:20 pm</td>
<td>Lunch on Your Own</td>
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<td>1:30 pm - 3:00 pm</td>
<td>Concurrent Sessions</td>
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<tr>
<td>3:00 pm</td>
<td>Conference Adjournment</td>
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Dear Colleagues,

It is my pleasure to welcome you to the 2012 Applied Demography Conference in the heart of beautiful San Antonio. As the director of the Institute for Demographic and Socioeconomic Research (IDSER), I have had the honor of working with the conference planning committee, the staff of the Texas State Data Center, The University of Texas at San Antonio and the Department of Demography to plan this exciting event for you. I extend great thanks to all who helped put this conference together including our generous sponsor McKibben Demographic Research, our reception entertainment George Gaytan and the future scholars of UTSA’s Applied Demography Society for giving so freely of their time and talent to make this conference possible.

We have a full and engaging agenda scheduled. Conference events include two plenary sessions, two receptions and twenty-five concurrent sessions featuring senior, junior and student researchers from the public, private and academic arenas. We are excited to present Dr. Robert Groves, Director of the U.S. Census Bureau, and Dr. Rogelio Saenz, Dean of the College of Public Policy at The University of Texas at San Antonio as our keynote speakers.

It is an exciting time in the field of applied demography. The Applied Demography Conference is a forum to share research and discuss new methods and approaches to advance the field of demography. In the past, selected presentations from the conference have been compiled as book chapters. We are pleased to announce that we will be continuing this tradition. More information regarding this publication will be provided after the conference via e-mail.

I would like to thank you for attending our conference and bringing your expertise, ideas and collegial discussion. We hope that your time here is spent building new relationships and strengthening old ones all while taking in the sights and culture of San Antonio. Welcome!

Best Wishes,

Lloyd Potter, Ph.D.
Director

The University of Texas at San Antonio
501 César Chávez Blvd. • San Antonio, Texas 78207-4415 • (210) 458-5530
# Conference Agenda

## Sunday, January 8, 2012

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<th>Time</th>
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<tr>
<td>4:00 pm - 7:30 pm</td>
<td>Conference Registration, San Antonio &amp; Executive Foyers (3rd Floor)</td>
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<tr>
<td>6:30 pm - 8:00 pm</td>
<td>Welcoming Reception, San Antonio Ballroom Hosted by McKibben Demographics</td>
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## Monday, January 9, 2012

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<td>8:00 am - 9:10 pm</td>
<td>Opening Plenary Session, San Antonio Ballroom</td>
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<td></td>
<td>Welcome: Dr. Lloyd Potter, IDSER &amp; Dr. Joachim Singelmann, UTSA</td>
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<td></td>
<td>Introduction: Dr. William O'Hare, U.S. Census Bureau Fellow</td>
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<td>Speaker: Dr. Robert Groves, Director, U.S. Census Bureau</td>
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<td>Health &amp; Welfare of Children &amp; Youth</td>
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<td>Evaluation of State &amp; Local Estimates</td>
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<td>Improving Demographic Measurement</td>
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<td>Redistricting Issues</td>
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<td>Mortality, Interventions &amp; Health Status</td>
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<td>School Demography</td>
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<td>Population Estimation Methods</td>
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<td>Migration, Economic Contexts &amp; Development</td>
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<td>Introduction: Dr. Joachim Singelmann, UTSA</td>
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<td>Speaker: Dr. Rogelio Saenz, Dean, College of Public Policy, UTSA</td>
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<td>&quot;Engine of U.S. Population Growth: Latinos and the Changing of America&quot;</td>
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<td>Latinos/Hispanics in America</td>
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<td>Spatial Demography &amp; Health</td>
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<td>Labor Market Dynamics</td>
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<td>Demography of Families</td>
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<td>Panel on Children &amp; Youth</td>
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<td>International Perspectives</td>
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<td>GIS &amp; Spatial Analysis: Demographic Applications</td>
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<td>Salon 5</td>
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<td>Population Projections</td>
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<td>4:50 pm - 5:15 pm</td>
<td>Break</td>
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<tr>
<td>5:15 pm - 6:30 pm</td>
<td>Poster Session, San Antonio Ballroom</td>
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<td></td>
<td>Reception Hosted by UTSA Applied Demography Society</td>
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<td></td>
<td>Entertainment by George Gaytan, classic and contemporary guitar</td>
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# Conference Agenda

**Tuesday, January 10, 2012**

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### Concurrent Sessions Table:

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<tr>
<th>Salon 1</th>
<th>Salon 2</th>
<th>Salon 5</th>
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<tbody>
<tr>
<td>Using Demographic Analysis to Evaluate the 2010 Census (Census Bureau Panel)</td>
<td>Immigration, Fertility, &amp; Future Populations</td>
<td>Healthcare &amp; Poverty Issues</td>
</tr>
<tr>
<td>The Demographer as an Expert Witness</td>
<td>Novel Approaches in Population Estimation</td>
<td>Data Collection &amp; Measurement Issues</td>
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“Condom use among unmarried male youths in Nigeria: Modeling socio-demographic predictors”

Ayo Stephen Adebowale, University of Ibadan, Nigeria

The HIV prevalence in Nigeria is becoming worrisome, particularly among youths. Reducing HIV in Nigeria will be a hallucination if research on condom use among youths is neglected. The study is retrospective cross-sectional in design and utilized 2008 NDHS dataset. The study focused on unmarried male youths aged 15 to 24(1629) who ever had sexual intercourse (vaginal, oral and anal). The dependent variables are ever used and current use of condom. Data was analyzed using Chi-square and logistic regression models. The mean age of the respondent was 20.5 and the prevalent of current use of condom among sexually active male youths was 49.5 percent. About 62.0 percent of the respondents ever used condom. Among the sexually active, age, region, residence, education, wealth index, ever tested for AIDS and total life-time number of sexual partners were significantly associated with current use of condom. The multiple logistic regression analysis of ever use of condom revealed that, living in the south predisposes male youths to the use of condom than the north. The odd of ever use of condom was higher among male youths who were in the middle, richer and richest wealth indices than the poorest. Ever had an HIV test increases the likelihood of using condom. The prevalence of condom use among sexually active unmarried male youths in Nigeria is low. Education and free access to condom will increase its utilization.

“The effect of childhood maltreatment on delinquency and HIV risk related sexual behavior among young adults”

Rabindra K.C., University of Texas at San Antonio

The major objective of this study is to find the effect of child maltreatment on delinquency through life- course perspective and also to examine whether or not the effect of childhood maltreatment on HIV risk related sexual behavior mediated through delinquency. Delinquent behaviors are present in every society with varying intensity regardless of how one view on it. Generally it is thought that delinquent behaviors jeopardize not only adolescents and young adults’ lives but also family and society as a whole. Child maltreatment is another major concern in US. Various studies have documented that there is a strong association between childhood maltreatment and delinquency in later years but the relationship is not consistent with the type of maltreatment. Likewise there is also a positive relationship between childhood maltreatment on HIV risk related behavior among young adult. Sexual abuse and physical abuse have been found having strongly associated with HIV risk related behavior among adult. However the intermediate effect of delinquency on HIV risk related behavior of adult is still limited. This study will use the restricted data/public use data from I, II and III waves of the in-home surveys as part of the National Longitudinal Study on Adolescent Health (Add Health). HIV risk related behavior will be measured from Wave III and delinquency will be measured from wave I, Wave II and Wave III where as childhood maltreatment will be measured from retrospective questions asked in wave III when the respondent was in 6th grade. Other control variables are age, sex, race, immigration status, residence, parents’ education and household structure. Log normal logistic regression will be used to see the effect of childhood maltreatment and delinquency whereas logistic regression will be used to see the effect of childhood maltreatment on HIV-risk related sexual behavior as intervened by delinquency status.

“The role of youths as transport workers in Onitsha Urban, Nigeria”

Peter Ezeah, Nnamdi Azikiwe University, Nigeria

One of the developmental challenges in Nigeria is transport crises particularly in the urban cities. The urban transport crises in Nigeria is played out in numerous road accidents involving innocent pedestrians and passengers, long delays, overcrowded and dangerous vehicles carrying passengers. This study examined the ways young people play key roles in providing urban transport services and working in the transport sector in Onitsha urban, Nigeria. The findings show that the youths work as head loaders, porters, handcart operators, motorcycle transport (Okada) operators, and minibus touts/conductors. Their work is often highly visible in bus and lorry parks, markets, and along thoroughfares and it is frequently dangerous because the youths can be injured or killed. It was also found that the involvement of the youths in transport work is part of the perpetuation of economic hardship among the urban poor as well as an opportunity to escape from rural drudgery for young rural-urban migrants in Nigeria. Free and compulsory basic education, vocation training, creation of employment for the youths and improvement of transport infrastructure by the various governments in Nigeria were recommended to a address these challenges.
“An evaluation of population estimates produced by the ratio-correlation method for 254 counties in Texas with the 2010 Census count”

Nazrul Hoque, University of Texas at San Antonio

Population estimates are among the most widely used products of demographic analyses and the Ratio-correlation Method (RCM) is one of the most widely used techniques of population estimates. This paper presents the results of the evaluation of population estimates produced by the RCM for 2010 compared to the 2010 Census Counts for 254 counties in Texas. Four error measures are used to assess the accuracy of population projections. These are the Mean Absolute Error, the Root Mean Squared Error, the Mean Algebraic Percent Error, the Mean Absolute Percent Error, and the Mean Percent Absolute Difference. Evaluation will be done by size of population, percent population change, and range of error.

“Evaluating the accuracy of the population estimates of Puerto Rico and its Municipalios: 2010”

Yeris Mayol-Garcia, U.S. Census Bureau
Belkines Arenas Germosen, U.S. Census Bureau
David Armstrong, U.S. Census Bureau
Antonio Bruce, U.S. Census Bureau
Jason Devine, U.S. Census Bureau
Dilmayris Barea-Freytes, U.S. Census Bureau

This paper provides the results of comparisons between the 2010 population estimates and the Census 2010 counts for Puerto Rico and its municipios. These estimates were produced through a cohort-component method that started with the Census 2000 base population and incorporated births, deaths and net migration between Puerto Rico and the United States during the decade 2000-2010. Estimates had previously been developed by using a residual method for estimating migration from 1990-2000 and keeping these estimated levels constant during 2000-2010. In contrast, the 2010 population estimates also apply migration rates based on survey estimates from the American Community Survey and the Puerto Rico Community Survey to estimate the net migration between Puerto Rico and the United States. These estimates assume a net domestic migration of zero. The evaluation includes an examination of differences by municipio in addition to summary measures of accuracy for municipios grouped by size and growth. These measures offer an overall assessment of the estimates that will be used to make methodological decisions for the production of the post-2010 Puerto Rico estimates.

“Evaluating the housing unit method: An analysis of 2010 population estimates in Florida”

Stanley K. Smith, University of Florida
Scott K. Cody, University of Florida

The housing unit (HU) method is the most commonly used method for producing small-area population estimates in the United States. In this paper, we evaluate the HU method by comparing population estimates produced for Florida and its counties and subcounty areas for April 1, 2010 with the results of the 2010 census. We find the estimates to be very accurate, with an error of less than 0.2% at the state level and average errors of 0.5% for counties and 2.0% for subcounty areas when the direction of error is accounted for and 2.7% and 9.0%, respectively, when it is not.

We also evaluate the effects of differences in population size and growth rate on estimation errors; the accuracy of each individual component of the HU method (number of households, average household size, and the group quarters population); and the effectiveness of different data sources and techniques for estimating each component. We believe this paper will help data users assess the reliability of population estimates used for decision-making purposes and will provide valuable guidance to practitioners charged with producing small-area population estimates.
Population estimation methodology incorporating administrative records, census data, and the American Community Survey (ACS) allow for the production of county-level health insurance estimates for every county in the United States. The modeling utilized by U.S. Census Bureau's Small Area Health Insurance Estimates (SAHIE) program incorporates the ACS with covariates from census and administrative data, improving the overall variance of the estimates. The SAHIE model expands on the Fay-Herriot model typically used for small area estimation but is formulated in a hierarchical Bayesian framework. The datasets utilized in this model include the ACS, demographic population estimates, aggregated federal tax returns, participation records for the Supplemental Nutrition Assistance Program (SNAP), County Business Patterns (CBP), Medicaid and Children's Health Insurance Program (CHIP), and Census 2000. The model produces estimates of health insurance coverage for demographic and income groups within counties and states. Estimates by sex, race/ethnicity (non-Hispanic White, non-Hispanic Black, Hispanic), age (0-18, 18-64, 64-50, 50-64), and income groups (138, 200, 250, and 400 percent of the federal poverty threshold) are provided. Also, county estimates by the same age, sex and income groups, but not by race are estimated. Income groups are defined by the income-to-poverty ratio (IPR) - the ratio of family income to the appropriate federal poverty level. This paper will describe the methodology of this program as well as analyze demographically and spatially, the 2008 and 2009 estimates. We will also address the feasibility of producing county-level race detail.

**“Model-based small area health insurance estimates”**
Bethany DeSalvo, U.S. Census Bureau
Tamara Lee, U.S. Census Bureau

In the absence of reliable vital registration systems, demographic surveys have become a data collection mainstay in Turkey. The last four demographic surveys have been a part of the Demographic and Health Surveys (DHS) series (HUIPS, 2009). The major product of these surveys are based on women’s birth history data that allows the calculation of total fertility and infant mortality rates. The former is usually provided as a 3- or 5-year rate, and the latter as 5- or 10-year rates. These relatively long durations generate more stable estimates and lower standard errors of the estimates. This study combines data across these four DHSs each five years apart to provide rates based on shorter time intervals and for smaller geographic domains. The nature of birth history data makes combined survey rates possible. The data are collected for women ages 15 to 49 years, resulting in partially overlapping birth histories. Although point estimates are often calculated and used, standard errors are usually omitted due to the complication of calculation. The complication is due to both the rates themselves, and the complex sample designs. This study modifies the DHS Jackknife procedure to account for stratification as well. Total fertility and infant mortality rates are presented with standard errors for data combined across multiple surveys. The combined rates refer to the time periods in Turkish DHS reports to enable comparisons of rates and standard errors.

**“An evaluation of persons per household (PPH) estimates generated by the American Community Survey, 2001-2010: A demographic perspective”**
David A. Swanson, University of California - Riverside
George Hough, Hobby Center for the Study of Texas - Rice University

The American Community Survey (ACS) is a U.S. Census Bureau product designed to provide accurate and timely demographic and economic indicators on an annual basis for both large and small geographic areas within the United States. Operational plans call for ACS to serve not only as a substitute for the decennial census long-form, but as a means of providing annual data at the national, state, county, and subcounty levels. In addition to being highly ambitious, this approach represents a major change in how data are collected and interpreted. Two of the major questions facing the ACS are its functionality and usability. This paper explores the latter of these two questions by examining Persons Per Household (PPH), a variable of high interest to demographers and others preparing regular post-censal population estimates. The data used in this exploration are taken from 18 of the counties that formed the set of 1999 ACS test sites. The examination proceeds by first comparing ACS PPH estimates to Census 2010 PPH values. It then compares to Census 2010 PPH values, estimates generated using a geometric model based on PPH change between the 1990 and 2000 census counts. The ACS PPH estimates represent what could be called the statistical perspective because variations in the estimates of specific variables over time and space are viewed largely by statisticians with an eye toward sample (and non-sample) error. The model-based PPH estimates represent a demographic perspective because PPH estimates are largely viewed by demographers as varying systematically, an orientation stemming from theory and empirical evidence that PPH estimates respond to demographic and related determinants. The comparisons suggest that the ACS PPH estimates exhibit too much sample error for a given area over time to be usable by demographers and others preparing post-censal population estimates. These findings should be confirmed through further analysis and suggestions are provided for the directions this research could take. We conclude by noting that the statistical and demographic perspectives are not incompatible and that one of the aims of our paper is to increase the understanding of the demographic perspective among statisticians with an eye toward improving communication between statisticians and the users of their products.

**“Combining data from multiple demographic health surveys to improve demographic estimates”**
Tugba Adali, Hacettepe University
James M. Lepkowski, University of Michigan

The complication is due to both the rates themselves, and the complex sample designs. This study modifies the DHS Jackknife procedure to account for stratification as well. Total
Redistricting Issues

Moderator: William O'Hare, Census Bureau Fellow

“Overview of roles demographers play in establishing or reconfiguring local political districts”
Peter A. Morrison, Morrison & Associates

This paper will introduce the varied issues that can trigger the need for demographic analysis and measurement when local jurisdictions establish or reconfigure election districts. While Congressional redistricting is a highly visible decennial political event, applied demographers are more typically called upon by local jurisdictions, such as city councils, school districts, water boards, community college districts, and county boards of supervisors. This broad universe of local jurisdictions is significant both for its vastness and, as we shall see, for its wide-ranging demographic diversity.

I consider how and why demographers become involved in configuring election districts; summarize the legal and other criteria that apply to drawing district lines; characterize the local political setting; identify the issues and questions that demographers are asked to address; and highlight useful methods and techniques on which they can draw. The paper's primary emphasis will be on the varied roles that demographers must play.

The paper will tie these themes together via several concrete illustrations, intended to illustrate particular points via reference to two or three actual local settings. The first section will introduce the context and setting. Next, I will briefly outline applicable legal and other criteria governing redistricting. The following section will elaborate on the various roles demographers can play, touching on questions demographers are asked to address and introducing the methods and techniques on which they can draw.

Lapkoff & Gobalet Demographic Research, Inc.
Shelley Lapkoff,
Lapkoff & Gobalet Demographic Research, Inc.

This presentation focuses on methods for measuring racially-polarized voting, a legally important element in political redistricting at the local level and the subject of numerous court cases involving political redistricting. The Federal Voting Rights Act requires that when drawing election districts, one must take into consideration the presence and location of protected minority groups if, among other things, racially-polarized voting (rpv) exists in the jurisdiction. The California Voting Rights Act has resulted in many of that state's jurisdictions seeking rpv analysis. Examples drawn from work for various clients are provided. Explanations are furnished of the techniques involved in this work, along with discussions of the shortcomings of the method of ecological regression analysis, which is currently the standard used by courts to establish whether racially-polarized voting has occurred in a jurisdiction.

“Who must we elect by district? Methods for assessing racially polarized voting”
Jeanne Gobalet,
Much attention has recently been paid to the rising "epidemic" of overweight and obesity and their association with mortality and morbidity. Nearly all longitudinal evidence on the topic is based on death records matched to respondents in cohort studies, which link deaths to the cohort according to their body mass index at the time of interview. Very little attention, however, has been paid to period and cohort mortality based on vital statistics and enumerated or estimated population. The advantages to studies based on vital statistics lie in the routine annual, and nearly universal, collection of such data and their relationship to an entire population, not to selected participants to a survey. This investigation uses data from individual death records for the United States for the years 1979-2008. Information on underlying cause and multiple cause of death from these records is used, and period and cohort death rates are estimated by age, sex, and ethnicity based on the total population and on the estimated overweight population based on results from the Behavioral Risk Factor Surveillance System. Preliminary findings show that from 1989-91 to 1999-01, while the standardized death rate for all causes declined by nearly 8%, the rate for obesity (any mention) increased by over 80%. The median age at death among persons dying with obesity is approximately 20 years less than among all decedents. In addition to information for ethnic sub-populations in the United States, comparable results are presented for Mexico to examine whether the observed trends are generalizable.

"Age at death of persons dying with obesity in the United States"
David Gimeno, UT School of Public Health
Benjamin S. Bradshaw, UT School of Public Health

Much attention has recently been paid to the rising "epidemic" of overweight and obesity and their association with mortality and morbidity. Nearly all longitudinal evidence on the topic is based on death records matched to respondents in cohort studies, which link deaths to the cohort according to their body mass index at the time of interview. Very little attention, however, has been paid to period and cohort mortality based on vital statistics and enumerated or estimated population. The advantages to studies based on vital statistics lie in the routine annual, and nearly universal, collection of such data and their relationship to an entire population, not to selected participants to a survey. This investigation uses data from individual death records for the United States for the years 1979-2008. Information on underlying cause and multiple cause of death from these records is used, and period and cohort death rates are estimated by age, sex, and ethnicity based on the total population and on the estimated overweight population based on results from the Behavioral Risk Factor Surveillance System. Preliminary findings show that from 1989-91 to 1999-01, while the standardized death rate for all causes declined by nearly 8%, the rate for obesity (any mention) increased by over 80%. The median age at death among persons dying with obesity is approximately 20 years less than among all decedents. In addition to information for ethnic sub-populations in the United States, comparable results are presented for Mexico to examine whether the observed trends are generalizable.

"Age-specific cohort death rates by cause of death - United States cohorts, 1890-1940"
Benjamin S. Bradshaw, UT School of Public Health
David W. Smith, Colchester UK

Examination of cohort mortality provides insights into the changing hazards to which members of birth cohorts were exposed over their lives as cohort members lived through wars, epidemics, changing living conditions, and health care services. Resources such as the Human Mortality Database and the US Social Security Administration are gold mines of data on cohort mortality, but not by cause of death. This investigation describes a straightforward method for estimating single-year-of-age cohort rates from published annual 10-year rates, and presents results for several major underlying causes of death for males and females in the United States. We use 10-year age specific rates for calendar years, 1900-2007, published by the National Center for Health Statistics. Where possible, the resulting rates from our method for all causes of death are compared with cohort rates published by the Social Security Administration. In general, our rates are reasonably comparable to those prepared by Social Security, and our rates have the advantage of being tied to published age specific death rates. As part of this research, we review changes introduced by revisions to the International Classification of Diseases, and we compare the rates adjusted for comparability with unadjusted rates. We present estimated cohort rates for all causes, tuberculosis, malignant neoplasms, diabetes mellitus, diseases of the heart, cerebrovascular diseases, influenza and pneumonia, accidents, and all other causes of death combined.

"A discussion of sampling frames and participation in evaluation of socioeconomic and medical interventions"

Social as well as medical interventions with the objective to improve health outcomes in a general population are in most cases evaluated by assignment of the intervention to a random sample compared to a random control sample. The frame of randomization is often the population seeking care or a general health checkup at a medical care unit. The problem with this is that the part of the population that is seeking care or a general health check up is not a random sample of the population. Thus, even if there is a documented intervention effect in the intervened sample, it is not sure that the intervention has any effect in the actual population. This is demonstrated in a follow up of an intervention study. My suggestion is that evaluation of socio and medical interventions should be performed on randomized sample from the total population. This is made possible by the good coverage of the US population that is currently demonstrated by Swanson and Walashek in CEMAF as a Census Method 2011.

"Physical and mental health across race and ethnicity"
Sadaf Rafique, University of Texas at San Antonio

Over the past two decades, disparities in health among different racial/ethnic minority groups have become a prevalent public health issue in the United States. Accordingly, there has been an emerging body of research on racial/ethnic variations across health outcomes. This study is designed to shed further light on the relationship between physical and mental health in the context of race/ethnicity using a subsample of adults 18 years and older from the 2007-2008 National Health and Nutrition Examination Survey. Several theoretical explanations are synthesized to examine the linkages between physical and mental health across different racial/ethnic groups including Mexican Americans, African Americans, multiracial and other racial/ethnic groups. Binary logistic regression and Ordinary Least Squares (OLS) regression models are employed to test hypotheses pertaining to racial/ethnic variations in physical and mental health. Results from logistic regression models support existing literature on the link between race/ethnicity and physical health; that is, Mexican Americans and African Americans exhibit increased odds of poorer physical health status than non-Hispanic whites. Results from OLS regression models reveal that while Mexican Americans are more likely than non-Hispanic whites to have higher BMI, they have significantly fewer depressive symptoms. These patterns can be attributed to an emphasis on familism and an extended social support network that mitigates the negative effects of poor physical health on mental health. However, the linkages between physical health and mental health do not vary greatly across racial/ethnic groups as surmised. Both theoretical and policy implications are discussed.

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“Examining the validity of using school student free/reduced lunch information as a proxy variable for socio-economic/income analysis”
Matthew Cropper, Cropper GIS Consulting, LLC

Student free/reduced lunch data has long been viewed as a viable method for analyzing socio-economics of particular school buildings. This presentation will compare school enrollment free/reduced lunch information with zip-code level income data from the IRS. Objectives of this paper are to: Analyze student free/reduced lunch data vs. zip code income data for a variety of schools in: Richmond, Virginia, DeKalb, Illinois, Frederick County, Maryland, Westerville City Schools, Ohio.

The analysis will explore the differences on analyzing enrollment-based totals vs. zip code areas that overlay the attendance zone, as well as residence based data vs. zip code income data from the IRS. Findings will show that enrollment totals by school do not accurately reflect the socio-economic / income levels of the general population for a variety of factors, but residence based data using GIS does give a more accurate estimate of the socio-economics of small areas.

“Older moms deliver: Gentrification and changing K-12 school enrollments”
Richard Lycan, Portland State University
Charles Rynerson, Portland State University

We examine the relationships between increased births to older mothers, housing gentrification, and recent grade KG-02 enrollment growth, as observed in the Portland, Oregon Public School District. Enrollment in the District has declined for a number of years, due in part to fewer births to younger (under 30) mothers, but in the past four years we have seen a modest enrollment surge in KG-02 enrollment. This has been due in part to an upturn in the number of births to older (30 and over) mothers. As the demographic consultant to the District the Population Research Center at Portland State University was responsible for capturing this turnaround in our enrollment forecasts, but also for providing the explanation for the reversal. GIS methods were used to identify the intersection of births, housing gentrification, tenure change, and school enrollment. We link the birth mothers to tax-lot data at the household level and examine the demographics of these older, more affluent birth mothers and the types of housing in which their families reside. Based on this analysis we show that most of these "older moms" moved to owner occupied single family housing in the gentrifying areas before 2000. Since 2000 gentrification has spread into adjacent areas of older lower value housing, has been associated with owner to renter conversion of single family housing, and has resulted in the exodus of the area's African American population. While based on the experience of one metropolitan area, similar trends likely are occurring in other large metropolitan school districts.

New Mexico urban communities mirror a national trend of resegregated schools clustered according to class and race. This research explores the effect of concentrated poverty on academic achievement and the disparity of achievement among students within a school district. This study employs a geospatial analytical tool to look at correlations between educational achievement and geography using aggregate public data in the absence of individual student records. Proficiency scores from elementary schools (grades 3-5) in the 2004-2006 time frame in Reading, Math and Science have been collected, analyzed, mapped, and spatially correlated using GIS software with the geographic characteristics of the enrollment boundaries associated with the schools.

Preliminary results reveal a neighborhood clustering effect among the variables tested including poverty rate and academic proficiencies. Preliminary regression models were run taking into account the observed spatial autocorrelations. Model R2 values ranged from 0.615 to 0.821 depending on the grade and subject. The proportion of students enrolled in free/reduced price lunch program, used in our models as a proxy to local poverty, demonstrate a significant negative impact on elementary students’ performance in standardized tests. Results also indicate that the size of public school enrollments inversely affects student testing scores.

“Using school enrollment data to measure small area coverage rates of the 2010 Census”
Jerome McKibben,
McKibben Demographic Research

After every decennial census, there are numerous attempts to gauge the completeness of the census count. However these efforts tend to be general and macro in nature and rarely examine small area undercount and over count issues. But with the advent of more sophisticated GIS mapping systems coupled with extensive and reliable local data collection it is now possible to identify and measure census coverage at sub-tract levels.

Using the 2010 enrollment data for public, private and charter students from the Atlanta Public Schools, mapped to the parcel level, student counts by age were aggregated into attendance area totals. These totals were compared to the aggregated 2010 census counts by age for the same areas using block level SF-1 data. The results show that areas with considerable new housing unit construction or demolition were most susceptible to being undercounted. Further, areas where the census results showed high numbers of vacant units also showed higher rates of undercount.

“Geography is destiny: Educational attainment case study in a New Mexico public school district”
Dely Alcantara, University of New Mexico
Nomalanga Nefertari, University of New Mexico
Xiaomin Ruan, University of New Mexico
Srini Vasan, University of New Mexico
Dely Alcantara, University of New Mexico

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“On the ratio-correlation regression method of population estimation and its variants”
David A. Swanson, University of California - Riverside
Jeff Tayman, University of California, San Diego

The most common regression-based approach to estimating the total population of a given area is the ratio-correlation method. This multiple regression method involves relating changes in several variables known as symptomatic indicators on the one hand to population changes on the other. Among its many advantages is the fact that regression has a firm foundation in statistical inference, which leads to the construction of meaningful measures of uncertainty around the estimates it produces. No other population technique other than those based on survey samples has this characteristic. In this paper, we provide a comprehensive evaluation of this method of population estimation, which has only been partially accomplished in prior studies of it. We discuss not only how some of its weaknesses can be overcome, but how they can be leveraged to producing more accurate population estimates.

“Using tax data to estimate the number of families and households in Canada”
Julien Berard Chagnon, Statistics Canada

The goal of this proposed communication is to present a new method used at Statistics Canada to estimate the number of families and households. In the past, families and households were estimated independently using two different methods. Family estimates were produced using a special cohort-component approach in which every component of growth was estimated separately. Households were estimated with extrapolated headship ratios based on the last censuses. These two methods showed some important limitations that fuelled the need to develop a new methodology.

The approach that will be presented here aims to use tax data, namely the T1 Family File (T1FF), to estimate the number of families as well as households. This administrative file is built from tax data that contains information on Canadian population and families. This file, available annually, is able to take into account key demographic changes at the family level between two censuses instead of relying solely on extrapolation. Adjustment factors are calculated to correct biases and to derive households from families by comparing tax data with the last census available. A headship ratio is then applied to change the reference date to July 1st. Finally, an estimate of Census undercoverage of families and households is calculated with Census coverage studies data and added to the estimate. This new method shows better consistency between families and households, more flexibility, satisfactory results and greater efficiency in production.

“Small area population estimates: A graphical assessment strategy”
Thomas G. Exeter, Pitney Bowes Software

Assessing the accuracy of small area population estimates has long been an important component of improving estimation methodologies. Assessment strategies have typically involved statistical measures -- MALPE, MAPE, with and without adjustments for outliers and the upward bias of the mean. Newer GIS-type tools have permitted a more insightful spatial analysis of errors, although these methods can introduce visual-perceptual misinterpretations, and results can be difficult to quantify. Pitney Bowes Software has long produced small area population estimates -- block group level and higher for the U.S. - - as well as dissemination area level and higher for Canada, U.K, and Australia. New census data in all four of these counties has challenged us to update and refine our accuracy assessment strategies. One underutilized tool set has been, we feel, the simple graph. Used in combination with statistical measures and maps, graphs can add insight into the degree, direction, and spatial distribution of estimation errors. This paper/presentation discusses and illustrates (using Tableau Software) several new graphical techniques for assessing the accuracy of small area population estimates. Examples are taken from Pitney Bowes' 2010 population and household estimates versus 2010 Census results. The Census Bureau's county level population estimates are analyzed for comparison purposes.
“Immigrants and Transportation Use”  
Michael Cline, Rice University

While population growth and changes in household socioeconomic characteristics have always been part and partial of planning for transportation service needs, only recently have transportation planners begun to ask: who use different types of transportation services and why? Automobile ownership and use are at high levels for the population as a whole, after decades of growth. Changes in the age structure, race/ethnic characteristics, and immigrant composition of the population are likely to have profound changes in the ways in which transportation services are used in many urban communities in the future. In this paper, I explore one aspect of these changes - immigrant ownership and use of automobiles. I first provide an overview of changes in vehicle ownership and use across time for the United States as a whole. I then provide an overview of transportation use in selected cities in the United States. Finally, I model immigrant assimilation to the U.S. norm of vehicle ownership and driving alone on the work commute. I find that immigrants assimilate to the U.S. norm rapidly within the first five years of arrival in the U.S. but that there are differences in vehicle ownership and use that are not explained by demographic, household, and socioeconomic characteristics.

“Educated migrants and economic crisis in the United States”  
Cristina Bradatan, Texas Tech University

It has been argued that skilled migrants have better chances to stay above the poverty level, contribute more through their taxes to the federal, state and local budgets and integrate better in the American society than the low educated ones. However, there is a limited literature looking how these skilled immigrants do during times of economic crisis, whether or not their skills and education protect them from unemployment and decreasing income. This paper looks to the effects of the 2008 economic crisis on the US skilled immigrants and compare their labor force outcomes with two other groups: 1) native born who have similar levels of education and 2) other immigrants, with lower levels of education. The results show that, although education makes a difference, skilled immigrants are not necessarily more protected during times of economic crisis. Other factors, such as national origin, age and years living in the US make also a difference in their labor force outcomes.

“An analysis of Texas migration patterns and economic implications”  
Lila Valencia, University of Texas at San Antonio

For many years, Texas has been characterized by its rapid growth. It is one of the fastest growing states in the United States, especially when considering its large population. An important component of this prevailing population growth is net migration gains. This study examines annual state-to-state migration trends in Texas from 2000 to 2009 using two data sources: the American Community Survey (U.S. Census Bureau) and individual income tax returns filed with the Internal Revenue Service. The objectives of this study are threefold: 1) to assess comparability in the estimation of gross and net migration flows between these data sources, 2) provide estimates of the demographic and socioeconomic characteristics of migrants to and from Texas, and 3) discuss potential economic impact in terms of annual aggregate adjusted gross income generated from net gains of internal migrants.
Session Day 1
1:30pm - 3:00pm, Salon 1

Latinos/Hispanics in America

Organizer: Karen Woodrow-Lafield, University of Maryland
Moderator: Gabriela Sanchez-Soto, Princeton University

“Public transportation and residential preference of Latino immigrants”
Maggie Bohm, Mississippi State University
Guangqing Chi, Mississippi State University

This study attempts to investigate the role that public transportation plays in affecting residential selection of Latino immigrants. These immigrants have relatively low rates of personal vehicle ownership and rely more on public transportation for daily commuting. Thus, it is hypothesized that Latino immigrants prefer locations with well-developed public transportation infrastructures. Although existing studies have demonstrated significant differences in commute modes across racial and ethnic groups, little is known about the effects of public transportation on residential selection of Latino immigrants. In this study, we focus on non-naturalized Latino immigrants who came to and stayed in the continental U.S. as of 2000. We utilize spatial regression models to examine the effects of different commute modes (carpool, public transit, biking, and walking) on the residential distribution of Latino immigrants at the county level. The results suggest that non-naturalized Hispanic immigrants tend to concentrate in areas with higher levels of carpooling and lower levels of public transit and are less likely to walk or bike to work compared to other groups. The findings have important implications for addressing immigration and public transportation.

“Emigration and undercount of the foreign-born Hispanic population in the United States, 1990-2000”
Matt Kaneshiro, RAND

Problems with Census undercount have made it difficult to estimate the emigration of Hispanics, not to speak of the difficulties in estimating emigration and other components for the population in general. The lack of accurate statistics with which to estimate the size of the Hispanic population has made the quality of the data gathered by the Census Bureau difficult to assess. This research uses the latest literature to produce counts of the emigration of the stock foreign born Hispanic population that was present for the 1990 Census. Using modified death counts and the emigration estimates, the relative undercount of the 1990 Census vis a vis the 2000 Census will be estimated by age and year of entry. OLS regression will determine that the undercount of the 1990 Hispanic population is partially due to age, with older persons being more responsive to the Census. More importantly, however, it will be argued that the quality of the 1990 Census suffered due to the political context in which the Census was situated. Specifically, undercount is demonstrated to be a factor of the Immigration Reform and Control Act, with those becoming assigned an illegal status being those more likely to be missed on the Census. These findings underscore the idea that data are inextricable with politics and public and private sentiments regarding the data collectors and the data subjects.

“Estimating unauthorized immigrant population and its geographic distribution within Texas counties”
Miguel Flores, University of Texas at San Antonio
Lila Valencia, University of Texas at San Antonio
Lloyd Potter, University of Texas at San Antonio

While previous works on the estimation of the unauthorized immigrant population have often employed the residual method (Warren 2011; Passel 2010, 2011), this may convey some limitations. Specifically, due to data availability the estimates are restricted to the state level. In this paper, we employ a methodology that combines census population data with new administrative data allowing us to provide estimates of total unauthorized population and its distribution at sub-state level. We incorporate population data from the American Community Survey (ACS) for several years, and consider filed federal tax returns with Individual Taxpayer Identification Numbers (ITIN) available from the Internal Revenue Service (IRS). The use of ITINs allows us to create estimates for tax years 2000-2007 by county and even zip code level. The model considers several demographic and labor force characteristics of the immigrant population as well as administrative data from tax returns. These estimates are then used to generate counts of the unauthorized population at sub-state level. The analysis is replicated for several years, 2001, 2005 and 2008, in order to provide results in regards to changes in the geographic distribution of unauthorized immigrants in Texas.

“The correlation of religiosity on political involvement in Hispanic Immigrants”
Christina S. Hayford, Florida State University

Using data derived from Illinois Department of Public Health Monthly Surveillance Reports for December of 1995 to 2010 and other sources, this paper examines spatially the progression of Acquired Immune Deficiency Syndrome (AIDS) incidence and county-level risk factors. Using Geographic Information Systems (GIS), it was found that interstate highways and truck stops have an influence on the incidence levels. Also, a Moran’s I test was performed to test the significance of spatial relationships between interstates and AIDS incidence, overnight truckstop locations and AIDS incidence, and the local effect of high incidence neighbors’ on one another. These tests suggested a non-random clustering pattern of AIDS incidence in Illinois, and a positive correlation between incidence and risk factors. This study recommends public health interventions to help lower HIV cases among the high-risk highway counties.

“Differential effects of aging in place on disability among black and white elderly”
Marlene A. Lee,
Population Reference Bureau
Joachim Singelmann,
University of Texas at San Antonio

The black health disadvantage, including old-age disability, is well-known and persists over the life course, although it is smaller in the older population. In non-metropolitan areas, as in the U.S. as a whole, health disparities between African Americans and non-Hispanic whites begin to emerge in early adulthood and continue to widen through middle age. Both race and place of residence play a role in shaping health status and disability, and some would argue that these effects are cumulative in a way that ages African Americans prematurely, resulting in greater functional limitations and disability. The aim of this paper is to analyze the differences between African Americans and non-Hispanic whites in their functional limitations and disability for persons age 65 and older. In that analysis, we pay special attention to place in terms of metro-nonmetro and South-non-South region. Both aspects of residency are important for examining race differentials in disability because of the historical experience of African Americans is different in the South than the remaining regions; there are also different experiences of blacks and whites in metro and nonmetro areas. The paper will first review recent findings on the disability gap at the national level and related health black-white health differentials. We then link the weathering hypothesis to the emerging theory of cumulative disadvantage which will be our theoretical frame for the analysis of black-white differentials in disability. Third, we develop and test a model that first brings in race and residential characteristics in terms of region and metro status. The analysis builds on an earlier descriptive paper in which we detail the importance of metro status and region for the incidence of disability of blacks and whites, as well as the different ways those residential characteristics affect the two races. For the regression analysis, we will use the disability concepts measured in the 2009 American Community Survey.

recruitment”
Ronald E. Cossman, Mississippi State University
Jeralynn S. Cossman, Mississippi State University
Philip Mason, Mississippi State University
Katherine Harney, Mississippi State University

Affinity for place is a key component to individual migration decision-making. Recruitment to rural places is based, in part, on the assumption that individuals raised in a rural area have an affinity for rural places and are therefore more likely to return to their hometown or a similar rural area. We tested that affinity hypothesis in a survey of nursing students in Mississippi. We asked “Assuming that a suitable job opportunity (for example, salary, specialty area, etc.) was available, where would you want to work in Mississippi when you graduate?” We coded the respondents’ cities via the rural-urban continuum county code and calculated correlations to similarly-sized communities. Using a weighted average, of all respondents, more than half (59%) across all categories of birthplace chose a practice location in a county of similar size to the county in which they were. This is consistent with similar research by Costa et al. (1996), in which approximately half of family practice physicians wanted to establish their practice in a community similar to the one in which they were raised. To obtain more nuanced results the responses were divided by the four county size categories for birthplace, all respondents. When we matched birthplace to relocation preference, while 76% of large county natives wanted to return to large counties, only 15% of rural county natives sought to relocate to rural places. This research could have fundamental implications for recruitment and economic development strategies, especially in rural areas.

“Access to healthcare in Texas - Is it border location or Hispanic ethnicity?”
Stephanie L. McFall, University of Essex
David W. Smith, Colchester UK

Texas has the highest percentage of adults without health insurance. We compared access for border counties with the rest of Texas using data from a major border oversample for the 2007 Behavioral Risk Factor Surveillance System. Data were analyzed using Stata 10 to take into account the complex survey design. The percentage without coverage was 41% (border) compared to 23% in non-border locations and lacking a regular provider was 40% vs. 27% elsewhere but there was no difference in not seeking medical care because of cost. Controlling for Hispanic ethnicity greatly reduced the border disparity. To explore further, we used the behavioral model of care to examine predisposing, enabling, and need factors associated with access. Enabling factors, particularly education and income were strongly related to coverage and to having a regular provider; those in border locations had less access. Race/ethnicity was not related to access when controlling for other enabling factors. Variables associated with delaying care for cost were income, health insurance, and poor health. The subsample living near the border was asked about obtaining medications or medical services in Mexico. Hispanic border residents who lacked coverage were most likely to get services in Mexico. Border residents had lower rates of insurance coverage and having a regular provider, but did not report being more likely to delay care for cost. To some extent, border residents are compensating for access problems by seeking services and drugs in Mexico.

“Does affinity for small towns trump economic opportunity: Implications for rural nursing
“Mother's timing of returning to labor market after giving birth: Does child's health matter?”
Ke Meng, University of Texas at San Antonio

More and more mothers have entered the labor market since the Second World War, and married mothers accounted for most of the increase in total labor force participation during the post-war period. At the same time, according to the National Survey of Children with Special Health Care Needs (2005-2006), 13.9% of children under 18 years old in the US are estimated to have special health care needs. In addition, this figure indicates an increase since the same survey last time in 2001. At that time, 12.8% of children were estimated to have special health care needs. Such a high proportion raises the question that how a child’s health status affects the mother’s labor force participation. Using Early Childhood Longitudinal Study—Birth Cohort (ECLS-B) data, this study tries to answer the following question: How does child’s health status affect the timing of mother’s returning to the labor market after giving birth? Using ECLS-B data, timing of returning to labor force market will be computed. Cox Proportional Hazard model is estimated, taking into account of the covariates such as mother’s demographic characteristics, socio-economic characteristics, household level characteristics, child care arrangements and health status. This study will better help understanding how the mothers with child with poor health cope with work and family conflicts and further providing policy implications.

“Childbearing and labor market: Time and space Dynamics”
Elena Kotyrlo, Umeå University, Sweden

Fertility is one of the important determinants of population growth and labor market situation in the long-run. We focus on time and space dynamics in the description of fertility in Sweden, which is presumably generated by labor mobility across municipalities. Flows of in-migrated and out-migrated people increase probability of matches of couples, which entail marriage or cohabiting and having a child. Also, those labor flows generate earning flows across space and affect families’ income potential for childbearing. Time dynamics as postponing or accelerating of childbearing has been considered in two effects of earnings. The first effect has been considered within one generation, when families compare their current earnings with the former or expected earnings. Another effect or the Easterlin hypothesis is observed through the generations, when the younger generation compares their income potential with the parental generation. The hypotheses have been tested for the period 1981-2008. The study is based on estimating of space and time dynamics by estimating the second-order time and first-order spatial autoregressive distributed lag model SAR(2,1) and using the general method of moments for aggregate panel data. Comparing different specifications, positive spatial autocorrelation of fertility has been found. We found that current earnings negatively affect fertility rates within municipalities and in the long-run across them. The inverted Easterlin hypothesis is weakly supported within municipalities, but not supported across them. Theoretical contributions contain the stationary condition and the long-run effect in the direct, indirect and total forms in the model SAR (2,1).
“The sex ratio imbalance in China: What are the effects on families?”
Qing Li, University of Maryland

This paper examines the effects of sex ratio imbalance induced by the one-child policy in China on marriage market, labor market and intra-household bargaining power. Different from previous studies using cross-sectional data, this paper used China Health and Nutrition Survey (CHNS) 1989-2009, an eight-wave panel dataset to identify the effects. To deal with the potential endogeneity problem of marriage market sex ratios, sex ratios at birth are constructed as an instrument. The results show that higher sex ratios had a large positive effect on the likelihood of female marriage, and a large negative effect on labor force participation of married women. The empirical results also suggest that as women become scarcer in the marriage market, they marry older and more educated men. Moreover, higher sex ratios also appear to increase female bargaining power within the household.

“Occupation and marriage in highly educated scientists and engineers”
Jinny Case,
University of Texas at San Antonio

This research focuses on the effects of work on marital status holding age, sex, race and ethnicity, and geographic location constant. Educational attainment is also held constant in that the population in which marital status is explored includes only people residing in the United States who have earned doctoral degrees in science and engineering fields. Working in the social sciences or engineering is associated with marital status. This study addresses the following questions. Is work status associated with marital status? If so, is there a the relationship between work status and marital status conditional upon other characteristics such as age, sex, and race or ethnicity? These issues will be explored using logistic regression models on a nationally representative dataset of science and engineering doctorates to reveal the relationship that labor force variables have on marital status with marital status defined as married or not married. Regression models revealed that occupation has a very small effect on easing the differences in marital status due to other characteristics such as sex, age, and race or ethnicity. It is clear, however, that the latter three attributes still exert a strong influence on marital status above and beyond both occupation and geography, even for the highly educated.

“Differences in the role of educational attainment in determining adult female birth expectations: A follow-up study”
Clarissa R. Ozuna,
University of Texas at San Antonio

With the Hispanic population growing rapidly, it is important to understand the differences that exist in determinants of fertility and birth expectations among Hispanics. This is an extension of a previous study that used the 2002 National Survey of Family Growth to illustrate how birth expectations of Hispanics changed at each level of educational attainment and how these changes compared to their non-Hispanic counterparts. It was found that birth expectations and educational attainment had an inverse relationship in non-Hispanics and an insignificant relationship in Hispanics. The purpose of this study is to confirm these findings using the 2006-2010 NSFG.
Panel on Children & Youth

Organizer & Moderator: William O’Hare, Census Bureau Fellow

“Use of demographic data within the federal interagency forum on child and family statistics”
Traci Cook, Federal Interagency on Child & Family Statistics

“Scalability of the child and youth well-being index: National, state, and regional levels”
Ken Land, Duke University (Panelist)
Vicki L. Lamb, North Carolina Central University

“Use of demographic data in data based child advocacy in Texas”
Frances Deviney, Center for Public Policy Priorities

“SmilesMaker: A direct data entry solution for school-based dental sealant programs”
Annaliese E. Cothron, University of Texas Health Science Center at San Antonio (Panelist)
Richard Ongkiko, University of Texas Health Science Center at San Antonio
Jane Steffensen, University of Texas Health Science Center at San Antonio
David Cappelli, University of Texas Health Science Center at San Antonio
At a global level a number of measures and commitments have been operationalized to deal with issues affecting women and their betterment. Although women live longer than men, most girls and women from poor countries are not assured of a healthy existence. Women's health during the reproductive years has consequences not only on women themselves but affects the immediate family and the wider society. The quality of health care women receive depends on the country-specific dynamics. It has been pointed out that maternal mortality is an indicator not only of socio-economic development but also of sexual equality, since pregnancy-related deaths reflect the neglect of the needs and rights of women in developing countries. One of the Millennium Development Goals (MDGs) is to reduce the maternal mortality ratio. South Africa is however experiencing a rising trend in maternal mortality. The purpose of this paper is to examine: (1) Variations in provincial levels of maternal mortality during the period 2001 and 2007 in South Africa; (2) the relative contribution of direct causes of maternal death, especially maternal hemorrhage, hypertensive disorder and other maternal conditions excluding maternal sepsis, obstructive labor and abortion during the period 2001 and 2007; (3) provincial variations in some dimensions of intermediate determinants of maternal mortality. The analysis is based on the 2001 South Africa's census, 2007 Community Survey as well as Death registrations using direct and indirect methods of estimation. Other secondary sources will also be utilized. Policy implications are also examined in the paper.

“Rural and urban poverty in China: Chronic or transient?”
D. Nicole Farris, Texas A&M University
Lei He, Texas A&M University
Anna Iwinska-Nowak, Texas A&M University
Dudley L. Poston, Jr., Texas A&M University

This paper discusses the issues and dynamics of poverty in the People's Republic of China. To provide some perspective, we first present a brief overview of China, its history and recent emergence as a world power, followed by a short demographic overview. We then introduce the two main dimensions of inequality in China, namely, the urban-rural divide and regional differences, both of which influence and exacerbate the incidence of poverty. We next review some of the changes in China's poverty populations in the past 50 years. This is followed by a discussion of poverty measurement issues with a special focus on China. We review selected quantitative and qualitative perspectives and studies, and we also pay attention to analyses of overall inequality. We then present the basic sources of data used in analyses of poverty in China. These topics provide a backdrop for our very detailed discussion of population distribution and poverty. We return to our earlier differentiation of China according to urban-rural and regional differences, and we also discuss the situation of China's internal migrants. We then review the issues of social welfare, social security, and poverty. We conclude with a discussion of the matter of the health status of the poor and China's health care system.

“Rural-urban differentials in maternal mortality levels in South Africa”
Eric O. Udjo, University of South Africa
Pinki Lalthapersad-Pillay, University of South Africa

In view of the size of population, scarcity of resources, existing poverty, insufficient health facilities and absence of a social security system, aging is going to be a major problem in Bangladesh. Thus, this study attempts to focus and determine the factors influencing the socio-demographic status of the aged population and elder abuse with rural-urban differentials in the Rajshahi district of Bangladesh. Data from 896 elderly (60+ years) were collected during April, 2009 from the Rajshahi district of Bangladesh. Univariate classification analysis has been performed in order to find out percentages of occurrences and multivariate logistic regression analyses for determining factors that are more influential to the living arrangements, health status and abuse of the elderly population. The study reveals that about 58 percent are young-old (60-69 years), more than half are female and most of the respondents are Muslim. Compared to the urban elderly, more rural elderly are illiterate, unhealthy and have been suffering from multiple diseases such as arthritis, gastric, eye problem, hearing problem, blood pressure. The urban aged have more income; better sanitation and household facilities; live with married sons/daughters; lead better life styles; enjoy better facilities and surroundings compared with their rural counterparts. More rural aged reported suffering neglect because of their depleted financial resources. Respondent’s marital status, work status and abuse; physical health status; and living arrangements and family’s monthly income for elderly abuse as well are found to be more influential factors. The findings of this research could greatly assist policy makers and planners to develop suitable programs to address the need and welfare of the elderly not only in the Rajshahi district but Bangladesh in general.

“Maternal health and maternal mortality in post war Liberia: A survey analysis”
Komanduri S. Murty, Fort Valley State University
Jimmy McCamey, Fort Valley State University

This paper examines the data collected from a survey of 277 Liberian women in reproductive ages (13-49) in terms of age, current marital status, number of pregnancies, number of live births, number of children living at present, extent of seeking assistance from health workers/professionals for delivering babies, reasons for not seeking professional assistance, status of receiving prenatal care for pregnancies, reasons for not seeking such assistance, number of sisters ever had and those surviving, details of deceased sisters, number of sisters dying for maternal causes, perceptions of seriousness of problems of maternal health, and opinions related to common threats of maternal health during and after pregnancy in their region. This survey was conducted with the funding from the United Negro College Fund Special Programs and was intended to gain knowledge for developing capacity of health practitioners assigned to rural clinics and health centers to deliver better services to the most marginalized communities of women and children in an agrarian society recovering from two decades of war.
Session Day 1
3:20pm - 4:50pm, Salon 3

GIS & Spatial Analysis: Demographic Applications

Moderator: Corey Sparks, University of Texas at San Antonio

“A 3D spatio-temporal geovisualization of subcounty estimates of historic housing density in metro Atlanta, 1940-2009”
Matt Haur, University of Georgia

This paper is a 3D geovisualization of subcounty estimates of historic housing density in the 20-county metro Atlanta Region for 1940-2009 using the Hammer Method. Representing information spatially and temporally, by themselves, are well developed techniques for demographers to use. Representing information spatio-temporally, together, however, is underdeveloped in the demographic literature. This paper includes a number of contemporary geovisualization techniques that can be employed to more graphically represent demographic data in a more intuitive manner. Policymakers and other consumers of demographic data could greatly benefit from improved representations of the spatio-temporal data that demographers produce.

“Spatial analysis of cesarean section rates in United States counties”
Johnelle Sparks,
University of Texas at San Antonio
Corey Sparks,
University of Texas at San Antonio

The rate of cesarean section births has increased in the US from just over 4% in the 1960’s to almost 32% in the mid 2000’s. Cesarean births often are the result of complications during pregnancy or emergency births, but are often based on the mother's choice. Nonclinical factors affecting the rate of cesarean section births have been described in the literature, and most studies point to socioeconomic disparities in the rates of cesarean sections. These include income, insurance coverage, race/ethnicity and rural residence. In this study we examine the associations between county-level cesarean section rates in the US and these socio-demographic and access-related predictors. Using exploratory spatial data analysis and spatial regression methods, we show that there is significant geographic clustering of cesarean section rates in the US. We conclude our paper with a discussion of how communities and hospitals can better address both the needs and desires of their serviced population.

Jan Vink, Cornell University
Nij Tontisirin, Cornell University
Sutee Anantsuksomsri, Cornell University
Viktor Zhong, Cornell University

As the American Community Survey begins its second iteration, with Census 2010 geographies and new vintages of 1, 3 and 5 year ACS data becoming available, demographers still face quandaries about how to present such data including via maps. Given the ACS is such a small sample (~2.9 % of the population), particularly in the smaller Census geographies, it seems important to assure the user of our research that the information is reliable. In the area of mapping, although there have been various national committees discussing these issues, no standardization has evolved. Of particular concern is whether to (1) present the estimated value of some variable without any indication of sampling error, (2) present both the estimate and the error of estimate in separate maps, or (3) show both on the same map. As we try to sort through these decisions, an additional unsettled issue is how to present the error--via coefficient of variations, confidence bands, etc. A third unsettled issue is how to symbolize these on a map.

This paper presents four approaches to mapping ACS data that shows both the estimate and error of estimation on the same map. The first approach is that developed by Sun and Wong using cross-hatching and endorsed by the Census Bureau. A second approach is that developed by Lycan. The third and fourth approaches are ones experimented with at the Cornell Program on Applied Demographics.

“GIS, mapping and spatial demography”
Paul R. Voss, University of North Carolina

Fascination with maps and the ability to "tell stories" with maps are topics with a long, rich and well documented history. For modern spatial social scientists, certainly including spatial demographers, the ability to render maps and associated graphics to support empirical analyses and statistical models are a central part of the research enterprise and translational science. This presentation discusses how data mapping has changed over the span of the past four decades, and how maps presently are being used to enrich the presentation of demographic research findings.

“Alternative strategies for mapping ACS estimates and error of estimation”
Joe Francis, Cornell University
Many decisions in both the public and private sectors are based on expectations of future population change. Planning for schools, hospitals, shopping centers, housing developments, electric power plants, and many other projects is strongly influenced by expected population growth or decline. The distribution of government funds and the granting of various types of licenses and permits may be affected as well. Given the importance of the purposes for which they are used, it is essential to evaluate the forecast accuracy of population projections covering a variety of geographic areas and time periods. In this paper, we evaluate the accuracy of several sets of state and county population projections published by the Bureau of Economic and Business Research (BEBR) at the University of Florida over the last 30 years. We analyze the effects of population size, growth rate, and length of projection horizon on forecast errors and investigate the usefulness of low and high projection series as measures of uncertainty. We believe the results presented here will give data users in Florida and elsewhere a great deal of information regarding the forecast accuracy of population projections, and that this information will help them apply better judgment when using population projections for decision-making purposes.

“A new probabilistic population and household forecasting model for subnational regions with application to Sydney, Australia”

Tom Wilson, The University of Queensland

Over the last two decades significant progress has been made in the development of probabilistic population forecasting methods, and many applications to countries and global regions are now in evidence. Unfortunately little interest has been shown in the extension of these methods to subnational areas (and other disaggregations of national populations). Given that forecast error is inversely related to population size, coupled with the fact that much planning occurs at the local and regional scale, the need to quantify forecast uncertainty for subnational regions is arguably even greater than at the national scale. In addition to uncertainty surrounding fertility, mortality and international migration, subnational projections are compromised by the volatile nature, and hence the limited predictability, of internal migration. This paper presents a regional probabilistic population and household projection for Sydney, Australia’s largest metropolitan region and home to about 4½ million people. A bi-regional framework is adopted consisting of the region of interest and the rest of the country; predictive intervals for fertility, mortality, migration and living arrangements are formulated on the basis of time series models, past errors and expert judgement. The results demonstrate the considerable extent of forecast uncertainty for the region, and reveal how the official high-low projection range provides a misleading indication of uncertainty. The paper concludes by discussing how probabilistic forecasts might be applied in metropolitan regional planning.

“Household microsimulation and long-range regional population forecasting”

Dmitry Messen, Houston-Galveston Area Council

Himanshu Joshi, Houston-Galveston Area Council

The paper describes the household microsimulation model developed at the Houston-Galveston Area Council. The model simulates the annual transformation (evolution) of individuals and households. The model deals with three types of changes: (1) biological events (survival and giving birth) that apply to individuals irrespective of the household status; (2) household formation/dissolution events that directly affect the household status; and (3) migration events that apply to households. The events’ probabilities, used in a Monte-Carlo simulation, are derived from publicly available sources. For the base-year (starting) conditions, the model (implemented in SAS) uses the synthetic population and households developed from the 2010 SF-1 Census data. The key feature of the model is the ability to produce an internally consistent forecast for the number of households—a critical input to many regional planning applications, including transportation, land use, and housing.

“An evaluation of small area population projections produced by the cohort component methods as compared to 2010 Census counts”

Nazrul Hoque, University of Texas at San Antonio

Population projections are among the most widely used products of demographic analyses and the Cohort Component Method (CCM) is one of the most widely used projections techniques. This paper presents the results of the evaluation of population projections produced by the CCM for 2010 compared to the 2010 Census Counts for 254 counties in Texas. Four error measures will be used to assess the accuracy of population projections. These are the Mean Absolute Error, the Root Mean Squared Error, the Mean Algebraic Percent Error, the Mean Absolute Percent Error, and the Mean Percent Absolute Difference. Evaluation will be performed for Total, Non-Hispanic White, Non-Hispanic Black, Hispanic and Non-Hispanic Other populations. Five alternative projections scenarios are produced by CCM and all of the scenarios will be evaluated using those five measures. Evaluation will be done by size of population, percent population change, and range of error.
“The “Negro” write-in: An analysis of the 2010 Census”
Stella Ogunwole, U.S. Census Bureau
The terms "Negro" or "of Negro descent" have been used in the decennial census since 1900, and the 1950 Census was the first time that "Negro" was printed on the census of population form as a category in the question on race. However, the term is considered by some as an ethnic slur and respondents have expressed concern about its continued use in Census Bureau questionnaires. Research on this topic will contribute to the Census Bureau's knowledge base as it prepares for the 2020 Census and other surveys. This paper is a continuation of a previous study that analyzed write-in responses of the term "Negro" in Census 2000 (Drewery and Ogunwole, 2010). In the present study, I will compare the results from the 2010 Census to Census 2000 to see if the pattern is similar. Also, this research will examine the distribution of people who had "Negro" written as their race by geographic location, age, sex, and ethnicity, as well as provide more information about race combinations and household composition for this population.

“An evaluation of the 2010 group quarters population estimates by geography and facility type”
Chia Liu, U.S. Census Bureau
Sarah Gibb, U.S. Census Bureau
The Population Estimates Program at the U.S. Census Bureau produces annual estimates of the population living in group quarters facilities for the United States, states, counties, and subcounty areas, as well as for the Puerto Rico Commonwealth and municipios. We produce estimates of the total group quarters population by seven facility types, in addition to estimates of the population by selected demographic characteristics. In this paper we compare our estimates of the group quarters population on April 1, 2010, to the Census 2010 counts of the group quarters population at the national and state levels, and by facility type within states. To do so, we rely on measures of accuracy such as mean absolute percent error (MAPE), mean algebraic percent error (MALPE), and numeric and percent differences. We conclude with a discussion of possible explanations for our findings and ideas for improving the quality of the group quarters population estimates in the future.

“Exploring spatial variation in the distribution of geriatric diseases and health care utilization among older populations”
Chun-Lin Lin, University of Texas at San Antonio
A significant increase in the proportion of older population in the past few decades highlights the importance of health status among seniors. Improving health care services for the elderly in a targeted manner is a key factor in health-policy formulation. Studies indicated that rural-urban disparities in health care resources result in worse health outcome for several diseases. Few studies addressed the consequence of the disparities among the elderly. Using public and restricted data from the Health and Retirement Study, this study aims to examine the spatial variation in the distribution of geriatric diseases and the levels of health care utilization. Spatial analysis in GIS is applied to explore geographic patterns of segregation for geriatric diseases. The results are expected to display the gap between areas with high prevalence of geriatric diseases and low levels of utilization.

“Characteristics of migrants between Puerto Rico and the United States”
Heidy Colon-Lugo,
University of Texas at San Antonio
Puerto Rican migration to the United States has been a vital part of the island's history. In mid-20th century the biggest migration of Puerto Ricans to the United States was recorded mainly due to the fact that there were not enough employment opportunities for a rapidly increasing population. These migrants had low levels of education and had to take the worst remunerated jobs. Years have passed since then and Puerto Ricans have had more access to education. And yet, unemployment rates far surpassed those in the United States, causing new generations to migrate once more. Due to the fact that current government is not promoting job creation, many migrants will include recent college graduates and professionals. Using the ACS 3 year estimate for 2007-2009, I hypothesize that Puerto Rican migrants have high levels of education in comparison to the native population. This research is important because migration affects both the sending country and the destination country. If this is true, that is, people with higher levels of education leaving, then Puerto Rico is suffering from a brain drain effect. This information is vital for policy makers to take action so that they start creating an environment where employment can blossom, and so do the natives.

Nazrul Hoque, University of Texas at San Antonio
Jeffrey Howard, University of Texas at San Antonio
In this paper we examine the implications of future demographic change on incidence of diseases and disorders in the United
States. The population in such key health-care groups as those persons 65 years of age or older may increase from 11 percent in 2000 to 20 percent by 2050. Of the 176.8 million persons projected to be added to the U.S. population between 2000 and 2050, more than half (92.6 million) are projected to be Hispanic. Seventy-two percent of the net growth in the U.S. population between 1990-2000 was due to minority population, and the minority population may become majority by 2040. Equally important is the geographical distribution of the population. In 2000, 14.9 percent of the Hispanic population lived in the Northeast region, while 43.5 percent lived in the West region. The elderly population of the United States is disproportionately located in rural areas, while minority group members are increasingly concentrated in metropolitan areas. This paper will provide an example of how these future demographic changes are likely to impact on diseases/disorders in U.S.

“United States population: Change in size, composition and distribution”
Nazrul Hoque, University of Texas at San Antonio
Beverly Pecotte, University of Texas at San Antonio
Jeff Jordan, University of Texas at San Antonio
Miguel Flores, University of Texas at San Antonio

According to the recent release of 2010 census counts, U.S. population has increased from 281,421,906 in 2000 to 308,745,538 in 2010, an increase of 27,323,632 persons or 9.7%. The population of the Northeast region has increased from 53,594,378 in 2000 to 55,317,240 in 2010, an increase of 1,722,862 persons or 3.2%. During the same time, the Midwest population increased by 2,885,018 persons or 3.9%, the South increased by 14,318,924 persons or 14.3%, and the West increased by 8,747,621 or 13.8%. Such changes have important implications for education, the labor market, and the policy in the US. Three changes that are worth further examination: the growth of the US population; greater ethnic/racial diversity; and the uneven distribution of population growth (i.e., some parts of the nation have grown rapidly, some areas have grown slowly and others have declined). In this paper we examine the change in size, composition, and distribution of the US population from 2000-2010.

“Patterns of recent birth declines in Texas”
Christopher Webb, Center for Health Statistics, Texas Department of State Health Services

Birth counts have been in decline in Texas from 2008 – 2010. This study was conducted to investigate possible associations with birth declines in vital statistics records. The effects of maternal age, race, and the geographic distribution of births on Texas fertility rates and birth counts were investigated for 2000 - 2010.

Results: Between 2007 and 2008, Texas experienced its first decline in total births since 1994. Age specific fertility rates have declined for women younger than 40 years of age, while increasing for women aged 40 and above between 2007 and 2009. Fertility rates have increased for Anglo women, but have declined for African American, Hispanic, and all other races. Total births have decreased for women in all but the other race category. Geographic differences have affected fertility rates and birth counts in the period 2007 – 2009 as metropolitan rates have declined by 3.4 births per 100,000 women while non-metropolitan rates have decreased by 0.8. Border areas have exhibited declining rates higher than non-border areas between 2007 and 2009. After increasing between 2005 and 2007, the total fertility rate has decreased 4.8% between 2007 and 2009. If fertility rates had remained stable from 2007 to 2010, Texas could have expected 41,267 additional births than recorded in 2010.

Conclusions: Changes in the birth counts in Texas are evident in the geographic distribution of births, race, ethnicity and age of the mother.

“Race and ethnic disparities in Pnuemoccal vaccination among elders in the United States”
Samantha V. John,
University of Texas at San Antonio
Brian Munkombwe,
University of Texas at San Antonio

This study uses Andersen Model of Health Behavior and the National Health Interview Survey (NHIS2009) to determine if racial/ethnic disparities exist for receipt of pneumococcal vaccination among elders at least 65 years of age and whether certain factors can explain away those racial/ethnic disparities. This study employs nested logistic regression models accounting for complex survey design.

“A spatial analysis of municipal total fertility rate change by migration intensity in
Mexico: 1995-2010
Carlos Valenzuela, University of Texas at San Antonio

Current studies of international migration from Mexico to the U.S. have mainly focused on the economic effects of both countries due to migration. In regards to analyzing the relationship between migration and fertility, most studies focus on the differences in fertility rates between the immigrant and the American native born populations. The purpose of this project was to analyze trends in total fertility rates (TFRs) in Mexican municipios by the levels of migration intensity to the U.S. How much do fertility rates differ by migration intensity? Between 1995 and 2010, municipios with high migration intensity to the U.S. experienced the highest negative percent change in TFRs. Also, by 2010, the median TFRs in municipios with "very high" migration intensity to U.S. was the lowest among the five levels of migration intensity. Results were mapped using GIS software and spatial analyses were conducted which identified spatial clusters. Even though clustering was insignificant for most of the country, some municipios with high negative percent TFR change were also surrounded by municipios with high negative percent TFR change. Though fertility among Mexican immigrants in the U.S. is considerably higher than that of the native born American population today, the TFR decline in areas in Mexico with high migration intensity to the U.S. can give some indication as to how future fertility patterns for Mexican immigrants in the U.S may change and be closer to that of the U.S. born population.

“DOMICILE2.0. Recent advances in an agent based simulation model for population estimates at the domicile level”
Cameron Griffith, Central Michigan University
David A. Swanson, University of California - Riverside
Bryan Plummer, University of Illinois at Urbana Champaign

The primary goal of DOMICILE is to explore population forecasting with an Agent Based Modeling approach (ABM). This model simulates the change in population of a county over time at the level of the domicile. The DOMICILE model is also designed to help assess the potential of growing or populations at the level of the domicile (individual house; specifically not household) to achieve tenable population projections at the county, state, and national level. This poster presents both the ABM design and our current progress with the revisions and expansion of the latest version of the model, DOMICILE 2.0.
**McKibben Demographic Research (MDR)** offers targeted research, experienced advice, and expert testimony to school corporations, planners, and developers. MDR provides cost-effective services and products on tight timelines, catering to exact client specifications. Established in 1989, they have successfully completed more than 200 projects and provided expert testimony in numerous cases. MDR specializes in:

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**George Gaytan** is locally known for his skillful blend of harmonious classics and softly strummed contemporary guitar music. He is also a recording artist with CD's entitled *The Gift of Christmas, Portraits, Ventana*, and the recently released *Passages*.

George is a San Antonio native and alumni of the University of the Incarnate Word with a Bachelor of Music Degree. George's classical guitar can be heard at Barnes & Noble and also has a wide audience with the social and party set. He has performed at receptions for President and Mrs. Bush, Texas Governor Rick Perry and has provided background music for numerous PBS documentaries.

For more information visit georgegaytan.tripod.com

**The Applied Demography Society (ADS)** is a new student-run organization in the College of Public Policy's Department of Demography at The University of Texas at San Antonio. It is the first student-run organization on campus dedicated to bringing the campus community together for the study of demography. The Applied Demography Society welcomes UTSA students, faculty, staff, and demography alumni who wish to be a part of a scholarly community committed to academic excellence, universal acceptance, and professional and personal development with the purpose of advancing the field of demography.

For more information e-mail ads.utsa@gmail.com
Using Demographic Analysis to Evaluate the 2010 Census

Organizer: Victoria Velkoff, U.S. Census Bureau
Chair: Jason Devine, U.S. Census Bureau

Panelists:
- Eric Jensen, U.S. Census Bureau
- Jennifer Ortman, U.S. Census Bureau
- Kirsten West, U.S. Census Bureau
- William O’Hare, U.S. Census Bureau Fellow

Historically, the U.S. Census Bureau has employed different ways to measure the quality of the decennial census. One method is referred to as Demographic Analysis (DA). This method develops estimates of the population for comparison with decennial census count using various types of demographic data in order to build an historical accounting of population change.

This session will provide the audience with details of how the Census Bureau prepares the independent population estimates to compare to the 2010 Decennial Census and provide some data on the quality of the 2010 Decennial Census based on the DA method.
“The puzzle of immigration and population projections”
Karen Woodrow-Lafield, University of Maryland

The social security and disability insurance programs provide a safety net for elderly, disabled, orphans and widows, and the poor. From passage of the Social Security Act, OASDI tax revenues have been sufficient to cover benefits, but projections indicate payout levels will surpass OASDI tax revenues with retirements of Baby Boom cohorts. With recent decreases in contributions due to joblessness and recent increases in applications and approvals for disability, projections of financial solvency have worsened with exhaustion in 2036 for the OAS Trust Fund and 2018 for the DI Trust Fund. This presentation reviews treatment of immigration in the actuarial models, recent immigration trends, and core demographic questions.

“Acculturation and mental health among immigrants in Canada”
Joan Babcock, University of Texas at San Antonio

Immigrants experience high levels of psychological distress. Studies that have been conducted on this subject particularly those from the United States have shown that the main reason for this phenomenon is acculturative stress. Many of these studies also argue that the psychological distress and overall mental health of immigrants can be improved through social support and positive stress coping skills by the individual. However, these studies often do not use a comparative group. Therefore, the purpose of this research is to test this theory using the Canadian Community Health Survey 2002 Cycle – Mental Health. The psychological stress levels of immigrants will be compared to those of natural-born Canadian citizens. The results of this study can then be used not only to determine whether the phenomenon of acculturative stress is also present among immigrants in Canada, but these results can also help us pinpoint the types of individuals who are most susceptible in experiencing the negative mental health impacts of stress.
Session Day 2  
8:30am - 10:00am, Salon 5

Healthcare and Poverty Issues

Organizer & Moderator: Joachim Singelmann, University of Texas at San Antonio

“The effects of cash assistance programs on unemployed mothers’ job decision”

Ke Meng, University of Texas at San Antonio

Social Programs such as Temporary Assistance for Needy Families (TANF) and Aid to Families with Dependent Children (sometimes called ADC or AFDC) are mainly aiming to help economically and socially disadvantaged populations. The effects of cash assistance programs on women’s labor force participation are worth investigating when not employed mothers are considered. A not employed mother who is receiving cash assistance may choose to work if there is a job offered both for a better income and for the work benefits, such as health insurance for her and her dependent. Given that they must show the proof of job seeking during the period, they are more likely to work. The question “Does such programs help unemployed women work on a job?” will be answered. Using multiple waves of Early Childhood Longitudinal Study data, this study investigates the effects of cash assistance program (ADC, AFDC and TANF) on mother’s labor force participation. Mother’s labor force participation in different waves will be computed. Taking into account of the covariates such as mother’s demographic characteristics, socioeconomic characteristics, household level characteristics, child care arrangements and health status, logistic models will be estimated.

“Understanding health disparities in South Texas”

Maureen Rubin, University of Texas at San Antonio

Nazrul Hoque, University of Texas at San Antonio

Background: According to the US Bureau of Census, population in Texas is growing the fastest compared to all other states in the US. The population growth has been predominantly with the Hispanic population and it is projected that by 2040, the Hispanic population would be almost 80% of the states’ population compared to less than 50% in 1980-1990. The number of individuals who complete high school, have health insurance and access to health care services indicates that the number of people from the Hispanic population are lower in numbers as compared to the non-Hispanic white population. With these growing differences in basic needs, the issue of health disparities for this population is a cause of concern. Although there are many definitions for health disparities, the one most appropriate for this presentation would be, “….differences that occur by gender, race or ethnicity, education or income, disability, living in rural localities and sexual orientation” (DHHS Healthy People 2010).

Goal: Gain an understanding of factors that contribute to varied health (physical and mental) care utilization

Objectives:
1. Participants will learn about the population change in Texas specifically in Bexar county that contributes to diverse health care needs
2. Participants will learn about the lack of access and availability of services and how that impacts service utilization (physical and mental health services)
3. Participants will learn about the social, economic, racial, environmental factors that contribute to health disparities

“Determinants of injury morbidity in the light of health insurance status among working age adults in the United States”

Susanne Schmidt, University of Texas at San Antonio

Injuries have been recognized as an important contributor to morbidity, disability, as well as mortality among all ages, imposing a burden to individuals, their families and society alike. Research has shown the importance of both socioeconomic status (SES) and access to health care on various health outcomes, including injury morbidity. Often times, studies on injuries look at either socioeconomic characteristic or insurance status, seldom do they consider both.

This paper is interested in looking at the impact of SES in the scope of access to health care for US working age adults using recent data from the 2007 to 2009 National Health Interview Survey. Nested logistic regression models will be constructed to investigate the effect of individual level characteristics such as race/ethnicity, various measures of SES as well as risk behavior on injury morbidity, controlling for health insurance status. Preliminary analysis for adults 18 years of age and older indicated that some SES indicators worked differently across various health insurance types, and that having health insurance did not guarantee access to health care.

This research can help further our understanding of individual level determinants of non-fatal injury risk and what role health insurance status plays in this. It can also assist in identifying vulnerable groups of the population as well as aid in targeting injury prevention efforts.

“The Impacts of the Affordable Care Act: Estimating changes in the uninsured in Texas”

Michael Cline, Rice University
Steve H. Murdock, Rice University

The Affordable Care Act (ACA) is the most comprehensive health care program passed by the Congress of the United States since 1965, when the passage of the Social Security Act established Medicare and Medicaid. Despite its comprehensive nature there are likely to be persons who will not be covered by insurance even after full implementation of the ACA, either because they are exempt from the specific provisions of the Act or because, for various reasons, they choose not to obtain health insurance. In order to prepare for changes in healthcare delivery, health care providers and service agencies serving the uninsured and the underinsured need to understand how the ACA will change demand for their services. The purpose of this paper is to provide an overview of an analysis of the potential impacts of the ACA in areas in Texas. In this paper, we provide estimates of specific groups of people impacted by changes effected by ACA policies and then provide different scenarios in the ways in which these groups are likely to enroll in health insurance coverage. Several groups have analyzed the potential impacts of the ACA for the United States as a whole and for individual states; however, few have undertaken an effort to understand the impact of the ACA for small areas within an entire state as have been done in this analysis.

“Determinants of job seeking among adult female Medicaid recipients”

Steve H. Murdock, Rice University
Evaluating Population Estimate Methodologies

Organizer & Chair: Victoria Velkoff, U.S. Census Bureau

Panelists:
Alexa Jones-Puthoff, U.S. Census Bureau
Tiffany Thompson, U.S. Census Bureau
Jack Baker, University of New Mexico
Qian Cai, University of Virginia
Warren Brown, Cornell University

Discussant:
Howard Hogan
Chief Demographer, U.S. Census Bureau

The U.S. Census Bureau produces annual population estimates by demographic detail (age, sex, race and Hispanic origin) for the nation, states, and counties using an administrative records method. It also produces annual estimates of the total population for minor civil divisions and incorporated places using a distributive housing unit method. The 2010 census data provide an opportunity to assess the accuracy of the annually produced estimates. The census data also provide an opportunity to test the accuracy of different estimation methodologies.

This session will highlight work that the Census Bureau has done to evaluate their current estimates methodology. The session will also present evaluations of alternative methodologies done by researchers external to the Census Bureau.
“The majority status of Arkansas minority populations: Transitioning to a Hispanic major minority”
Gregory L. Hamilton, University of Arkansas at Little Rock
This brief report traces the changing nature of the minority status of Arkansas’ racial and Hispanic populations that have been enumerated in the U.S. Decennial Censuses since 1990. The report reviews the censuses racial and ethnicity enumerations. The report:
1. Identifies Arkansas County's major minority populations (to wit, whether there are a greater number of Black African Americans or people of Hispanic or Latino origin),
2. Identifies counties whose minority status are transitioning from one minority group to another,
3. Identifies counties that have majority-minority populations (specifically, counties where White Non-Hispanics make up less than 50% of the population).

“Social class differentials in demographic characteristic among South Africa’s black adult population in comparison with the adult white population”
Eric O. Udjo, University of South Africa
Analysis of demographic differentials often utilize multivariate techniques to examine the relation of socioeconomic variables and demographic phenomena. Although the variables in the analysis usually relate to social class, they are usually not combined into a single measure to define social classes and set class boundaries. There is a growing demand in the private sector in South Africa to provide demographic information by social class in contemporary South Africa. This stems from market research-related needs to gain insights into demographic characteristics of the South African market segmented by social class, especially among the Black population following the demise of apartheid. The objectives of this study are to impute social classes from the 2007 Community Survey data using Living Standards Measure, and to examine demographic differentials in the imputed classes among the adult Black and White populations of South Africa. The results indicate differential age distributions among the social classes, higher age at marriage, and higher fertility at younger ages, higher levels of widowhood among Black lower class persons compared with accomplished Black and White middle class persons.

“Afghanistan: Women and development”
Samia El-Badry, International Demographic & Economic Associates (IDEA)
This paper addresses demographic characteristics and patterns that pose significant challenges to security and development in Afghanistan. The Commander, International Security Force (ISAF) and Major General Mike Flynn, Senior Intelligence Officer for ISAF, have included the support of development projects as part of the overall strategy for defeating the Taliban in Afghanistan. Based on Afghanistan's current and projected population growth, this assessment recommends investments in women's health care, reproductive health and both academic and vocational education as a long term strategy to assist in slowing down Afghanistan's demographic pattern that may feed the Taliban insurgency and diminish the possibility of country and regional stability.
“Exploring demographics in metropolitan sustainability: San Antonio, Texas”
Bill Barker, City of San Antonio

The San Antonio, Texas, metropolitan area is challenged to increase sustainability while growing in population. Changing demographics can sometimes provide opportunities to do both. For example, the expected increase in childless households can provide the demand for efficient, inner-city housing. The general aging of the population should reduce the demand for roadway travel. Smaller household sizes may result in reduced water consumption. This paper explores the magnitude of these and other possibilities to assess the role of demographics in the sustainability of a metropolitan area.

“Mobile home population displacement: The case of Anchorage, Alaska”
Donna Shai, Villanova University
Kristen Eaton, Villanova University

Displacement of mobile home populations has been largely neglected in demographic studies. Mobile homes are an important form of low-income housing in the United States and resonate with some of the most basic American values such as home ownership, self-reliance and independence. Since the majority of mobile home residents rent the land under their trailers, they are highly vulnerable to forced migration when that land becomes valuable to developers, a growing problem across the U.S. With the rapid growth of many cities such as Anchorage, Alaska, mobile home residents who settled in what were outlying areas when the parks were opened, now find themselves on land which is centrally located and seen as valuable for the building of high-density housing, office buildings, and strip malls. With insufficient resources, aging trailers and low income, mobile home residents often have little recourse and few good options. The main sources of data are the 2000 Census and the 2005-09 American Community Survey for Anchorage, heeding the precautions specified by the Bureau of the Census when comparing variables from the two surveys. Other data include maps by Google Earth and by the Anchorage Planning Department, and recent records from the Anchorage Assessment Office listing mobile home parks and housing units. The theoretical context is Massey's "Age of Extremes" applied here to mobile home housing and economic status by census tract with the implications for mobile home housing elsewhere in the U.S. Possible solutions will be discussed.

“Characterizing rapidly growing counties of the United States, 1990-2010”
Frederick A. Day, Texas State University
Anthony Irwin, Texas State University

Recent economic growth and in-migration have led to an interesting patchwork of rapidly growing counties in the United States. This research identifies 344 U.S. counties that were growing at least 51% from 1990 to 2010, a rate greater than one standard deviation above the mean of all counties. Using a K-Means cluster algorithm, eight distinct types of rapidly growing counties, with meaningful spatial patterns, were found. Four of these clusters were primarily urban: smaller fast-growing cities in the South and West, large Sunbelt cities, as well as both white and blue-collar suburban counties ringing many of the more dynamic metropolitan regional-centers of the country. Also, there were three predominately rural clusters: retirement counties, agricultural centers and several counties mainly in the Intermontane West characterized by environmental amenities and isolated, yet vibrant growth. Lastly, we observed a distinct cluster of several Hispanic counties in the Southwest predominantly along the U.S.-Mexico border. We believe these eight clusters present a remarkably clear portrait of the significant forces underlying the current rapid growth of counties in the United States.
The Demographer as an Expert Witness

Organizer & Moderator: Richard K. Thomas, University of Mississippi

Panelists:

Jeanne Gobalet, Lapkoff and Gobalet Demographic Research
Peter Morrison, RAND Corporation (retired)
Jerry McKibben, McKibben Demographic Research
Richard K. Thomas, University of Mississippi

This panel will focus on the role of the demographer as expert witness. Panelists with extensive and varied experience as expert witnesses will present information on how they came to be used as expert witnesses, the types of skills that made them attractive as expert witnesses, and the types of situations wherein experts with demographic knowledge might be required. Panelists will discuss such practical considerations as compensation and potential ethical issues. Panelists will describe cases that are reflective of their work as expert witnesses.
“On estimating a de facto population and its components”
David A. Swanson,
University of California - Riverside
Jeff Tayman,
University of California - San Diego

This paper deals with estimating a population that is largely defined by the fact that neither its size nor composition are readily accessible from census data in the U.S. and the other countries that use the De Jure concept of population. The population in question is that of de Facto population, which is the concept of people enumerated, estimated, or forecasted where they are found rather than where they usually reside. Estimating this type of population as well as its components is an important, but not easy task. In an effort to develop this field of population estimation more fully, we provide an equation to define the De Facto population and an example of its use. We described and discuss each of the components of this equation and also provide examples of estimates of its direct components and an implied component, the daytime population. Although we view a population impacted by a disaster as distinct from a De Facto population, we include a discussion of it here since many of the methods used to estimate a De Facto population are applicable.

“Can the accuracy of small area estimates be improved by ignoring census counts?”
Ken Hodges, Nielsen

Most small area population and household estimates start with counts from the previous census, and estimate forward. Given the stability of population in many small areas, and the limitations of administrative data, there is substantial risk in ignoring census counts in the production of estimates. However, as the use of address-based data has become more widespread, there is increasing interest in how well administrative database counts can serve as finished estimates of total households.

The proposed paper would report an evaluation of two sets of household estimates for U.S. counties, census tracts and block groups for the year 2010. The first set started with 2000 census household counts, and estimated forward to 2010. The second set consisted of household estimates derived from address lists current as of 2010, and without any reference to census counts. Although similar in overall accuracy, the two sets of estimates showed markedly different patterns of high and low error, with the administrative estimates departing from familiar patterns. For example, estimates that ignored census counts tended to be equally accurate in stable and rapid change areas. The findings illustrate the complementary strengths and limitations of census-based and independent/administrative-based estimates, and suggest the possibility of a hybrid approach. The paper concludes with an evaluation of a set of hybrid estimates that suggests the improvement to accuracy that could be achieved with a mix of census-based and administrative-based methods.

“An application of Bayesian methods to small area estimates of poverty rates”
Joey Campbell, University of Texas at San Antonio

Efforts to estimate various socio-demographic variables in small geographical areas are proving difficult with the replacement of the Census long form with the American Community Survey (ACS). Researchers interested in sub-national demographic processes have generally relied on Census 2000 long form data products in order to answer research questions. ACS data products promise to begin providing up-to-date profiles of the nation’s population and economy; however, unit and item level non-response in the ACS have left researchers with gaps in sub-national coverage resulting in unstable and unreliable estimates for basic demographic measures. Borrowing information from neighboring areas with a spatial smoothing process based on Bayesian statistical methods, it is possible to generate more stable and accurate estimates of rates for geographic areas not represented in the ACS. This research uses this spatial smoothing process to derive estimates of poverty rates at the county level for the contiguous United States. These estimates are then compared to the model-based Small Area Income & Poverty Estimates (SAIPE) from the Census, and error rates are calculated to evaluate the practical application of this smoothing method. Better estimates of county level poverty are expected after comparing the Bayesian estimates of those counties with the Census estimates.
“Census costs: Rationale for re-designing current census methodology with the census-enhanced master address file”
Alison M. Yacyshyn, University of Alberta
David A. Swanson, University of California - Riverside

In countries around the world, debates focus on the need for accurate census data, the associated costs, response rates, confidentiality and legislated changes to censuses. With the incorporation of technological advancements, one would expect population figures to be calculated with more ease and with fewer associated costs. To address the monetary costs of the contemporary census per person, budgetary costs of the census for both Canada and the United States, the costs per housing units, and the census costs per person are derived and analyzed. Up to now, the expected cost reductions associated with technological incorporation and enumerator elimination are not yet evident. With legal obligations of governments to conduct a census, it is recommended that the “Census-Enhanced Master Address File” (CEMAF) methodology be used to generate re-designed census counts. The proposed methodology is technically, administratively, and politically feasible and most importantly, addresses concerns regarding census cost issues.

“Testing the efficacy of imputation methods for father ethnicities on birth records”
Matt Kaneshiro, RAND

Various methods exist that are used to impute missing data. However, these methods of imputation are not free from bias, and the choice of the imputation procedure that one will use will affect any subsequent analyses when using the imputed data. By artificially imputing missing data in patterns that reflect "true" missing data, this research tests the efficacy of four popular imputation procedures on missing father ethnicities for birth data: previous observation, hot deck, (modified) averages, and multiple imputation using chained equations. It will be demonstrated that the hot deck and multiple imputation procedures perform exceptionally well. Subsequently, imputations will be performed on a dataset that includes all births from 1990-2000 in order to produce ranges of counts for Hispanic children and suggest implicit errors that would result from using (or not using) a specified imputation procedure.

“Individuals’ perceptions of belonging to an age cohort and consequential cohort based decision-making”
Alison M. Yacyshyn, University of Alberta
Kwame Boadu, University of Alberta

Baby boomers, Generation X, Gen X, baby bust, and Generation Y, GenY, millennials, are commonly used terms to describe individuals belonging to a particular age cohorts. Using data collected in the 2010 Alberta Survey, 1,200 respondents, in both urban and rural areas in Alberta, Canada, were asked their perceptions of select marketing and political campaign-related issues, according to the cohort they belong. The majority of individuals in this telephone survey feel that the age group they belong is ignored in marketing campaigns and it is the baby boomers and Generation Y cohorts who receive the most media attention in contemporary society. Not surprisingly, the majority of individuals agree that it is appropriate for governments to shape policy based on the size of age groups in the population. Our analysis suggests that addressing demographic characteristics and cohort based analysis is essential in both marketing and governmental policy strategies. Individuals’ perception of belonging to a group is an important area for applied demographic analysis.

“The conceptualization and measurement of sexuality and sexual orientation”
Dudley L. Poston, Jr., Texas A&M University
Yu-Ting Chang, Texas A&M University

Much of the social science literature on sexuality and sexual
orientation conceptualizes and measures the phenomena using two basic perspectives or approaches, or a combination thereof. These two views are referred to as essentialism and social constructionism. Founded in biology, the essentialist view states that there is an essential characteristic that identifies one’s sexuality and is present in all persons with that sexuality. Hence, for instance, homosexual individuals are distinct and separate from heterosexual individuals, who are different from bisexual persons, who are different from asexual persons. This common characteristic, or essence, is thought to be based in biology or psychology, and is a fundamental drive or trait that establishes a person’s inclusion into a sexuality category. For example, the essentialist view of homosexuality would presume that a person may be categorized as being or not being homosexual and makes a distinction, often binary, between one who is a homosexual individual and one who is not. Thus, sexual orientation is determined by the specification of one and only one of several possible sexual categories. The social constructionist view of sexuality counters and critiques the essentialist perspective. Social constructionism argues against the notion of binary categories, that is, that one either is or is not a homosexual (or heterosexual or bisexual or asexual) individual. Instead, this approach argues for a continuum with varying degrees of sexuality. Social constructionists point out that homosexual (and heterosexual and bisexual and asexual) prevalence rates and visibility tend to vary across time and settings, and that the concepts, definitions, and practices are often not the same across context and cultures. For example, what in one culture may be defined as “homosexual” or “heterosexual” may not be so defined in another culture. For example, an individual may engage in same-sex sexual behavior but not identify himself/herself as gay or lesbian. Likewise, one might identify as a heterosexual individual but also engage in same-sex sex. Also, the sexuality definitions and labels attached to individuals by other persons and by the larger society may be incongruent with how individuals themselves self-identify.

Regarding empirical research, when demographers use census data to analyze sexuality, they almost always take an essentialist view. The use of the unmarried partner census data, for instance, involves, by definition, the employment of a clear-cut and straightforward definition of what is a partnered homosexual individual, a partnered heterosexual person, and a married person.

However, in other demographic and social science research on sexuality, the manner in which sexuality and sexual orientation are measured tends to vary. This is largely due to the different ways sexuality and sexual orientation have been defined in surveys and conceptualized by the researchers. In many of these analyses, sexuality may be defined in terms of sexual behavior, sexual desire (including fantasy), and self-identification. In analyses based on data from national surveys, social scientists have used one or more of the above concepts of sexuality, but particularly those based on self-identification and behavior.

In this paper we use sexuality data from the 2006-08 and the 2002 National Surveys of Family Growth; we specify three different dimensions of sexuality, namely, sexual behavior in the last 12 months, sexual self-identification, and sexual preference. We examine the consistency in the dimensions for heterosexual persons, homosexual persons, bisexual persons and asexual persons. And we show the extent to which there are differences in these configurations between 2002 and 2006-08. We conclude that an essentialist view works in a fairly consistent manner for heterosexual persons, but is not at all consistent for homosexual, bisexual and asexual persons. We discuss some of the implications of the findings of our research for demographic analyses of sexuality.
President Barack Obama nominated Robert M. Groves to be Director of the U.S. Census Bureau on April 2, 2009, and the Senate confirmed him on July 13, 2009. He began his tenure as Director on July 15, 2009.

At the time of his nomination, Groves was a professor at the University of Michigan and director of its Survey Research Center, as well as research professor at the Joint Program in Survey Methodology at the University of Maryland.

He was the Census Bureau’s Associate Director for Statistical Design, Methodology and Standards from 1990 to 1992, on loan from the University of Michigan.

Groves has authored or co-authored seven books and scores of scientific articles. His 1989 book, *Survey Errors and Survey Costs*, was named one of the 50 most influential books in survey research by the American Association of Public Opinion Research (AAPOR). His book *Nonresponse in Household Interview Surveys*, written with Mick Couper when Groves was at the Census Bureau, received the 2008 AAPOR Book Award. Another book, *Survey Nonresponse*, edited with Don Dillman, John Eltinge, and Rod Little, won the 2011 AAPOR Book Award.

Groves is an elected fellow of the American Academy of Arts and Sciences, the American Statistical Association, and the Midwest Association for Public Opinion Research. He is an elected member of the International Statistical Institute. In 2011, he was elected a member of the U.S. National Academy of Sciences.

He is the recipient of the AAPOR Innovator Award and the Distinguished Achievement Award, the O'Neill Award of the New York Association for Public Opinion Research, the Helen Dinerman Award of the World Association for Public Opinion Research, and the Julius Shiskin Memorial Award of the National Association of Business Economics and the American Statistical Association, in recognition of contributions to the development of economic statistics.

Groves has a bachelor’s degree from Dartmouth College and master’s degrees in statistics and sociology, as well as a doctorate degree in sociology, from the University of Michigan.

He and his wife, Cynthia, have two sons – Christopher, a graduate of Purdue University, and Andrew, currently a student at Northwestern University.
Rogelio Saenz is Dean of the College of Public Policy and Peter Flawn Professor of Demography at the University of Texas at San Antonio. He is also a Carsey Policy Fellow at the Carsey Institute at the University of New Hampshire.

Saenz grew up in the Rio Grande Valley in Mercedes, Texas and earned a bachelor’s degree in social work and sociology from Pan American University (now UT Pan American). He earned master’s and doctoral degrees in sociology from Iowa State University.

He joined Texas A&M in 1986 as an assistant professor in the sociology and rural sociology departments; he was promoted to associate professor in 1991 and full professor in 1996. He served as head of the Department of Sociology from 1997 to 2005. In 2007, Saenz was appointed Carsey Policy Fellow at the University of New Hampshire Carsey Institute, and in 2008, he was appointed College of Liberal Arts Cornerstone Faculty Fellow at Texas A&M. Saenz joined The University of Texas at San Antonio in 2011.

He has written extensively in the areas of demography, Latina/os, race and ethnic relations, inequality, and immigration. Saenz is co-editor of the book titled *Latina/os in the United States: Changing the Face of América* and co-author of the book titled *Latino Issues: A Reference Handbook*. He also writes regularly for the Population Reference Bureau on ongoing demographic trends. Saenz is currently the Chair of the Council of the Inter-University Consortium for Political and Social Research (ICPSR).
Hotel Layout

Crown Plaza Riverwalk
111 E. Pecan Street
San Antonio, Texas  78205
(210) 354-2800
Check In: 3:00p.m.
Check Out: 11:00a.m.

Hotel is a 100% non-smoking facility.

Ideally positioned along the historic San Antonio Riverwalk, our hotel's address puts the city's most popular destinations within walking distance, from the Alamo to the San Antonio Convention Center.
## Attendee List

### Session Organizers, Moderators & Discussants

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<thead>
<tr>
<th>Name</th>
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<td>Jack Baker</td>
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<td>Samia El-Badry</td>
<td>International Demographic &amp; Economic Associates (IDEA)</td>
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<td>Mary McGehee</td>
<td>Arkansas Department of Health</td>
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<td>William O’Hare</td>
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<td>Karen Woodrow-Lafield</td>
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### Attendee List

**Student Ambassadors**

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<td>Amber Jimenez</td>
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**Conference Attendees**

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<td>Ayo Adebowale</td>
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<td>Brent Alexander</td>
<td>School District Strategies, LLC</td>
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<td>Joan Babcock</td>
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<td>Michele Boggs</td>
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<td>Maggie Bohm</td>
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<td>Traci Cook</td>
<td>Federal Interagency on Child and Family Statistics</td>
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<td>Ronald Cossman</td>
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<td>Annaliese Cothron</td>
<td>UT Health Science Center at San Antonio</td>
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<td>Frederick Day</td>
<td>Department of Geography, Texas State University</td>
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<td>Bethany DeSalvo</td>
<td>U.S. Census Bureau</td>
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Attendee List

Jason Devine
U.S. Census Bureau

Stan Drezek
Northside ISD

Samia El-Badry
International Demographic & Economic Associates (IDEA)

Bo G Eriksson
University of Gothenburg Sweden

Marjorie Evangelista
Delta State University

Tom Exter
Pitney Bowes Software

Nicole Farris
Texas A&M University

Kimberly Faust
McKibben Demographic Research

Joe Francis
Cornell University

Lance Freeman
San Antonio Water system

Pam Garcia
Northside ISD

Ginny Garcia
The University of Texas at San Antonio

M. V. George
Emory University

David Gimeno
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Tina Glover
SACOG

Jeanne Gobalet
Lapkoff & Gobalet Demographic Research, Inc.

Martin Gonzales
Texas Tech University

Robert Groves
Director U.S. Census Bureau

Charles Gyimah
St. Patrick's Hospital

Gregory Hamilton
University of Arkansas at Little Rock

Matt Hauer
University of Georgia

Christina Hayford
Florida State University

Lei He
Texas A&M University

Bill Hobby
Rice University

Ken Hodges
Nielsen

Howard Hogan
U.S. Census Bureau

Frederick Hollmann
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