



Florida Model Task Force sets meeting date of February 23 & 24, 1999

The Model Task Force (MTF) has set February 23rd and 24th as the first meeting dates in 1999. The meeting will take place outside Orlando at the Ramada Plaza Hotel Gateway, 7470 Highway 192 West in Kissimmee (407-396-4400, room rate \$74 per night).

Subcommittee meetings are scheduled as follows:

February 23, 1999

10 am - 12 noon Transit and Freight (meeting concurrently)

1 pm - 4 pm Generation and GIS (meeting concurrently)

4 pm - ?? pm GIS/Transit combined meeting: Directions for GIS-TM

February 24, 1999

8 am - 3 pm Full Model Task Force

At the last Model Task Force meeting held on October 9, 1997 several recommendations were adopted for statewide implementation:

Freight Subcommittee

FDOT Systems Planning Office to fund an effort to review freight modeling methodologies, and make recommendations to incorporate freight movements into FSUTMS.

GIS Subcommittee

The Model Task Force approved the highway network conversion utility for the FSUTMS/ArcView Visualization. The task force also requests training courses offered by FDOT Systems Planning Office regarding this utility.

The MTF requested the Systems Planning Office to evaluate the Urban Analysis Group's VIPER (Visual Planning Environment) as an enhancement to the existing Florida Standard Model (FSUTMS/HNIS). The GIS Subcommittee will be involved with testing, reviewing, and evaluating this product.

Survey Subcommittee

The MTF create a new Survey Subcommittee to coordinate and disseminate information on upcoming survey activities, to provide a forum for best practices on survey techniques, and to provide a depository for survey forms, results, and databases.

Transit Subcommittee

The Model Task Force requested an effort on disutility assessment to calibrate mode choice constants and coefficients. The task force also requested funding from the Systems Planning Office for the survey effort to be conducted in Dade, Broward, and Palm Beach counties.

The MTF seeks further study on time-of-day modeling, to enhance highway and transit modeling by incorporating time-of-day periods into the trip generation module. As a long-term approach, this effort will be coordinated by the GEN Subcommittee. As a short term enhancement for time-of-day modeling, the MTF requested FDOT Systems Planning Office to develop generic peak and off-peak factors to be applied to trip generation outputs. This will include the use of congested skims for the peak period and average congested or free-flow speeds for off-peak.

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The MTF requested an effort by Systems Planning to standardize the process for walk access and auto access methodologies used in FSUTMS transit modeling.

GEN Subcommittee

This subcommittee has been evaluating life-style (ie, retired/

working) variables as an addition to the FSUTMS universal menu. The Model Task Force requested FDOT Central Office to examine life-style trip generation models and their supporting databases, and evaluate their applicability/transferability to Florida urban areas.

The task force also recommended non-permanent resident trip generations be included in new FSUTMS models.

For more information on subcommittees or on the upcoming February meeting, contact Huiwei Shen (850) 488-4642.

Meeting Highlights:

The Oregon Symposium on Integrating Land Use and Transport Models

Ram M. Pendyala, Civil and Environmental Engineering, University of South Florida & Rob Schiffer, PBS&J, Tallahassee

The Oregon Department of Transportation, Portland Metro, and the Federal Highway Administration recently sponsored a symposium on integrated land use/transportation modeling. The symposium, held in Portland, Oregon, from September 30 through October 2, aimed to bring model developers and users together to exchange information on integrated land use and transport models. About 150 professionals drawn from local and state government agencies, consulting firms, and universities attended the conference. Florida was well represented at the symposium: in addition to the two of us, Dennis Hooker, Gary Kramer, and Shi-Chiang Li made up the Florida crew.

Currently, the Oregon Department of Transportation (ODOT) is entering the third year of its Transportation and Land Use Model Integration Project (TLUMIP). The work program includes the development and implementation of integrated land use/transport models at the metropolitan, substate, and statewide (intercity) levels. The models have an explicit econometric forecasting element, and are intended to permit the analysis of a variety of economic, policy, and environmental constraints. Speakers at the symposium described prototype statewide and metropolitan models that have been developed, and discussed

ongoing model refinement work. Portland Metro has been a key partner in the TLUMIP, as well as conducting pioneering research and development in activity-based travel forecasting. Metro is also involved in developing state-of-the-art freight forecasting models in conjunction with the Port of Portland.

The symposium opened with a keynote address by Michael Wegener of the Institute of Spatial Planning, University of Dortmund, Germany. He discussed conceptual frameworks for integrated land use/transport modeling and provided a detailed overview of land use models in the context of these conceptual frameworks. Following the keynote address, Bill Upton from ODOT provided an overview of TLUMIP. Essentially, TLUMIP consists of four tracks: Outreach, Implementation, Development, and Data. He discussed numerous policy issues that the integrated land use/transport models will be capable of addressing. Following his presentation, Keith Lawton provided an overview of model development work in Portland Metro. He identified four models that are in various developmental stages: Airport Ground Access model, Commodity Flow model, Housing Location model, and Personal Activity Scheduling model.

The afternoon of the first day of the symposium was dedicated to two presentations that constituted "primers" on land use and activity-based modeling respectively. Doug Hunt from the University of Calgary discussed the "Five W's" of land use/transport interaction modeling: who, what, where, when, and why. By addressing these five fundamental questions of land use/transport modeling, he offered a comprehensive framework that set the context for integrated land use-transport modeling and described how the TLUMIP effort fits well within that context. The primer on activity-based travel forecasting was delivered by Chandra Bhat from the University of Texas at Austin. He described the conceptual and theoretical background of activity-based travel models, presented statistics on activity behavior from selected activity survey data sets, and discussed econometric and statistical methods for activity-based modeling of travel behavior.

On the second day of the symposium, much of the morning and early afternoon sessions were dedicated to describing land use model development in Oregon at the statewide and metropolitan level. First, Larry Conrad with Parsons, Brinckerhoff, Quade, and Douglas (PBQ&D) and Ed Arabas with ODOT

The Oregon Symposium on Integrating Land Use and Transport Models *Continued*

discussed the development of various land use, socio-economic, and demographic databases for statewide land use modeling using the TRANUS package (developed by Thomas de la Barra of Modelistica, Venezuela). This was followed by a presentation by Pat Costinett and Rick Donnelly of PBQ&D and Carl Batten of EcoNorthwest describing the statewide and substate land use/transport modeling framework. The statewide model operates on a simplified zonal structure defined for the entire state of Oregon and consists of several submodels including a land market simulation model, a model of the Oregon economy, a location model, a transport model, and a land use/transport model interface. Land use and transport databases are used to drive the model components, and a model calibration step is included to perform base year calibration.

Paul Waddell from the University of Washington then made a detailed presentation on the prototype development and calibration of UrbanSim, a behavioral land use simulation model, in the Eugene-Springfield area. UrbanSim implements a dynamic perspective on urban development resulting from the interaction of many actors making decisions within the urban markets for land, housing, non-residential space and transportation. For example, the model incorporates household and business location choice behavior, developer behavior, and government policies and constraints. By treating urban development as the interaction between market behavior and governmental actions, UrbanSim is designed to assess the impacts of alternative governmental plans and policies related to land use and transportation. Running the model requires various input information including population and employment estimates, regional economic forecasts, transportation system plans, land use plans, and land development policies and

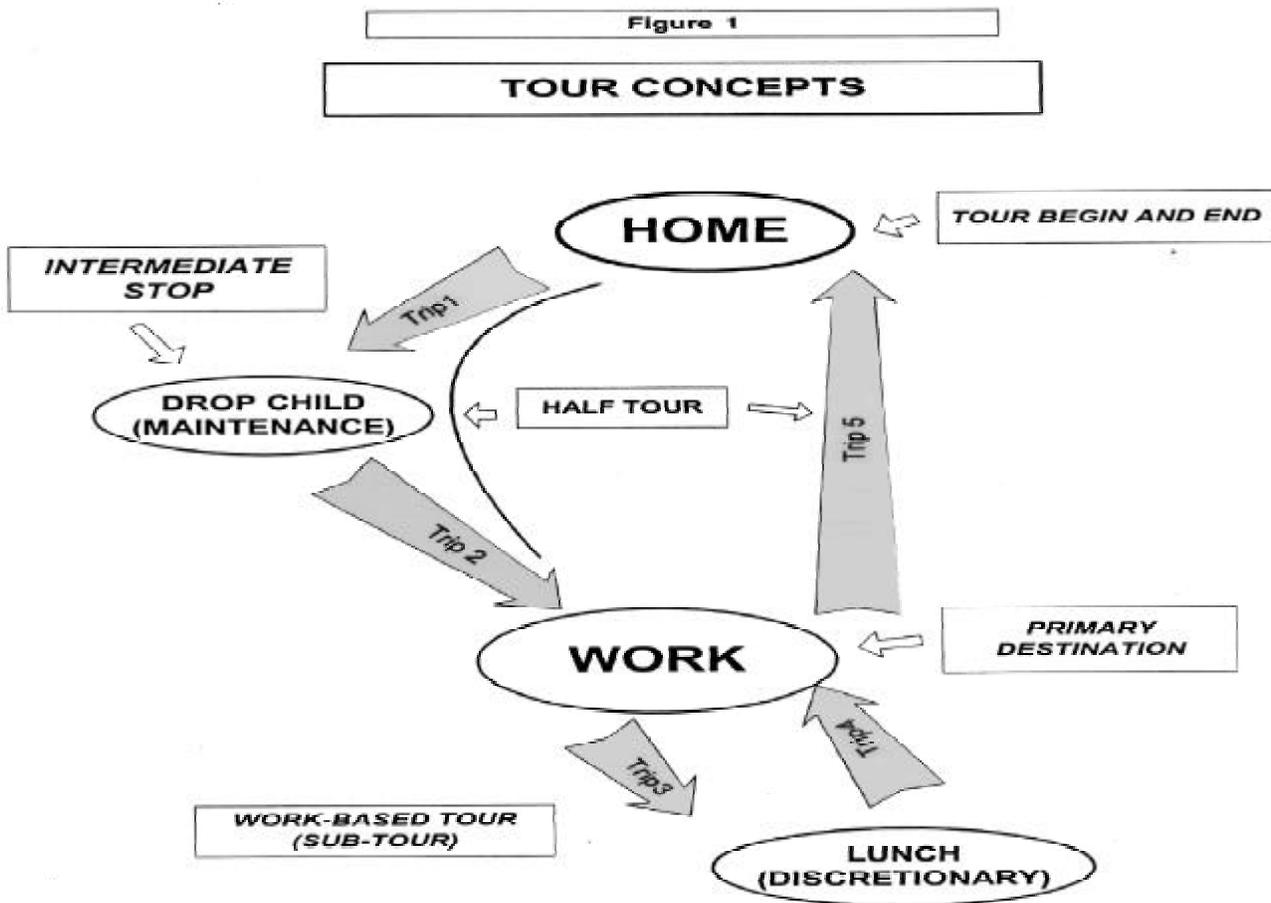
constraints. The software is being implemented using object oriented programming in Java such that it is platform-independent. UrbanSim interfaces with travel demand models and all outputs are written in ASCII format to facilitate portability. A key website, where a beta-version of the software is available for downloading, is <http://www.urbansim.org>. Calibration of UrbanSim has been accomplished in the Eugene-Springfield prototype application using historical data from the 1980s and 1990s.

The latter half of the afternoon on the second day of the symposium was dedicated to reviewing ongoing research and development work outside Oregon. Eric Miller from the University of Toronto started by making a presentation that identified a research agenda for integrated urban modeling. He identified the key features or capabilities that need to be incorporated into an integrated land use/transport model and called for a structured, funded, and substantial R&D program that would facilitate the development of such models. He discussed model development needs in the context of new behavioral paradigms (e.g., activity-based approaches) and modeling approaches (e.g., microsimulation). In a follow-up discussion panel, Gordon Shunk from Texas A&M University noted that the USDOT's Travel Model Improvement Program (TMIP) has a track dedicated to Land Use (Track E) and had organized a land use modeling conference during the early stages of the program. Doug Hunt and David Simmons were the other members of the discussion panel.

On the final day of the workshop, Keith Lawton opened with a detailed presentation of the tour-based travel demand model that they are developing and implementing at Portland Metro. The model recognizes the activity-based nature of travel demand and determines tour making patterns of individuals in a

hierarchical nested logit modeling structure. This methodology is also being employed by Los Alamos National Laboratory (LANL) within the activity generator module of TRANSIMS, the next generation of travel demand modeling tools being developed under the auspices of the federal TMIP. In the tour-based approach (see Figure 1), a daily activity pattern consists of a primary tour (defined by six primary activities: work, maintenance, and discretionary, subdivided into "on tour" and "at home") that may include other stops that are linked to the primary activity (e.g., home-work-home, home-work-other-work-home, etc.). Each of the primary tours may be associated with one of six possible secondary tours (see Figure 2), yielding a total of 114 possible alternatives in a multilevel deeply nested logit model structure. The model system incorporates a time-of-day modeling capability with five time periods considered: early, AM Peak, mid-day, PM Peak, and night. Joint destination and mode choice models are implemented in a nested logit framework for primary activities, stops within primary tours, secondary tours, and work sub-tours. The model is a disaggregate model that operates at the level of the individual decision-maker and tour. As such, the model is capable of responding to policy changes.

Finally, Dick Walker from Portland Metro made a presentation on the Portland Urban Freight Data Collection effort. For developing a detailed freight model, Portland Metro has undertaken a comprehensive data collection effort that would help strategic planning, identification of problem areas, and forecasting. The effort involves collecting commodity forecasts for sixteen commodity groups in a six county area for the years 1996, 2006, 2020, and 2030. Truck counts are obtained at freight sites to allocate trip ends and obtain time-of-day information. In addition, detailed site and operational

The Oregon Symposium on Integrating Land Use and Transport Models *Continued*

characteristics are being obtained for all freight terminals and facilities. The freight modeling methodology involves the conversion of commodity units to trucks and the subsequent allocation of truck trip ends to zones. The output of the model will be a truck trip table. It is anticipated that model development will be completed in Winter 1998/99.

The symposium wrapped up with a couple of presentations that summarized and tied together the numerous presentations made over the course of 2½ days. Overall, the model development efforts presented at the symposium and going on in Oregon constituted noteworthy attempts at advancing the state-of-the-practice and state-of-the-art in integrated land use/transportation modeling. Substantial progress has been made in Oregon in

moving various modeling methods and tools into practice. A useful website that provides a wealth of information about the various efforts underway is <http://www.odot.state.or.us/tdb/planning/modeling/index.html>.

Despite these advances, however, it became clear at the symposium that significant levels of skepticism remain, especially among planning practitioners at local and state government agencies. A few attendees from public agencies outside Oregon questioned the efficacy of the new methodologies in light of the additional complexity and data requirements that they entail. Key criticisms of the Portland procedures included lack of available results (e.g., Are the new modeling tools improving accuracy of forecasts?); need for visualization (e.g., need to incorporate

maps, pictures, and graphs); and a need to address emerging nontransport-oriented issues of the 21st century (e.g., social change, telecommunications, and environment).

Chandra Bhat clarified that the new methodologies are not more complex and do not require significant additional data when compared with existing models. However, it was noted that new methodologies and modeling tools can become part of mainstream practice only after there are: sufficient case study applications clearly demonstrating proving their usefulness in a variety of contexts, menu-driven user-friendly software tools that run efficiently on desktop computers, and sufficient resources for training staff and acquiring new tools. In addition, one must note the importance of partnerships. Clearly,

The Oregon Symposium on Integrating Land Use and Transport Models *Continued*

Figure 2

DAY-LONG ACTIVITY PATTERN

Currently weekdays only, age 16+
Work & School combined as "Work"

Given All Household and Person Variables

PRIMARY ACTIVITY

Activity/Purpose

Work on Tour

Work at Home

Maint. on Tour

Maint. at Home

Discr. on Tour

Discr. at Home

Tour Types

HWH

HOWH

HWOH

HOWOH

HMH

HOMH

HMOH

HOMOH

HDH

HODH

HDOH

HODOH

HWOWH

HOWOWH

HWOWOH

HOWOWOH

O= Other Destinations
W= Work
M=Maintenance
D=Discretionary

$8+1+4+1+4+1 = 19$ Alternatives

EACH HAS:

Secondary Tours

NONE

1 MAINT.

2+ MAINT.

1 DISCR.

2+ DISCR.

1+ MAINT,
1+ DISCR.

TOTAL: $19 \times 6 = 114$ Alternatives

ACCESSIBILITY LOGSUMS FROM
MODE/DESTINATION & TIME OF DAY

the strong partnerships among academia, consultants, local agencies, and state agencies in Oregon have

contributed in a big way to the success of their model improvement efforts. The formation of strong partnerships and the

systematic addressing of various issues or impediments will foster an environment conducive to the adoption of new methods and tools.

Florida's Transportation and Land Use Study Committee is currently meeting—final report due by January, 1999

Richard A. Hall, P.E. Hall Planning & Engineering, Inc.

As you might—or might not—already know, actions by Florida's 1998 Legislature included forming a "Transportation and Land Use Study Committee" to study existing land use and transportation systems, and to recommend changes in state law that will improve the coordination of transportation and land use decisions (If you like to follow the inner-workings of state government, the measure passed as CS/SB 2472). As finally constituted, the Committee is a 28 member body representing both government and private sector transportation interests. The legislative charge says committee members must consider in its deliberations, community design, the role of government, and concurrency of the highway system—including level of service methodologies and land use assessments. By January 15, 1999, the Committee must send its proposals for changes in Florida law to the Governor, the President of the Senate, and the Speaker of the House of Representatives.

Seven committee meetings have been scheduled at key locations around the state (Tampa, Miami, Orlando, Jacksonville, and Tallahassee), beginning in August, 1998, and concluding in January, 1999. As of the date of this writing, one meeting remains — January 7-8, in Tallahassee.

Early committee findings that you will likely find interesting (but not surprising) include:

—The MPO function in regards to the long range transportation planning process is not well understood;

—The MPO planning process may be disjointed and not well coordinated with the local land use planning process;

—The long range transportation/land use planning process may be flawed due to a lack of regional oversight;

—Important factors such as community design and intermodal transportation planning may not be adequately addressed in the present transportation planning process.

The Transportation/Land Use Committee plans to adopt a final package of recommendations during its January 7-8 meeting.

We'll keep you posted on the latest word from the Committee (and be sure to also check FDOT's website - <http://www.dot.state.fl.us/>).

Central Office releases FSUTMS Version 5.3

The Florida Department of Transportation Central Office, Systems Planning Office has recently distributed FSUTMS Version 5.3 (based on TRANPLAN Version 9.0).

The major enhancements of V53 are: (1) Application of CONFAC and UROADF factors by facility type, (2) Activation of selected zone/link analyses with HOV, and (3) Integration of database capability.

The Visual Planning Environment (VIPER) software package has been purchased and will be provided in early 1999 after "FSUTMSizing" and testing are completed. FSUTMS.V53 will optionally write DBF file formats. Database documentation has not been completed and will be available at a later date for interested modelers.

If you need additional information, please call:

Harry Gramling (850)922-0439
Huiwei Shen (850) 488-4642
Donald Draughon (850) 488-9760

FSUTMS Interactive Documentation Available

As announced in the last Florida Transportation Modeling newsletter, the FDOT Systems Planning Office released Version 1.0 of the Florida Standard Model (FSUTMS) interactive documentation manual on CD-ROM. The compact disc contains the Adobe Acrobat Reader program, enabling users to view the modeling documentation files, which are provided in portable document format (PDF).

If you have not received the FSUTMS on-line documentation CD, contact Jeanette Berk - Advanced Planning, Inc. at (352) 475-2249 or Terrence Corkery - FDOT Systems Planning Office at (850) 488-9746.

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United States Census 2000

The following is a compilation of articles recently released by the Bureau of Census. If you have any questions or would like to obtain additional information, please contact Jeanette Berk, Advanced Planning at (352) 475-2249.

Census 2000: Another Technological Revolution?

In 1890, it was keypunch cards; in 1950, UNIVAC I, the first civilian-use mainframe electronic computer, made its debut; for Census 2000, the Census Bureau could introduce yet another technological revolution.

Census 2000 will be the first fully computerized census, from collecting data to releasing the final results on the Internet. And, in the level of access to the data, it could be considered the most democratic of the 21 censuses of population and housing ever. Internet will give millions of more data users the tools they need to construct a digital picture of America down to any one of 7 million census blocks.

For the first time, the data capture process will use optical scanners that can read hand-printing to process the millions of questionnaires returned by mail or filled out by enumerators. Scanners, of course, have been used for decades to recognize the marks made on standardized I.Q. and college-admission tests. But the strokes making the marks were restricted to defined ovals or boxes and the markings themselves to No. 2 lead pencils.

By contrast, the optical scanners to be used in Census 2000 will recognize and decipher hand-written responses made by pens, as well as pencils. But the

scanners are just one component of the system being developed by Lockheed-Martin Mission Systems. Lockheed is using commercially available sorters, scanners and processors — rather than developing expensive new hardware and software — in a system called Data Capture System 2000 (DCS 2000). Within this system, the scanners will take electronic photos, or images, of the census forms. Then, the “photos” will be processed by software capable of recognizing an infinite variety of hand strokes as either alphabetic or numeric characters. After the characters are translated into computer code, the responses will be transmitted electronically to the Census Bureau headquarters complex for statistical processing and analysis.

More than 100 million questionnaires will flow through the DCS 2000 systems at four data capture centers located around the country. Three of these centers, one in Baltimore County, Md., a second in Phoenix, Ariz., and the third in Pomona, Calif., are being established under a contract with TRW Inc. just for Census 2000. A fourth, in Jeffersonville, Ind., is a permanent installation called the National Processing Center, run directly by the Census Bureau to process its other censuses and surveys.

As the forms come into the data capture centers, they will be checked in and the envelopes slit open for manual removal of the forms. The check-in process also captures information about which households have responded to the census. Those that do not will be contacted by a follow-up census-taker. Once the check-in function is completed, forms are fed into the digital scanners. The resulting images are sent to sophisticated computer processors where they are assessed for quality. Only then are the data “read” from the form. The goal is to minimize

expensive manual keying operations and process the forms faster — as much as 20 times faster.

As in the most recent censuses, two basic forms will be used, the so-called short- and long-form questionnaires. The short form, sent to roughly 83 percent of the estimated 118 million housing units in the country, asks for information on age, sex, race, Hispanic origin, household relationship and whether the housing unit is owned or rented. The long form seeks more detailed socio-economic information. The printing contract for the census questionnaires was scheduled to be awarded in November of 1998.

Census population totals are used to reapportion among the states the seats in the U.S. House of Representatives and, within states, to redraw the boundaries of state legislative districts and even some local voting districts. These totals and subsequent population estimates based on the decennial numbers are one element that determines eligibility or distribution to state and local governments of more than \$180 billion a year in federal program funds (FY 1996 figures).

This census, moreover, will empower citizens to participate more directly than ever in political processes. Using the data disseminated by the Census Bureau via Internet, literally millions of people with access to personal computers will better understand the reasons behind zoning, road-building, new school or medical-facility decisions, as well as broader issues such as demographic trends and economic opportunities.

The use of keypunch cards in the 1890 census ushered in an era of business machines, tabulators, cash registers, etc. The computer age flowed out of UNIVAC I, used to process 1950

United States Census 2000 *Continued*

census data. With Census 2000 making it possible for anyone to log on to the same data used by government officials and interest groups, America will move closer to becoming an Internet Society — a perpetual town-meeting in cyberspace.

Census Bureau Announces Major Expansion of Data Dissemination on Internet

The Commerce Department's Census Bureau announced a new Internet data-delivery system that will significantly expand user access to the agency's vast data resources as part of the Clinton administration's initiative to make government more efficient and accessible to the public. The Census Bureau plans to have the system operational by early 1999.

"This new system will complement the Census Bureau's existing Internet site by giving the public online access for the first time to our largest data collection programs," said James F. Holmes, acting Census Bureau director.

The new system, currently referred to as "American FactFinder," is being built under contract with the Census Bureau by IBM Global Services Corp., principal contractor (responsible for systems integration and user-interface design); and subcontractors Oracle Corp. (relational database design and data warehousing); and Environmental Systems Research Institute Inc. (mapping applications).

The first data released via the new system will be preliminary reports from the 1997 Economic Census, 1990 Census of Population and Housing files, American Community Survey

test and demonstration data and results of the Census 2000 Dress Rehearsal conducted this year.

The full range of Census 2000 data products will become available via the American FactFinder system beginning in January 2001, with the release of the state population totals for reapportionment and the detailed population totals (to the census block level) for redistricting.

One objective of the American FactFinder will be to permit users to define custom tabulations, contingent on meeting strict confidentiality protections. The Census Bureau guarantees the confidentiality of individual responses for 72 years. That will not change.

Census 2000 Questions Fewest in 180 Years; 10 Minutes to Fill Out Short Form

The Commerce Department's Census Bureau has submitted to Congress the proposed questions for Census 2000—seven on the short form and 52 on the long form. The short form has the fewest questions since 1820 when U.S. marshals took the census on horseback.

"The proposed short form will take an average of 10 minutes to complete and is a key element in the Census Bureau's plan to conduct the most efficient, cost-effective census in the nation's history," said James Holmes, acting director of the Census Bureau.

The 1990 census short form had 13 questions and took 14 minutes to fill out. The Census 2000 long form, which goes to roughly one-sixth of the nation's population, contains 52 questions, five fewer than 1990. Filling it out takes an average of 38 minutes,

Holmes said. In 1990, the 57-question long form took an average of 43 minutes to fill out.

Noting that under the Constitution, the census of population determines the number of representatives from each state in the U.S. House of Representatives, Holmes said, "Why, then, does the Census Bureau ask some people questions about their homes, jobs, schooling and even how they get to work?"

"The short answer," he said, "is that the principle of accuracy, the basis for establishing the census in 1790, still holds true today. 'Just as the 'founding fathers' sought an accurate way of distributing the House seats, so, too, have modern legislators turned to the decennial census as the primary basis for an accurate distribution of fiscal resources under a wide range of federal, state, local and tribal programs."

The subjects for the census, announced one year ago, cover everything from age, sex, race, Hispanic origin, household relationship and whether the person owns or rents (short-form subjects) to citizenship, ancestry, language spoken at home, plumbing and kitchen facilities, house heating fuel and vehicles available (long-form subjects).

The Census 2000 questionnaire includes only one new subject (covered in question 19 on the long form), referring to grandparents as caregivers. This three-part question, mandated by a 1996 law, is designed to distinguish between households in which a grandparent temporarily provides a home for a grandchild for a few weeks or months and households in which the grandparent provides a home for a grandchild on a more permanent basis.

United States Census 2000 *continued*

All of the questions on the 2000 questionnaire were either mandated (i.e., federal law explicitly called for decennial census data) or required (i.e., federal law explicitly called for data and the decennial census was the only or historical source or there are case law requirements imposed by the U.S. federal court system).

This means, then, that the Census Bureau has not recommended questions on children ever born, source of water, sewage disposal and condominium status, and has changed “year last worked” from a detailed question to an abbreviated “screener” question used to reduce respondent burden and define the experienced civilian labor force.

The questionnaires, featuring larger type, pictorial representations illustrating the benefits of the census for individuals and their communities, and instructions on the questionnaire rather than in a separate guide as in 1990, are easier to read and understand.

Respondents are asked to list the names of all the persons living in each household on Census Day, April 1, 2000. The forms have room to report the full set of demographic, socioeconomic and housing characteristics for five persons. However, there also is space to report the names of up to seven additional household members, a total of 12 people. The Census Bureau will mail additional questionnaires to those households that indicate they have more than five household members.

A contract to print the questionnaires is scheduled to be awarded in November of this year. A decision about what other languages besides English the forms should be translated into will be made in June.

Texas, Florida, California, Georgia, and North Carolina are Top Population Gainers by Year 2000

The state of Texas is projected to have a net population gain of 1.4 million people between 1995 and 2000, more than any other state, according to tabulations released today by the Commerce Department’s Census Bureau. Florida (+1.1 million), California (+932,000), Georgia (+674,000), and North Carolina (+582,000) round out the top five gaining states.

During the 1995 to 2000 period, 25 states are projected to have their population increase by 5 percent or more. However, during the 2020 to 2025 time period, only six states’ populations are expected to increase this fast.

The data tables also show that, between 1995 and 2025, most states are expected to show a decline in the proportion of their population that is under age 20. The exceptions are projected to be California, Hawaii, New York, Rhode Island, and the District of Columbia.

The number of elderly people is projected to increase in all states over the next 30 years. During this period, California and Florida would continue to rank first and second, respectively, with the largest number of elderly. While New York and Pennsylvania ranked third and fourth in 1995, they are expected to drop to fourth and fifth place by the year 2025. Texas would move from fifth place in 1995 to third place by the year 2025.

TAZ Update (“TAZ-UP”)

The CTPP 2000 Planning Group has decided to use ArcView GIS software, an “add-on” to ArcView, and TIGER/Line98 for the 2000 TAZ updates to be provided to Census Geography Division for CTPP tabulations.

The preliminary schedule for “testing” the “TAZ-UP” software and related processes is as follows:

“Alpha test” - October 15: copies to be loaded onto operating systems at DOT (Tom Mank, Elaine Murakami, Jerry Everett and Wende O’Neill), the Census Bureau (Phil Salopek and Todd Blair), and CATS (Ed Christopher) for their review and comments.

“Beta Test” - November 20: copies to two MPOs for their review and comments. The two MPOs who have agreed to “beta” test the TAZ-UP process are Northeast Ohio Areawide Coordinating Agency (Cleveland) and Capitol Region Council of Governments (Hartford).

A letter will be sent to all FHWA Division Offices requesting information on their respective MPOs / DOTs’ system capabilities for performing “digital” updates and submittals of TAZ delineations for their region. If the agency does have the capability to provide digital TAZ submittals, they are asked whether or not they will need a copy of ArcView 3.1, which will be supplied to those agencies who don’t already have it.

CTPP 2000 TAZ Update Program

Program Description

In support of the Census Transportation Planning Package (CTPP) for Census 2000, the U.S. Department of Transportation (DOT) and the U.S. Bureau of the Census are

United States Census 2000 *Continued*

asking for Traffic Analysis Zone (TAZ) delineations from Metropolitan Planning Organizations (MPOs) and individual state Department of Transportation (DOTs).

Background

Census 2000: Although the decennial census is still two years away, it is time to start planning for data products for the transportation community. The journey-to-work questions will be almost the same as in 1990, with small exceptions in coding categories for number of persons in carpools, and number of vehicles in the household. The journey-to-work questions are part of the census "long form." The Bureau of the Census expects that Census 2000 will be the last time the "long form" is used, with the American Community Survey to replace it before 2010.

CTPP 2000: In 1990, the CTPP data product was financed through a "pooled fund" project administered through AASHTO for a "penny per person." We hope that a similar funding mechanism will allow the development of both statewide and urban elements for CTPP 2000. DOT is currently eliciting input on standard tables and approaches to customize tabulations for CTPP 2000.

Pre-Census Delivery of TAZs

In the past, TAZs were defined to include a single census block/tract, multiple census blocks/tracts, a place, a county subdivision, or an entire county. For 1990 delineations, TAZs were required to follow these census designated boundaries. This meant that MPOs / DOTs could not define TAZs until *after* the decennial census boundaries were released.

The Census Bureau isn't planning to number the census blocks for Census 2000 until the Fall of 2000. So it is important for MPOs/DOTs to note that census blocks and other Census 2000

tabulation boundaries will **not** appear on the issued TAZ delineation maps discussed above. *The 1990 boundaries may be included on these maps, if requested, as reference geographic boundaries.*

Participants in the Census Bureau's Statistical Areas Program began receiving delineation maps and guidelines in early 1998. Census Bureau Regional Offices can provide the MPO/DOT with the name of their jurisdiction's contact. A list of Regional Offices is included in the June 1998 CTPP status report.

For the Census 2000 TAZ Program, MPOs and DOTs are being asked to define their TAZs *prior* to the census - enabling MPOs/ DOTs greater flexibility in defining their TAZs and an earlier release of the CTPP.

Digital Submission Process

The U.S. DOT is developing a process for the submittal of TAZ boundaries to the Census Bureau using digital files in combination with TIGER/Line 98. We believe that a digital process will be more accurate and less costly than a paper process so paper submissions will be available on a limited basis.

The Census Bureau will provide TAZ Delineation Maps and guidelines to MPOs/DOTs in early 1999. MPOs/DOTs will have the ***choice of receiving the delineation maps in digital format or as paper maps***. Participants will have six months in which to delineate their TAZ boundaries and return the materials to the Census Bureau regional office. As the data are received, they will be added to the Census Bureau's geographic data base.

Beginning in early 2000, the Census Bureau will provide verification maps or digital files to each MPO/DOT for them to verify that their respective TAZs were inserted correctly before

being used in Census 2000.

Rules for TAZ

As with previous programs, each MPO / DOT is required to provide a "complete" TAZ coverage for a county. That is, all areas of a county must have an assigned TAZ. This may include both "true" TAZs (those areas actually under study by the MPO / DOT) and "dummy" TAZs (those portions not included within an MPO / DOT's area of study). Each TAZ will be identified by a unique six character alphanumeric code within the county.

To be part of the TIGER file, each county can only have one definition of TAZs, so that if an area falls within the planning boundaries of multiple MPOs, the MPOs must work together to define a single set of TAZs for TIGER that are acceptable to both.

Frequently Asked Questions

Do I have to define Traffic Analysis Zones for the CTPP?

No, you can get the Census Transportation Planning Package (CTPP) without defining TAZs. You can use standard census geography, like census tracts or block groups. You will need to make a decision by early 1999, when the TAZ boundary definition for CTPP 2000 begins.

What are the advantages to defining TAZs?

TAZs are designed specifically for use with travel demand models. Therefore factors such as business concentrations and traffic flow are considered in their design. Since census tracts and block groups are defined to count residential population and they may not be the best geographic basis for transportation analysis in commercial portions of a metropolitan area.

What are the advantages of using standard Census geography rather than TAZs?

United States Census 2000 *Continued*

You will be able to have data tables from standard Census products for the same geography. In previous decades, the Census Bureau issued STF tapes and CDs. For Census 2000, it is likely that tables similar to STF will be accessible through the Internet using a project currently called Data Access on Demand System (DADS) for census tracts and block groups. Then, when the CTPP tables are issued, these tables can be directly matched.

How long (how many hours) will it take the my MPO to enter the TAZ definitions to give to the Census Bureau?

It depends on:

1. How many TAZs you have.
2. The type of process you choose, a paper map or GIS software based process.
3. The present status of your TAZ boundary file. Do you already have TAZs defined that you will want used in CTPP 2000, or will

you have to go through a review process to adjust TAZ boundaries for CTPP 2000?

We estimate that an area using the GIS based software could update or create about 15 zones per hour.

Questions or Comments

If you have any questions regarding the delineation of TAZs, please contact: Todd Blair - Geography Div., Bureau of the Census (301)457-1099 or Tom Mank-FHWA, DOT. (202)366-4087.

FSUTMS 1999 Training Workshops

The Florida Department of Transportation, Systems Planning Office, is announcing the following FSUTMS training workshops:

Basic FSUTMS Travel Demand Modeling Workshop
Introduction to Urban Transportation Planning Workshop*
Advanced FSUTMS Transit Modeling Workshop
Advanced FSUTMS Travel Demand Modeling Workshop
Freight Modeling/Planning Workshop

**The Urban Transportation Planning course is offered by the FDOT Public Transit Office. A registration fee of \$90 is required.*

All participants are required to register with the FDOT Systems Planning Office. Workshop attendees are responsible for making their hotel reservations.

The **Basic FSUTMS Workshop** is designed for transportation professionals with little or no experience in travel demand modeling. The workshop gives participants an overview of the transportation planning process, travel demand forecasting methodologies, FSUTMS modules and file formats. Participants

will learn to install and execute FSUTMS, interpret output files, create standard plots, and execute the Visual Planning Environment (VIPER) to edit highway networks. An overview of the GIS-TM (GIS for Transportation Modeling) software which bridges FSUTMS and ArcView is also included.

The workshop will be held at 1:00 pm January 25 until 12:00 noon January 29, 1999, at the Ramada Plaza Hotel Gateway (\$74 per night) located at 7470 Highway 192 West, Kissimmee, Florida 34747. Hotel telephone number is (407) 396-4400. Registration deadline: January 22, 1999.

The **Introduction to Urban Transportation Planning** course discusses new directions in the urban transportation planning process, specific techniques of analysis and evaluation for urban transportation planning, and possible means of achieving project and societal objectives. The course introduces participants to the use of computer solutions to transportation planning and design problems. Individuals actively engaged in technical or policy-making resolution of urban transportation problems are encouraged to participate in the course.

The course will be held at 8:30 am March 15 until 12:00 noon March 19, 1999, at the Radisson Barcelo Hotel (\$77 per night) located at 8444 International Drive, Orlando, Florida 32819. Hotel telephone number is (407) 345-0505. Earlier registrations, by February 15, 1999, will be eligible for an upgrade to a suite at the \$77 per night rate. A registration fee of \$90 is required to attend this course. Make checks payable to the Florida Transit Association. Please contact Jon Ausman or Tara Bartee at the Public Transit Office at (850) 414-4519 for information on registering for this course.

The **Advanced FSUTMS Transit Travel Demand Modeling Workshop** provides in-depth discussion on transit model calibration techniques. This workshop concentrates on the nested logit modechoice model, procedures to develop transit access, and time-of-day modeling issues. A guest modeler with extensive transit modeling experience is invited to assist in assembling and presenting this workshop.

The workshop will be held at 1:00 pm April 12 until 12:00 noon April 14, 1999, at the Treasure Island Inn (\$68 per night) located at 2025 South Atlantic Avenue, Daytona Beach

FSUTMS 1999 Training Workshops *Continued*

Shores, Florida 32118. Hotel telephone number is (904) 255-8371. Registration deadline: April 9, 1999.

The **Advanced FSUTMS Travel Demand Modeling Workshop** is designed for transportation modelers who are interested in learning specialized assignment procedures and other advanced modeling techniques. The Basic and Intermediate FSUTMS Workshops are not required but strongly recommended. This workshop provides instruction in special assignment techniques such as Select Link/Build Trip Table, Select Link/Complex Weave Analysis, and Selected Zone Analysis. **In-depth discussions on site impact analysis procedures are also included in this workshop.** Transportation planners with extensive site impact analysis expertise are invited to help prepare and teach this workshop.

The workshop will be held at 1:00 pm May 17 until 12:00 noon May 20, 1999, at Treasure Island Inn (\$68 per night) located at 2025 South Atlantic Avenue, Daytona Beach Shores, Florida 32118. Hotel telephone number is (904) 255-8371. Registration deadline: May 14, 1999.

The **Freight Modeling/Planning Workshop** provides instructions on FSUTMS freight modeling techniques. Hands-on computer exercises are designed to present an example of a real Florida urban area with all available data and model problems for topics covered in the workshop. A guest modeler with extensive freight modeling experience, anticipated to be an FHWA representative, is invited to assist in assembling and presenting this workshop.

The workshop will be held at 1:00 pm

June 7 until 12:00 noon June 9, 1999, at the Ramada Plaza Hotel Gateway (\$74 per night) located at 7470 Highway 192 West, Kissimmee, Florida 34747. Hotel telephone number is (407) 396-4400. Registration deadline: June 4, 1999.

An **FSUTMS Special Update Workshop** will be scheduled during the early part of 1999. This workshop is designed to present new modeling technology, new features added to FSUTMS, and new policy requirements for transportation modeling. A detailed demonstration of the Visual Planning Environment (VIPER), the replacement package of HNIS, is included. Discussions on Version 5.3 FSUTMS enhancements and GIS-TM (GIS for Transportation Modeling) are also presented.

If you have any questions, please call Huiwei Shen at (850) 488-4642.

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