## "In the Heavens, Are Parents Single?": Report No. 11

Committee on Celestial Demographics

ince the pioneering work of Orson Pratt, little advancement has been made in the area we will refer to as celestial demography.<sup>2</sup> This lack of progress is distressing given the thousands of hours spent debating issues about post-mortal existence such as the possibility of inter-kingdom mobility, the implications of contemporary proselyting which continues to produce more female than male converts, and the possibilities of polygamous or other marital forms in the future life. Although the data necessary for definitive projections are unavailable and some tentative assumptions must be made, the application of contemporary demographic methods to the projections of the size and composition of post-mortal populations yields insights that have gone unrecognized in the more speculative debates on the nature of immortality and eternal life. Here we consider the sex composition of the Celestial Kingdom.

Ever since the Book of Mormon was translated, the Church has held the doctrine that children who die before age eight are saved. Elder Bruce R. McConkie states that such children are exalted in the highest degree of the Celestial Kingdom.<sup>3</sup> This doctrine has profound implications for the gender composition of this kingdom, especially in light of the mortality rates that have prevailed during much of the earth's history.

To explore these implications, we make three assumptions based on the best demographic data available, namely: (1) 70 billion people have been

<sup>&</sup>lt;sup>1</sup> In preparing this report, the committee has profited from discussions of celestial demography with several persons, especially Tim B. Heaton, Howard M. Bahr, James E. Smith, and James Duke.

<sup>&</sup>lt;sup>2</sup> Orson Pratt was concerned with the number of spirits in the preexistence and the fertility and nuptual patterns required to produce these spirits. For example, he calculated that it would have required "over one hundred thousand millions of years for the same Mother to have given birth to this vast family." "The Pre-existence of Man," The Seer, 1 (March 1853): 38. Shortening the gestation period or allowing for multiple wives would shorten this period, but there would still be a very large age difference between the oldest and youngest spirits. He went on to estimate that in the third generation there would be a large enough population to inhabit "one billion three million and three worlds" (Ibid., p. 39).

<sup>3 &</sup>quot;The Salvation of Little Children," 7 (April 1977): 3.

born on the earth, (2) the sex ratio at birth is 104 males per 100 females, and (3) 47 percent of males and 44 percent females die before age eight. It follows that 46 percent of the earth's population (people ever born) are automatically exalted. Given that two-thirds of the hosts of heaven survived the war in heaven, this percentage rivals Satan's success rate in that premortal struggle.

Furthermore, it also follows that 16.8 billion males and 15.1 billion females have been exalted by early death, producing a surplus of about 1.7 billion males. With so many celestialized males available in post-mortal existence, it may be less surprising in the long-term perspective, that women who survive past age eight appear to be more religious than the surviving men. Indeed, if the surviving women did not perform better (i.e., if females surviving past age eight were not more likely than males to become celestialized), a balanced sex ratio would be impossible. The following calculations illustrate this point:

If this percentage of surviving men were exalted	then	this percentage of surviving women would have to be exalted to achieve a balanced sex ratio	ratio of females to males
10		19	1.9
20		29	1.4
30		38	1.3
40		48	1.2
50		58	1.2
60		68	1.1
70		78	1.1
80		88	1.1
90		97	1.1

If equal percentages of surviving males and females are exalted, the 1.7 billion surplus of males would not be greatly altered regardless of the magnitude of the percentage exalted. Clearly, significantly more females than males who

<sup>&</sup>lt;sup>4</sup> This number is cited as a reasonable estimate by Orson Pratt (*The Seer*, 1:38) as well as by some present-day mathematical demographers. See, for example, Nathan Keyfitz, "How Many People Have Ever Lived on the Earth?" *Demography* 3 (May 1966): 581-82.

<sup>&</sup>lt;sup>5</sup> This is a conservative estimate since societies with relatively complete registration have sex ratios at birth ranging from 104 to 107. See Pravin M. Visaria, "Sex Ratio at Birth in Territories With a Relatively Complete Registration," *Eugenics Quarterly*, 14 (June 1967): 132-42.

These percentages are obtained from the West model life table with a mortality level 6, column 5; Ansley J. Coale and Paule Demeny, Regional Model Life Tables and Stable Populations (Princeton: Princeton University Press, 1966). This particular life table was selected on the basis of fertility and mortality rates from early Europe; Charles F. Wesloff, "The Populations of the Developed Countries" in The Human Population (San Francisco: Scientific American, 1974), pp. 69–77. Using other life tables from other regions or with fertility and mortality rates ranging between 30 and 40 per thousand would not alter our conclusions. Roughly 10 percent of the 70 billion people have been born in societies with mortality rates below twenty per thousand. The sex ratio of deaths in these societies still overrepresents males such that continuation of this trend into the future would not greatly aler the sex ratio of children who die before age eight.

survive age eight will need to be exalted to achieve a balanced sex ratio. Thus, the long-term consequences of a higher female baptism rate will be to create a more balanced sex ratio in the hereafter.

The sex ratio places limits on marriage patterns. If all 19.2 billion women and none of the 18.9 billion men who survived past eight were exalted, the sex ratio in the heavens would barely exceed two women per man. Thus, one would need an extremely favorable image of women to believe in the possibility of universal polygyny. Indeed, these projections suggest that many women who have been distressed at the possibility of sharing their mate may rest at ease. In fact, they may face an equally formidable task of keeping two men in eternal bliss. Perhaps Eliza Snow's rhetorical question, "In the heavens are parents single?" requires more serious consideration.

If we are required to do temple work for this vast heavenly host, the task before us is awesome. Already, fewer male than female endowments are completed for the dead. Any concern regarding this current inequality pales in comparison to the 1.7 billion male surplus awaiting attention. Unless more efficient methods are introduced, there is little doubt that doing temple work will be the major task facing those alive during the millennium, especially for men.

It is also of interest to note that a more detailed analysis of ethnic and racial composition of the celestial inhabitants would quickly eradicate any racist notions about the inferiority of blacks, Asians, or residents of the so-called heathen nations. Judging from the present and projected populations of non-Caucasian nations, Jews, Nephites, and Christians will constitute a small minority of the heavenly host.

In closing, some caveats bear mentioning. First, the size of the earth's population, mortality rates and the sex ratio at birth are rough guesses derived from the best available data. Small changes in any of these estimates would not affect these conclusions, but large differences might. Second, belief that all children who die before age eight are automatically exalted is not universally accepted as doctrine. Thus, the assumption that they will all be eternal parents might be challenged. Third, we are now living in an era when mortality rates are very low in comparison with preindustrial societies. If this era persists, then the share of the total population that dies before age eight will decline. This will not alter the sex ratio of early deaths but it will reduce the importance of these deaths in comparison with salvation rates for those who survive past age eight. In any event, close monitoring of demographic trends cannot be ignored in any informed analysis of the population structure of the heavens.

<sup>&</sup>lt;sup>7</sup> James Duke (personal communication) has made calculations similar to those reported below, based on somewhat different assumptions. He arrives at a similar sex ratio and number of excess males. He also concludes that a higher female baptism rate may have long-term advantages.

Senter Jule

