

ATTACHMENT ONE

DRAFT JULY 1, 2003

ARIZONA DEPARTMENT OF ECONOMIC SECURITY
STATE AND COUNTY RESIDENT POPULATION UPDATES



DRAFT

CONTROLLED COUNTY
ESTIMATES

7/1/03

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COUNTY POPULATION ESTIMATES FOR ARIZONA

1-Jul-03

	CONTROLLED COUNTY POPULATION
APACHE	70625
COCHISE	126150
COCONINO	128925
GILA	53550
GRAHAM	34225
GREENLEE	8600
LA PAZ	20700
MARICOPA	3396900
MOHAVE	170825
NAVAJO	103800
PIMA	910975
PINAL	201575
SANTA CRUZ	40875
YAVAPAI	186875
YUMA	175050
ARIZONA	5629650

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COUNTY POPULATION ESTIMATES FOR ARIZONA WEIGHTED AVERAGE OF TWO METHODS 1-Jul-03

	HUM NGQ POP	COMPOSITE NGQ POP	HUM WEIGHT	COMPOSITE WEIGHT	NGQ WEIGHTED AVERAGE METHODS	STATE CONTROLLED NGQ WEIGHTED AVERAGE METHODS	GQP	TOTAL POP WEIGHTED AVERAGE METHODS	ROUNDED ESTIMATES
APACHE	69279	70344	80%	20%	69492	69387	1244	70631	70625
COCHISE	120370	121521	80%	20%	120600	120418	5744	126162	126150
COCONINO	121842	123236	80%	20%	122121	121936	6989	128925	128925
GILA	52625	52268	80%	20%	52554	52474	1083	53557	53550
GRAHAM	31479	31830	80%	20%	31549	31502	2728	34230	34225
GREENLEE	8582	8597	80%	20%	8585	8572	22	8594	8600
LA PAZ	20294	19476	80%	20%	20130	20100	612	20712	20700
MARICOPA	3349537	3356056	80%	20%	3350841	3345779	51117	3396896	3396900
MOHAVE	169666	168631	80%	20%	169459	169203	1611	170814	170825
NAVAJO	101288	103234	80%	20%	101677	101524	2264	103788	103800
PIMA	889624	892300	80%	20%	890159	888815	22150	910965	910975
PINAL	185974	185808	80%	20%	185941	185660	15912	201572	201575
SANTA CRUZ	40539	41491	80%	20%	40729	40668	219	40887	40875
YAVAPAI	183058	182804	80%	20%	183007	182731	4152	186883	186875
YUMA	169421	169870	80%	20%	169511	169255	5796	175051	175050
ARIZONA	5513578	5527466			5516356	5508023	121643	5629666	5629650

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JULY 1, 2003 ESTIMATES STATE CONTROL

SOURCE

1. HUM POPULATION = HUM WEIGHT = WEIGHTED POP =	5,635,221 0.8 4,508,177	(JULY 1, 2003 STATE HUM POPULATION) (HUM WEIGHT PER POPTAC) (HUM * WEIGHT)
2. COMPOSITE POP = COMPOSITE WEIGHT = WEIGHTED POP =	5,607,447 0.2 1,121,489	(JULY 1, 2003 STATE COMPOSITE POPULATION) (COMPOSITE WEIGHT PER POPTAC) (COMPOSITE * WEIGHT)
3. STATE CONTROL =	5,629,666	HUM WEIGHTED POP + COMPOSITE WEIGHTED POP)
4. GROUP QUARTERS =	121,643	(PER DES ANNUAL SURVEY)
5. COUNTY COMPOSITE CONTROL :	5,508,023	(STATE CONTROL - GROUP QUARTERS)

09/03/03
STATE CONTROL
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JULY 1, 2003 ESTIMATES
STATE COMPOSITE METHOD VARIABLES

1. SCHOOL ENROLLMENT	03 ENROLLMENT
TOTAL	1123564
2. 18 - 64 LICENSED DRIVERS/POPULATION RATIO	
TOTAL	3760563
3. MEDICARE	03 RECIPIENTS
65+ POPULATION	723320
4. STATE TOTAL COMPOSITE POPULATION	5607447

POPULATION COMPARISON

JULY 1, 2002 VS 2003

	7/1/2002 POP		DRAFT 7/1/2003 POP		PERCENT DIFF.
APACHE	70105		70625		0.74174%
COCHISE	124040		126150		1.70106%
COCONINO	125420		128925		2.79461%
GILA	53015		53550		1.00915%
GRAHAM	34070		34225		0.45495%
GREENLEE	8605		8600		-0.05811%
LA PAZ	20365		20700		1.64498%
MARICOPA	3296250		3396900		3.05347%
MOHAVE	166465		170825		2.61917%
NAVAJO	101615		103800		2.15027%
PIMA	890545		910975		2.29410%
PINAL	192395		201575		4.77143%
SANTA CRUZ	39840		40875		2.59789%
YAVAPAI	180260		186875		3.66970%
YUMA	169760		175050		3.11616%
ARIZONA	5472750		5629650		2.86693%

COUNTY RATIO TECHNIQUE MARICOPA COUNTY

To Estimate the 18 - 64 County Population for 2003

Given:

A. 18 -64 County Population in 2000 =	1885167
B. 2000 County Births =	54470
C. 2003 County Births =	64973
D. 2000 County Deaths =	22600
E. 2003 County Deaths =	29321

$$\text{Births Ratio} = \frac{C}{B} = 1.19282$$

$$\text{Deaths Ratio} = \frac{E}{D} = 1.29739$$

$$\text{Population Ratio} = \frac{(C/B)+(E/D)}{2} = 1.24511$$

$$18 - 64 \text{ County Population for 2003} = \text{Population Ratio} * A = 2347232$$

ATTACHMENT TWO

DRAFT JULY 1, 2003

ARIZONA DEPARTMENT OF ECONOMIC SECURITY
STATE AND COUNTY RESIDENT POPULATION UPDATES

MARICOPA ASSOCIATION OF GOVERNMENTS
POPULATION BY JURISDICTION
2000 CENSUS AND JULY 1, 2003

DRAFT - Based on a "placeholder" county control total of 3,400,000 -

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Jurisdiction	Total Population			Percent Growth		Share	
	April 1, 2000 (Census)	July 1, 2003 (Draft)	Change	Overall	Annual	Share of Growth	Share of County
Apache Junction *	273	275	2	0.7%	0.2%	0.0%	0.0%
Avondale	35,883	54,100	18,217	50.8%	13.5%	5.6%	1.6%
Buckeye **	8,497	13,050	4,553	53.6%	14.1%	1.4%	0.4%
Carefree	2,927	3,225	298	10.2%	3.0%	0.1%	0.1%
Cave Creek	3,728	4,155	427	11.5%	3.4%	0.1%	0.1%
Chandler	176,581	208,760	32,179	18.2%	5.3%	9.8%	6.1%
El Mirage	7,609	25,505	17,896	235.2%	45.1%	5.5%	0.8%
Fountain Hills	20,235	22,120	1,885	9.3%	2.8%	0.6%	0.7%
Gila Bend	1,980	2,025	45	2.3%	0.7%	0.0%	0.1%
Gila River *	2,699	2,740	41	1.5%	0.5%	0.0%	0.1%
Gilbert	109,697	151,695	41,998	38.3%	10.5%	12.8%	4.5%
Glendale	218,812	230,730	11,918	5.4%	1.6%	3.6%	6.8%
Goodyear	18,911	30,395	11,484	60.7%	15.7%	3.5%	0.9%
Guadalupe	5,228	5,330	102	2.0%	0.6%	0.0%	0.2%
Litchfield Park	3,810	3,870	60	1.6%	0.5%	0.0%	0.1%
Mesa	396,375	434,585	38,210	9.6%	2.9%	11.7%	12.8%
Paradise Valley	13,664	14,220	556	4.1%	1.2%	0.2%	0.4%
Peoria *	108,363	126,585	18,222	16.8%	4.9%	5.6%	3.7%
Phoenix	1,321,045	1,388,310	67,265	5.1%	1.5%	20.5%	40.8%
Queen Creek *	4,197	7,390	3,193	76.1%	19.0%	1.0%	0.2%
Salt River	6,405	6,740	335	5.2%	1.6%	0.1%	0.2%
Scottsdale	202,705	217,695	14,990	7.4%	2.2%	4.6%	6.4%
Surprise	30,848	51,790	20,942	67.9%	17.3%	6.4%	1.5%
Tempe	158,625	159,620	995	0.6%	0.2%	0.3%	4.7%
Tolleson	4,974	5,420	446	9.0%	2.7%	0.1%	0.2%
Wickenburg	5,082	5,690	608	12.0%	3.5%	0.2%	0.2%
Youngtown	3,010	3,675	665	22.1%	6.3%	0.2%	0.1%
Unin-New River	10,740	11,010	270	2.5%	0.8%	0.1%	0.3%
Unin-Rio Verde	1,419	1,545	126	8.9%	2.7%	0.0%	0.0%
Unin-Sun City	38,309	38,640	331	0.9%	0.3%	0.1%	1.1%
Unin-Sun City West	26,344	26,345	1	0.0%	0.0%	0.0%	0.8%
Unin-Sun Lakes	11,936	13,150	1,214	10.2%	3.0%	0.4%	0.4%
Unin-Other	111,238	129,615	18,377	16.5%	4.8%	5.6%	3.8%
Total	3,072,149	3,400,000	327,851	10.7%	3.2%	100.0%	100.0%

* Maricopa County portion only

** Buckeye's growth rate from 2000 to 2003 resulted in part from the transfer of the Lewis Prison population.

The Census Bureau had incorrectly assigned the prison population to the unincorporated area in the 2000 Census.

MAG is required to round the county resident population total to the nearest 25 persons and the municipality population to the nearest 5 persons.

Sources: U.S. Bureau of the Census Year 2000 Census, MAG Residential Completion database.

Prepared by the Maricopa Association of Governments, September 2003.

July 1, 2003 Municipality Resident Population and Housing Unit Update

Methodology

1. Using the Year 2000 Census as the base, determine the April 1, 2000 total housing units, occupied housing units, occupancy rates and population per occupied unit by unit type for each jurisdiction.
2. Calculate the new housing stock by unit type by municipality from the Census base by:
 - a) adding the residential units by unit type completed for the time period from April 1, 2000 to June 30, 2003.
 - b) subtracting the residential demolitions by unit type for the time period from April 1, 2000 to June 30, 2003.
 - c) adding annexations by unit type for the time period from April 1, 2000 to June 30, 2003.
 - d) subtracting de-annexations by unit type for the time period from April 1, 2000 to June 30, 2003.
3. Multiply the July 1, 2003 housing stock times the Census occupancy rates and persons per occupied unit.
Note: Housing stock, occupancy rates and persons per occupied unit are all by municipality and by unit type.
4. Sum the residential population in households components and bench to the county control total for population in households. In this case, a "placeholder" county control total of 3,400,000 persons was used. Add the revised group quarter population to obtain Total Resident Population for July 1, 2003
5. MAG is required to round the county resident population total to the nearest 25 persons and each municipality population to the nearest 5 persons.

JULY 1, 2003 MUNICIPALITY POPULATION AND HOUSING UNIT UPDATE

TABLE 1

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MARICOPA ASSOCIATION OF GOVERNMENTS

Jurisdiction	Year 2000 Census (April 1, 2000)					Net Units 4/01/2000 - 6/30/2003	Population from new Units	Annexations		July 1, 2003 Effective		July 1, 2003 Update			
	Population			Housing Units				Population	Housing Units	Pop. Per Occupied Unit	Occupancy Rate	Population		Total (Round to 5)	Total Housing Units
	Total	Household	Group Quarter	Total	Occupied							Household	Group Quarter		
Apache Junction *	273	273	0	328	163	0	0	0	1.67	0.50	273	0	275	328	
Avondale	35,883	35,737	146	11,419	10,640	6,290	18,182	7	2	3.27	0.93	53,925	176	54,100	17,711
Buckeye	8,497	6,528	1,969	2,344	2,158	717	1,736	44	14	2.93	0.92	8,307	4,741	13,050	3,075
Carefree	2,927	2,927	0	1,769	1,389	194	298	0	0	2.10	0.78	3,225	0	3,225	1,963
Cave Creek	3,728	3,728	0	1,753	1,571	213	425	0	0	2.36	0.90	4,153	0	4,155	1,966
Chandler	176,581	175,799	782	66,592	62,377	13,213	31,301	533	188	2.78	0.94	207,633	1,125	208,760	79,993
El Mirage	7,609	7,608	1	3,162	2,121	5,588	17,891	5	5	3.54	0.82	25,504	0	25,505	8,760
Fountain Hills	20,235	20,228	7	10,491	8,653	887	1,721	0	0	2.33	0.83	21,949	171	22,120	11,378
Gila Bend	1,980	1,980	0	766	659	17	43	0	0	3.00	0.86	2,023	0	2,025	783
Gila River *	2,699	2,654	45	685	629	10	40	0	0	4.22	0.92	2,694	45	2,740	695
Gilbert	109,697	109,631	66	37,007	35,405	12,141	33,254	8,747	2,858	3.05	0.96	151,631	66	151,695	52,006
Glendale	218,812	215,955	2,857	79,667	75,700	4,833	11,894	15	5	2.84	0.95	227,864	2,864	230,730	84,505
Goodyear	18,911	16,541	2,370	6,771	6,179	4,784	11,049	0	0	2.61	0.91	27,590	2,805	30,395	11,555
Guadalupe	5,228	5,220	8	1,184	1,110	26	112	0	0	4.70	0.94	5,332	0	5,330	1,210
Litchfield Park	3,810	3,780	30	1,633	1,508	28	61	0	0	2.50	0.92	3,841	30	3,870	1,661
Mesa	396,375	392,426	3,949	175,701	146,643	15,270	36,990	1,222	432	2.67	0.84	430,638	3,949	434,585	191,403
Paradise Valley	13,664	13,652	12	5,499	5,034	243	556	0	0	2.70	0.92	14,208	12	14,220	5,742
Peoria *	108,363	106,849	1,514	42,570	39,183	7,564	18,168	0	0	2.70	0.92	125,017	1,568	126,585	50,134
Phoenix	1,321,045	1,298,577	22,468	495,832	465,834	27,056	66,190	61	21	2.78	0.94	1,364,828	23,482	1,388,310	522,909
Queen Creek *	4,197	4,197	0	1,229	1,172	1,009	3,100	0	0	3.43	0.95	7,297	94	7,390	2,238
Salt River	6,405	6,355	50	2,526	1,959	95	333	0	0	3.27	0.78	6,688	50	6,740	2,621
Scottsdale	202,705	201,028	1,677	104,974	90,669	8,167	14,474	4	2	2.21	0.86	215,507	2,190	217,695	113,143
Surprise	30,848	30,724	124	16,260	12,484	10,758	20,941	0	0	2.41	0.79	51,665	124	51,790	27,018
Tempe	158,625	153,383	5,242	67,068	63,602	462	959	0	0	2.41	0.95	154,342	5,280	159,620	67,530
Tolleson	4,974	4,974	0	1,485	1,432	251	447	0	0	3.31	0.94	5,421	0	5,420	1,736
Wickenburg	5,082	5,039	43	2,691	2,341	113	231	149	65	2.16	0.87	5,419	271	5,690	2,869
Youngtown	3,010	2,857	153	1,783	1,641	150	207	0	0	1.72	0.92	3,064	610	3,675	1,933
Unin-New River	10,740	10,695	45	4,514	3,921	124	269	0	0	2.72	0.87	10,964	45	11,010	4,638
Unin-Rio Verde	1,419	1,419	0	1,168	761	112	127	0	0	1.85	0.65	1,546	0	1,545	1,280
Unin-Sun City	38,309	37,641	668	27,731	23,490	258	332	0	0	1.60	0.85	37,973	668	38,640	27,989
Unin-Sun City West	26,344	26,083	261	17,359	14,997	0	0	0	0	1.74	0.86	26,083	261	26,345	17,359
Unin-Sun Lakes	11,936	11,936	0	7,746	6,683	842	1,216	0	0	1.78	0.86	13,152	0	13,150	8,588
Unin-Other	111,238	110,942	296	48,524	40,778	11,630	28,970	-10,786	-3,592	2.71	0.84	129,126	490	129,615	56,557
Total	3,072,149	3,027,366	44,783	1,250,231	1,132,886	133,045	321,517	0	0	2.67	0.91	3,348,883	51,117	3,400,000	1,383,276

Note: Totals may not add due to rounding.

* Maricopa County portion only.

Sources: U.S. Bureau of the Census Year 2000 Census, Arizona Department of Economic Security, Maricopa Association of Governments Residential Completion database.

Prepared by the Maricopa Association of Governments, September 2003.

YEAR 2000 CENSUS OF POPULATION AND HOUSING
Resident Housing Unit and Population Information by Municipality
MARICOPA ASSOCIATION OF GOVERNMENTS

TABLE 2

Jurisdiction	Total Resident Housing Units (April 1, 2000)				Occupied Resident Housing Units (April 1, 2000)				Population (April 1, 2000)					
	Single Family	Multi-Family	Other	Total	Single Family	Multi-Family	Other	Total	Single Family	Multi-Family	Other	Pop. In Households	Pop. in Grp. Qrts.	TOTAL
Apache Junction *	0	185	143	328	0	89	74	163	0	155	118	273	0	273
Avondale	8,599	1,581	1,239	11,419	8,255	1,234	1,151	10,640	28,582	3,149	4,006	35,737	146	35,883
Buckeye	1,284	451	609	2,344	1,212	418	528	2,158	4,182	942	1,404	6,528	1,969	8,497
Carefree	1,604	163	2	1,769	1,269	118	2	1,389	2,751	171	5	2,927	0	2,927
Cave Creek	1,449	181	123	1,753	1,332	155	84	1,571	3,193	360	175	3,728	0	3,728
Chandler	50,762	13,669	2,161	66,592	48,788	11,754	1,835	62,377	144,270	26,514	5,015	175,799	782	176,581
El Mirage	1,627	322	1,213	3,162	1,498	273	350	2,121	5,664	960	984	7,608	1	7,609
Fountain Hills	8,102	2,389	0	10,491	7,202	1,451	0	8,653	17,694	2,534	0	20,228	7	20,235
Gila Bend	428	100	238	766	368	88	203	659	1,023	254	703	1,980	0	1,980
Gila River *	527	39	119	685	511	33	85	629	2,268	119	267	2,654	45	2,699
Gilbert	33,304	3,569	134	37,007	31,986	3,292	127	35,405	101,821	7,405	405	109,631	66	109,697
Glendale	51,924	22,775	4,968	79,667	50,527	20,675	4,498	75,700	156,874	48,142	10,939	215,955	2,857	218,812
Goodyear	5,879	575	317	6,771	5,340	522	317	6,179	14,415	1,319	807	16,541	2,370	18,911
Guadalupe	971	93	120	1,184	909	90	111	1,110	4,472	238	510	5,220	8	5,228
Litchfield Park	1,529	104	0	1,633	1,425	83	0	1,508	3,566	214	0	3,780	30	3,810
Mesa	95,457	47,196	33,048	175,701	89,210	40,806	16,627	146,643	269,215	91,328	31,883	392,426	3,949	396,375
Paradise Valley	5,477	15	7	5,499	5,012	15	7	5,034	13,599	30	23	13,652	12	13,664
Peoria *	33,392	5,047	4,131	42,570	31,793	4,199	3,191	39,183	92,511	7,574	6,764	106,849	1,514	108,363
Phoenix	311,575	162,461	21,796	495,832	301,382	145,394	19,058	465,834	911,008	337,737	49,832	1,298,577	22,468	1,321,045
Queen Creek *	986	0	243	1,229	944	0	228	1,172	3,349	0	848	4,197	0	4,197
Salt River	1,033	15	1,478	2,526	1,022	15	922	1,959	4,496	43	1,816	6,355	50	6,405
Scottsdale	71,301	32,656	1,017	104,974	63,411	26,429	829	90,669	153,139	46,194	1,695	201,028	1,677	202,705
Surprise	12,056	1,378	2,826	16,260	10,185	829	1,470	12,484	25,713	1,724	3,287	30,724	124	30,848
Tempe	36,722	27,620	2,726	67,068	35,734	25,390	2,478	63,602	95,836	51,673	5,874	153,383	5,242	158,625
Tolleson	1,165	280	40	1,485	1,165	227	40	1,432	4,402	485	87	4,974	0	4,974
Wickenburg	1,501	594	596	2,691	1,367	507	467	2,341	3,362	950	727	5,039	43	5,082
Youngtown	1,236	537	10	1,783	1,145	496	0	1,641	2,121	736	0	2,857	153	3,010
Unin-New River	3,969	17	528	4,514	3,421	12	488	3,921	9,593	41	1,061	10,695	45	10,740
Unin-Rio Verde	1,168	0	0	1,168	761	0	0	761	1,419	0	0	1,419	0	1,419
Unin-Sun City	23,397	4,248	86	27,731	19,524	3,883	83	23,490	32,180	5,345	116	37,641	668	38,309
Unin-Sun City West	16,264	1,085	10	17,359	14,118	869	10	14,997	24,872	1,192	19	26,083	261	26,344
Unin-Sun Lakes	6,685	73	988	7,746	5,718	73	892	6,683	10,451	96	1,389	11,936	0	11,936
Unin-Other	29,825	2,643	16,056	48,524	27,588	2,280	10,910	40,778	78,935	4,435	27,572	110,942	296	111,238
Total	821,198	332,061	96,972	1,250,231	774,122	291,699	67,065	1,132,886	2,226,976	642,059	158,331	3,027,366	44,783	3,072,149

* Maricopa County portion only.

Note: Total Housing Units and Population consistent with full Census count.

Prepared by the Maricopa Association of Governments, September 2003.

YEAR 2000 CENSUS OF POPULATION AND HOUSING
Occupancy Rates and Population per Occupied Housing Unit by Municipality
MARICOPA ASSOCIATION OF GOVERNMENTS

TABLE 3

Jurisdiction	Occupancy Rates (April 1, 2000)				Population per Occupied Unit (April 1, 2000)			
	Single Family	Multi-Family	Other	Total	Single Family	Multi-Family	Other	Total
Apache Junction *	0.00	0.48	0.52	0.50	0.00	1.74	1.59	1.67
Avondale	0.96	0.78	0.93	0.93	3.46	2.55	3.48	3.36
Buckeye	0.94	0.93	0.87	0.92	3.39	2.25	2.66	3.03
Carefree	0.79	0.72	1.00	0.79	2.15	1.45	2.50	2.11
Cave Creek	0.92	0.86	0.68	0.90	2.43	2.32	2.08	2.37
Chandler	0.96	0.86	0.85	0.94	2.96	2.26	2.73	2.82
El Mirage	0.92	0.85	0.29	0.67	3.83	3.52	2.81	3.59
Fountain Hills	0.89	0.61	0.00	0.82	2.46	1.75	0.00	2.34
Gila Bend	0.86	0.88	0.85	0.86	2.83	2.89	3.46	3.00
Gila River *	0.97	0.85	0.71	0.92	4.46	3.61	3.14	4.22
Gilbert	0.96	0.92	0.95	0.96	3.18	2.25	3.19	3.10
Glendale	0.97	0.91	0.91	0.95	3.11	2.33	2.43	2.85
Goodyear	0.91	0.91	1.00	0.91	2.73	2.53	2.55	2.68
Guadalupe	0.94	0.97	0.93	0.94	4.92	2.64	4.59	4.70
Litchfield Park	0.93	0.80	0.00	0.92	2.50	2.58	0.00	2.51
Mesa	0.93	0.86	0.50	0.83	3.01	2.24	1.92	2.68
Paradise Valley	0.92	1.00	1.00	0.92	2.69	2.00	3.29	2.71
Peoria *	0.95	0.83	0.77	0.92	2.90	1.80	2.12	2.73
Phoenix	0.97	0.89	0.87	0.94	3.02	2.32	2.61	2.79
Queen Creek *	0.96	0.00	0.94	0.95	3.49	0.00	3.72	3.58
Salt River	0.99	1.00	0.62	0.78	4.39	2.87	1.97	3.24
Scottsdale	0.89	0.81	0.82	0.86	2.42	1.75	2.04	2.22
Surprise	0.84	0.60	0.52	0.77	2.52	2.08	2.24	2.46
Tempe	0.97	0.92	0.91	0.95	2.69	2.04	2.37	2.41
Tolleson	1.00	0.81	1.00	0.96	3.79	2.14	2.18	3.47
Wickenburg	0.91	0.85	0.78	0.87	2.51	1.87	1.56	2.15
Youngtown	0.93	0.92	0.00	0.92	1.87	1.48	0.00	1.74
Unin-New River	0.86	0.71	0.92	0.87	2.80	3.42	2.17	2.73
Unin-Rio Verde	0.65	0.00	0.00	0.65	1.81	0.00	0.00	1.86
Unin-Sun City	0.83	0.91	0.97	0.85	1.65	1.38	1.40	1.60
Unin-Sun City West	0.87	0.80	1.00	0.86	1.77	1.37	1.90	1.74
Unin-Sun Lakes	0.86	1.00	0.90	0.86	1.82	1.32	1.56	1.79
Unin-Other	0.92	0.84	0.68	0.84	2.86	1.94	2.52	2.72
Total	0.94	0.88	0.69	0.91	2.88	2.20	2.36	2.67

* Maricopa County portion only.

Note: An Occupancy Rate or Population per Occupied Unit of 0.00 signifies that there were no units for this unit type.

Sources: U.S. Bureau of the Census Year 2000 Census.

Prepared by the Maricopa Association of Governments, September 2003.

JULY 1, 2003 MUNICIPALITY POPULATION AND HOUSING UNIT UPDATE
Net Housing Unit Completion and Annexation Information by Municipality (April 1, 2000 - June 30, 2003)

TABLE 4

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MARICOPA ASSOCIATION OF GOVERNMENTS

Jurisdiction	Net Housing Units (Completions - Demolitions)				Annexed Housing Units			
	Single Family	Multi-Family	Other	Total	Single Family	Multi-Family	Other	Total
Apache Junction *	0	0	0	0	0	0	0	0
Avondale	5,254	1,036	0	6,290	2	0	0	2
Buckeye	340	316	61	717	14	0	0	14
Carefree	194	0	0	194	0	0	0	0
Cave Creek	212	0	1	213	0	0	0	0
Chandler	8,893	4,320	0	13,213	188	0	0	188
El Mirage	5,539	7	42	5,588	0	0	5	5
Fountain Hills	809	78	0	887	0	0	0	0
Gila Bend	10	0	7	17	0	0	0	0
Gila River *	10	0	0	10	0	0	0	0
Gilbert	11,247	894	0	12,141	2,858	0	0	2,858
Glendale	2,803	2,030	0	4,833	5	0	0	5
Goodyear	4,776	8	0	4,784	0	0	0	0
Guadalupe	26	0	0	26	0	0	0	0
Litchfield Park	28	0	0	28	0	0	0	0
Mesa	11,603	3,479	188	15,270	432	0	0	432
Paradise Valley	243	0	0	243	0	0	0	0
Peoria *	6,400	1,085	79	7,564	0	0	0	0
Phoenix	17,394	9,650	12	27,056	21	0	0	21
Queen Creek *	1,009	0	0	1,009	0	0	0	0
Salt River	77	0	18	95	0	0	0	0
Scottsdale	5,396	2,771	0	8,167	2	0	0	2
Surprise	10,252	448	58	10,758	0	0	0	0
Tempe	222	240	0	462	0	0	0	0
Tolleson	21	228	2	251	0	0	0	0
Wickenburg	113	0	0	113	65	0	0	65
Youngtown	-3	153	0	150	0	0	0	0
Unin-New River	87	0	37	124	0	0	0	0
Unin-Rio Verde	112	0	0	112	0	0	0	0
Unin-Sun City	258	0	0	258	0	0	0	0
Unin-Sun City West	0	0	0	0	0	0	0	0
Unin-Sun Lakes	836	0	6	842	0	0	0	0
Unin-Other	9,568	5	2,057	11,630	-3,587	0	-5	-3,592
Total	103,729	26,748	2,568	133,045	0	0	0	0

* Maricopa County portion only.

Sources: Maricopa Association of Governments Residential Completion database.
 Prepared by the Maricopa Association of Governments, September 2003.

JULY 1, 2003 MUNICIPALITY POPULATION AND HOUSING UNIT UPDATE

TABLE 5
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MARICOPA ASSOCIATION OF GOVERNMENTS

Jurisdiction	Total Resident Housing Units (July 1, 2003)				Occupied Resident Housing Units (July 1, 2003)				Population (July 1, 2003)					
	Single Family	Multi-Family	Other	Total	Single Family	Multi-Family	Other	Total	Single Family	Multi-Family	Other	Pop. In Households	Pop. in Grp. Qrts.	TOTAL
Apache Junction *	0	185	143	328	0	89	74	163	0	155	118	273	0	273
Avondale	13,855	2,617	1,239	17,711	13,302	2,043	1,151	16,495	44,922	4,997	4,006	53,925	176	54,101
Buckeye	1,638	767	670	3,075	1,547	711	580	2,838	5,223	1,546	1,538	8,307	4,741	13,048
Carefree	1,798	163	2	1,963	1,417	118	2	1,537	3,049	171	5	3,225	0	3,225
Cave Creek	1,661	181	124	1,966	1,521	155	85	1,760	3,615	360	178	4,153	0	4,153
Chandler	59,843	17,989	2,161	79,993	57,505	15,469	1,835	74,809	168,473	34,145	5,015	207,633	1,125	208,758
El Mirage	7,166	329	1,265	8,760	6,564	279	365	7,208	23,502	979	1,023	25,504	0	25,504
Fountain Hills	8,911	2,467	0	11,378	7,920	1,498	0	9,418	19,343	2,606	0	21,949	171	22,120
Gila Bend	438	100	245	783	377	88	209	674	1,046	254	723	2,023	0	2,023
Gila River *	537	39	119	695	521	33	85	639	2,308	119	267	2,694	45	2,739
Gilbert	47,409	4,463	134	52,006	45,527	4,117	127	49,770	142,189	9,037	405	151,631	66	151,697
Glendale	54,732	24,805	4,968	84,505	53,259	22,518	4,498	80,275	164,852	52,073	10,939	227,864	2,864	230,728
Goodyear	10,655	583	317	11,555	9,712	529	317	10,558	25,447	1,336	807	27,590	2,805	30,395
Guadalupe	997	93	120	1,210	933	90	111	1,134	4,584	238	510	5,332	0	5,332
Litchfield Park	1,557	104	0	1,661	1,451	83	0	1,534	3,627	214	0	3,841	30	3,871
Mesa	107,492	50,675	33,236	191,403	100,468	43,814	16,724	161,006	301,169	97,434	32,035	430,638	3,949	434,587
Paradise Valley	5,720	15	7	5,742	5,235	15	7	5,257	14,155	30	23	14,208	12	14,220
Peoria *	39,792	6,132	4,210	50,134	37,880	5,102	3,260	46,242	109,103	9,015	6,899	125,017	1,568	126,585
Phoenix	328,990	172,111	21,808	522,909	318,231	154,030	19,069	491,330	958,875	356,098	49,858	1,364,832	23,482	1,388,314
Queen Creek *	1,995	0	243	2,238	1,902	0	228	2,130	6,449	0	848	7,297	94	7,391
Salt River	1,110	15	1,496	2,621	1,098	15	933	2,047	4,811	43	1,834	6,688	50	6,738
Scottsdale	76,699	35,427	1,017	113,143	68,211	28,672	829	97,712	164,051	49,760	1,695	215,507	2,190	217,697
Surprise	22,308	1,826	2,884	27,018	18,828	1,099	1,502	21,428	46,090	2,222	3,353	51,665	124	51,789
Tempe	36,944	27,860	2,726	67,530	35,950	25,611	2,478	64,039	96,382	52,086	5,874	154,342	5,280	159,622
Tolleson	1,186	508	42	1,736	1,186	412	42	1,640	4,479	851	91	5,421	0	5,421
Wickenburg	1,679	594	596	2,869	1,531	507	467	2,505	3,742	950	727	5,419	271	5,690
Youngtown	1,233	690	10	1,933	1,142	637	0	1,780	2,116	931	17	3,064	610	3,674
Unin-New River	4,056	17	565	4,638	3,497	12	523	4,031	9,792	41	1,131	10,964	45	11,009
Unin-Rio Verde	1,280	0	0	1,280	834	0	0	834	1,546	0	0	1,546	0	1,546
Unin-Sun City	23,655	4,248	86	27,989	19,740	3,883	83	23,706	32,512	5,345	116	37,973	668	38,641
Unin-Sun City West	16,264	1,085	10	17,359	14,118	869	10	14,997	26,083	0	0	26,083	261	26,344
Unin-Sun Lakes	7,521	73	994	8,588	6,431	73	897	7,401	11,660	96	1,397	13,152	0	13,152
Unin-Other	35,806	2,648	18,103	56,557	33,112	2,284	12,337	47,733	93,695	4,443	30,989	129,126	490	129,616
Total	924,927	358,809	99,540	1,383,276	870,949	314,853	68,827	1,254,630	2,498,888	687,574	162,421	3,348,883	51,117	3,400,000

* Maricopa County portion only.

Note: Totals may not add due to rounding

Prepared by the Maricopa Association of Governments, September 2003.

JULY 1, 2003 MUNICIPALITY POPULATION AND HOUSING UNIT UPDATE
Occupancy Rates and Population per Occupied Housing Unit by Municipality

TABLE 6

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MARICOPA ASSOCIATION OF GOVERNMENTS

Jurisdiction	Occupancy Rates (July 1, 2003)					Population per Occupied Unit (July 1, 2003)			
	Single Family	Multi-Family	Other	Total		Single Family	Multi-Family	Other	Total
Apache Junction *	0.00	0.48	0.52	0.50		0.00	1.74	1.59	1.67
Avondale	0.96	0.78	0.93	0.93		3.38	2.45	3.48	3.27
Buckeye	0.94	0.93	0.87	0.92		3.38	2.17	2.65	2.93
Carefree	0.79	0.72	1.00	0.78		2.15	1.45	2.50	2.10
Cave Creek	0.92	0.86	0.68	0.90		2.38	2.32	2.10	2.36
Chandler	0.96	0.86	0.85	0.94		2.93	2.21	2.73	2.78
El Mirage	0.92	0.85	0.29	0.82		3.58	3.51	2.80	3.54
Fountain Hills	0.89	0.61	0.00	0.83		2.44	1.74	0.00	2.33
Gila Bend	0.86	0.88	0.85	0.86		2.77	2.89	3.46	3.00
Gila River *	0.97	0.85	0.71	0.92		4.43	3.61	3.14	4.22
Gilbert	0.96	0.92	0.95	0.96		3.12	2.20	3.19	3.05
Glendale	0.97	0.91	0.91	0.95		3.10	2.31	2.43	2.84
Goodyear	0.91	0.91	1.00	0.91		2.62	2.52	2.55	2.61
Guadalupe	0.94	0.97	0.93	0.94		4.91	2.64	4.59	4.70
Litchfield Park	0.93	0.80	0.00	0.92		2.50	2.58	0.00	2.50
Mesa	0.93	0.86	0.50	0.84		3.00	2.22	1.92	2.67
Paradise Valley	0.92	1.00	1.00	0.92		2.70	2.00	3.29	2.70
Peoria *	0.95	0.83	0.77	0.92		2.88	1.77	2.12	2.70
Phoenix	0.97	0.89	0.87	0.94		3.01	2.31	2.61	2.78
Queen Creek *	0.95	0.00	0.94	0.95		3.39	0.00	3.72	3.43
Salt River	0.99	1.00	0.62	0.78		4.38	2.87	1.96	3.27
Scottsdale	0.89	0.81	0.82	0.86		2.41	1.74	2.04	2.21
Surprise	0.84	0.60	0.52	0.79		2.45	2.02	2.23	2.41
Tempe	0.97	0.92	0.91	0.95		2.68	2.03	2.37	2.41
Tolleson	1.00	0.81	1.00	0.94		3.78	2.07	2.17	3.31
Wickenburg	0.91	0.85	0.78	0.87		2.44	1.87	1.56	2.16
Youngtown	0.93	0.92	0.00	0.92		1.85	1.46	0.00	1.72
Unin-New River	0.86	0.71	0.93	0.87		2.80	3.42	2.16	2.72
Unin-Rio Verde	0.65	0.00	0.00	0.65		1.85	0.00	0.00	1.85
Unin-Sun City	0.83	0.91	0.97	0.85		1.65	1.38	1.40	1.60
Unin-Sun City West	0.87	0.80	1.00	0.86		1.85	0.00	0.00	1.74
Unin-Sun Lakes	0.86	1.00	0.90	0.86		1.81	1.32	1.56	1.78
Unin-Other	0.92	0.86	0.68	0.84		2.83	1.94	2.51	2.71
Total	0.94	0.88	0.69	0.91		2.87	2.18	2.36	2.67

* Maricopa County portion only.

Note: An Occupancy Rate or Population per Occupied Unit of 0.00 signifies that there were no units for this unit type.

Prepared by the Maricopa Association of Governments, September 2003.

ATTACHMENT THREE
MARICOPA ASSOCIATION OF GOVERNMENTS
INFORMATION SUMMARY... for your review

DATE:

September 2, 2003

SUBJECT:

2005 Population Options

SUMMARY:

In October 2002, the MAG Management Committee established a Subcommittee on 2005 Population Options to explore more cost-effective alternatives to a Special Census for deriving a 2005 population figure for distributing state-shared revenues to cities and towns. To create the opportunity to use other options, state law needed to be changed to allow for methods other than a Special Census. This year State law was amended to allow for the use of a Census Survey, or a July 1, 2005 Arizona Department of Economic Security Population estimate instead of a Special Census for distributing almost \$1 billion in state-shared revenue annually. After extensive deliberations during ten meetings held over a 10-month period, the MAG Management Subcommittee on 2005 Population Options has recommended that MAG conduct a Census Survey, with a confidence interval of 95 percent plus/minus 2 percent, at a cost of \$9.4 million. Jurisdictions that wish to conduct a survey with the higher confidence interval – 95 percent plus/minus 1 percent, would be able to do so if they agreed to incur any additional local costs associated with the larger sample size (see attached table).

The Federal Highway Administration (FHWA) has agreed to allow MAG to use FHWA Surface Transportation Program (STP) funds to cover half the cost of the survey because of the data benefits offered by the survey, if all MAG member agencies agree to participate. The remaining \$4.7 million in survey costs would be allocated among MAG member agencies in accordance with the attached table. The costs for jurisdictions that wish to conduct a survey using the higher 1 percent confidence interval are also shown in the table. The proposed Census Survey would be conducted in September 2005, and MAG would need to enter into an agreement with the Census Bureau by March 2004 to pursue this option. MAG member agencies would be billed for their share of the costs of the survey at the beginning of Fiscal Year 2006 (July 2005).

The efforts of the Subcommittee could not have been accomplished without the support and guidance of Census Bureau personnel in the Denver Regional Office and at Headquarters in Maryland.

PUBLIC INPUT:

A citizen encouraged efforts to ensure he is counted in the Special Census.

PROS & CONS:

PROS: With about \$1 billion in state-shared revenue distributed annually, the rapid growth in the metropolitan area and the financial condition of member agencies, it is crucial to have a cost-effective method for deriving a 2005 population figure for distributing state-shared revenue.

CONS: Pursuing a Census Survey is less expensive than a Special Census but is subject to sampling error.

TECHNICAL & POLICY IMPLICATIONS:

TECHNICAL: The logistics of carrying out a Census Survey for the region will be demanding, but will carry certain benefits of economies of scale and regional promotional activities to achieve participation and staffing.

POLICY: The 2005 population counts will be used to distribute more than \$1 billion annually in state-shared revenues between 2005 and 2010. The ability to use Federal Highway Administration funds to defray a portion of the cost of a Special Census or survey will require that the entire region pursue the Census Survey option.

ACTION NEEDED:

Information and discussion.

PRIOR COMMITTEE ACTIONS:

MAG Management Subcommittee on 2005 Population Options: On July 11, 2003, the MAG Management Subcommittee on 2005 Population Options recommended that MAG conduct a Census Survey for 2005 figures for distributing state shared revenue; and that the costs of the survey be allocated in accordance with the cost allocation table. MAG members that wish to conduct a survey with a higher confidence interval – 95 percent plus/minus 1 percent – would be able to do so if they agreed to incur the additional local costs associated with the larger sample size as shown in the attached table. The subcommittee unanimously agreed that there is a benefit to collecting regional information and updating Census data, but disagreement on the cost-allocation formula. The motion was recommended with one voting no (*italics*).

MEMBERS ATTENDING

George Pettit, Gilbert, Chairman
Charlie McClendon, Avondale
Prisila Ferreira, Peoria

Norris Nordvold, Phoenix
Jim Huling, Mesa
*Patrick Flynn, Tempe

*Those members not present.

Management Committee: On October 14, 2002, the Management Committee approved establishment of a Subcommittee on 2005 population options to explore alternatives to deriving a 2005 population figure for distributing stated shared revenue.

MEMBERS ATTENDING

Peoria: Terry Ellis, Chairman
Mesa: Mike Hutchinson, Vice Chair
Apache Junction: Pat Brenner for
George Hoffman
Avondale: Kristin Greene Skabo for
Todd Hileman
* Buckeye: Joe Blanton
Carefree: Jon Pearson
Cave Creek: Usama Abujbarah
Chandler: Patrice Kraus for Donna Dreska
El Mirage: Stuart Brackney
* Fountain Hills: Tim Pickering
Gila Bend: Shane Dille
* Gila River Indian Community: Urban Giff
Gilbert: Tami Ryall for George Pettit
Glendale: Ed Beasley
Goodyear: Stephen Cleveland

Guadalupe: Tom Morales
Litchfield Park: Horatio Skeete
Paradise Valley: Tom Martinsen
Phoenix: Norris Nordvold for Frank Fairbanks
Queen Creek: Cynthia Seelhammer
*Salt River Pima-Maricopa Indian Community:
Bryan Meyers
Scottsdale: Steve Olson for Jan Dolan
Surprise: Bill Pupo
Tempe: Amber Wakeman for Will Manley
Tolleson: Reyes Medrano for Ralph Velez
*Wickenburg: Jerry Stricklin
Youngtown: Mark Fooks
ADOT: Dale Buskirk for Victor Mendez
Maricopa County: Mike Sabatini for
David Smith
RPTA: Ken Driggs

*Those members not present.

Participated by videoconference or telephone conference call.

Regional Council: On April 24, 2002, the Regional Council approved reserving at least \$6 million of MAG federal funds over a four year period (\$1.5 million per year) to keep our options open regarding taking a 2005 Special Census or using an estimate and to forward an assessment schedule to the MAG member agencies reflecting \$24 million over a four year period. The motion was approved, with one voting no (*italics*).

MEMBERS ATTENDING

Peoria: Mayor John Keegan, Vice Chair
Avondale: Mayor Ron Drake
* Buckeye: Mayor Dusty Hull
* Carefree: Mayor Edward C. Morgan
* Cave Creek: Vice Mayor Ralph Mozilo
* Chandler: Mayor Jay Tibshraeny
El Mirage: Mayor Roy Delgado
* Fountain Hills: Mayor Sharon Morgan
* Gila Bend: Mayor Chuck Turner
* Gila River Indian Community: Governor Donald Antone
Gilbert: Mayor Steven Berman
Glendale: Mayor Elaine Scruggs
Goodyear: Mayor Bill Arnold
* Guadalupe: Mayor Margarita Cota
* Litchfield Park: Mayor J. Woodfin Thomas
Maricopa County: Supervisor Max W. Wilson for Supervisor Don Stapley

* Mesa: Mayor Keno Hawker
Paradise Valley: Mayor Edward Lowry
Phoenix: Councilmember Peggy Bilsten for Mayor Skip Rimsza
Queen Creek: Mayor Wendy Feldman-Kerr
* Salt River Pima-Maricopa Indian Community: President Ivan Makil
* Scottsdale: Mayor Mary Manross
Surprise: Mayor Joan Shafer
* Tempe: Mayor Neil Giuliano
* Tolleson: Mayor Adolfo Gamez
Wickenburg: Mayor Lon McDermott
Youngtown: Councilmember Lucille Retherford for Mayor Daphne Green
ADOT: Joe Lane
ADOT: Dallas Gant
Citizens Transportation Oversight Committee: F. Rockne Arnett

*Those members not present.

Participated by videoconference or telephone conference call.

Management Committee: On April 10, 2002, the Management Committee recommended reserving at least \$6 million of MAG federal funds over a four year period (\$1.5 million per year) to keep our options open regarding taking a 2005 Special Census or to develop an estimate and to forward an assessment schedule to the MAG member agencies reflecting \$24 million over a four year period. The motion was recommended, with one abstention (**shaded**).

MEMBERS ATTENDING

Wickenburg: Fred Carpenter, Chairman
Avondale: Kristin Greene for Scott Schrader
* Buckeye: Joe Blanton
* Carefree: Jon Pearson
* Cave Creek: Usama Abujbarah
Chandler, Donna Dreska
El Mirage: Stuart Brackney
* Fountain Hills: Paul Nordin
Gila Bend: Shane Dille
* Gila River Indian Community: Urban Giff
Gilbert: George Pettit
Glendale: Tim Ernster for Ed Beasley
Goodyear: Stephen Cleveland
* Guadalupe: Tom Morales
* Litchfield Park: Horatio Skeete

Mesa: Mike Hutchinson
Paradise Valley: Tom Martinsen
Peoria: Terry Ellis
Phoenix: Frank Fairbanks
Queen Creek: Cynthia Seelhammer
Salt River Pima-Maricopa Indian Community: Jacob Moore for Bryan Meyers
Scottsdale: Peggy Carpenter for Jan Dolan
Surprise: Bill Pupo
Tempe: Will Manley
Tolleson: Ralph Velez
*Youngtown: Mark Fooks
ADOT: Mary Lynn Tischer for Victor Mendez
Maricopa County: Tom Buick for David Smith
RPTA: Ken Driggs

*Those members not present.

Participated by videoconference or telephone conference call.

CONTACT PERSON:

George Pettit, Gilbert, (480) 503-6864
Harry Wolfe, MAG, (602) 254-6300

MAG MANAGEMENT SUBCOMMITTEE ON 2005 POPULATION OPTIONS

Member

George Pettit, Chair, Manager

Prisila Ferreira, Vice Chair, Deputy City Manager

Charlie McClendon, Assistant City Manager

Jim Huling, Assistant to the City Manager

Norris Nordvold, Intergovernmental Programs Director

Patrick Flynn, Assistant City Manager

Agency

Gilbert

Peoria

Avondale

Mesa

Phoenix

Tempe

September 2, 2003

TO: Members of the MAG Management Committee

FROM: George A. Pettit, Chair
Management Subcommittee on 2005 Population Options

SUBJECT: RECOMMENDATION ON 2005 POPULATION OPTIONS FOR
DISTRIBUTING STATE SHARED REVENUES

Almost \$1 billion in state-shared revenues is distributed annually to local governments throughout Arizona using population as one part of the distribution formula. This includes state shared income tax, sales tax, gasoline tax, and vehicle license tax. Lottery funds are distributed based on annual population estimates prepared by DES and approved by the Economic Estimates Commission. State law provides for the population to be changed on all other distributions using only the Decennial Census, or a mid-decade Special Census. A 1994 amendment which allowed for use of a Census survey lapsed in June, 2001.

Because of the rapid growth of the MAG Region, member agencies opted in 1985, and again in 1995 to conduct a Special Census to provide updated population data for the state-shared revenue formulas. The cost of a Decennial Census is paid by the federal government, while the costs of a Special Census must be paid by the contracting local governments. In 1985 the cost of the Special Census to MAG member agencies was approximately \$3.5 million. The 1995 Special Census cost approximately \$9 million, with half paid by Federal Highway (FHWA) Surface Transportation Program (STP) funds. FHWA approved use of the funds to provide updated data to use for transportation modeling efforts in the rapidly growing urban area. Initial estimates secured by MAG staff from the Office of Special Census for a 2005 Special Census was \$30 million, based upon an estimated 3.6 million persons to be counted in the region. It was estimated that a maximum of \$6 million in FHWA funds could be available, making the net costs to member agencies \$24 million for a Special Census.

While growth in the urban area continues to be explosive, the characteristics of that growth are changing, and the effects of population formulas upon member agencies distributions is different. There is a likelihood that larger communities that are continuing to grow will actually receive less in state shared revenue as surrounding communities grow faster. Additionally, the financial condition of several communities as a result of decline in state-shared income tax receipts created financial concerns on paying for a Special Census.

Legislative Remedies

A priority for the Subcommittee was securing changes in State Law which would allow for the use of methods other than a Special Census to change the distribution formulas. The 2003 Legislative session approved an amendment to State Law which would allow for use of the following options:

- Census Survey

- Arizona Department of Economic Security population estimate
- Special Census
- Retaining 2000 Census population estimates

Analysis of Options

Over the past ten months, the Subcommittee met to discuss and evaluate the options to a Special Census. Each option afforded by the legislative change is presented below.

Census Survey

A Census Survey is a statistical sampling of the households in a community sufficient to secure enough data to statistically derive the total population.

The Census Bureau has indicated the cost of a Survey with a 95 percent confidence interval, plus or minus 2 percent would be \$9.4 million, assuming a 50 percent mail response rate. If the response rate is lower, then additional costs for enumerators to make follow up visits to secure the information will be added. If the response rate is higher, then the costs could decrease. The cost of a 95 percent confidence interval plus or minus 1 percent approaches \$20 million.

An extensive amount of time was spent examining the proper accuracy level to use for the Survey. The Subcommittee worked with the Census Bureau and examined two options, a 95 percent confidence interval, plus or minus 2 percent and a 95 percent confidence interval, plus or minus 1 percent. The Subcommittee recommendation is to use the 95 percent, plus or minus 2 percent Survey.

One of the major underlying concerns of the Subcommittee was accuracy and completeness of a Survey. As a by-product of that concern, Group Quarters (dormitories, prisons, nursing homes, and the homeless) are recommended to receive a special census, rather than Survey. This cost is included in the \$9.4 million estimated cost.

The Census Survey represents a cost effective approach to secure updated population information and characteristics for the region.

DES Estimate

The Subcommittee recognized that the DES Estimate approach would cost the least. However, the Estimate uses completed housing units as a source of estimating population, as well as Census 2000 base data, and does not provide any updated information on the characteristics of the community such as vacancy rates and household size which will be collected by the Survey and be of value in transportation and community planning for the next five years until another Decennial Census in 2010.

Special Census

The Subcommittee determined that the cost/benefit of conducting a Regional Special Census was not realistic or affordable. The \$30 million estimated cost is prohibitive when viewed in terms of the the overall ability to pay given the information received. A Special Census involves having a Census enumerator visit each household in Maricopa County. The logistical concerns over recruiting sufficient staff to conduct a door to door census was also of concern.

Retaining 2000 Population

There was little discussion on this option, since most communities in the region are continuing to grow. However, we recognize the value to communities who might experience population decline in the rest of the State.

The Subcommittee unanimously recommended the use of a Census Survey to secure a mid-decade census count for the Region.

Cost Distribution Formula

The costs of the previous Special Census was distributed on a per capita basis, since there was a relationship between the costs of collecting the information based upon the number of persons being counted.

However, as the Committee reviewed the technical sampling and relative costs of a survey to collect information to achieve the statistical accuracy, a discussion on the cost distribution formula resulted. In some cases, the number of housing units required to sample smaller communities approached or exceeded the cost of a Special Census, while statistical accuracy sampling was less costly in larger communities.

The final compromise formula recommended by the Subcommittee uses a blending of allocating costs on per capita basis for communities with less than 6,000 population and a projected growth rate of less than 3.5 percent with housing unit sample size for all other communities. In no case can the costs of the 95 percent confidence interval, plus or minus 2 percent survey exceed the cost of a Special Census.

The Subcommittee further recommended that a community can choose to pay the additional costs associated with an improved accuracy level to plus or minus 1 percent, at their own choice. This recommendation assumes that all member agencies will agree to participate and fund the costs. There are additional costs associated with promotion and local efforts to assure that the return rate of the surveys is achieved.

The Subcommittee had one dissenting opinion on the cost allocation formula. The preference was to stay with per capita costs.

Timing

The Office of Special Census has indicated that MAG needs to enter into an Agreement for a Census Survey by March, 2004. All member agencies would have to agree to participate in the Survey, which will also allow for half the cost of the Survey to be covered by FHWA funds.

The Survey would be conducted in September, 2005. The change in population distribution would be effective July, 2006 for the 2006-07 Fiscal Year.

The Subcommittee recommendation is for information and discussion in September, 2004, with action planned for October, 2004. If recommended, MAG would use the FHWA funds to cover the initial costs of the Survey, and then invoice member agencies for their share of the projected costs. The final costs would be allocated in accordance with the recommended formula and actual population derived.

Acknowledgments

I want to express my appreciation to the personnel in the Census Bureau's Denver Regional Office and at Census Bureau Headquarters in Maryland who participated in our subcommittee meetings via teleconference, and provided valuable information and counsel to the subcommittee.

Additionally, Harry Wolfe, Rita Walton and others on the MAG staff provided timely information, explanations of the data and support to the subcommittee.

Finally, I appreciate the presence and participation of Norris Nordvold, Jim Huling, Patrick Flynn, Charlie McClendon and Prisila Ferriera in the meetings, deliberations and recommendations of the Subcommittee.

I can be reached at (480) 503-6864 if you have any questions or require additional information, or you can contact Harry Wolfe at (602) 254-6300.

**Comparison of
Net Survey Cost at 95% Confidence Interval +/- 2%,
Net Survey Cost at 95% Confidence Interval +/- 1%
and
Net Special Census Cost**

Jurisdiction	Net survey cost (after FHWA contribution)*		Net 2005 Special Census cost based on share of 2005 population (after FHWA contribution)*
	95% +/- 2%	95% +/- 1%	
Avondale	\$138,800	\$430,500	\$469,800
Buckeye	\$128,100	\$128,300	\$128,300
Carefree	\$4,500	\$12,600	\$23,000
Cave Creek	\$5,800	\$16,200	\$29,500
Chandler	\$213,400	\$717,900	\$1,464,800
El Mirage	\$136,000	\$136,000	\$136,000
Fountain Hills	\$157,600	\$158,200	\$158,200
Gila Bend	\$2,700	\$7,500	\$13,600
Gilbert	\$146,700	\$535,600	\$1,165,800
Glendale	\$215,400	\$731,500	\$1,578,400
Goodyear	\$140,800	\$288,600	\$288,600
Guadalupe	\$7,000	\$19,700	\$35,900
Litchfield Park	\$5,000	\$14,100	\$25,600
Mesa	\$628,400	\$1,298,900	\$3,128,300
Paradise Valley	\$96,600	\$96,600	\$96,600
Peoria	\$205,200	\$684,500	\$970,900
Phoenix	\$1,260,900	\$4,437,200	\$9,397,600
Queen Creek	\$54,800	\$54,800	\$54,800
Scottsdale	\$272,500	\$988,400	\$1,519,500
Surprise	\$277,600	\$512,700	\$512,700
Tempe	\$206,300	\$712,300	\$1,053,300
Tolleson	\$6,600	\$18,600	\$33,900
Wickenburg	\$40,400	\$40,400	\$40,400
Youngtown	\$24,600	\$24,600	\$24,600
Balance of County	\$324,300	\$1,134,200	\$1,650,000
Total	\$4,700,000	\$13,199,900	\$24,000,000

Notes:

Balance of County = Unincorporated areas, Gila River Indian Community and Salt River Pima-Maricopa Indian Community

Unless all member agencies decide to go for a Census Survey or all member agencies decide to go for a Special Census, FHWA funds will not be available