The South Florida Resident Job Linkage (SFRJL) Reporting Tool

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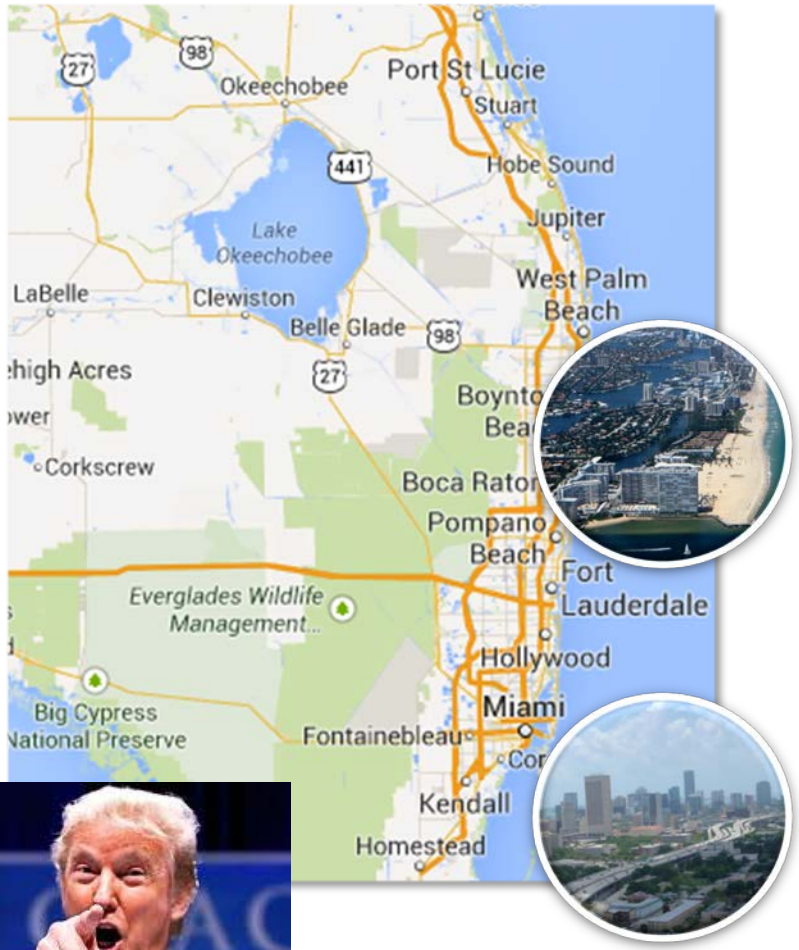
2014 Local Employment Dynamics Partnership Annual Workshop
US Census Bureau and the LED Partnership Steering Committee
Washington, D.C., September 9, 2014

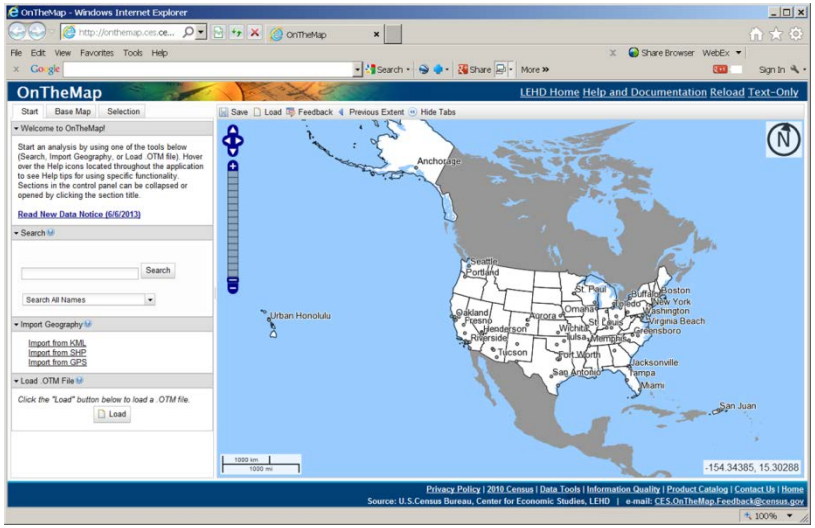
Questions from Transportation Executives:

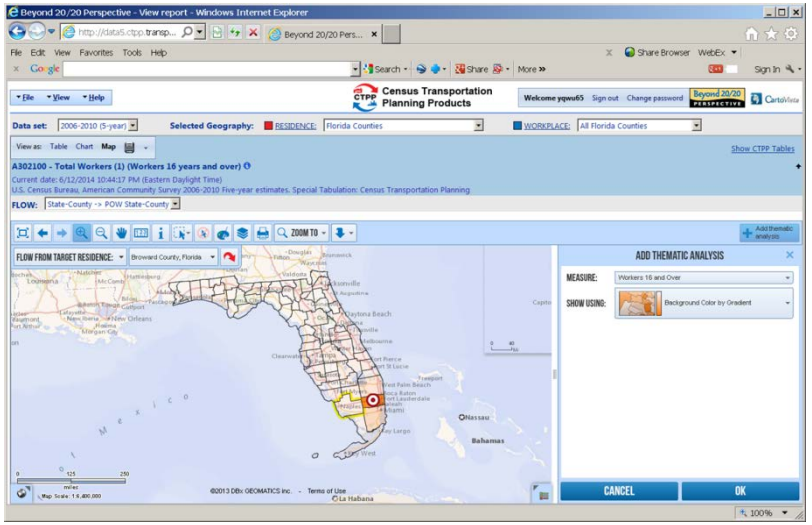
- *How many people live in Fort Lauderdale but work in Miami?*
- *How many people drive to work and how many people use transit?*
- *How soon can you give me the answers?*



To Get the Answers?

- OnTheMap Online Tool
- ACS/CTPP Online Tool





- Both have robust functionalities and national perspective
- South Florida needs a quick one-stop tool for less sophisticated users

South Florida Users Needs:

- Regional perspective/Regionalized datasets
- Agile: Looks simple and very easy to use: make executives knowledgeable and like to find the answers themselves
- Versatile, but not omnipotence: not to replicate the functionalities of OnTheMap and ACS/CTPP online tools

Four Simple Selections to Answer the Question of

"How many people live in Fort Lauderdale but work in Miami?"

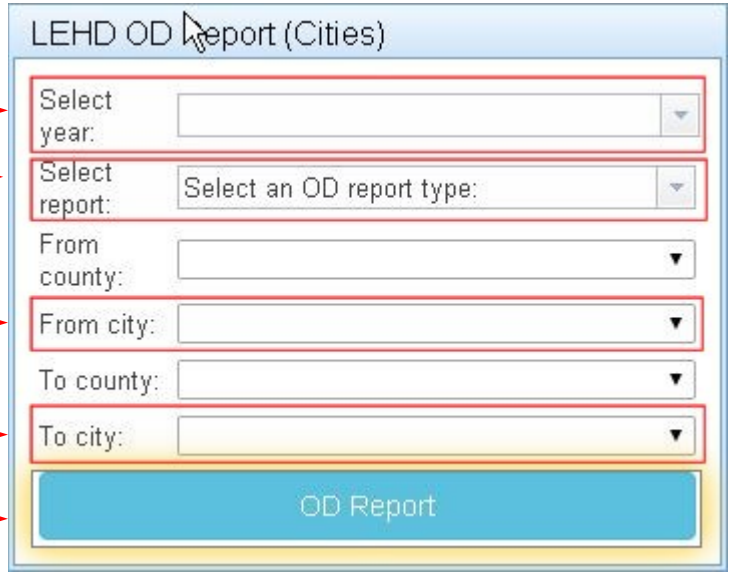
Step 1. Select a LEHD Data Year

Step 2. Select a Report Type

Step 3. Select an Origin

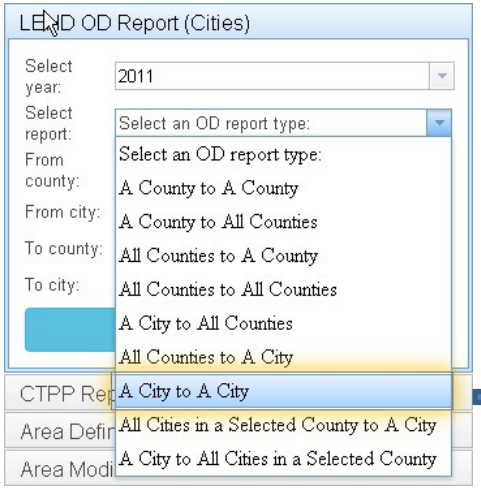
Step 4. Select a Destination

Click for Report

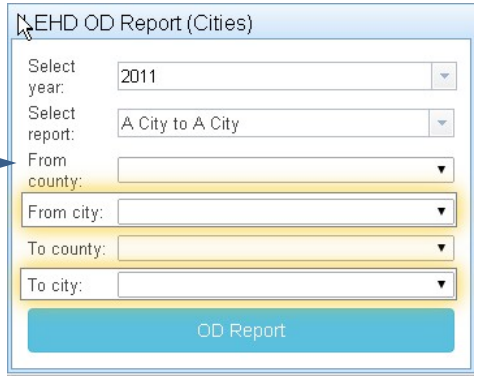


Selection Sets (1)

Years of data

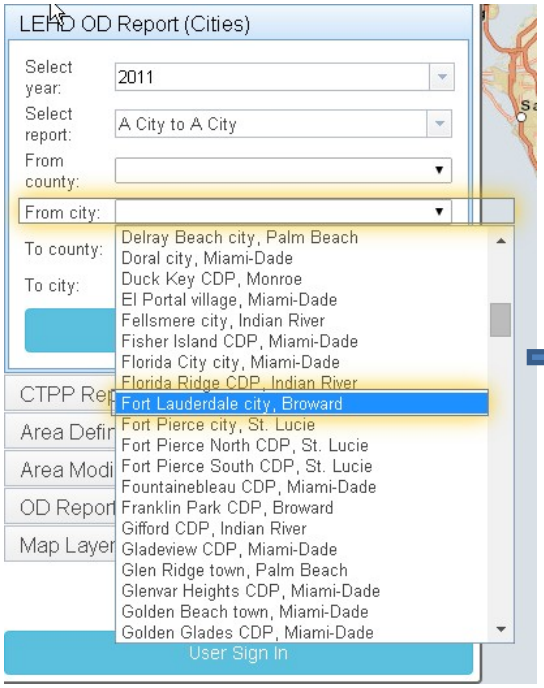


Report Types

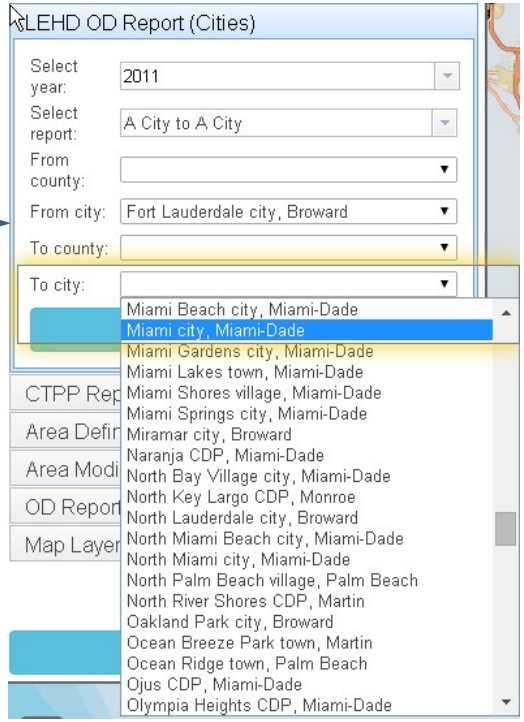


Geographic Areas (see next slide)

Selection Sets (2)



"From City"



"To City"

The Answer of "*Number of people living in Fort Lauderdale and earning paychecks in Miami*" is:

From Year 2011 To Year 2011 View Report

From City Fort Lauderdale city, Broward To City Miami city, Miami-Dade

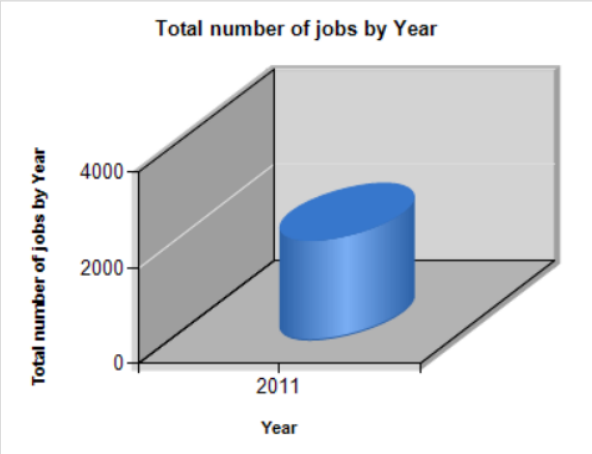
1 of 1 100% Select a format Export

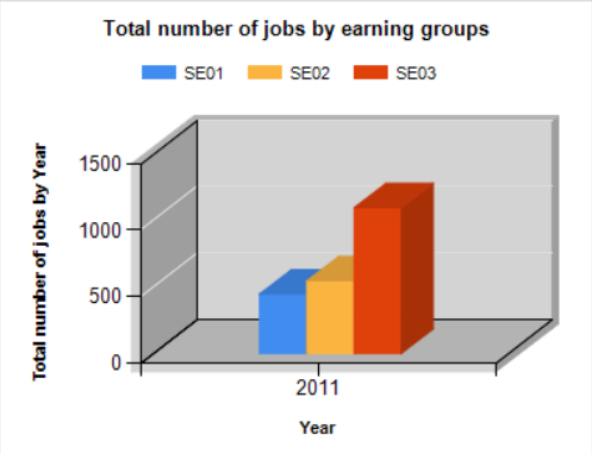
From City: *Fort Lauderdale city, Broward* To City: *Miami city, Miami-Dade*

Year	Total number of jobs	Number of jobs of workers age 29 or younger (SA01)	Number of jobs of workers age 30 to 54 (SA02)	Number of jobs of workers age 55 or older (SA03)	Number of jobs with earnings <= $1250/month (SE01)	Number of jobs with earnings $1251/month to $3333 (SE02)	Number of jobs with earnings > $3333 (SE03)	Number of jobs in Goods Producing industry sectors (SI01)	Number of jobs in Trade, Transportation and Utitlities industry sectors (SI02)	Number of jobs in All Other services industry sectors (SI03)
2011	2,092	361	1,322	409	447	547	1,098	57	611	1,424

Answer

Descriptive column title





Versatile – Sorting & Exporting Outputs

- To report *the top 10 cities where people coming from and working in Miami"*
  - Select report type: "All Cities to A City"
  - Sort the output in descending order
  - Export to Excel (or other) formats
  - Delete all but the top 10 cities

To this city Miami city, Miami-Dade

1 of 4 100% Select a format Export

Exporting the report

Note: Click up/down indicator for sorting, hold SHIFT key for multiple column sorting

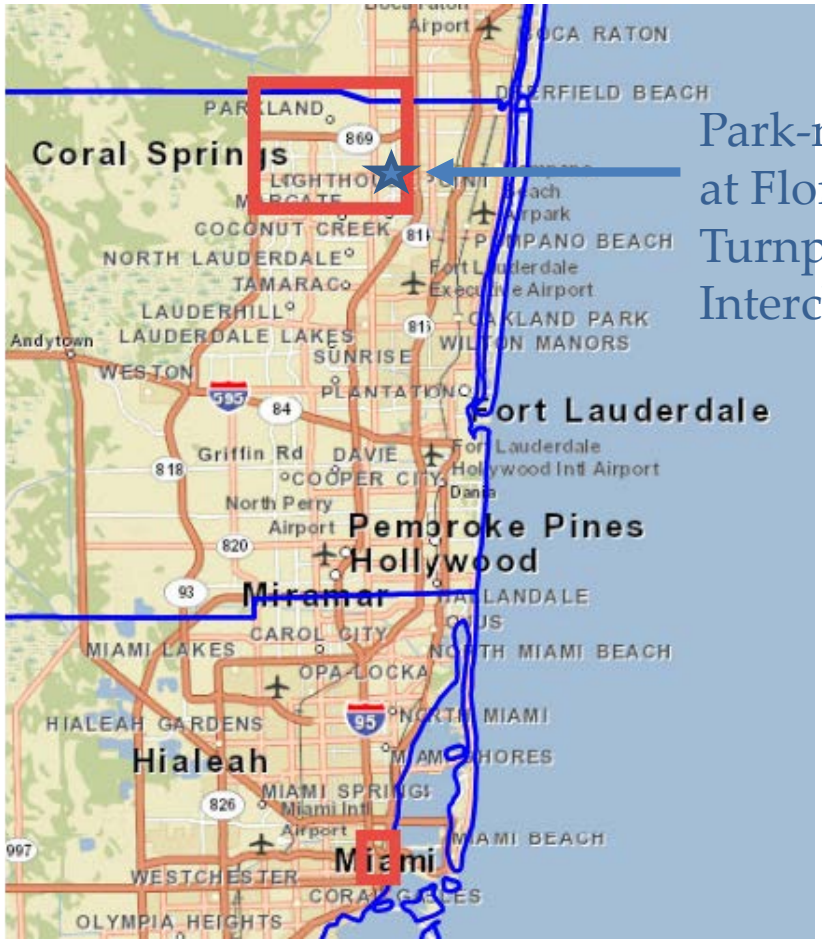
Sorting

From City	Year	Total number of jobs	# of jobs of workers age 29 or younger	# of jobs of workers age 30 to 54	# of jobs of workers age 55 or older	# of jobs with earnings <= $1250/month	# of jobs with earnings $1251/month to $3333	# of jobs with earnings > $3333	# of jobs in Goods Producing industry sectors	# of jobs in Trade, Transportation, and Utitlities industry sectors	# of jobs in All Other services industry sectors
Sort	Sort	Sort	Sort	Sort	Sort	Sort	Sort	Sort	Sort	Sort	Sort
Miami city, Miami-Dade	2011	44343	8,783	25,955	9,605	10,751	18,135	15,457	1,217	7,066	36,060
Others	2011	25639	4,941	15,138	5,560	5,627	8,139	11,873	699	4,811	20,129
Hialeah city, Miami-Dade	2011	12187	2,486	6,970	2,731	3,132	5,634	3,421	385	1,908	9,894
Miami Gardens city, Miami-Dade	2011	10158	1,392	6,578	2,188	1,728	3,659	4,771	113	818	9,227
Miramar city, Broward	2011	7488	923	5,170	1,395	854	1,800	4,834	92	1,047	6,349

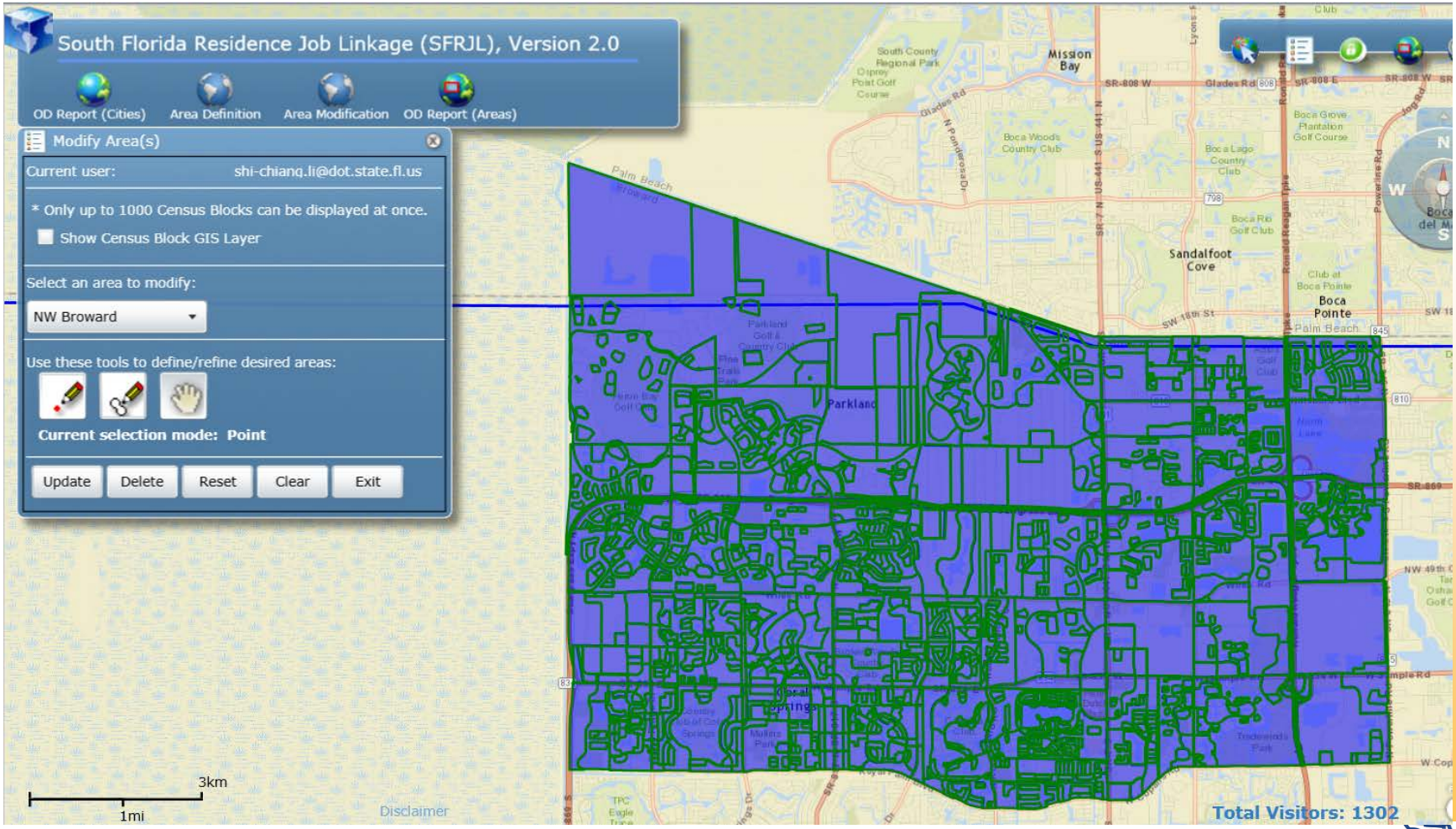
Reporting O/D with User Defined Areas

- Question:

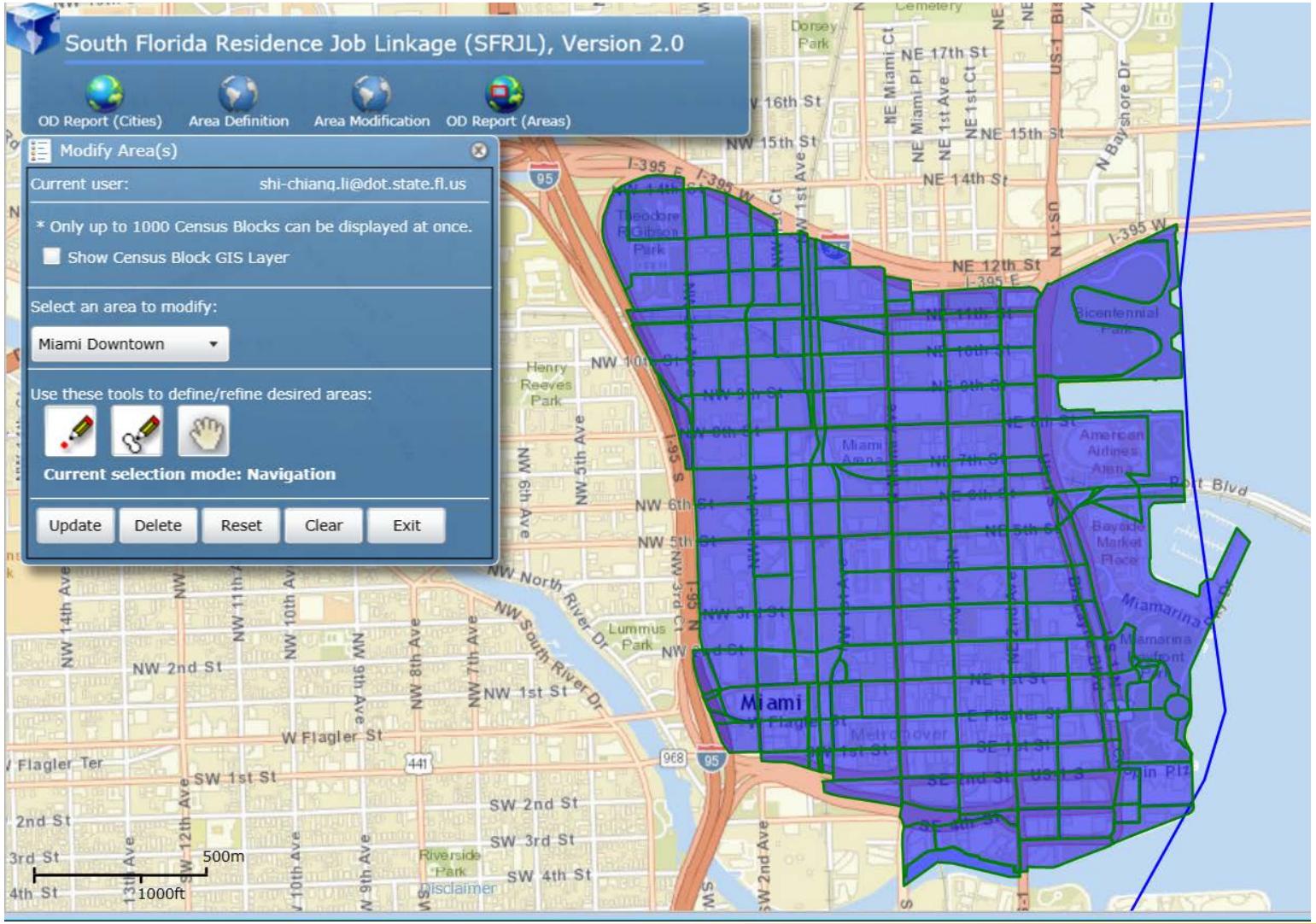
  "Is there a market for running express buses from NW Broward County to downtown Miami?"
  (35+ miles apart)



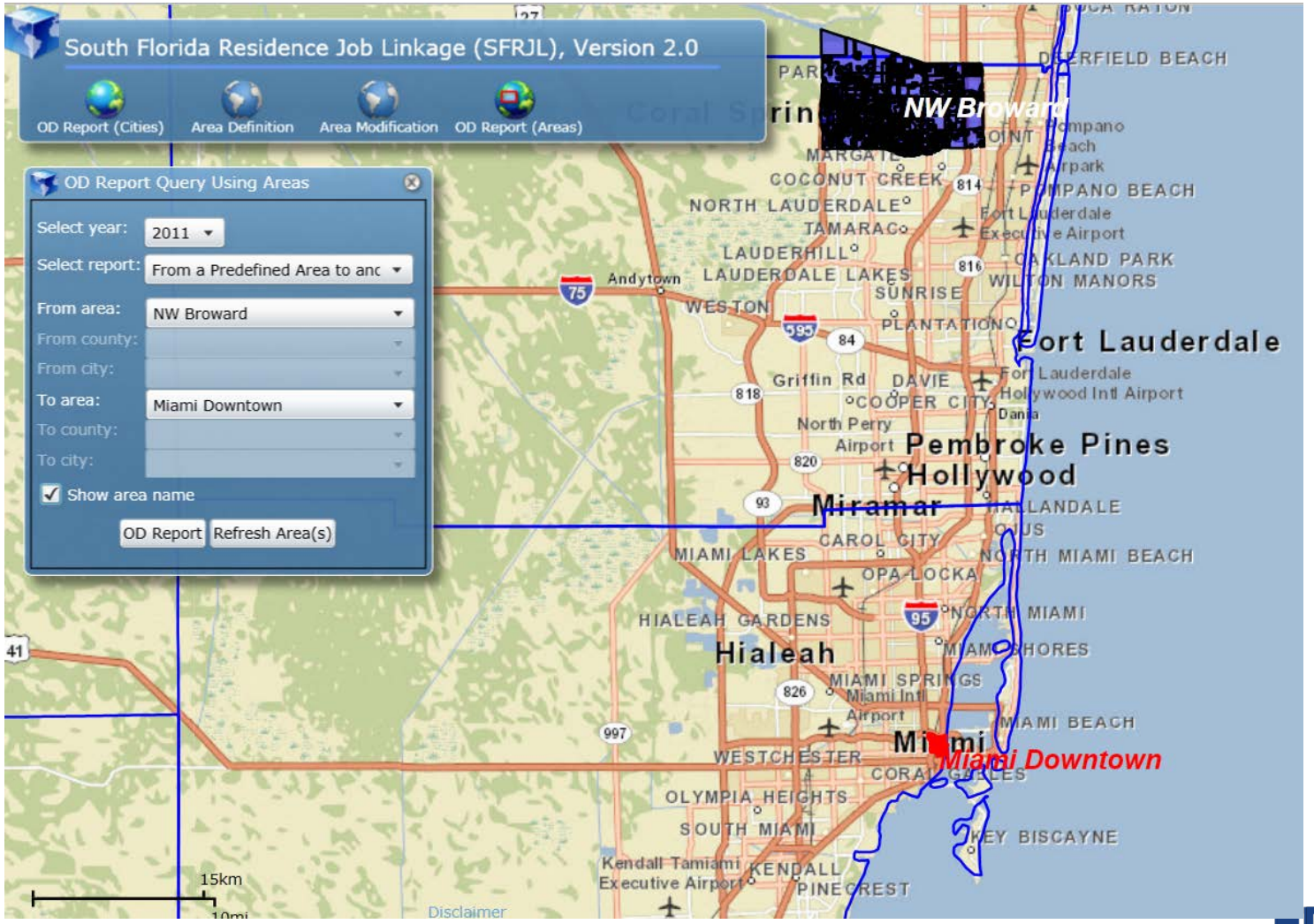
User Defined Residents' Area (NW Broward)



User Defined Job Area (Downtown Miami)



Reporting O/D with User Defined Areas



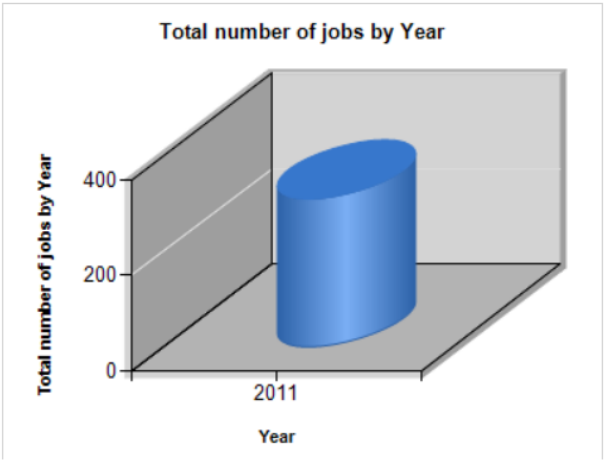
Answer to the Question: *"Is there a market for running express buses from NW Broward County to downtown Miami?"*

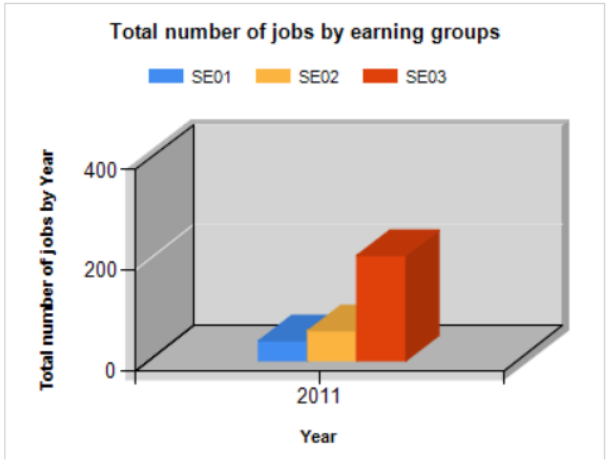
From Year 2011 To Year 2011

1 of 1 100% Select a format Export

From Predefined Area: *NW Broward* To Predefined Area: *Miami Downtown*

Year	Total number of jobs	Number of jobs of workers age 29 or younger (SA01)	Number of jobs of workers age 30 to 54 (SA02)	Number of jobs of workers age 55 or older (SA03)	Number of jobs with earnings <= $1250/month (SE01)	Number of jobs with earnings $1251/month to $3333 (SE02)	Number of jobs with earnings > $3333 (SE03)	Number of jobs in Goods Producing industry sectors (SI01)	Number of jobs in Trade, Transportation, and Utitlities industry sectors (SI02)	Number of jobs in All Other services industry sectors (SI03)
2011	310	57	192	61	40	60	210	2	27	281





Motivation

- Importance of Commuting Data
  - Travel demand management programs
  - Transit service planning
  - Travel demand forecasting
- Census Data Products
  - Longitudinal Employer-Household Dynamics (LEHD)
    - Years 2002 - 2011
  - Census Transportation Planning Product (CTPP) from American Community Survey (ACS)
    - Five-Year (2006-2010)

Objectives of the SFRJL Reporting Tool

- Make LEHD/CTPP Simple and Easy-to-Use
- Focus on Cities/Census Designated Places (CDP) in Seven South Florida Counties
  - Indian River, St. Lucie, Martin
    - Treasure Coast Regional Planning Model (TCRPM) Area
  - Palm Beach, Broward, Miami-Dade
    - Southeast Florida Regional Planning Model (SERPM) Area
  - Monroe
- Display Data in Tabular and Graphic Format
- Export Reports in Different Formats
- Can be used on Computers and Mobile Devices

LEHD Data Used in SFRJL

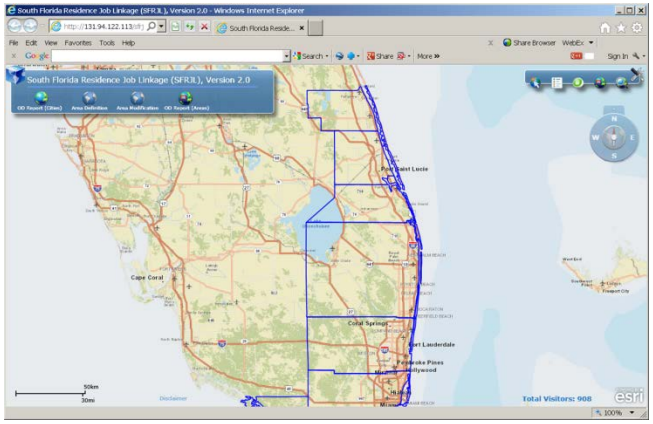
- Flow Data Only
  - Residence Place
  - Workplace
  - Total Number of Jobs
    - Number of Jobs by Age Groups
      - 29 or younger; 30-54; 55 or older
    - Number of Jobs by Monthly Earning Groups
      - $1250 or less; $1250 to $3333; $3333 or more
    - Number of Jobs by Industry Sectors
      - Goods producing; Trade/Transportation/Utilities; Other Services

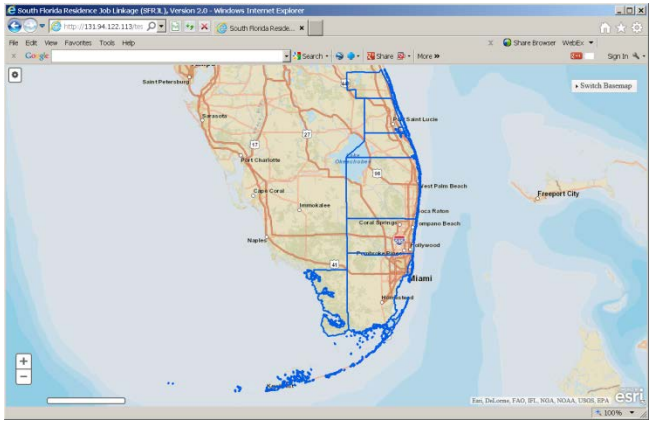
2006-2010 ACS/CTPP Data Used in SFRJL

- Flow Data Only
- Selected Tables
  - Means of Transportation
  - Age Groups
  - Industry Sectors
  - Race
  - Time left for work
  - Travel time to work

The SFRJL Reporting Tool Development

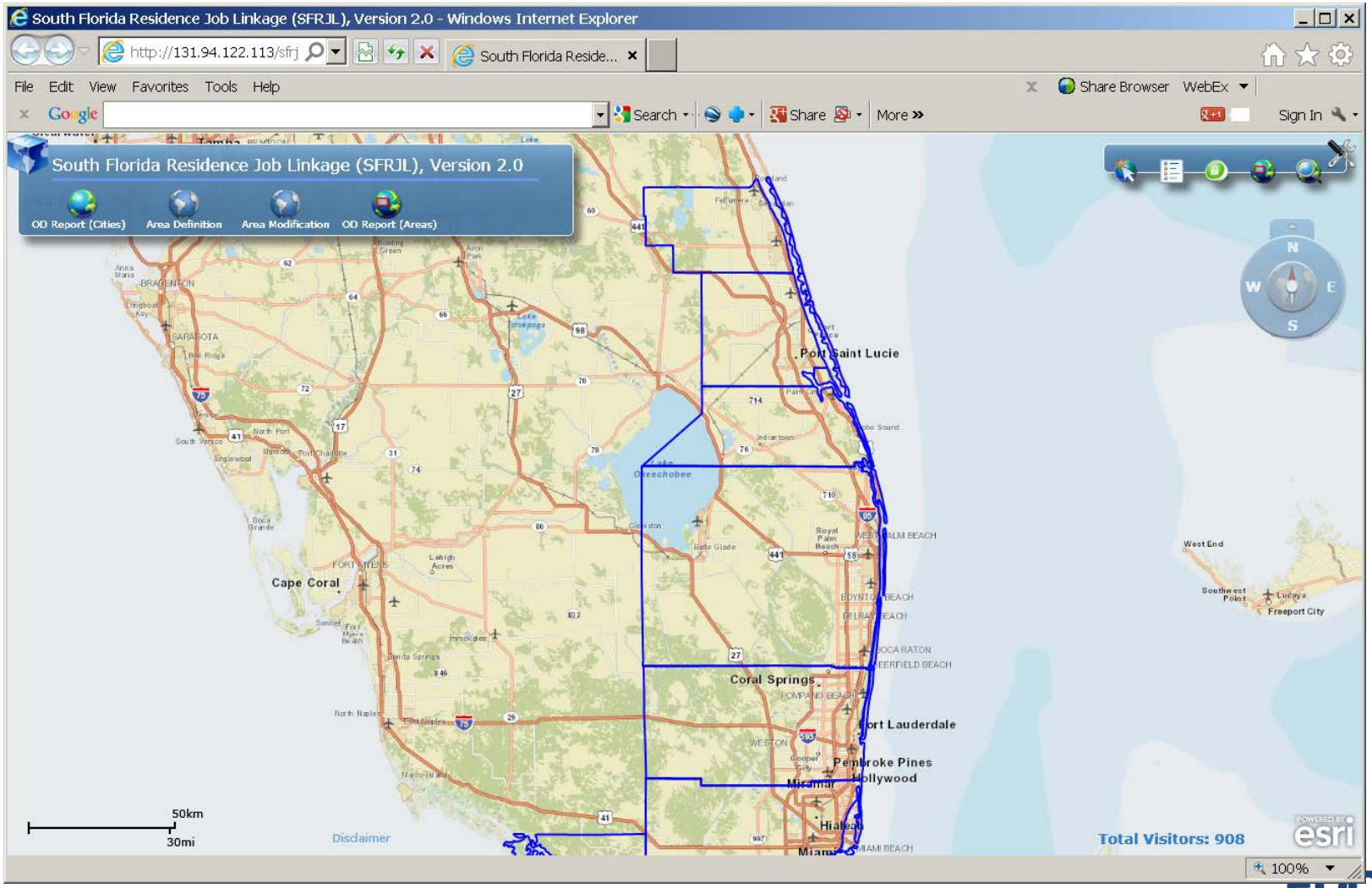
- Two Versions
  - PC version
    - Microsoft Silverlight
    - Fast and Stable
    - Only works on Windows PCs
  - Mobile compatible version
    - Include all PC functions
    - Accessible across platforms
    - ACS/CTPP data integrated
    - Slower





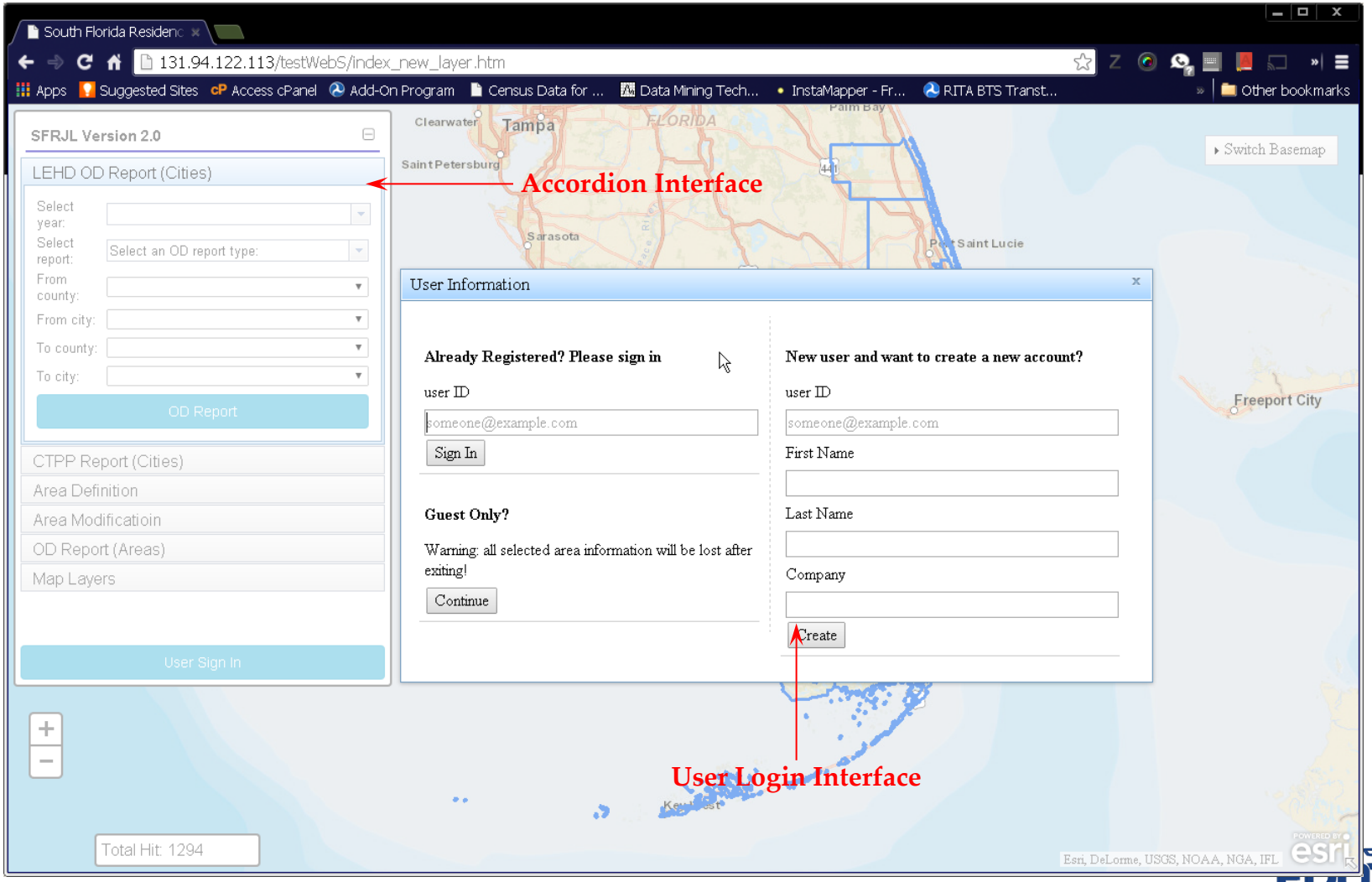
SFRJL – PC Version

http://sfrjl1.visualdatacenter.net/

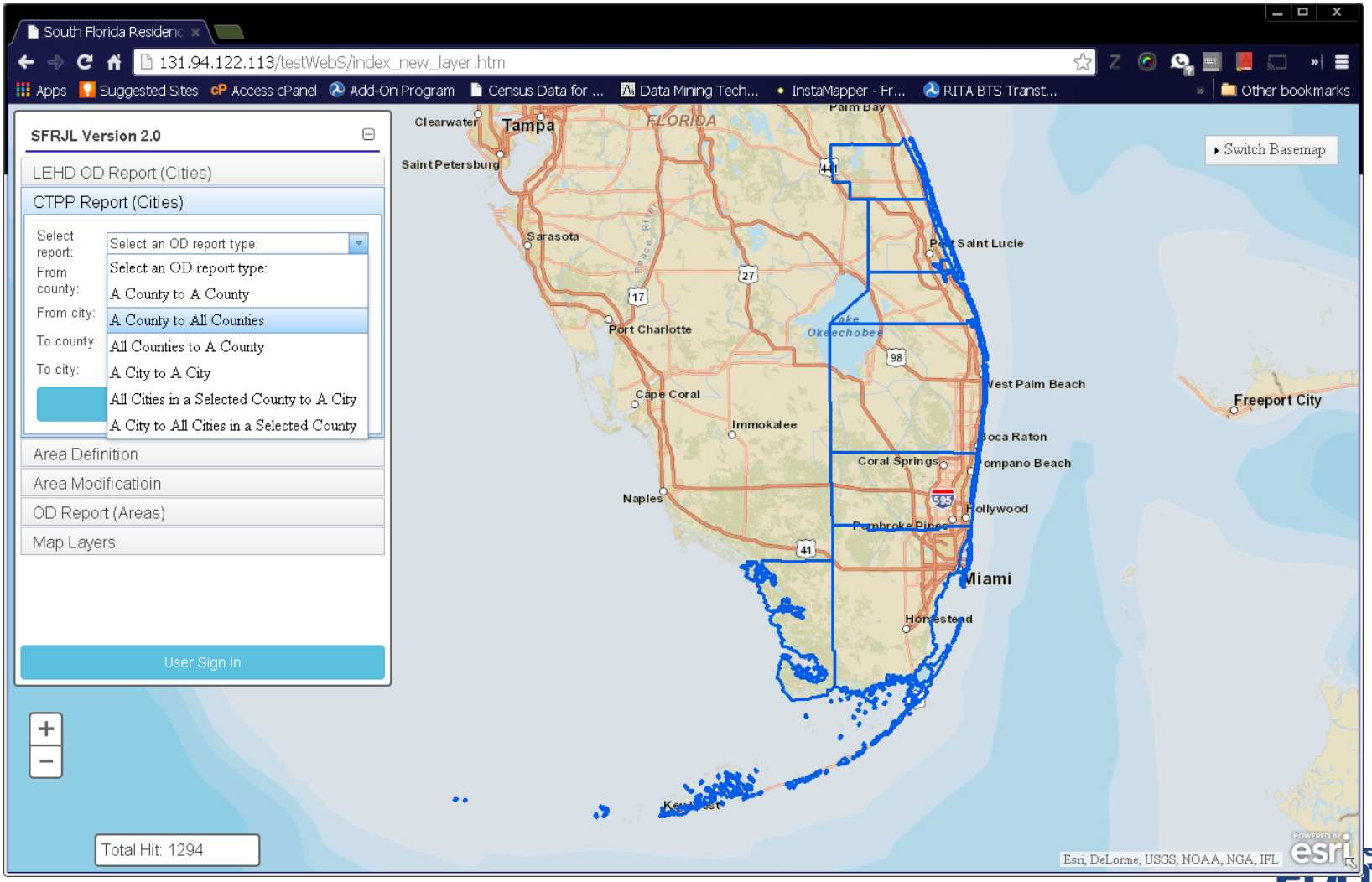


SFRJL – Mobile Compatible Version

http://sfrjl2.visualdatacenter.net/

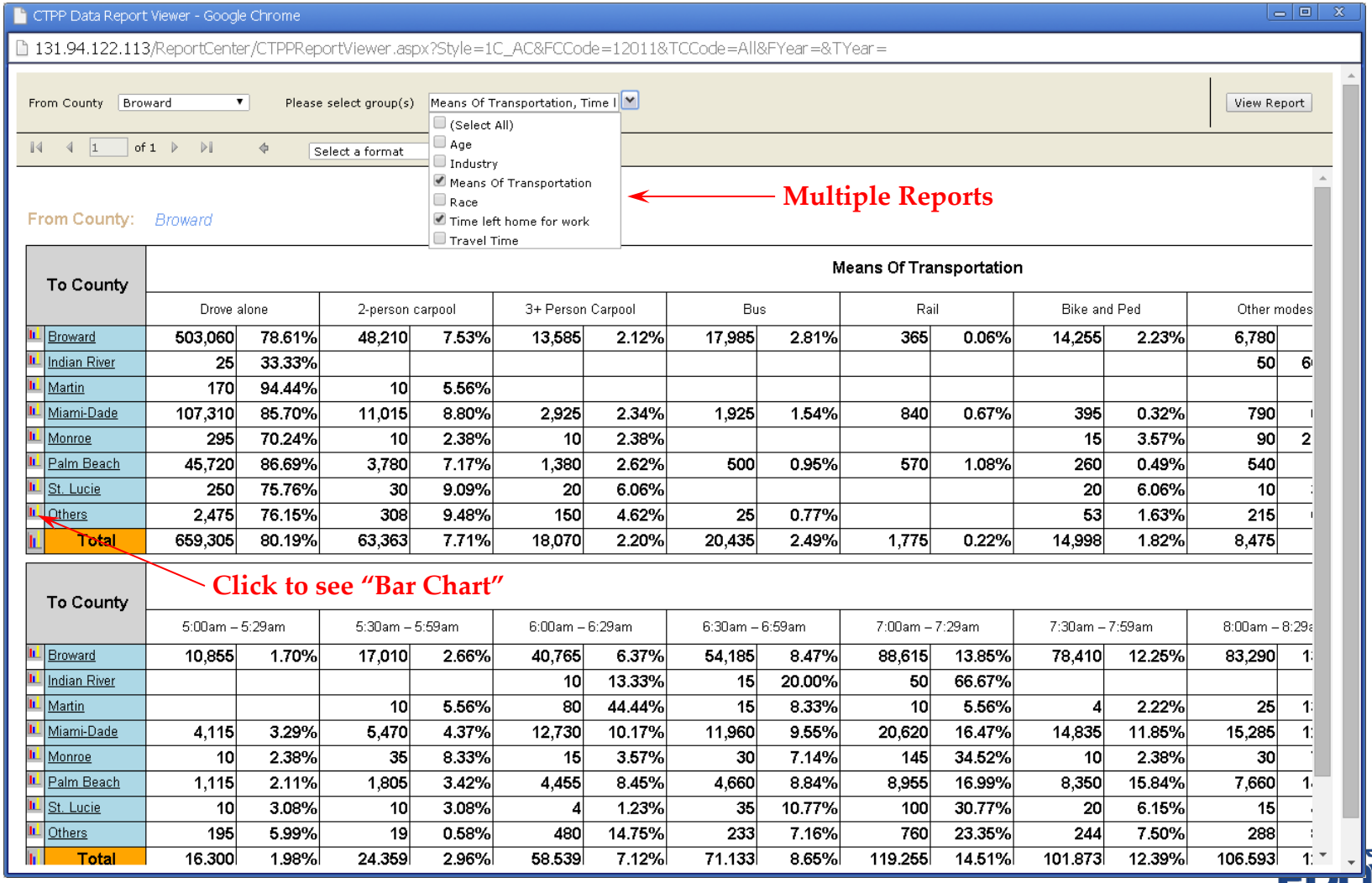


SFRJL – Mobile Compatible Version
(ACS/CTPP City/CDP/County Based Predefined Reports)



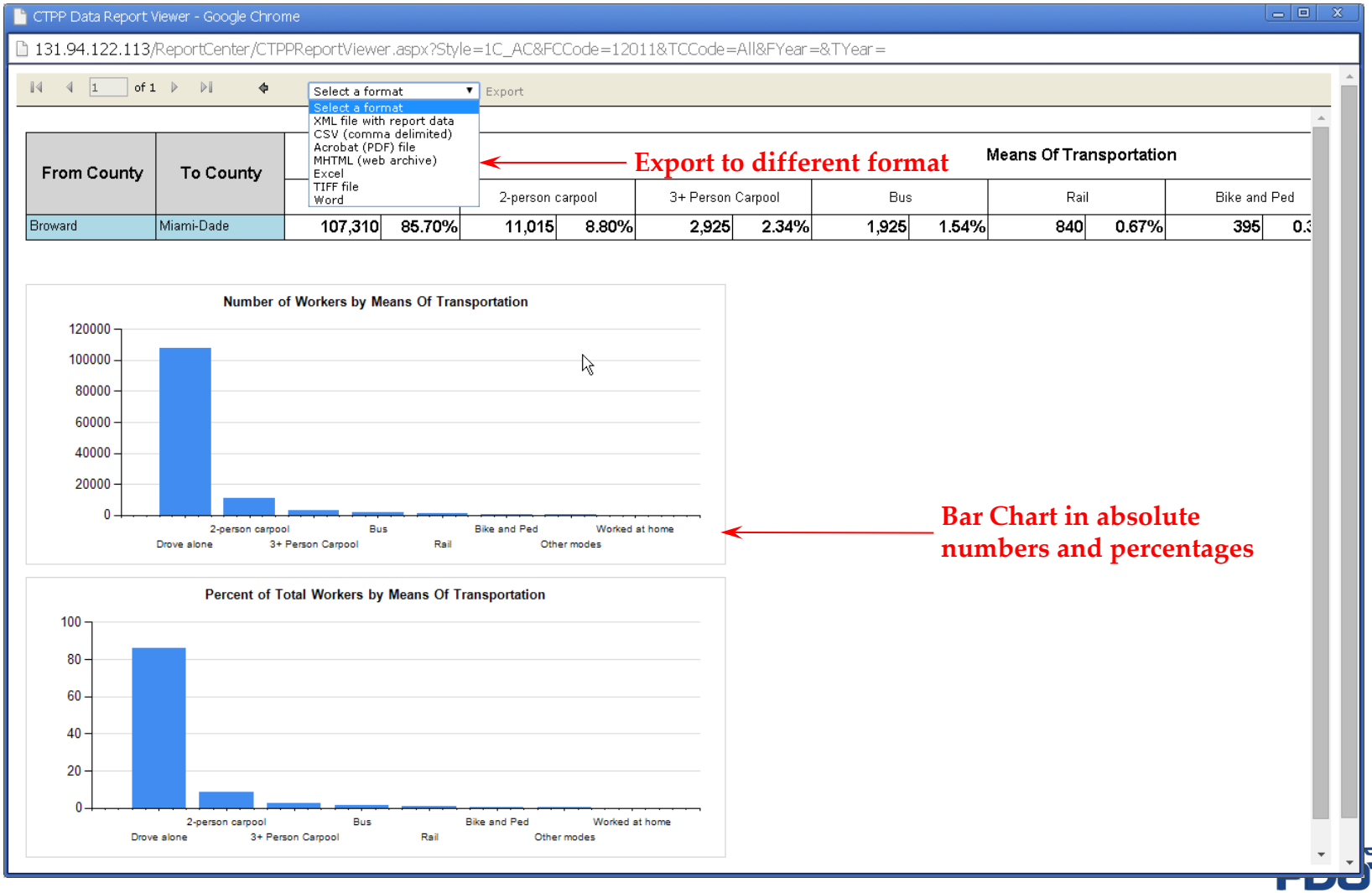
SFRJL – Mobile Compatible Version

ACS/CTPP Predefined Report Categories

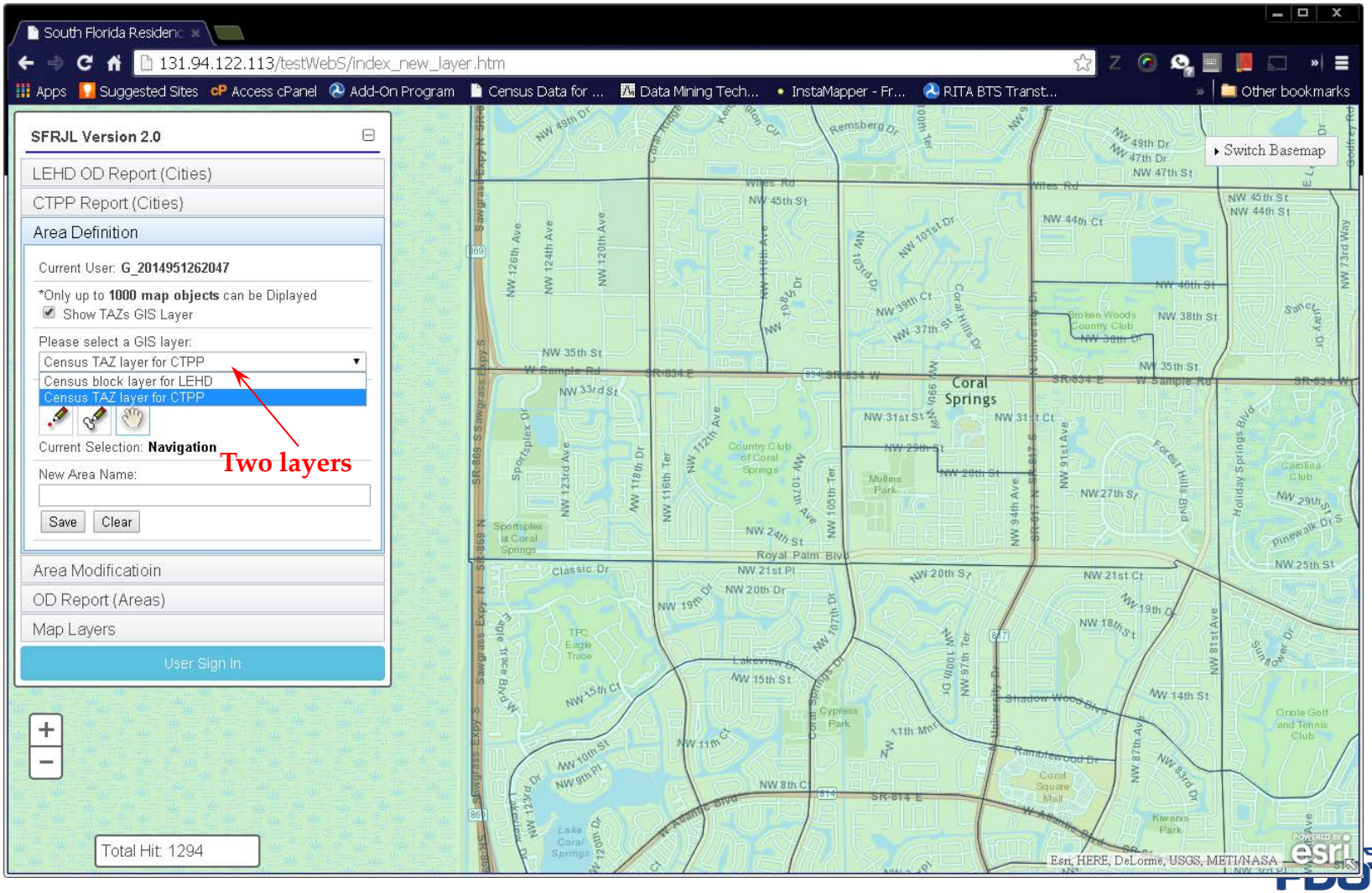


SFRJL – Mobile Compatible Version

ACS/CTPP Predefined Report Categories

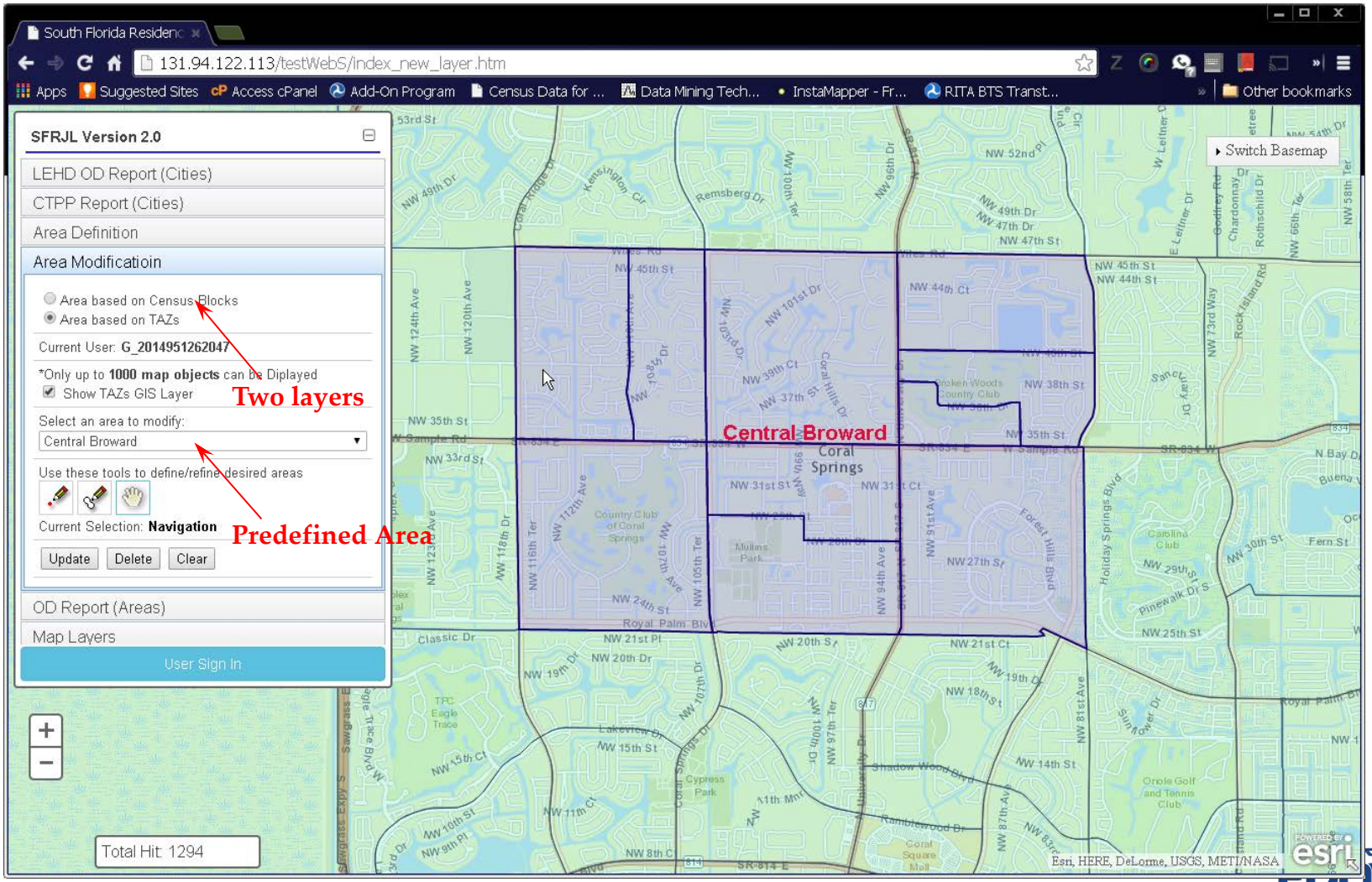


SFRJL – Mobile Compatible Version
(ACS/CTPP User Defined Areas (TAZs)



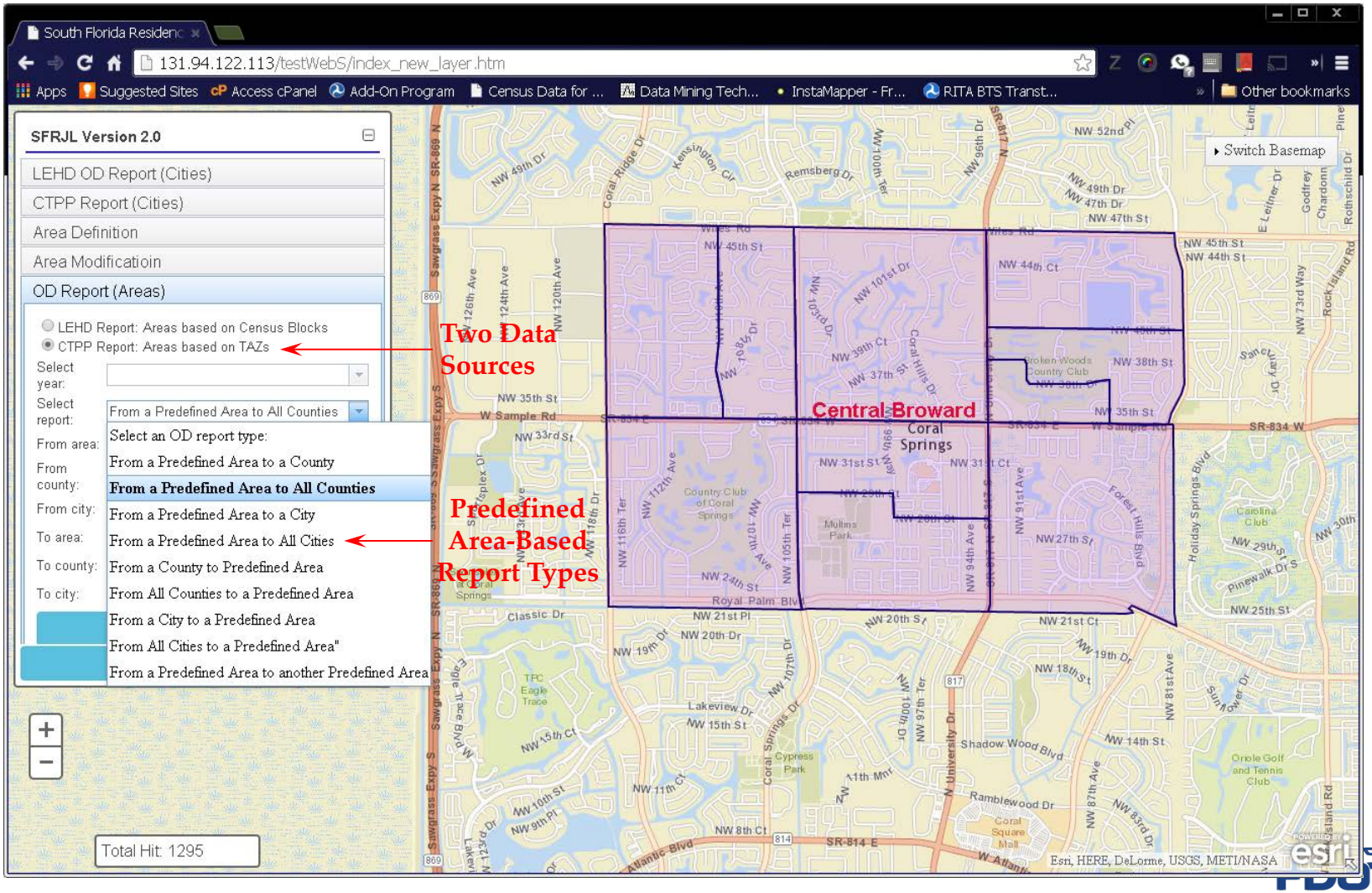
SFRJL – Mobile Compatible Version

ACS/CTPP Modify User Defined Area (TAZs)



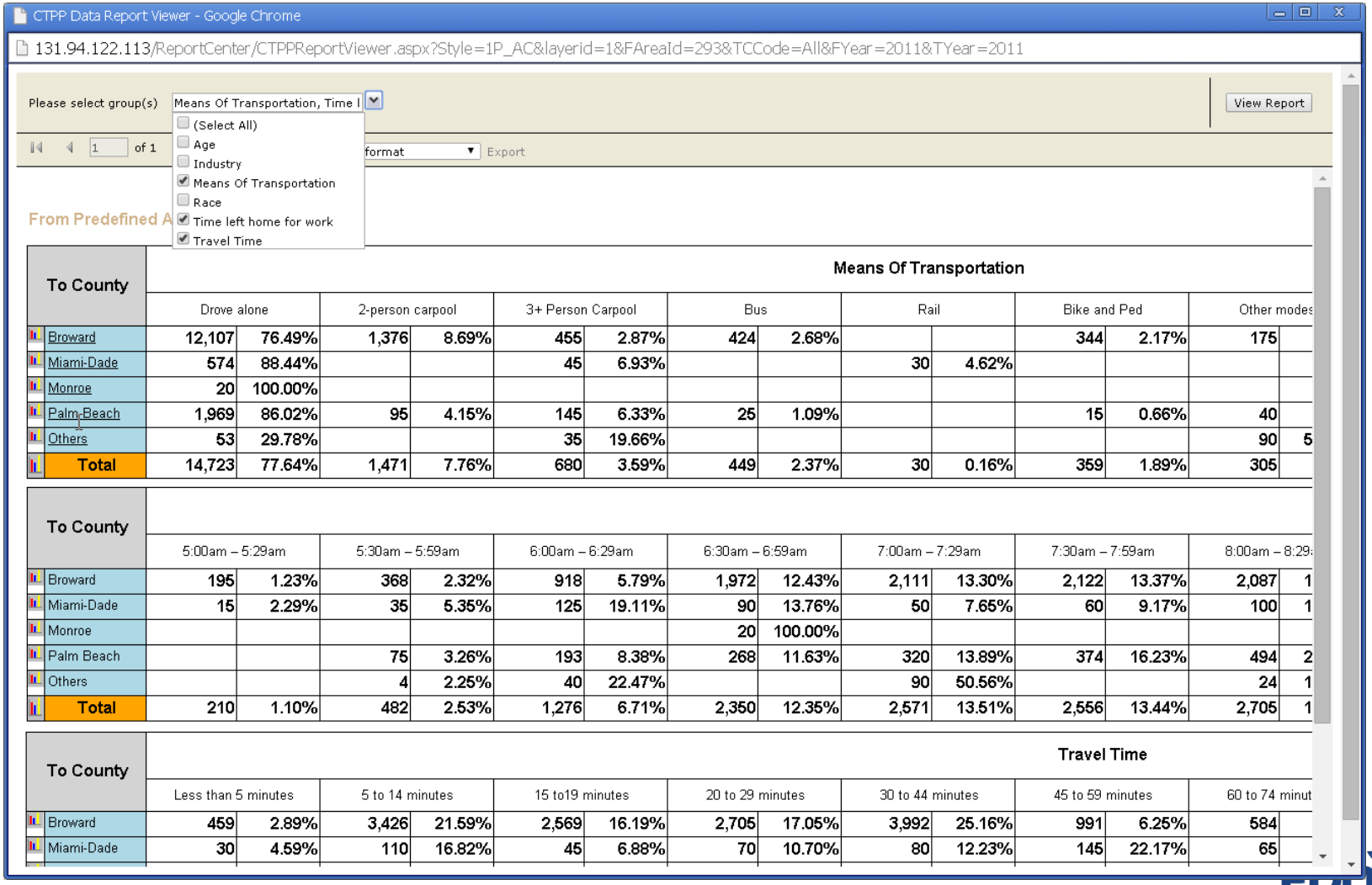
SFRJL – Mobile Compatible Version

ACS/CTPP Modify User Defined Area (TAZs)



SFRJL – Mobile Compatible Version

ACS/CTPP Predefined Report – from an Area to All Counties



CTPP Data Report Viewer - Google Chrome

131.94.122.113/ReportCenter/CTPPReportViewer.aspx?Style=1P_AC&layerid=1&FAreaId=293&TCCode=All&FYear=2011&TYear=2011

Please select group(s) Means Of Transportation, Time l

(Select All)
Age
Industry
Means Of Transportation
Race
Time left home for work
Travel Time

View Report

1 of 1 format Export

From Predefined A

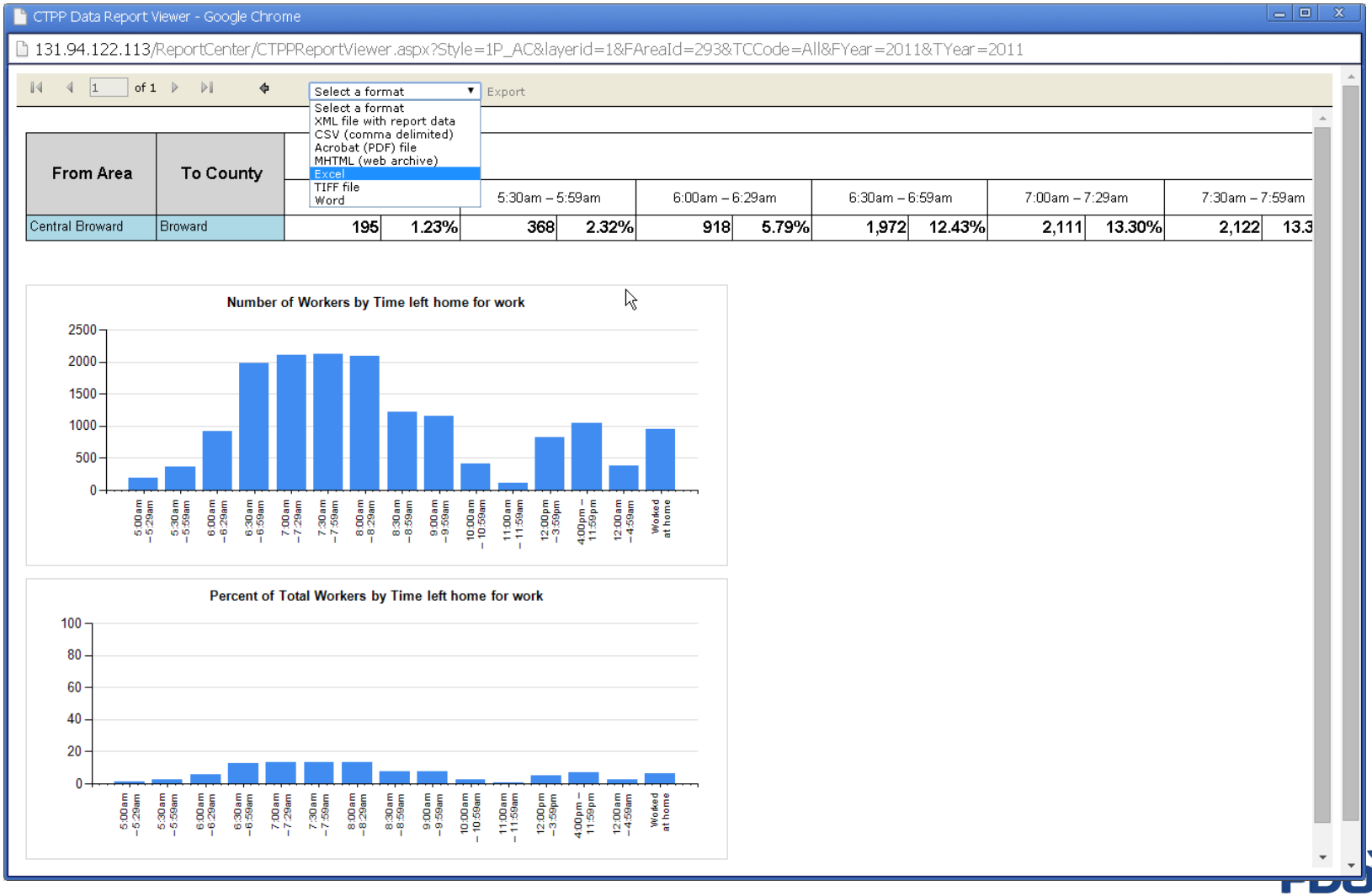
To County	Means Of Transportation															
	Drove alone		2-person carpool		3+ Person Carpool		Bus		Rail		Bike and Ped		Other modes			
Broward	12,107	76.49%	1,376	8.69%	455	2.87%	424	2.68%			344	2.17%	175			
Miami-Dade	574	88.44%			45	6.93%			30	4.62%						
Monroe	20	100.00%														
Palm Beach	1,969	86.02%	95	4.15%	145	6.33%	25	1.09%			15	0.66%	40			
Others	53	29.78%			35	19.66%							90	5		
Total	14,723	77.64%	1,471	7.76%	680	3.59%	449	2.37%	30	0.16%	359	1.89%	305			

To County																
	5:00am – 5:29am		5:30am – 5:59am		6:00am – 6:29am		6:30am – 6:59am		7:00am – 7:29am		7:30am – 7:59am		8:00am – 8:29			
Broward	195	1.23%	368	2.32%	918	5.79%	1,972	12.43%	2,111	13.30%	2,122	13.37%	2,087	1		
Miami-Dade	15	2.29%	35	5.35%	125	19.11%	90	13.76%	50	7.65%	60	9.17%	100	1		
Monroe							20	100.00%								
Palm Beach			75	3.26%	193	8.38%	268	11.63%	320	13.89%	374	16.23%	494	2		
Others			4	2.25%	40	22.47%			90	50.56%			24	1		
Total	210	1.10%	482	2.53%	1,276	6.71%	2,350	12.35%	2,571	13.51%	2,556	13.44%	2,705	1		

To County	Travel Time															
	Less than 5 minutes		5 to 14 minutes		15 to19 minutes		20 to 29 minutes		30 to 44 minutes		45 to 59 minutes		60 to 74 minut			
Broward	459	2.89%	3,426	21.59%	2,569	16.19%	2,705	17.05%	3,992	25.16%	991	6.25%	584			
Miami-Dade	30	4.59%	110	16.82%	45	6.88%	70	10.70%	80	12.23%	145	22.17%	65			

SFRJL – Mobile Compatible Version

Multiple Reports and File Export



Highlights of the SFRJL Reporting Tool

- Integrated data sources
- Accessible across platforms
- Simple and easy user interface
- Versatile reporting functions
  - Predefined reports at city/GDP/county level
  - User defined areas and reporting
  - Reporting flows between origin(s) and destination(s)
    - One to one, one to many, many to one, and many to many
  - Can be sorted by any column in any order
  - Can be exported to multiple formats

Outcomes

- Has been used for:
  - Demand forecast model estimation, calibration, and validation
  - Transit market assessment
  - Transit Development Plan (TDP) Update
- Being used frequently
  - More than 1,300 hits since July 2013
- Saved purchases of cellphone-based O/D datasets

Questions and Comments

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Thank You!