BELLSOUTH TELECOMMUNICATIONS, INC.

BEFORE THE

FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 030851-TP

DIRECT TESTIMONY OF

DR. CHRISTOPHER JON PLEATSIKAS

Q. PLEASE STATE YOUR NAME AND POSITION.

A. My name is Christopher Jon Pleatsikas. I am a Principal at LECG, Inc. My business address is 2000 Powell Street, Suite 600, Emeryville, California 94608.

Q. PLEASE DESCRIBE LECG.

A. LECG is an economics and finance consulting firm that provides economic expertise in litigation, regulatory proceedings, and business strategy. Our firm comprises more than 550 economists from academe and business, and has 25 offices in six countries. LECG's practice areas include antitrust analysis, intellectual property, and securities litigation, in addition to specialties in the telecommunications, gas, electric, and health care industries.

Q. PLEASE DESCRIBE YOUR PROFESSIONAL QUALIFICATIONS.

A. I have a B.A. from the University of Pennsylvania, as well as an M.S. in Natural Resources from the University of Vermont and an M.A. and a Ph.D. in Regional

Economic Analysis from the University of Pennsylvania. I have taught economics at both the University of Pennsylvania and the University of Maryland. My particular areas of expertise are industrial organization, competition policy, and microeconomics. I have extensive experience, both in the U.S. and abroad, in damages analysis, antitrust litigation, and in other litigation and strategic consulting assignments concerning a number of industries including telecommunications and a wide variety of other network industries. I have testified and submitted testimony before a number of courts and administrative agencies both in the U.S. and abroad.

Prior to joining LECG I was a Principal at Putnam Hayes & Bartlett. I have also been a Manager in the Economic Analysis Unit at Price Waterhouse. I have authored and co-authored a number of papers. My most recent papers include a book chapter and a journal article on analyzing market definition and market power issues in high technology industries and a journal article comparing the merger guidelines in the United States, Australia and New Zealand. My professional qualifications are detailed in my curriculum vitae, which is submitted as Pleatsikas Exhibit No. CJP-1.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. Section 51.319(d)(2)(i) of the Rules promulgated by the Federal Communications Commission ("FCC") in connection with its Triennial Review Order ("TRO") requires commissions to define the "relevant geographic area" that they will use as their geographic unit of analysis in determining whether competitive local exchange carriers ("CLECs") are impaired without unbundled access to an incumbent local exchange carrier's ("ILEC's") local circuit switching to serve mass-market customers. The

purpose of my testimony is to provide the appropriate, economically sound definition of these "geographic areas" for this Commission's use in this proceeding. I am specifically addressing Issues 1 and 2 in the issues list for this proceeding.

Q. WHAT IS THE ROLE OF THE GEOGRAPHIC MARKET DEFINITION IN AN IMPAIRMENT ANALYSIS?

A. The FCC requires that, having defined "the markets in which they will evaluate impairment by determining the relevant geographic area to include in each market," a state commission must apply the impairment analysis required for unbundled local switching for mass-market customers "on a granular basis to each identifiable market" (TRO, ¶495).

That is, having decided how to define the geographic markets, the Commission must determine whether CLECs are impaired or not impaired at the level of these geographic markets—no determination of impairment at a different geographic scale should be made. Further, the same geographic area must be used for both the "triggers" analysis and the "potential deployment" analysis that this Commission must perform.

Q. DOES THE FCC PROVIDE GUIDANCE REGARDING THE DEFINITION OF THE APPROPRIATE GEOGRAPHIC AREAS TO BE USED IN A STATE COMMISSION'S IMPAIRMENT ANALYSIS?

A. Yes, it does. Section 51.319(d)(2)(i) provides that direction, stating:

> Market definition. A state commission shall define the markets in which it will evaluate impairment by determining the relevant geographic area to include in each market. In defining markets, a state commission shall take into consideration the locations of mass market customers actually being served (if any) by competitors, the variation in factors affecting competitors' ability to serve each group of customers, and competitors' ability to target and serve specific markets profitably and efficiently using currently available technologies. A state commission shall not define the relevant geographic area as the entire state.

Q. DR. PLEATSIKAS, GIVING APPROPRIATE CONSIDERATION TO THE FCC'S DIRECTION, CAN YOU PROVIDE THE DEFINITION OF THE GEOGRAPHIC MARKET THAT YOU BELIEVE THE COMMISSION SHOULD APPLY IN THESE PROCEEDINGS?

A. Yes. Based on my considerations of the factors that the FCC has outlined, I recommend that the Commission define as the relevant geographic markets in Florida the UNE rate zones ("UNE Zones") that this Commission has defined previously, subdivided into Component Economic Areas ("CEA") as defined by the Bureau of Economic Analysis, a part of the United States Department of Commerce. I have attached as Pleatsikas

Exhibit No. CJP-2 a map that displays the 31 markets that exist in Florida as a result of using this definition.

Q. WHY ARE THE COMMISSION'S UNE ZONES THE APPROPRIATE STARTING POINT FOR THE DEFINITION OF THE GEOGRAPHIC AREA?

A. The FCC's discussion in its TRO suggested that state commissions might "consider how UNE loop rates vary across the state" in determining the geographic markets, and that UNE zones may therefore be a useful part of the market definition to use in this proceeding (TRO, ¶496).

Moreover, using UNE Zones as the basis for market definition is directly responsive to the TRO's Rule that I cited. UNE Zones reflect the "locations of mass-market customers actually being served by competitors." I understand that CLECs in Florida serve the greatest number of customers in the more urban UNE Zones 1 and 2 than in the more rural UNE Zone 3. UNE Zones also take into account the "variation in factors affecting competitors' ability to target and serve specific markets profitably," because loop rates are determined by UNE Zone, with higher UNE loop rates in areas that are more costly to serve. This variation in costs is an important factor in determining where a CLEC may be able to serve customers profitably because, although each CLEC will have to consider a number of company-specific factors in deciding where to offer services with its own switch, most CLECs will have to consider the cost of the unbundled loops used to connect end users to the CLECs' switches. Use of UNE Zones is therefore directly responsive to the TRO's guidance to "consider how competitors'

ability to use self-provisioned switches or switches provided by a third-party wholesaler to serve various groups of customers varies geographically...." (TRO, ¶ 495).

In Florida, as in most other states, the Commission has divided the state into three separate zones, with different unbundled loop rates in each zone. The price of a loop is a factor a CLEC considers when determining where it will provide mass-market service using its own switch. This is the behavior we have seen with CLECs using UNE-P, whose rates also vary by UNE Zone. For example, according to one investment analyst, AT&T takes a targeted approach to market entry and enters only those areas where its UNE-P costs are at a 45 percent (or greater) discount to retail prices.

Q. WHY SHOULD UNE ZONES BE FURTHER SUBDIVIDED TO DEFINE THE RELEVANT GEOGRAPHIC MARKETS IN FLORIDA?

A. The TRO repeatedly indicates the determination of impairment be "granular," i.e., that the geographic areas chosen must be smaller than a state and should "attempt to distinguish among markets where different findings of impairment are likely" (TRO, ¶495). In Florida, for example, there are local telephone subscribers located in UNE Zone 1 in Miami, and there are local telephone subscribers located in UNE Zone 1 in Jacksonville. Even though all of these customers are in the same UNE Zone, and therefore a competitor would face the same UNE loop prices in both places, the two areas are so geographically distant that the costs of transport could impact the ability to consider these two distant locations to be a single market. That is not to say that UNE Zones 1 in Miami and Jacksonville might not be a single market for some CLECs, but to be granular in the assessment of impairment, it is necessary to further divide the UNE

zones to account for other types of costs that separate Miami and Jacksonville into distinct geographic markets. Having considered several alternatives, I find that superimposing the Component Economic Areas (CEAs) on top of the UNE Zones addresses issues such as this in an economically reasonable manner. I would note that CEA boundaries follow county lines, and zones follow wire center boundaries. As a result, sometimes a CEA boundary will split a wire center service area. In these instances, the entire wire center is associated with the CEA in which the majority of the wire center area falls. You can see an example of this by looking at Pleatsikas Exhibit No. CJP-2 and particularly at the Orlando CEA. You will see that the Orlando CEA Zone 2 market area actually extends across the CEA boundary into the Daytona Beach CEA.

Q. WHAT IS A CEA?

A. A CEA is one of 348 geographic areas defined by the U.S. government's Bureau of Economic Analysis ("Bureau"). Each CEA comprises adjacent counties that are economically related, and collectively the 348 CEAs cover the entire United States. The Bureau devised CEAs to define granular, economically meaningful geographic areas that could be used, for example, by "government agencies [that] often use relatively small areas for design of their program regulations or implementation of their licensing programs," or by "businesses [that] need such detail for determining plant locations and for defining sales and marketing territories." CEAs have, for example, been used by the FCC for its geographical licensing schemes and used by the Bureau as the basis for its local economic projections.

Q. HOW ARE CEAS DETERMINED?

A. The Bureau has described the process that it used to determine CEAs in the following manner. The Bureau first identified "economic nodes," which are metropolitan (or similar) areas that serve as "centers of economic activity." The Bureau then assigned to each node those counties that were "[the] most closely related." Thus, each CEA consists of a single economic node and the surrounding counties that are economically related to the node. Of the nodes, nationwide, 90 percent are in metropolitan areas, and 10 percent are in non-metropolitan areas. The resulting CEAs are continuous and cover the entire country.

CEAs were created to be economically meaningful in that they separate various parts of a state into different geographic markets based on economic factors (such as commuting patterns and newspaper readership). Using the CEA creates a geographic area with a community of interest. For example, because CEAs reflect newspaper circulation and commuting patterns, a CLEC could choose to market in one CEA but not in another, e.g., through print advertising and billboards. In short, my definition of the appropriate "geographic area" takes one concept that is relevant for this proceeding, namely the UNE Zones, and subdivides those zones by another relevant geographic delimiter, the CEA, to produce a set of granular, economically-meaningful markets consistent with the TRO's guidance.

Q. ARE THERE OTHER DEFINITIONS OF THE RELEVANT GEOGRAPHIC MARKET THAT THE COMMISSION COULD CONSIDER?

A. The answer is yes, in part. I believe that any definition that is not based on UNE Zones would be inappropriate. However, once the decision to use UNE Zones is made, there are other ways to subdivide the UNE Zones that the Commission could consider. I have considered those that appear relevant, and have determined that UNE Zones subdivided by CEAs is the most reasonable basis for defining geographic market for the present purposes.

Q. COULDN'T THE COMMISSION SUBDIVIDE THE UNE ZONES BY METROPOLITAN STATISTICAL AREAS ("MSAS")?

A. Yes it could. However, unlike CEAs, MSAs do not cover an entire state. For example, of the 3,151 counties in the U.S., only 836 are part of an MSA. In contrast, all counties are associated with a relevant CEA. Accordingly, if the Commission chose to use MSAs (along with UNE Zones), parts of Florida would be excluded from consideration in any impairment test.

Q. YOU HAVE DISCUSSED USING UNE ZONES SUBDIVIDED BY CEAS OR MSAS. WHAT ABOUT USING SMALLER GEOGRAPHIC AREAS SUCH AS WIRE CENTERS?

A. My conclusion is that using wire centers would be inconsistent with economic principles and with the tenets established in the TRO. The FCC in its order said that the

states "should not define the market so narrowly that a competitor serving that market alone would not be able to take advantage of available scale and scope economies from serving a wider market" (TRO, ¶495). The FCC also required state commissions to take into consideration the locations of mass-market customers actually being served by competitors. A wire center level definition of the geographic market does not satisfy either of these criteria and is therefore inappropriate.

To elaborate, CLECs today are not limiting the customers they serve from a single switch to those located in a single wire center. Rather, they are casting their nets as wide as economically feasible to take advantage of economies of scale. This observation is consistent with actions the CLECs have taken to design and implement their networks independent of the existing incumbent local exchange carrier's network and wire centers. To use the language of the TRO, the ability to design a network to take advantages of the relative economics of switching, loops and transport is one of the "countervailing advantages" that a new entrant may have (TRO at ¶84).

Q. WHAT SUPPORT DO YOU HAVE FOR THE PROPOSITION THAT CLECS HAVE NOT BUILT THEIR NETWORKS TO SERVE CUSTOMERS BASED ON WHERE THE CUSTOMERS ARE LOCATED IN RELATION TO THE INCUMBENT LOCAL EXCHANGE COMPANY'S WIRE CENTERS?

A. I understand that the BellSouth witness discussing the "triggers" test has analyzed the markets where CLEC switches and CLEC customers are located and has found that the CLECs are serving customers in wire centers other than where their switches are located. In addition, the CLECs have been very clear that they are not designing their

networks based on BellSouth's hierarchy of wire centers. For example, in the transcript of an arbitration between AT&T and BellSouth in Florida (Docket No. 000731-TP), the prefiled testimony of David L. Talbott, a witness for AT&T notes that AT&T deploys its switches consistent with the "costs and efficiencies of today's technologies." Mr. Talbott stated in his prefiled testimony that AT&T has deployed fewer switches and more transport on the end user side of the switch (Transcript Vol. 1, page 94). The witness was very clear that AT&T did not intend to replicate BellSouth's wire center-based architecture. AT&T also indicated in that proceeding that, even though it did not have as many switches as BellSouth, its switches were capable of serving every customer in BellSouth's geographic footprint.

Wire centers have been defined in terms of BellSouth's switch locations and the customers served by those switches. AT&T has chosen another approach, which is to serve customers in a wider geographic area with a single switch, as have any number of other CLECs. Therefore, the wire center concept has no meaning with regard to market definition, and specifically no economic meaning in terms of how CLECs provision services to their end users. The geographic scope of the service offered is limited by the CLEC's ability to economically serve those customers using the CLECs' network design, not by the location or span of BellSouth's wire centers.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes it does.

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PROFESSIONAL EXPERIENCE

Christopher Pleatsikas is a Principal at LECG. He also has been a principal at Putnam, Hayes & Bartlett, Inc. Dr. Pleatsikas has served as a manager of the Economic Analysis Unit, Management Advisory Services, at Price Waterhouse and was a managing associate at Urban Systems Research and Engineering, Inc. He has taught econometrics and quantitative methods at the University of Pennsylvania and the University of Maryland. Dr. Pleatsikas has been engaged in substantial academic research in and has written extensively on antitrust and competition issues. His recent papers include analyses of the interface between antitrust and regulatory policy, evaluation of the implications of standards for determining whether prices are predatory, assessments of the competitive implications of contractual provisions and arrangements and analyses of merger policies and regulations.

His major project experience includes: *antitrust/competition analysis* (mergers and acquisitions, market definition, assessments of market power, evaluation of contractual and other business practices, monopolization and attempted monopolization, monopoly leveraging, price fixing and price discrimination, predatory pricing, and evaluation of competition and efficiency impacts of business practices and public policy); *intellectual property* (patent/copyright/trademark infringement; valuation; patent fraud/misuse; pooling); *damages* (causation, lost sales or profits, reasonable royalty, unjust enrichment, punitive damages; breach of contract, fraud, intellectual property, class action certification and damages, antitrust and "unfair competition"); *regulation* (development of deregulation/re-regulation regimes; prudence inquiries, facility siting and planning, reasonableness of rates and ratebase, and demand forecasting).

Dr. Pleatsikas has been engaged in assignments covering a wide range of industries, although he has particular expertise in the high technology (computers, computer components, software, microprocessors and other semiconductors, semiconductor manufacturing equipment, medical technology, advanced electronic and electrical components, digital signal processing equipment and telecommunications equipment, pharmaceuticals and other specialty chemicals and biotechnology) and energy (oil, gas and coal extraction and processing, electricity and natural gas transmission, distribution and retailing, electricity generation, solar and geothermal energy generation) industries. In addition, he has extensive experience in a variety of other industries, including metals and metals processing, financial services and insurance, building materials, transportation, telecommunications services, food products, furniture and other household products, defense equipment, aircraft and air travel, and a variety of other consumer and

intermediate goods and services. He has also been co-director of an economic forecasting service.

Dr. Pleatsikas has testified and/or submitted testimony to courts and administrative bodies in the United States, Australia, New Zealand and the Republic of Singapore.

Dr. Pleatsikas has Ph.D. and M.A. degrees in Regional Economic Analysis from the University of Pennsylvania, an M.S. in Natural Resources from the University of Vermont and a B.A. from the University of Pennsylvania.

EDUCATION

Ph.D., UNIVERSITY OF PENNSYLVANIA, Economics, (Regional Economic Analysis).
M.S., UNIVERSITY OF VERMONT, Natural Resources.
B.A., UNIVERSITY OF PENNSYLVANIA.

TESTIMONY, EXPERT REPORTS AND AFFIDAVITS

Dr. Pleatsikas has testified on numerous occasions in a variety of venues, including:

- United States Federal Court
- United States State Courts (e.g., California, Louisiana)
- State Administrative Agencies (e.g., Public Utilities Commissions)
- United States Federal Administrative Agencies (e.g., International Trade Commission)
- Federal Court of Australia
- High Court of New Zealand
- High Court of the Republic of Singapore

Dr. Pleatsikas has also provided expert reports to foreign administrative agencies and has testified in private arbitrations. In addition, he has been retained as an expert on numerous occasions in other matters that were settled prior to trial or the provision of written or oral testimony. A list of his testimony is available on request.

PUBLICATIONS AND PRESENTATIONS

Michael Akemann and Chris Pleatsikas, "The Telecommunications Act of 1996 and the U.S. Antitrust Laws," Trade Practices Law Journal, 2003 (forthcoming).

Chris Pleatsikas, "Predatory Pricing After Boral," 2003 Australian Competition Law Conference, May 17, 2003.

Chris Pleatsikas, "An Economic Interpretation of Recent American and Australian Judicial Decisions on Predatory Pricing," Trade Practices Law Journal, 2003.

Christopher J. Pleatsikas Page 3 3 Philip McLeod and Chris Pleatsikas, "The California Electricity Crisis and Antitrust Analysis," Trade Practices Law Journal, 2002.

Chris Pleatsikas and David Teece, "Economic Fallacies Encountered in the Law and Economics of Antitrust: Illustrations from Australia and New Zealand," Trade Practices Law Journal, 2001.

Stephen King and Chris Pleatsikas, "Exploitation of Market Power," Economics in Trade Practices Workshop, Federal Court of Australia, April 7-8, 2001.

Chris Pleatsikas and David Teece, "Assessing the Competitive Effects of Vertical Long-Term Contracts," The Australian Business Law Review, 2001.

Ed Sherry and Chris Pleatsikas, "The Napster Controversy: Intellectual Property Meets Competition Policy," Trade Practices Law Journal, 2001.

Chris Pleatsikas and David Teece, "The Analysis of Market Definition and Market Power in the Context of Rapid Innovation," International Journal of Industrial Organization, 2001.

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Chris Pleatsikas and David Teece, "New Indicia for Antitrust Analysis in Markets Experiencing Rapid Innovation," in J. Ellig (ed.), Dynamic Competition and Public Policy: Technology, Innovation, and Antitrust Issues, Cambridge University Press, 2000.

David Teece and Chris Pleatsikas, "New Indicia for Competition Analysis in High Technology Industries," presented at the Dynamic Competition and Public Policy Conference (sponsored by the Mercatus Center and the James Buchanan Center at George Mason University), Washington, DC, December 16-17, 1998.

Mary Coleman, Chris Pleatsikas, and David Teece, "The Approach to Merger Analysis by Federal Antitrust Agencies in the United States, Australia, and New Zealand: An Economic View," Trade Practices Law Journal, September, 1998.

Chris Pleatsikas and David Teece, "The Competitive Implications of Mandatory Vertical Disintegration in Network Industries: Theory and Evidence," keynote address at the Ninth Annual Workshop of the Competition Law & Policy Institute of New Zealand, August, 1998.

Christopher J. Pleatsikas Page 4 4 Chris Pleatsikas and Bruce Turner, "Electric Competition in New Zealand: Putting Last Things First," Public Utilities Fortnightly, June 15, 1996.

Mary Barcella and Christopher J. Pleatsikas, "Customer By-Pass in the Natural Gas and Telecommunications Industries: A Comparative Analysis," pp.104-108, Papers and Proceedings of the 8th Annual North American Conference of the International Association of Energy Economists on the Changing World Energy Economy, Nov. 19-21, 1986, MIT, edited by David O. Wood, May 1987.

C. Pleatsikas, Regional and Temporal Variation in Production Cost Relationships for Manufacturing Industries, Univ. of Michigan (Ph.D. Dissertation at the University of Pennsylvania), 1983.

C. Pleatsikas, E. Hudson and R. Goettle, Solar Energy and the U.S. Economy, Westview Press, 1982.

C. Pleatsikas, et al. "Economic Impacts of the Domestic International Sales Corporation (DISC) Tax Provisions," prepared for the American Business Conference and the Business Roundtable, 1982.

C. Pleatsikas and W. Moss, "Federal Tax Credits, Profitability and Market Diffusion of New Thermal Technologies for Industry, " presented to the American Society of Mechanical Engineers Annual Conference, Albuquerque, New Mexico, 1982.

C. Pleatsikas, C. Demeter, "Comparing Lifetime Costs of Meeting Sulfur Dioxide Emissions Standards with and without Flue Gas Desulfurization for Electric Power Plants," presented to the 43rd Annual American Power Conference, Chicago, 1981.

C. Pleatsikas, "An Analysis of the Macroeconomic Effects of Increased Market Penetration of Solar Energy Technologies," presented to the Second Miami Conference on Alternative Energy Sources, 1979.

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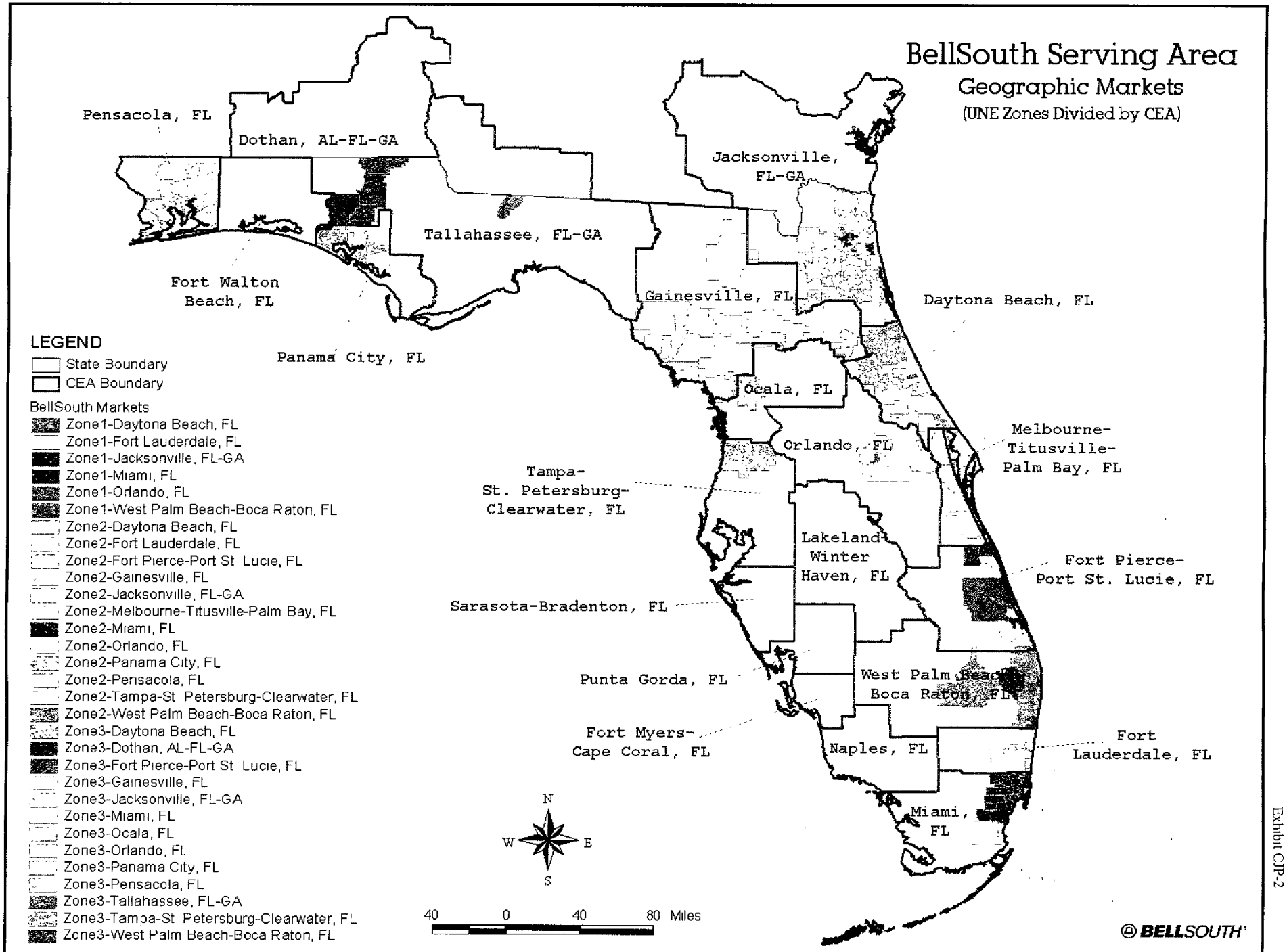
C. Pleatsikas, et al., A Study of Measures of Substantial Attachment to the Labor Force, published by the Employment and Training Administration, U.S. Department of Labor, 1978.



BellSouth Telecommunications, Inc
Florida Public Service Commission
Docket No. 030851-TP
Exhibit CJP-2