Demonstrating the Decision-Making Potential of OnTheMap in VR

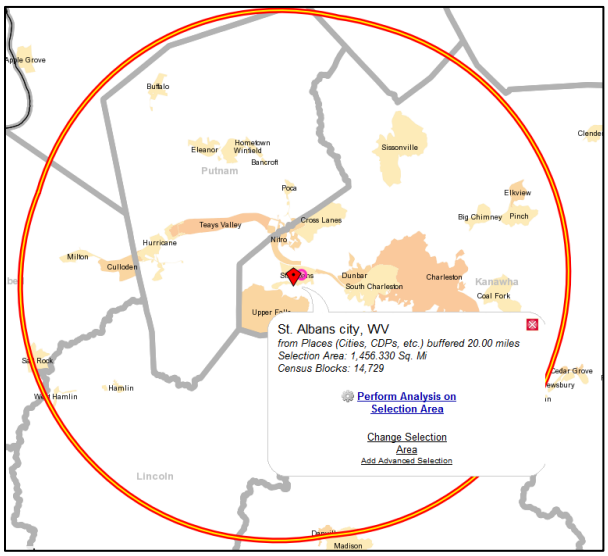
Scenarios

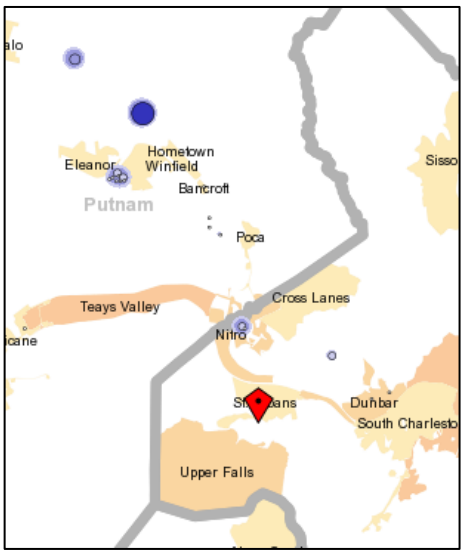
(1). A client lives in the city of Saint Albans and wants to work there. A recent high school graduate, he wants to do something in the Agriculture, Forestry, Fishing, and Hunting Industry Sector, but he does not know if Saint Albans is a good place to look for employment in this field. The counselor performs a Work Area Analysis of Saint Albans to inform the client about the potential of finding employment in this field.

Finding: The analysis reveals that there are zero jobs in this field in Saint Albans.

The client is insistent that this is the field he wants to work in, and decides that he is willing to travel outside of Saint Albans in order to do so, but will not travel more than 20 miles. The counselor expands the search for job centers by adding a Simple Ring Buffer of 20 miles around the city of Saint Albans. Then after performing the Work Area Analysis, the counselor selects the jobs icon in the table of contents that represents the Agriculture, Forestry, Fishing, and Hunting sector to pinpoint where jobs are located in this field within the 20 mile radius.

Finding: The revised analysis shows that there are 130 jobs in this sector within the 20 mile boundary surrounding Saint Albans, and 46 of them (represented by the large blue dot in the second graph) are located just north of the city of Winfield, warranting a job search in this area.



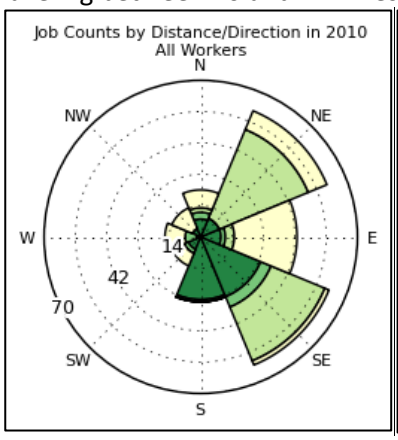


(2.) A client lives in the town of Franklin, situated in rural Pendleton County in the Allegheny Mountains. Following months of rehabilitation for an injury sustained from an automotive accident, the client wants to regain employment in the Professional, Scientific, and Technical Services sector. She was working in this field in Franklin prior to the accident and knows that there are not any positions available in this field where she lives. She wants to avoid a long work commute or relocation if possible. The counselor first decides to perform a Work Area Analysis for the town of Franklin to verify employment potential in this field.

Finding: The analysis reveals there are only 11 positions in this field in Franklin (as of 2010), reaffirming information provided by the client.

To gain some perspective on how far she might have to travel, the client thinks a good place to start in her job search is to know how far other residents of Franklin are traveling to work. The counselor performs a Distance/Direction Analysis of workers who live in Franklin to help the client start narrowing down areas to search for employment.

Finding: The analysis shows that 260 people who live in Franklin work. The majority travel less than 10 miles from home to work each day. With limited opportunity in her field of choice in or near the town of Franklin, the client decides that a longer commute is the only other option. She first wants to focus on the zone where her fellow Franklinites are traveling between 10 and 24 miles to work.

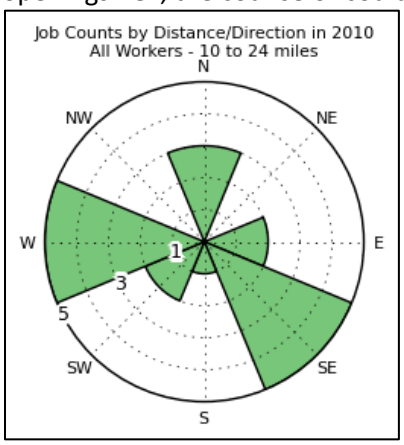


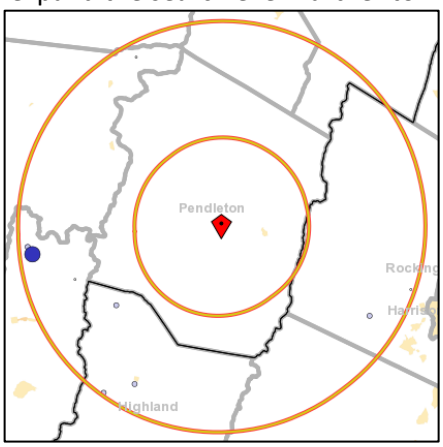
Jobs by Distance - Home Census Block to Work Census Block

	2010 Count	2010 Share
Total Primary Jobs	260	100.0%
Less than 10 miles	95	36.5%
10 to 24 miles	18	6.9%
25 to 50 miles	75	28.8%
Greater than 50 miles	72	27.7%

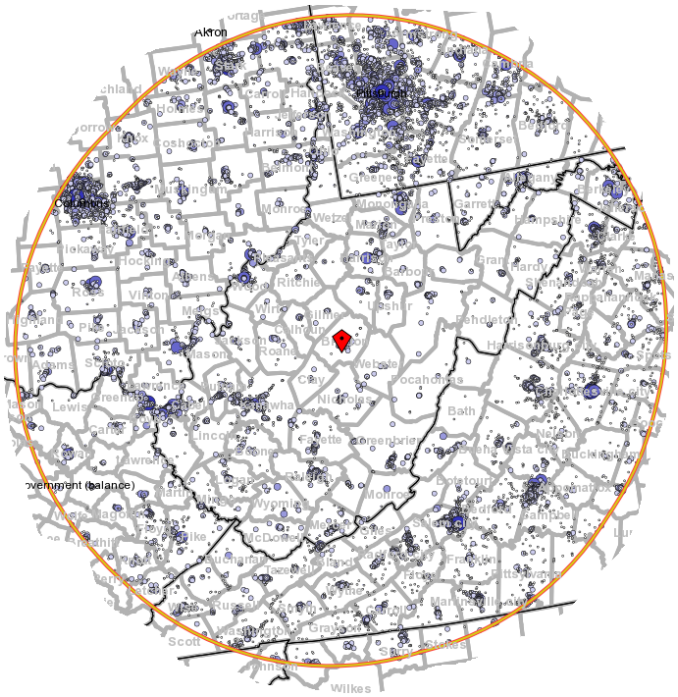
The counselor expands the search for job centers to 10-24 miles beyond the town of Franklin first by creating a Donut Buffer with an inside radius of 10 miles and an outside radius of 24 miles, and then by performing a Work Area Profile Analysis of the selection to pinpoint where jobs are located in the client's desired field.

Finding: The majority of the workers living in Franklin who travel 10-24 miles to work travel South East and West. The analysis shows that 4,280 jobs are located in the 10-24 mile travel zone, but only 3.9%, or 166, of them are in the Professional, Scientific, and Technical Services Sector. Fortunately, there are 138 jobs (represented by the large blue dot in second graph) in her desired field almost 24 miles West of Franklin, which could be a good place to search. With a little more effort, the counselor or client could find the name of the employer(s) in this location and inquire about job openings. Or, the counselor could expand the search even further to include job centers at 25-50 miles and >50 miles.





(3). A transition youth client who lives in rural Rhoane County plans to attend college for nursing at WVU. She really wants to find a job in an urban area, but is not quite sure about the best places to look for employment following graduation. To help her in finding where the nursing jobs are concentrated, the counselor adds a Simple/Ring Buffer of 150 miles around Braxton County (centrally located). The counselor then performs a Work Area Profile Analysis of the buffered area, which also highlights concentrations of jobs in the Health Care and Social Assistance sector in surrounding states.



After reviewing the graph, the client knows for certain that she wants to stay in WV. She maintains that she wants to live in an urban area, but is a little nervous about living in one of WV's larger cities, so she wants to eliminate the Charleston, Huntington, and Martinsburg metro areas from her list of potential areas to search for employment. She asks the counselor to refine the search to only smaller urban areas in WV to help her in choosing which ones have more jobs for her. The counselor and her agree on a few places to perform a Work Area Profile Analysis : Parkersburg, Fairmont, Beckley, Princeton, Lewisburg, and Wheeling.

Finding: The analysis shows that there are 21,084 jobs in this sector in these 6 small cities.

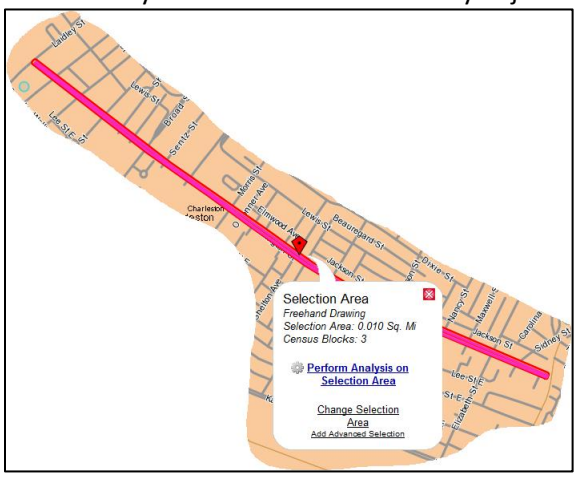
The counselor now needs to run an Area Comparison Analysis that allows for comparisons of these selected cities. Then, viewing the Detailed Report generated by the analysis, the client can now decide which city is likely to offer her the most opportunities for a career in nursing.

Finding: The report shows that Wheeling will most likely have more jobs in nursing. The client is somewhat familiar with this city, and decides to focus her job search there.

Jobs by NAICS Industry Sector

	All Places (Cities,		Wheeling city, WV		Parkersburg city,		Beckley city, WV		Fairmont city, WV		Princeton city, WV		Lewisburg city, WV	
	Count	Share	Count	Share	Count	Share	Count	Share	Count	Share	Count	Share	Count	Share
Agriculture, Forestry, Fishing and Hunting	101	0.1%	4	0.0%	14	0.1%	15	0.1%	-	-	-	-	68	1.5%
Mining, Quarrying, and Oil and Gas Extraction	738	0.9%	228	1.0%	27	0.1%	187	1.2%	19	0.2%	206	3.0%	71	1.6%
Utilities	516	0.6%	124	0.5%	214	1.0%	107	0.7%	20	0.2%	37	0.5%	14	0.3%
Construction	2,413	2.9%	790	3.4%	478	2.2%	320	2.0%	506	4.6%	179	2.6%	140	3.2%
Manufacturing	2,474	3.0%	839	3.6%	465	2.1%	103	0.6%	624	5.7%	276	4.0%	167	3.8%
Wholesale Trade	2,463	2.9%	972	4.2%	507	2.3%	395	2.4%	335	3.1%	164	2.4%	90	2.0%
Retail Trade	9,730	11.6%	1,704	7.3%	3,073	14.0%	2,395	14.8%	1,020	9.3%	822	12.1%	716	16.1%
Transportation and Warehousing	1,336	1.6%	195	0.8%	373	1.7%	264	1.6%	209	1.9%	198	2.9%	97	2.2%
Information	1,365	1.6%	416	1.8%	569	2.6%	136	0.8%	160	1.5%	43	0.6%	41	0.9%
Finance and Insurance	3,342	4.0%	1,622	6.9%	658	3.0%	306	1.9%	482	4.4%	200	2.9%	74	1.7%
Real Estate and Rental and Leasing	817	1.0%	298	1.3%	215	1.0%	132	0.8%	76	0.7%	44	0.6%	52	1.2%
Professional, Scientific, and Technical Services	3,614	4.3%	1,285	5.5%	540	2.5%	510	3.2%	836	7.7%	258	3.8%	185	4.2%
Management of Companies and Enterprises	911	1.1%	571	2.4%	93	0.4%	102	0.6%	14	0.1%	91	1.3%	40	0.9%
Administration & Support, Waste Management and	6,034	7.2%	1,478	6.3%	1,309	6.0%	1,462	9.0%	1,332	12.2%	134	2.0%	319	7.2%
Educational Services	8,067	9.6%	1,469	6.3%	2,154	9.8%	1,538	9.5%	1,518	13.9%	602	8.8%	786	17.7%
Health Care and Social Assistance	21,084	25.2%	6,087	26.0%	5,248	23.9%	4,755	29.4%	1,975	18.1%	2,305	33.8%	714	16.1%
Arts, Entertainment, and Recreation	832	1.0%	323	1.4%	224	1.0%	90	0.6%	50	0.5%	95	1.4%	50	1.1%
Accommodation and Food Services	8,244	9.8%	2,349	10.0%	2,198	10.0%	1,758	10.9%	912	8.4%	569	8.3%	458	10.3%
Other Services (excluding Public Administration)	3,210	3.8%	1,110	4.7%	781	3.6%	425	2.6%	444	4.1%	319	4.7%	131	2.9%
Public Administration	6,444	7.7%	1,533	6.6%	2,825	12.9%	1,189	7.3%	389	3.6%	278	4.1%	230	5.2%

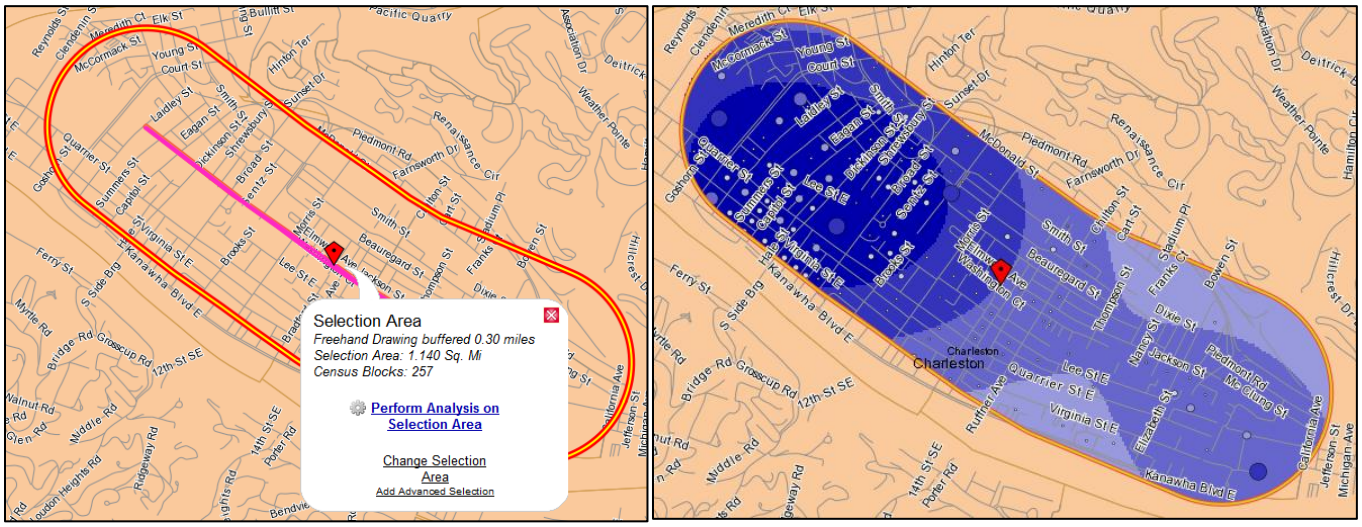
(4). A client lives with his parents on Washington Street in Charleston, WV. The client's disability prevents him from acquiring a driver's license, and his parents do not have a reliable vehicle. The client is able to ride the city bus route on their home street, but he is not familiar with other bus routes, so he and his parents would like to see what kind of opportunities are potentially available along Washington Street for him since he does not have a high school education. The counselor draws a freehand polygon around Washington Street between Laidley Street and Greenbrier Street, and confirms with the client and his parents that this is the location they want to search. The counselor informs them that they will be limiting the search for job centers to only 0.010 square miles. The counselor proceeds with a Work Area Profile Analysis of the area immediately adjacent to Washington Street.



Finding: The analysis identifies only 2 jobs in this area where the employee has less than a high school education.

They decide they want to expand the search to areas within walking distance surrounding Washington Street. They agree on a distance threshold of 0.30 miles. The counselor adds a Simple/Ring Buffer of 0.30 miles around Washington Street to expand the search for potential job centers, and then runs a Work Area Profile Analysis.

Finding: The revised analysis now shows that there are 1,304 jobs within 0.30 miles of Washington Street where the worker has less than a high school education. The client and his parent decide to navigate the west end of Washington Street for the job search as these jobs are concentrated here (as reflected by the darker shades in the graph on the right).



(5). A counselor wants to better help his transition youth clients decide on a career goal. The counselor wants to be able to inform his clients of which economic sectors have been growing over the last five years in WV. The counselor chooses States as the selection layer, and confirms the selection for WV. Then, the counselor performs a Work Area Profile Analysis of WV for the period 2006-2010 and reviews the Detailed Report generated from the analysis, highlighting the growing industrial sectors.

Finding: The counselor identifies six sectors where the data indicate growth in job numbers in recent years (shaded green below), and he provides this information to his transition youth clients that are still trying to decide on a career path.

Jobs by NAICS Industry Sector

	2010		2009		2008		2007		2006	
	Count	Share	Count	Share	Count	Share	Count	Share	Count	Share
Agriculture, Forestry, Fishing and Hunting	1,710	0.3%	1,761	0.3%	1,961	0.3%	1,981	0.3%	2,003	0.3%
Mining, Quarrying, and Oil and Gas Extraction	28,476	4.2%	29,734	4.5%	27,997	4.1%	26,707	4.0%	25,613	3.8%
Utilities	9,136	1.3%	9,050	1.4%	9,458	1.4%	9,429	1.4%	9,449	1.4%
Construction	32,847	4.8%	34,413	5.2%	38,823	5.7%	39,478	5.8%	36,520	5.4%
Manufacturing	53,151	7.8%	55,528	8.4%	61,421	9.1%	64,134	9.5%	67,724	10.0%
Wholesale Trade	23,546	3.5%	23,871	3.6%	24,755	3.7%	25,151	3.7%	25,450	3.8%
Retail Trade	83,262	12.3%	84,071	12.7%	86,035	12.7%	87,110	12.9%	87,771	12.9%
Transportation and Warehousing	19,536	2.9%	19,391	2.9%	20,461	3.0%	20,217	3.0%	20,343	3.0%
Information	11,631	1.7%	12,519	1.9%	12,989	1.9%	12,879	1.9%	13,398	2.0%
Finance and Insurance	20,355	3.0%	20,831	3.1%	21,612	3.2%	21,593	3.2%	22,075	3.3%
Real Estate and Rental and Leasing	6,626	1.0%	6,712	1.0%	7,230	1.1%	7,370	1.1%	7,114	1.0%
Professional, Scientific, and Technical Services	24,772	3.7%	24,296	3.7%	24,922	3.7%	24,463	3.6%	25,151	3.7%
Management of Companies and Enterprises	5,425	0.8%	5,382	0.8%	4,966	0.7%	4,521	0.7%	4,209	0.6%
Administration & Support, Waste Management and Remediation	30,597	4.5%	28,980	4.4%	31,518	4.7%	31,855	4.7%	30,656	4.5%
Educational Services	68,197	10.1%	66,673	10.0%	65,588	9.7%	67,437	10.0%	68,554	10.1%
Health Care and Social Assistance	124,256	18.3%	117,003	17.6%	114,038	16.8%	109,998	16.3%	111,414	16.4%
Arts, Entertainment, and Recreation	8,061	1.2%	7,570	1.1%	7,183	1.1%	9,388	1.4%	9,441	1.4%
Accommodation and Food Services	62,211	9.2%	61,511	9.3%	62,690	9.3%	58,859	8.7%	56,819	8.4%
Other Services (excluding Public Administration)	19,552	2.9%	19,725	3.0%	19,536	2.9%	20,051	3.0%	20,925	3.1%
Public Administration	44,232	6.5%	34,568	5.2%	33,892	5.0%	33,425	4.9%	33,307	4.9%

The counselor also believes that some of his clients might want to know the industries in which other youth are currently working. The counselor refines the Work Area Profile Analysis of WV for only those workers who are age 29 or younger.

Finding: The data show that the majority of workers aged 29 or younger in 2010 were working in Accommodation and Food Services (21.5%), Retail Trade (18.1%), and Health Care and Social Assistance (16.3%) sectors.

Jobs by NAICS Industry Sector (Workers Aged 29 or younger)

	2010	
	Count	Share
Agriculture, Forestry, Fishing and Hunting	411	0.3%
Mining, Quarrying, and Oil and Gas Extraction	5,184	3.5%
Utilities	786	0.5%
Construction	5,723	3.9%
Manufacturing	6,635	4.5%
Wholesale Trade	3,429	2.3%
Retail Trade	26,688	18.1%
Transportation and Warehousing	2,737	1.9%
Information	2,336	1.6%
Finance and Insurance	3,423	2.3%
Real Estate and Rental and Leasing	1,379	0.9%
Professional, Scientific, and Technical Services	5,119	3.5%
Management of Companies and Enterprises	1,035	0.7%
Administration & Support, Waste Management and Remediation	8,521	5.8%
Educational Services	6,928	4.7%
Health Care and Social Assistance	24,034	16.3%
Arts, Entertainment, and Recreation	2,236	1.5%
Accommodation and Food Services	31,735	21.5%
Other Services (excluding Public Administration)	3,957	2.7%
Public Administration	5,409	3.7%