Analysis of Carbon Monoxide Exposure for Fourteen Cities using HAPEM-MS3

Appendix A

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually

Note that the electronic version of Appendix A is not organized the same as the hardcopy. Instead of being organized just by city, it is organized by type of data and by city.

Baltimore: Citywide

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=2382172, HAPEM Population=2302283, District 19 HAPEM Population=1207886 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	1639501	801 (7.0)	532 (4.9)	630 (5.4)	741 (6.5)	676 (3.0)
African americans	607054	798 (6.8)	544 (3.8)	619 (4.2)	722 (5.3)	671 (2.6)
Hispanics	27819	785 (9.0)	534 (5.6)	621 (6.0)	725 (8.0)	666 (3.6)
Household income lt \$10K	255606	772 (4.6)	525 (3.1)	605 (3.2)	709 (4.3)	652 (1.9)
Household income \$10K-\$25K	256747	813 (5.0)	556 (4.0)	640 (4.1)	750 (4.7)	689 (2.2)
Household income \$25K-\$50K	638235	804 (6.5)	538 (4.3)	632 (4.5)	742 (6.1)	679 (2.7)
Household income \$50K-\$75K	451310	804 (5.3)	534 (4.1)	632 (5.0)	744 (5.1)	679 (2.4)
Household income gt \$75K	614886	799 (6.7)	527 (4.1)	624 (4.3)	739 (6.2)	672 (2.7)
Children, 0 to 17	555527	806 (5.6)	544 (4.2)	639 (4.8)	744 (5.6)	683 (2.5)
Nonworking men, 18 to 44	134571	844 (5.7)	563 (4.2)	659 (4.0)	769 (5.6)	708 (2.5)
Working men, 18 to 44	345949	853 (6.8)	566 (4.5)	655 (4.8)	785 (6.0)	714 (2.8)
Nonworking women, 18 to 44	224680	778 (5.7)	518 (3.3)	606 (3.4)	714 (4.7)	654 (2.2)
Working women, 18 to 44	284695	809 (4.4)	533 (2.9)	626 (3.4)	741 (3.8)	677 (1.8)
Nonworking men, 45 to 64	58000	770 (3.3)	526 (3.9)	622 (4.9)	701 (2.3)	655 (1.9)
Working men, 45 to 64	146807	859 (6.4)	565 (3.9)	652 (3.8)	791 (5.6)	716 (2.5)
Nonworking women, 45 to 64	101625	753 (4.2)	495 (2.7)	587 (3.5)	685 (3.4)	630 (1.7)
Working women, 45 to 64	120971	799 (5.2)	529 (3.7)	616 (3.6)	734 (4.9)	669 (2.2)
Men, 65+	126837	789 (5.5)	537 (3.7)	639 (3.5)	732 (5.3)	674 (2.3)
Women, 65+	141633	753 (4.6)	501 (3.2)	595 (3.4)	685 (4.1)	633 (1.9)
Outdoor workers	14028	976 (6.2)	651 (3.7)	769 (3.3)	887 (5.3)	820 (2.4)
Outdoor children	155647	849 (4.4)	566 (3.4)	660 (4.2)	783 (4.1)	714 (2.0)
Heart and respiratory	324103	757 (4.3)	512 (3.6)	604 (4.7)	696 (4.2)	642 (2.1)
All persons	2302283	812 (6.7)	540 (4.4)	631 (4.8)	745 (6.0)	682 (2.8)

Baltimore: State=Maryland (24), County=Anne Arundel County (003)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=427239, HAPEM Population=411082, District 19 HAPEM Population=394612 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	351561	830 (10.2)	569 (7.2)	662 (7.9)	771 (9.6)	708 (4.4)
African americans	48448	800 (12.7)	543 (7.0)	634 (8.1)	735 (10.1)	678 (4.9)
Hispanics	6542	805 (13.6)	554 (8.5)	644 (9.0)	748 (12.0)	688 (5.5)
Household income lt \$10K	38653	772 (7.8)	524 (5.1)	612 (5.5)	714 (7.3)	655 (3.3)
Household income \$10K-\$25K	28764	837 (9.4)	582 (7.2)	669 (7.7)	780 (8.6)	717 (4.1)
Household income \$25K-\$50K	100108	835 (11.5)	574 (7.6)	668 (8.0)	776 (10.8)	713 (4.8)
Household income \$50K-\$75K	88412	835 (8.4)	573 (6.6)	668 (7.9)	777 (8.0)	713 (3.9)
Household income gt \$75K	142072	823 (9.1)	557 (5.6)	652 (5.9)	765 (8.4)	699 (3.7)
Children, 0 to 17	101374	821 (9.2)	563 (6.7)	659 (7.8)	762 (9.1)	701 (4.1)
Nonworking men, 18 to 44	18427	872 (10.6)	592 (7.8)	695 (7.7)	805 (10.5)	741 (4.6)
Working men, 18 to 44	74818	872 (10.5)	591 (7.0)	679 (7.4)	807 (9.2)	737 (4.3)
Nonworking women, 18 to 44	33810	807 (10.0)	552 (5.7)	642 (6.0)	748 (8.3)	687 (3.8)
Working women, 18 to 44	56361	828 (7.0)	558 (4.7)	651 (5.5)	762 (6.1)	700 (2.9)
Nonworking men, 45 to 64	7947	807 (6.1)	569 (7.1)	669 (9.1)	745 (4.1)	697 (3.4)
Working men, 45 to 64	31403	885 (9.8)	596 (5.9)	680 (5.7)	818 (8.4)	744 (3.8)
Nonworking women, 45 to 64	15560	791 (7.3)	539 (4.7)	632 (6.0)	728 (5.9)	672 (3.0)
Working women, 45 to 64	24835	823 (8.1)	559 (5.8)	645 (5.7)	760 (7.6)	696 (3.4)
Men, 65+	17548	830 (9.5)	585 (6.5)	689 (6.2)	779 (9.3)	721 (4.0)
Women, 65+	18180	793 (8.2)	548 (5.6)	644 (6.1)	731 (7.2)	679 (3.4)
Outdoor workers	3460	987 (11.0)	668 (6.6)	786 (5.9)	900 (9.5)	835 (4.2)
Outdoor children	28811	865 (7.1)	585 (5.5)	680 (6.8)	801 (6.6)	732 (3.3)
Heart and respiratory	54567	782 (7.2)	544 (6.1)	637 (7.9)	726 (7.0)	672 (3.5)
All persons	411082	836 (11.0)	568 (7.3)	660 (7.9)	772 (9.9)	709 (4.6)

Baltimore: State=Maryland (24), County=Baltimore County (005)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=692134, HAPEM Population=692134, District 19 HAPEM Population=350221 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	588624	753 (5.8)	466 (3.9)	585 (4.5)	700 (5.5)	626 (2.5)
African americans	85025	755 (9.1)	485 (5.0)	586 (5.8)	691 (7.3)	629 (3.5)
Hispanics	7645	756 (8.2)	485 (5.0)	592 (5.4)	702 (7.2)	634 (3.3)
Household income lt \$10K	65724	730 (5.4)	469 (3.5)	568 (3.8)	673 (5.0)	610 (2.3)
Household income \$10K-\$25K	61441	728 (5.1)	438 (3.5)	562 (4.1)	679 (4.8)	601 (2.2)
Household income \$25K-\$50K	192052	750 (6.5)	461 (4.0)	584 (4.4)	698 (6.1)	623 (2.7)
Household income \$50K-\$75K	150296	759 (4.8)	470 (3.5)	591 (4.5)	707 (4.6)	632 (2.2)
Household income gt \$75K	195817	764 (5.9)	479 (3.6)	591 (3.8)	709 (5.4)	636 (2.4)
Children, 0 to 17	151489	751 (5.4)	468 (3.8)	589 (4.6)	698 (5.4)	626 (2.4)
Nonworking men, 18 to 44	35383	793 (6.1)	488 (4.2)	615 (4.3)	732 (6.0)	657 (2.6)
Working men, 18 to 44	104771	811 (5.8)	509 (3.9)	617 (4.1)	750 (5.2)	672 (2.4)
Nonworking women, 18 to 44	66528	733 (5.8)	454 (3.2)	567 (3.4)	678 (4.8)	608 (2.2)
Working women, 18 to 44	88082	771 (3.9)	481 (2.6)	592 (3.0)	711 (3.4)	639 (1.6)
Nonworking men, 45 to 64	17299	719 (3.6)	452 (4.0)	577 (5.3)	662 (2.4)	602 (2.0)
Working men, 45 to 64	48794	820 (5.7)	512 (3.5)	617 (3.4)	758 (4.9)	677 (2.2)
Nonworking women, 45 to 64	32798	708 (4.3)	435 (2.7)	550 (3.6)	651 (3.5)	586 (1.8)
Working women, 45 to 64	40001	762 (4.7)	478 (3.3)	582 (3.3)	704 (4.4)	631 (2.0)
Men, 65+	45430	744 (5.6)	473 (3.7)	599 (3.6)	695 (5.5)	628 (2.3)
Women, 65+	51433	713 (4.8)	446 (3.1)	560 (3.5)	654 (4.2)	593 (2.0)
Outdoor workers	3863	930 (5.4)	588 (3.3)	728 (2.9)	851 (4.7)	774 (2.1)
Outdoor children	42208	792 (4.2)	489 (3.1)	610 (4.0)	736 (4.0)	656 (1.9)
Heart and respiratory	102774	713 (4.2)	450 (3.4)	564 (4.6)	660 (4.1)	597 (2.1)
All persons	692134	762 (6.5)	472 (4.1)	587 (4.6)	705 (5.8)	631 (2.7)

Baltimore: State=Maryland (24), County=Carroll County (013)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=123372, HAPEM Population=102252, District 19 HAPEM Population=102252 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	99116	812 (10.6)	550 (7.5)	644 (8.2)	751 (10.0)	689 (4.6)
African americans	2528	792 (13.0)	534 (7.2)	625 (8.3)	725 (10.3)	669 (5.0)
Hispanics	480	792 (14.0)	541 (8.7)	632 (9.3)	734 (12.4)	675 (5.6)
Household income lt \$10K	8630	765 (7.9)	517 (5.2)	605 (5.6)	707 (7.4)	648 (3.3)
Household income \$10K-\$25K	7911	805 (10.1)	549 (7.7)	638 (8.3)	745 (9.3)	684 (4.4)
Household income \$25K-\$50K	23501	812 (12.1)	551 (8.0)	646 (8.4)	752 (11.3)	690 (5.0)
Household income \$50K-\$75K	24620	819 (8.7)	557 (6.8)	652 (8.2)	760 (8.3)	697 (4.0)
Household income gt \$75K	35056	810 (9.4)	544 (5.8)	640 (6.0)	751 (8.6)	686 (3.8)
Children, 0 to 17	27309	807 (9.5)	548 (7.0)	645 (8.0)	746 (9.3)	687 (4.3)
Nonworking men, 18 to 44	4389	850 (11.2)	570 (8.1)	673 (8.0)	781 (11.0)	718 (4.8)
Working men, 18 to 44	16920	862 (10.8)	580 (7.2)	668 (7.6)	795 (9.5)	726 (4.4)
Nonworking women, 18 to 44	8886	787 (10.5)	531 (6.0)	622 (6.3)	726 (8.7)	666 (4.0)
Working women, 18 to 44	13197	818 (7.3)	547 (4.8)	640 (5.7)	751 (6.3)	689 (3.0)
Nonworking men, 45 to 64	1821	780 (6.5)	541 (7.6)	641 (9.7)	716 (4.4)	669 (3.6)
Working men, 45 to 64	7342	871 (10.2)	582 (6.2)	666 (6.0)	803 (8.8)	730 (4.0)
Nonworking women, 45 to 64	3783	766 (7.7)	513 (5.0)	607 (6.4)	701 (6.2)	647 (3.2)
Working women, 45 to 64	5713	810 (8.5)	545 (6.0)	631 (5.9)	745 (7.9)	682 (3.6)
Men, 65+	5032	799 (10.2)	553 (6.9)	657 (6.6)	745 (10.0)	688 (4.3)
Women, 65+	5298	763 (8.8)	516 (6.0)	613 (6.5)	698 (7.8)	647 (3.7)
Outdoor workers	430	979 (11.3)	659 (6.8)	777 (6.0)	892 (9.7)	827 (4.3)
Outdoor children	7777	850 (7.3)	571 (5.6)	667 (7.0)	785 (6.8)	718 (3.4)
Heart and respiratory	13949	764 (7.5)	524 (6.3)	618 (8.2)	705 (7.3)	652 (3.7)
All persons	102252	819 (11.5)	551 (7.6)	643 (8.2)	753 (10.3)	691 (4.7)

Baltimore: State=Maryland (24), County=Harford County (025)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=182132, HAPEM Population=164306, District 19 HAPEM Population=164306 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	147346	812 (10.6)	550 (7.5)	644 (8.2)	751 (10.0)	689 (4.6)
African americans	13171	792 (13.0)	534 (7.2)	625 (8.3)	725 (10.3)	669 (5.0)
Hispanics	2360	792 (14.0)	541 (8.7)	632 (9.3)	734 (12.4)	675 (5.6)
Household income lt \$10K	11427	765 (7.9)	517 (5.2)	605 (5.6)	707 (7.4)	648 (3.3)
Household income \$10K-\$25K	12538	805 (10.1)	549 (7.7)	638 (8.3)	745 (9.3)	684 (4.4)
Household income \$25K-\$50K	44297	812 (12.1)	551 (8.0)	646 (8.4)	752 (11.3)	690 (5.0)
Household income \$50K-\$75K	37403	819 (8.7)	557 (6.8)	652 (8.2)	760 (8.3)	697 (4.0)
Household income gt \$75K	54980	810 (9.4)	544 (5.8)	640 (6.0)	751 (8.6)	686 (3.8)
Children, 0 to 17	44447	807 (9.5)	548 (7.0)	645 (8.0)	746 (9.3)	687 (4.3)
Nonworking men, 18 to 44	6098	850 (11.2)	570 (8.1)	673 (8.0)	781 (11.0)	718 (4.8)
Working men, 18 to 44	30124	862 (10.8)	580 (7.2)	668 (7.6)	795 (9.5)	726 (4.4)
Nonworking women, 18 to 44	14079	787 (10.5)	531 (6.0)	622 (6.3)	726 (8.7)	666 (4.0)
Working women, 18 to 44	21724	818 (7.3)	547 (4.8)	640 (5.7)	751 (6.3)	689 (3.0)
Nonworking men, 45 to 64	2894	780 (6.5)	541 (7.6)	641 (9.7)	716 (4.4)	669 (3.6)
Working men, 45 to 64	12251	871 (10.2)	582 (6.2)	666 (6.0)	803 (8.8)	730 (4.0)
Nonworking women, 45 to 64	6291	766 (7.7)	513 (5.0)	607 (6.4)	701 (6.2)	647 (3.2)
Working women, 45 to 64	9247	810 (8.5)	545 (6.0)	631 (5.9)	745 (7.9)	682 (3.6)
Men, 65+	6327	799 (10.2)	553 (6.9)	657 (6.6)	745 (10.0)	688 (4.3)
Women, 65+	6471	763 (8.8)	516 (6.0)	613 (6.5)	698 (7.8)	647 (3.7)
Outdoor workers	902	979 (11.3)	659 (6.8)	777 (6.0)	892 (9.7)	827 (4.3)
Outdoor children	12544	850 (7.3)	571 (5.6)	667 (7.0)	785 (6.8)	718 (3.4)
Heart and respiratory	21256	764 (7.5)	524 (6.3)	618 (8.2)	705 (7.3)	652 (3.7)
All persons	164306	819 (11.5)	551 (7.6)	643 (8.2)	753 (10.3)	691 (4.7)

Baltimore: State=Maryland (24), County=Howard County (027)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=187328, HAPEM Population=187328, District 19 HAPEM Population=187328 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	156126	812 (10.6)	550 (7.5)	644 (8.2)	751 (10.0)	689 (4.6)
African americans	21982	792 (13.0)	534 (7.2)	625 (8.3)	725 (10.3)	669 (5.0)
Hispanics	3745	792 (14.0)	541 (8.7)	632 (9.3)	734 (12.4)	675 (5.6)
Household income lt \$10K	24731	765 (7.9)	517 (5.2)	605 (5.6)	707 (7.4)	648 (3.3)
Household income \$10K-\$25K	8911	805 (10.1)	549 (7.7)	638 (8.3)	745 (9.3)	684 (4.4)
Household income \$25K-\$50K	32424	812 (12.1)	551 (8.0)	646 (8.4)	752 (11.3)	690 (5.0)
Household income \$50K-\$75K	35302	819 (8.7)	557 (6.8)	652 (8.2)	760 (8.3)	697 (4.0)
Household income gt \$75K	83301	810 (9.4)	544 (5.8)	640 (6.0)	751 (8.6)	686 (3.8)
Children, 0 to 17	48504	807 (9.5)	548 (7.0)	645 (8.0)	746 (9.3)	687 (4.3)
Nonworking men, 18 to 44	6068	850 (11.2)	570 (8.1)	673 (8.0)	781 (11.0)	718 (4.8)
Working men, 18 to 44	37709	862 (10.8)	580 (7.2)	668 (7.6)	795 (9.5)	726 (4.4)
Nonworking women, 18 to 44	13170	787 (10.5)	531 (6.0)	622 (6.3)	726 (8.7)	666 (4.0)
Working women, 18 to 44	31041	818 (7.3)	547 (4.8)	640 (5.7)	751 (6.3)	689 (3.0)
Nonworking men, 45 to 64	2514	780 (6.5)	541 (7.6)	641 (9.7)	716 (4.4)	669 (3.6)
Working men, 45 to 64	14239	871 (10.2)	582 (6.2)	666 (6.0)	803 (8.8)	730 (4.0)
Nonworking women, 45 to 64	5415	766 (7.7)	513 (5.0)	607 (6.4)	701 (6.2)	647 (3.2)
Working women, 45 to 64	11704	810 (8.5)	545 (6.0)	631 (5.9)	745 (7.9)	682 (3.6)
Men, 65+	5631	799 (10.2)	553 (6.9)	657 (6.6)	745 (10.0)	688 (4.3)
Women, 65+	5716	763 (8.8)	516 (6.0)	613 (6.5)	698 (7.8)	647 (3.7)
Outdoor workers	838	979 (11.3)	659 (6.8)	777 (6.0)	892 (9.7)	827 (4.3)
Outdoor children	13338	850 (7.3)	571 (5.6)	667 (7.0)	785 (6.8)	718 (3.4)
Heart and respiratory	23285	764 (7.5)	524 (6.3)	618 (8.2)	705 (7.3)	652 (3.7)
All persons	187328	819 (11.5)	551 (7.6)	643 (8.2)	753 (10.3)	691 (4.7)

Baltimore: State=Maryland (24), County=Queen Anne's County (035)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=33953, HAPEM Population=9167, District 19 HAPEM Population=9167 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	8795	812 (10.6)	550 (7.5)	644 (8.2)	751 (10.0)	689 (4.6)
African americans	281	792 (13.0)	534 (7.2)	625 (8.3)	725 (10.3)	669 (5.0)
Hispanics	50	792 (14.0)	541 (8.7)	632 (9.3)	734 (12.4)	675 (5.6)
Household income lt \$10K	772	765 (7.9)	517 (5.2)	605 (5.6)	707 (7.4)	648 (3.3)
Household income \$10K-\$25K	593	805 (10.1)	549 (7.7)	638 (8.3)	745 (9.3)	684 (4.4)
Household income \$25K-\$50K	1957	812 (12.1)	551 (8.0)	646 (8.4)	752 (11.3)	690 (5.0)
Household income \$50K-\$75K	2011	819 (8.7)	557 (6.8)	652 (8.2)	760 (8.3)	697 (4.0)
Household income gt \$75K	3805	810 (9.4)	544 (5.8)	640 (6.0)	751 (8.6)	686 (3.8)
Children, 0 to 17	2361	807 (9.5)	548 (7.0)	645 (8.0)	746 (9.3)	687 (4.3)
Nonworking men, 18 to 44	385	850 (11.2)	570 (8.1)	673 (8.0)	781 (11.0)	718 (4.8)
Working men, 18 to 44	1529	862 (10.8)	580 (7.2)	668 (7.6)	795 (9.5)	726 (4.4)
Nonworking women, 18 to 44	721	787 (10.5)	531 (6.0)	622 (6.3)	726 (8.7)	666 (4.0)
Working women, 18 to 44	1155	818 (7.3)	547 (4.8)	640 (5.7)	751 (6.3)	689 (3.0)
Nonworking men, 45 to 64	198	780 (6.5)	541 (7.6)	641 (9.7)	716 (4.4)	669 (3.6)
Working men, 45 to 64	784	871 (10.2)	582 (6.2)	666 (6.0)	803 (8.8)	730 (4.0)
Nonworking women, 45 to 64	372	766 (7.7)	513 (5.0)	607 (6.4)	701 (6.2)	647 (3.2)
Working women, 45 to 64	593	810 (8.5)	545 (6.0)	631 (5.9)	745 (7.9)	682 (3.6)
Men, 65+	421	799 (10.2)	553 (6.9)	657 (6.6)	745 (10.0)	688 (4.3)
Women, 65+	408	763 (8.8)	516 (6.0)	613 (6.5)	698 (7.8)	647 (3.7)
Outdoor workers	26	979 (11.3)	659 (6.8)	777 (6.0)	892 (9.7)	827 (4.3)
Outdoor children	664	850 (7.3)	571 (5.6)	667 (7.0)	785 (6.8)	718 (3.4)
Heart and respiratory	1230	764 (7.5)	524 (6.3)	618 (8.2)	705 (7.3)	652 (3.7)
All persons	9167	819 (11.5)	551 (7.6)	643 (8.2)	753 (10.3)	691 (4.7)

Baltimore: State=Maryland (24), County=Baltimore city (510)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=736014, HAPEM Population=736014, District 19 HAPEM Population=0 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	287933	846 (6.6)	595 (4.9)	665 (5.1)	774 (6.2)	720 (2.9)
African americans	435619	807 (8.1)	557 (4.6)	623 (5.0)	726 (6.4)	678 (3.1)
Hispanics	6997	793 (8.0)	559 (5.2)	623 (5.2)	718 (6.9)	673 (3.2)
Household income lt \$10K	105669	801 (5.1)	563 (3.5)	626 (3.5)	730 (4.8)	680 (2.1)
Household income \$10K-\$25K	136589	848 (6.3)	606 (5.1)	669 (5.2)	777 (5.9)	725 (2.8)
Household income \$25K-\$50K	243896	832 (7.5)	578 (5.1)	648 (5.1)	758 (7.0)	703 (3.1)
Household income \$50K-\$75K	113266	828 (5.4)	571 (4.2)	642 (4.9)	754 (5.1)	698 (2.5)
Household income gt \$75K	99855	812 (5.8)	549 (3.6)	621 (3.6)	738 (5.3)	679 (2.3)
Children, 0 to 17	180043	842 (6.0)	593 (4.6)	665 (5.0)	770 (5.9)	717 (2.7)
Nonworking men, 18 to 44	63821	862 (6.7)	595 (5.0)	669 (4.7)	776 (6.5)	725 (2.9)
Working men, 18 to 44	80077	879 (4.8)	602 (3.5)	669 (3.5)	800 (4.4)	737 (2.0)
Nonworking women, 18 to 44	87486	798 (6.4)	549 (3.7)	615 (3.7)	722 (5.3)	671 (2.5)
Working women, 18 to 44	73135	832 (3.4)	565 (2.5)	636 (2.7)	752 (3.1)	696 (1.5)
Nonworking men, 45 to 64	25327	790 (3.9)	558 (4.7)	633 (5.7)	710 (2.7)	673 (2.2)
Working men, 45 to 64	31994	881 (4.4)	596 (3.0)	661 (2.7)	800 (4.0)	734 (1.8)
Nonworking women, 45 to 64	37406	770 (4.7)	523 (3.0)	593 (3.7)	690 (3.8)	644 (1.9)
Working women, 45 to 64	28878	819 (3.8)	558 (2.8)	623 (2.7)	742 (3.6)	685 (1.6)
Men, 65+	46448	814 (6.3)	575 (4.4)	654 (4.0)	745 (6.1)	696 (2.6)
Women, 65+	54127	773 (5.4)	533 (3.7)	606 (3.9)	694 (4.8)	651 (2.2)
Outdoor workers	4508	1005 (5.3)	688 (3.5)	786 (3.0)	905 (4.9)	846 (2.1)
Outdoor children	50305	887 (4.7)	617 (3.7)	687 (4.3)	810 (4.4)	750 (2.2)
Heart and respiratory	107042	782 (4.6)	550 (4.0)	619 (5.0)	710 (4.5)	665 (2.3)
All persons	736014	842 (7.1)	583 (4.9)	649 (5.0)	763 (6.4)	709 (2.9)

Boston: Citywide

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=5581530, HAPEM Population=3806618, District 19 HAPEM Population=2392739 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	3357000	741 (7.3)	558 (5.7)	540 (5.4)	626 (6.3)	616 (3.1)
African americans	232121	761 (10.6)	585 (6.7)	574 (6.2)	612 (7.0)	632 (3.9)
Hispanics	180582	721 (8.0)	557 (5.6)	539 (5.0)	606 (6.3)	605 (3.2)
Household income lt \$10K	495836	702 (4.9)	530 (3.7)	511 (3.3)	588 (4.2)	582 (2.0)
Household income \$10K-\$25K	733633	736 (6.4)	563 (5.6)	545 (5.6)	620 (5.3)	615 (2.9)
Household income \$25K-\$50K	1266503	742 (8.0)	560 (5.8)	543 (5.2)	627 (6.8)	617 (3.3)
Household income \$50K-\$75K	725439	747 (5.8)	565 (5.3)	547 (5.4)	634 (5.3)	623 (2.7)
Household income gt \$75K	544886	749 (7.0)	554 (4.6)	540 (4.3)	626 (5.5)	617 (2.7)
Children, 0 to 17	822641	739 (6.5)	557 (5.2)	542 (5.2)	624 (5.9)	615 (2.9)
Nonworking men, 18 to 44	242550	788 (5.7)	581 (5.2)	559 (4.6)	656 (5.6)	645 (2.6)
Working men, 18 to 44	597613	794 (7.2)	596 (5.2)	572 (4.8)	665 (5.7)	656 (2.9)
Nonworking women, 18 to 44	378872	724 (6.9)	543 (4.6)	524 (3.9)	606 (5.3)	599 (2.6)
Working women, 18 to 44	529040	759 (5.0)	562 (3.6)	543 (3.5)	628 (3.8)	623 (2.0)
Nonworking men, 45 to 64	94126	710 (4.5)	558 (6.6)	551 (7.4)	597 (2.8)	604 (2.8)
Working men, 45 to 64	244124	797 (7.4)	590 (4.9)	561 (4.0)	669 (5.8)	654 (2.8)
Nonworking women, 45 to 64	154764	710 (6.6)	523 (4.3)	506 (4.1)	588 (4.6)	581 (2.5)
Working women, 45 to 64	213359	743 (5.7)	554 (4.6)	534 (4.1)	621 (5.1)	613 (2.5)
Men, 65+	230672	725 (6.6)	554 (5.1)	545 (4.3)	618 (6.2)	610 (2.8)
Women, 65+	254916	698 (5.8)	521 (4.3)	505 (3.9)	582 (4.9)	576 (2.4)
Outdoor workers	97036	914 (7.6)	682 (5.2)	661 (4.0)	754 (6.1)	752 (2.9)
Outdoor children	233252	787 (5.8)	584 (4.6)	562 (4.8)	662 (4.8)	648 (2.5)
Heart and respiratory	548549	689 (4.2)	531 (4.5)	519 (4.6)	583 (4.4)	580 (2.2)
All persons	3806618	755 (7.8)	563 (5.7)	543 (5.3)	631 (6.3)	623 (3.2)

Boston: State=Massachusetts (25), County=Bristol County (005)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=506325, HAPEM Population=107934, District 19 HAPEM Population=107934 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	105031	738 (10.4)	552 (8.1)	537 (7.7)	627 (9.0)	613 (4.4)
African americans	1095	717 (13.3)	536 (8.3)	521 (7.5)	603 (9.5)	594 (4.9)
Hispanics	1284	709 (13.2)	539 (9.2)	525 (8.2)	607 (10.7)	595 (5.2)
Household income lt \$10K	9167	692 (8.2)	515 (6.0)	499 (5.4)	588 (7.2)	573 (3.4)
Household income \$10K-\$25K	20162	729 (9.9)	551 (8.8)	536 (8.7)	621 (8.3)	609 (4.5)
Household income \$25K-\$50K	43347	738 (11.9)	552 (8.5)	538 (7.7)	628 (10.1)	613 (4.8)
Household income \$50K-\$75K	22624	742 (8.3)	557 (7.5)	542 (7.6)	634 (7.6)	618 (3.9)
Household income gt \$75K	11273	740 (9.4)	544 (6.2)	530 (5.7)	625 (7.4)	609 (3.6)
Children, 0 to 17	27178	735 (9.2)	550 (7.4)	538 (7.4)	624 (8.4)	611 (4.1)
Nonworking men, 18 to 44	5533	776 (9.0)	566 (8.1)	546 (7.1)	656 (9.0)	635 (4.2)
Working men, 18 to 44	18220	785 (11.3)	584 (8.2)	561 (7.5)	664 (9.1)	648 (4.6)
Nonworking women, 18 to 44	9547	716 (10.7)	531 (7.0)	514 (5.9)	606 (8.3)	592 (4.1)
Working women, 18 to 44	15975	749 (8.1)	549 (5.7)	531 (5.5)	626 (6.2)	613 (3.2)
Nonworking men, 45 to 64	2133	709 (6.8)	551 (9.8)	547 (10.9)	599 (4.2)	601 (4.2)
Working men, 45 to 64	7019	793 (10.6)	584 (7.0)	557 (5.8)	669 (8.3)	650 (4.1)
Nonworking women, 45 to 64	3654	709 (9.7)	517 (6.3)	503 (5.9)	590 (6.8)	579 (3.6)
Working women, 45 to 64	6137	739 (8.4)	547 (6.7)	529 (6.0)	621 (7.5)	608 (3.6)
Men, 65+	5148	725 (10.0)	548 (7.6)	542 (6.4)	622 (9.4)	609 (4.2)
Women, 65+	5520	697 (8.7)	514 (6.5)	501 (5.8)	586 (7.5)	574 (3.6)
Outdoor workers	3295	910 (11.3)	674 (7.8)	656 (6.0)	755 (9.1)	748 (4.4)
Outdoor children	7721	781 (8.2)	575 (6.6)	557 (6.8)	662 (6.8)	643 (3.6)
Heart and respiratory	14532	685 (6.2)	523 (6.6)	513 (6.9)	585 (6.6)	576 (3.3)
All persons	107934	749 (11.6)	553 (8.4)	536 (7.8)	632 (9.5)	617 (4.7)

Boston: State=Massachusetts (25), County=Essex County (009)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=670080, HAPEM Population=626718, District 19 HAPEM Population=601661 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	574119	733 (10.0)	548 (7.8)	531 (7.4)	624 (8.6)	609 (4.3)
African americans	14947	710 (12.9)	531 (8.0)	515 (7.3)	598 (9.1)	588 (4.8)
Hispanics	47234	707 (13.1)	538 (9.1)	523 (8.1)	606 (10.6)	593 (5.2)
Household income lt \$10K	91721	688 (8.0)	513 (5.9)	495 (5.2)	585 (7.0)	570 (3.3)
Household income \$10K-\$25K	123753	724 (9.6)	548 (8.4)	531 (8.4)	618 (8.0)	605 (4.3)
Household income \$25K-\$50K	212337	733 (11.5)	548 (8.2)	532 (7.4)	625 (9.7)	609 (4.6)
Household income \$50K-\$75K	116466	737 (7.8)	553 (7.1)	536 (7.2)	631 (7.2)	614 (3.7)
Household income gt \$75K	77405	738 (9.0)	541 (5.9)	526 (5.5)	624 (7.1)	607 (3.5)
Children, 0 to 17	147891	731 (8.9)	547 (7.1)	533 (7.1)	622 (8.0)	607 (3.9)
Nonworking men, 18 to 44	37733	771 (8.7)	562 (7.8)	541 (6.9)	652 (8.7)	631 (4.0)
Working men, 18 to 44	86923	781 (10.8)	582 (7.9)	557 (7.2)	662 (8.7)	645 (4.4)
Nonworking women, 18 to 44	62511	712 (10.3)	528 (6.7)	509 (5.7)	603 (7.9)	588 (3.9)
Working women, 18 to 44	74807	745 (7.7)	546 (5.5)	527 (5.3)	624 (6.0)	610 (3.1)
Nonworking men, 45 to 64	16534	703 (6.5)	547 (9.4)	541 (10.5)	596 (4.1)	597 (4.0)
Working men, 45 to 64	40139	789 (10.2)	581 (6.7)	553 (5.5)	667 (8.0)	647 (3.9)
Nonworking women, 45 to 64	27860	703 (9.2)	514 (6.0)	498 (5.7)	587 (6.5)	575 (3.5)
Working women, 45 to 64	34326	735 (8.0)	544 (6.4)	524 (5.8)	619 (7.2)	605 (3.4)
Men, 65+	42183	719 (9.6)	544 (7.3)	536 (6.2)	619 (9.1)	604 (4.1)
Women, 65+	46759	691 (8.4)	511 (6.2)	496 (5.6)	582 (7.2)	570 (3.5)
Outdoor workers	16926	906 (10.8)	672 (7.4)	652 (5.7)	752 (8.8)	745 (4.2)
Outdoor children	41801	777 (7.9)	572 (6.3)	552 (6.5)	659 (6.6)	639 (3.4)
Heart and respiratory	93129	680 (5.9)	519 (6.3)	508 (6.6)	582 (6.4)	572 (3.2)
All persons	626718	744 (11.1)	550 (8.1)	531 (7.5)	629 (9.1)	613 (4.5)

Boston: State=Massachusetts (25), County=Middlesex County (017)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=1398468, HAPEM Population=1361314, District 19 HAPEM Population=697102 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	1253489	744 (6.3)	560 (4.9)	537 (4.7)	628 (5.4)	617 (2.7)
African americans	38848	740 (8.4)	565 (5.3)	547 (4.9)	605 (5.6)	614 (3.1)
Hispanics	44045	734 (7.3)	558 (5.1)	534 (4.4)	626 (5.8)	613 (2.9)
Household income lt \$10K	142787	704 (4.4)	527 (3.3)	500 (2.9)	595 (3.7)	581 (1.8)
Household income \$10K-\$25K	242447	736 (5.5)	561 (4.9)	536 (4.8)	623 (4.5)	614 (2.5)
Household income \$25K-\$50K	448102	743 (6.9)	559 (5.0)	535 (4.4)	629 (5.8)	616 (2.8)
Household income \$50K-\$75K	274867	749 (5.1)	566 (4.7)	543 (4.8)	636 (4.7)	623 (2.4)
Household income gt \$75K	237655	751 (6.5)	556 (4.3)	539 (4.0)	627 (5.1)	618 (2.5)
Children, 0 to 17	280337	741 (5.6)	556 (4.5)	534 (4.5)	629 (5.1)	614 (2.5)
Nonworking men, 18 to 44	81744	790 (5.2)	581 (4.7)	551 (4.1)	661 (5.1)	645 (2.4)
Working men, 18 to 44	222949	796 (6.4)	597 (4.6)	567 (4.3)	669 (5.1)	656 (2.6)
Nonworking women, 18 to 44	131925	725 (6.2)	542 (4.1)	517 (3.5)	609 (4.7)	598 (2.3)
Working women, 18 to 44	198340	760 (4.4)	562 (3.1)	538 (3.1)	631 (3.4)	622 (1.8)
Nonworking men, 45 to 64	31887	713 (4.0)	558 (5.8)	545 (6.4)	600 (2.5)	604 (2.5)
Working men, 45 to 64	91890	800 (6.5)	592 (4.3)	558 (3.5)	672 (5.1)	655 (2.5)
Nonworking women, 45 to 64	54105	711 (5.8)	523 (3.8)	501 (3.6)	590 (4.0)	581 (2.2)
Working women, 45 to 64	80417	745 (5.0)	555 (4.0)	530 (3.6)	623 (4.4)	613 (2.1)
Men, 65+	82026	726 (5.7)	555 (4.4)	540 (3.7)	619 (5.3)	610 (2.4)
Women, 65+	90489	698 (4.9)	522 (3.7)	500 (3.3)	582 (4.2)	575 (2.0)
Outdoor workers	33885	918 (6.3)	683 (4.4)	656 (3.3)	760 (5.1)	753 (2.5)
Outdoor children	79387	789 (5.0)	583 (4.0)	555 (4.2)	667 (4.2)	648 (2.2)
Heart and respiratory	196394	690 (3.6)	531 (3.9)	513 (4.1)	586 (3.9)	579 (1.9)
All persons	1361314	756 (6.9)	563 (5.0)	537 (4.6)	634 (5.6)	622 (2.8)

Boston: State=Massachusetts (25), County=Norfolk County (021)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=616087, HAPEM Population=616063, District 19 HAPEM Population=524977 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	583411	747 (9.1)	561 (7.1)	549 (6.7)	631 (7.8)	621 (3.9)
African americans	11463	729 (11.1)	549 (6.9)	536 (6.3)	607 (7.9)	605 (4.1)
Hispanics	7920	728 (10.1)	560 (7.1)	550 (6.3)	613 (8.1)	612 (4.0)
Household income lt \$10K	53477	705 (6.5)	529 (4.8)	517 (4.3)	594 (5.7)	586 (2.7)
Household income \$10K-\$25K	107100	737 (8.7)	560 (7.7)	548 (7.6)	625 (7.3)	617 (3.9)
Household income \$25K-\$50K	203392	747 (10.3)	561 (7.3)	551 (6.6)	633 (8.7)	622 (4.2)
Household income \$50K-\$75K	133358	750 (7.2)	566 (6.6)	554 (6.7)	638 (6.6)	626 (3.4)
Household income gt \$75K	110427	750 (8.0)	555 (5.3)	544 (4.9)	628 (6.3)	619 (3.1)
Children, 0 to 17	129263	742 (8.2)	557 (6.6)	548 (6.6)	628 (7.5)	618 (3.6)
Nonworking men, 18 to 44	34847	787 (7.7)	577 (6.9)	560 (6.1)	661 (7.7)	645 (3.6)
Working men, 18 to 44	92046	793 (9.5)	594 (6.9)	573 (6.3)	667 (7.6)	656 (3.8)
Nonworking women, 18 to 44	57909	727 (9.0)	542 (5.9)	528 (5.0)	611 (7.0)	602 (3.4)
Working women, 18 to 44	82534	758 (6.7)	559 (4.7)	544 (4.6)	630 (5.1)	622 (2.7)
Nonworking men, 45 to 64	16173	716 (6.0)	559 (8.6)	559 (9.7)	603 (3.7)	609 (3.7)
Working men, 45 to 64	43037	800 (9.3)	591 (6.1)	566 (5.1)	671 (7.3)	656 (3.5)
Nonworking women, 45 to 64	27211	717 (8.4)	526 (5.5)	514 (5.2)	594 (5.9)	587 (3.2)
Working women, 45 to 64	37852	746 (7.2)	555 (5.8)	539 (5.2)	624 (6.4)	616 (3.1)
Men, 65+	40776	734 (8.5)	559 (6.5)	556 (5.5)	627 (8.0)	618 (3.6)
Women, 65+	45678	707 (7.3)	525 (5.4)	516 (4.9)	590 (6.3)	584 (3.0)
Outdoor workers	14805	915 (10.0)	680 (6.9)	664 (5.3)	756 (8.1)	753 (3.9)
Outdoor children	36379	789 (7.3)	583 (5.8)	568 (6.0)	666 (6.1)	651 (3.2)
Heart and respiratory	92152	694 (5.3)	532 (5.7)	526 (5.9)	589 (5.7)	585 (2.8)
All persons	616063	758 (10.0)	563 (7.2)	549 (6.7)	636 (8.2)	626 (4.0)

Boston: State=Massachusetts (25), County=Plymouth County (023)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=435276, HAPEM Population=319927, District 19 HAPEM Population=319927 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	296748	738 (10.4)	552 (8.1)	537 (7.7)	627 (9.0)	613 (4.4)
African americans	14280	717 (13.3)	536 (8.3)	521 (7.5)	603 (9.5)	594 (4.9)
Hispanics	7061	709 (13.2)	539 (9.2)	525 (8.2)	607 (10.7)	595 (5.2)
Household income lt \$10K	40236	692 (8.2)	515 (6.0)	499 (5.4)	588 (7.2)	573 (3.4)
Household income \$10K-\$25K	58901	729 (9.9)	551 (8.8)	536 (8.7)	621 (8.3)	609 (4.5)
Household income \$25K-\$50K	112418	738 (11.9)	552 (8.5)	538 (7.7)	628 (10.1)	613 (4.8)
Household income \$50K-\$75K	63086	742 (8.3)	557 (7.5)	542 (7.6)	634 (7.6)	618 (3.9)
Household income gt \$75K	38789	740 (9.4)	544 (6.2)	530 (5.7)	625 (7.4)	609 (3.6)
Children, 0 to 17	82471	735 (9.2)	550 (7.4)	538 (7.4)	624 (8.4)	611 (4.1)
Nonworking men, 18 to 44	19399	776 (9.0)	566 (8.1)	546 (7.1)	656 (9.0)	635 (4.2)
Working men, 18 to 44	47653	785 (11.3)	584 (8.2)	561 (7.5)	664 (9.1)	648 (4.6)
Nonworking women, 18 to 44	29283	716 (10.7)	531 (7.0)	514 (5.9)	606 (8.3)	592 (4.1)
Working women, 18 to 44	40252	749 (8.1)	549 (5.7)	531 (5.5)	626 (6.2)	613 (3.2)
Nonworking men, 45 to 64	8014	709 (6.8)	551 (9.8)	547 (10.9)	599 (4.2)	601 (4.2)
Working men, 45 to 64	21420	793 (10.6)	584 (7.0)	557 (5.8)	669 (8.3)	650 (4.1)
Nonworking women, 45 to 64	13067	709 (9.7)	517 (6.3)	503 (5.9)	590 (6.8)	579 (3.6)
Working women, 45 to 64	17986	739 (8.4)	547 (6.7)	529 (6.0)	621 (7.5)	608 (3.6)
Men, 65+	17115	725 (10.0)	548 (7.6)	542 (6.4)	622 (9.4)	609 (4.2)
Women, 65+	18248	697 (8.7)	514 (6.5)	501 (5.8)	586 (7.5)	574 (3.6)
Outdoor workers	9509	910 (11.3)	674 (7.8)	656 (6.0)	755 (9.1)	748 (4.4)
Outdoor children	23839	781 (8.2)	575 (6.6)	557 (6.8)	662 (6.8)	643 (3.6)
Heart and respiratory	44615	685 (6.2)	523 (6.6)	513 (6.9)	585 (6.6)	576 (3.3)
All persons	319927	749 (11.6)	553 (8.4)	536 (7.8)	632 (9.5)	617 (4.7)

Boston: State=Massachusetts (25), County=Suffolk County (025)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=663906, HAPEM Population=663906, District 19 HAPEM Population=36598 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	439119	734 (6.2)	568 (5.1)	554 (4.9)	609 (5.0)	616 (2.7)
African americans	149023	780 (13.6)	605 (8.7)	596 (8.0)	616 (8.9)	649 (5.0)
Hispanics	70178	722 (10.5)	570 (7.7)	554 (6.9)	593 (8.0)	609 (4.2)
Household income lt \$10K	149542	710 (6.0)	549 (4.6)	535 (4.3)	581 (4.7)	593 (2.5)
Household income \$10K-\$25K	160922	747 (7.0)	586 (6.5)	574 (6.6)	614 (5.5)	630 (3.2)
Household income \$25K-\$50K	207832	746 (8.0)	578 (6.0)	565 (5.5)	615 (6.4)	626 (3.3)
Household income \$50K-\$75K	90832	754 (5.5)	586 (5.3)	574 (5.5)	624 (4.8)	634 (2.6)
Household income gt \$75K	51361	762 (6.5)	581 (4.5)	574 (4.3)	623 (4.8)	634 (2.5)
Children, 0 to 17	127806	747 (6.6)	580 (5.6)	569 (5.7)	611 (5.5)	626 (2.9)
Nonworking men, 18 to 44	58312	801 (7.0)	605 (6.5)	586 (5.7)	650 (6.6)	660 (3.2)
Working men, 18 to 44	109833	806 (5.8)	619 (4.3)	600 (4.1)	660 (4.3)	671 (2.3)
Nonworking women, 18 to 44	78202	733 (7.6)	563 (5.2)	549 (4.6)	598 (5.4)	611 (2.9)
Working women, 18 to 44	102127	775 (4.3)	586 (3.2)	574 (3.2)	626 (3.1)	640 (1.7)
Nonworking men, 45 to 64	17141	708 (4.2)	572 (6.6)	570 (7.5)	583 (2.4)	608 (2.8)
Working men, 45 to 64	32707	797 (4.8)	605 (3.3)	580 (2.7)	656 (3.5)	659 (1.8)
Nonworking women, 45 to 64	24769	707 (6.0)	535 (4.1)	521 (4.0)	574 (3.9)	584 (2.3)
Working women, 45 to 64	30227	748 (3.8)	571 (3.3)	556 (3.0)	611 (3.2)	621 (1.7)
Men, 65+	38052	718 (5.8)	563 (4.7)	556 (4.1)	602 (5.2)	609 (2.5)
Women, 65+	42581	694 (5.2)	531 (4.0)	518 (3.7)	569 (4.1)	578 (2.1)
Outdoor workers	15460	915 (5.3)	698 (3.7)	683 (2.9)	740 (4.1)	759 (2.0)
Outdoor children	36253	796 (6.0)	609 (5.1)	592 (5.3)	648 (4.6)	661 (2.6)
Heart and respiratory	92664	693 (4.0)	548 (4.5)	540 (4.8)	573 (4.0)	588 (2.2)
All persons	663906	763 (8.0)	585 (6.1)	570 (5.7)	621 (6.1)	634 (3.3)

Boston: State=Massachusetts (25), County=Worcester County (027)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=709705, HAPEM Population=86144, District 19 HAPEM Population=86144 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	81277	738 (10.4)	552 (8.1)	537 (7.7)	627 (9.0)	613 (4.4)
African americans	2219	717 (13.3)	536 (8.3)	521 (7.5)	603 (9.5)	594 (4.9)
Hispanics	2426	709 (13.2)	539 (9.2)	525 (8.2)	607 (10.7)	595 (5.2)
Household income lt \$10K	6820	692 (8.2)	515 (6.0)	499 (5.4)	588 (7.2)	573 (3.4)
Household income \$10K-\$25K	16935	729 (9.9)	551 (8.8)	536 (8.7)	621 (8.3)	609 (4.5)
Household income \$25K-\$50K	29363	738 (11.9)	552 (8.5)	538 (7.7)	628 (10.1)	613 (4.8)
Household income \$50K-\$75K	18053	742 (8.3)	557 (7.5)	542 (7.6)	634 (7.6)	618 (3.9)
Household income gt \$75K	14720	740 (9.4)	544 (6.2)	530 (5.7)	625 (7.4)	609 (3.6)
Children, 0 to 17	21432	735 (9.2)	550 (7.4)	538 (7.4)	624 (8.4)	611 (4.1)
Nonworking men, 18 to 44	3832	776 (9.0)	566 (8.1)	546 (7.1)	656 (9.0)	635 (4.2)
Working men, 18 to 44	15691	785 (11.3)	584 (8.2)	561 (7.5)	664 (9.1)	648 (4.6)
Nonworking women, 18 to 44	7458	716 (10.7)	531 (7.0)	514 (5.9)	606 (8.3)	592 (4.1)
Working women, 18 to 44	11567	749 (8.1)	549 (5.7)	531 (5.5)	626 (6.2)	613 (3.2)
Nonworking men, 45 to 64	1725	709 (6.8)	551 (9.8)	547 (10.9)	599 (4.2)	601 (4.2)
Working men, 45 to 64	5988	793 (10.6)	584 (7.0)	557 (5.8)	669 (8.3)	650 (4.1)
Nonworking women, 45 to 64	3188	709 (9.7)	517 (6.3)	503 (5.9)	590 (6.8)	579 (3.6)
Working women, 45 to 64	4866	739 (8.4)	547 (6.7)	529 (6.0)	621 (7.5)	608 (3.6)
Men, 65+	4312	725 (10.0)	548 (7.6)	542 (6.4)	622 (9.4)	609 (4.2)
Women, 65+	4579	697 (8.7)	514 (6.5)	501 (5.8)	586 (7.5)	574 (3.6)
Outdoor workers	2352	910 (11.3)	674 (7.8)	656 (6.0)	755 (9.1)	748 (4.4)
Outdoor children	6039	781 (8.2)	575 (6.6)	557 (6.8)	662 (6.8)	643 (3.6)
Heart and respiratory	11799	685 (6.2)	523 (6.6)	513 (6.9)	585 (6.6)	576 (3.3)
All persons	86144	749 (11.6)	553 (8.4)	536 (7.8)	632 (9.5)	617 (4.7)

Boston: State=New Hampshire (33), County=Hillsborough County (011)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=335838, HAPEM Population=9408, District 19 HAPEM Population=3192 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	9217	789 (8.3)	568 (6.4)	524 (5.6)	687 (7.4)	641 (3.5)
African americans	55	785 (13.2)	556 (7.8)	503 (6.6)	682 (9.7)	631 (4.8)
Hispanics	121	731 (10.3)	546 (7.1)	519 (6.2)	634 (8.4)	607 (4.1)
Household income lt \$10K	614	751 (7.3)	533 (5.3)	484 (4.3)	657 (6.6)	606 (3.0)
Household income \$10K-\$25K	1179	760 (7.4)	561 (6.4)	529 (6.2)	657 (6.3)	626 (3.3)
Household income \$25K-\$50K	2319	792 (9.8)	569 (6.8)	524 (5.7)	692 (8.6)	643 (3.9)
Household income \$50K-\$75K	3442	806 (7.7)	577 (6.8)	525 (6.4)	710 (7.3)	654 (3.5)
Household income gt \$75K	1858	772 (7.0)	553 (4.5)	522 (4.0)	661 (5.5)	627 (2.7)
Children, 0 to 17	2777	785 (7.3)	565 (5.8)	525 (5.3)	683 (6.8)	639 (3.2)
Nonworking men, 18 to 44	408	830 (7.2)	583 (6.3)	532 (5.3)	721 (7.6)	665 (3.3)
Working men, 18 to 44	1656	833 (8.4)	599 (6.0)	548 (5.1)	722 (6.9)	675 (3.4)
Nonworking women, 18 to 44	790	760 (8.2)	545 (5.3)	503 (4.2)	659 (6.5)	616 (3.1)
Working women, 18 to 44	1266	797 (6.1)	562 (4.2)	518 (3.8)	684 (4.9)	639 (2.4)
Nonworking men, 45 to 64	177	764 (6.0)	570 (8.0)	533 (8.4)	666 (3.9)	633 (3.4)
Working men, 45 to 64	716	847 (8.2)	599 (5.3)	543 (4.1)	732 (6.6)	679 (3.1)
Nonworking women, 45 to 64	337	757 (7.6)	533 (4.9)	491 (4.3)	648 (5.7)	607 (2.9)
Working women, 45 to 64	551	792 (6.7)	562 (5.2)	515 (4.3)	683 (6.2)	638 (2.8)
Men, 65+	304	773 (7.8)	565 (5.9)	531 (4.7)	680 (7.7)	637 (3.3)
Women, 65+	303	742 (6.8)	529 (5.0)	491 (4.2)	640 (6.1)	600 (2.8)
Outdoor workers	343	963 (8.4)	690 (5.6)	643 (4.0)	816 (6.9)	777 (3.2)
Outdoor children	860	833 (6.4)	592 (5.1)	544 (4.9)	723 (5.6)	672 (2.8)
Heart and respiratory	1177	733 (5.0)	538 (5.2)	501 (5.1)	642 (5.5)	603 (2.6)
All persons	9408	801 (9.3)	570 (6.6)	523 (5.6)	692 (7.9)	646 (3.7)

Boston: State=New Hampshire (33), County=Rockingham County (015)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=245845, HAPEM Population=15204, District 19 HAPEM Population=15204 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	14589	738 (10.4)	552 (8.1)	537 (7.7)	627 (9.0)	613 (4.4)
African americans	191	717 (13.3)	536 (8.3)	521 (7.5)	603 (9.5)	594 (4.9)
Hispanics	313	709 (13.2)	539 (9.2)	525 (8.2)	607 (10.7)	595 (5.2)
Household income lt \$10K	1472	692 (8.2)	515 (6.0)	499 (5.4)	588 (7.2)	573 (3.4)
Household income \$10K-\$25K	2234	729 (9.9)	551 (8.8)	536 (8.7)	621 (8.3)	609 (4.5)
Household income \$25K-\$50K	7393	738 (11.9)	552 (8.5)	538 (7.7)	628 (10.1)	613 (4.8)
Household income \$50K-\$75K	2711	742 (8.3)	557 (7.5)	542 (7.6)	634 (7.6)	618 (3.9)
Household income gt \$75K	1398	740 (9.4)	544 (6.2)	530 (5.7)	625 (7.4)	609 (3.6)
Children, 0 to 17	3486	735 (9.2)	550 (7.4)	538 (7.4)	624 (8.4)	611 (4.1)
Nonworking men, 18 to 44	742	776 (9.0)	566 (8.1)	546 (7.1)	656 (9.0)	635 (4.2)
Working men, 18 to 44	2643	785 (11.3)	584 (8.2)	561 (7.5)	664 (9.1)	648 (4.6)
Nonworking women, 18 to 44	1247	716 (10.7)	531 (7.0)	514 (5.9)	606 (8.3)	592 (4.1)
Working women, 18 to 44	2172	749 (8.1)	549 (5.7)	531 (5.5)	626 (6.2)	613 (3.2)
Nonworking men, 45 to 64	342	709 (6.8)	551 (9.8)	547 (10.9)	599 (4.2)	601 (4.2)
Working men, 45 to 64	1208	793 (10.6)	584 (7.0)	557 (5.8)	669 (8.3)	650 (4.1)
Nonworking women, 45 to 64	573	709 (9.7)	517 (6.3)	503 (5.9)	590 (6.8)	579 (3.6)
Working women, 45 to 64	999	739 (8.4)	547 (6.7)	529 (6.0)	621 (7.5)	608 (3.6)
Men, 65+	756	725 (10.0)	548 (7.6)	542 (6.4)	622 (9.4)	609 (4.2)
Women, 65+	759	697 (8.7)	514 (6.5)	501 (5.8)	586 (7.5)	574 (3.6)
Outdoor workers	461	910 (11.3)	674 (7.8)	656 (6.0)	755 (9.1)	748 (4.4)
Outdoor children	973	781 (8.2)	575 (6.6)	557 (6.8)	662 (6.8)	643 (3.6)
Heart and respiratory	2087	685 (6.2)	523 (6.6)	513 (6.9)	585 (6.6)	576 (3.3)
All persons	15204	749 (11.6)	553 (8.4)	536 (7.8)	632 (9.5)	617 (4.7)

Chicago: Citywide

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=7364990, HAPEM Population=6681670, District 19 HAPEM Population=2961877 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	4527884	511 (3.7)	461 (3.3)	462 (3.4)	505 (3.5)	485 (1.7)
African americans	1480259	486 (4.5)	430 (3.1)	450 (3.3)	482 (4.0)	462 (1.9)
Hispanics	771615	484 (3.9)	434 (3.1)	437 (2.9)	482 (3.7)	459 (1.7)
Household income lt \$10K	1058943	470 (2.2)	421 (1.9)	419 (1.8)	464 (2.2)	443 (1.0)
Household income \$10K-\$25K	1585849	503 (3.1)	452 (2.9)	456 (3.2)	496 (2.9)	477 (1.5)
Household income \$25K-\$50K	2250448	508 (4.1)	457 (3.4)	462 (3.3)	503 (3.9)	482 (1.8)
Household income \$50K-\$75K	994932	512 (3.1)	464 (3.3)	468 (3.6)	510 (3.1)	489 (1.7)
Household income gt \$75K	637330	514 (3.9)	465 (3.1)	463 (3.0)	512 (3.5)	489 (1.7)
Children, 0 to 17	1713550	502 (3.0)	450 (3.0)	459 (3.0)	496 (3.0)	477 (1.5)
Nonworking men, 18 to 44	404197	531 (2.8)	466 (2.9)	463 (2.8)	523 (3.0)	496 (1.4)
Working men, 18 to 44	994214	542 (3.2)	483 (2.6)	483 (2.7)	535 (2.9)	511 (1.4)
Nonworking women, 18 to 44	670115	493 (3.5)	437 (2.4)	439 (2.2)	486 (3.1)	464 (1.4)
Working women, 18 to 44	818698	519 (2.3)	457 (1.8)	455 (1.8)	509 (2.0)	485 (1.0)
Nonworking men, 45 to 64	176318	486 (2.3)	445 (3.2)	468 (4.5)	481 (2.0)	470 (1.6)
Working men, 45 to 64	425221	546 (3.1)	482 (2.3)	483 (2.1)	540 (2.8)	512 (1.3)
Nonworking women, 45 to 64	298343	486 (3.1)	426 (2.2)	433 (2.4)	474 (2.5)	455 (1.3)
Working women, 45 to 64	352049	510 (2.4)	453 (2.2)	458 (2.1)	503 (2.3)	481 (1.1)
Men, 65+	373054	501 (3.0)	460 (2.7)	463 (2.3)	500 (3.0)	481 (1.4)
Women, 65+	409633	484 (2.7)	431 (2.3)	432 (2.0)	478 (2.6)	456 (1.2)
Outdoor workers	179374	625 (3.0)	542 (2.2)	559 (1.9)	607 (2.8)	583 (1.3)
Outdoor children	491877	531 (2.7)	468 (2.5)	474 (2.8)	523 (2.4)	499 (1.3)
Heart and respiratory	939694	475 (2.0)	434 (2.5)	441 (2.6)	473 (2.3)	456 (1.2)
All persons	6681670	515 (3.9)	457 (3.2)	459 (3.2)	507 (3.6)	485 (1.7)

Chicago: State=Illinois (17), County=Cook County (031)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=5105044, HAPEM Population=5082451, District 19 HAPEM Population=1815000 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	3188976	511 (3.2)	459 (2.9)	459 (2.9)	515 (3.1)	486 (1.5)
African americans	1313930	480 (4.7)	423 (3.3)	445 (3.4)	487 (4.2)	459 (2.0)
Hispanics	675199	484 (4.2)	431 (3.3)	434 (3.1)	488 (4.0)	459 (1.8)
Household income lt \$10K	898367	466 (2.4)	415 (2.0)	414 (1.8)	470 (2.3)	441 (1.1)
Household income \$10K-\$25K	1261755	501 (3.0)	447 (2.8)	452 (3.1)	503 (2.8)	476 (1.5)
Household income \$25K-\$50K	1676711	507 (3.7)	453 (3.1)	458 (2.9)	511 (3.5)	482 (1.7)
Household income \$50K-\$75K	696275	511 (2.7)	461 (2.8)	466 (3.1)	520 (2.7)	489 (1.4)
Household income gt \$75K	432008	513 (3.3)	466 (2.6)	460 (2.5)	521 (3.0)	490 (1.4)
Children, 0 to 17	1273912	498 (2.7)	443 (2.7)	455 (2.7)	503 (2.7)	475 (1.4)
Nonworking men, 18 to 44	327216	528 (2.7)	460 (2.8)	459 (2.7)	530 (3.0)	494 (1.4)
Working men, 18 to 44	730280	542 (2.6)	481 (2.2)	479 (2.2)	543 (2.4)	511 (1.2)
Nonworking women, 18 to 44	523415	490 (3.3)	433 (2.2)	434 (2.0)	493 (3.0)	463 (1.3)
Working women, 18 to 44	611639	518 (1.9)	455 (1.5)	451 (1.5)	516 (1.7)	485 (0.8)
Nonworking men, 45 to 64	141942	482 (2.3)	439 (3.1)	463 (4.3)	487 (1.9)	468 (1.5)
Working men, 45 to 64	314326	544 (2.6)	479 (1.9)	480 (1.8)	548 (2.4)	513 (1.1)
Nonworking women, 45 to 64	232363	482 (2.9)	421 (2.1)	429 (2.2)	481 (2.4)	453 (1.2)
Working women, 45 to 64	265286	508 (2.1)	450 (1.9)	455 (1.8)	510 (2.0)	481 (1.0)
Men, 65+	299241	499 (2.8)	457 (2.6)	460 (2.2)	508 (2.9)	481 (1.3)
Women, 65+	330894	483 (2.6)	428 (2.2)	429 (1.9)	485 (2.5)	456 (1.2)
Outdoor workers	136320	624 (2.6)	538 (1.9)	557 (1.6)	617 (2.5)	584 (1.1)
Outdoor children	364886	526 (2.4)	461 (2.2)	469 (2.5)	530 (2.2)	496 (1.2)
Heart and respiratory	725136	473 (1.9)	430 (2.4)	437 (2.4)	480 (2.1)	455 (1.1)
All persons	5082451	513 (3.5)	453 (2.9)	455 (2.9)	515 (3.3)	484 (1.6)

Chicago: State=Illinois (17), County=DuPage County (043)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=781689, HAPEM Population=781666, District 19 HAPEM Population=677186 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	715304	522 (6.1)	470 (5.5)	476 (5.7)	493 (5.8)	490 (2.9)
African americans	15354	500 (9.0)	449 (6.3)	460 (6.4)	483 (7.7)	473 (3.7)
Hispanics	32795	510 (7.4)	463 (6.0)	463 (5.7)	460 (6.7)	474 (3.2)
Household income lt \$10K	36726	489 (4.7)	438 (4.0)	440 (3.8)	459 (4.4)	456 (2.1)
Household income \$10K-\$25K	137101	518 (5.8)	467 (5.5)	473 (6.2)	482 (5.4)	485 (2.9)
Household income \$25K-\$50K	291918	521 (7.0)	469 (5.9)	474 (5.6)	489 (6.6)	488 (3.2)
Household income \$50K-\$75K	173865	524 (4.9)	473 (5.1)	478 (5.6)	497 (4.8)	493 (2.6)
Household income gt \$75K	124469	523 (5.6)	468 (4.5)	476 (4.4)	501 (5.1)	492 (2.5)
Children, 0 to 17	206450	517 (5.3)	467 (5.3)	474 (5.4)	490 (5.3)	487 (2.7)
Nonworking men, 18 to 44	29839	551 (5.3)	485 (5.6)	483 (5.3)	515 (5.7)	508 (2.7)
Working men, 18 to 44	145438	550 (5.7)	489 (4.7)	497 (4.8)	523 (5.2)	515 (2.6)
Nonworking women, 18 to 44	65884	508 (6.5)	452 (4.4)	456 (4.1)	477 (5.7)	473 (2.6)
Working women, 18 to 44	115359	525 (4.1)	462 (3.2)	468 (3.3)	496 (3.6)	488 (1.8)
Nonworking men, 45 to 64	12862	509 (4.2)	467 (5.8)	490 (8.3)	477 (3.5)	486 (2.9)
Working men, 45 to 64	57477	559 (5.2)	492 (3.9)	497 (3.6)	531 (4.8)	520 (2.2)
Nonworking women, 45 to 64	27751	507 (5.4)	444 (3.9)	452 (4.3)	470 (4.4)	468 (2.3)
Working women, 45 to 64	45285	523 (4.1)	463 (3.7)	472 (3.6)	494 (4.0)	488 (1.9)
Men, 65+	33008	519 (5.4)	475 (4.9)	482 (4.3)	488 (5.4)	491 (2.5)
Women, 65+	34626	502 (4.9)	444 (4.1)	450 (3.7)	467 (4.7)	466 (2.2)
Outdoor workers	19709	637 (5.6)	555 (4.0)	570 (3.5)	596 (5.3)	589 (2.3)
Outdoor children	57697	549 (4.7)	487 (4.4)	489 (4.9)	517 (4.2)	510 (2.3)
Heart and respiratory	102841	489 (3.6)	446 (4.5)	457 (4.8)	463 (4.0)	464 (2.1)
All persons	781666	530 (6.9)	470 (5.7)	475 (5.7)	497 (6.3)	493 (3.1)

Chicago: State=Illinois (17), County=Lake County (097)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=516418, HAPEM Population=118106, District 19 HAPEM Population=118106 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	111660	508 (6.9)	461 (6.3)	469 (6.4)	496 (6.6)	483 (3.3)
African americans	1659	497 (9.2)	447 (6.4)	458 (6.6)	483 (8.0)	471 (3.8)
Hispanics	3779	491 (9.1)	452 (7.4)	461 (7.1)	482 (8.5)	471 (4.0)
Household income lt \$10K	5400	478 (5.3)	432 (4.5)	437 (4.3)	467 (5.0)	454 (2.4)
Household income \$10K-\$25K	14974	504 (6.7)	459 (6.4)	469 (7.2)	492 (6.3)	481 (3.3)
Household income \$25K-\$50K	30501	508 (7.9)	462 (6.7)	469 (6.4)	496 (7.5)	484 (3.6)
Household income \$50K-\$75K	18608	511 (5.4)	466 (5.7)	472 (6.3)	500 (5.4)	487 (2.9)
Household income gt \$75K	39690	509 (6.2)	459 (5.0)	464 (4.9)	494 (5.6)	481 (2.7)
Children, 0 to 17	32000	506 (5.9)	460 (5.9)	468 (6.0)	493 (5.9)	482 (3.0)
Nonworking men, 18 to 44	3821	535 (6.1)	476 (6.5)	475 (6.1)	519 (6.6)	501 (3.2)
Working men, 18 to 44	20343	539 (6.4)	483 (5.2)	491 (5.4)	526 (5.9)	509 (2.9)
Nonworking women, 18 to 44	10224	494 (7.3)	444 (5.0)	449 (4.7)	481 (6.5)	467 (3.0)
Working women, 18 to 44	14817	515 (4.5)	455 (3.5)	463 (3.7)	499 (4.0)	483 (2.0)
Nonworking men, 45 to 64	2147	490 (4.9)	455 (6.8)	477 (9.7)	477 (4.1)	475 (3.4)
Working men, 45 to 64	10138	544 (6.0)	483 (4.5)	488 (4.1)	531 (5.5)	511 (2.5)
Nonworking women, 45 to 64	5642	488 (6.3)	433 (4.6)	441 (5.0)	469 (5.1)	458 (2.6)
Working women, 45 to 64	7298	509 (4.7)	454 (4.3)	463 (4.2)	494 (4.6)	480 (2.2)
Men, 65+	5088	498 (6.4)	462 (5.9)	469 (5.1)	489 (6.5)	480 (3.0)
Women, 65+	5405	482 (5.8)	432 (4.9)	437 (4.4)	467 (5.6)	454 (2.6)
Outdoor workers	2079	622 (6.5)	546 (4.7)	563 (4.1)	599 (6.1)	582 (2.7)
Outdoor children	8972	536 (5.3)	479 (4.9)	483 (5.5)	520 (4.7)	505 (2.6)
Heart and respiratory	15947	474 (4.1)	438 (5.2)	449 (5.4)	465 (4.6)	457 (2.4)
All persons	118106	516 (7.7)	462 (6.4)	468 (6.4)	500 (7.1)	486 (3.5)

Chicago: State=Illinois (17), County=Will County (197)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=357313, HAPEM Population=268052, District 19 HAPEM Population=268052 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	221211	508 (6.9)	461 (6.3)	469 (6.4)	496 (6.6)	483 (3.3)
African americans	32703	497 (9.2)	447 (6.4)	458 (6.6)	483 (8.0)	471 (3.8)
Hispanics	17098	491 (9.1)	452 (7.4)	461 (7.1)	482 (8.5)	471 (4.0)
Household income lt \$10K	24551	478 (5.3)	432 (4.5)	437 (4.3)	467 (5.0)	454 (2.4)
Household income \$10K-\$25K	55501	504 (6.7)	459 (6.4)	469 (7.2)	492 (6.3)	481 (3.3)
Household income \$25K-\$50K	105171	508 (7.9)	462 (6.7)	469 (6.4)	496 (7.5)	484 (3.6)
Household income \$50K-\$75K	53056	511 (5.4)	466 (5.7)	472 (6.3)	500 (5.4)	487 (2.9)
Household income gt \$75K	22562	509 (6.2)	459 (5.0)	464 (4.9)	494 (5.6)	481 (2.7)
Children, 0 to 17	81372	506 (5.9)	460 (5.9)	468 (6.0)	493 (5.9)	482 (3.0)
Nonworking men, 18 to 44	15713	535 (6.1)	476 (6.5)	475 (6.1)	519 (6.6)	501 (3.2)
Working men, 18 to 44	44299	539 (6.4)	483 (5.2)	491 (5.4)	526 (5.9)	509 (2.9)
Nonworking women, 18 to 44	24418	494 (7.3)	444 (5.0)	449 (4.7)	481 (6.5)	467 (3.0)
Working women, 18 to 44	34304	515 (4.5)	455 (3.5)	463 (3.7)	499 (4.0)	483 (2.0)
Nonworking men, 45 to 64	5397	490 (4.9)	455 (6.8)	477 (9.7)	477 (4.1)	475 (3.4)
Working men, 45 to 64	16603	544 (6.0)	483 (4.5)	488 (4.1)	531 (5.5)	511 (2.5)
Nonworking women, 45 to 64	9416	488 (6.3)	433 (4.6)	441 (5.0)	469 (5.1)	458 (2.6)
Working women, 45 to 64	12889	509 (4.7)	454 (4.3)	463 (4.2)	494 (4.6)	480 (2.2)
Men, 65+	10376	498 (6.4)	462 (5.9)	469 (5.1)	489 (6.5)	480 (3.0)
Women, 65+	10842	482 (5.8)	432 (4.9)	437 (4.4)	467 (5.6)	454 (2.6)
Outdoor workers	8801	622 (6.5)	546 (4.7)	563 (4.1)	599 (6.1)	582 (2.7)
Outdoor children	23856	536 (5.3)	479 (4.9)	483 (5.5)	520 (4.7)	505 (2.6)
Heart and respiratory	34169	474 (4.1)	438 (5.2)	449 (5.4)	465 (4.6)	457 (2.4)
All persons	268052	516 (7.7)	462 (6.4)	468 (6.4)	500 (7.1)	486 (3.5)

Chicago: State=Indiana (18), County=Lake County (089)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=475594, HAPEM Population=419957, District 19 HAPEM Population=72095 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	279550	492 (3.6)	463 (3.4)	461 (3.4)	437 (3.1)	463 (1.7)
African americans	116572	551 (8.5)	504 (5.9)	502 (5.9)	430 (5.7)	496 (3.3)
Hispanics	42123	463 (5.5)	454 (4.9)	453 (4.6)	406 (4.5)	444 (2.4)
Household income lt \$10K	92226	496 (3.8)	463 (3.5)	457 (3.3)	408 (3.0)	456 (1.7)
Household income \$10K-\$25K	114212	510 (4.2)	481 (4.2)	481 (4.5)	433 (3.3)	476 (2.0)
Household income \$25K-\$50K	141519	505 (4.5)	474 (4.0)	471 (3.6)	440 (3.7)	473 (2.0)
Household income \$50K-\$75K	51499	497 (2.8)	467 (3.2)	465 (3.4)	446 (2.6)	469 (1.5)
Household income gt \$75K	17799	483 (3.1)	448 (2.6)	446 (2.5)	440 (2.6)	454 (1.4)
Children, 0 to 17	116637	512 (3.6)	481 (3.8)	479 (3.8)	436 (3.1)	477 (1.8)
Nonworking men, 18 to 44	27007	543 (3.9)	499 (4.2)	486 (3.9)	457 (3.4)	496 (1.9)
Working men, 18 to 44	51945	534 (3.4)	493 (2.9)	491 (2.8)	468 (2.7)	496 (1.5)
Nonworking women, 18 to 44	45055	499 (4.5)	463 (3.2)	458 (3.0)	424 (3.3)	460 (1.8)
Working women, 18 to 44	41213	513 (2.5)	468 (2.0)	466 (2.0)	444 (1.9)	473 (1.1)
Nonworking men, 45 to 64	13684	497 (2.9)	479 (4.6)	492 (6.3)	420 (2.1)	472 (2.1)
Working men, 45 to 64	25780	537 (3.2)	491 (2.4)	486 (2.2)	471 (2.5)	496 (1.3)
Nonworking women, 45 to 64	22642	493 (4.0)	452 (3.0)	450 (3.2)	413 (2.7)	452 (1.6)
Working women, 45 to 64	20645	507 (2.6)	466 (2.4)	465 (2.3)	439 (2.1)	469 (1.2)
Men, 65+	24940	495 (3.9)	476 (3.7)	473 (3.2)	427 (3.3)	468 (1.8)
Women, 65+	27469	480 (3.5)	446 (3.2)	441 (2.8)	408 (2.8)	444 (1.5)
Outdoor workers	12093	615 (3.5)	560 (2.6)	563 (2.1)	531 (2.8)	567 (1.4)
Outdoor children	35477	543 (3.3)	502 (3.3)	495 (3.5)	461 (2.5)	500 (1.6)
Heart and respiratory	60133	475 (2.4)	453 (3.3)	454 (3.3)	410 (2.4)	448 (1.4)
All persons	419957	518 (4.6)	480 (4.0)	475 (3.9)	442 (3.6)	479 (2.0)

Chicago: State=Indiana (18), County=Porter County (127)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=128932, HAPEM Population=11438, District 19 HAPEM Population=11438 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	11183	508 (6.9)	461 (6.3)	469 (6.4)	496 (6.6)	483 (3.3)
African americans	41	497 (9.2)	447 (6.4)	458 (6.6)	483 (8.0)	471 (3.8)
Hispanics	621	491 (9.1)	452 (7.4)	461 (7.1)	482 (8.5)	471 (4.0)
Household income lt \$10K	1673	478 (5.3)	432 (4.5)	437 (4.3)	467 (5.0)	454 (2.4)
Household income \$10K-\$25K	2306	504 (6.7)	459 (6.4)	469 (7.2)	492 (6.3)	481 (3.3)
Household income \$25K-\$50K	4628	508 (7.9)	462 (6.7)	469 (6.4)	496 (7.5)	484 (3.6)
Household income \$50K-\$75K	1629	511 (5.4)	466 (5.7)	472 (6.3)	500 (5.4)	487 (2.9)
Household income gt \$75K	802	509 (6.2)	459 (5.0)	464 (4.9)	494 (5.6)	481 (2.7)
Children, 0 to 17	3179	506 (5.9)	460 (5.9)	468 (6.0)	493 (5.9)	482 (3.0)
Nonworking men, 18 to 44	601	535 (6.1)	476 (6.5)	475 (6.1)	519 (6.6)	501 (3.2)
Working men, 18 to 44	1908	539 (6.4)	483 (5.2)	491 (5.4)	526 (5.9)	509 (2.9)
Nonworking women, 18 to 44	1119	494 (7.3)	444 (5.0)	449 (4.7)	481 (6.5)	467 (3.0)
Working women, 18 to 44	1366	515 (4.5)	455 (3.5)	463 (3.7)	499 (4.0)	483 (2.0)
Nonworking men, 45 to 64	286	490 (4.9)	455 (6.8)	477 (9.7)	477 (4.1)	475 (3.4)
Working men, 45 to 64	898	544 (6.0)	483 (4.5)	488 (4.1)	531 (5.5)	511 (2.5)
Nonworking women, 45 to 64	529	488 (6.3)	433 (4.6)	441 (5.0)	469 (5.1)	458 (2.6)
Working women, 45 to 64	645	509 (4.7)	454 (4.3)	463 (4.2)	494 (4.6)	480 (2.2)
Men, 65+	401	498 (6.4)	462 (5.9)	469 (5.1)	489 (6.5)	480 (3.0)
Women, 65+	397	482 (5.8)	432 (4.9)	437 (4.4)	467 (5.6)	454 (2.6)
Outdoor workers	372	622 (6.5)	546 (4.7)	563 (4.1)	599 (6.1)	582 (2.7)
Outdoor children	989	536 (5.3)	479 (4.9)	483 (5.5)	520 (4.7)	505 (2.6)
Heart and respiratory	1468	474 (4.1)	438 (5.2)	449 (5.4)	465 (4.6)	457 (2.4)
All persons	11438	516 (7.7)	462 (6.4)	468 (6.4)	500 (7.1)	486 (3.5)

Denver: Citywide

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=1919749, HAPEM Population=1776026, District 19 HAPEM Population=471890 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	1529709	701 (3.7)	393 (2.0)	451 (2.4)	700 (3.8)	561 (1.5)
African americans	96042	873 (9.2)	510 (4.2)	574 (4.7)	811 (7.6)	692 (3.4)
Hispanics	225415	735 (5.3)	409 (2.5)	469 (2.6)	733 (5.0)	586 (2.0)
Household income lt \$10K	253323	720 (3.0)	407 (1.5)	457 (1.6)	708 (3.0)	572 (1.2)
Household income \$10K-\$25K	517117	724 (3.3)	410 (2.0)	471 (2.7)	723 (3.5)	582 (1.5)
Household income \$25K-\$50K	607809	706 (4.4)	397 (2.3)	456 (2.5)	706 (4.4)	566 (1.8)
Household income \$50K-\$75K	238244	693 (3.3)	390 (2.0)	444 (2.4)	693 (3.5)	555 (1.4)
Household income gt \$75K	135089	673 (3.7)	374 (1.7)	422 (1.8)	652 (3.5)	530 (1.4)
Children, 0 to 17	449919	706 (3.6)	396 (2.1)	455 (2.3)	702 (3.6)	564 (1.5)
Nonworking men, 18 to 44	97037	755 (3.2)	428 (2.0)	482 (2.1)	748 (3.7)	603 (1.4)
Working men, 18 to 44	306754	760 (2.4)	425 (1.3)	481 (1.6)	750 (2.3)	604 (1.0)
Nonworking women, 18 to 44	154786	695 (3.3)	393 (1.6)	447 (1.8)	692 (3.4)	556 (1.3)
Working women, 18 to 44	259809	725 (1.7)	404 (1.0)	461 (1.2)	714 (1.7)	576 (0.7)
Nonworking men, 45 to 64	37533	692 (1.9)	394 (1.4)	460 (2.7)	684 (1.9)	557 (1.0)
Working men, 45 to 64	115144	767 (2.2)	422 (1.1)	476 (1.1)	754 (2.2)	604 (0.9)
Nonworking women, 45 to 64	62442	679 (2.5)	376 (1.3)	432 (1.6)	663 (2.3)	537 (1.0)
Working women, 45 to 64	97297	711 (1.8)	395 (1.1)	453 (1.2)	698 (1.8)	564 (0.8)
Men, 65+	79550	731 (3.3)	426 (2.0)	484 (1.9)	721 (3.4)	590 (1.4)
Women, 65+	85930	704 (3.1)	400 (1.8)	455 (2.0)	686 (2.8)	561 (1.2)
Outdoor workers	47840	883 (2.5)	491 (1.3)	564 (1.2)	867 (2.4)	701 (1.0)
Outdoor children	127781	740 (2.8)	409 (1.6)	466 (2.1)	738 (2.7)	588 (1.2)
Heart and respiratory	236093	673 (2.4)	386 (1.7)	445 (2.1)	672 (2.8)	544 (1.1)
All persons	1776026	722 (4.0)	404 (2.1)	460 (2.4)	715 (3.9)	575 (1.6)

Highest quarter 1 exposure is 883 μ g/m3 for Outdoor workers Highest quarter 2 exposure is 510 μ g/m3 for African americans Highest quarter 3 exposure is 574 μ g/m3 for African americans Highest quarter 4 exposure is 867 μ g/m3 for Outdoor workers Highest annual exposure is 701 μ g/m3 for Outdoor workers

Denver: State=Colorado (08), County=Adams County (001)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=265038, HAPEM Population=261008, District 19 HAPEM Population=53536 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	226416	662 (5.3)	356 (2.8)	474 (4.1)	695 (5.9)	547 (2.3)
African americans	8558	834 (10.2)	484 (4.6)	585 (5.3)	795 (8.4)	674 (3.7)
Hispanics	48341	635 (7.8)	340 (3.4)	460 (4.5)	675 (7.9)	527 (3.1)
Household income lt \$10K	38013	647 (3.6)	351 (1.8)	461 (2.4)	671 (3.9)	532 (1.5)
Household income \$10K-\$25K	86545	659 (4.6)	356 (2.7)	475 (4.4)	695 (5.4)	546 (2.2)
Household income \$25K-\$50K	98783	663 (6.2)	357 (3.1)	477 (4.2)	696 (6.6)	548 (2.6)
Household income \$50K-\$75K	27955	671 (4.4)	363 (2.5)	478 (3.8)	705 (4.9)	554 (2.0)
Household income gt \$75K	9177	674 (5.6)	355 (2.6)	469 (3.3)	695 (5.5)	548 (2.2)
Children, 0 to 17	75570	666 (4.9)	360 (2.7)	477 (3.8)	694 (5.2)	549 (2.1)
Nonworking men, 18 to 44	13851	703 (4.7)	382 (2.8)	501 (3.8)	733 (6.1)	580 (2.2)
Working men, 18 to 44	44135	729 (3.6)	391 (1.9)	502 (2.5)	750 (3.6)	593 (1.5)
Nonworking women, 18 to 44	22376	644 (4.8)	347 (2.1)	462 (3.0)	677 (5.4)	532 (2.0)
Working women, 18 to 44	36106	690 (2.5)	368 (1.3)	478 (1.7)	711 (2.5)	562 (1.0)
Nonworking men, 45 to 64	5870	645 (3.0)	353 (1.9)	478 (4.6)	672 (3.3)	537 (1.7)
Working men, 45 to 64	16882	743 (3.6)	395 (1.8)	505 (1.9)	762 (3.6)	601 (1.4)
Nonworking women, 45 to 64	9204	630 (3.4)	336 (1.7)	451 (2.8)	653 (3.6)	517 (1.5)
Working women, 45 to 64	13846	681 (2.9)	365 (1.6)	480 (2.1)	702 (3.0)	557 (1.2)
Men, 65+	9795	654 (4.1)	365 (2.4)	482 (2.9)	685 (4.9)	546 (1.9)
Women, 65+	9975	627 (4.0)	341 (2.1)	451 (2.9)	651 (4.3)	517 (1.7)
Outdoor workers	8913	842 (4.2)	453 (2.0)	577 (2.0)	856 (4.1)	682 (1.6)
Outdoor children	21594	697 (3.6)	372 (2.1)	490 (3.4)	728 (3.7)	572 (1.6)
Heart and respiratory	33243	626 (3.3)	343 (2.3)	459 (3.4)	659 (4.1)	522 (1.7)
All persons	261008	673 (5.6)	361 (2.8)	478 (4.1)	702 (6.0)	553 (2.4)

Highest quarter 1 exposure is 842 μ g/m3 for Outdoor workers Highest quarter 2 exposure is 484 μ g/m3 for African americans Highest quarter 3 exposure is 585 μ g/m3 for African americans Highest quarter 4 exposure is 856 μ g/m3 for Outdoor workers Highest annual exposure is 682 μ g/m3 for Outdoor workers

Denver: State=Colorado (08), County=Arapahoe County (005)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=391511, HAPEM Population=386701, District 19 HAPEM Population=165441 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	344910	642 (4.8)	368 (2.7)	419 (3.1)	615 (4.9)	511 (2.0)
African americans	22860	789 (9.7)	461 (4.3)	527 (4.8)	750 (8.3)	632 (3.6)
Hispanics	21676	692 (7.0)	403 (3.5)	459 (3.7)	669 (6.5)	555 (2.7)
Household income lt \$10K	36207	687 (4.2)	396 (2.2)	450 (2.5)	661 (4.3)	548 (1.7)
Household income \$10K-\$25K	102935	702 (4.9)	407 (3.1)	466 (4.0)	677 (5.1)	563 (2.2)
Household income \$25K-\$50K	137212	660 (6.0)	380 (3.2)	433 (3.4)	635 (6.0)	527 (2.4)
Household income \$50K-\$75K	59844	610 (4.0)	350 (2.4)	398 (3.0)	582 (4.2)	485 (1.7)
Household income gt \$75K	41020	539 (3.9)	300 (1.8)	340 (1.9)	497 (3.5)	419 (1.5)
Children, 0 to 17	104829	637 (4.7)	366 (2.8)	417 (3.1)	609 (4.7)	507 (2.0)
Nonworking men, 18 to 44	16143	710 (4.4)	409 (2.8)	461 (2.9)	681 (5.0)	565 (1.9)
Working men, 18 to 44	69840	726 (3.5)	412 (1.9)	466 (2.2)	694 (3.2)	574 (1.4)
Nonworking women, 18 to 44	30068	642 (4.4)	369 (2.2)	421 (2.4)	616 (4.5)	512 (1.8)
Working women, 18 to 44	61069	699 (2.5)	396 (1.4)	450 (1.7)	667 (2.4)	553 (1.0)
Nonworking men, 45 to 64	6894	600 (2.3)	350 (1.7)	410 (3.4)	569 (2.2)	482 (1.2)
Working men, 45 to 64	26289	689 (3.0)	386 (1.5)	433 (1.5)	648 (2.9)	539 (1.2)
Nonworking women, 45 to 64	12996	581 (3.1)	328 (1.5)	376 (1.9)	542 (2.8)	456 (1.2)
Working women, 45 to 64	22358	639 (2.5)	364 (1.4)	414 (1.6)	603 (2.5)	505 (1.0)
Men, 65+	13457	654 (4.2)	388 (2.5)	443 (2.4)	628 (4.3)	528 (1.7)
Women, 65+	15094	628 (3.8)	363 (2.2)	414 (2.5)	597 (3.4)	500 (1.5)
Outdoor workers	8781	862 (3.6)	490 (1.8)	560 (1.8)	820 (3.4)	682 (1.4)
Outdoor children	30032	666 (3.7)	377 (2.1)	426 (2.7)	637 (3.6)	526 (1.5)
Heart and respiratory	49160	608 (3.1)	356 (2.3)	409 (2.7)	585 (3.6)	489 (1.5)
All persons	386701	661 (5.3)	377 (2.9)	428 (3.3)	631 (5.2)	524 (2.1)

Denver: State=Colorado (08), County=Boulder County (013)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=225339, HAPEM Population=201015, District 19 HAPEM Population=54192 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	187415	554 (4.3)	351 (2.8)	384 (3.1)	606 (4.9)	474 (1.9)
African americans	1528	485 (5.6)	308 (2.8)	337 (3.0)	526 (5.5)	414 (2.2)
Hispanics	13663	588 (6.3)	373 (3.5)	410 (3.5)	649 (6.7)	505 (2.6)
Household income lt \$10K	29984	485 (3.2)	314 (2.0)	339 (2.0)	538 (3.8)	419 (1.4)
Household income \$10K-\$25K	58267	540 (3.8)	348 (2.8)	381 (3.4)	600 (4.6)	467 (1.9)
Household income \$25K-\$50K	64335	575 (5.2)	362 (3.1)	397 (3.2)	626 (5.7)	490 (2.2)
Household income \$50K-\$75K	28074	575 (3.7)	361 (2.6)	395 (3.0)	625 (4.3)	489 (1.7)
Household income gt \$75K	18139	532 (4.1)	332 (2.2)	360 (2.2)	572 (4.2)	449 (1.7)
Children, 0 to 17	44759	594 (4.4)	372 (2.8)	409 (3.1)	644 (4.8)	504 (1.9)
Nonworking men, 18 to 44	13604	511 (3.9)	333 (2.8)	357 (2.8)	566 (4.8)	442 (1.9)
Working men, 18 to 44	38215	567 (3.9)	354 (2.4)	386 (2.7)	613 (4.4)	480 (1.7)
Nonworking women, 18 to 44	19900	509 (3.9)	327 (2.3)	355 (2.3)	563 (4.5)	438 (1.7)
Working women, 18 to 44	31336	534 (2.7)	334 (1.8)	365 (2.0)	575 (3.0)	452 (1.2)
Nonworking men, 45 to 64	3328	535 (2.3)	347 (2.0)	387 (3.5)	590 (2.8)	465 (1.4)
Working men, 45 to 64	11620	612 (3.6)	375 (2.0)	408 (2.0)	660 (4.1)	514 (1.5)
Nonworking women, 45 to 64	6004	552 (3.4)	345 (2.0)	378 (2.3)	598 (3.5)	468 (1.4)
Working women, 45 to 64	9378	561 (2.9)	349 (2.0)	384 (2.2)	604 (3.5)	474 (1.4)
Men, 65+	7712	551 (4.0)	365 (2.8)	397 (2.5)	612 (4.9)	481 (1.8)
Women, 65+	7938	530 (3.5)	342 (2.5)	373 (2.5)	583 (4.1)	457 (1.6)
Outdoor workers	4803	704 (3.8)	434 (2.2)	483 (2.1)	752 (4.4)	593 (1.6)
Outdoor children	13028	623 (3.5)	386 (2.3)	421 (2.8)	678 (3.7)	527 (1.5)
Heart and respiratory	25519	518 (2.7)	335 (2.5)	370 (2.7)	573 (3.7)	449 (1.5)
All persons	201015	558 (4.6)	351 (2.8)	383 (3.1)	609 (5.2)	475 (2.0)

Denver: State=Colorado (08), County=Denver County (031)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=467610, HAPEM Population=467610, District 19 HAPEM Population=27434 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	337623	854 (6.0)	483 (3.4)	541 (3.9)	813 (5.8)	672 (2.5)
African americans	60319	927 (10.3)	544 (4.7)	604 (5.3)	848 (8.3)	730 (3.7)
Hispanics	106554	822 (8.2)	457 (3.9)	500 (3.9)	792 (7.5)	642 (3.1)
Household income lt \$10K	103156	844 (5.0)	478 (2.6)	519 (2.6)	794 (5.0)	658 (2.0)
Household income \$10K-\$25K	154022	855 (5.2)	486 (3.3)	543 (4.2)	815 (5.3)	674 (2.3)
Household income \$25K-\$50K	132324	846 (6.7)	480 (3.5)	539 (3.8)	807 (6.4)	668 (2.7)
Household income \$50K-\$75K	46845	848 (5.0)	484 (3.1)	546 (3.9)	813 (5.2)	672 (2.2)
Household income gt \$75K	26311	912 (7.7)	517 (3.8)	583 (4.1)	838 (6.8)	712 (2.9)
Children, 0 to 17	102161	854 (5.2)	481 (3.0)	537 (3.4)	812 (5.1)	671 (2.2)
Nonworking men, 18 to 44	31870	916 (5.3)	521 (3.3)	569 (3.5)	864 (5.9)	717 (2.3)
Working men, 18 to 44	75283	908 (3.6)	509 (2.0)	565 (2.3)	860 (3.3)	710 (1.4)
Nonworking women, 18 to 44	46816	839 (5.4)	476 (2.7)	526 (2.9)	796 (5.3)	659 (2.1)
Working women, 18 to 44	63574	866 (2.7)	487 (1.5)	546 (1.9)	820 (2.5)	679 (1.1)
Nonworking men, 45 to 64	11859	825 (3.2)	475 (2.3)	541 (4.5)	778 (2.8)	654 (1.7)
Working men, 45 to 64	27134	913 (3.7)	506 (1.8)	560 (1.8)	866 (3.4)	711 (1.4)
Nonworking women, 45 to 64	18384	818 (4.4)	458 (2.2)	512 (2.8)	763 (3.9)	637 (1.7)
Working women, 45 to 64	23289	850 (3.1)	479 (1.8)	540 (2.1)	804 (2.9)	668 (1.3)
Men, 65+	30433	850 (5.5)	501 (3.3)	558 (3.2)	802 (5.4)	677 (2.2)
Women, 65+	33720	815 (5.0)	470 (3.0)	527 (3.4)	760 (4.3)	643 (2.0)
Outdoor workers	12348	1004 (3.4)	560 (1.7)	630 (1.6)	951 (3.1)	786 (1.3)
Outdoor children	27755	902 (4.1)	501 (2.4)	554 (3.0)	860 (4.0)	704 (1.7)
Heart and respiratory	68079	808 (3.9)	469 (2.9)	527 (3.4)	770 (4.4)	643 (1.8)
All persons	467610	876 (6.3)	493 (3.4)	547 (3.8)	826 (5.9)	685 (2.5)

Denver: State=Colorado (08), County=Jefferson County (059)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=438430, HAPEM Population=438430, District 19 HAPEM Population=150025 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	415474	712 (5.2)	381 (2.7)	420 (3.1)	723 (5.4)	559 (2.1)
African americans	2721	702 (6.6)	373 (2.7)	416 (2.9)	712 (6.0)	550 (2.4)
Hispanics	29615	697 (6.6)	373 (3.0)	414 (3.1)	713 (6.4)	549 (2.5)
Household income lt \$10K	43576	681 (3.8)	362 (1.8)	397 (1.9)	694 (4.0)	533 (1.5)
Household income \$10K-\$25K	107638	712 (4.5)	379 (2.6)	419 (3.3)	728 (5.0)	559 (2.0)
Household income \$25K-\$50K	166865	709 (6.0)	380 (3.0)	420 (3.1)	719 (6.1)	557 (2.4)
Household income \$50K-\$75K	73435	714 (4.4)	383 (2.5)	422 (3.0)	727 (4.8)	561 (1.9)
Household income gt \$75K	39658	717 (5.4)	379 (2.4)	416 (2.5)	713 (5.2)	556 (2.1)
Children, 0 to 17	115971	708 (4.9)	380 (2.7)	419 (3.0)	716 (5.0)	555 (2.0)
Nonworking men, 18 to 44	20444	740 (4.4)	395 (2.5)	433 (2.7)	750 (5.1)	579 (1.9)
Working men, 18 to 44	76198	760 (3.3)	407 (1.7)	449 (2.0)	761 (3.2)	594 (1.3)
Nonworking women, 18 to 44	33751	688 (4.6)	368 (2.1)	406 (2.3)	701 (4.9)	541 (1.8)
Working women, 18 to 44	65469	724 (2.2)	385 (1.2)	426 (1.4)	725 (2.2)	565 (0.9)
Nonworking men, 45 to 64	9055	678 (2.8)	364 (1.8)	408 (3.2)	691 (3.1)	535 (1.4)
Working men, 45 to 64	31764	777 (3.1)	410 (1.5)	450 (1.4)	775 (3.1)	603 (1.2)
Nonworking women, 45 to 64	14969	675 (3.4)	355 (1.6)	391 (2.0)	676 (3.3)	524 (1.3)
Working women, 45 to 64	27364	716 (2.5)	381 (1.4)	422 (1.5)	717 (2.6)	559 (1.0)
Men, 65+	17281	708 (4.4)	386 (2.4)	425 (2.3)	721 (4.8)	560 (1.8)
Women, 65+	18356	680 (4.2)	362 (2.2)	399 (2.4)	686 (4.2)	531 (1.7)
Outdoor workers	11759	877 (3.4)	470 (1.7)	525 (1.6)	870 (3.4)	685 (1.3)
Outdoor children	33397	745 (3.8)	394 (2.1)	431 (2.6)	755 (3.8)	581 (1.6)
Heart and respiratory	57320	667 (3.3)	362 (2.2)	403 (2.6)	682 (4.0)	528 (1.5)
All persons	438430	718 (5.5)	381 (2.8)	420 (3.1)	727 (5.6)	561 (2.2)

Denver: State=Colorado (08), County=Weld County (123)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=131821, HAPEM Population=21262, District 19 HAPEM Population=21262 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	17871	705 (9.5)	402 (5.4)	453 (6.1)	703 (9.7)	566 (4.0)
African americans	56	683 (12.2)	389 (5.4)	439 (5.9)	680 (10.9)	548 (4.5)
Hispanics	5566	679 (12.2)	392 (6.0)	442 (6.3)	682 (11.6)	549 (4.7)
Household income lt \$10K	2387	659 (7.0)	377 (3.7)	422 (3.9)	659 (7.4)	529 (2.9)
Household income \$10K-\$25K	7710	693 (8.3)	398 (5.2)	450 (6.8)	695 (9.0)	559 (3.7)
Household income \$25K-\$50K	8290	704 (10.9)	403 (5.8)	454 (6.1)	704 (10.9)	566 (4.4)
Household income \$50K-\$75K	2091	712 (7.8)	407 (4.8)	457 (5.8)	714 (8.4)	572 (3.4)
Household income gt \$75K	784	722 (9.3)	402 (4.4)	450 (4.6)	708 (8.9)	570 (3.6)
Children, 0 to 17	6629	703 (8.8)	402 (5.2)	453 (5.8)	700 (8.9)	564 (3.7)
Nonworking men, 18 to 44	1125	729 (8.3)	418 (5.1)	466 (5.4)	728 (9.6)	585 (3.7)
Working men, 18 to 44	3083	752 (5.8)	423 (3.2)	476 (3.7)	744 (5.5)	599 (2.4)
Nonworking women, 18 to 44	1875	676 (8.5)	387 (4.2)	435 (4.5)	677 (8.9)	544 (3.4)
Working women, 18 to 44	2255	716 (4.0)	402 (2.2)	454 (2.7)	707 (3.9)	570 (1.7)
Nonworking men, 45 to 64	527	667 (5.0)	388 (3.7)	446 (7.0)	666 (5.0)	542 (2.7)
Working men, 45 to 64	1455	767 (5.7)	427 (2.8)	477 (2.8)	756 (5.4)	607 (2.2)
Nonworking women, 45 to 64	885	665 (6.8)	375 (3.4)	423 (4.2)	654 (6.3)	529 (2.7)
Working women, 45 to 64	1063	709 (4.6)	400 (2.7)	454 (3.0)	699 (4.6)	565 (1.9)
Men, 65+	872	685 (8.2)	406 (5.0)	457 (4.7)	684 (8.7)	558 (3.4)
Women, 65+	847	654 (7.4)	379 (4.4)	425 (4.7)	647 (7.1)	526 (3.0)
Outdoor workers	1236	862 (6.2)	485 (3.2)	552 (3.1)	844 (5.8)	685 (2.4)
Outdoor children	1975	743 (6.9)	419 (4.1)	469 (5.2)	741 (6.8)	593 (2.9)
Heart and respiratory	2772	655 (6.0)	381 (4.6)	433 (5.3)	658 (7.2)	532 (2.9)
All persons	21262	710 (10.1)	403 (5.5)	452 (6.1)	706 (10.0)	568 (4.1)

Houston:: Citywide

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=3658215, HAPEM Population=3243068, District 19 HAPEM Population=1939779 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	2147946	454 (4.0)	318 (2.7)	517 (4.1)	674 (5.9)	491 (2.2)
African americans	594669	455 (2.8)	325 (2.1)	514 (3.1)	676 (4.1)	493 (1.6)
Hispanics	699520	444 (3.5)	309 (2.3)	488 (3.1)	640 (5.1)	471 (1.8)
Household income lt \$10K	564508	441 (2.4)	316 (1.7)	493 (2.2)	639 (3.2)	473 (1.2)
Household income \$10K-\$25K	984285	452 (3.4)	314 (2.2)	504 (3.1)	670 (4.9)	486 (1.8)
Household income \$25K-\$50K	1016106	454 (4.4)	317 (2.9)	520 (4.1)	679 (6.5)	493 (2.3)
Household income \$50K-\$75K	401178	460 (3.7)	321 (2.8)	526 (4.5)	687 (5.3)	499 (2.1)
Household income gt \$75K	262409	465 (3.7)	332 (2.3)	528 (3.2)	686 (5.6)	503 (1.9)
Children, 0 to 17	937427	449 (3.6)	315 (2.5)	517 (3.8)	670 (5.3)	488 (2.0)
Nonworking men, 18 to 44	181507	481 (4.2)	348 (2.6)	556 (3.3)	702 (6.0)	522 (2.1)
Working men, 18 to 44	571752	482 (3.2)	337 (2.2)	534 (3.3)	710 (4.7)	517 (1.7)
Nonworking women, 18 to 44	323974	441 (2.9)	311 (1.9)	501 (2.7)	650 (4.0)	476 (1.5)
Working women, 18 to 44	432794	455 (2.2)	321 (1.6)	520 (2.7)	674 (3.2)	493 (1.2)
Nonworking men, 45 to 64	65666	444 (1.2)	317 (0.7)	505 (1.4)	650 (1.6)	480 (0.6)
Working men, 45 to 64	195422	490 (3.0)	342 (2.0)	540 (2.5)	722 (4.4)	524 (1.5)
Nonworking women, 45 to 64	121008	424 (1.7)	302 (1.5)	491 (2.5)	630 (2.5)	462 (1.0)
Working women, 45 to 64	146659	456 (2.9)	319 (1.9)	510 (2.5)	675 (4.2)	491 (1.5)
Men, 65+	108279	468 (3.4)	345 (2.3)	542 (2.7)	673 (4.6)	508 (1.7)
Women, 65+	111717	436 (2.5)	322 (2.1)	509 (3.0)	629 (3.5)	474 (1.4)
Outdoor workers	94960	532 (3.0)	384 (2.0)	622 (2.4)	777 (4.3)	579 (1.5)
Outdoor children	267762	470 (2.4)	327 (1.9)	534 (3.1)	700 (3.4)	509 (1.4)
Heart and respiratory	402459	435 (2.9)	309 (2.4)	499 (3.8)	641 (4.0)	472 (1.7)
All persons	3243068	457 (3.7)	321 (2.5)	517 (3.7)	676 (5.4)	494 (2.0)

Houston:: State=Texas (48), County=Brazoria County (039)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=191707, HAPEM Population=79347, District 19 HAPEM Population=79347 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	65638	440 (5.8)	302 (3.9)	506 (5.9)	669 (8.6)	480 (3.1)
African americans	5142	423 (4.9)	290 (3.4)	487 (5.5)	645 (7.4)	462 (2.7)
Hispanics	14492	433 (6.9)	296 (4.4)	492 (6.2)	659 (10.3)	470 (3.6)
Household income lt \$10K	11938	414 (4.2)	285 (2.8)	478 (4.0)	631 (5.9)	453 (2.2)
Household income \$10K-\$25K	21589	438 (5.6)	299 (3.6)	495 (5.2)	667 (8.2)	475 (2.9)
Household income \$25K-\$50K	28118	440 (6.6)	303 (4.2)	508 (6.1)	670 (9.7)	481 (3.5)
Household income \$50K-\$75K	13296	446 (4.9)	307 (3.6)	514 (6.0)	678 (7.0)	487 (2.8)
Household income gt \$75K	4405	437 (4.9)	300 (3.0)	503 (4.3)	669 (7.5)	478 (2.6)
Children, 0 to 17	22257	437 (5.6)	302 (3.9)	508 (6.0)	665 (8.3)	479 (3.1)
Nonworking men, 18 to 44	7748	455 (7.0)	317 (4.2)	539 (5.8)	693 (10.5)	502 (3.6)
Working men, 18 to 44	12165	466 (4.8)	320 (3.3)	523 (4.9)	704 (7.1)	504 (2.6)
Nonworking women, 18 to 44	7372	423 (4.7)	292 (3.0)	490 (4.6)	645 (6.7)	463 (2.5)
Working women, 18 to 44	8837	438 (3.2)	303 (2.3)	507 (3.9)	665 (4.7)	479 (1.8)
Nonworking men, 45 to 64	2140	419 (2.0)	290 (1.1)	486 (2.4)	637 (2.8)	459 (1.1)
Working men, 45 to 64	5217	472 (4.7)	323 (3.0)	526 (3.9)	713 (6.8)	509 (2.4)
Nonworking women, 45 to 64	3113	405 (2.9)	281 (2.4)	476 (4.2)	620 (4.3)	446 (1.8)
Working women, 45 to 64	3752	438 (4.4)	299 (2.9)	494 (3.8)	663 (6.4)	474 (2.3)
Men, 65+	2807	437 (5.8)	308 (3.7)	521 (4.7)	665 (8.4)	483 (3.0)
Women, 65+	2722	406 (4.2)	286 (3.4)	489 (5.3)	621 (6.3)	451 (2.5)
Outdoor workers	2606	517 (5.1)	368 (3.3)	613 (4.0)	775 (7.3)	569 (2.6)
Outdoor children	6563	458 (3.7)	315 (2.9)	525 (4.9)	695 (5.4)	499 (2.2)
Heart and respiratory	10016	416 (4.5)	288 (3.7)	485 (6.2)	633 (6.4)	456 (2.7)
All persons	79347	439 (5.8)	302 (3.9)	504 (5.9)	669 (8.5)	479 (3.1)

Houston:: State=Texas (48), County=Fort Bend County (157)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=225421, HAPEM Population=203228, District 19 HAPEM Population=203228 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	125589	440 (5.8)	302 (3.9)	506 (5.9)	669 (8.6)	480 (3.1)
African americans	44033	423 (4.9)	290 (3.4)	487 (5.5)	645 (7.4)	462 (2.7)
Hispanics	38135	433 (6.9)	296 (4.4)	492 (6.2)	659 (10.3)	470 (3.6)
Household income lt \$10K	20404	414 (4.2)	285 (2.8)	478 (4.0)	631 (5.9)	453 (2.2)
Household income \$10K-\$25K	45612	438 (5.6)	299 (3.6)	495 (5.2)	667 (8.2)	475 (2.9)
Household income \$25K-\$50K	71161	440 (6.6)	303 (4.2)	508 (6.1)	670 (9.7)	481 (3.5)
Household income \$50K-\$75K	39992	446 (4.9)	307 (3.6)	514 (6.0)	678 (7.0)	487 (2.8)
Household income gt \$75K	23443	437 (4.9)	300 (3.0)	503 (4.3)	669 (7.5)	478 (2.6)
Children, 0 to 17	67944	437 (5.6)	302 (3.9)	508 (6.0)	665 (8.3)	479 (3.1)
Nonworking men, 18 to 44	10707	455 (7.0)	317 (4.2)	539 (5.8)	693 (10.5)	502 (3.6)
Working men, 18 to 44	37050	466 (4.8)	320 (3.3)	523 (4.9)	704 (7.1)	504 (2.6)
Nonworking women, 18 to 44	17466	423 (4.7)	292 (3.0)	490 (4.6)	645 (6.7)	463 (2.5)
Working women, 18 to 44	29530	438 (3.2)	303 (2.3)	507 (3.9)	665 (4.7)	479 (1.8)
Nonworking men, 45 to 64	3020	419 (2.0)	290 (1.1)	486 (2.4)	637 (2.8)	459 (1.1)
Working men, 45 to 64	11191	472 (4.7)	323 (3.0)	526 (3.9)	713 (6.8)	509 (2.4)
Nonworking women, 45 to 64	5631	405 (2.9)	281 (2.4)	476 (4.2)	620 (4.3)	446 (1.8)
Working women, 45 to 64	8772	438 (4.4)	299 (2.9)	494 (3.8)	663 (6.4)	474 (2.3)
Men, 65+	4165	437 (5.8)	308 (3.7)	521 (4.7)	665 (8.4)	483 (3.0)
Women, 65+	4241	406 (4.2)	286 (3.4)	489 (5.3)	621 (6.3)	451 (2.5)
Outdoor workers	5402	517 (5.1)	368 (3.3)	613 (4.0)	775 (7.3)	569 (2.6)
Outdoor children	19398	458 (3.7)	315 (2.9)	525 (4.9)	695 (5.4)	499 (2.2)
Heart and respiratory	23239	416 (4.5)	288 (3.7)	485 (6.2)	633 (6.4)	456 (2.7)
All persons	203228	439 (5.8)	302 (3.9)	504 (5.9)	669 (8.5)	479 (3.1)

Houston:: State=Texas (48), County=Galveston County (167)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=217396, HAPEM Population=80242, District 19 HAPEM Population=80242 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	71427	440 (5.8)	302 (3.9)	506 (5.9)	669 (8.6)	480 (3.1)
African americans	4232	423 (4.9)	290 (3.4)	487 (5.5)	645 (7.4)	462 (2.7)
Hispanics	8388	433 (6.9)	296 (4.4)	492 (6.2)	659 (10.3)	470 (3.6)
Household income lt \$10K	9290	414 (4.2)	285 (2.8)	478 (4.0)	631 (5.9)	453 (2.2)
Household income \$10K-\$25K	21768	438 (5.6)	299 (3.6)	495 (5.2)	667 (8.2)	475 (2.9)
Household income \$25K-\$50K	26870	440 (6.6)	303 (4.2)	508 (6.1)	670 (9.7)	481 (3.5)
Household income \$50K-\$75K	14665	446 (4.9)	307 (3.6)	514 (6.0)	678 (7.0)	487 (2.8)
Household income gt \$75K	7674	437 (4.9)	300 (3.0)	503 (4.3)	669 (7.5)	478 (2.6)
Children, 0 to 17	24062	437 (5.6)	302 (3.9)	508 (6.0)	665 (8.3)	479 (3.1)
Nonworking men, 18 to 44	3512	455 (7.0)	317 (4.2)	539 (5.8)	693 (10.5)	502 (3.6)
Working men, 18 to 44	13555	466 (4.8)	320 (3.3)	523 (4.9)	704 (7.1)	504 (2.6)
Nonworking women, 18 to 44	7372	423 (4.7)	292 (3.0)	490 (4.6)	645 (6.7)	463 (2.5)
Working women, 18 to 44	10004	438 (3.2)	303 (2.3)	507 (3.9)	665 (4.7)	479 (1.8)
Nonworking men, 45 to 64	1605	419 (2.0)	290 (1.1)	486 (2.4)	637 (2.8)	459 (1.1)
Working men, 45 to 64	5849	472 (4.7)	323 (3.0)	526 (3.9)	713 (6.8)	509 (2.4)
Nonworking women, 45 to 64	3323	405 (2.9)	281 (2.4)	476 (4.2)	620 (4.3)	446 (1.8)
Working women, 45 to 64	4296	438 (4.4)	299 (2.9)	494 (3.8)	663 (6.4)	474 (2.3)
Men, 65+	2621	437 (5.8)	308 (3.7)	521 (4.7)	665 (8.4)	483 (3.0)
Women, 65+	2676	406 (4.2)	286 (3.4)	489 (5.3)	621 (6.3)	451 (2.5)
Outdoor workers	2361	517 (5.1)	368 (3.3)	613 (4.0)	775 (7.3)	569 (2.6)
Outdoor children	7028	458 (3.7)	315 (2.9)	525 (4.9)	695 (5.4)	499 (2.2)
Heart and respiratory	10097	416 (4.5)	288 (3.7)	485 (6.2)	633 (6.4)	456 (2.7)
All persons	80242	439 (5.8)	302 (3.9)	504 (5.9)	669 (8.5)	479 (3.1)

Houston:: State=Texas (48), County=Harris County (201)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=2818101, HAPEM Population=2814396, District 19 HAPEM Population=1511107 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	1823296	457 (3.8)	320 (2.6)	519 (3.8)	675 (5.5)	493 (2.0)
African americans	539835	458 (2.7)	328 (2.0)	517 (3.0)	680 (3.9)	496 (1.5)
Hispanics	634313	445 (3.4)	311 (2.3)	488 (2.9)	638 (4.8)	471 (1.7)
Household income lt \$10K	515621	443 (2.3)	319 (1.7)	495 (2.1)	640 (3.0)	475 (1.2)
Household income \$10K-\$25K	876108	454 (3.2)	316 (2.1)	505 (2.9)	670 (4.5)	487 (1.7)
Household income \$25K-\$50K	866831	456 (4.1)	320 (2.7)	522 (3.8)	680 (6.1)	495 (2.2)
Household income \$50K-\$75K	323118	463 (3.4)	325 (2.6)	530 (4.2)	689 (4.9)	502 (1.9)
Household income gt \$75K	220746	471 (3.5)	338 (2.2)	532 (3.1)	689 (5.3)	508 (1.9)
Children, 0 to 17	802869	451 (3.3)	317 (2.3)	518 (3.5)	671 (4.8)	490 (1.8)
Nonworking men, 18 to 44	156594	485 (3.9)	353 (2.5)	559 (3.1)	704 (5.5)	526 (2.0)
Working men, 18 to 44	498149	484 (3.0)	340 (2.1)	536 (3.0)	711 (4.4)	519 (1.6)
Nonworking women, 18 to 44	285109	443 (2.7)	314 (1.8)	503 (2.6)	651 (3.8)	478 (1.4)
Working women, 18 to 44	376866	457 (2.0)	324 (1.5)	523 (2.5)	675 (3.0)	496 (1.2)
Nonworking men, 45 to 64	57611	447 (1.1)	321 (0.6)	507 (1.3)	652 (1.5)	483 (0.6)
Working men, 45 to 64	168547	493 (2.8)	345 (1.8)	542 (2.3)	724 (4.0)	527 (1.4)
Nonworking women, 45 to 64	106122	427 (1.6)	305 (1.4)	493 (2.3)	631 (2.3)	465 (1.0)
Working women, 45 to 64	126610	459 (2.7)	322 (1.8)	513 (2.3)	677 (3.9)	493 (1.4)
Men, 65+	96448	472 (3.3)	350 (2.3)	544 (2.5)	674 (4.4)	511 (1.6)
Women, 65+	99769	439 (2.4)	326 (2.0)	511 (2.8)	630 (3.3)	477 (1.4)
Outdoor workers	82810	534 (2.8)	387 (1.8)	623 (2.1)	777 (3.9)	581 (1.4)
Outdoor children	228808	472 (2.2)	329 (1.7)	535 (2.9)	701 (3.1)	510 (1.3)
Heart and respiratory	350783	438 (2.7)	312 (2.3)	501 (3.6)	642 (3.7)	474 (1.6)
All persons	2814396	459 (3.5)	324 (2.4)	519 (3.5)	678 (5.0)	496 (1.9)

Houston:: State=Texas (48), County=Montgomery County (339)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=182201, HAPEM Population=64628, District 19 HAPEM Population=64628 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	60977	440 (5.8)	302 (3.9)	506 (5.9)	669 (8.6)	480 (3.1)
African americans	1402	423 (4.9)	290 (3.4)	487 (5.5)	645 (7.4)	462 (2.7)
Hispanics	3915	433 (6.9)	296 (4.4)	492 (6.2)	659 (10.3)	470 (3.6)
Household income lt \$10K	7192	414 (4.2)	285 (2.8)	478 (4.0)	631 (5.9)	453 (2.2)
Household income \$10K-\$25K	18591	438 (5.6)	299 (3.6)	495 (5.2)	667 (8.2)	475 (2.9)
Household income \$25K-\$50K	22916	440 (6.6)	303 (4.2)	508 (6.1)	670 (9.7)	481 (3.5)
Household income \$50K-\$75K	9901	446 (4.9)	307 (3.6)	514 (6.0)	678 (7.0)	487 (2.8)
Household income gt \$75K	6011	437 (4.9)	300 (3.0)	503 (4.3)	669 (7.5)	478 (2.6)
Children, 0 to 17	19981	437 (5.6)	302 (3.9)	508 (6.0)	665 (8.3)	479 (3.1)
Nonworking men, 18 to 44	2886	455 (7.0)	317 (4.2)	539 (5.8)	693 (10.5)	502 (3.6)
Working men, 18 to 44	10624	466 (4.8)	320 (3.3)	523 (4.9)	704 (7.1)	504 (2.6)
Nonworking women, 18 to 44	6547	423 (4.7)	292 (3.0)	490 (4.6)	645 (6.7)	463 (2.5)
Working women, 18 to 44	7450	438 (3.2)	303 (2.3)	507 (3.9)	665 (4.7)	479 (1.8)
Nonworking men, 45 to 64	1254	419 (2.0)	290 (1.1)	486 (2.4)	637 (2.8)	459 (1.1)
Working men, 45 to 64	4491	472 (4.7)	323 (3.0)	526 (3.9)	713 (6.8)	509 (2.4)
Nonworking women, 45 to 64	2753	405 (2.9)	281 (2.4)	476 (4.2)	620 (4.3)	446 (1.8)
Working women, 45 to 64	3165	438 (4.4)	299 (2.9)	494 (3.8)	663 (6.4)	474 (2.3)
Men, 65+	2176	437 (5.8)	308 (3.7)	521 (4.7)	665 (8.4)	483 (3.0)
Women, 65+	2258	406 (4.2)	286 (3.4)	489 (5.3)	621 (6.3)	451 (2.5)
Outdoor workers	1720	517 (5.1)	368 (3.3)	613 (4.0)	775 (7.3)	569 (2.6)
Outdoor children	5859	458 (3.7)	315 (2.9)	525 (4.9)	695 (5.4)	499 (2.2)
Heart and respiratory	8153	416 (4.5)	288 (3.7)	485 (6.2)	633 (6.4)	456 (2.7)
All persons	64628	439 (5.8)	302 (3.9)	504 (5.9)	669 (8.5)	479 (3.1)

Houston:: State=Texas (48), County=Waller County (473)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=23389, HAPEM Population=1227, District 19 HAPEM Population=1227 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	1019	440 (5.8)	302 (3.9)	506 (5.9)	669 (8.6)	480 (3.1)
African americans	25	423 (4.9)	290 (3.4)	487 (5.5)	645 (7.4)	462 (2.7)
Hispanics	277	433 (6.9)	296 (4.4)	492 (6.2)	659 (10.3)	470 (3.6)
Household income lt \$10K	63	414 (4.2)	285 (2.8)	478 (4.0)	631 (5.9)	453 (2.2)
Household income \$10K-\$25K	617	438 (5.6)	299 (3.6)	495 (5.2)	667 (8.2)	475 (2.9)
Household income \$25K-\$50K	210	440 (6.6)	303 (4.2)	508 (6.1)	670 (9.7)	481 (3.5)
Household income \$50K-\$75K	206	446 (4.9)	307 (3.6)	514 (6.0)	678 (7.0)	487 (2.8)
Household income gt \$75K	130	437 (4.9)	300 (3.0)	503 (4.3)	669 (7.5)	478 (2.6)
Children, 0 to 17	314	437 (5.6)	302 (3.9)	508 (6.0)	665 (8.3)	479 (3.1)
Nonworking men, 18 to 44	60	455 (7.0)	317 (4.2)	539 (5.8)	693 (10.5)	502 (3.6)
Working men, 18 to 44	209	466 (4.8)	320 (3.3)	523 (4.9)	704 (7.1)	504 (2.6)
Nonworking women, 18 to 44	108	423 (4.7)	292 (3.0)	490 (4.6)	645 (6.7)	463 (2.5)
Working women, 18 to 44	108	438 (3.2)	303 (2.3)	507 (3.9)	665 (4.7)	479 (1.8)
Nonworking men, 45 to 64	36	419 (2.0)	290 (1.1)	486 (2.4)	637 (2.8)	459 (1.1)
Working men, 45 to 64	128	472 (4.7)	323 (3.0)	526 (3.9)	713 (6.8)	509 (2.4)
Nonworking women, 45 to 64	66	405 (2.9)	281 (2.4)	476 (4.2)	620 (4.3)	446 (1.8)
Working women, 45 to 64	65	438 (4.4)	299 (2.9)	494 (3.8)	663 (6.4)	474 (2.3)
Men, 65+	62	437 (5.8)	308 (3.7)	521 (4.7)	665 (8.4)	483 (3.0)
Women, 65+	51	406 (4.2)	286 (3.4)	489 (5.3)	621 (6.3)	451 (2.5)
Outdoor workers	61	517 (5.1)	368 (3.3)	613 (4.0)	775 (7.3)	569 (2.6)
Outdoor children	106	458 (3.7)	315 (2.9)	525 (4.9)	695 (5.4)	499 (2.2)
Heart and respiratory	171	416 (4.5)	288 (3.7)	485 (6.2)	633 (6.4)	456 (2.7)
All persons	1227	439 (5.8)	302 (3.9)	504 (5.9)	669 (8.5)	479 (3.1)

Los Angeles: Citywide

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=13361116, HAPEM Population=10087784, District 19 HAPEM Population=1486340 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	5955339	1158 (4.3)	594 (2.4)	597 (2.4)	1213 (4.5)	890 (1.8)
African americans	1000296	1249 (5.8)	570 (3.1)	528 (3.3)	1386 (6.3)	933 (2.4)
Hispanics	3659873	1217 (6.3)	618 (3.3)	615 (3.4)	1329 (7.0)	945 (2.6)
Household income lt \$10K	1411461	1166 (3.4)	584 (2.0)	566 (1.8)	1264 (3.8)	895 (1.4)
Household income \$10K-\$25K	2565519	1217 (4.7)	620 (2.9)	614 (3.3)	1312 (5.3)	940 (2.1)
Household income \$25K-\$50K	3321511	1191 (4.9)	604 (2.5)	598 (2.4)	1269 (5.3)	915 (2.0)
Household income \$50K-\$75K	1537732	1174 (3.5)	594 (2.1)	591 (2.3)	1236 (3.6)	898 (1.5)
Household income gt \$75K	1174039	1134 (4.3)	567 (2.0)	570 (2.0)	1182 (4.5)	863 (1.7)
Children, 0 to 17	2617805	1203 (4.5)	611 (2.4)	602 (2.3)	1297 (5.0)	928 (1.9)
Nonworking men, 18 to 44	655385	1251 (5.9)	625 (2.9)	603 (2.6)	1341 (6.6)	954 (2.4)
Working men, 18 to 44	1652149	1235 (2.5)	631 (1.5)	631 (1.6)	1306 (2.5)	950 (1.0)
Nonworking women, 18 to 44	1086360	1162 (3.6)	587 (1.9)	576 (1.8)	1247 (3.8)	892 (1.5)
Working women, 18 to 44	1227211	1164 (1.6)	586 (0.9)	582 (1.0)	1232 (1.8)	890 (0.7)
Nonworking men, 45 to 64	233759	1137 (1.5)	596 (2.9)	613 (4.1)	1211 (1.6)	888 (1.4)
Working men, 45 to 64	603974	1242 (2.4)	628 (1.3)	624 (1.2)	1307 (2.3)	950 (0.9)
Nonworking women, 45 to 64	397782	1100 (2.0)	560 (1.5)	561 (1.8)	1172 (2.2)	848 (1.0)
Working women, 45 to 64	460399	1154 (2.2)	586 (1.2)	591 (1.2)	1216 (2.3)	886 (0.9)
Men, 65+	474150	1173 (4.1)	597 (2.2)	586 (1.8)	1234 (4.2)	897 (1.6)
Women, 65+	492318	1096 (3.2)	558 (1.9)	547 (1.5)	1146 (2.9)	836 (1.2)
Outdoor workers	299924	1355 (2.6)	710 (1.4)	720 (1.2)	1435 (2.6)	1054 (1.0)
Outdoor children	732764	1251 (2.8)	633 (1.9)	619 (2.2)	1348 (3.1)	962 (1.3)
Heart and respiratory	1341571	1126 (3.2)	574 (1.9)	573 (1.8)	1194 (3.3)	866 (1.3)
All persons	10087784	1190 (4.4)	603 (2.5)	598 (2.5)	1268 (4.7)	914 (1.8)

Los Angeles: State=California (06), County=Los Angeles County (037)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=8863052, HAPEM Population=8540864, District 19 HAPEM Population=1004372 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	4788990	1173 (4.4)	596 (2.4)	597 (2.5)	1232 (4.6)	899 (1.8)
African americans	970830	1255 (6.0)	570 (3.2)	527 (3.4)	1395 (6.5)	936 (2.5)
Hispanics	3249086	1235 (6.9)	623 (3.6)	619 (3.7)	1357 (7.7)	958 (2.9)
Household income lt \$10K	1292799	1178 (3.6)	587 (2.1)	567 (1.9)	1282 (4.1)	903 (1.5)
Household income \$10K-\$25K	2251872	1235 (5.1)	623 (3.2)	616 (3.5)	1338 (5.8)	952 (2.3)
Household income \$25K-\$50K	2756170	1210 (5.2)	607 (2.7)	599 (2.5)	1297 (5.7)	928 (2.1)
Household income \$50K-\$75K	1225929	1190 (3.5)	594 (2.1)	589 (2.3)	1256 (3.6)	907 (1.5)
Household income gt \$75K	950303	1142 (4.2)	566 (2.0)	564 (1.9)	1189 (4.4)	864 (1.7)
Children, 0 to 17	2224109	1224 (4.8)	616 (2.6)	604 (2.4)	1327 (5.4)	942 (2.0)
Nonworking men, 18 to 44	573474	1268 (6.4)	628 (3.1)	604 (2.7)	1365 (7.1)	966 (2.6)
Working men, 18 to 44	1369656	1251 (2.6)	633 (1.6)	630 (1.7)	1329 (2.7)	960 (1.1)
Nonworking women, 18 to 44	939964	1179 (3.8)	590 (2.0)	577 (1.9)	1271 (4.2)	904 (1.6)
Working women, 18 to 44	1018761	1179 (1.7)	587 (1.0)	580 (1.0)	1252 (1.9)	899 (0.7)
Nonworking men, 45 to 64	202832	1150 (1.6)	598 (3.0)	612 (4.3)	1230 (1.7)	897 (1.4)
Working men, 45 to 64	497048	1255 (2.5)	629 (1.3)	622 (1.2)	1325 (2.5)	957 (1.0)
Nonworking women, 45 to 64	341056	1113 (2.1)	562 (1.6)	561 (1.9)	1190 (2.3)	856 (1.0)
Working women, 45 to 64	379313	1166 (2.3)	586 (1.3)	588 (1.2)	1232 (2.4)	892 (0.9)
Men, 65+	409451	1185 (4.3)	599 (2.3)	585 (1.9)	1250 (4.4)	904 (1.7)
Women, 65+	424864	1108 (3.4)	560 (2.0)	546 (1.6)	1160 (3.1)	843 (1.3)
Outdoor workers	246726	1375 (2.7)	712 (1.4)	720 (1.2)	1464 (2.7)	1067 (1.1)
Outdoor children	621744	1272 (3.0)	638 (2.1)	621 (2.3)	1379 (3.4)	977 (1.4)
Heart and respiratory	1139135	1141 (3.4)	577 (2.0)	573 (1.9)	1215 (3.5)	876 (1.4)
All persons	8540864	1207 (4.7)	607 (2.6)	598 (2.6)	1292 (5.0)	925 (1.9)

Los Angeles: State=California (06), County=Orange County (059)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=2410668, HAPEM Population=1471461, District 19 HAPEM Population=472663 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	1104032	1109 (8.7)	590 (5.1)	596 (5.1)	1153 (9.0)	861 (3.6)
African americans	27146	1060 (7.8)	573 (5.2)	581 (6.0)	1091 (7.6)	826 (3.4)
Hispanics	399527	1080 (12.0)	584 (6.9)	583 (6.7)	1112 (12.0)	839 (4.9)
Household income lt \$10K	113594	1040 (6.4)	555 (3.8)	552 (3.5)	1076 (6.5)	805 (2.6)
Household income \$10K-\$25K	301661	1100 (9.5)	594 (6.3)	598 (6.9)	1138 (9.8)	857 (4.1)
Household income \$25K-\$50K	540587	1106 (10.1)	591 (5.6)	595 (5.2)	1148 (10.3)	859 (4.1)
Household income \$50K-\$75K	293966	1124 (7.0)	595 (4.6)	599 (4.9)	1170 (7.3)	871 (3.0)
Household income gt \$75K	207905	1117 (7.7)	580 (3.8)	592 (3.9)	1171 (8.1)	864 (3.1)
Children, 0 to 17	371777	1098 (8.5)	587 (4.9)	591 (4.8)	1138 (8.8)	853 (3.5)
Nonworking men, 18 to 44	78783	1140 (11.5)	602 (5.9)	590 (5.2)	1179 (11.8)	877 (4.6)
Working men, 18 to 44	267983	1166 (5.9)	626 (3.8)	631 (4.0)	1207 (5.9)	907 (2.5)
Nonworking women, 18 to 44	140002	1064 (7.1)	567 (4.0)	567 (3.8)	1103 (7.2)	825 (2.9)
Working women, 18 to 44	197064	1103 (3.9)	584 (2.4)	587 (2.5)	1146 (4.1)	854 (1.6)
Nonworking men, 45 to 64	29791	1056 (2.9)	585 (5.9)	615 (8.4)	1095 (3.0)	837 (2.8)
Working men, 45 to 64	101913	1191 (5.2)	628 (2.9)	630 (2.7)	1235 (5.1)	920 (2.1)
Nonworking women, 45 to 64	54483	1028 (4.0)	549 (3.1)	561 (3.8)	1069 (4.2)	801 (1.9)
Working women, 45 to 64	77132	1108 (4.8)	588 (2.9)	600 (2.8)	1154 (5.0)	862 (2.0)
Men, 65+	62537	1101 (8.5)	589 (4.8)	589 (4.0)	1144 (8.6)	855 (3.4)
Women, 65+	65270	1030 (6.2)	550 (4.0)	551 (3.2)	1065 (5.7)	798 (2.5)
Outdoor workers	50892	1274 (6.7)	703 (3.9)	717 (3.3)	1314 (6.5)	1001 (2.6)
Outdoor children	104821	1145 (5.3)	609 (3.9)	609 (4.5)	1188 (5.6)	887 (2.4)
Heart and respiratory	193290	1050 (6.5)	563 (4.1)	571 (3.8)	1089 (6.5)	818 (2.7)
All persons	1471461	1105 (8.7)	590 (5.2)	595 (5.2)	1146 (8.9)	858 (3.6)

Los Angeles: State=California (06), County=San Bernardino County (071)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=1418380, HAPEM Population=30180, District 19 HAPEM Population=0 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	21954	1289 (16.8)	702 (9.5)	806 (11.0)	1330 (17.4)	1031 (7.1)
African americans	1501	1242 (14.0)	682 (8.7)	792 (11.9)	1278 (14.2)	998 (6.2)
Hispanics	6655	1268 (19.3)	692 (10.8)	796 (12.6)	1306 (19.6)	1015 (8.0)
Household income lt \$10K	2694	1215 (11.7)	659 (6.2)	751 (6.5)	1253 (12.2)	969 (4.8)
Household income \$10K-\$25K	4562	1286 (16.5)	705 (10.3)	813 (13.2)	1327 (17.3)	1032 (7.3)
Household income \$25K-\$50K	9156	1290 (18.8)	703 (10.0)	805 (10.8)	1331 (19.4)	1032 (7.7)
Household income \$50K-\$75K	7750	1308 (13.9)	708 (8.5)	809 (10.5)	1351 (14.6)	1043 (6.1)
Household income gt \$75K	6025	1287 (14.7)	695 (7.5)	798 (8.6)	1330 (15.4)	1027 (6.0)
Children, 0 to 17	9160	1280 (16.1)	698 (8.7)	799 (9.7)	1321 (16.7)	1024 (6.6)
Nonworking men, 18 to 44	1297	1330 (19.9)	715 (10.2)	803 (10.5)	1371 (20.5)	1054 (8.0)
Working men, 18 to 44	5875	1317 (10.6)	723 (6.5)	831 (8.0)	1354 (10.8)	1056 (4.6)
Nonworking women, 18 to 44	2600	1242 (13.4)	674 (6.9)	770 (7.5)	1280 (13.7)	991 (5.4)
Working women, 18 to 44	4498	1254 (7.3)	681 (4.1)	781 (4.8)	1290 (7.7)	1001 (3.1)
Nonworking men, 45 to 64	462	1223 (5.8)	695 (11.1)	825 (17.9)	1260 (6.0)	1000 (5.7)
Working men, 45 to 64	1864	1333 (10.1)	723 (5.5)	824 (5.9)	1369 (10.2)	1062 (4.1)
Nonworking women, 45 to 64	863	1189 (8.2)	655 (6.0)	758 (8.3)	1226 (8.6)	957 (3.9)
Working women, 45 to 64	1445	1246 (9.6)	684 (5.7)	793 (6.4)	1280 (10.0)	1000 (4.1)
Men, 65+	845	1279 (16.3)	699 (8.6)	793 (8.1)	1320 (16.9)	1022 (6.6)
Women, 65+	833	1188 (11.3)	655 (7.2)	745 (6.6)	1218 (10.9)	951 (4.6)
Outdoor workers	989	1412 (10.5)	789 (5.7)	920 (5.6)	1445 (10.4)	1141 (4.2)
Outdoor children	2578	1339 (10.5)	723 (7.0)	820 (9.2)	1383 (11.0)	1066 (4.8)
Heart and respiratory	3595	1219 (12.5)	670 (7.2)	773 (7.7)	1255 (12.9)	979 (5.2)
All persons	30180	1287 (16.6)	702 (9.5)	805 (11.0)	1327 (17.1)	1030 (7.0)

Los Angeles: State=California (06), County=Ventura County (111)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=669016, HAPEM Population=45279, District 19 HAPEM Population=9305 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	40363	633 (6.1)	400 (4.0)	505 (5.4)	625 (5.9)	541 (2.7)
African americans	819	577 (5.4)	375 (3.9)	490 (6.3)	567 (5.5)	502 (2.7)
Hispanics	4605	559 (7.0)	371 (5.0)	487 (6.9)	543 (6.4)	490 (3.2)
Household income lt \$10K	2374	500 (4.5)	340 (2.5)	452 (3.5)	478 (3.9)	442 (1.8)
Household income \$10K-\$25K	7424	646 (5.8)	407 (4.3)	512 (6.4)	641 (5.8)	551 (2.8)
Household income \$25K-\$50K	15598	630 (6.8)	398 (4.2)	504 (5.4)	621 (6.5)	538 (2.9)
Household income \$50K-\$75K	10087	617 (4.9)	393 (3.5)	502 (5.3)	605 (4.6)	529 (2.3)
Household income gt \$75K	9806	664 (5.5)	408 (3.3)	506 (4.1)	665 (5.7)	561 (2.4)
Children, 0 to 17	12759	633 (5.9)	398 (3.6)	501 (4.8)	627 (5.7)	540 (2.5)
Nonworking men, 18 to 44	1831	627 (6.8)	399 (4.6)	498 (5.3)	610 (6.1)	533 (2.9)
Working men, 18 to 44	8636	735 (7.7)	459 (4.9)	558 (5.7)	716 (7.0)	617 (3.2)
Nonworking women, 18 to 44	3794	601 (4.8)	380 (2.7)	480 (3.7)	591 (4.4)	513 (2.0)
Working women, 18 to 44	6888	682 (5.4)	423 (3.0)	515 (3.3)	670 (5.4)	573 (2.2)
Nonworking men, 45 to 64	674	577 (2.2)	384 (4.7)	512 (9.1)	563 (2.0)	509 (2.7)
Working men, 45 to 64	3150	753 (8.4)	466 (4.4)	558 (4.2)	734 (7.7)	628 (3.2)
Nonworking women, 45 to 64	1380	573 (2.8)	370 (2.5)	473 (4.0)	563 (2.4)	495 (1.5)
Working women, 45 to 64	2509	693 (7.7)	429 (3.5)	528 (3.7)	685 (8.6)	584 (3.1)
Men, 65+	1317	595 (5.9)	384 (3.4)	490 (4.1)	579 (5.1)	512 (2.3)
Women, 65+	1351	553 (4.3)	363 (3.1)	461 (3.3)	538 (3.3)	479 (1.8)
Outdoor workers	1317	810 (11.3)	520 (5.9)	642 (5.0)	773 (9.9)	686 (4.2)
Outdoor children	3621	654 (3.8)	407 (2.8)	513 (4.6)	645 (3.6)	554 (1.9)
Heart and respiratory	5551	592 (4.5)	379 (2.9)	483 (3.8)	583 (3.9)	509 (1.9)
All persons	45279	629 (6.0)	398 (3.9)	503 (5.5)	621 (5.7)	538 (2.7)

Minneapolis\St. Paul: Citywide

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=2482372, HAPEM Population=2327511, District 19 HAPEM Population=1307692 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	2137296	870 (7.6)	695 (6.1)	742 (6.6)	820 (7.4)	782 (3.5)
African americans	89183	872 (7.7)	686 (4.6)	728 (4.9)	799 (6.2)	771 (3.0)
Hispanics	33403	786 (7.0)	648 (5.2)	704 (5.3)	762 (6.6)	725 (3.0)
Household income lt \$10K	272514	785 (4.5)	628 (3.4)	665 (3.5)	748 (4.4)	706 (2.0)
Household income \$10K-\$25K	557899	856 (6.4)	689 (5.5)	740 (6.5)	809 (6.1)	773 (3.1)
Household income \$25K-\$50K	891101	872 (8.9)	697 (6.6)	744 (6.6)	821 (8.5)	783 (3.9)
Household income \$50K-\$75K	383417	882 (6.6)	707 (6.3)	754 (7.2)	831 (6.7)	793 (3.3)
Household income gt \$75K	204607	895 (7.4)	703 (5.3)	753 (5.5)	829 (6.8)	795 (3.2)
Children, 0 to 17	604802	850 (6.8)	683 (6.0)	733 (6.5)	805 (6.8)	768 (3.3)
Nonworking men, 18 to 44	116506	905 (5.6)	705 (5.4)	737 (5.2)	853 (5.8)	800 (2.8)
Working men, 18 to 44	402553	925 (7.4)	731 (5.4)	775 (5.7)	871 (6.9)	825 (3.2)
Nonworking women, 18 to 44	190570	844 (7.1)	668 (4.6)	710 (4.6)	795 (6.5)	754 (2.9)
Working women, 18 to 44	354521	892 (5.3)	695 (3.9)	739 (4.3)	833 (4.9)	789 (2.3)
Nonworking men, 45 to 64	42299	827 (4.4)	687 (6.2)	759 (8.8)	781 (3.9)	763 (3.1)
Working men, 45 to 64	144797	935 (7.3)	729 (4.6)	768 (4.5)	878 (6.7)	827 (3.0)
Nonworking women, 45 to 64	71550	837 (6.6)	653 (4.1)	698 (4.6)	779 (5.8)	741 (2.7)
Working women, 45 to 64	126819	877 (5.5)	690 (4.5)	736 (4.7)	819 (5.5)	780 (2.5)
Men, 65+	107936	872 (5.8)	709 (4.7)	763 (4.5)	820 (5.8)	791 (2.6)
Women, 65+	118437	853 (5.2)	669 (3.9)	715 (3.9)	791 (5.0)	757 (2.3)
Outdoor workers	61217	1062 (7.8)	828 (5.0)	892 (4.6)	997 (7.3)	944 (3.2)
Outdoor children	168460	903 (6.3)	713 (5.3)	757 (6.2)	856 (6.1)	807 (3.0)
Heart and respiratory	310868	813 (4.0)	661 (4.5)	713 (5.0)	766 (4.6)	738 (2.3)
All persons	2327511	882 (8.2)	695 (6.1)	740 (6.4)	828 (7.7)	786 (3.6)

Minneapolis\St. Paul: State=Minnesota (27), County=Anoka County (003)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=243641, HAPEM Population=243641, District 19 HAPEM Population=221515 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	237177	828 (10.9)	663 (8.8)	697 (9.4)	786 (10.7)	743 (5.0)
African americans	1403	798 (11.9)	637 (7.3)	661 (7.6)	743 (10.3)	710 (4.7)
Hispanics	1968	795 (13.7)	650 (10.1)	683 (9.9)	756 (12.8)	721 (5.9)
Household income lt \$10K	19382	775 (8.1)	620 (6.2)	644 (6.2)	733 (8.0)	693 (3.6)
Household income \$10K-\$25K	52747	815 (10.0)	660 (8.8)	693 (10.2)	773 (9.8)	735 (4.9)
Household income \$25K-\$50K	113472	829 (12.7)	665 (9.4)	700 (9.4)	789 (12.2)	745 (5.5)
Household income \$50K-\$75K	43313	833 (8.8)	671 (8.4)	706 (9.5)	796 (9.0)	751 (4.5)
Household income gt \$75K	14233	827 (9.8)	656 (7.0)	691 (7.2)	781 (9.0)	739 (4.2)
Children, 0 to 17	74528	824 (9.6)	662 (8.4)	701 (9.2)	783 (9.7)	742 (4.6)
Nonworking men, 18 to 44	10312	875 (9.5)	684 (9.0)	704 (8.7)	827 (9.9)	772 (4.6)
Working men, 18 to 44	43744	887 (11.2)	703 (8.3)	737 (8.7)	841 (10.6)	792 (4.9)
Nonworking women, 18 to 44	16925	805 (11.4)	640 (7.3)	668 (7.3)	762 (10.6)	718 (4.7)
Working women, 18 to 44	37243	849 (8.2)	663 (5.9)	696 (6.6)	799 (7.6)	752 (3.6)
Nonworking men, 45 to 64	3899	790 (6.7)	657 (9.6)	712 (13.5)	749 (6.1)	727 (4.7)
Working men, 45 to 64	15834	898 (10.5)	701 (6.7)	728 (6.4)	847 (9.7)	793 (4.2)
Nonworking women, 45 to 64	6471	792 (9.8)	621 (6.2)	649 (6.8)	742 (8.8)	701 (4.0)
Working women, 45 to 64	13536	834 (8.0)	658 (6.6)	691 (6.8)	784 (8.0)	742 (3.7)
Men, 65+	6613	799 (8.6)	655 (7.0)	683 (6.6)	758 (9.0)	723 (3.9)
Women, 65+	6897	774 (7.7)	614 (5.8)	634 (5.7)	725 (7.6)	687 (3.4)
Outdoor workers	7772	1036 (11.5)	807 (7.4)	861 (6.8)	974 (10.9)	919 (4.7)
Outdoor children	21442	876 (8.8)	692 (7.4)	725 (8.6)	833 (8.5)	781 (4.2)
Heart and respiratory	29457	768 (6.1)	627 (6.9)	664 (7.5)	730 (7.1)	697 (3.5)
All persons	243641	840 (12.1)	665 (9.0)	696 (9.4)	795 (11.5)	749 (5.3)

Minneapolis\St. Paul: State=Minnesota (27), County=Carver County (019)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=47915, HAPEM Population=39178, District 19 HAPEM Population=39178 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	38637	833 (11.9)	667 (9.6)	707 (10.3)	796 (11.7)	750 (5.5)
African americans	75	812 (15.2)	645 (9.4)	686 (9.8)	769 (13.2)	728 (6.1)
Hispanics	169	800 (15.0)	653 (11.1)	692 (10.9)	766 (14.0)	728 (6.4)
Household income lt \$10K	4087	783 (9.5)	624 (7.2)	658 (7.2)	747 (9.3)	703 (4.2)
Household income \$10K-\$25K	8622	825 (11.7)	665 (10.2)	709 (11.9)	789 (11.3)	746 (5.6)
Household income \$25K-\$50K	15248	833 (13.6)	668 (10.1)	707 (10.1)	796 (13.1)	751 (5.9)
Household income \$50K-\$75K	6982	837 (9.4)	674 (8.9)	713 (10.2)	802 (9.6)	756 (4.8)
Household income gt \$75K	4262	831 (10.4)	658 (7.4)	698 (7.7)	787 (9.6)	743 (4.4)
Children, 0 to 17	11723	828 (10.2)	664 (9.0)	708 (9.8)	790 (10.3)	747 (4.9)
Nonworking men, 18 to 44	1537	882 (10.7)	688 (10.2)	716 (9.8)	840 (11.2)	781 (5.2)
Working men, 18 to 44	6985	890 (12.1)	705 (8.9)	744 (9.4)	848 (11.4)	796 (5.3)
Nonworking women, 18 to 44	2718	812 (12.7)	643 (8.2)	679 (8.2)	774 (11.8)	727 (5.2)
Working women, 18 to 44	5859	852 (8.9)	665 (6.4)	703 (7.1)	806 (8.2)	756 (3.9)
Nonworking men, 45 to 64	566	800 (7.9)	663 (11.2)	730 (15.8)	765 (7.1)	739 (5.5)
Working men, 45 to 64	2478	901 (11.7)	703 (7.4)	737 (7.1)	856 (10.8)	799 (4.7)
Nonworking women, 45 to 64	1005	801 (11.4)	625 (7.2)	664 (7.9)	756 (10.2)	711 (4.7)
Working women, 45 to 64	2040	838 (8.9)	661 (7.4)	701 (7.6)	794 (9.0)	748 (4.1)
Men, 65+	1468	814 (10.9)	664 (8.9)	708 (8.4)	782 (11.3)	741 (5.0)
Women, 65+	1492	789 (9.8)	622 (7.4)	658 (7.4)	749 (9.8)	704 (4.3)
Outdoor workers	1409	1038 (12.5)	808 (8.1)	868 (7.4)	980 (11.8)	923 (5.1)
Outdoor children	3211	881 (9.4)	694 (7.9)	732 (9.2)	840 (9.1)	787 (4.4)
Heart and respiratory	4963	774 (6.8)	631 (7.7)	675 (8.5)	741 (7.9)	705 (3.9)
All persons	39178	846 (13.2)	668 (9.8)	706 (10.3)	805 (12.6)	756 (5.8)

Minneapolis\St. Paul: State=Minnesota (27), County=Dakota County (037)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=275189, HAPEM Population=269569, District 19 HAPEM Population=223967 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	259635	802 (10.0)	648 (8.1)	701 (8.7)	780 (9.8)	733 (4.6)
African americans	3124	803 (14.1)	641 (8.7)	687 (9.1)	766 (12.3)	724 (5.6)
Hispanics	3744	738 (10.9)	613 (8.1)	677 (8.1)	734 (10.3)	690 (4.7)
Household income lt \$10K	20802	738 (7.3)	597 (5.5)	648 (5.6)	725 (7.3)	677 (3.2)
Household income \$10K-\$25K	61905	787 (9.7)	641 (8.4)	699 (9.9)	769 (9.4)	724 (4.7)
Household income \$25K-\$50K	109422	806 (11.5)	652 (8.6)	703 (8.6)	783 (11.1)	736 (5.0)
Household income \$50K-\$75K	52982	812 (8.1)	659 (7.8)	708 (8.9)	790 (8.4)	742 (4.1)
Household income gt \$75K	24451	806 (8.8)	645 (6.3)	695 (6.5)	777 (8.1)	730 (3.7)
Children, 0 to 17	80405	805 (8.9)	651 (7.8)	703 (8.5)	779 (9.0)	734 (4.3)
Nonworking men, 18 to 44	9693	837 (8.4)	661 (8.0)	707 (7.8)	817 (8.9)	755 (4.1)
Working men, 18 to 44	50751	871 (10.7)	695 (7.8)	741 (8.3)	840 (10.0)	786 (4.6)
Nonworking women, 18 to 44	18539	773 (10.2)	621 (6.6)	671 (6.6)	755 (9.5)	705 (4.2)
Working women, 18 to 44	43561	833 (7.8)	654 (5.7)	700 (6.3)	798 (7.3)	746 (3.4)
Nonworking men, 45 to 64	3633	742 (5.7)	627 (8.1)	716 (11.6)	736 (5.2)	705 (4.1)
Working men, 45 to 64	16687	872 (9.6)	688 (6.1)	732 (5.9)	844 (8.9)	784 (3.9)
Nonworking women, 45 to 64	6743	748 (8.3)	594 (5.3)	652 (5.9)	730 (7.5)	681 (3.4)
Working women, 45 to 64	14305	808 (7.3)	645 (6.1)	696 (6.2)	781 (7.4)	732 (3.4)
Men, 65+	8260	732 (7.2)	611 (5.8)	687 (5.7)	739 (7.6)	692 (3.3)
Women, 65+	8778	701 (6.3)	568 (4.8)	637 (5.0)	705 (6.4)	653 (2.8)
Outdoor workers	7500	1012 (10.6)	795 (6.9)	864 (6.3)	970 (10.0)	910 (4.3)
Outdoor children	22255	855 (8.1)	679 (6.8)	728 (7.9)	827 (7.8)	772 (3.8)
Heart and respiratory	32999	736 (5.5)	608 (6.2)	667 (6.8)	722 (6.4)	683 (3.1)
All persons	269569	815 (11.1)	650 (8.3)	700 (8.7)	790 (10.6)	738 (4.9)

Minneapolis\St. Paul: State=Minnesota (27), County=Hennepin County (053)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=1032431, HAPEM Population=1032431, District 19 HAPEM Population=457552 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	923267	919 (7.9)	711 (6.2)	764 (6.8)	834 (7.3)	807 (3.5)
African americans	60012	875 (9.8)	665 (5.7)	709 (6.1)	776 (7.7)	756 (3.7)
Hispanics	12470	847 (8.8)	663 (6.2)	708 (6.3)	772 (7.6)	747 (3.7)
Household income lt \$10K	127455	795 (5.0)	612 (3.7)	641 (3.8)	729 (4.8)	694 (2.2)
Household income \$10K-\$25K	248403	896 (7.3)	694 (6.1)	748 (7.4)	813 (6.6)	787 (3.4)
Household income \$25K-\$50K	376376	924 (9.0)	717 (6.5)	770 (6.7)	838 (8.3)	812 (3.9)
Household income \$50K-\$75K	166597	936 (6.7)	730 (6.2)	786 (7.2)	853 (6.6)	826 (3.3)
Household income gt \$75K	103726	943 (7.7)	723 (5.4)	784 (5.8)	848 (6.8)	824 (3.2)
Children, 0 to 17	238544	894 (6.7)	698 (5.8)	750 (6.4)	817 (6.5)	789 (3.2)
Nonworking men, 18 to 44	55433	928 (6.1)	698 (5.7)	728 (5.6)	845 (6.1)	799 (2.9)
Working men, 18 to 44	179810	966 (6.8)	743 (4.9)	792 (5.3)	882 (6.2)	845 (2.9)
Nonworking women, 18 to 44	88962	879 (7.9)	671 (4.9)	717 (5.1)	797 (6.8)	766 (3.2)
Working women, 18 to 44	160591	935 (5.1)	708 (3.6)	759 (4.1)	845 (4.5)	811 (2.2)
Nonworking men, 45 to 64	19926	864 (4.8)	695 (6.6)	768 (9.4)	786 (4.1)	778 (3.3)
Working men, 45 to 64	64748	981 (6.9)	747 (4.3)	789 (4.2)	894 (6.2)	852 (2.8)
Nonworking women, 45 to 64	33540	883 (7.3)	667 (4.5)	715 (5.1)	790 (6.2)	763 (2.9)
Working women, 45 to 64	57509	924 (5.3)	708 (4.3)	759 (4.5)	834 (5.1)	806 (2.4)
Men, 65+	55181	922 (7.4)	722 (5.8)	783 (5.7)	831 (7.0)	814 (3.3)
Women, 65+	61226	905 (6.9)	683 (4.9)	737 (5.2)	803 (6.2)	782 (2.9)
Outdoor workers	24450	1108 (6.9)	845 (4.3)	909 (4.0)	1011 (6.3)	968 (2.8)
Outdoor children	65475	947 (6.1)	728 (5.1)	774 (6.0)	867 (5.8)	829 (2.9)
Heart and respiratory	143046	857 (4.4)	673 (4.8)	731 (5.5)	777 (4.9)	759 (2.5)
All persons	1032431	927 (8.6)	707 (6.2)	757 (6.7)	839 (7.7)	807 (3.7)

Minneapolis\St. Paul: State=Minnesota (27), County=Ramsey County (123)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=485783, HAPEM Population=485765, District 19 HAPEM Population=119062 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	428209	862 (7.4)	729 (6.4)	770 (6.7)	851 (7.3)	803 (3.5)
African americans	22584	885 (12.6)	758 (8.5)	794 (8.4)	873 (11.2)	828 (5.2)
Hispanics	12457	738 (9.0)	644 (7.1)	716 (7.5)	763 (9.2)	716 (4.1)
Household income lt \$10K	78648	786 (6.3)	669 (5.1)	715 (5.1)	791 (6.3)	740 (2.9)
Household income \$10K-\$25K	137204	847 (7.6)	726 (7.0)	774 (8.0)	843 (7.4)	798 (3.8)
Household income \$25K-\$50K	168085	859 (8.4)	727 (6.7)	769 (6.5)	850 (8.2)	801 (3.7)
Household income \$50K-\$75K	64227	876 (5.9)	742 (6.0)	778 (6.6)	863 (6.1)	815 (3.1)
Household income gt \$75K	34991	894 (7.0)	741 (5.2)	769 (5.3)	861 (6.5)	816 (3.0)
Children, 0 to 17	119997	832 (6.1)	705 (5.7)	758 (6.1)	827 (6.2)	780 (3.0)
Nonworking men, 18 to 44	27706	909 (6.8)	753 (6.9)	786 (6.6)	901 (7.3)	837 (3.5)
Working men, 18 to 44	77600	914 (5.7)	761 (4.5)	800 (4.5)	899 (5.4)	843 (2.5)
Nonworking women, 18 to 44	44851	839 (8.3)	706 (5.7)	745 (5.6)	831 (7.8)	780 (3.5)
Working women, 18 to 44	71264	884 (4.4)	726 (3.3)	764 (3.5)	862 (4.0)	809 (1.9)
Nonworking men, 45 to 64	10001	814 (5.0)	716 (7.3)	791 (10.3)	811 (4.5)	783 (3.6)
Working men, 45 to 64	28246	914 (5.5)	748 (3.7)	783 (3.5)	897 (5.2)	835 (2.3)
Nonworking women, 45 to 64	16357	820 (7.2)	676 (4.7)	719 (5.1)	804 (6.4)	755 (3.0)
Working women, 45 to 64	25614	860 (4.3)	712 (3.8)	753 (3.7)	840 (4.3)	791 (2.0)
Men, 65+	27984	855 (7.6)	742 (6.7)	786 (6.0)	851 (7.8)	808 (3.5)
Women, 65+	31462	832 (6.9)	698 (5.7)	732 (5.3)	820 (6.9)	770 (3.1)
Outdoor workers	11780	1038 (5.9)	847 (4.1)	913 (3.6)	1017 (5.7)	954 (2.4)
Outdoor children	33006	890 (5.6)	740 (5.0)	786 (5.7)	882 (5.5)	824 (2.7)
Heart and respiratory	68375	801 (4.4)	693 (5.3)	740 (5.7)	796 (5.1)	757 (2.6)
All persons	485765	873 (8.3)	729 (6.6)	769 (6.7)	860 (8.0)	808 (3.7)

Minneapolis\St. Paul: State=Minnesota (27), County=Scott County (139)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=57846, HAPEM Population=53132, District 19 HAPEM Population=53132 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	52043	833 (11.9)	667 (9.6)	707 (10.3)	796 (11.7)	750 (5.5)
African americans	241	812 (15.2)	645 (9.4)	686 (9.8)	769 (13.2)	728 (6.1)
Hispanics	347	800 (15.0)	653 (11.1)	692 (10.9)	766 (14.0)	728 (6.4)
Household income lt \$10K	3312	783 (9.5)	624 (7.2)	658 (7.2)	747 (9.3)	703 (4.2)
Household income \$10K-\$25K	9888	825 (11.7)	665 (10.2)	709 (11.9)	789 (11.3)	746 (5.6)
Household income \$25K-\$50K	24971	833 (13.6)	668 (10.1)	707 (10.1)	796 (13.1)	751 (5.9)
Household income \$50K-\$75K	10968	837 (9.4)	674 (8.9)	713 (10.2)	802 (9.6)	756 (4.8)
Household income gt \$75K	4005	831 (10.4)	658 (7.4)	698 (7.7)	787 (9.6)	743 (4.4)
Children, 0 to 17	16565	828 (10.2)	664 (9.0)	708 (9.8)	790 (10.3)	747 (4.9)
Nonworking men, 18 to 44	2131	882 (10.7)	688 (10.2)	716 (9.8)	840 (11.2)	781 (5.2)
Working men, 18 to 44	9750	890 (12.1)	705 (8.9)	744 (9.4)	848 (11.4)	796 (5.3)
Nonworking women, 18 to 44	3797	812 (12.7)	643 (8.2)	679 (8.2)	774 (11.8)	727 (5.2)
Working women, 18 to 44	7884	852 (8.9)	665 (6.4)	703 (7.1)	806 (8.2)	756 (3.9)
Nonworking men, 45 to 64	754	800 (7.9)	663 (11.2)	730 (15.8)	765 (7.1)	739 (5.5)
Working men, 45 to 64	3111	901 (11.7)	703 (7.4)	737 (7.1)	856 (10.8)	799 (4.7)
Nonworking women, 45 to 64	1319	801 (11.4)	625 (7.2)	664 (7.9)	756 (10.2)	711 (4.7)
Working women, 45 to 64	2517	838 (8.9)	661 (7.4)	701 (7.6)	794 (9.0)	748 (4.1)
Men, 65+	1763	814 (10.9)	664 (8.9)	708 (8.4)	782 (11.3)	741 (5.0)
Women, 65+	1791	789 (9.8)	622 (7.4)	658 (7.4)	749 (9.8)	704 (4.3)
Outdoor workers	2020	1038 (12.5)	808 (8.1)	868 (7.4)	980 (11.8)	923 (5.1)
Outdoor children	4672	881 (9.4)	694 (7.9)	732 (9.2)	840 (9.1)	787 (4.4)
Heart and respiratory	6532	774 (6.8)	631 (7.7)	675 (8.5)	741 (7.9)	705 (3.9)
All persons	53132	846 (13.2)	668 (9.8)	706 (10.3)	805 (12.6)	756 (5.8)

Minneapolis\St. Paul: State=Minnesota (27), County=Sherburne County (141)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=41945, HAPEM Population=11201, District 19 HAPEM Population=11201 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	11021	833 (11.9)	667 (9.6)	707 (10.3)	796 (11.7)	750 (5.5)
African americans	16	812 (15.2)	645 (9.4)	686 (9.8)	769 (13.2)	728 (6.1)
Hispanics	94	800 (15.0)	653 (11.1)	692 (10.9)	766 (14.0)	728 (6.4)
Household income lt \$10K	1860	783 (9.5)	624 (7.2)	658 (7.2)	747 (9.3)	703 (4.2)
Household income \$10K-\$25K	2253	825 (11.7)	665 (10.2)	709 (11.9)	789 (11.3)	746 (5.6)
Household income \$25K-\$50K	4584	833 (13.6)	668 (10.1)	707 (10.1)	796 (13.1)	751 (5.9)
Household income \$50K-\$75K	1780	837 (9.4)	674 (8.9)	713 (10.2)	802 (9.6)	756 (4.8)
Household income gt \$75K	722	831 (10.4)	658 (7.4)	698 (7.7)	787 (9.6)	743 (4.4)
Children, 0 to 17	3686	828 (10.2)	664 (9.0)	708 (9.8)	790 (10.3)	747 (4.9)
Nonworking men, 18 to 44	534	882 (10.7)	688 (10.2)	716 (9.8)	840 (11.2)	781 (5.2)
Working men, 18 to 44	1787	890 (12.1)	705 (8.9)	744 (9.4)	848 (11.4)	796 (5.3)
Nonworking women, 18 to 44	943	812 (12.7)	643 (8.2)	679 (8.2)	774 (11.8)	727 (5.2)
Working women, 18 to 44	1446	852 (8.9)	665 (6.4)	703 (7.1)	806 (8.2)	756 (3.9)
Nonworking men, 45 to 64	190	800 (7.9)	663 (11.2)	730 (15.8)	765 (7.1)	739 (5.5)
Working men, 45 to 64	634	901 (11.7)	703 (7.4)	737 (7.1)	856 (10.8)	799 (4.7)
Nonworking women, 45 to 64	335	801 (11.4)	625 (7.2)	664 (7.9)	756 (10.2)	711 (4.7)
Working women, 45 to 64	514	838 (8.9)	661 (7.4)	701 (7.6)	794 (9.0)	748 (4.1)
Men, 65+	397	814 (10.9)	664 (8.9)	708 (8.4)	782 (11.3)	741 (5.0)
Women, 65+	404	789 (9.8)	622 (7.4)	658 (7.4)	749 (9.8)	704 (4.3)
Outdoor workers	372	1038 (12.5)	808 (8.1)	868 (7.4)	980 (11.8)	923 (5.1)
Outdoor children	1094	881 (9.4)	694 (7.9)	732 (9.2)	840 (9.1)	787 (4.4)
Heart and respiratory	1400	774 (6.8)	631 (7.7)	675 (8.5)	741 (7.9)	705 (3.9)
All persons	11201	846 (13.2)	668 (9.8)	706 (10.3)	805 (12.6)	756 (5.8)

Minneapolis\St. Paul: State=Minnesota (27), County=Washington County (163)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=145896, HAPEM Population=145896, District 19 HAPEM Population=135387 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	141151	818 (11.1)	657 (8.9)	703 (9.6)	787 (10.9)	741 (5.1)
African americans	1693	778 (12.9)	624 (8.0)	678 (8.4)	752 (11.3)	708 (5.2)
Hispanics	1989	777 (13.4)	638 (9.9)	686 (9.8)	754 (12.5)	714 (5.8)
Household income lt \$10K	14355	767 (8.7)	614 (6.6)	654 (6.6)	738 (8.6)	693 (3.8)
Household income \$10K-\$25K	25511	800 (10.3)	649 (9.0)	702 (10.6)	775 (10.1)	731 (5.0)
Household income \$25K-\$50K	57852	817 (12.6)	657 (9.4)	703 (9.4)	787 (12.2)	741 (5.5)
Household income \$50K-\$75K	28629	826 (8.9)	667 (8.5)	710 (9.7)	796 (9.1)	750 (4.5)
Household income gt \$75K	14539	823 (10.1)	654 (7.2)	696 (7.4)	783 (9.3)	739 (4.3)
Children, 0 to 17	44335	814 (9.6)	655 (8.4)	704 (9.1)	783 (9.7)	739 (4.6)
Nonworking men, 18 to 44	7311	871 (10.1)	681 (9.6)	713 (9.3)	833 (10.6)	774 (5.0)
Working men, 18 to 44	23999	873 (11.1)	695 (8.2)	740 (8.6)	840 (10.4)	787 (4.8)
Nonworking women, 18 to 44	10522	798 (11.9)	635 (7.7)	676 (7.7)	766 (11.0)	718 (4.9)
Working women, 18 to 44	20113	834 (8.1)	654 (5.8)	699 (6.5)	798 (7.5)	746 (3.5)
Nonworking men, 45 to 64	2657	788 (7.5)	656 (10.6)	726 (14.9)	758 (6.7)	732 (5.2)
Working men, 45 to 64	10141	886 (10.8)	694 (6.8)	733 (6.6)	849 (10.0)	790 (4.4)
Nonworking women, 45 to 64	4582	789 (10.7)	618 (6.8)	661 (7.5)	750 (9.6)	704 (4.4)
Working women, 45 to 64	8420	822 (8.2)	651 (6.8)	697 (7.0)	786 (8.2)	739 (3.8)
Men, 65+	4674	803 (10.4)	657 (8.5)	705 (8.0)	776 (10.8)	735 (4.7)
Women, 65+	4806	778 (9.3)	615 (7.0)	655 (7.0)	744 (9.3)	698 (4.1)
Outdoor workers	3986	1022 (11.4)	800 (7.4)	865 (6.8)	974 (10.9)	915 (4.7)
Outdoor children	12910	867 (8.8)	685 (7.4)	729 (8.6)	832 (8.5)	778 (4.2)
Heart and respiratory	18300	760 (6.4)	622 (7.2)	672 (7.9)	734 (7.4)	697 (3.6)
All persons	145896	830 (12.3)	658 (9.1)	702 (9.6)	797 (11.7)	747 (5.4)

Minneapolis\St. Paul: State=Minnesota (27), County=Wright County (171)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=68710, HAPEM Population=23536, District 19 HAPEM Population=23536 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	23310	833 (11.9)	667 (9.6)	707 (10.3)	796 (11.7)	750 (5.5)
African americans	9	812 (15.2)	645 (9.4)	686 (9.8)	769 (13.2)	728 (6.1)
Hispanics	90	800 (15.0)	653 (11.1)	692 (10.9)	766 (14.0)	728 (6.4)
Household income lt \$10K	1255	783 (9.5)	624 (7.2)	658 (7.2)	747 (9.3)	703 (4.2)
Household income \$10K-\$25K	6682	825 (11.7)	665 (10.2)	709 (11.9)	789 (11.3)	746 (5.6)
Household income \$25K-\$50K	11360	833 (13.6)	668 (10.1)	707 (10.1)	796 (13.1)	751 (5.9)
Household income \$50K-\$75K	3072	837 (9.4)	674 (8.9)	713 (10.2)	802 (9.6)	756 (4.8)
Household income gt \$75K	1162	831 (10.4)	658 (7.4)	698 (7.7)	787 (9.6)	743 (4.4)
Children, 0 to 17	7919	828 (10.2)	664 (9.0)	708 (9.8)	790 (10.3)	747 (4.9)
Nonworking men, 18 to 44	895	882 (10.7)	688 (10.2)	716 (9.8)	840 (11.2)	781 (5.2)
Working men, 18 to 44	4160	890 (12.1)	705 (8.9)	744 (9.4)	848 (11.4)	796 (5.3)
Nonworking women, 18 to 44	1537	812 (12.7)	643 (8.2)	679 (8.2)	774 (11.8)	727 (5.2)
Working women, 18 to 44	3356	852 (8.9)	665 (6.4)	703 (7.1)	806 (8.2)	756 (3.9)
Nonworking men, 45 to 64	319	800 (7.9)	663 (11.2)	730 (15.8)	765 (7.1)	739 (5.5)
Working men, 45 to 64	1450	901 (11.7)	703 (7.4)	737 (7.1)	856 (10.8)	799 (4.7)
Nonworking women, 45 to 64	541	801 (11.4)	625 (7.2)	664 (7.9)	756 (10.2)	711 (4.7)
Working women, 45 to 64	1175	838 (8.9)	661 (7.4)	701 (7.6)	794 (9.0)	748 (4.1)
Men, 65+	725	814 (10.9)	664 (8.9)	708 (8.4)	782 (11.3)	741 (5.0)
Women, 65+	696	789 (9.8)	622 (7.4)	658 (7.4)	749 (9.8)	704 (4.3)
Outdoor workers	1112	1038 (12.5)	808 (8.1)	868 (7.4)	980 (11.8)	923 (5.1)
Outdoor children	2347	881 (9.4)	694 (7.9)	732 (9.2)	840 (9.1)	787 (4.4)
Heart and respiratory	2855	774 (6.8)	631 (7.7)	675 (8.5)	741 (7.9)	705 (3.9)
All persons	23536	846 (13.2)	668 (9.8)	706 (10.3)	805 (12.6)	756 (5.8)

Minneapolis\St. Paul: State=Wisconsin (55), County=Pierce County (093)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=32765, HAPEM Population=5373, District 19 HAPEM Population=5373 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	5306	833 (11.9)	667 (9.6)	707 (10.3)	796 (11.7)	750 (5.5)
African americans	8	812 (15.2)	645 (9.4)	686 (9.8)	769 (13.2)	728 (6.1)
Hispanics	26	800 (15.0)	653 (11.1)	692 (10.9)	766 (14.0)	728 (6.4)
Household income lt \$10K	435	783 (9.5)	624 (7.2)	658 (7.2)	747 (9.3)	703 (4.2)
Household income \$10K-\$25K	1314	825 (11.7)	665 (10.2)	709 (11.9)	789 (11.3)	746 (5.6)
Household income \$25K-\$50K	2708	833 (13.6)	668 (10.1)	707 (10.1)	796 (13.1)	751 (5.9)
Household income \$50K-\$75K	643	837 (9.4)	674 (8.9)	713 (10.2)	802 (9.6)	756 (4.8)
Household income gt \$75K	275	831 (10.4)	658 (7.4)	698 (7.7)	787 (9.6)	743 (4.4)
Children, 0 to 17	1707	828 (10.2)	664 (9.0)	708 (9.8)	790 (10.3)	747 (4.9)
Nonworking men, 18 to 44	244	882 (10.7)	688 (10.2)	716 (9.8)	840 (11.2)	781 (5.2)
Working men, 18 to 44	855	890 (12.1)	705 (8.9)	744 (9.4)	848 (11.4)	796 (5.3)
Nonworking women, 18 to 44	373	812 (12.7)	643 (8.2)	679 (8.2)	774 (11.8)	727 (5.2)
Working women, 18 to 44	714	852 (8.9)	665 (6.4)	703 (7.1)	806 (8.2)	756 (3.9)
Nonworking men, 45 to 64	96	800 (7.9)	663 (11.2)	730 (15.8)	765 (7.1)	739 (5.5)
Working men, 45 to 64	339	901 (11.7)	703 (7.4)	737 (7.1)	856 (10.8)	799 (4.7)
Nonworking women, 45 to 64	148	801 (11.4)	625 (7.2)	664 (7.9)	756 (10.2)	711 (4.7)
Working women, 45 to 64	282	838 (8.9)	661 (7.4)	701 (7.6)	794 (9.0)	748 (4.1)
Men, 65+	227	814 (10.9)	664 (8.9)	708 (8.4)	782 (11.3)	741 (5.0)
Women, 65+	224	789 (9.8)	622 (7.4)	658 (7.4)	749 (9.8)	704 (4.3)
Outdoor workers	250	1038 (12.5)	808 (8.1)	868 (7.4)	980 (11.8)	923 (5.1)
Outdoor children	511	881 (9.4)	694 (7.9)	732 (9.2)	840 (9.1)	787 (4.4)
Heart and respiratory	697	774 (6.8)	631 (7.7)	675 (8.5)	741 (7.9)	705 (3.9)
All persons	5373	846 (13.2)	668 (9.8)	706 (10.3)	805 (12.6)	756 (5.8)

Minneapolis\St. Paul: State=Wisconsin (55), County=St. Croix County (109)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=50251, HAPEM Population=17789, District 19 HAPEM Population=17789 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	17540	833 (11.9)	667 (9.6)	707 (10.3)	796 (11.7)	750 (5.5)
African americans	18	812 (15.2)	645 (9.4)	686 (9.8)	769 (13.2)	728 (6.1)
Hispanics	49	800 (15.0)	653 (11.1)	692 (10.9)	766 (14.0)	728 (6.4)
Household income lt \$10K	923	783 (9.5)	624 (7.2)	658 (7.2)	747 (9.3)	703 (4.2)
Household income \$10K-\$25K	3370	825 (11.7)	665 (10.2)	709 (11.9)	789 (11.3)	746 (5.6)
Household income \$25K-\$50K	7023	833 (13.6)	668 (10.1)	707 (10.1)	796 (13.1)	751 (5.9)
Household income \$50K-\$75K	4224	837 (9.4)	674 (8.9)	713 (10.2)	802 (9.6)	756 (4.8)
Household income gt \$75K	2241	831 (10.4)	658 (7.4)	698 (7.7)	787 (9.6)	743 (4.4)
Children, 0 to 17	5393	828 (10.2)	664 (9.0)	708 (9.8)	790 (10.3)	747 (4.9)
Nonworking men, 18 to 44	710	882 (10.7)	688 (10.2)	716 (9.8)	840 (11.2)	781 (5.2)
Working men, 18 to 44	3112	890 (12.1)	705 (8.9)	744 (9.4)	848 (11.4)	796 (5.3)
Nonworking women, 18 to 44	1403	812 (12.7)	643 (8.2)	679 (8.2)	774 (11.8)	727 (5.2)
Working women, 18 to 44	2490	852 (8.9)	665 (6.4)	703 (7.1)	806 (8.2)	756 (3.9)
Nonworking men, 45 to 64	258	800 (7.9)	663 (11.2)	730 (15.8)	765 (7.1)	739 (5.5)
Working men, 45 to 64	1129	901 (11.7)	703 (7.4)	737 (7.1)	856 (10.8)	799 (4.7)
Nonworking women, 45 to 64	509	801 (11.4)	625 (7.2)	664 (7.9)	756 (10.2)	711 (4.7)
Working women, 45 to 64	906	838 (8.9)	661 (7.4)	701 (7.6)	794 (9.0)	748 (4.1)
Men, 65+	644	814 (10.9)	664 (8.9)	708 (8.4)	782 (11.3)	741 (5.0)
Women, 65+	661	789 (9.8)	622 (7.4)	658 (7.4)	749 (9.8)	704 (4.3)
Outdoor workers	566	1038 (12.5)	808 (8.1)	868 (7.4)	980 (11.8)	923 (5.1)
Outdoor children	1537	881 (9.4)	694 (7.9)	732 (9.2)	840 (9.1)	787 (4.4)
Heart and respiratory	2244	774 (6.8)	631 (7.7)	675 (8.5)	741 (7.9)	705 (3.9)
All persons	17789	846 (13.2)	668 (9.8)	706 (10.3)	805 (12.6)	756 (5.8)

New York City: Citywide

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=16397378, HAPEM Population=13395103, District 19 HAPEM Population=4920931 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	8555087	966 (6.5)	847 (5.9)	875 (5.9)	900 (6.2)	897 (3.1)
African americans	2953126	880 (6.5)	767 (4.5)	785 (4.5)	799 (5.1)	807 (2.6)
Hispanics	2407328	987 (7.1)	911 (6.1)	929 (5.7)	901 (6.2)	932 (3.1)
Household income lt \$10K	2310334	915 (4.1)	817 (3.6)	834 (3.4)	833 (3.8)	849 (1.9)
Household income \$10K-\$25K	2829200	941 (5.0)	836 (5.0)	857 (5.3)	866 (4.5)	875 (2.5)
Household income \$25K-\$50K	3955032	948 (6.7)	829 (5.6)	855 (5.3)	880 (6.2)	878 (3.0)
Household income \$50K-\$75K	2119548	950 (5.4)	828 (5.7)	857 (6.0)	890 (5.4)	881 (2.8)
Household income gt \$75K	1843158	989 (6.7)	865 (5.2)	898 (5.0)	926 (5.8)	919 (2.9)
Children, 0 to 17	3033154	935 (5.1)	817 (4.8)	848 (5.0)	858 (5.0)	864 (2.5)
Nonworking men, 18 to 44	889472	1019 (5.0)	885 (5.3)	909 (4.6)	936 (5.3)	937 (2.5)
Working men, 18 to 44	1810419	1029 (4.3)	898 (3.6)	911 (3.5)	953 (3.8)	947 (1.9)
Nonworking women, 18 to 44	1462034	933 (5.7)	816 (4.2)	839 (4.0)	856 (4.8)	861 (2.4)
Working women, 18 to 44	1524890	981 (3.1)	847 (2.5)	874 (2.7)	903 (2.6)	901 (1.4)
Nonworking men, 45 to 64	405292	919 (3.7)	836 (5.9)	874 (6.8)	845 (2.6)	868 (2.5)
Working men, 45 to 64	868212	1035 (4.5)	892 (3.4)	902 (2.9)	958 (3.8)	946 (1.8)
Nonworking women, 45 to 64	695377	918 (5.3)	790 (4.0)	818 (4.2)	834 (4.2)	840 (2.2)
Working women, 45 to 64	728260	966 (3.6)	839 (3.3)	863 (3.1)	894 (3.4)	890 (1.7)
Men, 65+	831638	938 (5.9)	837 (5.3)	876 (4.6)	880 (6.0)	883 (2.7)
Women, 65+	935998	902 (5.1)	785 (4.5)	816 (4.4)	831 (4.8)	833 (2.4)
Outdoor workers	308793	1159 (4.5)	989 (3.5)	1023 (2.8)	1052 (3.9)	1055 (1.9)
Outdoor children	870030	991 (4.5)	850 (4.1)	875 (4.6)	906 (4.1)	905 (2.2)
Heart and respiratory	1966902	893 (3.8)	801 (4.7)	831 (5.0)	830 (4.2)	839 (2.2)
All persons	13395103	971 (6.5)	844 (5.5)	867 (5.3)	892 (5.8)	893 (2.9)

New York City: State=Connecticut (09), County=Fairfield County (001)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=827645, HAPEM Population=80811, District 19 HAPEM Population=80811 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	64968	1002 (14.1)	879 (12.6)	911 (12.6)	924 (13.1)	929 (6.6)
African americans	11484	973 (17.6)	849 (12.1)	880 (12.0)	889 (13.6)	898 (7.0)
Hispanics	6521	965 (17.8)	860 (14.4)	889 (13.4)	896 (15.7)	902 (7.7)
Household income lt \$10K	6298	940 (11.0)	822 (9.2)	850 (8.7)	867 (10.4)	869 (4.9)
Household income \$10K-\$25K	13798	991 (13.4)	877 (13.2)	908 (13.9)	916 (12.2)	923 (6.6)
Household income \$25K-\$50K	23352	1002 (16.0)	880 (13.3)	914 (12.6)	926 (14.7)	930 (7.1)
Household income \$50K-\$75K	12867	1008 (11.3)	889 (11.8)	921 (12.5)	935 (11.2)	938 (5.9)
Household income gt \$75K	23179	1002 (12.4)	867 (9.5)	901 (9.1)	919 (10.6)	922 (5.2)
Children, 0 to 17	18015	997 (12.5)	875 (11.7)	914 (12.2)	919 (12.2)	926 (6.1)
Nonworking men, 18 to 44	3897	1053 (12.7)	904 (13.2)	937 (11.6)	967 (13.5)	965 (6.4)
Working men, 18 to 44	10881	1049 (10.9)	908 (9.0)	929 (8.7)	965 (9.5)	963 (4.8)
Nonworking women, 18 to 44	7809	972 (14.3)	846 (10.4)	877 (9.8)	894 (12.0)	897 (5.9)
Working women, 18 to 44	8907	1001 (7.8)	857 (6.2)	893 (6.7)	914 (6.6)	916 (3.4)
Nonworking men, 45 to 64	2298	962 (9.0)	872 (14.2)	918 (16.2)	884 (6.2)	909 (6.0)
Working men, 45 to 64	6400	1057 (10.3)	906 (7.6)	922 (6.7)	971 (8.7)	964 (4.2)
Nonworking women, 45 to 64	4834	958 (12.5)	821 (9.2)	856 (9.6)	869 (9.7)	876 (5.2)
Working women, 45 to 64	4941	990 (8.3)	854 (7.7)	885 (7.2)	906 (7.9)	908 (3.9)
Men, 65+	5421	984 (13.5)	877 (12.1)	925 (10.4)	916 (13.7)	925 (6.2)
Women, 65+	6111	945 (11.8)	820 (10.3)	859 (10.0)	863 (10.9)	871 (5.4)
Outdoor workers	2122	1196 (10.9)	1024 (8.4)	1072 (6.8)	1084 (9.5)	1094 (4.5)
Outdoor children	5112	1058 (10.9)	914 (9.9)	947 (11.1)	973 (9.9)	973 (5.2)
Heart and respiratory	12356	932 (8.9)	834 (10.9)	871 (11.6)	863 (9.8)	875 (5.2)
All persons	80811	1015 (15.5)	880 (12.9)	910 (12.6)	930 (13.8)	933 (6.9)

New York City: State=New Jersey (34), County=Bergen County (003)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=825380, HAPEM Population=825380, District 19 HAPEM Population=249068 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	719028	867 (7.0)	681 (5.6)	709 (5.6)	836 (6.8)	773 (3.1)
African americans	39075	791 (10.3)	576 (5.5)	601 (5.4)	777 (8.8)	686 (3.9)
Hispanics	48912	817 (9.2)	645 (6.3)	670 (5.9)	796 (8.7)	732 (3.8)
Household income lt \$10K	71858	803 (5.3)	628 (3.9)	652 (3.7)	773 (5.1)	714 (2.3)
Household income \$10K-\$25K	124828	839 (6.4)	654 (5.5)	679 (5.8)	815 (6.3)	746 (3.0)
Household income \$25K-\$50K	250395	851 (7.9)	657 (5.6)	684 (5.3)	826 (7.7)	754 (3.4)
Household income \$50K-\$75K	173785	873 (5.7)	686 (5.2)	714 (5.5)	845 (5.8)	779 (2.8)
Household income gt \$75K	184573	901 (6.8)	720 (4.9)	751 (4.7)	853 (6.0)	806 (2.8)
Children, 0 to 17	168227	868 (6.4)	685 (5.3)	718 (5.5)	835 (6.4)	776 (3.0)
Nonworking men, 18 to 44	40678	899 (6.5)	684 (5.6)	711 (5.0)	866 (7.3)	790 (3.1)
Working men, 18 to 44	117548	941 (5.3)	743 (4.1)	758 (4.0)	899 (4.8)	835 (2.3)
Nonworking women, 18 to 44	77987	837 (7.0)	651 (4.5)	677 (4.2)	805 (6.2)	742 (2.8)
Working women, 18 to 44	94545	890 (3.7)	686 (2.8)	711 (3.0)	846 (3.3)	783 (1.6)
Nonworking men, 45 to 64	23011	829 (4.3)	674 (6.3)	711 (7.2)	797 (3.2)	753 (2.7)
Working men, 45 to 64	66995	964 (5.1)	759 (3.6)	772 (3.1)	913 (4.5)	852 (2.1)
Nonworking women, 45 to 64	44822	833 (6.0)	646 (4.1)	676 (4.3)	788 (4.9)	735 (2.4)
Working women, 45 to 64	53319	884 (4.0)	696 (3.5)	719 (3.3)	841 (4.0)	785 (1.9)
Men, 65+	60306	835 (6.3)	663 (5.0)	700 (4.3)	816 (6.7)	753 (2.8)
Women, 65+	65923	802 (5.5)	617 (4.2)	648 (4.1)	769 (5.3)	709 (2.4)
Outdoor workers	19552	1086 (5.6)	854 (4.1)	882 (3.3)	1021 (5.1)	960 (2.3)
Outdoor children	48602	924 (5.5)	718 (4.6)	745 (5.1)	884 (5.1)	817 (2.5)
Heart and respiratory	128135	805 (4.4)	642 (4.6)	673 (4.9)	778 (4.9)	724 (2.4)
All persons	825380	877 (7.6)	681 (5.6)	706 (5.5)	839 (7.1)	775 (3.3)

New York City: State=New Jersey (34), County=Essex County (013)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=778206, HAPEM Population=778206, District 19 HAPEM Population=213719 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	398080	819 (7.5)	674 (6.6)	705 (6.6)	762 (7.1)	740 (3.5)
African americans	316611	656 (8.7)	495 (5.0)	523 (5.0)	611 (6.8)	571 (3.3)
Hispanics	93210	614 (9.2)	456 (5.7)	477 (5.4)	580 (8.1)	531 (3.6)
Household income lt \$10K	143145	635 (4.7)	479 (3.2)	504 (3.2)	596 (4.5)	554 (2.0)
Household income \$10K-\$25K	173058	688 (5.8)	535 (5.1)	562 (5.4)	647 (5.5)	608 (2.7)
Household income \$25K-\$50K	226068	737 (7.0)	582 (5.2)	614 (5.0)	690 (6.6)	656 (3.0)
Household income \$50K-\$75K	106071	801 (5.6)	656 (5.5)	687 (5.9)	751 (5.5)	723 (2.8)
Household income gt \$75K	109751	887 (8.1)	740 (6.2)	774 (5.9)	818 (7.0)	805 (3.4)
Children, 0 to 17	188719	729 (5.4)	574 (4.5)	608 (4.8)	682 (5.4)	648 (2.5)
Nonworking men, 18 to 44	54075	743 (5.6)	565 (4.9)	596 (4.6)	694 (6.1)	649 (2.7)
Working men, 18 to 44	100569	840 (5.1)	672 (4.3)	687 (4.0)	782 (4.5)	745 (2.2)
Nonworking women, 18 to 44	82704	707 (6.3)	551 (4.0)	580 (3.8)	660 (5.4)	624 (2.5)
Working women, 18 to 44	89569	792 (3.5)	621 (2.9)	647 (2.9)	731 (3.0)	697 (1.5)
Nonworking men, 45 to 64	22931	712 (4.4)	578 (5.4)	617 (6.3)	662 (2.9)	642 (2.5)
Working men, 45 to 64	46848	879 (5.0)	704 (3.8)	717 (3.2)	814 (4.3)	778 (2.1)
Nonworking women, 45 to 64	37443	723 (5.4)	566 (3.7)	597 (4.0)	666 (4.3)	638 (2.2)
Working women, 45 to 64	41075	802 (3.9)	645 (3.5)	670 (3.3)	744 (3.8)	715 (1.8)
Men, 65+	45849	766 (6.3)	630 (5.3)	672 (4.6)	721 (6.4)	697 (2.9)
Women, 65+	52237	733 (5.5)	587 (4.6)	621 (4.4)	678 (5.1)	655 (2.5)
Outdoor workers	19892	970 (6.0)	771 (4.5)	790 (3.5)	888 (5.3)	854 (2.5)
Outdoor children	54789	770 (4.5)	597 (3.7)	627 (4.3)	718 (4.2)	678 (2.1)
Heart and respiratory	112220	709 (4.1)	578 (4.5)	611 (4.9)	664 (4.5)	640 (2.3)
All persons	778206	759 (6.9)	597 (5.2)	625 (5.2)	705 (6.2)	671 (3.0)

New York City: State=New Jersey (34), County=Hudson County (017)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=553099, HAPEM Population=553099, District 19 HAPEM Population=0 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	381476	1219 (9.8)	1131 (9.3)	1114 (8.6)	1161 (9.4)	1156 (4.6)
African americans	79835	1194 (18.8)	1038 (13.1)	979 (11.4)	1078 (14.5)	1072 (7.3)
Hispanics	181222	1322 (15.3)	1294 (14.1)	1265 (12.3)	1278 (14.3)	1289 (7.0)
Household income lt \$10K	98894	1178 (9.6)	1070 (8.2)	1034 (7.1)	1103 (9.2)	1096 (4.3)
Household income \$10K-\$25K	141497	1242 (10.7)	1154 (10.8)	1123 (10.4)	1174 (9.8)	1173 (5.2)
Household income \$25K-\$50K	190373	1218 (11.9)	1117 (10.1)	1093 (8.8)	1151 (11.0)	1144 (5.3)
Household income \$50K-\$75K	76681	1219 (8.1)	1126 (8.7)	1103 (8.5)	1161 (8.2)	1152 (4.2)
Household income gt \$75K	42795	1216 (8.5)	1109 (6.7)	1092 (5.9)	1149 (7.4)	1141 (3.6)
Children, 0 to 17	122404	1225 (10.3)	1117 (9.7)	1092 (9.2)	1149 (10.1)	1145 (4.9)
Nonworking men, 18 to 44	36665	1290 (9.9)	1147 (10.1)	1112 (8.1)	1206 (10.3)	1188 (4.8)
Working men, 18 to 44	82875	1265 (4.7)	1150 (4.1)	1122 (3.8)	1190 (4.3)	1181 (2.1)
Nonworking women, 18 to 44	61748	1199 (11.2)	1086 (8.4)	1056 (7.2)	1124 (9.5)	1116 (4.6)
Working women, 18 to 44	65328	1210 (3.7)	1089 (3.1)	1080 (3.1)	1129 (3.2)	1127 (1.6)
Nonworking men, 45 to 64	15683	1182 (6.6)	1124 (11.1)	1115 (11.9)	1112 (4.6)	1133 (4.6)
Working men, 45 to 64	34969	1273 (4.4)	1158 (3.4)	1127 (2.9)	1201 (3.8)	1189 (1.8)
Nonworking women, 45 to 64	26819	1190 (9.7)	1073 (7.3)	1054 (7.1)	1106 (7.7)	1105 (4.0)
Working women, 45 to 64	27619	1205 (3.7)	1097 (3.7)	1084 (3.3)	1129 (3.6)	1128 (1.8)
Men, 65+	33726	1200 (9.8)	1125 (9.0)	1120 (7.2)	1148 (10.1)	1148 (4.5)
Women, 65+	36288	1150 (8.4)	1049 (7.5)	1040 (6.8)	1079 (7.8)	1079 (3.8)
Outdoor workers	15613	1399 (4.5)	1248 (3.6)	1262 (2.8)	1291 (4.1)	1299 (1.9)
Outdoor children	35148	1301 (9.1)	1165 (8.3)	1130 (8.4)	1218 (8.4)	1203 (4.3)
Heart and respiratory	79611	1145 (6.7)	1076 (8.3)	1058 (8.0)	1086 (7.5)	1091 (3.8)
All persons	553099	1251 (11.9)	1135 (10.1)	1104 (9.1)	1174 (10.7)	1166 (5.2)

Highest quarter 1 exposure is 1399 $\mu g/m3$ for Outdoor workers Highest quarter 2 exposure is 1294 $\mu g/m3$ for Hispanics Highest quarter 3 exposure is 1265 $\mu g/m3$ for Hispanics Highest quarter 4 exposure is 1291 $\mu g/m3$ for Outdoor workers Highest annual exposure is 1299 $\mu g/m3$ for Outdoor workers

New York City: State=New Jersey (34), County=Middlesex County (023)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=671811, HAPEM Population=520080, District 19 HAPEM Population=272243 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	420594	869 (8.6)	693 (7.3)	750 (7.5)	801 (8.0)	778 (3.9)
African americans	42188	876 (12.2)	715 (8.2)	762 (8.3)	800 (9.5)	788 (4.8)
Hispanics	52187	785 (10.2)	604 (7.0)	665 (7.0)	728 (8.9)	695 (4.2)
Household income lt \$10K	39973	805 (6.6)	633 (5.2)	685 (5.0)	742 (6.3)	716 (2.9)
Household income \$10K-\$25K	86991	849 (8.1)	676 (7.4)	733 (8.0)	783 (7.3)	760 (3.9)
Household income \$25K-\$50K	176004	864 (9.7)	687 (7.5)	746 (7.4)	798 (8.9)	773 (4.2)
Household income \$50K-\$75K	113631	885 (7.2)	716 (7.1)	771 (7.7)	820 (7.1)	798 (3.6)
Household income gt \$75K	81508	895 (8.2)	720 (6.1)	773 (5.9)	821 (7.0)	802 (3.4)
Children, 0 to 17	110224	865 (7.7)	691 (6.8)	752 (7.3)	797 (7.5)	776 (3.7)
Nonworking men, 18 to 44	33276	917 (7.9)	716 (7.7)	773 (7.0)	840 (8.3)	811 (3.9)
Working men, 18 to 44	85436	935 (7.1)	752 (5.7)	791 (5.6)	860 (6.2)	834 (3.1)
Nonworking women, 18 to 44	51114	851 (9.0)	677 (6.2)	729 (6.0)	782 (7.5)	760 (3.6)
Working women, 18 to 44	70718	892 (5.1)	706 (4.0)	757 (4.3)	812 (4.3)	791 (2.2)
Nonworking men, 45 to 64	12475	826 (5.4)	675 (7.8)	745 (9.2)	759 (3.8)	751 (3.4)
Working men, 45 to 64	36542	938 (6.5)	743 (4.8)	780 (4.2)	860 (5.6)	830 (2.7)
Nonworking women, 45 to 64	21255	827 (7.6)	640 (5.2)	698 (5.6)	749 (5.9)	728 (3.1)
Working women, 45 to 64	29921	872 (5.3)	692 (4.7)	741 (4.5)	798 (5.1)	776 (2.4)
Men, 65+	29594	842 (8.1)	673 (6.6)	747 (6.0)	782 (8.1)	761 (3.6)
Women, 65+	31152	806 (7.0)	627 (5.7)	689 (5.7)	736 (6.5)	715 (3.1)
Outdoor workers	15106	1072 (7.1)	851 (5.4)	914 (4.3)	968 (6.2)	951 (2.9)
Outdoor children	31642	920 (6.8)	725 (5.8)	781 (6.7)	846 (6.1)	818 (3.2)
Heart and respiratory	73170	807 (5.4)	655 (6.3)	714 (6.9)	746 (6.0)	730 (3.1)
All persons	520080	883 (9.6)	697 (7.5)	751 (7.6)	809 (8.5)	784 (4.2)

New York City: State=New Jersey (34), County=Monmouth County (025)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=553093, HAPEM Population=240818, District 19 HAPEM Population=233758 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	214218	994 (13.7)	869 (12.3)	903 (12.3)	918 (12.8)	921 (6.4)
African americans	16170	947 (16.0)	814 (11.0)	849 (10.9)	865 (12.4)	868 (6.4)
Hispanics	9901	952 (17.0)	841 (13.7)	872 (12.7)	884 (15.0)	887 (7.3)
Household income lt \$10K	17242	925 (10.4)	801 (8.7)	832 (8.2)	854 (9.8)	853 (4.7)
Household income \$10K-\$25K	42843	983 (13.0)	866 (12.9)	898 (13.5)	908 (11.8)	913 (6.4)
Household income \$25K-\$50K	68785	989 (15.3)	861 (12.7)	898 (12.1)	914 (14.1)	915 (6.8)
Household income \$50K-\$75K	49185	999 (11.0)	876 (11.4)	910 (12.2)	927 (10.8)	928 (5.7)
Household income gt \$75K	47058	1000 (12.3)	864 (9.4)	899 (9.0)	917 (10.5)	920 (5.2)
Children, 0 to 17	58172	988 (12.1)	863 (11.3)	903 (11.8)	911 (11.8)	916 (5.9)
Nonworking men, 18 to 44	12291	1043 (12.3)	891 (12.8)	925 (11.2)	958 (13.1)	954 (6.2)
Working men, 18 to 44	36678	1040 (10.5)	896 (8.7)	919 (8.4)	957 (9.2)	953 (4.6)
Nonworking women, 18 to 44	22856	964 (13.9)	834 (10.1)	867 (9.6)	887 (11.7)	888 (5.7)
Working women, 18 to 44	27661	992 (7.5)	845 (6.0)	881 (6.5)	905 (6.3)	906 (3.3)
Nonworking men, 45 to 64	5992	955 (8.7)	862 (13.8)	909 (15.8)	878 (6.0)	901 (5.9)
Working men, 45 to 64	18127	1050 (10.0)	897 (7.5)	914 (6.5)	965 (8.5)	956 (4.1)
Nonworking women, 45 to 64	11888	952 (12.2)	813 (9.0)	848 (9.4)	864 (9.5)	869 (5.0)
Working women, 45 to 64	13982	983 (8.1)	845 (7.5)	877 (7.0)	900 (7.7)	901 (3.8)
Men, 65+	13994	977 (13.2)	868 (11.8)	916 (10.2)	910 (13.3)	918 (6.1)
Women, 65+	15186	938 (11.5)	812 (10.1)	851 (9.7)	858 (10.6)	864 (5.2)
Outdoor workers	6751	1185 (10.5)	1008 (8.0)	1058 (6.5)	1073 (9.1)	1081 (4.3)
Outdoor children	17070	1049 (10.6)	901 (9.6)	935 (10.7)	965 (9.6)	962 (5.1)
Heart and respiratory	34739	925 (8.7)	824 (10.6)	862 (11.3)	856 (9.5)	867 (5.0)
All persons	240818	1006 (15.0)	868 (12.5)	899 (12.3)	922 (13.4)	923 (6.7)

New York City: State=New Jersey (34), County=Morris County (027)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=421361, HAPEM Population=275218, District 19 HAPEM Population=152888 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	251100	1010 (10.2)	845 (8.8)	912 (9.2)	915 (9.4)	920 (4.7)
African americans	9191	983 (14.1)	797 (9.3)	881 (9.8)	872 (10.9)	883 (5.6)
Hispanics	9421	972 (12.7)	821 (9.7)	889 (9.5)	883 (10.9)	891 (5.4)
Household income lt \$10K	10135	946 (8.0)	789 (6.4)	849 (6.3)	857 (7.4)	860 (3.5)
Household income \$10K-\$25K	30196	999 (9.6)	841 (9.2)	909 (10.1)	904 (8.6)	913 (4.7)
Household income \$25K-\$50K	83282	1009 (11.7)	849 (9.4)	915 (9.2)	917 (10.7)	922 (5.1)
Household income \$50K-\$75K	64205	1017 (8.3)	855 (8.2)	922 (9.1)	927 (8.0)	930 (4.2)
Household income gt \$75K	77041	1015 (9.2)	829 (6.6)	902 (6.6)	911 (7.8)	914 (3.8)
Children, 0 to 17	58836	1005 (9.1)	844 (8.2)	915 (8.9)	911 (8.8)	919 (4.4)
Nonworking men, 18 to 44	12078	1058 (9.0)	863 (8.8)	938 (8.2)	951 (9.2)	952 (4.4)
Working men, 18 to 44	44123	1060 (8.4)	881 (6.8)	933 (6.9)	960 (7.3)	958 (3.7)
Nonworking women, 18 to 44	24364	978 (10.2)	809 (7.1)	876 (7.1)	882 (8.5)	886 (4.1)
Working women, 18 to 44	35621	1012 (6.0)	828 (4.6)	895 (5.2)	907 (5.0)	910 (2.6)
Nonworking men, 45 to 64	6579	969 (6.6)	833 (9.5)	917 (11.4)	872 (4.5)	898 (4.2)
Working men, 45 to 64	24341	1072 (8.1)	879 (5.8)	927 (5.3)	967 (6.8)	961 (3.3)
Nonworking women, 45 to 64	13630	963 (8.8)	783 (6.1)	854 (6.8)	856 (6.8)	864 (3.6)
Working women, 45 to 64	19307	1000 (6.5)	825 (5.8)	889 (5.8)	899 (6.1)	903 (3.0)
Men, 65+	15511	989 (9.6)	841 (8.2)	927 (7.5)	904 (9.6)	915 (4.4)
Women, 65+	16612	950 (8.5)	784 (7.1)	858 (7.2)	850 (7.7)	860 (3.8)
Outdoor workers	6845	1213 (8.5)	1003 (6.4)	1084 (5.4)	1082 (7.4)	1095 (3.5)
Outdoor children	16977	1069 (7.9)	882 (7.0)	948 (8.1)	966 (7.1)	966 (3.8)
Heart and respiratory	39998	939 (6.6)	801 (7.5)	872 (8.4)	853 (7.1)	866 (3.7)
All persons	275218	1023 (11.2)	846 (9.0)	911 (9.2)	921 (9.8)	925 (4.9)

New York City: State=New Jersey (34), County=Passaic County (031)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=453302, HAPEM Population=432111, District 19 HAPEM Population=301685 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	305779	941 (10.9)	783 (9.7)	814 (9.7)	888 (10.2)	856 (5.1)
African americans	66051	879 (11.9)	704 (7.8)	732 (7.8)	834 (9.4)	787 (4.7)
Hispanics	95866	853 (11.3)	680 (8.4)	706 (7.9)	830 (10.3)	767 (4.8)
Household income lt \$10K	54223	855 (7.6)	689 (6.1)	715 (5.8)	817 (7.2)	769 (3.3)
Household income \$10K-\$25K	93959	901 (9.1)	736 (8.8)	764 (9.3)	862 (8.5)	816 (4.5)
Household income \$25K-\$50K	144983	920 (11.4)	752 (9.2)	783 (8.8)	877 (10.6)	833 (5.0)
Household income \$50K-\$75K	78341	943 (8.6)	786 (8.9)	816 (9.4)	896 (8.5)	860 (4.4)
Household income gt \$75K	52668	962 (10.5)	804 (8.0)	837 (7.7)	896 (9.0)	875 (4.4)
Children, 0 to 17	103175	918 (9.0)	752 (8.2)	787 (8.6)	872 (8.9)	832 (4.3)
Nonworking men, 18 to 44	25709	971 (9.3)	779 (9.4)	809 (8.2)	919 (9.9)	869 (4.6)
Working men, 18 to 44	62117	984 (7.8)	804 (6.4)	821 (6.2)	930 (6.9)	884 (3.4)
Nonworking women, 18 to 44	43676	898 (10.4)	731 (7.4)	759 (7.0)	850 (8.8)	809 (4.2)
Working women, 18 to 44	51116	939 (5.6)	755 (4.5)	785 (4.8)	879 (4.8)	839 (2.5)
Nonworking men, 45 to 64	11167	892 (6.6)	761 (10.4)	802 (11.9)	843 (4.6)	824 (4.4)
Working men, 45 to 64	28681	1004 (7.7)	818 (5.7)	833 (5.0)	942 (6.6)	899 (3.2)
Nonworking women, 45 to 64	19878	893 (9.4)	723 (6.8)	755 (7.1)	832 (7.4)	800 (3.9)
Working women, 45 to 64	23568	934 (6.2)	765 (5.7)	792 (5.4)	875 (6.0)	841 (2.9)
Men, 65+	27075	911 (10.0)	764 (8.7)	806 (7.5)	872 (10.1)	838 (4.6)
Women, 65+	29696	877 (8.7)	716 (7.5)	751 (7.3)	823 (8.1)	792 (4.0)
Outdoor workers	13077	1132 (7.8)	920 (6.0)	957 (4.8)	1050 (6.9)	1015 (3.2)
Outdoor children	29353	975 (7.9)	786 (7.0)	816 (7.8)	923 (7.2)	875 (3.7)
Heart and respiratory	63004	864 (6.5)	725 (7.8)	759 (8.4)	823 (7.2)	793 (3.8)
All persons	432111	938 (11.3)	762 (9.2)	790 (9.1)	885 (10.1)	843 (5.0)

New York City: State=New Jersey (34), County=Somerset County (035)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=240245, HAPEM Population=57332, District 19 HAPEM Population=57332 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	51361	1002 (14.1)	879 (12.6)	911 (12.6)	924 (13.1)	929 (6.6)
African americans	2178	973 (17.6)	849 (12.1)	880 (12.0)	889 (13.6)	898 (7.0)
Hispanics	3099	965 (17.8)	860 (14.4)	889 (13.4)	896 (15.7)	902 (7.7)
Household income lt \$10K	3346	940 (11.0)	822 (9.2)	850 (8.7)	867 (10.4)	869 (4.9)
Household income \$10K-\$25K	5089	991 (13.4)	877 (13.2)	908 (13.9)	916 (12.2)	923 (6.6)
Household income \$25K-\$50K	17561	1002 (16.0)	880 (13.3)	914 (12.6)	926 (14.7)	930 (7.1)
Household income \$50K-\$75K	14863	1008 (11.3)	889 (11.8)	921 (12.5)	935 (11.2)	938 (5.9)
Household income gt \$75K	14677	1002 (12.4)	867 (9.5)	901 (9.1)	919 (10.6)	922 (5.2)
Children, 0 to 17	12282	997 (12.5)	875 (11.7)	914 (12.2)	919 (12.2)	926 (6.1)
Nonworking men, 18 to 44	2692	1053 (12.7)	904 (13.2)	937 (11.6)	967 (13.5)	965 (6.4)
Working men, 18 to 44	9161	1049 (10.9)	908 (9.0)	929 (8.7)	965 (9.5)	963 (4.8)
Nonworking women, 18 to 44	4869	972 (14.3)	846 (10.4)	877 (9.8)	894 (12.0)	897 (5.9)
Working women, 18 to 44	7304	1001 (7.8)	857 (6.2)	893 (6.7)	914 (6.6)	916 (3.4)
Nonworking men, 45 to 64	1652	962 (9.0)	872 (14.2)	918 (16.2)	884 (6.2)	909 (6.0)
Working men, 45 to 64	4830	1057 (10.3)	906 (7.6)	922 (6.7)	971 (8.7)	964 (4.2)
Nonworking women, 45 to 64	2709	958 (12.5)	821 (9.2)	856 (9.6)	869 (9.7)	876 (5.2)
Working women, 45 to 64	3807	990 (8.3)	854 (7.7)	885 (7.2)	906 (7.9)	908 (3.9)
Men, 65+	3628	984 (13.5)	877 (12.1)	925 (10.4)	916 (13.7)	925 (6.2)
Women, 65+	3352	945 (11.8)	820 (10.3)	859 (10.0)	863 (10.9)	871 (5.4)
Outdoor workers	1329	1196 (10.9)	1024 (8.4)	1072 (6.8)	1084 (9.5)	1094 (4.5)
Outdoor children	3415	1058 (10.9)	914 (9.9)	947 (11.1)	973 (9.9)	973 (5.2)
Heart and respiratory	8370	932 (8.9)	834 (10.9)	871 (11.6)	863 (9.8)	875 (5.2)
All persons	57332	1015 (15.5)	880 (12.9)	910 (12.6)	930 (13.8)	933 (6.9)

New York City: State=New York (36), County=Bronx County (005)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=1203789, HAPEM Population=1203789, District 19 HAPEM Population=248233 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	431318	1004 (10.8)	924 (10.2)	961 (10.2)	906 (9.8)	949 (5.1)
African americans	451641	995 (13.9)	928 (10.3)	960 (10.2)	892 (10.6)	944 (5.7)
Hispanics	508866	983 (15.3)	938 (13.1)	970 (12.3)	891 (13.0)	945 (6.7)
Household income lt \$10K	381759	953 (9.9)	887 (8.7)	918 (8.3)	856 (8.9)	903 (4.5)
Household income \$10K-\$25K	322236	991 (11.1)	927 (11.7)	961 (12.5)	890 (9.9)	942 (5.7)
Household income \$25K-\$50K	306909	1002 (12.6)	925 (11.0)	963 (10.5)	903 (11.2)	948 (5.7)
Household income \$50K-\$75K	111592	1008 (8.6)	929 (9.3)	965 (10.0)	914 (8.3)	954 (4.5)
Household income gt \$75K	53010	999 (9.2)	898 (7.2)	935 (6.9)	897 (7.6)	932 (3.9)
Children, 0 to 17	331323	1008 (10.8)	939 (10.5)	982 (11.1)	907 (10.1)	959 (5.3)
Nonworking men, 18 to 44	108027	1168 (9.9)	1097 (10.9)	1128 (9.6)	1071 (10.0)	1116 (5.1)
Working men, 18 to 44	127241	1063 (6.3)	966 (5.6)	987 (5.5)	958 (5.6)	993 (2.9)
Nonworking women, 18 to 44	159302	988 (11.8)	914 (9.2)	949 (8.9)	888 (9.7)	934 (5.0)
Working women, 18 to 44	110332	1012 (4.5)	907 (4.0)	945 (4.3)	903 (3.8)	942 (2.1)
Nonworking men, 45 to 64	40919	981 (7.2)	944 (11.6)	995 (13.4)	884 (4.8)	951 (4.9)
Working men, 45 to 64	55992	1074 (5.9)	961 (4.7)	976 (4.1)	968 (5.0)	994 (2.5)
Nonworking women, 45 to 64	66851	964 (10.0)	874 (7.7)	912 (8.2)	854 (7.6)	901 (4.2)
Working women, 45 to 64	49782	999 (4.8)	900 (4.6)	932 (4.4)	896 (4.6)	932 (2.3)
Men, 65+	62697	982 (10.3)	919 (9.7)	971 (8.5)	893 (10.2)	941 (4.9)
Women, 65+	76789	942 (9.1)	857 (8.1)	900 (8.2)	840 (8.2)	885 (4.2)
Outdoor workers	24625	1223 (6.6)	1091 (5.3)	1141 (4.3)	1090 (5.9)	1136 (2.8)
Outdoor children	93258	1075 (9.2)	985 (8.9)	1021 (10.1)	965 (8.1)	1011 (4.6)
Heart and respiratory	168709	942 (7.2)	890 (9.0)	931 (9.7)	852 (7.7)	904 (4.2)
All persons	1203789	1032 (12.5)	948 (11.0)	981 (10.9)	925 (10.8)	971 (5.7)

New York City: State=New York (36), County=Kings County (047)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=2300664, HAPEM Population=2300664, District 19 HAPEM Population=92160 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	1079762	724 (6.9)	586 (5.4)	584 (5.2)	623 (6.1)	629 (3.0)
African americans	873620	684 (9.4)	545 (5.6)	540 (5.3)	584 (7.1)	588 (3.5)
Hispanics	447605	858 (10.7)	744 (8.5)	746 (7.8)	682 (7.9)	757 (4.4)
Household income lt \$10K	614656	745 (5.7)	616 (4.2)	615 (3.9)	616 (4.7)	647 (2.3)
Household income \$10K-\$25K	609499	728 (6.7)	596 (5.9)	593 (6.0)	620 (5.8)	634 (3.1)
Household income \$25K-\$50K	637429	712 (8.1)	573 (5.8)	571 (5.3)	614 (7.1)	617 (3.3)
Household income \$50K-\$75K	252268	692 (5.8)	553 (5.1)	548 (5.2)	607 (5.5)	600 (2.7)
Household income gt \$75K	146772	718 (6.3)	570 (4.3)	569 (4.0)	612 (5.2)	617 (2.5)
Children, 0 to 17	603137	747 (6.4)	610 (5.3)	612 (5.4)	628 (5.8)	649 (2.9)
Nonworking men, 18 to 44	176698	799 (6.5)	643 (6.3)	644 (5.4)	667 (6.5)	687 (3.1)
Working men, 18 to 44	265134	843 (4.7)	696 (4.4)	679 (4.2)	728 (4.1)	736 (2.2)
Nonworking women, 18 to 44	279237	734 (7.3)	596 (4.7)	595 (4.3)	616 (5.7)	635 (2.8)
Working women, 18 to 44	230922	780 (3.4)	626 (3.1)	618 (3.1)	669 (2.8)	673 (1.6)
Nonworking men, 45 to 64	77477	713 (4.6)	597 (6.3)	604 (6.8)	604 (3.2)	629 (2.7)
Working men, 45 to 64	115485	846 (4.3)	687 (3.8)	671 (3.3)	734 (3.8)	734 (1.9)
Nonworking women, 45 to 64	123230	704 (6.1)	561 (4.0)	562 (4.0)	592 (4.5)	604 (2.4)
Working women, 45 to 64	101040	752 (3.6)	612 (3.3)	602 (3.2)	657 (3.4)	655 (1.7)
Men, 65+	133401	697 (6.6)	569 (5.0)	576 (4.1)	613 (6.4)	613 (2.8)
Women, 65+	153510	669 (5.8)	532 (4.5)	534 (4.0)	580 (5.4)	578 (2.5)
Outdoor workers	46050	1018 (6.1)	850 (5.0)	835 (4.0)	881 (5.3)	895 (2.6)
Outdoor children	173396	791 (5.5)	634 (4.4)	631 (4.8)	662 (4.5)	679 (2.4)
Heart and respiratory	328574	679 (4.5)	561 (4.8)	563 (5.0)	584 (4.7)	596 (2.4)
All persons	2300664	746 (7.9)	599 (5.8)	595 (5.4)	630 (6.6)	642 (3.2)

New York City: State=New York (36), County=Nassau County (059)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=1288563, HAPEM Population=1288563, District 19 HAPEM Population=649762 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	1118134	810 (8.3)	672 (7.3)	719 (7.4)	786 (7.9)	747 (3.9)
African americans	111021	674 (8.9)	527 (5.3)	580 (5.5)	677 (7.6)	614 (3.5)
Hispanics	72880	765 (10.2)	640 (7.9)	685 (7.5)	753 (9.5)	711 (4.4)
Household income lt \$10K	89334	751 (6.3)	618 (5.1)	662 (4.9)	732 (6.0)	691 (2.8)
Household income \$10K-\$25K	180688	790 (7.6)	658 (7.3)	703 (7.8)	771 (7.2)	730 (3.8)
Household income \$25K-\$50K	355986	797 (9.2)	658 (7.3)	707 (7.1)	778 (8.7)	735 (4.1)
Household income \$50K-\$75K	294572	807 (6.6)	670 (6.6)	717 (7.1)	789 (6.6)	746 (3.4)
Household income gt \$75K	317644	809 (7.3)	661 (5.4)	709 (5.3)	782 (6.4)	740 (3.1)
Children, 0 to 17	280196	791 (7.1)	653 (6.4)	704 (6.8)	770 (7.1)	729 (3.4)
Nonworking men, 18 to 44	66553	832 (7.3)	670 (7.2)	720 (6.5)	810 (8.2)	758 (3.7)
Working men, 18 to 44	179942	866 (6.8)	713 (5.6)	749 (5.5)	837 (6.1)	791 (3.0)
Nonworking women, 18 to 44	123136	775 (8.2)	635 (5.8)	681 (5.5)	754 (7.1)	711 (3.4)
Working women, 18 to 44	143321	818 (4.8)	661 (3.8)	707 (4.1)	787 (4.2)	743 (2.1)
Nonworking men, 45 to 64	36725	770 (5.2)	658 (8.0)	714 (9.3)	746 (3.6)	722 (3.5)
Working men, 45 to 64	103370	885 (6.5)	723 (4.9)	756 (4.3)	851 (5.6)	803 (2.7)
Nonworking women, 45 to 64	70445	772 (7.3)	626 (5.2)	674 (5.5)	739 (5.8)	702 (3.0)
Working women, 45 to 64	80789	814 (5.2)	668 (4.6)	710 (4.4)	785 (5.0)	744 (2.4)
Men, 65+	87853	789 (7.8)	664 (6.8)	722 (5.9)	773 (8.0)	737 (3.6)
Women, 65+	95362	759 (6.8)	622 (5.8)	672 (5.7)	731 (6.3)	696 (3.1)
Outdoor workers	32000	1008 (7.4)	827 (5.6)	879 (4.5)	952 (6.5)	916 (3.0)
Outdoor children	81832	839 (6.2)	681 (5.5)	729 (6.1)	813 (5.7)	765 (2.9)
Heart and respiratory	195118	748 (5.2)	630 (6.1)	680 (6.5)	730 (5.7)	697 (2.9)
All persons	1288563	809 (8.9)	660 (7.2)	706 (7.1)	782 (8.1)	739 (3.9)

New York City: State=New York (36), County=New York County (061)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=1487536, HAPEM Population=1487536, District 19 HAPEM Population=0 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	868120	1438 (13.8)	1480 (14.8)	1500 (14.6)	1425 (14.4)	1461 (7.2)
African americans	327684	1295 (15.2)	1307 (12.1)	1332 (11.9)	1233 (12.4)	1292 (6.5)
Hispanics	380697	1260 (14.1)	1292 (13.5)	1314 (12.2)	1221 (13.3)	1272 (6.6)
Household income lt \$10K	349841	1273 (9.0)	1292 (9.0)	1312 (8.4)	1241 (9.4)	1280 (4.5)
Household income \$10K-\$25K	337077	1336 (10.7)	1368 (12.4)	1391 (12.8)	1302 (10.6)	1349 (5.8)
Household income \$25K-\$50K	394160	1382 (13.8)	1411 (13.7)	1437 (12.7)	1360 (14.1)	1398 (6.8)
Household income \$50K-\$75K	175129	1414 (10.2)	1456 (13.0)	1476 (13.6)	1404 (11.4)	1437 (6.1)
Household income gt \$75K	223486	1525 (13.5)	1577 (13.2)	1598 (12.6)	1518 (13.4)	1555 (6.6)
Children, 0 to 17	246608	1367 (10.5)	1396 (11.6)	1432 (12.0)	1331 (11.3)	1382 (5.7)
Nonworking men, 18 to 44	110251	1420 (10.4)	1409 (13.1)	1429 (10.9)	1383 (12.1)	1410 (5.9)
Working men, 18 to 44	227243	1410 (5.6)	1415 (5.4)	1420 (5.1)	1375 (5.5)	1405 (2.7)
Nonworking women, 18 to 44	167710	1339 (12.3)	1355 (10.6)	1376 (9.9)	1306 (11.4)	1344 (5.6)
Working women, 18 to 44	210004	1355 (4.7)	1354 (4.5)	1384 (4.6)	1314 (4.5)	1352 (2.3)
Nonworking men, 45 to 64	47725	1309 (7.0)	1376 (14.2)	1425 (16.1)	1276 (5.3)	1347 (5.8)
Working men, 45 to 64	96187	1427 (5.4)	1427 (4.6)	1419 (4.0)	1392 (5.0)	1416 (2.4)
Nonworking women, 45 to 64	75206	1344 (11.4)	1345 (10.0)	1371 (10.3)	1294 (9.8)	1339 (5.2)
Working women, 45 to 64	89330	1366 (4.7)	1369 (5.3)	1388 (5.1)	1325 (5.0)	1362 (2.5)
Men, 65+	91590	1383 (12.2)	1435 (12.8)	1481 (10.9)	1373 (13.8)	1418 (6.2)
Women, 65+	106601	1330 (10.6)	1346 (10.7)	1379 (10.5)	1293 (10.7)	1337 (5.3)
Outdoor workers	24741	1519 (4.6)	1468 (3.8)	1523 (2.9)	1434 (4.3)	1486 (2.0)
Outdoor children	68617	1442 (9.2)	1446 (9.7)	1472 (10.7)	1401 (9.2)	1440 (4.9)
Heart and respiratory	220643	1302 (7.6)	1360 (11.3)	1391 (11.9)	1284 (9.6)	1335 (5.1)
All persons	1487536	1412 (13.5)	1426 (13.4)	1446 (12.9)	1378 (13.4)	1415 (6.6)

Highest quarter 1 exposure is 1525 $\mu g/m3$ for Household income gt \$75K Highest quarter 2 exposure is 1577 $\mu g/m3$ for Household income gt \$75K Highest quarter 3 exposure is 1598 $\mu g/m3$ for Household income gt \$75K Highest quarter 4 exposure is 1518 $\mu g/m3$ for Household income gt \$75K Highest annual exposure is 1555 $\mu g/m3$ for Household income gt \$75K

New York City: State=New York (36), County=Queens County (081)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=1951598, HAPEM Population=1951598, District 19 HAPEM Population=1216218 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	1130320	1004 (9.3)	876 (8.3)	899 (8.2)	893 (8.5)	918 (4.3)
African americans	423439	969 (15.0)	845 (10.3)	872 (10.2)	881 (11.6)	891 (6.0)
Hispanics	371326	942 (11.3)	825 (8.9)	840 (8.1)	844 (9.7)	862 (4.8)
Household income lt \$10K	272865	941 (7.3)	818 (6.0)	837 (5.7)	841 (6.8)	859 (3.2)
Household income \$10K-\$25K	428663	989 (8.7)	869 (8.5)	889 (8.9)	884 (7.8)	907 (4.2)
Household income \$25K-\$50K	668252	994 (10.8)	865 (8.9)	890 (8.4)	890 (9.8)	910 (4.8)
Household income \$50K-\$75K	328624	999 (8.1)	875 (8.4)	899 (8.9)	904 (7.9)	919 (4.2)
Household income gt \$75K	197576	989 (9.5)	850 (7.3)	879 (7.0)	892 (8.1)	902 (4.0)
Children, 0 to 17	407976	994 (8.7)	869 (8.1)	899 (8.4)	892 (8.4)	913 (4.2)
Nonworking men, 18 to 44	126624	1047 (8.7)	893 (9.0)	916 (7.8)	935 (9.1)	947 (4.3)
Working men, 18 to 44	265857	1049 (6.8)	904 (5.7)	914 (5.5)	944 (5.9)	952 (3.0)
Nonworking women, 18 to 44	215160	969 (9.6)	838 (6.9)	859 (6.5)	864 (8.0)	882 (3.9)
Working women, 18 to 44	218374	999 (5.0)	850 (4.1)	876 (4.4)	892 (4.2)	904 (2.2)
Nonworking men, 45 to 64	61615	958 (6.3)	862 (9.8)	899 (11.2)	857 (4.3)	894 (4.2)
Working men, 45 to 64	128467	1059 (6.6)	905 (5.0)	911 (4.4)	952 (5.6)	956 (2.7)
Nonworking women, 45 to 64	105051	956 (8.6)	815 (6.3)	841 (6.5)	843 (6.7)	863 (3.5)
Working women, 45 to 64	106927	988 (5.5)	848 (5.1)	870 (4.8)	886 (5.3)	898 (2.6)
Men, 65+	134970	979 (9.4)	867 (8.4)	906 (7.2)	886 (9.5)	909 (4.3)
Women, 65+	151282	941 (8.2)	812 (7.2)	842 (6.9)	837 (7.6)	857 (3.8)
Outdoor workers	46425	1211 (7.0)	1037 (5.4)	1070 (4.4)	1076 (6.1)	1098 (2.9)
Outdoor children	118190	1055 (7.6)	907 (6.9)	931 (7.7)	944 (6.9)	959 (3.6)
Heart and respiratory	296040	927 (6.1)	824 (7.5)	853 (7.9)	834 (6.7)	859 (3.5)
All persons	1951598	1008 (10.6)	868 (8.8)	889 (8.6)	898 (9.4)	916 (4.7)

New York City: State=New York (36), County=Richmond County (085)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=378977, HAPEM Population=378977, District 19 HAPEM Population=168372 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	322387	952 (8.2)	814 (7.5)	872 (7.7)	883 (7.8)	880 (3.9)
African americans	30753	921 (9.9)	799 (7.0)	842 (7.2)	847 (7.8)	852 (4.0)
Hispanics	29433	916 (10.1)	804 (8.3)	852 (7.9)	854 (9.0)	856 (4.4)
Household income lt \$10K	50155	904 (6.5)	778 (5.6)	824 (5.5)	837 (6.3)	835 (3.0)
Household income \$10K-\$25K	66203	948 (7.9)	824 (8.0)	879 (8.6)	880 (7.3)	883 (4.0)
Household income \$25K-\$50K	125859	955 (9.3)	820 (7.8)	879 (7.6)	887 (8.7)	885 (4.2)
Household income \$50K-\$75K	76071	949 (6.4)	811 (6.8)	871 (7.4)	885 (6.4)	879 (3.4)
Household income gt \$75K	53592	954 (7.3)	803 (5.6)	862 (5.5)	879 (6.3)	874 (3.1)
Children, 0 to 17	94577	944 (7.1)	807 (6.8)	872 (7.3)	875 (7.1)	875 (3.5)
Nonworking men, 18 to 44	23334	996 (7.2)	833 (7.4)	889 (6.7)	918 (7.5)	909 (3.6)
Working men, 18 to 44	55036	990 (5.5)	831 (4.6)	873 (4.5)	913 (4.9)	902 (2.4)
Nonworking women, 18 to 44	41974	924 (8.2)	784 (6.1)	838 (6.0)	853 (7.0)	850 (3.4)
Working women, 18 to 44	42026	947 (4.0)	786 (3.3)	843 (3.6)	866 (3.5)	860 (1.8)
Nonworking men, 45 to 64	10624	925 (5.3)	825 (8.5)	893 (10.0)	854 (3.7)	874 (3.7)
Working men, 45 to 64	24975	1011 (5.6)	845 (4.2)	880 (3.7)	931 (4.8)	916 (2.3)
Nonworking women, 45 to 64	19285	924 (7.6)	777 (5.7)	833 (6.1)	841 (6.0)	843 (3.2)
Working women, 45 to 64	19084	949 (4.6)	800 (4.3)	850 (4.1)	870 (4.4)	867 (2.2)
Men, 65+	19983	955 (8.2)	841 (7.5)	908 (6.6)	892 (8.3)	899 (3.8)
Women, 65+	21917	918 (7.2)	787 (6.4)	843 (6.4)	842 (6.7)	847 (3.3)
Outdoor workers	9606	1140 (5.7)	947 (4.3)	1016 (3.5)	1032 (4.9)	1034 (2.3)
Outdoor children	26746	1005 (6.3)	846 (5.9)	906 (6.7)	930 (5.8)	921 (3.1)
Heart and respiratory	53027	892 (5.2)	781 (6.5)	840 (7.1)	829 (5.9)	835 (3.1)
All persons	378977	965 (9.0)	817 (7.6)	871 (7.6)	889 (8.1)	885 (4.0)

Highest quarter 1 exposure is $1140~\mu g/m3$ for Outdoor workers Highest quarter 2 exposure is $947~\mu g/m3$ for Outdoor workers Highest quarter 3 exposure is $1016~\mu g/m3$ for Outdoor workers Highest quarter 4 exposure is $1032~\mu g/m3$ for Outdoor workers Highest annual exposure is $1034~\mu g/m3$ for Outdoor workers

New York City: State=New York (36), County=Rockland County (087)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=265475, HAPEM Population=235323, District 19 HAPEM Population=235323 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	196034	1002 (14.1)	879 (12.6)	911 (12.6)	924 (13.1)	929 (6.6)
African americans	24929	973 (17.6)	849 (12.1)	880 (12.0)	889 (13.6)	898 (7.0)
Hispanics	14656	965 (17.8)	860 (14.4)	889 (13.4)	896 (15.7)	902 (7.7)
Household income lt \$10K	24648	940 (11.0)	822 (9.2)	850 (8.7)	867 (10.4)	869 (4.9)
Household income \$10K-\$25K	40978	991 (13.4)	877 (13.2)	908 (13.9)	916 (12.2)	923 (6.6)
Household income \$25K-\$50K	62315	1002 (16.0)	880 (13.3)	914 (12.6)	926 (14.7)	930 (7.1)
Household income \$50K-\$75K	48350	1008 (11.3)	889 (11.8)	921 (12.5)	935 (11.2)	938 (5.9)
Household income gt \$75K	51527	1002 (12.4)	867 (9.5)	901 (9.1)	919 (10.6)	922 (5.2)
Children, 0 to 17	61895	997 (12.5)	875 (11.7)	914 (12.2)	919 (12.2)	926 (6.1)
Nonworking men, 18 to 44	11284	1053 (12.7)	904 (13.2)	937 (11.6)	967 (13.5)	965 (6.4)
Working men, 18 to 44	33478	1049 (10.9)	908 (9.0)	929 (8.7)	965 (9.5)	963 (4.8)
Nonworking women, 18 to 44	20252	972 (14.3)	846 (10.4)	877 (9.8)	894 (12.0)	897 (5.9)
Working women, 18 to 44	27768	1001 (7.8)	857 (6.2)	893 (6.7)	914 (6.6)	916 (3.4)
Nonworking men, 45 to 64	6258	962 (9.0)	872 (14.2)	918 (16.2)	884 (6.2)	909 (6.0)
Working men, 45 to 64	19144	1057 (10.3)	906 (7.6)	922 (6.7)	971 (8.7)	964 (4.2)
Nonworking women, 45 to 64	11362	958 (12.5)	821 (9.2)	856 (9.6)	869 (9.7)	876 (5.2)
Working women, 45 to 64	15896	990 (8.3)	854 (7.7)	885 (7.2)	906 (7.9)	908 (3.9)
Men, 65+	11569	984 (13.5)	877 (12.1)	925 (10.4)	916 (13.7)	925 (6.2)
Women, 65+	12405	945 (11.8)	820 (10.3)	859 (10.0)	863 (10.9)	871 (5.4)
Outdoor workers	5757	1196 (10.9)	1024 (8.4)	1072 (6.8)	1084 (9.5)	1094 (4.5)
Outdoor children	18110	1058 (10.9)	914 (9.9)	947 (11.1)	973 (9.9)	973 (5.2)
Heart and respiratory	33062	932 (8.9)	834 (10.9)	871 (11.6)	863 (9.8)	875 (5.2)
All persons	235323	1015 (15.5)	880 (12.9)	910 (12.6)	930 (13.8)	933 (6.9)

Highest quarter 1 exposure is 1196 $\mu g/m3$ for Outdoor workers Highest quarter 2 exposure is 1024 $\mu g/m3$ for Outdoor workers Highest quarter 3 exposure is 1072 $\mu g/m3$ for Outdoor workers Highest quarter 4 exposure is 1084 $\mu g/m3$ for Outdoor workers Highest annual exposure is 1094 $\mu g/m3$ for Outdoor workers

New York City: State=New York (36), County=Suffolk County (103)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=1321768, HAPEM Population=85145, District 19 HAPEM Population=85145 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	65483	1002 (14.1)	879 (12.6)	911 (12.6)	924 (13.1)	929 (6.6)
African americans	16176	973 (17.6)	849 (12.1)	880 (12.0)	889 (13.6)	898 (7.0)
Hispanics	5232	965 (17.8)	860 (14.4)	889 (13.4)	896 (15.7)	902 (7.7)
Household income lt \$10K	5966	940 (11.0)	822 (9.2)	850 (8.7)	867 (10.4)	869 (4.9)
Household income \$10K-\$25K	15967	991 (13.4)	877 (13.2)	908 (13.9)	916 (12.2)	923 (6.6)
Household income \$25K-\$50K	24896	1002 (16.0)	880 (13.3)	914 (12.6)	926 (14.7)	930 (7.1)
Household income \$50K-\$75K	17383	1008 (11.3)	889 (11.8)	921 (12.5)	935 (11.2)	938 (5.9)
Household income gt \$75K	17696	1002 (12.4)	867 (9.5)	901 (9.1)	919 (10.6)	922 (5.2)
Children, 0 to 17	19690	997 (12.5)	875 (11.7)	914 (12.2)	919 (12.2)	926 (6.1)
Nonworking men, 18 to 44	4608	1053 (12.7)	904 (13.2)	937 (11.6)	967 (13.5)	965 (6.4)
Working men, 18 to 44	12759	1049 (10.9)	908 (9.0)	929 (8.7)	965 (9.5)	963 (4.8)
Nonworking women, 18 to 44	8361	972 (14.3)	846 (10.4)	877 (9.8)	894 (12.0)	897 (5.9)
Working women, 18 to 44	10049	1001 (7.8)	857 (6.2)	893 (6.7)	914 (6.6)	916 (3.4)
Nonworking men, 45 to 64	2277	962 (9.0)	872 (14.2)	918 (16.2)	884 (6.2)	909 (6.0)
Working men, 45 to 64	6550	1057 (10.3)	906 (7.6)	922 (6.7)	971 (8.7)	964 (4.2)
Nonworking women, 45 to 64	4275	958 (12.5)	821 (9.2)	856 (9.6)	869 (9.7)	876 (5.2)
Working women, 45 to 64	5107	990 (8.3)	854 (7.7)	885 (7.2)	906 (7.9)	908 (3.9)
Men, 65+	4857	984 (13.5)	877 (12.1)	925 (10.4)	916 (13.7)	925 (6.2)
Women, 65+	5174	945 (11.8)	820 (10.3)	859 (10.0)	863 (10.9)	871 (5.4)
Outdoor workers	2374	1196 (10.9)	1024 (8.4)	1072 (6.8)	1084 (9.5)	1094 (4.5)
Outdoor children	5718	1058 (10.9)	914 (9.9)	947 (11.1)	973 (9.9)	973 (5.2)
Heart and respiratory	12245	932 (8.9)	834 (10.9)	871 (11.6)	863 (9.8)	875 (5.2)
All persons	85145	1015 (15.5)	880 (12.9)	910 (12.6)	930 (13.8)	933 (6.9)

Highest quarter 1 exposure is $1196~\mu g/m3$ for Outdoor workers Highest quarter 2 exposure is $1024~\mu g/m3$ for Outdoor workers Highest quarter 3 exposure is $1072~\mu g/m3$ for Outdoor workers Highest quarter 4 exposure is $1084~\mu g/m3$ for Outdoor workers Highest annual exposure is $1094~\mu g/m3$ for Outdoor workers

New York City: State=New York (36), County=Westchester County (119)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=874866, HAPEM Population=700453, District 19 HAPEM Population=664214 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	536925	1001 (13.5)	881 (12.1)	914 (12.1)	923 (12.6)	929 (6.3)
African americans	111080	972 (16.5)	853 (11.4)	884 (11.3)	886 (12.8)	898 (6.6)
Hispanics	76294	963 (15.2)	868 (12.2)	898 (11.4)	889 (13.4)	904 (6.5)
Household income lt \$10K	75996	939 (9.8)	827 (8.2)	856 (7.7)	862 (9.2)	871 (4.4)
Household income \$10K-\$25K	115630	990 (12.3)	881 (12.2)	912 (12.8)	912 (11.2)	924 (6.1)
Household income \$25K-\$50K	198423	1001 (15.1)	882 (12.5)	917 (11.9)	923 (13.9)	931 (6.7)
Household income \$50K-\$75K	125930	1008 (11.0)	890 (11.4)	923 (12.2)	934 (10.8)	939 (5.7)
Household income gt \$75K	148605	1002 (12.2)	867 (9.4)	902 (9.0)	919 (10.5)	922 (5.2)
Children, 0 to 17	147698	996 (11.7)	879 (10.9)	918 (11.4)	917 (11.4)	927 (5.7)
Nonworking men, 18 to 44	40732	1052 (12.0)	907 (12.4)	940 (10.9)	964 (12.7)	966 (6.0)
Working men, 18 to 44	94344	1049 (10.4)	911 (8.6)	932 (8.3)	964 (9.0)	964 (4.5)
Nonworking women, 18 to 44	69775	972 (13.4)	848 (9.8)	880 (9.3)	892 (11.3)	898 (5.5)
Working women, 18 to 44	81324	1002 (7.4)	860 (5.9)	896 (6.4)	913 (6.3)	917 (3.3)
Nonworking men, 45 to 64	19884	961 (8.5)	874 (13.5)	921 (15.4)	882 (5.9)	909 (5.7)
Working men, 45 to 64	50310	1057 (9.9)	909 (7.4)	924 (6.4)	970 (8.4)	965 (4.1)
Nonworking women, 45 to 64	36394	957 (11.9)	823 (8.7)	858 (9.2)	867 (9.3)	876 (4.9)
Working women, 45 to 64	42764	990 (8.0)	856 (7.4)	887 (7.0)	905 (7.7)	909 (3.7)
Men, 65+	49614	983 (13.0)	879 (11.6)	927 (10.0)	914 (13.1)	926 (6.0)
Women, 65+	56401	944 (11.3)	822 (9.9)	861 (9.6)	862 (10.4)	872 (5.2)
Outdoor workers	16930	1198 (10.4)	1028 (7.9)	1076 (6.4)	1084 (9.0)	1096 (4.3)
Outdoor children	42055	1058 (10.2)	917 (9.3)	950 (10.4)	971 (9.3)	974 (4.9)
Heart and respiratory	107881	932 (8.5)	836 (10.4)	874 (11.1)	861 (9.4)	876 (4.9)
All persons	700453	1014 (14.7)	882 (12.2)	913 (12.0)	928 (13.1)	934 (6.5)

Highest quarter 1 exposure is $1198~\mu g/m3$ for Outdoor workers Highest quarter 2 exposure is $1028~\mu g/m3$ for Outdoor workers Highest quarter 3 exposure is $1076~\mu g/m3$ for Outdoor workers Highest quarter 4 exposure is $1084~\mu g/m3$ for Outdoor workers Highest annual exposure is $1096~\mu g/m3$ for Outdoor workers

Philadelphia: Citywide

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=5726583, HAPEM Population=4896635, District 19 HAPEM Population=1857247 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	3709686	620 (4.2)	391 (2.8)	450 (3.0)	524 (3.5)	496 (1.7)
African americans	973705	696 (5.5)	499 (3.7)	519 (3.8)	591 (4.3)	576 (2.2)
Hispanics	169638	686 (5.6)	508 (4.4)	564 (4.4)	614 (5.0)	593 (2.4)
Household income lt \$10K	691527	643 (2.7)	443 (2.0)	473 (2.1)	548 (2.4)	526 (1.2)
Household income \$10K-\$25K	1174917	647 (3.4)	430 (2.6)	471 (2.7)	550 (2.9)	524 (1.5)
Household income \$25K-\$50K	1683624	634 (4.3)	408 (2.7)	463 (2.9)	537 (3.6)	510 (1.7)
Household income \$50K-\$75K	753042	631 (3.5)	404 (2.6)	466 (3.2)	537 (3.1)	509 (1.6)
Household income gt \$75K	474972	622 (4.2)	395 (2.5)	461 (2.5)	528 (3.5)	501 (1.6)
Children, 0 to 17	1182997	641 (3.3)	423 (2.5)	477 (2.8)	545 (3.0)	521 (1.5)
Nonworking men, 18 to 44	304846	686 (3.5)	451 (2.7)	501 (2.5)	580 (3.2)	554 (1.5)
Working men, 18 to 44	683703	672 (3.2)	431 (2.0)	481 (2.2)	566 (2.6)	537 (1.3)
Nonworking women, 18 to 44	493471	629 (3.6)	413 (2.0)	459 (2.1)	533 (2.8)	508 (1.4)
Working women, 18 to 44	576660	642 (2.1)	411 (1.3)	466 (1.6)	540 (1.7)	514 (0.8)
Nonworking men, 45 to 64	135038	629 (2.2)	428 (2.7)	478 (3.0)	532 (1.5)	516 (1.2)
Working men, 45 to 64	315111	678 (3.1)	429 (1.8)	480 (1.7)	573 (2.4)	539 (1.2)
Nonworking women, 45 to 64	231219	612 (2.9)	397 (1.8)	447 (2.2)	515 (2.1)	492 (1.1)
Working women, 45 to 64	264864	635 (2.4)	408 (1.6)	457 (1.6)	536 (2.1)	509 (1.0)
Men, 65+	315183	630 (3.5)	415 (2.3)	476 (2.2)	538 (3.1)	515 (1.4)
Women, 65+	356419	605 (3.0)	391 (2.0)	444 (2.2)	511 (2.5)	487 (1.2)
Outdoor workers	131425	766 (3.1)	489 (1.8)	566 (1.6)	638 (2.5)	614 (1.2)
Outdoor children	339534	677 (2.7)	441 (2.0)	494 (2.5)	575 (2.3)	546 (1.2)
Heart and respiratory	719910	603 (2.6)	398 (2.2)	450 (2.9)	512 (2.4)	491 (1.3)
All persons	4896635	649 (4.1)	421 (2.6)	471 (2.8)	548 (3.4)	522 (1.6)

Highest quarter 1 exposure is 766 μ g/m3 for Outdoor workers Highest quarter 2 exposure is 508 μ g/m3 for Hispanics Highest quarter 3 exposure is 566 μ g/m3 for Outdoor workers Highest quarter 4 exposure is 638 μ g/m3 for Outdoor workers Highest annual exposure is 614 μ g/m3 for Outdoor workers

Philadelphia: State=Delaware (10), County=New Castle County (003)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=441946, HAPEM Population=244573, District 19 HAPEM Population=12928 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	182027	724 (8.0)	231 (2.2)	449 (4.9)	521 (5.8)	481 (2.8)
African americans	55000	757 (12.0)	198 (2.5)	469 (6.3)	533 (7.6)	488 (3.9)
Hispanics	7601	750 (12.5)	205 (2.9)	471 (6.7)	535 (8.6)	490 (4.2)
Household income lt \$10K	29021	719 (8.0)	198 (1.9)	443 (4.2)	511 (5.6)	467 (2.7)
Household income \$10K-\$25K	58188	737 (8.3)	222 (2.4)	458 (5.4)	528 (5.9)	485 (2.9)
Household income \$25K-\$50K	91018	736 (9.7)	225 (2.4)	457 (5.3)	528 (6.8)	486 (3.3)
Household income \$50K-\$75K	37584	733 (6.8)	230 (2.1)	455 (5.1)	528 (5.1)	486 (2.5)
Household income gt \$75K	24353	719 (6.8)	233 (1.7)	445 (3.3)	518 (4.6)	478 (2.2)
Children, 0 to 17	56721	736 (7.9)	223 (2.2)	461 (5.2)	527 (5.8)	486 (2.8)
Nonworking men, 18 to 44	14310	785 (9.0)	228 (2.5)	485 (4.9)	558 (6.6)	513 (3.1)
Working men, 18 to 44	33558	773 (8.2)	245 (2.1)	468 (4.6)	555 (5.7)	510 (2.8)
Nonworking women, 18 to 44	22279	721 (8.7)	215 (1.9)	445 (4.2)	515 (5.8)	473 (2.8)
Working women, 18 to 44	30170	737 (5.9)	228 (1.5)	450 (3.7)	525 (4.0)	484 (2.0)
Nonworking men, 45 to 64	6910	707 (4.7)	222 (2.5)	461 (6.0)	507 (3.0)	474 (2.1)
Working men, 45 to 64	16765	776 (7.6)	249 (1.8)	466 (3.6)	558 (5.2)	512 (2.5)
Nonworking women, 45 to 64	11279	697 (6.8)	212 (1.6)	432 (4.2)	495 (4.4)	458 (2.3)
Working women, 45 to 64	14704	723 (6.4)	230 (1.7)	439 (3.6)	517 (4.7)	476 (2.2)
Men, 65+	17390	730 (8.6)	225 (2.2)	474 (4.5)	528 (6.6)	489 (3.0)
Women, 65+	19470	696 (7.0)	210 (1.9)	442 (4.6)	496 (5.2)	461 (2.5)
Outdoor workers	6916	884 (8.5)	284 (2.1)	561 (4.0)	632 (6.1)	589 (2.8)
Outdoor children	16514	782 (6.6)	234 (1.8)	479 (4.6)	560 (4.6)	513 (2.4)
Heart and respiratory	37091	691 (6.1)	214 (2.0)	439 (5.7)	496 (4.9)	459 (2.5)
All persons	244573	745 (9.3)	225 (2.3)	457 (5.3)	532 (6.5)	489 (3.2)

Highest quarter 1 exposure is 884 μ g/m3 for Outdoor workers Highest quarter 2 exposure is 284 μ g/m3 for Outdoor workers Highest quarter 3 exposure is 561 μ g/m3 for Outdoor workers Highest quarter 4 exposure is 632 μ g/m3 for Outdoor workers Highest annual exposure is 589 μ g/m3 for Outdoor workers

Philadelphia: State=New Jersey (34), County=Atlantic County (001)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=224327, HAPEM Population=14389, District 19 HAPEM Population=0 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	13768	254 (3.2)	221 (2.8)	212 (2.6)	182 (2.3)	217 (1.4)
African americans	160	248 (4.1)	214 (2.8)	205 (2.6)	176 (2.5)	211 (1.5)
Hispanics	1055	248 (4.5)	217 (3.5)	207 (3.0)	178 (3.0)	213 (1.8)
Household income lt \$10K	1571	240 (2.3)	208 (1.9)	199 (1.8)	171 (1.6)	204 (1.0)
Household income \$10K-\$25K	3492	252 (3.1)	220 (2.9)	209 (2.6)	181 (2.2)	215 (1.4)
Household income \$25K-\$50K	5843	254 (3.7)	221 (3.0)	212 (2.7)	182 (2.6)	217 (1.5)
Household income \$50K-\$75K	2061	256 (2.6)	223 (2.6)	214 (2.6)	184 (1.9)	219 (1.2)
Household income gt \$75K	1437	252 (2.6)	219 (2.2)	210 (1.9)	181 (2.0)	215 (1.1)
Children, 0 to 17	3235	252 (2.8)	220 (2.6)	212 (2.6)	181 (2.1)	216 (1.3)
Nonworking men, 18 to 44	742	268 (3.6)	228 (3.3)	221 (2.6)	190 (2.7)	227 (1.5)
Working men, 18 to 44	1725	328 (6.4)	263 (4.2)	254 (4.2)	245 (5.3)	272 (2.5)
Nonworking women, 18 to 44	1449	247 (3.3)	213 (2.2)	205 (2.0)	176 (2.1)	210 (1.2)
Working women, 18 to 44	1349	301 (4.5)	241 (2.7)	233 (3.0)	222 (3.7)	249 (1.8)
Nonworking men, 45 to 64	367	244 (1.9)	218 (3.2)	211 (3.0)	174 (1.1)	212 (1.2)
Working men, 45 to 64	855	338 (5.9)	268 (3.8)	261 (3.5)	253 (5.0)	280 (2.3)
Nonworking women, 45 to 64	721	241 (2.5)	208 (2.0)	200 (2.1)	171 (1.5)	205 (1.0)
Working women, 45 to 64	670	296 (4.8)	241 (3.0)	232 (3.2)	221 (4.2)	247 (1.9)
Men, 65+	1166	250 (3.1)	220 (2.6)	217 (2.2)	180 (2.3)	217 (1.3)
Women, 65+	1298	240 (2.6)	208 (2.2)	202 (2.1)	170 (1.8)	205 (1.1)
Outdoor workers	495	420 (9.0)	322 (4.9)	323 (4.5)	318 (7.3)	346 (3.3)
Outdoor children	959	264 (2.3)	227 (2.1)	219 (2.2)	189 (1.5)	225 (1.0)
Heart and respiratory	2266	239 (2.2)	210 (2.3)	203 (2.7)	171 (1.7)	206 (1.1)
All persons	14389	256 (3.5)	221 (2.9)	211 (2.6)	182 (2.4)	217 (1.4)

Highest quarter 1 exposure is 420 μ g/m3 for Outdoor workers Highest quarter 2 exposure is 322 μ g/m3 for Outdoor workers Highest quarter 3 exposure is 323 μ g/m3 for Outdoor workers Highest quarter 4 exposure is 318 μ g/m3 for Outdoor workers Highest annual exposure is 346 μ g/m3 for Outdoor workers

Philadelphia: State=New Jersey (34), County=Burlington County (005)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=395066, HAPEM Population=380258, District 19 HAPEM Population=243727 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	312161	652 (6.2)	433 (4.2)	490 (4.6)	576 (5.4)	538 (2.6)
African americans	55391	691 (8.2)	480 (4.9)	535 (5.2)	631 (6.7)	584 (3.2)
Hispanics	12343	654 (8.2)	448 (5.1)	504 (5.3)	585 (6.9)	547 (3.3)
Household income lt \$10K	21396	628 (4.6)	421 (3.0)	473 (3.2)	561 (4.1)	520 (1.9)
Household income \$10K-\$25K	80687	645 (6.0)	431 (4.3)	484 (4.6)	569 (5.1)	532 (2.5)
Household income \$25K-\$50K	140606	666 (6.9)	449 (4.4)	507 (4.6)	596 (6.0)	554 (2.8)
Household income \$50K-\$75K	72610	675 (5.1)	455 (3.9)	514 (4.6)	604 (4.6)	562 (2.3)
Household income gt \$75K	44092	649 (5.8)	425 (3.4)	484 (3.4)	567 (4.8)	531 (2.2)
Children, 0 to 17	93641	661 (5.6)	444 (4.0)	505 (4.6)	587 (5.0)	549 (2.4)
Nonworking men, 18 to 44	18954	688 (6.1)	454 (4.4)	519 (4.3)	609 (5.6)	567 (2.6)
Working men, 18 to 44	64395	686 (5.1)	451 (3.3)	503 (3.4)	599 (4.2)	559 (2.0)
Nonworking women, 18 to 44	32153	638 (6.0)	424 (3.4)	480 (3.5)	566 (4.8)	527 (2.3)
Working women, 18 to 44	51275	655 (3.5)	429 (2.2)	488 (2.6)	573 (2.8)	536 (1.4)
Nonworking men, 45 to 64	8748	637 (3.8)	438 (4.3)	497 (4.9)	565 (2.6)	534 (2.0)
Working men, 45 to 64	27650	696 (4.6)	456 (2.7)	502 (2.6)	611 (3.7)	566 (1.7)
Nonworking women, 45 to 64	15650	623 (4.7)	412 (2.9)	468 (3.5)	550 (3.6)	513 (1.9)
Working women, 45 to 64	22691	654 (3.8)	433 (2.6)	483 (2.6)	576 (3.4)	536 (1.6)
Men, 65+	19744	644 (5.6)	439 (3.8)	506 (3.6)	579 (5.2)	542 (2.3)
Women, 65+	21230	616 (4.9)	410 (3.3)	469 (3.6)	546 (4.2)	510 (2.0)
Outdoor workers	11351	779 (4.8)	513 (2.8)	591 (2.5)	673 (4.0)	639 (1.8)
Outdoor children	27361	698 (4.5)	463 (3.3)	522 (4.0)	619 (3.9)	575 (2.0)
Heart and respiratory	52708	619 (4.3)	420 (3.6)	477 (4.7)	551 (4.1)	517 (2.1)
All persons	380258	668 (6.7)	443 (4.3)	499 (4.6)	591 (5.6)	550 (2.7)

Highest quarter 1 exposure is 779 μ g/m3 for Outdoor workers Highest quarter 2 exposure is 513 μ g/m3 for Outdoor workers Highest quarter 3 exposure is 591 μ g/m3 for Outdoor workers Highest quarter 4 exposure is 673 μ g/m3 for Outdoor workers Highest annual exposure is 639 μ g/m3 for Outdoor workers

Philadelphia: State=New Jersey (34), County=Camden County (007)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=502824, HAPEM Population=502824, District 19 HAPEM Population=176075 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	385484	519 (4.6)	322 (2.9)	372 (3.2)	453 (4.1)	416 (1.9)
African americans	81796	488 (5.4)	310 (2.6)	358 (3.0)	429 (4.3)	396 (2.0)
Hispanics	33180	528 (6.4)	351 (3.6)	411 (3.9)	473 (5.5)	440 (2.5)
Household income lt \$10K	69741	491 (3.2)	309 (1.8)	360 (2.1)	436 (3.0)	399 (1.3)
Household income \$10K-\$25K	114474	503 (4.2)	315 (2.8)	361 (2.9)	442 (3.7)	405 (1.7)
Household income \$25K-\$50K	180694	516 (5.1)	322 (3.0)	373 (3.2)	450 (4.5)	415 (2.0)
Household income \$50K-\$75K	82497	530 (3.9)	330 (2.7)	383 (3.3)	462 (3.5)	426 (1.7)
Household income gt \$75K	46517	528 (4.3)	325 (2.4)	377 (2.5)	459 (3.6)	422 (1.6)
Children, 0 to 17	132999	514 (3.9)	323 (2.5)	376 (3.0)	450 (3.6)	416 (1.6)
Nonworking men, 18 to 44	30742	562 (4.2)	362 (2.9)	426 (2.9)	491 (4.0)	460 (1.8)
Working men, 18 to 44	70938	576 (3.7)	363 (2.4)	407 (2.5)	498 (3.0)	461 (1.5)
Nonworking women, 18 to 44	49321	502 (4.4)	313 (2.2)	363 (2.3)	439 (3.6)	404 (1.6)
Working women, 18 to 44	59680	542 (2.5)	337 (1.6)	385 (1.8)	468 (2.0)	433 (1.0)
Nonworking men, 45 to 64	12927	499 (2.7)	322 (2.8)	377 (3.3)	436 (1.8)	408 (1.4)
Working men, 45 to 64	31491	583 (3.5)	362 (2.0)	407 (1.9)	506 (2.9)	464 (1.3)
Nonworking women, 45 to 64	22074	487 (3.3)	299 (1.9)	349 (2.3)	425 (2.6)	390 (1.3)
Working women, 45 to 64	26163	533 (2.8)	332 (1.8)	375 (1.8)	464 (2.5)	426 (1.1)
Men, 65+	29129	497 (4.2)	310 (2.5)	368 (2.4)	441 (3.9)	404 (1.7)
Women, 65+	31967	476 (3.8)	290 (2.1)	342 (2.4)	417 (3.1)	381 (1.5)
Outdoor workers	13580	665 (3.9)	422 (2.3)	482 (2.0)	569 (3.2)	534 (1.5)
Outdoor children	37880	543 (3.1)	336 (2.1)	389 (2.6)	474 (2.7)	435 (1.3)
Heart and respiratory	71092	484 (3.1)	305 (2.3)	356 (3.1)	425 (2.9)	392 (1.4)
All persons	502824	523 (4.8)	324 (2.8)	375 (3.0)	456 (4.1)	419 (1.9)

Highest quarter 1 exposure is 665 μ g/m3 for Outdoor workers Highest quarter 2 exposure is 422 μ g/m3 for Outdoor workers Highest quarter 3 exposure is 482 μ g/m3 for Outdoor workers Highest quarter 4 exposure is 569 μ g/m3 for Outdoor workers Highest annual exposure is 534 μ g/m3 for Outdoor workers

Philadelphia: State=New Jersey (34), County=Cumberland County (011)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=138053, HAPEM Population=9536, District 19 HAPEM Population=9536 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	7873	627 (8.5)	405 (5.6)	469 (6.2)	529 (7.2)	507 (3.5)
African americans	1037	609 (10.2)	392 (5.5)	454 (6.2)	511 (7.6)	491 (3.8)
Hispanics	1146	609 (10.9)	397 (6.5)	458 (6.8)	515 (8.8)	495 (4.2)
Household income lt \$10K	860	590 (6.5)	380 (4.0)	439 (4.4)	497 (5.5)	476 (2.6)
Household income \$10K-\$25K	2224	621 (8.1)	404 (5.8)	464 (6.2)	525 (6.7)	503 (3.4)
Household income \$25K-\$50K	4762	627 (9.6)	406 (6.0)	471 (6.4)	530 (8.1)	508 (3.8)
Household income \$50K-\$75K	1199	632 (7.0)	410 (5.2)	475 (6.3)	536 (6.1)	513 (3.1)
Household income gt \$75K	487	625 (7.3)	400 (4.3)	465 (4.4)	527 (6.0)	504 (2.8)
Children, 0 to 17	2339	623 (7.5)	404 (5.2)	470 (6.1)	526 (6.7)	505 (3.2)
Nonworking men, 18 to 44	571	656 (8.5)	418 (5.9)	489 (5.8)	551 (7.6)	528 (3.5)
Working men, 18 to 44	1374	662 (7.2)	424 (4.5)	482 (4.8)	557 (5.8)	531 (2.8)
Nonworking women, 18 to 44	1048	607 (8.4)	390 (4.5)	452 (4.8)	511 (6.5)	490 (3.1)
Working women, 18 to 44	1207	629 (4.9)	399 (3.0)	463 (3.6)	527 (3.9)	504 (2.0)
Nonworking men, 45 to 64	238	602 (5.2)	400 (6.0)	467 (7.0)	506 (3.5)	493 (2.8)
Working men, 45 to 64	575	669 (6.8)	425 (3.9)	480 (3.8)	562 (5.4)	534 (2.6)
Nonworking women, 45 to 64	438	592 (6.6)	378 (3.9)	441 (4.9)	495 (4.9)	476 (2.6)
Working women, 45 to 64	504	623 (5.7)	398 (3.8)	455 (3.7)	523 (4.8)	499 (2.3)
Men, 65+	522	616 (8.2)	406 (5.3)	481 (5.2)	523 (7.2)	506 (3.3)
Women, 65+	603	589 (7.1)	380 (4.6)	446 (5.1)	493 (5.9)	477 (2.9)
Outdoor workers	382	753 (7.5)	481 (4.3)	565 (3.9)	625 (5.9)	606 (2.8)
Outdoor children	651	658 (6.1)	421 (4.3)	487 (5.3)	555 (5.1)	530 (2.6)
Heart and respiratory	1341	588 (6.0)	385 (4.9)	449 (6.5)	496 (5.4)	479 (2.9)
All persons	9536	633 (9.2)	405 (5.7)	468 (6.2)	532 (7.5)	509 (3.6)

Highest quarter 1 exposure is 753 μ g/m3 for Outdoor workers Highest quarter 2 exposure is 481 μ g/m3 for Outdoor workers Highest quarter 3 exposure is 565 μ g/m3 for Outdoor workers Highest quarter 4 exposure is 625 μ g/m3 for Outdoor workers Highest annual exposure is 606 μ g/m3 for Outdoor workers

Philadelphia: State=New Jersey (34), County=Gloucester County (015)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=230082, HAPEM Population=230082, District 19 HAPEM Population=185402 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	205542	633 (7.0)	409 (4.7)	474 (5.1)	530 (5.9)	511 (2.9)
African americans	20051	609 (8.1)	393 (4.4)	455 (4.9)	504 (6.0)	490 (3.0)
Hispanics	3494	607 (9.0)	396 (5.4)	456 (5.6)	508 (7.2)	492 (3.5)
Household income lt \$10K	25315	605 (5.2)	391 (3.2)	454 (3.5)	504 (4.3)	488 (2.1)
Household income \$10K-\$25K	50617	633 (6.6)	411 (4.7)	474 (5.0)	529 (5.5)	511 (2.7)
Household income \$25K-\$50K	89249	631 (7.8)	408 (4.9)	474 (5.2)	528 (6.6)	510 (3.1)
Household income \$50K-\$75K	41840	635 (6.0)	410 (4.4)	476 (5.3)	534 (5.2)	513 (2.6)
Household income gt \$75K	18979	620 (6.4)	398 (3.8)	462 (3.8)	520 (5.2)	500 (2.5)
Children, 0 to 17	61622	628 (6.3)	406 (4.4)	474 (5.1)	526 (5.5)	508 (2.7)
Nonworking men, 18 to 44	12037	665 (6.9)	423 (4.8)	497 (4.7)	553 (6.1)	534 (2.8)
Working men, 18 to 44	35839	667 (5.9)	427 (3.7)	485 (3.9)	557 (4.7)	533 (2.3)
Nonworking women, 18 to 44	22908	614 (6.9)	394 (3.7)	457 (4.0)	512 (5.4)	494 (2.6)
Working women, 18 to 44	27796	635 (4.0)	403 (2.5)	467 (3.0)	527 (3.2)	508 (1.6)
Nonworking men, 45 to 64	5271	611 (4.2)	406 (4.8)	476 (5.6)	508 (2.8)	500 (2.2)
Working men, 45 to 64	15387	674 (5.6)	430 (3.2)	486 (3.1)	563 (4.4)	538 (2.1)
Nonworking women, 45 to 64	9978	599 (5.4)	384 (3.2)	448 (4.0)	496 (4.0)	481 (2.1)
Working women, 45 to 64	11826	629 (4.6)	403 (3.1)	461 (3.0)	524 (3.9)	504 (1.9)
Men, 65+	11969	625 (6.5)	412 (4.2)	490 (4.1)	525 (5.7)	513 (2.6)
Women, 65+	12743	598 (5.7)	386 (3.7)	456 (4.0)	495 (4.6)	484 (2.3)
Outdoor workers	7619	758 (6.1)	486 (3.5)	569 (3.2)	626 (4.9)	609 (2.3)
Outdoor children	18087	664 (5.1)	424 (3.6)	491 (4.5)	554 (4.2)	533 (2.2)
Heart and respiratory	31574	594 (4.9)	390 (4.0)	455 (5.3)	497 (4.4)	484 (2.3)
All persons	230082	639 (7.6)	409 (4.7)	473 (5.1)	532 (6.2)	513 (3.0)

Highest quarter 1 exposure is 758 μ g/m3 for Outdoor workers Highest quarter 2 exposure is 486 μ g/m3 for Outdoor workers Highest quarter 3 exposure is 569 μ g/m3 for Outdoor workers Highest quarter 4 exposure is 626 μ g/m3 for Outdoor workers Highest annual exposure is 609 μ g/m3 for Outdoor workers

Philadelphia: State=New Jersey (34), County=Salem County (033)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=65294, HAPEM Population=52903, District 19 HAPEM Population=38587 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	46378	659 (6.9)	360 (4.4)	470 (5.0)	533 (5.8)	505 (2.8)
African americans	5571	696 (8.2)	279 (2.7)	463 (4.5)	524 (5.5)	490 (2.8)
Hispanics	953	707 (9.4)	273 (3.1)	472 (5.2)	533 (6.7)	496 (3.2)
Household income lt \$10K	8555	646 (5.2)	310 (2.7)	446 (3.3)	508 (4.2)	477 (2.0)
Household income \$10K-\$25K	11759	671 (6.4)	340 (4.1)	470 (4.8)	534 (5.2)	503 (2.6)
Household income \$25K-\$50K	20708	660 (7.7)	356 (4.5)	470 (5.0)	532 (6.3)	504 (3.0)
Household income \$50K-\$75K	8748	657 (5.9)	373 (4.2)	475 (5.2)	537 (5.1)	510 (2.6)
Household income gt \$75K	3127	647 (6.2)	367 (3.6)	464 (3.7)	528 (5.1)	501 (2.4)
Children, 0 to 17	13558	664 (6.0)	349 (3.9)	473 (4.7)	532 (5.2)	504 (2.5)
Nonworking men, 18 to 44	2924	705 (6.7)	355 (4.2)	494 (4.4)	558 (5.8)	527 (2.7)
Working men, 18 to 44	7057	699 (5.9)	373 (3.4)	482 (3.8)	561 (4.6)	528 (2.3)
Nonworking women, 18 to 44	5291	649 (6.7)	335 (3.3)	455 (3.7)	517 (5.0)	488 (2.4)
Working women, 18 to 44	5449	665 (4.1)	350 (2.3)	464 (2.9)	530 (3.1)	502 (1.6)
Nonworking men, 45 to 64	1460	640 (4.1)	346 (4.4)	471 (5.4)	511 (2.7)	491 (2.1)
Working men, 45 to 64	3583	701 (5.6)	380 (3.0)	480 (3.1)	565 (4.4)	531 (2.1)
Nonworking women, 45 to 64	2657	627 (5.3)	331 (3.0)	443 (3.9)	499 (3.9)	475 (2.0)
Working women, 45 to 64	2776	653 (4.7)	355 (2.9)	455 (3.0)	525 (3.9)	496 (1.9)
Men, 65+	3675	661 (6.5)	344 (3.8)	485 (4.0)	530 (5.5)	505 (2.5)
Women, 65+	3978	631 (5.6)	322 (3.3)	450 (3.9)	499 (4.5)	475 (2.2)
Outdoor workers	2148	790 (6.1)	429 (3.3)	566 (3.1)	629 (4.8)	603 (2.2)
Outdoor children	4089	701 (4.9)	365 (3.2)	490 (4.2)	561 (4.0)	529 (2.1)
Heart and respiratory	7924	625 (4.8)	333 (3.6)	451 (5.0)	501 (4.2)	477 (2.2)
All persons	52903	673 (7.3)	352 (4.3)	470 (4.9)	537 (5.9)	507 (2.8)

Highest quarter 1 exposure is 790 μ g/m3 for Outdoor workers Highest quarter 2 exposure is 429 μ g/m3 for Outdoor workers Highest quarter 3 exposure is 566 μ g/m3 for Outdoor workers Highest quarter 4 exposure is 629 μ g/m3 for Outdoor workers Highest annual exposure is 603 μ g/m3 for Outdoor workers

Philadelphia: State=Pennsylvania (42), County=Bucks County (017)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=541174, HAPEM Population=487491, District 19 HAPEM Population=248631 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	461790	571 (5.0)	350 (3.2)	393 (3.5)	453 (4.1)	441 (2.0)
African americans	14637	516 (5.6)	295 (2.5)	322 (2.5)	373 (3.3)	376 (1.8)
Hispanics	8067	545 (5.5)	332 (3.0)	366 (3.0)	424 (3.9)	416 (2.0)
Household income lt \$10K	32408	519 (3.1)	308 (1.8)	342 (1.9)	396 (2.4)	391 (1.2)
Household income \$10K-\$25K	100846	560 (4.6)	339 (3.2)	378 (3.3)	434 (3.6)	427 (1.9)
Household income \$25K-\$50K	180721	563 (5.3)	340 (3.2)	382 (3.3)	438 (4.2)	430 (2.1)
Household income \$50K-\$75K	100762	582 (4.2)	360 (3.1)	407 (3.7)	469 (3.6)	454 (1.8)
Household income gt \$75K	64386	591 (5.1)	369 (3.0)	420 (3.0)	486 (4.2)	466 (2.0)
Children, 0 to 17	125170	566 (4.4)	346 (2.9)	392 (3.4)	447 (3.7)	437 (1.8)
Nonworking men, 18 to 44	22476	588 (4.7)	352 (3.2)	399 (3.1)	457 (4.0)	448 (1.9)
Working men, 18 to 44	80395	611 (4.0)	373 (2.5)	411 (2.6)	485 (3.2)	470 (1.6)
Nonworking women, 18 to 44	43475	550 (4.8)	333 (2.5)	374 (2.6)	431 (3.5)	422 (1.7)
Working women, 18 to 44	63103	578 (2.7)	348 (1.7)	390 (2.0)	456 (2.2)	443 (1.1)
Nonworking men, 45 to 64	10351	547 (3.0)	343 (3.3)	388 (3.8)	429 (1.9)	426 (1.5)
Working men, 45 to 64	37146	624 (4.0)	381 (2.3)	419 (2.2)	501 (3.2)	481 (1.5)
Nonworking women, 45 to 64	20297	542 (3.8)	330 (2.3)	374 (2.8)	428 (2.8)	418 (1.5)
Working women, 45 to 64	28907	577 (3.3)	353 (2.2)	392 (2.1)	461 (2.8)	445 (1.3)
Men, 65+	25207	560 (4.7)	350 (3.0)	403 (2.9)	446 (4.0)	439 (1.9)
Women, 65+	26539	537 (4.1)	329 (2.6)	375 (2.8)	422 (3.3)	415 (1.6)
Outdoor workers	14379	700 (4.2)	430 (2.4)	485 (2.2)	551 (3.4)	541 (1.6)
Outdoor children	36264	597 (3.5)	361 (2.4)	405 (3.0)	470 (2.8)	457 (1.5)
Heart and respiratory	67473	536 (3.5)	333 (2.8)	376 (3.6)	425 (3.0)	417 (1.6)
All persons	487491	575 (5.3)	349 (3.2)	390 (3.4)	452 (4.2)	441 (2.1)

Highest quarter 1 exposure is 700 μ g/m3 for Outdoor workers Highest quarter 2 exposure is 430 μ g/m3 for Outdoor workers Highest quarter 3 exposure is 485 μ g/m3 for Outdoor workers Highest quarter 4 exposure is 551 μ g/m3 for Outdoor workers Highest annual exposure is 541 μ g/m3 for Outdoor workers

Philadelphia: State=Pennsylvania (42), County=Chester County (029)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=376396, HAPEM Population=231640, District 19 HAPEM Population=222041 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	215984	620 (8.1)	398 (5.4)	467 (6.0)	525 (6.9)	502 (3.3)
African americans	10988	601 (9.8)	385 (5.2)	452 (5.9)	506 (7.2)	486 (3.6)
Hispanics	4389	608 (10.9)	397 (6.5)	458 (6.8)	515 (8.8)	494 (4.2)
Household income lt \$10K	12370	582 (6.2)	373 (3.8)	438 (4.2)	493 (5.2)	471 (2.5)
Household income \$10K-\$25K	37682	613 (7.7)	396 (5.5)	462 (5.9)	519 (6.4)	497 (3.2)
Household income \$25K-\$50K	75076	620 (9.3)	399 (5.8)	469 (6.1)	525 (7.8)	503 (3.7)
Household income \$50K-\$75K	43731	624 (6.6)	401 (4.9)	473 (6.0)	530 (5.8)	507 (2.9)
Household income gt \$75K	49361	617 (7.0)	392 (4.1)	463 (4.2)	522 (5.7)	498 (2.7)
Children, 0 to 17	53146	617 (7.3)	398 (5.1)	469 (5.9)	522 (6.4)	501 (3.1)
Nonworking men, 18 to 44	10755	649 (8.1)	411 (5.7)	488 (5.6)	546 (7.3)	523 (3.4)
Working men, 18 to 44	37767	656 (6.9)	418 (4.3)	481 (4.6)	553 (5.5)	526 (2.7)
Nonworking women, 18 to 44	21269	600 (8.1)	383 (4.3)	450 (4.6)	507 (6.3)	485 (3.0)
Working women, 18 to 44	31062	623 (4.7)	393 (2.9)	462 (3.4)	523 (3.7)	500 (1.9)
Nonworking men, 45 to 64	5159	594 (5.0)	392 (5.7)	465 (6.6)	501 (3.3)	488 (2.6)
Working men, 45 to 64	18242	662 (6.5)	418 (3.7)	479 (3.6)	558 (5.2)	529 (2.4)
Nonworking women, 45 to 64	10452	585 (6.3)	371 (3.8)	440 (4.7)	490 (4.6)	471 (2.5)
Working women, 45 to 64	14267	615 (5.4)	391 (3.6)	454 (3.5)	518 (4.6)	494 (2.2)
Men, 65+	12567	609 (7.8)	399 (5.1)	480 (5.0)	518 (6.9)	501 (3.2)
Women, 65+	13797	582 (6.8)	373 (4.4)	445 (4.9)	489 (5.6)	472 (2.8)
Outdoor workers	6082	748 (7.2)	477 (4.2)	565 (3.8)	623 (5.8)	603 (2.7)
Outdoor children	15183	652 (5.9)	415 (4.2)	486 (5.2)	551 (4.9)	526 (2.5)
Heart and respiratory	32872	581 (5.7)	378 (4.7)	448 (6.2)	492 (5.2)	474 (2.7)
All persons	231640	625 (8.8)	398 (5.5)	467 (6.0)	527 (7.2)	504 (3.5)

Highest quarter 1 exposure is 748 μ g/m3 for Outdoor workers Highest quarter 2 exposure is 477 μ g/m3 for Outdoor workers Highest quarter 3 exposure is 565 μ g/m3 for Outdoor workers Highest quarter 4 exposure is 623 μ g/m3 for Outdoor workers Highest annual exposure is 603 μ g/m3 for Outdoor workers

Philadelphia: State=Pennsylvania (42), County=Delaware County (045)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=547651, HAPEM Population=547651, District 19 HAPEM Population=318824 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	473639	616 (5.6)	385 (3.7)	426 (4.1)	501 (4.7)	482 (2.3)
African americans	60975	587 (5.4)	344 (2.5)	374 (2.7)	451 (3.6)	438 (1.9)
Hispanics	6170	579 (6.1)	352 (3.5)	389 (3.6)	463 (4.7)	445 (2.3)
Household income lt \$10K	58348	576 (3.4)	351 (2.0)	384 (2.1)	458 (2.7)	442 (1.3)
Household income \$10K-\$25K	123964	614 (4.8)	386 (3.4)	415 (3.6)	494 (4.0)	477 (2.0)
Household income \$25K-\$50K	200542	615 (6.0)	383 (3.7)	421 (3.8)	497 (5.0)	478 (2.3)
Household income \$50K-\$75K	92447	620 (4.8)	389 (3.5)	433 (4.2)	507 (4.1)	487 (2.1)
Household income gt \$75K	61008	613 (5.6)	383 (3.3)	432 (3.3)	504 (4.5)	482 (2.1)
Children, 0 to 17	126629	612 (4.6)	380 (3.1)	420 (3.6)	493 (4.0)	476 (1.9)
Nonworking men, 18 to 44	32709	635 (5.0)	386 (3.5)	439 (3.4)	512 (4.5)	492 (2.1)
Working men, 18 to 44	74768	654 (4.3)	404 (2.7)	442 (2.8)	531 (3.4)	508 (1.7)
Nonworking women, 18 to 44	54723	593 (5.0)	365 (2.7)	405 (2.8)	478 (3.8)	460 (1.9)
Working women, 18 to 44	62605	620 (2.9)	379 (1.8)	420 (2.1)	500 (2.3)	479 (1.1)
Nonworking men, 45 to 64	15071	589 (3.4)	376 (3.8)	422 (4.4)	475 (2.2)	465 (1.8)
Working men, 45 to 64	35856	663 (4.3)	407 (2.5)	447 (2.4)	540 (3.4)	514 (1.6)
Nonworking women, 45 to 64	26104	582 (4.2)	359 (2.5)	401 (3.1)	467 (3.1)	452 (1.6)
Working women, 45 to 64	29788	614 (3.6)	379 (2.4)	417 (2.3)	498 (3.0)	477 (1.4)
Men, 65+	40125	608 (5.5)	389 (3.5)	438 (3.4)	496 (4.7)	482 (2.2)
Women, 65+	44588	581 (4.7)	364 (3.0)	405 (3.3)	468 (3.8)	454 (1.9)
Outdoor workers	14339	750 (4.3)	462 (2.5)	524 (2.3)	602 (3.5)	584 (1.6)
Outdoor children	36330	644 (3.7)	395 (2.6)	436 (3.2)	519 (3.0)	498 (1.6)
Heart and respiratory	83317	578 (3.8)	365 (3.1)	405 (4.0)	468 (3.4)	454 (1.8)
All persons	547651	620 (5.7)	382 (3.5)	421 (3.8)	499 (4.6)	480 (2.2)

Highest quarter 1 exposure is 750 μ g/m3 for Outdoor workers Highest quarter 2 exposure is 462 μ g/m3 for Outdoor workers Highest quarter 3 exposure is 524 μ g/m3 for Outdoor workers Highest quarter 4 exposure is 602 μ g/m3 for Outdoor workers Highest annual exposure is 584 μ g/m3 for Outdoor workers

Philadelphia: State=Pennsylvania (42), County=Montgomery County (091)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=678193, HAPEM Population=609711, District 19 HAPEM Population=326609 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	556146	594 (5.1)	385 (3.4)	483 (3.9)	522 (4.4)	496 (2.1)
African americans	35669	581 (5.6)	386 (3.0)	496 (3.8)	518 (4.3)	495 (2.1)
Hispanics	7054	566 (6.3)	364 (3.7)	465 (4.2)	499 (5.2)	473 (2.5)
Household income lt \$10K	39794	559 (3.6)	362 (2.3)	457 (2.7)	492 (3.1)	467 (1.5)
Household income \$10K-\$25K	115638	589 (4.9)	381 (3.5)	475 (4.0)	517 (4.2)	490 (2.1)
Household income \$25K-\$50K	209709	591 (5.9)	381 (3.7)	485 (4.1)	519 (5.1)	494 (2.4)
Household income \$50K-\$75K	116507	597 (4.2)	385 (3.1)	489 (4.0)	526 (3.7)	499 (1.9)
Household income gt \$75K	99224	610 (4.1)	406 (2.5)	500 (2.7)	540 (3.5)	514 (1.6)
Children, 0 to 17	134650	593 (4.6)	385 (3.2)	485 (3.9)	520 (4.1)	496 (2.0)
Nonworking men, 18 to 44	30728	618 (5.2)	391 (3.6)	500 (3.8)	538 (4.8)	511 (2.2)
Working men, 18 to 44	90388	630 (4.4)	403 (2.7)	496 (3.0)	548 (3.5)	519 (1.7)
Nonworking women, 18 to 44	53198	573 (4.9)	368 (2.6)	467 (3.0)	503 (3.9)	478 (1.9)
Working women, 18 to 44	75778	597 (2.9)	379 (1.8)	477 (2.2)	519 (2.4)	493 (1.2)
Nonworking men, 45 to 64	14473	571 (3.0)	380 (3.4)	484 (4.3)	500 (2.0)	483 (1.6)
Working men, 45 to 64	45925	642 (3.9)	411 (2.3)	499 (2.3)	560 (3.2)	527 (1.5)
Nonworking women, 45 to 64	28122	566 (3.7)	366 (2.3)	461 (3.0)	494 (2.8)	472 (1.5)
Working women, 45 to 64	38102	595 (3.2)	384 (2.1)	473 (2.3)	520 (2.8)	493 (1.3)
Men, 65+	43365	590 (4.6)	395 (3.0)	504 (3.1)	523 (4.1)	503 (1.9)
Women, 65+	49321	566 (4.0)	371 (2.6)	469 (3.1)	496 (3.3)	475 (1.6)
Outdoor workers	15827	716 (4.7)	456 (2.7)	577 (2.5)	613 (3.8)	590 (1.8)
Outdoor children	38134	627 (3.7)	403 (2.7)	502 (3.4)	548 (3.1)	520 (1.6)
Heart and respiratory	93316	560 (3.5)	370 (2.8)	467 (4.0)	494 (3.2)	473 (1.7)
All persons	609711	600 (5.5)	386 (3.4)	484 (3.9)	525 (4.5)	499 (2.2)

Highest quarter 1 exposure is 716 μ g/m3 for Outdoor workers Highest quarter 2 exposure is 456 μ g/m3 for Outdoor workers Highest quarter 3 exposure is 577 μ g/m3 for Outdoor workers Highest quarter 4 exposure is 613 μ g/m3 for Outdoor workers Highest annual exposure is 590 μ g/m3 for Outdoor workers

Philadelphia: State=Pennsylvania (42), County=Philadelphia County (101)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=1585577, HAPEM Population=1585577, District 19 HAPEM Population=74887 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	848894	680 (4.2)	468 (3.0)	484 (2.9)	596 (3.9)	557 (1.8)
African americans	632430	745 (7.9)	585 (5.4)	567 (5.5)	642 (6.3)	634 (3.2)
Hispanics	84186	792 (9.9)	665 (8.1)	698 (8.1)	736 (9.1)	723 (4.4)
Household income lt \$10K	392148	700 (3.9)	529 (3.2)	526 (3.2)	609 (3.6)	590 (1.7)
Household income \$10K-\$25K	475346	718 (4.6)	535 (4.0)	532 (4.0)	630 (4.1)	603 (2.1)
Household income \$25K-\$50K	484696	709 (5.1)	515 (3.8)	523 (3.7)	622 (4.7)	592 (2.2)
Household income \$50K-\$75K	153056	711 (3.6)	516 (3.2)	529 (3.6)	627 (3.4)	595 (1.7)
Household income gt \$75K	62001	710 (3.6)	518 (2.6)	528 (2.4)	616 (3.2)	593 (1.5)
Children, 0 to 17	379287	726 (4.4)	546 (3.9)	556 (4.2)	640 (4.3)	617 (2.1)
Nonworking men, 18 to 44	127898	759 (4.9)	554 (4.2)	555 (3.6)	657 (4.6)	631 (2.2)
Working men, 18 to 44	185497	746 (2.3)	539 (1.8)	544 (1.9)	648 (2.0)	619 (1.0)
Nonworking women, 18 to 44	186357	702 (4.7)	516 (3.1)	518 (3.1)	611 (3.9)	587 (1.9)
Working women, 18 to 44	167187	717 (1.7)	522 (1.4)	533 (1.7)	622 (1.5)	598 (0.8)
Nonworking men, 45 to 64	54063	698 (3.0)	531 (4.2)	537 (4.3)	606 (2.1)	592 (1.8)
Working men, 45 to 64	81637	746 (2.1)	531 (1.5)	536 (1.4)	651 (1.9)	616 (0.9)
Nonworking women, 45 to 64	83447	681 (3.6)	493 (2.6)	500 (3.1)	588 (2.9)	565 (1.5)
Working women, 45 to 64	74468	706 (1.9)	513 (1.7)	519 (1.7)	615 (1.8)	588 (0.9)
Men, 65+	110324	693 (4.3)	506 (3.2)	520 (2.9)	609 (4.0)	582 (1.8)
Women, 65+	130885	664 (3.9)	475 (2.8)	484 (2.9)	576 (3.3)	549 (1.6)
Outdoor workers	38306	836 (2.3)	596 (1.6)	635 (1.5)	721 (2.1)	696 (0.9)
Outdoor children	108082	767 (3.6)	570 (3.3)	577 (3.8)	676 (3.3)	647 (1.7)
Heart and respiratory	238936	672 (3.2)	499 (3.2)	505 (3.9)	588 (3.2)	566 (1.7)
All persons	1585577	729 (5.1)	534 (3.9)	536 (3.9)	635 (4.5)	608 (2.2)

Highest quarter 1 exposure is 836 $\mu g/m3$ for Outdoor workers

Highest quarter 2 exposure is 665 $\mu g/m3$ for Hispanics

Highest quarter 3 exposure is 698 $\mu g/m3$ for Hispanics

Highest quarter 4 exposure is 736 $\mu g/m3$ for Hispanics

Highest annual exposure is 723 $\mu\text{g/m3}$ for Hispanics

Phoenix: Citywide

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=2238498, HAPEM Population=2117367, District 19 HAPEM Population=752039 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	1793859	892 (5.1)	500 (2.7)	565 (2.9)	1005 (5.7)	740 (2.2)
African americans	74018	858 (3.5)	499 (2.1)	555 (2.5)	987 (3.9)	725 (1.6)
Hispanics	336520	888 (5.5)	499 (3.0)	565 (3.1)	1032 (6.3)	746 (2.3)
Household income lt \$10K	320801	854 (2.8)	492 (1.7)	550 (1.9)	984 (3.4)	720 (1.3)
Household income \$10K-\$25K	653164	909 (4.8)	509 (2.5)	571 (2.6)	1040 (5.6)	757 (2.1)
Household income \$25K-\$50K	727283	890 (5.8)	497 (3.0)	570 (3.2)	1000 (6.4)	739 (2.4)
Household income \$50K-\$75K	249344	886 (4.4)	494 (2.6)	561 (3.2)	985 (5.1)	731 (2.0)
Household income gt \$75K	143470	858 (4.7)	485 (2.3)	514 (2.1)	943 (5.1)	700 (1.9)
Children, 0 to 17	553328	884 (4.8)	498 (2.7)	573 (3.1)	1000 (5.3)	739 (2.1)
Nonworking men, 18 to 44	119602	929 (5.6)	538 (3.1)	605 (2.7)	1065 (6.7)	784 (2.4)
Working men, 18 to 44	333657	933 (3.2)	518 (1.8)	576 (1.9)	1051 (3.6)	769 (1.4)
Nonworking women, 18 to 44	195126	864 (3.6)	492 (1.9)	554 (2.2)	982 (4.2)	723 (1.6)
Working women, 18 to 44	265660	888 (2.2)	497 (1.3)	561 (1.5)	1001 (2.6)	737 (1.0)
Nonworking men, 45 to 64	52425	849 (1.7)	490 (0.8)	554 (1.2)	965 (2.0)	715 (0.8)
Working men, 45 to 64	124483	944 (3.0)	518 (1.4)	569 (1.4)	1060 (3.2)	773 (1.2)
Nonworking women, 45 to 64	86187	824 (2.3)	472 (1.5)	533 (2.1)	932 (2.8)	690 (1.1)
Working women, 45 to 64	99338	885 (2.8)	492 (1.5)	546 (1.5)	996 (3.2)	730 (1.2)
Men, 65+	124261	892 (5.0)	517 (2.6)	595 (2.5)	1007 (5.6)	753 (2.1)
Women, 65+	140240	829 (3.8)	481 (2.5)	556 (3.1)	933 (3.9)	700 (1.7)
Outdoor workers	63321	1024 (3.3)	582 (1.6)	680 (1.5)	1166 (3.5)	863 (1.3)
Outdoor children	155559	917 (3.0)	512 (2.0)	588 (2.6)	1035 (3.4)	763 (1.4)
Heart and respiratory	299417	846 (3.5)	481 (2.5)	546 (3.2)	956 (4.1)	707 (1.7)
All persons	2117367	891 (4.8)	501 (2.6)	566 (2.9)	1007 (5.5)	741 (2.1)

Highest quarter 1 exposure is $1024~\mu g/m3$ for Outdoor workers Highest quarter 2 exposure is $582~\mu g/m3$ for Outdoor workers Highest quarter 3 exposure is $680~\mu g/m3$ for Outdoor workers Highest quarter 4 exposure is $1166~\mu g/m3$ for Outdoor workers Highest annual exposure is $863~\mu g/m3$ for Outdoor workers

Phoenix: State=Arizona (04), County=Maricopa County (013)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=2122101, HAPEM Population=2096861, District 19 HAPEM Population=731533 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	1780468	892 (5.0)	500 (2.7)	564 (2.9)	1004 (5.7)	740 (2.1)
African americans	73998	858 (3.5)	499 (2.1)	555 (2.5)	987 (3.9)	725 (1.6)
Hispanics	335025	888 (5.4)	499 (3.0)	565 (3.1)	1032 (6.3)	746 (2.3)
Household income lt \$10K	313217	854 (2.8)	492 (1.6)	550 (1.9)	984 (3.3)	720 (1.2)
Household income \$10K-\$25K	645597	910 (4.7)	508 (2.5)	571 (2.6)	1040 (5.5)	757 (2.0)
Household income \$25K-\$50K	722711	890 (5.7)	496 (3.0)	570 (3.1)	1000 (6.4)	739 (2.4)
Household income \$50K-\$75K	248698	886 (4.4)	494 (2.6)	561 (3.2)	985 (5.0)	731 (2.0)
Household income gt \$75K	143334	858 (4.7)	485 (2.3)	514 (2.1)	943 (5.1)	700 (1.9)
Children, 0 to 17	547615	883 (4.7)	498 (2.6)	573 (3.0)	1000 (5.3)	738 (2.0)
Nonworking men, 18 to 44	117890	929 (5.6)	538 (3.0)	605 (2.7)	1065 (6.6)	784 (2.4)
Working men, 18 to 44	332228	933 (3.2)	518 (1.7)	576 (1.9)	1051 (3.5)	769 (1.4)
Nonworking women, 18 to 44	192867	864 (3.5)	491 (1.9)	554 (2.2)	982 (4.2)	723 (1.6)
Working women, 18 to 44	264543	888 (2.2)	497 (1.3)	561 (1.5)	1001 (2.6)	737 (1.0)
Nonworking men, 45 to 64	51352	849 (1.7)	490 (0.8)	554 (1.2)	965 (2.0)	714 (0.7)
Working men, 45 to 64	123511	944 (3.0)	518 (1.4)	569 (1.3)	1059 (3.2)	772 (1.2)
Nonworking women, 45 to 64	84762	824 (2.3)	472 (1.5)	532 (2.1)	932 (2.8)	690 (1.1)
Working women, 45 to 64	98547	885 (2.8)	492 (1.5)	546 (1.5)	996 (3.2)	729 (1.2)
Men, 65+	122462	892 (5.0)	517 (2.6)	595 (2.5)	1006 (5.6)	752 (2.1)
Women, 65+	138296	829 (3.8)	481 (2.5)	555 (3.0)	933 (3.9)	699 (1.7)
Outdoor workers	62656	1024 (3.3)	582 (1.6)	680 (1.5)	1166 (3.5)	863 (1.3)
Outdoor children	153950	917 (2.9)	512 (1.9)	588 (2.5)	1035 (3.4)	763 (1.4)
Heart and respiratory	296110	846 (3.5)	481 (2.4)	545 (3.2)	955 (4.0)	707 (1.7)
All persons	2096861	891 (4.8)	501 (2.6)	566 (2.9)	1007 (5.4)	741 (2.0)

Highest quarter 1 exposure is $1024~\mu g/m3$ for Outdoor workers Highest quarter 2 exposure is $582~\mu g/m3$ for Outdoor workers Highest quarter 3 exposure is $680~\mu g/m3$ for Outdoor workers Highest quarter 4 exposure is $1166~\mu g/m3$ for Outdoor workers Highest annual exposure is $863~\mu g/m3$ for Outdoor workers

Phoenix: State=Arizona (04), County=Pinal County (021)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=116397, HAPEM Population=20506, District 19 HAPEM Population=20506 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	13391	902 (11.5)	524 (6.3)	589 (6.8)	1040 (13.1)	764 (4.9)
African americans	20	871 (9.4)	505 (5.3)	568 (6.6)	1000 (10.4)	736 (4.1)
Hispanics	1495	889 (13.4)	515 (7.6)	575 (7.8)	1023 (15.2)	750 (5.7)
Household income lt \$10K	7584	850 (7.0)	497 (4.2)	558 (4.8)	980 (8.5)	721 (3.2)
Household income \$10K-\$25K	7567	903 (11.3)	520 (5.9)	579 (6.2)	1041 (13.3)	760 (4.9)
Household income \$25K-\$50K	4572	902 (12.9)	525 (6.9)	592 (7.1)	1040 (14.7)	765 (5.5)
Household income \$50K-\$75K	646	914 (9.3)	530 (5.6)	598 (6.9)	1055 (10.9)	774 (4.2)
Household income gt \$75K	136	906 (10.4)	523 (5.2)	588 (5.0)	1043 (11.5)	765 (4.3)
Children, 0 to 17	5713	895 (10.9)	523 (6.2)	592 (7.0)	1031 (12.3)	760 (4.7)
Nonworking men, 18 to 44	1712	930 (14.1)	552 (7.8)	622 (6.9)	1074 (16.7)	794 (6.0)
Working men, 18 to 44	1429	936 (8.0)	534 (4.4)	593 (4.9)	1069 (8.9)	783 (3.4)
Nonworking women, 18 to 44	2259	870 (8.7)	508 (4.8)	573 (5.5)	1003 (10.4)	738 (3.8)
Working women, 18 to 44	1118	892 (5.6)	515 (3.2)	580 (3.9)	1023 (6.6)	752 (2.5)
Nonworking men, 45 to 64	1073	855 (3.8)	505 (1.8)	571 (2.8)	986 (4.5)	729 (1.7)
Working men, 45 to 64	972	950 (7.7)	534 (3.8)	587 (3.6)	1083 (8.4)	788 (3.1)
Nonworking women, 45 to 64	1425	836 (5.3)	491 (3.6)	557 (5.0)	964 (6.6)	712 (2.6)
Working women, 45 to 64	791	891 (7.5)	510 (4.0)	568 (4.0)	1020 (8.6)	747 (3.2)
Men, 65+	1799	897 (10.7)	532 (5.6)	607 (5.3)	1027 (12.0)	766 (4.5)
Women, 65+	1944	837 (7.9)	498 (5.3)	569 (6.4)	960 (8.2)	716 (3.5)
Outdoor workers	665	1016 (8.2)	590 (3.9)	682 (3.6)	1155 (8.6)	861 (3.2)
Outdoor children	1609	931 (6.8)	541 (4.6)	613 (5.9)	1074 (7.9)	790 (3.2)
Heart and respiratory	3307	854 (7.9)	501 (5.8)	565 (7.4)	984 (9.3)	726 (3.8)
All persons	20506	900 (11.3)	523 (6.2)	588 (6.8)	1037 (12.8)	762 (4.8)

Highest quarter 1 exposure is 1016 $\mu g/m3$ for Outdoor workers Highest quarter 2 exposure is 590 $\mu g/m3$ for Outdoor workers Highest quarter 3 exposure is 682 $\mu g/m3$ for Outdoor workers Highest quarter 4 exposure is 1155 $\mu g/m3$ for Outdoor workers Highest annual exposure is 861 $\mu g/m3$ for Outdoor workers

San Francisco: Citywide

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=5411423, HAPEM Population=4509661, District 19 HAPEM Population=1404609 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	2929300	757 (4.3)	496 (3.0)	562 (3.4)	1032 (5.6)	712 (2.1)
African americans	449902	690 (4.1)	484 (2.7)	513 (3.3)	910 (4.8)	649 (1.9)
Hispanics	696893	759 (5.4)	512 (3.5)	560 (3.8)	1085 (7.6)	729 (2.7)
Household income lt \$10K	499423	724 (3.1)	488 (2.2)	526 (2.2)	944 (3.5)	671 (1.4)
Household income \$10K-\$25K	919054	766 (3.8)	517 (3.1)	574 (3.8)	1024 (5.0)	721 (2.0)
Household income \$25K-\$50K	1423799	768 (4.6)	506 (3.0)	564 (3.2)	1040 (6.0)	720 (2.2)
Household income \$50K-\$75K	860459	772 (3.6)	505 (2.8)	564 (3.3)	1060 (4.8)	725 (1.8)
Household income gt \$75K	739136	752 (3.8)	490 (2.4)	554 (2.7)	1031 (5.0)	707 (1.8)
Children, 0 to 17	987792	748 (3.8)	497 (2.7)	550 (3.0)	1034 (5.1)	707 (1.9)
Nonworking men, 18 to 44	284920	803 (4.5)	530 (3.1)	564 (3.1)	1067 (6.3)	741 (2.2)
Working men, 18 to 44	774983	805 (2.8)	527 (2.0)	599 (2.4)	1094 (3.6)	757 (1.4)
Nonworking women, 18 to 44	433698	739 (3.5)	489 (2.2)	539 (2.4)	996 (4.5)	691 (1.6)
Working women, 18 to 44	621762	758 (1.9)	493 (1.4)	555 (1.6)	1029 (2.5)	709 (0.9)
Nonworking men, 45 to 64	111975	740 (1.8)	521 (3.5)	602 (5.8)	970 (2.1)	708 (1.8)
Working men, 45 to 64	308686	810 (2.8)	528 (1.8)	592 (1.9)	1097 (3.6)	757 (1.3)
Nonworking women, 45 to 64	180334	713 (2.7)	475 (1.9)	531 (2.6)	946 (3.0)	667 (1.3)
Working women, 45 to 64	250756	751 (2.5)	496 (1.9)	561 (2.0)	1015 (3.4)	706 (1.3)
Men, 65+	244900	769 (4.3)	522 (2.9)	571 (2.8)	1000 (5.1)	716 (2.0)
Women, 65+	258550	721 (3.4)	485 (2.4)	530 (2.2)	934 (3.9)	668 (1.5)
Outdoor workers	123125	890 (2.9)	587 (1.9)	684 (1.9)	1217 (3.9)	845 (1.4)
Outdoor children	276633	787 (2.8)	520 (2.3)	568 (2.9)	1082 (3.5)	740 (1.4)
Heart and respiratory	629201	721 (3.2)	486 (2.4)	543 (2.5)	968 (4.1)	680 (1.6)
All persons	4509661	767 (4.2)	507 (2.9)	563 (3.3)	1032 (5.4)	717 (2.0)

Highest quarter 1 exposure is 890 μ g/m3 for Outdoor workers Highest quarter 2 exposure is 587 μ g/m3 for Outdoor workers Highest quarter 3 exposure is 684 μ g/m3 for Outdoor workers Highest quarter 4 exposure is 1217 μ g/m3 for Outdoor workers Highest annual exposure is 845 μ g/m3 for Outdoor workers

San Francisco: State=California (06), County=Alameda County (001)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=1276702, HAPEM Population=1275586, District 19 HAPEM Population=426219 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	759227	638 (4.8)	425 (3.5)	419 (3.7)	881 (6.4)	591 (2.4)
African americans	229273	587 (6.1)	390 (4.0)	418 (4.9)	855 (7.6)	563 (2.9)
Hispanics	175702	624 (6.1)	419 (4.0)	413 (4.1)	877 (8.2)	583 (2.9)
Household income lt \$10K	170570	570 (4.2)	376 (3.3)	390 (3.3)	824 (5.4)	540 (2.1)
Household income \$10K-\$25K	291311	622 (4.8)	418 (4.1)	431 (5.0)	884 (6.9)	589 (2.7)
Household income \$25K-\$50K	413117	637 (5.5)	425 (3.7)	419 (3.7)	886 (7.4)	592 (2.6)
Household income \$50K-\$75K	223379	648 (4.1)	433 (3.3)	415 (3.6)	896 (5.4)	598 (2.1)
Household income gt \$75K	158533	631 (3.9)	416 (2.5)	404 (2.7)	869 (5.2)	580 (1.9)
Children, 0 to 17	302219	628 (4.5)	420 (3.4)	416 (3.5)	875 (6.0)	585 (2.2)
Nonworking men, 18 to 44	84253	648 (5.6)	424 (3.9)	420 (3.9)	921 (8.7)	603 (2.9)
Working men, 18 to 44	210599	674 (3.6)	451 (2.7)	454 (3.0)	932 (4.7)	628 (1.8)
Nonworking women, 18 to 44	129928	606 (4.4)	402 (2.9)	403 (3.0)	854 (5.8)	566 (2.1)
Working women, 18 to 44	172409	634 (2.4)	418 (1.8)	417 (2.0)	880 (3.2)	588 (1.2)
Nonworking men, 45 to 64	30836	604 (2.3)	422 (4.2)	452 (6.7)	849 (2.9)	582 (2.2)
Working men, 45 to 64	78057	692 (3.4)	458 (2.3)	456 (2.3)	949 (4.4)	639 (1.6)
Nonworking women, 45 to 64	49136	591 (3.1)	393 (2.3)	400 (3.0)	823 (3.7)	552 (1.5)
Working women, 45 to 64	65844	637 (3.1)	426 (2.4)	429 (2.3)	881 (4.2)	594 (1.6)
Men, 65+	65042	629 (5.2)	424 (3.8)	430 (3.4)	883 (6.9)	592 (2.5)
Women, 65+	69869	591 (4.3)	394 (3.3)	399 (2.8)	828 (5.5)	553 (2.1)
Outdoor workers	35200	775 (3.9)	525 (2.6)	555 (2.5)	1051 (5.0)	727 (1.8)
Outdoor children	83762	660 (3.3)	439 (2.8)	430 (3.3)	916 (4.1)	611 (1.7)
Heart and respiratory	174172	594 (3.8)	401 (3.1)	405 (3.0)	836 (5.2)	559 (1.9)
All persons	1275586	632 (5.0)	420 (3.7)	419 (3.8)	883 (6.7)	589 (2.5)

Highest quarter 1 exposure is 775 $\mu g/m3$ for Outdoor workers Highest quarter 2 exposure is 525 $\mu g/m3$ for Outdoor workers Highest quarter 3 exposure is 555 $\mu g/m3$ for Outdoor workers Highest quarter 4 exposure is 1051 $\mu g/m3$ for Outdoor workers Highest annual exposure is 727 $\mu g/m3$ for Outdoor workers

San Francisco: State=California (06), County=Contra Costa County (013)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=803732, HAPEM Population=455259, District 19 HAPEM Population=123288 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	342373	791 (6.3)	551 (4.6)	580 (5.0)	976 (7.8)	724 (3.0)
African americans	51028	711 (9.5)	537 (6.3)	507 (7.1)	686 (7.8)	610 (3.9)
Hispanics	37423	750 (8.3)	547 (5.9)	544 (5.7)	829 (8.2)	667 (3.5)
Household income lt \$10K	44465	715 (5.6)	520 (3.9)	505 (3.5)	771 (5.2)	628 (2.3)
Household income \$10K-\$25K	84028	775 (6.1)	558 (5.1)	571 (5.9)	894 (6.9)	700 (3.0)
Household income \$25K-\$50K	125573	789 (7.2)	559 (5.0)	575 (4.9)	927 (8.3)	713 (3.3)
Household income \$50K-\$75K	91152	793 (5.1)	557 (4.1)	575 (4.7)	953 (6.1)	719 (2.5)
Household income gt \$75K	97019	782 (5.5)	533 (3.5)	568 (3.9)	989 (6.9)	718 (2.6)
Children, 0 to 17	105832	772 (5.7)	548 (4.2)	563 (4.3)	909 (6.5)	698 (2.6)
Nonworking men, 18 to 44	24071	804 (6.9)	565 (5.2)	555 (4.7)	916 (8.0)	710 (3.2)
Working men, 18 to 44	67052	819 (4.3)	575 (3.1)	603 (3.5)	995 (5.0)	748 (2.0)
Nonworking women, 18 to 44	41064	750 (5.4)	531 (3.5)	539 (3.5)	875 (5.9)	674 (2.3)
Working women, 18 to 44	55747	776 (2.9)	541 (2.1)	562 (2.3)	937 (3.4)	704 (1.4)
Nonworking men, 45 to 64	12444	741 (2.6)	548 (5.3)	591 (8.1)	868 (2.7)	687 (2.6)
Working men, 45 to 64	34943	827 (4.0)	571 (2.6)	597 (2.7)	1020 (4.9)	754 (1.8)
Nonworking women, 45 to 64	21910	727 (3.7)	511 (2.8)	534 (3.6)	864 (3.9)	659 (1.8)
Working women, 45 to 64	28493	770 (3.7)	539 (2.8)	568 (2.9)	943 (4.5)	705 (1.8)
Men, 65+	27223	778 (6.3)	554 (4.4)	567 (4.0)	921 (7.1)	705 (2.8)
Women, 65+	31375	737 (5.1)	520 (3.7)	534 (3.3)	873 (5.5)	666 (2.2)
Outdoor workers	10489	902 (4.3)	644 (2.8)	686 (2.7)	1069 (5.2)	826 (2.0)
Outdoor children	30493	813 (4.2)	569 (3.4)	581 (4.1)	957 (4.5)	730 (2.0)
Heart and respiratory	66747	737 (4.7)	527 (3.6)	548 (3.6)	882 (5.5)	674 (2.2)
All persons	455259	784 (6.3)	551 (4.5)	569 (4.8)	929 (7.1)	708 (2.9)

Highest quarter 1 exposure is 902 $\mu g/m3$ for Outdoor workers Highest quarter 2 exposure is 644 $\mu g/m3$ for Outdoor workers Highest quarter 3 exposure is 686 $\mu g/m3$ for Outdoor workers Highest quarter 4 exposure is 1069 $\mu g/m3$ for Outdoor workers Highest annual exposure is 826 $\mu g/m3$ for Outdoor workers

San Francisco: State=California (06), County=Marin County (041)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=230096, HAPEM Population=71880, District 19 HAPEM Population=71880 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	58517	748 (10.1)	506 (7.2)	545 (8.0)	991 (13.0)	698 (4.9)
African americans	5290	722 (10.3)	488 (6.4)	533 (8.1)	955 (11.8)	675 (4.7)
Hispanics	7165	731 (12.3)	496 (8.0)	536 (8.7)	973 (15.6)	684 (5.8)
Household income lt \$10K	5449	703 (7.5)	473 (5.2)	505 (5.3)	933 (9.2)	654 (3.5)
Household income \$10K-\$25K	13995	743 (9.5)	506 (7.7)	549 (9.5)	988 (12.6)	697 (5.0)
Household income \$25K-\$50K	19623	749 (11.4)	506 (7.6)	544 (7.8)	992 (14.6)	698 (5.4)
Household income \$50K-\$75K	12146	758 (8.5)	511 (6.7)	548 (7.8)	1006 (10.9)	706 (4.3)
Household income gt \$75K	17676	747 (8.5)	499 (5.4)	538 (6.1)	986 (10.9)	693 (4.0)
Children, 0 to 17	11363	744 (9.4)	504 (6.8)	543 (7.3)	983 (12.1)	694 (4.6)
Nonworking men, 18 to 44	8319	777 (11.1)	515 (7.7)	539 (7.6)	1028 (15.5)	715 (5.5)
Working men, 18 to 44	11079	787 (6.9)	530 (4.9)	580 (5.7)	1047 (8.6)	737 (3.3)
Nonworking women, 18 to 44	5468	722 (8.8)	485 (5.5)	520 (5.9)	956 (11.1)	671 (4.1)
Working women, 18 to 44	9439	744 (4.6)	496 (3.3)	538 (3.8)	990 (5.8)	692 (2.2)
Nonworking men, 45 to 64	2477	714 (4.4)	503 (8.3)	571 (13.6)	944 (5.2)	683 (4.3)
Working men, 45 to 64	6253	796 (6.5)	530 (4.2)	575 (4.4)	1059 (8.2)	740 (3.0)
Nonworking women, 45 to 64	3280	697 (6.3)	470 (4.6)	511 (6.1)	918 (7.1)	649 (3.0)
Working women, 45 to 64	5386	740 (5.9)	499 (4.4)	545 (4.5)	985 (7.8)	692 (2.9)
Men, 65+	3682	740 (10.0)	504 (6.9)	537 (6.4)	980 (12.6)	691 (4.7)
Women, 65+	3933	696 (8.0)	470 (5.7)	501 (5.2)	918 (9.7)	647 (3.7)
Outdoor workers	1567	878 (7.1)	594 (4.6)	672 (4.5)	1162 (9.0)	827 (3.3)
Outdoor children	3083	783 (6.9)	525 (5.6)	561 (7.0)	1031 (8.3)	725 (3.5)
Heart and respiratory	10269	704 (7.7)	481 (5.9)	522 (6.1)	935 (10.0)	661 (3.8)
All persons	71880	750 (10.4)	505 (7.3)	544 (8.0)	991 (13.1)	698 (5.0)

Highest quarter 1 exposure is 878 $\mu g/m3$ for Outdoor workers Highest quarter 2 exposure is 594 $\mu g/m3$ for Outdoor workers Highest quarter 3 exposure is 672 $\mu g/m3$ for Outdoor workers Highest quarter 4 exposure is 1162 $\mu g/m3$ for Outdoor workers Highest annual exposure is 827 $\mu g/m3$ for Outdoor workers

San Francisco: State=California (06), County=San Francisco County (075)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=723959, HAPEM Population=722506, District 19 HAPEM Population=25661 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	387228	1031 (10.9)	756 (8.0)	771 (8.6)	991 (9.4)	887 (4.6)
African americans	78825	919 (9.0)	721 (6.6)	725 (7.7)	979 (8.4)	836 (4.0)
Hispanics	96485	889 (11.1)	725 (8.9)	709 (8.4)	1015 (12.8)	835 (5.2)
Household income lt \$10K	113002	961 (8.3)	709 (5.7)	713 (5.7)	939 (7.1)	830 (3.4)
Household income \$10K-\$25K	175270	1012 (9.9)	753 (8.3)	771 (9.9)	991 (8.9)	881 (4.6)
Household income \$25K-\$50K	231649	1014 (11.7)	752 (8.1)	761 (7.9)	999 (10.4)	881 (4.8)
Household income \$50K-\$75K	113174	1013 (8.6)	757 (7.0)	761 (7.8)	1015 (7.8)	886 (3.9)
Household income gt \$75K	87194	1006 (8.2)	744 (5.8)	755 (6.4)	988 (7.4)	873 (3.5)
Children, 0 to 17	116681	963 (8.8)	742 (7.0)	742 (7.0)	1005 (8.7)	863 (4.0)
Nonworking men, 18 to 44	55088	1067 (12.1)	769 (8.4)	759 (8.0)	1038 (11.4)	908 (5.1)
Working men, 18 to 44	124963	1044 (6.5)	764 (4.6)	781 (5.0)	1034 (5.5)	905 (2.7)
Nonworking women, 18 to 44	74437	980 (9.2)	722 (5.9)	728 (6.2)	964 (8.0)	848 (3.7)
Working women, 18 to 44	102397	987 (4.7)	720 (3.2)	731 (3.5)	979 (3.7)	854 (1.9)
Nonworking men, 45 to 64	22317	974 (4.4)	750 (8.9)	805 (14.3)	952 (3.6)	870 (4.5)
Working men, 45 to 64	46482	1038 (5.6)	758 (3.7)	765 (3.8)	1045 (5.0)	901 (2.3)
Nonworking women, 45 to 64	30315	943 (6.9)	697 (4.9)	714 (6.2)	927 (5.3)	820 (2.9)
Working women, 45 to 64	38766	972 (5.6)	719 (4.2)	735 (4.3)	977 (4.9)	851 (2.4)
Men, 65+	51609	1023 (11.5)	753 (7.6)	760 (6.9)	986 (9.7)	880 (4.5)
Women, 65+	53409	956 (8.9)	699 (6.2)	705 (5.6)	923 (7.3)	820 (3.5)
Outdoor workers	16162	1107 (5.7)	827 (3.7)	857 (3.5)	1147 (5.2)	984 (2.3)
Outdoor children	33311	1012 (6.7)	773 (5.8)	766 (6.7)	1055 (6.2)	901 (3.2)
Heart and respiratory	108408	955 (8.3)	716 (6.3)	732 (6.4)	939 (7.4)	835 (3.6)
All persons	722506	1017 (10.8)	752 (7.8)	762 (8.3)	998 (9.4)	882 (4.6)

Highest quarter 1 exposure is $1107 \, \mu g/m3$ for Outdoor workers Highest quarter 2 exposure is $827 \, \mu g/m3$ for Outdoor workers Highest quarter 3 exposure is $857 \, \mu g/m3$ for Outdoor workers Highest quarter 4 exposure is $1147 \, \mu g/m3$ for Outdoor workers Highest annual exposure is $984 \, \mu g/m3$ for Outdoor workers

San Francisco: State=California (06), County=San Mateo County (081)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=649623, HAPEM Population=649623, District 19 HAPEM Population=385703 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	467853	693 (6.8)	530 (5.1)	542 (5.5)	958 (9.0)	681 (3.4)
African americans	34580	652 (6.4)	524 (4.4)	533 (5.3)	914 (7.9)	656 (3.1)
Hispanics	113090	682 (7.7)	532 (5.5)	542 (5.7)	945 (10.0)	676 (3.7)
Household income lt \$10K	55808	659 (5.1)	497 (3.7)	507 (3.7)	907 (6.5)	643 (2.4)
Household income \$10K-\$25K	110384	694 (6.1)	540 (5.3)	554 (6.3)	961 (8.3)	688 (3.3)
Household income \$25K-\$50K	205099	705 (7.8)	533 (5.4)	546 (5.4)	968 (10.2)	688 (3.7)
Household income \$50K-\$75K	140235	713 (5.8)	537 (4.8)	549 (5.4)	981 (7.8)	695 (3.0)
Household income gt \$75K	121443	687 (5.7)	524 (3.8)	535 (4.1)	950 (7.5)	674 (2.7)
Children, 0 to 17	141286	695 (6.2)	533 (4.7)	545 (4.9)	957 (8.2)	683 (3.1)
Nonworking men, 18 to 44	36144	723 (7.1)	545 (5.4)	541 (5.1)	995 (10.2)	701 (3.6)
Working men, 18 to 44	106635	737 (4.9)	557 (3.7)	580 (4.2)	1015 (6.3)	723 (2.4)
Nonworking women, 18 to 44	57023	671 (5.8)	512 (3.9)	521 (4.0)	927 (7.6)	658 (2.8)
Working women, 18 to 44	88367	696 (3.2)	523 (2.5)	539 (2.7)	959 (4.2)	680 (1.6)
Nonworking men, 45 to 64	16287	668 (3.0)	531 (5.9)	572 (9.3)	918 (3.6)	673 (3.0)
Working men, 45 to 64	47908	750 (4.7)	555 (3.1)	575 (3.2)	1030 (6.1)	728 (2.2)
Nonworking women, 45 to 64	27022	651 (4.2)	494 (3.3)	512 (4.2)	891 (5.0)	637 (2.1)
Working women, 45 to 64	39538	696 (4.2)	524 (3.3)	546 (3.3)	957 (5.7)	681 (2.1)
Men, 65+	39055	691 (6.7)	529 (4.9)	537 (4.4)	951 (8.8)	677 (3.2)
Women, 65+	41253	650 (5.5)	493 (4.1)	501 (3.6)	890 (6.8)	634 (2.6)
Outdoor workers	19768	834 (5.2)	622 (3.4)	671 (3.3)	1130 (6.6)	815 (2.4)
Outdoor children	39485	734 (4.6)	554 (3.9)	563 (4.7)	1006 (5.8)	715 (2.4)
Heart and respiratory	93678	657 (5.2)	507 (4.2)	522 (4.1)	908 (7.0)	649 (2.6)
All persons	649623	701 (6.9)	532 (5.1)	545 (5.5)	963 (9.0)	686 (3.4)

Highest quarter 1 exposure is 834 $\mu g/m3$ for Outdoor workers Highest quarter 2 exposure is 622 $\mu g/m3$ for Outdoor workers Highest quarter 3 exposure is 671 $\mu g/m3$ for Outdoor workers Highest quarter 4 exposure is 1130 $\mu g/m3$ for Outdoor workers Highest annual exposure is 815 $\mu g/m3$ for Outdoor workers

San Francisco: State=California (06), County=Santa Clara County (085)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=1497577, HAPEM Population=1321940, District 19 HAPEM Population=358991 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	901818	762 (5.7)	404 (3.2)	598 (4.9)	1239 (9.2)	752 (3.1)
African americans	50892	799 (7.2)	459 (4.0)	600 (5.6)	1270 (9.6)	783 (3.5)
Hispanics	266383	837 (10.1)	483 (6.0)	612 (6.9)	1347 (15.4)	820 (5.2)
Household income lt \$10K	107886	756 (4.6)	417 (2.9)	567 (3.5)	1229 (6.9)	743 (2.4)
Household income \$10K-\$25K	241616	793 (5.9)	440 (4.1)	614 (6.1)	1295 (9.9)	786 (3.4)
Household income \$25K-\$50K	425890	788 (6.8)	424 (3.8)	605 (4.9)	1281 (10.8)	775 (3.6)
Household income \$50K-\$75K	277990	795 (4.9)	428 (3.3)	607 (4.9)	1287 (7.9)	780 (2.8)
Household income gt \$75K	255024	762 (4.9)	416 (2.6)	584 (3.7)	1203 (7.5)	742 (2.5)
Children, 0 to 17	306803	800 (5.9)	444 (3.8)	606 (4.8)	1283 (9.2)	784 (3.1)
Nonworking men, 18 to 44	76437	826 (6.9)	459 (4.1)	600 (4.8)	1334 (12.2)	805 (3.9)
Working men, 18 to 44	251953	822 (4.3)	448 (2.8)	637 (3.9)	1321 (6.6)	808 (2.3)
Nonworking women, 18 to 44	124577	762 (5.2)	416 (2.8)	578 (3.7)	1235 (8.2)	748 (2.7)
Working women, 18 to 44	191549	773 (2.9)	412 (1.9)	591 (2.5)	1250 (4.6)	758 (1.6)
Nonworking men, 45 to 64	27407	748 (2.6)	430 (4.2)	630 (8.5)	1198 (3.7)	753 (2.6)
Working men, 45 to 64	94148	821 (4.0)	441 (2.3)	626 (2.9)	1311 (6.1)	800 (2.0)
Nonworking women, 45 to 64	48286	722 (3.4)	394 (2.2)	562 (3.7)	1153 (4.9)	708 (1.9)
Working women, 45 to 64	72137	759 (3.6)	408 (2.3)	595 (3.0)	1221 (5.8)	747 (2.0)
Men, 65+	57979	752 (5.4)	407 (3.1)	588 (3.9)	1217 (8.6)	742 (2.8)
Women, 65+	58428	704 (4.3)	376 (2.5)	548 (3.2)	1136 (6.6)	692 (2.2)
Outdoor workers	39534	929 (4.6)	511 (2.6)	734 (3.1)	1477 (7.0)	914 (2.3)
Outdoor children	85473	840 (4.2)	466 (3.1)	625 (4.5)	1338 (6.2)	818 (2.3)
Heart and respiratory	174404	733 (4.3)	402 (2.8)	576 (3.7)	1186 (6.9)	725 (2.3)
All persons	1321940	787 (6.0)	428 (3.6)	602 (5.0)	1267 (9.4)	772 (3.2)

Highest quarter 1 exposure is 929 $\mu g/m3$ for Outdoor workers Highest quarter 2 exposure is 511 $\mu g/m3$ for Outdoor workers Highest quarter 3 exposure is 734 $\mu g/m3$ for Outdoor workers Highest quarter 4 exposure is 1477 $\mu g/m3$ for Outdoor workers Highest annual exposure is 914 $\mu g/m3$ for Outdoor workers

San Francisco: State=California (06), County=Santa Cruz County (087)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=229734, HAPEM Population=12867, District 19 HAPEM Population=12867 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Couragions	12284	748 (10.1)	506 (7.2)	545 (8.0)	991 (13.0)	600 (4 0)
Caucasians		, ,	' ' '	, ,	, ,	698 (4.9)
African americans	14	722 (10.3)	488 (6.4)	533 (8.1)	955 (11.8)	675 (4.7)
Hispanics	645	731 (12.3)	496 (8.0)	536 (8.7)	973 (15.6)	684 (5.8)
Household income lt \$10K	2243	703 (7.5)	473 (5.2)	505 (5.3)	933 (9.2)	654 (3.5)
Household income \$10K-\$25K	2450	743 (9.5)	506 (7.7)	549 (9.5)	988 (12.6)	697 (5.0)
Household income \$25K-\$50K	2848	749 (11.4)	506 (7.6)	544 (7.8)	992 (14.6)	698 (5.4)
Household income \$50K-\$75K	2383	758 (8.5)	511 (6.7)	548 (7.8)	1006 (10.9)	706 (4.3)
Household income gt \$75K	2247	747 (8.5)	499 (5.4)	538 (6.1)	986 (10.9)	693 (4.0)
Children, 0 to 17	3608	744 (9.4)	504 (6.8)	543 (7.3)	983 (12.1)	694 (4.6)
Nonworking men, 18 to 44	608	777 (11.1)	515 (7.7)	539 (7.6)	1028 (15.5)	715 (5.5)
Working men, 18 to 44	2701	787 (6.9)	530 (4.9)	580 (5.7)	1047 (8.6)	737 (3.3)
Nonworking women, 18 to 44	1201	722 (8.8)	485 (5.5)	520 (5.9)	956 (11.1)	671 (4.1)
Working women, 18 to 44	1854	744 (4.6)	496 (3.3)	538 (3.8)	990 (5.8)	692 (2.2)
Nonworking men, 45 to 64	207	714 (4.4)	503 (8.3)	571 (13.6)	944 (5.2)	683 (4.3)
Working men, 45 to 64	894	796 (6.5)	530 (4.2)	575 (4.4)	1059 (8.2)	740 (3.0)
Nonworking women, 45 to 64	385	697 (6.3)	470 (4.6)	511 (6.1)	918 (7.1)	649 (3.0)
Working women, 45 to 64	591	740 (5.9)	499 (4.4)	545 (4.5)	985 (7.8)	692 (2.9)
Men, 65+	310	740 (10.0)	504 (6.9)	537 (6.4)	980 (12.6)	691 (4.7)
Women, 65+	283	696 (8.0)	470 (5.7)	501 (5.2)	918 (9.7)	647 (3.7)
Outdoor workers	405	878 (7.1)	594 (4.6)	672 (4.5)	1162 (9.0)	827 (3.3)
Outdoor children	1026	783 (6.9)	525 (5.6)	561 (7.0)	1031 (8.3)	725 (3.5)
Heart and respiratory	1523	704 (7.7)	481 (5.9)	522 (6.1)	935 (10.0)	661 (3.8)
All persons	12867	750 (10.4)	505 (7.3)	544 (8.0)	991 (13.1)	698 (5.0)

Highest quarter 1 exposure is 878 $\mu g/m3$ for Outdoor workers Highest quarter 2 exposure is 594 $\mu g/m3$ for Outdoor workers Highest quarter 3 exposure is 672 $\mu g/m3$ for Outdoor workers Highest quarter 4 exposure is 1162 $\mu g/m3$ for Outdoor workers Highest annual exposure is 827 $\mu g/m3$ for Outdoor workers

Spokane: Citywide

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=361364, HAPEM Population=361364, District 19 HAPEM Population=128488 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	342652	1273 (9.6)	987 (7.9)	1115 (8.2)	1273 (9.7)	1162 (4.5)
African americans	5067	1311 (11.7)	1025 (7.6)	1164 (8.3)	1315 (11.6)	1204 (5.0)
Hispanics	5851	1225 (11.4)	972 (8.4)	1093 (8.6)	1224 (11.2)	1128 (5.0)
Household income lt \$10K	71478	1190 (7.2)	917 (5.6)	1036 (5.7)	1185 (7.3)	1082 (3.2)
Household income \$10K-\$25K	129404	1239 (8.9)	970 (8.2)	1095 (8.6)	1239 (9.1)	1136 (4.4)
Household income \$25K-\$50K	112434	1276 (11.5)	990 (8.7)	1121 (8.7)	1276 (11.5)	1166 (5.1)
Household income \$50K-\$75K	32016	1290 (8.1)	1007 (8.0)	1132 (8.9)	1293 (8.3)	1180 (4.2)
Household income gt \$75K	14077	1386 (10.0)	1070 (7.1)	1199 (7.0)	1399 (10.2)	1263 (4.4)
Children, 0 to 17	95321	1263 (8.8)	982 (7.7)	1118 (8.3)	1264 (8.9)	1157 (4.2)
Nonworking men, 18 to 44	24674	1338 (7.8)	1003 (7.4)	1139 (7.2)	1332 (8.1)	1203 (3.8)
Working men, 18 to 44	44894	1367 (7.1)	1062 (5.8)	1186 (6.0)	1374 (7.4)	1247 (3.3)
Nonworking women, 18 to 44	38329	1239 (9.6)	950 (6.4)	1073 (6.3)	1236 (9.6)	1124 (4.1)
Working women, 18 to 44	36216	1307 (5.3)	985 (4.0)	1119 (4.4)	1305 (5.4)	1179 (2.4)
Nonworking men, 45 to 64	10401	1202 (5.5)	981 (9.0)	1119 (10.6)	1208 (5.9)	1128 (4.0)
Working men, 45 to 64	18881	1382 (7.0)	1051 (4.9)	1172 (4.8)	1384 (7.1)	1247 (3.0)
Nonworking women, 45 to 64	16039	1218 (9.0)	913 (5.6)	1037 (6.5)	1214 (8.9)	1095 (3.8)
Working women, 45 to 64	15310	1276 (5.4)	976 (4.8)	1094 (4.7)	1278 (5.7)	1156 (2.6)
Men, 65+	23018	1242 (8.3)	985 (7.3)	1133 (6.6)	1257 (9.1)	1154 (3.9)
Women, 65+	24864	1203 (7.3)	918 (6.1)	1047 (6.2)	1208 (7.8)	1094 (3.5)
Outdoor workers	9015	1578 (7.6)	1224 (5.7)	1405 (5.4)	1591 (8.0)	1449 (3.4)
Outdoor children	28052	1349 (8.2)	1031 (7.0)	1160 (7.8)	1349 (8.2)	1222 (3.9)
Heart and respiratory	52149	1177 (5.2)	934 (6.4)	1064 (7.7)	1181 (5.9)	1089 (3.2)
All persons	361364	1293 (10.5)	990 (8.1)	1114 (8.2)	1293 (10.6)	1172 (4.7)

Highest quarter 1 exposure is $1578~\mu g/m3$ for Outdoor workers Highest quarter 2 exposure is $1224~\mu g/m3$ for Outdoor workers Highest quarter 3 exposure is $1405~\mu g/m3$ for Outdoor workers Highest quarter 4 exposure is $1591~\mu g/m3$ for Outdoor workers Highest annual exposure is $1449~\mu g/m3$ for Outdoor workers

Spokane: State=Washington (53), County=Spokane County (063)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=361364, HAPEM Population=361364, District 19 HAPEM Population=128488 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	342652	1273 (9.6)	987 (7.9)	1115 (8.2)	1273 (9.7)	1162 (4.5)
African americans	5067	1311 (11.7)	1025 (7.6)	1164 (8.3)	1315 (11.6)	1204 (5.0)
Hispanics	5851	1225 (11.4)	972 (8.4)	1093 (8.6)	1224 (11.2)	1128 (5.0)
Household income lt \$10K	71478	1190 (7.2)	917 (5.6)	1036 (5.7)	1185 (7.3)	1082 (3.2)
Household income \$10K-\$25K	129404	1239 (8.9)	970 (8.2)	1095 (8.6)	1239 (9.1)	1136 (4.4)
Household income \$25K-\$50K	112434	1276 (11.5)	990 (8.7)	1121 (8.7)	1276 (11.5)	1166 (5.1)
Household income \$50K-\$75K	32016	1290 (8.1)	1007 (8.0)	1132 (8.9)	1293 (8.3)	1180 (4.2)
Household income gt \$75K	14077	1386 (10.0)	1070 (7.1)	1199 (7.0)	1399 (10.2)	1263 (4.4)
Children, 0 to 17	95321	1263 (8.8)	982 (7.7)	1118 (8.3)	1264 (8.9)	1157 (4.2)
Nonworking men, 18 to 44	24674	1338 (7.8)	1003 (7.4)	1139 (7.2)	1332 (8.1)	1203 (3.8)
Working men, 18 to 44	44894	1367 (7.1)	1062 (5.8)	1186 (6.0)	1374 (7.4)	1247 (3.3)
Nonworking women, 18 to 44	38329	1239 (9.6)	950 (6.4)	1073 (6.3)	1236 (9.6)	1124 (4.1)
Working women, 18 to 44	36216	1307 (5.3)	985 (4.0)	1119 (4.4)	1305 (5.4)	1179 (2.4)
Nonworking men, 45 to 64	10401	1202 (5.5)	981 (9.0)	1119 (10.6)	1208 (5.9)	1128 (4.0)
Working men, 45 to 64	18881	1382 (7.0)	1051 (4.9)	1172 (4.8)	1384 (7.1)	1247 (3.0)
Nonworking women, 45 to 64	16039	1218 (9.0)	913 (5.6)	1037 (6.5)	1214 (8.9)	1095 (3.8)
Working women, 45 to 64	15310	1276 (5.4)	976 (4.8)	1094 (4.7)	1278 (5.7)	1156 (2.6)
Men, 65+	23018	1242 (8.3)	985 (7.3)	1133 (6.6)	1257 (9.1)	1154 (3.9)
Women, 65+	24864	1203 (7.3)	918 (6.1)	1047 (6.2)	1208 (7.8)	1094 (3.5)
Outdoor workers	9015	1578 (7.6)	1224 (5.7)	1405 (5.4)	1591 (8.0)	1449 (3.4)
Outdoor children	28052	1349 (8.2)	1031 (7.0)	1160 (7.8)	1349 (8.2)	1222 (3.9)
Heart and respiratory	52149	1177 (5.2)	934 (6.4)	1064 (7.7)	1181 (5.9)	1089 (3.2)
All persons	361364	1293 (10.5)	990 (8.1)	1114 (8.2)	1293 (10.6)	1172 (4.7)

Highest quarter 1 exposure is $1578~\mu g/m3$ for Outdoor workers Highest quarter 2 exposure is $1224~\mu g/m3$ for Outdoor workers Highest quarter 3 exposure is $1405~\mu g/m3$ for Outdoor workers Highest quarter 4 exposure is $1591~\mu g/m3$ for Outdoor workers Highest annual exposure is $1449~\mu g/m3$ for Outdoor workers

St. Louis: Citywide

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=1774345, HAPEM Population=1698929, District 19 HAPEM Population=374714 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	1340571	434 (2.4)	388 (2.0)	379 (2.0)	477 (2.6)	420 (1.1)
African americans	330864	444 (4.3)	423 (3.5)	439 (3.7)	635 (6.4)	485 (2.3)
Hispanics	17238	426 (2.8)	385 (2.3)	373 (2.0)	486 (3.1)	417 (1.3)
Household income lt \$10K	276973	421 (2.0)	393 (1.8)	392 (1.8)	562 (3.0)	442 (1.1)
Household income \$10K-\$25K	458985	438 (2.2)	397 (1.9)	392 (2.0)	518 (2.5)	436 (1.1)
Household income \$25K-\$50K	588871	437 (2.6)	394 (2.2)	391 (2.0)	493 (2.9)	429 (1.2)
Household income \$50K-\$75K	234170	438 (2.0)	395 (1.9)	389 (2.0)	484 (2.1)	427 (1.0)
Household income gt \$75K	126727	425 (2.0)	382 (1.6)	369 (1.4)	451 (2.1)	407 (0.9)
Children, 0 to 17	436471	433 (2.0)	396 (1.9)	396 (1.9)	512 (2.6)	435 (1.1)
Nonworking men, 18 to 44	94484	463 (2.4)	423 (2.3)	417 (2.0)	563 (3.3)	467 (1.3)
Working men, 18 to 44	243275	471 (1.7)	418 (1.4)	404 (1.3)	525 (1.7)	454 (0.8)
Nonworking women, 18 to 44	162130	426 (2.2)	386 (1.6)	382 (1.5)	504 (2.4)	425 (1.0)
Working women, 18 to 44	210241	449 (1.1)	400 (0.9)	392 (1.0)	507 (1.2)	437 (0.5)
Nonworking men, 45 to 64	42034	418 (1.2)	391 (1.7)	397 (2.3)	507 (1.2)	428 (0.8)
Working men, 45 to 64	107764	469 (1.5)	414 (1.1)	399 (0.9)	522 (1.5)	451 (0.7)
Nonworking women, 45 to 64	73505	406 (1.5)	371 (1.3)	370 (1.4)	481 (1.7)	407 (0.7)
Working women, 45 to 64	92501	438 (1.3)	392 (1.1)	385 (1.0)	495 (1.4)	428 (0.6)
Men, 65+	101800	428 (2.1)	401 (1.8)	400 (1.5)	509 (2.5)	434 (1.0)
Women, 65+	115889	410 (1.8)	377 (1.6)	374 (1.5)	485 (2.0)	412 (0.9)
Outdoor workers	43425	536 (1.8)	476 (1.3)	470 (1.0)	598 (1.8)	520 (0.8)
Outdoor children	125883	456 (1.6)	411 (1.5)	409 (1.7)	537 (1.9)	453 (0.9)
Heart and respiratory	244954	412 (1.6)	378 (1.7)	377 (1.8)	481 (1.9)	412 (0.9)
All persons	1698929	442 (2.4)	398 (2.0)	393 (1.9)	514 (2.7)	437 (1.1)

Highest quarter 1 exposure is 536 μ g/m3 for Outdoor workers Highest quarter 2 exposure is 476 μ g/m3 for Outdoor workers Highest quarter 3 exposure is 470 μ g/m3 for Outdoor workers Highest quarter 4 exposure is 635 μ g/m3 for African americans Highest annual exposure is 520 μ g/m3 for Outdoor workers

St. Louis: State=Missouri (29), County=Jefferson County (099)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=171380, HAPEM Population=133376, District 19 HAPEM Population=133376 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	131766	456 (6.1)	402 (5.2)	393 (5.0)	516 (6.7)	442 (2.9)
African americans	606	443 (7.1)	388 (5.0)	380 (4.9)	498 (7.3)	427 (3.1)
Hispanics	799	445 (7.8)	394 (6.3)	384 (5.6)	503 (8.5)	432 (3.6)
Household income lt \$10K	16140	430 (4.6)	379 (3.7)	369 (3.4)	485 (5.0)	416 (2.1)
Household income \$10K-\$25K	37620	453 (5.8)	399 (5.1)	390 (5.2)	512 (6.3)	438 (2.8)
Household income \$25K-\$50K	58225	457 (6.9)	403 (5.6)	394 (5.1)	516 (7.6)	443 (3.2)
Household income \$50K-\$75K	17380	461 (5.0)	406 (4.8)	398 (5.0)	522 (5.6)	447 (2.6)
Household income gt \$75K	4005	454 (5.1)	399 (4.0)	390 (3.7)	517 (5.7)	440 (2.4)
Children, 0 to 17	39743	454 (5.4)	401 (5.0)	394 (4.9)	513 (6.3)	440 (2.7)
Nonworking men, 18 to 44	6841	478 (6.5)	420 (5.9)	408 (4.8)	537 (7.4)	461 (3.1)
Working men, 18 to 44	20796	479 (4.5)	419 (3.6)	403 (3.4)	535 (4.7)	459 (2.1)
Nonworking women, 18 to 44	12082	442 (6.0)	388 (4.2)	380 (3.9)	498 (6.0)	427 (2.6)
Working women, 18 to 44	16349	455 (3.1)	398 (2.6)	388 (2.6)	509 (3.3)	438 (1.5)
Nonworking men, 45 to 64	2674	438 (3.4)	392 (4.4)	390 (5.8)	492 (2.9)	428 (2.1)
Working men, 45 to 64	7973	483 (4.3)	419 (3.1)	400 (2.6)	540 (4.4)	461 (1.8)
Nonworking women, 45 to 64	4768	430 (4.4)	377 (3.6)	370 (3.8)	484 (4.5)	415 (2.0)
Working women, 45 to 64	6232	451 (3.7)	395 (3.1)	383 (2.8)	506 (4.0)	434 (1.7)
Men, 65+	4916	448 (5.9)	406 (4.9)	401 (4.0)	509 (6.6)	441 (2.7)
Women, 65+	5041	428 (5.0)	380 (4.3)	373 (4.1)	481 (5.2)	416 (2.3)
Outdoor workers	4639	538 (4.7)	474 (3.3)	463 (2.6)	591 (4.7)	516 (2.0)
Outdoor children	11470	478 (4.3)	417 (4.0)	407 (4.3)	539 (4.7)	460 (2.2)
Heart and respiratory	16927	429 (4.4)	382 (4.7)	376 (4.9)	484 (4.9)	418 (2.4)
All persons	133376	460 (6.5)	402 (5.3)	392 (5.0)	518 (7.0)	443 (3.0)

Highest quarter 1 exposure is 538 μ g/m3 for Outdoor workers Highest quarter 2 exposure is 474 μ g/m3 for Outdoor workers Highest quarter 3 exposure is 463 μ g/m3 for Outdoor workers Highest quarter 4 exposure is 591 μ g/m3 for Outdoor workers Highest annual exposure is 516 μ g/m3 for Outdoor workers

St. Louis: State=Missouri (29), County=St. Charles County (183)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=212751, HAPEM Population=175339, District 19 HAPEM Population=175339 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	169926	456 (6.1)	402 (5.2)	393 (5.0)	516 (6.7)	442 (2.9)
African americans	3219	443 (7.1)	388 (5.0)	380 (4.9)	498 (7.3)	427 (3.1)
Hispanics	2098	445 (7.8)	394 (6.3)	384 (5.6)	503 (8.5)	432 (3.6)
Household income lt \$10K	13408	430 (4.6)	379 (3.7)	369 (3.4)	485 (5.0)	416 (2.1)
Household income \$10K-\$25K	48829	453 (5.8)	399 (5.1)	390 (5.2)	512 (6.3)	438 (2.8)
Household income \$25K-\$50K	70957	457 (6.9)	403 (5.6)	394 (5.1)	516 (7.6)	443 (3.2)
Household income \$50K-\$75K	31027	461 (5.0)	406 (4.8)	398 (5.0)	522 (5.6)	447 (2.6)
Household income gt \$75K	11099	454 (5.1)	399 (4.0)	390 (3.7)	517 (5.7)	440 (2.4)
Children, 0 to 17	52771	454 (5.4)	401 (5.0)	394 (4.9)	513 (6.3)	440 (2.7)
Nonworking men, 18 to 44	6768	478 (6.5)	420 (5.9)	408 (4.8)	537 (7.4)	461 (3.1)
Working men, 18 to 44	30652	479 (4.5)	419 (3.6)	403 (3.4)	535 (4.7)	459 (2.1)
Nonworking women, 18 to 44	14497	442 (6.0)	388 (4.2)	380 (3.9)	498 (6.0)	427 (2.6)
Working women, 18 to 44	24249	455 (3.1)	398 (2.6)	388 (2.6)	509 (3.3)	438 (1.5)
Nonworking men, 45 to 64	2504	438 (3.4)	392 (4.4)	390 (5.8)	492 (2.9)	428 (2.1)
Working men, 45 to 64	10386	483 (4.3)	419 (3.1)	400 (2.6)	540 (4.4)	461 (1.8)
Nonworking women, 45 to 64	5142	430 (4.4)	377 (3.6)	370 (3.8)	484 (4.5)	415 (2.0)
Working women, 45 to 64	8260	451 (3.7)	395 (3.1)	383 (2.8)	506 (4.0)	434 (1.7)
Men, 65+	5677	448 (5.9)	406 (4.9)	401 (4.0)	509 (6.6)	441 (2.7)
Women, 65+	5895	428 (5.0)	380 (4.3)	373 (4.1)	481 (5.2)	416 (2.3)
Outdoor workers	5029	538 (4.7)	474 (3.3)	463 (2.6)	591 (4.7)	516 (2.0)
Outdoor children	15030	478 (4.3)	417 (4.0)	407 (4.3)	539 (4.7)	460 (2.2)
Heart and respiratory	21613	429 (4.4)	382 (4.7)	376 (4.9)	484 (4.9)	418 (2.4)
All persons	175339	460 (6.5)	402 (5.3)	392 (5.0)	518 (7.0)	443 (3.0)

Highest quarter 1 exposure is 538 μ g/m3 for Outdoor workers Highest quarter 2 exposure is 474 μ g/m3 for Outdoor workers Highest quarter 3 exposure is 463 μ g/m3 for Outdoor workers Highest quarter 4 exposure is 591 μ g/m3 for Outdoor workers Highest annual exposure is 516 μ g/m3 for Outdoor workers

St. Louis: State=Missouri (29), County=St. Louis County (189)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=993529, HAPEM Population=993529, District 19 HAPEM Population=65999 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	836603	428 (2.4)	387 (2.1)	382 (2.0)	452 (2.5)	412 (1.1)
African americans	139044	450 (3.5)	404 (2.5)	421 (2.7)	523 (3.8)	449 (1.6)
Hispanics	9491	430 (3.3)	389 (2.7)	378 (2.3)	449 (3.2)	412 (1.4)
Household income lt \$10K	108628	429 (1.9)	389 (1.5)	385 (1.4)	485 (2.0)	422 (0.9)
Household income \$10K-\$25K	245890	436 (2.4)	393 (2.1)	392 (2.2)	472 (2.4)	424 (1.1)
Household income \$25K-\$50K	364083	431 (2.8)	389 (2.3)	390 (2.1)	459 (2.9)	417 (1.3)
Household income \$50K-\$75K	160580	431 (1.9)	390 (1.9)	386 (1.9)	457 (2.0)	416 (1.0)
Household income gt \$75K	102742	418 (2.0)	377 (1.7)	363 (1.5)	428 (2.0)	396 (0.9)
Children, 0 to 17	243853	426 (2.0)	387 (1.9)	389 (1.9)	459 (2.2)	415 (1.0)
Nonworking men, 18 to 44	50028	462 (2.6)	416 (2.4)	411 (2.0)	499 (2.8)	447 (1.2)
Working men, 18 to 44	147337	470 (1.8)	416 (1.4)	404 (1.3)	493 (1.7)	445 (0.8)
Nonworking women, 18 to 44	89694	422 (2.3)	380 (1.7)	378 (1.6)	453 (2.2)	408 (1.0)
Working women, 18 to 44	126433	449 (1.3)	397 (1.0)	391 (1.0)	471 (1.2)	427 (0.6)
Nonworking men, 45 to 64	24459	411 (1.3)	380 (1.7)	386 (2.3)	449 (1.1)	407 (0.8)
Working men, 45 to 64	71781	465 (1.7)	410 (1.2)	397 (1.0)	491 (1.6)	440 (0.7)
Nonworking women, 45 to 64	44937	399 (1.6)	361 (1.4)	362 (1.5)	431 (1.6)	388 (0.8)
Working women, 45 to 64	60821	434 (1.4)	387 (1.2)	381 (1.1)	461 (1.5)	416 (0.7)
Men, 65+	61323	423 (2.3)	394 (1.9)	396 (1.6)	463 (2.5)	419 (1.1)
Women, 65+	68583	405 (2.0)	370 (1.7)	370 (1.7)	439 (2.0)	396 (0.9)
Outdoor workers	24149	537 (2.1)	475 (1.5)	473 (1.1)	566 (1.9)	513 (0.8)
Outdoor children	71563	447 (1.6)	401 (1.5)	401 (1.7)	480 (1.7)	432 (0.8)
Heart and respiratory	145309	406 (1.7)	372 (1.8)	372 (1.9)	437 (1.8)	397 (0.9)
All persons	993529	436 (2.5)	391 (2.1)	388 (2.0)	466 (2.5)	420 (1.1)

Highest quarter 1 exposure is 537 μ g/m3 for Outdoor workers Highest quarter 2 exposure is 475 μ g/m3 for Outdoor workers Highest quarter 3 exposure is 473 μ g/m3 for Outdoor workers Highest quarter 4 exposure is 566 μ g/m3 for Outdoor workers Highest annual exposure is 513 μ g/m3 for Outdoor workers

St. Louis: State=Missouri (29), County=St. Louis city (510)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=396685, HAPEM Population=396685, District 19 HAPEM Population=0 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	202276	426 (3.1)	374 (2.5)	349 (2.3)	522 (3.5)	418 (1.4)
African americans	187995	439 (5.9)	437 (4.9)	454 (5.2)	721 (9.2)	513 (3.3)
Hispanics	4850	407 (3.7)	371 (3.1)	354 (2.7)	548 (4.9)	420 (1.9)
Household income lt \$10K	138797	414 (2.9)	400 (2.7)	403 (2.7)	638 (4.8)	464 (1.7)
Household income \$10K-\$25K	126646	432 (3.1)	402 (2.9)	394 (3.1)	610 (4.5)	460 (1.7)
Household income \$25K-\$50K	95606	438 (3.5)	403 (3.0)	391 (2.7)	590 (4.8)	456 (1.8)
Household income \$50K-\$75K	25183	444 (2.5)	408 (2.5)	393 (2.6)	590 (3.4)	459 (1.4)
Household income gt \$75K	8881	455 (2.9)	416 (2.4)	401 (2.2)	599 (3.8)	468 (1.5)
Children, 0 to 17	100104	433 (3.1)	413 (3.3)	414 (3.4)	643 (5.3)	476 (2.0)
Nonworking men, 18 to 44	30847	460 (3.8)	437 (4.0)	433 (3.5)	679 (6.6)	503 (2.3)
Working men, 18 to 44	44490	466 (2.1)	424 (1.8)	406 (1.7)	620 (2.7)	479 (1.1)
Nonworking women, 18 to 44	45857	424 (3.3)	397 (2.5)	392 (2.5)	609 (4.7)	456 (1.7)
Working women, 18 to 44	43210	445 (1.5)	409 (1.3)	400 (1.4)	607 (2.1)	466 (0.8)
Nonworking men, 45 to 64	12397	423 (2.1)	411 (3.0)	419 (4.2)	628 (2.6)	471 (1.5)
Working men, 45 to 64	17624	471 (2.0)	427 (1.5)	408 (1.3)	628 (2.5)	484 (0.9)
Nonworking women, 45 to 64	18658	413 (2.5)	390 (2.2)	389 (2.5)	599 (3.6)	448 (1.4)
Working women, 45 to 64	17188	441 (1.8)	408 (1.5)	399 (1.5)	607 (2.5)	464 (0.9)
Men, 65+	29884	431 (3.0)	412 (2.7)	407 (2.3)	601 (4.6)	463 (1.6)
Women, 65+	36370	413 (2.6)	388 (2.4)	383 (2.4)	572 (3.7)	439 (1.4)
Outdoor workers	9608	530 (2.3)	482 (1.7)	470 (1.2)	686 (2.5)	542 (1.0)
Outdoor children	27820	457 (2.5)	433 (2.7)	433 (3.1)	683 (4.1)	502 (1.6)
Heart and respiratory	61105	413 (2.4)	391 (2.7)	388 (3.0)	585 (3.6)	444 (1.5)
All persons	396685	441 (3.6)	411 (3.2)	405 (3.2)	631 (5.3)	472 (2.0)

Highest quarter 1 exposure is 530 $\mu g/m3$ for Outdoor workers Highest quarter 2 exposure is 482 $\mu g/m3$ for Outdoor workers Highest quarter 3 exposure is 470 $\mu g/m3$ for Outdoor workers Highest quarter 4 exposure is 721 $\mu g/m3$ for African americans Highest annual exposure is 542 $\mu g/m3$ for Outdoor workers

Washington DC: Citywide

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=3537047, HAPEM Population=3428610, District 19 HAPEM Population=1878532 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	2160874	563 (4.5)	437 (3.6)	424 (3.3)	577 (4.8)	500 (2.0)
African americans	985950	625 (6.0)	502 (3.9)	479 (3.8)	624 (5.3)	557 (2.4)
Hispanics	199325	581 (5.5)	463 (3.9)	441 (3.4)	593 (5.2)	519 (2.3)
Household income lt \$10K	258618	599 (3.4)	484 (2.8)	460 (2.4)	607 (3.6)	537 (1.5)
Household income \$10K-\$25K	591920	612 (4.3)	491 (3.7)	466 (3.4)	622 (4.4)	547 (2.0)
Household income \$25K-\$50K	1124294	583 (5.2)	460 (4.0)	445 (3.5)	596 (5.4)	521 (2.3)
Household income \$50K-\$75K	731005	575 (3.8)	449 (3.4)	436 (3.4)	589 (4.2)	512 (1.9)
Household income gt \$75K	645239	563 (3.5)	433 (2.5)	421 (2.2)	578 (3.7)	499 (1.5)
Children, 0 to 17	800747	571 (4.0)	449 (3.5)	438 (3.4)	583 (4.6)	510 (2.0)
Nonworking men, 18 to 44	166796	645 (4.8)	509 (4.1)	492 (3.1)	648 (5.0)	573 (2.2)
Working men, 18 to 44	647287	612 (3.5)	477 (2.7)	454 (2.4)	624 (3.5)	542 (1.5)
Nonworking women, 18 to 44	278871	582 (4.3)	458 (2.8)	440 (2.5)	589 (3.9)	517 (1.7)
Working women, 18 to 44	577745	585 (2.4)	455 (1.8)	440 (1.8)	594 (2.4)	518 (1.1)
Nonworking men, 45 to 64	66707	586 (2.4)	475 (3.3)	458 (3.1)	588 (1.8)	527 (1.4)
Working men, 45 to 64	247972	615 (3.2)	474 (2.2)	450 (1.8)	627 (3.1)	541 (1.3)
Nonworking women, 45 to 64	115513	563 (3.1)	439 (2.3)	424 (2.4)	566 (2.8)	498 (1.3)
Working women, 45 to 64	220248	578 (2.7)	449 (2.2)	430 (1.8)	587 (2.8)	511 (1.2)
Men, 65+	137971	606 (4.1)	495 (3.4)	482 (2.6)	621 (4.4)	551 (1.8)
Women, 65+	152369	584 (3.5)	465 (2.9)	451 (2.7)	587 (3.4)	521 (1.6)
Outdoor workers	85979	692 (3.8)	542 (2.6)	534 (2.0)	699 (3.7)	617 (1.6)
Outdoor children	224964	600 (3.1)	467 (2.8)	452 (2.9)	612 (3.4)	533 (1.5)
Heart and respiratory	450538	557 (3.1)	445 (3.1)	431 (3.4)	566 (3.4)	500 (1.6)
All persons	3428610	590 (4.7)	462 (3.6)	444 (3.3)	600 (4.7)	524 (2.0)

Highest quarter 1 exposure is 692 μ g/m3 for Outdoor workers Highest quarter 2 exposure is 542 μ g/m3 for Outdoor workers Highest quarter 3 exposure is 534 μ g/m3 for Outdoor workers Highest quarter 4 exposure is 699 μ g/m3 for Outdoor workers Highest annual exposure is 617 μ g/m3 for Outdoor workers

Washington DC: State=District of Columbia (11), County=District of Columbia (001)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=606900, HAPEM Population=606900, District 19 HAPEM Population=24524 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	179690	758 (6.9)	632 (6.0)	592 (5.4)	800 (7.4)	696 (3.2)
African americans	399751	743 (9.7)	620 (6.6)	578 (6.5)	727 (8.4)	667 (4.0)
Hispanics	31358	800 (11.9)	677 (9.3)	625 (7.8)	802 (11.0)	726 (5.0)
Household income lt \$10K	113195	698 (5.5)	584 (4.7)	544 (4.1)	698 (5.8)	631 (2.5)
Household income \$10K-\$25K	171385	757 (7.7)	638 (7.0)	590 (6.2)	757 (7.4)	685 (3.6)
Household income \$25K-\$50K	168277	769 (8.8)	648 (7.3)	605 (6.3)	778 (8.9)	700 (3.9)
Household income \$50K-\$75K	70961	798 (6.8)	675 (6.8)	627 (6.6)	812 (7.3)	728 (3.4)
Household income gt \$75K	65466	767 (5.6)	641 (4.7)	600 (4.0)	805 (6.2)	703 (2.6)
Children, 0 to 17	116624	727 (6.2)	615 (6.1)	579 (5.7)	734 (6.9)	664 (3.1)
Nonworking men, 18 to 44	47359	815 (9.0)	676 (8.0)	635 (5.8)	808 (8.8)	733 (4.0)
Working men, 18 to 44	93169	777 (4.3)	643 (3.5)	591 (3.1)	787 (4.1)	699 (1.9)
Nonworking women, 18 to 44	64811	740 (7.5)	616 (5.3)	574 (4.7)	743 (6.7)	668 (3.1)
Working women, 18 to 44	93204	738 (3.2)	611 (2.7)	574 (2.7)	748 (3.0)	668 (1.5)
Nonworking men, 45 to 64	18223	747 (4.8)	642 (6.7)	601 (6.3)	740 (3.5)	682 (2.7)
Working men, 45 to 64	34405	781 (4.0)	642 (2.8)	584 (2.4)	794 (3.8)	700 (1.7)
Nonworking women, 45 to 64	25385	727 (6.2)	603 (4.8)	563 (4.8)	724 (5.3)	654 (2.7)
Working women, 45 to 64	35547	739 (3.7)	610 (3.3)	565 (2.7)	746 (3.6)	665 (1.7)
Men, 65+	35789	783 (8.5)	675 (7.4)	640 (5.7)	792 (9.0)	723 (3.9)
Women, 65+	41882	743 (6.9)	622 (6.2)	587 (5.5)	740 (6.7)	673 (3.2)
Outdoor workers	12360	847 (3.8)	701 (2.6)	674 (2.0)	845 (3.5)	767 (1.5)
Outdoor children	33347	767 (5.2)	643 (5.0)	602 (5.0)	778 (5.4)	697 (2.6)
Heart and respiratory	87325	725 (5.6)	617 (6.4)	579 (6.8)	731 (6.2)	663 (3.1)
All persons	606900	770 (8.2)	643 (6.8)	598 (6.1)	776 (8.1)	696 (3.7)

Highest quarter 1 exposure is 847 μ g/m3 for Outdoor workers Highest quarter 2 exposure is 701 μ g/m3 for Outdoor workers Highest quarter 3 exposure is 674 μ g/m3 for Outdoor workers Highest quarter 4 exposure is 845 μ g/m3 for Outdoor workers Highest annual exposure is 767 μ g/m3 for Outdoor workers

Washington DC: State=Maryland (24), County=Calvert County (009)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=51372, HAPEM Population=16095, District 19 HAPEM Population=16095 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	13619	567 (7.3)	441 (5.9)	428 (5.4)	583 (7.7)	505 (3.3)
African americans	2321	552 (8.9)	426 (5.4)	414 (5.4)	561 (8.0)	488 (3.5)
Hispanics	94	554 (9.8)	433 (6.9)	418 (6.0)	568 (9.4)	493 (4.1)
Household income lt \$10K	404	534 (5.3)	415 (4.1)	402 (3.7)	547 (5.7)	474 (2.4)
Household income \$10K-\$25K	3251	563 (7.0)	439 (5.9)	422 (5.4)	578 (7.3)	501 (3.2)
Household income \$25K-\$50K	5178	567 (8.3)	442 (6.3)	430 (5.6)	584 (8.7)	505 (3.7)
Household income \$50K-\$75K	3586	573 (6.0)	446 (5.4)	434 (5.4)	591 (6.6)	511 (2.9)
Household income gt \$75K	3683	565 (6.2)	438 (4.5)	425 (3.9)	585 (6.6)	503 (2.7)
Children, 0 to 17	4506	562 (6.4)	440 (5.6)	429 (5.4)	579 (7.3)	503 (3.1)
Nonworking men, 18 to 44	588	595 (7.9)	458 (6.5)	448 (5.2)	604 (8.4)	526 (3.6)
Working men, 18 to 44	2804	602 (6.0)	466 (4.5)	444 (4.1)	617 (5.9)	532 (2.6)
Nonworking women, 18 to 44	1219	550 (7.2)	426 (4.6)	413 (4.2)	562 (6.7)	488 (2.9)
Working women, 18 to 44	2316	572 (4.1)	440 (3.1)	428 (3.1)	584 (4.1)	506 (1.8)
Nonworking men, 45 to 64	294	544 (4.2)	432 (5.5)	422 (5.4)	554 (3.2)	488 (2.3)
Working men, 45 to 64	1402	609 (5.7)	467 (3.9)	445 (3.2)	625 (5.6)	536 (2.4)
Nonworking women, 45 to 64	614	535 (5.3)	413 (3.9)	403 (4.1)	544 (4.9)	474 (2.3)
Working women, 45 to 64	1153	567 (4.8)	438 (3.9)	420 (3.2)	580 (5.1)	501 (2.2)
Men, 65+	529	555 (6.9)	444 (5.5)	439 (4.4)	574 (7.6)	503 (3.1)
Women, 65+	553	532 (5.9)	415 (4.8)	409 (4.6)	540 (5.8)	474 (2.7)
Outdoor workers	701	679 (6.2)	529 (4.2)	522 (3.3)	690 (6.0)	605 (2.5)
Outdoor children	1422	591 (5.0)	457 (4.5)	444 (4.6)	610 (5.4)	525 (2.4)
Heart and respiratory	2073	533 (5.2)	420 (5.2)	410 (5.7)	546 (5.7)	477 (2.7)
All persons	16095	570 (7.8)	441 (5.9)	427 (5.4)	584 (7.9)	505 (3.4)

Highest quarter 1 exposure is 679 μ g/m3 for Outdoor workers Highest quarter 2 exposure is 529 μ g/m3 for Outdoor workers Highest quarter 3 exposure is 522 μ g/m3 for Outdoor workers Highest quarter 4 exposure is 690 μ g/m3 for Outdoor workers Highest annual exposure is 605 μ g/m3 for Outdoor workers

Washington DC: State=Maryland (24), County=Charles County (017)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=101154, HAPEM Population=82668, District 19 HAPEM Population=82668 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	66722	567 (7.3)	441 (5.9)	428 (5.4)	583 (7.7)	505 (3.3)
African americans	13724	552 (8.9)	426 (5.4)	414 (5.4)	561 (8.0)	488 (3.5)
Hispanics	1396	554 (9.8)	433 (6.9)	418 (6.0)	568 (9.4)	493 (4.1)
Household income lt \$10K	5031	534 (5.3)	415 (4.1)	402 (3.7)	547 (5.7)	474 (2.4)
Household income \$10K-\$25K	18376	563 (7.0)	439 (5.9)	422 (5.4)	578 (7.3)	501 (3.2)
Household income \$25K-\$50K	31560	567 (8.3)	442 (6.3)	430 (5.6)	584 (8.7)	505 (3.7)
Household income \$50K-\$75K	17776	573 (6.0)	446 (5.4)	434 (5.4)	591 (6.6)	511 (2.9)
Household income gt \$75K	9539	565 (6.2)	438 (4.5)	425 (3.9)	585 (6.6)	503 (2.7)
Children, 0 to 17	24308	562 (6.4)	440 (5.6)	429 (5.4)	579 (7.3)	503 (3.1)
Nonworking men, 18 to 44	3149	595 (7.9)	458 (6.5)	448 (5.2)	604 (8.4)	526 (3.6)
Working men, 18 to 44	16116	602 (6.0)	466 (4.5)	444 (4.1)	617 (5.9)	532 (2.6)
Nonworking women, 18 to 44	5962	550 (7.2)	426 (4.6)	413 (4.2)	562 (6.7)	488 (2.9)
Working women, 18 to 44	13755	572 (4.1)	440 (3.1)	428 (3.1)	584 (4.1)	506 (1.8)
Nonworking men, 45 to 64	1302	544 (4.2)	432 (5.5)	422 (5.4)	554 (3.2)	488 (2.3)
Working men, 45 to 64	5527	609 (5.7)	467 (3.9)	445 (3.2)	625 (5.6)	536 (2.4)
Nonworking women, 45 to 64	2254	535 (5.3)	413 (3.9)	403 (4.1)	544 (4.9)	474 (2.3)
Working women, 45 to 64	4714	567 (4.8)	438 (3.9)	420 (3.2)	580 (5.1)	501 (2.2)
Men, 65+	2446	555 (6.9)	444 (5.5)	439 (4.4)	574 (7.6)	503 (3.1)
Women, 65+	2525	532 (5.9)	415 (4.8)	409 (4.6)	540 (5.8)	474 (2.7)
Outdoor workers	3040	679 (6.2)	529 (4.2)	522 (3.3)	690 (6.0)	605 (2.5)
Outdoor children	6960	591 (5.0)	457 (4.5)	444 (4.6)	610 (5.4)	525 (2.4)
Heart and respiratory	10100	533 (5.2)	420 (5.2)	410 (5.7)	546 (5.7)	477 (2.7)
All persons	82668	570 (7.8)	441 (5.9)	427 (5.4)	584 (7.9)	505 (3.4)

Highest quarter 1 exposure is 679 μ g/m3 for Outdoor workers Highest quarter 2 exposure is 529 μ g/m3 for Outdoor workers Highest quarter 3 exposure is 522 μ g/m3 for Outdoor workers Highest quarter 4 exposure is 690 μ g/m3 for Outdoor workers Highest annual exposure is 605 μ g/m3 for Outdoor workers

Washington DC: State=Maryland (24), County=Montgomery County (031)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=757027, HAPEM Population=757027, District 19 HAPEM Population=677378 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	581379	574 (6.5)	446 (5.2)	431 (4.8)	590 (6.9)	510 (3.0)
African americans	92375	570 (8.3)	443 (5.1)	428 (5.0)	577 (7.5)	504 (3.3)
Hispanics	54327	567 (8.9)	445 (6.3)	427 (5.5)	580 (8.5)	505 (3.7)
Household income lt \$10K	35767	552 (4.8)	431 (3.7)	416 (3.3)	566 (5.1)	491 (2.2)
Household income \$10K-\$25K	101499	579 (6.4)	454 (5.4)	434 (4.8)	593 (6.6)	515 (2.9)
Household income \$25K-\$50K	230905	576 (7.8)	450 (5.9)	436 (5.2)	593 (8.2)	514 (3.5)
Household income \$50K-\$75K	172538	578 (5.6)	451 (5.0)	436 (5.1)	596 (6.1)	515 (2.7)
Household income gt \$75K	190034	571 (5.2)	440 (3.8)	425 (3.3)	590 (5.6)	507 (2.3)
Children, 0 to 17	177120	568 (5.8)	444 (5.1)	431 (4.9)	584 (6.6)	507 (2.8)
Nonworking men, 18 to 44	29431	606 (7.1)	467 (5.9)	455 (4.6)	615 (7.5)	535 (3.2)
Working men, 18 to 44	138365	608 (5.5)	471 (4.2)	449 (3.8)	623 (5.4)	538 (2.4)
Nonworking women, 18 to 44	59196	560 (6.5)	434 (4.1)	419 (3.8)	571 (5.9)	496 (2.6)
Working women, 18 to 44	120715	580 (3.8)	447 (2.9)	433 (2.9)	592 (3.7)	513 (1.7)
Nonworking men, 45 to 64	14106	552 (3.6)	437 (4.7)	424 (4.6)	561 (2.7)	493 (2.0)
Working men, 45 to 64	58254	614 (5.0)	471 (3.4)	447 (2.8)	630 (4.9)	540 (2.1)
Nonworking women, 45 to 64	27686	543 (4.5)	417 (3.3)	405 (3.4)	551 (4.1)	479 (1.9)
Working women, 45 to 64	49907	574 (4.3)	442 (3.4)	423 (2.9)	587 (4.5)	506 (1.9)
Men, 65+	36233	568 (5.8)	454 (4.7)	446 (3.7)	587 (6.4)	514 (2.6)
Women, 65+	40852	546 (5.0)	426 (4.0)	417 (3.9)	554 (4.9)	485 (2.2)
Outdoor workers	16727	686 (5.8)	535 (3.9)	527 (3.1)	696 (5.6)	611 (2.4)
Outdoor children	48148	597 (4.5)	461 (4.0)	445 (4.2)	614 (4.9)	529 (2.2)
Heart and respiratory	103959	542 (4.6)	427 (4.5)	415 (5.0)	555 (5.0)	484 (2.4)
All persons	757027	579 (7.0)	447 (5.3)	431 (4.9)	592 (7.1)	512 (3.1)

Highest quarter 1 exposure is $686~\mu g/m3$ for Outdoor workers Highest quarter 2 exposure is $535~\mu g/m3$ for Outdoor workers Highest quarter 3 exposure is $527~\mu g/m3$ for Outdoor workers Highest quarter 4 exposure is $696~\mu g/m3$ for Outdoor workers Highest annual exposure is $611~\mu g/m3$ for Outdoor workers

Washington DC: State=Maryland (24), County=Prince George's County (033)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=729268, HAPEM Population=729268, District 19 HAPEM Population=580285 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	314559	570 (6.4)	445 (5.2)	432 (4.8)	585 (6.8)	508 (2.9)
African americans	369622	545 (6.7)	425 (4.1)	416 (4.0)	554 (6.0)	485 (2.6)
Hispanics	28927	582 (8.2)	462 (5.8)	443 (5.1)	592 (7.8)	520 (3.4)
Household income lt \$10K	49931	536 (4.4)	421 (3.4)	409 (3.0)	549 (4.7)	479 (2.0)
Household income \$10K-\$25K	140988	567 (5.6)	449 (4.7)	433 (4.3)	581 (5.8)	507 (2.6)
Household income \$25K-\$50K	281497	564 (6.6)	444 (5.0)	434 (4.5)	581 (7.0)	505 (2.9)
Household income \$50K-\$75K	157819	571 (4.9)	445 (4.4)	435 (4.5)	589 (5.4)	510 (2.4)
Household income gt \$75K	89264	555 (5.0)	429 (3.7)	420 (3.1)	575 (5.4)	495 (2.2)
Children, 0 to 17	178430	560 (5.1)	440 (4.5)	432 (4.3)	576 (5.8)	502 (2.5)
Nonworking men, 18 to 44	37048	595 (6.4)	462 (5.3)	454 (4.2)	604 (6.8)	529 (2.9)
Working men, 18 to 44	138494	600 (4.9)	467 (3.7)	447 (3.4)	615 (4.8)	532 (2.1)
Nonworking women, 18 to 44	55758	551 (5.9)	429 (3.8)	419 (3.4)	562 (5.4)	490 (2.4)
Working women, 18 to 44	131325	570 (3.3)	441 (2.5)	431 (2.5)	581 (3.2)	506 (1.5)
Nonworking men, 45 to 64	13639	543 (3.3)	434 (4.3)	426 (4.2)	552 (2.5)	489 (1.8)
Working men, 45 to 64	50994	606 (4.5)	467 (3.1)	447 (2.6)	622 (4.4)	535 (1.9)
Nonworking women, 45 to 64	21134	534 (4.3)	414 (3.1)	406 (3.3)	543 (3.9)	474 (1.8)
Working women, 45 to 64	48055	563 (3.8)	437 (3.0)	422 (2.5)	576 (4.0)	499 (1.7)
Men, 65+	24014	563 (5.5)	455 (4.4)	451 (3.5)	581 (6.0)	512 (2.5)
Women, 65+	25761	541 (4.7)	426 (3.8)	421 (3.7)	546 (4.6)	483 (2.1)
Outdoor workers	22341	680 (5.0)	532 (3.4)	526 (2.7)	690 (4.8)	607 (2.0)
Outdoor children	50367	587 (4.0)	457 (3.6)	446 (3.7)	606 (4.3)	524 (1.9)
Heart and respiratory	91806	533 (4.2)	422 (4.1)	415 (4.6)	545 (4.6)	479 (2.2)
All persons	729268	568 (6.3)	442 (4.8)	431 (4.4)	582 (6.4)	506 (2.8)

Highest quarter 1 exposure is $680~\mu g/m3$ for Outdoor workers Highest quarter 2 exposure is $532~\mu g/m3$ for Outdoor workers Highest quarter 3 exposure is $526~\mu g/m3$ for Outdoor workers Highest quarter 4 exposure is $690~\mu g/m3$ for Outdoor workers Highest annual exposure is $607~\mu g/m3$ for Outdoor workers

Washington DC: State=Virginia (51), County=Arlington County (013)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=170936, HAPEM Population=170936, District 19 HAPEM Population=0 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	130745	542 (4.5)	438 (3.9)	409 (3.4)	585 (5.1)	493 (2.1)
African americans	17947	503 (6.7)	414 (4.5)	386 (4.1)	544 (6.4)	462 (2.8)
Hispanics	22742	519 (6.8)	430 (5.1)	399 (4.2)	567 (7.0)	478 (2.9)
Household income lt \$10K	11442	508 (3.8)	417 (3.0)	390 (2.5)	557 (4.3)	468 (1.7)
Household income \$10K-\$25K	32164	526 (4.9)	434 (4.4)	401 (3.8)	574 (5.4)	484 (2.3)
Household income \$25K-\$50K	57756	533 (5.5)	435 (4.4)	407 (3.7)	579 (6.1)	489 (2.5)
Household income \$50K-\$75K	35916	541 (3.8)	438 (3.6)	409 (3.4)	584 (4.4)	493 (1.9)
Household income gt \$75K	33683	553 (3.7)	438 (2.8)	411 (2.3)	595 (4.0)	499 (1.6)
Children, 0 to 17	25765	531 (4.1)	431 (3.7)	405 (3.4)	572 (4.8)	485 (2.0)
Nonworking men, 18 to 44	8660	565 (5.1)	454 (4.3)	429 (3.3)	606 (5.7)	513 (2.4)
Working men, 18 to 44	38916	584 (2.9)	469 (2.4)	434 (2.1)	627 (3.0)	528 (1.3)
Nonworking women, 18 to 44	14669	521 (4.6)	421 (3.1)	394 (2.7)	561 (4.5)	474 (1.9)
Working women, 18 to 44	34008	553 (2.1)	441 (1.6)	414 (1.6)	590 (2.0)	499 (0.9)
Nonworking men, 45 to 64	2863	518 (2.6)	425 (3.5)	400 (3.3)	552 (2.1)	474 (1.4)
Working men, 45 to 64	11430	594 (2.7)	470 (2.0)	436 (1.6)	633 (2.6)	533 (1.1)
Nonworking women, 45 to 64	4872	510 (3.2)	406 (2.4)	382 (2.4)	543 (3.1)	460 (1.4)
Working women, 45 to 64	10168	547 (2.3)	437 (1.9)	406 (1.6)	584 (2.4)	493 (1.0)
Men, 65+	9392	529 (4.2)	437 (3.5)	416 (2.6)	572 (4.8)	488 (1.9)
Women, 65+	9974	507 (3.5)	408 (3.0)	388 (2.7)	537 (3.7)	460 (1.6)
Outdoor workers	4071	665 (3.7)	534 (2.6)	510 (2.0)	699 (3.4)	602 (1.5)
Outdoor children	6686	559 (3.1)	448 (2.9)	417 (2.8)	600 (3.5)	506 (1.6)
Heart and respiratory	23647	506 (3.3)	415 (3.4)	390 (3.5)	545 (3.8)	464 (1.8)
All persons	170936	541 (5.0)	436 (4.0)	407 (3.5)	583 (5.3)	492 (2.3)

Highest quarter 1 exposure is 665 μ g/m3 for Outdoor workers Highest quarter 2 exposure is 534 μ g/m3 for Outdoor workers Highest quarter 3 exposure is 510 μ g/m3 for Outdoor workers Highest quarter 4 exposure is 699 μ g/m3 for Outdoor workers Highest annual exposure is 602 μ g/m3 for Outdoor workers

Washington DC: State=Virginia (51), County=Fairfax County (059)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=818584, HAPEM Population=818584, District 19 HAPEM Population=250450 Estimates Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	666349	501 (3.2)	370 (2.4)	370 (2.3)	499 (3.3)	435 (1.4)
African americans	63360	513 (4.4)	368 (2.5)	367 (2.5)	511 (3.9)	440 (1.7)
Hispanics	50526	494 (3.9)	372 (2.6)	364 (2.3)	497 (3.7)	432 (1.6)
Household income lt \$10K	34847	475 (2.3)	348 (1.6)	348 (1.5)	474 (2.3)	411 (1.0)
Household income \$10K-\$25K	90496	506 (2.9)	371 (2.3)	366 (2.1)	506 (2.9)	437 (1.3)
Household income \$25K-\$50K	245484	505 (3.6)	374 (2.6)	374 (2.4)	505 (3.7)	439 (1.6)
Household income \$50K-\$75K	205559	505 (2.7)	374 (2.3)	376 (2.4)	506 (2.8)	440 (1.3)
Household income gt \$75K	218796	498 (2.8)	365 (1.9)	366 (1.7)	496 (2.9)	431 (1.2)
Children, 0 to 17	199595	501 (2.9)	372 (2.4)	374 (2.4)	501 (3.2)	437 (1.4)
Nonworking men, 18 to 44	33334	531 (3.6)	392 (2.9)	393 (2.3)	526 (3.7)	460 (1.6)
Working men, 18 to 44	163806	543 (2.3)	403 (1.8)	394 (1.6)	544 (2.3)	471 (1.0)
Nonworking women, 18 to 44	59439	488 (3.1)	359 (1.9)	359 (1.8)	484 (2.8)	422 (1.2)
Working women, 18 to 44	138317	514 (1.6)	378 (1.2)	376 (1.2)	511 (1.5)	445 (0.7)
Nonworking men, 45 to 64	13904	477 (1.7)	357 (2.1)	359 (2.1)	469 (1.3)	415 (0.9)
Working men, 45 to 64	68857	546 (2.1)	401 (1.4)	392 (1.2)	545 (2.0)	471 (0.9)
Nonworking women, 45 to 64	27924	472 (2.2)	344 (1.5)	345 (1.6)	464 (1.9)	406 (0.9)
Working women, 45 to 64	57258	504 (1.8)	372 (1.4)	366 (1.2)	502 (1.8)	436 (0.8)
Men, 65+	25816	497 (2.7)	375 (2.1)	377 (1.6)	499 (2.9)	437 (1.2)
Women, 65+	27161	477 (2.3)	351 (1.8)	353 (1.8)	469 (2.2)	412 (1.0)
Outdoor workers	18499	623 (2.4)	467 (1.6)	468 (1.3)	621 (2.3)	545 (1.0)
Outdoor children	57523	525 (2.3)	385 (1.9)	385 (2.1)	524 (2.4)	455 (1.1)
Heart and respiratory	103818	474 (2.2)	353 (2.1)	355 (2.3)	470 (2.3)	413 (1.1)
All persons	818584	506 (3.4)	371 (2.4)	370 (2.3)	503 (3.3)	437 (1.4)

Highest quarter 1 exposure is 623 μ g/m3 for Outdoor workers Highest quarter 2 exposure is 467 μ g/m3 for Outdoor workers Highest quarter 3 exposure is 468 μ g/m3 for Outdoor workers Highest quarter 4 exposure is 621 μ g/m3 for Outdoor workers Highest annual exposure is 545 μ g/m3 for Outdoor workers

Washington DC: State=Virginia (51), County=Loudoun County (107)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=86129, HAPEM Population=54937, District 19 HAPEM Population=54937 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	48449	567 (7.3)	441 (5.9)	428 (5.4)	583 (7.7)	505 (3.3)
African americans	4003	552 (8.9)	426 (5.4)	414 (5.4)	561 (8.0)	488 (3.5)
Hispanics	1774	554 (9.8)	433 (6.9)	418 (6.0)	568 (9.4)	493 (4.1)
Household income lt \$10K	1400	534 (5.3)	415 (4.1)	402 (3.7)	547 (5.7)	474 (2.4)
Household income \$10K-\$25K	5603	563 (7.0)	439 (5.9)	422 (5.4)	578 (7.3)	501 (3.2)
Household income \$25K-\$50K	20837	567 (8.3)	442 (6.3)	430 (5.6)	584 (8.7)	505 (3.7)
Household income \$50K-\$75K	16991	573 (6.0)	446 (5.4)	434 (5.4)	591 (6.6)	511 (2.9)
Household income gt \$75K	10113	565 (6.2)	438 (4.5)	425 (3.9)	585 (6.6)	503 (2.7)
Children, 0 to 17	15541	562 (6.4)	440 (5.6)	429 (5.4)	579 (7.3)	503 (3.1)
Nonworking men, 18 to 44	1509	595 (7.9)	458 (6.5)	448 (5.2)	604 (8.4)	526 (3.6)
Working men, 18 to 44	12907	602 (6.0)	466 (4.5)	444 (4.1)	617 (5.9)	532 (2.6)
Nonworking women, 18 to 44	3826	550 (7.2)	426 (4.6)	413 (4.2)	562 (6.7)	488 (2.9)
Working women, 18 to 44	10460	572 (4.1)	440 (3.1)	428 (3.1)	584 (4.1)	506 (1.8)
Nonworking men, 45 to 64	449	544 (4.2)	432 (5.5)	422 (5.4)	554 (3.2)	488 (2.3)
Working men, 45 to 64	3758	609 (5.7)	467 (3.9)	445 (3.2)	625 (5.6)	536 (2.4)
Nonworking women, 45 to 64	1139	535 (5.3)	413 (3.9)	403 (4.1)	544 (4.9)	474 (2.3)
Working women, 45 to 64	3011	567 (4.8)	438 (3.9)	420 (3.2)	580 (5.1)	501 (2.2)
Men, 65+	951	555 (6.9)	444 (5.5)	439 (4.4)	574 (7.6)	503 (3.1)
Women, 65+	927	532 (5.9)	415 (4.8)	409 (4.6)	540 (5.8)	474 (2.7)
Outdoor workers	1794	679 (6.2)	529 (4.2)	522 (3.3)	690 (6.0)	605 (2.5)
Outdoor children	4115	591 (5.0)	457 (4.5)	444 (4.6)	610 (5.4)	525 (2.4)
Heart and respiratory	6228	533 (5.2)	420 (5.2)	410 (5.7)	546 (5.7)	477 (2.7)
All persons	54937	570 (7.8)	441 (5.9)	427 (5.4)	584 (7.9)	505 (3.4)

Highest quarter 1 exposure is 679 μ g/m3 for Outdoor workers Highest quarter 2 exposure is 529 μ g/m3 for Outdoor workers Highest quarter 3 exposure is 522 μ g/m3 for Outdoor workers Highest quarter 4 exposure is 690 μ g/m3 for Outdoor workers Highest annual exposure is 605 μ g/m3 for Outdoor workers

Washington DC: State=Virginia (51), County=Prince William County (153)

HAPEM3 County Average (Standard Deviation) Exposure in $\mu g/m3$ by Calendar Quarter and Annually for 1990 1990 Census Population=215677, HAPEM Population=192195, District 19 HAPEM Population=192195 Estimates Do Not Pass Population Criteria

Demographic Group	Population	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual
Caucasians	159362	567 (7.3)	441 (5.9)	428 (5.4)	583 (7.7)	505 (3.3)
African americans	22847	552 (8.9)	426 (5.4)	414 (5.4)	561 (8.0)	488 (3.5)
Hispanics	8181	554 (9.8)	433 (6.9)	418 (6.0)	568 (9.4)	493 (4.1)
Household income lt \$10K	6601	534 (5.3)	415 (4.1)	402 (3.7)	547 (5.7)	474 (2.4)
Household income \$10K-\$25K	28158	563 (7.0)	439 (5.9)	422 (5.4)	578 (7.3)	501 (3.2)
Household income \$25K-\$50K	82800	567 (8.3)	442 (6.3)	430 (5.6)	584 (8.7)	505 (3.7)
Household income \$50K-\$75K	49859	573 (6.0)	446 (5.4)	434 (5.4)	591 (6.6)	511 (2.9)
Household income gt \$75K	24661	565 (6.2)	438 (4.5)	425 (3.9)	585 (6.6)	503 (2.7)
Children, 0 to 17	58858	562 (6.4)	440 (5.6)	429 (5.4)	579 (7.3)	503 (3.1)
Nonworking men, 18 to 44	5718	595 (7.9)	458 (6.5)	448 (5.2)	604 (8.4)	526 (3.6)
Working men, 18 to 44	42711	602 (6.0)	466 (4.5)	444 (4.1)	617 (5.9)	532 (2.6)
Nonworking women, 18 to 44	13991	550 (7.2)	426 (4.6)	413 (4.2)	562 (6.7)	488 (2.9)
Working women, 18 to 44	33646	572 (4.1)	440 (3.1)	428 (3.1)	584 (4.1)	506 (1.8)
Nonworking men, 45 to 64	1927	544 (4.2)	432 (5.5)	422 (5.4)	554 (3.2)	488 (2.3)
Working men, 45 to 64	13347	609 (5.7)	467 (3.9)	445 (3.2)	625 (5.6)	536 (2.4)
Nonworking women, 45 to 64	4505	535 (5.3)	413 (3.9)	403 (4.1)	544 (4.9)	474 (2.3)
Working women, 45 to 64	10433	567 (4.8)	438 (3.9)	420 (3.2)	580 (5.1)	501 (2.2)
Men, 65+	2801	555 (6.9)	444 (5.5)	439 (4.4)	574 (7.6)	503 (3.1)
Women, 65+	2734	532 (5.9)	415 (4.8)	409 (4.6)	540 (5.8)	474 (2.7)
Outdoor workers	6447	679 (6.2)	529 (4.2)	522 (3.3)	690 (6.0)	605 (2.5)
Outdoor children	16396	591 (5.0)	457 (4.5)	444 (4.6)	610 (5.4)	525 (2.4)
Heart and respiratory	21582	533 (5.2)	420 (5.2)	410 (5.7)	546 (5.7)	477 (2.7)
All persons	192195	570 (7.8)	441 (5.9)	427 (5.4)	584 (7.9)	505 (3.4)

Highest quarter 1 exposure is 679 μ g/m3 for Outdoor workers Highest quarter 2 exposure is 529 μ g/m3 for Outdoor workers Highest quarter 3 exposure is 522 μ g/m3 for Outdoor workers Highest quarter 4 exposure is 690 μ g/m3 for Outdoor workers Highest annual exposure is 605 μ g/m3 for Outdoor workers