Appendix 1: Western NY and Southeast MI Demographics

Demographics and old age dependency ratios, select west New York counties, 2014-19

Location of select counties in western New York

1 Montgomery
2 Schenectady
3 Putnam
4 Rockland
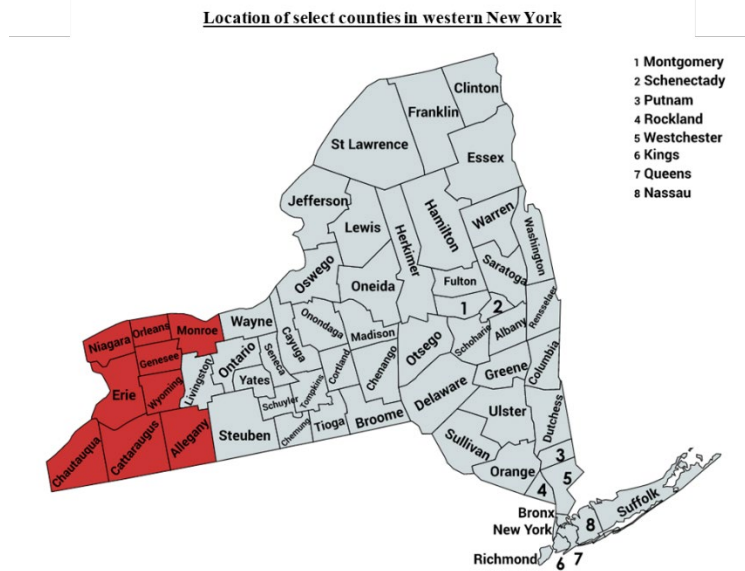5 Westchester
6 Kings
7 Queens
8 Nassau

Table 1 provides information on demographic trends in nine counties in western New York: Allegany, Cattaraugus, Chautauqua, Erie, Genesee, Monroe, Niagara, Orleans and Wyoming (see Figure 1). Data was obtained from CDC Wonder system.[1] Demographic old-age dependency ratio is defined as the number of individuals aged 65 and over per 100 people of working age defined as those aged between 15 to 64 years old.[2] In the six-year period between 2015 to 2019, the ratio increased from 25.30 to 28.65. For the rest of New York state old age dependency ratio increased from 22.39 to 25.35 in this period (Table 2), while the same for United States increased from 21.5 to 25.6.

These population trends are expected to continue over the next few decades, according to available population estimates for the state of New York. By 2040, old-age dependency ratios for the populous counties of Erie, Monroe and Niagara are projected to reach 37.2, 38.0 and an alarming 47.43, respectively.

Table 1: Demographic outcomes, select western New York counties						
Year	2015	2016	2017	2018	2019	Change
15-64 years	381,021	389,400	398,249	408,014	418,559	11.95878
Seniors, 65+	1,506,094	1,493,768	1,483,597	1,473,817	1,461,055	-3.64779
Old age ratio	25.30	26.07	26.84	27.68	28.65	

Table 2: Demographic outcomes, select non-western New York counties						
Year	2015	2016	2017	2018	2019	Change
15-64 years	11,689,304	11630,335	11,547,376	11,454,690	11,350,763	12.85199
Seniors, 65+	2,617,392	2,683,912	2,750,295	2,813,811	2,877,587	-3.22483
Old age ratio	22.39	23.08	23.82	24.56	25.35	

Summary:

- Past demographic trends indicate that western NY counties have a slightly older population and a lower number of working-age adults per senior above the age of 65 years compared to the rest of New York and to the U.S.
- Population projections for the region indicate a continuation of these trends.

Demographics and old age dependency ratios, select southeast Michigan counties, 2014-19

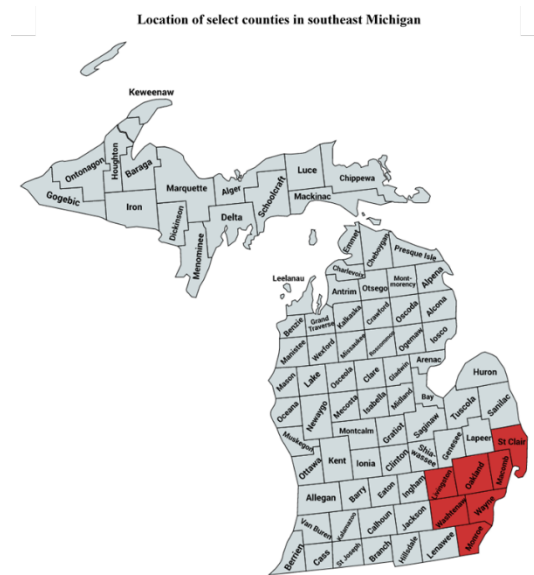Location of select counties in southeast Michigan

Table 3 provides information on demographic trends in seven counties in southeast Michigan: Livingston, Macomb, Monroe, Oakland, St. Clair, Washtenaw and Wayne (see Figure 1). Data was obtained from the Michigan Department of Health and Human Services (MDHHS).[3] Demographic old-age dependency ratio is defined as the number of individuals aged 65 and over per 100 people of working age defined as those aged between 15 to 64 years old. In the six-year period between 2015 to 2019, the ratio increased from 22.4 to 25.5. For the rest of Michigan, the old age dependency ratio increased from 25.5 to 29.1 in this period (Table 4), while the same increased from 21.5 to 25.6 for United States.

These population trends are expected to continue over the next few decades, according to available population estimates for Michigan.[4] By 2040, old-age dependency ratio for select southeast Michigan counties is projected to reach 33.9 (Table 5) while the same for other parts of Michigan is expected to be 37.0 (Table 6). Population projections from other sources such as the Southeast Michigan Council of Governments (SEMCOG) are similar.

Table 3: Demographic outcomes, select southeast Michigan counties						
Year	2015	2016	2017	2018	2019	Change (%)
15 to 64 years	3,158,878	3,154,611	3,146,843	3,133,610	3,114,097	-1.7
Seniors, 65+	707,542	728,439	749,429	770,649	793,320	15.2
Old age ratio	22.4	23.1	23.8	24.6	25.5	

Table 4: Demographic outcomes, select non-southeast Michigan counties						
Year	2015	2016	2017	2018	2019	Change (%)
15 to 64 years	3,393,921	3,384,154	3,374,796	3,360,791	3,344,228	-1.79
Seniors, 65+	864,165	888,955	914,901	942,707	972,081	15.3
Old age ratio	25.5	26.3	27.1	28.1	29.1	

Table 5: Population projections, select southeast Michigan counties					
Year	2030	2035	2040	2045	Change (%)
15 to 64 years	3042607	3,061,054	3,113,607	3,154,209	3.4
Seniors, 65+	1,028,536	1,065,143	1,055,612	1,011,092	7.6
Projected old age ratio	33.8	34.8	33.9	32.1	

Table 6: Population projections, select non-southeast Michigan counties					
Year	2030	2035	2040	2045	Change (%)
15 to 64 years	3,268,759	3,304,976	3,369,497	3,398,606	3.8
Seniors, 65+	1,236,139	1,265,071	1,246,889	1,213,103	6.7
Projected old age ratio	37.8	38.3	37.0	35.7	

Potential demand for home care in southeast Michigan, 2014 - 19

Demand for home care can be assessed from population estimate of proportion of adults that need help with Activities of Daily Living (ADLs). Results from state-level surveys show that in southeast Michigan limitation with ADLs has increased significantly in the period between 2014 to 2019 (Table 7). According to Michigan Behavioral Risk Factor Surveillance System (Michigan BRFSS) 2013-15, about 8.8% of the population living in southeast Michigan counties had limitation with at least one ADL.[5] This proportion increased to about 10.3% according to the 2017-19 version of Michigan BRFSS. This represents an increase of about 17%. This trend was similar to that for the state of Michigan. Analysis of data from the American Community survey (ACS) by PHI for their report 'Improving Home Care Employment Opportunities: Detroit, MI' found similar patterns with regards to ADLs in southeast Michigan.

Table 7: Activity Limitation on at least 14 days in last month, Michigan BRFSS 2014-2019

	2013-2015 (%)	2017-2019 (%)
Michigan	8.8	10.3
Southeast Michigan	8.8	10.3
Livingston	6.9	6.4
Macomb	8.1	10.4
Monroe	12.9	12.2
Oakland	7.1	8.7
St. Clair	9.2	15.4
Washtenaw	6.6	7.4
Wayne, excluding Detroit	9	10.1
Detroit City	13.5	15.2

Summary:

- Southeast Michigan counties have a slightly younger population and a higher number of working-age adults per senior above the age of 65 years compared to the rest of Michigan.
- Projections for the region indicate a continuation of these population trends.
- Population-level indicators for help with Activities of Daily Living (ADLs) increased significantly (by 17%) in the last five years

References

1. CDC WONDER. Accessed April 6, 2021. https://wonder.cdc.gov/

2. OECD. Old-age dependency ratio. In: *OECD Pensions at a Glance*. ; 2015:158-159. doi:10.1787/888933634306

3. Michigan Population by Region. Accessed April 13, 2021. https://www.mdch.state.mi.us/osr/Population/npPopFacts.asp?AreaType=C

4. Population Projections - Michigan Bureau of Labor Market Information and Strategic Initiatives. Accessed April 13, 2021. https://milmi.org/DataSearch/POPPROJ

5. MDHHS - Michigan BRFS Regional and Local Health Department Tables. Accessed April 13, 2021. https://www.michigan.gov/mdhhs/0,5885,7-339-71550_5104_5279_39424-134707--,00.html