

On the Choice of Combined Statistical Areas

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Abstract

Some Metropolitan Statistical Areas (MSAs) fail to encompass the full extent of metropolitan areas. Combined Statistical Areas (CSAs), combinations of Core-Based Statistical Areas, are larger and may be more a more appropriate choice for certain analyses. Differences between MSAs and CSAs (and some MSAs are not even included in CSAs) range from minor to the combination of large MSAs, with population increases ranging from a few percent more than doubling. The sharing of transportation infrastructure in the form of commuter rail service and shared airports demonstrates the integration of areas combined into CSAs. In addition, the extent of the MSAs defined for the 2000 census are comparable to current CSAs, which arise from a subsequent change in how metropolitan areas are defined.

Introduction

The commencement of a project to examine the development of large urban areas in the United States over time required the identification of the larger metropolitan areas within which those urban areas would be delineated. The obvious option would have been the Metropolitan Statistical Areas (MSAs) delineated by the Office of Management and Budget for statistical reporting across the federal government. These are used not only by government agencies but in many other analyses of metropolitan phenomena. MSAs really are the “official” metropolitan areas.

The research project delineates urban and exurban areas as areas of contiguous census tracts that meet a minimum density thresholds, with the urban areas analogous to the more finely grained Urbanized Areas defined by the Census. The identification of metropolitan areas was required as a starting point for 3 reasons. First was the basic designation of what areas would be included together in one urban area as opposed to being in separate areas. Second, the metropolitan area boundaries provided limits on the extent of the urban and exurban areas, providing reasonable assurance that the areas included are indeed integrated with the remainder of the area. This is to avoid long extensions of an urban or exurban area resulting from a few denser tracts strung along a transportation artery. And third, some metropolitan areas are adjacent and the

exurban or even urban areas can be contiguous. The metropolitan area boundary then also serves as the boundary between the urban or exurban areas.

In addition to MSAs, the Office of Management and Budget also defines an additional group of larger areas, Combined Statistical Areas (CSAs), that consist of multiple MSAs and/or Micropolitan Statistical Areas, areas centered on smaller urban areas. I have chosen to start my research project using the CSAs instead of MSAs. In papers reporting on that research, I have briefly explained this choice by saying that I believed that CSAs better represented the full extent of metropolitan areas (e.g., Ottensmann 2015, 2016a). This paper describes the differences between the MSAs and CSAs and provides the justification for my choosing to use the latter. It may also suggest to others that they might consider this as well.

The next section of the paper describes my initial motivation for considering the use of areas larger than the MSAs. Next comes the necessary definitions of the MSAs and CSAs. This is followed by the section explaining my selection of the areas for the research and the identification of what I am calling urban centers within those areas including multiple large cities. The differences between the CSAs and MSAs are then examined, first with respect to the inclusion of additional urban centers in some CSAs and then in terms of the increase in populations in shifting from the MSAs to the CSAs. The sharing of major transportation infrastructure is considered as an indicator of metropolitan integration within CSAs. The prior definition of MSAs, used through 2000, provides further justification for the choice of the CSAs.

Problems with the Extent of the MSAs

When starting the research, I had assumed that I would be using the MSAs as the foundational metropolitan areas. I had not had a need to look closely at the extent of MSA boundaries across the United States for many years. I began by obtaining the geographic boundary file for the current MSAs and displayed the areas on a map (U.S. Bureau of the Census 2013b). What I found surprised me in a negative way. Four areas in particular jumped out as being inappropriately subdivided and too limited in extent.

The New York MSA did not include any areas in Connecticut. Bridgeport-Stamford-Norwalk and New Haven-Milford were separate MSAs, not included in the New York MSA. Reasonable people can differ on how far the New York metropolitan area should be considered to extend into Connecticut. I do not believe that anyone can consider that the New York metropolitan areas does not include any areas in that state. These are suburbs of New York City and have been considered as such for a century, if not longer. The Regional Plan Association of New York (2017) counted areas in Connecticut as part of the metropolitan area from their initial work in the 1920s and for their first plan in 1929.

The remaining three areas were problematic to me based on my personal knowledge and experience with those areas. The first was the area including Raleigh and Durham, North Carolina, which were designated separate MSAs. I was a graduate student at the University of North Carolina at Chapel Hill in the early 1970s. Raleigh and Durham were already considered to be part of a single area, referred to as the Research Triangle. Research Triangle Park had been established between the cities, with the name referring to the presence of the three major universities in Raleigh, Durham, and Chapel Hill.

The second issue for me was the area surrounding San Francisco Bay. San Francisco-Oakland and San Jose were designated as separate MSAs (along with numbers of other nearby separate MSAs). We visited the area frequently when my daughter lived there, in the South Bay between San Francisco and San Jose. The area from San Francisco south to San Jose is continuously and very heavily developed, with no obvious boundary. Employees from Google and other Silicon Valley firms in the San Jose MSA live in San Francisco and are transported to work by buses provided by their firms (and are resented by some San Francisco residents). Silicon Valley is often associated with the San Jose MSA. But Facebook is located in Menlo Park, which is in the San Francisco MSA, as are the Silicon Valley venture capital firms located on San Hill Road.

The last area is Southern California, where I lived in the latter 1970s and now again have lived during the past several years since retirement. The current Los Angeles MSA consists of Los Angeles and Orange Counties. Riverside-San Bernardino-Ontario is a separate MSA immediately to the east of Los Angeles County. In the 1970s, there was a significant undeveloped gap between Los Angeles and San Bernardino where one would drive past vineyards and citrus groves. Those are gone. Development is continuous out to San Bernardino and beyond. San Bernardino and Riverside Counties are connected to Los Angeles County by three major freeways and to Orange County by one more, each with 8 lanes or more carrying volumes of traffic making the integration of the areas very obvious.

Definitions of MSAs and CSAs

Proceeding requires a review of the basic elements of the definitions of the areas being considered. The most recent version of the definitions used by the Office of Management and Budget (OMB) was published in 2010 and was first used for the delineation of areas in 2013 (U.S. Office of Management and Budget 2010; U.S. Bureau of the Census 2013a). Only the outlines of the definitions are presented here, not the finer details and qualifications.

Metropolitan Statistical Areas (MSAs) consist of 1 or more counties. Delineation starts with an Urbanized Area, the contiguous built-up area meeting a minimum

density threshold and having a population of 50,000 or more. Those counties including substantial portions of the Urbanized Area are designated the central counties of an MSA. Additional outlying counties are then added that have at least a 25 percent commuting interchange with the central counties, this being taken as the measure of metropolitan integration.

Before getting to the CSAs, it is necessary to describe one additional type of area defined by OMB, Micropolitan Statistical Areas. These are areas that start with an Urban Cluster with a population of at least 10,000, comparable to Urbanized Areas but with a population of less than 50,000. They are delineated in the same way as MSAs with 1 or more central counties including the Urban Cluster and additional counties added that meet the commuting standards. Together, the Metropolitan Statistical Areas and Micropolitan Statistical Areas are referred to as Core-Based Statistical Areas (CBSAs).

Now we can get to the Combined Statistical Areas (CSAs). These are simply combinations of CBSAs that have a commuting interchange of at least 15 percent. The commuting definition is slightly different from that used for adding outlying counties to CBSAs, but the basic idea is the same. CBSAs will be combined to form CSAs when they meet a minimum level of integration measured by commuting, just like the addition of counties to MSAs. The primary difference is the use of a lower threshold, 15 percent as opposed to 25 percent for the addition of outlying counties to an MSA.

Any CBSA that is not adjacent to another area or that does not have a commuting interchange with another area that meets the minimum does not become part of a CSA. All this leads to a variety of different types of areas. Some MSAs and Micropolitan Statistical Areas are not in CSAs. CSAs can consist of 2 or more MSAs, 2 or more Micropolitan Statistical Areas, or a mix of both types of areas. CSAs can include as few as 2 CBSAs or a much larger number (the New York CSA combines 8).

Selection of Areas and the Identification of Urban Centers

To determine the set of areas for the delineation of the large urban areas, the CSAs and MSAs that were not part of CSAs, as defined in 2013, were ranked by population (U.S. Bureau of the Census 2013a, 2014b). The 59 largest areas, with populations in 2010 over 1,000,000, were selected for the research. The urban and exurban areas would be delineated within these areas. The Census cautions against ranking CSAs and MSAs together (U.S. Bureau of the Census 2014a). I respectfully disagree. CSAs are combinations of 2 or more Core-Based Statistical Areas meeting the minimum commuting criterion. It seems perfectly reasonable to consider MSAs not combined with other areas as essentially CSAs consisting of only a single area (though obviously a term other than Combined Statistical Area would be required for such a set of areas).

A number of the areas had multiple large centers associated with separate urban areas than had grown together. Dallas and Fort Worth would be an obvious example. This posed the issue of identifying those cases in which a second or third urban area could be considered sufficiently large in relation to the largest area to be considered as an additional urban center, as the urban and exurban areas were to be delineated around each center prior to their merger. The decision was made by comparing the population of census Urbanized Areas (either from the current census or the last census in which the areas were separate) with the largest area. An Urbanized Area was considered to be an additional urban center if its population were greater than 28 percent of the population of the largest area. The three areas included with the lowest percentages were Akron (with Cleveland), Tacoma (with Seattle), and Providence (with Boston). Below 28 percent there was a gap, and the next two areas were Kissimmee (with Orlando) and Concord (with Charlotte). The 28 percent cutoff, while somewhat arbitrary, does seem quite reasonable. Two urban centers each were identified in 2 additional CSAs where separate Urbanized Area populations were not available. Minneapolis and St. Paul are obviously distinct centers but were never separate Urbanized Areas. Virginia Beach never reached Urbanized Area status before it merged with Norfolk, but as it is now the largest city in the CSA, it has to be considered a separate urban center. Sixteen of the areas had multiple urban centers. The maximum number of urban centers in any of the areas was 3. These urban centers will play a key role in the comparison of the CSAs with the MSAs that were combined.

Several notes on the simplified nomenclature that will be employed in the remainder of this paper. As mentioned, some of the MSAs were not combined with other CBSAs to form CSAs, so the MSAs were used instead. To avoid unnecessary repetition, in some places where there would be no ambiguity, I will use the term CSA to refer to the all of the members in the set of 59 CSAs and MSAs. Second, in naming MSAs and CSAs, OMB provides elaborate rules that often use the names of up to three of the largest cities in the area, in some instances other regional descriptors, and the names of all of the states with counties included in the area. For this research, I am using only the name or names of the largest city and any additional urban centers that have been identified for the area. So I will be referring, for example, to the New York area, the Dallas-Fort Worth area, and the San Francisco-Oakland-San Jose area.

The Effect of Choosing CSAs over MSAs

This section describes the differences associated with the use of the CSAs in place of MSAs. It begins by classifying the areas based on a qualitative notion of the extensiveness of the change. This includes addressing the issue of multiple urban centers in the MSAs and CSAs. Following is an examination of the changes in the populations in going from the largest MSA in an area to the CSA. Note that a deliberate

choice has been made not to consider the change in the land area. Because county boundaries can be arbitrary and the sizes of counties varies widely, such a comparison would not be especially informative.

CSA Types and Urban Centers

CSAs result from various combination of CBSAs, the MSAs and Micropolitan Statistical Areas. Some of these combinations can also result in the addition of 1 or 2 more urban centers to the original largest MSA in a CSA. Various types of combinations can reasonably be associated with more or less of a change in moving from the MSAs to the CSAs. A four-fold classification of the areas, being called the *CSA type*, will be used to describe the nature of these changes. The categories, with the shorter descriptor, if any, in parentheses, are as follows, ordered from the least to the most consequential change:

- Metropolitan Statistical Areas (MSA)
- Only Micropolitan Statistical Areas added (Micros only added)
- Metropolitan Statistical Areas added with no additional urban centers (MSAs added, no centers)
- Urban centers added

Table 1 shows the number of areas in each of the four categories, along with the number of those areas having 2 or 3 urban centers. A complete listing of the areas in each category is provided in the appendix.

Table 1. Number of Areas by CSA Type, and the Number Having Multiple Urban Centers

CSA Type	Total Number of Areas	Number of Areas with More than One Urban Center
MSA	6	1
Micros only added	15	1
MSAs added, no centers	29	5
Urban centers added	9	9
Total	59	16

Some MSAs were not combined with other areas to form CSAs. In those instances, the MSA has been used. For these areas there is obviously no differences associated with the decision to use CSAs. The first category, *MSA*, includes the 6 MSAs that were not incorporated into CSAs.

The Micropolitan Statistical Areas are generally the smaller of the CBSAs, being centered on Urban Clusters having populations less than 50,000. So the MSAs that combine only with Micropolitan Statistical Areas will tend to see less change from the MSA to the CSA. This is the second category, labeled *Micros only added*. Fifteen CSAs fall into this group.

The remaining CSAs resulted from the combination of 2 or more MSAs (along with possibly additional Micropolitan Statistical Areas) representing more substantial change. These areas are subdivided into the final 2 categories. In the third group, *MSAs added, no centers*, smaller MSAs were joined with the largest MSA such that none of the smaller areas qualified as additional urban centers. The size of the addition could be very substantial, but the change to the CSA did not alter the fundamental identify of the largest MSA. This was by far the largest grouping of the CSAs, including 29 areas. This included two of the areas I described earlier as causing me concern because the MSAs were too limited, New York and Los Angeles.

Finally, the last CSA type consisted of those where 2 or more MSAs were combined and the relative sizes of their Urbanized Areas were such that 1 or 2 urban centers were added to the CSA. Nine CSAs fell into this group, including the 2 other areas that I identified earlier as being problematic, Raleigh-Durham and San Francisco-Oakland-San Jose.

Not all CSAs with multiple urban centers resulted from the merger of MSAs. Areas with 2 or 3 urban centers exist within each of the 4 CSA types. One MSA had 2 centers (Tampa-St Petersburg) and 1 CSA with micros only added had 2 centers (Norfolk-Virginia Beach). Of the areas having MSAs merged into the CSA without adding urban centers, 5 had multiple urban centers that were present in the largest MSA in the combination, for example, Dallas-Fort Worth. All 9 of the CSAs with urban centers added necessarily had 2 or 3 urban centers. But in 2 of those areas, 1 center was added to an MSA that already had 2 centers, the San Francisco-Oakland MSA with the San Jose MSA added, and the Greensboro-High Point MSA with the Winston-Salem MSA added. (Note that Winston-Salem is a single city and only 1 urban center.)

Population Increase

One direct measure of the extent of the shift from MSAs to CSAs is the increase in the population of the CSA as compared to the largest MSA included in that area. This section examines this increase. But we begin with a look at the populations of the CSAs

in the four CSA type categories to provide a starting context. The mean, minimum, and maximum populations for the four categories are shown in Table 2.

Table 2. CSA Population by CSA Type

CSA Type	N	Mean	Minimum	Maximum
MSA	6	2,523,057	1,208,101	4,192,887
Micros only added	15	1,960,416	1,027,683	6,114,562
MSAs added, no centers	29	4,313,039	1,013,356	23,076,664
Urban centers added	9	4,107,755	1,219,422	9,051,961
All CSAs and MSAs	59	3,501,568	1,013,356	23,076,664

The areas in the first two CSA type categories, those MSAs not merged into a CSA and those MSAs combined only with other Micropolitan Statistical Areas, have much lower average populations than those in the latter groups, with means of 2.5 and 2 million. The 2 groups of CSAs that include multiple MSAs have mean populations over 4 million. All four types have small CSAs with populations just over 1 million, the minimum for inclusion in the set. But the largest CSAs in the final groups are much larger. The maximum of 23 million for the groups with MSAs added but no new centers is, of course, for the New York CSA, which falls into the category. Presence of the larger CSAs in the final two categories should not be surprising, given that many of the larger MSAs are within areas of widespread, concentrated urban development, with other MSAs in the vicinity.

Next is the examination of the population increase associated with using the CSA in place of the MSA. This is calculated as the difference between the total population of the CSA and the population of the largest MSA included in that area. Consideration begins with the amount of the population increase, followed by the proportional increase. Table 3 presents the mean, minimum, and maximum increases in the population from the largest MSA to the CSA.

As was expected, the size of the average population increase is much greater for the latter categories, increasing steadily from 0 to 129,000, 701,000, and 1.8 million for the final category with urban centers added. Of course, all values are 0 for the first MSA category, as they were not combined with other areas into a CSA. For the final 3 categories, the minimum increase also goes up steadily and significantly from only 28,000 for areas with only Micropolitan Statistical Areas added, to 151,000 for areas with MSAs added without additional centers, to 538,000 for those CSAs for which urban

Table 3. Increase in Population from the Largest MSA in a CSA to the Total CSA Population

CSA Type	N	Mean	Minimum	Maximum
MSA	6	0	0	0
Micros only added	15	128,831	28,258	406,535
MSAs added, no centers	29	700,799	150,865	5,048,169
Urban centers added	9	1,783,643	537,961	3,818,305
All CSAs and MSAs	59	649,295	0	5,048,169

centers were added. The minimum for the latter 2 groups where MSAs were added had to be greater than 50,000 simply because every MSA must include an Urbanized Area with at least that population.

The maximum increases are more interesting. For the second group with only Micropolitan Statistical Areas added, the greatest increase of over 400,000 was for Columbus, Ohio. This substantial increase occurred as a result of the addition of no fewer than 7 Micropolitan Statistical Areas. The next largest increase for the areas in this group, for Houston, was less than 200,000.

It is the final two categories where MSAs were added that the extremely large increases in population from the largest MSA to the CSA were seen. The largest increase by far, over 5 million persons, was for the Los Angeles CSA. The Riverside-San Bernardino-Ontario MSA, one of the areas added, had a population over 4 million and was the 13th largest MSA in 2010. Four more CSAs had population increases greater than 3 million. One was New York, the largest CSA and the only one other than Los Angeles with a population exceeding 10 million. The other 3 CSAs with the very large population increases were San Francisco-Oakland-San Jose, Washington-Baltimore, and Boston-Providence. In each of these cases a large MSA was added, resulting in the addition of an urban center to the largest MSA. No other CSAs saw population increases of as much as 1.5 million, less than half the size of the increases for these 5 areas.

It is to be expected that the largest population increases are associated with some of the largest CSAs. But it is also useful to look at the increases in relation to the size of the largest MSA included in the CSA. Table 4 presents the statistics for the percentage increase in population from the largest MSA for the areas in each of the four groups.

Major, steady increases can be seen in the mean, minimum, and maximum for the areas in the four CSA types. From a mean increase of 8 percent for the areas with only Micropolitan Areas added, the value goes up to 22 percent for the areas with MSAs

Table 4. Percentage Increase in Population from the Largest MSA in a CSA to the Total CSA Population

CSA Type	N	Mean	Minimum	Maximum
MSA	6	0.0	0.0	0.0
Micros only added	15	8.2	2.1	21.4
MSAs added, no centers	29	21.5	4.0	39.5
Urban centers added	9	86.2	60.6	121.9
All CSAs and MSAs	59	25.8	0.0	121.9

added and no new urban centers to the very large value of 86 percent, nearly a doubling of the population for the CSAs for which urban centers were added. The differences in the ranges of percentage changes for the 3 groups with areas added to form CSAs is especially interesting. For those areas in which only Micropolitan Statistical Areas were added, percentage increases over the MSA ranged from a low of 2 percent for Memphis to a high of 21 percent for Columbus. In other words, the relative change in population in going from the MSA to the CSA were fairly modest. For those areas with 1 or more MSAs added but no additional center, the smallest increase was not much larger than for the previous group, only 4 percent, which was for the Chicago CSA. The greatest relative increases were 39 percent for 2 of the areas, one of the smaller CSAs, Grand Rapids, and the second largest, Los Angeles. The picture is very different for the 9 CSAs in which urban centers were added, with increases ranging from a low of 61 percent for Washington-Baltimore to highs of around 120 percent for Harrisburg-York and Greensboro—Winston-Salem—High Point.

Obviously the most dramatic changes in choosing to use CSAs in place of MSAs came with those CSAs for which urban centers were added, along with the large population increases for Los Angeles and New York. The following sections provide arguments supporting the appropriateness of using these larger areas.

The Sharing of Major Transportation Infrastructure

The sharing of major transportation infrastructure can support the combination of what might have been separate areas into an integrated metropolitan area by demonstrating the integration of the areas. Two classes of such infrastructure are considered here—the connection of areas with commuter rail service and the sharing of major commercial airports.

Commuter Rail Service

Commuter rail service is common in larger metropolitan areas, connecting suburban areas to central business districts and connecting multiple urban centers directly. As implied by the name, such service is heavily used for the journey-to-work, with the most frequent service (and sometimes the only service) during rush-hour periods. The presence of such rail service linking multiple urban centers and other metropolitan areas combined into CSAs is discussed here. The presence of such service has been confirmed in each instance from the providers' websites.

The two largest CSAs each had multiple MSAs merged with the major MSA. In the New York CSA, MetroNorth connects several of the MSAs in Connecticut with the city. In addition, New Jersey Transit provides commuter rail connections from New York City and Newark to Trenton, another MSA merged into the New York CSA. In the Los Angeles CSA, 2 Metrolink commuter rail lines connect the cities in the Riverside-San Bernardino-Ontario MSA with downtown Los Angeles and a third line runs to Orange County, also part of the Los Angeles MSA. The Oxnard-Thousand Oaks-Ventura MSA is likewise connected by Metrolink to downtown Los Angeles.

In 4 of the CSAs that saw urban centers added to the largest MSA, commuter rail lines connect those urban centers. Caltrain runs trains from San Francisco to San Jose and beyond in the San Francisco-Oakland-San Jose CSA. Also, the Altamont Corridor Express connects San Jose with some cities in the East Bay portion of the San-Francisco-Oakland MSA. Washington and Baltimore are linked by the MARC Train commuter rail service, which also connects Washington to the Hagerstown-Martinsville MSA, another MSA merged into the Washington-Baltimore CSA. MBTA Commuter Rail runs between Boston and Providence. And finally, the Utah Transit Authority FrontRunner connects both Ogden and Provo with Salt Lake City.

The role of commuter rail in linking multiple urban centers can also be seen in several of the areas with multiple centers in the original MSA. Trinity Railway Express connects Dallas and Fort Worth. Miami, Fort Lauderdale, and West Palm Beach are linked by Tril-Rail. Sounder commuter rail runs between Seattle and Tacoma.

Commercial Airports

The sharing of a commercial airport is another indication of the interdependence of urban centers and of MSAs that have been merged into a CSA. The following discussion addresses what the Federal Aviation Administration (FAA) classifies as primary commercial airports, those airports providing scheduled commercial passenger service and having 10,000 or more boardings per year (U.S. Federal Aviation Administration 2017a). Note that this is a very low threshold. The major airports in the large CSAs considered here have multiple millions of annual passenger boardings. The

data used to identify the airports and their boardings in 2015 are also from the FAA (U.S. Federal Aviation Administration 2017b).

Six of the areas with multiple urban centers are served by a single commercial airport. Greenville-Spartanburg International Airport, Minneapolis-St. Paul International Airport, and Raleigh-Durham International Airport serve those CSAs. Albany International is the only commercial airport in the Albany-Schenectady-Troy CSA, as is Harrisburg International in the Harrisburg-York CSA. The Piedmont Triad International Airport is the provider of commercial service in the Greensboro—Winston-Salem—High Point CSA.

In six more of the areas with multiple centers, 2 commercial airports are present but one of the airports is clearly the dominant provider of passenger air service, with far more the boardings than the smaller airport. Dallas-Fort Worth International had over 4 times the boardings of Dallas Love Field and obviously serves both urban centers. Cleveland-Hopkins International had 5 times the number of boardings as Akron-Canton Regional airport. Norfolk International and Newport News/Williamsburg International are both in the Norfolk-Virginia Beach CSA, but the former had about 5 times the boardings of the latter, which is also much farther from Virginia Beach. Tampa International had over 10 times the boardings of Saint Pete-Clearwater International. Seattle-Tacoma International dwarfs Boeing Field, and Salt Lake City International likewise eclipses Provo Municipal Airport. In each instance, the larger airport had well over 100 times the boardings of the smaller one.

Very large metropolitan areas are generally served by multiple significant commercial airports, so one would not expect a single shared airport. However, 2 CSAs resulting from the combination of large MSAs have an airport in one MSA that clearly plays a role in providing service to the other. Baltimore's airport is Baltimore/Washington International. The name makes the point.

In the Los Angeles CSA, Ontario International Airport is obviously in the Riverside-San Bernardino-Ontario MSA. For many years, Ontario International was literally owned and operated by Los Angeles World Airports, the agency that is also responsible for Los Angeles International (LAX). This makes it abundantly clear that Ontario International was seen as serving the wider region, including at least portions of the Los Angeles MSA. Ownership and control of Ontario International was returned to the city of Ontario and San Bernardino County in 2016. This resulted after conflict with Los Angeles (and a lawsuit) arising from their belief that Los Angeles World Airports was favoring LAX over Ontario, resulting in lower levels of scheduled service.

Every one of the CSAs with multiple urban centers, including all 9 of the CSAs which had urban centers added to the largest MSA, had shared major transportation infrastructure, either commuter rail service or dominant commercial airports. In addition, the New York and Los Angeles CSAs, which saw the greatest population

increases of CSAs that did not add urban centers, had MSAs added that were linked by commuter rail.

The Earlier MSA Definition

Some may still argue that the benefits of using the MSA metropolitan area having official imprimatur of OMB outweighs any benefits from the nonstandard choice of using the larger CSAs. I would respond that that the use of such larger areas for the designation of metropolitan areas has had an official imprimatur...from OMB! This will obviously require some explanation.

OMB and its predecessor have defined MSAs (using various names) since the late 1940s. While the original definition was tweaked every 10 years at the time of the census, the basic approach remained fundamentally the same through the designation of areas for the 2000 census (U.S. Bureau of the Census 1994; U.S. Office of Management and Budget 1990, 1998). But after an extended review of the metropolitan definition, OMB adopted a totally new definition that was first used to delineate MSAs in 2003 (U.S. Office of Management and Budget 1998, 2000). This is also when the CBSA concept, Micropolitan Statistical Areas, and the CSAs were introduced.

A comparison of the MSAs delineated under the old definition for the 2000 census with the MSAs and CSAs arising from the new definition in 2003 is very illuminating.¹ But first, a note on the nomenclature used by the old definition is required. That procedure defined MSAs by aggregating counties using a consistent definition for all areas. (Cities and towns were used as the basic building blocks in New England, but an alternative county-based delineation was also provided.) Most of the largest MSAs that were so delineated were then subdivided into smaller areas that were, confusingly, called Primary Metropolitan Statistical Areas or PMSAs. (How some of these subdivisions could be termed metropolitan areas when they were only collections of suburban counties is beyond me.) Even more confusingly, those MSAs that had been so subdivided were renamed Consolidated Metropolitan Statistical Areas or CMSAs, despite the fact that they were the original MSAs that had been delineated and in no way resulted from the consolidation of smaller areas (U.S. Bureau of the Census 1994; U.S. Office of Management and Budget 1990, 1998). For this discussion, I will refer to the CMSAs as MSAs along with those MSAs that were not subdivided.

The majority of the large 2000 and 2003 MSAs examined were approximately the same, differing only in outlying counties included in one but not the other. Miami-Fort Lauderdale and West Palm Beach were separate MSAs in 2000 but were combined for the 2003 and later MSAs. This was the only instance in which a 2000 MSA was substantially less inclusive than the later MSA.

¹ Details on this comparison is provided in a research note (Ottensmann 2016b).

Over a third of the large MSAs in 2000 included 2 or more of the 2003 MSAs. For most of the CSAs that involved the addition of an urban center, such as Providence with Boston and Baltimore with Washington, the 2000 MSAs included those centers. The only exceptions were Harrisburg and York, which were separate MSAs in 2000 and, Provo, which was not included in the 2000 Salt Lake City MSA (but Ogden was).

For most of the other CSAs that involved the combination of multiple MSAs, the 2000 MSAs included most of those same 2003 MSAs. For example, the 2000 Los Angeles MSA included the counties of the San Bernardino-Riverside-Ontario MSA and the Oxnard-Thousand Oaks-Ventura MSA. New York included areas in Connecticut and the Trenton MSA counties. Milwaukee included Racine, Detroit included Ann Arbor, Flint, and Monroe. By and large, the extent of the 2000 MSAs was quite comparable to the 2003 and 2013 CSAs. So metropolitan areas having this extent have been officially designated by OMB—in 2000!

Conclusion

Numbers of the current MSAs are unusually limited in their inclusiveness, failing to include contiguous areas that could reasonably be considered part of the metropolitan area or failing to combine adjacent large MSAs that should be considered as multiple urban centers within a single metropolitan area. OMB defines CSAs as combinations of MSAs or Micropolitan Statistical Areas, and these areas address this problem.

The changes involved in choosing to use CSAs in place of MSAs range from none, as some MSAs were not merged into CSAs, to very large absolute and percentage increases in population, especially for the 2 largest MSAs/CSAs and for those CSAs which involved the combination of areas leading to the addition of urban centers as they have been described here.

Two types of evidence supports the decision to use the larger CSAs in place of the MSAs. The sharing of major transportation infrastructure can be seen as an indicator of the integration of an area that warrants multiple MSAs being considered to be part of a single, larger metropolitan area. Two forms of such sharing are the linking of areas by commuter rail and having one airport providing all or most of the commercial air service to the multiple areas. Of the CSAs involving the most extensive expansion, either adding urban centers or having the very largest population increases, all had one or both types of infrastructure sharing.

In addition, that the CSAs can be viewed as reasonably delineating metropolitan areas can be seen in the earlier definition of MSAs. Under the older OMB definition of MSAs, last used for the reporting of the 2000 census, areas were delineated that were very similar in extent to the current CSAs.

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Appendix. Lists of Areas by the CSA Type.

Metropolitan Statistical Areas (MSA)

Austin
Phoenix
Richmond
San Antonio
San Diego
Tampa-St Petersburg

Only Micropolitan Statistical Areas Added (Micros only added)

Birmingham
Buffalo
Charlotte
Cincinnati
Columbus
Houston
Jacksonville
Memphis
Nashville
Norfolk-Virginia Beach
Oklahoma City
Rochester
St Louis
Tucson
Tulsa

Metropolitan Statistical Areas Added with No Additional Urban Centers (MSAs added, no centers)

Albany-Schenectady-Troy
Albuquerque
Atlanta
Chicago
Dallas-Fort Worth
Dayton
Denver
Detroit

El Paso
Fresno
Grand Rapids
Hartford
Indianapolis
Kansas City
Knoxville
Las Vegas
Los Angeles
Louisville
Miami-Fort Lauderdale-West Palm Beach
Milwaukee
Minneapolis-St Paul
New Orleans
New York
Orlando
Philadelphia
Pittsburgh
Portland
Sacramento
Seattle-Tacoma

Urban Centers Added

Boston-Providence
Cleveland-Akron
Greensboro--Winston-Salem--High Point
Greenville-Spartanburg
Harrisburg-York
Raleigh-Durham
Salt Lake City-Ogden-Provo
San Francisco-Oakland-San Jose
Washington-Baltimore