

**CONFERENCE OF EUROPEAN STATISTICIANS**

**Joint UNECE/EUROSTAT Work Session on Methodological Issues Involving the Integration of  
Statistics and Geography**

(Tallinn, Estonia, 25-28 September 2001)

Topic (iv): Standards and metadata

**U.S. STATISTICAL-PURPOSE AREAS**

Submitted by U.S. Department of Commerce<sup>1</sup>

**Contributed paper**

**I. INTRODUCTION**

1. In the U.S., regional definitions most commonly used by public statistical programs fall into the following four classes:

- Governmental jurisdictions - mainly municipalities, counties, and States;
- Census-oriented districts of several sorts;
- Mandatory standardized statistical purpose areas - mainly the Metropolitan Areas (MA's) defined by the Office of Management and Budget (OMB); and
- Optional standardized statistical-purpose areas such as the Economic Areas (EA's) defined by the Bureau of Economic Analysis (BEA) to extend the MA concepts.

2. Statistical measures for governmental jurisdictions are the biggest determinants of these programs, but public statistics also are compiled for numerous other areas whose primary purpose is to facilitate analyses and comprehension of regional phenomena. The latter are referred to here as statistical-purpose areas. Census-oriented districts are a specialized type of statistical-purpose area used primarily for the collection and compilation of highly detailed regional statistics from the decennial censuses. The MA's and EA's are general statistical-purpose areas that are defined by formal classification standards and used in a variety of applications. The focus of this paper is on the ways in which the general statistical-purpose areas and their standards were established and have evolved over time. Governmental jurisdictions and census-oriented districts are discussed here only to the extent necessary to support the discussion of MA's and EA's.

**II. GOVERNMENTAL JURISDICTIONS**

3. The territory of the U.S. comprises 50 States and the District of Columbia (DC) - a small independent area that is the main domain of the federal government. The States together comprise over 3,100 counties. The legally recorded boundaries of cities and incorporated towns - those that have some

---

<sup>1</sup> Prepared by Kenneth P. Johnson, Bureau of Economic Analysis. The views expressed in this paper are solely the author's and do not necessarily reflect the views of either the Bureau of Economic Analysis (BEA) or the U.S. Department of Commerce. Also, while the author represented BEA on the Metropolitan Area Standards Review Committee, these views do not necessarily reflect the views of either the Committee or its sponsoring agency, the U.S. Office of Management and Budget.

form of government - define the jurisdictions of their governments. The municipal jurisdictions do not overlap one another, but they often span two or more counties.

4. There are several features of the geo-political landscape in the U.S. that have important implications for the usefulness of governmental jurisdictions as statistical areas.

- The geographic domain of many States is quite large, so they are not useful for focused regional studies such as environmental impact or market analyses.
- Recognizing both historical and geographic differences in the ways in which they were established, counties (States) in one region of the country may not be fully comparable to their counterparts in another region of the country.
- Establishment of municipal boundaries is not closely or uniformly regulated across the country, so they may not closely follow urban population boundaries.
- There is wide variation in the sizes of both geographic domain and the economic/population base for counties, and
- In many counties the economic/population base is too small to support meaningful statistical analyses.

5. Although not a feature of these areas themselves, the relative importance given to various types of governmental jurisdictions in public statistical programs also plays a role in their usefulness as statistical areas. State-level information usually has the most detail and is revised the most frequently; county-level information often is slightly less detailed and may be revised slightly less frequently than States; municipal (town and city) information is considerably less detailed and is revised the least frequently. Because many regional studies require data for areas with relatively large dense populations and concentrated economic activity, these priorities may not serve them well.

### **III. CENSUS-ORIENTED DISTRICTS**

6. In order for the Census Bureau to accomplish its goals of complete enumeration of the country's population and tabulation of detailed statistical information for detailed geographic definitions, it is necessary for the agency to define specialized statistical-purpose areas. These include enumeration districts, groups of city blocks, individual city blocks and block faces, tracts, census county divisions, census designated places, and urbanized clusters and areas. The development of MA standards is heavily dependent on the concepts of place and urbanization as defined for the census, so they are discussed briefly here.

7. A place may be thought of simply as a town or city, but not all places have independent governments. A census designated place (CDP) is delineated by the Bureau of the Census in order to provide data for settled concentrations of population that are identifiable by name but are not legally incorporated under the laws of the State in which they are located.

8. An urbanized area (UA) consists of densely settled territory that contains 50,000 or more population and includes at least one place. The UA's are designated to provide a better separation (than that provided by place boundaries) of urban and rural territory in the vicinity of large places.

9. An urban cluster (UC) consists of densely settled territory that contains at least 2,500 people, but less than 50,000 people, and includes at least one place. The definition of UC's is new with the 2000 census, and serves in part to facilitate identification of somewhat smaller "cores" for alternative statistical-purpose areas.

### **IV. METROPOLITAN AREAS (MA's)**

10. During the first half of the 20th century, the U.S. did not have officially mandated regionalizations of any sort and numerous alternative small-area concepts (industrial areas, metropolitan

counties, metropolitan districts, and labor market areas) were tested and presented. During the 1940's, the confusion and time-series disruptions associated with this situation brought the need for a standard statistical area to the attention of both the affected statistical agencies and the Bureau of the Budget - the agency that later became the OMB. Under Bureau of Budget direction, an Interagency Committee on Standard Metropolitan Areas proposed the first standards for defining such areas. These definitions were issued in 1949 by the Bureau of the Budget and the areas were officially designated as "standard metropolitan areas (SMA's)."

11. The SMA's were groups of one or more counties formed around large central communities of nonagricultural workers residing in and around major cities. The classification requirements by which county entities were assigned to categories were relatively simple. Counties that were socially and economically linked with a qualifying central community (city), on the basis of telephonic contacts and/or labor commuting were included in the SMA associated with that community (city) provided that they met minimum urban-nature qualifications - chiefly high population density and/or a high level or fraction of nonagricultural employment.<sup>2</sup> The resulting SMA's were first used to present data from the 1947 Census of Manufactures and were officially adopted for the 1950 decennial census of housing and population.

12. Changes in the definitions of MA's since the 1950 census have consisted chiefly of the recognition of new metropolitan areas as additional core cities or qualifying urbanized areas have reached required population levels, and the addition of outlying counties to existing areas as new decennial census data showed them to meet commuting or other linking qualifications. Along with newly emerged settlement patterns, some of the changes in MA definitions during this period resulted from an ongoing process of refinements to the standards themselves. Four decades after the SMA's were established, a somewhat more complex set of standards had evolved for use during the 1990's. Although these standards are scheduled to be supplanted by newly adopted standards in 2002, they are discussed briefly below in order to facilitate discussion of processes by which the new standards were established.

13. The details of the MA standards for the 1990's were officially published on March 30, 1990.<sup>3</sup> A user-oriented version of the relevant procedures, still requiring about 16 pages of text, is available on the internet at [www.census.gov/population/www/mastand.html](http://www.census.gov/population/www/mastand.html). The following is intended only as an informal summary of the general steps presented there. It is important to stress that the language used here is strictly that adopted by the author to conserve space and time. It is too informal for use in official documentation, and does not address the refinements needed to construct New England MA's from towns and cities rather than from counties as discussed here.

14. The main procedures used to define an individual MA include (1) identification of a qualifying location, (2) identification of the central county or counties, (3) identification of noncentral counties that are closely tied to the one or more of the central counties, and (4) application of a voluminous set of rules for (a) potentially grouping the MA with one or more other MA's, (b) identification of central cities within the MA, (c) naming the MA, and, (d) in the case of MA's that have more than one million population, potentially partitioning the MA into Primary Metropolitan Statistical Areas (PMSA's) and then naming the PMSA's. The essence of the MA classification standard is embodied in steps (1), (2), and (3), but details of the sort referenced in step 4 add considerably to the bulk of the standard.

---

<sup>2</sup> Throughout their history the MA standards have acknowledged that cities and towns are administratively more important than counties in the New England States. For this reason, cities and towns, rather than counties, were used as the building blocks for MA's in New England. New England County Metropolitan Areas - county-based alternatives to the city- and town-based MA's of that region - were introduced in 1975 to facilitate comparisons between areas in New England and elsewhere in the country.

<sup>3</sup> See: Revised Standards for Defining Metropolitan Areas in the 1990's (*Federal Register* Vol. 55, No. 67, March 30, 1990). Agency Statistical Policy Office, Office of Information and Regulatory Affairs, OMB.

15. The currently active MA standards provide that each newly qualifying MA must include at least one city with 50,000 or more inhabitants, or an urbanized area (UA) with at least 50,000 inhabitants and central to a metropolitan area with population of at least 100,000 (75,000 in New England). Each such qualified city/UA serves to provide location and at least partial identity for a single MA. The qualifying cores also serve to identify each MA's central counties. In step two, each county that contains at least 50 per cent of a qualifying core or has over 50 per cent of its population within a qualifying core is defined to be a "central county" for the MA that is qualified by that core.

16. In step three, a county that is not central to any MA is linked to (and defined to be an outlying county in) an MA if it satisfies both general urban-nature criteria and commuting criteria that link it to the MA's central counties. These criteria are quite varied and account for much of the complexity of the existing standards. They consist of general balances between urban-nature and labor commuting.<sup>4</sup> Those with relatively high commuting may be included despite having relatively few urban characteristics; those with many urban characteristics may be included despite having relatively low labor commuting links.

17. A few special-case rules account for cases where the general rules are inconclusive or ambiguous about a county's classification. Additional cities that qualify as "central cities" for an MA are identified (with a now elaborate set of criteria) after the complete set of its counties is identified; the central cities provide the basis (using another elaborate set of criteria) for formal naming of the MA.

18. Finally, if the MA is large it is analyzed to determine if it should be partitioned into subareas. An MA that has a population of one million or more may be recognized as a Consolidated Metropolitan Statistical Areas (CMSA) if both (a) separate component areas can be identified within the entire area by meeting statistical criteria specified in the standards, and (b) local opinion indicates there is support for the component areas. If recognized, the component areas are designated as Primary Metropolitan Statistical Areas (PMSA's), and the entire area becomes a CMSA. All MA's that are not CMSA's or PMSA's are referenced simply as MSA's - metropolitan statistical areas.

## V. BEA ECONOMIC AREAS

19. The original set of BEA Economic Areas was defined in 1969 in response to the needs of data users who wanted economic projections for regions that like MA's were midway in size between counties and States, but unlike MA's were exhaustive of the country. In order to improve the procedures used by BEA in projecting regional economic activity, the EA's were defined on the basis of economic relationships that maximized the extent to which each was independent of the others in the sense of labor markets and economic infrastructure. With these qualifications, the EA's were considered to be superior analytic regions for identification and extrapolation of economic relationships, so the 167 EA's identified at that time served as the fundamental projections unit in BEA's regional projections program. That is, EA's were projected first, and other regional projections (e.g., MA's and States) were projected in terms of their relationships to the EA's.

20. Each of these areas consisted of a single- or multi-county economic node and non-nodal counties that were economically tied to the node. The EA nodes consisted primarily of the MA's identified by the Office of Management and Budget. In parts of the country remote from MA's alternative nodes were specified independent of the MA standards, usually oriented around urban settlements that were too small

---

<sup>4</sup> For example, one of the six qualifying criteria falls in the mid-range of commuting qualifications and reads as follows: *[A noncentral county is defined to be an outlying county in an MA if] From 15 to 25 percent of the employed workers commute to the central county/counties, the population density of the county is at least 50 persons per square mile, and any two of the following conditions also exist: (a) population density is at least 60 persons per square mile, (b) at least 35 percent of the population is urban, (c) population growth between the last two decennial censuses is at least 20 percent, [and] (d) at least 10 percent, or at least 5,000, of the population lives in the qualifier urbanized area(s).*

to be considered as metropolitan, but important as an economic center in such sparsely populated areas. Similar to the definitional standards for MA's, the main variable used to link non-nodal counties to the EA nodes was commuting of the labor force in each non-nodal county. In cases where a non-nodal county had ambiguous connections to two or more nodes, newspaper circulation data was used to identify an appropriate orientation.

21. The general procedural description given above applies to all subsequent redefinitions of the Economic Areas. Changes during the period 1969 to 1995 primarily reflect changes associated with the changing MA standards and changing patterns of labor commuting. The areas were redefined in 1974 using commuting data from the 1960 Census and again in 1977 using commuting data from the 1970 census. The Economic Areas were evaluated using commuting data from the 1980 census, but were judged to be valid, so no changes were made to them at that time. Commuting data released following the 1990 census indicated that revisions were needed and resulted in the current definitions of the EA's in 1995.<sup>5</sup> In addition to the Federal Register Notices detailing the development of standards for the 1995 EA revisions, a map and article discussing these procedures may be found on the internet under the "Regional" heading at [www.bea.doc.gov](http://www.bea.doc.gov). This same site may be reviewed after 2002 for documentation of plans for revisions to the EA's incorporating results from the 2000 Census and the new American Community Survey.

22. Only one substantial procedural change was employed in the 1995 EA definitions. In earlier EA definitions, MA's themselves were grouped to ensure size and independence characteristics of the associated EA's. A single EA node might include several MA's. In 1995, an intermediate step was created in which each MA was treated as the center of a separate Component Economic Area (CEA).<sup>6</sup> Then, in the final step, the CEA's were grouped in order to form EA's that meet minimum size and independence criteria. The current use of CEA's formalizes the process by which grouping of areas is accomplished, creates a clearer identification of the way in which the EA's extend the MA concepts, and provides an additional layer of statistical-purpose areas potentially more useful than the EA's themselves for certain types of focused regional studies.

## **VI. RELATIONSHIP OF THE MA AND EA STANDARDS**

23. Metropolitan Areas (MA's) are defined by the Office of Management and Budget (OMB) for presentation of census and other official statistical tabulations associated with the areas immediately surrounding the main urban settlements of the country. Economic Areas (EA's) are defined by the U.S. Bureau of Economic Analysis (BEA) as an extension of the MA standards that includes the nonmetropolitan parts of the nation's territory. The EA's are built up around economic nodes and, with few exceptions, these nodes are the MA's, so these two standards are closely related.

24. The EA standards extend and complement the MA standards, but should not be considered as a potential alternative to them. These two classification systems were developed in response to substantially different objectives. The need served by the MA standards for documentation of human settlement patterns is not well served by the EA classification system. The need served by the EA standards for independent and economically significant areas that are exhaustive of the nation is not well served by the MA classification system.

25. The EA and MA standards also differ in an important nontechnical sense. The standards for defining MA's are developed and published by the OMB with considerable input from various statistical

---

<sup>5</sup> Notices related to the most recent standards defined for EA's include the following: Intent to Revise the Boundaries of the BEA Economic Areas (*Federal Register* Vol. 58, No. 44, March 9, 1993); Proposed Redefinition of the BEA Economic Areas (*Federal Register* Vol. 59, No. 214, November 7, 1994); and Final Redefinition of the BEA Economic Areas (*Federal Register* Vol. 60, No. 47, March 10, 1995).

<sup>6</sup> As in earlier versions of the EA's, nodes in remote parts of the country continue to be based on alternative centers. In 1995, newspaper distribution centers were adopted to define nodes for 35 of the CEA's.

agencies and committees. These are legally mandated standards for official regions thought to best represent the human settlement patterns of the country. These standards must be adhered to by all federal statistical agencies in tabulation of data for metropolitan areas.

26. On the other hand, the standards for the EA's are developed and published by BEA, within procedural guidelines provided by OMB for all published standards, but without OMB mandates. These are characterized here as operational standards. Operational standards define the ways in which a particular agency (in this case, BEA) will operate, but their use is optional for agencies other than the one publishing the standards.

27. In both cases, OMB encourages recognition that these standards were developed only for statistical purposes. The resulting areas are not proposed to serve any sort of specific program objectives such as health planning, crime control, or environmental monitoring. The features of subnational regionalizations that best serve the purposes of a specific program are often unique so it is impossible to recognize all such purposes in one regionalization. The extent to which either the EA's or MSA's are useful and appropriate in the administration of specific public or private (nonstatistical) programs must be determined by the designers and directors of those programs.

## VII. NEED AND PROCEDURES FOR CHANGE TO THE STANDARDS

28. Changes in the MA standards were slight in the early decades of their use, but the prominence of MA data in U.S. statistical reports increased dramatically after 1970. With their increased popularity, came increased demands for refinements to the standards. During 1970 to 1990 numerous, individually minor, changes intended to remedy one sort of identified defect or another were added. By the 1990's, the MA standards had become both complex and cumbersome. Even the conventions for subclasses of the MA's were found to be confusing and most of the demands for improvements included requests for clarification and simplification of the standards.<sup>7</sup>

29. Accordingly, OMB convened a formal task force and directed that a study be made of the ways in which the objectives of clarification and simplification might be accomplished while maintaining the overall objectives of the MA program. Coordinated by representatives from the Bureau of the Census, numerous related studies and conferences occupied the latter half of the decade. The Metropolitan Areas Standards Review Committee (MASRC) began formal considerations of this problem in late 1998.

30. A series of at least three official Notices is required in order to change established federal procedures. In the Federal Register, published daily by the U.S. Government Printing Office, the responsible agency must first publish a Notice of Intent to Change the Standard, then one or more Notices of Proposed Changes to the Standard, and then a Notice of Final Changes to (Decisions on) the Standard.<sup>8</sup> All except the final Notice usually include a solicitation of comments by interested parties, and all except the first Notice usually include a summary of comments received in response to the previous Notice. Usually a period of 60 to 120 days is provided for comments to each Notice, so the complete process for even simple changes to an established standard requires substantial time. MASRC research, testimony,

---

<sup>7</sup> PMSA's generally are taken as comparable to MSA's (that is, to ordinary MA's) because they are closer in average size, and CMSA's are thought to be a hybrid. In fact, the MSA's and CMSA's are defined with identical standards, and it is the PMSA's that are a special sort of statistical-purpose area.

<sup>8</sup> Notices drafted by MASRC and published by OMB related to redefinition of MA's include the following: Alternative Approaches to Defining Metropolitan and Nonmetropolitan Areas (Federal Register Vol. 63, No. 244, December 21, 1998); Recommendations From the Metropolitan Area Standards Review Committee to the Office of Management and Budget Concerning Changes to the Standards for Defining Metropolitan Areas (Federal Register Vol. 64, No. 202, October 20, 1999); Final Report and Recommendations From the Metropolitan Area Standards Review Committee to the Office of Management and Budget Concerning Changes to the Standards for Defining Metropolitan Areas (Federal Register Vol. 65, No. 163, August 22, 2000); Standards for Defining Metropolitan and Micropolitan Statistical Areas (Federal Register Vol. 65, No. 249, December 27, 2000).

and negotiations related to the most recent revisions of the MA standards spanned approximately two years.

### **VIII. MAIN ISSUES AND CONCLUSIONS OF THE MA STANDARDS REVIEW COMMITTEE (MASRC)**

31. In priority order, the objectives embraced by MASRC in the MA redefinition effort were:

- i. To facilitate the study of population settlement patterns ( spheres of urban influence),
- ii. To achieve uniform use and comparability of data on a national scale,
- iii. To exhaustively classify the territory of the U.S. or at least to include a larger fraction of territory in the classification system, and
- iv. To establish, to the extent possible within the other objectives, simplicity for the standards.

32. In acknowledging these objectives, MASRC determined to start fresh with (potentially) new MA standards for 2002, rather than attempting to modify and correct the current standards.

33. The main technical classification issues addressed in the MASRC deliberations were:

- Qualifying criteria: What conditions are required in order to establish location and identity for a statistical-purpose area?
- Building blocks: What existing areas should be used to form the larger statistical-purpose areas?
- Assignment criteria: What rules should be used to allocate the building blocks to qualified statistical-purpose areas?

34. During the 50 years that the MA's have been in use, they have always been defined around some sort of urban settlement. It was not possible to find useful alternative criteria that reflect the primary objective given above. The chief qualification issue for MASRC arose from apparent conflict of the 3rd objective - inclusion of all or at least more of the territory of the U.S. within OMB statistical-purpose areas - with the primary objective. Despite widespread interest in somehow extending these concepts to the entire territory, MASRC determined that it was unwise to do so by simply making the traditional MA's much larger in domain. Instead, qualifying criteria for a broader set of Core-Based Statistical Areas (CBSA's) were adopted. CBSA's that are formed around relatively small urban concentrations are to be designated as "micropolitan areas" and the others will continue to be referred to as "metropolitan areas".

35. Qualification for a CBSA in the new standards requires only an Urban Cluster (UC) of at least 10,000 population or any Urbanized Area (UA). In effect, CBSA status is associated with each concentrated settlement of 10,000 or more people. The CBSA's are separated into micropolitan areas (those that do not have any individual settlement that exceeds 50,000 population) and metropolitan areas (all others). The identification of micropolitan areas in the new standards is the single biggest shift from the old standards, and extends coverage of the standards to a much larger portion of the country.

36. Initial efforts to reconcile metropolitan districts and industrial areas failed prior to 1949, in part because of differences between demographic and economic analysts. The demographers wanted to continue practices used at that time to define metropolitan districts using subcounty areas as building blocks and the economists wanted to continue practices used to define industrial areas using counties as building blocks. The demographers argued for precision of boundary definitions for the MA's, and the economists argued for the need for frequent and accurate statistical reports for the building blocks. Despite the fact that the primary purpose for the MA's was and is demographic, the need for frequent and accurate statistical reports prevailed in 1949.

37. Each detail of the building blocks deliberation from 1949 was repeated in 1999. Despite persuasive arguments for more precise boundaries for the MA's, the use of areas smaller than counties as building blocks was deemed to be unwise because of difficulty in obtaining reliable estimates of detailed statistical information for subcounty entities. Building Blocks for the CBSA's in the new standards are to be counties in all portions of the country including New England. This part of the standard eliminates the need to establish statistical-purpose areas outside the standard in order to have comparable areas in New England. Recognizing the importance of cities and towns in New England, the new standards also propose an alternative type of statistical-purpose area in New England - the New England City and Town Area - but the official area in New England is the county-constructed CBSA.

38. It was clear before the MASRC deliberations began that the prevailing criteria for assigning counties to MA's were the most in need of simplification for the new standards. As in the earlier standards, a county - the building block for the CBSA's defined by MASRC - may become part of the domain for a particular CBSA either (1) because it is a "central county" (that is, a significant portion of it falls within the domain of the urban core that qualifies the CBSA's existence in the first place) or (2) it is an outlying county (that is, it is closely linked via labor commuting to one or all of the CBSA's central counties.)

39. Qualifying Criteria for a county to be part of a CBSA in the new standards remain somewhat complex, but are very much simplified relative to the old standards. First, any county that (a) has at least 10,000 population within qualifying urban settlements, or (b) has over half of its population in such settlements, or (c) has at least 5,000 population in any one qualifying urban settlement is defined to be a central county of the associated CBSA. Second, outlying counties for each CBSA are those (a) with at least 25 percent of their employed residents working in the CBSA's central counties or (b) with at least 25 percent of the county's employment accounted for by workers from the CBSA's central counties.

40. MASRC considered several alternative approaches to the county-assignment part of the new standards:

- Should local opinion have a role in whether or not to include an outlying county?
- Should linking variables other than commuting be used directly for outlying counties?
- Should telephone traffic, cellular traffic, media penetration data, consumer spending data, and similar indicators be used to at least condition data on commuting of labor?
- Should outlying counties be required to meet minimal characteristics of urban character such as population density, distance from the core, composition of the labor force, and population growth rates?
- Should commuting links be considered only from outlying counties to qualifying urban cores - the cities and urbanized areas - rather than to central counties?

41. In the end, none of these alternatives was adopted by MASRC. The relative merit of each was difficult to determine and, in each case, the complexity of the standards was dramatically increased if the option was allowed. Abandoning the requirements of urban character and nearly all forms of local opinion (used in the standards during the 1990's) contributed greatly to the simplification accomplished in the new standards.

42. As in most standards, a few special-case rules account for cases where the general rules are inconclusive or ambiguous about a county's classification. The proposed standards also remain complex but very much simplified with respect to earlier standards with regard to select mundane but necessary features. These include merging, splitting, identifying important parts, and naming. Addressing these elements is beyond the scope of this paper.

43. The details of the MA standards effective beginning in 2002 were published in the Federal Register on December 27, 2000.<sup>9</sup> This document is available on the Internet at <http://www.census.gov/population/www/estimates/masrp.html>. It is important to stress that the language used here is strictly that adopted by the author to conserve space and time. It is too informal for use in official documentation, but provides the essence of the determinations made by MASRC and detailed in the Federal Register.

## IX. IMPLICATIONS OF NEW MA STANDARDS FOR NEW EA STANDARDS

44. A number of relatively minor new features of the CBSA's that will be defined beginning in 2002 also will have relatively minor impacts on the EA's that are developed on this new foundation. These include (1) limitation of PMSA-type subdivisions to areas that are larger than in previous standards, (2) slightly weakened qualification criteria for "central" counties, (3) slightly stronger qualification criteria for "outlier" counties, (4) minor changes in the criteria for merging two or more preliminary CBSA's to form a single final CBSA, and (5) changes affecting the exact size qualification for MA status for a CBSA.

45. There is only one substantial change that will require accommodation in the EA structure. The full size spectrum of the new areas (with some CBSA's built around cores as small as 10,000 population) should be recognized in the BEA definitional processes for new EA's. It will not be possible to develop a formal analytical proposal regarding this matter until preliminary information is available to test some of the possibilities.

46. The following four possibilities are to be explored:

(i) Treat all CBSA's the same regardless of size. This eliminates any BEA need to identify supplemental nodes for CEA's in remote parts of the country, and this was a major complication in the existing procedures. However, it would result in twelve hundred or so CEA's, and many of these could be single counties and/or quite small. Clearly, the CEA universe under this option would become simply an intermediate step in development of the EA universe, and their usefulness as an alternative form of statistical-purpose area would be diminished. The size/interdependence criteria used to merge CEA's in order to form EA's (the final step in the 1995 BEA process) probably would eliminate most (very nearly all) of the CEA's formed around micropolitan cores. If the conceptual foundations of the earlier processes are valid, this proposed process could yield final EA's that are not dramatically different from those that would have been developed under the old standards. Testing to confirm this is called for.

(ii) Ignore all micropolitan CBSA's, and repeat the processes used in 1995. It would be prudent to require that a non-metropolitan EA node identified in a remote part of the country be one of the micropolitan areas, but this probably will be the result even without a constraint. This process will be implemented in order to have a baseline against which to evaluate other options, but it will not necessarily be either the easiest or most presentable of the alternatives.

(iii) Specify a BEA-designated subset of the CBSA's, use it to establish CEA nodes, and proceed as in 1995. This procedure has appeal in that the designation of a subset becomes part of the EA-development process. All CBSA's would be part of the screening process, but not all would get through it. There are several screening routines (including that implicit in (ii) above) that could be tried:

- Accept only CBSA's that are built around settlement cores that satisfy a size criteria other than the 50,000 level proposed in the new standards for metropolitan areas.
- Accept CBSA's based on total population in cores, rather than as proposed by MASRC which qualifies MA's based on population in the largest core only.

---

<sup>9</sup> Standards for Defining Metropolitan and Micropolitan Statistical Areas (*Federal Register* Vol. 65, No. 249, December 27, 2000).

- Accept only CBSA's that satisfy criteria based on both population size and location. For example, a CBSA that is less than half the size of a coterminous CBSA might be excluded if it had anything less than 100,000 population, but another CBSA with as little as 10,000 population might be included if it satisfies some criteria for "remoteness".
- Begin the process as proposed in (i) above, but screen the evolving CEA's at each phase of their development. Nodal status could be withdrawn from those CBSA's that either do not form CEA's larger than themselves or form CEA's that are dependent on other CEA's for their labor market. Note, however, that the results of this relatively complex process may differ only slightly from those resulting from (i).

(iv) Do not expand the geographic domains of any MA-qualified CBSA. This alternative recognizes that counties that are included in neither Metropolitan Statistical Areas nor Micropolitan Statistical Areas probably have more in common with the latter. The set of EA's in this alternative would consist of the entire set of MA's supplemented with EA's built around the smaller CBSA's and grouped to meet minimum size and independence criteria.

## **X. CONCLUSION**

47. Two main types of statistical-purpose areas used in the U.S. - MA's and EA's - have been described and the development of standards for their definitions has been discussed. The objectives for these standards determine their characteristics. Since the objectives have changed little during the history of the areas, the essential parts of the standards themselves tend to change only in relatively esoteric ways.

48. The chief new feature of the standards to be utilized beginning in 2002 is the recognition of statistical-purpose areas built up around urban (densely settled) cores of as little as 10,000 population. Although this new feature extends coverage of OMB's mandated statistical-purpose areas (now referenced as CBSA's) to a much larger portion of the country, substantial territory remains classified as "outside CBSA's". New standards for the BEA EA's need to be developed to account for this territory and to incorporate micropolitan statistical areas in a way that does not damage the objectives for the EA's.