County of Santa Clara
Office of the County Executive
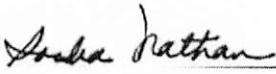Office of Budget and Analysis

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CSFC–CE02 021605

Prepared by: Autumn Arias
Budget and Public Policy
Analyst

DATE: February 16, 2005

TO: Supervisor James T. Beall, Jr., Chairperson
          Supervisor Don Gage, Vice–Chairperson
          Children, Seniors & Families Committee

FROM: *[signature]*

          Sandra Y. Nathan
          Deputy County Executive

SUBJECT: Report Back on Referral Regarding U.S. Census Information for Seniors in each
          Supervisorial District

RECOMMENDED ACTION

Accept report back on referral from Children, Seniors and Families Committee, regarding census information on the number of seniors eligible for the Senior Nutrition Program, and living in poverty, in each supervisorial district.

FISCAL IMPLICATIONS

There are no fiscal implications.

Board of Supervisors: Donald F. Gage, Blanca Alvarado, Pete McHugh, Jim Beall, Liz Kniss
County Executive: Peter Kutras Jr.

CONTRACT HISTORY

None.

REASONS FOR RECOMMENDATION

On October 20, 2004 the Children, Seniors and Families Committee directed the County Executive's Office to work with the Planning Office and the Department of Aging and Adult Services to provide information regarding the number of seniors, age 60+, who are eligible for the Senior Nutrition Program, and also the number of this senior population living in poverty. The referral was made during the Committee discussion on the Senior Nutrition Program funding report and geographic distribution of seniors within the County.

Staff from the following departments met to discuss the assumptions that would need to be made in order to develop this information: County Executive's Office, Cross Systems Evaluation Division, Planning Office, and Department of Aging and Adult Services, Senior Nutrition Program. In addition, the Public Health Department was consulted due to the expertise it has developed in analyzing U.S. Census Bureau data. The information is not readily available through the U.S. Census Bureau database, because poverty information is only available at the Census Tract geographical level, which does not correspond precisely to Supervisorial Districts.

Supervisorial Districts were created through the Redistricting Program that occurred in 2001. These Districts were created by assembling Census Blocks and establishing boundaries coincident with Census Block boundaries. However, as previously stated, poverty information is collected by the U.S. Census at the larger geographical level of Census Tracts. Supervisorial Districts split a number of Census Tracts even though they follow the boundaries of the smaller Census Blocks.

"Estimating Methodology"

The Planning Office developed an "estimating methodology," as described in depth in the attached memorandum from Steven Golden, Planner III. There are a total of 341 Census Tracts in the County. Of these, 285 occur entirely within one Supervisorial District. The remaining 56 tracts are split between two Supervisorial Districts within the County. All of the split Census Tracts were placed into one of three categories for the purpose of this analysis:

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- 20 Split Census Tracts have 100% of the total population in the tract living in one Supervisorial District. Therefore, all of the population in these tracts was assigned to the district they lived in.

- 18 Split Census Tracts have over 90% of the population in the tract living in one district. Therefore, all of the data in these tracts was assigned to the district containing over 90% of the population.

- 18 Split Census Tracts have less than 90% of the population living in each district in the tract. Therefore, the data was assigned to each district according to the percentage of total population for that section of the tract.

Another estimation was needed for 14 of the Census Tracts, where confidentiality of reporting requirements suppressed the data regarding persons 60 years and older living in poverty. Therefore, in these 14 tracts, data from persons 65 and over in poverty was used, instead of age 60 and over. It is likely that for these tracts the number used is a slight underestimate.

The poverty definition and determination of poverty status used by the U.S. Census Bureau is described in detail on pages 2–3 of the attached memorandum. Basically, a weighted average threshold is used to determine an average threshold for a given family size. Poverty status is then determined for every person except institutionalized people, those living in military group quarters or college dormitories, and unrelated individuals under 15 years old.

Summary of Data

Using the methodology described above, the Planning Office has determined the following data per Supervisorial District. All persons age 60 years and over are eligible for participation in the Senior Nutrition Program; therefore, the column of "Total People 60 and Over" represents the number of eligible people per district.

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County Executive: Peter Kutras Jr.

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District	Total People 60 and Over*	People 60 and Over in Poverty*	Percent of Total People 60 and Over in Poverty*
District 1	40,380	1,948	14.9%
District 2	33,907	3,659	27.9%
District 3	36,085	2,196	16.8%
District 4	49,107	3,139	24.0%
District 5	58,541	2,159	16.5%
TOTAL	218,020	13,101	100%

* As calculated using the "Estimating Methodology"

The values reported above are only an estimation based on the methodology used. It is possible that the technique used to assign data among split Census Tracts using proportions of total population split between the tracts does not accurately represent the number of persons 60 and over in poverty in each Supervisorial District.

There is uncertainty that total population and persons 60 and over in poverty have a correlation because local characteristics of neighborhoods and communities play a key role. For these reasons, ranges are reported below:

District	Range: Total Persons 60 and Over*	Range: Persons 60 and Over in Poverty*
District 1	36,136 – 41,891	1,663 – 2,054
District 2	32,647 – 37,485	3,557 – 3,938
District 3	33,494 – 37,168	1,963 – 2,280
District 4	44,246 – 54,431	2,953 – 3,414
District 5	56,544 – 61,998	2,110 – 2,270

* As calculated using the "Estimating Methodology"

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<u>Use of Geographic Information Systems (GIS) as a Resource</u>

The Planning Office estimates that approximately 50 hours were needed to prepare this methodology and develop the data presented in this report. The majority of the time was spent using GIS to analyze Census Tracts, developing the methodology, and executing the splitting of Census Tracts into appropriate Supervisorial Districts. This methodology may be used to estimate other population demographics, however, with the understanding of the potential inaccuracies and uncertainty involved.

ATTACHMENTS

- Memorandum From Planning Office

Board of Supervisors: Donald F. Gage, Blanca Alvarado, Pete McHugh, Jim Beall, Liz Kniss
County Executive: Peter Kutras Jr.

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DATE: January 10, 2005

TO: Autumn Arias, Michael Bobadilla, Amando Cablas

FROM: Steven Golden, Planning Office

RE: Census Data for Senior Nutrition Program Referral from CSFC

This memo describes the process used to estimate the number of people 60 years of age and over who live in poverty by Supervisorial District. This memo is being sent via e-mail with an attached file named "Poverty60_SupDistrict.xls" that has more detailed data.

<u>"Estimating Methodology"</u>

Supervisorial Districts were previously created through the Redistricting Program that occurred in 2001. These districts were created by assembling Census Blocks and establishing boundaries coincident with Census Block boundaries. However, the U.S. Census Bureau does not release poverty based data at the Census Block geographical level. Poverty based data is available at the Census Tract geographical level. As a result, the Census Tract based data was used, but Census Tract boundaries are not coincident with Supervisorial District boundaries (i.e. Supervisorial Districts split a number of Census Tracts). Consequently, the data had to be estimated using the most practical and appropriate method available. The derived method follows:

- For those Census Tracts that were entirely located in a particular Supervisorial District, 100% of the data went to that particular District.
- There were a total of 56 split Census Tracts between two Supervisorial Districts. There were 3 categories for estimating data for these Census Tracts as follows:
    - 100% of total population – For 20 of these Census Tracts, one section of the split Census Tract had 100% of the total population, therefore 100% of the data was assigned to one Supervisorial District.
    - >90% of total population – Eighteen Census Tracts were split where >90% of the total population were located in one section of the split Census Tract. In these cases, all of the data was assigned to the Supervisorial District containing the portion of the Census Tract that had >90% of the population.
    - <90% of total population – Eighteen Census Tracts were split where <90% of the total population were located in either section of the split Census Tract. In these cases the data was assigned to each Supervisorial District according to the percentage of total population for that section of the Census Tract.

Data was obtained from Summary File 3 (sample population), 2000 Census, U.S. Census Bureau using the Advanced Query option of the U.S. Census Bureau's online database, American FactFinder. Because of confidentiality reporting requirements, there were 14 Census Tracts where the data (persons 60 years and over in poverty) was suppressed. In lieu of this and because of other reporting requirements, data from persons 65 and over in poverty was used. It is likely that for these 14 Census Tracts the number used is a slight underestimate.

Poverty Definition

The Census Bureau uses the federal government's official poverty definition. The Office of Management and Budget's (OMB's) Directive 14 prescribes this definition as the official poverty measure for federal agencies to use in their statistical work. The following is from the U.S. Census Bureau's website:

How Poverty Status Is Determined

The poverty status of families and unrelated individuals in 1999 was determined using 48 thresholds (income cutoffs) arranged in a two dimensional matrix. The matrix consists of family size (from 1 person to 9 or more people) cross-classified by presence and number of family members under 18 years old (from no children present to 8 or more children present). Unrelated individuals and 2-person families were further differentiated by the age of the reference person (RP) (under 65 years old and 65 years old and over).

To determine a person's poverty status, one compares the person's total family income with the poverty threshold appropriate for that person's family size and composition (see table below). If the total income of that person's family is less than the threshold appropriate for that family, then the person is considered poor, together with every member of his or her family. If a person is not living with anyone related by birth, marriage, or adoption, then the person's own income is compared with his or her poverty threshold.

Weighted average thresholds. Even though the official poverty data are based on the 48 thresholds arranged by family size and number of children within the family, data users often want to get an idea of the "average" threshold for a given family size. The weighted average thresholds provide that summary. They are weighted averages because for any given family size, families with a certain number of children may be more or less common than families with a different number of children. In other words, among 3-person families, there are more families with two adults and one child than families with three adults. To get the weighted average threshold for families of a particular size, multiply each threshold by the number of families for whom that threshold applies; then add up those products, and divide by the total number of families who are of that family size.

For example, for 3-person families, 1999 weighted thresholds were calculated in the following way using information from the 2000 Current Population Survey:

Family type	Number of families		Threshold
No children (three adults)	5,213	*	$13,032 = $67,935,816
One child (two adults)	8,208	*	$13,410 = $110,069,280
Two children (one adult)	2,656	*	$13,423 = $35,651,488
Totals	16,077		$213,656,584

Source: Current Population Survey, March 2000.

Dividing $213,656,584 by 16,077 (the total number of 3-person families) yields $13,290, the weighted average threshold for 3-person families. Please note that the thresholds are weighted not just by the number of poor families, but by all families for which the thresholds apply: the thresholds are used to determine which families are *at or above* poverty, as well as below poverty.

Individuals for whom poverty status is determined. Poverty status was determined for all people except institutionalized people, people in military group quarters, people in college dormitories, and unrelated individuals under 15 years old. These groups also were excluded from the numerator and denominator when calculating poverty rates. They are considered neither "poor" nor "nonpoor."

Specified poverty levels. For various reasons, the official poverty definition does not satisfy all the needs of data users. Therefore, some of the data reflect the number of people below different percentages of the poverty level. These specified poverty levels are obtained by multiplying the official thresholds by the appropriate factor. For example, the average income cutoff at 125 percent of the poverty level was $21,286 ($17,029 x 1.25) in 1999 for family of four people.

Poverty Thresholds in 1999 by Size of Family and Number of Related Children Under 18 Years Old
(Dollars)

Size of Family Unit	Weighted Average Threshold	Related children under 18 years								
		None	One	Two	Three	Four	Five	Six	Seven	Eight or more
One person (unrelated individual)	8501									
Under 65 years old	8667	8667								
65 years old and over	7990	7990								
Two People	10869									
Householder under 65 years old	11214	11156	11483							
Householder 65 years old and over	10075	10070	11440							
Three people	13290	13032	13410	13423						
Four people	17029	17184	17465	16895	16954					
Five people	20127	20723	21024	20380	19882	19578				
Six people	22727	23835	23930	23436	22964	22261	21845			
Seven people	25912	27425	27596	27006	26595	25828	24934	23953		
Eight people	28967	30673	30944	30387	29899	29206	28327	27412	27180	
Nine people or more	34417	36897	37076	36583	36169	35489	34554	33708	33499	32208

Summary of Data

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60 and over in poverty in each Supervisorial District. There is uncertainty that total population and persons 60 and over in poverty have a correlation because local characteristics of neighborhoods and communities play a key role. For these reasons, ranges are being reported below:

	Range: Total Persons 60 and Over*			Range: Persons 60 and Over in Poverty*		
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