MoDOT

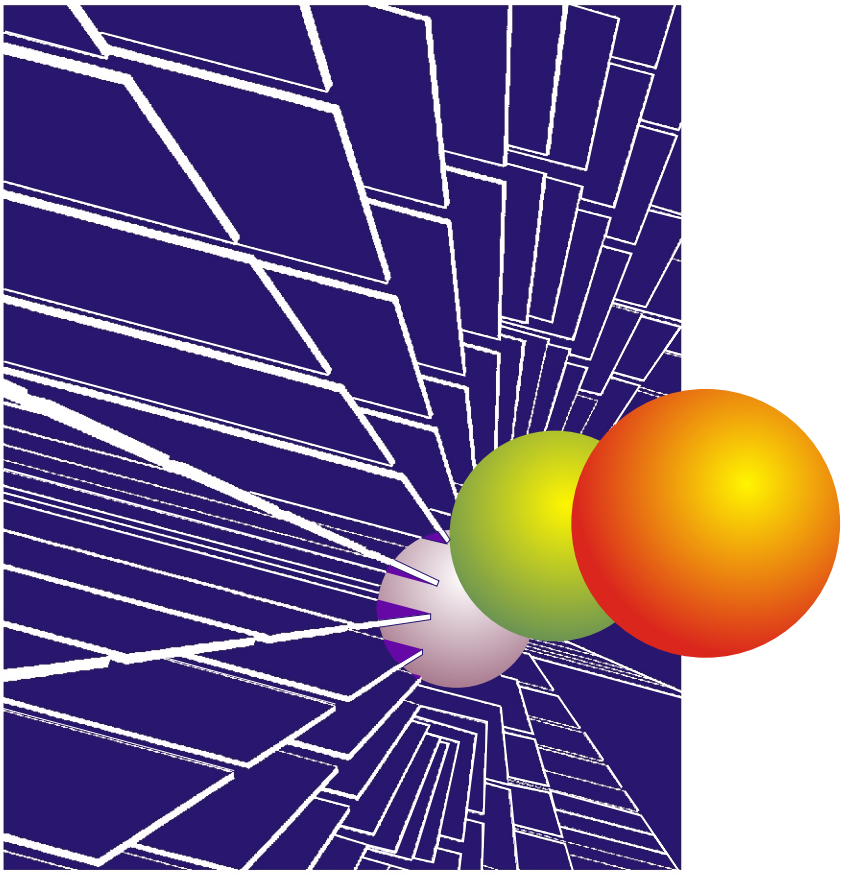
Research, Development and Technology

University of Missouri-Columbia

RDT 03-011

Development and Use of Social and Economic Data at MoDOT

RI 00-049



August, 2003

Final Report

RI00-049

Report No. RDT 03-011

Development and Use of Social and Economic Data at MoDOT

MISSOURI DEPARTMENT OF TRANSPORTATION
RESEARCH, DEVELOPMENT AND TECHNOLOGY

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JEFFERSON CITY, MISSOURI
DATE SUBMITTED: August 2003

Final Report

The opinions, findings, and conclusions expressed in this publication are those of the principal investigators and the Missouri Department of Transportation; Research, Development and Technology. They are not necessarily those of the U.S. Department of Transportation, Federal Highway Administration. This report does not constitute a standard or regulation.

Final Report

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16. Abstract

This project was designed to provide easy-to-use census data formats in the specific geographies used by the MoDOT. The website developed as a result of this project provides up-to-date, authoritative data and information for use in transportation planning and project development. The Socio-Economic Indicator Resource Web Page makes data, maps, tables, charts and graphics and analysis available at the level of geography meaningful to MoDOT personnel.

The project has been successful in increasing the use of census data in long-range and project planning, environmental clearance, and in providing a basis for Title VI, Environmental Justice and Limited English Proficiency applications related to department functions.

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Executive Summary

The MoDOT Socio-Economic Indicator Resource (SEIR) can be found on the World Wide Web at: http://oseda.missouri.edu/modot. This resource is the end result of a yearlong research process centered on delivering timely and authoritative social and economic data into the hands of all personnel that need it.

A SAS database was developed to house the social and economic indicators selected by the Users-Group. This database contains all of the social and economic data at all geographic levels for the entire project. In order to facilitate trend analysis, the database is comprised of data from both the 1990 and 2000 Census.

A GIS was developed in relation to both the Administrative Units and the underlying small area geographies used to describe them: census tracts, block groups and blocks; county and city; road and interstate line work; as well as for other geographies that may or may not be used in the future, i.e. school districts and zip code tabulation areas.

Social and economic data in the form of Maps, Charts and Tables were created for Planning Districts, Regional Planning Commissions, and Metropolitan Planning Organizations and are located on the website. The tabular and graphical forms of content comprise the bulk of the website.

In addition to the pre-generated content, a web-based Data Query application was developed and implemented in order to facilitate the retrieval of user specified datasets at the appropriate Administrative Unit and at specified geographic detail. Data is provided in several formats (.csv, .sas, and .html) and for both 1990 and 2000 time periods, separately or as a trend.

Regional Profile Reports were written that describe the social and economic trends affecting MoDOT Planning Districts.

Environmental Justice Analysis Reports were written for Planning Districts and describe the social and economic environment, in terms of quality of life, for the EJ populations: minorities, low-income, disabled and elderly.

Corridor Analysis was developed using the Highway 65 corridor from the Arkansas and Missouri border to the city of Buffalo, Missouri. The corridor analysis is a prominent feature of the website and the methodology is in place in order to produce more corridor analyses in a timely fashion.

Trainings began on January 31st, and ended February 11th. Four training sites, Springfield, Kansas City, Jefferson City, and St. Louis, from around the state, were selected for administering the trainings. Training evaluations indicate that both the MoDOT Socio-Economic Indicator Resource, and the training sessions are viewed as useful and needed.

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Introduction

The detailed demographic, social and economic characteristics of Missouri are essential elements of MoDOT planning, project development and Environmental Justice functions. Access to such information and its application has been problematic. There is a very great quantity of data from many sources in many different formats with unspecified reliability organized in differing geographic layers. MoDOT staff needs easy access to up-to-date social and economic information that is relevant, authoritative, convenient and understandable.

This project was designed to provide easy-to-use social and economic data in the specific geographies used by the MoDOT. The website developed as a result of this project provides up-to-date, authoritative data and information for use in transportation planning and project development. The Socio-Economic Indicator Resource Web Page makes data, maps, tables, charts and graphics, and analysis available at the level of geography meaningful to MoDOT personnel.

Objectives

The objectives of this research were to identify the relevant social and economic data for use at MoDOT, and then to develop and implement authoritative information products and electronic applications that could be easily used by MoDOT personnel for planning, project development, and for Title VI and Environmental Justice applications.

- Develop and implement a social and economic indicator database.
- Develop and implement various content formats for display on the World Wide Web.
- Provide training on the understanding and use of the social and economic data.

Present Condition

Prior to this project is was not clear how social and economic indicators should best be aligned for analysis for transportation functions. Also, there were no integrated sets of reports or information system tools available to MoDOT staff for this data. Neither was there a training program in place to encourage the appropriate use of such information.

Technical Approach

The following section details the methods that were employed in order to achieve the project objectives and when applicable a web-link to a page on the web site that illustrates the final outcome of that technical approach.

At the very outset of the project a Users-Group was created with the function of providing useful knowledge regarding the kinds of data items that would be useful as well as how these pieces should come together in regards to the web application. OSEDA established a project team with expertise in social and economic data analysis and report writing, database design and development, web application design and development, and training design and delivery. A MoDOT Steering Committee involving Kent Van Landuyt, Ernie Perry, Stefan Denson and Frank Miller provided overall guidance to the project. A Users-Group with representatives from public relations, planning, project development, environmental justice, TMS, district office and RPCs provided input on transportation planning perspectives, the review of best practices and assessment of preliminary designs.

The driving force behind the project is the Socio-Economic Indicator Resource (SEIR) database (http://mcdc2.missouri.edu/cgi-bin/uexplore?/pub/data//modotx). The SEIR database is comprised of 1990 and 2000 Census data at block group, census tract and county level geographies (as well as aggregated to the Administrative Units of the Planning District, Regional Planning Commission, and Metropolitan Planning Organization). The SEIR Database also includes 2000 Census data at all geographies for the MPO portions that fall in the States of Kansas and Illinois. The MoDOT Socio-Economic Indicator Resource database is maintained on a public access server and exists in SAS format. Aside from being the actual repository for the social and economic data, there is an extensive set of metadata describing the variables that were used to compute the indicators when necessary and a description of the indicators overall. Variables in the database come from both SF1 and SF3 Census datasets for the 1990 and 2000 Census periods.

A GIS was developed that coincides with geography layers maintained by MoDOT for use in creating the map section of the content of the web page, as well as for the corridor analysis. The GIS exists as independent "personal geodatabases" organized by the Administrative Unit for which it serves: MoDOT Planning District, Regional Planning Council, Metropolitan Planning Organization and Corridor. For each Administrative Unit, and their specific sub-regions, for example, the Northwest Planning District, through the "clip" feature of the ArcGIS software numerous geographic layers/boundaries were developed, these are: census block, census block group, census tract, city, county, school district, zip code tabulation area, state highway, federal highway and interstate. Since the GIS utilized the "personal geodatabase" framework of

the ArcGIS 8.x software, it is possible to make these geographies available to users via a cd-rom or on a server.

The best method for deployment of a project of this nature was through the World Wide Web (http://oseda.missouri.edu/modot). Thus, the SEIR web page was developed in order to deliver the maps, tables, charts and analysis to the end user at the appropriate Administrative level (for an example of the data elements supplied for the Planning Districts see Appendix C, for an example of the web pages serving up the content for the Regional Planning Commissions see Appendix D, for an example of the web pages serving up the content for the Metropolitan Planning Organizations see Appendix E). Over 2300 maps were created using ArcGIS 8.2 software and Adobe Photoshop 5.0, and exist in both .gif and .pdf formats (for examples of the types of maps that were created for this project see Appendix J). Breakpoints in maps were uniquely determined for each map based on the distribution of the indicator. This was done in order to present regional maps that would be meaningful to that region rather than based on a universal rubric that may or may not highlight the region's individual trends. Over 1700 tables were created using SAS 8.2 software, these exist in.html and .pdf formats. Over 1000 Charts were created using Microsoft Excel 2000 and Adobe Photoshop 5.0, these are provided in .gif format.

A key aspect of the web application is the ability to query the SEIR database directly (http://mcdc2.missouri.edu/websas/modotda.html). A stand-alone web application, linkable from the SEIR homepage, was developed in order to accommodate this need. The Data Query application allows users to select Administrative Units and sub geographies for which they want social and economic data for the 1990 and 2000

Census periods. Choices can be further filtered on select Administrative Units. There are three formats that data can be exported to: .csv format for use with spreadsheet programs, and GIS software, .sas for use with statistical software packages, and .html format for expedient viewing via a web browser. (For an illustration of the Data Query application see Appendix I.)

The environmental justice analysis utilized structural equation modeling to ascertain the quality of life that exists within the neighborhoods that protected populations (minorities, low-income, disabled and elderly) live in (see Appendix B, or http://oseda.missouri.edu/modot/planning/stlouis_analysis.shtml). The units of analysis for the structural equation models were the census block groups for a specific Planning District. Thus, there is an environmental justice analysis for each Planning District. Data for the EJ analysis came from the SEIR database and was analyzed using AMOS 4.0 for the SPSS software.

Corridor analysis was provided for Highway 65 running from Buffalo, Missouri to the Arkansas and Missouri border (see Appendix F). Data was captured for this corridor in 5, 10, 20 and 30-mile increments. Social and economic data were provided for the 4 buffers in the form of an .html table. This data was put together based on block centroids and census block groups. The methodology employed requires the GIS to capture all of the census block centroids that fall within the specified buffer. Since census block units do not have the detailed social and economic data associated with them, block group geographies are used to supply the more detailed social and economic data. However, the corridor buffers typically cut across the census block group geographies creating a situation where only a portion of an entire block group is within a

buffer. When this happens, an allocation factor derived from the census blocks that have been captured within a block group and weighted by population is applied to the block group. For example, if 25 percent of the block group population has been captured (based on the census blocks), the social and economic indicators for that block group are multiplied by .25 in order to get a value indicative of the percent of the block group (based on the population determined by the blocks that were captured) that fell within the buffer. (http://oseda.missouri.edu/modot/corridor/springfield_hwy65.shtml)

Training sessions were administered in four cities located around the state: Springfield, Jefferson City, Kansas City and St. Louis. These locations were chosen because it was felt that they would be the most central places from which participants around the state would be able to attend. The training session was broken up into 3 mini-sessions each of which served a specific purpose to the training overall, and were highly interactive. The first session (see Appendix G), the less interactive of the sessions, dealt with providing the attendees an increased understanding of the Census since it is Census data that comprises the SEIR. The "Understanding the Census" mini-session dealt with two main aspects of the Census, the geographies for which data are available and the two datasets from which data is pulled (SF1, or 100% data, and the SF3, or the sample data). The second mini-session (see Appendix H) dealt with using the SEIR website directly. Points that were covered included: an overview of the site in general, navigating the site, data from other sites that can be accessed via county selection, how to incorporate the maps, charts and tables into work documents, and illustrating the basic functionality of the SEIR web page. The third and final mini-session (see Appendix I) consisted of providing instruction on how to use the Data Query application. This session was

organized in two steps. The first step consisted of a walk-through of the various features of the Data Query application. The second step of this session focused around nine "real-world" situations provided to us from the Users-Group and were specific to transportation planning. These exercises were slightly altered for each training site in order to provide examples that would be meaningful to the attendees. The conclusion of the training session involved administering a brief survey to ascertain the effectiveness of the training overall and to receive feedback regarding future features that should be incorporated into the SEIR as well the altering of features that currently exist. These responses, as well as the instrument that was used can be found in Appendix A.

Results and Discussion

The following points describe the end results of the project:

1) Understand users, and user data needs.
2) Understand the levels of geography needed by various users.
3) Increase implementation through a "Team of Early Adopters" that are seen by others as progressive and successful.
4) Design SEIR Web Page to serve "light" and "power" users.
5) Offer training to enable use of the web page for internal and external data users.
6) Design project to allow for changes and data updates as new data becomes available.

Conclusions

The project has been successful in increasing the use of census data in long-range and project planning, environmental clearance, and in providing a basis for Title VI, Environmental Justice and Limited English Proficiency applications related to department functions.

Recommendations

Feedback from users has provided the impetus for the SEIR to do more. User recommendations call for the need to:

- **Provide Corridor Studies to MoDOT on a Statewide and District Basis** - A process needs to be developed and applied for initiating, prioritizing, managing and delivering each corridor study. This process will utilize the SEIR application, allowing MoDOT staff to request and track the progress of corridor studies through the web site.
- **Integrate into SEIR a Block Group and Census Tract Reference Map System** - In responding to feedback from users a feature needs to be added to SEIR that provides reference maps to identify census geographies by location.
- **Provide Access to the Geography Data Sets Included in SEIR -** To increase consistency in reporting and enhance the ability of planners, OSEDA has been asked to make the geography data sets for MoDOT Districts, RPCs, and MPOs available for use. By having access to these data sets, planners will be able to integrate their own data sets into SEIR maps as needed.
- **Integrate Cross-Tabulated Data into SEIR -** Census data provides detailed social and economic data for specific sub-populations, i.e. Racial Groups, Male and Female and Age Cohorts. Although not every item in the 2000 Census is cross-tabulated, there has been an expressed need by planners for several cross-tabulated items that are in the census.
- **Integrate Census Transportation Planning Package (CTPP) Data into SEIR** - The CTPP data set includes relevant information regarding commuting patterns and other transportation related issues. This data is organized according to a specific geography, Transportation Area Zone, which will need to be added to the GIS. Users would benefit by the inherent utility of this data coupled with the ease of data retrieval afforded by the SEIR.

Implementation Plan

Implementation of the project was put into practice post-development, but during the course of the project overall. Implementation consisted of building the database, the various content pieces, the web page, the data query application, the various reports and providing the training sessions on how to access and use the data.

Principal Investigator and Project Members

OSEDA

Lance Huntley	Primary Investigator
John Blodgett	Database Consultant
Evelyn Cleveland	Analyst
Tracy Dranginis	Analyst
Bill Elder	Technical Consultant
Diana Hammond	Web Designer
Daryl Hobbs	Senior Consultant
Tanna Klein	Analyst
Steve Meyer	Systems Support
Courtney Morris	Analyst
Suzanne Schoonover	Administrative Management

MoDOT

Steering Committee
Stefan Denson
Kent Van Landuyt
Frank Miller
Ernie Perry

Users-Group
Scott Bachman
Steven Billings
DeAnne Bonnot
Stephen Clark
Paula Gough
Kim Horton
Mike Shea
Sharon Taegel
Renate Wilkinson

Implementation Objective

The implementation objective was the same as the objective overall; developing a method in which to deliver social and economic data for use in planning and development, as well as increasing the awareness in the use of this kind of data.

Implementation Period

The implementation period began in September when the SF3 Census data was released and currently ended in February with the completion of the final training session.

Funding

Research, Development and Technology provided funding from SPR funds.

Technology Transfer

Technology transfer was carried out through the four training sessions that were administered around the state. Technology transfer was also provided through presentations that were given in January in Washington D.C. at the TRB Conference and in Jefferson City at the District Planner's Meeting.

Procedure

The following section provides the work plan that was developed and completed for this project.

Establish Work Groups
- Establish OSEDA Team
- Establish MoDOT Steering Committee
- Establish MoDOT User Group

Develop Preliminary Design of Databases, Applications, Reports and Training
- Conduct a Literature Review of Transportation-Related Applications of Social and Economic Data.
  - Conduct the Review
  - Write a Summary Report of the Review

- Present the Report to the Steering Committee for Review and Approval
- Review Best Practices w/ User Group
  - Research Best Practices and Case Studies
  - Work with User Group to Document Work Practices with Data
  - Summarize the Functions and Practices Associated with the Information
- Identify Specific Data Elements as Preliminary Key Indicators
  - Identify an Inclusive Set of Preliminary Key Indicators
  - Work with the User Group to Select Key Indicators and Relate to Function
- Create Preliminary Formats for State, District and Regional "Profiles"
- Organize the Key Indicators Into Profiles that "Tell a Meaningful Story"
  - Present Tables of Contents and Structure for Profiles
  - Finalize Content and Format of the Profiles
- Create Preliminary Presentation Formats for Corridor Analyses
- Coordinate GIS layers for Profiles and Corridor Analyses
- Develop A Communications Plan to Coordinate Training and Implementation

Develop, Test and Refine Databases, Applications, Reports and Training

- Create Key Indicator Databases
  - Create the SAS Data Sets for the Key Indicators
  - Build the Documentation Files for Key Indicators
- Build Profile Applications and Reports—design layout
- Write, Review and Edit Narrative Analysis for State and District Profiles
- Test and Refine Profile Applications and Reports with User Group
- Test and Refine Corridor Applications and Reports with User Group
- Analyze and Write Draft Interpretative Narratives for Profile Sections

Implement Databases, Applications, Reports and Training

- Initiate the Implementation Communications Plan
- Launch Production Versions of the Databases, Profiles, Applications and Reports
- Conduct Demonstration and Presentations of the System

Training

- Assess Training Needs
- Adopt Training Approach
- Design Training and Materials
- Promote and Organize Training Sessions
- Conduct and Evaluate Training
- Update Training Design

Evaluate and Update Databases, Applications, Reports and Training

- Evaluate Profiles and Corridor Analysis
- Update Profile and Corridor Analysis Design
- Maintain and Update Key Indicator Databases
- Maintain and Update Profile and Corridor Applications

Budget

Expenditure Report Through December, 31st, 2002
Development and Use of Social and Economic Data at MoDOT

Total Program Budget	Budget Items	Expenditures Through 12/31/2002
Personnel	$ 170,705	
Salaries	$ 144,665	$ 144,478.16
Benefits	$ 26,040	$ 30,648.12
Expenses	$ 18,000	
Travel	$ 3,000	$ 2,693.13
Supplies	$ 2,000	$ 3,043.12
Training Materials	$ 5,000	$ 3,690.00
Users-Group Support	$ 5,000	$ 3,699.02
Printing	$ 3,000	$ 19.50
Total Direct Cost	**$ 188,705**	$
Indirect Cost (.097)	**$ 18,304**	$ 18,330.00
Total Project Cost	**$ 207,009**	**$** 206,601.05

APPENDIX A – Training Session Evaluations

Evaluations

The following section provides information relating to the users feedback regarding the training sessions and the overall utility of the web application. The information is divided into two sections. The first section is a listing of the textual responses, by training session location, that attendees gave regarding the training session and the project overall (questions 25 and 26 from the survey instrument). The second section is a set of bar graphs illustrating the scores that were given regarding a set of questions ascertaining the helpfulness of certain aspects of the presentation: the information presented, the materials used, the presenters and an overall rating of the presentation. When reading the bar charts, the higher the score the better. Also included is the instrument that was used to evaluate the training session.

Springfield Training Session Textual Evaluations

- Data Query. When a new geography is selected, refresh page so selection is seen. Separate tables on export (.csv) for # and percent (it's currently harder to follow.
- I'll probably e-mail some other suggestions as I have time to use the system.
- I'll be able to use this a lot – thanks.
- Have participants select their own problems in addition to the ones on the presentation.
- Information at the city level.
- Possibly more tables of interest in the future, i.e. cross-tabulations.
- As stated before, information on the city level. This was provided in the data query info, but not in a lot of tables, charts, etc. in the general website.
- Many of the existing tables and charts for my MPO exist and in a timesavings mechanism to me already. Way to go in anticipating needs for local MPO districts.
- Partial tract and block group info for MPO, also add city as a level of data.
- Speak Louder.
- Very useful program, needs to continue!
- Partial tracts and block groups in calculations for MPOs (so that the sum of the tracts will equal the total for MPO).

Kansas City Training Session Textual Evaluations

- MPO/RPC split as discussed in training. Separate geography for non-MPO portions of RPCs. Corridor Queries.
- The additional explanation below slide is good reference.
- If possible, gray out lists that are moot or unavailable after an above choice is made. Make County filter for counties in District X like the TMS interface. Make Query Selection III tables larger (the html box).
- For my purposes the available information is extensive.
- I don't think that you need to print out all of materials, People who want them can and should be able to download them.
- ArcIMS and GIS data.
- Great work. Extremely helpful. This will save a lot of time and headaches.
- Access to GIS data.
- GIS layers. Good Job – Very useful too and the presentation was clear and informative.
- Corridor Tool – ability to do quickly.
- Try not to talk to the screen as much.
- Guidebook on website: operation, definitions, queries possible.
- Additional documentation on query how to do.
- Corridor tool: ability to click on a geographic area then route boundary select buffer and run.
- Good tool – keep tweaking – thanks.
- A way to compare corridor alternatives for a project.
- Map making capabilities.
- Great job in simplifying use of website/database.
- Again great job in simplifying the Query and Database features. I would be interested in seeing a comparison in corridor alternatives using proposed linework. (Possibly on-the-fly Digitized Linework). Also an output using GIS-Mapping would be helpful in communicating the data.
- Great job.
- Looks fairly comprehensive. I have no suggestions for additions.
- Thank you very much!

Jefferson City Training Session Textual Evaluations

- Maps within census tracts identified by county. It was discussed to perhaps have such info at the MoDOT district level. From an RPC perspective it would by helpful if it were available by county-where individual counties could be printed. If this were doable at MoDOT Planning level, that would be fine as well.
- Great stuff. In the past, we have spent considerable time compiling regional level data. We won't have to do that for 2000. The Query Option is really a nice feature. Special thanks to MoDOT and OSEDA for all the hard work!
- Description of future census 2000 products to be released by the census bureau.
- List of related web sites or a link to find them.

- Show SAS inquiry method so people can have a greater appreciation for the data inquiry "front end" now available.
- Provide a short overview of the general OSEDA web site.
- Maybe some case studies would help, possible queries to incoming trainees so that they can benefit from an application they are interested in.
- Have your host assure the internet links are working well.
- Make sure the web works on the training computers.
- Case studies based on queries to incoming students.
- Provide links form application to maps of the census tracts / block groups. Good job/Good Tool!
- Will take back to District and apply to our needs. I think it will be very useful when I become familiar with the program.
- Block maps.
- Political and cultural trends, such as party and civic group affiliations.
- This was all very useful.
- I am interested in working with local governments to build less sprawling more compact communities of all sizes. I'd like to see MoDOT and OSEDA collaborate on assessing peoples wishes for land use and aiding local planning organizations to incorporate that information into plans related to community design.

St. Louis Training Session Textual Evaluations

- A resource map with tract data.
- Block GIS maps.
- More links.
- More GIS maps and links.
- More Case Studies.
- More interactive features on the website.
- Great site.
- Merge MoDOT data (i.e. accidents, Traffic Counts).
- Specific major corridors should be added. In District 6, the following corridors should be addressed: I-55 (from River Des Peres South to X Barracks Rd.); Rte 47 in Franklin County; the entire outer loop (I-270).
- I thought the training was timely and beneficial. The OSEDA website is a very good tool that I intend to use on a regular basis. Is the OSEDA website linked to the MoDOT website?
- Difference between SF3 and SF1. Metadata Info?
- Provide information as a link to MoDOT's website or Internet site.
- A detail of # of minorities and women unemployed, and in the labor force. Also, as a percent of the total unemployed.
- Good information.

Figure 1. Combined Responses from all Training Sessions Regarding the Helpfulness of the Information Presented During the Training Session

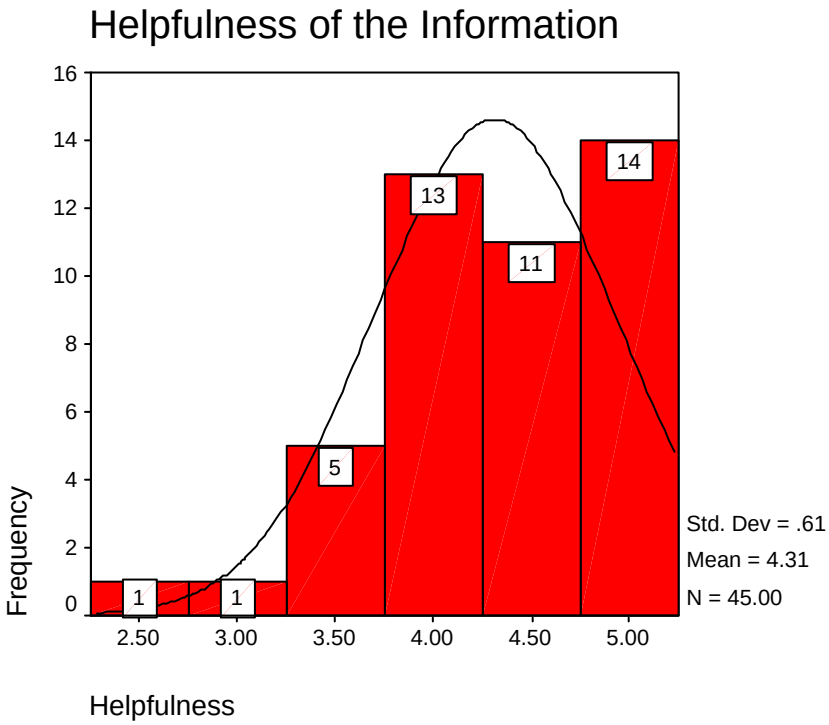


Figure 2. Combined Responses from all Training Sessions Regarding the Helpfulness of the Presentation Materials Used in the Training Session

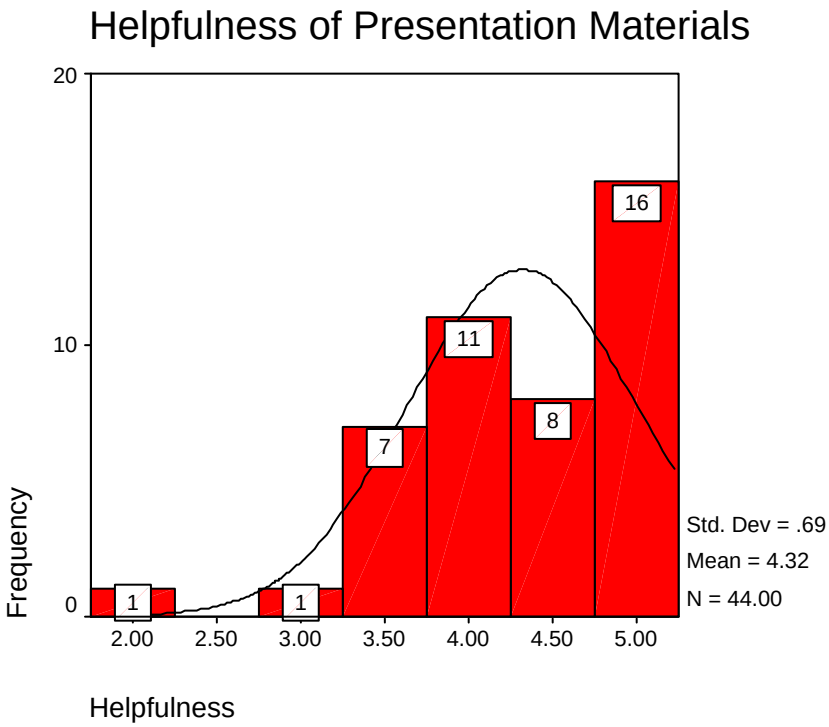


Figure 3. Combined Responses from all Training Sessions Regarding the Helpfulness of the Presenters and the Presentation

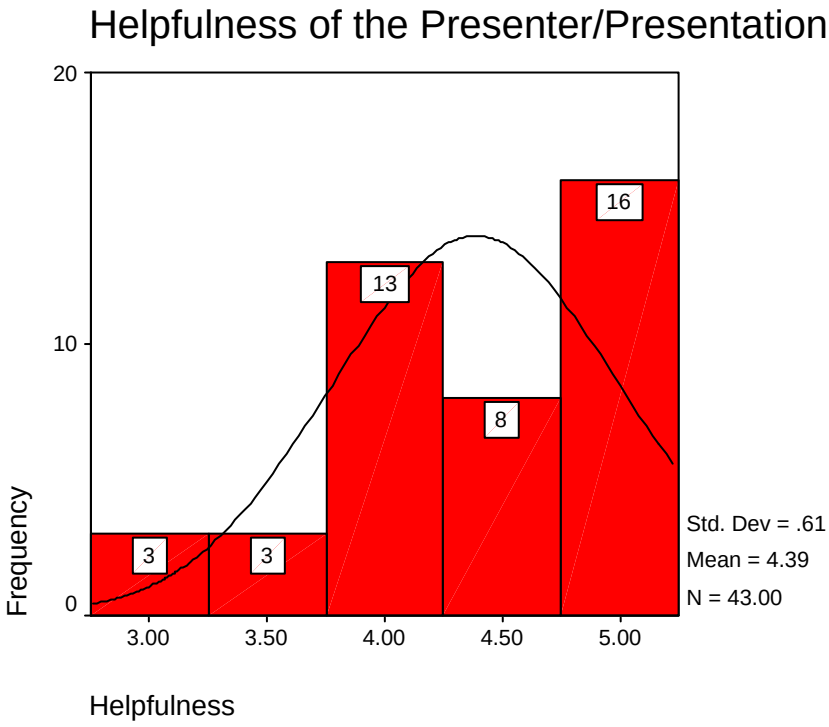
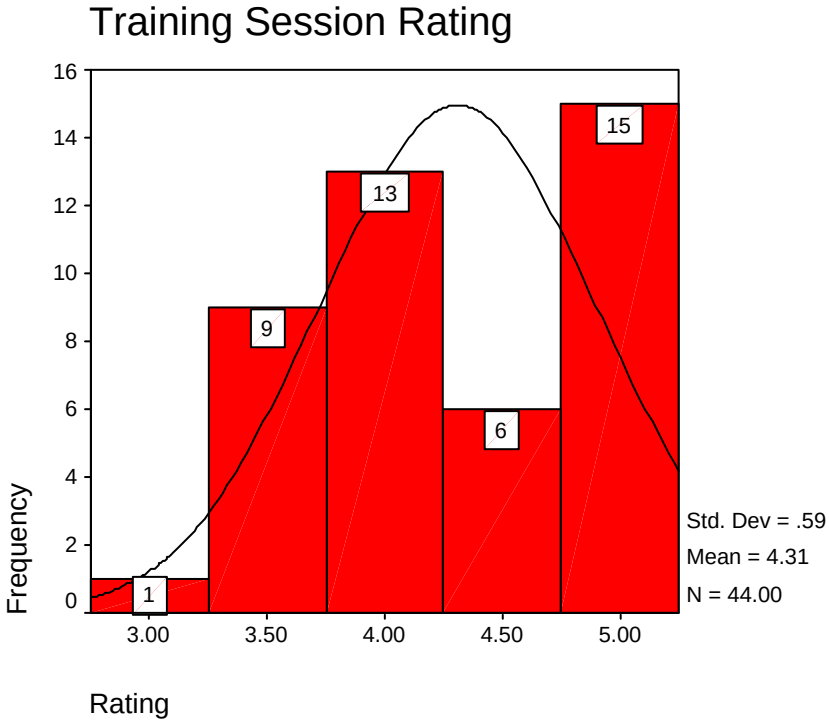


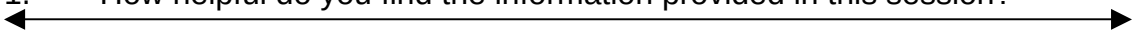
Figure 4. Combined Responses from all Training Sessions Regarding the Overall Usefulness of the Training Session



MoDOT Socio-Economic Indicator Resource Training Evaluation Form – February 10, 2003

1st Session – *Overview of US Census*

1. How helpful do you find the information provided in this session?



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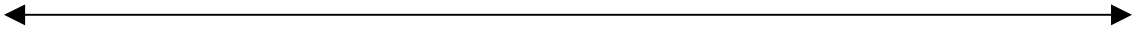

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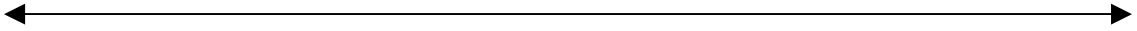

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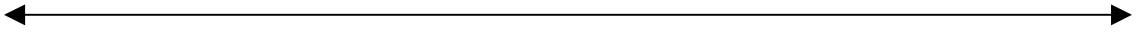

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Second Session – *Using the Website and Database*

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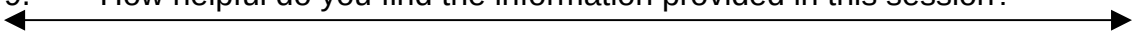

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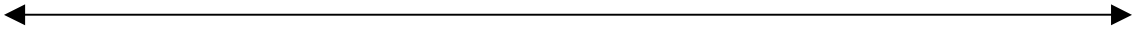

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Third Session – *Using the Data Query Application*

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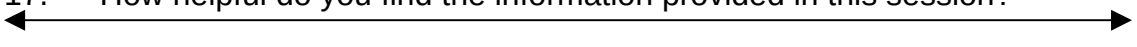

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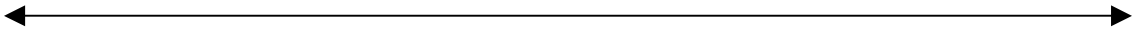

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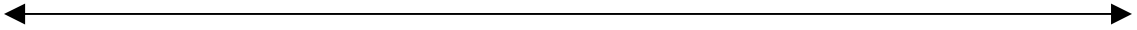

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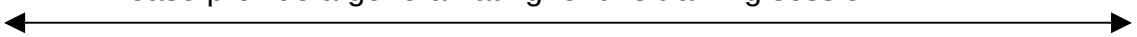

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25. What additional features, information, products, and/or services would make the MoDOT Socio-Economic Indicator Resource more valuable to your work?

26. Please note any additional comments or suggestions regarding the training or the MoDOT Socio-Economic Indicator Resource.

Appendix B – Environmental Justice Analysis of District 6

The Relationship of Environmental Justice Populations to Key Socio-Economic Indicators in the St. Louis Area District

Introduction

This narrative provides some insights into the quality of life in MoDOT's St. Louis Area District by considering the relationships between a number of 2000 census variables. The census variables considered were selected based upon two criteria. First, their relevance to Environmental Justice and Title VI (of the Civil Rights Act of 1964) reporting requirements and second, their ability to both describe generally understood characteristics of quality of life and to be statistically testable. It should be noted that the statistical method used, structural equation modeling, provides preliminary analysis for neighborhoods and communities within a MoDOT Planning District. This analysis cannot be generalized to other districts or the state as a whole. It is important to keep in mind that the unit of analysis refers to the conditions within a census block group, and not to any single protected population. Thus, what is being measured by considering the interaction between variables is the social and economic environment of the communities and neighborhoods that comprise the planning district.

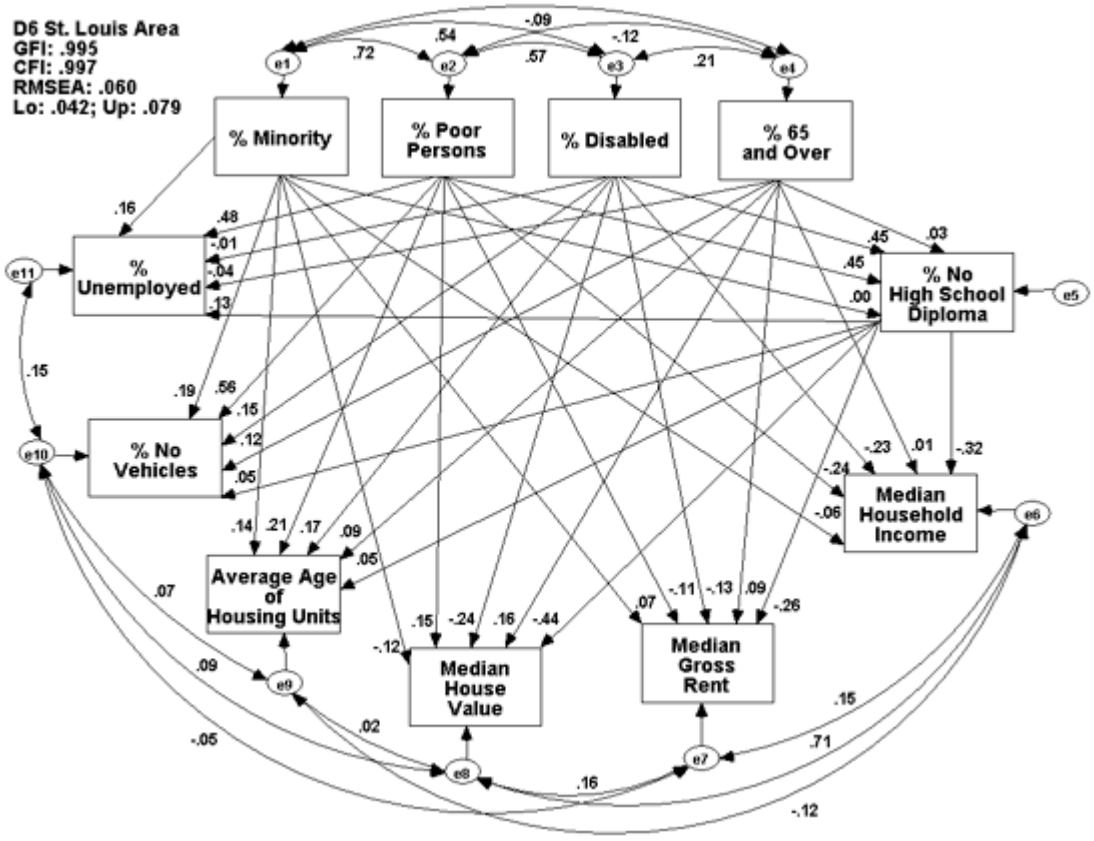
A Quality of Life (QOL) model was selected for two important reasons. First, the purpose of transportation planning is to ensure that all members of a community benefit from planning efforts and none experience disproportionate burden. Second, there is an established use in transportation planning of considering QOL. Forkenbrock (1999) advocated considering the impact of planning on low-income and minority communities to address environmental justice issues including federally funded transportation-related programs, policies, and activities having the potential to adversely affect human health or the environment. Purvis (2001) extended the environmental justice variables to include elderly and disabled populations based on proposed metropolitan and statewide planning regulations released in May of 2000. Purvis suggested the use of a 'discrimination assessment' to include a geographic and demographic profile that addressed these four populations in terms of the positive and negative impacts of transportation services available and planned.

While there is no definitive list of social and economic variables that best measure the quality of life for a geographic area, the Decennial Census of Population and Housing is an exceptional data source to explore this issue. Census 2000 variables used to construct the QOL models include both the populations of importance to MoDOT – low-income, disabled, minorities, and elderly and the variables educational attainment, income, housing, transportation and employment to measure quality of life.

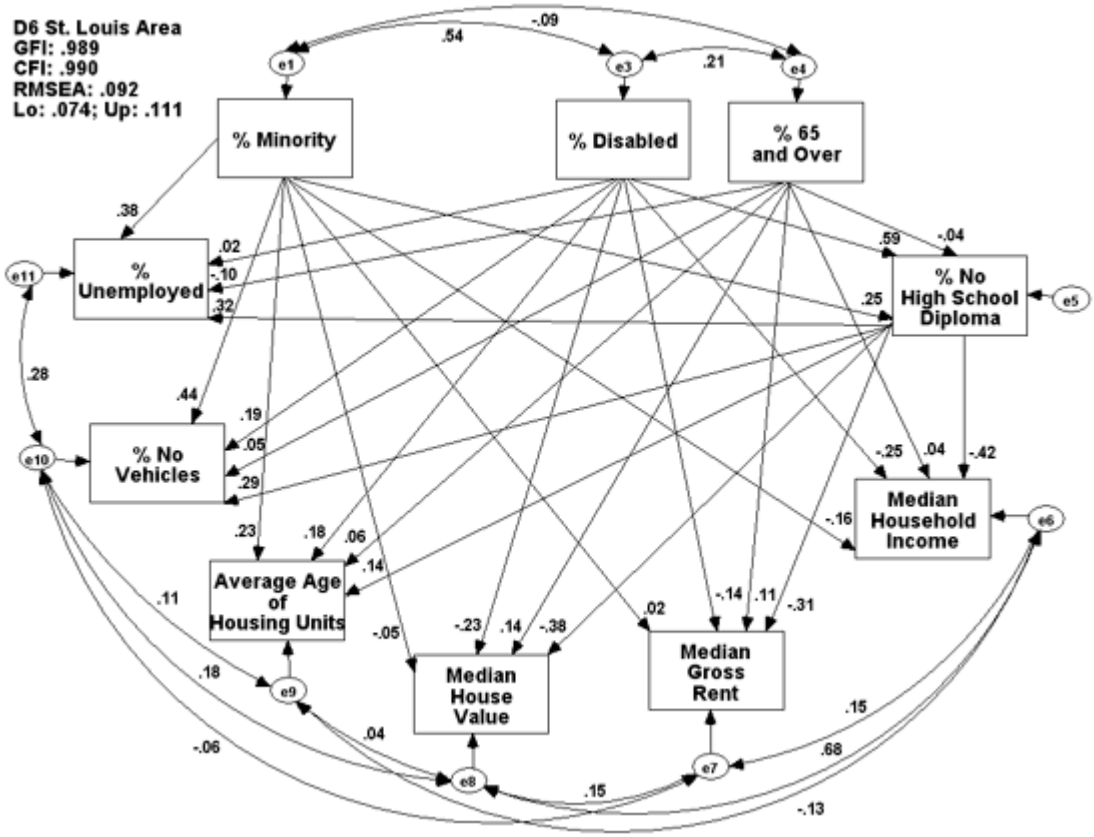
Findings Summary

Preliminary findings reveal that for all but the elderly, the St. Louis Area protected populations were more likely than the general population or other special populations to live in neighborhoods and communities with characteristics indicative of a lesser quality of life than the District in general. The analysis allows planners and other community decision-makers to understand the specific barriers to quality of life and, thus, to address them, as possible, within the context of the planning process.

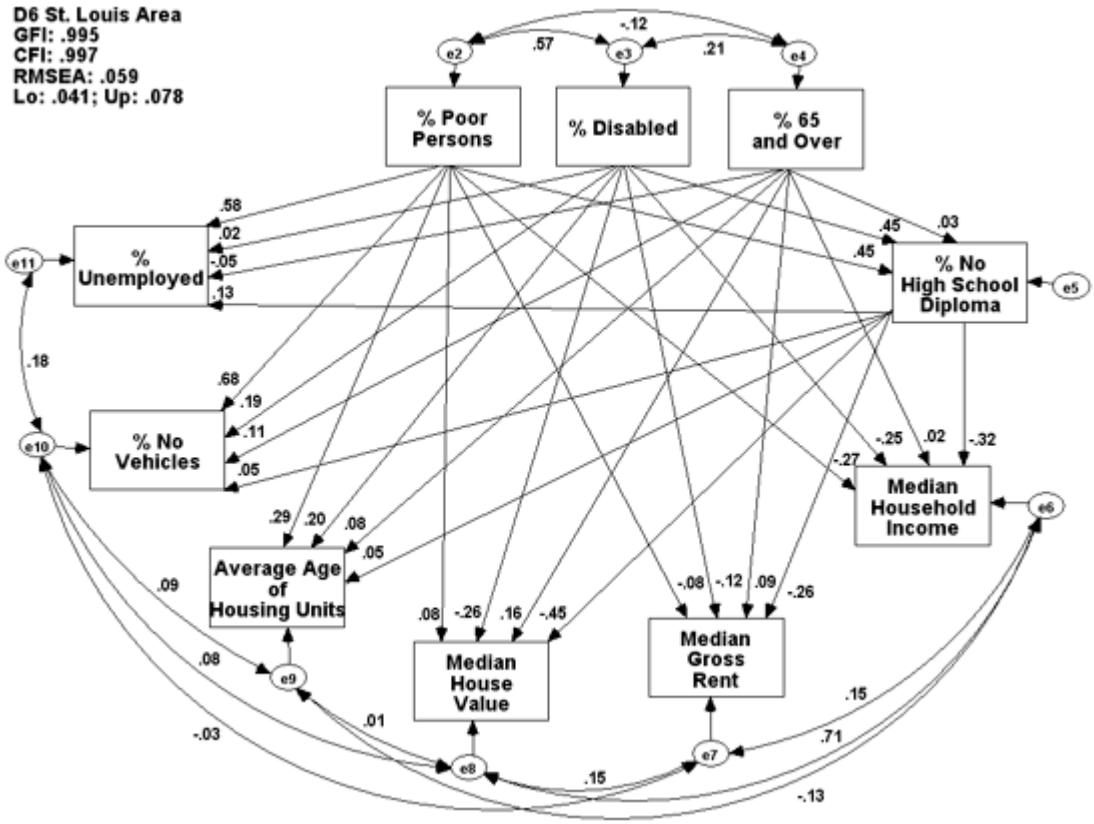
Model 1. QOL Structural Equation Model for the St. Louis Area District



Model 2. QOL Structural Equation Model for the St. Louis Area District with Percent Poor Removed



Model 3. QOL Structural Equation Model for the St. Louis Area District with Percent Minority Removed



Understanding the St. Louis Area District

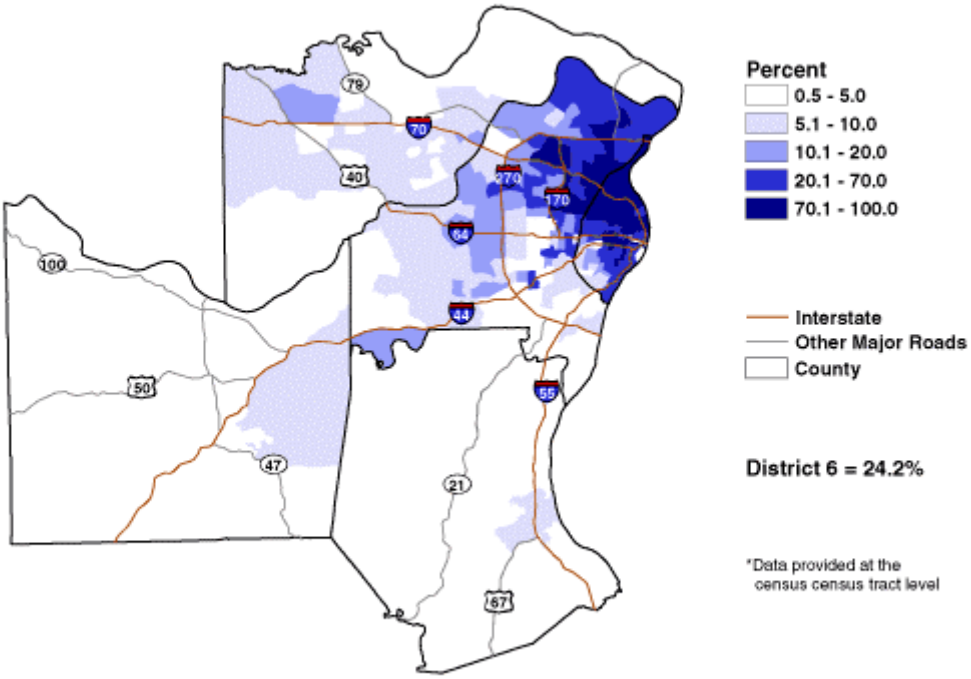
The overall fit of the structural equation model for the St. Louis Area District was statistically significant and indicated that, as a whole, the protected populations and the quality of life variables are related to each other. Further, though the model did not indicate a degree of multicollinearity (i.e., populations or quality of life indicators relating to each other in a manner that detracts from the ability to measure the relationship between a single population and a quality of life variable) significant enough to nullify the overall fit of the model, not all results were as strong as anticipated or related in a manner that supports prior research and the common understanding of these relationships. To test the validity of the results of the model, two additional models were constructed; one that omitted the percent poor variable **(Model 2)** and one that omitted the percent minority variable **(Model 3)**. Based on the three models, the following paragraphs first describe the relationships between each protected population and the quality of life

variables and then describe important relationships between the quality of life indicators themselves.

Minority Population

For the model including all protected populations **(Model 1)**, the quality of life indicators showing relationships to the minority population were no vehicles available, unemployment, average age of housing, and median house value.

MoDOT Planning District 6 Percent Minority, by County*, 2000



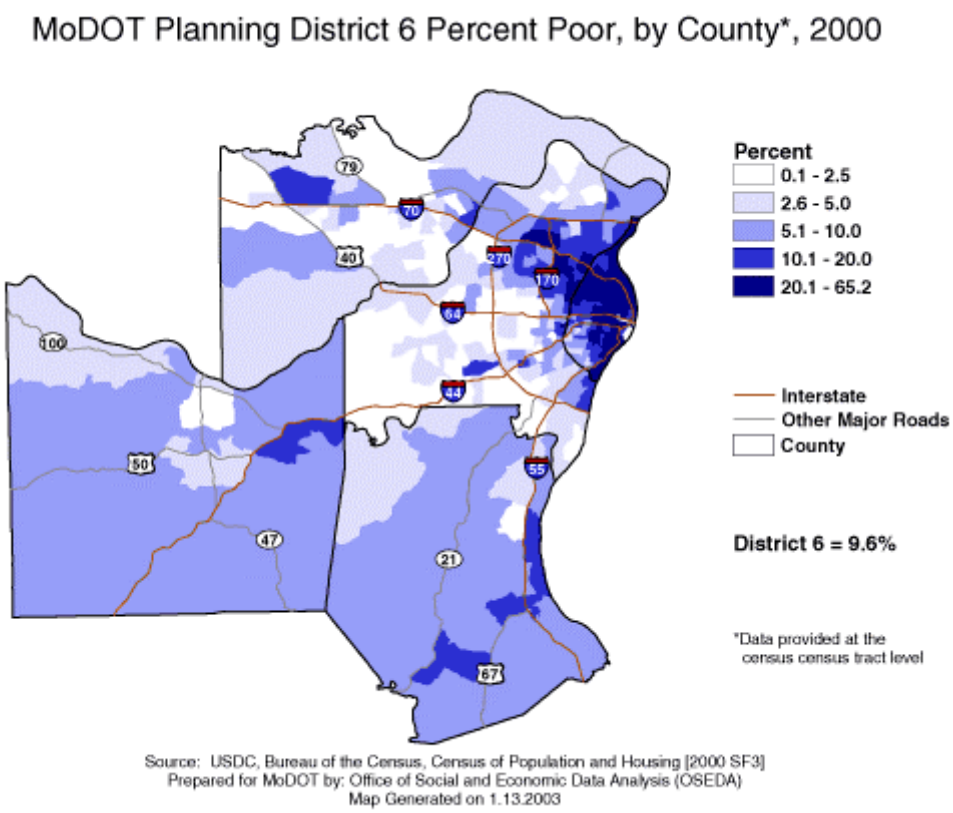
Source: USDC, Bureau of the Census, Census of Population and Housing [2000 SF3]
Prepared for MoDOT by: Office of Social and Economic Data Analysis (OSEDA)
Map Generated on 1.13.2003

These were all low strength relationships indicating that minorities are more likely to live in communities and neighborhoods with slightly higher unemployment, slightly older houses with lower than the median housing values. They were also more likely to live in neighborhoods and communities with more households that had no vehicle available than the District overall. Conversely, the relationships to median gross rent, median household income, and no high school diploma are negligible. These findings indicate that minority neighborhoods are statistically no more or less likely than all neighborhoods and communities in the St. Louis Area District to have a population that pays more or less in rent, has more or less household income, and has not finished high school.

Because the results for some of the quality of life indicators were not what were anticipated, a model was tested that did not include the variable, percent poor **(Model 2)**. This was done to ensure that the quality of life indicators were accurately being measured in regard to the minority population and that the results were not overly influenced by the relationship between minority and poverty. In this model, the strength of the relationships between the percent minority and the variables for unemployment, households without vehicles, and average age of housing units were increased to moderate-strength relationships. Indicating that minorities are more likely to live in neighborhoods characterized by a higher percent of the population unemployed, more households without vehicles, and older housing. However, this model indicated no relationship between the minority population and the median household value, and like the first model, no relationship to median gross rent. The model also described the minority neighborhoods as slightly more likely than the overall district to be characterized by lower household incomes and a greater likelihood of not having a high school diploma.

Poor Population

As anticipated, the model that includes all protected populations **(Model 1)** shows that the poor population tends to live in neighborhoods characterized by households with no vehicle available, high unemployment, and significantly more persons without a high school diploma than the District overall. Additionally, a low-strength relationship exists between the percent poor and median household income, the age of housing, the median house value and gross rent. Thus, the poor population is more likely to live in neighborhoods comprised of older housing units, lower household income, and lower gross rent costs.

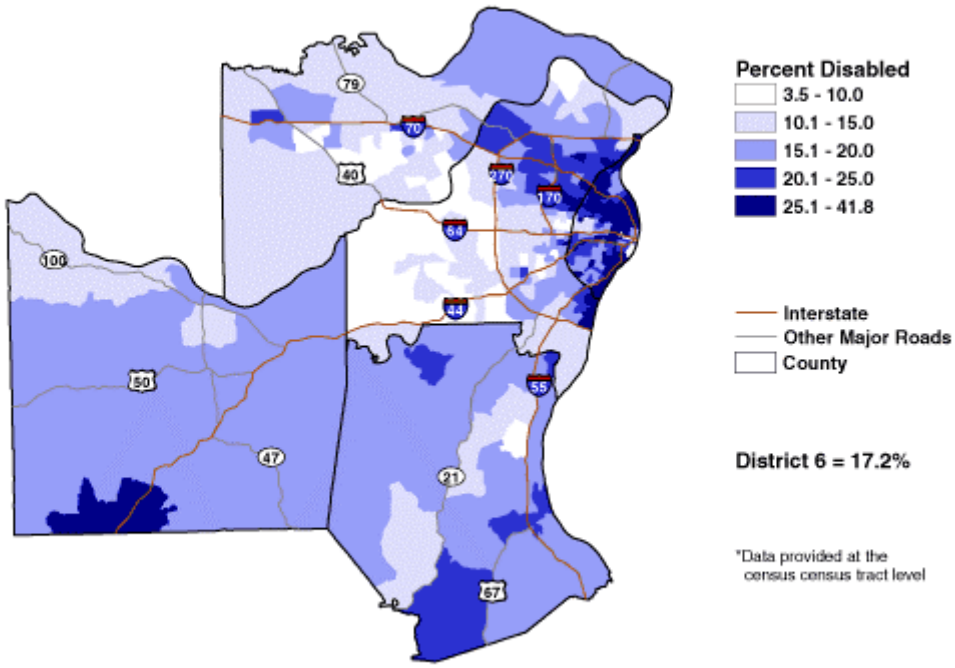


The initial model of the St. Louis Area District shows a negligible, but positive, relationship between the percent of persons poor and median house value. Because this result seemed to contradict previous research as well as community perception, a second model was tested that excluded the minority population **(Model 3)**. The results of this model confirmed and showed a strengthened and substantial relationship between the percent poor variable and the likelihood of increased unemployment and an increased probability of households with no vehicles available. The moderate-strength relationship between this population and the variable no high school diploma stayed the same. The relationship between poverty and median household income is stronger than in the first model, indicating that the poor are more likely to live in neighborhoods characterized by low household incomes. In the model excluding the minority population, there was no relationship found between the poverty population and the quality of life indicators measuring housing costs, median household value and median gross rent.

Disabled Population

There was little variation in results of the three models for the disabled population. The models indicate a moderately strong relationship between the percent of persons disabled and the percent of persons without a high school education.

MoDOT Planning District 6 Percent Disabled, by County*, 2000



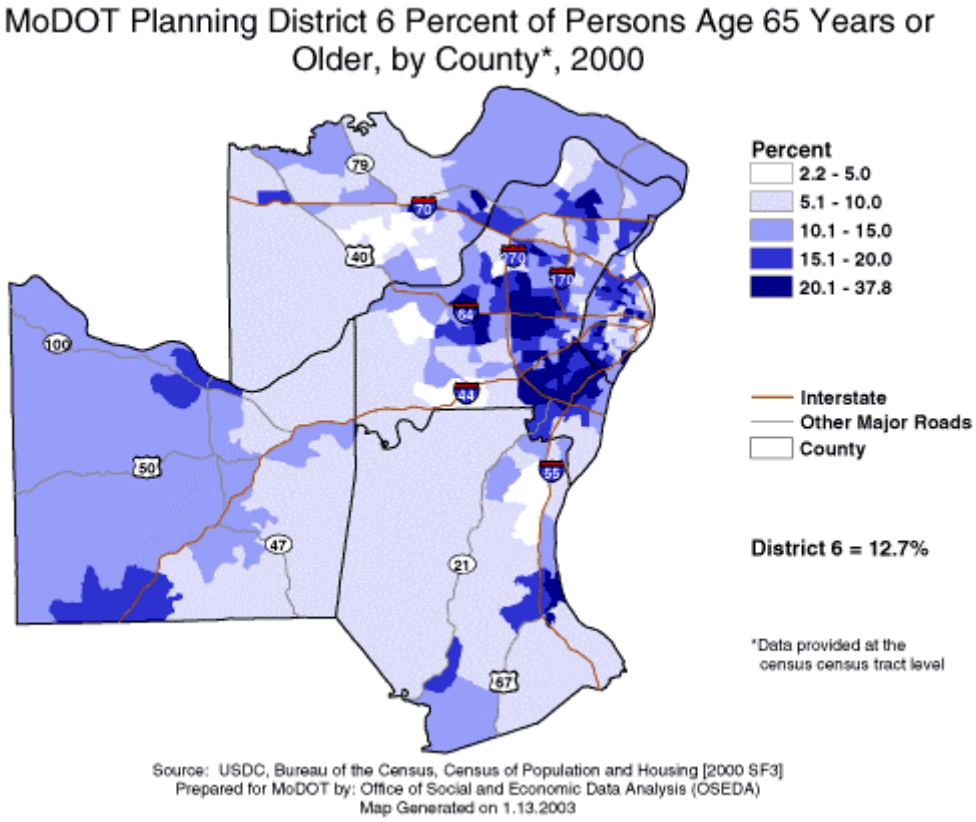
Source: USDC, Bureau of the Census, Census of Population and Housing [2000 SF3]
Prepared for MoDOT by: Office of Social and Economic Data Analysis (OSEDA)
Map Generated on 12.6.2002

Relationships also exists, but are not as strong, between the percent of the population that is disabled and the median household income and median house value. These findings suggest that the disabled population is more likely to live in neighborhoods and communities with a high percentage of population that does not have a high school diploma and that is poorer and has a housing stock that is overall of lesser value than the median. A similar strength of relationship exists between the percent of the population that is disabled and quality of life indicators, no vehicles and median gross rent. The relationship suggests that the disabled population lives in neighborhoods characterized by a greater percentage of households without vehicles and living in lower cost rental units. There is a negligible positive relationship between the indicator, average age of housing units and the percent disabled, indicating that the disabled are nor more likely to

live in neighborhoods and communities with housing units aged any different than the district overall. The relationship between the percent of persons disabled and the percent unemployed was also negligible, indicating that disabled persons are not very different than the overall population in regard to employment.

65 Years Old and Over

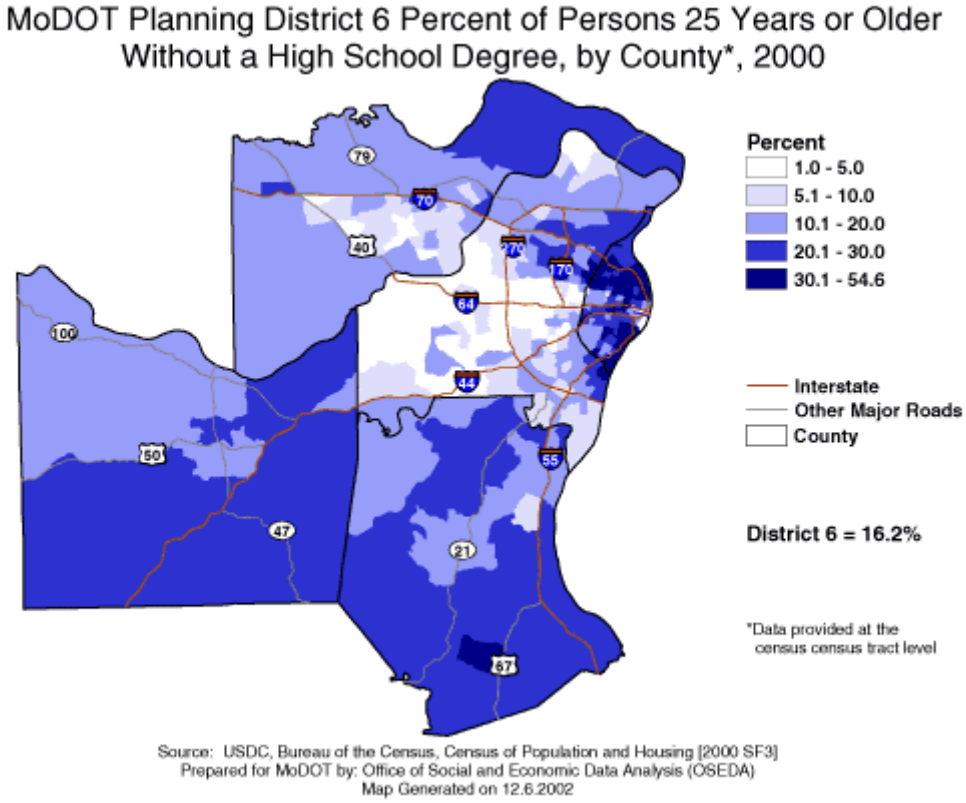
There was little variation in results of the three models for the disabled population. The models reveal that in the St. Louis Area District the elderly population is more likely to live in neighborhoods with higher median house values.



A weak relationship exists between the elderly population and the percent of housing units without an available vehicle. Something can be learned from examining the lack of relationship between protected populations and quality of life variables. For the elderly population of the St. Louis Area District the lack of findings of significant strength indicates that they typically live in neighborhoods and communities that are no different from those of the general population.

Relationship Between Dependent Variables

The model also offers the means with which to look at the relationship that exists between the percent of persons without a high school education and the quality of life indicators.



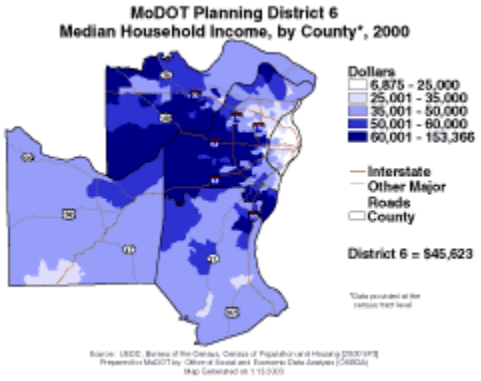
For the model that measures all protected populations **(Model 1)** and the model that measures the poor, disabled, and elderly populations **(Model 3)**, neighborhoods that are occupied by a greater percentage of persons without a high school education are characterized by lower house values, lower rent costs, and lower incomes, though a very weak relationship did emerge indicating a greater likelihood to live in newer than average housing. In the model that included minority, disabled, and elderly populations **(Model 2)**, the strength of all relationships, but that of average age of housing, were enhanced, finding a substantial relationship between the percent of persons with no high school diploma and lower house values. A moderate relationship exists between percent of persons with no high school diploma and lower rent costs and lower income. A weak relationship exists between the percent of persons without a high school diploma and the likelihood of households with no vehicle available and increased unemployment. The relationship between the percent of population without a high school diploma and the average age of

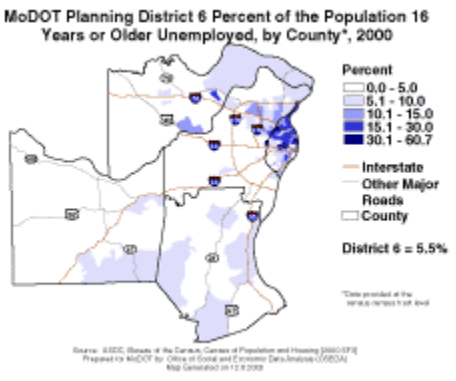
housing units decreased from a weak to negligible relationship, indicating that the age of housing stock is not a reliable predictor of where this population is located.

Indicator Selection Criteria

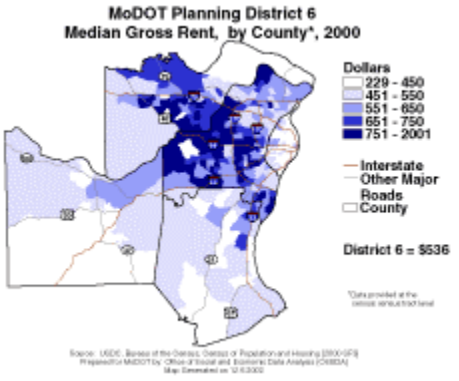
To measure the impact of education on quality of life, the variable of not having a high school education was used. Studies (Rumberger, 1987; Digest of Educational Statistics, 1998) have indicated that persons not completing a high school education are at an increased risk of not finding steady employment, living in less than adequate housing, and earning less when they do work.

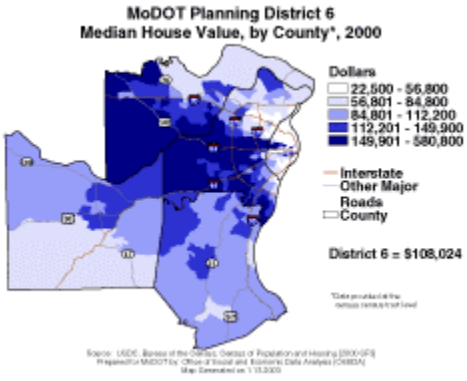
Median household income and unemployment status were chosen as indicators of economic well-being. Typically, the less income available to a household, the more difficult it is to acquire the goods and services indicative of a high quality of life. Unemployment status is a useful measure of economic opportunity as well as a predictor of concentrations of poverty within MoDOT districts.

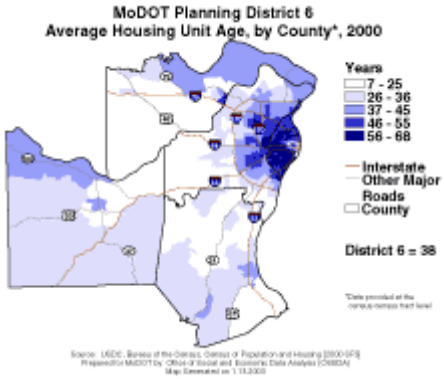




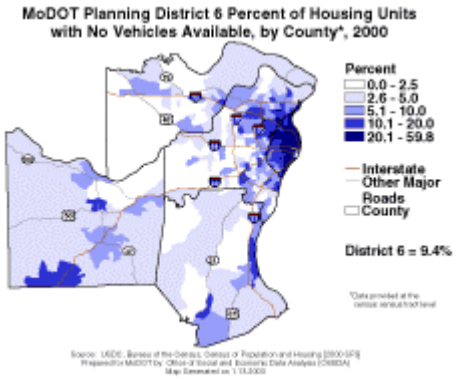
Median gross rent, median house value and the average age of the housing unit were used as measures of housing quality. Both median gross rent and median house value were included to capture the impact of quality of housing for both households that own and rent. Additionally, there is an established relationship between the market value of housing and the cost. Thus, it is a reasonable assumption that the higher these values the greater the quality of housing units. Because the populations of interest in this model are more likely to live in neighborhoods that are both older and poorer than the general population, the average age of the housing unit was used to complement the variables rent and housing value.







To measure the impact of access to transportation on quality of life, the variable of not having a vehicle available was included. The availability of a vehicle is an important indicator of mobility affecting access to employment opportunities as well as the goods and services necessary to maintain an adequate quality of life. Additionally, districts that indicate a significant number of neighborhoods without access to a vehicle will require an increased need for public modes of transportation.



Appendix: Definition of Variables

Independent Variables

Percent Minority – The percent minority variable is a measure of the percent of all of the single race categories, other than white, that respondents could have chosen from the census questionnaire. These include: African American, American Indian, Asian and Pacific Islander, and Other Race as well as if they selected Hispanic. Overall, 468,987 people comprised the minority population, representing 24.2 percent of the total population.

Percent Disabled – The percent of individuals that were classified as having a disability if any of the following three conditions were true: (1) they were 5 years old and over and had a response of ‘‘yes’’ to a sensory, physical, mental or self-care disability; (2) they were 16 years old and over and had a response of ‘‘yes’’ to going outside the home disability; or (3) they were 16 to 64 years old and had a response of ‘‘yes’’ to employment disability. Overall, 306,973 people comprised the disabled population, or 17.2 percent of the total population for whom disability status could be determined.

Percent Poor – The percent poor variable is a measure of the percent of persons for whom poverty status was determined. The Census Bureau uses the federal government’s official poverty definition. Assigning poverty status takes into account both the family size and total family income. Poverty status was determined for all people except institutionalized people, people in military group quarters, people in college dormitories, and unrelated individuals under 15 years old. The following link is the poverty threshold table for 1999 (http://www.census.gov/hhes/poverty/threshld/thresh99.html). Overall, there are 182,864 people, 9.6% of the district’s population, considered poor by federal guidelines.

Percent 65 and Over – The percent 65 and over variable is comprised of the percent of person’s aged 65 years old and over. In total, 12.7 percent of the district’s population is elderly (245,541 people).

Dependent Variables

Percent No High School Diploma – The percent no high school diploma variable is a measure of the persons aged 25 years or older who did not graduate high school and have not received a GED.

Overall, there were 204,151 people (16.2 percent of people aged 25 years or older) who had not received their high school diploma.

Median Household Income – The median household income variable is a measure of the median household income in 1999 dollars. Household income includes the income of the householder and all other individuals 15 years old and over in the household, whether they are related to the householder or not. The median household income for the St. Louis Area District is $46,184.

Average Age of Housing Units – The average age of housing units variable is a measure of when the unit was built. The average housing unit age for the St. Louis Area District is 37 years.

Median Gross Rent – The median gross rent variable is measured in 1999 dollars. Gross rent is the contract rent plus the estimated average monthly cost of utilities and heating fuels if not included in the contract rent. The median gross rent for the St. Louis Area District is $537.

Median House Value – The median house value variable is a measure of the median value of housing units in 1999 dollars. Housing units are defined as house and lot, mobile home and lot, or condominium unit. Housing value data were determined by asking a sample of respondents to estimate the value of their owner-occupied housing unit, any housing units that they were buying, or housing units they owned that were vacant and for sale. Value is the respondent's estimate of how much the property would sell for if it were for sale. If the house or mobile home was owned or being bought, but the land on which it sits was not, the respondent was asked to estimate the combined value of the housing unit and property. The median value of housing units in the St. Louis Area District is $109,508.

Percent No Vehicles – The percent no vehicles variable is a measure of the percent of occupied housing units whose residents reported having no vehicle present. These data show the number of passenger cars, vans, and pickup or panel trucks of 1-ton capacity or less kept at home and available for the use of household members. Vehicles rented or leased for 1 month or more, company vehicles, and police and government vehicles are included if kept at home and used for nonbusiness purposes. Dismantled or immobile vehicles are excluded. Vehicles kept at home but used only for business purposes also are

excluded. Overall, there were 71,602 occupied housing units without a vehicle, or 9.4 percent of all occupied housing units.

Percent Unemployed – The percent unemployed variable measures the percent of persons eligible for work but who were not employed at the time they completed the census. All civilians 16 years old and over were classified as unemployed if they reported that they were neither ‘‘at work’’ nor ‘‘with a job but not at work’’ during the reference week. Also included as unemployed were those who reported that: they were looking for work during the last 4 weeks and were available to start a job, did not work at all during the reference week, were on temporary layoff from a job, had been informed that they would be recalled to work within the next 6 months or had been given a date to return to work, and were available to return to work during the reference week, except for temporary illness. Overall, there were 55,012 persons classified as unemployed, equaling 5.5 percent of the total population eligible to work.

Interpreting Structural Equation Modeling

A statistical method, structural equation modeling, was used to analyze the relationships between the census variables described above. The value of this statistical method is that it allows consideration of whether or not these variables have an effect on each other, and if they do, the strength of that effect. The responses to the variables were aggregated to the level of the census block group. In total, there are 1430 block groups in the St. Louis Area District, 1412 of which were used in the analyses of all three models. If data were missing for any of the eleven variables to be considered in the statistical model, that block group was excluded from the analysis. (In order to better understand the mechanics of the SEM and the terminology associated with the analysis click on the following link: http://oseda.missouri.edu/modot/planning/interpreting_sem.shtml.

This statistical method allows interpretation of the relationship between variables in two different ways. First, it measures whether or not the variables included in the analysis, when considered as a group, show a statistically significant relationship to each other. This is called the overall ‘goodness of fit’. It is important to keep in mind when interpreting this method (and all other statistical methods) that tests the relationship between multiple variables that there is a baseline standard measure that must be met for the overall relationship between variables to be considered significant. Typically this standard is either 90 or 95% agreement between variables. Once that baseline

standard has been met, then the strength of the overall relationship of variables can be considered (for example, a .99 score shows a better fit than a .95 score).

If the overall model is determined to be significant, then the relationships of individual variables to one another are significant. What then becomes of importance is the strength of the relationship between variables. Negligible strength relationships between variables in a model that has passed tests of model fit are still not any good regardless if the model has a strong goodness of fit. Additionally, the model measures whether or not the variables are positively or negatively related to each other. For example, there is a strong positive relationship between higher levels of educational attainment and having a higher income. Conversely, there is a negative relationship between having a disability and being employed. However, it is important to remember that what is being measured is the strength of the relationship between the populations of interest and the measures of quality of life of the communities that they live in. So, also measured by the model is the impact of the relationship between populations on the relationship between any single population and a quality of life variable (multicollinearity). If the scores that measure the relationship between populations are too high (above .80), then the score that measures the relationship between individual populations and quality of life variables cannot be considered reliable. Fortunately, multicollinearity was not an issue for the populations of interest in the St. Louis Area District.

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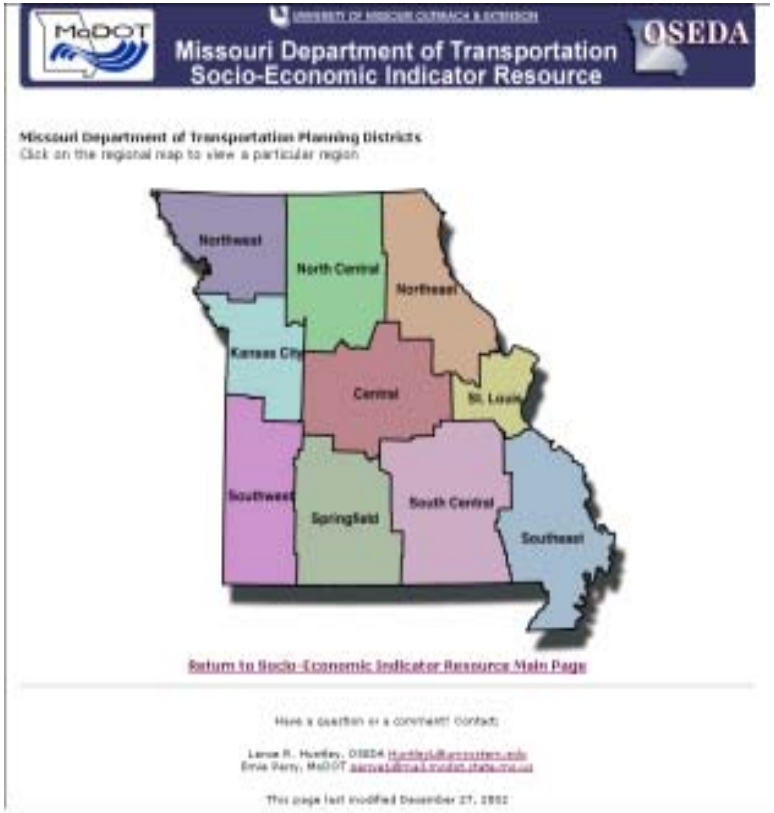
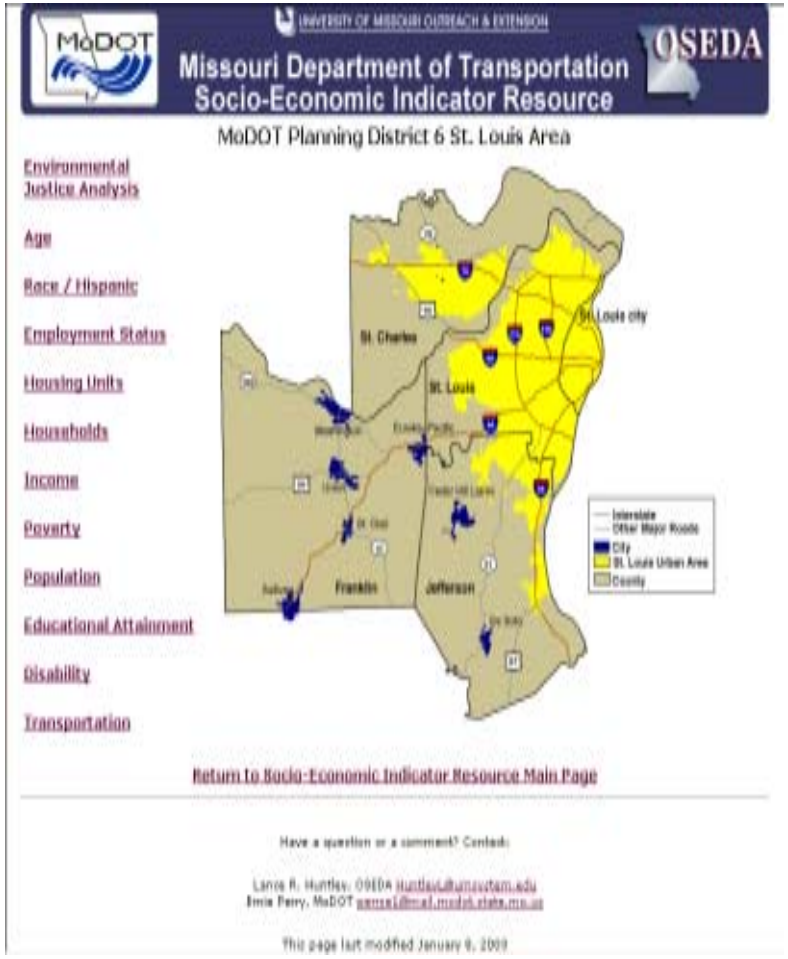
APPENDIX C – Planning District 6 St. Louis Area

This appendix provides an example of the data elements included for each MoDOT Planning District. A complete set of maps, charts and tables are presented using District 6 as an example.

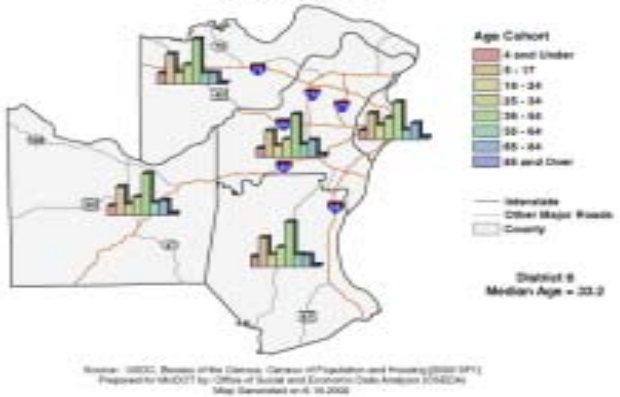
Introductory Pages



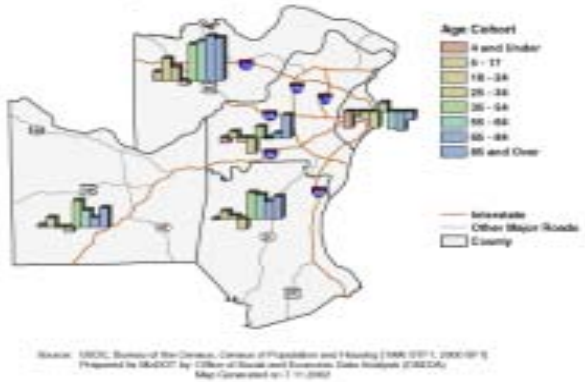


Age Maps

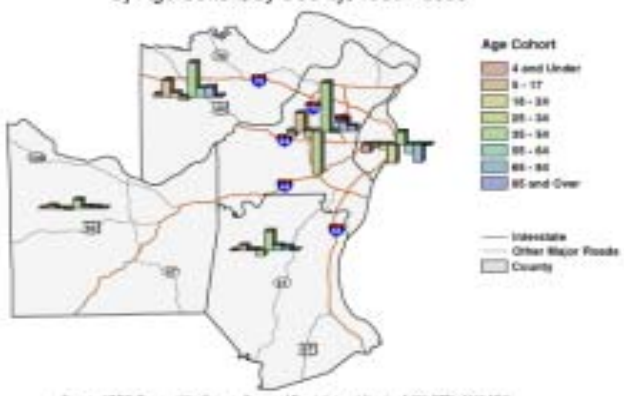
MoDOT Planning District 6 Percent of Total Population by Age Cohort, by County, 2000



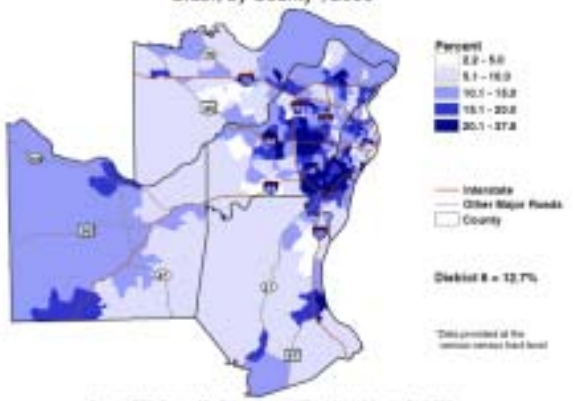
MoDOT Planning District 6 Percent Change of Total Population by Age Cohort, by County, 1990-2000



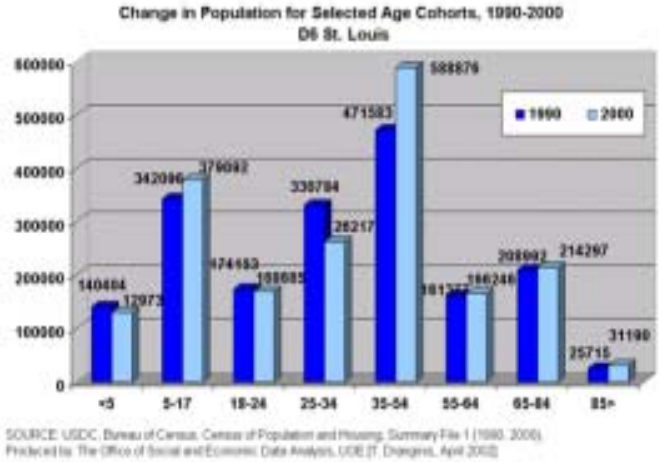
MoDOT Planning District 6 Change in Total Population by Age Cohort, by County, 1990 - 2000



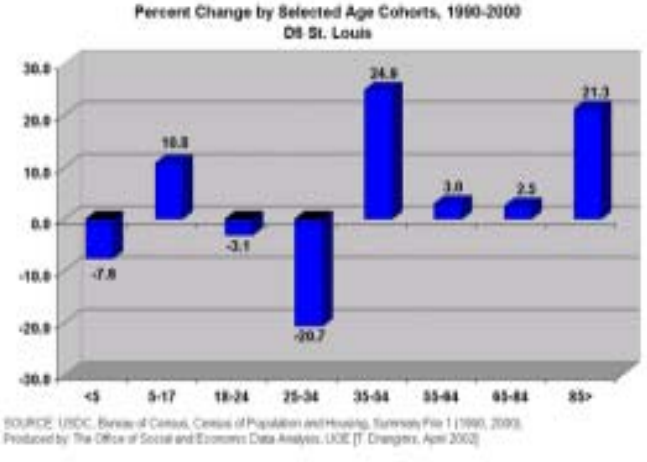
MoDOT Planning District 6 Percent of Persons Age 65 Years or Older, by County*, 2000



Age Charts



SOURCE: USDC, Bureau of Census, Census of Population and Housing, Summary File 1 (1990, 2000).
Produced by: The Office of Social and Economic Data Analysis, UOE [T. Chengere, April 2002]



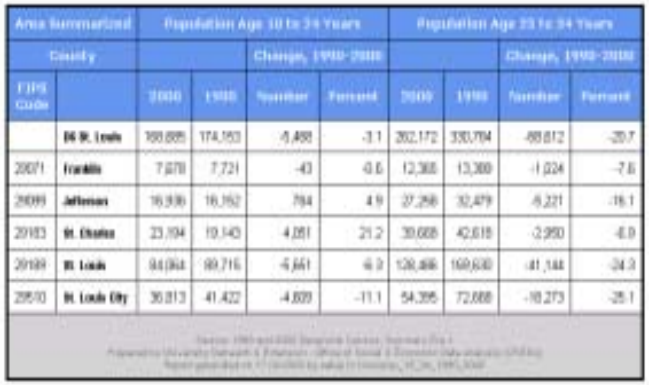
SOURCE: USDC, Bureau of Census, Census of Population and Housing, Summary File 1 (1990, 2000).
Produced by: The Office of Social and Economic Data Analysis, UOE [T. Chengere, April 2002]

Age Tables

Change in Population Under 18, 1990-2000
D6 St. Louis

Change in Senior Population in Missouri, 1990-2000
D6 St. Louis

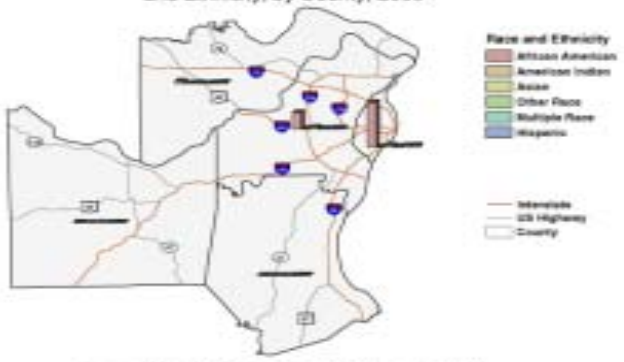
Missouri Population Age 18 to 24 Years and Age 25 to 34 Years, 1990-2000
D6 St. Louis



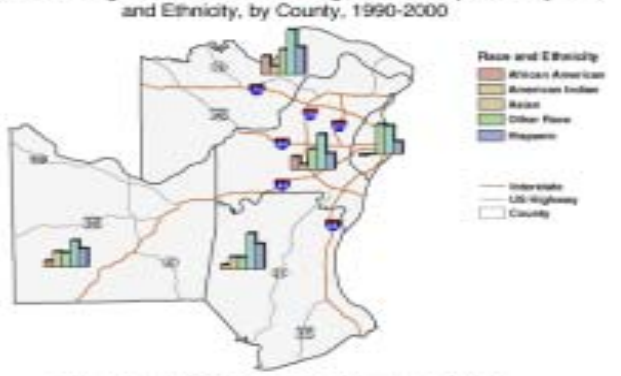
Missouri Population Age 35 to 54 Years and Age 55 to 64 Years, 1990-2000
D6 St. Louis Area

Race/ Hispanic Maps

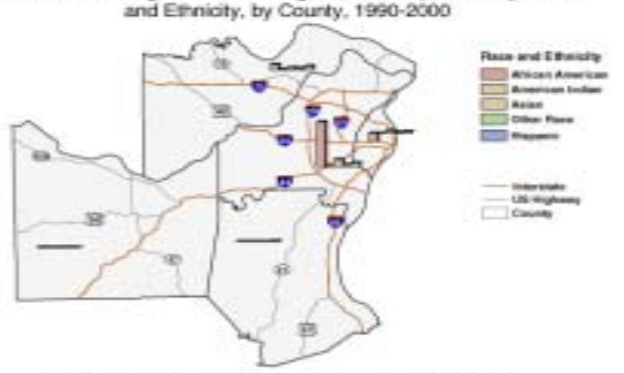
MoDOT Planning District 6 Percent of Total Population by Race and Ethnicity, by County, 2000



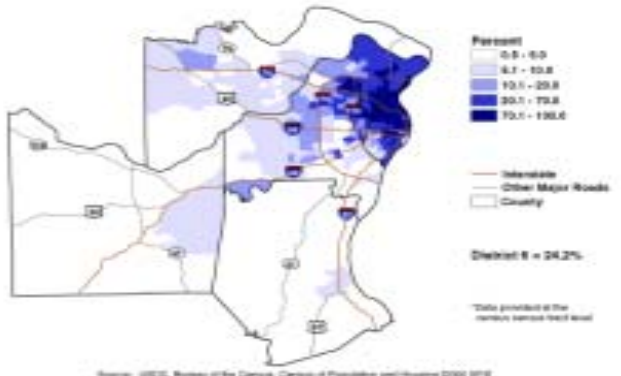
MoDOT Planning District 6 Percent Change of Total Population by Race and Ethnicity, by County, 1990-2000



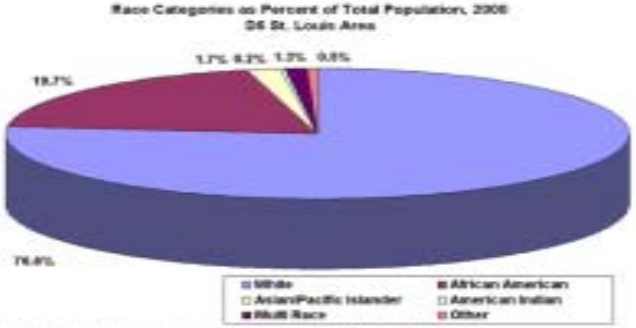
MoDOT Planning District 6 Change in Total Population by Race and Ethnicity, by County, 1990-2000

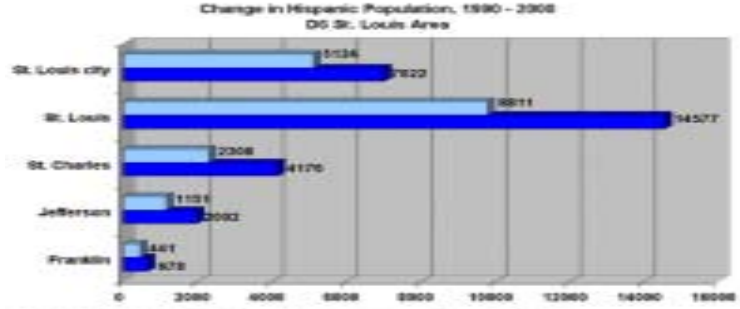


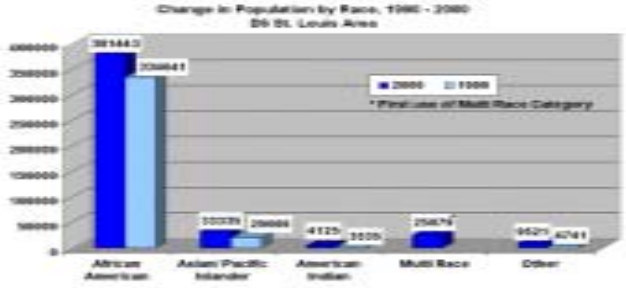
MoDOT Planning District 6 Percent Minority, by County*, 2000

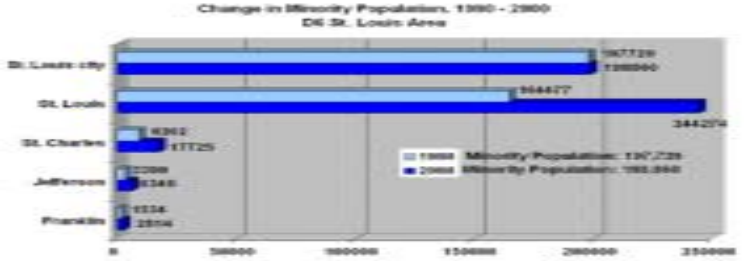


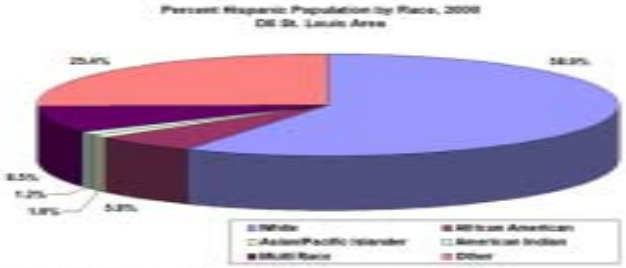
Race/ Hispanic Charts

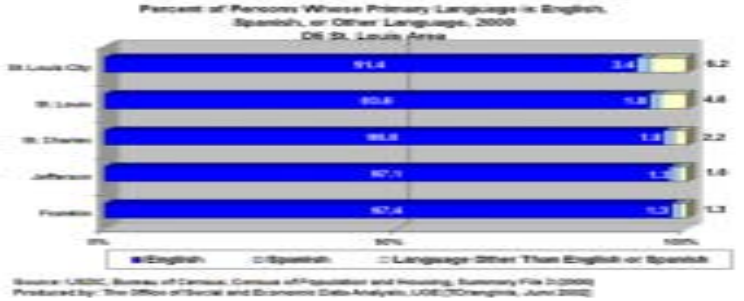












Race/ Hispanic Tables

Total and MultiRace Population in Missouri, 1990-2000
DS St. Louis Area

Hispanic Population in Missouri, 1990-2000
DS St. Louis Area

Other Race Population in Missouri, 1990-2000
DS St. Louis Area

n and Pacific Islander Population in Missouri, 1990-2000
DS St. Louis Area

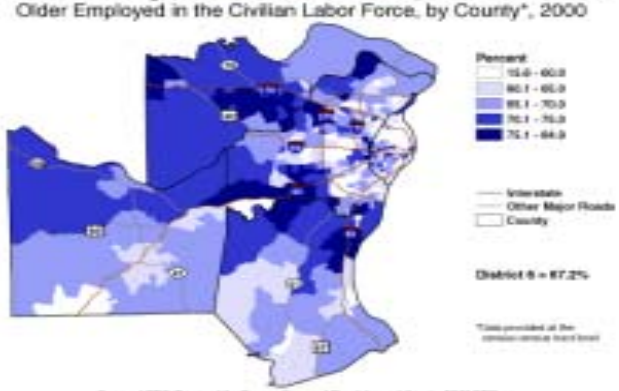
African American Population in Missouri, 1990-2000
DS St. Louis Area

American Indian and Aleut Population in Missouri, 1990-2000
DS St. Louis Area

Racial Minority Population in Missouri, 1990-2000
DS St. Louis Area

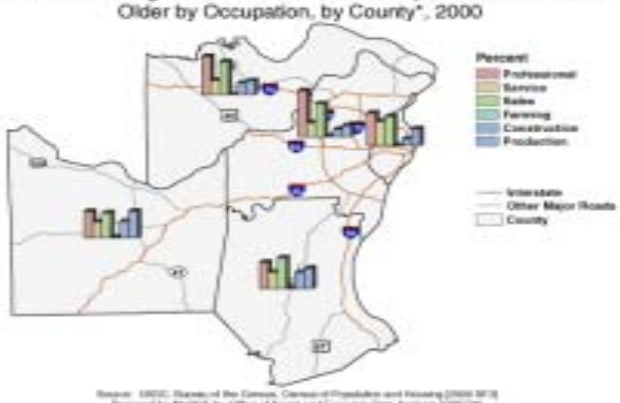
Employment Status Maps

MoDOT Planning District 6 Percent of the Population 16 Years or Older Employed in the Civilian Labor Force, by County*, 2000

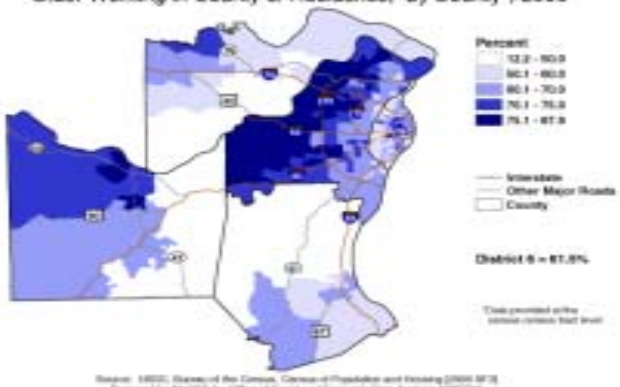


MoDOT Planning District 6 Percent of the Population 16 Years or Older Unemployed, by County*, 2000

MoDOT Planning District 6 Percent of the Population 16 Years or Older by Occupation, by County*, 2000

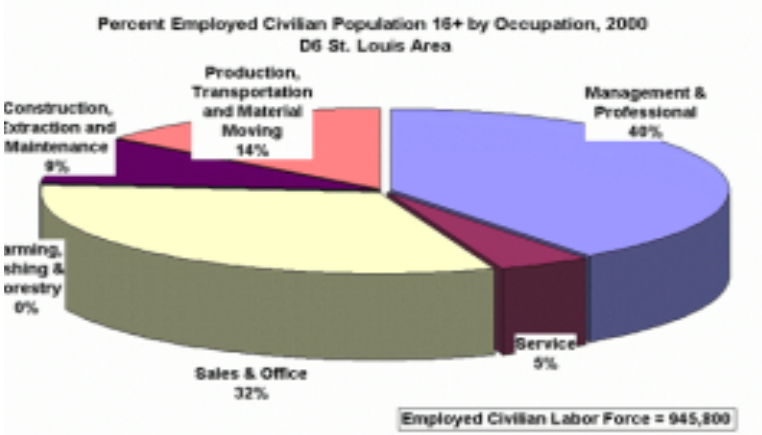


MoDOT Planning District 6 Percent of the Population 16 Years or Older Working in County of Residence, by County*, 2000



Employment Status Charts

Source: USDC, Bureau of Census, Census of Housing and Population, Summary File 3 (2000)
Produced by: The Office of Social and Economic Data Analysis, UOE, [TDrangins, August 2002]



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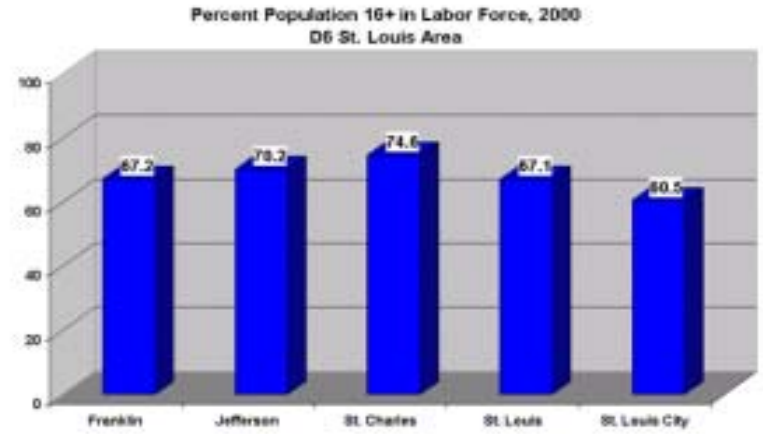

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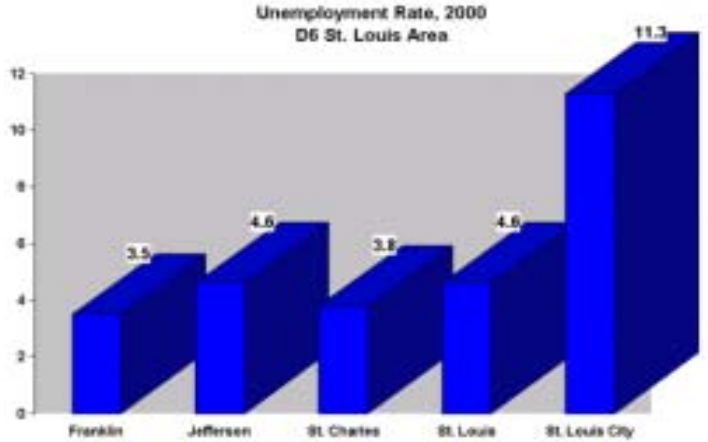

rce: USDC, Bureau of Census, Census of Housing and Population, Summary File 3 (2000)
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Employment Status Tables

Distribution of Employed Civilian Labor Force by Occupation, 2000
D6 St. Louis

Missouri Persons Working In County of Residence, 1990-2000
D6 St. Louis

Missouri Unemployed Persons, 1990-2000
D6 St. Louis Area

Population Age 16 Years and Over in the Civilian Labor Force, 1990-2000
D6 St. Louis Area

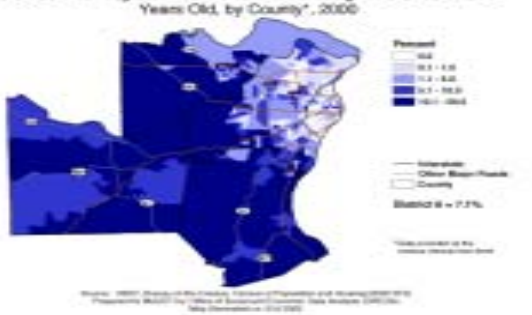
Area Summarized		Civilian Labor Force for Persons 16 Years and Over							
County		Civilian Labor Force		Change 1990-2000		Total Employed		Change 1990-2000	
FIPS Code		2000	1990	Number	Percent	2000	1990	Number	Percent
	D6 St. Louis Area	1,000,812	967,694	43,118	4.5	946,800	901,266	44,536	4.9
29071	Franklin County	47,692	39,984	7,708	19.3	46,027	37,568	8,459	22.5
29099	Jefferson County	104,613	88,060	16,553	18.8	99,037	82,349	17,488	21.2
29183	St. Charles Coun	166,768	116,870	39,898	34.1	150,836	112,393	38,443	34.2
29189	St. Louis County	529,633	531,474	-1,841	-0.3	506,250	507,521	-1,271	-0.4
29510	St. Louis city	152,106	181,306	-19,200	-10.6	143,650	161,434	-17,584	-10.9

Population Age 16 Years and Over in the Armed Forces, 1990-2000
D6 St. Louis

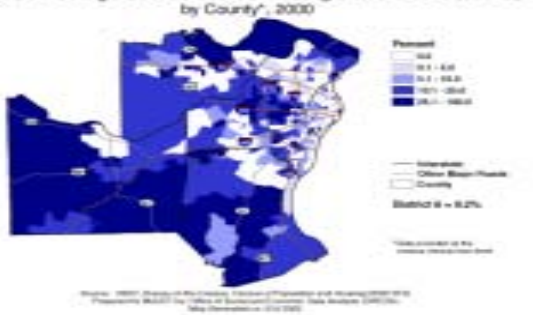
Area Summarized		Population 16 Years and Over in the Armed Forces			Male Armed Forces			Female Armed Forces		
County				Change 1990-2000			Change 1990-2000			Change 1990-2000
FIPS Code		2000	1990	Number	2000	1990	Number	2000	1990	Number
	D6 St. Louis	1,196	2,131	-935	836	1,608	-772	360	523	-173
29071	Franklin	35	27	-2	35	27	-2	0	0	0
29099	Jefferson	112	173	-61	92	155	-63	20	18	2
29183	St. Charles	204	349	-145	121	283	-162	83	66	17
29189	St. Louis	722	1,291	-569	487	916	-429	235	365	-148
29510	St. Louis City	123	291	-168	101	217	-116	22	74	-52

Housing Units Maps

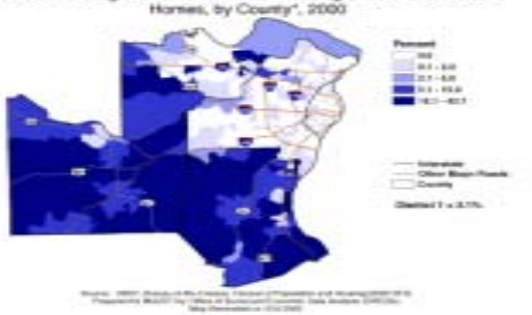
MoDOT Planning District 6 Percent of Housing Units Less Than 5 Years Old, by County*, 2000



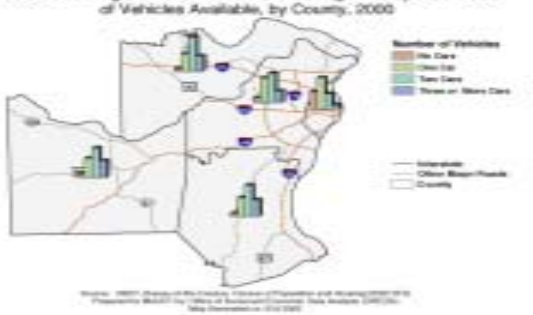
MoDOT Planning District 6 Percent of Housing Units that are Seasonal, by County*, 2000



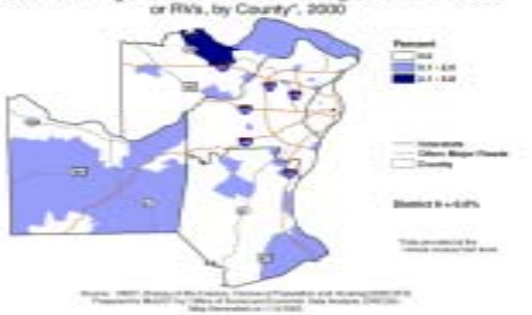
MoDOT Planning District 6 Percent of Housing Units that are Mobile Homes, by County*, 2000



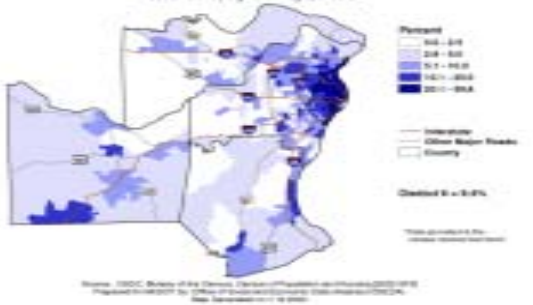
MoDOT Planning District 6 Percent of Housing Units by the Number of Vehicles Available, by County, 2000



MoDOT Planning District 6 Percent of Housing Units that are Boats or RVs, by County*, 2000

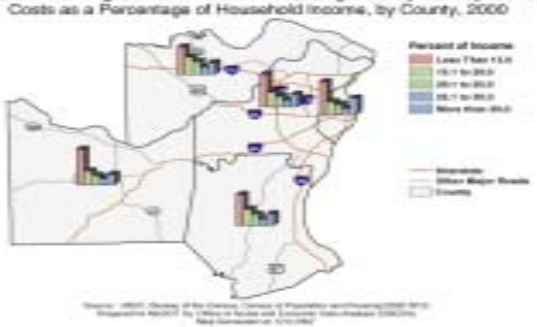


MoDOT Planning District 6 Percent of Housing Units with No Vehicles Available, by County*, 2000

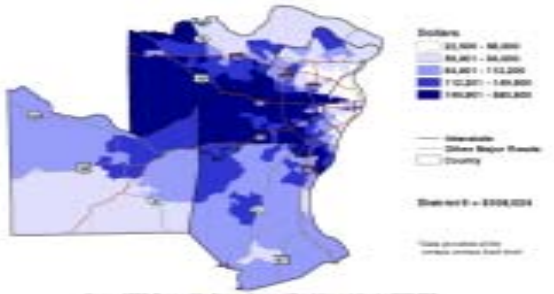


Housing Units Maps

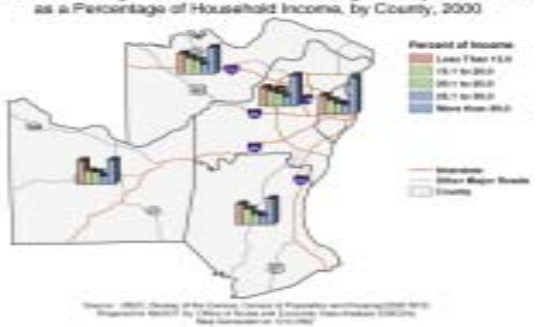
MoDOT Planning District 6 Percent of Housing Units by Monthly Owner Costs as a Percentage of Household Income, by County, 2000



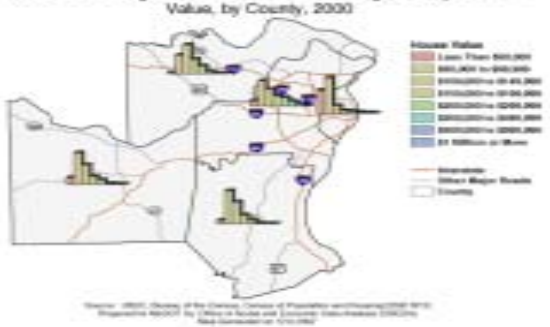
MoDOT Planning District 6 Median House Value, by County*, 2000



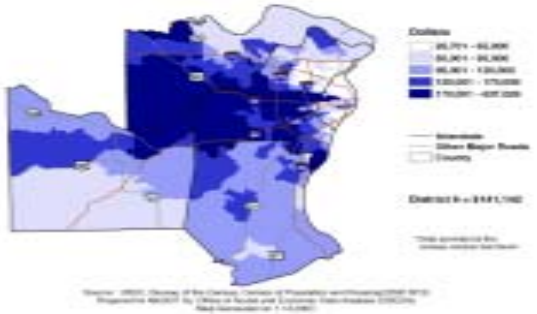
MoDOT Planning District 6 Percent of Housing Units by Gross Rent as a Percentage of Household Income, by County, 2000



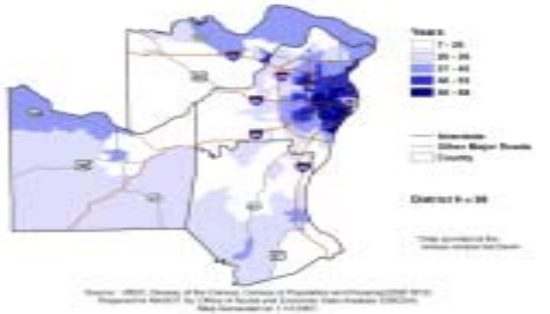
MoDOT Planning District 6 Percent of Housing Units by House Value, by County, 2000



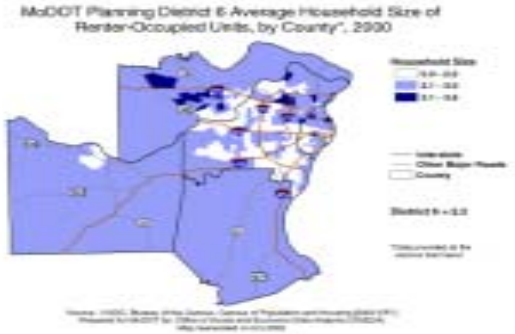
MoDOT Planning District 6 Average House Value, by County*, 2000

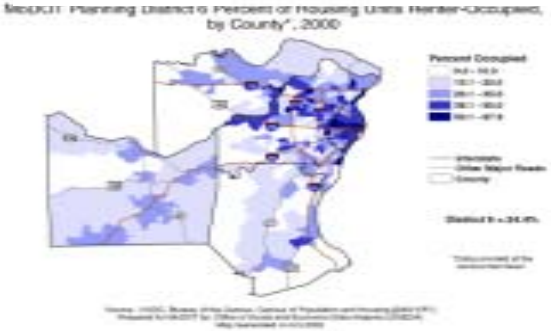


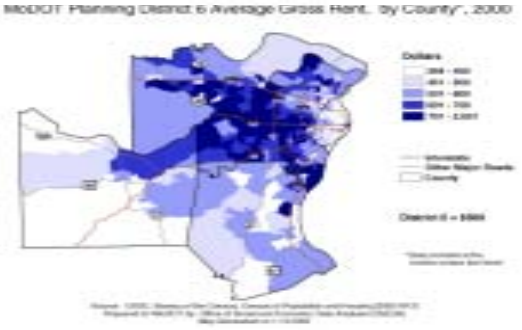
MoDOT Planning District 6 Average Housing Unit Age, by County*, 2000

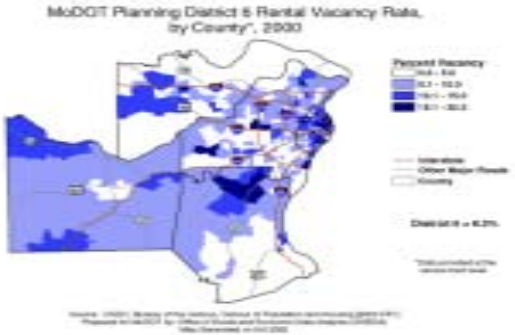


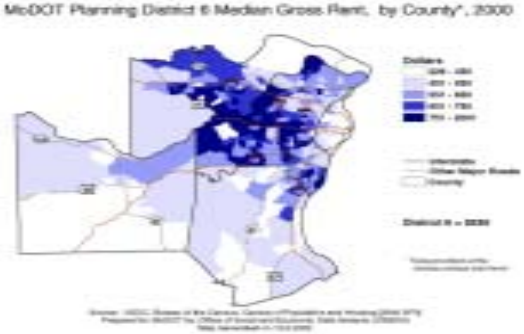
Housing Units Maps





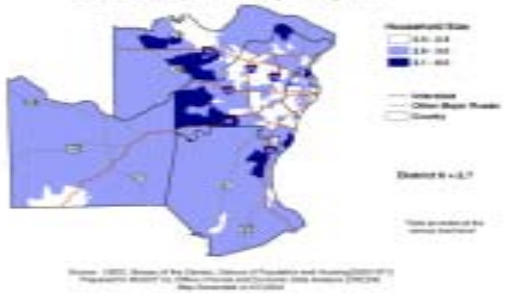




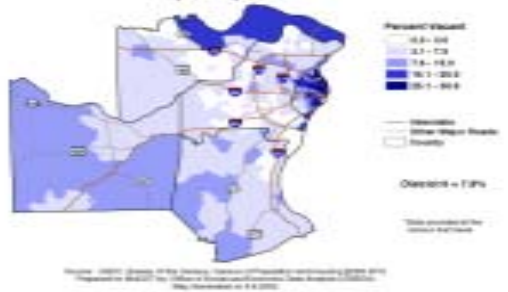


Housing Units Maps

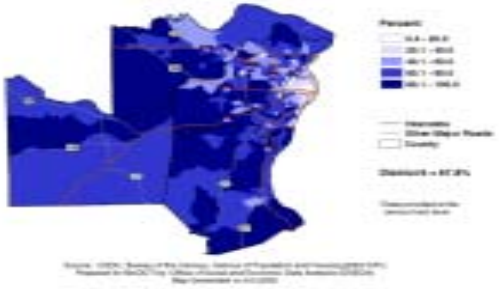
MoDOT Planning District 6 Average Household Size of Owner-Occupied Units, by County*, 2000



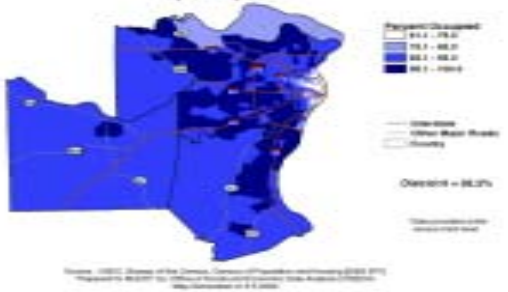
MoDOT Planning District 6 Percent of Total Housing Units Vacant, by County*, 2000



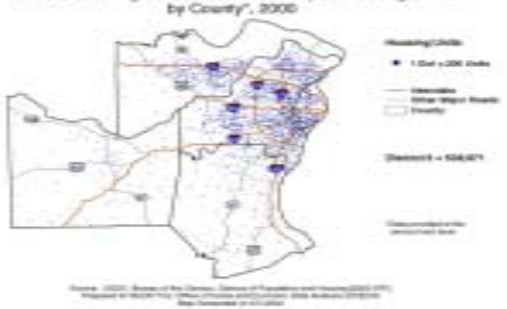
MoDOT Planning District 6 Percent of Housing Units Owner-Occupied, by County*, 2000



MoDOT Planning District 6 Percent of Total Housing Units Occupied, by County*, 2000

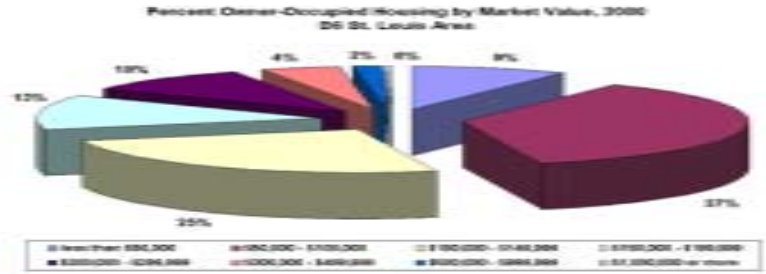


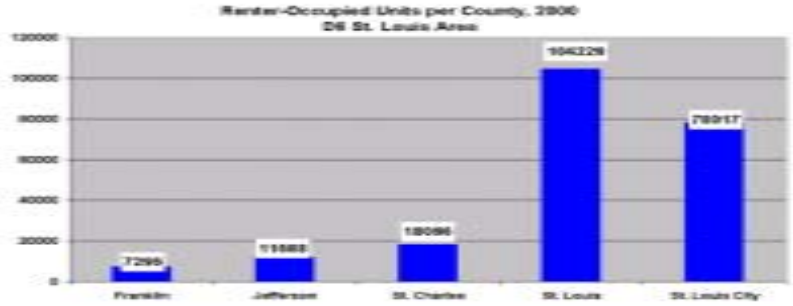
MoDOT Planning District 6 Owner-Occupied Housing Units, by County*, 2000

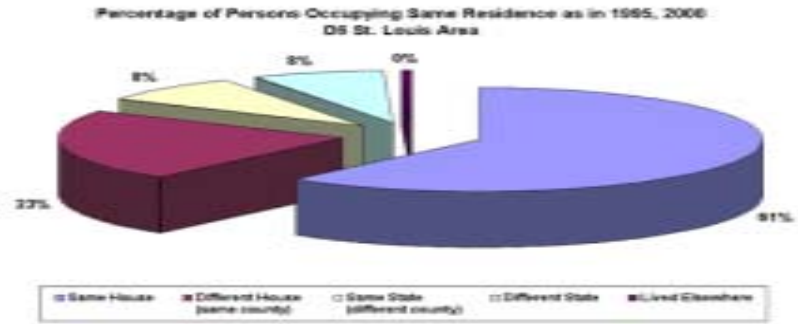


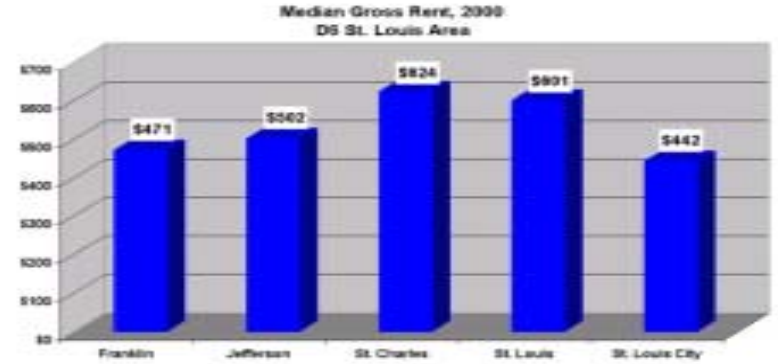
MoDOT Planning District 6 Total Vacant Housing Units, by County*, 2000

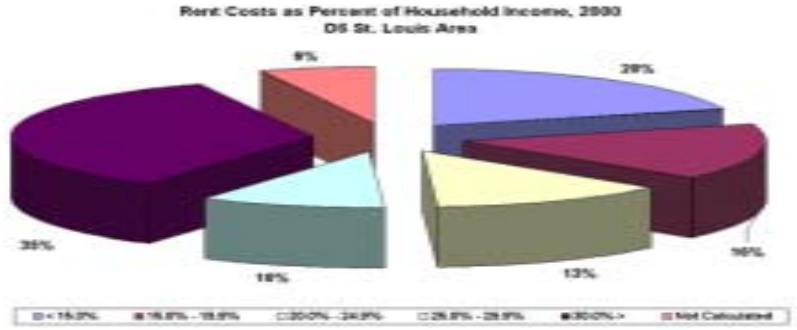
Housing Units Charts



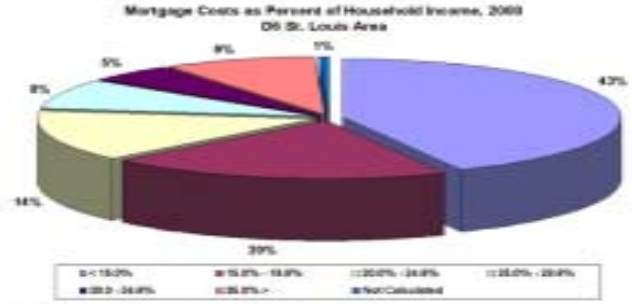


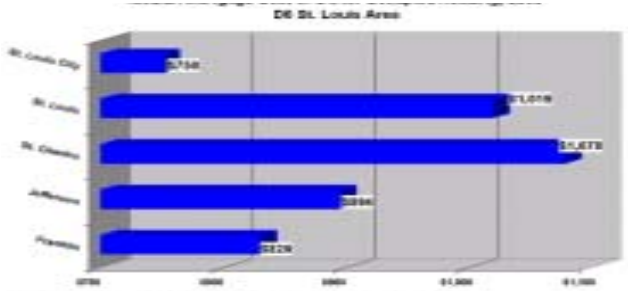


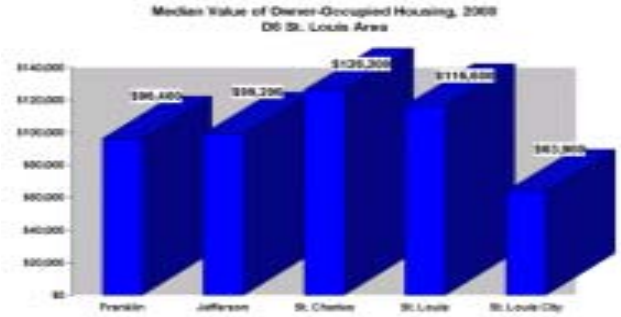


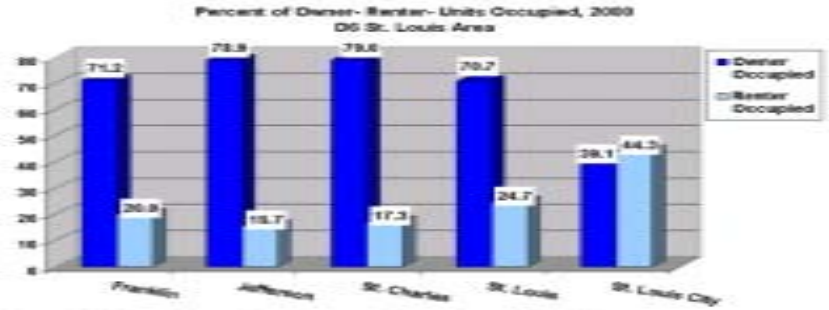


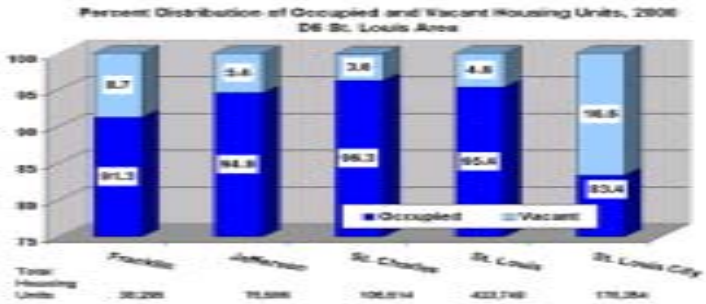
Housing Units Charts









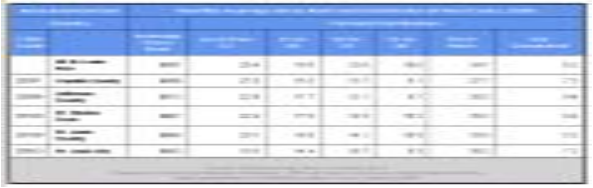


Housing Units Tables

Total Housing Units in Missouri, 1990-2030
D6 St. Louis

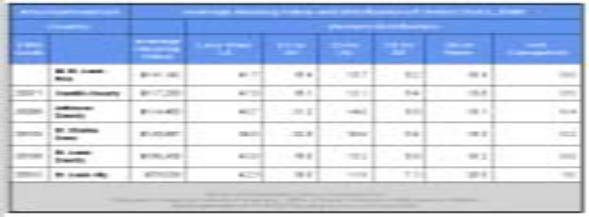
Renter-Occupied Housing Units in Missouri, 1990-2030
D6 St. Louis Area

Missouri Average Gross Rent and Monthly Rent as a Percentage of Household Income, 2000
D6 St. Louis Area



Owner-Occupied Housing Units in Missouri, 1990-2030
D6 St. Louis Area

Missouri Average Housing Value and Monthly Cost as a Percentage of Household Income, 2000
D6 St. Louis Area

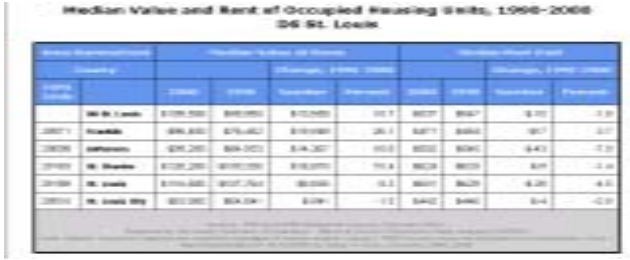


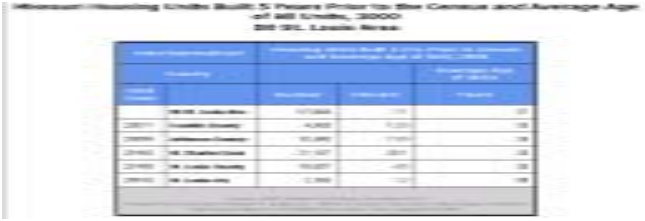
Total Vacant Housing Units in Missouri, 1990-2030
D6 St. Louis

Missouri Housing Unit Vacancy Rates, 1990-2030
D6 St. Louis

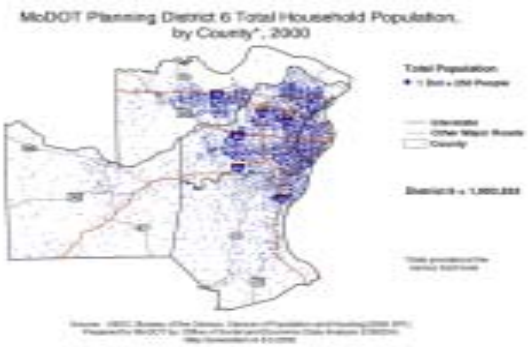
Total Occupied Housing Units in Missouri, 1990-2030
D6 St. Louis

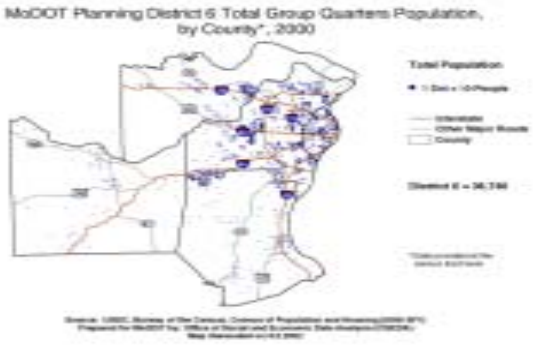
Housing Units Tables

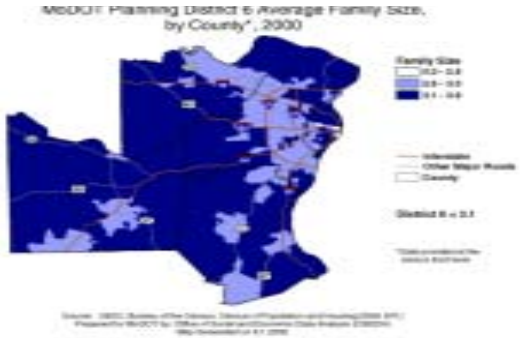


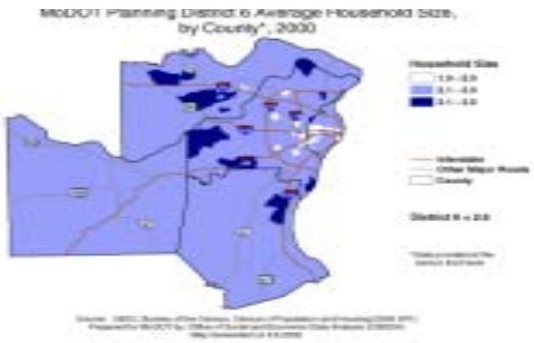


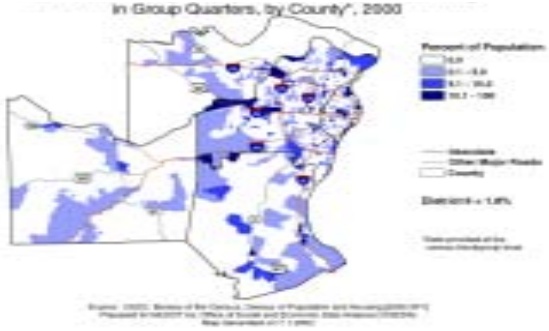
Household Maps



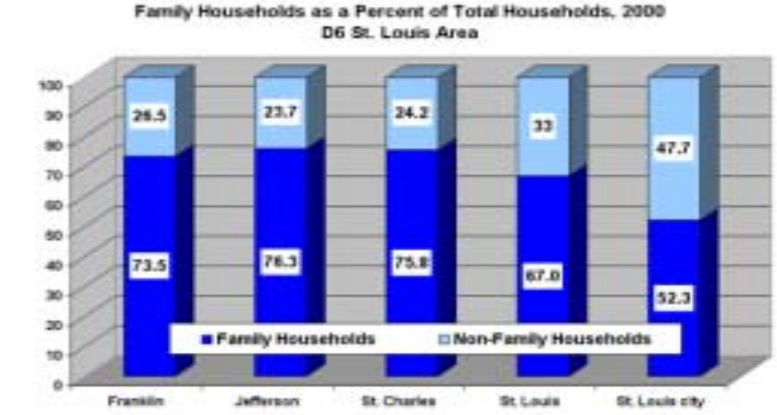




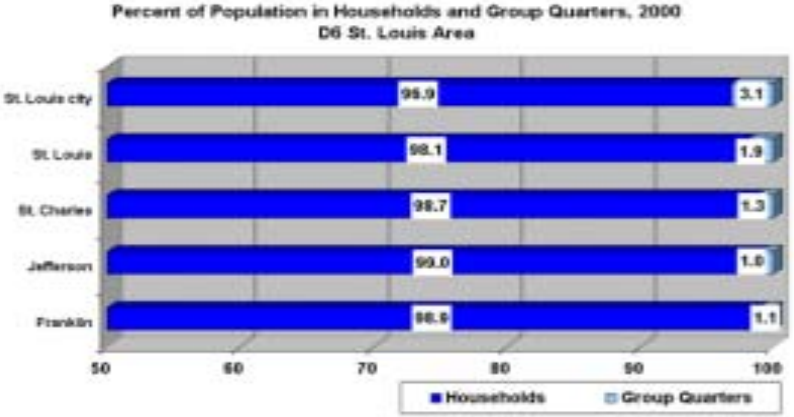




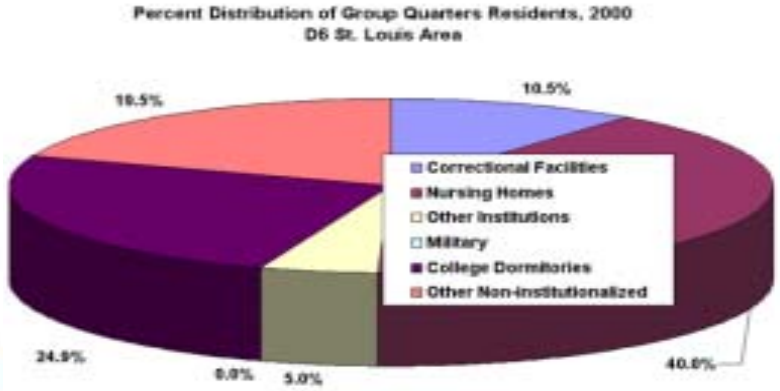
Household Charts



Source: USDC, Bureau of Census, Census of Population and Housing, Summary File 1 (2000)
Produced by: The Office of Social and Economic Data Analysis, UCE [TDranginis, May 2002]



Source: USDC, Bureau of Census, Census of Population and Housing, Summary File 1 (2000)
Produced by: The Office of Social and Economic Data Analysis, UCE [TDranginis, May 2002]



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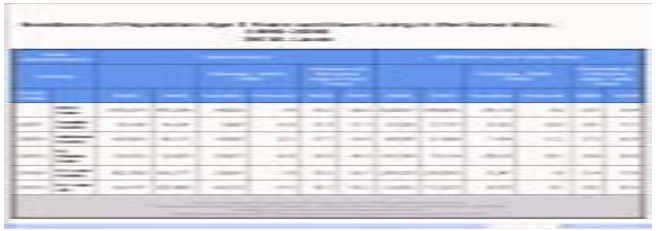
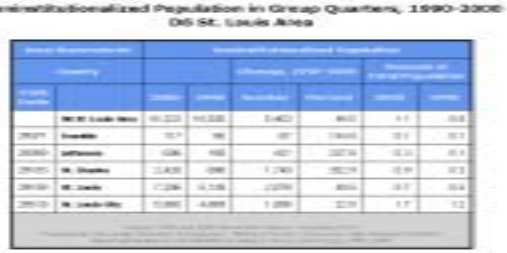
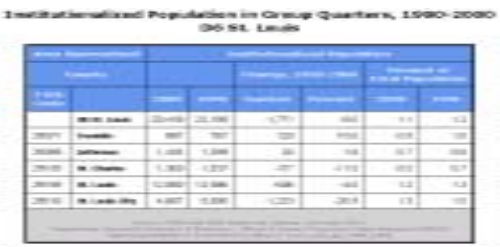
Household Tables

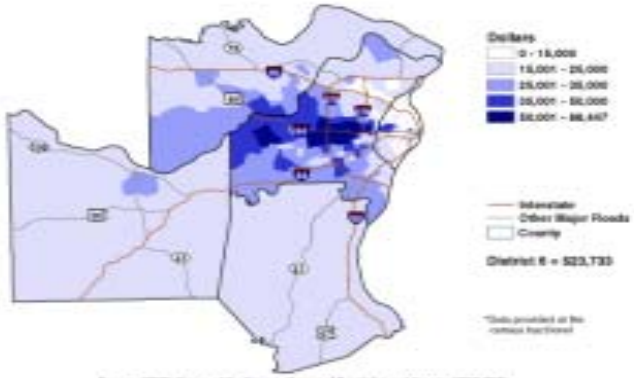




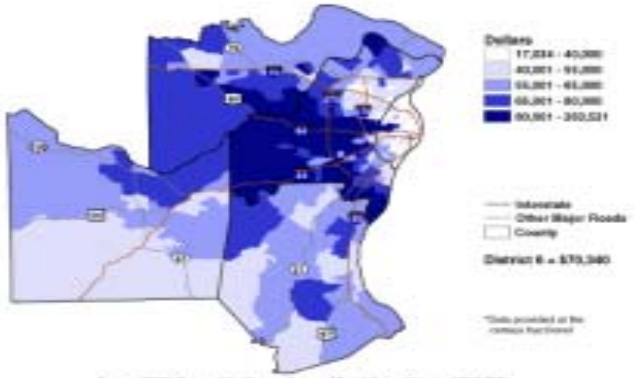


Income Maps

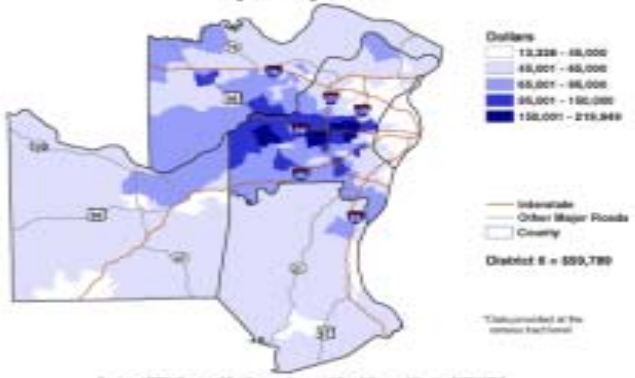
MoDOT Planning District 6 Per Capita Income, by County*, 2000



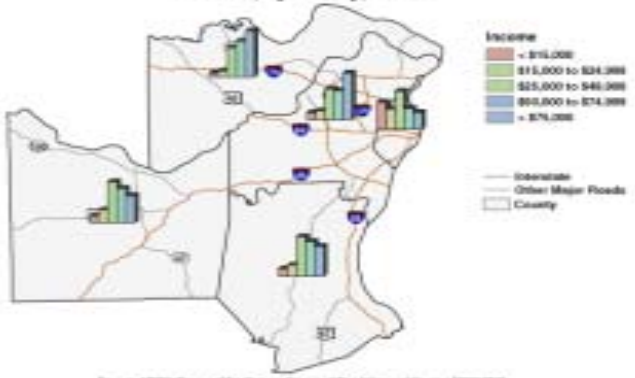
MoDOT Planning District 6 Average Family Income, by County*, 2000



MoDOT Planning District 6 Average Household Income, by County*, 2000

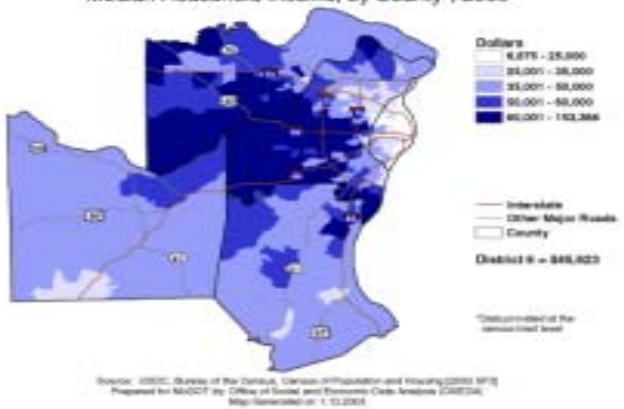


MoDOT Planning District 6 Percent of Families by Income Cohort, by County, 2000

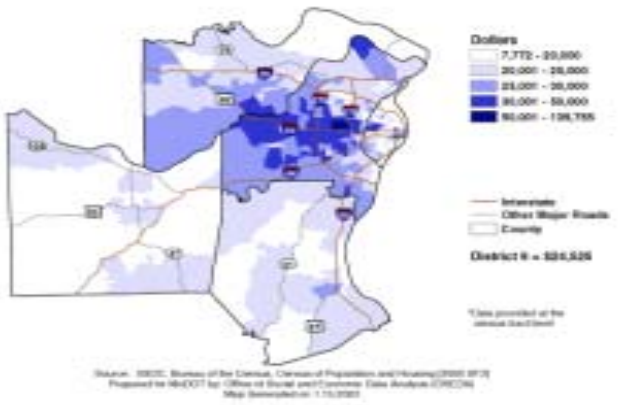


Income Maps

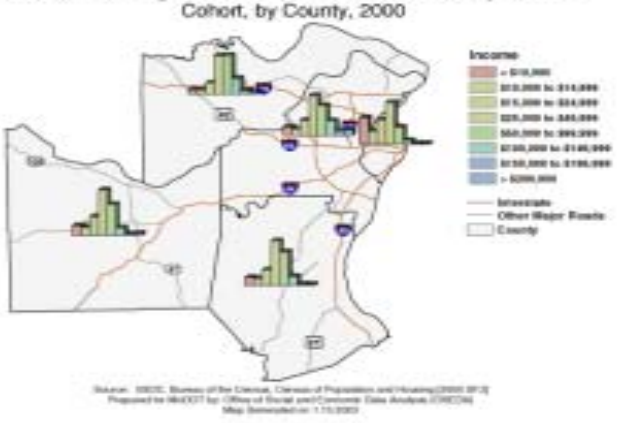
MoDOT Planning District 6
Median Household Income, by County*, 2000



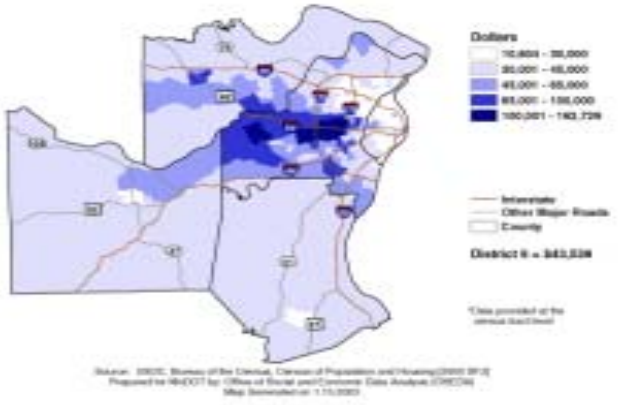
MoDOT Planning District 6 Average Female Earnings, by County*, 2000



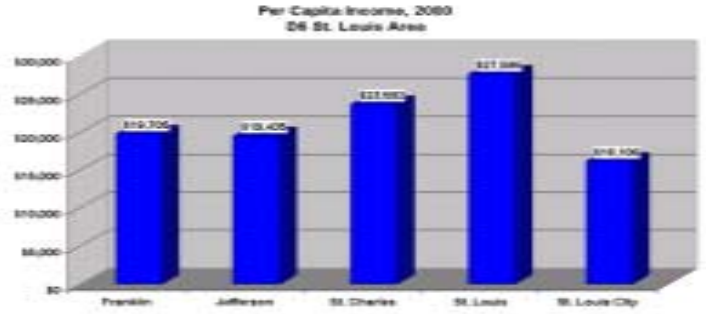
MoDOT Planning District 6 Percent of Households by Income Cohort, by County, 2000

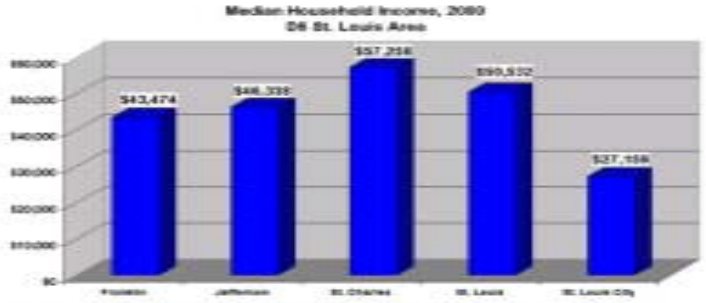


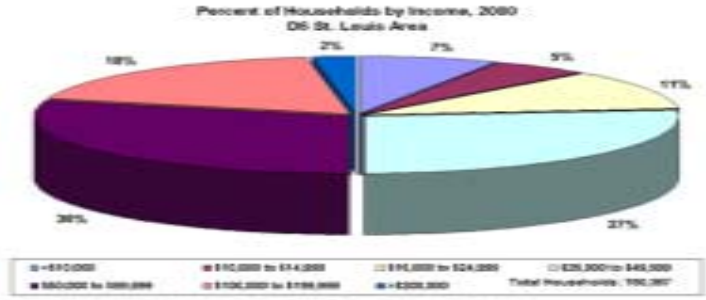
MoDOT Planning District 6 Average Male Earnings, by County*, 2000

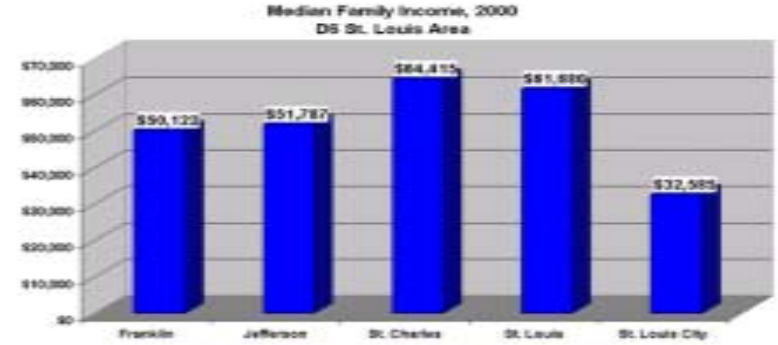


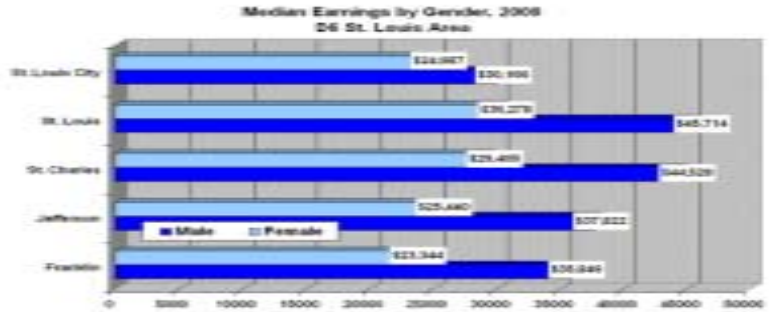
Income Charts









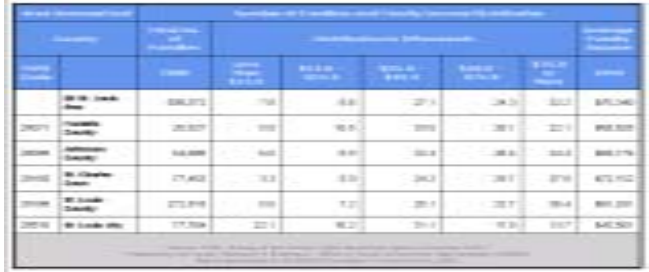


Income Tables

Median Household and Family Income, 1989-1999
D6 St. Louis

Missouri Miscellaneous Income Measures, 2000
D6 St. Louis

Missouri Family Income Distribution, 2000
D6 St. Louis Area

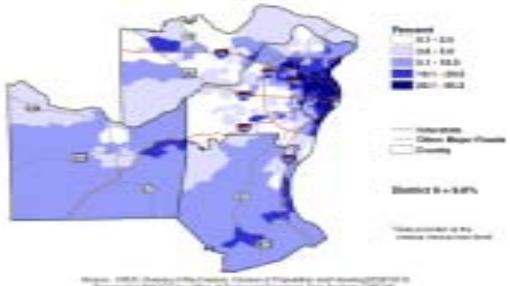


Missouri Household Income Distribution, 2000
D6 St. Louis Area

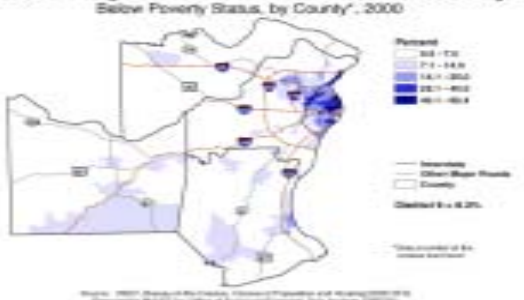
Median Family Income and Selected Family Income Categories, 1989-1999
D6 St. Louis

Poverty Maps

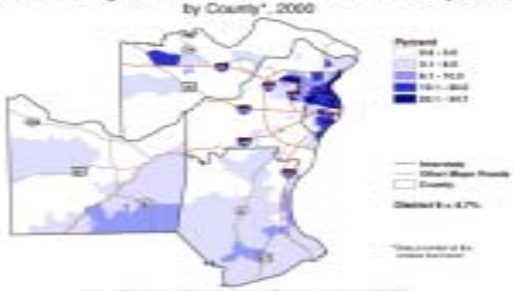
MoDOT Planning District 6 Percent Poor, by County*, 2000



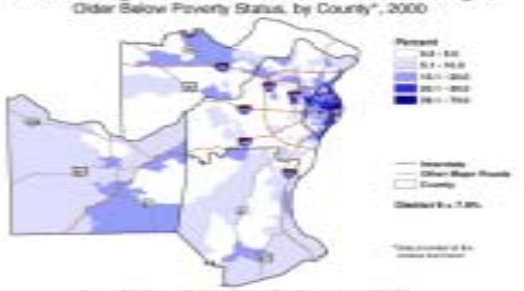
MoDOT Planning District 6 Percent of Persons 18 to 64 Years of Age Below Poverty Status, by County*, 2000



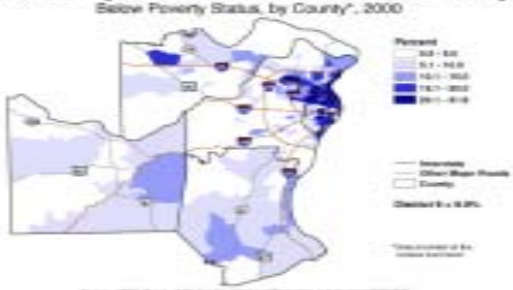
MoDOT Planning District 6 Percent of Families Below Poverty Status, by County*, 2000



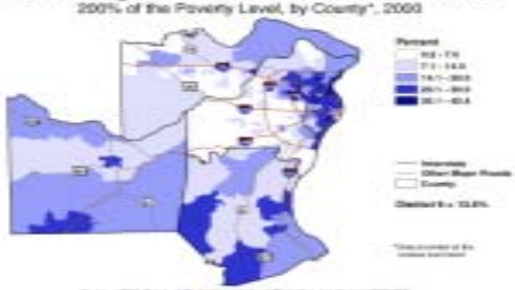
MoDOT Planning District 6 Percent of Persons 65 Years of Age or Older Below Poverty Status, by County*, 2000



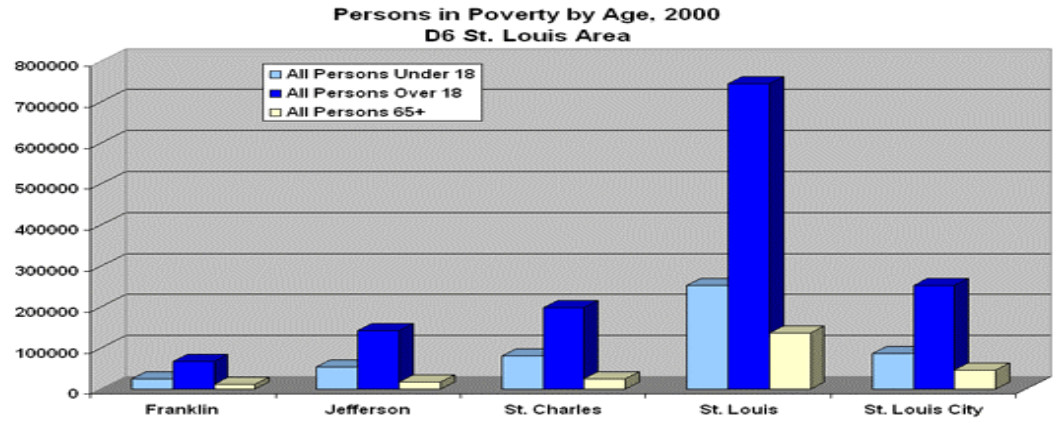
MoDOT Planning District 6 Percent of Persons Under 18 Years of Age Below Poverty Status, by County*, 2000



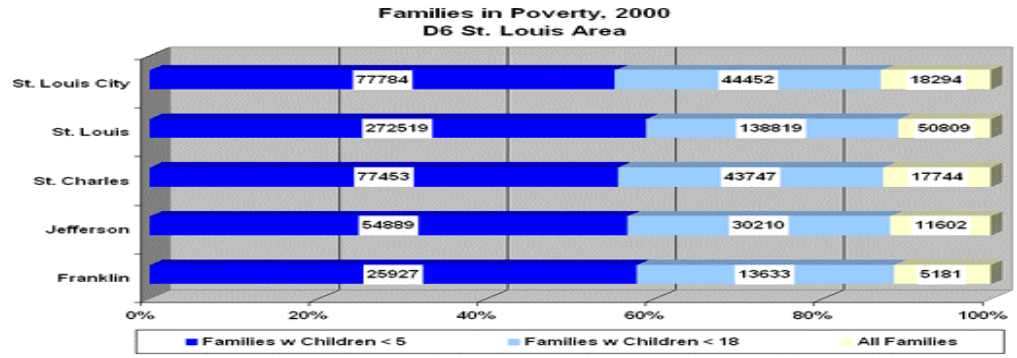
MoDOT Planning District 6 Percent of Persons Between 100% and 200% of the Poverty Level, by County*, 2000



Poverty Charts



Source: USDC, Bureau of Census, Census of Housing and Population, Summary File 3 (2000)
Produced by: The Office of Social and Economic Data Analysis, UOE, [TDranginis, September, 2002]



Source: USDC, Bureau of Census, Census of Housing and Population, Summary File 3 (2000)
Produced by: The Office of Social and Economic Data Analysis, UOE, [TDranginis, September, 2002]

Poverty Tables

Missouri Population Between 100 and 200 Percent of Poverty Level, 1990-2000
D6 St. Louis

Area Summarized		Persons Between 100-200 Percent of Poverty Level					
County				Change 1990-2000		Percent of All Persons	
FIPS Code		2000	1990	Number	Percent	2000	1990
	D6 St. Louis	300,202	297,281	671	0.3	13.6	14.1
29071	Franklin County	14,077	16,059	-1,982	-9.6	16.2	20.6
29099	Jefferson County	28,163	27,642	1,519	6.5	14.9	15.3
29183	St. Charles Coun	20,607	27,199	3,446	16.3	9.8	10.1
29189	St. Louis County	111,174	109,237	10,137	10.0	11.1	10.4
29510	St. Louis city	75,065	90,094	-12,061	-14.1	23.6	23.6

Missouri Population Age 65 and Over Below Poverty Level, 1990-2000
D6 St. Louis Area

Area Summarized		Persons Age 65 and Over Below Poverty Level					
County				Change 1990-2000		Percent of Persons 65 and Over	
FIPS Code		2000	1990	Number	Percent	2000	1990
	D6 St. Louis Area	18,374	22,533	-4,159	-15.5	7.9	10.2
29071	Franklin County	911	1,080	-159	-14.6	8.8	11.8
29099	Jefferson County	1,268	1,307	-223	-17.1	6.3	10.0
29183	St. Charles Coun	1,215	803	412	51.3	5.1	5.9
29189	St. Louis County	7,299	7,028	-386	-4.9	9.3	9.3
29510	St. Louis city	7,086	11,706	-3,820	-32.7	17.4	16.7

Missouri Population Age 18 to 64 Below Poverty Level, 1990-2000
D6 St. Louis

Area Summarized		Persons Age 18 to 64 Below Poverty Level					
County				Change 1990-2000		Percent of All Adults 18 to 64	
FIPS Code		2000	1990	Number	Percent	2000	1990
	D6 St. Louis	86,606	86,269	6,362	9.0	6.3	7.6
29071	Franklin County	3,398	3,071	327	10.6	6.8	6.5
29099	Jefferson County	7,511	6,749	762	11.3	6.8	6.4
29183	St. Charles Coun	5,723	5,136	587	11.4	3.3	3.8
29189	St. Louis County	36,901	28,575	8,326	29.1	6.1	4.7
29510	St. Louis city	40,147	46,767	-1,620	-3.6	20.9	19.6

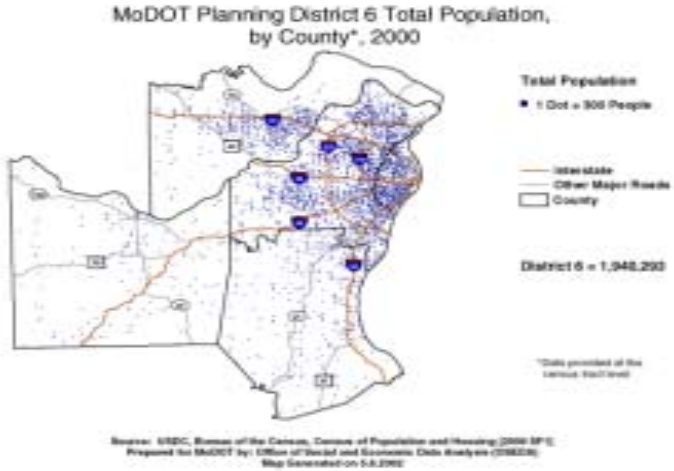
Missouri Population Below Poverty Level, 1990-2000
D6 St. Louis

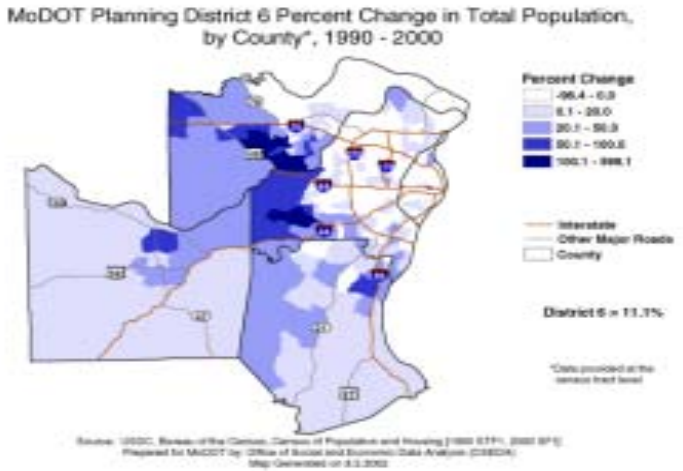
Area Summarized		Persons Below Poverty Level					
County				Change 1990-2000		Percent of All Persons	
FIPS Code		2000	1990	Number	Percent	2000	1990
	D6 St. Louis	152,864	170,037	3,027	2.2	9.8	9.8
29071	Franklin County	6,494	6,588	-74	-1.1	7.8	8.3
29099	Jefferson County	13,253	12,888	587	4.5	6.8	7.5
29183	St. Charles Coun	11,177	9,889	1,288	13.9	4.8	4.7
29189	St. Louis County	60,552	54,603	13,648	26.5	6.9	5.8
29510	St. Louis city	60,388	96,271	-11,883	-12.6	23.6	23.6

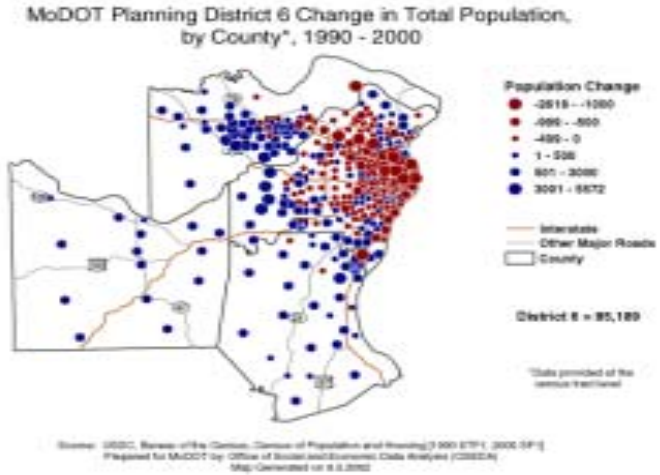
Missouri Children Under 18 Below Poverty Level, 1990-2000
D6 St. Louis

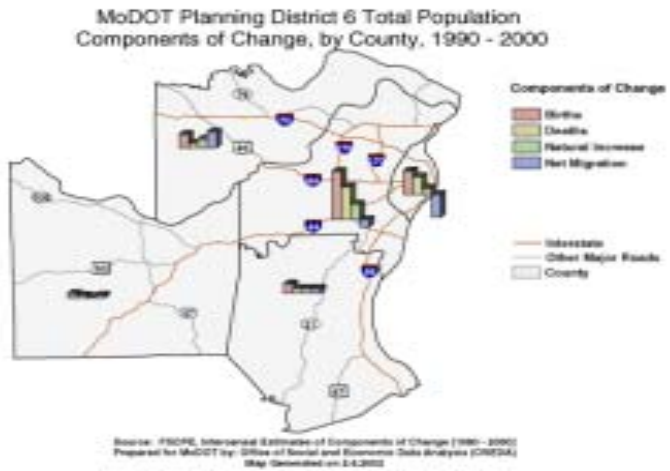
Area Summarized		Children Under 18 Below Poverty Level					
County				Change 1990-2000		Percent of All Children Under 18	
FIPS Code		2000	1990	Number	Percent	2000	1990
	D6 St. Louis	67,810	68,106	-286	-0.4	8.9	26.5
29071	Franklin County	2,165	2,407	-242	-10.1	8.6	10.8
29099	Jefferson County	4,658	4,630	28	0.6	8.9	9.2
29183	St. Charles Coun	4,239	3,870	369	9.5	4.6	6.1
29189	St. Louis County	24,392	18,403	5,989	32.5	7.6	7.9
29510	St. Louis city	32,396	38,796	-6,440	-16.6	18.9	38.7

Population Maps

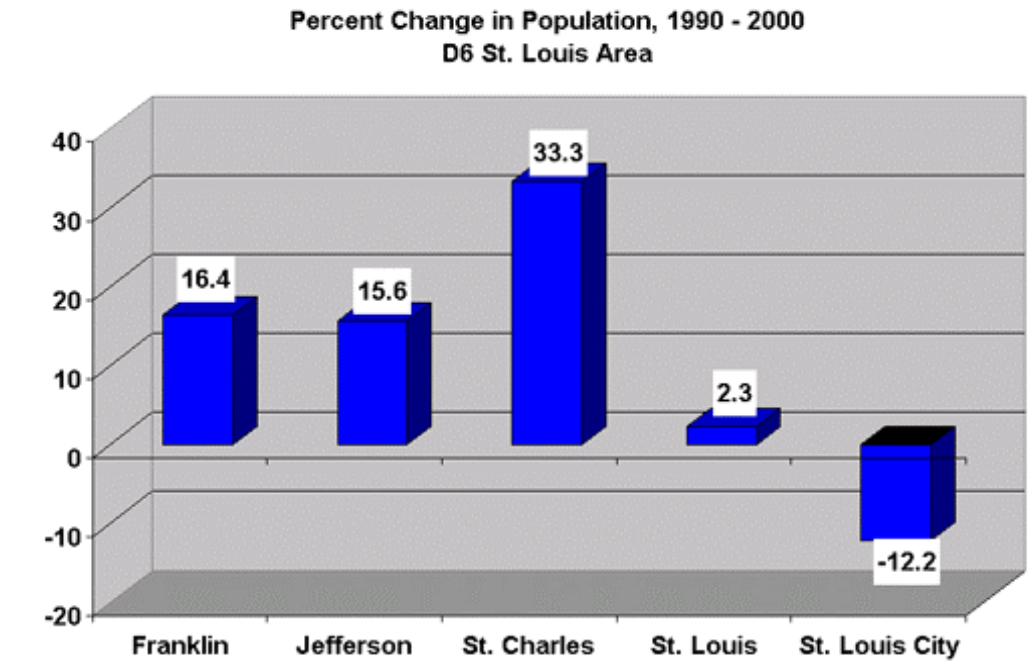








Population Charts



SOURCE: USDC, Bureau of Census, Census of Population and Housing, Summary File 1 (1990, 2000),
Produced by: The Office of Social and Economic Data Analysis, UOE [T. Dranginis, April 2002]

Population Tables

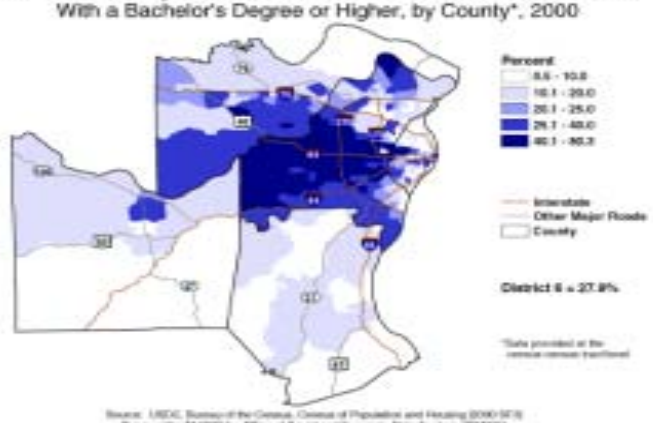
Missouri Population and Components of Change, 1990-2000
D6 St. Louis

Area Summarized					Components of Change, 1990-2000					
County			Change, 1990-2000				Natural Increase		Net Migration	
FIPS Code		Total Population 2000	Number	Percent	Births	Deaths	Number	Rate	Number	Rate
	D6 St. Louis	1,940,293	85,189	4.6	281,684	177,491	104,193	5.9	-19,004	0.4
29071	**Franklin**	93,807	13,204	16.4	12,642	7,984	4,658	5.8	8,546	10.6
29099	**Jefferson**	198,099	26,719	15.6	26,733	13,370	13,363	7.8	13,356	7.8
29183	**St. Charles**	283,883	70,976	33.3	38,471	13,238	25,233	11.9	45,743	21.5
29189	**St. Louis**	1,016,315	22,786	2.3	136,914	92,816	44,098	4.4	-21,312	-2.1
29510	**St. Louis City**	348,189	-48,496	-12.2	66,924	50,083	16,841	4.2	-65,337	-16.5

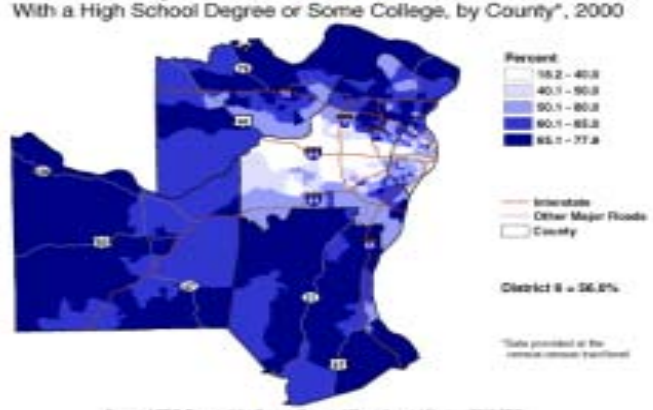
Source: 1990 and 2000 Decennial Census, Summary File 1
Prepared by University Outreach & Extension - Office of Social & Economic Data Analysis (OSEDA)
Report generated on 18JUL2002 by setup in moco_compchg_1990_2000

Educational Attainment Maps

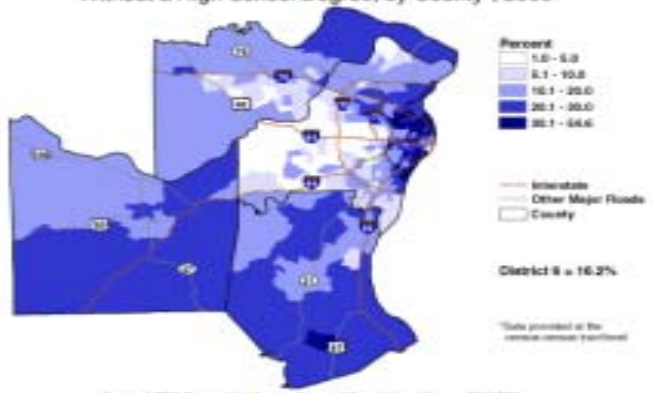
MoDOT Planning District 6 Percent of Persons 25 Years or Older With a Bachelor's Degree or Higher, by County*, 2000



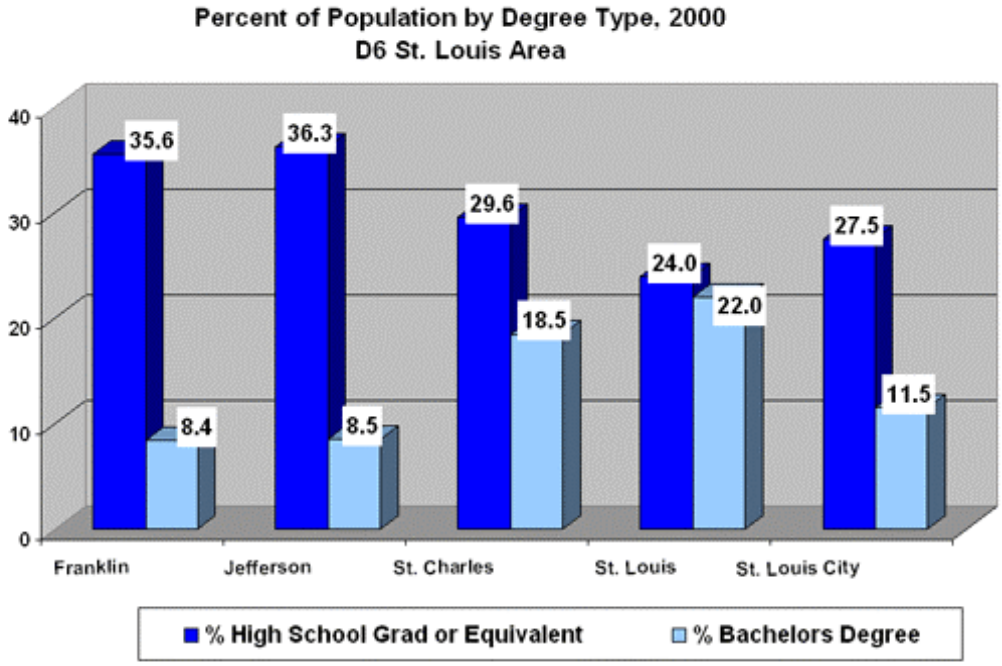
MoDOT Planning District 6 Percent of Persons 25 Years or Older With a High School Degree or Some College, by County*, 2000



MoDOT Planning District 6 Percent of Persons 25 Years or Older Without a High School Degree, by County*, 2000



Educational Attainment Charts

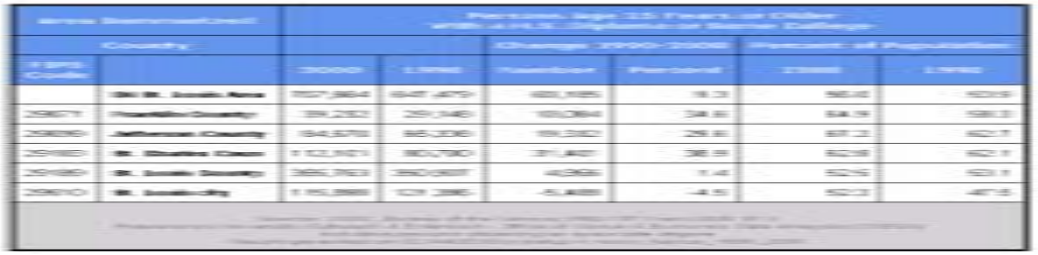


Source: USDC, Bureau of Census, Census of Population and Housing, Summary File 3 (2000)
Produced by: The Office of Social and Economic Data Analysis, UOE [TDranginis, June 2002]

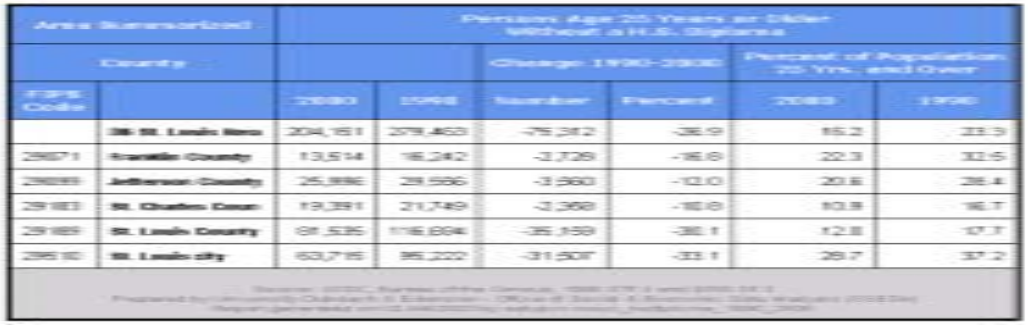
Educational Attainment Tables

Missouri Population With A College or Professional Degree, 1990-2000
D6 St. Louis

Missouri Population With A High School Diploma and Some College, 1990-2000
D6 St. Louis Area

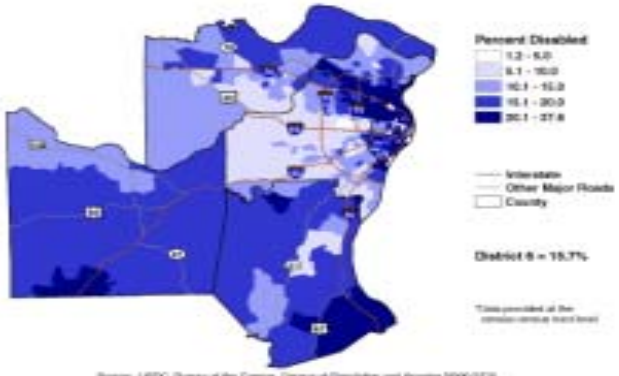


Missouri Population Without A High School Diploma, 1990-2000
D6 St. Louis Area

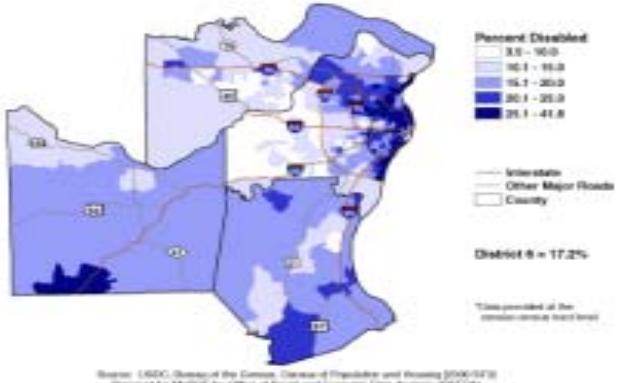


Disability Maps

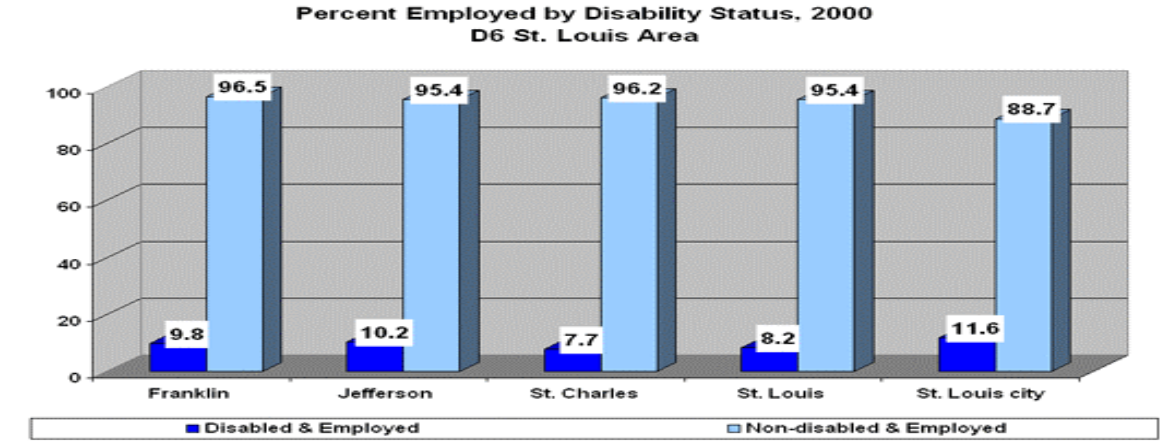
MoDOT Planning District 6 Percent Work Disabled, by County*, 2000



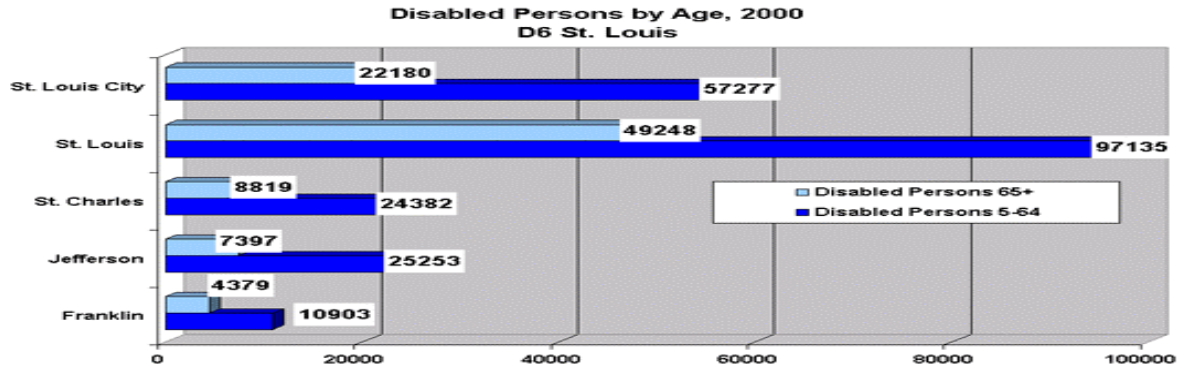
MoDOT Planning District 6 Percent Disabled, by County*, 2000



Disability Charts



Source: USDC, Bureau of Census, Census of Housing and Population, Summary File 3 (2000)
Produced by: The Office of Social and Economic Data Analysis, UOE [T.Dranginis, January, 2003]



Source: USDC, Bureau of Census, Census of Population and Housing, Summary File 3 (2000)
Produced by: The Office of Social and Economic Data Analysis, UOE [TDranginis, June 2002]

Disability Tables

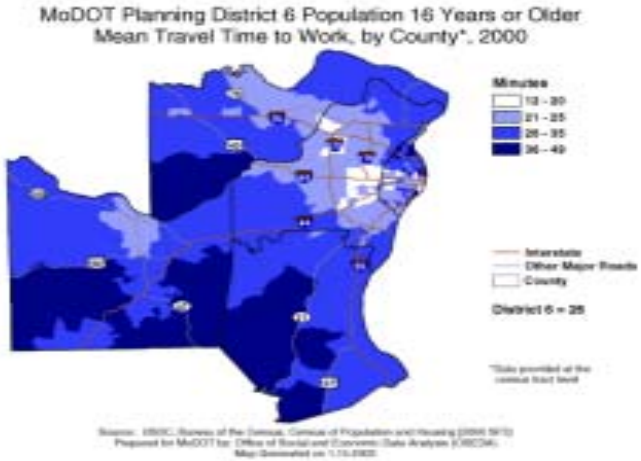
Missouri Persons Age 16 Years and Older With a Work Disability, 1990-2000
D6 St. Louis Area

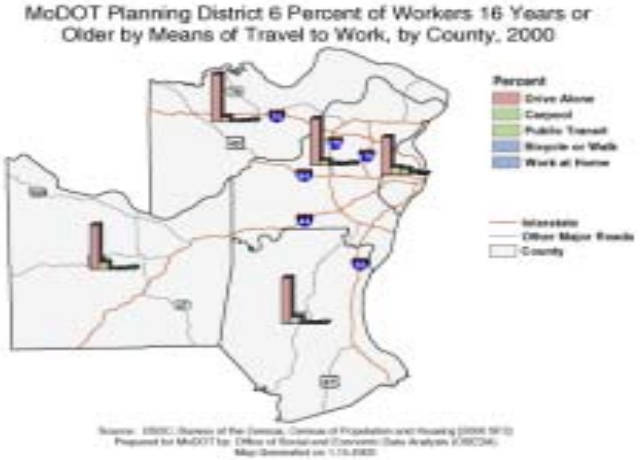
Area Summarized		Persons Age 16 Years and Older With a Work Disability					
County				Change 1990-2000		Percent of All Workers 16 Yrs. and Over	
FIPS Code		2000	1990	Number	Percent	2000	1990
	D6 St. Louis Area	194,284	83,211	111,073	133.5	15.7	7.1
29071	Franklin County	10,033	3,832	6,201	161.8	16.9	7.7
29099	Jefferson County	22,650	8,731	13,919	159.4	17.3	7.9
29183	St. Charles County	21,447	7,570	13,877	183.3	11.6	5.4
29189	St. Louis County	87,187	36,703	50,484	137.5	13.6	5.7
29510	St. Louis city	52,967	26,375	26,592	100.8	24.3	11.1

Disabled Missouri Population Age 5 Years and Older, 2000
D6 St. Louis

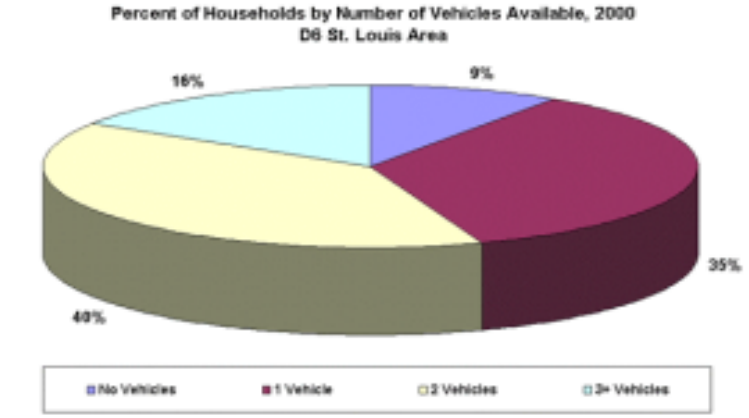
Area Summarized			
County		Disabled Population Age 5 Years and Older	
FIPS Code		Number	Percent
	D6 St. Louis	306,973	17.2
29071	Franklin County	15,282	17.7
29099	Jefferson County	32,680	17.9
29183	St. Charles County	33,201	12.7
29189	St. Louis County	146,383	15.6
29510	St. Louis city	79,457	24.8

Transportation Maps

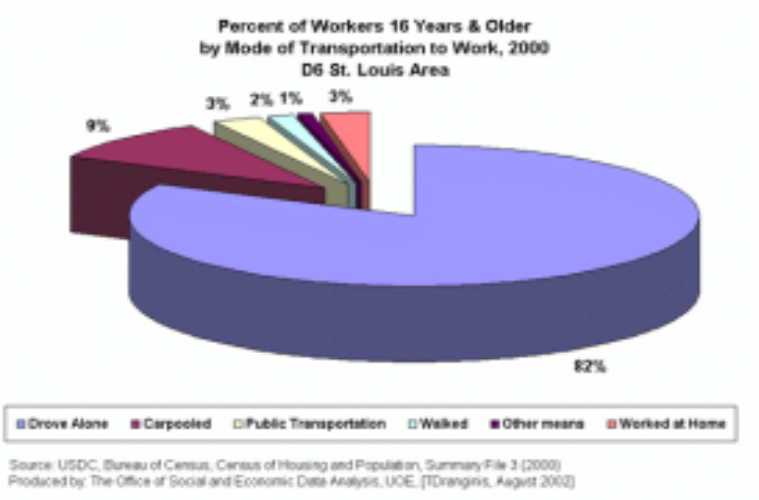




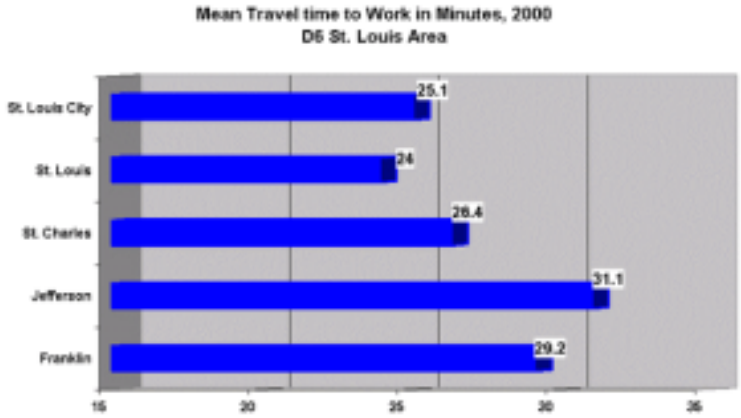
Transportation Charts



Source: USDC, Bureau of Census, Census of Housing and Population, Summary File 3 (2000)
Produced by: The Office of Social and Economic Data Analysis, UOE, [TDrangmis, August 2002]



Source: USDC, Bureau of Census, Census of Housing and Population, Summary File 3 (2000)
Produced by: The Office of Social and Economic Data Analysis, UOE, [TDrangmis, August 2002]



Source: USDC, Bureau of Census, Census of Housing and Population, Summary File 3 (2000)
Produced by: The Office of Social and Economic Data Analysis, UOE, [TDrangmis, August 2002]

Transportation Tables

Missouri Means of Travel to Work, 2000
D6 St. Louis

Area Summarized		Means of Transportation to Work, 2000						
County				Distribution by Means or Travel				
FIPS Code		Workers Age 16 Yrs. or Older	Avgerage Commute Time [In Minutes]	Drive Alone	Carpool	Public Transportation	Bicycle or Walk	Work at Home
	D6 St. Louis	931,570	26	82.6	9.7	2.6	1.7	2.9
29071	Franklin County	45,363	29	81.6	12.9	0.3	1.2	3.3
29099	Jefferson County	98,030	31	84.3	12.2	0.2	0.8	2.1
29183	St. Charles Coun	149,111	26	87.1	8.1	0.3	0.9	3.0
29189	St. Louis County	498,319	24	84.9	8.4	1.7	1.4	3.2
29510	St. Louis city	140,747	25	68.9	13.6	10.7	4.5	1.7

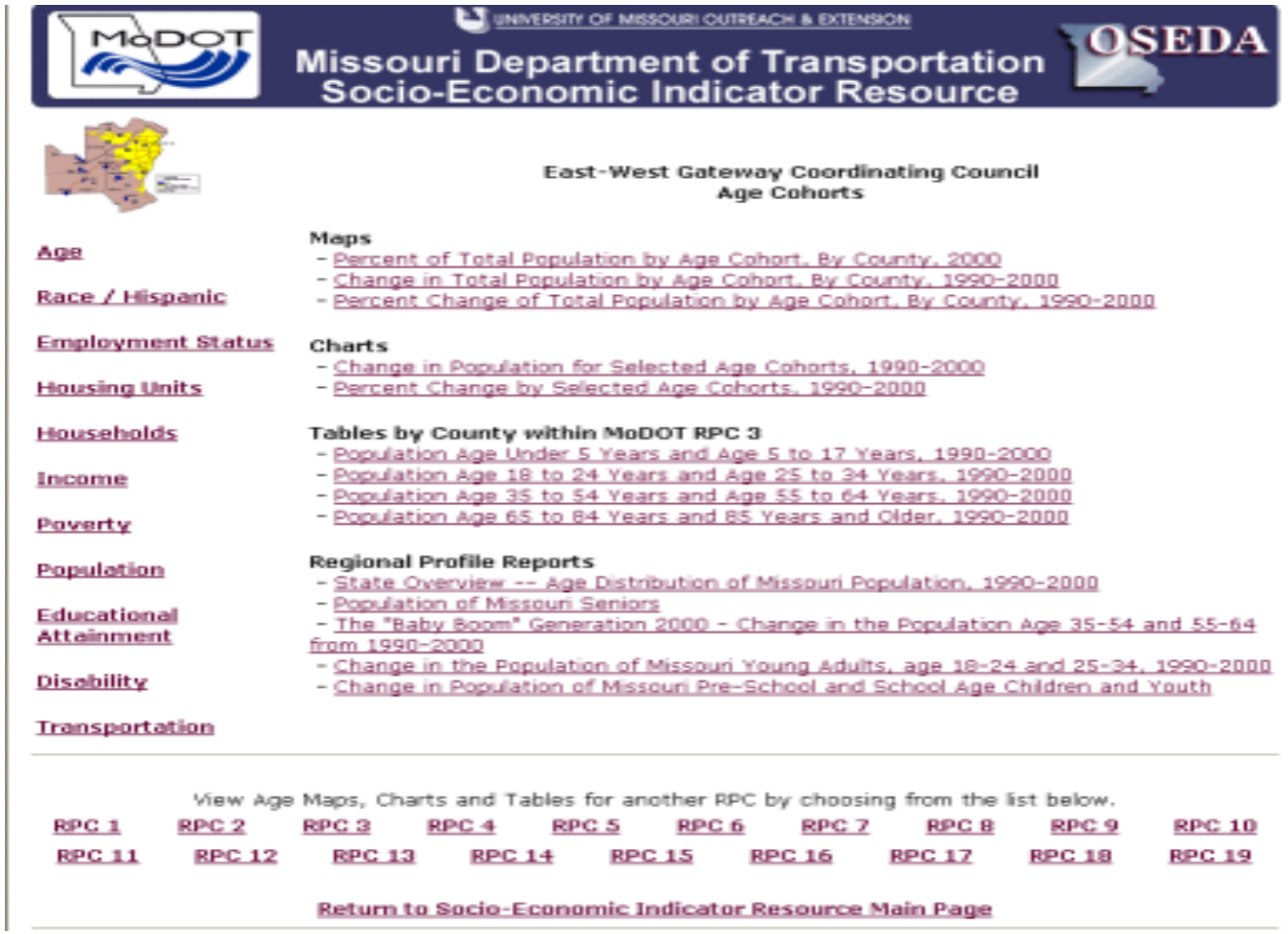
Source: USDC, Bureau of the Census, 1990 and 2000 Decennial Census, Summary File 3
Prepared by University Outreach & Extension - Office of Social & Economic Data Analysis (OSEDA)
Report generated on 16DEC2002 by setup in moco_meantrans_1990_2000

APPENDIX D – Regional Planning Commissions

This appendix illustrates the screen selections for the Regional Planning Commissions.

Regional Planning Commission

Age Cohorts


UNIVERSITY OF MISSOURI OUTREACH & EXTENSION
MoDOT
Missouri Department of Transportation
Socio-Economic Indicator Resource
OSEDA
East-West Gateway Coordinating Council
Age Cohorts
Age
Race / Hispanic
Employment Status
Housing Units
Households
Income
Poverty
Population
Educational Attainment
Disability
Transportation
Maps
- Percent of Total Population by Age Cohort, By County, 2000
- Change in Total Population by Age Cohort, By County, 1990-2000
- Percent Change of Total Population by Age Cohort, By County, 1990-2000
Charts
- Change in Population for Selected Age Cohorts, 1990-2000
- Percent Change by Selected Age Cohorts, 1990-2000
Tables by County within MoDOT RPC 3
- Population Age Under 5 Years and Age 5 to 17 Years, 1990-2000
- Population Age 18 to 24 Years and Age 25 to 34 Years, 1990-2000
- Population Age 35 to 54 Years and Age 55 to 64 Years, 1990-2000
- Population Age 65 to 84 Years and 85 Years and Older, 1990-2000
Regional Profile Reports
- State Overview -- Age Distribution of Missouri Population, 1990-2000
- Population of Missouri Seniors
- The "Baby Boom" Generation 2000 - Change in the Population Age 35-54 and 55-64 from 1990-2000
- Change in the Population of Missouri Young Adults, age 18-24 and 25-34, 1990-2000
- Change in Population of Missouri Pre-School and School Age Children and Youth
View Age Maps, Charts and Tables for another RPC by choosing from the list below.
RPC 1 RPC 2 RPC 3 RPC 4 RPC 5 RPC 6 RPC 7 RPC 8 RPC 9 RPC 10
RPC 11 RPC 12 RPC 13 RPC 14 RPC 15 RPC 16 RPC 17 RPC 18 RPC 19
Return to Socio-Economic Indicator Resource Main Page

Race/ Hispanic

UNIVERSITY OF MISSOURI OUTREACH & EXTENSION

Missouri Department of Transportation
Socio-Economic Indicator Resource

OSEDA

East-West Gateway Coordinating Council
Race / Hispanic

Age
Race / Hispanic
Employment Status
Housing Units
Households
Income
Poverty
Population
Educational Attainment
Disability
Transportation

Maps
- Percent of Total Population by Race and Ethnicity, By County, 2000
- Change in Total Population by Race and Ethnicity, By County, 1990-2000
- Percent Change of Total Population by Race and Ethnicity, By County, 1990-2000

Charts
- Race Categories as Percent of Total Population, 2000
- Change in Population by Race, 1990-2000
- Percent Hispanic Population by Race, 2000
- Change in Hispanic Population, 1990-2000
- Change in Minority Population, 1990-2000
- Percent of Persons Whose Primary Language is English, Spanish or Other Language, 2000

Tables by County within MoDOT RPC 3
- Racial Minority Population in Missouri, 1990-2000
- African American Population in Missouri, 1990-2000
- Hispanic Population in Missouri, 1990-2000
- Asian and Pacific Islander Population in Missouri, 1990-2000
- American Indian and Aleut Population in Missouri, 1990-2000
- Other Race Population in Missouri, 1990-2000
- Total and MultiRace Population in Missouri, 2000

Regional Profile Reports
- An Overview of Changes in Race of Missouri's Population 2000
- Racial Categories of Missouri Hispanics 2000
- Missouri 2000 Hispanic Population and Change 1990-2000
- An Overview of the Age of the 2000 Missouri Hispanic Population: Much Younger than Rest of Missouri
- Change in African American Population 1990 to 2000
- Missouri's Multi-Race Population 2000
- Change in Missouri American Indian and Aleut Population 1990-2000
- Change in Missouri Asian and Pacific Islander Population, 1990-2000

View Race/Hispanic Maps, Charts and Tables for another RPC by choosing from the list below.

RPC 1 RPC 2 RPC 3 RPC 4 RPC 5 RPC 6 RPC 7 RPC 8 RPC 9 RPC 10
RPC 11 RPC 12 RPC 13 RPC 14 RPC 15 RPC 16 RPC 17 RPC 18 RPC 19

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Employment Status

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Missouri Department of Transportation Socio-Economic Indicator Resource

OSEDA

East-West Gateway Coordinating Council
Employment Status

Age
Race / Hispanic
Employment Status
Housing Units
Households
Income
Poverty
Population
Educational Attainment
Disability
Transportation

Maps
- Percent of Population 16 Years or Older in the Civilian Labor Force, By County, 2000
- Percent of Population 16 Years or Older by Occupation, By County, 2000
- Percent of Population 16 Years or Older Unemployed, By County, 2000
- Percent of Population 16 Years or Older Working in County of Residence, By County, 2000

Charts
- Employment Status of Civilian Labor Force, 2000
- Percent of Population 16 Years or Older in the Labor Force, 2000
- Percent Employed in Civilian Population 16 Years or Older by Occupation, 2000
- Unemployment Rate, 2000

Tables by County within MoDOT RPC 3
- Population Age 16 Years and Over in the Armed Forces, 1990-2000
- Population Age 16 Years and Over in the Civilian Labor Force, 1990-2000
- Distribution of Employed Civilian Labor Force by Occupation, 2000
- Missouri Persons Working In County of Residence, 1990-2000
- Missouri Unemployed Persons, 1990-2000

Regional Profile Reports
- State Overview -- Change in Missouri Civilian Labor Force and Employment, 1990-2000
- State Overview -- Missouri Full-Time and Part-time Employment 1990-2000 - Bureau of Economic Analysis
- Commuting to Work Outside of Home County 1990-2000

View Employment Status Maps, Charts and Tables for another RPC by choosing from the list below.

RPC 1 RPC 2 RPC 3 RPC 4 RPC 5 RPC 6 RPC 7 RPC 8 RPC 9 RPC 10
RPC 11 RPC 12 RPC 13 RPC 14 RPC 15 RPC 16 RPC 17 RPC 18 RPC 19

Return to Socio-Economic Indicator Resource Main Page

Housing Units

Households

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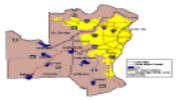
Missouri Department of Transportation Socio-Economic Indicator Resource



East-West Gateway Coordinating Council
Households

Age

Race / Hispanic

Employment Status

Housing Units

Households

Income

Poverty

Population

Educational Attainment

Disability

Transportation

Maps
- Total Household Population, By County, 2000
- Average Family Size, By County, 2000
- Average Household Size, By County, 2000
- Total Group Quarters Population, By County, 2000
- Institutional Group Quarters Population, By County, 2000
- Noninstitutional Group Quarters Population, By County, 2000
- Percent of Population Living in Group Quarters, By County, 2000

Charts
- Family Households as a Percent of Total Households, 2000
- Percent of Population in Households and Group Quarters, 2000
- Percent Distribution of Group Quarter Residents, 2000

Tables by County within MoDOT RPC 3
- Total Family Households in Missouri, 1990-2000
- Institutionalized Population in Group Quarters, 1990-2000
- Noninstitutionalized Population in Group Quarters, 1990-2000
- Total Households in Missouri, 1990-2000
- Residence of Population Age 5 Years and Over Living in a Different House, 1990-2000
- Residence of Population Age 5 Years and Over Living in the Same State, 1990-2000
- Residence of Population Living in a Different State or Abroad, 1990-2000

Regional Profile Reports
- State Overview -- 2000 Census Data on Households -- Type, Location and Change 1990-2000
- Change in Family Households With Children Under 18 1990-2000
- Change in Number and Location of Family Households 1990-2000
- Population Residing in Institutional Group Quarters 1990-2000
- Population Residing in Noninstitutionalized Group Quarters 1990-2000

View Households Maps, Charts and Tables for another RPC by choosing from the list below.

RPC 1 RPC 2 RPC 3 RPC 4 RPC 5 RPC 6 RPC 7 RPC 8 RPC 9 RPC 10

RPC 11 RPC 12 RPC 13 RPC 14 RPC 15 RPC 16 RPC 17 RPC 18 RPC 19

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Income

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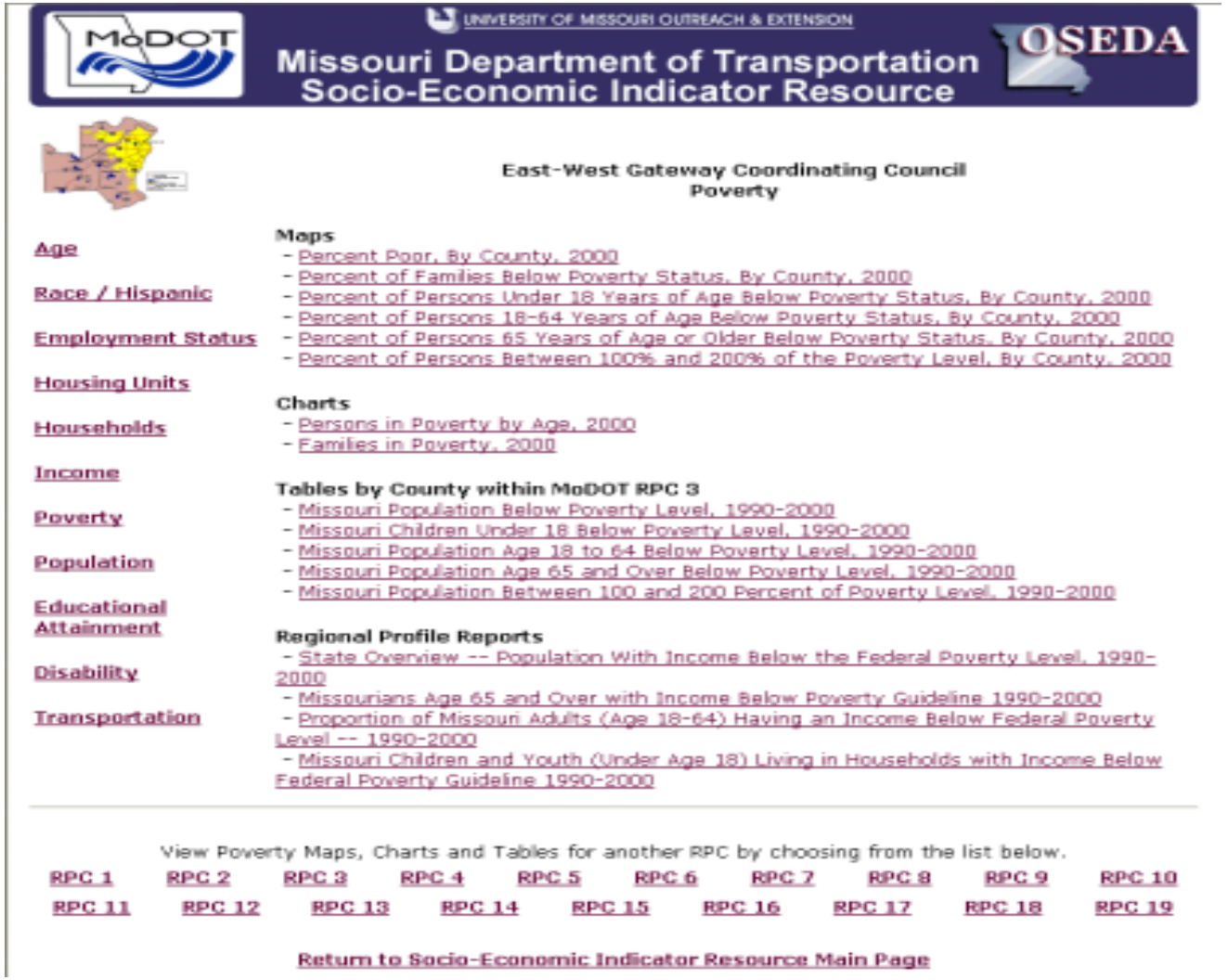
Transportation
Maps
- Per Capita Income, By County, 2000
- Average Household Income, By County, 2000
- Percent of Households by Income Cohort, By County, 2000
- Average Family Income, By County, 2000
- Percent of Families by Income Cohort, By County, 2000
- Average Female Earnings, By County, 2000
- Average Male Earnings, By County, 2000
Charts
- Per Capita Income, 2000
- Median Household Income, 2000
- Percent of Households by Income, 2000
- Median Family Income, 2000
- Median Income by Gender, 2000
Tables by County within MoDOT RPC 3
- Median Household and Family Income, 1989-1999
- Missouri Household Income Distribution, 2000
- Median Family Income and Selected Family Income Categories, 1989-1999
- Missouri Family Income Distribution, 2000
- Missouri Miscellaneous Income Measures, 2000
Regional Profile Reports
- State Overview -- Change in Missouri Median Household Income and Family Income 1989-1999
- Median Family Income by Counties and Regions and Change in Median Family Income in Constant Dollars 1989-1999
- State Overview -- Missouri Total Personal Income 2000 and Change from 1990
- Change in Total Personal Income by County and Region 1990-2000
- Transfer Payments As a Proportion of Total Personal Income 1990 - 2000
- Missouri Per Capita Income in 2000 and Change from 1990
- Change in Bank Deposits by County and Region 1990-2000
View Income Maps, Charts and Tables for another RPC by choosing from the list below.
RPC 1 RPC 2 RPC 3 RPC 4 RPC 5 RPC 6 RPC 7 RPC 8 RPC 9 RPC 10
RPC 11 RPC 12 RPC 13 RPC 14 RPC 15 RPC 16 RPC 17 RPC 18 RPC 19
Return to Socio-Economic Indicator Resource Main Page

Poverty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MoDOT
Missouri Department of Transportation
Socio-Economic Indicator Resource
OSEDA
East-West Gateway Coordinating Council
Poverty
Age
Race / Hispanic
Employment Status
Housing Units
Households
Income
Poverty
Population
Educational Attainment
Disability
Transportation
Maps
- Percent Poor, By County, 2000
- Percent of Families Below Poverty Status, By County, 2000
- Percent of Persons Under 18 Years of Age Below Poverty Status, By County, 2000
- Percent of Persons 18-64 Years of Age Below Poverty Status, By County, 2000
- Percent of Persons 65 Years of Age or Older Below Poverty Status, By County, 2000
- Percent of Persons Between 100% and 200% of the Poverty Level, By County, 2000
Charts
- Persons in Poverty by Age, 2000
- Families in Poverty, 2000
Tables by County within MoDOT RPC 3
- Missouri Population Below Poverty Level, 1990-2000
- Missouri Children Under 18 Below Poverty Level, 1990-2000
- Missouri Population Age 18 to 64 Below Poverty Level, 1990-2000
- Missouri Population Age 65 and Over Below Poverty Level, 1990-2000
- Missouri Population Between 100 and 200 Percent of Poverty Level, 1990-2000
Regional Profile Reports
- State Overview -- Population With Income Below the Federal Poverty Level, 1990-2000
- Missourians Age 65 and Over with Income Below Poverty Guideline 1990-2000
- Proportion of Missouri Adults (Age 18-64) Having an Income Below Federal Poverty Level -- 1990-2000
- Missouri Children and Youth (Under Age 18) Living in Households with Income Below Federal Poverty Guideline 1990-2000
View Poverty Maps, Charts and Tables for another RPC by choosing from the list below.
RPC 1 RPC 2 RPC 3 RPC 4 RPC 5 RPC 6 RPC 7 RPC 8 RPC 9 RPC 10
RPC 11 RPC 12 RPC 13 RPC 14 RPC 15 RPC 16 RPC 17 RPC 18 RPC 19
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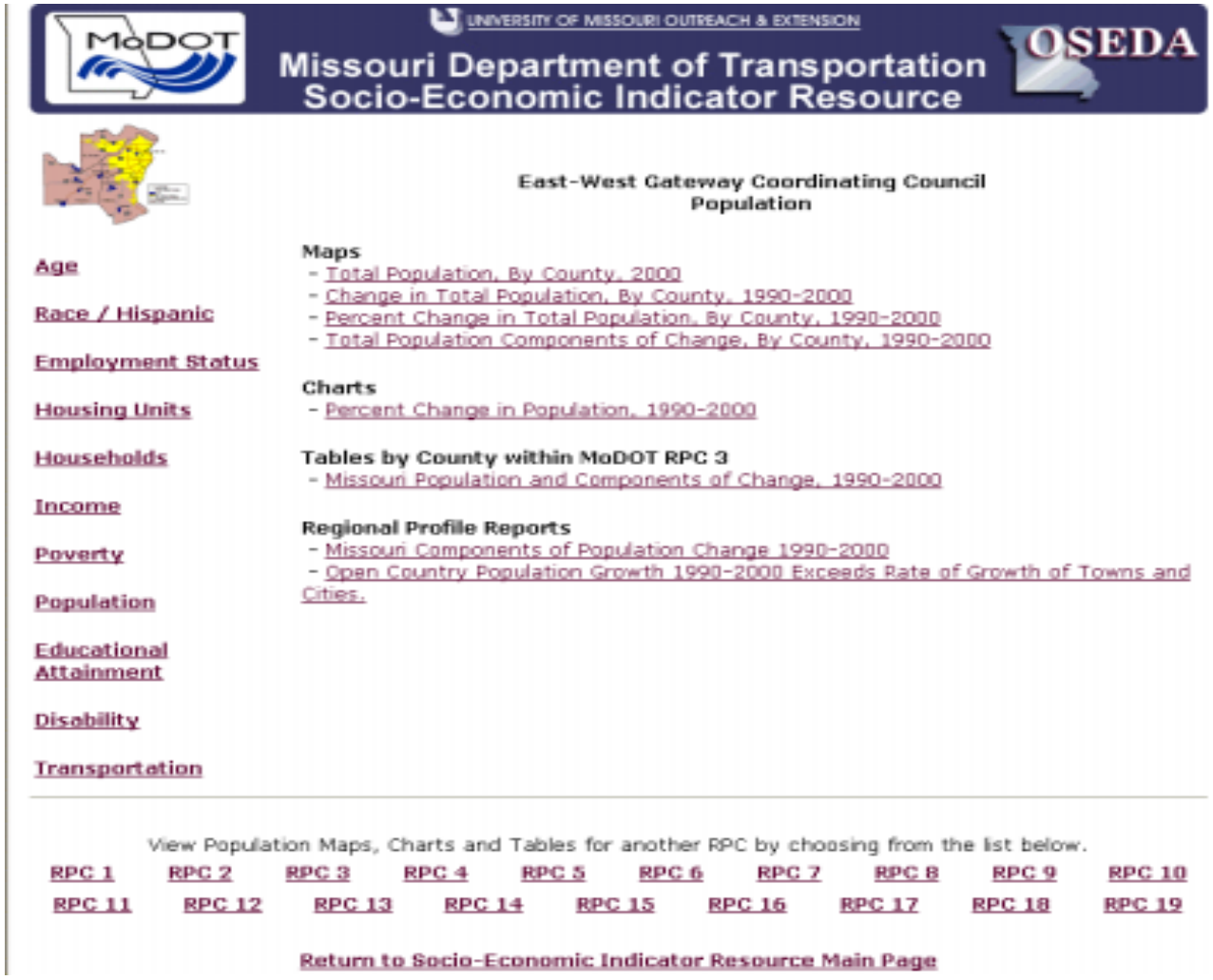
Population


UNIVERSITY OF MISSOURI OUTREACH & EXTENSION
Missouri Department of Transportation
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Population
Age
Race / Hispanic
Employment Status
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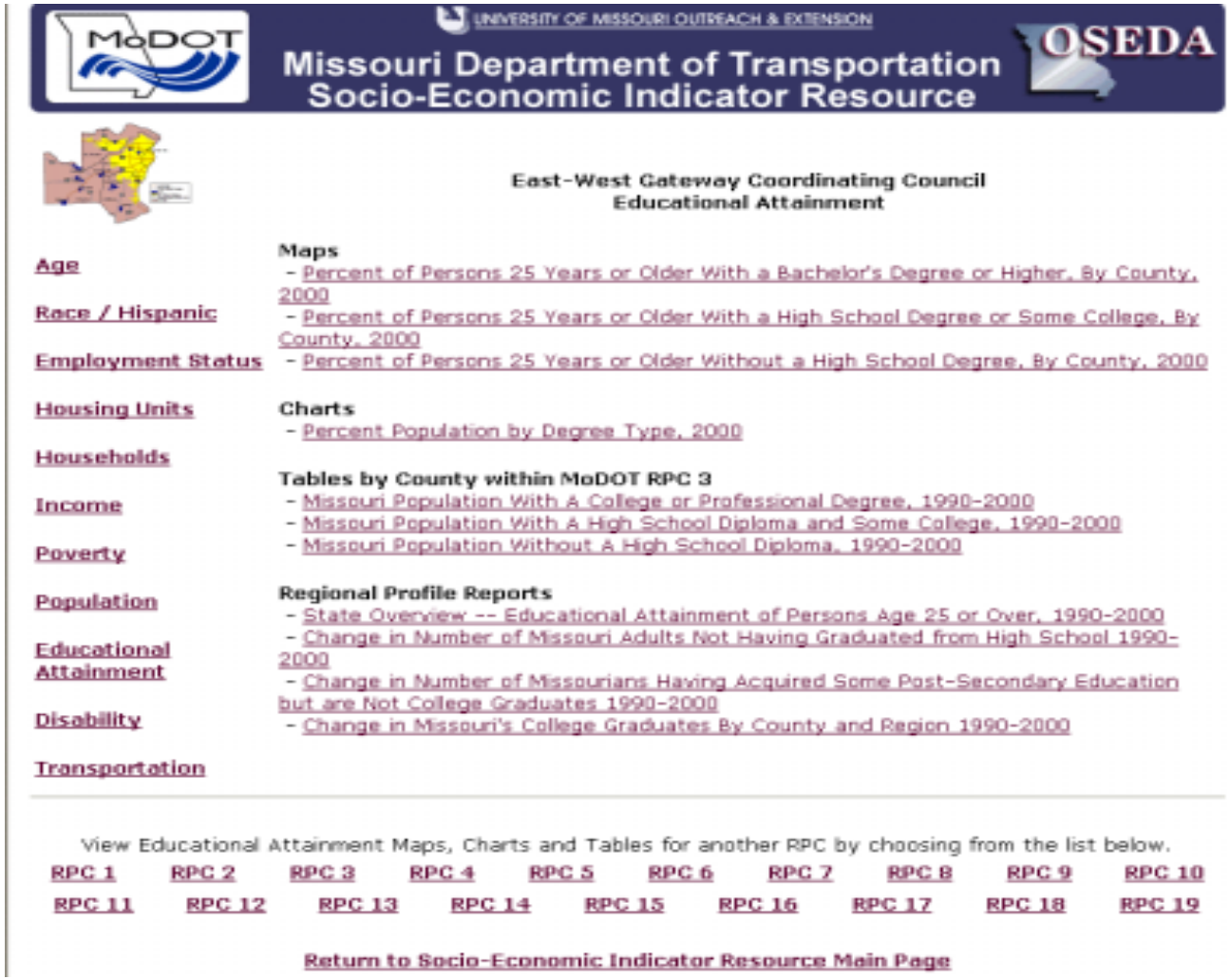
Maps
- Total Population, By County, 2000
- Change in Total Population, By County, 1990-2000
- Percent Change in Total Population, By County, 1990-2000
- Total Population Components of Change, By County, 1990-2000
Charts
- Percent Change in Population, 1990-2000
Tables by County within MoDOT RPC 3
- Missouri Population and Components of Change, 1990-2000
Regional Profile Reports
- Missouri Components of Population Change 1990-2000
- Open Country Population Growth 1990-2000 Exceeds Rate of Growth of Towns and Cities.
View Population Maps, Charts and Tables for another RPC by choosing from the list below.
RPC 1 RPC 2 RPC 3 RPC 4 RPC 5 RPC 6 RPC 7 RPC 8 RPC 9 RPC 10
RPC 11 RPC 12 RPC 13 RPC 14 RPC 15 RPC 16 RPC 17 RPC 18 RPC 19
Return to Socio-Economic Indicator Resource Main Page

Educational Attainment



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East-West Gateway Coordinating Council
Educational Attainment

Age
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Maps
- Percent of Persons 25 Years or Older With a Bachelor's Degree or Higher, By County, 2000
- Percent of Persons 25 Years or Older With a High School Degree or Some College, By County, 2000
- Percent of Persons 25 Years or Older Without a High School Degree, By County, 2000

Charts
- Percent Population by Degree Type, 2000

Tables by County within MoDOT RPC 3
- Missouri Population With A College or Professional Degree, 1990-2000
- Missouri Population With A High School Diploma and Some College, 1990-2000
- Missouri Population Without A High School Diploma, 1990-2000

Regional Profile Reports
- State Overview -- Educational Attainment of Persons Age 25 or Over, 1990-2000
- Change in Number of Missouri Adults Not Having Graduated from High School 1990-2000
- Change in Number of Missourians Having Acquired Some Post-Secondary Education but are Not College Graduates 1990-2000
- Change in Missouri's College Graduates By County and Region 1990-2000

View Educational Attainment Maps, Charts and Tables for another RPC by choosing from the list below.

RPC 1 RPC 2 RPC 3 RPC 4 RPC 5 RPC 6 RPC 7 RPC 8 RPC 9 RPC 10
RPC 11 RPC 12 RPC 13 RPC 14 RPC 15 RPC 16 RPC 17 RPC 18 RPC 19

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Disability

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Disability
Age
Race / Hispanic
Employment Status
Housing Units
Households
Income
Poverty
Population
Educational Attainment
Disability
Transportation
Maps
- Percent Disabled, By County, 2000
- Percent Work Disabled, By County, 2000
Charts
- Disabled Persons by Age, 2000
- Percent Employment by Disability Status, 2000
Tables by County within MoDOT RPC 3
- Disabled Missouri Population Age 5 Years and Older, 2000
- Missouri Persons Age 16 Years and Older With a Work Disability, 1990-2000
View Disability Maps, Charts and Tables for another RPC by choosing from the list below.
RPC 1 RPC 2 RPC 3 RPC 4 RPC 5 RPC 6 RPC 7 RPC 8 RPC 9 RPC 10
RPC 11 RPC 12 RPC 13 RPC 14 RPC 15 RPC 16 RPC 17 RPC 18 RPC 19
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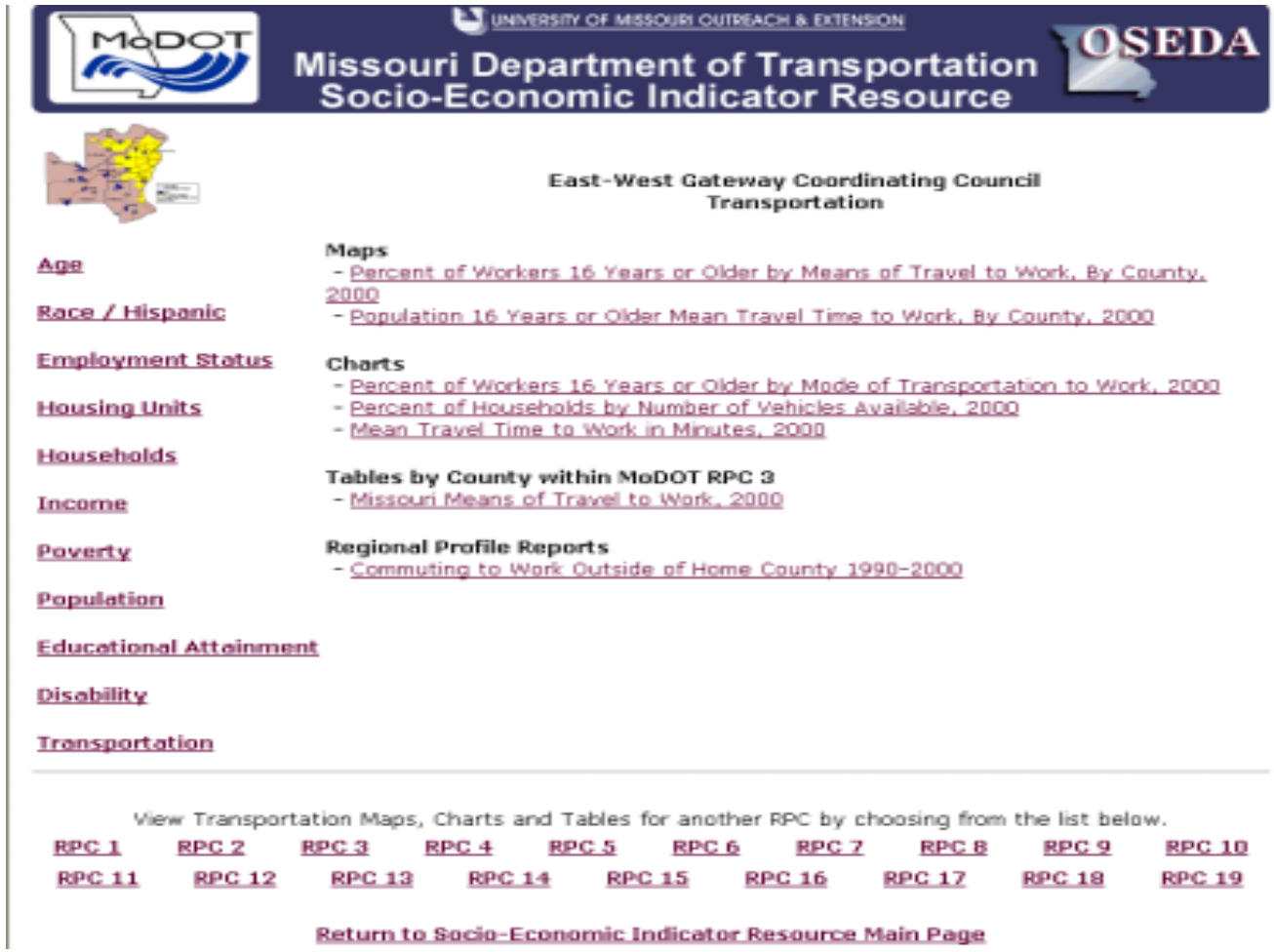
Transportation

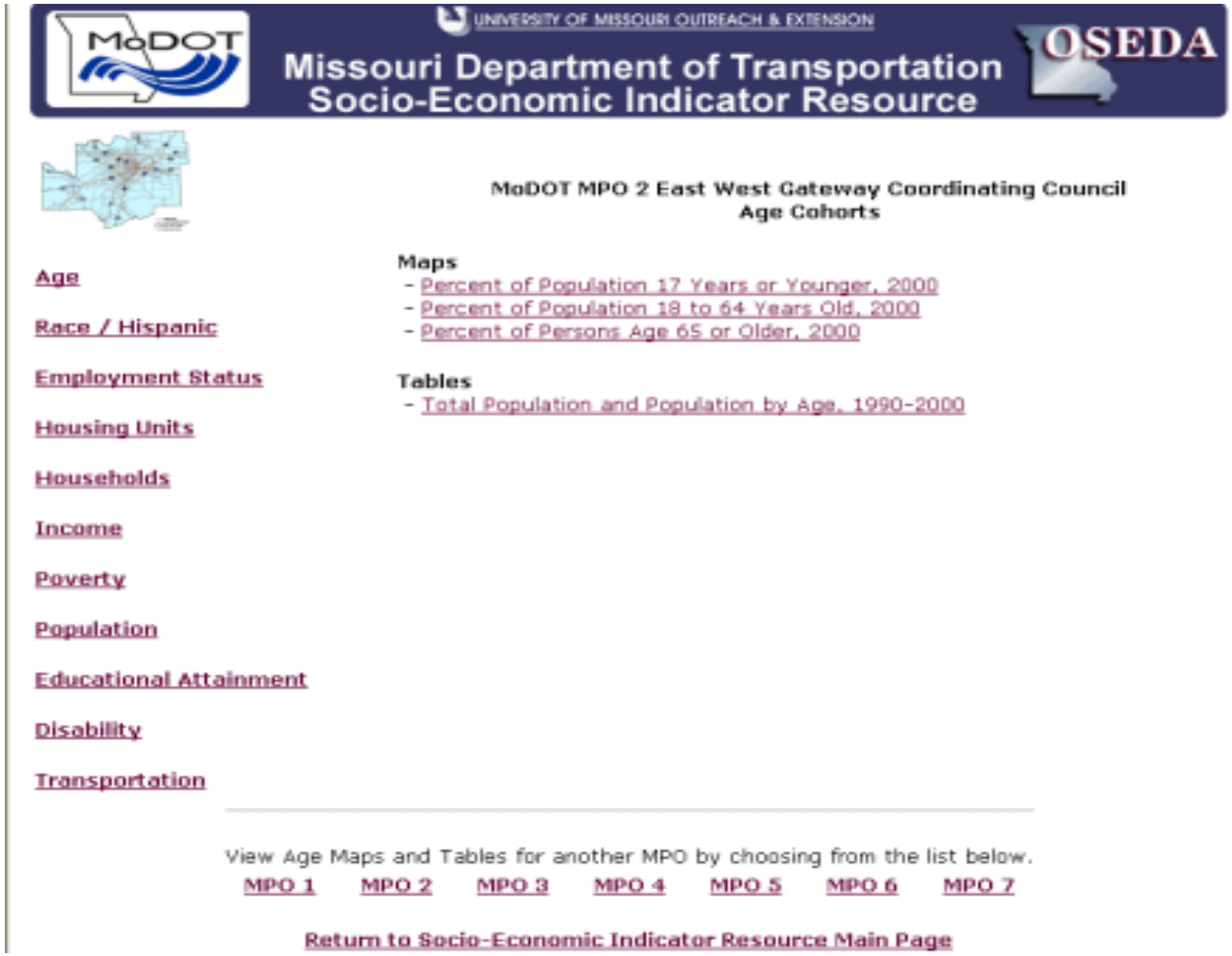


APPENDIX E – Metropolitan Planning Organization

This appendix illustrates the screen selections for the Metropolitan Planning Organizations.

Metropolitan Planning Organization

Age Cohorts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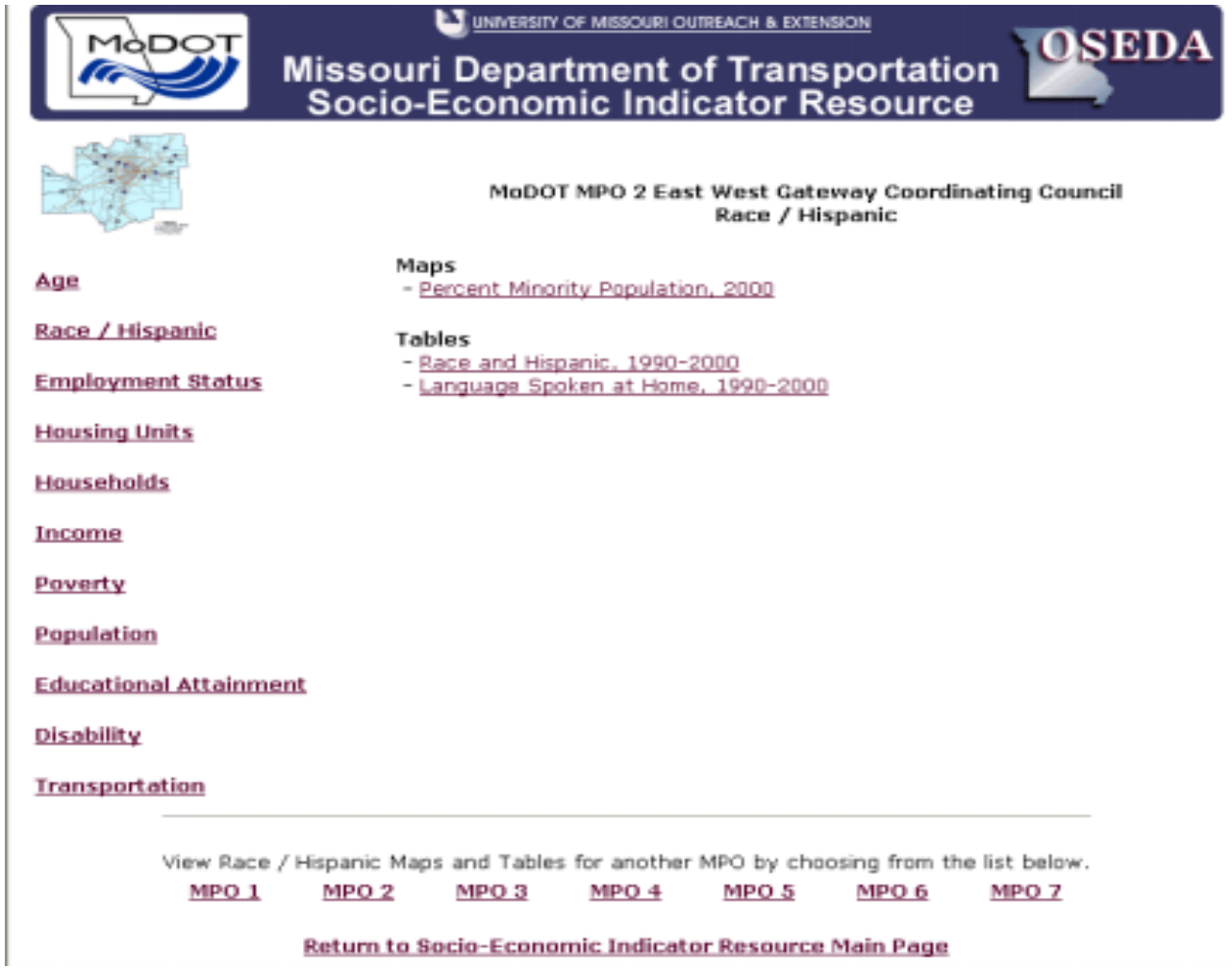
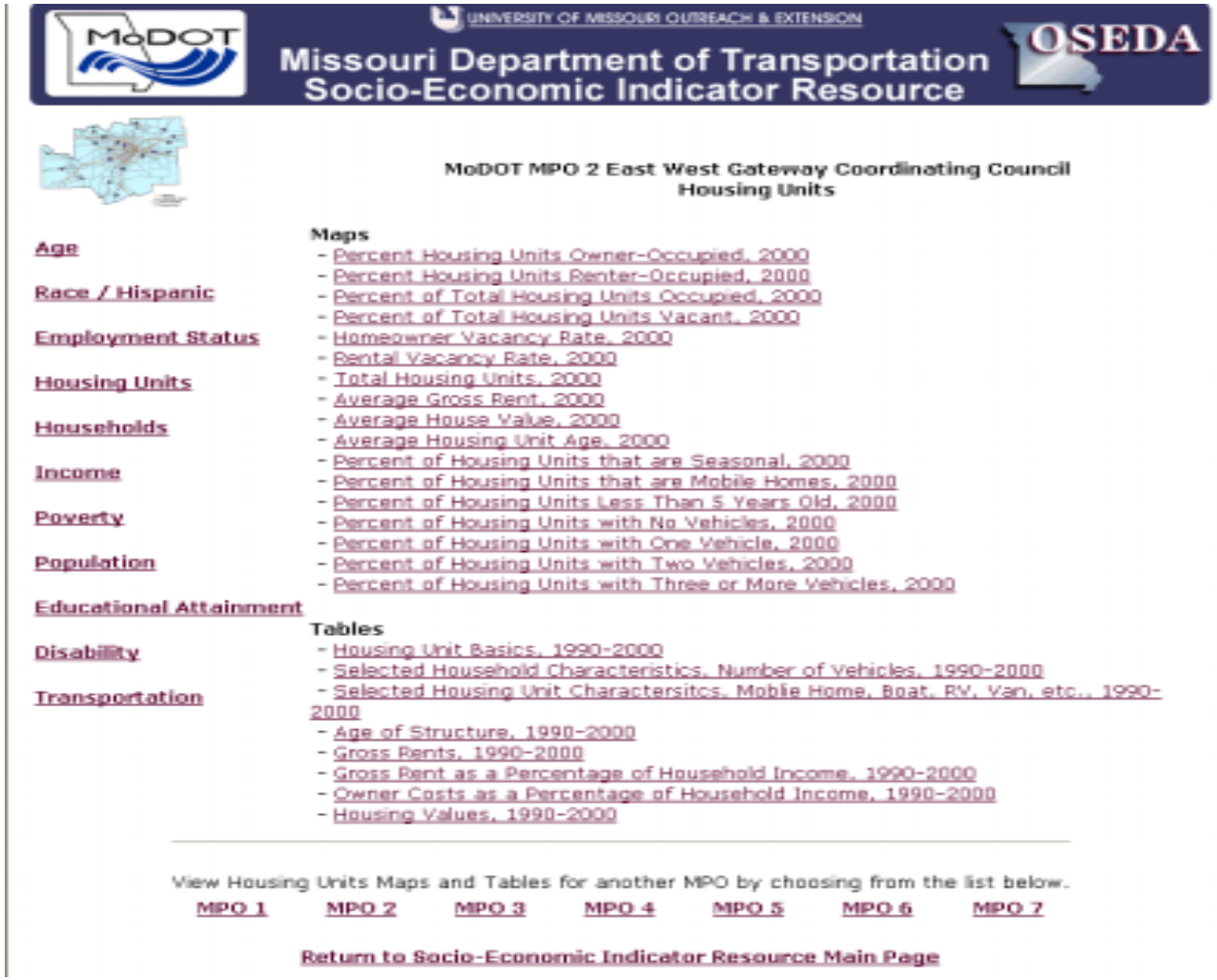
Socio-Economic Indicator Resource
OSEDA
MoDOT MPO 2 East West Gateway Coordinating Council
Age Cohorts
Maps
- Percent of Population 17 Years or Younger, 2000
- Percent of Population 18 to 64 Years Old, 2000
- Percent of Persons Age 65 or Older, 2000
Tables
- Total Population and Population by Age, 1990-2000
Age
Race / Hispanic
Employment Status
Housing Units
Households
Income
Poverty
Population
Educational Attainment
Disability
Transportation
View Age Maps and Tables for another MPO by choosing from the list below.
MPO 1 MPO 2 MPO 3 MPO 4 MPO 5 MPO 6 MPO 7
Return to Socio-Economic Indicator Resource Main Page

Race/ Hispanic



Employment Status

Housing Units



Households

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Missouri Department of Transportation
Socio-Economic Indicator Resource

OSEDA

MoDOT MPO 2 East West Gateway Coordinating Council
Households

- Age
- Race / Hispanic
- Employment Status
- Housing Units
- Households
- Income
- Poverty
- Population
- Educational Attainment
- Disability
- Transportation

Maps
- Average Family Size, 2000
- Average Household Size, 2000
- Total Household Population, 2000
- Percent Population Living in Group Quarters, 2000
- Institutional Group Quarters Population, 2000
- Noninstitutional Group Quarters Population, 2000

Tables
- Relationship of Persons in Households, 1990-2000
- Group Quarters, 1990-2000
- Lived in Same House 5 Years Earlier, 1990-2000

View Households Maps and Tables for another MPO by choosing from the list below.

MPO 1 MPO 2 MPO 3 MPO 4 MPO 5 MPO 6 MPO 7

Return to Socio-Economic Indicator Resource Main Page

Income

UNIVERSITY OF MISSOURI OUTREACH & EXTENSION

Missouri Department of Transportation Socio-Economic Indicator Resource

OSEDA

MoDOT MPO 2 East West Gateway Coordinating Council
Income

Age

Race / Hispanic

Employment Status

Housing Units

Households

Income

Poverty

Population

Educational Attainment

Disability

Transportation

Maps
- Per Capita Income, 2000
- Average Family Income, 2000
- Average Household Income, 2000
- Average Female Earnings, 2000
- Average Male Earnings, 2000

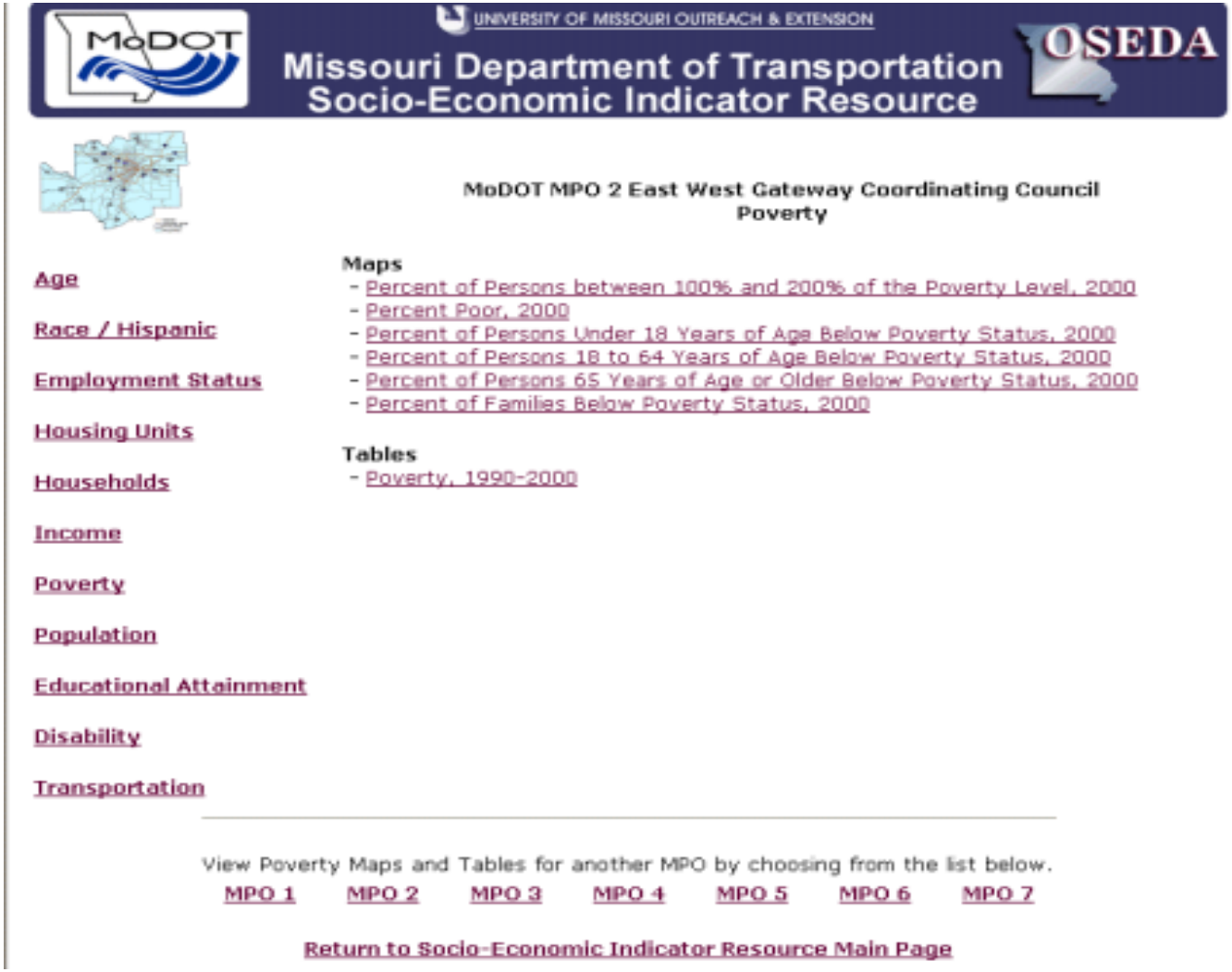
Tables
- Household Income, 1989-1999
- Other Income Measures, 1990-2000

View Income Maps and Tables for another MPO by choosing from the list below.

MPO 1 MPO 2 MPO 3 MPO 4 MPO 5 MPO 6 MPO 7

Return to Socio-Economic Indicator Resource Main Page

Poverty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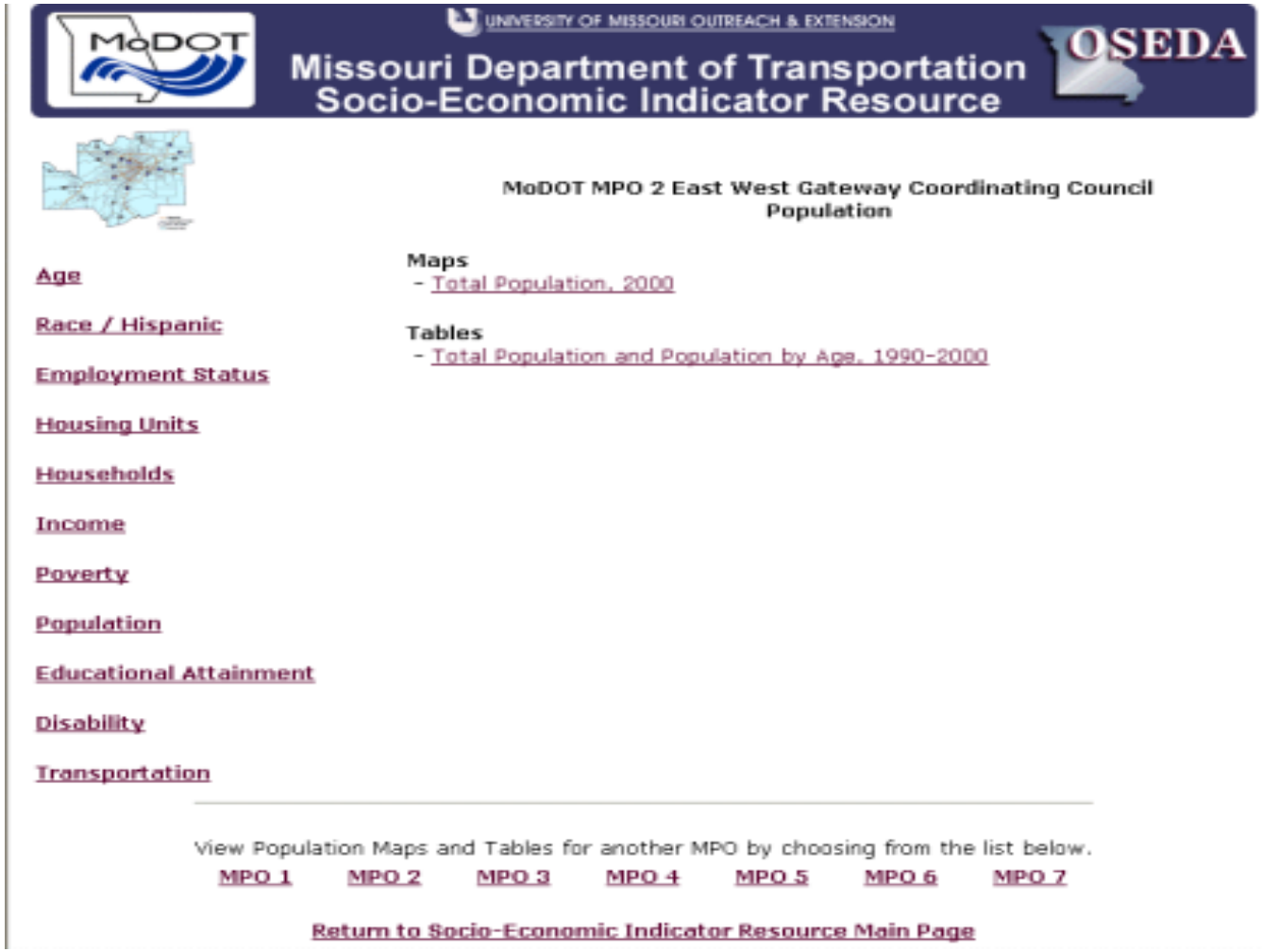
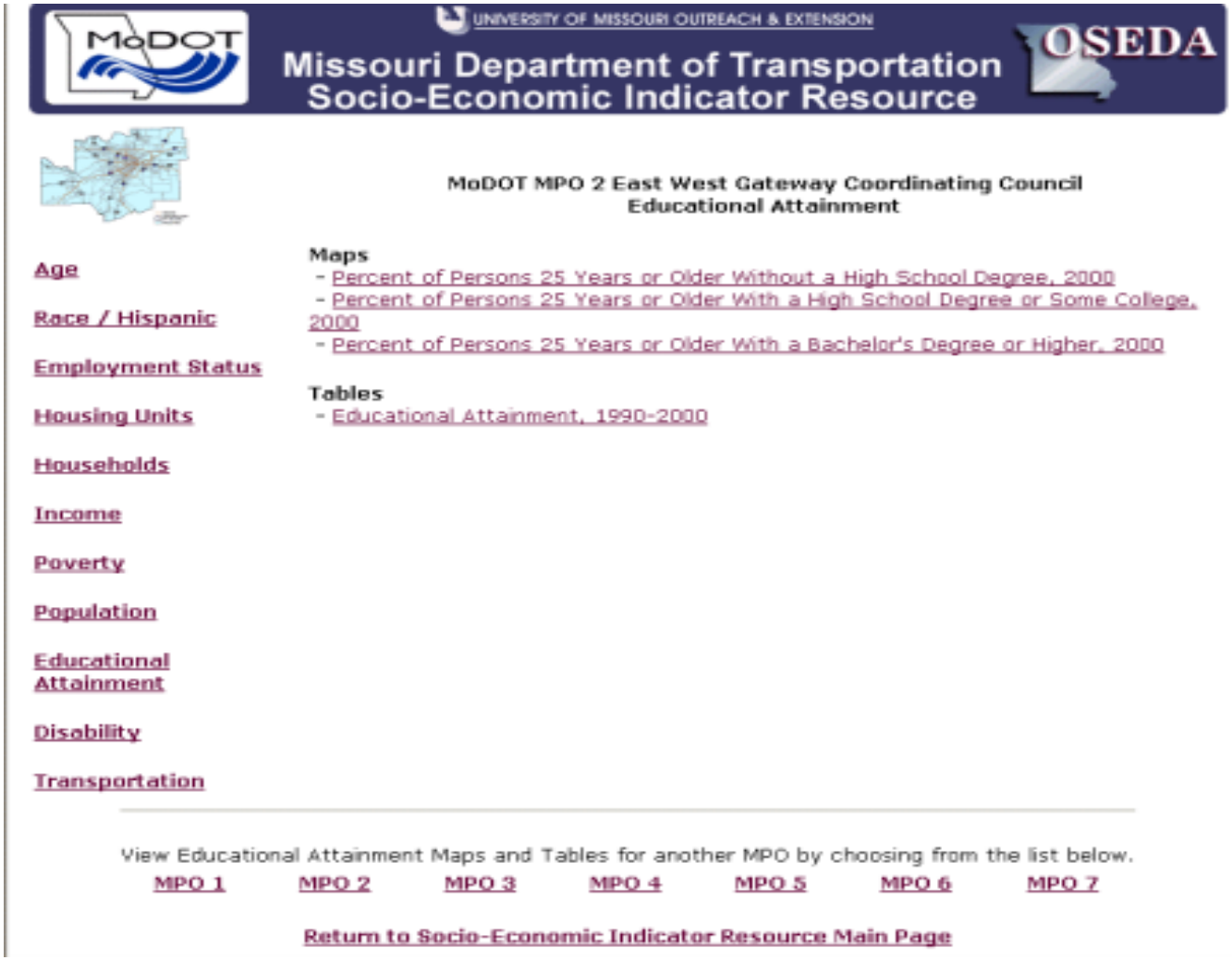
Missouri Department of Transportation
Socio-Economic Indicator Resource
OSEDA
MoDOT MPO 2 East West Gateway Coordinating Council
Poverty
Maps
- Percent of Persons between 100% and 200% of the Poverty Level, 2000
- Percent Poor, 2000
- Percent of Persons Under 18 Years of Age Below Poverty Status, 2000
- Percent of Persons 18 to 64 Years of Age Below Poverty Status, 2000
- Percent of Persons 65 Years of Age or Older Below Poverty Status, 2000
- Percent of Families Below Poverty Status, 2000
Tables
- Poverty, 1990-2000
Age
Race / Hispanic
Employment Status
Housing Units
Households
Income
Poverty
Population
Educational Attainment
Disability
Transportation
View Poverty Maps and Tables for another MPO by choosing from the list below.
MPO 1 MPO 2 MPO 3 MPO 4 MPO 5 MPO 6 MPO 7
Return to Socio-Economic Indicator Resource Main Page

Population


UNIVERSITY OF MISSOURI OUTREACH & EXTENSION
Missouri Department of Transportation
Socio-Economic Indicator Resource
OSEDA
MoDOT MPO 2 East West Gateway Coordinating Council
Population
Maps
- Total Population, 2000
Tables
- Total Population and Population by Age, 1990-2000
Age
Race / Hispanic
Employment Status
Housing Units
Households
Income
Poverty
Population
Educational Attainment
Disability
Transportation
View Population Maps and Tables for another MPO by choosing from the list below.
MPO 1
MPO 2
MPO 3
MPO 4
MPO 5
MPO 6
MPO 7
Return to Socio-Economic Indicator Resource Main Page

Educational Attainment

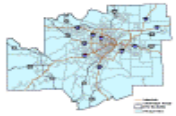


Disability

UNIVERSITY OF MISSOURI OUTREACH & EXTENSION

Missouri Department of Transportation
Socio-Economic Indicator Resource

OSEDA



MoDOT MPO 2 East West Gateway Coordinating Council
Disability

Age

Race / Hispanic

Employment Status

Housing Units

Households

Income

Poverty

Population

Educational Attainment

Disability

Transportation

Maps
- Percent Disabled, 2000
- Percent Work Disabled, 2000

Tables
- Disability, 1990-2000

View Disability Maps and Tables for another MPO by choosing from the list below.

MPO 1 MPO 2 MPO 3 MPO 4 MPO 5 MPO 6 MPO 7

Return to Socio-Economic Indicator Resource Main Page

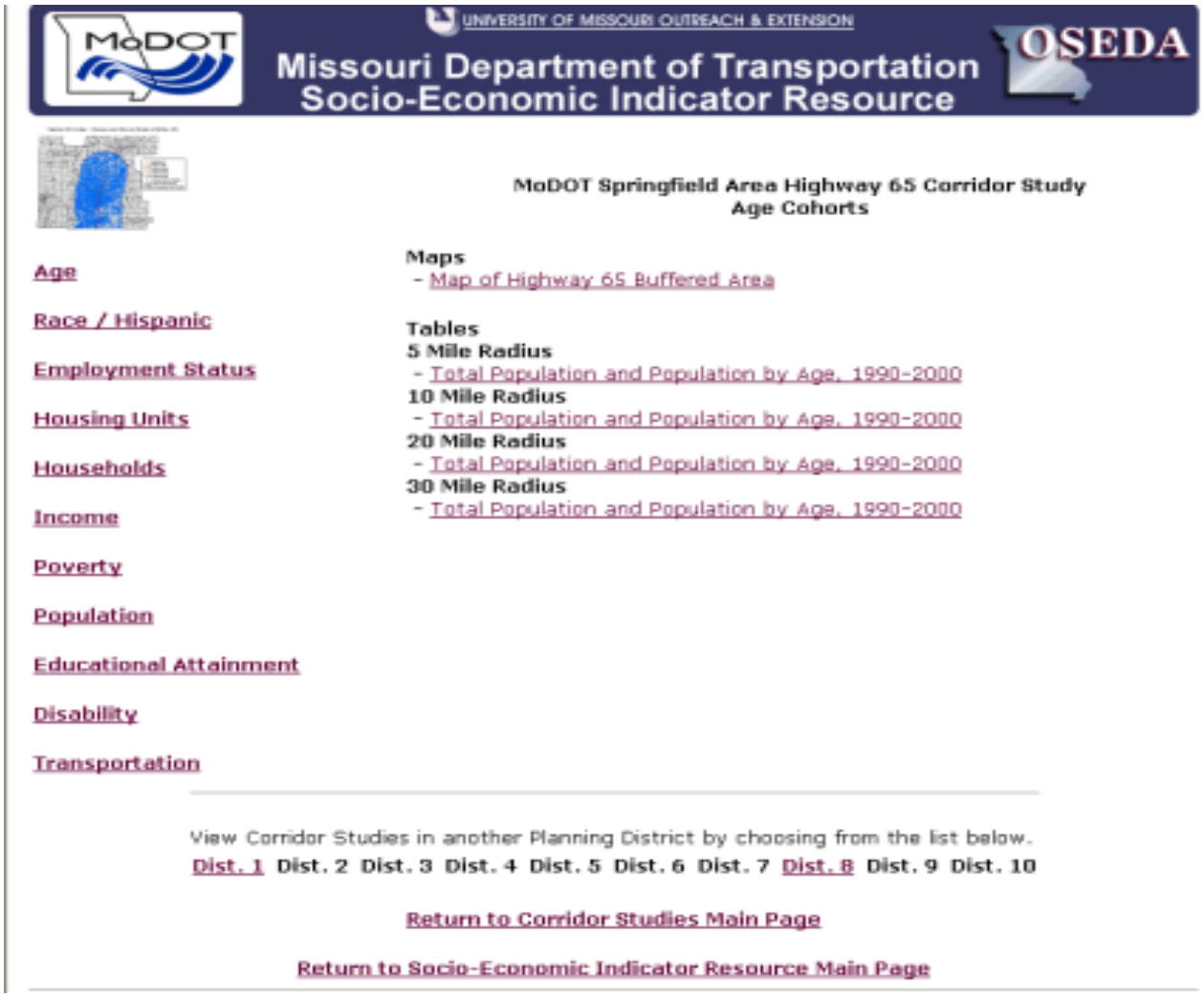
Transportation

APPENDIX F – Corridor Study

This appendix illustrates the screen selections for the Corridor Study.

Corridor Study

Age Cohorts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Missouri Department of Transportation
Socio-Economic Indicator Resource
OSEDA
MoDOT Springfield Area Highway 65 Corridor Study
Age Cohorts
Age
Race / Hispanic
Employment Status
Housing Units
Households
Income
Poverty
Population
Educational Attainment
Disability
Transportation
Maps
- Map of Highway 65 Buffered Area
Tables
5 Mile Radius
- Total Population and Population by Age, 1990-2000
10 Mile Radius
- Total Population and Population by Age, 1990-2000
20 Mile Radius
- Total Population and Population by Age, 1990-2000
30 Mile Radius
- Total Population and Population by Age, 1990-2000
View Corridor Studies in another Planning District by choosing from the list below.
Dist. 1 Dist. 2 Dist. 3 Dist. 4 Dist. 5 Dist. 6 Dist. 7 Dist. 8 Dist. 9 Dist. 10
Return to Corridor Studies Main Page
Return to Socio-Economic Indicator Resource Main Page

Race/ Hispanic

UNIVERSITY OF MISSOURI OUTREACH & EXTENSION

Missouri Department of Transportation
Socio-Economic Indicator Resource

OSEDA

MoDOT Springfield Area Highway 65 Corridor Study
Race / Hispanic

- Age
- Race / Hispanic
- Employment Status
- Housing Units
- Households
- Income
- Poverty
- Population
- Educational Attainment
- Disability
- Transportation

Maps
- Map of Highway 65 Buffered Area

Tables

5 Mile Radius
- Race and Hispanic, 1990-2000
- Language Spoken at Home, 1990-2000

10 Mile Radius
- Race and Hispanic, 1990-2000
- Language Spoken at Home, 1990-2000

20 Mile Radius
- Race and Hispanic, 1990-2000
- Language Spoken at Home, 1990-2000

30 Mile Radius
- Race and Hispanic, 1990-2000
- Language Spoken at Home, 1990-2000

View Corridor Studies in another Planning District by choosing from the list below.

Dist. 1 Dist. 2 Dist. 3 Dist. 4 Dist. 5 Dist. 6 Dist. 7 Dist. 8 Dist. 9 Dist. 10

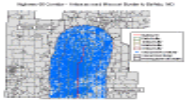
Return to Corridor Studies Main Page

Return to Socio-Economic Indicator Resource Main Page

Employment Status

UNIVERSITY OF MISSOURI OUTREACH & EXTENSION

Missouri Department of Transportation
Socio-Economic Indicator Resource



MoDOT Springfield Area Highway 65 Corridor Study
Employment Status

Age

Race / Hispanic

Employment Status

Housing Units

Households

Income

Poverty

Population

Educational Attainment

Disability

Transportation

Maps
- Map of Highway 65 Buffered Area

Tables

5 Mile Radius
- Employment Status, 1990-2000
- Work Force by Industry, 1990-2000
- Work Force by Occupation, 1990-2000
- Veteran and Armed Forces Status, 1990-2000
- Place of Work, 1990-2000

10 Mile Radius
- Employment Status, 1990-2000
- Work Force by Industry, 1990-2000
- Work Force by Occupation, 1990-2000
- Veteran and Armed Forces Status, 1990-2000
- Place of Work, 1990-2000

20 Mile Radius
- Employment Status, 1990-2000
- Work Force by Industry, 1990-2000
- Work Force by Occupation, 1990-2000
- Veteran and Armed Forces Status, 1990-2000
- Place of Work, 1990-2000

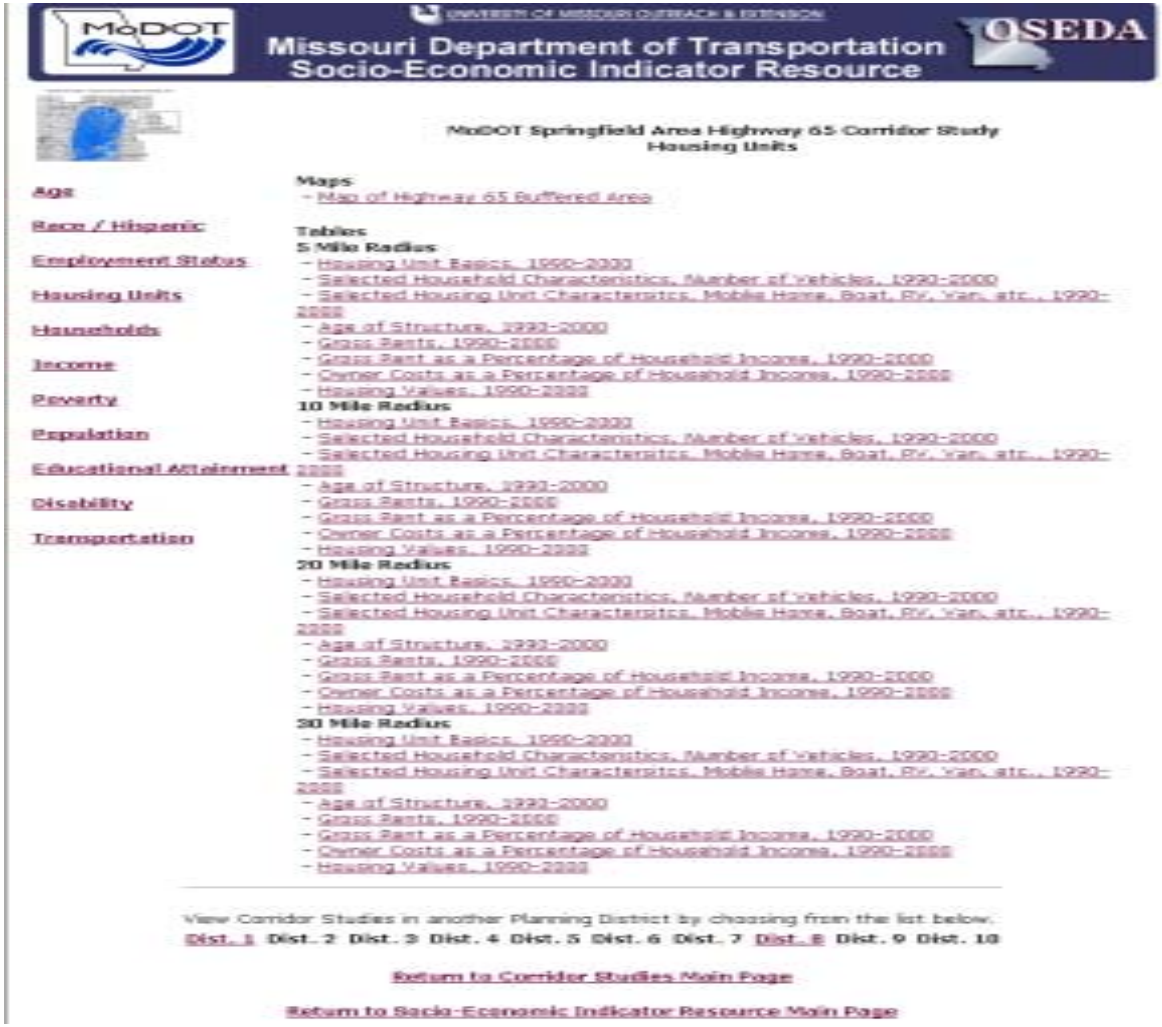
30 Mile Radius
- Employment Status, 1990-2000
- Work Force by Industry, 1990-2000
- Work Force by Occupation, 1990-2000
- Veteran and Armed Forces Status, 1990-2000
- Place of Work, 1990-2000

View Corridor Studies in another Planning District by choosing from the list below.
Dist. 1 Dist. 2 Dist. 3 Dist. 4 Dist. 5 Dist. 6 Dist. 7 Dist. 8 Dist. 9 Dist. 10

Return to Corridor Studies Main Page

Return to Socio-Economic Indicator Resource Main Page

Housing Units



Missouri Department of Transportation
Socio-Economic Indicator Resource

OSEDA

MoDOT Springfield Area Highway 65 Corridor Study
Housing Units

Age
Race / Hispanic
Employment Status
Housing Units
Households
Income
Poverty
Population
Educational Attainment
Disability
Transportation

Maps
- Map of Highway 65 Buffered Area

Tables
5 Mile Radius
- Housing Unit Basics, 1990-2000
- Selected Household Characteristics, Number of Vehicles, 1990-2000
- Selected Housing Unit Characteristics, Mobile Home, Boat, RV, Van, etc., 1990-2000
- Age of Structure, 1990-2000
- Gross Rents, 1990-2000
- Gross Rent as a Percentage of Household Income, 1990-2000
- Owner Costs as a Percentage of Household Income, 1990-2000
- Housing Values, 1990-2000

10 Mile Radius
- Housing Unit Basics, 1990-2000
- Selected Household Characteristics, Number of Vehicles, 1990-2000
- Selected Housing Unit Characteristics, Mobile Home, Boat, RV, Van, etc., 1990-2000
- Age of Structure, 1990-2000
- Gross Rents, 1990-2000
- Gross Rent as a Percentage of Household Income, 1990-2000
- Owner Costs as a Percentage of Household Income, 1990-2000
- Housing Values, 1990-2000

20 Mile Radius
- Housing Unit Basics, 1990-2000
- Selected Household Characteristics, Number of Vehicles, 1990-2000
- Selected Housing Unit Characteristics, Mobile Home, Boat, RV, Van, etc., 1990-2000
- Age of Structure, 1990-2000
- Gross Rents, 1990-2000
- Gross Rent as a Percentage of Household Income, 1990-2000
- Owner Costs as a Percentage of Household Income, 1990-2000
- Housing Values, 1990-2000

30 Mile Radius
- Housing Unit Basics, 1990-2000
- Selected Household Characteristics, Number of Vehicles, 1990-2000
- Selected Housing Unit Characteristics, Mobile Home, Boat, RV, Van, etc., 1990-2000
- Age of Structure, 1990-2000
- Gross Rents, 1990-2000
- Gross Rent as a Percentage of Household Income, 1990-2000
- Owner Costs as a Percentage of Household Income, 1990-2000
- Housing Values, 1990-2000

View Corridor Studies in another Planning District by choosing from the list below.
Dist. 1 Dist. 2 Dist. 3 Dist. 4 Dist. 5 Dist. 6 Dist. 7 Dist. 8 Dist. 9 Dist. 10

Return to Corridor Studies Main Page

Return to Socio-Economic Indicator Resource Main Page

Households

UNIVERSITY OF MISSOURI OUTREACH & EXTENSION
Missouri Department of Transportation
Socio-Economic Indicator Resource
OSEDA
MoDOT Springfield Area Highway 65 Corridor Study
Households
Age
Race / Hispanic
Employment Status
Housing Units
Households
Income
Poverty
Population
Educational Attainment
Disability
Transportation
Maps
- Map of Highway 65 Buffered Area
Tables
5 Mile Radius
- Relationship of Persons in Households, 1990-2000
- Group Quarters, 1990-2000
- Lived in Same House 5 Years Earlier, 1990-2000
10 Mile Radius
- Relationship of Persons in Households, 1990-2000
- Group Quarters, 1990-2000
- Lived in Same House 5 Years Earlier, 1990-2000
20 Mile Radius
- Relationship of Persons in Households, 1990-2000
- Group Quarters, 1990-2000
- Lived in Same House 5 Years Earlier, 1990-2000
30 Mile Radius
- Relationship of Persons in Households, 1990-2000
- Group Quarters, 1990-2000
- Lived in Same House 5 Years Earlier, 1990-2000
View Corridor Studies in another Planning District by choosing from the list below.
Dist. 1 Dist. 2 Dist. 3 Dist. 4 Dist. 5 Dist. 6 Dist. 7 Dist. 8 Dist. 9 Dist. 10
Return to Corridor Studies Main Page
Return to Socio-Economic Indicator Resource Main Page

Income

UNIVERSITY OF MISSOURI OUTREACH & EXTENSION

Missouri Department of Transportation
Socio-Economic Indicator Resource

OSEDA

MoDOT Springfield Area Highway 65 Corridor Study
Income

Age
Race / Hispanic
Employment Status
Housing Units
Households
Income
Poverty
Population
Educational Attainment
Disability
Transportation

Maps
- Map of Highway 65 Buffered Area

- Household Income, 1989-1999
- Other Income Measures, 1990-2000

Tables
5 Mile Radius
- Household Income, 1989-1999
- Other Income Measures, 1990-2000

10 Mile Radius
- Household Income, 1989-1999
- Other Income Measures, 1990-2000

20 Mile Radius
- Household Income, 1989-1999
- Other Income Measures, 1990-2000

30 Mile Radius
- Household Income, 1989-1999
- Other Income Measures, 1990-2000

View Corridor Studies in another Planning District by choosing from the list below.
Dist. 1 Dist. 2 Dist. 3 Dist. 4 Dist. 5 Dist. 6 Dist. 7 Dist. 8 Dist. 9 Dist. 10

Return to Corridor Studies Main Page

Return to Socio-Economic Indicator Resource Main Page

Poverty

UNIVERSITY OF MISSOURI OUTREACH & EXTENSION

Missouri Department of Transportation
Socio-Economic Indicator Resource

MoDOT Springfield Area Highway 65 Corridor Study
Poverty

Age
Race / Hispanic
Employment Status
Housing Units
Households
Income
Poverty
Population
Educational Attainment
Disability
Transportation

Maps
- Map of Highway 65 Buffered Area

Tables
5 Mile Radius
- Poverty, 1990-2000
10 Mile Radius
- Poverty, 1990-2000
20 Mile Radius
- Poverty, 1990-2000
30 Mile Radius
- Poverty, 1990-2000

View Corridor Studies in another Planning District by choosing from the list below.
Dist. 1 Dist. 2 Dist. 3 Dist. 4 Dist. 5 Dist. 6 Dist. 7 Dist. 8 Dist. 9 Dist. 10

Return to Corridor Studies Main Page

Return to Socio-Economic Indicator Resource Main Page

Population

UNIVERSITY OF MISSOURI OUTREACH & EXTENSION

Missouri Department of Transportation
Socio-Economic Indicator Resource

OSEDA

MoDOT Springfield Area Highway 65 Corridor Study
Population

Age

Race / Hispanic

Employment Status

Housing Units

Households

Income

Poverty

Population

Educational Attainment

Disability

Transportation

Maps
- Map of Highway 65 Buffered Area

Tables
5 Mile Radius
- Total Population and Population by Age, 1990-2000

10 Mile Radius
- Total Population and Population by Age, 1990-2000

20 Mile Radius
- Total Population and Population by Age, 1990-2000

30 Mile Radius
- Total Population and Population by Age, 1990-2000

View Corridor Studies in another Planning District by choosing from the list below.

Dist. 1 Dist. 2 Dist. 3 Dist. 4 Dist. 5 Dist. 6 Dist. 7 Dist. 8 Dist. 9 Dist. 10

Return to Corridor Studies Main Page

Return to Socio-Economic Indicator Resource Main Page

Educational Attainment

UNIVERSITY OF MISSOURI OUTREACH & EXTENSION

Missouri Department of Transportation
Socio-Economic Indicator Resource

OSEDA

MoDOT Springfield Area Highway 65 Corridor Study
Educational Attainment

Age

Race / Hispanic

Employment Status

Housing Units

Households

Income

Poverty

Population

Educational Attainment

Disability

Transportation

Maps
- Map of Highway 65 Buffered Area

- Educational Attainment, 1990-2000

Tables
5 Mile Radius
- Educational Attainment, 1990-2000
10 Mile Radius
- Educational Attainment, 1990-2000
20 Mile Radius
- Educational Attainment, 1990-2000
30 Mile Radius
- Educational Attainment, 1990-2000

View Corridor Studies in another Planning District by choosing from the list below.
Dist. 1 Dist. 2 Dist. 3 Dist. 4 Dist. 5 Dist. 6 Dist. 7 Dist. 8 Dist. 9 Dist. 10

Return to Corridor Studies Main Page

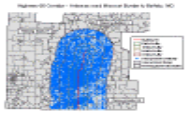
Return to Socio-Economic Indicator Resource Main Page

Disability

UNIVERSITY OF MISSOURI OUTREACH & EXTENSION

Missouri Department of Transportation
Socio-Economic Indicator Resource

OSEDA



MoDOT Springfield Area Highway 65 Corridor Study
Disability

Age

Race / Hispanic

Employment Status

Housing Units

Households

Income

Poverty

Population

Educational Attainment

Disability

Transportation

Maps
- Map of Highway 65 Buffered Area

Tables
5 Mile Radius
- Disability, 1990-2000

10 Mile Radius
- Disability, 1990-2000

20 Mile Radius
- Disability, 1990-2000

30 Mile Radius
- Disability, 1990-2000

View Corridor Studies in another Planning District by choosing from the list below.
Dist. 1 Dist. 2 Dist. 3 Dist. 4 Dist. 5 Dist. 6 Dist. 7 Dist. 8 Dist. 9 Dist. 10

Return to Corridor Studies Main Page

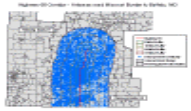
Return to Socio-Economic Indicator Resource Main Page

Transportation

UNIVERSITY OF MISSOURI OUTREACH & EXTENSION

Missouri Department of Transportation
Socio-Economic Indicator Resource

OSEDA



MoDOT Springfield Area Highway 65 Corridor Study
Transportation

Age

Race / Hispanic

Employment Status

Housing Units

Households

Income

Poverty

Population

Educational Attainment

Disability

Transportation

Maps
- Map of Highway 65 Buffered Area

Tables
5 Mile Radius
- Commuting, 1990-2000

10 Mile Radius
- Commuting, 1990-2000

20 Mile Radius
- Commuting, 1990-2000

30 Mile Radius
- Commuting, 1990-2000

View Corridor Studies in another Planning District by choosing from the list below.

Dist. 1 Dist. 2 Dist. 3 Dist. 4 Dist. 5 Dist. 6 Dist. 7 Dist. 8 Dist. 9 Dist. 10

Return to Corridor Studies Main Page

Return to Socio-Economic Indicator Resource Main Page

APPENDIX G – Understanding the US Census PowerPoint Presentation

This appendix contains the PowerPoint handout that was distributed during the first session of the Training Session

MoDOT Socio-Economic Indicator Resource

Understanding the U.S. Census

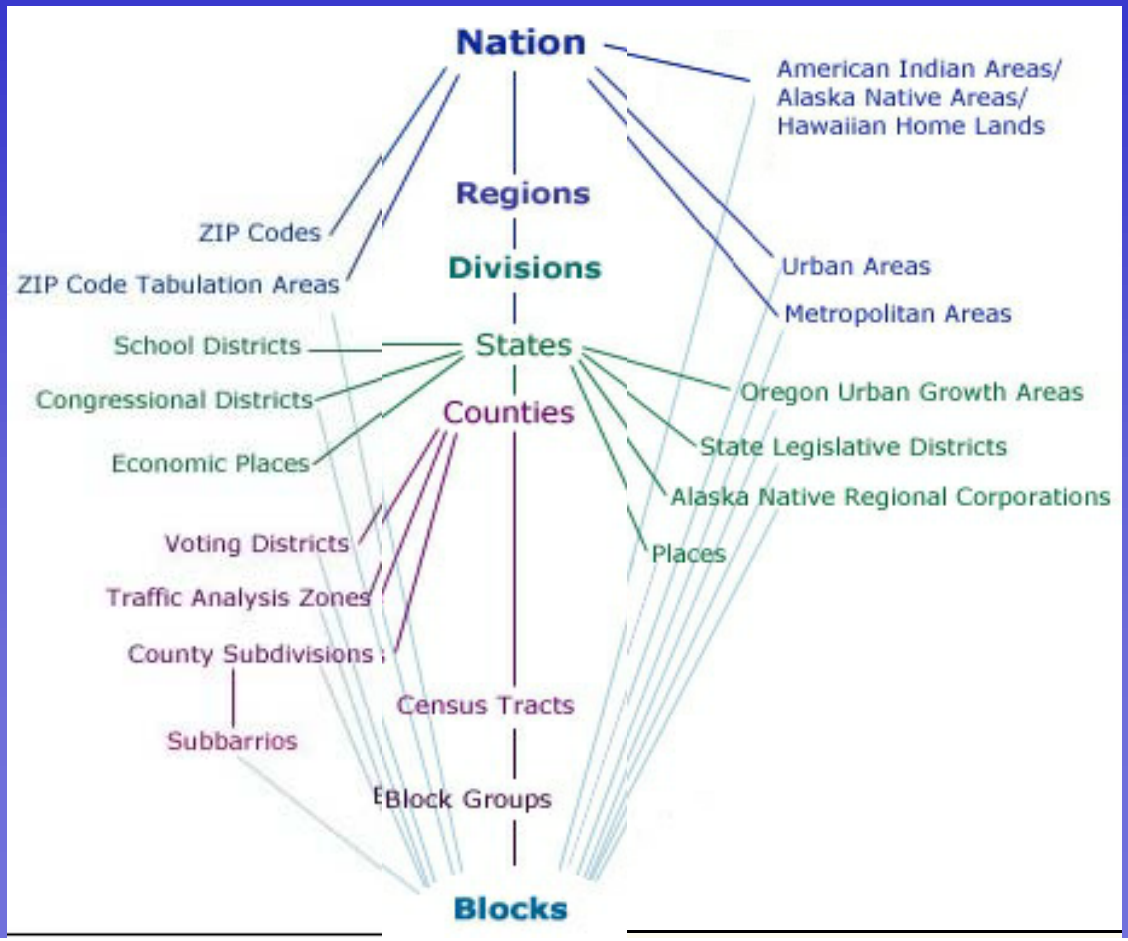
Jefferson City
February 10, 2003

oseda.missouri.edu/modot

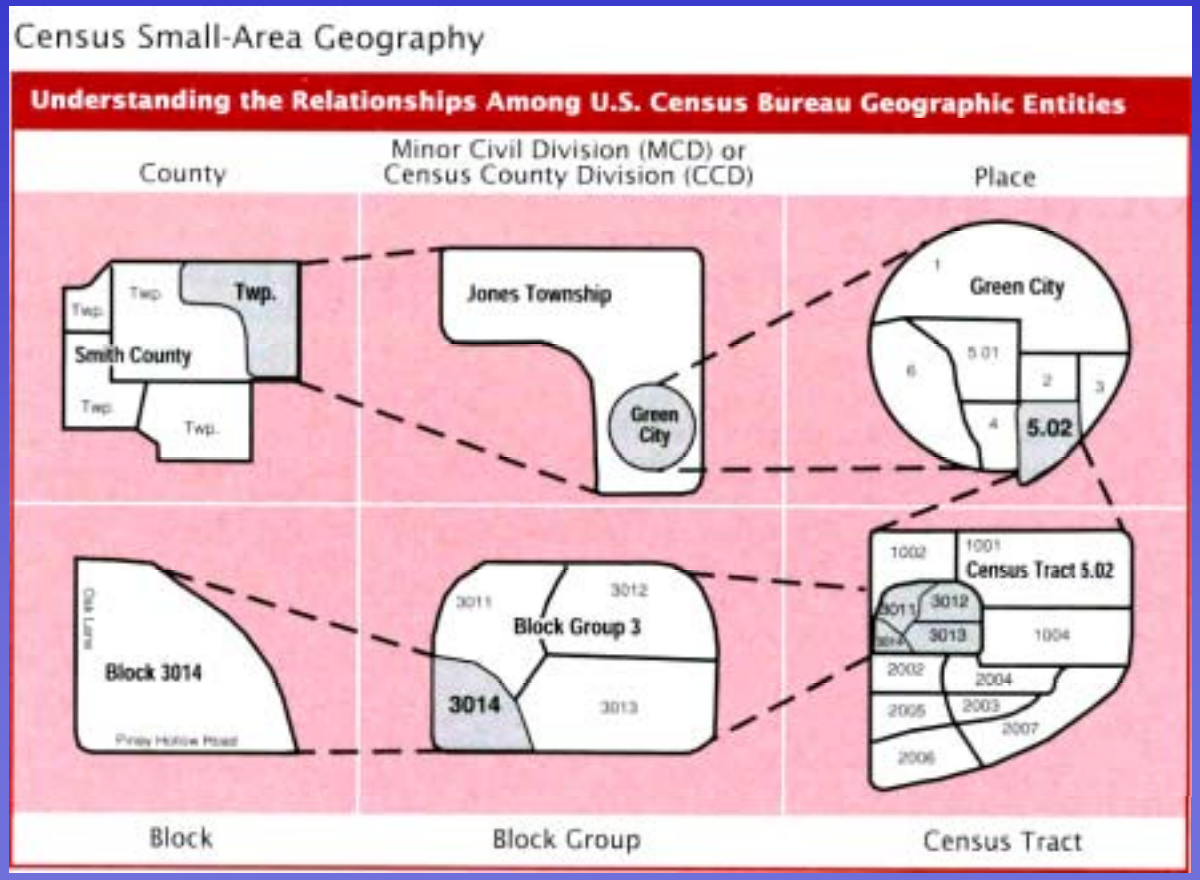
Office of Social & Economic Data Analysis

USCENSUSBUREAU

Geographic Hierarchy



Small-Area Geography Overview

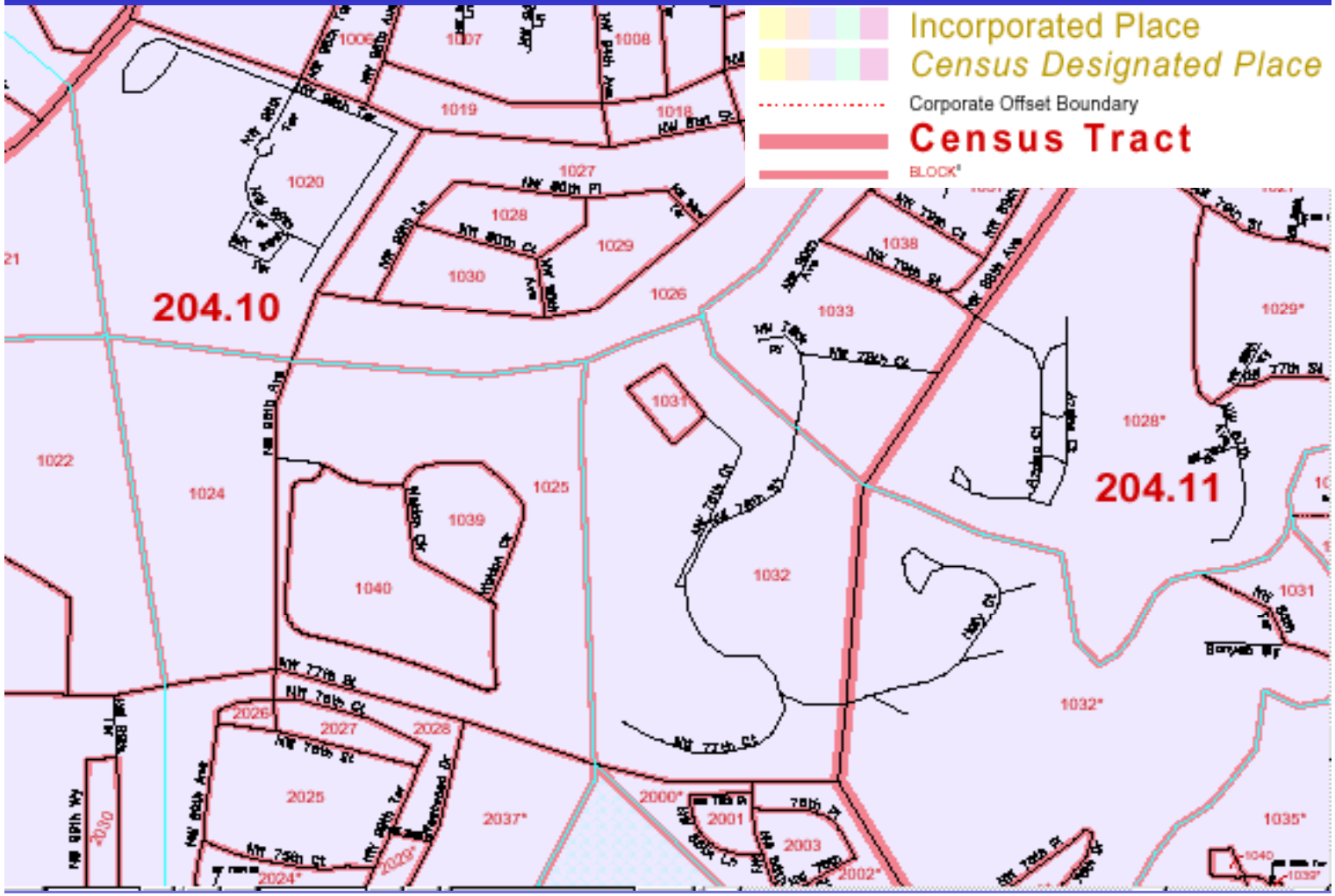


U.S. CENSUS BUREAU

Blocks

- Smallest units of data tabulation
- Cover the entire nation
- Do not cross census tracts or counties
- Generally bounded by visible features and legal boundaries
- Block numbers completely different from 1990
- Size: average about 100 people

Census Block Map



Block Groups

- Groups of blocks sharing the same first digit
- Smallest areas for which sample data available
- Size: optimally 1,500 people, range between 300 to 3,000

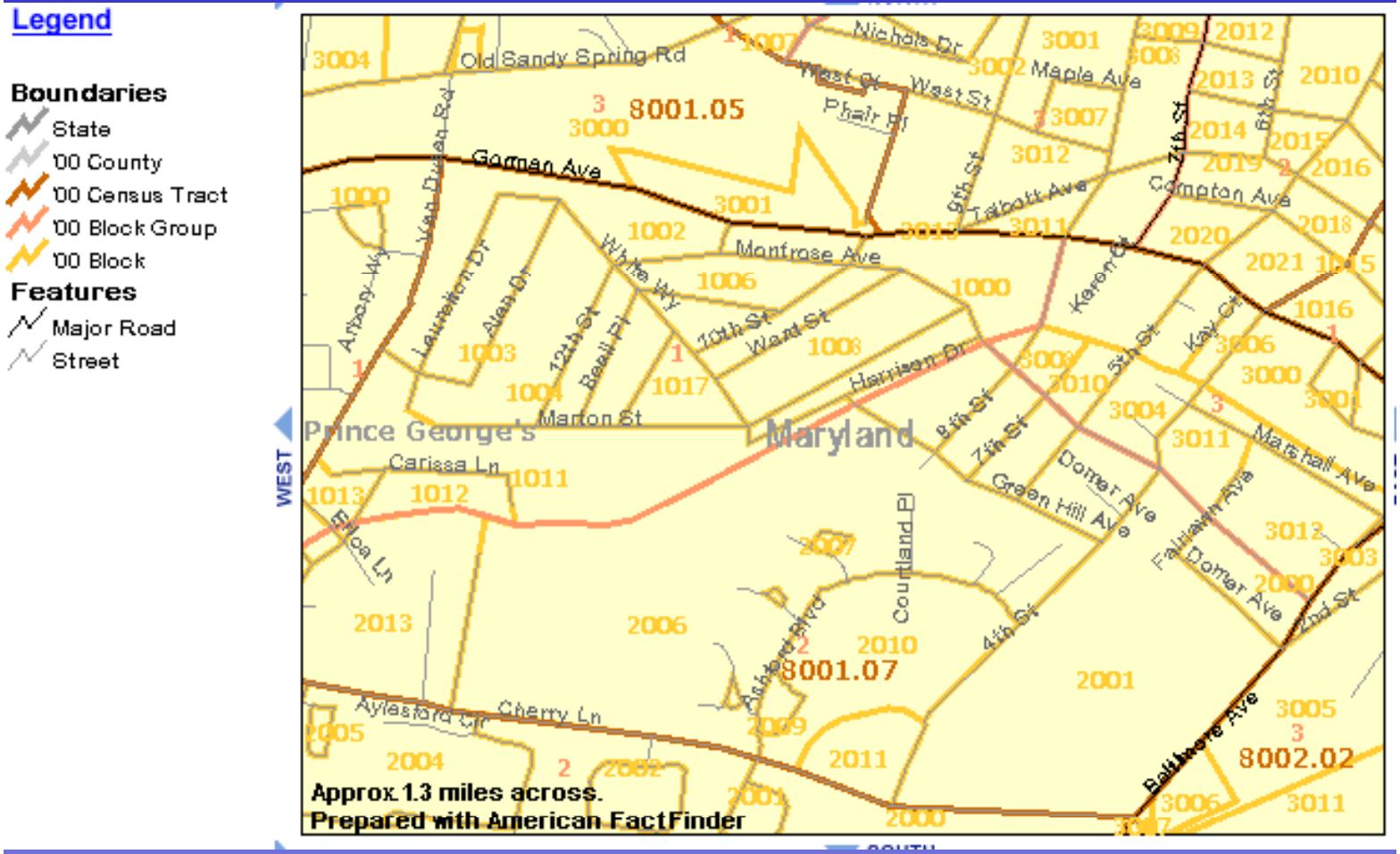
USCENSUSBUREAU

Census Tracts

- For the first time for Census 2000: Cover the nation
- Relatively homogenous population characteristics
- 65,000 Census tracts across U.S.
- Size: optimally 4,000 people, range between 1,000 and 8,000

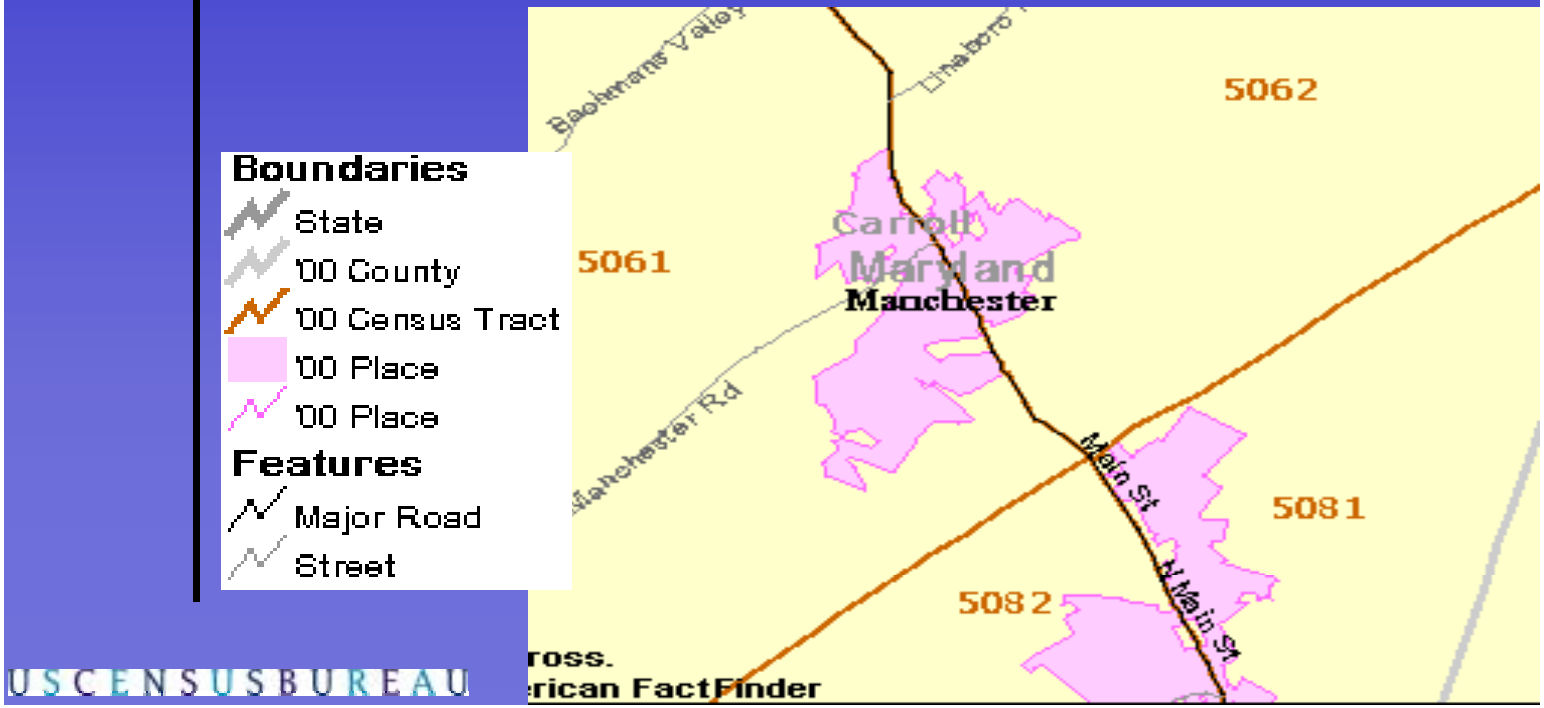
USCENSUSBUREAU

Block Groups and Census Tracts



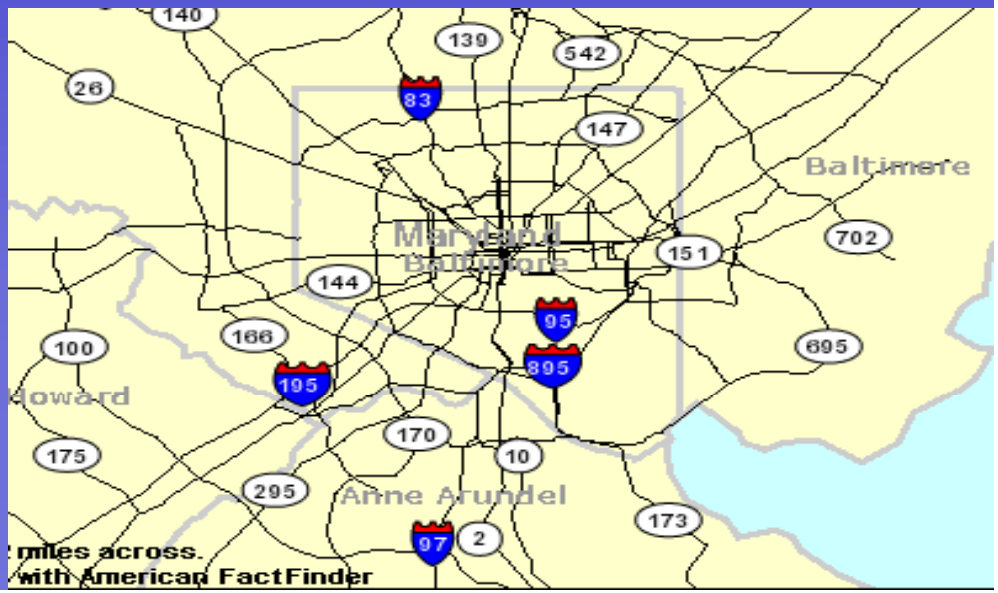
Places

- Incorporated Places
- Census Designated Places



Counties

- Counties in 48 States
- Independent Cities in 4 States
- Parishes in Louisiana
- Cities and Boroughs in Alaska



USCENSUSBUREAU

Census 2000
Short Form and Long Form

Short form

Long form

USCENSUSBUREAU

The Census Questionnaire

- 100% data or short form
  - 7 questions
- Sample data or long form
  - 34 topics

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Census 2000 Short Form Questionnaire

7 Questions

- Name
- Sex
- Age
- Relationship
- Hispanic Origin
- Race
- Owner/Renter Status

USCENSUSBUREAU

Hierarchy - Summary File 1: State File Summary Levels

- State
  - County
    - Place (or place part)
      - Census tract
        - Block group
          - Block

State portion of American Indian and Alaska Native Area (with trust lands and with no trust lands) and Hawaiian home land

Race and Ethnic Detail
Block Level

- Total population
- White
- Black or African American
- American Indian and Alaska Native
- Asian
- Native Hawaiian and Other Pacific Islander
- Some other race
- Two or more races
- Hispanic or Latino
- White, not Hispanic or Latino

USCENSUSBUREAU

Examples of SF1 Tabulations

Housing Tabulations

Housing Units

Occupancy Status

Owner-/Renter-Occupied

Tenure by Race, by Hispanic or Latino

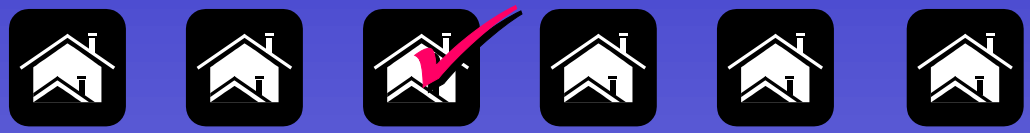
USCENSUSBUREAU

Group Quarters Population

- Institutionalized populations
  - Correctional institutions
  - Nursing homes
  - Other institutions
- Noninstitutionalized populations
  - College dormitories
  - Military quarters
  - Other noninstitutional group quarters

USCENSUSBUREAU

Census 2000
Sampling Pattern



For the U.S. as a whole, about one in six households received the long-form questionnaire.

USCENSUSBUREAU

Census 2000 Long Form Questionnaire

34 Subjects

- Social Characteristics
- Economic Characteristics
- Housing Characteristics

U S C E N S U S B U R E A U

Summary File 3: What's In It?

- Data tabulated from Census 2000 Long Form (Sample data)
- Data on ancestry, income, education, housing units, etc.
- Selected population and housing characteristics down to the block group or census tract level

U S C E N S U S B U R E A U

Population Subjects Summarized to Block Group

- Basic Population
- Disability
- Employment Status
- Households & Families
- Income
- Occupation
- Commuting
- Language Spoken
- Marital Status
- Migration
- Birthplace, Year of Entry, Citizenship
- Place of Work
- Poverty
- School Enrollment & Educ. Attainment
- Veteran Status

USCENSUSBUREAU

Population Subjects Summarized to Block Group

Iterated by Race/Hispanic

- Basic Population Totals
- Employment Status
- Households and Families
- Income
  - (Family, Household, Individual)
- Poverty Status
- School Enrollment & Educational Attainment

USCENSUSBUREAU

Population Subjects Summarized to Census Tract

- Ancestry
- Disability
- Employment Status
- Grandparents as Caregivers
- Households and Families
- Income (Family, Nonfamily, Indiv)
- Language Spoken
- Marital Status
- Migration
- Birthplace, Year of Entry, Citizenship
- Poverty Status
- School Enrollment and Educational Attainment

USCENSUSBUREAU

Census 2000 Long Form Questionnaire

34 Subjects

- Social Characteristics
- Economic Characteristics
- Housing Characteristics

USCENSUSBUREAU

Summary File 3: What's In It?

- Data tabulated from Census 2000 Long Form (Sample data)
- Data on ancestry, income, education, housing units, etc.
- Selected population and housing characteristics down to the block group or census tract level

USCENSUSBUREAU

Disability

Revised Question

- Vision or hearing impairment
- Mobility limitation
- Condition that limits:
  - Learning or remembering
  - Getting around house
  - Getting around outside
  - Working

Tables: P41-P42; PCT26-PCT34

USCENSUSBUREAU

Employment Status

- At work
- Laid off or absent
- Looking for work

**Tables: P43-P48; P150(A-I)
PCT35; PCT69(A-I)-
PCT71(A-I)**

USCENSUSBUREAU

Income

8 Sources

- Wages and salary
- Self employment
- Interest, dividends and rental income
- Social security and railroad retirement
- Supplemental security income
- Public assistance or welfare
- Retirement, survivor or disability pension
- Child support, alimony, unemployment, etc.

Total Income

Income

Tabulation Groupings

- Family and Nonfamily
  - Tables: P76-P81; P154(A-I)-P156(A-I); PCT36-PCT43
- Household
  - Tables: P52-P75; P151(A-I)-P153(A-I); PCT72(A-I)
- Individual
  - Tables: P82-P86; P157(A-I)-P158(A-I); PCT44-PCT48; PCT73(A-I)-PCT74(A-I)

Income: Poverty

- Poverty status derived from answers to income questions

Tabulation Groupings

- Family and Nonfamily
  - Tables: P90-P91; P154(A-I)-P156(A-I); PCT36-PCT43
- Household
  - Tables: P92-P93; P151(A-I)-P153(A-I); PCT72(A-I)
- Individuals
  - Tables: P87-89; P157(A-I)-P158(A-I); PCT44-PCT48; PCT73(A-I)-PCT74(A-I)

Occupation, Industry and Class of Worker

- Kind of Business or Industry
- Occupation
- Year last worked
- Class of worker:
  - Private for profit, Private not-for profit,
  - Local, state or federal government employee
  - Self employed: incorporated/not incorporated
  - Working without pay

Tables: P49-P51

USCENSUSBUREAU

Place of Work & Journey to Work

- Location of work last week
- Mode of transportation to work
- Vehicle occupancy, if car truck or van
- Time left for work
- Travel time to work

Tables: P26-P35; PCT65(A-I)

USCENSUSBUREAU

School Enrollment and Educational Attainment

- Enrollment: public or private school
- Grade or level attending
- Highest degree or level of school completed

Tables: P36-P38; P147(A-I)–P149(A-I); PCT23-PCT25

Housing Subjects

- Units in Structure
- Year Built
- Rooms
- Year Householder Moved In
- Rent/Value
- House Heating Fuel
- Vehicles Available
- Mortgage Status and Monthly Costs
- Plumbing and Kitchen Facilities
- Telephone Service
- Occupants Per Room

USCENSUSBUREAU

Tenure and Vacancy Status

- Owner/Renter status
- Occupied/ Vacant units
- Many housing tables cross-tabulated by tenure

Units in Structure

Type of housing unit (detached house, townhouse, apartment, mobile home, etc.)

Tables: H30-H33, H72, H79; HCT3, HCT4, HCT6, HCT8, HCT14, HCT30(A-I)

Housing Value or Monthly Rent

- Value: How much do you think this house and lot, apartment , or mobile home and lot would sell for?
  - Tables: H74-H79, H81-H89; HCT17, HCT41(A-I)-HCT43(A-I)
- Rent: What is the monthly rent? Also asks if rent includes meals.
  - Tables: H53-H73; HCT18, HCT36(A-I)-HCT40(A-I)

Vehicles Available

- Any vehicles under one-ton capacity for use by members of household

Tables: H44-H46; HCT33(A-I)

VEHICLES AVAILABLE		
None	10,861,067	10.3
1	36,123,613	34.2
2	40,461,920	38.4
3 or more	18,033,501	17.1

USCENSUSBUREAU

Mortgage Status and Selected Monthly Owner Costs

Cost of

- Utilities
- First and second mortgage
- Taxes insurance
- Fuel costs

Tables: H80, H83, H90-H98; HCT13, HCT44(A-I)-HCT48(A-I)

U.S. CENSUS BUREAU

APPENDIX H – Using the Website PowerPoint Presentation

This appendix contains the PowerPoint handout that was distributed during the second session of the Training Session.

MoDOT Socio-Economic Indicator Resource

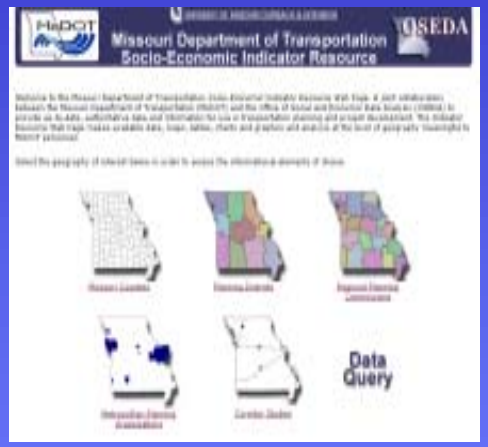
Using the Website

Jefferson City
February 10, 2003

oseda.missouri.edu/modot

presented by:
Office of Social & Economic Data Analysis

MoDOT Socio-Economic Indicator Resource



Geographies

Counties | Districts | RPCs | MPOs | Corridors

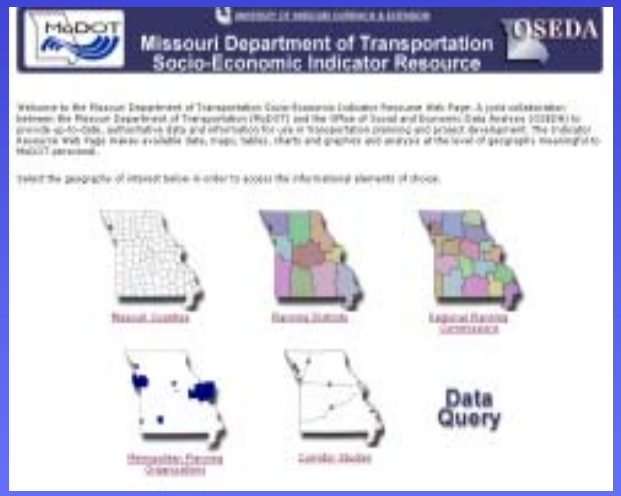
US Census
MO Agencies
Special Reports

Population
Age
Race/Hispanic
Employment Status
Housing Units
Households
Income
Poverty
Educational Attainment
Disability
Transportation

Requested Data

Data Query

Layer 1: Home Page



The entry page allows the user one of six navigational options:

Geographies
- Counties
- Regional Districts
- RPCs
- MPOs
- Corridor Studies

Downloadable Data Sets
- MoDOT database

Layer 2: Missouri Counties Page

County level data are available through the MCDC/OSEDA County Data page.

To access 2000 US census data organized by standard census tables, and special reports click on selected county.

Layer 3: County Report Menu

For each Missouri county links are provided in a number of formats to the following data sources:

Federal Sources

- US Census tables
  - DP1-4
  - SF1, SF3 (2000,1990)
- Census of Agriculture
- County Business Patterns
- Bureau of Econ. Analysis

State Sources

- MICA
- Kidscount
- DESE
- DED

Layer 2: MoDOT Regional District Page

District and sub-district level US Census data are available as tables, maps, and graphics.

To view information, click on selected region.

Layer 3: Regional Indicators

Indicators are organized by the following categories:

- Analysis
- Age
- Race/Hispanic
- Employment Status
- Housing Units
- Households
- Income
- Poverty
- Population
- Educational Attainment
- Disability
- Transportation

Layer 4: Regional Indicators

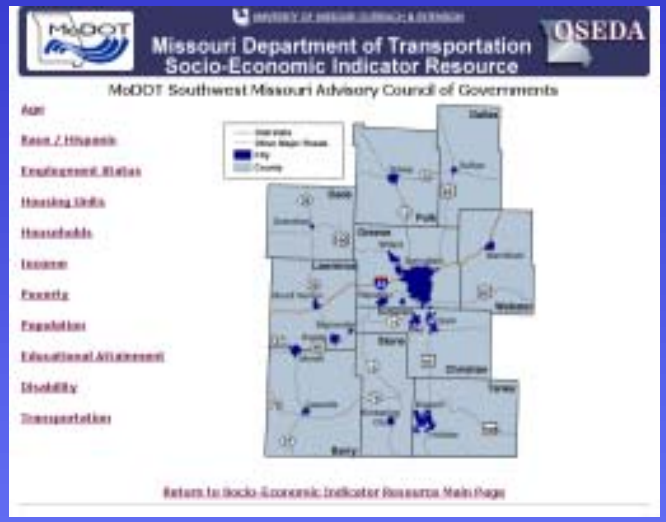
For each indicator, selected characteristics are available in html format. Links at the bottom of the page provide access to other districts by indicator.

Layer 2: RPC Page

Regional Planning Commission and sub-RPC level US Census data are available as tables, maps, and graphics.

To view information, click on selected RPC.

Layer 3: RPC Indicators



Indicators are organized by the following categories:

- Age
- Race/Hispanic
- Employment Status
- Housing Units
- Households
- Income
- Poverty
- Population
- Educational Attainment
- Disability
- Transportation

Layer 2: MPO Page

Metropolitan Planning Organization and sub-MPO level US Census data are available as tables, maps, and graphics.

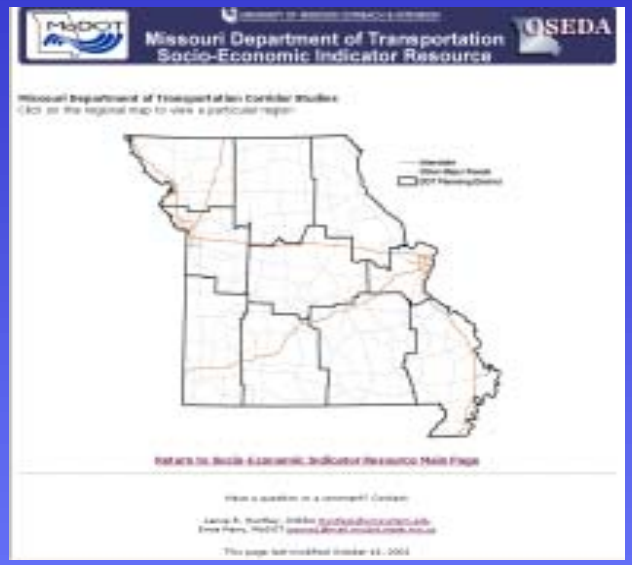
To view information, click on selected MPO.

Layer 3: MPO Indicators

Indicators are organized by the following categories:

- Age
- Race/Hispanic
- Employment Status
- Housing Units
- Households
- Income
- Poverty
- Population
- Educational Attainment
- Disability
- Transportation

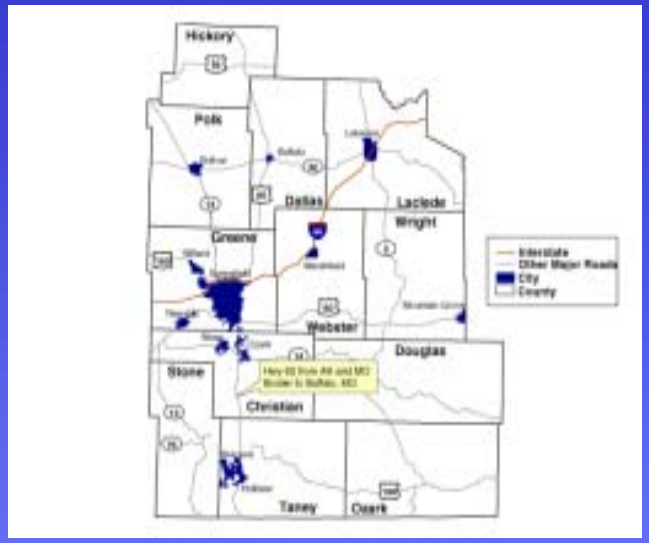
Layer 2: Corridor Page



From the MoDOT Corridor page, select a Regional District to see current and archived corridor studies.

Corridor studies include tables and maps of requested socio-economic indicators.

Layer 3: Regional Corridor Page



Yellow tags indicate the name and location of Corridor studies in a Regional District. Clicking on a yellow tag links to maps and selected indicator data for that Corridor study.

Layer 4: Buchanan County – Rte. 59 Study

The specific corridor study page displays;

- a map of the corridor
- the corridor's buffer zone
- census blocks
- census block centroids

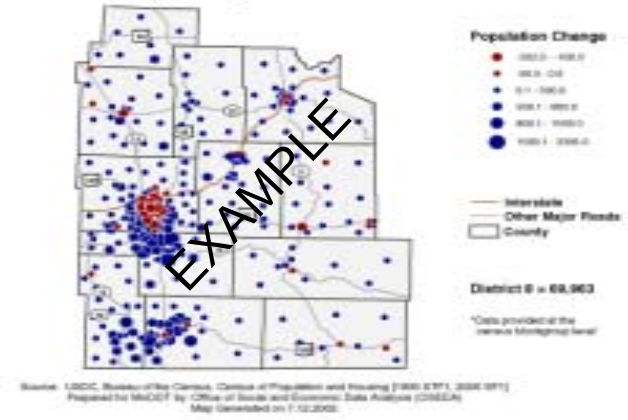
Requested socio-economic indicators can be displayed via map as well as in other graphic forms.

Tools for Using Indicators' Graphics

Based on estimates provided through the MoDOT Socio-Economic Indicators Resource, Dallas County exhibits growth rates similar to other areas in the southwest region of the state. The 2000 population of the county was 15,661, up from 12,646 in 1990 and a 23.8% increase. Map 1 displays this increase.

Map 1.

MoDOT Planning District 8 Change in Total Population, by County*, 1990 - 2000



While population growth increased significantly in the 1990's, the population characteristics remained relatively stable in regard to racial composition, economic characteristics, age, and housing values.

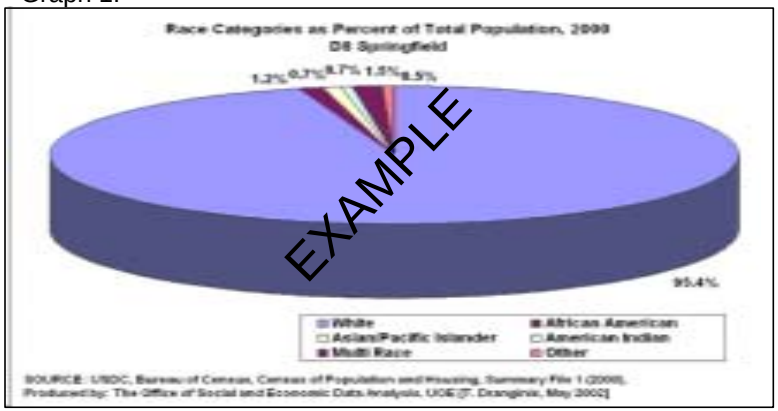
To insert a map or chart from the MoDOT Socio-Economic Indicator Resource into a Microsoft Office document;

- Right click on the image.
- Select 'Save picture as'.
- Save .gif image to folder.
- Open document to be placed in.
- Position cursor where .gif image is to be inserted.
- Select drop down 'Insert' menu.

Tools for Using Indicators

When compared to statewide and district wide demographics, the population in the project area and surrounding county has a more homogeneously white population, lower average income, lower housing costs and values, and higher unemployment.

Graph 1.



Graph 1 indicates the population as distributed by race categories.
Income

Directions for inserting graphics continued.

- Select 'picture'
- Select 'from file'
- Navigate to folder where .gif was placed
- Select file
- Click 'Insert'
- To edit in MSWord
  - Right click mouse and choose 'edit'. This allows manipulation of size & placement on page.
- To edit in MSPowerpoint
  - Left click mouse. This highlights image and allows manipulation.

APPENDIX I – Using the MoDOT SEIR Data Query Application PowerPoint

This appendix contains the PowerPoint handout that was distributed during the third session of the Training Session.

MoDOT Socio-Economic Indicator Resource

Using the MoDOT SEIR Data Query Application

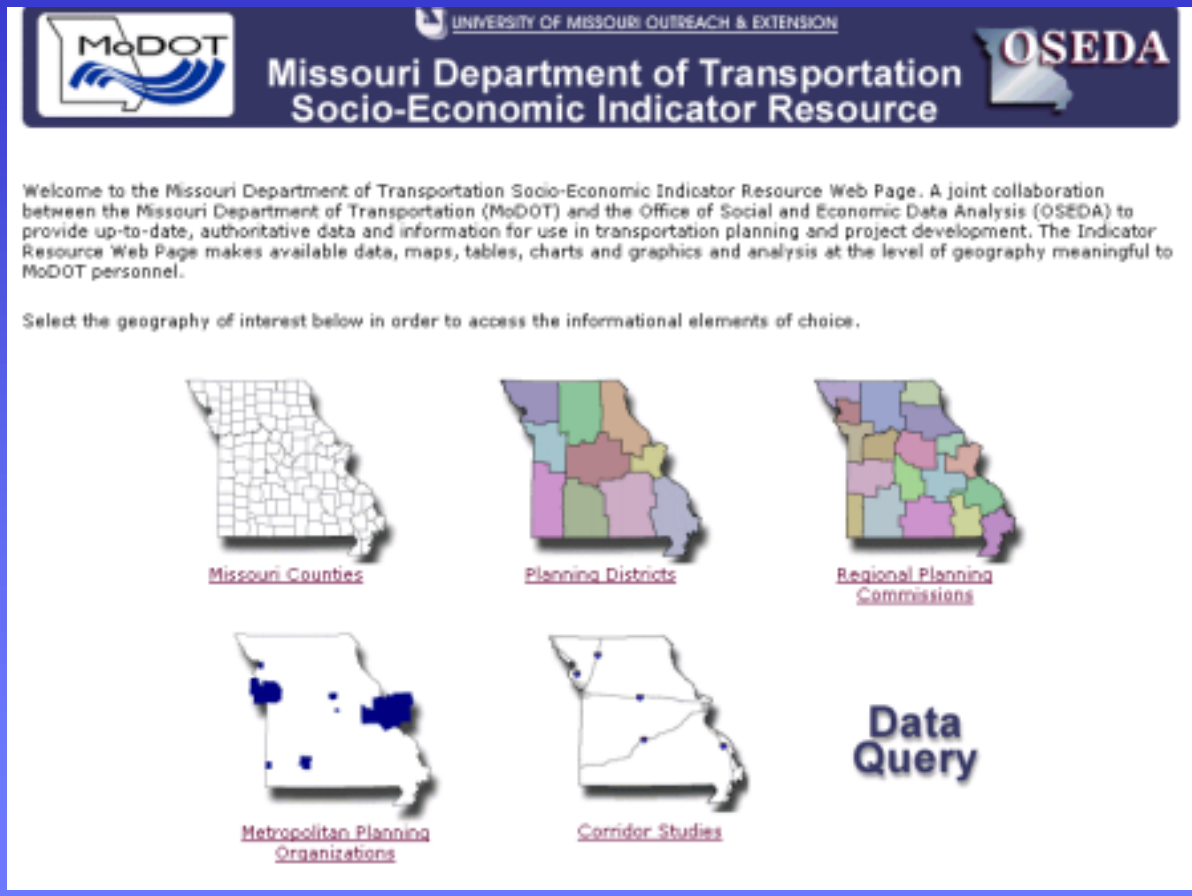
Jefferson City
February 10, 2003

oseda.missouri.edu/modot

presented by:

Office of Social & Economic Data Analysis

MoDOT SEIR Data Query Application



SEIR Data Query

The SEIR Data Query application allows users to filter through social and economic datasets and retrieve data from them.

This application outputs to several file types: a .csv file for use with excel, a .sas dataset, and in .html format for direct viewing on the world wide web.

Part I: Selecting Units of Analysis

The Data Query application begins by selecting the geographic *area* of interest. This is also referred to as the *universe.*

Upon selecting the geographic area of interest, the user then selects the *type* of geographic units for which to see data.

Part II: Select Geographic Areas

Part 2 allows the user to further filter the query on the geographic area that was selected for analysis.

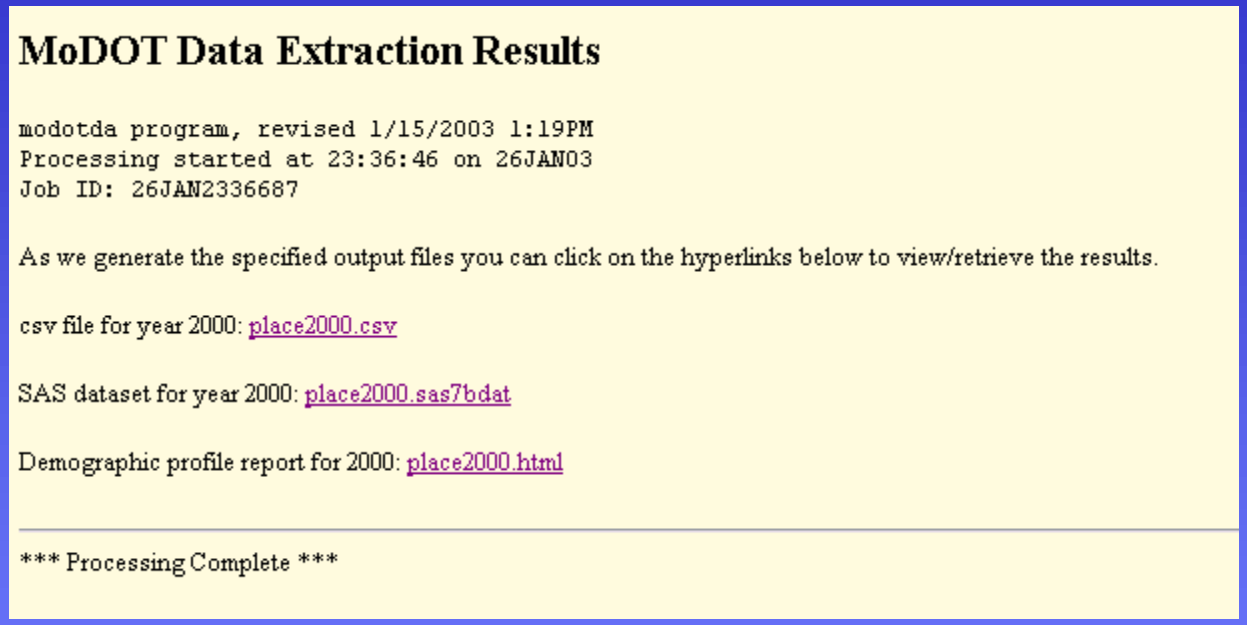
Ex. Selecting one specific county, Adair. If we had chosen MPOs, we would get data at the specified geography of interest for all of the MPOs.

Part III: Choose Tables, Times, Output

There are 25 tables with subset data inside the MoDOT Social and Economic Indicator Resource. 1990 and 2000 data are available for trend analysis.

There are 3 data output types: .csv file for use with spreadsheet and GIS software; .sas for use with statistical or database software and .html for immediate viewing on the world wide web.

Output Selection



MoDOT Data Extraction Results

modotda program, revised 1/15/2003 1:19PM
Processing started at 23:36:46 on 26JAN03
Job ID: 26JAN2336687

As we generate the specified output files you can click on the hyperlinks below to view/retrieve the results.

csv file for year 2000: place2000.csv

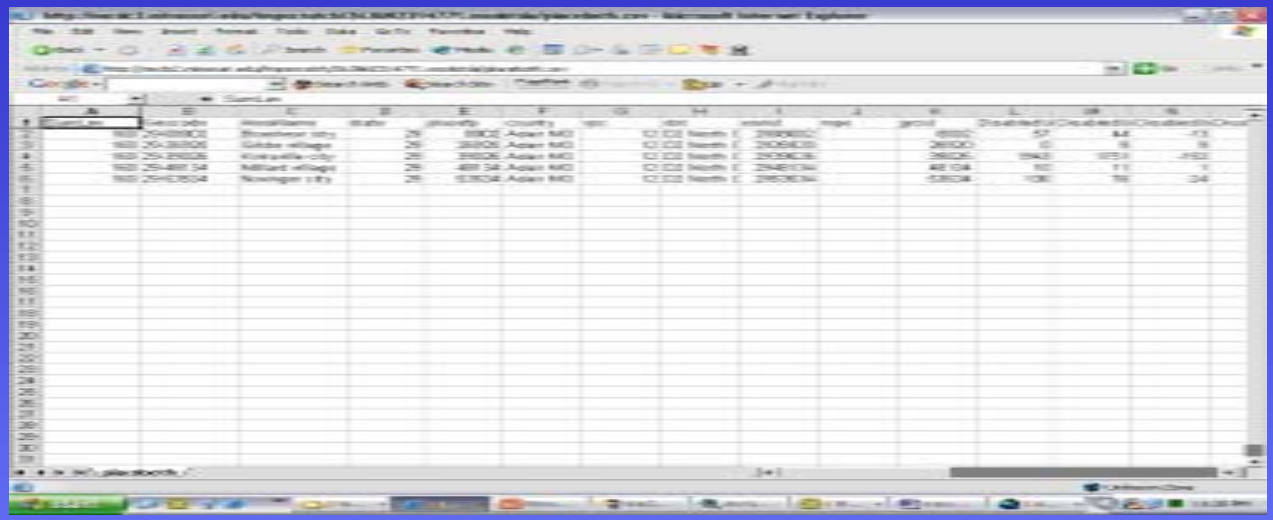
SAS dataset for year 2000: place2000.sas7bdat

Demographic profile report for 2000: place2000.html

*** Processing Complete ***

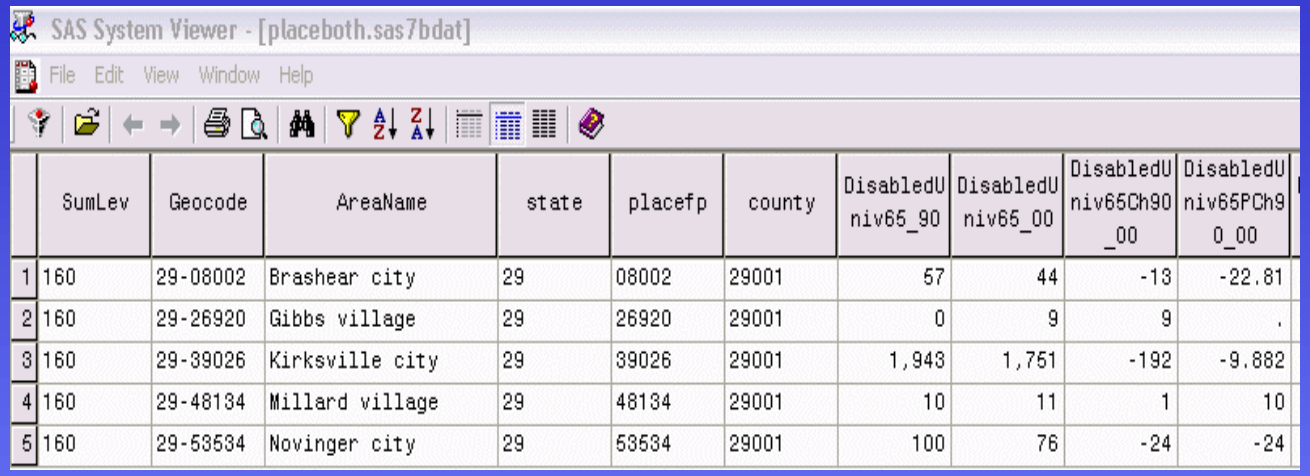
Upon selecting the appropriate parameters and submitting the selection, the SAS application is invoked, and the various types of output formats that had been previously selected are now made accessible.

CSV Format



The .csv format is useful for working in a spreadsheet. It is also a useful format for working with Access or ArcView 8.x

SAS Format


SAS System Viewer - [placeboth.sas7bdat]

File Edit View Window Help

	SumLev	Geocode	AreaName	state	placefp	county	DisabledUniv65_90	DisabledUniv65_00	DisabledUniv65Ch90_00	DisabledUniv65PCh90_00
1	160	29-08002	Brashear city	29	08002	29001	57	44	-13	-22.81
2	160	29-26920	Gibbs village	29	26920	29001	0	9	9	.
3	160	29-39026	Kirksville city	29	39026	29001	1,943	1,751	-192	-9.882
4	160	29-48134	Millard village	29	48134	29001	10	11	1	10
5	160	29-53534	Novinger city	29	53534	29001	100	76	-24	-24

The .sas format is useful for statistical applications like SAS or SPSS. There are virtually no limitations on the number of columns and rows that can be in the dataset.

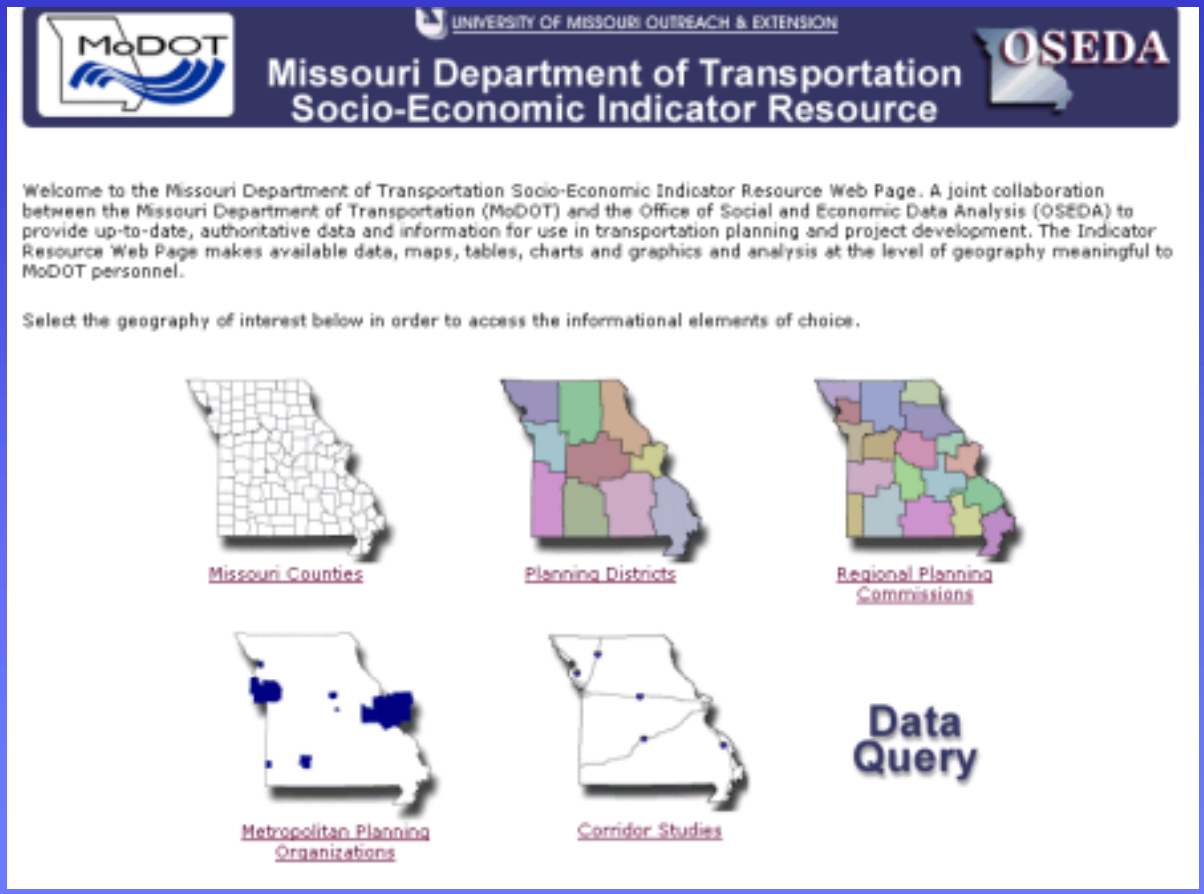
HTML Format

MODOT Demographic Profile - 2000
Kirksville city , 29-39026
Selected Tables: 10
Next

Subject	Number	Percent	SF3 Table
10. Disability			
Universe: Civilian Non-Institutionalized Persons Over 5			
Civ NonInstitutionalized Pop. Pop 5 Yrs and Over	**15,807**		P42
Persons With 1 or more disabilities	2,262	14.3	
Civ NonInstitutionalized Pop. 65 Years and Over	**1,751**		
Persons 65 Yrs and Over With a Disability	1,032	58.9	
Civ NonInstitutionalized Pop. 16-64	**12,528**		
Persons 16-64 with a Work Disability	1,377	11.0	
Employed Persons 16-64 with a Work Disabilty	760	6.1	

The .html format is useful for either viewing the data immediately, via a web browser, or for posting in web based applications since it is already in .html format.

MoDOT SEIR Data Query Application



Exercise 1: Disabled Population

This exercise involves obtaining data about the disabled population in the City of Columbia, and Boone County.

Specifically, what number exists in Columbia and how many in the remainder of the county.

This example image shows the filters used to select “Boone County” and Columbia, and “Table 10. Disability”.

Exercise 1: Disabled Population

After selecting the appropriate filter, the next step is to select the relevant variables.

Due to the large number of individual variables in the data set, they have been organized according to the social and economic category to which they are most likely to fit.

Exercise 1: Disabled Population

MODOT Demographic Profile - 2000
Boone County , 29019

Subject	Number	Percent	SF3 Table
10. Disability			
Universe: Civilian Non-Institutionalized Persons Over 5			
Civ Noninstitutionalized Pop. Pop 5 Yrs and Over	**125,988**		P42
Persons With 1 or more disabilities	18,273	14.5	
Civ Noninstitutionalized Pop. 65 Years and Over	**10,922**		
Persons 65 Yrs and Over With a Disability	5,778	52.9	
Civ Noninstitutionalized Pop. 16-64	**95,622**		
Persons 16-64 with a Work Disability	12,564	13.1	
Employed Persons 16-64 with a Work Disabilty	7,611	8.0	

This is the .html output for the disabled population of Boone County.

Exercise 1: Disabled Population

MODOT Demographic Profile - 2000
Columbia city , 29-15670

Next

Subject	Number	Percent	SF3 Table
10. Disability			
Universe: Civilian Non-Institutionalized Persons Over 5			
Civ Noninstitutionalized Pop. Pop 5 Yrs and Over	79,108		P42
Persons With 1 or more disabilities	11,144	14.1	
Civ Noninstitutionalized Pop. 65 Years and Over	6,818		
Persons 65 Yrs and Over With a Disability	3,618	53.1	
Civ Noninstitutionalized Pop. 16-64	62,290		
Persons 16-64 with a Work Disability	7,755	12.4	
Employed Persons 16-64 with a Work Disabilty	4,786	7.7	

HTML data capture for the city of Columbia.

Exercise 2: Median Family Income

Exercise 2a asks to compare the median family income of all of the counties in MoDOT Planning District 5 to each other and to the state average.

The first step is to select the universe that the query is to be constrained by, in this case “One or more MoDOT Planning Districts”.

Exercise 2: Median Family Income

The second step is to select the geographic area that data is needed for. In this case, “County or independent city”.

The third step involves selecting the Planning District of interest. In this case, “District 5 Central / Jefferson City”.

Exercise 2: Median Family Income

MoDOT Demographic Profile - Trend 1990-2000
Benton County , 29015

MoDOT Demographic Profile - Trend 1990-2000
Boone County , 29019

MoDOT Demographic Profile - Trend 1990-2000
Callaway County , 29027

This screenshot shows the .html output for the various counties in the Central District.

Not all variables are comparable from the 2000 and 1990 census.

Run this query for 2000 only and see what you get.

Exercise 2: Median Family Income

MoDOT Demographic Profile - Trend 1990-2000
Missouri , 29
Complete metadata(pdf): 1990 2000

Selected Tables: 15

Subject	2000		1990		Change		Notes
	Number	Pct.	Number	Pct.	Number	Pct.	
15. Other Income Measures Universe: Families or Persons			Metadata: 1990 2000				
Families	1,486,546		1,378,020		108,526	7.9	
Median Family Income	$46,044		$41,537		$4,507	10.8	
Average Family Income	$58,046		$50,694		$7,352	14.5	
Per Capita Income	$19,936		$16,946		$2,990	17.6	

Getting the state average is pretty much the same process, except with a different geographic unit, “State(MO)”.

The screenshot shows the values for the entire state. This then can be compared to District 5’s counties.

Exercise 3: Ashland Workers

Exercise 3 asks to locate where the population of Ashland works.

The appropriate geographic universe and units need to be selected first. In this case the universe is the “Planning District” and our geographic units are “City(place)”.

Exercise 3: Ashland Workers

Upon selecting the universe and the geographic units, you can then filter the universe to include only those Planning Districts for which you want data. In this case, “Planning District 5” is used to select data for only this region.

Exercise 3: Ashland Workers

The last parameter to be selected is the data itself including, the years that you want the data for, and the format that you want it in.

In this case, “Table 6. Place of Work”, contains the data that informs where Ashland’s workers reside.

Exercise 3: Ashland Workers

MODOT Demographic Profile - 2000
Ashland city , 29-02242

Next

Subject	Number	Percent	SF3 Table
6. Place of Work			
Universe: Workers over 16			
Workers 16 and Over	**982**		P26
Work in County of Residence	790	80.4	
Workers Living in a Place	982	100.0	P27
Work in Place of Residence	216	22.0	

HTML output regarding place of work for Ashland.

Exercise 4: Elderly Population

Exercise 4 involves determining the percent of persons 65 years of age and older by census tract for Benton and Camden Counties.

Begin by selecting “One or more counties” as your universe and “2000 Census Tract” as your geographic units.

Exercise 4: Elderly Population

Select the counties of Benton and Camden from the “Counties” scroll down menu.

The population variable is in Table 1.

Exercise 4: Elderly Population

	A	B	C	D	E	F
1	Geocode	AreaName	esriid	County	Over65	PctOver65
2	29015-9601.00	Census Tract 9601	29015960100	Benton MO	571	18.5
3	29015-9602.00	Census Tract 9602	29015960200	Benton MO	448	20
4	29015-9603.00	Census Tract 9603	29015960300	Benton MO	1055	26.1
5	29015-9604.00	Census Tract 9604	29015960400	Benton MO	419	21.6
6	29015-9607.00	Census Tract 9607	29015960700	Benton MO	608	26.1
7	29015-9608.00	Census Tract 9608	29015960800	Benton MO	740	21
8	29029-9501.00	Census Tract 9501	29029950100	Camden MO	653	18.4
9	29029-9502.00	Census Tract 9502	29029950200	Camden MO	970	18.9
10	29029-9503.00	Census Tract 9503	29029950300	Camden MO	461	20.1
11	29029-9504.00	Census Tract 9504	29029950400	Camden MO	520	20.3
12	29029-9505.00	Census Tract 9505	29029950500	Camden MO	515	16.2
13	29029-9506.00	Census Tract 9506	29029950600	Camden MO	435	12.4
14	29029-9507.00	Census Tract 9507	29029950700	Camden MO	855	26.8
15	29029-9508.00	Census Tract 9508	29029950800	Camden MO	842	14.5
16	29029-9509.00	Census Tract 9509	29029950900	Camden MO	371	13.2
17	29029-9511.00	Census Tract 9511	29029951100	Camden MO	702	26.1
18	29029-9512.00	Census Tract 9512	29029951200	Camden MO	684	29.3

The screenshot shows the data output in the .csv format.

Exercise 5: Walk or Bike to Work

Exercise 5 involves finding out out how many people bike or walk to work in Columbia?

Though for a city any universe can be selected, it's advisable to select the smallest universe appropriate to the query to reduce excess city listings.

Exercise 5: Walk or Bike to Work

In this example the universe selected is the “Planning District” and the geographic area is the “City(place)” filter.

Then select “D5 Kansas City Area” from the “MoDOT Districts” to narrow your query to only those cities in that district.

“Table 7. Commuting” contains the variables regarding mode of transportation to work.

Exercise 5: Walk or Bike to Work

MoDOT Demographic Profile - Trend 1990-2000
Columbia city , 29-15670

Complete metadata(pdf): 1990 2000

Next

Subject	2000		1990		Change		Notes
	Number	Pct.	Number	Pct.	Number	Pct. (*)	
7. Commuting Universe: Workers over 16 Metadata: 1990 2000							
Drive Alone to Work	33,767	75.2	24,263	71.3	9,504	3.8	
Carpool	5,240	11.7	4,114	12.1	1,126	-0.4	
Public Transportation or Taxi to Work	484	1.1	519	1.5	-35	-0.4	
Cycle or Walk to Work	3,906	8.7	4,008	11.8	-100	-3.1	
Work at Home	1,320	2.9	867	2.5	453	0.4	
All Persons that Commute to Work	43,599	97.1	33,140	97.5	10,459	-0.4	
Mean Travel Time to Work	15.3		14.1		1.2	8.6	

The output screen reveals how many people walk or cycle to work, as well as the percent and change in percent from 1990 to 2000.

Exercise 6: Average Commute Time

Exercise 6 asks the question ‘What is the average commuting time of residents in Miller and Morgan County communities?’.

By selecting “City(place)” from the geographic unit menu you can get data for all cities in Miller and Morgan Counties.

Exercise 6: Average Commute Time

The indicator for average commute time is found in “Table 7. Commuting”.

Besides average commute time, this table also provides data on the modes of transportation to work.

Exercise 6: Average Commute Time

	A	B	C	D	E	F
1	AreaName	county	AvgCommute_90	AvgCommute_00	AvgCommuteCh90_00	AvgCommutePCh90_00
2	Bagnell town	Miller MO	14.8	13.2	-1.6	-10.8
3	Barnett city	Morgan MO	21.3	31.4	10.1	47.6
4	Brumley town	Miller MO	25.1	21.8	-3.3	-13.2
5	Eldon city	Miller MO	18.1	19.8	1.7	9.5
6	Gravois Mills town	Morgan MO	19.5	12.3	-7.2	-36.8
7	Iberia city	Miller MO	24.8	26.6	1.8	7.2
8	Lake Ozark city	Miller MO	14.4	20	5.5	38.4
9	Lakeside city	Miller MO	13.7	6.7	-7	-51.3
10	Laurie village	Morgan MO	12.5	17.1	4.5	36.2
11	Olean town	Miller MO	27.7	19.3	-8.4	-30.2
12	St. Elizabeth village	Miller MO	25.4	36.1	10.8	42.6
13	Stover city	Morgan MO	15.2	24.8	9.6	63.5
14	Syracuse city	Morgan MO	17.4	22.6	5.2	30.2
15	Tuscumbia town	Miller MO	20.9	29.9	8.9	42.7
16	Versailles city	Morgan MO	14.1	18.1	3.9	27.8

Miller and Morgan County cities' average commute time.

Exercise 7: Population Change

Exercise 8 asks ‘what are the fastest growing census block groups in Cole County?’.

How would you measure “fastest” growing?

Exercise 7: Population Change

"Counties" are the universe and "2000 block groups" are the geographic units.

"Cole County" is selected from the "Counties" menu.

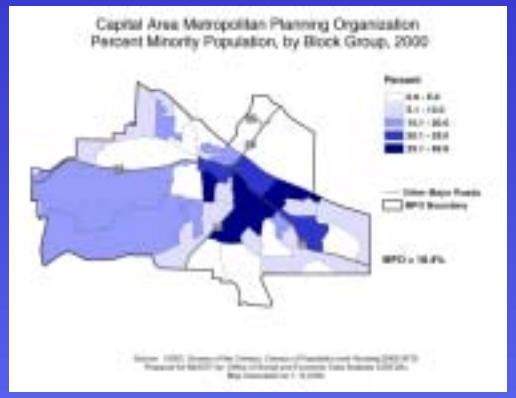
Population data is found in "Table 1. Total Population and Population by Age".

Exercise 7: Population Change

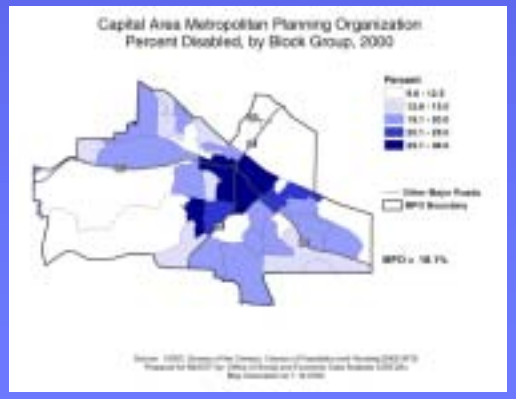
	A	B	C	D	E	F	G
1	Geocode	esriid	grcid	TotPop_90	TotPop_00	TotPopCh90_00	TotPopPCh90_00
2	29051-0101.00-2	290510101002	510101002	836	2647	1811	216.6
3	29051-0108.00-3	290510108003	510108003	2891	4439	1548	53.5
4	29051-0107.00-5	290510107005	510107005	1621.2	2910	1288.8	79.5
5	29051-0107.00-4	290510107004	510107004	1960.4	2678	717.6	36.6
6	29051-0204.00-2	290510204002	510204002	1108.6	1698	589.4	53.2
7	29051-0104.00-5	290510104005	510104005	867.1	1384	516.9	59.6
8	29051-0206.00-3	290510206003	510206003	1250	1684	434	34.7
9	29051-0201.98-2	290510201982	510201982	2198	2584	386	17.6
10	29051-0204.00-3	290510204003	510204003	1608	1856	248	15.4
11	29051-0202.00-2	290510202002	510202002	1054	1277	223	21.2
12	29051-0105.00-3	290510105003	510105003	1092	1288	196	17.9
13	29051-0205.00-1	290510205001	510205001	1152.6	1344	191.4	16.6
14	29051-0108.00-1	290510108001	510108001	1603	1781	178	11.1
15	29051-0203.00-3	290510203003	510203003	1287	1465	178	13.8
16	29051-0106.00-3	290510106003	510106003	907	1068	161	17.8
17	29051-0203.00-2	290510203002	510203002	623.9	783	159.1	25.5
18	29051-0103.00-3	290510103003	510103003	1340	1473	133	9.9
19	29051-0104.00-6	290510104006	510104006	1327	1455	128	9.6
20	29051-0108.00-2	290510108002	510108002	1010	1130	120	11.9

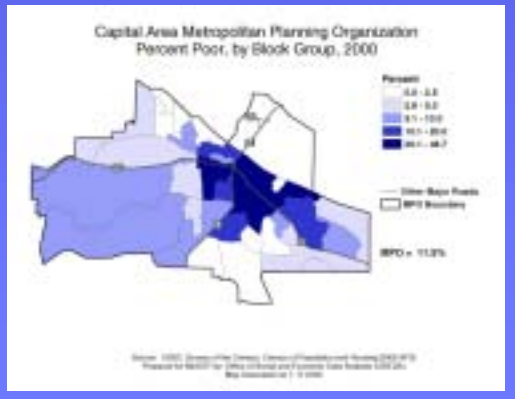
Output in .csv format of population and change in population at the block group geography for Cole County.

Exercise 9: Minority, Disability and Low-Income



Can you locate the block groups in the Capital Area Metropolitan Planning Organization which contain the highest percentage of Minority, Disability and Low-Income persons?

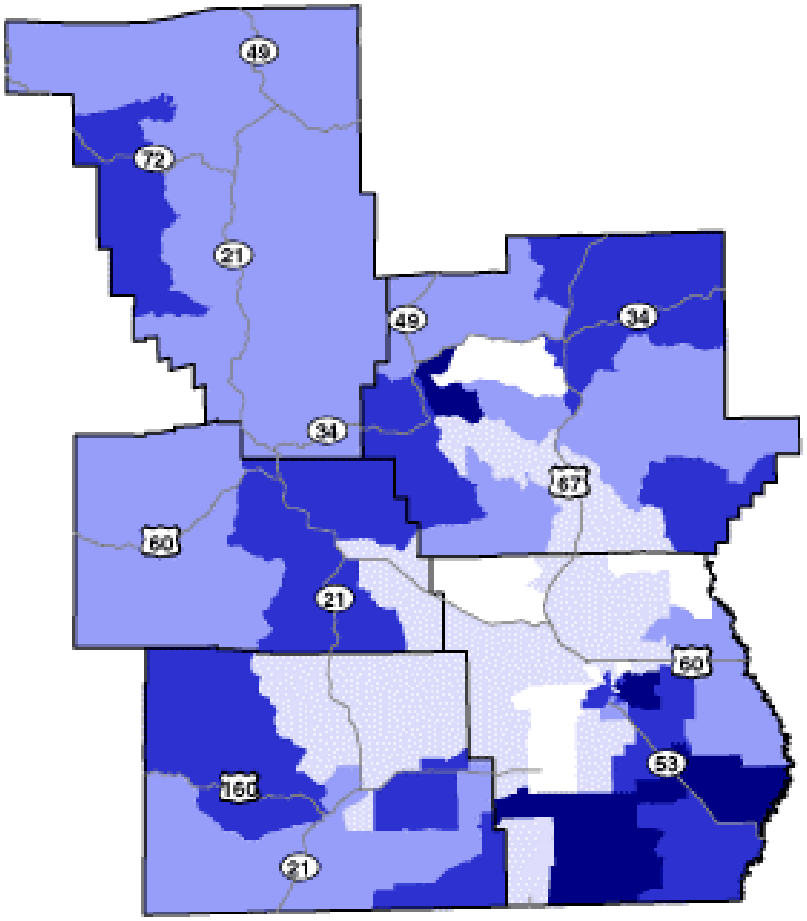




APPENDIX I – Sample Maps

This appendix contains examples of the types of maps that were created for SEIR.

Ozark Foothills Regional Planning Commission
Percent Disabled, by County*, 2000



Percent Disabled
- 14.1 - 20.0
- 20.1 - 25.0
- 25.1 - 30.0
- 30.1 - 35.0
- 35.1 - 48.9

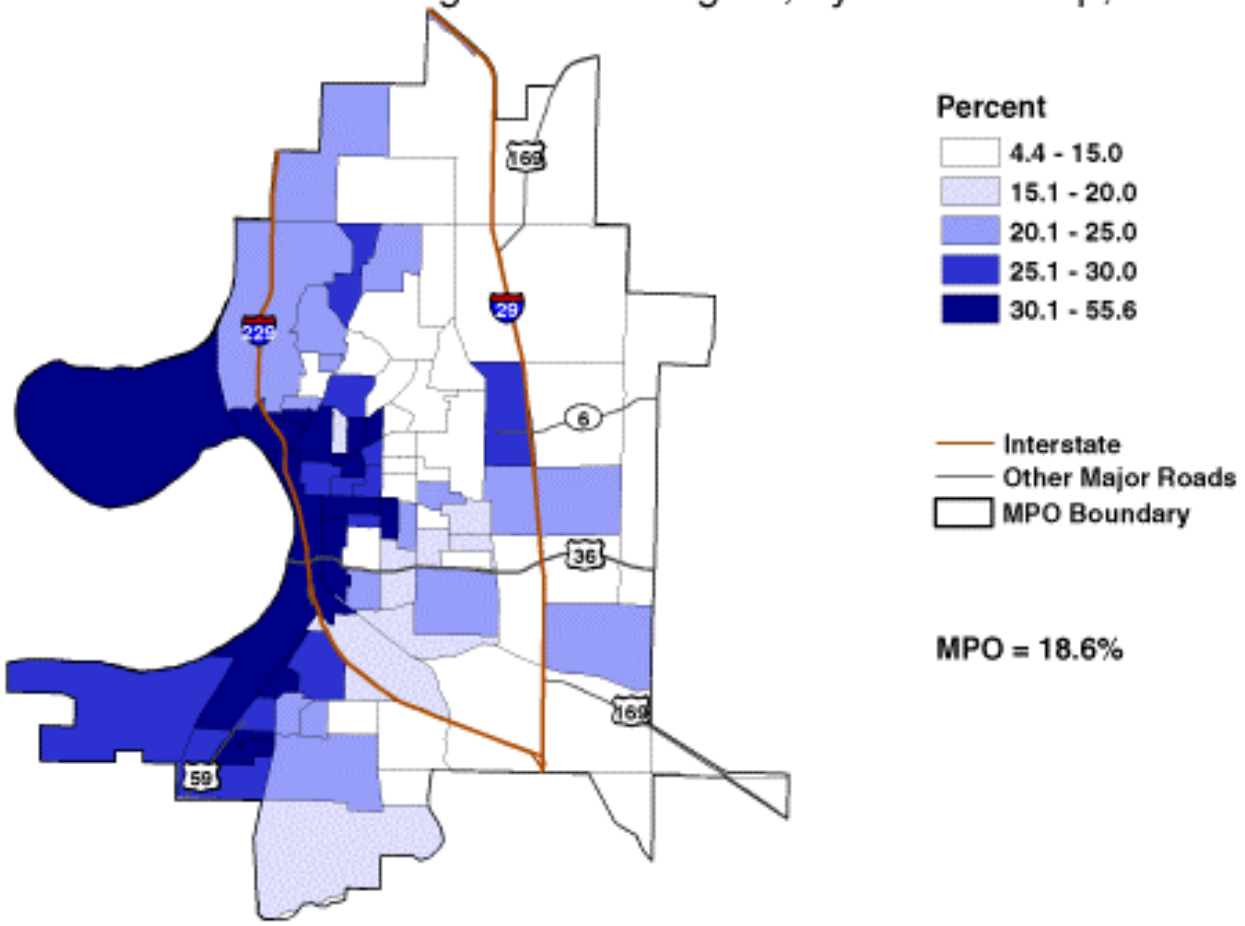
Other Major Roads
County

Regional Avg. = 27.5 %

*Data provided at the census block group level

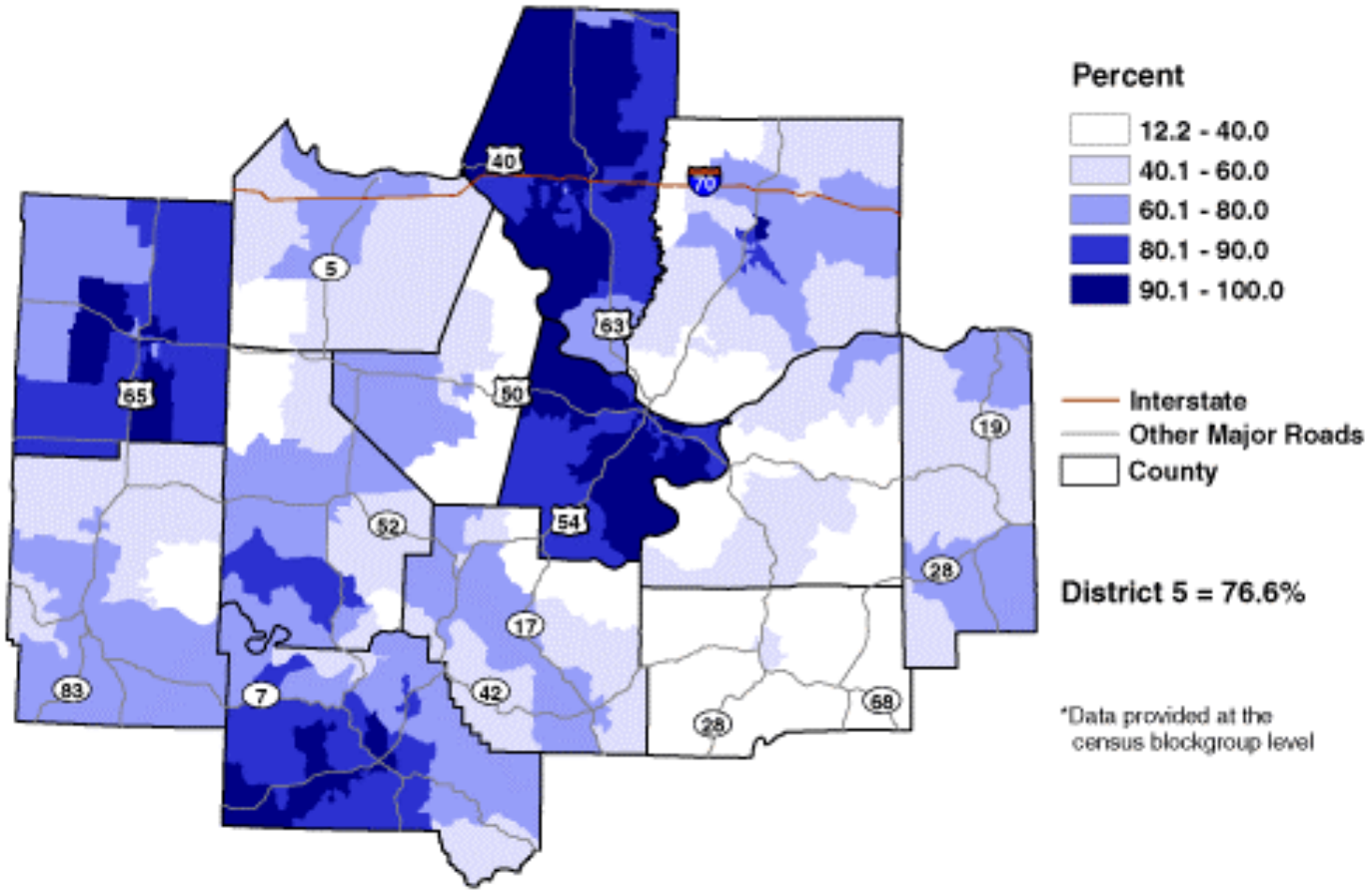
Source: USDC, Bureau of the Census, Census of Population and Housing [2000 SF3]
Prepared for MoDOT by: Office of Social and Economic Data Analysis (OSEDA)
Map Generated on 01.03.2003

St. Joseph Area Transportation Study Organization Percent of Persons 25 Years or Older Without a High School Degree, by Block Group, 2000



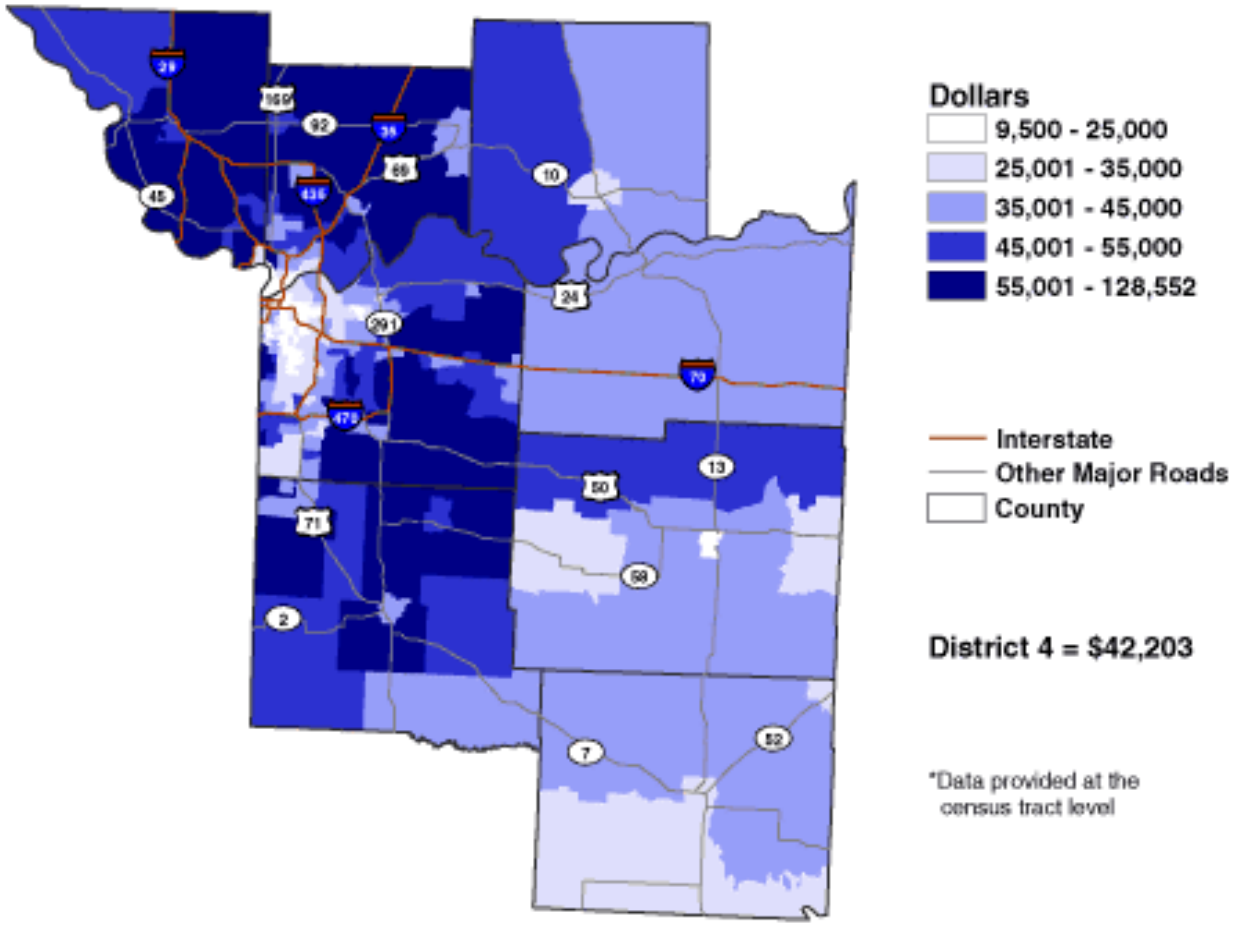
Source: USDC, Bureau of the Census, Census of Population and Housing [2000 SF3]
Prepared for MoDOT by: Office of Social and Economic Data Analysis (OSEDA)
Map Generated on 1.10.2003

MoDOT Planning District 5 Percent of the Population 16 Years or Older Working in County of Residence, by County*, 2000



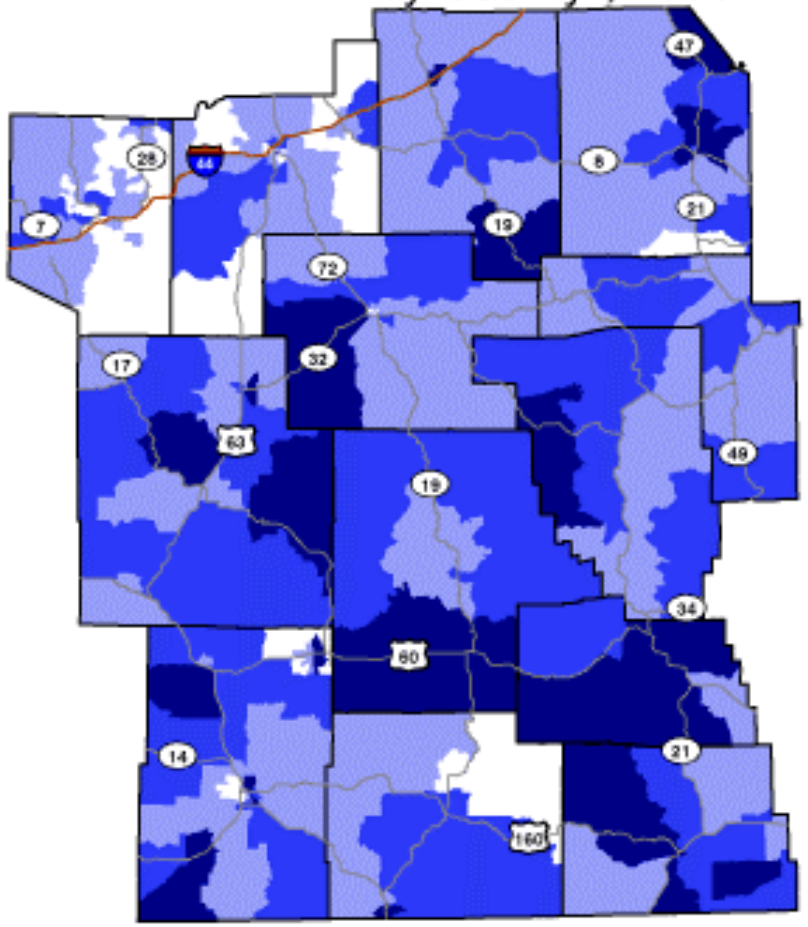
Source: USDC, Bureau of the Census, Census of Population and Housing [2000 SF3]
Prepared for MoDOT by: Office of Social and Economic Data Analysis (OSEDA)
Map Generated on 12.27.2002

MoDOT Planning District 4 Median Household Income, by County*, 2000



Source: USDC, Bureau of the Census, Census of Population and Housing [2000 SF3]
Prepared for MoDOT by: Office of Social and Economic Data Analysis (OSEDA)
Map Generated on 1.12.2003

MoDOT Planning District 9 Percent of Families Below Poverty Status, by County*, 2000



Percent

- 0.0 - 5.0
- 5.1 - 10.0
- 10.1 - 15.0
- 15.1 - 25.2

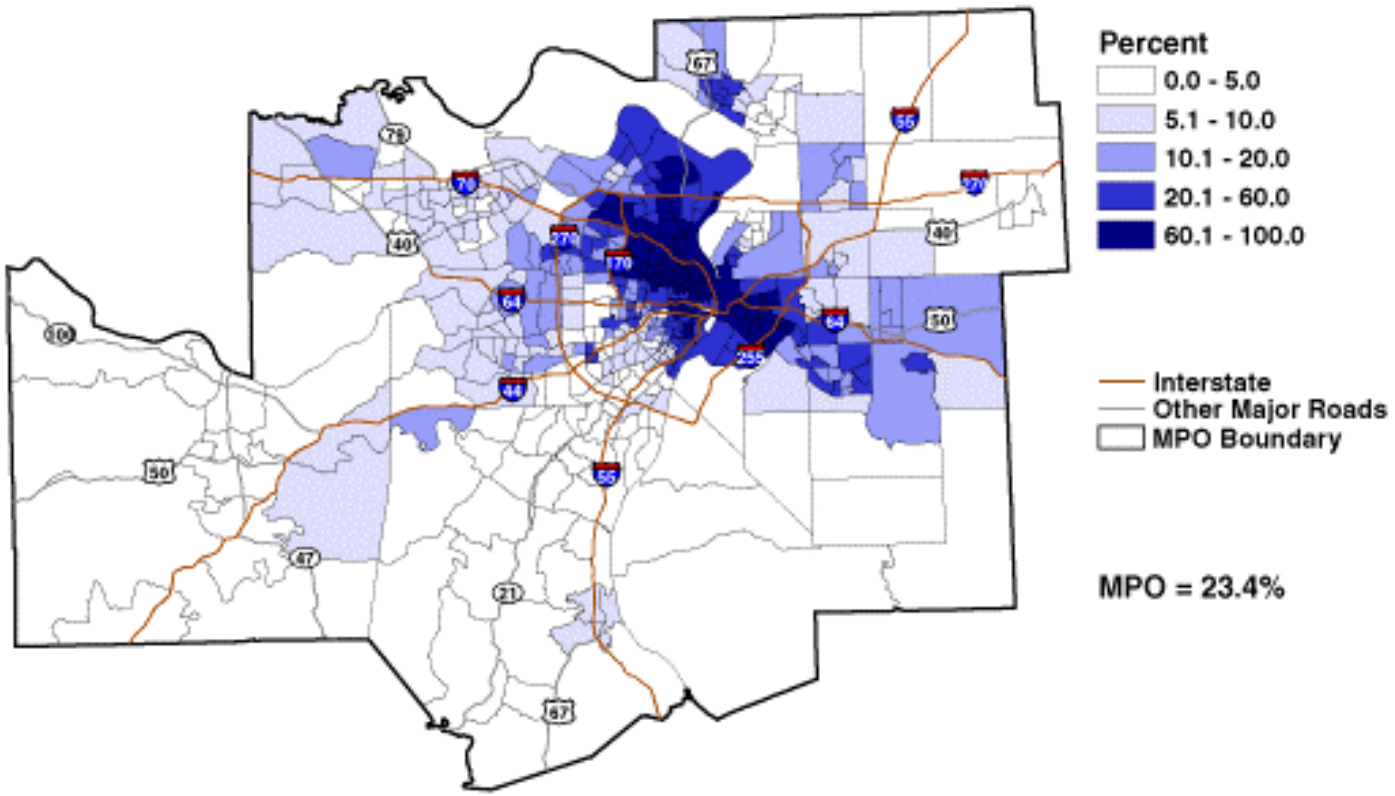
- Interstate
- Other Major Roads
- County

District 9 = 9.8%

*Data provided at the census blockgroup level

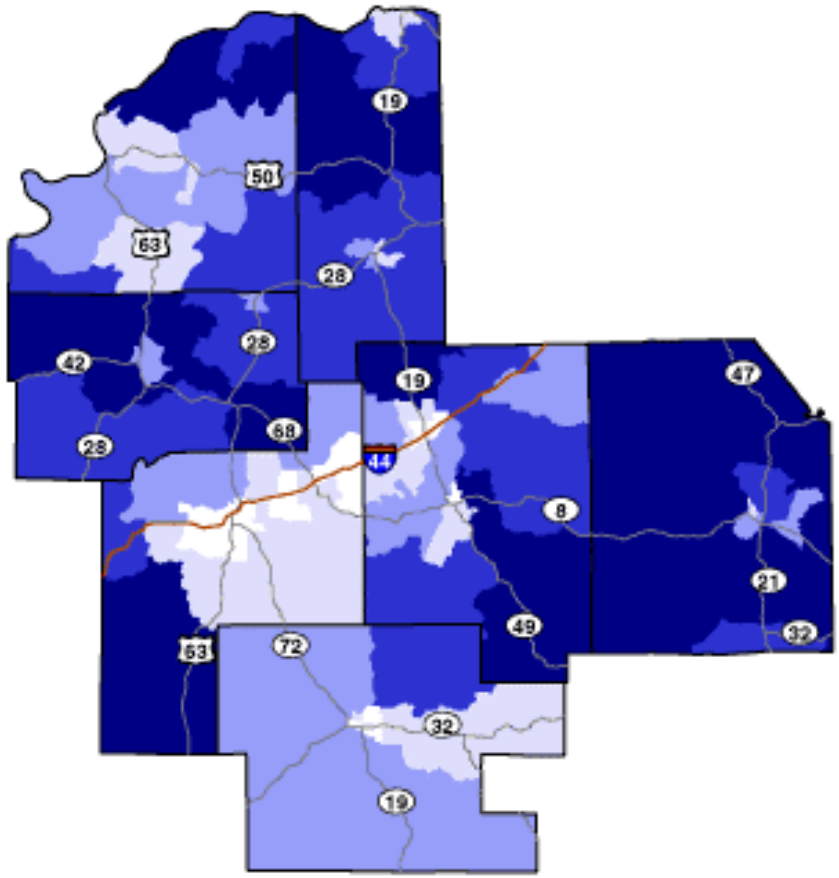
Source: USDC, Bureau of the Census, Census of Population and Housing [2000 SF3]
Prepared for MoDOT by: Office of Social and Economic Data Analysis (OSEDA)
Map Generated on 1.8.2003

East-West Gateway Coordinating Council
Percent Minority, by Census Tract, 2000



Source: USDC, Bureau of the Census, Census of Population and Housing [2000 SF3]
Prepared for MoDOT by: Office of Social and Economic Data Analysis (OSEDA)
Map Generated on 1.16.2003

Meramec Regional Planning Commission Population 16 Years or Older Mean Travel Time to Work, by County*, 2000



Minutes

- 7 - 20
- 21 - 25
- 26 - 30
- 31 - 35
- 36 - 49

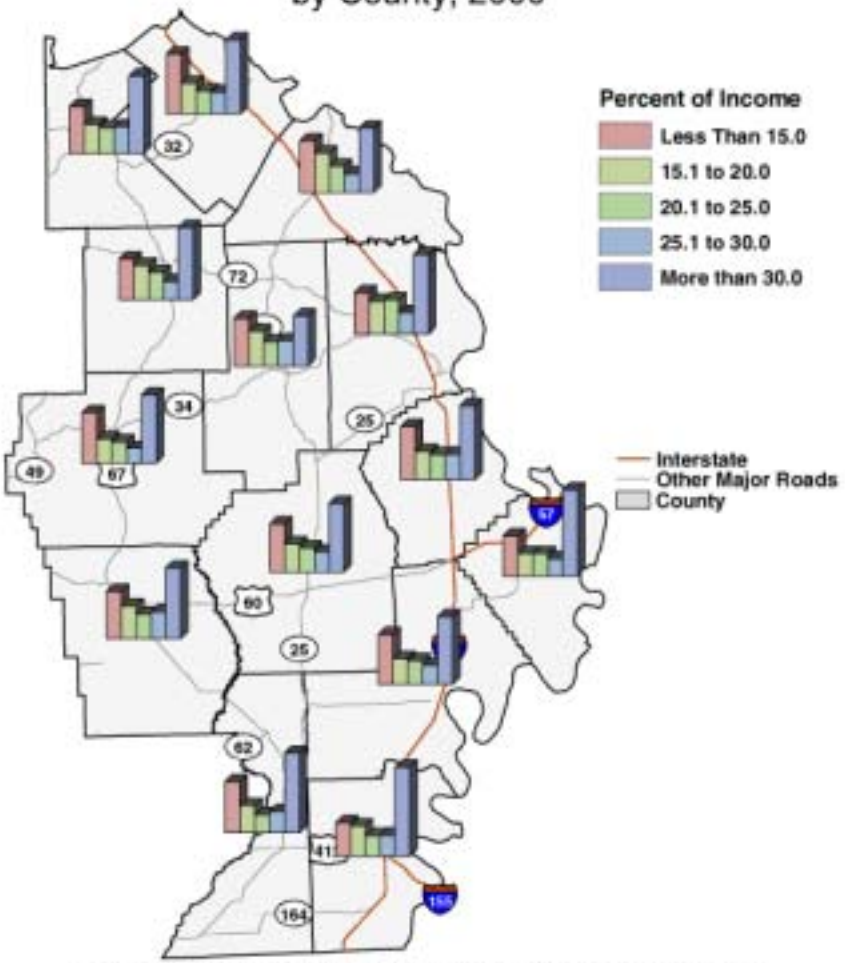
Interstate
Other Major Roads
County

Regional Avg. = 27

*Data provided at the census block group level

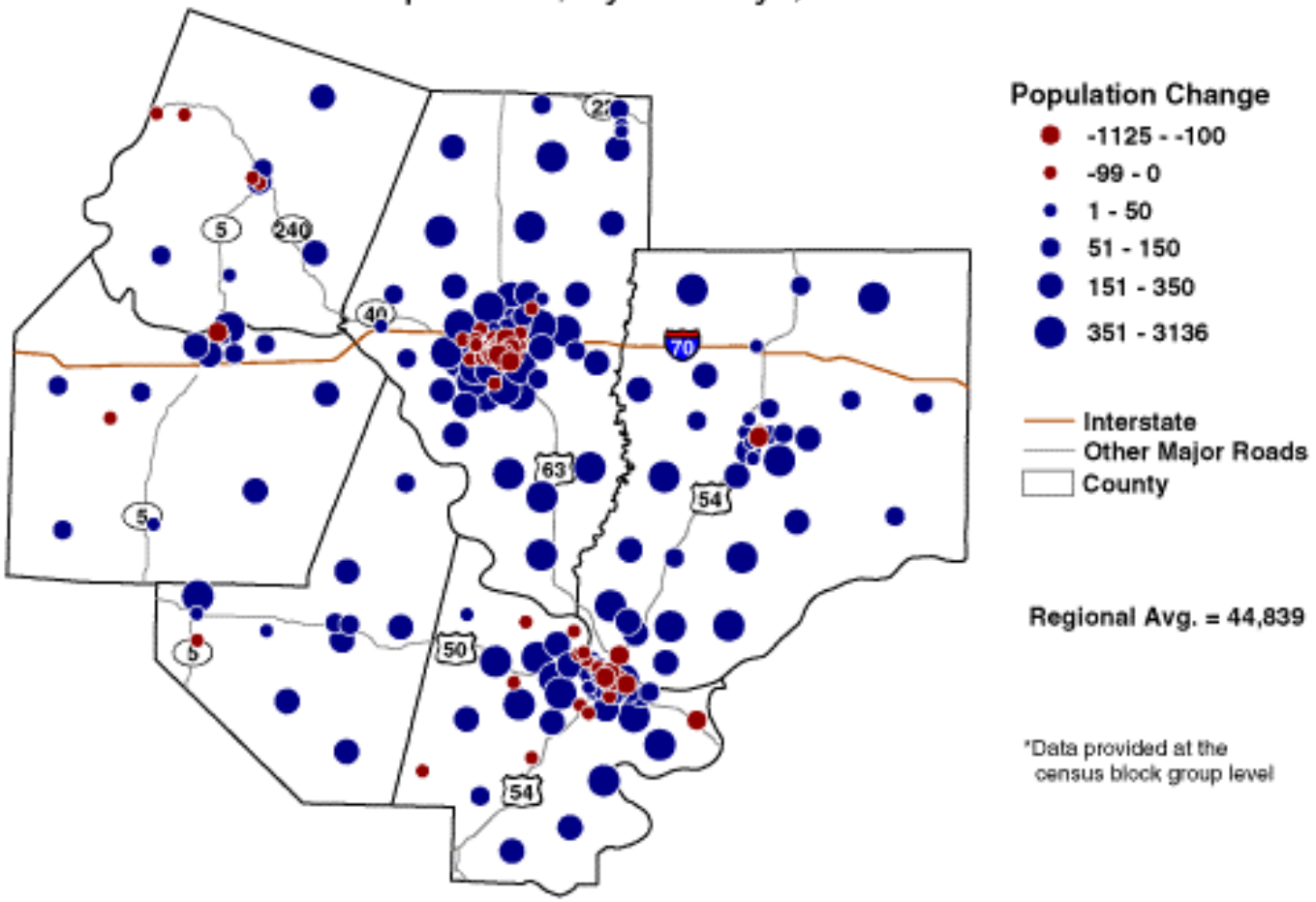
Source: USDC, Bureau of the Census, Census of Population and Housing [2000 SF3]
Prepared for MoDOT by: Office of Social and Economic Data Analysis (OSEDA)
Map Generated on 1.8.2003

MoDOT Planning District 10 Percent of Housing Units by Gross Rent as a Percentage of Household Income, by County, 2000



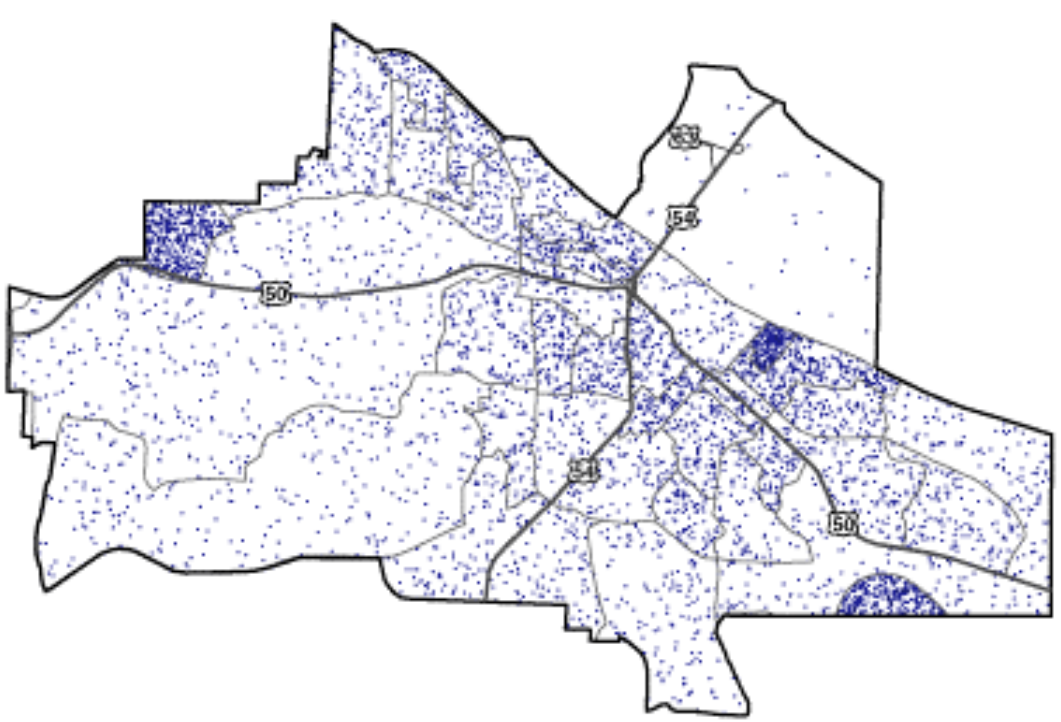
Source: USDC, Bureau of the Census, Census of Population and Housing [2000 SF3]
Prepared for MoDOT by: Office of Social and Economic Data Analysis (OSEDA)
Map Generated on 1.13.2003

Mid-Missouri Regional Planning Commission Change in Total Population, by County*, 1990 - 2000



Source: USDC, Bureau of the Census, Census of Population and Housing [1990 STF1, 2000 SF1]
Prepared for MoDOT by: Office of Social and Economic Data Analysis (OSEDA)
Map Generated on 11.18.2002

Capital Area Metropolitan Planning Organization
Total Population, by Block Group, 2000



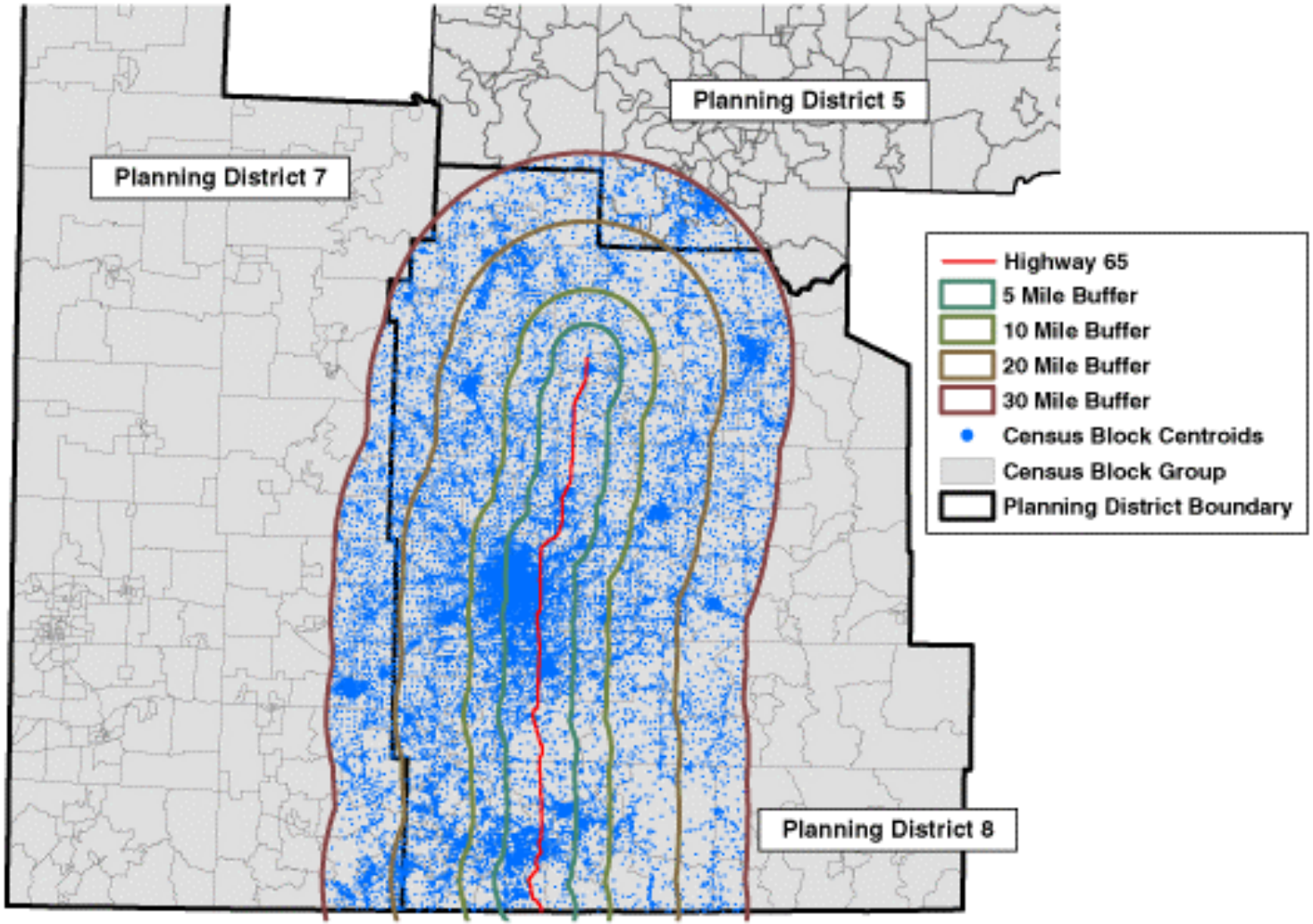
Total Population

1 Dot = 10 People

Other Major Roads

MPO Boundary

MPO = 41,844

Source: USDC, Bureau of the Census, Census of Population and Housing [2000 SF3]
Prepared for MoDOT by: Office of Social and Economic Data Analysis (OSEDA)
Map Generated on 1.16.2003

Highway 65 Corridor - Arkansas and Missouri Border to Buffalo, MO