

Memorandum

City of Lawrence

Planning and Development Services

TO: David L. Corliss, City Manager

FROM: Amy Miller, Long-Range Planner
David Guntert, GIS Planner

CC: Scott McCullough, Planning & Development Services Director

Date: December 13, 2011

RE: Consider Census 2010 Analysis and the Census Count Question Resolution Program.

Overview:

The U.S. Census Bureau is mandated by the Constitution to count every resident in the United States through the decennial census program that takes place every ten years. The count took place during Spring 2010 and the majority of the data has been released. This memo is a follow-up to the [memo](#) that staff did in March 2011 that included an analysis of the initial data release. This memo serves as a status update to explain what data has been released, why the data is important, the next steps in analyzing the data, and recommending that the City submits a challenge to refute the 2010 Decennial Census Count for the City of Lawrence. The challenge is based on the number of housing units and, at this time, staff believes that the housing unit count from the Decennial Census is not accurate. If the housing unit count is determined to be inaccurate, then the Census Bureau will correct the housing unit count and the population figure for the 2010 Decennial Census.

Staff will also investigate the potential for challenging the Douglas County 2010 Decennial Census figures and discuss this with Board of County Commissioners after the work is complete on the City of Lawrence challenge. If the City of Lawrence figures are adjusted, then the Douglas County numbers should also be adjusted so that the shares of county population between all incorporated and unincorporated areas remain the same.

2010 Census – Summary File 1:

The U.S. Census Bureau has released three sets of data to date: Apportionment Data, Redistricting Data and Summary File 1. The Apportionment Data was released in December 2010 and certifies the state populations as of April 1, 2010 for the purposes of distributing the correct number of U.S. House of Representatives seats among the 50 states based on the population figures collected during the decennial census. The official

population for the State of Kansas on April 1, 2010 is 2,853,118 people. The official population for the State of Kansas on April 1, 2000 was 2,688,418 people.

Summary of 2010 Redistricting Data Release						
	Douglas County	Lawrence	Eudora	Baldwin	Lecompton	Unincorporated
Total Population	110,826	87,643	6,136	4,515	625	11,907
Total Housing Units	46,731	37,502	2,306	1,665	254	5,004
Occupied Housing Units	43,576	34,970	2,210	1,501	240	4,655
Vacant Housing Units	3,155	2,532	96	164	14	349
Vacancy Rate	6.75%	6.75%	4.16%	9.85%	5.51%	6.97%

The Redistricting Data was released on March 3, 2011 and is traditionally used for the purpose of geographically defining state legislative districts, or “redistricting”. It contains basic population information, including total population, occupied housing units, vacant housing units, and population by race for Douglas County as a whole and the incorporated cities, including the City of Lawrence.

According to the 2010 Redistricting Data Release from the Census Bureau, the population of Lawrence on April, 2010 was 87,643. This represents a 9.4% increase from the 2000 Decennial Census figure of 80,508 people.

Douglas County has a population of 110,826 people according to the redistricting data, and remains the fifth largest county in the state. The county grew by 10.9% from 2000 to 2010. Johnson County remains the most populous county in the state, with 544,179 people. In addition, Johnson, Sedgwick, Miami, Geary and Pottawatomie counties all had 2000-2010 growth rates over 25%.

Summary File 1 was officially released this past summer and includes all of the Redistricting Data, plus additional data related to race, persons per household, etc. Summary File 1 also provides that data broken down into blocks, block groups and tracts.

Population Estimates Produced by City Staff:

Planning Staff issues twice a year population estimates that are based on a prescribed formula dictated by the Census Bureau. It involves totaling the number of new residential dwelling units constructed each year; subtracting the number of dwellings that were demolished during the same time period to derive the total number of new dwelling units built; then, multiplying the number of new dwelling units by the vacancy rate for the city to establish the number of new occupied dwelling units. Then the total number of occupied dwelling units is multiplied by the average number of persons per household to derive a figure for the new population residing in the new dwelling units. Finally, this new population increase is added to the latest decennial Census population to establish a new estimate for the City's population. The persons per household and vacancy rate figures are supplied by the Census Bureau, updated annually, and the updated figure is applied to the new dwelling units built since the latest decennial Census population figure was released. That formula reads as follows:

$$[(SHU-SDU) * .98 * SPPH * SOCR] + [(MHU-MDU) * .98 * MPPH * MOCR] + GQ + DCF = \text{Pop Estimate}$$

SHU = Single Family Housing Units Added
SDU = Single Family Demolished Units
MHU = Multi Family Housing Units Added
MDU = Multi Family Demolished Units
.98 = Assumes that 2% of all units building permits applied for are never built
SPPH = Single Family Persons per household
SOCR = Single Family Occupancy rate
MPPH = Multi Family Persons per household
MOCR = Multi Family Occupancy rate
GQ = Group Quarters Population
DCF=Decennial Census Population number

Using this method, there are an estimated 92,727 people living in the City of Lawrence as of July 1, 2010. The table below illustrates the staff issued population estimates, as well as the Census Bureau's annual estimates. The Census Bureau's sub-county estimates are based on a housing unit formula similar to the one that City staff use in determining population estimates.

City of Lawrence Population Estimates 2000 -2010					
Estimate - July 1st	Population	Change/Year	% Change	Census Estimate	Diff.
2000	80,508			80,508	0
2001	81,780	1,272	1.58%	81,780	0
2002	83,310	1,530	1.87%	83,310	0
2003	84,844	1,534	1.84%	84,844	0
2004	86,448	1,604	1.89%	86,448	0
2005	88,664	2,216	2.56%	88,664	0
2006	89,110	446	0.50%	89,110	0
2007	90,311	1,201	1.35%	89,847	464
2008	90,866	555	0.62%	90,504	362
2009	91,464	598	0.66%	92,048	-584
2010	92,727	1,263	1.38%		
Average Annual Change 2000-2010		1,222	1.43%		
Average Annual Change 2005-2010		813	0.90%		

That population estimate released by planning staff is based on their being 38,884 housing units in the city as of July 1, 2010. This is determined by taking the number of housing units reported with the 2000 Census and adding the number of new units built (determined through building permits) and subtracting the number of units demolished.

Analysis of Census 2010 Data:

The Census Bureau releases their own population estimates every year based on a housing unit formula, but acknowledges that ultimately the community has the best available data, and therefore provides a way for the cities and counties to challenge annual population estimates using building permit data. The City successfully challenged the Census Bureau's population estimates in 2005 and 2006, as reflected in the table above. It is important to note that the 2009 estimate released by the Census Bureau was 92,048 people, which was higher than the city's own estimate and much higher than the recently released 2010 Decennial Census figure of 87,643 people. Also important, the 2010 Decennial Census figure of 87,643 people lies between both the Census Estimate

and the City Estimate from between 2004 and 2005. In addition, the 2010 population count recently released from the American Community Survey, a program from the Census Bureau that releases data annually, puts the Lawrence population at 92,718.

	Housing Units	Population
2010 Decennial Census	37,502	87,643
2010 Staff Estimate	38,884	92,727
2010 Census American Community Survey	38,667	92,718

At this point staff has looked at the data on a tract level in order to determine where the misalignment between building permit data and the 2010 Decennial Census figures exists. There are tracts that showed a decline in population while showing an increase in housing units. The reverse is also true, as there were some tracts that showed an increase in population, while there was a decrease in housing units. As an example, Tract 3, which includes a portion of the Oread Neighborhood, showed an increase in population from 2000 to 2010 of 621 people, while the number of housing units decreased 192. Another example is Tract 9.01, which is south of the University of Kansas campus. Tract 9.01 showed the addition of 172 housing units from 2000 to 2010, but a decrease in 345 people. Also, important to note is that loss of 554 housing units and 1785 people from Tract 4, which includes the University of Kansas campus.

At this point, staff has identified that discrepancies exist between what we think our housing unit, and corresponding population numbers, should have been for 2010 and what the Census Bureau determined through the 2010 Decennial Census.

Census Count Question Resolution Program

The Census Bureau does have a process by which the Decennial Census population and housing unit figures may be appealed, called Count Question Resolution. The appeal process is based on housing units and involves submitting a list of every housing unit in the City in order to determine if the correct number of housing units were reflected in the 2010 Decennial Census count. Challenges can be submitted anytime, with a final deadline in 2013. As of this date, 101 jurisdictions have already submitted challenges, 6 have been denied and 3 have been approved.

If directed, Staff will prepare a list, based on the best available data (appraiser, utility billing and building permit records), of every housing unit inside City limits along with corresponding maps and submit this to the Census Bureau in the first quarter of 2012 in order to formally challenge the 2010 Decennial Census Figure.

Action:

Direct staff to proceed with Census Count Question Resolution and Authorize Mayor to execute documents as appropriate.